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# 1 Driver Alarm Link

Brand	Communication	Alarm Type	Alarm Doc Link	Remark
SYNTEC	M2	Drv_M2_SYNTEC	Driver Alarm Manual	
	М3	Drv_M3_SYNTEC		
YASKAWA	M2	Drv_M2_YASKAWA		
	М3	Drv_M3_YASKAWA		
DELTA	ECAT	Drv_ECAT_DELTA	Manual Download Link	
PANASONIC	ECAT	Drv_ECAT_PSONIC_ALM	Manual Download Link	
	RTEX	Drv_RTEX_PSONIC_ALM	Manual Download Link	
SERVOTRONI X	ECAT	Drv_ECAT_SVTRONIX_ALM	Manual Download Link	



# 2 Operation Alarm -OP

Alar m ID	OP-001	Alarm Title	Axis board parameter	setting error or abnormal hardware		
Descr iptio n	Controller do (old axis boar	es not detect the har d: one interpolation	rdware interrupt signal interval sends one signal. r	new axis board: 0.5ms sends one signal.)		
Possi ble Caus e	<ol> <li>Controller parameters setting error.</li> <li>CPU BIOS setting error.</li> <li>Axis board error or DIP switch setting error.</li> <li>Axis board and ISA SLOT have poor contact or axis board oppressed ISA SLOT.</li> <li>Memory too low (less than 1MB).</li> <li>Controller failed to establish communication with the drive (other than Yaskawa, Syntec). (Other driver brand's manufacturer code must be able to read via the communication command, the model format must be start with "S3P_")</li> </ol>					
Solut ion	<ol> <li>Check specifi</li> <li>Check</li> <li>Check</li> <li>Check open)</li> <li>Replac axis boostics</li> <li>If fail t and w</li> </ol>	heck whether controller Pr1 *Motion board base address setting is set according to hardware pecifications (refer to application manual parameter explanation). heck whether BIOS' IRQ11 setting is Legacy ISA. heck DIP switch of axis board. heck if the 1 <sup>st</sup> axis board's disconnection signal ISR has short circuit (other axis boards must pen). eplace the Axis board to avoid the poor contact due to dirt and foreign foreign debris between xis board and ISA slot. fail to set up communication, please ask driver vendor to contact with Syntec OEM if needed, nd will cooperate to fix driver software.				
Alarm I	D	OP-002	Alarm Title	Parameter storage access failure, system halt		
Description		System fails to set of System parameter \DiskC\OpenCNC\L When CNC can't fin damaged while boo default. Note: If system is x86, \Di if system is ARM, \D	up PARAM.DAT and PARAM. file name is PARAM.DAT. An backup file name is PARAM KN. d or both normally use and oting, system will reset thes skC is in first piece of CF can biskC is in first piece of Flash	LKN. nd will save in \DiskC\OpenCNC\Data. .LKN, and will save in backup system parameter file are se two files according to parameter rd; n.		

Possible Cause	<ol> <li>x86 System: 1<sup>st</sup> peice of CF card is out of action.</li> <li>ARM System: 1<sup>st</sup> piece of Flash is out of action.</li> </ol>			
Solution	<ul> <li>x86 System: <ol> <li>Unplug controller first CF card, and plug CF card's card reader into personal computer. Execute driver repairmen to CF card on personal computer and recopy backup parameter PARAM.DAT into controller dictionary in \DiskC\OpenCNC\Data.</li> <li>Change first CF card. (Please notice first piece of CF card need to install boot system and CNC core software.)</li> </ol> </li> <li>ARM System: <ol> <li>Please contact Syntec OEM.</li> </ol> </li> </ul>			
Alarm ID	OP-003	Alarm Title	Parameter storage access failure, system halt	
Description	<ul> <li>System fail to set up REGISTRY.DAT、REGISTRY.LKN and REGISTRY.MIR.</li> <li>Process data file name when use normally is REGISTRY.DAT, exist in dictionary on \DiskA\OpenCNC\USER.</li> <li>First backup process data file name when is REGISTRY.LKN, exist in dictionary on \DiskA\OpenCNC\LKN.</li> <li>Second backup process data file name when is REGISTRY.MIR, exist in dictionary on \DiskA\OpenCNC\MIR.</li> <li>When it can't find or both normally use and backup system parameter file are damaged at boot time, system will reset these three files according to parameter default.</li> <li>Note:</li> <li>If system is x86, \DiskA is in first piece of CF card.</li> <li>Is system is ARM \DiskA is in first piece of Elash</li> </ul>			
Possible Cause	<ol> <li>x86 system: second CF card malfunction.</li> <li>ARM system: second Flash card mulfunction.</li> </ol>			
Solution	<ol> <li>x86 system: If alarm kept happening, please backup user data into new CF card and change the second piece of CF card.</li> <li>ARM system: If alarm kept happening, please backup user data and format DiskA then restore user data.</li> </ol>			
Alarm ID	OP-004	Alarm Title	Machining data loss, re-calibrate before machining	

Description	Once booted, controller will re-load the system registry file backed up before last power off into memory. After loading, if controller discovers the last shutdown state is busy or if the register file and the first backup file are damaged, one alarm will be sent to the user. The name of registry file is REGISTRY.DAT, saved with file path D:\CNC\USER. The first backup registry file is REGISTRY. MIR, saved with file path D:\CNC\ MIR. The second backup file of registry is REGISTRY. LKN, saved with file path D:\CNC\ LKN Note: If system is x86, DiskA is in first piece of CF card. If system is ARM, DiskA is in first piece of Flash.			
Possible Cause	<ol> <li>Shut down or power off controller in busy state.</li> <li>File REGISTRY.DAT is damaged.</li> <li>x86 system : second piece of CF card is broken. ARM system : second piece of Flash is broken.</li> </ol>			
Solution	<ol> <li>If all machining data is confirmed to be normal, cut off power and reboot controller and driver to clear alarm.</li> <li>x86 system: If alarm kept happening, please backup user data into new CF card and change the second CF card.</li> <li>ARM system: If alarm kept happening, please backup user data and format DiskA then restore user data.</li> </ol>			
Alarm ID	OP-005	Alarm Title	I/O transmission error	
Description	When PIO5 of Watch	Dog fails, the system will disp	olay warning	
Possible Cause	<ol> <li>Pr5 setting doesn't match hardware structure, for example:         <ul> <li>a. 22A doesn't dispose HK adapter plate.</li> <li>b. 10B/10F doesn't configure two RIO when Pr5=8.</li> </ul> </li> <li>IO relative module (PIO5/RIO) malfunction.</li> <li>Not supplied external 24V Voltage to RIO or RIO cable malfunction.</li> <li>Motherboard overheats (Check System Data No. 39)</li> <li>Controller ground cable is influenced by noise.</li> <li>Motherboard malfunction.</li> </ol>			
Solution	<ol> <li>Set correct P</li> <li>Change IO re</li> <li>Supply powe</li> <li>Check if elect</li> <li>Check machi</li> <li>Change Moth</li> <li>If HK adaptee manual. Set to disable (-1</li> <li>According to</li> </ol>	r5 parameter value according lative model (PIO5/RIO). er to RIO correctly and check R tic cabinet fan works normally ne has grounding correctly. nerboard r board is not used, please refe Pr5 to 100 and set IO point (HP .). 7. If RIO is not used, please se	to hardware configuration. IO cable.  er to custom I/O comparison table K, MPG, PANEL-EX) on adapter board ts RIO point to disable. (-1)	

Alarm ID	OP-006	Alarm Title	Permanent storage data CRC check failure, re-calibrate before machining		
Description	IO card hardware e	error.			
Possible Cause	<ol> <li>IO card mail</li> <li>Fram CRC e</li> <li>Fram has n</li> <li>For 10F, 200</li> <li>Wrong setting</li> </ol>	lfunction. error. ot initialized. O Series controller restore ing of DIP switch when usi	backup data when CRC error. ng two pieces of PIO5.		
solution	<ol> <li>Change IO of</li> <li>Please upg</li> <li>Reboot condition</li> <li>Correctly set</li> </ol>	card. rade to 10.112.95, 10.114.2 troller and driver. et PIO5 dip switch.	29 or later version.		
Alarm ID	OP-007	Alarm title	Low memory, memory space is less than 1M		
Description	System memory l	System memory less than 1MB.			
Possible Cause	Developer designed controller HMI with too much components, graphs or pictures, and leading to memory less than 1MB.				
Solution	Designing control and component c	ller HMI need to reduce ex an avoid consuming too r	cessive components. Use effective variable nuch memory.		
Alarm ID	OP-008	Alarm title	Fatal low memory, memory space is less than 100K		
Description	System memory i	s less than 100k.			
Possible Cause	Developer designed controller HMI with too much components, graphs or pictures, and leads to memory less than 100 KB.				
Solution	Reduce excessive components when designing controller HMI. Use effective variable and component can avoid consuming too much memory.				
Alarm ID	OP-009	Alarm title	The Interpolation calculation time exceeds 30ms		
Description	The Interpolation	calculation time is more	than 30 ms.		

Possible Cause	Too much calculation during interpolation process, which exceeds system loading.
Solution	Please contact Syntec OEM.

### old version ( before 10.118.82E, 10.118.86 )

Alarm ID	OP-009	Alarm title	The number of interpolation loss time is bigger than 100	The number of interpolation is bigger than 100	
Description	System Data No.54 Interpolation dela time, the system w covered and cause	4 (Interpolation delay times y: Axis card doesn't send th vill ignore the interpolation e order missing.	s) is more than 100. ne command calculated by last interpolatic n value to avoid unsent command value be	is more than 100. command calculated by last in alue to avoid unsent command	
Possible Cause	The setting of inte loading.	rpolation time interval ( Pr	3203 ) is too small, which exceeds system	203 ) is too small, which exceeds	
Solution	<ol> <li>Increase Pr</li> <li>Please cont</li> </ol>	3203 interpolation time int tact Syntec OEM.	terval set value.	rval set value.	
Alarm ID	OP-010	Alarm title	Path setting error	Path setting error	
Description	<ol> <li>When no disconti</li> <li>When ea main system</li> </ol>	<ol> <li>When no path operates completely independently, numbers of paths are discontinuous.</li> <li>When each path operates completely independently, no axis belongs to CNC main system path.</li> </ol>			
Possible Cause	Parameter setti Ex: Assume that the Situation 1 Pr701=1, Pr702= The CNC main s belongs to seco Situation 2 Pr701=1, Pr702= The CNC main s the path setting	<ul> <li>Parameter setting error</li> <li>Ex:</li> <li>Assume that the machine exists XYZ axis, each associated path is set as follows:</li> <li>Situation 1</li> <li>Pr701=1, Pr702=1, Pr703=1, Pr732=2 and Pr731=2.</li> <li>The CNC main system path has the first path and the second path. But without axis belongs to second path, controller will issue this alarm.</li> <li>Situation 2</li> <li>Pr701=1, Pr702=4, Pr703=8, Pr731=3, Pr732=0/1 and Pr731=3</li> <li>The CNC main system path sets the first path, the third path and the fourth path, and the path setting skips the second path, controller will issue this alarm.</li> </ul>			
Solution	Please check Pr number setting	701~Pr720 axis affiliated pa value.	ath and Pr731 CNC main system path	h and Pr731 CNC main system բ	

Alarm ID	OP-011	Alarm title	e	(Pause poi	nt offset error]	
Descripti on	When use coordinat block stop can't senc	multi-path in machining, with axis belongs to Plural path in different workpiece e system. If user operators inappropriately, when modifying workpiece coordinate during p, axis offset will be different in each path. This condition will cause controller system d out correct moving command.				
Possible Cause	1. Wh pa 2. Wh val	Vhen changing axis workpiece coordinate system, user doesn't revise that axis all affiliated bath. Vhen changing all axis affiliated paths' workpiece coordinate, each affiliated changing ralue is different.				
Solution	1. Ple (Re 2. Ple in e	lease make sure affiliated path, that axis's workpiece coordinate system all changed. Refer to Pr701~Pr702 axis affiliated path) lease make sure that axis workpiece coordinate system revision value will all be the same n different affiliated path.				
Alarm ID		OP-012	Alarm title		CF card set by Pr3219 error,check CF card or system setting value	
Description	<b>ption</b> When CNC uses Dos, if we set Pr3219 equal to 3 and second CF card (user data) is inserted, system mis-used REGISTRY.DAT data in order to avoid CF card malfunctions and the second CF card malfunction of the second CF card malfunction of the second control o			and second CF card (user data) is not in order to avoid CF card malfunction.		
Possible Ca	nuse	<ol> <li>The system doesn't have the 2<sup>nd</sup> CF card or cannot read the 2<sup>nd</sup> CF card.</li> <li>The system has two CF cards, but both CF card has only one partition disk.</li> </ol>				
Solution		<ol> <li>Check whether the second second</li></ol>	he 2 <sup>nd</sup> CF card to the default 19 to 0 and all	exists or there state, which is use C:	e is CF card reading error. s having wo partition disks condition.	

New Version is 10.118.86K, 10.120.16K, 10.120.24B, 10.120.27 and after Old Version is 10.118.86J, 10.118.94 and before

New Version Old Ve	ersion			
Alarm ID	OP-013-1	Alarm title	[Hardware configuration does not support dual-core function]	
Description	Hardware configuration does not support dual-core function. Before eliminating alarm, if user move the machine, controller will issue following error alarm.			

Possible Cause	Controller installed software version that hardware doesn't support.				
Solution	Please contact and prov	vide backup file to Vendor-	Syntec.		
Alarm ID	OP-013-2	Alarm title	[EEPROM information error]		
Description	EEPROM information Before eliminating ala error alarm.	error. arm, if user move the mach	ine, controller will issue following		
Possible Cause	Controller installed so	oftware version that hardw	are doesn't support.		
Solution	Please contact and p	rovide backup file to Vendo	r-Syntec.		
Alarm ID	OP-013-3	Alarm title	【Servo type( Pr9 ) setting error 】		
Description	Servo type( Pr9 ) settir Before eliminating ala error alarm.	Servo type( Pr9 ) setting error. Before eliminating alarm, if user move the machine, controller will issue following error alarm.			
Possible Cause	Controller installed software version that hardware doesn't support.				
Solution	Please check Servo typ	pe( Pr9 ) value is correct.			
Alarm ID	OP-013-4	OP-013-4 Alarm title [FPGA bin file does not exist]			
Description	FPGA bin file does not Before eliminating ala error alarm.	FPGA bin file does not exist. Before eliminating alarm, if user move the machine, controller will issue following error alarm.			
Possible Cause	Controller installed sc	Controller installed software version that hardware doesn't support.			
Solution	Please contact and pr	Please contact and provide backup file to Vendor-Syntec.			
Alarm ID	OP-013-5	OP-013-5 Alarm title [Fail to load FPGA bin file]			
Description	Fail to load FPGA bin f Before eliminating ala error alarm.	ile. Irm, if user move the machi	ne, controller will issue following		

Possible Cause	Controller installed software version that hardware doesn't support.				
Solution	Please contact and pr	ovide backup file to Vendor	-Syntec.		
Alarm ID	OP-013-6 Alarm title [Cannot recognize Hardwa ]				
Description	Cannot recognize Hardware ID. Before eliminating alarm, if user move the machine, controller will issue following error alarm.				
Possible Cause	Controller installed software version that hardware doesn't support.				
Solution	Please contact and pr	ovide backup file to Vendor	-Syntec.		

**New Version** 

Old Version

Alarm ID	OP-013	Alarm title	Software version and model can't driver hardware, call your vender!			
Description	Controller installed software version that hardware doesn't support. Before eliminating alarm, if user move the machine, controller will issue following error alarm.					
Possible Cause	<ol> <li>Hardware configuration does not support dual-core function.</li> <li>EEPROM information error.</li> <li>Servo type( Pr9 ) setting error.</li> <li>FPGA bin file does not exist.</li> <li>Fail to load FPGA bin file.</li> <li>Cannot recognize Hardware ID.</li> </ol>					
Solution	<ol> <li>Please contact and provide backup file to Vendor-Syntec.</li> <li>Please contact and provide backup file to Vendor-Syntec.</li> <li>Please check Servo type( Pr9 ) value is correct.</li> <li>Please contact and provide backup file to Vendor-Syntec.</li> </ol>					
	5.Please contac 6.Please contac	t and provide backu t and provide backu	ip file to Vendor-Syntec. ip file to Vendor-Syntec.			

### old version (before 10.118.86)

Alarm IDOP-013Alarm titleSoftware version and model can't driver hardware, call your vender!	
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Description	Controller installed software version that hardware doesn't support. Before eliminating alarm, if user move the machine, controller will issue following error alarm.
Possible Cause	<ol> <li>Controller install software version that hardware doesn't support.         <ul> <li>a. EZ milling machine doesn't support version after 10.114.</li> <li>b. 10A/B doesn't support version after 10.116.10.</li> <li>c. 20A/B doesn't support version after 10.116.10.</li> <li>d. Software doesn't support the FPGA device.</li> <li>e. Pr9 *Servo board type doesn't support the FPGA device.</li> </ul> </li> <li>Controller has changed both motherboard or CF card and IO card at the same time, so it causes hardware information incompatible. Machine code dropped to EZ so it can't support original software version.</li> </ol>
Solution	<ol> <li>Install software version that hardware supports.         <ul> <li>EZ milling machine standard configures 10.112 version. If user want to use higher version, user need to open software option function Option1 [EZ2/3/4 upgrade 10A software function].</li> <li>10A/B because of memory issue, if user wants to use higher version, recommend to change into 10F.</li> <li>20A/B because of memory issue, if user wants to use higher version, recommend to change into 200A/B.</li> <li>Please contact and provide backup file to Vendor-Syntec.</li> <li>Please contact Vendor-Syntec to solve hardware information incompatible problem and reset controller serial code.</li> </ul> </li> </ol>

Alarm ID	OP-014	Alarm title	WinCE option not enabled, call your vender!		
Description	Controller installs WinCE version software, and WinCE function option is not activated, so axis card can't send command which cause the controller issue following error alarm after machining start.				
Possible Cause	Option software function Option2. "Controller upgrades WinCE system" is not activated.				
Solution	<ol> <li>Re-install Dos version.</li> <li>Please contact Syntec OEM, to open option software function Option2 "Controller upgrades WinCE system"</li> <li>Super controller doesn't have this error.</li> </ol>				

Alarm ID		OP-015	Alarm title	【The output contacts are overloaded; please check for any abnormal wiring】		
Description	<ul> <li>Controller detects PLC O point overloading.</li> <li>Sixteen O point as a group. When one O point in that group overloads 350 mA will sout alarm of O point in that range is overloading.</li> </ul>					
Possible Ca	use	uit.				
Solution		<ol> <li>Verify load power consumption.</li> <li>Verify that the output is not short-circuited.</li> <li>Machine grounding.</li> <li>Replace load equipment for testing.</li> </ol>				
Alarm ID	OP-016	Alarm Title Straightness compensation function configuration error				
Descripti on	Straight offset a In each the corr Therefo setting	ightness accuracy offset function current supplies at most five groups of moving axis and et axis setting. Ach group, the compensation position of the "at least two and at most twenty" moving axis a corresponding offset axis' compensation amount must be entered. refore, when the system detects that the straightness compensation function parameter ing error, the controller issues this alarm.				
Possible Cause	1.   2.   3. / 4. /	<ol> <li>Multi groups of moving axis are corresponding to same offset axis simultaneously.</li> <li>Moving axis is also offset axis.</li> <li>Activate straightness accuracy offset's moving axis and offset position descends.</li> <li>Activate straightness accuracy offset's moving axis and offset position is less than two positions.</li> </ol>				
Solution	1. ( 2. (	<ul> <li>Check Pr1481~Pr1490 Straightness offset moving axis number and compensating axis number <ul> <li>a. map multiple sets of moving axes to different offset axis.</li> <li>b. configure moving axis not as an offset axis.</li> </ul> </li> <li>Check Pr7001~Pr7025 Straightness offset moving axis position and Pr7051~Pr7125* Position of each group's compensation point in moving axis pitch compensation form <ul> <li>a. fill in increasing compensation position order.</li> <li>b. fill in at least two and at most twenty compensation positions.</li> </ul> </li> <li>Expand 2D linear compensation function (20%), supported versions: 10.118.12E, 10.118.</li> </ul>				

Alarm ID	OP-017	Alarm Title	Port number or I point mapped to handwheel error		
Description	Pr2021~Pr2027 set	ting error.			
Possible Cause	<ol> <li>Pr2021~Pr2030 *Port number or register number for MPG port number setting is not supported.</li> <li>Pr2024~Pr2027 *Continued I-Bit no. for MPG two continues I points setting is not supported.</li> <li>Pr13 *Number of servo card setting error.</li> </ol>				
Solution	<ol> <li>Refer to the description in the manual for correct configurations according to the controller code.</li> <li>Check whether Pr13 *Number of servo card setting is correct or not.</li> </ol>				
Alarm ID	OP-018	Alarm Title	Port configuration error		
Description	<ul> <li>Pr21~Pr40 * Axis corresponding axis card port number or Pr1621~Pr1630 Axis ID or Port Number for Spindle setting error.</li> <li>Serial PLC Axis, ROT port number setting error.</li> <li>Pr3261~Pr3263 *M3-IO Station No setting error.</li> </ul>				



Alarm ID	OP-018	Alarm Title	Port configuration error			
Possible Cause	<ol> <li>Pr21~Pr40 ax axis) can be r</li> <li>Pr21~Pr40 ax axis) can be r</li> <li>When using v Pr1621~Pr16</li> <li>When using S number setti</li> <li>Serial Bus co Variable-freq with other see</li> <li>When using s (Pr1621~Pr1 (Pr21~Pr40)</li> <li>Pr3261~Pr32 Pr1621~Pr16</li> <li>Serial PLC ax</li> <li>Pulse control port number</li> <li>Pr13 *Number</li> <li>The servo dri subscribed ir</li> <li>The servo dri subscribed in</li> <li>The servo dri subscribed in</li> <li>The servo dri</li> <li>Serial PLC ax</li> </ol>	21~Pr40 axis port number setting is not supported. 21~Pr40 axis port number setting is repeated, only number 17, 18 (virtual is) can be repeated. nen using variable-frequency spindle (Pr1791~Pr1800 sets as 0), 1621~Pr1630 spindle port number setting is not supported. nen using SRI DA spindle (Pr1791~Pr1800 sets as 7), Pr1621~Pr1630 register imber setting is not at User-defined rial Bus controller uses variable-frequency spindle (Pr1791~Pr1800 sets as 0). riable-frequency spindle port number (Pr1621~Pr1630) can't have conflict th other serial bus controller port number. nen using servo spindle (Pr1791~Pr1800 sets as 1~4 ), the axis ID of spindle 'r1621~Pr1630 ) does not exist or the corresponding axis port number 'r21~Pr40 ) is not enabled. 3261~Pr3263 port number setting has conflict with axis (Pr21~Pr40, 1621~Pr1630). rial PLC axis and ROT port number is not supported. like controller which is 10.116.54L, 10.118.0G, 10.118.7 and above version, if ort number hardware setting is not supported, this alarm will be triggered. 13 *Number of servo card setting error ne servo drive does not support Channel Subscription function. ne servo drive supports Channel Subscription function, but the corresponding bscribed information is not supported. ne servo drive setted for Channel Subscription function is unconnected. or Linux system controller which is 10.118.74H, 10.118.82F, 10.118.86A, .118.87 and above version, inverter spindle does not support setting spindle ort number(Pr1621~) to 20.				
Solution	<ol> <li>Refer to the L number.</li> <li>Configure the serial servo p</li> <li>When using S number in Pr</li> <li>Check wheth each other, a</li> <li>For pulse cor wants to use virtual axis.</li> <li>Check if Pr13</li> <li>Check if the p correctly.</li> <li>For Linux sys 10.118.87 and not 20. Use 1</li> </ol>	Description in the parameter r e port number in Pr1621~Pr16 ports, set to 19 is recommende SRI DA spindle (Pr1791~Pr1800 1621~Pr1630 in User-defined er Pr3261~Pr3263 and Pr21~F nd correct the conflict. ntroller version 10.116.54L, 10 virtual axis, please set as 17/1 * Number of servo card is set parameter setting for Channel tem controller which is 10.118 d above version, please check 7~19 instead.	manual to configure the correct port 530 which is not conflict with other ed. D sets as 7), configure the port region. Pr40, Pr1621~Pr1630 conflict with 118.0G, 10.118.7 and above, if user 18, or use G10 L800 to specify the correctly. I Subscription function is set 8.74H, 10.118.82F, 10.118.86A, a that spindle port number(Pr1621~) is			

Alarm ID	OP-019	Alarm Title	arm Prohibit to switch the metric and imperial systems in machining/not itle ready state				
Descrip tion	When sys	tem is Busy or	Not Ready	γ, can't switch into Met	ric and	Imperial units via HMI operation.	
Possibl e Cause	When sys	tem is Busy or	Not Ready	γ, switch into Metric an	d Impe	rial units via HMI operation.	
Solutio n	Avoid to s	witch the meti	ic and im	perial systems in Busy	or Not I	Ready state via HMI operations.	
Alarm ID		OP-020		Alarm title		M code setting conflict	
Descriptio	on	<ol> <li>Wh cau</li> <li>Wh</li> <li>98,</li> <li>Wh</li> <li>98,</li> <li>Wh</li> <li>98,</li> <li>Wh</li> <li>198</li> </ol>	<ol> <li>When the following M code related parameter setting has repeated M code and cause setting conflict.         <ul> <li>Pr3599 *Register M code for Advanced Look-Ahead mode</li> <li>Pr3600 *Register custom Macro interrupt M code</li> <li>Pr3601~Pr3610 *M code Macro call registry</li> <li>Pr3804 Part count M code</li> <li>Pr3741, Pr3743 Rotary axis auxiliary brake M code</li> </ul> </li> <li>When Pr3599 *Register M code for Advanced Look-Ahead mode set as 1, 2, 30, 98, 99, 198, it is conflicted with M1/M2/M30/M98/M99/M198.</li> <li>When Pr3600 *Register custom Macro interrupt M code sets as 1, 2, 29, 30, 97, 98, 99, 197, 198, it is conflicted with M1/M2/M30/M98/M99/M198.</li> <li>When Pr3741, Pr3743 Rotary axis auxiliary brake M code set as 1, 2, 29, 30, 97, 98, 99, 197, 198, it is conflicted with M1/M2/M30/M98/M99/M198.</li> <li>When Pr3763 Braking M code of Indexing Axis set as 1, 2, 29, 30, 97, 98, 99, 197, 198, it is conflicted with M1/M2/M30/M98/M99/M198.</li> </ol>				
Possible (	Cause	As stated a	above.				
Solution		After mod controller	After modifying the above parameter settings so that no conflict exist, reboot the controller and driver.				
Alarm ID		OP-021	OP-021 Alarm title Use last known user data, re-calibrate user data before machining				
Descriptio	on	The controller's machine data and workpiece data information are stored in Registry.dat and Workpiece.dat respectively, and has three backups of .mir, .lkn and .cdb. If either .dat and .mir are abnormal and cannot be used, the system will use .ll or .cdb to restore the data. If the Registry is abnormal, the machining file name will be cleared.				nformation are stored in as three backups of .mir, .lkn annot be used, the system will use .lkn al, the machining file name will be	

Possible Cau	ISE	<ol> <li>X86 system (with CF card): It is possible that the CF card is damaged, caused machine data also damaged.</li> <li>ARM system (without CF card): DISKA damage results in damage to machine data.</li> <li>Machine data and other data are damaged, restored from DISKA or DISKC backup.</li> </ol>				
Solution		<ol> <li>Reset or check whether the machine data is correct.</li> <li>Scan CF card disk.</li> <li>Reboot controller and driver.</li> </ol>				data is correct.
Alarm ID		OP-022		Alarm title		User data rebuild, re-calibrate user data before machining
Description		None of Registry, ToolTable and ScanTable in the controller has .dat, backup files .mir, .lkn and .cdb. User data is rebuilt.				n the controller has .dat, backup
Possible Cau	<ol> <li>X86 system (with CF card): CF2 card may has been replaced or formatted, caus user's original data and backups being cleared out.</li> <li>ARM system (without CF card): DISKA and DISKC are damaged or formatted, causing user's original data and backups being cleared out.</li> <li>The possible file corruption situations are listed below.         <ul> <li>Machine data, other data, and their relative backups are all destroyed.</li> <li>Scan table data and its backups are all destroyed.</li> </ul> </li> </ol>				hay has been replaced or formatted, causing g cleared out. and DISKC are damaged or formatted, ups being cleared out. s are listed below. their relative backups are all destroyed. is are all destroyed. os are all destroyed.	
Solution	<ol> <li>Solution         <ol> <li>Reset the machine data, tool table and scan table data, and then reboot and driver.</li> <li>If this alarm still cannot be eliminated after reboot, format CF2/DISKA an DISKC.</li> <li>If alarm still cannot be eliminated after format, CF2/DISKA and CF2/DISK malfunction and need repair.</li> </ol> </li> </ol>				d scan table data, and then reboot controller I after reboot, format CF2/DISKA and CF2/ er format, CF2/DISKA and CF2/DISKC are	
Alarm ID	OP-023 Alarm title Power break in machining, re-calibrate machining			reak in machining, re-calibrate before ng		
Descriptio n	When r flag int been s While c	When new machining data need to be stored during Cycle Start, the controller will store a state flag into Fram or REGISTRY.DAT, and it will be removed when the specified data have already been stored. While controller booting, if this flag is not cleared, this alarm will be issued.				
Possible Cause	The po	e power is turned off when new machining data not yet been stored during machining process.				

Solution	1. 2. 3.	<ul> <li>Please re-calibrate your machining data. For example, <ul> <li>Check the Imperial/Metric (G70/G71) unit selection.</li> <li>Check the home point, offset, and rotational angle of the coordinate system corresponding to the G92/G92.1/G68.2/G68.3 command.</li> <li>Check the tool number and the compensation amount of the tool length compensation command (G43).</li> <li>Check the settings of the 2nd Software Stroke Limit command (G22).</li> <li>Check the values stored in the the persistent variables and R bit, i.g. Macro @656~@1999、R100~R255、R1000~R10999.</li> <li>For more details, please refer to Registry Data/L Variable List.</li> </ul> </li> <li>After completing step 1, following the following step by version : <ul> <li>For software version 10.118.40B, 10.118.41 or above, please trigger "reset" to clear alarm.</li> <li>For other versions, please restart the controller to clear alarm.</li> </ul> </li> <li>Way to avoid: Avoid switching the power off during machining. Or, trigger C47 to store the machining data before switching the power off.</li> </ul>				
Alarm ID	OP-024 Alarm title Machine data file before machining			Machine data file write fail, re-calibrate before machining		
Description		Before shutting down controller, the last writing of REGISTRY.DAT or REGISTRY.MIR file is unsuccessful.				
Possible Cau	ise	<ol> <li>CF card is of 2. REGISTRY.</li> <li>System file unsuccess</li> </ol>	damaged. DAT or REGISTRY.MIR files processing device's resou ful.	are set as read-only. rce is not sufficient, lead to writing file		
Solution		<ol> <li>Scan CF ca</li> <li>Check whe</li> <li>Reboot cor</li> </ol>	rd disk. other machining setting is c ntroller and driver.	orrect.		
Alarm ID		OP-025	Alarm title	Machine data file write fail many times, re-calibrate before machining		
Description		Before shutting down controller, the accumulated unsuccessful of writing REGISTRY.DAT or REGISTRY.MIR file exceed 100 times.				
Possible Cau	ise	<ol> <li>CF card damaged.</li> <li>REGISTRY.DAT or REGISTRY.MIR file is set to read-only.</li> <li>System's file processing device resource is not sufficient, lead to writing file unsuccessful.</li> </ol>				
Solution		<ol> <li>Scan CF ca</li> <li>Check whe</li> <li>Reboot cor</li> </ol>	rd disk. ther machining setting is c ntroller and driver.	orrect.		

Alarm ID	OP-026	Alarm title	e Machine data file fault error, re-calibrate before machining and do scan disk						
Description	Before shut 100 times c	e shutting down controller, unsuccessful of writing REGISTRY.DAT or REGISTRY.MIR file exceed imes continuously happened.							
Possible Cause	1. CF c 2. REG 3. Syst	<ul> <li>CF card damaged.</li> <li>REGISTRY.DAT or REGISTRY.MIR file is set to read-only.</li> <li>System's file processing device resource is not sufficient, lead to writing file unsuccessful.</li> </ul>							
Solution	1. Scar 2. Che 3. Reb	n CF card disk. ck whether ma oot controller	achining setting is correc and driver.	t.					
Alarm ID	OP-027	-027 Alarm Title CNC main system axis group to be executed unselected							
Description	No CNC	No CNC main system path is chosen and cycle start triggered.							
Possible Cause	Please 1. 2.	<ul> <li>Please check R21 value:</li> <li>1. Chosen path not exists or not belongs to CNC main system path.</li> <li>2. No CNC main system path is chosen (Only happens when R21.11 status is ON).</li> </ul>							
Solution	1. 2.	Check if any lo path is not sel Select an exist	gic error when PLC trigg ected successfully. ing CNC main system pa	ers R21 option, which results in the correct th via R21.					
Alarm ID	OP-028	3 A	larm Title	Prohibit CNC main system axis group switch in machining					
Description	When C execute	When CNC is under Not Ready state, change CNC main system path that was going to be executed and triggers cycle start.							
Possible Cause	Please (Chang	Please check R21 value, whether it is different from original process condition. (Change the chosen CNC main system path that was going to be executed)							
Solution	Modify	R21 to the valu	ue in the original machin	ing status, then can continue machining.					
Alarm ID	OP-02	29	Alarm Title	CNC axis over system support					
Description	Assign path).	Assign too much axis that belongs to a normal path (Not Loader or Wood auxiliary path).							

Alarm ID		OP-029	Alarm Title		CNC axis over system support	
Possible Ca	ISE	<ul> <li>Refer to following parameter setting, when the axis number of a normal path exist the limit of system axis number, this alarm will be issued.</li> <li>1. Pr701~Pr720 *Axial associate axis groups</li> <li>2. Pr733~Pr734 *Loader axis group</li> <li>3. Pr737 * Wood Auxiliary axis group</li> <li>4. Pr1601~Pr1620 *Axis Application Property</li> </ul> For example: Use 21MA, standard configuration is 6 axis. If 8 axis is activated (activate software option function Option20 [Loader axis number expansion]/ Option37 [Wood auxiliary axes]) and configures following parameter settings <ol> <li>Pr701~Pr704 sets as 1, number 1~4 axis are first path.</li> <li>Pr705~Pr708 sets as 2, number5~8 axis are second path.</li> <li>Pr733, Pr734 and Pr737 all set as 0, no path is Loader/ Wood auxiliary path.</li> </ol> Therefore system has 8 axis, which over 21MA system's axis number limit.				
Solution		<ul> <li>Check and correct the following parameter settings: <ol> <li>Pr701~Pr720 *Axial associate axis groups</li> <li>Pr733~Pr734 *Loader axis group</li> <li>Pr737 * Wood Auxiliary axis group</li> <li>Pr1601~Pr1620 *Axis Application Property</li> </ol> </li> <li>Based on the above example, in case of the 2<sup>nd</sup> path operation requirements can be fulfilled with the Loader path, Pr733 set as 2 to specify the 2<sup>nd</sup> path is the Loader path. Only 4 axis belongs to a normal path as system axis, when total axis number does not exceed the standard 21MA axis number configuration, alarm can be removed.</li> </ul>				
Alarm ID		OP-030	Alarm Title	Deb resu	ug mode, disable debug mode to Ime normal operation.	
Description		Active debug mod	de, Pr3221 set as 1 or 2.			
Possible Ca	use	As stated above.				
Solution		Disable the debug	g mode, Pr3221 set as 0.			
Alarm ID	OP-031	Ala	rm Title	GANT	RY robot option not enabled	
Descriptio n	Pr3201 Coordir (Curren	activate robot func ate Robot Type]. tly only 10.117 vers	tion, but software option	functior	n Option24 is not activate [Cartesian	
Possible Cause	Pr3201	is different from co	rrespond controller's mac	hine mo	ode.	

Alarm ID	O	P-031	Alarm Title		GANTRY robot option not enabled			
Solution		<ol> <li>Enable Option</li> <li>In case of not r</li> </ol>	24 [Cartesian Coor robot, configure Pr	dinate Robo 3201 correct	t Type] for GANTRY type robot. ly.			
Alarm ID		OP-032	Alarm Title	Mechanism type configuration conflicted				
Description		Pr3201 Machine Ty	ype setting conflict	ed.				
Possible Cause		Currently only the 1. Pr3201 sets 2. Pr3201 sets 3. Pr3201 sets 4. Pr3201 sets 5. Therefore, open b machine tool feature inform user. For example: 1. Activate fir axis kinem. first path is 2. Activate se second five attribute. ( Besides, when act Center Point funct Tool Center Point sets five axis mech	e following mechanism type support five axis function; ts as 0, close lathe feature. (Use general milling interface) ts as 1, Lathe Habit Type C. ts as 2, Lathe Habit Type A. ts as 3, Lathe Habit Type B. both five axis (Pr3001, Pr3101, Pr5501, Pr5601) and other non-lathe/mill ture's mechanism type (Pr3201) at the same time, and alarm will be issued to irst group of five axis function (Pr3001 isn't 0. First path default to use first five natic chain) and first path is not lath/mill machine tool attribute. (Pr3201 in is not 0~3) econd group of five axis function (Pr3101 isn't 0. Second path default use <i>r</i> e axis kinematic chain) and second path is not lath/mill machine tool (Pr3201 in second path is not 0~3) titvate option software function Option 29 (Four axis dedicated Rotate Tool ction (4AXRTCP)), however, and option software function Option 12 (Rotate t (RTCP)) and Option 13 (Feature coordinate function) are not activated, but "banism narameter Pr3001 Pr3101 Pr5501 Pr5601 as 1~3 and this alarm will					
Solution		Only the milling m mapped 5-axis fur [Note] In the version limited to 200TB-5 1. Only lathey or sets corn Pr5601) 2. Active RTC versions. 3. Please sets please ope Option 13 (	nachine supports the 5-axis models. Configure Pr3201 to 0~3, or configure the nction parameters (Pr3001, Pr3101, Pr5501 and Pr5601) to 0. ions after the 10.116.54G and 10.118.0D, the lathe can enable RTCP and is 5. e/mill machine tool supports five axis machine type. Please sets Pr3201 as 0~3, rresponding five axis function parameter as 0. (Pr3001, Pr3101, Pr5501, CP for Lathe 200TB-5. Supported version: 10.116.54G, 10.118.0D or above is five axis mechanism parameter Pr3001, Pr3101, Pr5501, Pr5601 as 4 or 5, or en software option function Option 12 (Rotate Tool Center Point (RTCP)) and (Feature coordinate function).					

Alarm ID	OP-03 3	Alarm Title	Do not se	ot set machine position during machining				
Descripti on	Using C0	025 ~ and C230 ~ to set machine position when machining						
Possible Cause	Using C0	ς C025 ~ and C230 ~ to set machine position when machining						
Solution	Do not u	se C025 ~ a	and C230 ~	to set machine position w	nen machin	ing.		
Alarm ID		OP-041		Alarm Title Machining file inexist specific path		g file inexistent in the ath		
Descriptio	n	System o	System can't find ECAM.xml in designated path, so can't activate cam function.					
Possible Cause		1. Fi 2. Fi	<ol> <li>File name is wrong.</li> <li>File location is wrong.</li> </ol>					
Solution		Check th	Check the ECAM.xml.					
Alarm ID		OP-042		Alarm Title Machining progra check NC File		program data error, please File		
Descriptio	n	ECAM.xml file format is wrong.						
Possible C	ause	Self edit ECAM.xml, and format is wrong.						
Solution		Check the	Check the ECAM.xml.					
Alarm ID		OP-043	5	Alarm Title	ECAM	group more than 8 groups		
Description		Too mu	Too much ECAM group.					
Possible C	ause	Self edi	t ECAM.xml	, sets up too many ECAM ຢູ	roups.			
Solution		Check t approp	he graphic riate.	dialog input to ensure the	configured	number of CAM groups is		

Alarm	ID		OP-04	44	Alarm Title		CAM curves more than 32 lines
Description			Too much cam curve line.				
Possib	le Cause		Self e	dit ECAM.xm	l, sets up too many cam cı	urve l	line.
Solution			Check appro	< the graphic opriate.	dialog input to ensure the	e con	figured number of CAM curves is
Alar m ID	OP-04 5	Alar Title	m ?	CAM curve	speed planning failed		
Desc ripti on	Fail to p	lan cai	m curve	speed.			
Possi ble Caus e	1. C 2. M 3. D	am cu lovem loesn'່າ	irve des ient par t execut	ign doesn't r ameter settii æ re-read aft	natch movement paramet ng is not reasonable. er fixing insertion point th	er. roug	h R value.
Solut ion	1. C c 2. C 3. F	Check i onfigu Correct Re-reac	f the pla irations the ma d R valu	anned CAM c Icchine motio es and set C3	urve line is reasonable und n parameter within the rea 300 to On.	der th asona	ne limit of machine motion able range.
Alarm	ID		OP-04	46	Alarm Title		ECAM – no driven axis name
Descri	ption		Electronic cam-Can't find axis name.				
Possib	le Cause		Pr321~Pr340 axis name is not set.				
Solutio	on		Check and correct Pr321~340 setting.				
Alarm ID		OP-047	7	Alarm Title	Use ma	e non self-defined R value or too ny R values.	
Descri	ption		R value	used is out o	of self-defined range or ins	sertio	on point sets over 100 R value.
Possib	le Cause		<ol> <li>Use non self-defined R value.</li> <li>Self-edit ECAM.xml, insertion point sets over 100 R value.</li> </ol>				

Alarm ID	OP-047	Alarm Title	Use non self-defined R value or too many R values.				
Solution	Check ECAM.xml, if self-defined range,	the R value of workpiece c and whether insertion poin	ounts and the insert point are out of user at used over 100 R value.				
Alarm ID	OP-048	Alarm Title	Curve insert point re-read R value failed				
Description	When re-read R va	lue, electronic cam is unde	r coupling mode.				
Possible Cause	Electronic cam gro	oup is under coupling mode	<u>.</u>				
Solution	Release all CAM co	oupling and set S301~S308	o Off.				
Alarm ID	OP-050	Alarm Title	SRI status error				
Description	SRI condition al	bnormal.					
Possible Cause	Please check th	e followed SRI alarm, and r	efer to SRI Alarm -SRI.				
Solution	Refer to the solu and driver.	ution of followed SRI alarm	After resolving the issue, reboot controller				
Alarm ID	OP-051	Alarm Title	M3-IO communication error				
Description	M3-IO communic errors.	ation abnormal and cause	watchdog has accumulated over 100				
Possible Cause	<ol> <li>M3 comm</li> <li>Noise inte</li> <li>Using the</li> </ol>	<ol> <li>M3 communication cable is loose.</li> <li>Noise interference.</li> <li>Using the laser cruise function without installing the ADD-on card.</li> </ol>					
Solution	<ol> <li>Check if the constraints of the constr</li></ol>	<ol> <li>Check if the communication cable is normal.</li> <li>Replace communication cables.</li> <li>Reboot controller and driver.</li> <li>Check whether the laser cruise function is required. If necessary, confirm that the ADD-on card is installed correctly.</li> </ol>					
Alarm ID	OP-052	Alarm Title	M3-IO device status error				
Description	Controller detect	s M3-IO device is abnorma	through M3 communication.				

Alarm ID	OP-052	Alarm Title	M3-IO device status error			
Possible Cause	M3-IO card abnormal.					
Solution	<ol> <li>Check if the M3-IO card is inserted securely.</li> <li>Check the setting of Pr3261~Pr3263.</li> <li>Reboot controller and driver.</li> </ol>					

Supported versions: 10.118.86L, 10.120.16L, 10.120.24B, 10.120.27 and previous versions.

Alarm ID	OP-053	Alarm Title	Serial commu	nication initialization failed			
Description	When control	ler fail to communic	cate with driver.				
Possible Cause	<ol> <li>Driver</li> <li>Driver</li> <li>Driver</li> <li>When</li> <li>When</li> <li>M3 mu</li> </ol>	<ol> <li>Driver is abnormal.</li> <li>Driver or controller hardware malfunction.</li> <li>When Pr9 sets as EtherCat communication, and driver is not connected.</li> <li>When Pr9 sets as RTEX communication, and driver is not connected.</li> <li>M3 multi-axis driver, the first station is not set.</li> </ol>					
Solution	<ol> <li>Reboo</li> <li>Replace malfur</li> <li>Conne</li> <li>M2 / M provid</li> <li>Set the</li> <li>Note: For Ethe</li> </ol>	<ol> <li>Reboot the controller and driver.</li> <li>Replace the driver, if it is not effective, the controller hardware may be malfunctioned.</li> <li>Connect EtherCAT driver.</li> <li>M2 / M3 initialization error code display on D53, please contact the Syntec OEM and provide D53 value.</li> <li>Set the first station, or enlarge the set value of Pr3203 (interpolation time).</li> <li>pote: For EtherCAT communication error, refer to EtherCAT Drive Application Manual</li> </ol>					
Alarm ID	OP-054	Alarm Tit	tle	Multi-axis driver initialization failed			
Description	Multi-axis	Multi-axis driver initialization failed.					
Possible Cause	first servo initializatio Note: This don't have	first servo axis function is not activated when using multi-axis driver and cause initialization failure. Note: This alarm has be removed in 10.116.36P and above version. Multi-axis driver don't have to activate first servo axis.					
Solution	Activate fi	rst servo axis in mul	ti-axis driver, reb	oot the controller and driver.			

Alarm ID		OP-055		Alarm Title		Drive information reading error	
Description		Failed to	Failed to read all drives' information.				
Possible Cause		1. Co di 2. M	ommunica ive messa 3 Drive do	ation between controller age or EtherCAT drive ma besn't support M3 messag	and o ilbox ge cor	driver is not stable, causing the M3 communication takes too much time. mmunication.	
Solution		<ol> <li>Check the wiring of the communication cable between the controller and the drive and resolve the causes for unstable communication.</li> <li>If it is M3 network, check if the connected drives support the M3 message communication.</li> </ol>					
Alarm ID		OP-056	ŀ	Alarm Title	larm Title Some axial directions cannot System cannot operates.		
Description		When ther	e is axis se	ervo not servo on, cycle st	art o	r other manual function is triggered.	
Possible Cause		<ol> <li>When power on, axis doesn't complete magnetic pole angle detection and cause servo disabled.</li> <li>Driver power supplication is abnormal or there is driver alarm, and cause servo change from servo on condition into disabled condition.</li> <li>Driver is malfunction.</li> </ol>					
Solution		<ol> <li>After power on, wait for a while then operate the machine.</li> <li>Check if the driver power supply status is normal and if there is driver alarm.</li> <li>Check if the driver is normal.</li> </ol>					
Alarm ID	OP-(	057 Alarn title	n R!	【Tool retraction function, hand wheel shift only supports R518, R519 set to 0】			
Description	Whe to m	n using G10 iove.	.6 toll retra	action function, R518, R5	19 m	ust be set as 0, then user can use MPG	
Possible Cause	R518	3, R519 is no	t 0.				
Solution	ution Set R518, R519 to 0.						
Alarm ID		OP-058		Alarm Title	Bu is (	irn mode. All I/O connections to servo disconnected	
Description		When con IO device.	troller and	d driver is burning firmwa	re, u	ser can't operate driver's servo axis or	

Alarm ID		OP-058	Alarm Title	Burn mode. All I/O connections to servo is disconnected			
Possible	Cause	Executed contro	ller remote update driver firm	ware.			
Solution		Reboot the contr	oller and driver.				
Alarm ID	OP-059	Alarm Title	Alarm Title Motion control module loading failed. Reinstall software				
Descri ption	Fail to load	ad because of controller internal file is lost or destroyed.					
Possibl e Cause	Controller i	oller install package is destroyed.					
Solutio n	Download a	oad and re-install the controller installation package.					
Alarm ID		OP-060	Alarm Title	M3-IO device number configuration error			
Descripti	on	Controller M3-IO device number setting error.					
Possible	Cause	When using M3-IO device number repeated.					
Solution		Check if Pr3261~3263 value is repeated.					
Alarm ID		OP-061	Alarm Title	M3 external device status error			
Descripti	on	Controller M3 external device's communication condition is abnormal.					
Possible Cause		<ol> <li>M3 communication cable is loose.</li> <li>Noise interference.</li> <li>M3 external device is abnormal.</li> </ol>					
Solution		<ol> <li>Check if</li> <li>Change</li> <li>Check if</li> <li>Reboot of</li> </ol>	communication cable is norn communication cable. M3 external device is firmly co controller and driver.	nal. onnected.			

Alarm ID	OP-062	Alarm Title	Customized IO mapping table destroyed				
Description	When using custor	m IO mapping table, there is	error in reading files.				
Possible Cause	<ol> <li>Custom IO mapping table is incomplete, destroyed or missing.</li> <li>Custom IO mapping table version is incompatible with software version.</li> <li>Software 10.118.9 or above version's custom IO supports SRI. If downgrade after setting or backup files into older version, there will be version incompatible issue.</li> <li>Software 10.118.11 or above version's custom IO supports M3-IO expansion card with two DA input (Scan in Interpolation time), if downgrade after setting or backup files into old version, there will be version incompatible issue.</li> <li>Software 10.118.24A, 10.118.25A, 10.118.28N, 10.118.38 or above version's custom IO supports or backup files into old version, if downgrade after setting or backup files into be version, if downgrade after setting or backup files into be version, there will be version incompatible issue.</li> <li>Software 10.118.24A, 10.118.25A, 10.118.28N, 10.118.38 or above version's custom IO supports single IO setting, if downgrade after setting or backup files into old version, there will be version incompatible issue.</li> </ol>						
Solution	<ol> <li>Enter the IO configuration page, and restore default value, then re-set IO mapping table.</li> <li>Use Restore function, confirm the backup file is normal and restore.</li> </ol>						
Alarm ID	OP-063	Alarm title	[Custom IO mapping table setting conflicts]				
Description	There is conflict in	IO point setting when using	custom IO mapping table.				
Possible Cause	Custom IO mappir	ng table I point or O point se	tting repeated.				
Solution	<ol> <li>Enter IO se</li> <li>Reboot cor</li> </ol>	tting screen, modify the con htroller and driver.	flicting IO points.				
Alarm ID	OP-064	Alarm Title	Configured as custom IO. Review the IO mapping table.				
Description	When Pr5 is set to b	pe using custom IO mapping	table.				
Possible Cause	Pr5 set as 100. And	change from standard IO in	to custom IO.				
Solution	The alarm is used f	or reminder. Reboot control	ler and driver to remove alarm.				
Alarm ID	OP-065	Alarm Title	Lasermarking status error				
Description	Laser marking co	ndition is abnormal.					

Alarm ID	OP-065	Alarm Title	Lasermarking status error					
Possible Cause	Please check the second	Please check the followed LaserCtrl alarm. And refer to Serial PLC Axis Alarm – SERIALPLCAXIS						
Solution	Refer to the solution of LaserCtrl alarm. After resolving the issue, reboot controller and driver.							
Alarm ID	OP-067	Alarm title	【The wireless handheld box device is abnormal】					
Description	Wireless handheld	box external device's comn	nunication is abnormal.					
Possible Cause	<ol> <li>Wireless transmitting device is unplugged.</li> <li>Wireless transmitting device can't be read normally by USB.</li> </ol>							
Solution	<ol> <li>Check whether the wireless transmitter is loose.</li> <li>Press the Reset button and try to reconnect. If communication is normal, this alarm can be removed.</li> </ol>							

New Version is 10.120.32B, 10.120.33 and after Old Version is 10.118.32A, 10.118.32 and before

#### New Version Old Version

Alarm ID	OP-068-1	Alarm title	[Non-Syntec M3-IO device]				
Description	Detected as a non-Syntec M3-IO device.						
Possible Cause	<ol> <li>Non-Syntec M3 device.</li> <li>Specify port number for non-M3 IO device.</li> </ol>						
Solution	<ol> <li>Please use Syntec M3 driver.</li> <li>Please check Pr3261~ set to the M3 IO device port number.</li> </ol>						

Alarm ID	OP-068-2	Alarm title	【The software version does not support this M3-IO device】				
Description	<ol> <li>Driver's firmv controller to</li> <li>Controller's s</li> </ol>	<ol> <li>Driver's firmware version doesn't support hardware information on M3-IO for controller to identify.</li> <li>Controller's software version cannot identify M3-IO device on multi-axis driver.</li> </ol>					
Possible Cause	<ol> <li>Only driver with 2.7.0 or above version support M3-IO device hardware information; Previous version can't get hardware information so doesn't support all M3-IO device, in order to protect machine operation safety.</li> <li>Controller with 10.118.10 or above version has M3-IO device identification protection. Besides following hardware, all will issue this alarm to prevent machine from wrong action.         <ul> <li>a. 16I 80</li> <li>b. 32I 320 MPG</li> <li>c. 32I 320 MPG 2DA</li> </ul> </li> <li>Pr3261~Pr3263 M3-IO station number setting error.</li> </ol>						
Solution	<ol> <li>Please updat</li> <li>Please conta M3-IO device</li> <li>Change back         <ul> <li>a. 16I 8C</li> <li>b. 32I 32</li> <li>c. 32I 32</li> </ul> </li> <li>Refer to Pr32 correctly.</li> </ol>	<ol> <li>Please update driver firmware to 2.7.0 and above version.</li> <li>Please contact Syntec OEM, request for the software version that supports t M3-IO devices and upgrade the software.</li> <li>Change back to the following three M3-IO devices         <ul> <li>a. 161 80</li> <li>b. 321 320 MPG</li> <li>c. 321 320 MPG 2DA</li> </ul> </li> <li>Refer to Pr3261~Pr3263 *M3-IO Station No and set the M3-IO station numbe correctly.</li> </ol>					

New Version	Old Version							
Alarm ID	OP-0	068	Alarm title [The software version does n support this M3-IO device]				s not	
Description		<ol> <li>Driver's firmware version doesn't support hardware information on M3-IO controller to identify.</li> <li>Controller's software version cannot identify M3-IO device on multi-axis d</li> </ol>					M3-IO for axis driver.	

Alarm ID	OP-068	Alarm title	[The software version does not support this M3-IO device]		
Possible Cause	<ol> <li>Only drive informatio support al</li> <li>Controller protection machine fr a. 161 b. 321 c. 321</li> <li>Pr3261~Pr</li> </ol>	<ul> <li>Dnly driver with 2.7.0 or above version support M3-IO device hardware information; Previous version can't get hardware information so doesn't support all M3-IO device, in order to protect machine operation safety.</li> <li>Controller with 10.118.10 or above version has M3-IO device identification protection. Besides following hardware, all will issue this alarm to prevent machine from wrong action.</li> <li>a. 16I 80</li> <li>b. 32I 320 MPG</li> <li>c. 32I 320 MPG 2DA</li> <li>Pr3261~Pr3263 M3-IO station number setting error.</li> </ul>			
Solution	<ol> <li>Please upo</li> <li>Please cor M3-IO devi</li> <li>Change ba a. 16l b. 32l c. 32l</li> <li>Refer to Pr number co</li> </ol>	odate driver firmware to 2.7.0 and above version. Intact Syntec OEM, request for the software version that supports the vices and upgrade the software. Pack to the following three M3-IO devices 180 21 320 MPG 21 320 MPG 22 320 MPG 2DA 24 320 MPG 2DA 25 3261~Pr3263 *M3-IO Station No and set the M3-IO station correctly.			

Alarm ID	OP-069	Alarm title	[Over axis limit that interpolation time can support]		
Description	Total axis number is over the limit that interpolation time can support.				
Possible Cause	<ol> <li>Interpolation time Pr3203 is too small.</li> <li>Axis number setting error.</li> </ol>				
Solution	<ol> <li>Interpolation time Pr3203 recommends to set 2000 or lager. Detailed support axis number please refer to Pr3203.</li> <li>Multi-axis axis number please start setting with x000 (x means station number).</li> </ol>				
Alarm ID	OP-070	Alarm title	[Product doesn't support Pr9 setting]		
Description	This product doesn't support Pr9 setting.				
Possible Cause	<ol> <li>Set Pr9 as 120/121 (RTEX), but hardware doesn't support it.</li> <li>Set Pr9 as 120/121 (RTEX), but software(versions 10.118.30E, 10.118.32E, 10.118.40I, 10.118.41I, 10.118.45 or above) doesn't support it.</li> <li>Pr9 setting error.</li> </ol>				

Alarm ID		OP-070		Alarm title	[Product doesn't support Pr9 setting]			
Solution		1. P 2. R 10 3. R	<ol> <li>Please contact Syntec OEM to know product information.</li> <li>Revert the controller to the version under 10.118.30E, 10.118.32E, 10.118.40I, 10.118.41I or 10.118.45.</li> <li>Refer to Pr9 *Servo board type, set the usable parameter value for the product.</li> </ol>					
Alarm ID	D OP-071			Alarm title	[Driver power off, and perform power off retract]			
Description	1	Pr1041~P driver's p	Pr1041~Pr1060 *Syntec M3 axial power-off Tool auto retract distance (BLU) is set, when driver's power is cut off and perform retract action.					
Possible Ca	ause	1. po 2. Ma 3. RS	<ol> <li>power blackout.</li> <li>Main power supply is shut down.</li> <li>RST power supply is cut off.</li> </ol>					
Solution		Confirm R	Confirm RST power supply of driver.					
Alarm ID	OP-072			Alarm title	【System has performed power-off retract】			
Description	ı	System has performed power-off retract.						
Possible Ca	nuse	<ol> <li>Detect Syntec M3 driver power-off abnormally.</li> <li>1. Parameter Pr1041~Pr1060 has setting retract value.</li> <li>2. Syntec M3 driver supports power-off retract function.</li> </ol>						
Solution		After con	After confirm power supply, reboot controller and driver.					
Alarm ID	OP-07 3	Alarm title	Alarm [Pr3816 or Pr3829 is changed. Tool compensation value will be cleare after reboot.]					
Descripti on	Controller has detected that Pr3816 or Pr3829 is changed. Prompt user after reboot controller and driver, tool compensation value will be cleared.							
Possible Cause	<ol> <li>User has modified Pr3816 or Pr3829.</li> <li>Modified Pr3816 or Pr3829 when import/restore parameter.</li> </ol>							
Solution	<ol> <li>Set Pr3816 and Pr3829 back to initial setting value before reboot controller and driver, and tool compensation won't be cleared.</li> <li>Reset to remove alarm.</li> </ol>							

Alarm ID		OP-074	Alarm	title	【Tool compensation value is cleared. Please reset it.】	
Description		Reboot controller and driver after modified Pr3816, tool compensation value is cleared. Please reset it.				
Possible Cause		<ol> <li>User has modified Pr3816 or Pr3829.</li> <li>Modified Pr3816 or Pr3829 when import/restore parameter.</li> </ol>				
Solution		<ol> <li>Reset tool compensation value.</li> <li>Reboot controller and driver to remove alarm.</li> </ol>				
Alarm ID	OF	P-075 Ala	arm title	[Wireless handheld box packet is lost]		
Description	Wi	reless handhel	d box packet	has lost over 100 ti	mes in 10 minutes.	
Possible Cause	Wi	reless receivin	g device does	n't receive correct	handheld box packet.	
Solution		<ol> <li>Confirm wireless receiver antenna has been installed and faces up.</li> <li>Handheld box and receiver distance must be shorter than 10 meter and no obstacle in between.</li> <li>Increase wireless receiver noise resistant ability. i.e. add magnetic ring.</li> <li>Separate wireless receiver's USB cable and power cable.</li> </ol>				
Alarm ID		OP-076 A		ı title	[Wireless handheld box packet CRC is abnormal]	
Description		Wireless han	dheld box pa	cket CRC has abnor	mal check over 100 times in 10 minutes.	
Possible Cause		Wireless receiver has noise interference.				
Solution		<ol> <li>Confirm wireless receiver antenna has been installed and it faces up.</li> <li>Handheld box and receiver distance must be shorter than 10 meter and no obstacle is in between.</li> <li>Increase wireless receiver noise resistance ability. i.e. add magnetic ring.</li> <li>Separate wireless receiver's USB cable and power cable.</li> </ol>				
Alarm ID		OP-077 Ala		title	[Driver parameter read and write permission has changed.]	
Description		Driver parameter read and write permission has changed. Please reboot controller and driver to read driver parameter.				

Alarm ID	OP-077	Alarm title	[Driver parameter read and write permission has changed.]		
Possible Cause	<ol> <li>Connected driver parameter read and write permission isn't fixed. It depends on driver parameter.</li> <li>System detects driver parameter read and write permission isn't complete open, and will automatically activate read and write permission.</li> </ol>				
Solution	Wait for a while after power on, reboot controller and driver to remove alarm. Note: Some brands' driver need to wait for driver to save parameter. And each brand's saving time needed is different. If user cut off power too early, the alarm may still exist. It is recommended to wait for one minute.				
Alarm ID	OP-078	Alarm title	[Unexpected Error]		
Description	Controller dete	ects unexpected error.			
Possible Cause	An unexpected	condition appears.			
Solution	Please contact	Syntec OEM.			
Alarm ID	OP-079	Alarm title	[Assigned connect device doesn't exist.]		
Description	Can't find assigned connect device.				
Possible Cause	<ol> <li>Controller network card doesn't exist.</li> <li>EnIP Macro program assigned 'Network card number' or 'Slave ID' is incorrect.</li> </ol>				
Solution	<ol> <li>Please contact Syntec OEM.</li> <li>Check EnIP Macro program assigned 'Network card number' or 'Slave ID' whether is correct.</li> </ol>				
Alarm ID	OP-080	Alarm title	【Driver initialize. Take too much time to pre-read.】		
Description	Controller can't communicate with driver normally, or driver parameter takes too much time to pre-read.				
Possible Cause	<ol> <li>Controller can't communicate with driver normally.</li> <li>A critical alarm on the drive caused the initialization to fail.</li> <li>Take too much time to read driver parameter.</li> </ol>				

Alarm ID	OP-080	Alarm	title	[C to p	Driver initialize. Take too much time pre-read.]	
Solution	<ol> <li>Reboot co</li> <li>Solve all o</li> <li>Decrease</li> <li>Please co</li> </ol>	<ol> <li>Reboot controller and driver.</li> <li>Solve all drive critical alarms.</li> <li>Decrease Pr3202 interpolation time, then reboot controller and driver.</li> <li>Please contact Syntec OEM.</li> </ol>				
Alarm ID	OP-081	Alaı	rm title		[ATC has an important alarm]	
Description	ATC (auto tool crashing.	ATC (auto tool change) has an critical alarm, CNC and ROT will stop to avoid machine crashing.				
Possible Cause	ATC process ca	nnot be pe	erformed success	fully, A	TC has an critical alarm.	
Solution	After troublesh	oot ATC al	arm, Reset to ren	nove al	arm.	
Alarm ID	OP-082		Alarm Title		[ESI file read failed]	
Description	Abnormal to	Abnormal to read the ESI file imported by the user.				
Possible Cause	1. User impo	1. User imports more than ESI files				
Solution	1. Delete ESI 2. After delet EtherCAT dr	<ol> <li>Delete ESI file user imported with SA.</li> <li>After deleting ESI file, must re-import ESI file to communicate with corresponding EtherCAT driver.</li> </ol>				
Alarm ID	OP-083	Alar	m Title 2	(Miniı ms on	mum effective interpolation time is dual core systems]	
Description	The minimum e Pr3203 is set be	The minimum effective interpolation time is 2ms on dual core systems. If the value of Pr3203 is set below 2,000,				
	the controller w	the controller will run as if it were 2,000.				
Possible Cause	The value of Pr3	The value of Pr3203 is less than 2,000.				
Solution	Modify the valu and the driver.	Modify the value of Pr3203 so that it is NO LESS THAN 2,000 and reboot the controller and the driver.				
Alarm ID	OP-084		Alarm Title		[PLC.lad abnormal]	

Descrip	tion	When the system loads the PLC ladder diagram, the file is found abnormal.				
Possible	<ol> <li>PLC.lad not exist.</li> <li>PLC ladder diagram's execution line number more than 4000 lines (not include notation line numbers).</li> </ol>					
Solution	n	<ol> <li>Re-import PLC.lad and reboot controller.</li> <li>PLC ladder diagram's execution line number should not exceed 4000 lines (not include notation line numbers).</li> </ol>				
Alarm II	D	OP-085	Alarm Title	[PLC ladder diagram syntax error]		
Descrip	tion	When the system load	ds the PLC ladder diag	ram, the file is found syntax error.		
Possible	e Cause	PLC ladder diagram s	syntax error.			
Solution	ion1. Re-import correct PLC.lad and reboot controller.2. Correct PLC ladder diagram in edit mode, and reboot controller.			ot controller. node, and reboot controller.		
Alarm ID	OP-089	Alarm Title	Alarm Title Register of subscribed channel located in system reserved area			
Expla natio n	The initial register of subscribed channel is set in the system reserved area.					
Possi ble C ause	<ol> <li>The initial target register R(n) of subscribed channel is set to CNC system interface area.</li> </ol>					
Soluti on	luti 1. Assign the correct register					
Alarm ID	OP-090	Operation         Operation <t< th=""><th>ng error of subscribing channel</th></t<>		ng error of subscribing channel		
Descr iption	<b>scr</b> Information setting error of subscribing channel when applying specific functions. <b>:ion</b>					
Possi ble C ause	<ol> <li>When applying the subscribing channel as dual feedback inspection function, the corresponding channel data is not position feedback (includes position feedback, controller monitoring position feedback, controller monitoring 2nd position feedback)</li> </ol>					
Soluti on	1. Please Pr241	e check if the subscribing channel data set by the axis card port number corresponding to ~Pr260 axis dual feedback is position feedback.				
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Alarm ID		OP-091	Alarm title	[System has serious error before the previous power off, re- calibrate before machining]		
Description		The controller dete	ected a serious error in the	system before the previous power off.		
Possible Cause		The system has an	unexpected error before th	ne previous power off.		
Solution		<ol> <li>Check whether machining setting data is correct.</li> <li>Reboot controller and driver.</li> <li>Please contact Syntec OEM, to confirm the cause of the serious error before the previous power off.</li> </ol>				
Alarm I	D	OP-094	Alarm title	[Setpoint Axis major alarm occurred]		
Descrip	tion	Setpoint Axis has major alarm, CNC will stop to avoid machine crashing.				
Possible Cause		Setpoint Axis has alarm or drive alarm.				
Solution		After clearing Setpoint Axis alarm and drive alarm, this alarm will be cleared.				
Alarm ID		OP-095	Alarm title	[System has serious exception, please reboot the system]		
Descrip	tion	The controller detec	cted a serious error in the s	ystem, please reboot system immediately.		
Possibl	e Cause	The system has an unexpected error, that will cause system instability.				
Solution		Reboot controller and driver.				
Alarm I	D	OP-096	2-096 Alarm title [Loader axis group use non Syntee M3 drive]			
Descrip	tion	The axis of loader axis group (Pr733, Pr734) can use only Syntec M3 drive or virtual axis.				
Possibl	e Cause	The axis of loader axis group is not Syntec M3 drive and virtual axis.				

Solution	The axis of loader axis group change to use Syntec M3 drive or modify parameter Pr21~
	to be virtual axis.

Note: OP-096 support version: 10.118.48Y, 10.118.52S, 10.118.56M, 10.118.60G, 10.118.66A and earlier.

Alarm ID	OP-097	Alarm title	【Independent axis group (Pr741=1) check error】		
Description	When Pr741 is 1, t into independent 1. Except wh 2. It is not all axis group	the system will make axis g axis group. The following r en Pr742 is set to 1, an axis lowed to use the "axis exch is, and it is also prohibited t	roup, which specified by Pr733~ and Pr737, estrictions apply: can only assigned to one axis group. ange" and "axis coupling" functions across to use setpoint axis		
Possible Cause	<ol> <li>Pr741 is set to 1 by mistake.</li> <li>When Pr741 is set to 1 and Pr742 is not set to 1, the system axes under the independent axis group are also assigned to other axis groups (Pr701~).</li> <li>When Pr741 is 1, at least one group of axes set by the axis exchange and axis coupling functions (Pr3721~, Pr3821~) are assigned to different axis groups.</li> <li>When Pr741 is 1, there is at least one setpoint axis that is assigned to independent axis group.</li> </ol>				
Solution	<ol> <li>Pr741 is set to 0.</li> <li>Check Pr701~ setting and confirm the axis of independent axis group is only used by an unique independent axis group.</li> <li>Check Pr3721~, Pr3821~ setting and make sure the axis ID can not specify axis of independent axis group.</li> <li>Check the setting of 【*Belonging to axis group ID】 of setpoint axis parameter, which can not use independent axis group ID.</li> </ol>				
Alarm ID	OP-098	Alarm title	【The version of the serial parameter file is incompatible】		
Description	The serial parameter definition file placed during the driver update is incompatible.				
Possible Cause	The driver firmware version does not match the controller version.				
Solution	<ol> <li>Update the compatible ve</li> <li>Update the compatible ve</li> </ol>	e driver firmware v ersion. e controller softwa ersion.	ersion to the controller re version to the driver		

Alarm ID	OP-099	Alarm Title	[Illegal Setting for Independent Axis Groups (Pr732=2)]		
Description	<ol> <li>If Pr732 is set to 2, the following restrictions apply :</li> <li>1. Except that Pr742 is set to 1, one axis can only be associated to ONE axis group.</li> <li>2. Inter-Axis Group use of the following functions are NOT allowed:         <ul> <li>a. Axis Exchange.</li> <li>b. Axis Coupling.</li> <li>c. ECAM.</li> </ul> </li> </ol>				
Possible Cause	<ol> <li>Pr732 is unexpectedly set to 2.</li> <li>When Pr732 is set to 2, Pr742 is not set to 1, and at least one axis is assigned to multiple axis groups (Pr701~).</li> <li>When Pr732 is set to 2, there exists inter-axis group use of the following functions:         <ul> <li>Axis Exchange.</li> <li>Axis Coupling.</li> <li>ECAM.</li> </ul> </li> </ol>				
Solution	<ol> <li>Modify Pr732 so that it is not equal to 2.</li> <li>Modify Pr701~ so that each axis belongs uniquely to ONE axis group. If the axis needs to be used among multiple axis groups, change Pr742 to 1 and use it as a roaming axis.</li> <li>Modify Pr3721~, Pr3821~ so that there is no inter-axis setting.</li> <li>Check and modify the setting of ECAM so that there is no inter-axis setting.</li> </ol>				
Alarm ID	OP-099	Alarm Title	【Illegal Trigger of Halted Point Return】		
Description	When the axis group independent function is turned on (Pr732 is set to 2), if multiple axis groups execute custom pause point return at the same time, Then only the axis group that first triggered the return of the custom pause point can be executed correctly. The rest of the axis groups will not be executed (will not be cyclically started).				
Possible Cause	When the axis group independent function (Pr732 is set to 2) and the custom pause point return function (Pr3852 is set to 1) are both enabled, Simultaneously trigger multiple axis groups to execute custom pause point return.				
Solution	After the execution of the axis group that first triggered the return of the custom pause point is completed, the cycle start of other axis groups is triggered again.				
Supported versions: 10.118.86L, 10.120.16L, 10.120.24B, 10.120.27 and previous versions.					

Alarm ID	OP-101	Alarm Title	[EtherCAT-IO communication error]		
Description	EtherCAT-IO com Example: Accordi for 2ms; 4 consect	munication is abnormal cong to the communication to the communication to the communication to the errors for 3ms.	ontinuously for over 10 ms. time setting( Pr3203 ), 6 consecutive errors		
Possible Cause	1. EtherCAT of 2. Noise inter	communication cable is lo rference.	ose.		
Solution	<ol> <li>Check whether the settings of the IO device are correct.         <ul> <li>a. Pr3261~Pr3263</li> <li>b. Pr3281~Pr3288, EtherCAT Setting Wizard (Supported versions: 10.118.82H, 10.118.86B, 10.118.89 and after)</li> </ul> </li> <li>Check if the communication cable is normal.</li> <li>Replace communication cables.</li> <li>Reboot controller and IO device.</li> </ol>				
Alarm ID	OP-102	Alarm Title	[EtherCAT devices exceeds the number of supported stations]		
Description	EtherCAT devices connected in series exceeds the number of stations supported by controller.				
Possible Cause	More than 16 EtherCAT devices are connected in series.				
Solution	Please reduce the number of EtherCAT device stations connected in series.				
Alarm ID	OP-103	Alarm Title	[Drivers connected don't support SPA3.0]		
Description	The current configuration of controller and drivers don't support SPA3.0.				
Possible Cause	Controller doesn't connent any Syntec driver or software version of Syntec driver is lower than 4.4.0, 5.2.2.				
Solution	<ol> <li>If there is n</li> <li>If there is a</li> <li>5.2.2 or hig</li> </ol>	o Syntec driver connectec connected Syntec driver: her.	: change Pr3850 to be 0, use SPA2.0 instead. update software of Syntec driver to 4.4.0,		

Alarm ID		OP-104	Alarm Title	【Inclined Axes control configure failed】	
Descript	ion	Configuring incline	d axes control fails.		
Possible Cause		<ol> <li>Inclined axis or orthe axis's axis type is rotary axis.</li> <li>Inclined axis or orthe axis is assigned to different coordinate or multiple coordinates.</li> <li>Inclined axis or orthe axis is actived axis exchange function.</li> <li>Inclined axis or orthe axis is actived roaming axis function.</li> <li>Inclined axis or orthe axis is actived axis coupling function.</li> </ol>			
Solution		<ol> <li>Please modify Pr221~, and assign inclined axis or orthe axis's axis type is linear axis.</li> <li>Please modify Pr701~, and assign inclined axis and orthe axis are same single coordinate.</li> <li>Please modify Pr3721~ so that inclined axis or orthe axis isn't actived axis exchange.</li> <li>Same as no.2 suggestion, when inclined axis and orthe axis are assigned same single coordinate, it don't deal with as roaming axis.</li> <li>Please modify Pr3821~ so that inclined axis or orthe axis isn't assigned axis</li> </ol>			
Alarm ID		OP-105	Alarm Title	[Indexing Axis configure failed]	
Descript	ion	Configuring indexing axis fails.			
Possible Cause		<ol> <li>Indexing axis is assigned to non first group or multiple groups.</li> <li>Axis type of indexing axis is linear axis or rotary axis Type C~E.</li> <li>Indexing axis is assigned to spindle.</li> <li>Indexing axis is actived axis exchange function.</li> <li>Indexing axis is actived axis coupling function.</li> </ol>			
Solution		<ol> <li>Please modify Pr701~, and assign indexing axis to first group.</li> <li>Please modify Pr221~, and assign axis type of indexing axis is rotary axis Type A or Type B.</li> <li>Please modify Pr1621~, don't assign indexing axis as spindle.</li> <li>Please modify Pr3721~ so that indexing axis isn't actived axis exchange.</li> <li>Please modify Pr3821~ so that indexing axis isn't assigned to coupling axis.</li> </ol>			
Alarm ID	OP-106	Alarm Title	[Tension Control	Axis ID Conflict]	
Descri ption	<ol> <li>Tension control (tension control coupling function, advanced tension control function) has detected the master and slave axes have the same or repeat number.</li> <li>Tension control coupling function and advanced tension control function are enabled at the same time.</li> </ol>				

Alarm ID	OP-106	Alarm Title	[Tension Control Axis ID Conflict]
Possibl e Cause	<ul> <li>The valu</li> <li>The valu</li> <li>The sam Pr5851, I</li> <li>The sam Pr5862 a</li> <li>Pr2901, I zero valu</li> <li>One of m (the adv</li> </ul>	e of Pr2901 and Pr2906 e of Pr2902 and Pr2907 e master ID of advanced Pr5861 and Pr5871. e slave ID of advanced t nd Pr5872. Pr2902, Pr2906, Pr2907 le at the same time. master ID of tension control f	(master ID of tension control couple function) are same. (slave ID of tension control couple function) are same. d tension control has been set at Pr5821, Pr5831, Pr5841, rension control has been set at Pr5822, Pr5832, Pr5842, Pr5852, and Pr58X1, Pr58X2 (X=2~7) Set at least one of them to non- trol couple function group is same with slave ID of other group. unction has no such limitation)
Solutio n	Change t tension o	the conflicted axis ID as control, or set master ID	mentioned above to other axis ID which is not assigned to and slave ID to 0 for disabling conflicted tension control.

New Version is 10.118.86K, 10.120.16K, 10.120.24B, 10.120.27 and after Old Version is 10.118.86J, 10.118.94 and before

New Version	Old Version					
Alarm ID	OP-107-	1 Alarm title	rm title [EtherCAT parameter file is missing]			
Descriptio n	None of I executio	None of DeviceInfo in the controller has .dat, backup files .mir and .lkn. Causes software execution abnormality				
Possible Cause	All Ether	All EtherCAT parameter files and backup files are lost.				
Solution	Do syste	Do system backup immediately, contact Syntec OEM and restart the system.				
Alarm ID		OP-107-2	Alarm title	[EtherCAT parameter file is corrupted]		
Description		The .dat, backup files .mir and .lkn of DeviceInfo are corrupted. Causes software execution abnormality				
Possible Cause		The EtherCAT parameter file or backup file exists, but the system fails to load or initialize.				
Solution		Do system backup im	nmediately, contact Synte	c OEM and restart the system.		

Alarm ID	OP-107-3	Alarm title	[EtherCAT topology conflict]		
Description	Linked ECAT devices and the settings of ECAT configuration file are different.				
Possible Cause	<ol> <li>Part of the EtherCAT devices are removed from the topology.</li> <li>The connection order of the EtherCAT devices has been changed.</li> <li>The connection between devices is unstable.</li> <li>Device power supply abnormality.</li> </ol>				
Solution	<ol> <li>Without device change intendency         <ul> <li>Make sure the cable connections between the devices are secure.</li> <li>Make sure the power supply of the devices are stable.</li> </ul> </li> <li>With device change intendency         <ul> <li>Update the configuration file through EtherCAT setting wizard.</li> </ul> </li> </ol>				

New Version	Old Versio	<u>in</u>				
Alarm ID		OP-107	Alarm Title	[EtherCAT topology conflict]		
Description		Linked ECAT devices and the settings of ECAT configuration file are different.				
Possible Cause		<ol> <li>Part of the EtherCAT devices are removed from the topology.</li> <li>The connection order of the EtherCAT devices has been changed.</li> <li>The connection between devices is unstable.</li> <li>Device power supply abnormality.</li> </ol>				
Solution		1. Without device of 1.1 Make sure the of 1.2 Make sure the p 2. With device char 2.1 Update the con	change intendency cable connections between the power supply of the devices a nge intendency figuration file through Ethere	ne devices are secure. are stable. CAT setting wizard.		
Alarm ID	OP-108	Alarm Title	[Auto gantry calibration	n cannot be enabled】		

Alarm ID	OP-108	Alarm Title	[Auto gantry calibration cannot be enabled]	
Description	The parameter setting error when automatic gantry calibration function is turned on.			

Alarm ID	OP-108 Alarm Title [Auto gantry calibration cannot be enabled]			[Auto gantry calibration cannot be enabled]		
Possible Cause	Possible CauseWhen automatic gantry calibration function is turned on(Pr3830~ is set to 1), the particular set as follows1. Pr3823~、 Pr3824~ is not the same 2. Pr3825~ is not set to 2 					
Solution		<ol> <li>Turn off the automatic gantry calibration function(Pr3830~ is set to 0)</li> <li>Adjust the parameter setting         <ul> <li>a. Pr3823~、Pr3824~ is set to same value</li> <li>b. Pr3825~ is set to 2</li> <li>c. Pr3828~ is not set to 0</li> <li>d. Pr3821~、Pr3822~ setting is not repeated</li> </ul> </li> </ol>				
Alarm ID	OP-1	-109 Alarm Title 【Tension Control Enable Failed】				
Descri ption	1	1. Failed to enable tension control (tension control coupling function, advanced tension control function) with C-bit interfaces.				
Possibl e Cause	<ul> <li>Pr2901, Pr2902, Pr2906, Pr2907 master and slave port numbers are not set, ON C137~C138 to enable tension control coupling function.</li> <li>Pr58X1, Pr58X2 (X = 2~7) master and slave axis numbers are not set, ON C311~C316 to enable advanced tension control function.</li> </ul>					
Solutio n	<ul> <li>set the master and slave numbers correctly in specific group of tension control, restart the system, and then use C-bit to enable tension control.</li> </ul>					

### 2.1 Controller Model Axial Port Number Setting List

Note: Below chart version is based on 10.116.38N, 10.116.54L, 10.118.0G, 10.118.7 and above, olde version may be slightly different.

Model	Pulse M2		МЗ		ECAT	RTEX	Virtu al
			Single Axis	Multi- Axis			Axis
7MA/7TA/7TA PLUS 60PA/60PC/60PE 81RS/81RD/81RA/ 81RG 81RA PLUS/81RG PLUS 6TD-E 70SB 60DB (FC type) 60WA/60WB/63WA/ 600WA/630WA (FC type) 70CB/70CB-5/ 710CA/730CA 60CB 63CA (FC type) 72BA/720BA/73BA/ 730BA 720SA/730SA 730WA 630SA			1~16, 21~22 (Note 2*)	1000~101 0 2000~201 0  16000~16 010	1~16 (No te 3*)		17~1



Model	Pulse	M2	МЗ		ECAT	RTEX	Virtu al
			Single Axis	Multi- Axis			Axis
HC-7C/HC-7C PLUS         HC-8C/HC-10C/         HC-10C PLUS/         HC-15C/HC-15C         PLUS         HC-8C-5/HC-10C-5/         HC-15C-5         HC-8E/HC-8E PLUS/         HC-10E/HC-10E         PLUS/HC-15E/         HC-80MI         22MA/22MA PLUS/         22TA/22TA PLUS/         22TB/22TB PLUS         220MA/220MA         PLUS/220MB/         220MB-5/220MB-5         PLUS/         220MA-5/220MA-5         PLUS/         220MB-5/220TB PLUS         71SA/710SA         FC-B/FC-B-5/FC-C/         FC-D         7GA/8GA         22GA/23GA         90GRA/90GRB/			1~16, 21~22 (Note 2*)	1000~101 0  16000~16 010	1~16 (No te 3*)	1~16 (Note 7*)	17~1

Model	Pulse M2	МЗ		ECAT	RTEX	Virtu al	
			Single Axis	Multi- Axis			Axis
6TD-H 70CB/70CB-5	19 (Note 4*)	1~16	1~16, 21~22 (Note 2*)	1000~101 0 2000~201 0  16000~16 010	1~16 (No te 3*)	-	17~1 8
6MD-H 21MA-H/21TA-H/ 21TB-H 210MA-H/210MB-H/ 210TB-H 210MA-H5/210MB- H5/210TB- H5/610MA-H5 610WA-H/610WB-H	19 (Note 4*)	1~16	1~16, 21~22 (Note 2*)	1000~101 0 2000~201 0  16000~16 010	1~16 (No te 3*)	1~16 (Note 7*)	17~1 8
6MA-E/6MB-E/6TA-E 21MA-E/21TA-E/ 21TB-E 6GA-E/ 21GA-E 210MA-E/ 210MB-E/ 210TB-E 210MA-E5/ 210MB- E5/ 210TB-E5/ 610MA-E5	19 (Note 4*)	-	1~16, 21~22 (Note 2*)	1000~101 0 2000~201 0  16000~16 010	1~16 (No te 3*)	1~16 (Note 7*)	17~1 8
HC-80GM 70CA 80S 60DB(SCD Type) 60WA(SCD Type)	-	-	1~16, 21~22 (Note 2*)	1000~101 0 2000~201 0  16000~16 010	-	-	17~1 8

Model Pulse		M2 M3	М3		ECAT	RTEX	Virtu al
			Single Axis	Multi- Axis			Axis
6D 21MA/21TA/21TB HC-8B/HC-10B/ HC-12B/HC-15B 60PB 21MA-X/21TA-X/ 21TB-X 200MA/200MB/ 200TA/200TB 200MA-X/200MB-X/ 200TA-X/200TB-X 200MA-X5/200MB-X/ 200MA-X5/200MB-X/ 5	19 (Note 4*)	1~16	-	-	-	-	17~1 8
20MA-R / 20TA-R	19 (Note 4*)	-	-	-	-	1~16	17~1 8
FC-A 60CA	1~4	-	-	-	-	-	17~1 8
HC-8S 3TA/3TS 6MA/6TA/6CA/6MB/ 6TB/6CB/6B-GG 11MA//11TA HC-8A/HC-10A/ HC-12A/HC-15A	1~7	-	-	_	-	_	17~1 8
11MB/11TB	1~11	-	-	-	-	-	17~1 8

Model	Pulse M	M2	М3		ECAT	RTEX	Virtu al
			Single Axis	Multi- Axis			Axis
10MA/10TA/10MC/ 10TC/10MD/10TD/ 10ME/10TE/10MF/ 10TF 11MA-X/11TA-X EZ	1~5	-	-	-	-	-	17~1 8
10MB/10TB 11MB-X/11TB-X	1~10 (Note 5*)	-	-	-	-	-	17~1 8
Super/Super-X/ Super-X5	5 * Axis Board Number (Not e 6*)	-	-	-	-	-	17~1 8

Note 2: Only version 10.118.3 and above support 21~22 setting.

Note 3: List the current **maximum number of axis** that can be connected by **one single brand**. For the number of axis that can be connected by each brand, refer to EtherCAT Servo Device Communication Development Progress.

Note 4: this pulse port is SP port.

Note 5: please check 10MB/10TB Pr13 needs to set as 2.

Note 6: Refer to Pr13 Number of servo card for axis board number detail setting.

Note 7: List the current **maximum number of axis** that can be connected by **one single brand**. For the number of axis that can be connected by each brand, refer to RTEX Driver Application Manual..

### 2.2 OP-001 Axis board parameter setting error or abnormal hardware

Alar m ID	OP-001	Alarm Title	Axis board parameter setting error or abnormal hardware
Descr iptio n	Controller does not detect the hardware interrupt signal (old axis board: one interpolation interval sends one signal. new axis board: 0.5ms sends one signal		

Possi ble Caus e	<ol> <li>Controller parameters setting error.</li> <li>CPU BIOS setting error.</li> <li>Axis board error or DIP switch setting error.</li> <li>Axis board and ISA SLOT have poor contact or axis board oppressed ISA SLOT.</li> <li>Memory too low (less than 1MB).</li> <li>Controller failed to establish communication with the drive (other than Yaskawa, Syntec). (Other driver brand's manufacturer code must be able to read via the communication command, the model format must be start with "S3P_")</li> </ol>
Solut ion	<ol> <li>Check whether controller Pr1 *Motion board base address setting is set according to hardware specifications (refer to application manual parameter explanation).</li> <li>Check whether BIOS' IRQ11 setting is Legacy ISA.</li> <li>Check DIP switch of axis board.</li> <li>Check if the 1<sup>st</sup> axis board's disconnection signal ISR has short circuit (other axis boards must open).</li> <li>Replace the Axis board to avoid the poor contact due to dirt and foreign foreign debris between axis board and ISA slot.</li> <li>If fail to set up communication, please ask driver vendor to contact with Syntec OEM if needed, and will cooperate to fix driver software.</li> </ol>

## 2.3 OP-002 Parameter storage access failure, system halt

Alarm ID	OP-002	Alarm Title	Parameter storage access failure, system halt
Description	System fails to set System parameter \DiskC\OpenCNC\I When CNC can't fir damaged while bo default. Note: If system is x86, \D if system is ARM, \I	up PARAM.DAT and PARAM. file name is PARAM.DAT. Ar backup file name is PARAM KN. nd or both normally use and oting, system will reset thes iskC is in first piece of CF car DiskC is in first piece of Flash	LKN. nd will save in \DiskC\OpenCNC\Data. .LKN, and will save in I backup system parameter file are se two files according to parameter rd; n.
Possible Cause	1. x86 System 2. ARM Syster	: 1 <sup>st</sup> peice of CF card is out c n: 1 <sup>st</sup> piece of Flash is out of	of action. Faction.

Solution	x86 System:
	<ol> <li>Unplug controller first CF card, and plug CF card's card reader into personal computer. Execute driver repairmen to CF card on personal computer and recopy backup parameter PARAM.DAT into controller dictionary in \DiskC\OpenCNC\Data.</li> <li>Change first CF card. (Please notice first piece of CF card need to install boot system and CNC core software.)</li> </ol>
	ARM System: 1. Please contact Syntec OEM.

### 2.4 OP-003 Parameter storage access failure, system halt

Alarm ID	OP-003	Alarm Title	Parameter storage access failure, system halt			
Description	System fail to set up REGISTRY.DAT、REGISTRY.LKN and REGISTRY.MIR. Process data file name when use normally is REGISTRY.DAT, exist in dictionary on \DiskA\OpenCNC\USER. First backup process data file name when is REGISTRY.LKN, exist in dictionary on \DiskA\OpenCNC\LKN. Second backup process data file name when is REGISTRY.MIR, exist in dictionary on \DiskA\OpenCNC\MIR. When it can't find or both normally use and backup system parameter file are damaged at boot time, system will reset these three files according to parameter default. Note:					
	Is system is ARM, \DiskA is in first piece of Flash.					
Possible Cause	<ol> <li>x86 system</li> <li>ARM system</li> </ol>	: second CF card malfunctio n: second Flash card mulfun	n. ction.			
Solution	<ol> <li>x86 system and change</li> <li>ARM system then restore</li> </ol>	: If alarm kept happening, p e the second piece of CF carc n: If alarm kept happening, p e user data.	lease backup user data into new CF card d. blease backup user data and format DiskA			

### 2.5 OP-004 Machining data loss, re-calibrate before machining

Alarm ID OP-004 Alarm Title	Machining data loss, re-calibrate before machining
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Description	Once booted, controller will re-load the system registry file backed up before last power off into memory. After loading, if controller discovers the last shutdown state is busy or if the register file and the first backup file are damaged, one alarm will be sent to the user.
	The name of registry file is REGISTRY.DAT, saved with file path D:\CNC\USER. The first backup registry file is REGISTRY. MIR, saved with file path D:\CNC\ MIR. The second backup file of registry is REGISTRY. LKN, saved with file path D:\CNC\ LKN
	Note:
	If system is x86, DiskA is in first piece of CF card.
	If system is ARM, DiskA is in first piece of Flash.
Possible Cause	1. Shut down or power off controller in busy state.
	2. File REGISTRY.DAT is damaged.
	3. x86 system : second piece of CF card is broken. ARM system : second piece of Flash is broken.
Solution	<ol> <li>If all machining data is confirmed to be normal, cut off power and reboot controller and driver to clear alarm.</li> </ol>
	2. x86 system: If alarm kept happening, please backup user data into new CF card and change the second CF card.
	3. ARM system: If alarm kept happening, please backup user data and format DiskA then restore user data.

### 2.6 OP-005 I/O transmission error

Alarm ID	OP-005	Alarm Title	I/O transmission error		
Description	When PIO5 of Watch Dog fails, the system will display warning				
Possible Cause	<ol> <li>Pr5 setting doesn't match hardware structure, for example:         <ul> <li>a. 22A doesn't dispose HK adapter plate.</li> <li>b. 10B/10F doesn't configure two RIO when Pr5=8.</li> </ul> </li> <li>IO relative module (PIO5/RIO) malfunction.</li> <li>Not supplied external 24V Voltage to RIO or RIO cable malfunction.</li> <li>Motherboard overheats (Check System Data No. 39)</li> <li>Controller ground cable is influenced by noise.</li> <li>Motherboard malfunction.</li> </ol>				

Solution	<ol> <li>Set correct Pr5 parameter value according to hardware configuration.</li> <li>Change IO relative model (PIO5/RIO).</li> <li>Supply power to RIO correctly and check RIO cable.</li> </ol>
	4. Check if electic cabinet fan works normally.
	5. Check machine has grounding correctly.
	6. Change Motherboard
	7. If HK adapter board is not used, please refer to custom I/O comparison table manual. Set Pr5 to 100 and set IO point (HK, MPG, PANEL-EX) on adapter board to disable (-1).
	8. According to 7. If RIO is not used, please sets RIO point to disable. (-1)

# 2.7 OP-006 Permanent storage data CRC check failure, re-calibrate before machining

Alarm ID	OP-006	Alarm Title	Permanent storage data CRC check failure, re-calibrate before machining	
Description	IO card hardware error.			
Possible Cause	<ol> <li>IO card malfunction.</li> <li>Fram CRC error.</li> <li>Fram has not initialized.</li> <li>For 10F, 200 Series controller restore backup data when CRC error.</li> <li>Wrong setting of DIP switch when using two pieces of PIO5.</li> </ol>			
solution	<ol> <li>Change IO</li> <li>Please upg</li> <li>Reboot co</li> <li>Correctly s</li> </ol>	D card. Igrade to 10.112.95, 10.114.29 or later version. Ontroller and driver. set PIO5 dip switch.		

### 2.8 OP-007 Low memory, memory space is less than 1M

Alarm ID	OP-007	Alarm title	Low memory, memory space is less than 1M		
Description	System memory less than 1MB.				
Possible Cause	Developer designed controller HMI with too much components, graphs or pictures, and leading to memory less than 1MB.				
Solution	Designing controll and component ca	roller HMI need to reduce excessive components. Use effective variable It can avoid consuming too much memory.			

### 2.9 OP-008 Fatal low memory, memory space is less than 100K

Alarm ID	OP-008	Alarm title	Fatal low memory, memory space is less than 100K	
Description	System memory is less than 100k.			
Possible Cause	Developer designed controller HMI with too much components, graphs or pictures, and leads to memory less than 100 KB.			
Solution	Reduce excessive of component can av	components when designing controller HMI. Use effective variable and void consuming too much memory.		

### 2.10 OP-009 The Interpolation calculation time exceeds 30ms

Alarm ID	OP-009	Alarm title	The Interpolation calculation time exceeds 30ms			
Description	The Interpolation	The Interpolation calculation time is more than 30 ms.				
Possible Cause	Too much calculation during interpolation process, which exceeds system loading.					
Solution	Please contact Syntec OEM.					

### old version ( before 10.118.82E, 10.118.86 )

Alarm ID	OP-009	Alarm title	The number of interpolation loss times is bigger than 100		
Description	System Data No.54 (Interpolation delay times) is more than 100. Interpolation delay: Axis card doesn't send the command calculated by last interpolation time, the system will ignore the interpolation value to avoid unsent command value be covered and cause order missing.				
Possible Cause	The setting of interpolation time interval ( Pr3203 ) is too small, which exceeds system loading.				
Solution	<ol> <li>Increase Pr3203 interpolation time interval set value.</li> <li>Please contact Syntec OEM.</li> </ol>				

Alarm ID	OP-010	Alarm title	Path setting error		
Description	<ol> <li>When no path operates completely independently, numbers of paths are discontinuous.</li> <li>When each path operates completely independently, no axis belongs to CNC main system path.</li> </ol>				
Possible Cause	Parameter setting er Ex: Assume that the mac Situation 1 Pr701=1, Pr702=1, Pr The CNC main syster belongs to second pa Situation 2 Pr701=1, Pr702=4, Pr The CNC main syster the path setting skip	ror thine exists XYZ axis, each asso 703=1, Pr732=2 and Pr731=2. In path has the first path and th ath, controller will issue this als 703=8, Pr731=3, Pr732=0/1 and n path sets the first path, the th s the second path, controller w	ciated path is set as follows: he second path. But without axis arm. d Pr731=3 hird path and the fourth path, and <i>v</i> ill issue this alarm.		
Solution	Please check Pr701~ number setting value	se check Pr701~Pr720 axis affiliated path and Pr731 CNC main system path ber setting value.			

### 2.11 OP-010 Path setting error

### 2.12 OP-011 Pause point offset error

Alarm ID	OP-011	Alarm title	[Pause point offset error]			
Descripti on	<b>Sti</b> When use multi-path in machining, with axis belongs to Plural path in different workpiece coordinate system. If user operators inappropriately, when modifying workpiece coordinate du block stop, axis offset will be different in each path. This condition will cause controller system can't send out correct moving command.					
Possible Cause	<ol> <li>When char path.</li> <li>When char value is dif</li> </ol>	nging axis workpiece coon nging all axis affiliated pa ferent.	rdinate system, user doesn't revise that axis all affiliated ths' workpiece coordinate, each affiliated changing			

Alarm ID	OP-011	Alarm title	[Pause point offset error]
Solution	<ol> <li>Please mal (Refer to P</li> <li>Please mal in different</li> </ol>	ke sure affiliated path, tha r701~Pr702 axis affiliated ke sure that axis workpiec t affiliated path.	at axis's workpiece coordinate system all changed. path) e coordinate system revision value will all be the same

# 2.13 OP-012 CF card set by Pr3219 error, check CF card or system setting value

Alarm ID	OP-012	Alarm title	CF card set by Pr3219 error,check CF card or system setting value			
Description	When CNC uses Do inserted, system m	When CNC uses Dos, if we set Pr3219 equal to 3 and second CF card (user data) is not inserted, system mis-used REGISTRY.DAT data in order to avoid CF card malfunction.				
Possible Cause	<ol> <li>The system doesn't have the 2<sup>nd</sup> CF card or cannot read the 2<sup>nd</sup> CF card.</li> <li>The system has two CF cards, but both CF card has only one partition disk.</li> </ol>					
Solution	<ol> <li>Check whether the 2<sup>nd</sup> CF card exists or there is CF card reading error.</li> <li>Set the first card to the default state, which is having wo partition disks condition.</li> <li>Set parameter 3219 to 0 and all use C:</li> </ol>					

## 2.14 OP-013 Software version and model can't driver hardware, call your vender!

New Version is 10.118.86K, 10.120.16K, 10.120.24B, 10.120.27 and after Old Version is 10.118.86J, 10.118.94 and before

1	New Version Old Ve	ersion			
	Alarm ID	OP-013-1	Alarm title	[Hardware configur support dual-core fur	ation does not nction]
Description		Hardware configuration does not support dual-core function. Before eliminating alarm, if user move the machine, controller will issue following error alarm.			

Possible Cause	Controller installed software version that hardware doesn't support.				
Solution	Please contact and provide backup file to Vendor-Syntec.				
Alarm ID	OP-013-2	OP-013-2 Alarm title [EEPROM information error]			
Description	EEPROM information Before eliminating ala error alarm.	error. arm, if user move the mach	ine, controller will issue following		
Possible Cause	Controller installed so	oftware version that hardw	are doesn't support.		
Solution	Please contact and p	rovide backup file to Vendo	r-Syntec.		
Alarm ID	OP-013-3 Alarm title [Servo type(Pr9) setting error ]				
Description	Servo type( Pr9 ) setting error. Before eliminating alarm, if user move the machine, controller will issue following error alarm.				
Possible Cause	Controller installed so	Controller installed software version that hardware doesn't support.			
Solution	Please check Servo ty	pe( Pr9 ) value is correct.			
Alarm ID	OP-013-4	Alarm title	[FPGA bin file does not exist]		
Description	FPGA bin file does not Before eliminating ala error alarm.	FPGA bin file does not exist. Before eliminating alarm, if user move the machine, controller will issue following error alarm.			
Possible Cause	Controller installed so	Controller installed software version that hardware doesn't support.			
Solution	Please contact and provide backup file to Vendor-Syntec.				
Alarm ID	OP-013-5	OP-013-5 Alarm title [Fail to load FPGA bin file]			
Description	Fail to load FPGA bin file. Before eliminating alarm, if user move the machine, controller will issue following error alarm.				

Possible Cause	Controller installed software version that hardware doesn't support.			
Solution	Please contact and provide backup file to Vendor-Syntec.			
Alarm ID	OP-013-6 Alarm title [Cannot recognize Hardware ID]			
Description	Cannot recognize Hardware ID. Before eliminating alarm, if user move the machine, controller will issue following error alarm.			
Possible Cause	Controller installed software version that hardware doesn't support.			
Solution	Please contact and pr	Please contact and provide backup file to Vendor-Syntec.		

New Version

**Old Version** 

Alarm ID	OP-013	Alarm title	Software version and model can't driver hardware, call your vender!		
Description	Controller installed software version that hardware doesn't support. Before eliminating alarm, if user move the machine, controller will issue following error alarm.				
Possible Cause	<ol> <li>Hardward</li> <li>EEPROM</li> <li>Servo typ</li> <li>FPGA bin</li> <li>Fail to load</li> <li>Cannot red</li> </ol>	<ol> <li>Hardware configuration does not support dual-core function.</li> <li>EEPROM information error.</li> <li>Servo type( Pr9 ) setting error.</li> <li>FPGA bin file does not exist.</li> <li>Fail to load FPGA bin file.</li> <li>Cannot recognize Hardware ID.</li> </ol>			
Solution	<ol> <li>Please contact and provide backup file to Vendor-Syntec.</li> <li>Please contact and provide backup file to Vendor-Syntec.</li> <li>Please check Servo type( Pr9 ) value is correct.</li> <li>Please contact and provide backup file to Vendor-Syntec.</li> </ol>				
	5.Please contac 6.Please contac	ct and provide backı ct and provide backı	up file to Vendor-Syntec. up file to Vendor-Syntec.		

### old version (before 10.118.86)

Alarm IDOP-013Alarm titleSoftware version and model can't driver hardware, call your vender!	
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Description	Controller installed software version that hardware doesn't support. Before eliminating alarm, if user move the machine, controller will issue following error alarm.
Possible Cause	<ol> <li>Controller install software version that hardware doesn't support.         <ul> <li>a. EZ milling machine doesn't support version after 10.114.</li> <li>b. 10A/B doesn't support version after 10.116.10.</li> <li>c. 20A/B doesn't support version after 10.116.10.</li> <li>d. Software doesn't support the FPGA device.</li> <li>e. Pr9 *Servo board type doesn't support the FPGA device.</li> </ul> </li> <li>Controller has changed both motherboard or CF card and IO card at the same time, so it causes hardware information incompatible. Machine code dropped to EZ so it can't support original software version.</li> </ol>
Solution	<ol> <li>Install software version that hardware supports.         <ul> <li>EZ milling machine standard configures 10.112 version. If user want to use higher version, user need to open software option function Option1 [EZ2/3/4 upgrade 10A software function].</li> <li>10A/B because of memory issue, if user wants to use higher version, recommend to change into 10F.</li> <li>20A/B because of memory issue, if user wants to use higher version, recommend to change into 200A/B.</li> <li>Please contact and provide backup file to Vendor-Syntec.</li> <li>Please contact Vendor-Syntec to solve hardware information incompatible problem and reset controller serial code.</li> </ul> </li> </ol>

### 2.15 OP-014 WinCE option not enabled, call your vender!

Alarm ID	OP-014	Alarm title	WinCE option not enabled, call your vender!		
Description	Controller installs WinCE version software, and WinCE function option is not activated, so axis card can't send command which cause the controller issue following error alarm after machining start.				
Possible Cause	Option software function Option2. "Controller upgrades WinCE system" is not activated.				
Solution	<ol> <li>Re-install Dos version.</li> <li>Please contact Syntec OEM, to open option software function Option2 "Controller upgrades WinCE system"</li> <li>Super controller doesn't have this error.</li> </ol>				

## 2.16 OP-015 The output contacts are overloaded; please check for any abnormal wiring

Alarm ID	OP-015	Alarm title	[The output contacts are overloaded; please check for any abnormal wiring]	
Description	Controller detects PLC O point overloading. Sixteen O point as a group. When one O point in that group overloads 350 mA will send out alarm of O point in that range is overloading.			
Possible Cause	<ol> <li>Loads more than 350mA.</li> <li>Output connection point is short circuit.</li> <li>Machine has electricity leakage</li> <li>machine loading device is aged.</li> </ol>			
Solution	<ol> <li>Verify load power consumption.</li> <li>Verify that the output is not short-circuited.</li> <li>Machine grounding.</li> <li>Replace load equipment for testing.</li> </ol>			

### 2.17 OP-016 Straightness compensation function configuration error

Alarm ID	OP-016	Alarm Title	Straightness compensation function configuration error	
Descripti on	Straightness offset axis se	accuracy offset fu etting.	nction current supplies at most five groups of moving axis and	
	In each grou the correspo	p, the compensation anding offset axis' of	on position of the "at least two and at most twenty" moving axis and compensation amount must be entered.	
	Therefore, when the system detects that the straightness compensation function parameter setting error, the controller issues this alarm.			
Possible Cause	<ol> <li>Multi groups of moving axis are corresponding to same offset axis simultaneously.</li> <li>Moving axis is also offset axis.</li> </ol>			
	3. Activa 4. Activa posit	ate straightness ac ate straightness ac ions.	curacy offset's moving axis and offset position descends. curacy offset's moving axis and offset position is less than two	

Alarm ID	OP-016	Alarm Title	Straightness compensation function configuration error
Solution	<ol> <li>Check numb</li> <li>a</li> <li>b</li> <li>Check</li> <li>Posit</li> <li>a</li> <li>b</li> <li>Expansion</li> </ol>	k Pr1481~Pr1490 S per . map multiple se . configure movin k Pr7001~Pr7025 S ion of each group' . fill in increasing . fill in at least two nd 2D linear comp	traightness offset moving axis number and compensating axis ts of moving axes to different offset axis. g axis not as an offset axis. traightness offset moving axis position and Pr7051~Pr7125* s compensation point in moving axis pitch compensation form compensation position order. o and at most twenty compensation positions. ensation function (20%), supported versions: 10.118.12E, 10.118.15.

## 2.18 OP-017 Port number or I point mapped to handwheel error

Alarm ID	OP-017	Alarm Title	Port number or I point mapped to handwheel error	
Description	Pr2021~Pr2027 setting error.			
Possible Cause	<ol> <li>Pr2021~Pr2 not suppor</li> <li>Pr2024~Pr2 supported.</li> <li>Pr13 *Num</li> </ol>	<ol> <li>Pr2021~Pr2030 *Port number or register number for MPG port number setting is not supported.</li> <li>Pr2024~Pr2027 *Continued I-Bit no. for MPG two continues I points setting is not supported.</li> <li>Pr13 *Number of servo card setting error.</li> </ol>		
Solution	<ol> <li>Refer to the controller of 2. Check when</li> </ol>	e description in the manual for correct configurations according to t code. ther Pr13 *Number of servo card setting is correct or not.		

### 2.19 OP-018 Port configuration error

Alarm ID	OP-018	Alarm Title	Port configuration error
Description	Pr21~Pr40 * Axis corresponding axis card port number or Pr1621~Pr1630 Axis ID or Port Number for Spindle setting error.		
	Serial PLC Axis, ROT port number setting error.		
	Pr3261~Pr3263 *M3-IO Station No setting error.		

Alarm ID	OP-018	Alarm Title	Port configuration error
Possible Cause	<ol> <li>Pr21~Pr40 ax axis) can be r</li> <li>Pr21~Pr40 ax axis) can be r</li> <li>When using v Pr1621~Pr16</li> <li>When using S number setti</li> <li>Serial Bus co Variable-freq with other se</li> <li>When using s (Pr1621~Pr1 (Pr21~Pr40)</li> <li>Pr3261~Pr32 Pr1621~Pr16</li> <li>Serial PLC ax</li> <li>Pulse contro port number</li> <li>Pr13 *Number</li> <li>The servo dri subscribed ir</li> <li>The servo dri subscribed in</li> <li>The servo dri subscribed in</li> <li>The servo dri number</li> </ol>	<ul> <li>axis port number setting is not supported.</li> <li>axis port number setting is repeated, only number 17, 18 (virtual repeated.</li> <li>variable-frequency spindle (Pr1791~Pr1800 sets as 0),</li> <li>630 spindle port number setting is not supported.</li> <li>SRI DA spindle (Pr1791~Pr1800 sets as 7), Pr1621~Pr1630 register ting is not at User-defined</li> <li>ontroller uses variable-frequency spindle (Pr1791~Pr1800 sets as 0).</li> <li>equency spindle port number (Pr1621~Pr1630) can't have conflict serial bus controller port number.</li> <li>servo spindle (Pr1791~Pr1800 sets as 1~4), the axis ID of spindle</li> <li>1630 ) does not exist or the corresponding axis port number</li> <li>is not enabled.</li> <li>263 port number setting has conflict with axis (Pr21~Pr40, .630).</li> <li>axis and ROT port number is not supported.</li> <li>oller which is 10.116.54L, 10.118.0G, 10.118.7 and above version, if ar hardware setting is not supported, this alarm will be triggered.</li> <li>ber of servo card setting error</li> <li>rive does not support Channel Subscription function.</li> <li>rive setted for Channel Subscription function is unconnected.</li> <li>ystem controller which is 10.118.74H, 10.118.82F, 10.118.86A, nd above version, inverter spindle does not support setting spindle does not support setting spindle are(Pr1621~) to 20.</li> </ul>	
Solution	<ol> <li>Refer to the I number.</li> <li>Configure the serial servo p</li> <li>When using S number in Pr</li> <li>Check wheth each other, a</li> <li>For pulse cor wants to use virtual axis.</li> <li>Check if Pr13</li> <li>Check if the p correctly.</li> <li>For Linux sys 10.118.87 and not 20. Use 1</li> </ol>	Description in the parameter r e port number in Pr1621~Pr16 ports, set to 19 is recommende SRI DA spindle (Pr1791~Pr1800 1621~Pr1630 in User-defined ter Pr3261~Pr3263 and Pr21~F and correct the conflict. Introller version 10.116.54L, 10 virtual axis, please set as 17/1 * Number of servo card is set parameter setting for Channel tem controller which is 10.118 d above version, please check 7~19 instead.	manual to configure the correct port 530 which is not conflict with other ed. D sets as 7), configure the port region. Pr40, Pr1621~Pr1630 conflict with 118.0G, 10.118.7 and above, if user 18, or use G10 L800 to specify the correctly. I Subscription function is set 8.74H, 10.118.82F, 10.118.86A, a that spindle port number(Pr1621~) is

## 2.20 OP-019 Prohibit to switch the metric and imperial systems in machining/not ready state

Alarm ID	OP-019	Alarm Title	Prohibit to switch the metric and imperial systems in machining/not ready state		
Descrip tion	When sys	When system is Busy or Not Ready, can't switch into Metric and Imperial units via HMI operation.			
Possibl e Cause	When sys	When system is Busy or Not Ready, switch into Metric and Imperial units via HMI operation.			
Solutio n	Avoid to s	switch the met	ric and imperial systems in Busy or Not Ready state via HMI operations.		

### 2.21 OP-020 M code setting conflict

Alarm ID	OP-020	Alarm title	M code setting conflict	
Description	<ol> <li>When the fol cause setting         <ol> <li>Pr359</li> <li>Pr360</li> <li>Pr360</li> <li>Pr360</li> <li>Pr380</li> <li>Pr374</li> </ol> </li> <li>When Pr3599</li> <li>98, 99, 198, ir</li> <li>When Pr3600</li> <li>98, 99, 197, 1</li> <li>When Pr3742</li> <li>98, 99, 197, 1</li> <li>When Pr3763</li> <li>198, it is con</li> </ol>	lowing M code related param g conflict. 99 *Register M code for Advan 00 *Register custom Macro int 01~Pr3610 *M code Macro call 04 Part count M code 11, Pr3743 Rotary axis auxiliar 0 *Register M code for Advanc t is conflicted with M1/M2/M30 0 *Register custom Macro inte 98, it is conflicted with M1/M2 1, Pr3743 Rotary axis auxiliary 98, it is conflicted with M1/M2 18, Pr3743 Rotary axis auxiliary 98, it is conflicted with M1/M2 198, it is conflicted with M1/M2 198, it is conflicted with M1/M2	eter setting has repeated M code and ced Look-Ahead mode errupt M code registry y brake M code ed Look-Ahead mode set as 1, 2, 30, 0/M98/M99/M198. errupt M code sets as 1, 2, 29, 30, 97, 2/M30/M98/M99/M198. brake M code set as 1, 2, 29, 30, 97, 2/M30/M98/M99/M198. Axis set as 1, 2, 29, 30, 97, 98, 99, 197, M99/M198.	
Possible Cause	As stated above.			
Solution	After modifying the controller and drive	above parameter settings so r r.	that no conflict exist, reboot the	

## 2.22 OP-021 Use last known user data, re-calibrate user data before machining

Alarm ID	OP-021	Alarm title	Use last known user data, re-calibrate user data before machining
Description	The controller's machine data and workpiece data information are stored in Registry.dat and Workpiece.dat respectively, and has three backups of .mir, .lkn and .cdb. If either .dat and .mir are abnormal and cannot be used, the system will use .lkr or .cdb to restore the data. If the Registry is abnormal, the machining file name will be cleared.		
Possible Cause	<ol> <li>X86 system (with CF card): It is possible that the CF card is damaged, caused machine data also damaged.</li> <li>ARM system (without CF card): DISKA damage results in damage to machine data</li> <li>Machine data and other data are damaged, restored from DISKA or DISKC backu</li> </ol>		
Solution	<ol> <li>Reset or ch</li> <li>Scan CF ca</li> <li>Reboot con</li> </ol>	neck whether the machine ard disk. ntroller and driver.	data is correct.

## 2.23 OP-022 User data rebuild, re-calibrate user data before machining

Alarm ID	OP-022	Alarm title	User data rebuild, re-calibrate user data before machining	
Description	None of Registry, files .mir, .lkn and	None of Registry, ToolTable and ScanTable in the controller has .dat, backup files .mir, .lkn and .cdb. User data is rebuilt.		
Possible Cause	<ol> <li>X86 system (with CF card): CF2 card may has been replaced or formatted, causing user's original data and backups being cleared out.</li> <li>ARM system (without CF card): DISKA and DISKC are damaged or formatted, causing user's original data and backups being cleared out.</li> <li>The possible file corruption situations are listed below.         <ul> <li>a. Machine data, other data, and their relative backups are all destroyed.</li> <li>b. Tool table data and its backups are all destroyed.</li> <li>c. Scan table data and its backups are all destroyed.</li> </ul> </li> </ol>			
Solution	<ol> <li>Reset the r and driver</li> <li>If this alarn DISKC.</li> <li>If alarm sti malfunction</li> </ol>	c. Scan table data and its backups are all destroyed. Reset the machine data, tool table and scan table data, and then reboot controlle and driver. If this alarm still cannot be eliminated after reboot, format CF2/DISKA and CF2/ DISKC. If alarm still cannot be eliminated after format, CF2/DISKA and CF2/DISKC are malfunction and need repair.		

Alarm ID	OP-023	Alarm title	Power break in machining, re-calibrate before machining			
Descriptio n	When new machin flag into Fram or F been stored. While controller b	When new machining data need to be stored during Cycle Start, the controller will store a state flag into Fram or REGISTRY.DAT, and it will be removed when the specified data have already been stored. While controller booting, if this flag is not cleared, this alarm will be issued.				
Possible Cause	The power is turn	ed off when new machini	ng data not yet been stored during machining process.			
Solution	<ol> <li>The power is turned off when new machining data not yet been stored during machining process.</li> <li>Please re-calibrate your machining data. For example,         <ul> <li>Check the Imperial/Metric (G70/G71) unit selection.</li> <li>Check the home point, offset, and rotational angle of the coordinate system corresponding to the G92/G92.1/G68.2/G68.3 command.</li> <li>Check the tool number and the compensation amount of the tool length compensation command (G43).</li> <li>Check the settings of the 2nd Software Stroke Limit command (G22).</li> <li>Check the values stored in the the persistent variables and R bit, i.g. Macro @656~@1999, R100~R255, R10000~R10999.</li> <li>For more details, please refer to Registry Data/L Variable List.</li> </ul> </li> <li>After completing step 1, following the following step by version :         <ul> <li>For software version 10.118.40B, 10.118.41 or above, please trigger "reset" to clear alarm.</li> <li>For other versions, please restart the controller to clear alarm.</li> </ul> </li> <li>Way to avoid: Avoid switching the power off during machining. Or, trigger C47 to store the machining data before cwitching the power off</li> </ol>					

### 2.24 OP-023 Power break in machining, re-calibrate before machining

### 2.25 OP-024 Machine data file write fail, re-calibrate before machining

Alarm ID	OP-024	Alarm title	Machine data file write fail, re-calibrate before machining
Description	Before shutting down controller, the last writing of REGISTRY.DAT or REGISTRY.MIR file is unsuccessful.		
Possible Cause	<ol> <li>CF card is damaged.</li> <li>REGISTRY.DAT or REGISTRY.MIR files are set as read-only.</li> <li>System file processing device's resource is not sufficient, lead to writing file unsuccessful.</li> </ol>		

Solution	<ol> <li>Scan CF card disk.</li> <li>Check whether machining setting is correct.</li> </ol>
	3. Reboot controller and driver.

## 2.26 OP-025 Machine data file write fail many times, re-calibrate before machining

Alarm ID	OP-025	Alarm title	Machine data file write fail many times, re-calibrate before machining
Description	Before shutting down controller, the accumulated unsuccessful of writing REGISTRY.DAT or REGISTRY.MIR file exceed 100 times.		
Possible Cause	<ol> <li>CF card damaged.</li> <li>REGISTRY.DAT or REGISTRY.MIR file is set to read-only.</li> <li>System's file processing device resource is not sufficient, lead to writing file unsuccessful.</li> </ol>		
Solution	<ol> <li>Scan CF ca</li> <li>Check whe</li> <li>Reboot co</li> </ol>	rd disk. ether machining setting is correct. ntroller and driver.	

# 2.27 OP-026 Machine data file fault error, re-calibrate before machining and do scan disk

Alarm ID	OP-026	Alarm title	Machine data file fault error, re-calibrate before machining and do scan disk	
Description	Before shut 100 times c	Before shutting down controller, unsuccessful of writing REGISTRY.DAT or REGISTRY.MIR file exceed 100 times continuously happened.		
Possible Cause	<ol> <li>CF card damaged.</li> <li>REGISTRY.DAT or REGISTRY.MIR file is set to read-only.</li> <li>System's file processing device resource is not sufficient, lead to writing file unsuccessful.</li> </ol>			
Solution	1. Scar 2. Chee 3. Reb	n CF card disk. ck whether mac oot controller a	hining setting is correct. nd driver.	

### 2.28 OP-027 CNC main system axis group to be executed unselected

Alarm ID	OP-027	Alarm Title	CNC main system axis group to be executed unselected	
Description	No CNC main syste	No CNC main system path is chosen and cycle start triggered.		
Possible Cause	<ul> <li>Please check R21 value:</li> <li>1. Chosen path not exists or not belongs to CNC main system path.</li> <li>2. No CNC main system path is chosen (Only happens when R21.11 status is ON).</li> </ul>			
Solution	<ol> <li>Check if an path is not</li> <li>Select an e</li> </ol>	ny logic error when PLC triggers R21 option, which results in the correct t selected successfully. existing CNC main system path via R21.		

### 2.29 OP-028 Prohibit CNC main system axis group switch in machining

Alarm ID	OP-028	Alarm Title	Prohibit CNC main system axis group switch in machining
Description	When CNC is under Not Ready state, change CNC main system path that was going to be executed and triggers cycle start.		
Possible Cause	Please check R21 value, whether it is different from original process condition. (Change the chosen CNC main system path that was going to be executed)		
Solution	Modify R21 to the	value in the original machir	ning status, then can continue machining.

### 2.30 OP-029 CNC axis over system support

Alarm ID	OP-029	Alarm Title	CNC axis over system support
Description	Assign too much ax path).	is that belongs to a normal p	ath (Not Loader or Wood auxiliary

Alarm ID	OP-029	Alarm Title	CNC axis over system support		
Possible Cause	<ul> <li>Refer to following parameter setting, when the axis number of a normal path exist the limit of system axis number, this alarm will be issued.</li> <li>1. Pr701~Pr720 *Axial associate axis groups</li> <li>2. Pr733~Pr734 *Loader axis group</li> <li>3. Pr737 * Wood Auxiliary axis group</li> <li>4. Pr1601~Pr1620 *Axis Application Property</li> <li>For example: Use 21MA, standard configuration is 6 axis. If 8 axis is activated (activate software option function Option20 [Loader axis number expansion]/ Option37 [Wood auxiliary axes]) and configures following parameter settings</li> <li>1. Pr701~Pr704 sets as 1, number 1~4 axis are first path.</li> <li>2. Pr705~Pr708 sets as 2, number5~8 axis are second path.</li> <li>3. Pr733, Pr734 and Pr737 all set as 0, no path is Loader/ Wood auxiliary path.</li> </ul>				
Solution	Check and correct t 1. Pr701~Pr720 2. Pr733~Pr734 3. Pr737 * Woo 4. Pr1601~Pr16 Based on the above fulfilled with the Low Only 4 axis belongs exceed the standard	he following parameter settir Axial associate axis groups Coder axis group d Auxiliary axis group Auxiliary axis group Axis Application Property example, in case of the 2 <sup>nd</sup> p ader path, Pr733 set as 2 to sp to a normal path as system a d 21MA axis number configura	ngs: / / / / / / / / / / / / / / / / / / /		

# 2.31 OP-030 Debug mode is activated, disable debug mode to resume normal operation.

Alarm ID	OP-030	Alarm Title	Debug mode, disable debug mode to resume normal operation.			
Description	Active debug mod	Active debug mode, Pr3221 set as 1 or 2.				
Possible Cause	As stated above.					
Solution	Disable the debug mode, Pr3221 set as 0.					

### 2.32 OP-031 GANTRY robot option not enabled

Alarm ID	OP-031	Alarm Title	GANTRY robot option not enabled		
Descriptio n	Pr3201 activate robot function, but software option function Option24 is not activate [Cartesian Coordinate Robot Type]. (Currently only 10.117 version has this alarm.)				
Possible Cause	Pr3201 is different from correspond controller's machine mode.				
Solution	<ol> <li>Enable Option</li> <li>In case of not</li> </ol>	24 [Cartesian Coordinate Robo robot, configure Pr3201 correct	t Type] for GANTRY type robot. :ly.		

### 2.33 OP-032 Mechanism type configuration conflicted

Alarm ID	OP-032	Alarm Title	Mechanism type configuration conflicted			
Description	Pr3201 Machine T	ype setting conflict	ed.			
Possible Cause	<ol> <li>Currently only the following mechanism type support five axis function;</li> <li>Pr3201 sets as 0, close lathe feature. (Use general milling interface)</li> <li>Pr3201 sets as 1, Lathe Habit Type C.</li> <li>Pr3201 sets as 2, Lathe Habit Type A.</li> <li>Pr3201 sets as 3, Lathe Habit Type B.</li> </ol>					
	Therefore, open b machine tool feat inform user.	oth five axis (Pr300 ure's mechanism ty	1, Pr3101, Pr5501, Pr5601) and other non-lathe/mill pe (Pr3201) at the same time, and alarm will be issued to			
	For example:					
	<ol> <li>Activate first group of five axis function (Pr3001 isn't 0. First path default to use first five axis kinematic chain) and first path is not lath/mill machine tool attribute. (Pr3201 in first path is not 0~3)</li> <li>Activate second group of five axis function (Pr3101 isn't 0. Second path default use second five axis kinematic chain) and second path is not lath/mill machine tool attribute. (Pr3201 in second path is not 0~3)</li> </ol>					
	Besides, when act Center Point funct Tool Center Point sets five axis mech be issued.	ivate option softwa tion (4AXRTCP)), hc (RTCP)) and Option nanism parameter l	are function Option 29 (Four axis dedicated Rotate Tool wever, and option software function Option 12 (Rotate 1 13 (Feature coordinate function) are not activated, but Pr3001, Pr3101, Pr5501, Pr5601 as 1~3, and this alarm will			

Alarm ID	OP-032	Alarm Title	Mechanism type configuration conflicted			
Solution	Only the milling machine supports the 5-axis models. Configure Pr3201 to 0~3, or configure the mapped 5-axis function parameters (Pr3001, Pr3101, Pr5501 and Pr5601) to 0.					
	[Note] In the versions after the 10.116.54G and 10.118.0D, the lathe can enable RTCP and is limited to 200TB-5.					
	<ol> <li>Only lathe/mill machine tool supports five axis machine type. Please sets Pr3201 as 0<sup>-</sup> or sets corresponding five axis function parameter as 0. (Pr3001, Pr3101, Pr5501, Pr5601)</li> </ol>					
	<ol> <li>Active RTC versions.</li> </ol>	P for Lathe 200TB-	5. Supported version: 10.116.54G, 10.118.0D or above			
	3. Please sets please ope Option 13	s five axis mechanis en software option (Feature coordinat	sm parameter Pr3001, Pr3101, Pr5501, Pr5601 as 4 or 5, or function Option 12 (Rotate Tool Center Point (RTCP)) and e function).			

### 2.34 OP-033 Do not set machine position during machining

Alarm ID	OP-03 3	Alarm Title	Do not set machine position during machining			
Descripti on	Using C025 ~ and C230 ~ to set machine position when machining					
Possible Cause	Using C025 ~ and C230 ~ to set machine position when machining					
Solution	Do not use C025 ~ and C230 ~ to set machine position when machining.					

### 2.35 OP-041 Machining file inexistent in the specific path

Alarm ID	OP-041	Alarm Title	Machining file inexistent in the specific path	
Description	System can't find ECAM.xml in designated path, so can't activate cam function.			
Possible Cause	<ol> <li>File name is wrong.</li> <li>File location is wrong.</li> </ol>			
Solution	Check the ECAM.xml.			

### 2.36 OP-042 Machining program data error, please check NC File

Alarm ID	OP-042	Alarm Title	Machining program data error, please check NC File	
Description	ECAM.xml file format is wrong.			
Possible Cause	Self edit ECAM.xml, and format is wrong.			
Solution	Check the ECAM.xml.			

### 2.37 OP-043 ECAM group more than 8 groups

Alarm ID	OP-043	Alarm Title	ECAM group more than 8 groups		
Description	Too much ECAM group.				
Possible Cause	Self edit ECAM.xml, sets up too many ECAM groups.				
Solution	Check the graphic dialog input to ensure the configured number of CAM groups is appropriate.				

### 2.38 OP-044 CAM curves more than 32 lines

Alarm ID	OP-044	Alarm Title		CAM curves more than 32 lines	
Description	Too much cam curve line.				
Possible Cause	Self edit ECAM.xml, sets up too many cam curve line.				
Solution	Check the graphic dialog input to ensure the configured number of CAM curves is appropriate.				

#### Alar **OP-04** Alarm CAM curve speed planning failed m ID 5 Title Desc Fail to plan cam curve speed. ripti on Possi 1. Cam curve design doesn't match movement parameter. ble 2. Movement parameter setting is not reasonable. Caus 3. Doesn't execute re-read after fixing insertion point through R value. е Solut 1. Check if the planned CAM curve line is reasonable under the limit of machine motion ion configurations. 2. Correct the machine motion parameter within the reasonable range. 3. Re-read R values and set C300 to On.

### 2.39 OP-045 CAM curve speed planning failed

### 2.40 OP-046 ECAM – no driven axis name

Alarm ID	OP-046	Alarm Title	ECAM – no driven axis name		
Description	Electronic cam-Can't find axis name.				
Possible Cause	Pr321~Pr340 axis name is not set.				
Solution	Check and correct P	Pr321~340 setting.			

### 2.41 OP-047 Use Non self-defined R value or too many R values

Alarm ID	OP-047	Alarm Title	Use non self-defined R value or too many R values.		
Description	R value used is out of self-defined range or insertion point sets over 100 R value.				
Possible Cause	<ol> <li>Use non self-defined R value.</li> <li>Self-edit ECAM.xml, insertion point sets over 100 R value.</li> </ol>				
Solution	Check ECAM.xml, if the R value of workpiece counts and the insert point are out of user self-defined range, and whether insertion point used over 100 R value.				
#### 2.42 OP-048 Curve insert point re-read R value failed

Alarm ID	OP-048	Alarm Title	Curve insert point re-read R value failed	
Description	When re-read R value, electronic cam is under coupling mode.			
Possible Cause	Electronic cam group is under coupling mode.			
Solution	Release all CAM coupling and set S301~S308 to Off.			

#### 2.43 OP-050 SRI status error

Alarm ID	OP-050	Alarm Title	SRI status error		
Description	SRI condition abnormal.				
Possible Cause	Please check the followed SRI alarm, and refer to SRI Alarm -SRI.				
Solution	Refer to the solution of followed SRI alarm. After resolving the issue, reboot controller and driver.				

#### 2.44 OP-051 M3-IO communication error

Alarm ID	OP-051	Alarm Title	M3-IO communication error	
Description	M3-IO communication abnormal and cause watchdog has accumulated over 100 errors.			
Possible Cause	<ol> <li>M3 communication cable is loose.</li> <li>Noise interference.</li> <li>Using the laser cruise function without installing the ADD-on card.</li> </ol>			
Solution	<ol> <li>Check if the communication cable is normal.</li> <li>Replace communication cables.</li> <li>Reboot controller and driver.</li> <li>Check whether the laser cruise function is required. If necessary, confirm that the ADD-on card is installed correctly.</li> </ol>			

#### 2.45 OP-052 M3-IO device status error

Alarm ID	OP-052	Alarm Title	M3-IO device status error	
Description	Controller detects M3-IO device is abnormal through M3 communication.			
Possible Cause	M3-IO card abnormal.			
Solution	<ol> <li>Check if the M3-IO card is inserted securely.</li> <li>Check the setting of Pr3261~Pr3263.</li> <li>Reboot controller and driver.</li> </ol>			

### 2.46 OP-053 Serial communication initialization failed

Supported versions: 10.118.86L, 10.120.16L, 10.120.24B, 10.120.27 and previous versions.					
Alarm ID	OP-053	Alarm Title	Serial communication initialization failed		
Description	When controller fail to communicate with driver.				
Possible Cause	<ol> <li>Driver is abnormal.</li> <li>Driver or controller hardware malfunction.</li> <li>When Pr9 sets as EtherCat communication, and driver is not connected.</li> <li>When Pr9 sets as RTEX communication, and driver is not connected.</li> <li>M3 multi-axis driver, the first station is not set.</li> </ol>				
Solution	<ol> <li>Reboot the controller and driver.</li> <li>Replace the driver, if it is not effective, the controller hardware may be malfunctioned.</li> <li>Connect EtherCAT driver.</li> <li>M2 / M3 initialization error code display on D53, please contact the Syntec OEM and provide D53 value.</li> <li>Set the first station, or enlarge the set value of Pr3203 (interpolation time).</li> <li>Note: For EtherCAT communication error, refer to EtherCAT Drive Application Manual</li> </ol>				

# 2.47 OP-054 Multi-axis driver initialization failed

Alarm ID	OP-054	Alarm Title	Multi-axis driver initialization failed
Description	Multi-axis driver ini	itialization failed.	

Alarm ID	OP-054	Alarm Title	Multi-axis driver initialization failed
Possible Cause	first servo axis function is not activated when using multi-axis driver and cause initialization failure. Note: This alarm has be removed in 10.116.36P and above version. Multi-axis drive don't have to activate first servo axis.		sing multi-axis driver and cause and above version. Multi-axis driver
Solution	Activate first servo axis in multi-axis driver, reboot the controller and driver.		oot the controller and driver.

#### 2.48 OP-055 M3 communication error

Alarm ID	OP-055	Alarm Title	Drive information reading error	
Description	Failed to read all drives' information.			
Possible Cause	<ol> <li>Communication between controller and driver is not stable, causing the M3 drive message or EtherCAT drive mailbox communication takes too much time.</li> <li>M3 Drive doesn't support M3 message communication.</li> </ol>			
Solution	<ol> <li>Check the wiring of the communication cable between the controller and the drive and resolve the causes for unstable communication.</li> <li>If it is M3 network, check if the connected drives support the M3 message communication.</li> </ol>		cable between the controller and the e communication. d drives support the M3 message	

# 2.49 OP-056 Some axial directions cannot Servo ON. System cannot operates.

Alarm ID	OP-056	Alarm Title	Some axial directions cannot Servo ON. System cannot operates.
Description	When there is axis servo not servo on, cycle start or other manual function is triggered.		
Possible Cause	<ol> <li>When power on, axis doesn't complete magnetic pole angle detection and cause servo disabled.</li> <li>Driver power supplication is abnormal or there is driver alarm, and cause servo change from servo on condition into disabled condition.</li> <li>Driver is malfunction.</li> </ol>		
Solution	<ol> <li>After power on, wait for a while then operate the machine.</li> <li>Check if the driver power supply status is normal and if there is driver alarm.</li> <li>Check if the driver is normal.</li> </ol>		operate the machine. us is normal and if there is driver alarm.

# 2.50 OP-057 Tool retraction function, hand wheel shift only supports R518, R519 set to 0

Alarm ID	OP-057	Alarm title	【Tool retraction function, hand wheel shift only supports R518, R519 set to 0】	
Description	When usii to move.	When using G10.6 toll retraction function, R518, R519 must be set as 0, then user can use MPG to move.		
Possible Cause	R518, R519 is not 0.			
Solution	Set R518, R519 to 0.			

#### 2.51 OP-058 Burn mode. All I/O connections to servo is disconnected

Alarm ID	OP-058	Alarm Title	Burn mode. All I/O connections to servo is disconnected
Description	When controller and driver is burning firmware, user can't operate driver's servo axis or IO device.		
Possible Cause	Executed controller remote update driver firmware.		
Solution	Reboot the controller and driver.		

#### 2.52 OP-059 Motion control module loading failed. Reinstall software

Alarm ID	OP-059	Alarm Title	Motion control module loading failed. Reinstall software		
Descri ption	Fail to load	Fail to load because of controller internal file is lost or destroyed.			
Possibl e Cause	Controller install package is destroyed.				
Solutio n	Download and re-install the controller installation package.				

Alarm ID	OP-060	Alarm Title	M3-IO device number configuration error	
Description	Controller M3-IO device number setting error.			
Possible Cause	When using M3-IO device number repeated.			
Solution	Check if Pr3261~3263 value is repeated.			

#### 2.53 OP-060 M3-IO device number configuration error

#### 2.54 OP-061 M3 external device status error

Alarm ID	OP-061	Alarm Title	M3 external device status error		
Description	Controller M3 external device's communication condition is abnormal.				
Possible Cause	<ol> <li>M3 communication cable is loose.</li> <li>Noise interference.</li> <li>M3 external device is abnormal.</li> </ol>				
Solution	<ol> <li>Check if communication cable is normal.</li> <li>Change communication cable.</li> <li>Check if M3 external device is firmly connected.</li> <li>Reboot controller and driver.</li> </ol>				

# 2.55 OP-062 Customized IO mapping table destroyed

Alarm ID	OP-062	Alarm Title	Customized IO mapping table destroyed
Description	When using custon	n IO mapping table, there is	error in reading files.

Alarm ID	OP-062	Alarm Title	Customized IO mapping table destroyed
Possible Cause	<ol> <li>Custom IO n</li> <li>Custom IO n</li> <li>Software 10 setting or b issue.</li> <li>Software 10 with two DA backup files</li> <li>Software 10 custom IO s into old ver</li> </ol>	mapping table is incomplete mapping table version is inco 0.118.9 or above version's cu ackup files into older version 0.118.11 or above version's c A input (Scan in Interpolation s into old version, there will 0.118.24A, 10.118.25A, 10.118 supports single IO setting, if sion, there will be version in	e, destroyed or missing. ompatible with software version. stom IO supports SRI. If downgrade after n, there will be version incompatible ustom IO supports M3-IO expansion card n time), if downgrade after setting or be version incompatible issue. 3.28N, 10.118.38 or above version's downgrade after setting or backup files compatible issue.
Solution	<ol> <li>Enter the IC mapping ta</li> <li>Use Restore</li> </ol>	) configuration page, and res ble. e function, confirm the backu	store default value, then re-set IO up file is normal and restore.

# 2.56 OP-063 Custom IO mapping table setting conflicts

Alarm ID	OP-063	Alarm title	【Custom IO mapping table setting conflicts】	
Description	There is conflict in IO point setting when using custom IO mapping table.			
Possible Cause	Custom IO mapping table I point or O point setting repeated.			
Solution	<ol> <li>Enter IO setting screen, modify the conflicting IO points.</li> <li>Reboot controller and driver.</li> </ol>			

# 2.57 OP-064 Configured as custom IO. Review the IO mapping table.

Alarm ID	OP-064	Alarm Title	Configured as custom IO. Review the IO mapping table.	
Description	When Pr5 is set to	When Pr5 is set to be using custom IO mapping table.		
Possible Cause	Pr5 set as 100. And change from standard IO into custom IO.			
Solution	The alarm is used for reminder. Reboot controller and driver to remove alarm.			

#### 2.58 OP-065 Laser marking status error

Alarm ID	OP-065	Alarm Title	Lasermarking status error		
Description	Laser marking condition is abnormal.				
Possible Cause	Please check the followed LaserCtrl alarm. And refer to Serial PLC Axis Alarm – SERIALPLCAXIS				
Solution	Refer to the solution of LaserCtrl alarm. After resolving the issue, reboot controller and driver.				

#### 2.59 OP-067 The wireless handheld box device is abnormal

Alarm ID	OP-067	Alarm title	【The wireless handheld box device is abnormal】	
Description	Wireless handheld box external device's communication is abnormal.			
Possible Cause	<ol> <li>Wireless transmitting device is unplugged.</li> <li>Wireless transmitting device can't be read normally by USB.</li> </ol>			
Solution	<ol> <li>Check whether the wireless transmitter is loose.</li> <li>Press the Reset button and try to reconnect. If communication is normal, this alarm can be removed.</li> </ol>			

#### 2.60 OP-068 The software version does not support this M3-IO device

New Version is 10.120.32B, 10.120.33 and after Old Version is 10.118.32A, 10.118.32 and before

New Version Old Ver	rsion			
Alarm ID	OP-068-1	Alarm title	[Non-Syntec M3-IO device]	
Description	Detected as a non-Syntec M3-IO device.			
Possible Cause	1. Non-Syntec M3 devi 2. Specify port numbe	ice. er for non-M3 IO device.		

Alarm ID	OP-068-1	Alarm title	[Non-Syntec M3-IO device]
Solution	<ol> <li>Please use Syntec M</li> <li>Please check Pr3261</li> </ol>	3 driver. ~ set to the M3 IO device po	ort number.

Alarm ID	OP-068-2	Alarm title	【The software version does not support this M3-IO device】			
Description	<ol> <li>Driver's firmv controller to</li> <li>Controller's s</li> </ol>	<ol> <li>Driver's firmware version doesn't support hardware information on M3-IO for controller to identify.</li> <li>Controller's software version cannot identify M3-IO device on multi-axis driver.</li> </ol>				
Possible Cause	<ol> <li>Only driver with 2.7.0 or above version support M3-IO device hardware information; Previous version can't get hardware information so doesn't support all M3-IO device, in order to protect machine operation safety.</li> <li>Controller with 10.118.10 or above version has M3-IO device identification protection. Besides following hardware, all will issue this alarm to prevent machine from wrong action.         <ul> <li>a. 16I 80</li> <li>b. 32I 320 MPG</li> <li>c. 32I 320 MPG 2DA</li> </ul> </li> <li>Pr3261~Pr3263 M3-IO station number setting error.</li> </ol>					
Solution	<ol> <li>Please update driver firmware to 2.7.0 and above version.</li> <li>Please contact Syntec OEM, request for the software version that supports the M3-IO devices and upgrade the software.</li> <li>Change back to the following three M3-IO devices         <ul> <li>a. 161 80</li> <li>b. 321 320 MPG</li> <li>c. 321 320 MPG 2DA</li> </ul> </li> <li>Refer to Pr3261~Pr3263 *M3-IO Station No and set the M3-IO station number correctly.</li> </ol>					

New Version Old Ve	rsion		
Alarm ID	OP-068	Alarm title	【The software version does not support this M3-IO device】
Description	<ol> <li>Driver's firmware version doesn't support hardware information on M3-IO for controller to identify.</li> <li>Controller's software version cannot identify M3-IO device on multi-axis driver.</li> </ol>		

Alarm ID	OP-068	Alarm title	【The software version does not support this M3-IO device】	
Possible Cause	<ol> <li>Only drive informatic support al</li> <li>Controller protection machine fi a. 161 b. 321 c. 321</li> <li>Pr3261~Pr</li> </ol>	river with 2.7.0 or above version support M3-IO device hardware lation; Previous version can't get hardware information so doesn't rt all M3-IO device, in order to protect machine operation safety. oller with 10.118.10 or above version has M3-IO device identification tion. Besides following hardware, all will issue this alarm to prevent ne from wrong action. 16I 80 32I 320 MPG 32I 320 MPG 2DA I~Pr3263 M3-IO station number setting error.		
Solution	<ol> <li>Please upo</li> <li>Please cor M3-IO dev</li> <li>Change ba a. 16l b. 32l c. 32l</li> <li>Refer to Pr number co</li> </ol>	odate driver firmware to 2.7.0 and above version. Intact Syntec OEM, request for the software version that supports the vices and upgrade the software. Nack to the following three M3-IO devices SI 80 21 320 MPG 21 320 MPG 2DA Pr3261~Pr3263 *M3-IO Station No and set the M3-IO station correctly.		

# 2.61 OP-069 Over axis limit that interpolation time can support

Alarm ID	OP-069	Alarm title	[Over axis limit that interpolation time can support]		
Description	Total axis number is over the limit that interpolation time can support.				
Possible Cause	<ol> <li>Interpolation time Pr3203 is too small.</li> <li>Axis number setting error.</li> </ol>				
Solution	<ol> <li>Interpolation time Pr3203 recommends to set 2000 or lager. Detailed support axis number please refer to Pr3203.</li> <li>Multi-axis axis number please start setting with x000 (x means station number).</li> </ol>				

Alarm ID	OP-070	Alarm title	[Product doesn't support Pr9 setting]		
Description	This product doesn't support Pr9 setting.				
Possible Cause	<ol> <li>Set Pr9 as 120/121 (RTEX), but hardware doesn't support it.</li> <li>Set Pr9 as 120/121 (RTEX), but software(versions 10.118.30E, 10.118.32E, 10.118.40I, 10.118.41I, 10.118.45 or above) doesn't support it.</li> <li>Pr9 setting error.</li> </ol>				
Solution	<ol> <li>Please contact Syntec OEM to know product information.</li> <li>Revert the controller to the version under 10.118.30E, 10.118.32E, 10.118.40I, 10.118.41I or 10.118.45.</li> <li>Refer to Pr9 *Servo board type, set the usable parameter value for the production of the production of</li></ol>		Juct information. r 10.118.30E, 10.118.32E, 10.118.40I, sable parameter value for the product.		

#### 2.62 OP-070 Product doesn't support Pr9 setting

# 2.63 OP-071 Driver power off, and perform power off retract

Alarm ID	OP-071	Alarm title	【Driver power off, and perform power off retract】		
Description	Pr1041~Pr1060 *Syntec M3 axial power-off Tool auto retract distance (BLU) is set, when driver's power is cut off and perform retract action.				
Possible Cause	<ol> <li>power blackout.</li> <li>Main power supply is shut down.</li> <li>RST power supply is cut off.</li> </ol>				
Solution	Confirm RST power supply of driver.				

### 2.64 OP-072 System has performed power-off retract

Alarm ID	OP-072	Alarm title	【System has performed power-off retract】	
Description	System has performed power-off retract.			
Possible Cause	<ol> <li>Detect Syntec M3 driver power-off abnormally.</li> <li>1. Parameter Pr1041~Pr1060 has setting retract value.</li> <li>2. Syntec M3 driver supports power-off retract function.</li> </ol>			

Alarm ID	OP-072	Alarm title	【System has performed power-off retract】
Solution	After confirm power supply, reboot controller and driver.		

# 2.65 OP-073 Pr3816 or Pr3829 is changed. Tool compensation value will be cleared after reboot.

Alarm ID	OP-07 3	Alarm title	[Pr3816 or Pr3829 is changed. Tool compensation value will be cleared after reboot.]			
Descripti on	ti Controller has detected that Pr3816 or Pr3829 is changed. Prompt user after reboot controller and driver, tool compensation value will be cleared.					
Possible Cause	<ol> <li>User has modified Pr3816 or Pr3829.</li> <li>Modified Pr3816 or Pr3829 when import/restore parameter.</li> </ol>					
Solution	1. 5 1 2. 1	Set Pr3816 and Pr3829 back to initial setting value before reboot controller and driver, and tool compensation won't be cleared. Reset to remove alarm.				

# 2.66 OP-074 Tool compensation value is cleared. Please reset it.

Alarm ID	OP-074	Alarm title	【Tool compensation value is cleared. Please reset it.】		
Description	Reboot controller and driver after modified Pr3816, tool compensation value is cleared. Please reset it.				
Possible Cause	<ol> <li>User has modified Pr3816 or Pr3829.</li> <li>Modified Pr3816 or Pr3829 when import/restore parameter.</li> </ol>				
Solution	<ol> <li>Reset tool compensation value.</li> <li>Reboot controller and driver to remove alarm.</li> </ol>				

#### 2.67 OP-075 Wireless handheld box packet is lost

Alarm ID	OP-075	Alarm title	[Wireless handheld box packet is lost]		
Description	Wireless han	eless handheld box packet has lost over 100 times in 10 minutes.			

Alarm ID	OP-075	Alarm title	[Wireless handheld box packet is lost]		
Possible Cause	Wireless receiving device doesn't receive correct handheld box packet.				
Solution	<ol> <li>Confi</li> <li>Hand in ber</li> <li>Incre</li> <li>Sepa</li> </ol>	rm wireless receiv held box and rece tween. ase wireless recei rate wireless rece	ver antenna has been installed and faces up. eiver distance must be shorter than 10 meter and no obstacle ver noise resistant ability. i.e. add magnetic ring. iver's USB cable and power cable.		

### 2.68 OP-076 Wireless handheld box packet CRC is abnormal

Alarm ID	OP-076	Alarm title	[Wireless handheld box packet CRC is abnormal]				
Description	Wireless handheld	Wireless handheld box packet CRC has abnormal check over 100 times in 10 minutes.					
Possible Cause	Wireless receiver has noise interference.						
Solution	<ol> <li>Confirm wireless receiver antenna has been installed and it faces up.</li> <li>Handheld box and receiver distance must be shorter than 10 meter and no obstacle is in between.</li> <li>Increase wireless receiver noise resistance ability. i.e. add magnetic ring.</li> <li>Separate wireless receiver's USB cable and power cable.</li> </ol>						

# 2.69 OP-077 Driver parameter read and write permission has changed.

Alarm ID	OP-077	Alarm title	[Driver parameter read and write permission has changed.]			
Description	Driver parameter read and write permission has changed. Please reboot controller and driver to read driver parameter.					
Possible Cause	<ol> <li>Connected driver parameter read and write permission isn't fixed. It depends on driver parameter.</li> <li>System detects driver parameter read and write permission isn't complete open, and will automatically activate read and write permission.</li> </ol>					
Solution	Wait for a while after power on, reboot controller and driver to remove alarm. Note: Some brands' driver need to wait for driver to save parameter. And each brand's saving time needed is different. If user cut off power too early, the alarm may still exist. It is recommended to wait for one minute.					

#### 2.70 OP-078 Unexpected Error

Alarm ID	OP-078	Alarm title	[Unexpected Error]
Description	Controller detects unexpected error.		
Possible Cause	An unexpected condition appears.		
Solution	Please contact Syntec OEM.		

# 2.71 OP-079 Assigned connect device doesn't exist.

Alarm ID	OP-079	Alarm title	[Assigned connect device doesn't exist.]
Description	Can't find assigned connect device.		
Possible Cause	<ol> <li>Controller network card doesn't exist.</li> <li>EnIP Macro program assigned 'Network card number' or 'Slave ID' is incorrect.</li> </ol>		
Solution	<ol> <li>Please cont</li> <li>Check EnIP whether is c</li> </ol>	act Syntec OEM. Macro program assigned 'Ne correct.	etwork card number' or 'Slave ID'

### 2.72 OP-080 Driver initialize. Take too much time to pre-read.

Alarm ID	OP-080	Alarm title	【Driver initialize. Take too much time to pre-read.】	
Description	Controller can't communicate with driver normally, or driver parameter takes too much time to pre-read.			
Possible Cause	<ol> <li>Controller can't communicate with driver normally.</li> <li>A critical alarm on the drive caused the initialization to fail.</li> <li>Take too much time to read driver parameter.</li> </ol>			
Solution	<ol> <li>Reboot cor</li> <li>Solve all dr</li> <li>Decrease P</li> <li>Please cont</li> </ol>	ntroller and driver. ive critical alarms. r3202 interpolation time, tl tact Syntec OEM.	nen reboot controller and driver.	

#### 2.73 OP-081 ATC has an critical alarm

Alarm ID	OP-081	Alarm title	[ATC has an important alarm]
Description	ATC (auto tool change) has an critical alarm, CNC and ROT will stop to avoid machine crashing.		
Possible Cause	ATC process cannot be performed successfully, ATC has an critical alarm.		
Solution	After troubleshoot A	ATC alarm, Reset to remove a	larm.

#### 2.74 OP-082 ESI file read failed

Alarm ID	OP-082	Alarm Title	[ESI file read failed]
Description	Abnormal to read the ESI file imported by the user.		
Possible Cause	1. User imports more than ESI files		
Solution	1. Delete ESI file user i 2. After deleting ESI fil EtherCAT driver.	mported with SA. e, must re-import ESI fil	e to communicate with corresponding

# 2.75 OP-083 Minimum effective interpolation time is 2ms on dual core systems

Alarm ID	OP-083	Alarm Title	[Minimum effective interpolation time is 2ms on dual core systems]
Description	The minimum effective interpolation time is 2ms on dual core systems. If the value of Pr3203 is set below 2,000, the controller will run as if it were 2,000.		
Possible Cause	The value of Pr3203 is less than 2,000.		
Solution	Modify the value of and the driver.	Pr3203 so that it is N	O LESS THAN 2,000 and reboot the controller

### 2.76 OP-084 PLC.lad abnormal

Alarm ID	OP-084	Alarm Title	[PLC.lad abnormal]
Description	When the system loads the PLC ladder diagram, the file is found abnormal.		
Possible Cause	<ol> <li>PLC.lad not exist.</li> <li>PLC ladder diagram's execution line number more than 4000 lines (not include notation line numbers).</li> </ol>		
Solution	<ol> <li>Re-import PLC</li> <li>PLC ladder diagona (not include not)</li> </ol>	lad and reboot controlle. gram's execution line nu station line numbers).	er. mber should not exceed 4000 lines

#### 2.77 OP-085 PLC ladder diagram syntax error

Alarm ID	OP-085	Alarm Title	[PLC ladder diagram syntax error]
Description	When the system loads the PLC ladder diagram, the file is found syntax error.		
Possible Cause	PLC ladder diagram syntax error.		
Solution	<ol> <li>Re-import correct PLC.lad and reboot controller.</li> <li>Correct PLC ladder diagram in edit mode, and reboot controller.</li> </ol>		

#### 2.78 OP-087 Not Support Dynamic Equilibrium Function

Alarm ID	OP-087	Alarm Topic	【Not support dynamic equilibrium function】
Description	The grinder balancing function is not supported if Option41 "Grinder balancing function" is not enabled as a software option.		
Probable Reason	Turn on dynamic balance inspection or dynamic balance debugging without turning on the software option function Option41 "Grinder Dynamic Balance Function".		
Exclusion Method	If you want to use a Option41 "Grinder	grinder dynamic equilibriun Dynamic Balance Function	n, please open the choose function ".

Alarm ID	OP-088	Alarm Topic	[Dynamic Equilibrium Function Error]
Descriptio n	Error occurred whe	en enable spindle dynamic e	equilibrium function.
Probable Reason	<ol> <li>Spindle nur</li> <li>Open the dy simultaneo</li> <li>The control</li> <li>The fill-in ti</li> <li>Dynamic ec</li> <li>The driver control</li> </ol>	nber setting error. ynamic equilibrium adjustr usly. ler could not open dynamic me Pr3203 is set too large. juilibrium function could or loes not support dynamic e	nent and dynamic equilibrium inspection equilibrium in the mode. Ny support Syntec driver quilibrium function version.
Exclusion Method	<ol> <li>Following ting a. Chean dynamics.</li> <li>Base dynamics.</li> <li>Base the dynamics.</li> <li>Please close commission</li> <li>Please close commission</li> <li>Please switting a. Autor b. MDI c. Commics.</li> <li>Please set F</li> <li>Please set F</li> <li>Please upd</li> </ol>	he step check controller par ck the setting of Pr1996 to c amic balancing function. ed on the spindle number sp corresponding axis number take sure that the correct axiber. e the dynamic inspection or ning, or turn off the dynamic ch the controller to followin omatic execution. tinue inching. era203 bellow 2000. Syntec driver. ate the driver to version 2.5	rameter setting.: onfirm whether the spindle is specified to use the pecified in Pr1996, check Pr1621~ to make sure that is specified for that spindle; if so, check Pr21~ again is card port number is specified for that axis close. Please turn off the dynamic balance c balance detection. In g mode:

# 2.79 OP-088 Dynamic Equilibrium Function Error

# 2.80 OP-089 Register of subscribed channel located in system reserved

ĉ	area		
Alarm ID	OP-089	Alarm Title	Register of subscribed channel located in system reserved area
Expla natio n	The initial regist	er of subscribed channe	el is set in the system reserved area.

Possi ble C ause	1. The initial target register R(n) of subscribed channel is set to CNC system interface area.
Soluti on	1. Assign the correct register

# 2.81 OP-090 Information setting error of subscribing channel

Alarm ID	OP-090	Alarm Title	Information setting error of subscribing channel
Descr iption	Information sett	ing error of subscribing:	channel when applying specific functions.
Possi	<ol> <li>When applying the subscribing channel as dual feedback inspection function, the</li></ol>		
ble C	corresponding channel data is not position feedback (includes position feedback, controller		
ause	monitoring position feedback, controller monitoring 2nd position feedback)		
Soluti	1. Please ch	neck if the subscribing ch	nannel data set by the axis card port number corresponding to
on	Pr241~Pi	r260 axis dual feedback i	s position feedback.

### 2.82 OP-091 System has serious error before the previous power off, recalibrate before machining

Alarm ID	OP-091	Alarm title	[System has serious error before the previous power off, re- calibrate before machining]	
Description	The controller dete	The controller detected a serious error in the system before the previous power off.		
Possible Cause	The system has an unexpected error before the previous power off.			
Solution	<ol> <li>Check whether machining setting data is correct.</li> <li>Reboot controller and driver.</li> <li>Please contact Syntec OEM, to confirm the cause of the serious error before the previous power off.</li> </ol>			

# 2.83 OP-092 Dual feedback port setting does not support dual feedback control mode

Alarm ID	OP-092	Alarm title	[Dual feedback port setting does not support dual feedback control mode]
Description	Dual feedback control mode does not support obtaining feedback data through subscription channel		
Possible Cause	Dual feedback set ex. Pr241 sets 100	tting is subscription chann 101, Pr681 sets 0	el while dual feedback mode is control mode.
Solution	<ol> <li>Modify dua</li> <li>Modify Pr2</li> </ol>	dual feedback mode Pr681~ to detection mode Pr241~ dual feedback port setting	

### 2.84 OP-093 Incorrect dual feedback port setting

Alarm ID	OP-093	Alarm title	【Incorrect dual feedback port setting】
Description	Incorrect dual feedback port setting		
Possible Cause	Port number of Pr241~Pr260 is not supported		
Solution	Please refer to Pr24	41~Pr260 parameter manual	instruction to set correct number.

#### 2.85 OP-094 Setpoint Axis major alarm occurred

Alarm ID	OP-094	Alarm title	【Setpoint Axis major alarm occurred】
Description	Setpoint Axis has major alarm, CNC will stop to avoid machine crashing.		
Possible Cause	Setpoint Axis has alarm or drive alarm.		
Solution	After clearing Setpo	pint Axis alarm and drive alar	m, this alarm will be cleared.

#### 2.86 OP-095 System has serious exception, please reboot the system

Alarm ID	OP-095	Alarm title	[System has serious exception, please reboot the system]
Description	The controller detected a serious error in the system, please reboot system immediately.		
Possible Cause	The system has an unexpected error, that will cause system instability.		l cause system instability.
Solution	Reboot controller	and driver.	

# 2.87 OP-096 Loader axis group use non Syntec M3 drive

Alarm ID	OP-096	Alarm title	【Loader axis group use non Syntec M3 drive】
Description	The axis of loader axis group (Pr733, Pr734) can use only Syntec M3 drive or virtual axis.		
Possible Cause	The axis of loader axis group is not Syntec M3 drive and virtual axis.		
<b>Solution</b> The axis of loader axis group change to use Syntec M3 to be virtual axis.		ntec M3 drive or modify parameter Pr21~	

Note: OP-096 support version: 10.118.48Y, 10.118.52S, 10.118.56M, 10.118.60G, 10.118.66A and earlier.

#### 2.88 OP-097 Independent axis group (Pr741=1) check error

Alarm ID	OP-097	Alarm title	【Independent axis group (Pr741=1) check error】
Description	When Pr741 is 1, th into independent a 1. Except whe 2. It is not allo axis groups	741 is 1, the system will make axis group, which specified by Pr733~ and Pr737, ependent axis group. The following restrictions apply: xcept when Pr742 is set to 1, an axis can only assigned to one axis group. : is not allowed to use the "axis exchange" and "axis coupling" functions across xis groups, and it is also prohibited to use setpoint axis	
<ol> <li>Pr741 is set to 1 by mistake.</li> <li>When Pr741 is set to 1 and Pr742 is not set to 1, the independent axis group are also assigned to othe 3. When Pr741 is 1, at least one group of axes set by coupling functions (Pr3721~, Pr3821~) are assigned.</li> <li>When Pr741 is 1, there is at least one setpoint axis independent axis group.</li> </ol>		set to 1, the system axes under the ed to other axis groups (Pr701~). exes set by the axis exchange and axis are assigned to different axis groups. expoint axis that is assigned to	

<ol> <li>Solution         <ol> <li>Pr741 is set to 0.</li> <li>Check Pr701~ setting and confirm the axis of independent axis group is only used by an unique independent axis group.</li> <li>Check Pr3721~, Pr3821~ setting and make sure the axis ID can not specify axis of independent axis group.</li> <li>Check the setting of 【*Belonging to axis group ID】 of setpoint axis parameter,</li> </ol> </li> </ol>
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# 2.89 OP-098 The version of the serial parameter file is incompatible

Alarm ID	OP-098	Alarm title	【The version of the serial parameter file is incompatible】
Description	The serial parameter definition file placed during the driver update is incompatible.		
Possible Cause	The driver firmware version does not match the controller version.		
Solution 1. Update the driver firmw compatible version. 2. Update the controller s compatible version.		e driver firmware v ersion. e controller softwa ersion.	ersion to the controller re version to the driver

# 2.90 OP-099 Illegal Setting for Independent Axis Groups (Pr732=2)

Alarm ID	OP-099	Alarm Title	[Illegal Setting for Independent Axis Groups (Pr732=2)]
Description	If Pr732 is set to 2, 1. Except tha 2. Inter-Axis C a. Axis b. Axis c. ECA	e, the following restrictions apply : at Pr742 is set to 1, one axis can only be associated to ONE axis group. Group use of the following functions are NOT allowed: is Exchange. is Coupling. AM.	
Possible Cause	<ol> <li>Pr732 is ur</li> <li>When Pr73 multiple ax</li> <li>When Pr73</li> <li>When Pr73</li> <li>Axis</li> <li>Axis</li> <li>Axis</li> <li>C. ECA</li> </ol>	nexpectedly set to 2. 32 is set to 2, Pr742 is not set to 1, and at least one axis is assigned to xis groups (Pr701~). 32 is set to 2, there exists inter-axis group use of the following functions: s Exchange. s Coupling. AM.	

Alarm ID	OP-099	Alarm Title	[Illegal Setting for Independent Axis Groups (Pr732=2)]
Solution	<ol> <li>Modify Pr7</li> <li>Modify Pr7</li> <li>If the axis r use it as a r</li> <li>Modify Pr3</li> <li>Check and</li> </ol>	732 so that it is not equal to 701~ so that each axis belon needs to be used among mu roaming axis. 8721~, Pr3821~ so that there modify the setting of ECAM	2. gs uniquely to ONE axis group. Itiple axis groups, change Pr742 to 1 and is no inter-axis setting. I so that there is no inter-axis setting.

# 2.91 OP-100 Illegal Trigger of Halted Point Return

Alarm ID	OP-099	Alarm Title	【Illegal Trigger of Halted Point Return】
Description	When the axis group independent function is turned on (Pr732 is set to 2), if multiple axis groups execute custom pause point return at the same time, Then only the axis group that first triggered the return of the custom pause point can be executed correctly. The rest of the axis groups will not be executed (will not be cyclically started).		
Possible Cause	When the axis group independent function (Pr732 is set to 2) and the custom pause point return function (Pr3852 is set to 1) are both enabled, Simultaneously trigger multiple axis groups to execute custom pause point return.		
Solution	After the execution point is completed	of the axis group that first t , the cycle start of other axis	riggered the return of the custom pause groups is triggered again.

#### 2.92 OP-101 EtherCAT-IO communication error

Supported versions: 10.118.86L, 10.120.16L, 10.120.24B, 10.120.27 and previous versions.						
Alarm ID	OP-101	Alarm Title	[EtherCAT-IO communication error]			
Description	EtherCAT-IO communication is abnormal continuously for over 10 ms. Example: According to the communication time setting( Pr3203 ), 6 consecutive errors for 2ms; 4 consecutive errors for 3ms.					
Possible Cause	<ol> <li>EtherCAT cc</li> <li>Noise interfe</li> </ol>	ommunication cable is loose. erence.				

Alarm ID	OP-101	Alarm Title	[EtherCAT-IO communication error]
Solution	<ol> <li>Check whet         <ol> <li>Pr32</li> <li>Pr32</li> <li>versi</li> </ol> </li> <li>Check if the         <ol> <li>Replace condition</li> <li>Reboot condition</li> </ol> </li> </ol>	her the settings of the IO dev 61~Pr3263 81~Pr3288, EtherCAT Setting ons: 10.118.82H, 10.118.86B, communication cable is nor nmunication cables. troller and IO device.	ice are correct. ; Wizard (Supported , 10.118.89 and after) mal.

# 2.93 OP-102 EtherCAT devices exceeds the number of supported stations

Alarm ID	OP-102	Alarm Title	[EtherCAT devices exceeds the number of supported stations]	
Description	EtherCAT devices connected in series exceeds the number of stations supported by controller.			
Possible Cause	More than 16 EtherCAT devices are connected in series.			
Solution	Please reduce the	number of EtherCAT devic	e stations connected in series.	

# 2.94 OP-103 Drivers connected don't support SPA3.0

Alarm ID	OP-103	Alarm Title	[Drivers connected don't support SPA3.0]	
Description	The current configuration of controller and drivers don't support SPA3.0.			
Possible Cause	Controller doesn't connent any Syntec driver or software version of Syntec driver is lower than 4.4.0, 5.2.2.			
Solution	<ol> <li>If there is no Syntec driver connected: change Pr3850 to be 0, use SPA2.0 instea</li> <li>If there is a connected Syntec driver: update software of Syntec driver to 4.4.0, 5.2.2 or higher.</li> </ol>		hange Pr3850 to be 0, use SPA2.0 instead. date software of Syntec driver to 4.4.0,	

Alarm ID	OP-104	Alarm Title	【Inclined Axes control configure failed】
Description	Configuring incline	ed axes control fails.	
Possible Cause	<ol> <li>Inclined axis or orthe axis's axis type is rotary axis.</li> <li>Inclined axis or orthe axis is assigned to different coordinate or multiple coordinates.</li> <li>Inclined axis or orthe axis is actived axis exchange function.</li> <li>Inclined axis or orthe axis is actived roaming axis function.</li> <li>Inclined axis or orthe axis is actived axis coupling function.</li> </ol>		
Solution	<ol> <li>Please mod axis.</li> <li>Please mod coordinate.</li> <li>Please mod exchange.</li> <li>Same as no single coord</li> <li>Please mod</li> </ol>	<ol> <li>Please modify Pr221~, and assign inclined axis or orthe axis's axis type is linear axis.</li> <li>Please modify Pr701~, and assign inclined axis and orthe axis are same single coordinate.</li> <li>Please modify Pr3721~ so that inclined axis or orthe axis isn't actived axis exchange.</li> <li>Same as no.2 suggestion, when inclined axis and orthe axis are assigned same single coordinate, it don't deal with as roaming axis.</li> <li>Please modify Pr3821~ so that inclined axis or orthe axis isn't assigned axis</li> </ol>	

# 2.95 OP-104 Inclined Axes control configure failed

# 2.96 OP-105 Indexing Axis configure failed

Alarm ID	OP-105	Alarm Title	[Indexing Axis configure failed]		
Description	Configuring indexing axis fails.				
Possible Cause	<ol> <li>Indexing axis is assigned to non first group or multiple groups.</li> <li>Axis type of indexing axis is linear axis or rotary axis Type C~E.</li> <li>Indexing axis is assigned to spindle.</li> <li>Indexing axis is actived axis exchange function.</li> <li>Indexing axis is actived axis coupling function.</li> </ol>				
Solution	<ol> <li>Please modify Pr701~, and assign indexing axis to first group.</li> <li>Please modify Pr221~, and assign axis type of indexing axis is rotary axis Type A or Type B.</li> <li>Please modify Pr1621~, don't assign indexing axis as spindle.</li> <li>Please modify Pr3721~ so that indexing axis isn't actived axis exchange.</li> <li>Please modify Pr3821~ so that indexing axis isn't assigned to coupling axis.</li> </ol>		ing axis to first group. pe of indexing axis is rotary axis Type A exing axis as spindle. axis isn't actived axis exchange. axis isn't assigned to coupling axis.		

Alarm ID	OP-106	Alarm Title	[Tension Control Axis ID Conflict]		
Descri ption	<ol> <li>Tension detected</li> <li>Tension same tin</li> </ol>	on control (tension control coupling function, advanced tension control function) has ted the master and slave axes have the same or repeat number. on control coupling function and advanced tension control function are enabled at the time.			
Possibl e Cause	<ul> <li>The valu</li> <li>The valu</li> <li>The sam Pr5851,</li> <li>The sam Pr5862 a</li> <li>Pr2901, zero valu</li> <li>One of m (the adv</li> </ul>	<ul> <li>The value of Pr2901 and Pr2906(master ID of tension control couple function) are same.</li> <li>The value of Pr2902 and Pr2907(slave ID of tension control couple function) are same.</li> <li>The same master ID of advanced tension control has been set at Pr5821, Pr5831, Pr5841, Pr5851, Pr5861 and Pr5871.</li> <li>The same slave ID of advanced tension control has been set at Pr5822, Pr5832, Pr5842, Pr5852, Pr5862 and Pr5872.</li> <li>Pr2901, Pr2902, Pr2906, Pr2907 and Pr58X1, Pr58X2 (X=2~7) Set at least one of them to non-zero value at the same time.</li> <li>One of master ID of tension control couple function group is same with slave ID of other group. (the advanced tension control function has no such limitation )</li> </ul>			
Solutio n	Change tension	the conflicted axis ID as control, or set master ID	mentioned above to other axis ID which is not assigned to and slave ID to 0 for disabling conflicted tension control.		

### 2.97 OP-106 Tension Control Axis ID Conflict

#### 2.98 OP-107 EtherCAT topology conflict

New Version is 10.118.86K, 10.120.16K, 10.120.24B, 10.120.27 and after Old Version is 10.118.86J, 10.118.94 and before

New Version	Old Version					
Alarm ID	OP-107-1	Alarm title	[EtherCAT parameter file is missing]			
Descriptio n	None of DeviceInfo in the controller has .dat, backup files .mir and .lkn. Causes software execution abnormality					
Possible Cause	All EtherCAT parameter files and backup files are lost.					
Solution	Do system backup immediately, contact Syntec OEM and restart the system.					

Alarm ID	OP-107-2	Alarm title	[EtherCAT parameter file is corrupted]		
Description	The .dat, backup files execution abnormalit	The .dat, backup files .mir and .lkn of DeviceInfo are corrupted. Causes software execution abnormality			
Possible Cause	The EtherCAT parameter file or backup file exists, but the system fails to load or initialize.				
Solution	Do system backup immediately, contact Syntec OEM and restart the system.				
Alarm ID	OP-107-3	Alarm title	[EtherCAT topology conflict]		
Description	Linked ECAT devices and the settings of ECAT configuration file are different.				
Possible Cause	<ol> <li>Part of the EtherCAT devices are removed from the topology.</li> <li>The connection order of the EtherCAT devices has been changed.</li> <li>The connection between devices is unstable.</li> <li>Device power supply abnormality.</li> </ol>				
Solution	<ol> <li>Without devic a. Make s</li> <li>b. Make s</li> <li>2. With device ch a. Update</li> </ol>	<ol> <li>A. Device power supply abnormality.</li> <li>Without device change intendency         <ul> <li>a. Make sure the cable connections between the devices are secure.</li> <li>b. Make sure the power supply of the devices are stable.</li> </ul> </li> <li>With device change intendency         <ul> <li>a. Update the configuration file through EtherCAT setting wizard.</li> </ul> </li> </ol>			

#### New Version

**Old Version** 

Alarm ID	OP-107	Alarm Title	[EtherCAT topology conflict]	
Description	Linked ECAT devices and the settings of ECAT configuration file are different.			
Possible Cause	<ol> <li>Part of the EtherCAT devices are removed from the topology.</li> <li>The connection order of the EtherCAT devices has been changed.</li> </ol>			
	<ul><li>3. The connection between devices is unstable.</li><li>4. Device power supply abnormality.</li></ul>			

Alarm ID	OP-107	Alarm Title	[EtherCAT topology conflict]
Solution	1. Without device of 1.1 Make sure the of 1.2 Make sure the p 2. With device char 2.1 Update the con	hange intendency able connections between t bower supply of the devices a nge intendency figuration file through Ether	he devices are secure. are stable. CAT setting wizard.

# 2.99 OP-108 Auto gantry calibration cannot be enabled

Alarm ID	OP-108	Alarm Title	[Auto gantry calibration cannot be enabled]						
Description	The parameter setting error when automatic gantry calibration function is turned on.								
Possible Cause	<ul> <li>When automatic gantry calibration function is turned on(Pr3830~ is set to 1), the parameter is set as follows</li> <li>1. Pr3823~、 Pr3824~ is not the same</li> <li>2. Pr3825~ is not set to 2</li> <li>3. Pr3828~ is set to 0</li> <li>4. Pr3821~、 Pr3822~ setting is repeated</li> </ul>								
Solution	<ol> <li>Turn off the automatic gantry calibration function(Pr3830~ is set to 0)</li> <li>Adjust the parameter setting         <ul> <li>Pr3823~、Pr3824~ is set to same value</li> <li>Pr3825~ is set to 2</li> <li>Pr3828~ is not set to 0</li> <li>Pr3821~、Pr3822~ setting is not repeated</li> </ul> </li> </ol>								

#### 2.100 OP-109 Tension Control Enable Failed

Alarm ID	OP-109	Alarm Title	【Tension Control Enable Failed】			
Descri ption	1. Failed to enable tension control (tension control coupling function, advanced tension control function) with C-bit interfaces.					
Possibl e Cause	<ul> <li>Pr2901, Pr2902, Pr2906, Pr2907 master and slave port numbers are not set, ON C137~C138 t enable tension control coupling function.</li> <li>Pr58X1, Pr58X2 (X = 2~7) master and slave axis numbers are not set, ON C311~C316 to enable advanced tension control function.</li> </ul>					

Alarm ID	OP-109	Alarm Title	[Tension Control Enable Failed]		
Solutio	<ul> <li>set the master and slave numbers correctly in specific group of tension control, restart the</li></ul>				
n	system, and then use C-bit to enable tension control.				



# 3 System Alarm -SYS

Alarm ID	SYS-001	Alarm Title	Critical system error			
Description	Unexpected error happened while controller running.					
Possible Cause	System memory operation failed.					
Solution	Do system backup immediately, contact Syntec OEM and restart the system.					
New Version is 10.118.86K, 10.120.16K, 10.120.24B, 10.120.27 and after						

Old Version is 10.118.86J, 10.118.94 and before

New Version Old Version								
Alarm ID	SYS	-002-1	Alarm title	e [Servo communication driver module loading failed]				
Description	Erro corr	or happened due to servo communication driver module ( Ex—M3, ECAT ) lost or ruption.						
Possible Cause	Serv	vo commu	inication drive	er module lo	bading failed.			
Solution	Do s	system ba	ckup immedia	ately, conta	ct Syntec OEM and	restart the system.		
Alarm ID		SYS-002	2-2	Alarm	title	[IO driver loading failed]		
Description		Error ha	appened due t	o IO driver	lost or corruption.			
Possible Cause		IO drive	er loading faile	ed.				
Solution		Do syste	em backup im	mediately,	contact Syntec OE	M and restart the system.		
Alarm ID		SYS-002-:	3 Alarn	n title	[Other driver	loading failed]		
Description		Error happened due to driver module lost or corruption.						
Possible Cause		Driver module loading failed, such as SRI.						
Solution		Do systen	n backup imm	ediately, co	ontact Syntec OEM	and restart the system.		

Alarm ID	SYS-002-4	Alarm title	【System ORX module loading failed】					
Description	Error happened due to system ORX module lost or corruption.							
Possible Cause	System ORX module lo	ading failed.						
Solution	Do system backup imn	nediately, contact Syntec (	DEM and restart the system.					
Alarm ID	SYS-002-5	Alarm title	[System data loading failed]					
Description	Error happened due to	o system data lost or corru	ption.					
Possible Cause	System data loading fa	ailed, such as XML.						
Solution	Do system backup imr	nediately, contact Syntec	OEM and restart the system.					
Alarm ID	SYS-002-6	Alarm title	【Motion control module loading failed】					
Description	Error happened due to	motion control module lo	st or corruption.					
Possible Cause	Motion control module	loading failed.						
Solution	Do system backup imm	nediately, contact Syntec C	DEM and restart the system.					
Alarm ID	SYS-002-10	SYS-002-10Alarm title[High speed high precision parameter data loading failed]						
Description	Error happened due to high speed high precision parameter data lost or corruption.							
Possible Cause	High speed high precisio	on parameter data loading	failed.					
Solution	Do system backup imme	ediately, contact Syntec O	EM and restart the system.					

#### New Version Old Version

Alarm ID	SYS-002	Alarm Title	Important file error
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<b>Description</b> Error happened due to file lost or corruption.					
Possible Cause	<ol> <li>Servo communication driver module loading failed.</li> <li>IO driver loading failed.</li> <li>Other driver module loading failed.</li> <li>System ORX module loading failed.</li> <li>System data loading failed.</li> <li>Motion control module loading failed.</li> <li>High speed high precision parameter data loading failed</li> </ol>				
Solution	Do system backup immediately, contact Syntec OEM and restart the system.				
<ol> <li>Sub Alarm SYS-002-1 [Servo comm. driver loading failed] Servo communication modules such as M3 and ECAT.</li> <li>Sub Alarm SYS-002-2 [I/O driver loading failed]</li> <li>Sub Alarm SYS-002-3 [Other driver loading failed] Other driver module such as SRI.</li> <li>Sub Alarm SYS-002-4 [System ORX module loading failed] For example, System ORX module loading failed or initialize failed</li> <li>Sub Alarm SYS-002-5 [System data loading failed]</li> </ol>					

- For example, XML file loading failed.
- 6. Sub Alarm SYS-002-6 [Motion control module loading failed] For example, the failure to load or initialize the plug-in path handling module.
- 7. Sub Alarm SYS-002-10 [High speed high precision parameter data loading failed] For example, the failure to load or initialize the HSHPParam.dat.

# New Version is 10.118.86K, 10.120.16K, 10.120.24B, 10.120.27 and after Old Version is 10.118.86J, 10.118.94 and before

#### New Version Old Version

Alarm ID	SYS-003-1	Alarm title	【Insufficient physical memory 】			
Description	Insufficient physical memory.					
Possible Cause	The system memory is insufficient to support this software version.					
Solution	Please reinstall the controller software version 10.118.50.x or below.					

#### New Version Old Version

Alarm ID	SYS-003	Alarm Title	Hardware can not support this software version	
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Description	The hardware does not support upgrading to this software version.
Possible Cause	1. The system memory is insufficient to support this software version.
Solution	1. Please reinstall the controller software version 10.118.50.x or below.

#### 1. Sub Alarm SYS-003-1 【Insufficient physical memory.】

Alarm ID		SYS-004 Alarm title [Critical CPU overheating]					ing]	
Description		The CPU temperature exceeds 105 degrees for six consecutive minutes.					S.	
Reason		1. 2.	The CPU hea Working envi	CPU heat sink is detached or not installed correctly. rking environment temperature of controller is too high.				
Solution 1. Chec 2. Do sy			Check wheth Do system ba	ck whether the device temperature is abnormally high. ystem backup immediately, contact Syntec OEM.				
Version		10.120.	.32A, 10.120.3	33 and above				
Alarm ID	SYS	S-005	05 Alarm title [Failed to load APP module]					
Description	Fai Su 1.3 2.3	<sup>-</sup> ailed to load APP module, APP can not work. Sub-alarm: 1. Sub-alarm SYS-005-1 【Failed to load APP config】 2. Sub-alarm SYS-005-2 【Failed to load APP ORX module】						
Reason		1. Loss 2. Faile	or destructio d to load APF	on of App.acfg. P ORX module				
Solution	Do	Do system backup immediately, contact Syntec OEM and restart the system.						
Version	10.	10.120.32B, 10.120.33 and above						
Alarm ID	SYS-00	05-1	-1 Alarm title [Failed to load APP config]					
Description	Loss o	Loss or destruction of APP config may cause software work abnormally						

Reason	<ol> <li>There is no config in APP</li> <li>APP config may be destroied.</li> </ol>
Solution	<ol> <li>Reinstall APP</li> <li>Do system backup immediately, contact Syntec OEM and restart the system.</li> </ol>
Version	10.120.32B, 10.120.33 and above

Alarm ID	SYS-0	05-2	Alarm	ı title	[Failed to	o load APP ORX module]	
Description	Failed	Failed to load APP ORX module or failed to initialize may cause software work abnormally.					
Reason	1. 2.	<ol> <li>Loss or destruction of APP ORX module.</li> <li>Initialize abnormally</li> </ol>					
Solution	1. 2.	<ol> <li>Reinstall APP</li> <li>Do system backup immediately, contact Syntec OEM and restart the system.</li> </ol>					
Version	10.120	10.120.32B, 10.120.33 and above					
Alarm ID	SYS-021			Alarm Title		[Serial communication initialization failed]	
Description		When controller fail to communicate with drive.					
Possible Cau	<ol> <li>Drive is abnormal.</li> <li>Drive or controller hardware malfunction.</li> <li>When Pr9 is set as EtherCat communication, and drive is not connected.</li> <li>When Pr9 is set as RTEX communication, and drive is not connected.</li> <li>M3 multi-axis drive, the first station is not set.</li> </ol>				n. tion, and drive is not connected. , and drive is not connected. ot set.		
Solution		<ol> <li>Reboot the controller and drive.</li> <li>Replace the drive, if it is not effective, the controller hardware may be malfunctioned.</li> <li>Connect EtherCAT drive.</li> <li>M2 / M3 initialization error code display on D53, please contact the Syntec OEM and provide D53 value.</li> <li>Set the first station, or enlarge the set value of Pr3203 (interpolation time).</li> <li>Note: For EtherCAT communication error, refer to EtherCAT Drive Application Manual</li> </ol>					

Alarm ID	SYS-026	Alarm Title	【Controller cannot establish communication with device】	
Description	Under neither M3 nor EtherCAT communication, the controller does not receive the device feedback packet when it is powered on, and the abnormality lasts for more than 1s. Example: According to the communication time setting(Pr3203), 501 consecutive errors for 2ms; 334 consecutive errors for 3ms.			
Possible Cause	<ol> <li>The device station number and controller parameters do not correspond correctly.</li> <li>The communication cable between the controller and the device is loose.</li> </ol>			
Solution	<ol> <li>Check whether the settings of device parameters are correct.</li> <li>Check the wiring of the communication cable between the controller and the device.</li> <li>Contact Syntec OEM.</li> </ol>			
Alarm ID	SYS-026-1	Alarm Title	[M3-Controller cannot establish communication with drive]	
Description	Under M3 communication, the controller does not receive the driver feedback packet when it is powered on, and the abnormality lasts for more than 1s. Example: According to the communication time setting(Pr3203), 501 consecutive errors for 2ms; 334 consecutive errors for 3ms.			
Possible Cause	<ol> <li>The drive station number and controller parameters do not correspond correctly.</li> <li>The communication cable between the controller and the drive is loose.</li> </ol>			
Solution	<ol> <li>Check whether the drive parameter dip switch settings correspond correctly to the controller parameters (Pr21~).</li> <li>Check the wiring of the communication cable between the controller and the drive.</li> <li>Contact Syntec OEM.</li> </ol>			
Alarm ID	SYS-026-2	Alarm Title	[EtherCAT-Controller cannot establish communication with drive]	
Description	Under EtherCAT communication, the controller does not receive the driver feedback packet when it is powered on, and the abnormality lasts for more than 1s. Example: According to the communication time setting(Pr3203), 501 consecutive errors for 2ms; 334 consecutive errors for 3ms.			
Possible Cause	<ol> <li>The drive station number and controller parameters do not correspond correctly.</li> <li>The communication cable between the controller and the drive is loose.</li> </ol>			

Solution	<ol> <li>Check whether the drive parameter dip switch settings correspond correctly to the controller parameters (Pr21~).</li> <li>Check the wiring of the communication cable between the controller and the drive.</li> <li>Contact Syntec OEM.</li> </ol>					
Alarm ID	SYS-026-3	Alarm Title	【EtherCAT-Controller cannot establish communication with IO device】			
Description	Under EtherCAT comm packet when it is powe for more than 1s. Example: According to for 2ms; 334 consecuti	Inder EtherCAT communication, the controller does not receive the IO device feedback acket when it is powered on under EtherCAT communication, and the abnormality lasts or more than 1s. xample: According to the communication time setting(Pr3203), 501 consecutive errors or 2ms; 334 consecutive errors for 3ms.				
Possible Cause	<ol> <li>The IO device st correctly.</li> <li>The communication</li> </ol>	<ol> <li>The IO device station number and controller parameters do not correspond correctly.</li> <li>The communication cable between the controller and the IO device is loose.</li> </ol>				
Solution	<ol> <li>Check whether Wizard) are corn</li> <li>Check the wirin device.</li> <li>Contact Syntec</li> </ol>	<ol> <li>Check whether the settings of the IO device (Pr3261~, Pr3281~, EtherCAT Setting Wizard) are correct.</li> <li>Check the wiring of the communication cable between the controller and the IO device.</li> <li>Contact Syntec OEM.</li> </ol>				
Alarm ID	SYS-030	Alarm title	[Device disconnection]			
Description	<ul> <li>Under neith the respons Example: Ac consecutive</li> <li>When a prot following va continuousl</li> <li>74: N</li> <li>78: M</li> </ul>	<ul> <li>Under neither M3 nor EtherCAT communication, the controller does not receive the response packet from the device, and the error continues for more than 1s. Example: According to the communication time setting(Pr3203), 501 consecutive errors for 2ms; 334 consecutive errors for 3ms.</li> <li>When a problem occurs, enter the axial diagnosis page and observe the following variables to determine whether communication abnormalities occur continuously.</li> <li>74: Number of response packets not received</li> <li>78: Maximum number of consecutive response packets not received</li> </ul>				
Possible Reason	The communication cable between the controller and the device is loose.					
Solution	<ol> <li>Check the wiring of the communication cable between the controller and the device.</li> <li>Contact Syntec OEM.</li> </ol>					

Alarm ID	SYS-030-1	Alarm title	[M3-Drive disconnection]		
Description	<ul> <li>Under M3 communication, the controller does not receive the response packet from the device, and the error continues for more than 1s. Example: According to the communication time setting(Pr3203), 501 consecutive errors for 2ms; 334 consecutive errors for 3ms.</li> <li>When a problem occurs, enter the axial diagnosis page and observe the following variables to determine whether communication abnormalities occur continuously.</li> <li>74: Number of response packets not received</li> <li>78: Maximum number of consecutive response packets not received</li> </ul>				
Possible Reason	<ol> <li>The communication cable between the controller and the drive is loose.</li> <li>The quality of the communication cable is poor, or there is noise interference.</li> </ol>				
Solution	<ol> <li>Check the wiring of the communication cable between the controller and the drive.</li> <li>Check whether the machine is properly grounded.</li> <li>Contact Syntec OEM.</li> </ol>				
Alarm ID	SYS-030-2	Alarm title	【EtherCAT-Drive disconnection】		
Description	<ul> <li>Under EtherCAT communication, one of the following problems occurs, and the error continues for more than 1s.         Example: According to the communication time setting(Pr3203), 501 consecutive errors for 2ms; 334 consecutive errors for 3ms.         a. The controller does not receive the response packet from the drive.         b. The driver response packet Watchdog or Working Counter error occurs.         When a problem occurs, enter the axial diagnosis page and observe the following variables to determine whether communication abnormalities occur continuously.         74: Number of response packets not received         77: Response packet Watchdog error count         80: Maximum number of consecutive response packet Watchdog errors      </li> </ul>				
Possible Reason	<ol> <li>The communication cable between the controller and the drive is loose.</li> <li>The driver software response packet Watchdog or Working Counter error.</li> </ol>				
Solution	<ol> <li>Check the wiring drive.</li> <li>Contact Syntec O</li> </ol>	of the communication cable EM.	e between the controller and the		

<b>Description</b> Under EtherCAT communication, one of the following problems occurs, an abnormality lasts for more than 1s. Example: According to the communication time setting(Pr3203), 501 constored for 2ms; 334 consecutive errors for 3ms.	nd the asecutive errors e.					
<ol> <li>The controller does not receive response packet from the IO device</li> <li>IO device response packet Watchdog or Working Counter error.</li> </ol>	<ul> <li>Under EtherCAT communication, one of the following problems occurs, and the abnormality lasts for more than 1s.</li> <li>Example: According to the communication time setting( Pr3203 ), 501 consecutive errors for 2ms; 334 consecutive errors for 3ms.</li> <li>1. The controller does not receive response packet from the IO device.</li> <li>2. IO device response packet Watchdog or Working Counter error.</li> </ul>					
<b>Possible Cause</b> 1. The communication cable between the controller and the IO device2. The IO device software response packet Watchdog or Working Cou	<ol> <li>The communication cable between the controller and the IO device is loose.</li> <li>The IO device software response packet Watchdog or Working Counter error.</li> </ol>					
<ol> <li>Solution</li> <li>Check the wiring of the communication cable between the control device.</li> <li>Contact Syntec OEM.</li> </ol>	<ol> <li>Check the wiring of the communication cable between the controller and the IO device.</li> <li>Contact Syntec OEM.</li> </ol>					
Alarm ID SYS-031 Alarm title [Poor contact of cor cable]	mmunication					
<ul> <li>Description         <ul> <li>Under neither M3 nor EtherCAT communication, the controller do the response packet from the device, and the error continues for r 10ms. Example: According to the communication time setting(Pr3203), errors for 2ms; 4 consecutive errors for 3ms.</li> <li>When a problem occurs, enter the axial diagnosis page and observariables to determine whether communication abnormalities occontinuously.</li> <li>74: Number of response packets not received</li> <li>78: Maximum number of consecutive response packets not</li> </ul> </li> </ul>	<ul> <li>Under neither M3 nor EtherCAT communication, the controller does not receive the response packet from the device, and the error continues for more than 10ms.</li> <li>Example: According to the communication time setting(Pr3203), 6 consecutive errors for 2ms; 4 consecutive errors for 3ms.</li> <li>When a problem occurs, enter the axial diagnosis page and observe the following variables to determine whether communication abnormalities occur continuously.</li> <li>74: Number of response packets not received</li> <li>78: Maximum number of consecutive response packets not received</li> </ul>					
Possible Reason         The communication cable between the controller and the device is loose	The communication cable between the controller and the device is loose.					
Solution       1. Check the wiring of the communication cable between the contro device.         2. Contact Syntec OEM.	<ol> <li>Check the wiring of the communication cable between the controller and the device.</li> <li>Contact Syntec OEM.</li> </ol>					
Alarm ID	SYS-031-1	Alarm title	[M3-Poor contact of communication cable or driver packet is interfered by noise ]			
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Description	<ul> <li>Under M3 communication, the controller does not receive the response packet from the device, and the error continues for more than 10ms. Example: According to the communication time setting(Pr3203), 6 consecutive errors for 2ms; 4 consecutive errors for 3ms.</li> <li>When a problem occurs, enter the axial diagnosis page and observe the following variables to determine whether communication abnormalities occur continuously.</li> <li>74: Number of response packets not received</li> <li>78: Maximum number of consecutive response packets not received</li> </ul>					
Possible Reason	<ol> <li>The communi</li> <li>The quality of</li> </ol>	cation cable between th the communication cab	e controller and the drive is loose. le is poor, or there is noise interference.			
Solution	<ol> <li>Check the wiring of the communication cable between the controller and the drive.</li> <li>Check whether the machine is properly grounded.</li> <li>Contact Syntec OEM.</li> </ol>					
Alarm ID	SYS-031-2	Alarm title	[EtherCAT-Poor contact of communication cable or driver software misses communication packet ]			
Description	<ul> <li>Under EtherCAT communication, one of the following problems occurs, and the error continues for more than 10ms.</li> <li>Example: According to the communication time setting(Pr3203), 6 consecutive errors for 2ms; 4 consecutive errors for 3ms. <ul> <li>a. The controller does not receive the response packet from the drive.</li> <li>b. The driver response packet Watchdog or Working Counter error occurs.</li> </ul> </li> <li>When a problem occurs, enter the axial diagnosis page and observe the following variables to determine whether communication abnormalities occur continuously. <ul> <li>74: Number of response packets not received</li> <li>78: Maximum number of consecutive response packets not received</li> <li>80: Maximum number of consecutive response packet Watchdog errors</li> </ul> </li> </ul>					
Possible Reason	<ol> <li>The communication</li> <li>The driver softward</li> </ol>	tion cable between the vare response packet Wa	controller and the drive is loose. tchdog or Working Counter error.			
Solution	<ol> <li>Check the wirin</li> <li>Contact Syntec</li> </ol>	g of the communication OEM.	cable between the controller and the drive.			

Alarm ID	SYS-031-3	Alarm Title	[Eth comm devic packe	nerCAT-Poor contact of nunication cable or IO :e software misses communication et ]		
Description	Under EtherCAT comm abnormality lasts for a Example: According to 2ms; 4 consecutive er 1. The controller 2. IO device respo	nder EtherCAT communication, one of the following problems occurs, and the bnormality lasts for more than 10ms. xample: According to the communication time setting(Pr3203), 6 consecutive errors for ms; 4 consecutive errors for 3ms. 1. The controller does not receive response packet from the IO device. 2. IO device response packet Watchdog or Working Counter error.				
Possible Cause	<ol> <li>The communic</li> <li>The IO device s</li> </ol>	<ol> <li>The communication cable between the controller and the IO device is loose.</li> <li>The IO device software reports a packet Watchdog or Working Counter error.</li> </ol>				
Solution	<ol> <li>Check the wiri device.</li> <li>Contact Synter</li> </ol>	ng of the communicatior c OEM.	n cable l	between the controller and the IO		
Alarm ID	SYS-032	Alarm title		【Device packet is interfered by noise】		
Description	<ul> <li>Under neith interfered b 10ms.</li> <li>Example: Ac errors for 2r</li> <li>When a prol variables to continuous</li> <li>76: N</li> <li>79: N</li> </ul>	<ul> <li>Under neither M3 nor EtherCAT communication, the device response packet is interfered by noise to generate CRC errors, and the error lasts for more than 10ms.</li> <li>Example: According to the communication time setting(Pr3203), 6 consecutive errors for 2ms; 4 consecutive errors for 3ms.</li> <li>When a problem occurs, enter the axial diagnosis page and observe the following variables to determine whether communication abnormalities occur continuously.</li> <li>76: Number of response packet CRC errors</li> <li>79: Maximum number of consecutive response packet CRC errors</li> </ul>				
Possible Reason	The quality of the c	communication cable is p	oor, or	there is noise interference.		
Solution	<ol> <li>Check whet</li> <li>Contact Syr</li> </ol>	her the machine is prope ntec OEM.	erly grou	unded.		

Alarm ID	SYS-032-1	Alarm title	[M3-Driver packet is interfered by noise]			
Description	<ul> <li>Under M3 communication, the driver response packet is interfered by noise to generate CRC errors, and the error lasts for more than 10ms. Example: According to the communication time setting(Pr3203), 6 consecutive errors for 2ms; 4 consecutive errors for 3ms.</li> <li>When a problem occurs, enter the axial diagnosis page and observe the following variables to determine whether communication abnormalities occur continuously.</li> <li>76: Number of response packet CRC errors</li> <li>79: Maximum number of consecutive response packet CRC errors</li> </ul>					
Possible Reason	The quality of the comr	nunication cable is poor, or	there is noise interference.			
Solution	<ol> <li>Check whether t</li> <li>Contact Syntec (</li> </ol>	he machine is properly gro OEM.	unded.			
Alarm ID	SYS-032-2	Alarm title	[EtherCAT-Driver packet is interfered by noise]			
Description	<ul> <li>Under EtherCAT communication, the driver response packet is interfered by noise to generate CRC errors, and the error lasts for more than 10ms. Example: According to the communication time setting( Pr3203 ), 6 consecutive errors for 2ms; 4 consecutive errors for 3ms.</li> <li>When a problem occurs, enter the axial diagnosis page and observe the following variables to determine whether communication abnormalities occur continuously.         <ul> <li>76: Number of response packet CRC errors</li> <li>79: Maximum number of consecutive response packet CRC errors</li> </ul> </li> </ul>					
Possible Reason	The quality of the comr	nunication cable is poor, or	there is noise interference.			
Solution	<ol> <li>Check whether t</li> <li>Contact Syntec</li> </ol>	he machine is properly gro OEM.	unded.			
Alarm ID	SYS-032-3	Alarm Title	[EtherCAT-IO device packet is interfered by noise]			
Description	Under EtherCAT commu generate CRC errors, an Example: According to t 2ms; 4 consecutive erro	Under EtherCAT communication, the IO device response packet is interfered by noise to generate CRC errors, and the abnormality lasts for more than 10ms. Example: According to the communication time setting(Pr3203), 6 consecutive errors for 2ms; 4 consecutive errors for 3ms.				
Possible Cause	The quality of the comm	nunication cable is poor, or	there is noise interference.			

Alarm ID	SYS-032-3	Alarm Title	[EtherCAT-IO device packet is interfered by noise]			
Solution	<ol> <li>Check whethe</li> <li>Contact Syntem</li> </ol>	r the machine is properly g c OEM.	rounded.			
Alarm ID	SYS-033	SYS-033 Alarm title [Device software misses communication packet]				
Description Possible Reason	<ul> <li>Under neither M3 nor EtherCAT communication, the device response packet Watchdog error, and the abnormality lasts for more than 10ms. Example: According to the communication time setting(Pr3203), 6 consecutive errors for 2ms; 4 consecutive errors for 3ms.</li> <li>When a problem occurs, enter the axial diagnosis page and observe the following variables to determine whether communication abnormalities occur continuously.</li> <li>77: Response packet Watchdog error count</li> <li>80: Maximum consecutive number of response packet Watchdog errors</li> </ul>					
Solution	Contact Syntec OEM.					
Alarm ID	SYS-033-1	Alarm title	M3-Driver software misses			
	515 055 1	Aumite	communication packet]			
Description	<ul> <li>Under M3 communication, the driver response packet Watchdog error, and the abnormality lasts for more than 10ms. Example: According to the communication time setting(Pr3203), 6 consecutive errors for 2ms; 4 consecutive errors for 3ms.</li> <li>When a problem occurs, enter the axial diagnosis page and observe the following variables to determine whether communication abnormalities occur continuously.</li> <li>77: Response packet Watchdog error count</li> <li>80: Maximum consecutive number of response packet Watchdog errors</li> </ul>					
Possible Reason	The driver software re	sponse packet Watchdog e	rror.			
Solution	Contact Syntec OEM.					

Alarm ID	SYS-034	Alarm title	[Device communication error ]		
Description	<ul> <li>Under neither M3 nor EtherCAT communication, at least two of the following problems occur, and the abnormality lasts for more than 10ms.</li> <li>Example: According to the communication time setting(Pr3203), 6 consecutive errors for 2ms; 4 consecutive errors for 3ms.</li> <li>1. The controller does not receive the response packet from the device.</li> <li>2. Device response packet CRC error.</li> <li>3. Device response packet Watchdog error.</li> </ul>				
Possible Reason	<ol> <li>The communication cable between the controller and the device is loose.</li> <li>The quality of the communication cable is poor, or there is noise interference.</li> <li>The device software response packet Watchdog error.</li> </ol>				
Solution	<ol> <li>Check the wiring of the communication cable between the controller and the device.</li> <li>Check whether the machine is properly grounded.</li> <li>Contact Syntec OEM.</li> </ol>				
	SYS-034-1 Alarm title [M3-Drive communication error]				
Alarm ID	SYS-034-1	Alarm title	[M3-Drive communication error]		
Alarm ID Description	SYS-034-1 Under M3 communicati abnormality lasts for me Example: According to t for 2ms; 4 consecutive e 1. The controller de 2. Driver response 3. Driver response	Alarm title on, at least two of the followin ore than 10ms. he communication time settin errors for 3ms. Des not receive the response p packet CRC error. packet Watchdog error.	[M3-Drive communication error] ng problems occur, and the ng( Pr3203 ), 6 consecutive errors backet from the drive.		
Alarm ID Description Possible Reason	SYS-034-1 Under M3 communicati abnormality lasts for me Example: According to t for 2ms; 4 consecutive e 1. The controller de 2. Driver response 3. Driver response 1. The communicat 2. The quality of th 3. The driver softwo	Alarm title on, at least two of the followin ore than 10ms. he communication time settin errors for 3ms. bes not receive the response p packet CRC error. packet Watchdog error. tion cable between the contro e communication cable is poo are response packet Watchdo	[M3-Drive communication error] Ing problems occur, and the Ing(Pr3203), 6 consecutive errors backet from the drive. Deller and the drive is loose. or, or there is noise interference. Ig error.		

Alarm ID		SYS-034-2	Alarm title	[EtherCAT- Drive communication error]		
Description	U al Ez fc	<ul> <li>Under EtherCAT communication, at least two of the following problems occur, and the abnormality lasts for more than 10ms.</li> <li>Example: According to the communication time setting(Pr3203), 6 consecutive errors for 2ms; 4 consecutive errors for 3ms.</li> <li>1. The controller does not receive the response packet from the drive.</li> <li>2. Driver response packet CRC error.</li> <li>3. Driver response packet Watchdog or Working Counter error.</li> </ul>				
Possible Reasor	n	<ol> <li>The communicat</li> <li>The quality of the</li> <li>The driver softwat</li> </ol>	ion cable between the cor communication cable is re response packet Watch	ntroller and the drive is loose. poor, or there is noise interference. ndog or Working Counter error.		
Solution		<ol> <li>Check the wiring drive.</li> <li>Check whether the Gontact Syntec O</li> </ol>	of the communication cal le machine is properly gro EM.	ble between the controller and the ounded.		
Alarm ID		SYS-034-3 Alarm Title [EtherCAT-IO device communication error				
Description	Ur ab Ex fo	<ul> <li>Under EtherCAT communication, one of the following problems occurs, and the abnormality lasts for more than 10ms.</li> <li>Example: According to the communication time setting(Pr3203), 6 consecutive errors for 2ms; 4 consecutive errors for 3ms.</li> <li>1. The controller does not receive response packet from the IO device.</li> <li>2. IO device response packet CRC error.</li> <li>3. IO device response packet Watchdog or Working Counter error.</li> </ul>				
Possible Cause		<ol> <li>The communication cable between the controller and the IO device is loose.</li> <li>The quality of the communication cable is poor, or there is noise interference.</li> <li>The IO device software response packet Watchdog or Working Counter error.</li> </ol>				
Solution		<ol> <li>Check the wiring of the communication cable between the controller and the IO device.</li> <li>Check whether the machine is properly grounded.</li> <li>Contact Syntec OEM.</li> </ol>				
Alarm ID	SYS-041	Ala	rm Title	RIO1 communication error		

Description	When warni RIO1 o Pr5/P	I IO relative module with RIO1 communication of Watch Dog fails, the system will display ing. communication supports different IO related modules according to different models and Pr9 settings. Please refer to the Pr5 parameter file query table.				
Possible Cause	1. 2. 3. 4.	Pr5 setting doesn't r IO relative module n Not supplied externa Controller ground ca	natch hardware structure nalfunction al 24V Voltage to RIO or RIO c able is influenced by noise.	able malfunction.		
Solution	1. 2. 3. 4. 5. 6.	Set correct Pr5 parameter value according to hardware configuration. Change IO relative model. Supply power to RIO/HKIO correctly and check RIO1 cable. Check machine has grounding correctly. If HK adapter board is not used, please refer to custom I/O comparison table manual. Set Pr5 to 100 and set IO point (HK, MPG, PANEL-EX) on adapter board to disable (-1). According to 5. If RIO is not used, please sets RIO point to disable. (-1)				
Alarm ID	SYS-0	942	Alarm Title	<b>RIO2</b> communication error		
Description	When warni The IC	IO relative module wi ng. D relative module coni	IO relative module with RIO2 communication of Watch Dog fails, the system will display ng. ) relative module connected to RIO2 here is the RIO module.			
Possible Cause	1. 2. 3. 4.	Pr5 setting doesn't r IO relative module n Not supplied externa Controller ground ca	Pr5 setting doesn't match hardware structure IO relative module malfunction Not supplied external 24V Voltage to RIO or RIO cable malfunction. Controller ground cable is influenced by noise.			
Solution	1. 2. 3. 4. 5. 6.	Set correct Pr5 parameter value according to hardware configuration. Change IO relative module. Supply power to RIO/HKIO correctly and check RIO2 cable. Check machine has grounding correctly. If HK adapter board is not used, please refer to custom I/O comparison table manual. Set Pr5 to 100 and set IO point (HK, MPG, PANEL-EX) on adapter board to disable (-1). According to 5. If RIO is not used, please sets RIO point to disable. (-1)				
Alarm ID	SYS-046 Alarm Title [MCU firmware is in burning mode]					
Description		It is detected that the	e MCU firmware is in burning	mode when system booting.		
Possible Cause		The MCU firmware failed to be burned before, causing the firmware to stay in the burning mode.				

Alarm ID		SYS-046	i	Alarm Title	[MCU firmware is in burning mode]	
Solution		1. P 2. P	<ol> <li>Please use an external keyboard to re-burn MCU firmware.</li> <li>Please contact Syntec OEM.</li> </ol>			
Alarm ID		SYS-046-:	1	[Funtion Key-MCU firmware is in burning mode]		
Description		It is detec booting.	ted that the M	ICU firmware of function ke	ey is in burning mode when system	
Possible Cause	2	The MCU f stay in the	firmware of fu e burning mod	unction key failed to be bur de.	ned before, causing the firmware to	
Solution		1. Ple 2. Ple	ease use an ex ease contact S	xternal keyboard to re-burr Syntec OEM.	n MCU firmware.	
Alarm ID		SYS-046-1 Alarm Title [Keyboard-MCU firmw burning mode]			【Keyboard-MCU firmware is in burning mode】	
Description		It is detec booting.	ted that the M	ICU firmware of keyboard i	s in burning mode when system	
Possible Cause	•	The MCU the burnir	firmware of k ng mode.	eyboard failed to be burned	d before, causing the firmware to stay in	
Solution		1. Ple 2. Ple	ease use an ex ease contact S	xternal keyboard to re-burr Syntec OEM.	n MCU firmware.	
Alarm ID	SYS	-061	Alarm Titl e	(ENC parameter settin	ng error]	
Explanation	ENC	parameter	s have incorre	ect setting and controller c	annot determine effectively.	
Possible Cau se	The	There are ENC parameters set in wrong area or parameter settings conflict with each other.				
Solution	Set	correct ENC	: parameter v	alue.		
Alarm ID	SYS	-061-1	Alarm Titl e	(ENC parameter settin	ng conflict]	

Explanation	ENC parameter	ENC parameter setting conflict and cannot be determined correctly.				
Possible Cau se	Pr21~Pr40【Ax type】 setting i	is correspondi s conflicting.	ing axis card port number】 and Pr3291~Pr3292 【ENC1/ENC2 port			
Solution	<ol> <li>When Pr21~Pr40 is set to ENC(301~302), Pr3291~Pr3292 must be set to 0(ABZ).</li> <li>When Pr21~Pr40 is not set to ENC(301~302), Pr3291~Pr3292 can be set to 1(Capacitometer).</li> </ol>					
Alarm ID	SYS-061-2	SYS-061-2 Alarm Titl [ENC R register in system protection area] e				
Explanation	ENC R register i	ENC R register in CNC system protection area.				
Possible Cau se	Setting ENC R register in CNC system protection area is not allowed.					
Solution	Set Pr3301~Pr3 then reboot the	302 【ENC1/E controller.	NC2 feedback storage R register number】 in user defined area,			

#### 3.1 System Alarm -SYS -Important Note

#### 3.2 SYS-001 Critical system error

Alarm ID	SYS-001	Alarm Title	Critical system error		
Description	Unexpected error happened while controller running.				
Possible Cause	System memory operation failed.				
Solution	Do system backup immediately, contact Syntec OEM and restart the system.				

## 3.3 SYS-002 Important file error

New Version is 10.118.86K, 10.120.16K, 10.120.24B, 10.120.27 and after Old Version is 10.118.86J, 10.118.94 and before

Alarm ID	SYS	-002-1 A	Alarm title	[Servo d	communication	driver module loading failed]
Description	Erro corr	or happened due to servo communication driver module ( Ex—M3, ECAT ) lost or ruption.				
Possible Cause	Serv	vo communication driver module loading failed.				
Solution	Do s	ystem bacl	kup immedia	tely, conta	ct Syntec OEM ar	nd restart the system.
Alarm ID		SYS-002	-2	Alarm	title	[IO driver loading failed]
Description		Error hap	ppened due t	o IO driver	lost or corruption	1.
Possible Cause		IO driver	loading faile	d.		
Solution		Do syster	m backup im	mediately,	contact Syntec (	DEM and restart the system.
Alarm ID	:	SYS-002-3 Alarm		title	title [Other driver loading failed]	
Description		Error happened due to driver module lost or corruption.				tion.
Possible Cause		Driver module loading failed, such as SRI.				
Solution		Do system	backup imm	ediately, co	ontact Syntec OE	M and restart the system.
Alarm ID		SYS-002-	4	Alarm ti	tle	【System ORX module loading failed】
Description		Error hap	pened due to	system OF	RX module lost o	corruption.
Possible Cause		System ORX module loading failed.				
Solution		Do systen	n backup imr	nediately, o	contact Syntec O	EM and restart the system.
Alarm ID		SYS-002-	-5	Alarm t	itle	[System data loading failed]
Description		Error hap	opened due to	o system da	ata lost or corrup	tion.

Possible Cause	System data loading failed, such as XML.					
Solution	Do system backup im	mediately, contact Synte	c OEM and restart the system.			
Alarm ID	SYS-002-6 Alarm title [Motion control module loading failed]					
Description	Error happened due to	o motion control module l	ost or corruption.			
Possible Cause	Motion control modul	e loading failed.				
Solution	Do system backup imr	mediately, contact Syntec	OEM and restart the system.			
Alarm ID	SYS-002-10	SYS-002-10 Alarm title [High speed high precision parameter data loading failed]				
Description	Error happened due to high speed high precision parameter data lost or corruption.					
Possible Cause	High speed high precisi	ion parameter data loadir	ng failed.			
Solution	Do system backup imm	nediately, contact Syntec	DEM and restart the system.			

#### New Version

**Old Version** 

Alarm ID	SYS-002	Alarm Title	Important file error
Description	Error happened due	e to file lost or corrupti	on.
Possible Cause	<ol> <li>Servo communica</li> <li>IO driver loading</li> <li>Other driver mod</li> <li>System ORX mod</li> <li>System data load</li> <li>Motion control m</li> <li>High speed high</li> </ol>	ation driver module los failed. ule loading failed. ule loading failed. ing failed. odule loading failed. precision parameter c	ading failed. lata loading failed
Solution	Do system backup i	mmediately, contact S	yntec OEM and restart the syst

Sub Alarm SYS-002-1 [Servo comm. driver loading failed] Servo communication modules such as M3 and ECAT.
 Sub Alarm SYS-002-2 [I/O driver loading failed]

- 3. Sub Alarm SYS-002-3 [Other driver loading failed] Other driver module such as SRI.
- 4. Sub Alarm SYS-002-4 【System ORX module loading failed】 For example, System ORX module loading failed or initialize failed
- 5. Sub Alarm SYS-002-5 【System data loading failed】 For example, XML file loading failed.
- 6. Sub Alarm SYS-002-6 [Motion control module loading failed] For example, the failure to load or initialize the plug-in path handling module.
- 7. Sub Alarm SYS-002-10 [High speed high precision parameter data loading failed] For example, the failure to load or initialize the HSHPParam.dat.

#### 3.4 SYS-003 Hardware can not support this software version

New Version is 10.118.86K, 10.120.16K, 10.120.24B, 10.120.27 and after Old Version is 10.118.86J, 10.118.94 and before

New Version Old Ver	rsion		
Alarm ID	SYS-003-1	Alarm title	【Insufficient physical memory 】
Description	Insufficient physical me	emory.	
Possible Cause	The system memory is insufficient to support this software version.		
Solution	Please reinstall the con	troller software version 10	.118.50.x or below.

#### New Version Old Version

Alarm ID	SYS-003 Alarm Title Hardware can not support this software version					
Description	The hardware does not support upgrading to this software version.					
Possible Cause	1. The sys	1. The system memory is insufficient to support this software version.				
Solution	1. Please i	reinstall the co	ntroller software version 10.118.50.x or below.			

1. Sub Alarm SYS-003-1 【Insufficient physical memory.】

#### 3.5 SYS-004 Critical CPU overheating

Alarm ID	SYS-004	Alarm title	[Critical CPU overheating]
Description	The CPU temperatu	re exceeds 105 degrees	for six consecutive minutes.
Reason	<ol> <li>The CPU hea</li> <li>Working env</li> </ol>	t sink is detached or no ironment temperature (	t installed correctly. of controller is too high.
Solution	<ol> <li>Check wheth</li> <li>Do system back</li> </ol>	er the device temperat ackup immediately, cor	ure is abnormally high. Itact Syntec OEM.
Version	10.120.32A, 10.120.3	33 and above	

#### 3.6 SYS-041 RIO1 communication error

Alarm ID	SYS-041	Alarm Title	<b>RIO1</b> communication error
Description	When IO relative module w warning. RIO1 communication suppo Pr5/Pr9 settings. Please ref	ith RIO1 communication of Wa orts different IO related modul er to the Pr5 parameter file qu	ntch Dog fails, the system will display es according to different models and ery table.
Possible Cause	<ol> <li>Pr5 setting doesn't i</li> <li>IO relative module r</li> <li>Not supplied extern</li> <li>Controller ground complication</li> </ol>	match hardware structure nalfunction al 24V Voltage to RIO or RIO ca able is influenced by noise.	ble malfunction.
Solution	<ol> <li>Set correct Pr5 para</li> <li>Change IO relative n</li> <li>Supply power to RIC</li> <li>Check machine has</li> <li>If HK adapter board Set Pr5 to 100 and s</li> <li>According to 5. If RIC</li> </ol>	meter value according to hard nodel. D/HKIO correctly and check RIC grounding correctly. is not used, please refer to cus et IO point (HK, MPG, PANEL-E D is not used, please sets RIO p	ware configuration. D1 cable. stom I/O comparison table manual. X) on adapter board to disable (-1). point to disable. (-1)

# 3.7 SYS-042 RIO2 communication error

Alarm ID	SYS-042	Alarm Title	<b>RIO2</b> communication error
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Description	When IO relative module with RIO2 communication of Watch Dog fails, the system will display warning. The IO relative module connected to RIO2 here is the RIO module.
Possible Cause	<ol> <li>Pr5 setting doesn't match hardware structure</li> <li>IO relative module malfunction</li> <li>Not supplied external 24V Voltage to RIO or RIO cable malfunction.</li> <li>Controller ground cable is influenced by noise.</li> </ol>
Solution	<ol> <li>Set correct Pr5 parameter value according to hardware configuration.</li> <li>Change IO relative module.</li> <li>Supply power to RIO/HKIO correctly and check RIO2 cable.</li> <li>Check machine has grounding correctly.</li> <li>If HK adapter board is not used, please refer to custom I/O comparison table manual. Set Pr5 to 100 and set IO point (HK, MPG, PANEL-EX) on adapter board to disable (-1).</li> <li>According to 5. If RIO is not used, please sets RIO point to disable. (-1)</li> </ol>

## 3.8 SYS-021 Serial communication initialization failed

Alarm ID	SYS-021	Alarm Title	[Serial communication initialization failed]
Description	When controller fail	to communicate with drive	
Possible Cause	<ol> <li>Drive is abnormal.</li> <li>Drive or controller hardware malfunction.</li> <li>When Pr9 is set as EtherCat communication, and drive is not connected.</li> <li>When Pr9 is set as RTEX communication, and drive is not connected.</li> <li>M3 multi-axis drive, the first station is not set.</li> </ol>		
Solution	<ol> <li>Reboot the c</li> <li>Replace the c malfunctione</li> <li>Connect Ethe</li> <li>M2 / M3 initia and provide</li> <li>Set the first s</li> <li>Note: For EtherCAT</li> </ol>	ontroller and drive. drive, if it is not effective, th ed. erCAT drive. alization error code display D53 value. station, or enlarge the set va communication error, refer	e controller hardware may be on D53, please contact the Syntec OEM alue of Pr3203 (interpolation time). to EtherCAT Drive Application Manual

#### 3.9 SYS-026 Controller cannot establish communication with device

	Alarm ID	SYS-026	Alarm Title	[Controller cannot establish communication with device]
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Description	Under neither M3 nor EtherCAT communication, the controller does not receive the device feedback packet when it is powered on, and the abnormality lasts for more than 1s. Example: According to the communication time setting(Pr3203), 501 consecutive errors for 2ms; 334 consecutive errors for 3ms.			
Possible Cause	<ol> <li>The device star correctly.</li> <li>The communic</li> </ol>	tion number and controlle	er parameters do not correspond controller and the device is loose.	
Solution	<ol> <li>Check whether</li> <li>Check the wirin device.</li> <li>Contact Syntee</li> </ol>	r the settings of device pa ng of the communication c OEM.	rameters are correct. cable between the controller and the	
Alarm ID	SYS-026-1	Alarm Title	[M3-Controller cannot establish communication with drive]	
Description	Under M3 communication, the controller does not receive the driver feedback packet when it is powered on, and the abnormality lasts for more than 1s. Example: According to the communication time setting(Pr3203), 501 consecutive errors for 2ms; 334 consecutive errors for 3ms.			
Possible Cause	<ol> <li>The drive static</li> <li>The communication</li> </ol>	on number and controller ation cable between the c	parameters do not correspond correctly. controller and the drive is loose.	
Solution	<ol> <li>Check whether controller para</li> <li>Check the wirin drive.</li> <li>Contact Syntec</li> </ol>	the drive parameter dip s meters (Pr21~). Ig of the communication o OEM.	witch settings correspond correctly to the cable between the controller and the	
Alarm ID	SYS-026-2	Alarm Title	[EtherCAT-Controller cannot establish communication with drive]	
Description	Under EtherCAT comm packet when it is powe Example: According to for 2ms; 334 consecutiv	Under EtherCAT communication, the controller does not receive the driver feedback packet when it is powered on, and the abnormality lasts for more than 1s. Example: According to the communication time setting(Pr3203), 501 consecutive errors for 2ms; 334 consecutive errors for 3ms.		
Possible Cause	<ol> <li>The drive statio</li> <li>The communication</li> </ol>	n number and controller ation cable between the c	parameters do not correspond correctly. ontroller and the drive is loose.	

Solution	<ol> <li>Check whether the drive parameter dip switch settings correspond correctly to the controller parameters (Pr21~).</li> <li>Check the wiring of the communication cable between the controller and the drive.</li> <li>Contact Syntec OEM.</li> </ol>			
Alarm ID	SYS-026-3       Alarm Title       [EtherCAT-Controller cannot establish communication with IO device]			
Description	Under EtherCAT communication, the controller does not receive the IO device feedback packet when it is powered on under EtherCAT communication, and the abnormality lasts for more than 1s. Example: According to the communication time setting(Pr3203), 501 consecutive errors for 2ms; 334 consecutive errors for 3ms.			
Possible Cause	<ol> <li>The IO device s correctly.</li> <li>The communic</li> </ol>	tation number and contro ation cable between the o	oller parameters do not correspond controller and the IO device is loose.	
Solution	<ol> <li>Check whether Wizard) are cor</li> <li>Check the wirin device.</li> <li>Contact Syntec</li> </ol>	the settings of the IO dev rect. ng of the communication of : OEM.	vice (Pr3261~, Pr3281~, EtherCAT Setting cable between the controller and the IO	

# 3.10 SYS-030 Device disconnection

Alarm ID	SYS-030	Alarm title	[Device disconnection]	
Description	<ul> <li>Under neither the response p Example: Acco consecutive er</li> <li>When a proble following varia continuously.</li> <li>74: Nun</li> <li>78: Max</li> </ul>	M3 nor EtherCAT communica acket from the device, and th rding to the communication t rors for 2ms; 334 consecutive m occurs, enter the axial diag bles to determine whether co nber of response packets not imum number of consecutive	tion, the controller does not receive e error continues for more than 1s. :ime setting( Pr3203 ), 501 errors for 3ms. ;nosis page and observe the ommunication abnormalities occur received e response packets not received	
Possible Reason	The communication c	able between the controller a	ind the device is loose.	
Solution	<ol> <li>Check the wirin device.</li> <li>Contact Syntee</li> </ol>	viring of the communication cable between the controller and the ntec OEM.		

Alarm ID	SYS-030-1	Alarm title	[M3-Drive disconnection]	
Description	<ul> <li>Under M3 communication, the controller does not receive the response packet from the device, and the error continues for more than 1s. Example: According to the communication time setting(Pr3203), 501 consecutive errors for 2ms; 334 consecutive errors for 3ms.</li> <li>When a problem occurs, enter the axial diagnosis page and observe the following variables to determine whether communication abnormalities occur continuously.</li> <li>74: Number of response packets not received</li> <li>78: Maximum number of consecutive response packets not received</li> </ul>			
Possible Reason	<ol> <li>The communication cable between the controller and the drive is loose.</li> <li>The quality of the communication cable is poor, or there is noise interference.</li> </ol>			
Solution	<ol> <li>Check the wiring of the communication cable between the controller and the drive.</li> <li>Check whether the machine is properly grounded.</li> <li>Contact Syntec OEM.</li> </ol>			
Alarm ID	SYS-030-2	Alarm title	【EtherCAT-Drive disconnection】	
Description	<ul> <li>Under EtherCAT communication, one of the following problems occurs, and the error continues for more than 1s.         Example: According to the communication time setting(Pr3203), 501 consecutive errors for 2ms; 334 consecutive errors for 3ms.         a. The controller does not receive the response packet from the drive.         b. The driver response packet Watchdog or Working Counter error occurs.         When a problem occurs, enter the axial diagnosis page and observe the following variables to determine whether communication abnormalities occur continuously.         74: Number of response packets not received         77: Response packet Watchdog error count         80: Maximum number of consecutive response packet Watchdog errors      </li> </ul>			
Possible Reason	<ol> <li>The communication</li> <li>The driver softward</li> </ol>	on cable between the contr re response packet Watchdo	roller and the drive is loose. og or Working Counter error.	
Solution	<ol> <li>Check the wiring drive.</li> <li>Contact Syntec O</li> </ol>	of the communication cable EM.	e between the controller and the	

Alarm ID	SYS-030-3	Alarm Title	[EtherCAT-IO device disconnection]
Description	<ul> <li>Under EtherCAT communication, one of the following problems occurs, and the abnormality lasts for more than 1s.</li> <li>Example: According to the communication time setting(Pr3203), 501 consecutive errors for 2ms; 334 consecutive errors for 3ms.</li> <li>1. The controller does not receive response packet from the IO device.</li> <li>2. IO device response packet Watchdog or Working Counter error.</li> </ul>		
Possible Cause	<ol> <li>The communication cable between the controller and the IO device is loose.</li> <li>The IO device software response packet Watchdog or Working Counter error.</li> </ol>		
Solution	<ol> <li>Check the wiring of the communication cable between the controller and the IO device.</li> <li>Contact Syntec OEM.</li> </ol>		

## 3.11 SYS-031 Poor contact of communication cable

Alarm ID	SYS-031	Alarm title	[Poor contact of communication cable]
Description	<ul> <li>Under neither M3 nor EtherCAT communication, the controller does not receive the response packet from the device, and the error continues for more than 10ms.</li> <li>Example: According to the communication time setting(Pr3203), 6 consecutive errors for 2ms; 4 consecutive errors for 3ms.</li> <li>When a problem occurs, enter the axial diagnosis page and observe the following variables to determine whether communication abnormalities occur continuously.</li> <li>74: Number of response packets not received</li> <li>78: Maximum number of consecutive response packets not received</li> </ul>		
Possible Reason	The communication cable between the controller and the device is loose.		
Solution	<ol> <li>Check the wiring of the communication cable between the controller and the device.</li> <li>Contact Syntec OEM.</li> </ol>		able between the controller and the

Alarm ID	SYS-031-1	Alarm title	[M3-Poor contact of communication cable or driver packet is interfered by noise ]	
Description	<ul> <li>Under M3 communication, the controller does not receive the response packet from the device, and the error continues for more than 10ms. Example: According to the communication time setting(Pr3203), 6 consecutive errors for 2ms; 4 consecutive errors for 3ms.</li> <li>When a problem occurs, enter the axial diagnosis page and observe the following variables to determine whether communication abnormalities occur continuously.</li> <li>74: Number of response packets not received</li> <li>78: Maximum number of consecutive response packets not received</li> </ul>			
Possible Reason	<ol> <li>The communi</li> <li>The quality of</li> </ol>	<ol> <li>The communication cable between the controller and the drive is loose.</li> <li>The quality of the communication cable is poor, or there is noise interference.</li> </ol>		
Solution	<ol> <li>Check the wiring of the communication cable between the controller and the drive.</li> <li>Check whether the machine is properly grounded.</li> <li>Contact Syntec OEM.</li> </ol>			
Alarm ID	SYS-031-2 Alarm title [Et com miss		[EtherCAT-Poor contact of communication cable or driver software misses communication packet ]	
Description	<ul> <li>Under EtherCAT communication, one of the following problems occurs, and the error continues for more than 10ms.</li> <li>Example: According to the communication time setting(Pr3203), 6 consecutive errors for 2ms; 4 consecutive errors for 3ms. <ul> <li>a. The controller does not receive the response packet from the drive.</li> <li>b. The driver response packet Watchdog or Working Counter error occurs.</li> </ul> </li> <li>When a problem occurs, enter the axial diagnosis page and observe the following variables to determine whether communication abnormalities occur continuously. <ul> <li>74: Number of response packets not received</li> <li>78: Maximum number of consecutive response packets not received</li> <li>80: Maximum number of consecutive response packet Watchdog errors</li> </ul> </li> </ul>			
Possible Reason	<ol> <li>The communication</li> <li>The driver softward</li> </ol>	tion cable between the vare response packet Wa	controller and the drive is loose. tchdog or Working Counter error.	
Solution	<ol> <li>Check the wirin</li> <li>Contact Syntec</li> </ol>	g of the communication OEM.	cable between the controller and the drive.	

Alarm ID	SYS-031-3	Alarm Title	[EtherCAT-Poor contact of communication cable or IO device software misses communication packet ]
Description	<ul> <li>Under EtherCAT communication, one of the following problems occurs, and the abnormality lasts for more than 10ms.</li> <li>Example: According to the communication time setting(Pr3203), 6 consecutive errors for 2ms; 4 consecutive errors for 3ms.</li> <li>1. The controller does not receive response packet from the IO device.</li> <li>2. IO device response packet Watchdog or Working Counter error.</li> </ul>		
Possible Cause	<ol> <li>The communication cable between the controller and the IO device is loose.</li> <li>The IO device software reports a packet Watchdog or Working Counter error.</li> </ol>		
Solution	<ol> <li>Check the wiring of the communication cable between the controller and the IO device.</li> <li>Contact Syntec OEM.</li> </ol>		

# 3.12 SYS-032 Device packet is interfered by noise

Alarm ID	SYS-032	Alarm title	[Device packet is interfered by noise]
Description	<ul> <li>Under neither M3 nor EtherCAT communication, the device response packet is interfered by noise to generate CRC errors, and the error lasts for more than 10ms.</li> <li>Example: According to the communication time setting(Pr3203), 6 consecutive errors for 2ms; 4 consecutive errors for 3ms.</li> <li>When a problem occurs, enter the axial diagnosis page and observe the following variables to determine whether communication abnormalities occur continuously.</li> <li>76: Number of response packet CRC errors</li> <li>79: Maximum number of consecutive response packet CRC errors</li> </ul>		cation, the device response packet is s, and the error lasts for more than n time setting( Pr3203 ), 6 consecutive ns. agnosis page and observe the following ication abnormalities occur RC errors ive response packet CRC errors
Possible Reason	The quality of the communication cable is poor, or there is noise interference.		or there is noise interference.
Solution	<ol> <li>Check whether the machine is properly grounded.</li> <li>Contact Syntec OEM.</li> </ol>		rounded.

Alarm ID	SYS-032-1	Alarm title	[M3-Driver packet is interfered by noise]	
Description	<ul> <li>Under M3 communication, the driver response packet is interfered by noise to generate CRC errors, and the error lasts for more than 10ms. Example: According to the communication time setting(Pr3203), 6 consecutive errors for 2ms; 4 consecutive errors for 3ms.</li> <li>When a problem occurs, enter the axial diagnosis page and observe the following variables to determine whether communication abnormalities occur continuously.</li> <li>76: Number of response packet CRC errors</li> <li>79: Maximum number of consecutive response packet CRC errors</li> </ul>			
Possible Reason	The quality of the comr	nunication cable is poor, or	there is noise interference.	
Solution	<ol> <li>Check whether the machine is properly grounded.</li> <li>Contact Syntec OEM.</li> </ol>			
Alarm ID	SYS-032-2	Alarm title	[EtherCAT-Driver packet is interfered by noise]	
Description	<ul> <li>Under EtherCAT communication, the driver response packet is interfered by noise to generate CRC errors, and the error lasts for more than 10ms. Example: According to the communication time setting(Pr3203), 6 consecutive errors for 2ms; 4 consecutive errors for 3ms.</li> <li>When a problem occurs, enter the axial diagnosis page and observe the following variables to determine whether communication abnormalities occur continuously.</li> <li>76: Number of response packet CRC errors</li> <li>79: Maximum number of consecutive response packet CRC errors</li> </ul>			
Possible Reason	The quality of the comr	The quality of the communication cable is poor, or there is noise interference.		
Solution	<ol> <li>Check whether the machine is properly grounded.</li> <li>Contact Syntec OEM.</li> </ol>			
Alarm ID	SYS-032-3	Alarm Title	[EtherCAT-IO device packet is interfered by noise]	
Description	Under EtherCAT commu generate CRC errors, an Example: According to t 2ms; 4 consecutive erro	Under EtherCAT communication, the IO device response packet is interfered by noise to generate CRC errors, and the abnormality lasts for more than 10ms. Example: According to the communication time setting(Pr3203), 6 consecutive errors for 2ms; 4 consecutive errors for 3ms.		
Possible Cause	The quality of the comm	nunication cable is poor, or	there is noise interference.	

Alarm ID	SYS-032-3	Alarm Title	[EtherCAT-IO device packet is interfered by noise]
Solution	<ol> <li>Check whether the machine is properly grounded.</li> <li>Contact Syntec OEM.</li> </ol>		bunded.

## 3.13 SYS-033 Device software misses communication packet

Alarm ID	SYS-033	Alarm title	[Device software misses communication packet]	
Description	<ul> <li>Under neither M3 nor EtherCAT communication, the device response packet Watchdog error, and the abnormality lasts for more than 10ms. Example: According to the communication time setting(Pr3203), 6 consecutive errors for 2ms; 4 consecutive errors for 3ms.</li> <li>When a problem occurs, enter the axial diagnosis page and observe the following variables to determine whether communication abnormalities occur continuously.</li> <li>77: Response packet Watchdog error count</li> <li>80: Maximum consecutive number of response packet Watchdog errors</li> </ul>			
Possible Reason	The device software response packet Watchdog error.			
Solution	Contact Syntec OEM.			
Alarm ID	SYS-033-1 Alarm title [M3-Driver software misses communication packet]			
Description	<ul> <li>Under M3 communication, the driver response packet Watchdog error, and the abnormality lasts for more than 10ms. Example: According to the communication time setting(Pr3203), 6 consecutive errors for 2ms; 4 consecutive errors for 3ms.</li> <li>When a problem occurs, enter the axial diagnosis page and observe the following variables to determine whether communication abnormalities occur continuously.</li> <li>77: Response packet Watchdog error count</li> <li>80: Maximum consecutive number of response packet Watchdog errors</li> </ul>			
Possible Reason	The driver software response packet Watchdog error.			
	Contact Syntec OEM.			

Alarm ID	SYS-034	Alarm title	【Device communication error 】	
Description	<ul> <li>Under neither M3 nor EtherCAT communication, at least two of the following problems occur, and the abnormality lasts for more than 10ms.</li> <li>Example: According to the communication time setting(Pr3203), 6 consecutive errors for 2ms; 4 consecutive errors for 3ms.</li> <li>1. The controller does not receive the response packet from the device.</li> <li>2. Device response packet CRC error.</li> <li>3. Device response packet Watchdog error.</li> </ul>			
Possible Reason	<ol> <li>The communication cable between the controller and the device is loose.</li> <li>The quality of the communication cable is poor, or there is noise interference.</li> <li>The device software response packet Watchdog error.</li> </ol>			
Solution	<ol> <li>Check the wiring of the communication cable between the controller and the device.</li> <li>Check whether the machine is properly grounded.</li> <li>Contact Syntec OEM.</li> </ol>			
Alarm ID	SYS-034-1 Alarm title [M3-Drive communica error]		[M3-Drive communication error]	
Description	<ul> <li>Under M3 communication, at least two of the following problems occur, and the abnormality lasts for more than 10ms.</li> <li>Example: According to the communication time setting(Pr3203), 6 consecutive errors for 2ms; 4 consecutive errors for 3ms.</li> <li>1. The controller does not receive the response packet from the drive.</li> <li>2. Driver response packet CRC error.</li> <li>3. Driver response packet Watchdog error.</li> </ul>			
Possible Reason	<ol> <li>The communication cable between the controller and the drive is loose.</li> <li>The quality of the communication cable is poor, or there is noise interference.</li> <li>The driver software response packet Watchdog error.</li> </ol>			
Solution	<ol> <li>The driver software response packet Watchdog error.</li> <li>Check the wiring of the communication cable between the controller and the drive.</li> <li>Check whether the machine is properly grounded.</li> <li>Contact Syntec OEM.</li> </ol>			

# 3.14 SYS-034 Device communication error

Alarm ID	SYS-034-2	Alarm title	[EtherCAT- Drive communication error]	
Description	<ul> <li>Under EtherCAT communication, at least two of the following problems occur, and the abnormality lasts for more than 10ms.</li> <li>Example: According to the communication time setting(Pr3203), 6 consecutive errors for 2ms; 4 consecutive errors for 3ms.</li> <li>1. The controller does not receive the response packet from the drive.</li> <li>2. Driver response packet CRC error.</li> <li>3. Driver response packet Watchdog or Working Counter error.</li> </ul>			
Possible Reason	<ol> <li>The communication cable between the controller and the drive is loose.</li> <li>The quality of the communication cable is poor, or there is noise interference.</li> <li>The driver software response packet Watchdog or Working Counter error.</li> </ol>			
Solution	<ol> <li>Check the wiring of the communication cable between the controller and the drive.</li> <li>Check whether the machine is properly grounded.</li> <li>Contact Syntec OEM.</li> </ol>			
Alarm ID	SYS-034-3 Alarm Title [EtherCAT-IO device communication error]			
Description	<ul> <li>Under EtherCAT communication, one of the following problems occurs, and the abnormality lasts for more than 10ms.</li> <li>Example: According to the communication time setting(Pr3203), 6 consecutive errors for 2ms; 4 consecutive errors for 3ms.</li> <li>1. The controller does not receive response packet from the IO device.</li> <li>2. IO device response packet CRC error.</li> <li>3. IO device response packet Watchdog or Working Counter error.</li> </ul>			
			ig Counter error.	
Possible Cause	<ol> <li>The communication</li> <li>The quality of the organization</li> <li>The IO device software</li> </ol>	on cable between the control communication cable is pool ware response packet Watch	ler and the IO device is loose. r, or there is noise interference. dog or Working Counter error.	

## 3.15 SYS-061 ENC parameter setting error

Alarm ID	SYS-061	Alarm Titl e	[ENC parameter setting error]

Explanation	ENC parameters have incorrect setting and controller cannot determine effectively.
Possible Cau se	There are ENC parameters set in wrong area or parameter settings conflict with each other.
Solution	Set correct ENC parameter value.

#### 3.16 SYS-061-1 ENC parameter setting conflict

Alarm ID	SYS-061-1	Alarm Titl e	[ENC parameter setting conflict]		
Explanation	ENC parameter	ENC parameter setting conflict and cannot be determined correctly.			
Possible Cau se	Pr21~Pr40 【Axis corresponding axis card port number】 and Pr3291~Pr3292 【ENC1/ENC2 port type】 setting is conflicting.				
Solution	<ol> <li>When P</li> <li>When P</li> <li>1(Capac</li> </ol>	r21~Pr40 is set r21~Pr40 is no titometer).	to ENC(301~302), Pr3291~Pr3292 must be set to 0(ABZ). t set to ENC(301~302), Pr3291~Pr3292 can be set to		

## 3.17 SYS-061-2 ENC R register in system protection area

Alarm ID	SYS-061-2	Alarm Titl e	[ENC R register in system protection area]		
Explanation	ENC R register i	ENC R register in CNC system protection area.			
Possible Cau se	Setting ENC R register in CNC system protection area is not allowed.				
Solution	Set Pr3301~Pr3 then reboot the	302 【ENC1/E e controller.	NC2 feedback storage R register number】 in user defined area,		

#### 3.18 SYS-046 MCU firmware is in burning mode

Alarm ID	SYS-046	Alarm Title	【MCU firmware is in burning mode】
Description	It is detected that the	e MCU firmware is in burning	mode when system booting.

Alarm ID	SYS-046	Alarm Title	【MCU firmware is in burning mode】	
Possible Cause	The MCU firmware failed to be burned before, causing the firmware to stay in the burning mode.			
Solution	<ol> <li>Please use an</li> <li>Please contact</li> </ol>	external keyboard to re-bu t Syntec OEM.	rn MCU firmware.	
Alarm ID	SYS-046-1 Alarm Title [Funtion Key-MCU firmware is in burning mode]			
Description	It is detected that the I booting.	MCU firmware of function ke	ey is in burning mode when system	
Possible Cause	The MCU firmware of f stay in the burning mo	unction key failed to be bur de.	ned before, causing the firmware to	
Solution	<ol> <li>Please use an e</li> <li>Please contact</li> </ol>	xternal keyboard to re-burr Syntec OEM.	n MCU firmware.	
Alarm ID	SYS-046-1	Alarm Title	【Keyboard-MCU firmware is in burning mode】	
Description	It is detected that the MCU firmware of keyboard is in burning mode when system booting.			
Possible Cause	The MCU firmware of keyboard failed to be burned before, causing the firmware to stay in the burning mode.			
Solution	<ol> <li>Please use an e</li> <li>Please contact</li> </ol>	xternal keyboard to re-burr Syntec OEM.	n MCU firmware.	

# 3.19 SYS-005 Failed to load APP module

Alarm ID	SYS-005	Alarm title	[Failed to load APP module]
Description	Failed to load APP module, APP can not work. Sub-alarm:		
	1. Sub-alar 2. Sub-alar	m SYS-005-1 【Faile m SYS-005-2 【Faile	ed to load APP config】 ed to load APP ORX module】

Reason	<ol> <li>Loss or destruction of App.acfg.</li> <li>Failed to load APP ORX module</li> </ol>
Solution	Do system backup immediately, contact Syntec OEM and restart the system.
Version	10.120.32B, 10.120.33 and above

#### 3.20 SYS-005-1 Failed to load APP config

Alarm ID	SYS-005-1	Alarm title	[Failed to load APP config]		
Description	Loss or destruction	Loss or destruction of APP config may cause software work abnormally			
Reason	<ol> <li>There is no config in APP</li> <li>APP config may be destroied.</li> </ol>				
Solution	<ol> <li>Reinstall APP</li> <li>Do system backup immediately, contact Syntec OEM and restart the system.</li> </ol>				
Version	10.120.32B, 10.120.3	33 and above			

#### 3.21 SYS-005-2 Failed to load APP ORX module

Alarm ID	SYS-005-2	Alarm title	[Failed to load APP ORX module]		
Description	Failed to load APP C	RX module or failed to	initialize may cause software work abnormally.		
Reason	<ol> <li>Loss or destruction of APP ORX module.</li> <li>Initialize abnormally</li> </ol>				
Solution	<ol> <li>Reinstall APP</li> <li>Do system backup immediately, contact Syntec OEM and restart the system.</li> </ol>				
Version	10.120.32B, 10.120.3	33 and above			

# 4 Axial Motion Alarm - MOT

Alarm ID	MOT-001	Alarm Title	A,B encoder feedback signal error	
Description	axis card detects A/B encoder feedback error.			
Possible Cause	Only happens when Pr9 *Servo board type sets as 0 (EMP2), when axis board type sets as EMP2, axis card will auto-detect A,B encoder feedback. If there is signal error, or has A signal but no B signal, this alarm will be issued.			
Solution	Check the servo cable	e or replace the axis board.		
Alarm ID	MOT-002	Alarm Title	Error counter overflow	
Description	Axis board detects c	verflow in encoder feedbac	k.	
Possible Cause	Only happen when servo type is set to 0(EMP2), 4(PMC4), 6(SERVO6), axis board will automatically detect the A, B encoder signals, if signal error or input signal too large, counter overflow alarm issued.			
Solution	Check the servo cab	le or replace the axis board.		
Alarm ID	MOT-003 Alarm Title Encoder module error			
Description	Currently no applica	ation.		
Possible Cause				
Solution				
Alarm ID	MOT-004	Alarm Title	No index interrupt signal	
Description	Currently no application.			
Possible Cause				
Solution				
Alarm ID	MOT-005	Alarm Title	DDA command overflow	

Description	Controller sends too calculates that the r	Controller sends too many commands. In the one interpolation time interval, software calculates that the number of commands sent is more than 2047 pulses.			
Possible Cause	<ol> <li>DDA software time setting value is too long.</li> <li>Motion velocity is too fast.</li> <li>Servo resolution is set too high.</li> <li>Backlash compensation or pitch compensation is too large.</li> <li>Feed forward Compensation is enabled before booting.</li> </ol>				
Solution	<ol> <li>Recommend that low interpolation time interval setting (parameter 3203) is not less than 2000.</li> <li>Reduce the feedrate limit (Pr461-Pr480)</li> <li>Reduce the servo resolution setting (driver and CNC Pr61-Pr80)</li> <li>Set appropriate mechanical compensation time constant (parameter 1401~1420).</li> <li>Cancel feed forward compensation function (parameter 581~600).</li> <li>Please contact staff of machinery manufacturer to solve problem.</li> </ol>				
More description	In order to achieve the multi-axis coordinated control, SYNTEC's controller uses DDA (Digital Differential Analyzer), Cycle Time of DDA is set by parameter Pr 3203. In one Cycle time of DDA, every axial is allowed to send maximum 2047 pulses. Once exceeding this value, controller will send alarm				
	MOT-006 Alarm Title Driver power supply status error				
Alarm ID	MOT-006	Alarm Title	Driver power supply status error		
Alarm ID Description	MOT-006 When controller outp Servo On or not powe (This alarm is only ap	Alarm Title outs movement command, it er on). propriate for situation when	Driver power supply status error detects driver power status error (Not Yaskawa driver blocks A.95x warning).		
Alarm ID     Description     Possible Cause	MOT-006 When controller outp Servo On or not powe (This alarm is only ap 1. Driver's Powe 2. Cut off driver 3. Driver malfun	Alarm Title outs movement command, in er on). propriate for situation when r-amp voltage isn't stable. power-amp voltage when er ction.	Driver power supply status error detects driver power status error (Not Yaskawa driver blocks A.95x warning).		
Alarm ID         Description         Possible Cause         Solution	MOT-006 When controller outp Servo On or not powe (This alarm is only ap 1. Driver's Powe 2. Cut off driver 3. Driver malfun 1. Check if the po 2. Check if the po 3. Replace the d	Alarm Title puts movement command, in er on). propriate for situation when r-amp voltage isn't stable. power-amp voltage when en ction.	Driver power supply status error detects driver power status error (Not Yaskawa driver blocks A.95x warning). mergency stop pushed. nal. or broken.		
Alarm IDDescriptionPossible CauseSolutionAlarm ID	MOT-006 When controller outp Servo On or not powe (This alarm is only ap 1. Driver's Powe 2. Cut off driver 3. Driver malfund 1. Check if the po 2. Check if the po 3. Replace the de	Alarm Title Puts movement command, if er on). propriate for situation when r-amp voltage isn't stable. power-amp voltage when er ction. Power supply of driver is norr power cable of driver is loose river. Alarm Title	Driver power supply status error   a detects driver power status error (Not   a Yaskawa driver blocks A.95x warning).   mergency stop pushed.   nal.   or broken.   Driver power-off		
Alarm IDDescriptionPossible CauseSolutionAlarm IDDescription	MOT-006 When controller outp Servo On or not powe (This alarm is only ap 1. Driver's Powe 2. Cut off driver 3. Driver malfund 1. Check if the po 2. Check if the po 3. Replace the de MOT-007 Driver input power	Alarm Title Puts movement command, if er on). propriate for situation when r-amp voltage isn't stable. power-amp voltage when er ction. Power supply of driver is norr power cable of driver is loose river. Alarm Title is cut off.	Driver power supply status error   a detects driver power status error (Not   a Yaskawa driver blocks A.95x warning).   mergency stop pushed.   nal.   or broken.   Driver power-off		

Alarm ID	MOT-007	Alarm Title	Driver power-off	
Solution	Ensure the controller is powered off completely. Confirm the power supply and reboot.			
Alarm ID	MOT-008	Alarm Title	Loss Pulse	
Description	<ol> <li>After sending the last command, start to check whether the difference between the feedback and the command exceeds the loss pulse check window(Pr561~Pr580). If it exceeds, this alarm will be issued.</li> <li>hardware model is not within the supported software version.</li> </ol>			
Possible Cause	<ol> <li>Kinematic occu</li> <li>Servo drive occi</li> <li>CPU board sen axis board has good).</li> <li>Unstable posit</li> <li>The cable that quality or is dis</li> <li>Controller does motion comma</li> <li>Local interfere</li> <li>Improper settin</li> <li>10, EZ series co option softwar</li> </ol>	urs obstruction phenomenon. curs unexpected Servo ON / OF d the data to axis board unsuc problem, the contact between ion feedback at idle. sends command from controll connected. sn't set servo drive alarm chec and although the drive is abno nce. ng of Loss pulse check window ontroller installed 9.242, 10.112 e is not activated.	F. cessfully (CPU board or CPU and axis board is not er to servo driver has poor k, controller continues to send rmal. ( Pr561~Pr580 ) and below versions software, or	



Solution	<ol> <li>Do not shut down the controller when alarm occurs. Please check whether the value of No 8, 9, 10 in diagnose function is zero</li> <li>Check whether the mechanical lubrication system is good.</li> <li>Open the cover of axial to check whether foreign matter blocks the motion of axial.</li> <li>Rotate screw to check whether machine is stuck (loading of driver)</li> <li>Execute servo tuning to suppress the vibration frequency.</li> <li>Check the drive servo-on and the servo-off of power or cable signal</li> <li>If the setting value of No 8, 9, 10 in diagnostic function do not change, please take home search action (don't need to reboot), after that check whether parameters 24, 25, 26, 40, 41, 42 are equal to zero, if the parameters 24, 25, 26 are not equal to zero, the feedback loop has problems</li> <li>If the parameters 40, 41, 42 are not equal to zero, command transmission from controller to the motor has been lost pulse.</li> <li>If all parameters 24, 25, 40, 41, 42 are not zero, then the interference signal is relatively large, specifically in the machining process, the setting value of parameters 8, 9, 10 gradually become large. The reason is the contact point between CPU board and axis card is not and axis board is not good. Try to replace CPU board and axis board.</li> <li>Adjust Loss pulse check window ( Pr561~Pr580 ). Recommended values are as follows;         <ul> <li>linear axis : 100</li> <li>rotary axis : 500</li> </ul> </li> <li>Confirm if hardware model is compatible with software version, or if option software Option2 is activated.</li> </ol>			
More description	Settings of Pr561~Pr580 is the check the range of loss pulse. System Data 8 [X axis following error value] System Data 9 [Y axis following error value] System Data 10 [Z axis following error value] System Data 24 [X axis absolute position feedback value] System Data 25 [Y axis absolute position feedback value] System Data 26 [Z axis absolute position feedback value] System Data 40 [X axis absolute position command value] System Data 41 [Y axis absolute position command value] System Data 42 [Z axis absolute position command value]			
Alarm ID	MOT-009 Alarm Title Servo Driver Alarm			
Description	Drive issued alarm.			
Possible Cause	<ol> <li>Drive alarm mostly is because of external Causes; i.e.</li> <li>Driver overheat.</li> <li>Encoder wiring error.</li> <li>Internal parameters is set wrong.</li> <li>Servo motor is incompatible.</li> <li>driver malfunction.</li> </ol>			

Solution	Follow the troubles	Follow the troubleshoot steps in driver alarm manual to solve alarm.		
Alarm ID	MOT-010	Alarm Title	Servo position command comm. error	
Description	Once the communica whether the queue v	Once the communication between Kernel and axis card has errors, software will check whether the queue value in internal IC of axis control is not zero.		
Possible Cause	<ol> <li>There is only points to the solution</li> <li>One axis card</li> <li>Two or more sis not equal to</li> <li>Servo board points</li> </ol>	<ol> <li>There is only one axis card, but parameter sets two axis cards, and servo axis points to the second axis card.</li> <li>One axis card has errors in case controller has two more axis cards.</li> <li>Two or more axis cards, IRQ11 Jump is plugged. In diagnosis function, number 23 is not equal to 100.</li> <li>Servo board pulse source parameter(Pr11) setting error.</li> </ol>		
Solution	<ol> <li>Check whether the parameter setting Pr11, Pr13 are consistent with the hardware feature.</li> <li>Check axis card jump setting.</li> <li>Change axis card.</li> </ol>			
More description	Each interpolation time interval, Kernel (core) software will check whether the QUEUE value FLAG is correct. After one FILTER, if it reads the error value, alarm will appear and diagnose function number 68 will be added 1.			

New version supports 10.118.400, 10.118.410, 10.118.48 and later; 10.118.86L, 10.120.16L, 10.120.24B, 10.120.27 and previous versions.

Old version supports 10.118.40N, 10.118.41N, 10.118.47 and previous versions.

#### New Old

Alarm ID	MOT-011	Alarm title	Drive communication error
Description	<ul> <li>At least 2 errors listed below occur for over 10ms totally in drive communication.</li> <li>1. Drive response packet not received.</li> <li>2. Drive response packet CRC error.</li> <li>3. Drive response packet watchdog error.</li> <li>Example: According to the communication time setting( Pr3203 ), 6 consecutive errors for 2ms; 4 consecutive errors for 3ms.</li> </ul>		
Possible Reason	<ol> <li>The commun</li> <li>The quality of interference.</li> <li>Drive response</li> </ol>	nunication cable between the controller and the driver is loose. y of the communication cable is poor, or there is noise ce. oonse packet watchdog error.	

Solution	<ol> <li>Check the wiring of the communication cable between the controller and the drive.</li> <li>Check whether the machine is properly grounded. If it is M2 communication, add a terminal resistor to the communication port of the end drive.</li> </ol>
	add a terminal resistor to the communication port of the end drive. 3. Contact Syntec OEM.

#### New Old

Alarm ID	MOT-011	Alarm title	Drive communication error
Description	Abnormal driver com	nmunication	
Possible Reason	<ol> <li>The drive station number does not correspond to the controller parameters correctly.</li> <li>The communication cable between the controller and the driver is loose.</li> <li>The quality of the communication cable is poor, or there is noise interference.</li> <li>The Serial Bus M2 communication cable is an older version of the cable with poor noise resistance ability.</li> <li>The communication time setting of RTEX driver is different from Pr3203.</li> <li>The EtherCAT drive does not have a matching ESI file.</li> </ol>		
Solution	<ol> <li>Check whether the driver parameter DIP switch setting corresponds to the controller parameter (Pr21 ~) correctly.</li> <li>Check the wiring of the communication cable between the controller and the driver.</li> <li>Check whether the machine is properly grounded. If it is M2 communication, add a terminal resistor to the communication port of the end driver.</li> <li>Check if there is a yellow label sticker written V4 on the M2 communication cable of the serial bus.</li> <li>Set the communication time of RTEX driver to the same as Pr3203.</li> <li>Check if the ESI file is imported correctly.</li> <li>Contact Syntec OEM.</li> </ol>		

Alarm ID	MOT-012	Alarm title	Driver homing error
Description	Serial Bus Driver homing unsuccessfully.		
Possible Reason	Homing method (Pr961) is set incorrectly or driver doesn't support homing function.		
solution	Check whether homing method is set correctly or driver supports homing function.		

Alarm ID	MOT-013	Alarm Title	A	Axial tuning failed. Reboot controller.
Description	After one serial bus axis tuning function fails, under un-reboot condition triggers axis JOG, MPG JOG or Homing functions.			
Possible Reason	Serial bus axis tunin	g fails.		
Solution	Reboot controller.			
Alarm ID	MOT-014	Alarm Title		Enabled too many serial axis
Description	Over system serial I	ous axis number limit.		
Possible Reason	When interpolation over limit serial bus	When interpolation time sets too short or using serial axis are too much and cause it's over limit serial bus axis number in interpolation time. And this alarm is issued.		
Solution	Configure the inter	Configure the interpolation time to increase or decrease the number of serial axis used.		
Alarm ID	MOT-016 4	Narm Title	Abso enco	lute type data error. Check the der power and reboot the driver
Description	Detects absolute type encoder is abnormal, and controller has reset. Please reboot driver.			
Possible Reason	<ol> <li>First time absolute encoder connects to power, do encoder setting.</li> <li>Encoder runs out of power. Position data is cleared.</li> <li>After driver connects to power, encoder battery voltage is too low.</li> </ol>			
Solution	<ol> <li>Check if the battery and connection status of the absolute encoder is proper.</li> <li>Check if the battery voltage is stable and complies with the rating voltage required by the absolute encoder.</li> <li>After the above check is completed, reboot controller and driver.</li> </ol>			
Alarm ID	MOT-017	Alarm Title	F	First Positive software limit exceed
Description	Axial machine coordinate is over positive software stroke limit which is set by Pr2401~Pr2440.			
Possible Cause	Stroke movement of machine table exceeds the set value.			
Solution	<ol> <li>Reset</li> <li>Move axis in negative direction to leave the software stroke limit protection.</li> </ol>			

Alarm ID	MOT-018	Alarm Title	First Negative software limit exceed	
Description	Axial machine coordinate is over negative software stroke limit which is set by Pr2401~Pr2440.			
Possible Cause	Stroke movement of	machine table exceeds the	set value.	
Solution	<ol> <li>Reset.</li> <li>Move axis in positive direction, to leave the software stroke limit protection.</li> </ol>			
Alarm ID	MOT-019	Alarm Title	Following error exceed	
Description	<ol> <li>Because of the characteristics of servo, servo motor location, there is no way to respond the command of controller immediately, so a slow phenomenon appears, when this latency is not in allowed range, controller will send out the alarm.</li> <li>Hardware type doesn't support software version.</li> <li>After controller version 10.120.32, for M3 drive, If the following error exceeds, only drive alarm AL-521 will be issued, instead of MOT-019.</li> </ol>			
Possible Cause	<ol> <li>Mechanism movement is not smooth.</li> <li>Cable contact is poor.</li> <li>Setting values of acceleration and deceleration time are too small.</li> <li>Servo On /Off Relay is interfered.</li> <li>Internal loop in driver parameter gains too small. (Under 10.116.10 and 10.117.10 or newer version, gain parameter (Kp) in controller and driver will synchronize automatically, so it doesn't need to consider this factor).</li> <li>Encoder resolution and electric gear ratio is wrongly set.</li> <li>Drive or motor malfunction.</li> <li>Encoder or cable between encoder and controller is abnormal.</li> <li>System Data number 23 is not equal to 100.</li> <li>10 and EZ serial controller installs to 9.242, 10.112 or older version, or option software function is not activated.</li> </ol>			
Solution	<ol> <li>Add lubricating oil to mechanism.</li> <li>Confirm wire connecting is normal.</li> <li>Increase combination or acceleration and deceleration time.</li> <li>When controller under dry run mode, open wiring cabinet to check whether servo on/off relay pulses is abnormal.</li> <li>Increase Inner loop gain of driver.</li> <li>Confirm hardware type and software version is matching, or confirm option software function Option 2 is activated.</li> <li>Contact to Syntec OEM.</li> </ol>			

More description	Maximum velocity setting value of G00 and home search is equal to setting parameter divided by Kp. This value multiplied by 2 is the setting range of controller. Reasonable following error: Ferr= speech in command/ setting value of loop gain Alarm allowed values= {max[(velocity of first stage in home search process), velocity G00 of each axis]/Kp}*2 i.e. Feedrate 1000mm/min, loop gain 30, accuracy 1um, Ferr = 1000*1000÷60÷30=555 System Data 32 [X axis reasonable following error] System Data 33 [Y axis reasonable following error] System Data 34 [Z axis reasonable following error]			
Alarm ID	MOT-020	Alarm Title	Cannot return to control mode when moving	
Description	When motor starts to servo on, such as emergency stop released, canceling monitor mode (C31 ~) or serial spindle switching to C-Axis mode, zero speed check for the motor does not pass within 400 ms.			
Possible Cause	<ol> <li>Instant machine movement by hand during motor servo on procedure.</li> <li>The drive gain setting is poor. Therefore, motor will be trembled during servo on procedure.</li> <li>Zero speed check window(Pr901~) is set too small.</li> </ol>			
Solution	<ol> <li>Avoid man-made movement.</li> <li>Check the drive's position loop gain and speed loop gain setting.</li> <li>Enlarge Pr901~ setting.</li> <li>Note, after removing alarm:         <ul> <li>For incremental system, press reset can remove the alarm.</li> <li>For absolute encoder system, system enters Not Ready state, need to reboot controller to remove the alarm.</li> </ul> </li> </ol>			
Alarm ID	MOT-021 Alarm Title Must re-homing			
Description	When user must re	e-homing, the controller iss	ue this alarm.	
Possible Cause	<ol> <li>MOT-020 [Cannot return to control mode when moving] is triggered.</li> <li>MOT-022 [Home position inaccurate] is triggered.</li> <li>Pr41~、Pr121~、Pr161~、Pr221~ is changed.</li> </ol>			
Solution	<ol> <li>Please remove alarm MOT-020 [Cannot return to control mode when moving]. Press reset or reboot controller.</li> <li>Please remove alarm MOT-022 [Home position inaccurate]. Press reset or reboot controller.</li> <li>Press reset and re-homing according to current axis setting.</li> </ol>			
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Alarm ID	MOT-022	Alarm Title	Home position inaccurate	
Description	After boot and complete homing for the first time, controller will set servo command (System Data 40~) and machine coordinate (Diagnose variable 72~) to zero. Or set an offset value according to Pr881~. After booting, at the N(N>1) times of searching home, home grid will be compared to the result of the first time searching home, if the error is over 0.1 turn of motor, the controller will send alarm.			
Possible Cause	<ol> <li>Homing signal of motor is abnormal.</li> <li>Stopper, coupling or bearings is not locked tightly.</li> <li>Home grid function (Pr941~) is not activated.</li> <li>Under serial bus environment, when that axis is also as spindle, Pr881~ and Pr1771~ setting is difference, will cause homing position change after homing.</li> </ol>			
Solution	<ol> <li>Move motor in the same direction and observe whether position counter index changes normally.</li> <li>Check whether the mechanism components are fixed properly.</li> <li>If it's possible cause 4., assuming sixth axis setting is as first spindle, please sets Pr886 and Pr1771 to same value.</li> </ol>			
Alarm ID	MOT-023	Alarm Title	Fatal following error exceed	
Description	<ol> <li>Because of the characteristics of servo, servo motor's positioning cannot respond immediately to controller's command, and delay phenomenon will appear, when this delay phenomenon is not in the allowed limit, controller will send alarm.</li> <li>After controller version 10.120.32, for M3 drive, If the following error exceeds, only drive alarm AL-52A will be issued, instead of MOT-023.</li> </ol>			
Possible Cause	<ol> <li>Servo motor d</li> <li>Parameter of c</li> <li>Parameters of</li> <li>Encoder is abr</li> </ol>	oesn't receive control due to drive - inner loop gain is too s acceleration and deceleration normal or connecting encode	e external force. small. on time is set too short. er to controller is abnormal.	

Solution	<ol> <li>Check the external motion of machine table.</li> <li>Check the setting parameter of drive.</li> <li>Check the acceleration and deceleration setting of each axis, Pr401, Pr541~Pr560.</li> <li>Maintain the connection between encoder and servo drives.</li> </ol>				
More description	Maximum velocity value of G00 and home search is equal to setting parameter divided by Kp. This value multiplied by 4 is setting range of controller. Reasonable following error: Ferr= speech in command/ loop gain Alarm allowed values= {max[(velocity of first stage in home search process), velocity G00 of each axis]/Kp]*4 System Data 32 [X axis reasonable following error] System Data 33 [Y axis reasonable following error] System Data 34 [Z axis reasonable following error]				
Alarm ID	MOT-024	Alarm Title	Fatal dual feedback error exceed		
Description	If controller discovers feedback exceed allo	s that the command and the wable limit set in Pr3817, co	e second command of encoder ontroller will send this alarm.		
Possible Cause	<ol> <li>Mechanism interference.</li> <li>Motor parameter setting error.</li> <li>Linear scale parameter setting error.</li> <li>Servo motor feedback signal abnormal or has interference.</li> <li>Linear scale signal abnormal or has interference.</li> <li>Linear scale reader loose and signal receiving unstable.</li> </ol>				
Solution	<ol> <li>Check external motion mechanism.</li> <li>Check if motor resolution setting Pr61~, Pr81~ and Pr61~ is correct.</li> <li>Check if linear scale resolution setting Pr261~ and Pr301~ is correct.</li> <li>Check if motor encoder function well, or move motor feedback direction away from high power electromagnetic devices.</li> <li>Check if linear scale power is stable, or move linear scale feedback direction away from high power electromagnetic devices.</li> <li>Check if linear scale power is stable, or move linear scale feedback direction away from high power electromagnetic devices.</li> <li>Confirm reader will not be affected by mechanism stroke movement.</li> </ol>				
Alarm ID	MOT-025	Alarm Title	Positive hardware limit exceed		
Description	Servo motor touches	the positive hardware limit	switch in movement.		
Possible Cause	<ol> <li>Machine table</li> <li>Hardware stress</li> <li>Controller inp</li> </ol>	e exceeds protection point. oke switches are damaged o out signal error.	or broken		

Solution	<ol> <li>Use MPG mode to move machine table to opposite direction once discovering that machine table stops at the switch.</li> <li>If machine table is not at the switch, check switch device, limit switch wiring, IO terminal, 24V power supply of terminal.</li> <li>Check whether IO card is abnormal.</li> </ol>			
Alarm ID	MOT-026	Alarm Title	Negative hardware limit exceed	
Description	Servo motor touches	the negative hardware strok	e limit in moving.	
Possible Cause	<ol> <li>Machine table</li> <li>Hardware stro</li> <li>Input signal hat</li> </ol>	exceeds protection point. ke switches are damaged or as errors.	broken.	
Solution	<ol> <li>Use MPG mode to move machine table in opposite direction once the machine table stops at the switch.</li> <li>If machine table is not at the switch, check limit switch, switch wiring, IO terminal, 24V power supply of terminal.</li> <li>Check whether IO card is normal.</li> </ol>			
Alarm ID	MOT-027	Alarm Title	program error in PLC axis	
Description	PLC axis program syn	tax error.		
Possible Cause	PLC axis program syn	tax error.		
Solution	Check syntax of PLC a	axis program.		
Alarm ID	MOT-028	Alarm Title	System memory too low	
Description	When CNC axis and P	LC axis exchange, system rei	maining memory is too low.	
Possible Cause	During machining process, switch axis into PLC axis.			
Solution	Contact machinery manufacturers.			
Advance Description	Kernel software will o at any time. When re	check value of system data n maining value is too low, this	umber 7 'System remaining memory' s alarm will be issued.	
Alarm ID	MOT-029	Alarm Title	Miss index in homing	

Description	When searching home, if motor does not find out motor index signal after leaving home DOG more than 5 pitches, controller will send this alarm.					
Possible Cause	<ol> <li>Can't read th</li> <li>The setting c</li> <li>The setting c</li> <li>The setting c</li> <li>The distance</li> </ol>	ne index signal. Of homing 2 <sup>nd</sup> travel feedrate Of motor reduction ratio is to P between index signal and H	e is too fast. o big. IomeDog is more than 5 pitches.			
Solution	<ol> <li>Check motor check wheth</li> <li>Reduce setting</li> </ol>	r index signal wiring; observe er index signal is read. If no, ng value of the homing 2 <sup>nd</sup> tr	e system data no. 48(X), 49(Y), 50(Z) to please check whether wiring is normal. ravel federate (Pr841~Pr843)			
More description	When searching home, machine will use the velocity setting value of the first stage to move to home DOG, and stop. After that machine moves backward with velocity of the second stage. After leaving home DOG to move backward, it start to search the nearest motor index signal. In the second stage, controller will calculate according to resolution of encoder. If controller leaves home DOG more than 5 pitches and can not find out the index signal. Controller will send alarm.					
Alarm ID	МОТ-030	Alarm Title	Homing zero speed check failed			
Description	When motor touches	HomeDog, motor cannot st	op completely.			
Possible Cause	<ol> <li>Improper driv</li> <li>Resonance pl</li> </ol>	<ol> <li>Improper drive gain setting, and makes motor vibrating.</li> <li>Resonance phenomenon caused by motor running.</li> </ol>				
Solution	<ol> <li>Check the position loop gain and velocity loop gain setting of driver.</li> <li>Activate the resonance frequency inhibition ability of driver.</li> <li>Contact machinery manufacturers for help.</li> </ol>					
More description	When searching home, machine will use the velocity setting value of the first stage to move to home DOG, and stop once it meets home DOG. After that machine moves backward with velocity of the second stage. After leaving home DOG to move backward, it start to search the nearest motor index signal. At the first stage to find the home DOG, motor will decrease velocity to stop. After 0.1 second command stops, if system data no. 8(X), 9(Y), 10(Z)-error register receives values bigger than zero speed check window(Pr901~Pr920), controller will send alarm.					
Alarm ID	MOT-031	Alarm Title	Static dual feedback error exceed			
Description	After the controller st the system will check Pr1421~Pr1440. If yes	cops sending the motion con whether dual feedback erro , controller will send alarm.	nmand, during the time set by Pr3805, or exceeds allowed limit set by			

Possible Cause Solution	<ol> <li>Mechanism interference.</li> <li>Motor parameter setting error.</li> <li>Linear scale parameter setting error.</li> <li>Motor feedback signal abnormal or is interfered.</li> <li>Linear scale signal abnormal or is interfered.</li> <li>Linear scale reader is loose and cause the feedback unstable.</li> <li>Check the external motion mechanism.</li> <li>Check if motor resolution setting Pr61~, Pr81~ and Pr61~ is correct.</li> <li>Check if the linear scale resolution setting Pr261~ and Pe301~ is correct.</li> <li>Check if motor encoder works well, or move motor feedback line away from high power electromagnetic devices.</li> <li>Check if linear scale power is stable, or move linear scale feedback line away from high power electromagnetic devices.</li> </ol>			
Alarm ID	MOT-032	Alarm Title	Za	xis Following spindle error
Addining	MO 1-032		exe	ceed
Description	For tracking Tappir pitch distance.	ng feeds, feeding axis oppo	osite direc	ction will feed more than one
Possible Cause	Spindle feedback c	able wiring is opposite.		
Solution	<ol> <li>Swap the po</li> <li>Change inve</li> </ol>	osition feedback A+ and A- erter related parameters.	which in	verter sends to the controller.
Alarm ID	MOT-033	Alarm Title	Ab	solute encoder read error
Description	When using absolu driver fails.	te encoder, the communic	ation bet	ween the controller and the
Possible Cause	<ol> <li>The driver is not powered on.</li> <li>The communication cable between the controller and driver is loose.</li> <li>The absolute adapter board is damaged.</li> </ol>			
Solution	<ol> <li>Check if the power supply of driver is normal.</li> <li>Check if the wiring is correct.</li> <li>Change the absolute adapter board.</li> </ol>			
Alarm ID	MOT-034	Alarm Title	Absolut set. Ple	te home position has not been ease reset it.
Description	When using absolute	encoder, need to set up a	bsolute h	nome position in controller.

Possib	ole Cause	<ol> <li>The absolute home position has not been set or it is lost due to insufficient voltage.</li> <li>Pr41~, Pr61~, Pr81~, Pr121~, Pr161~, Pr201~, Pr221~ and etc. parameters is modified.</li> <li>Detect Yaskawa encoder sends abnormal alarm. (For example: A.C80, A.CA0)</li> <li>Execute multi turns reset function on the controller.</li> <li>An abnormal absolute position status of Syntec drive is detected.</li> </ol>					
Soluti	on	<ol> <li>For possible re</li> <li>For possible re home position</li> </ol>	<ol> <li>For possible reasons 1, 2, and 4: (Again) sets absolute home position.</li> <li>For possible reason 3, 5: After solving abnormal encoder issue, sets up absolute home position again.</li> </ol>				
More o	description	<ul> <li>Absolute home position setting step:</li> <li>Step 1: Move axis to the pre-set mechanical origin.</li> <li>Step 2: Enter home position setting page, path: Parameter setting &gt; Serial Parameter &gt; Abosolute home position</li> <li>Step 3: Choose the axis to be set with direction key, and click 'set machine origin'.</li> </ul>					
Alarm	ID	MOT-035 Alarm Title absolute position battery failur					
Descri	ption	When using absolute encoder, the communication between the controller and driver successful, but the motor encoder position value is 0.					
Possib	ole Cause	The battery of absolu	ute encoder has no suffi	cient power.			
Soluti	on	Change the battery.					
Alar m ID	MOT-036	Alarm Title		Can't leave home dog switch			
Desc ripti on	When searchi leave home d	When searching home, after stop and return, if the axis moving exceed Pr981~ setting and still can't leave home dog switch.					
Poss ible Cau se	HomeDog is d	meDog is damaged.					
Solu tion	Use the electr circuit.	ical multimeter to chec	k whether the sensor of	HomeDog is damaged or wiring is short			

Mor e desc ripti on	When sea DOG (Pr8 controlle setting of signal, co	earching home, machine will use setting value of the 1 <sup>st</sup> phase feedrate to move towards home r881~Pr900 Axial home offset), and stop until reaches home dog switch. In the 2 <sup>nd</sup> phase, ler will calculate according to encoder resolution. If controller leaves home DOG exceed the of Pr981~Pr1000 Axis homing 2nd protect revolution (encoder type) and cannot leave index controller will send alarm.						
Alarm	ID	MO	T-037	Alarm	Title	Second Positi	ve software limit exceed	
Descri	ption	Axis	machine coor	dinate e	xceeds Pr25	01~Pr2540 set S	econd Positive software limit value.	
Possib	le Cause	The	motion of mad	chine tab	ole exceeds	set value.		
Solutio	on		<ol> <li>Reset to rer</li> <li>Move axis in</li> </ol>	nove ala n negati	arm. ve direction	to leave the sof	tware stroke protection range.	
Alarm	ID		MOT-038		Alarm Title	2	Second Negative software limit exceed	
Descri	ption		Axis machine value.	Axis machine coordinate exceeds Pr2501~Pr2540 set Second Negative software limit value.				
Possib	le Cause		The motion o	f machiı	ne table exc	eeds setting val	le.	
Soluti	on		1. Reset 2. Move	to remo axis in p	ve alarm. ositive direc	tion to leave the	e software stroke protection range.	
Alarm	ID		MOT-039		Alarm Tit	le	Tapping severe over travel	
Descri	ption		Tracking Tapping theory is Z axis moves along with spindle feedback. If driver occurs an alarm that cause motor dry runs during tapping period, Z axis will still tap with motor feedback, and there might have risk of machine crash. Therefore, when Z axis is higher than the hole top (R point) or about 10 pitches from the hole bottom. System will send this alarm and stop (pause) the machine. Not supported version: 10.114.33E, 10.114.38F, 10.115.43D, 10.115.46A, 10.115.47 or above version.					
Possib	le Cause		Motor dry ru	ns becau	use of alarm			
Solutio	on		Check the ca	use of d	river alarm.			

Alarm ID	MOT-040	Alarm Title	Dual feedback self-inspection error exceed		
Description	After activating dual feedback, between linear scales' each index signals, accumulated A, B pulse count difference exceed Pr3818 setting.				
Possible Cause	<ol> <li>Linear scale power is unstable.</li> <li>Linear scale feedback is interfered.</li> <li>Linear scale's adapter is interfered by magnetic field or electric field.</li> <li>Linear scale's sensor reader is loose and cause unstable feedback.</li> </ol>				
Solution	<ol> <li>Independent</li> <li>Check if the offallen.</li> <li>Keep the line cooper sheet</li> <li>Confirm the smovement.</li> </ol>	Iy us the power supply of lin case at CNC side is power po ear scale adapter away from t to reduce external interfer sensor reader will not be aff	near scale. ollution free, or the isolation cable is the heavy electricity area, or cover it with ence. fected by the mechanism travel		

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Alarm ID	MOT-042	Alarm Title	Over the 3 <sup>rd</sup> negative software travel limit		
Description	Axis mechanical coordinate is over negative software stroke limit which is set by Pr2441~Pr2480.				
Possible Cause	Machine bed moves over setting limit.				
Solution	<ol> <li>Press reset.</li> <li>Move axis in positive direction, to leave the software stroke protection range.</li> </ol>				
Alarm ID	MOT-043	Alarm Title	Enter the 1st software stroke limit protection range		
Description	Axis machine coordinate enter software stroke limit's protection range which is set by Pr2401~Pr2440.				
Possible Cause	Machine bed moves over setting limit.				
Solution	<ol> <li>Press reset.</li> <li>Axis move in c range.</li> </ol>	opposite direction, and lea	ve the software stroke limit protection		

Alarm ID	MOT-044	Alarm Title	Enter the 2 <sup>nd</sup> software stroke limit protection range		
Description	Axis mechanical coor Pr2501~Pr2540.	rdinate enter software strok	e limit's protection range which is set by		
Possible Cause	Bed moves over sett	ing limit.			
Solution	<ol> <li>Press the reset</li> <li>Move the axis range.</li> </ol>	et. in opposite direction, to lea	ave the software stroke protection		
Alarm ID	MOT-045	Alarm Title	Enter the 3 <sup>rd</sup> software stroke limit protection scope		
Description	Axis mechanical coor Pr2441~Pr2480.	rdinate enter software strok	ke limit's protection range which is set by		
Possible Cause	Machine bed moves	Machine bed moves over setting limit.			
Solution	<ol> <li>Press the reset</li> <li>Move axis in c</li> </ol>	et. opposite direction, and leav	e the software stroke protection range.		
Alarm ID	MOT-046	Alarm Title	Origin switch signal abnormal		
Description	For incremental typ move towards origin deceleration order v	e home searching, set 0 or 2 n switch direction according when finds original point sw	2 in home mode (Pr961~), system will g to Pr861~ setting, and stop with ritch.		
	If machine runs over block because deceleration distance is too long, when system continues moving in opposite direction with 2 <sup>nd</sup> phase homing feedrate, it needs to wait for origin switch's signal again shows up and disappear, then it can start finding index signal.				
	When moving in opposite direction, if origin switch's signal doesn't appear, alarm will be issued if exceeds 'five times distance of 1 <sup>st</sup> phase homing feedrate * G00 acceleration and deceleration time/ 2'.				
Possible Cause	<ol> <li>Origin switch</li> <li>Noise interfe</li> </ol>	n contact is poor. rence.			
Solution	<ol> <li>Check if the of</li> <li>Check if the of</li> </ol>	origin switch signals are inte origin switch contact is poo	erfered by noise. r contact.		

Alarm ID	MOT-050	Alarm Title	Illegal control mode switch		
Description	Do illegal control n	node switch to axis.			
Possible Cause	<ol> <li>Switch the axis control mode from speed control into torque/ gap/ user velocity control.</li> <li>Switch the axis control mode from torque control into speed/ gap/ spindle orientation/ user velocity control.</li> <li>Switch the axis control mode from gap control mode into speed/ torque/ spindle orientation/ user velocity control.</li> <li>Switch the axis control mode from spindle orientation control into torque/ gap/ user velocity control.</li> <li>Switch the axis control mode from user velocity control into torque/ gap/ user velocity control.</li> <li>Switch the axis control mode from user velocity control to speed/ torque/ gap/ user velocity control.</li> </ol>				
Solution	Switch the axis con	trol mode correctly.			
Alarm ID	MOT-051	Alarm Title	Inhibit to cycle start while moving		
Description	Before all manual c	Before all manual commands are sent, prohibit cycle start to prevent operation error.			
Possible Cause	Manual command (	JOG, INJOG, and MPGJOG) o	annot be sent successfully.		
Solution	Reset to remove ala	arm. Wait until machine stop	s, then cycle start.		
Alarm ID	MOT-052	Alarm Title	Driver power-amp voltage not input		
Description	Driver power-amp	power is not suppled, please	check power cable wiring.		
Possible Cause	Driver power-amp	power is not suppled.			
Solution	Check if the three p	hase of driver electricity is ir	nput correctly.		
Alarm ID	MOT-053	Alarm Title	No absolute type functions for an increment encoder		
Description	Driver side's encode can't start using abs	r is incremental or when its s olute homing function.	etting is incremental, controller side		
Possible Cause	Encoder is incremen	tal or use as incremental. Se	ts Pr201~Pr220 as absolute encoder.		

Alarm ID	MOT-053	Alarm Title	No absolute type functions for an increment encoder			
Solution	<ol> <li>Check the er Pr201~Pr220</li> <li>Check the dr configure th</li> <li>After modifier</li> </ol>	ncoder type. In case of a ir ) as an incremental encod river internal and the relat e encoder in the driver as cation, reboot controller a	ncremental encoder, configure the ler. ted parameter setting of encoder, and an increment type. and driver.			
Alarm ID	MOT-054	Alarm Title	Encoder type (Pr201~Pr220) changed			
Description	Encoder type has o	changed.				
Possible Cause	Modified Pr201~Pr	220 or driver internal and	l encoder related parameter setting.			
Solution	Reboot controller	Reboot controller and driver.				
Alarm ID	MOT-055	Alarm Title	Rotation axis type C and double feedback unsupported by the absolute type	e		
Description	When using absolute	When using absolute encoder, related parameter setting is wrong.				
Possible Cause	<ol> <li>When using absolute encoder (Pr201~ sets as 3), axis's axial type stetting will be rotary axial type C (Pr201~ sets as 3).</li> <li>When using absolute encoder (Pr201~ sets as 3) and start dual feedback function simultaneously (Pr241~ not sets as 0).</li> </ol>					
Solution	<ol> <li>When using an absolute encoder, configure the axis type of axial direction as the non-rotation axis type C and other types (Pr221~≠3).</li> <li>Turn off the dual feedback function (Pr241~=0) or use an increment encoder (Pr201~=0).</li> </ol>					
Advanced Explanation	<ol> <li>When this ala absolute pos</li> <li>This alarm w to reboot dep         <ul> <li>Pr221</li> <li>Pr201</li> </ul> </li> </ol>	arm occurs will trigger 'MC ition can't operate', user i on't be cleared until relate bend on parameter. ~ effective after press rese ~ Pr241~ effective after re	DT-034 first homing setting incomplete, need to reset home position. ed parameter reset correctly. Whether ne et. eboot.	ed		

Alarm ID	мо	)T-056	Alarn	n Title	Single-tu used as a the encoo	rn absolute encoder cannot be n increment type. Reconfigure der parameter.	
Description	Sin	gle-turn absolu	te enco	oder can't be used	as incremei	ntal encoder.	
Possible Cause	Wh	en encoder is al	osolute	encoder, set Pr20	1~Pr220 as	incremental encoder.	
Solution		<ol> <li>Check the encoder type. In case of a single-turn absolute type, configure the Pr201~Pr220 as an absolute encoder.</li> <li>Check the driver internal and encoder related parameter setting, set the use of the encoder in the driver as increment type.</li> <li>After modification, reboot controller and driver.</li> </ol>					
Alarm ID	Alarm ID MOT-057			Alarm Title		Drive cannot servo on	
Description		Drive cannot se	ervo on				
Possible Cause	When controller send servo on signal, but drive can't enter servo on state in 20 seconds. Controller will send this alarm.					't enter servo on state in 20	
Solution		<ol> <li>Please contact the drive supplier.</li> <li>After resolving the problem that the drive cannot servo on, reset the controller to clear the alarm.</li> </ol>					
Alarm ID	м	OT-058	Alar	m Title	To pern setting	nanent save the driver parameter , execute under not ready state	
Description	Pr181~, Pr1771 has synchronized into driver parameter, but axis is servo on and can't execute save parameters.						
Possible Cause	Wł	nen modified P1	181~ a	nd Pr1771~, axis is	servo on.		
Solution	Ex	ecute permaner	nt save	of driver paramete	er under no	t ready state.	

Alarm ID	MOT-059	Alarm Title	Please modified resolution related parameters from the page of serial parameters		
Description	The axis of the Syn If the sensor type of will be synchronized If the resolution relithe page of serial p The matched cond Driver parate Driver parate Driver parate Driver parate Driver parate Driver parate Driver parate Pressolution reline Pressolution reline Pressolution reline Pressolution reline Pressolution reline Pressolution reline Pressolution reline Pn-902 Enco Pn-902 Enco Pn-210 Electo Version informatio This alarm i	tec driver can synchronize of controller and driver are ed from the driver. lated parameters need to barameters. ition of sensor type ( singl meter Pn-911 = 1 ( Rotary meter Pn-911 = 2 ( Linear ) ition of sensor type ( drive meter Pn-931 = 1 ( Rotary meter Pn-931 = 2 ( Linear ) ated parameters: Axial encoder resolution Axial encoder scaling fact elated parameters: oder Resolution Encoder Resolution	e the resolution related setting. e the same, the related controller parameters be modified, please modify the parameters in le feedback ): ), Pr201~Pr220 Axial sensor type. = 0, 3, 4 , Pr201~Pr220 Axial sensor type. = 1, 5 er dual feedback or semi-closed loop ): ), Pr201~Pr220 Axial sensor type. = 0, 3, 4 , Pr201~Pr220 Axial sensor type. = 1, 5 tor fator ) hinator ) 2, 10.118.48B, 10.118.49 and later versions.		
Possible Cause	Modified the resolution related parameters in controller after the resolution synchronization of the Syntec driver.				
Solution	<ol> <li>Reset the controller.</li> <li>If the resolution related parameters need to be modified, please modify the parameters in the page of serial parameters. Then restart the controller and the driver.</li> </ol>				
Alarm ID	MOT-060	Alarm Title	Torque application configuration conflicted with driver configuration (Pn002.0)		
Description	Torque application	setting is conflicted with	Yaskawa driver parameter setting.		

Alarm ID	MOT-060	Al	arm Title	Torqu confli (Pn00	ue application configuration icted with driver configuration )2.0)	
Possible Cause	1. Con sets 2. Con sett	troller need as torque c troller need ing sets as t	Is to use torque limit m compensation mode. Is to use torque compe corque limit mode.	node, br ensatior	ut Yaskawa driver parameter setting n mode, but Yaskawa driver parameter	
Solution	Check if the	e driver para	ameter configuration is	correc	ct.	
Alarm ID	MOT-061		Alarm Title	( ;;	Gap control mode unsupported by axis	
Description	Axis does	n't support	switching into gap cor	itrol mo	ode.	
Possible Cause	1. Or 2. Sy	<ol> <li>Only Syntec driver supports gap control mode.</li> <li>Syntec driver's firmware is too old.</li> </ol>				
Solution	1. Use Syr 2. Check t	ntec driver. the firmwar	e version of the Syntec	driver.		
Alarm ID	MOT-062	10T-062 Alarm Title Gap control mode cannot be switched during axial movement			not be switched during axial	
Description	Axis is movin	g, can't cha	nge from position con	trol into	o gap control.	
Possible Cause	When axis is	moving, rec	eived the mode chang	ing con	nmand.	
Solution	Mode can be	switched af	fter the axial movemer	it stops	s completely.	
Alarm ID	MOT-063	Alarm Title		Ax ho	ial sensor type not matching with me searching method	
Description	Axis senso encoder ir	Axis sensor type isn't 'Absolute encoder', but homing method setting is 'Absolute encoder index' or 'Absolute with origin switch', and the parameter is not matched.				
Possible Cause	Axis senso method (F	or type (Pr20 Pr961~Pr980	)1~Pr220) sets as 0~2, a )) sets as 4 or 5.	and the	corresponding home searching	
Solution	In case the method (F	e axial senso Pr961~Pr980	or type (Pr201~Pr220) i )) can be configured to	s confi 0~3, no	gured to 0~2, the home searching ot 4 or 5.	

Alarm ID	MOT-064	Alarm Title	Axis driver doesn't support selected friction compensation		
Description	That axis driver does	sn't support the selected fr	iction compensation.		
Possible Cause	When Pr2921~ is set alarm will be issued; compensation, the a	to 1, but driver does not su when Pr2921~ is set to 2, l larm will be issued.	upport speed spike compensation, the out driver does not support torque spike		
Solution	<ol> <li>Set Pr2921~ as the friction compensation that the axis driver supports. Press reset can remove this alarm.</li> <li>Drivers that support speed spike compensation include:         <ul> <li>Yaskawa M2/M3 serial bus driver (Controller support versions: 10.116.54K, 10.118.0F, 10.118.6 and later versions).</li> <li>Syntec M3 serial bus driver (Controller support versions: 10.118.12G, 10.118.16 and later versions, driver support versions: 2.8.3, 2.9.0, 2.10.0 and later versions).</li> <li>Panasonic RTEX serial bus A6N driver (Controller support versions: 10.118.21 and 10.118.12O and later versions).</li> <li>EtherCAT serial bus drivers that support speed spike compensation (Controller support versions: 10.118.48I, 10.118.52C, 10.118.54 and later versions), please refer to EtherCAT Drive Application Manual.</li> </ul> </li> <li>Drivers that support torque spike compensation include:         <ul> <li>Syntec M3 serial bus driver (Controller support versions: 10.118.40A, 10.118.41, and later versions, driver support versions: 2.14.105, 2.15.0, 3.0.0 and later versions).</li> </ul> </li> <li>RETX related regulation, please refer to RTEX Driver Application Manual.</li> </ol>				
Alarm ID	MOT-065	Alarm Title	Axis driver doesn't support power-off retract		
Description	Driver doesn't supp	ort power-off retract funct	ion.		
Possible Cause	Driver doesn't support power-off retract function. When Pr1041~ Pr1060 setting is not 0 and this alarm will be issued.				
Solution	<ol> <li>Only Syntec Bus M3 Driver supports power-off retract function.</li> <li>Confirm Syntec Serial Bus M3 Driver's firmware version. Support firmware versions are 2.10.1, 2.11.0 and above version.</li> </ol>				
Alarm ID	MOT-066	Alarm Title	Axis driver firmware version is not supported		
Description	Controller doesn't s	upport axis driver's firmwa	are version.		

Alarm ID	MOT-066	Alarm Title	Axis driver firmware version is not supported			
Possible Cause	Driver's firmware ve	ersion is too old.				
Solution	Upgrade driver firm 1.23 or above versio	nware version. For Panason on.	ic RETX A6N firmware version, upgrade to			
Alarm ID	MOT-067	Alarm Title Syntec encoder's firmware upgrade finished. Please reboot driver.				
Description	Syntec encoder's fir	mware upgrade is finished	Need to reboot driver.			
Possible Cause	Execute axis encode	er's firmware upgrade.				
Solution	Reboot driver and co	Reboot driver and controller.				
Alarm ID	MOT-068	Alarm Title Syntec encoder information readin timeout				
Description	Syntec encoder info	ormation reading timeout.				
Possible Cause	<ol> <li>Communica</li> <li>Driver condi</li> </ol>	<ol> <li>Communication between controller and driver is abnormal.</li> <li>Driver condition is abnormal.</li> </ol>				
Solution	<ol> <li>Check if com</li> <li>Reboot drive</li> </ol>	<ol> <li>Check if communication is loose.</li> <li>Reboot driver.</li> </ol>				
Alarm ID	MOT-069	Alarm Title	Axial feedback abnormal			
Description	If the difference betwe controller, the numbe issued when two cons	If the difference between the axial feedback value exceeds 4 times of the maximum speed set by the controller, the number of abnormal times will be accumulated by 1 each time. This alarm will be issued when two consecutive abnormalities occur;				
	The maximum speed is the maximum value among Pr461 ~, Pr521 ~, Pr621 ~, Pr821 ~, Pr1801 ~(when using as servo spindle).					
Possible Cause	<ol> <li>Communication</li> <li>The following prediction</li> <li>Pr461~Prediction</li> <li>Pr521~Prediction</li> <li>Pr821~Prediction</li> <li>If using servors</li> </ol>	<ol> <li>Communication between controller and driver is abnormal.</li> <li>The following parameter settings are inappropriate;         <ul> <li>Pr461~Pr480 Maximum feed rate for axial rapid movement (G00)</li> <li>Pr521~Pr540 Axial JOG speed</li> <li>Pr621~Pr640 Axial maximum cutting feedrate</li> <li>Pr821~Pr840 Axial homing feedrate</li> </ul> </li> <li>If using servo spindle, Pr1801~Pr1810 Spindle maximum speed setting is inappropriate</li> </ol>				

Alarm ID	MOT-069	Alarm Title	Axial feedback abnormal			
Solution	<ol> <li>Check if comm</li> <li>Re-set above m</li> </ol>	unication is connect well. Ientioned parameters.				
Alarm ID	MOT-070	Alarm Title	Axial command abnormal			
Description	The planned controlle maximum speed; The maximum speed i using as servo spindle	The planned controller command exceeds 1.2 times of the distance that can be moved at the axial maximum speed; The maximum speed is the maximum value among Pr461~, Pr521~, Pr621~, Pr821~, Pr1801~ (when using as servo spindle).				
Possible Cause	<ol> <li>The following parameter settings are inappropriate;         <ul> <li>a. Pr461~Pr480 Maximum feed rate for axial rapid movement (G00)</li> <li>b. Pr521~Pr540 Axial JOG speed</li> <li>c. Pr621~Pr640 Axial maximum cutting feedrate</li> <li>d. Pr821~Pr840 Axial homing feedrate</li> </ul> </li> <li>If using servo spindle, Pr1801~Pr1810 Spindle maximum speed setting is inappropriate</li> </ol>					
Solution	Re-set above mention	ed parameters.				
Alarm ID	MOT-071	Alarm Title	nterpolation severely overtime			
Description	The interpolation timeout exceeds 30ms, causing controller fail to communicate with driver normally; If within 30ms, controller will perform proxy interpolation and continue to communicate with driver.					
Possible Cause	<ol> <li>Frequent data transmission in the cloud, causes the controller system to be extremely busy, e.g. using dipole structure (the front stage simulator is connected to the back stage controller)</li> <li>Parameter Pr3251 is set to 5.</li> </ol>					
Solution	<ol> <li>Reboot controller and driver.</li> <li>.Check if Pr3251 is set to 5. If so, please take a look at "Pr3251 Touch Screen" page, and set Pr3251 to other value.</li> <li>Please upgrade the BSP version to 9.35 or above.</li> <li>Please contact OEM Syntec.</li> </ol>					

New Version Old Version

Versions—10.118.82B, 10.118.83 and later.

Alarm ID	MOT-072	Alarm Title	Software stroke limit setting error when using single turn absolute encoder			
Description	When Pr201~Pr axis type E, the	When Pr201~Pr220 is 4 the single turn absolute encoder type and Pr221~Pr240 is 5 rotary axis type E, the software stroke limit should be activated.				
Possible Cause	<ol> <li>Pr201~Pr220 is the encoder type is single turn absolute.</li> <li>Pr2401~Pr2440 is not activated or is incorrectly set when Pr201~Pr220 is 4 the single turn absolute encoder type and Pr221~Pr240 is 5 rotary axis type E.</li> </ol>					
Solution	<ol> <li>Correct</li> <li>When Pr rotary as make su i.e. the r And the</li> <li>After corr</li> </ol>	Correct Pr201~Pr220 encoder type. When Pr201~Pr220 is 4 single turn absolute encoder type and Pr221~Pr240 is 5 rotary axis type E, make sure that Pr2401~Pr2440 are not default values, i.e. the negative and positive limits are not -999999999 and 999999999 respectively. And the positive limit should be larger than the negative limit. After correction, please reboot the controller and the drive.				

New Version Old Version

Versions—10.118.82A, 10.118.82 and older.

Alarm ID	MOT-072	Alarm Title	Software stroke limit setting error when using single turn absolute encoder			
Description	Pr2401~Pr2440 is not activated or is incorrectly set when using the single turn absolute encoder type.					
Possible Cause	<ol> <li>The encoder</li> <li>When us be active</li> </ol>	<ol> <li>The encoder type is single turn absolute.</li> <li>When using the single turn absolute encoder type, the software stroke limit should be activated and its value must be set within the distance in one motor revolution.</li> </ol>				
Solution	<ol> <li>Correct</li> <li>When Pr are not of 99999999 limit. Als revolution</li> <li>After control</li> </ol>	Pr201~ encoder t 201~ is single tur default values, i.e 99 respectively. so, the stroke lim on. rrection, please r	type. rn absolute encoder type, make sure that Pr2401~Pr2440 e. the negative and positive limits are not -9999999999 and And the positive limit should be larger than the negative hit should be set within the distance in one motor reboot the controller and the drive.			

Alarm ID	MOT-073	Alarm Title	Fail to preload servo drive parameter	
Description	The controller fails to preload necessary parameters from the drive during booting.			

Alarm ID	MOT-073	Alarm Title	Fail to preload servo drive parameter		
Possible Cause	<ol> <li>The cont</li> <li>Mismatcl</li> </ol>	roller can't comm h between the cor	unicate with the drive normally. htroller and the drive version.		
Solution	<ol> <li>Check if the axis is connected to a third-party drive. If it is, check if the drive causes the alarm.</li> <li>Reboot the controller and the drive.</li> <li>Troubleshoot all critical drive alarms.</li> <li>Please upgrade the controller version.</li> <li>Please upgrade the drive version.</li> <li>Please contact OEM Syntec.</li> </ol>				
Alarm ID	MOT-074	Alarm Title	Fail to read absolute position from servo drive		
Description	The controller fa	ails to read the abs	solute position from the drive.		
Possible Cause	1. The cont	roller can't comm	unicate with the drive normally.		
Solution	<ol> <li>Check if f alarm.</li> <li>Reboot t</li> <li>Please co</li> </ol>	the axis is connect he controller and ontact OEM Syntee	ted to a third-party drive. If it is, check if the drive causes the the drive. c.		
Alarm ID	MOT-075	Alarm Title	Drive initialize timeout		
Description	The communica the initialization	tion between the process in 20 sec	controller and the drive is established, but fails to complete onds.		
Possible Cause	<ol> <li>The controller can't communicate with the drive normally.</li> <li>The drive issues critical alarms.</li> </ol>				
Solution	<ol> <li>Check if the axis is connected to a third-party drive. If it is, check if the drive causes the alarm.</li> <li>Reboot the controller and the drive.</li> <li>Troubleshoot all critical drive alarms.</li> <li>Please lower the interpolation time (Pr3203), then reboot the controller and the drive.</li> <li>Please contact OEM Syntec.</li> </ol>				
Alarm ID	MOT-076	Alarm Title	Servo drive parameter preload timeout		
Description	The communica parameters in 2	tion between the D seconds.	controller and the drive is established, but fails to preload		

Alarm ID	MOT-076	Alarm Title	Servo drive param	eter preload timeout		
Possible Cause	1. The cont 2. Take too	troller can't comm much time to rea	nunicate with the drive d drive parameters.	e normally.		
Solution	<ol> <li>Check if alarm.</li> <li>Reboot t</li> <li>Troubles</li> <li>Please lo</li> <li>Please c</li> </ol>	<ol> <li>Check if the axis is connected to a third-party drive. If it is, check if the drive causes the alarm.</li> <li>Reboot the controller and the drive.</li> <li>Troubleshoot all critical drive alarms.</li> <li>Please lower the interpolation time (Pr3203) and reboot the controller and the drive.</li> <li>Please lower the PLC scan time (Pr3204) and reboot the controller and the drive.</li> <li>Please contact OEM Syntec.</li> </ol>				
Alarm ID	MOT-077	Alarm Title	Fail to recover mac	hine position		
Description	Fail to recover r	nachine position f	rom absolute encoder	r or Fram in 20 seconds during booting.		
Possible Cause	<ol> <li>The cont</li> <li>The driv</li> </ol>	troller can't comm e issues absolute e	nunicate with the drive encoder battery alarm	e normally. s.		
Solution	<ol> <li>Check if alarm.</li> <li>Reboot t</li> <li>Troubles</li> <li>Please c</li> </ol>	the axis is connect the controller and shoot drive's abso ontact OEM Synte	ted to a third-party dri the drive. lute encoder battery a c.	ive. If it is, check if the drive causes the Ilarms.		
Alarm ID	MOT-078	B Alar	m title	Coupling Error Exceeds Tolerance		
Description	The posit paramete	The position error between master axis and slave axis exceeds the tolerance set by the parameter.				
Possible Reaso	n 1. Pr 2. Th 3. M	<ol> <li>Pr3828 is set too small.</li> <li>The loading of master axis and slave axis is not balanced.</li> <li>Master axis or slave axis is stuck.</li> </ol>				
Solution	1. Cl 2. U	<ol> <li>Check the setting of Pr3828 and set it in reasonable range.</li> <li>Using automatic gantry calibration function         <ul> <li>a. 5 key: F4 Monitor → F10 Next → F10 Next → F2 Gantry Calibration</li> <li>b. 8 key: F4 Monitor → F10 Next → F4 Gantry Calibration</li> <li>c. 10 key: Monitor → F11 Next → F2 Gantry Calibration</li> </ul> </li> </ol>				

Alarm ID	MOT-079	Alarm 标题	[Inconsistent Resolution Settings]				
说明	<ul> <li>The resolutions of the controller and the drive are not set consistently. The settings are considered consistent if the following equation is satisfied:</li> <li>1. Single feedback: Resolution (Pr61~) * Encoder Scaling Factor (Pr81~) = Resolution (Pn-902) * Denominator of Electronic Gear Ratio (Pn-210) / Numerator of Electronic Gear Ratio (Pn-20E).</li> <li>2. Dual feedback or Semi-Closed Loop: Resolution (Pr61~) * Encoder Scaling Factor (Pr81~) = 2nd Encoder Resolution (Pn-902) * Denominator of Electronic Gear Ratio (Pn-20E).</li> <li>3. Numerator of Electronic Gear Ratio (Pn-20E).</li> </ul>						
可能原 因	<ol> <li>Improper controller parameter settings:         <ul> <li>a. Encoder Resolution.</li> <li>b. Encoder Scaling Factor.</li> </ul> </li> <li>Improper drive parameter settings:         <ul> <li>a. Electronic Gear Ratio.</li> <li>b. Encoder Resolution.</li> </ul> </li> </ol>						
排除方 法	<ol> <li>Change the controller parameters so that the equation mentioned above is satisfied:         <ul> <li>Axes: Pr61~, Pr81~.</li> <li>Servo Spindles or Serial Rotary Spindles: Pr1651~, Pr1661~.</li> </ul> </li> <li>Change the drive parameters so that the equation mentioned above is satisfied:         <ul> <li>Electronic Gear Ratio: Pn-20E, Pn-210.</li> <li>Encoder Resolution: Pn-902, Pn-922.</li> </ul> </li> <li>To clear the alarm,         <ul> <li>Reset the controller if ONLY the controller parameter(s) is(are) modified.</li> <li>Restart both of the controller and the drive if the drive parameter(s) is(are) modified.</li> </ul> </li> </ol>						

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Supported versions: 10.118.86L, 10.120.16L, 10.120.24B, 10.120.27 and previous versions.					
Alarm ID	MOT-081	Alarm title	The hardware doesn't receive communication packet		
Description	Drive response packet is not received for over 10ms in communication. Example: According to the communication time setting( Pr3203 ), 6 consecutive errors for 2ms; 4 consecutive errors for 3ms.				
Possible Reason	<ol> <li>The drive station number does not correspond to the controller parameters correctly.</li> <li>The communication cable between the controller and the drive is loose.</li> </ol>				

Solution	<ol> <li>Check whether the drive parameter DIP switch setting corresponds to the controller parameter (Pr21 ~) correctly.</li> <li>Check the wiring of the communication cable between the controller and the drive.</li> <li>Contact Syntec OEM</li> </ol>
	3. Contact Syntee OEM.

Supported versions: 10.118.86L, 10.120.16L, 10.120.24B, 10.120.27 and previous versions.

Alarm ID	MOT-082	Alarm title	The communication packet is disturbed by noise
Description	Drive response packet is disturbed by noise to generate CRC error for over 10ms in communication. Example: According to the communication time setting(Pr3203), 6 consecutive errors for 2ms; 4 consecutive errors for 3ms.		
Possible Reason	1. The quality of the communication cable is poor, or there is noise interference.		
Solution	<ol> <li>Check wheth</li> <li>Contact Synt</li> </ol>	ther the machine is properly grounded. ntec OEM.	

Supported versions: 10.118.86L, 10.120.16L, 10.120.24B, 10.120.27 and previous versions.

Alarm ID		MOT-083		Alarm t	itle	Driver software misses communication packet
Description	DescriptionResponse packet Watchdog(M3) or Working Counter(EtherCAT) is wrong for over 10m. M3 communication.Example: According to the communication time setting(Pr3203), 6 consecutive errors for 2ms; 4 consecutive errors for 3ms.				unter(EtherCAT) is wrong for over 10ms in e setting( Pr3203 ), 6 consecutive errors	
Possible Reaso	on	Drive response packet Watchdog(M3) or Working Counter(EtherCAT) is wrong			ng Counter(EtherCAT) is wrong	
Solution		Contact Syntec OEM.				
Alarm ID	MOT	-084 Alarm title Friction compensation mode of drive and control are discrepant			ensation mode of drive and controller	
Description	The f drive	riction compensation of the controller (based on Pr2921~) conflicts with the one of the r.				

Possible Reason	This	<ul> <li>s alarm happens if any of the following occurs while Syntec driver is connected:</li> <li>1. The friction compensation of the controller is selected as "Torque compensation" (Pr2921~ is set as 2) while the friction compensation of Syntec driver is deactivated (Pn290 is set as 0).</li> <li>2. The friction compensation of the controller is NOT selected as "Torque compensation" (Pr2921~ is other than 2) while the friction compensation of Syntec driver is activated (Pn290 is set as 1).</li> <li>1. Press RESET to clear this alarm. This makes the controller re-activate the compensation mode of Pr2921~ and activate/ deactivate the friction compensation (Pn290) of Syntec driver accordingly.</li> <li>2. Contact Syntec OEM.</li> </ul>				
Alarm ID		MOT-085	Alarm title	Trigger PLC MoveAx components for the roaming axis in borrowing		
Description		When the PLC Mov groups or PLC Rn s	eAx component is triggered ubprogram components.	d, the axis cannot be borrowed by other axis		
Reason		When Pr742 is set to 1, for the roaming axis that has been borrowed by other axis groups or PLC Rn subprogram components, trigger the PLC MoveAx component to move.				
Solution		After confirming th the roaming axis, t	at other axis groups or PLC rigger the PLC MoveAx com	C Rn subprogram components have removed apponent to move.		
Alarm ID		MOT-086Alarm TitleDrive is abnormally switch to serve state when running				
Description		Drive is abnormally switch to servo off state when running.				
Possible Cause	9	When drive is abnormally changed from servo on state to servo off state, controller will send this alarm.				
Solution		<ol> <li>Check if the drive power supply is normal.</li> <li>Check if the wiring is correct.</li> <li>After resolving the problem that the drive cannot servo on, reset the controller to clear the alarm.</li> </ol>				
Alarm ID		MOT-087	Alarm Title Inaccurate stop position. Please check if there are any mechanisms stuck			
Description		After sending the last command, start to check whether the difference between the feedback and the command exceeds the loss pulse check window( Pr561~Pr580 ). If it exceeds, this alarm will be issued				

Possible Cause	<ol> <li>Mechanical movement was hindered.</li> <li>Unstable position feedback at idle.</li> <li>Improper setting of Loss pulse check window (Pr561~Pr580)</li> </ol>
Solution	<ol> <li>Check whether the mechanical lubrication system and track lubrication are good.</li> <li>Open the cover of axial to check if any foreign matter blocks the motion of axial.</li> <li>Rotate screw to check if the mechanism is stuck (loading of driver)</li> <li>Use the automatic tuning function to adjust the servo and suppress the vibration frequency.</li> <li>Adjust Loss pulse check window (Pr561~Pr580). Recommended values are as follows:         <ul> <li>a. linear axis: 100</li> <li>b. rotary axis: 500</li> </ul> </li> </ol>

0	This alarm is not support on 10.118.72B, 10.118.74O, 10.118.82M, 10.118.86F, 10.118.90B, 10.118.93 and
	later

Alarm ID	MOT-088	Alarm Title	Servo on failed. Unable to execute operation.		
Description	The servo can not servo on, after cycle start or other manual function is triggered.				
Possible Cause	<ol> <li>When power on, axis doesn't complete magnetic pole angle detection which cause servo disabled.</li> <li>Driver alarms or abnormal power supplication will cause servo driver become servo off.</li> <li>Driver is malfunction.</li> </ol>				
Solution	<ol> <li>After power on, wait for a while before operation.</li> <li>Check if the servo drive power supply status is normal and if there is driver alarm.</li> <li>Check the status of the servo drive.</li> </ol>				
Alarm ID	MOT-089	Alarm Title	Not allow the PLC axis controls the indexing axis		
Description	The indexing axis is operated using PLC control component.				
Possible Cause	Use PLC Run or PLC Move to control the indexing axis.				
Solution	Remove the use of F diagram.	PLC Run or PLC Move to con	trol the indexing axis in the ladder		

Alarm ID	MOT-090	Alarm Title	[Forbid to set as linear axis type when using single turn absolute encoder]			
Description	While using single tu type( Pr221 ~ sets as	While using single turn absolute encoder, axis type is prohibited to set as linear axis type( Pr221 ~ sets as 0 ).				
Possible Cause	<ol> <li>The encoder type is single turn absolute(Pr201 ~ sets as 4).</li> <li>While using single turn absolute encoder, axis type is prohibited to set as linear axis type(Pr221 ~ sets as 0).</li> </ol>					
Solution	<ol> <li>Correct Pr201</li> <li>While using s axis type( Pr2</li> <li>After correction</li> </ol>	201~ encoder type. g single turn absolute encoder, axis type is prohibited to set as li Pr221 ~ sets as 0 ). ection, please reboot the controller and the drive.				

New Version is 10.118.86K, 10.120.16K, 10.120.24B, 10.120.27 and after Old Version is 10.118.86J, 10.118.94 and before

#### New Version Old Version

Alarm ID	MOT-091-1	Alarm Title	[Fail to read 64-bit absolution encoder position for Syntec drive]	
Description	The Syntec drive does not support reading 64-bit absolute encoder position information, or an exception occurs during reading.			
Possible Cause	<ol> <li>The drive version is mismatched.</li> <li>An exception occurs during reading drive parameters.</li> <li>To change to use non-package motor.</li> </ol>			
Solution	<ul> <li>Please follow the below steps to solve problem:</li> <li>1. If it is a Syntec drive, please upgrade drive firmware to 3.0.50, 4.2.30, 4.4.12, 4.6.4, 5.2.11, 6.0.5 and later versions.</li> <li>2. Reset the absolute home position.</li> </ul>			
Alarm ID	MOT-091-3	Alarm Title	【The brand of drive was changed. Fail to read 64-bit absolution encoder position】	
Description	The brand of drive was changed. An exception occurs during reading 64-bit encoder position information.			

Alarm ID	MOT-091-3	Alarm Title	[The brand of drive was changed. Fail to read 64-bit absolution encoder position]
Possible Cause	The brand of drive was changed: The drive was changed from "Syntec" to other third party drive.		
Solution	Reset the absolute home position.		

#### New Version Old Version

Alarm ID	MOT-091	Alarm Title	[Fail to read 64-bit absolution encoder position]	
Description	The drive does not support reading 64-bit absolute encoder position information, or an exception occurs during reading.			
Possible Cause	<ol> <li>Syntec drive:         <ul> <li>a. The drive version is mismatched.</li> <li>b. An exception occurs during reading drive parameters.</li> <li>c. To change to use non-package motor.</li> </ul> </li> <li>The brand of drive was changed: The drive was changed from "Syntec" to other third party drive.</li> </ol>			
Solution	<ul> <li>Please follow the below steps to solve problem:</li> <li>1. If it is a Syntec drive, please upgrade drive firmware to 3.0.50, 4.2.30, 4.4.12, 4.6.4, 5.2.11, 6.0.5 and later versions.</li> <li>2. Reset the absolute home position.</li> </ul>			
1. Sub Alarm MOT-091-1 【Please reset the absolute home position of Syntec drive】				

2. Sub Alarm MOT-091-2 [Please reset the absolute home position of YASKAWA drive]

(before 10.118.74M, 10.118.82K, 10.118.86D, 10.118.91)

3. Sub Alarm MOT-091-3 [The brand of drive was changed, please reset the absolute home position]

Alarm ID	MOT-092	Alarm Title	[Stroke limit exceed the limit of absolut encoder mulit-turn data]	
Description	<ul> <li>The range resolution(exceed the</li> <li>The value of than range</li> <li>Axis turr amo</li> <li>Axis turr amo</li> <li>Axis turr amo</li> <li>The range of YAS -32<sup>2</sup></li> <li>Syn</li> <li>Example</li> <li>Use</li> <li>The</li> <li>The</li> <li>500</li> </ul>	ange limit of absolute encoder is dapand on mulit-turn limit and tion(range limit = mulit-turn limit * resolution). If machine positon is d the range limit, the position is unpredictable after reboot controller. alue of Axial position coordinate of stroke limit 1(Pr2401~) must smaller range limitm, or the stroke limit protect will be fail. Axis pos. coordinate of stroke limit 1(Pr2401~) > (The max value of mulit- turn data * Axial screw side gear number(Pr121~) * Axial pitch amount(Pr161~) ) / Axial motor side gear number(Pr122~) Axis neg. coordinate of stroke limit 11(Pr2402~) < (The min value of mulit- turn data * Axial screw side gear number(Pr121~) * Axial pitch amount(Pr161~) ) / Axial motor side gear number(Pr122~) Axis neg. coordinate of stroke limit 11(Pr2402~) < (The min value of mulit- turn data * Axial screw side gear number(Pr121~) * Axial pitch amount(Pr161~) ) / Axial motor side gear number(Pr122~) ange of absolute encoder mulit-turn data YASKAWA M3 driver(Sigma-X, Sigma-7S, Sigma-7W, Sigma-M): -32768~32767 Syntec driver: depand on Pn-E81, • The max value of mulit-turn data=floor(Pn-E81 / 2) -1 • The min value of mulit-turn data= -1 *floor(Pn-E81 / 2) ple • Use Syntec M3 driver, Pr121=1, Pr122=1, Pr161=5000, Pn-E81=65536 • The max value of mulit-turn data= (65536 / 2) - 1 = 32767 • The min value of mulit-turn data= -(65536 / 2) = -32768 • The max value of Axis pos. coordinate of stroke limit 1(Pr2401) = 32767 * 5000(Pr161) * 1(Pr121) / 1(Pr122) = 163835000 BLU • The min value of Axis neg. coordinate of stroke limit 11(Pr2402) = -32768 * 5000(Pr161) * 1(Pr121) / 1(Pr122) = -163840000 BLU		
Possible Cause	The setting of Axia	I position coordinate of st	roke limit 1 (BLU)( Pr2401~ ) is wrong.	
Solution	<ol> <li>Change the stroke limit, make sure the value will not exceed the limit of absolut encoder mulit-turn data.</li> <li>Change the stroke to default value(Axis pos: 999999999, Axis neg.: -999999999), it will not check the value of stroke limit</li> </ol>			
Alarm ID	МОТ-093	Alarm Title	[When switching temperature compensation accuracy, the axial temperature compensation amount should be zero]	
Description	When the axial temperature compensation amount R901~ is not 0, it is prohibited to switch the temperature compensation accuracy setting value.			
Possible Cause	When the axial temperature compensation amount R901~ is not 0, switching the temperature compensation accuracy setting value may cause an incorrect compensation command to be issued.			

Alarm ID	MOT-093	Alarm Title	[When switching temperature compensation accuracy, the axial temperature compensation amount should be zero]		
Solution	Please contact the	vendor.			
Alarm ID	MOT-094	Alarm title	[ Current axial applications cannot combine with PLC axes]		
Description	Current axial appli including: spindle.	Current axial applications combine with PLC axes is NOT allowed, including: spindle、 chopping axis and servo tail axis.			
Possible Cause	<ol> <li>Current axis is set as a spindle and NOT in the C63 / R581.x position control mode (C-Axis mode), then turn on C66~C69 / C260~C273 for switching PLC axis.</li> <li>Current axis is set as a spindle and turns on C63 / R581.x and C66~C69 / C260~C273 into PLC axis, then turns off C63 / R581.x into spindle.</li> <li>Current axis is set as chopping axis by G81.1 / G81.2, then turn on C66~C69 / C260~C273 for switching PLC axis.</li> <li>Current axis is set as servo tail axis.</li> </ol>				
Solution	<ol> <li>Check the a</li> </ol>	the axis is NOT a spindle before switching the PLC axis. the axis is NOT in PLC axis before turning off the spindle C-Axis mode. the axis is NOT set as chopping axis before switching the PLC axis. the axis is NOT set as servo tail axis before switching the PLC axis.			

**1** This alarm is not support on 10.118.72B, 10.118.74O, 10.118.82M, 10.118.86F, 10.118.90B, 10.118.93 and later

Alarm ID	MOT-901	Alarm Title	Electrical angle detection is in progress, please wait for a few seconds before operating.	
Description	Electrical angle detection is in progress, please wait for a few seconds before operating. If Cycle Start ( C0 ) or home request is still triggered during alarm, the command will be executed after electrical angle detection is completed.			
Possible Cause	Electrical angle detection is in progress.			
Solution	After electrical ang	le detection is completed	, you can continue to complete the actions.	

## 4.1 MOT-001 A,B encoder feedback signal error

Alarm ID	MOT-001	Alarm Title	A,B encoder feedback signal error		
Description	axis card detects A/B encoder feedback error.				
Possible Cause	Only happens when Pr9 *Servo board type sets as 0 (EMP2), when axis board type sets as EMP2, axis card will auto-detect A,B encoder feedback. If there is signal error, or has A signal but no B signal, this alarm will be issued.				
Solution	Check the servo cable or replace the axis board.				

### 4.2 MOT-002 Error counter overflow

Alarm ID	MOT-002	Alarm Title	Error counter overflow		
Description	Axis board detects overflow in encoder feedback.				
Possible Cause	Only happen when servo type is set to 0(EMP2), 4(PMC4), 6(SERVO6), axis board will automatically detect the A, B encoder signals, if signal error or input signal too large, counter overflow alarm issued.				
Solution	Check the servo cable or replace the axis board.				

## 4.3 MOT-003 Encoder module error

Alarm ID	MOT-003	Alarm Title	Encoder modu	ıle error	
Description	Currently no applicati	on.			
Possible Cause					
Solution					

#### 4.4 MOT-004 No index interrupt signal

Alarm ID	MOT-004	Alarm Title	No index interrupt signal
Description	Currently no applicat	ion.	

Possible Cause	
Solution	

## 4.5 MOT-005 DDA command overflow

Alarm ID	MOT-005	Alarm Title	DDA command overflow		
Description	Controller sends too n calculates that the nu	nany commands. In the one ir mber of commands sent is mo	iterpolation time interval, software ore than 2047 pulses.		
Possible Cause	<ol> <li>DDA software time setting value is too long.</li> <li>Motion velocity is too fast.</li> <li>Servo resolution is set too high.</li> <li>Backlash compensation or pitch compensation is too large.</li> <li>Feed forward Compensation is enabled before booting.</li> </ol>				
Solution	<ol> <li>Recommend that low interpolation time interval setting (parameter 3203) is not less than 2000.</li> <li>Reduce the feedrate limit (Pr461-Pr480)</li> <li>Reduce the servo resolution setting (driver and CNC Pr61-Pr80)</li> <li>Set appropriate mechanical compensation time constant (parameter 1401~1420).</li> <li>Cancel feed forward compensation function (parameter 581~600).</li> <li>Please contact staff of machinery manufacturer to solve problem.</li> </ol>				
More description	In order to achieve the multi-axis coordinated control, SYNTEC's controller uses DDA (Digital Differential Analyzer), Cycle Time of DDA is set by parameter Pr 3203. In one Cycle time of DDA, every axial is allowed to send maximum 2047 pulses. Once exceeding this value, controller will send alarm				

## 4.6 MOT-006 Driver power supply status error

Alarm ID	MOT-006	Alarm Title	Driver power supply status error	
Description	When controller outputs movement command, it detects driver power status error (Not Servo On or not power on). (This alarm is only appropriate for situation when Yaskawa driver blocks A.95x warning)			
Possible Cause	<ol> <li>Driver's Powe</li> <li>Cut off driver</li> <li>Driver malfun</li> </ol>	er-amp voltage isn't stable. power-amp voltage when er iction.	nergency stop pushed.	

Alarm ID	MOT-006	Alarm Title	Driver power supply status error
Solution	<ol> <li>Check if the p</li> <li>Check if the p</li> <li>Replace the d</li> </ol>	ower supply of driver is norr ower cable of driver is loose river.	nal. or broken.

## 4.7 MOT-007 Driver power-off

Alarm ID	MOT-007	Alarm Title	Driver power-off		
Description	Driver input power is cut off.				
Possible Cause	<ol> <li>power failure.</li> <li>Main power is shut down.</li> </ol>				
Solution	Ensure the controller is powered off completely. Confirm the power supply and reboot.				

### 4.8 MOT-008 Loss Pulse

Alarm ID	MOT-008	Alarm Title	Loss Pulse
Description	<ol> <li>After sending the last command, start to check whether the difference between the feedback and the command exceeds the loss pulse check window(Pr561~Pr580). If it exceeds, this alarm will be issued.</li> <li>hardware model is not within the supported software version.</li> </ol>		
Possible Cause	<ol> <li>Kinematic occur</li> <li>Servo drive occu</li> <li>CPU board send axis board has p good).</li> <li>Unstable positic</li> <li>The cable that so quality or is disc</li> <li>Controller doeso motion commar</li> <li>Local interferent</li> <li>Improper setting</li> <li>10, EZ series cor option software</li> </ol>	rs obstruction phenomenon. Irs unexpected Servo ON / OFF. the data to axis board unsucces roblem, the contact between CF on feedback at idle. ends command from controller connected. n't set servo drive alarm check, c nd although the drive is abnorm ce. g of Loss pulse check window ( F ntroller installed 9.242, 10.112 ar is not activated.	ssfully (CPU board or PU and axis board is not to servo driver has poor controller continues to send al. Pr561~Pr580 ) nd below versions software, or

Solution	<ol> <li>Do not shut down the controller when alarm occurs. Please check whether the value of No 8, 9, 10 in diagnose function is zero</li> <li>Check whether the mechanical lubrication system is good.</li> <li>Open the cover of axial to check whether foreign matter blocks the motion of axial.</li> <li>Rotate screw to check whether machine is stuck (loading of driver)</li> <li>Execute servo tuning to suppress the vibration frequency.</li> <li>Check the drive servo-on and the servo-off of power or cable signal</li> <li>If the setting value of No 8, 9, 10 in diagnostic function do not change, please take home search action (don't need to reboot), after that check whether parameters 24, 25, 26, 40, 41, 42 are equal to zero, if the parameters 24, 25, 26 are not equal to zero, the feedback loop has problems</li> <li>If the parameters 40, 41, 42 are not equal to zero, command transmission from controller to the motor has been lost pulse.</li> <li>If all parameters 24, 25, 40, 41, 42 are not zero, then the interference signal is relatively large, specifically in the machining process, the setting value of parameters 8, 9, 10 gradually become large. The reason is the contact point between CPU board and axis card is not and axis board is not good. Try to replace CPU board and axis board.</li> <li>Adjust Loss pulse check window (Pr561~Pr580). Recommended values are as follows;         <ul> <li>linear axis : 100</li> <li>rotary axis : 500</li> </ul> </li> <li>Confirm if hardware model is compatible with software version, or if option software Option2 is activated.</li> </ol>
More description	Settings of Pr561~Pr580 is the check the range of loss pulse. System Data 8 [X axis following error value] System Data 9 [Y axis following error value] System Data 10 [Z axis following error value] System Data 24 [X axis absolute position feedback value] System Data 25 [Y axis absolute position feedback value] System Data 26 [Z axis absolute position feedback value] System Data 40 [X axis absolute position feedback value] System Data 40 [X axis absolute position command value] System Data 41 [Y axis absolute position command value] System Data 42 [Z axis absolute position command value]

# 4.9 MOT-009 Servo Driver Alarm

Alarm ID	MOT-009	Alarm Title	Servo Driver Alarm
Description	Drive issued alarm.		

Possible Cause	<ol> <li>Drive alarm mostly is because of external Causes; i.e.</li> <li>Driver overheat.</li> <li>Encoder wiring error.</li> <li>Internal parameters is set wrong.</li> <li>Servo motor is incompatible.</li> <li>driver malfunction.</li> </ol>
Solution	Follow the troubleshoot steps in driver alarm manual to solve alarm.

#### 4.10 MOT-010 Servo position command comm. error

Alarm ID	MOT-010	Alarm Title	Servo position command comm. error
Description	Once the communication between Kernel and axis card has errors, software will check whether the queue value in internal IC of axis control is not zero.		
Possible Cause	<ol> <li>There is only one axis card, but parameter sets two axis cards, and servo axis points to the second axis card.</li> <li>One axis card has errors in case controller has two more axis cards.</li> <li>Two or more axis cards, IRQ11 Jump is plugged. In diagnosis function, number 23 is not equal to 100.</li> <li>Servo board pulse source parameter(Pr11) setting error.</li> </ol>		
Solution	<ol> <li>Check whether the parameter setting Pr11, Pr13 are consistent with the hardware feature.</li> <li>Check axis card jump setting.</li> <li>Change axis card.</li> </ol>		
More description	Each interpolation time interval, Kernel (core) software will check whether the QUEUE value FLAG is correct. After one FILTER, if it reads the error value, alarm will appear and diagnose function number 68 will be added 1.		

## 4.11 MOT-011 Drive communication error

New version supports 10.118.40O, 10.118.41O, 10.118.48 and later; 10.118.86L, 10.120.16L, 10.120.24B, 10.120.27 and previous versions. Old version supports 10.118.40N, 10.118.41N, 10.118.47 and previous versions.

New Old

Alarm ID	MOT-011	Alarm title	Drive communication error	
Description	<ul> <li>At least 2 errors listed below occur for over 10ms totally in drive communication.</li> <li>1. Drive response packet not received.</li> <li>2. Drive response packet CRC error.</li> <li>3. Drive response packet watchdog error.</li> <li>Example: According to the communication time setting( Pr3203 ), 6 consecutive errors for 2ms; 4 consecutive errors for 3ms.</li> </ul>			
Possible Reason	<ol> <li>The communication cable between the controller and the driver is loose.</li> <li>The quality of the communication cable is poor, or there is noise interference.</li> <li>Drive response packet watchdog error.</li> </ol>			
Solution	<ol> <li>Check the wir drive.</li> <li>Check whethe add a termina</li> <li>Contact Synte</li> </ol>	ne wiring of the communication cable between the controller an whether the machine is properly grounded. If it is M2 communica rminal resistor to the communication port of the end drive. Syntec OEM.		

#### New Old

Alarm ID	MOT-011	Alarm title	Drive communication error
Description	Abnormal driver communication		
Possible Reason	<ol> <li>The drive station number does not correspond to the controller parameters correctly.</li> <li>The communication cable between the controller and the driver is loose.</li> <li>The quality of the communication cable is poor, or there is noise interference.</li> <li>The Serial Bus M2 communication cable is an older version of the cable with poor noise resistance ability.</li> <li>The communication time setting of RTEX driver is different from Pr3203.</li> <li>The EtherCAT drive does not have a matching ESI file.</li> </ol>		

Solution	1. Check whether the driver parameter DIP switch setting corresponds to the controller parameter (Pr21 ~) correctly.
	2. Check the wiring of the communication cable between the controller and the driver.
	3. Check whether the machine is properly grounded. If it is M2 communication, add a terminal resistor to the communication port of the end driver.
	4. Check if there is a yellow label sticker written V4 on the M2 communication cable of the serial bus.
	5. Set the communication time of RTEX driver to the same as Pr3203.
	6. Check if the ESI file is imported correctly.
	7. Contact Syntec OEM.

## 4.12 MOT-012 Driver homing error

Alarm ID	MOT-012	Alarm title	Driver homing error
Description	Serial Bus Driver homing unsuccessfully.		
Possible Reason	Homing method (Pr961) is set incorrectly or driver doesn't support homing function.		
solution	Check whether homing method is set correctly or driver supports homing function.		

# 4.13 MOT-013 Axial tuning failed. Reboot controller.

Alarm ID	MOT-013	Alarm Title	Axial tuning failed. Reboot controller.
Description	After one serial bus axis tuning function fails, under un-reboot condition triggers axis JOG, MPG JOG or Homing functions.		
Possible Reason	Serial bus axis tuning fails.		
Solution	Reboot controller.		

# 4.14 MOT-014 Enabled too many serial axis

Alarm ID	MOT-014	Alarm Title	Enabled too many serial axis
Description	Over system serial bus axis number limit.		

Alarm ID	MOT-014	Alarm Title	Enabled too many serial axis
Possible Reason	When interpolation time sets too short or using serial axis are too much and cause it's over limit serial bus axis number in interpolation time. And this alarm is issued.		
Solution	Configure the interpolation time to increase or decrease the number of serial axis us		ecrease the number of serial axis used.

# 4.15 MOT-016 Absolute type data error. Check the encoder power and reboot the driver

Alarm ID	MOT-016	Alarm Title	Absolute type data error. Check the encoder power and reboot the driver		
Description	Detects absolute type encoder is abnormal, and controller has reset. Please reboot driver.				
Possible Reason	<ol> <li>First time absolute encoder connects to power, do encoder setting.</li> <li>Encoder runs out of power. Position data is cleared.</li> <li>After driver connects to power, encoder battery voltage is too low.</li> </ol>				
Solution	<ol> <li>Check if the</li> <li>Check if the by the abso</li> <li>After the ab</li> </ol>	battery and connection so battery voltage is stable a lute encoder. ove check is completed, re	tatus of the absolute encoder is proper. and complies with the rating voltage required eboot controller and driver.		

## 4.16 MOT-017 First Positive software limit exceed

Alarm ID	MOT-017	Alarm Title	First Positive software limit exceed
Description	Axial machine coordinate is over positive software stroke limit which is set by Pr2401~Pr2440.		
Possible Cause	Stroke movement of machine table exceeds the set value.		
Solution	<ol> <li>Reset</li> <li>Move axis in r</li> </ol>	negative direction to leave t	he software stroke limit protection.

## 4.17 MOT-018 First Negative software limit exceed

	Alarm ID         MOT-018         Alarm Title         First Negative software limit exceed	
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Description	Axial machine coordinate is over negative software stroke limit which is set by Pr2401~Pr2440.	
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Possible Cause	Stroke movement of machine table exceeds the set value.	
Solution	<ol> <li>Reset.</li> <li>Move axis in positive direction, to leave the software stroke limit protection.</li> </ol>	

### 4.18 MOT-019 Following error exceed

Alarm ID	MOT-019	Alarm Title	Following error exceed	
Description	<ol> <li>Because of the respond the co appears, when alarm.</li> <li>Hardware type</li> <li>After controlle only drive alar</li> </ol>	<ol> <li>Because of the characteristics of servo, servo motor location, there is no way to respond the command of controller immediately, so a slow phenomenon appears, when this latency is not in allowed range, controller will send out the alarm.</li> <li>Hardware type doesn't support software version.</li> <li>After controller version 10.120.32, for M3 drive, If the following error exceeds, only drive alarm AL-521 will be issued, instead of MOT-019.</li> </ol>		
Possible Cause	<ol> <li>Mechanism me</li> <li>Cable contact</li> <li>Setting values</li> <li>Servo On /Off F</li> <li>Internal loop in 10.117.10 or ne synchronize au</li> <li>Encoder resolu</li> <li>Drive or motor</li> <li>Encoder or cab</li> <li>System Data n</li> <li>10 and EZ seria software funct</li> </ol>	<ul> <li>Mechanism movement is not smooth.</li> <li>Cable contact is poor.</li> <li>Setting values of acceleration and deceleration time are too small.</li> <li>Servo On /Off Relay is interfered.</li> <li>Internal loop in driver parameter gains too small. (Under 10.116.10 and 10.117.10 or newer version, gain parameter (Kp) in controller and driver will synchronize automatically, so it doesn't need to consider this factor).</li> <li>Encoder resolution and electric gear ratio is wrongly set.</li> <li>Drive or motor malfunction.</li> <li>Encoder or cable between encoder and controller is abnormal.</li> <li>System Data number 23 is not equal to 100.</li> <li>10 and EZ serial controller installs to 9.242, 10.112 or older version, or option software function is not activated.</li> </ul>		
Solution	<ol> <li>Add lubricating</li> <li>Confirm wire c</li> <li>Increase comb</li> <li>When controlled servo on/off re</li> <li>Increase Inner</li> <li>Confirm hardwasoftware funct</li> <li>Contact to Synthetic</li> </ol>	<ul> <li>Add lubricating oil to mechanism.</li> <li>Confirm wire connecting is normal.</li> <li>Increase combination or acceleration and deceleration time.</li> <li>When controller under dry run mode, open wiring cabinet to check whether servo on/off relay pulses is abnormal.</li> <li>Increase Inner loop gain of driver.</li> <li>Confirm hardware type and software version is matching, or confirm option software function Option 2 is activated.</li> <li>Contact to Syntec OEM.</li> </ul>		

More description	Maximum velocity setting value of G00 and home search is equal to setting parameter divided by Kp. This value multiplied by 2 is the setting range of controller.
	Reasonable following error: Ferr= speech in command/ setting value of loop gain
	Alarm allowed values= {max[(velocity of first stage in home search process), velocity G00 of each axis]/Kp}*2
	i.e. Feedrate 1000mm/min, loop gain 30, accuracy 1um,
	Ferr = 1000*1000÷60÷30=555
	System Data 32 [X axis reasonable following error] System Data 33 [Y axis reasonable following error] System Data 34 [Z axis reasonable following error]

### 4.19 MOT-020 Cannot return to control mode when moving

Alarm ID	MOT-020	Alarm Title	Cannot return to control mode when moving
Description	When motor starts to servo on, such as emergency stop released, canceling monitor mode (C31 ~) or serial spindle switching to C-Axis mode, zero speed check for the motor does not pass within 400 ms.		
Possible Cause	<ol> <li>Instant machine movement by hand during motor servo on procedure.</li> <li>The drive gain setting is poor. Therefore, motor will be trembled during servo on procedure.</li> <li>Zero speed check window(Pr901~) is set too small.</li> </ol>		
Solution	<ol> <li>Avoid man-made movement.</li> <li>Check the drive's position loop gain and speed loop gain setting.</li> <li>Enlarge Pr901~ setting.</li> <li>Note, after removing alarm:         <ul> <li>For incremental system, press reset can remove the alarm.</li> <li>For absolute encoder system, system enters Not Ready state, need to reboot controller to remove the alarm.</li> </ul> </li> </ol>		

### 4.20 MOT-021 Must re-homing

Alarm ID	MOT-021	Alarm Title	Must re-homing
Description	When user must re-homing, the controller issue this alarm.		

Possible Cause	<ol> <li>MOT-020 [Cannot return to control mode when moving] is triggered.</li> <li>MOT-022 [Home position inaccurate] is triggered.</li> <li>Pr41~、Pr121~、Pr161~、Pr221~ is changed.</li> </ol>
Solution	1.Please remove alarm MOT-020 [Cannot return to control mode when moving] . Press reset or reboot controller.
	2.Please remove alarm MOT-022 [Home position inaccurate]. Press reset or reboot controller.
	3.Press reset and re-homing according to current axis setting.

### 4.21 MOT-022 Home position inaccurate

Alarm ID	MOT-022	Alarm Title	Home position inaccurate
Description	After boot and complete homing for the first time, controller will set servo command (System Data 40~) and machine coordinate (Diagnose variable 72~) to zero. Or set an offset value according to Pr881~. After booting, at the N(N>1) times of searching home, home grid will be compared to the result of the first time searching home, if the error is over 0.1 turn of motor, the controller will send alarm.		
Possible Cause	<ol> <li>Homing signal of motor is abnormal.</li> <li>Stopper, coupling or bearings is not locked tightly.</li> <li>Home grid function (Pr941~) is not activated.</li> <li>Under serial bus environment, when that axis is also as spindle, Pr881~ and Pr1771~ setting is difference, will cause homing position change after homing.</li> </ol>		
Solution	<ol> <li>Move motor in the same direction and observe whether position counter index changes normally.</li> <li>Check whether the mechanism components are fixed properly.</li> <li>If it's possible cause 4., assuming sixth axis setting is as first spindle, please set Pr886 and Pr1771 to same value.</li> </ol>		

### 4.22 MOT-023 Fatal following error exceed

Alarm ID	MOT-023	Alarm Title	Fatal following error exceed

Description	<ol> <li>Because of the characteristics of servo, servo motor's positioning cannot respond immediately to controller's command, and delay phenomenon will appear, when this delay phenomenon is not in the allowed limit, controller will send alarm.</li> <li>After controller version 10.120.32, for M3 drive, If the following error exceeds, only drive alarm AL-52A will be issued, instead of MOT-023.</li> </ol>
Possible Cause	<ol> <li>Servo motor doesn't receive control due to external force.</li> <li>Parameter of drive - inner loop gain is too small.</li> <li>Parameters of acceleration and deceleration time is set too short.</li> <li>Encoder is abnormal or connecting encoder to controller is abnormal.</li> </ol>
Solution	<ol> <li>Check the external motion of machine table.</li> <li>Check the setting parameter of drive.</li> <li>Check the acceleration and deceleration setting of each axis, Pr401, Pr541~Pr560.</li> <li>Maintain the connection between encoder and servo drives.</li> </ol>
More description	Maximum velocity value of G00 and home search is equal to setting parameter divided by Kp. This value multiplied by 4 is setting range of controller. Reasonable following error: Ferr= speech in command/ loop gain Alarm allowed values= {max[(velocity of first stage in home search process), velocity G00 of each axis]/Kp}*4 System Data 32 [X axis reasonable following error] System Data 33 [Y axis reasonable following error] System Data 34 [Z axis reasonable following error]

### 4.23 MOT-024 Fatal dual feedback error exceed

Alarm ID	MOT-024	Alarm Title	Fatal dual feedback error exceed
Description	If controller discover feedback exceed allo	s that the command and the wable limit set in Pr3817, co	second command of encoder Introller will send this alarm.
Possible Cause	<ol> <li>Mechanism in</li> <li>Motor parame</li> <li>Linear scale p</li> <li>Servo motor f</li> <li>Linear scale s</li> <li>Linear scale re</li> </ol>	iterference. eter setting error. arameter setting error. eedback signal abnormal or ignal abnormal or has interfe eader loose and signal receiv	has interference. erence. ving unstable.

Solution	1. Check external motion mechanism.
	2. Check if motor resolution setting Pr61~, Pr81~ and Pr61~ is correct.
	3. Check if linear scale resolution setting Pr261~ and Pr301~ is correct.
	4. Check if motor encoder function well, or move motor feedback direction away
	from high power electromagnetic devices.
	5. Check if linear scale power is stable, or move linear scale feedback direction
	away from high power electromagnetic devices.
	6. Confirm reader will not be affected by mechanism stroke movement.

### 4.24 MOT-025 Positive hardware limit exceed

Alarm ID	MOT-025	Alarm Title	Positive hardware limit exceed
Description	Servo motor touches the positive hardware limit switch in movement.		
Possible Cause	<ol> <li>Machine table exceeds protection point.</li> <li>Hardware stroke switches are damaged or broken</li> <li>Controller input signal error.</li> </ol>		
Solution	<ol> <li>Use MPG mode to move machine table to opposite direction once discovering that machine table stops at the switch.</li> <li>If machine table is not at the switch, check switch device, limit switch wiring, IO terminal, 24V power supply of terminal.</li> <li>Check whether IO card is abnormal.</li> </ol>		

### 4.25 MOT-026 Negative hardware limit exceed

Alarm ID	MOT-026	Alarm Title	Negative hardware limit exceed
Description	Servo motor touches	the negative hardware strok	e limit in moving.
Possible Cause	<ol> <li>Machine table</li> <li>Hardware strop</li> <li>Input signal h</li> </ol>	e exceeds protection point. oke switches are damaged or as errors.	broken.
Solution	<ol> <li>Use MPG mod table stops at</li> <li>If machine tab terminal, 24V</li> <li>Check whethe</li> </ol>	e to move machine table in o the switch. ole is not at the switch, check power supply of terminal. er IO card is normal.	opposite direction once the machine I limit switch, switch wiring, IO

### 4.26 MOT-027 program error in PLC axis

Alarm ID	MOT-027	Alarm Title	program error in PLC axis
Description	PLC axis program syn	tax error.	
Possible Cause	PLC axis program syn	tax error.	
Solution	Check syntax of PLC a	xis program.	

### 4.27 MOT-028 System memory too low

Alarm ID	MOT-028	Alarm Title	System memory too low
Description	When CNC axis and PLC axis exchange, system remaining memory is too low.		
Possible Cause	During machining process, switch axis into PLC axis.		
Solution	Contact machinery m	Contact machinery manufacturers.	
Advance Description	Kernel software will check value of system data number 7 'System remaining memory' at any time. When remaining value is too low, this alarm will be issued.		

### 4.28 MOT-029 Miss index in homing

Alarm ID	MOT-029	Alarm Title	Miss index in homing
Description	When searching home, if motor does not find out motor index signal after leaving home DOG more than 5 pitches, controller will send this alarm.		
Possible Cause	<ol> <li>Can't read the index signal.</li> <li>The setting of homing 2<sup>nd</sup> travel feedrate is too fast.</li> <li>The setting of motor reduction ratio is too big.</li> <li>The distance between index signal and HomeDog is more than 5 pitches.</li> </ol>		
Solution	<ol> <li>Check motor in check whether</li> <li>Reduce setting</li> </ol>	ndex signal wiring; observe sys index signal is read. If no, ple gvalue of the homing 2 <sup>nd</sup> trave	stem data no. 48(X), 49(Y), 50(Z) to ase check whether wiring is normal. el federate (Pr841~Pr843)

More description	When searching home, machine will use the velocity setting value of the first stage to move to home DOG, and stop. After that machine moves backward with velocity of the second stage. After leaving home DOG to move backward, it start to search the nearest motor index signal. In the second stage, controller will calculate according to resolution of encoder. If controller leaves home DOG more than 5 pitches and can not find out the index signal. Controller will send alarm.
1	resolution of encoder. If controller leaves home DOG more than 5 pitches and can not find out the index signal. Controller will send alarm.

### 4.29 MOT-030 Homing zero speed check failed

Alarm ID	MOT-030	Alarm Title	Homing zero speed check failed
Description	When motor touches	HomeDog, motor cannot sto	op completely.
Possible Cause	<ol> <li>Improper driv</li> <li>Resonance ph</li> </ol>	e gain setting, and makes mo enomenon caused by motor	otor vibrating. running.
Solution	<ol> <li>Check the position loop gain and velocity loop gain setting of driver.</li> <li>Activate the resonance frequency inhibition ability of driver.</li> <li>Contact machinery manufacturers for help.</li> </ol>		
More description	When searching hom move to home DOG, a backward with veloci it start to search the r motor will decrease v no. 8(X), 9(Y), 10(Z)-er window(Pr901~Pr920	e, machine will use the veloc and stop once it meets home ity of the second stage. After nearest motor index signal. A velocity to stop. After 0.1 seco rror register receives values b 0), controller will send alarm.	ity setting value of the first stage to DOG. After that machine moves leaving home DOG to move backward, it the first stage to find the home DOG, ond command stops, if system data bigger than zero speed check

### 4.30 MOT-031 Static dual feedback error exceed

Alarm ID	MOT-031	Alarm Title	Static dual feedback error exceed
Description	After the controller s the system will check Pr1421~Pr1440. If ye	tops sending the motion cor < whether dual feedback erro s, controller will send alarm.	nmand, during the time set by Pr3805, or exceeds allowed limit set by
Possible Cause	<ol> <li>Mechanism ir</li> <li>Motor parametric</li> <li>Linear scale p</li> <li>Motor feedba</li> <li>Linear scale s</li> <li>Linear scale r</li> </ol>	iterference. eter setting error. parameter setting error. ck signal abnormal or is inte ignal abnormal or is interfer eader is loose and cause the	erfered. ed. feedback unstable.

Solution	<ol> <li>Check the external motion mechanism.</li> <li>Check if motor resolution setting Pr61~, Pr81~ and Pr61~ is correct.</li> <li>Check if the linear scale resolution setting Pr261~ and Pe301~ is correct.</li> <li>Check if motor encoder works well, or move motor feedback line away from high power electromagnetic devices.</li> <li>Check if linear scale power is stable, or move linear scale feedback line away from high power electromagnetic devices.</li> <li>Confirm the reader is not interfered by the mechanism movement.</li> </ol>

### 4.31 MOT-032 Z axis Following spindle error exceed

Alarm ID	MOT-032	Alarm Title	Z axis Following spindle error exceed
Description	For tracking Tapping pitch distance.	feeds, feeding axis opposite	direction will feed more than one
Possible Cause	Spindle feedback cal	ble wiring is opposite.	
Solution	<ol> <li>Swap the pos</li> <li>Change invert</li> </ol>	ition feedback A+ and A- whi ter related parameters.	ch inverter sends to the controller.

### 4.32 MOT-033 Absolute encoder read error

Alarm ID	МОТ-033	Alarm Title	Absolute encoder read error
Description	When using absolute driver fails.	encoder, the communicatio	n between the controller and the
Possible Cause	<ol> <li>The driver is n</li> <li>The communi</li> <li>The absolute a</li> </ol>	ot powered on. cation cable between the co adapter board is damaged.	ntroller and driver is loose.
Solution	<ol> <li>Check if the period</li> <li>Check if the w</li> <li>Change the at</li> </ol>	ower supply of driver is norm iring is correct. osolute adapter board.	ıal.

### 4.33 MOT-034 Absolute home position has not been set. Please reset it.

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Description	When using absolute encoder, need to set up absolute home position in controller.
Possible Cause	<ol> <li>The absolute home position has not been set or it is lost due to insufficient voltage.</li> <li>Pr41~, Pr61~, Pr81~, Pr121~, Pr161~, Pr201~, Pr221~ and etc. parameters is modified.</li> <li>Detect Yaskawa encoder sends abnormal alarm. (For example: A.C80, A.CA0)</li> <li>Execute multi turns reset function on the controller.</li> <li>An abnormal absolute position status of Syntec drive is detected.</li> </ol>
Solution	<ol> <li>For possible reasons 1, 2, and 4: (Again) sets absolute home position.</li> <li>For possible reason 3, 5: After solving abnormal encoder issue, sets up absolute home position again.</li> </ol>
More description	<ul> <li>Absolute home position setting step:</li> <li>Step 1: Move axis to the pre-set mechanical origin.</li> <li>Step 2: Enter home position setting page, path: Parameter setting &gt; Serial Parameter &gt; Abosolute home position</li> <li>Step 3: Choose the axis to be set with direction key, and click 'set machine origin'.</li> </ul>

### 4.34 MOT-035 absolute position battery failure

Alarm ID	MOT-035	Alarm Title	absolute position battery failure
Description	When using absolute encoder, the communication between the controller and driver is successful, but the motor encoder position value is 0.		
Possible Cause	The battery of absolute encoder has no sufficient power.		
Solution	Change the battery.		

### 4.35 MOT-036 Can't leave home dog switch

Alar m ID	MOT-036	Alarm Title	Can't leave home dog switch
Desc ripti on	When searchir leave home do	ng home, after stop and return, if the axis moving switch.	ing exceed Pr981~ setting and still can't

Poss ible Cau se	HomeDog is damaged.
Solu tion	Use the electrical multimeter to check whether the sensor of HomeDog is damaged or wiring is short circuit.
Mor e desc ripti on	When searching home, machine will use setting value of the 1 <sup>st</sup> phase feedrate to move towards home DOG (Pr881~Pr900 Axial home offset), and stop until reaches home dog switch. In the 2 <sup>nd</sup> phase, controller will calculate according to encoder resolution. If controller leaves home DOG exceed the setting of Pr981~Pr1000 Axis homing 2nd protect revolution (encoder type) and cannot leave index signal, controller will send alarm.

### 4.36 MOT-037 Second Positive software limit exceed

Alarm ID	MOT-037	Alarm Title	Second Positive software limit exceed	
Description	Axis machine coor	Axis machine coordinate exceeds Pr2501~Pr2540 set Second Positive software limit value.		
Possible Cause	The motion of machine table exceeds set value.			
Solution	<ol> <li>Reset to re</li> <li>Move axis i</li> </ol>	move alarm. In negative direction to leave the software stroke protection range.		

### 4.37 MOT-038 Second Negative software limit exceed

Alarm ID	MOT-038	Alarm Title	Second Negative software limit exceed
Description	Axis machine coordinate exceeds Pr2501~Pr2540 set Second Negative software limit value.		
Possible Cause	The motion of machine table exceeds setting value.		
Solution	<ol> <li>Reset to remo</li> <li>Move axis in p</li> </ol>	<ol> <li>Reset to remove alarm.</li> <li>Move axis in positive direction to leave the software stroke protection range.</li> </ol>	

### 4.38 MOT-039 Tapping severe over travel

Alarm ID	МОТ-039	Alarm Title	Tapping severe over travel
Description	Tracking Tapping the alarm that cause mot feedback, and there than the hole top (R p this alarm and stop (R Not supported version above version.	eory is Z axis moves along wit for dry runs during tapping p might have risk of machine c point) or about 10 pitches fro pause) the machine. n: 10.114.33E, 10.114.38F, 10	h spindle feedback. If driver occurs an eriod, Z axis will still tap with motor rash. Therefore, when Z axis is higher m the hole bottom. System will send 0.115.43D, 10.115.46A, 10.115.47 or
Possible Cause	Motor dry runs because of alarm.		
Solution	Check the cause of d	iver alarm.	

### 4.39 MOT-040 Dual feedback self-inspection error exceed

Alarm ID	МОТ-040	Alarm Title	Dual feedback self-inspection error exceed
Description	After activating dual feedback, between linear scales' each index signals, accumulated A, B pulse count difference exceed Pr3818 setting.		
Possible Cause	<ol> <li>Linear scale power is unstable.</li> <li>Linear scale feedback is interfered.</li> <li>Linear scale's adapter is interfered by magnetic field or electric field.</li> <li>Linear scale's sensor reader is loose and cause unstable feedback.</li> </ol>		
Solution	<ol> <li>Independently us the power supply of linear scale.</li> <li>Check if the case at CNC side is power pollution free, or the isolation cable is fallen.</li> <li>Keep the linear scale adapter away from the heavy electricity area, or cover it with cooper sheet to reduce external interference.</li> <li>Confirm the sensor reader will not be affected by the mechanism travel movement.</li> </ol>		

		-	
Alarm ID	MOT-041	Alarm Title	Exceed the 3 <sup>rd</sup> positive software travel limit
Description	Axis mechanical coordinate is over positive software stroke limit which is set by Pr2441~Pr2480.		
Possible Cause	Machine bed moves over setting limit.		
Solution	<ol> <li>Press reset.</li> <li>Move axis in r</li> </ol>	negative direction, to leave t	he software stroke protection range.

### 4.40 MOT-041 Exceed the 3rd positive software travel limit

### 4.41 MOT-042 Exceed the 3rd negative software travel limit

Alarm ID	MOT-042	Alarm Title	Over the 3 <sup>rd</sup> negative software travel limit
Description	Axis mechanical coordinate is over negative software stroke limit which is set by Pr2441~Pr2480.		
Possible Cause	Machine bed moves over setting limit.		
Solution	<ol> <li>Press reset.</li> <li>Move axis in positive direction, to leave the software stroke protection range.</li> </ol>		

### 4.42 MOT-043 Enter the 1st software stroke limit protection range

Alarm ID	MOT-043	Alarm Title	Enter the 1st software stroke limit protection range	
Description	Axis machine coord Pr2401~Pr2440.	Axis machine coordinate enter software stroke limit's protection range which is set by Pr2401~Pr2440.		
Possible Cause	Machine bed moves over setting limit.			
Solution	<ol> <li>Press reset.</li> <li>Axis move in opposite direction, and leave the software stroke limit protection range.</li> </ol>			

Alarm ID	MOT-044	Alarm Title	Enter the 2 <sup>nd</sup> software stroke limit protection range
Description	Axis mechanical coordinate enter software stroke limit's protection range which is set by Pr2501~Pr2540.		
Possible Cause	Bed moves over setting limit.		
Solution	<ol> <li>Press the reset.</li> <li>Move the axis in opposite direction, to leave the software stroke protection range.</li> </ol>		

### 4.43 MOT-044 Enter the 2nd software stroke limit protection range

### 4.44 MOT-045 Enter the 3rd software stroke limit protection scope

Alarm ID	MOT-045	Alarm Title	Enter the 3 <sup>rd</sup> software stroke limit protection scope
Description	Axis mechanical coordinate enter software stroke limit's protection range which is set by Pr2441~Pr2480.		
Possible Cause	Machine bed moves over setting limit.		
Solution	<ol> <li>Press the rest</li> <li>Move axis in the existing</li> </ol>	et. opposite direction, and leav	e the software stroke protection range.

### 4.45 MOT-046 Origin switch signal abnormal

Alarm ID	MOT-046	Alarm Title	Origin switch signal abnormal		
Description	For incremental type move towards origin deceleration order w	n home mode (Pr961~), system will o Pr861~ setting, and stop with ch.			
	If machine runs over block because deceleration distance is too long, when system continues moving in opposite direction with 2 <sup>nd</sup> phase homing feedrate, it needs to wait for origin switch's signal again shows up and disappear, then it can start finding index signal.				
	When moving in opposite direction, if origin switch's signal doesn't appear, alarm will be issued if exceeds 'five times distance of 1 <sup>st</sup> phase homing feedrate * G00 acceleration and deceleration time/ 2'.				

Alarm ID	MOT-046	Alarm Title	Origin switch signal abnormal
Possible Cause	<ol> <li>Origin switch contact is poor.</li> <li>Noise interference.</li> </ol>		
Solution	<ol> <li>Check if the origin switch signals are interfered by noise.</li> <li>Check if the origin switch contact is poor contact.</li> </ol>		

### 4.46 MOT-050 Illegal control mode switch

Alarm ID	MOT-050	Alarm Title	Illegal control mode switch	
Description	Do illegal control mo	Do illegal control mode switch to axis.		
Possible Cause	<ol> <li>Switch the axis control mode from speed control into torque/ gap/ user velocity control.</li> <li>Switch the axis control mode from torque control into speed/ gap/ spindle orientation/ user velocity control.</li> <li>Switch the axis control mode from gap control mode into speed/ torque/ spindle orientation/ user velocity control.</li> <li>Switch the axis control mode from spindle orientation control into torque/ gap/ user velocity control.</li> <li>Switch the axis control mode from spindle orientation control into torque/ gap/ user velocity control.</li> <li>Switch the axis control mode from user velocity control to speed/ torque/ gap/ spindle orientation control.</li> </ol>			
Solution	Switch the axis control mode correctly.			

### 4.47 MOT-051 Inhibit to cycle start while moving

Alarm ID	MOT-051	Alarm Title	Inhibit to cycle start while moving	
Description	Before all manual commands are sent, prohibit cycle start to prevent operation error.			
Possible Cause	Manual command (JOG, INJOG, and MPGJOG) cannot be sent successfully.			
Solution	Reset to remove alarm. Wait until machine stops, then cycle start.			

Alarm ID	MOT-052	Alarm Title	Driver power-amp voltage not input
Description	Driver power-amp power is not suppled, please check power cable wiring.		
Possible Cause	Driver power-amp power is not suppled.		
Solution	Check if the three phase of driver electricity is input correctly.		

### 4.48 MOT-052 Driver power-amp voltage not input

### 4.49 MOT-053 No absolute type functions for an increment encoder

Alarm ID	MOT-053	Alarm Title	No absolute type functions for an increment encoder	
Description	Driver side's encoder is incremental or when its setting is incremental, controller side can't start using absolute homing function.			
Possible Cause	Encoder is incremental or use as incremental. Sets Pr201~Pr220 as absolute encoder.			
Solution	<ol> <li>Check the encoder type. In case of a incremental encoder, configure the Pr201~Pr220 as an incremental encoder.</li> <li>Check the driver internal and the related parameter setting of encoder, and configure the encoder in the driver as an increment type.</li> <li>After modification, reboot controller and driver.</li> </ol>			

### 4.50 MOT-054 Encoder type (Pr201~Pr220) changed

Alarm ID	MOT-054	Alarm Title	Encoder type (Pr201~Pr220) changed
Description	Encoder type has changed.		
Possible Cause	Modified Pr201~Pr220 or driver internal and encoder related parameter setting.		
Solution	Reboot controller and driver.		

### 4.51 MOT-055 Rotation axis type C and double feedback unsupported by the absolute type

Alarm ID	MOT-055	Alarm Title	Rotation axis type C and double feedback unsupported by the absolute type
Description	When using absolute encoder, related parameter setting is wrong.		
Possible Cause	<ol> <li>When using absolute encoder (Pr201~ sets as 3), axis's axial type stetting will be rotary axial type C (Pr201~ sets as 3).</li> <li>When using absolute encoder (Pr201~ sets as 3) and start dual feedback function simultaneously (Pr241~ not sets as 0).</li> </ol>		
Solution	<ol> <li>When using an absolute encoder, configure the axis type of axial direction as the non-rotation axis type C and other types (Pr221~≠3).</li> <li>Turn off the dual feedback function (Pr241~=0) or use an increment encoder (Pr201~=0).</li> </ol>		
Advanced Explanation	<ol> <li>When this a absolute po</li> <li>This alarm v to reboot de a. Pr22 b. Pr20</li> </ol>	<ul> <li>When this alarm occurs will trigger 'MOT-034 first homing setting incomplete, absolute position can't operate', user need to reset home position.</li> <li>This alarm won't be cleared until related parameter reset correctly. Whether need to reboot depend on parameter.</li> <li>a. Pr221~ effective after press reset.</li> <li>b. Pr201~ Pr241~ effective after reboot.</li> </ul>	

# 4.52 MOT-056 Single-turn absolute encoder cannot be used as an increment type. Reconfigure the encoder parameter.

Alarm ID	MOT-056	Alarm Title	Single-turn absolute encoder cannot be used as an increment type. Reconfigure the encoder parameter.
Description	Single-turn absolute encoder can't be used as incremental encoder.		
Possible Cause	When encoder is absolute encoder, set Pr201~Pr220 as incremental encoder.		
Solution	<ol> <li>Check the encoder type. In case of a single-turn absolute type, configure the Pr201~Pr220 as an absolute encoder.</li> <li>Check the driver internal and encoder related parameter setting, set the use of the encoder in the driver as increment type.</li> <li>After modification, reboot controller and driver.</li> </ol>		

### 4.53 MOT-057 Drive cannot servo on

Alarm ID	MOT-057	Alarm Title	Drive cannot servo on	
Description	Drive cannot servo on.			
Possible Cause	When controller send servo on signal, but drive can't enter servo on state in 20 seconds. Controller will send this alarm.			
Solution	<ol> <li>Please contact the drive supplier.</li> <li>After resolving the problem that the drive cannot servo on, reset the controller to clear the alarm.</li> </ol>			

# 4.54 MOT-058 To permanent save the driver parameter setting, execute under not ready state

Alarm ID	MOT-058	Alarm Title	To permanent save the driver parameter setting, execute under not ready state
Description	Pr181~, Pr1771 has synchronized into driver parameter, but axis is servo on and can't execute save parameters.		
Possible Cause	When modified P1181~ and Pr1771~, axis is servo on.		
Solution	Execute permanent save of driver parameter under not ready state.		



# 4.55 MOT-059 Please modified resolution related parameters from the page of serial parameters

Alarm ID	MOT-059	Alarm Title	Please modified resolution related parameters from the page of serial parameters			
Description	The axis of the Syr	The axis of the Syntec driver can synchronize the resolution related setting.				
	If the sensor type of controller and driver are the same, the related controller paramete will be synchronized from the driver.					
	If the resolution re the page of serial p	lated parameters need to parameters.	be modified, please modify the parameters in			
	The matched conc	lition of sensor type ( singl	e feedback ):			
	<ul><li>Driver para</li><li>Driver para</li></ul>	meter Pn-911 = 1 ( Rotary meter Pn-911 = 2 ( Linear )	), Pr201~Pr220 Axial sensor type. = 0, 3, 4 , Pr201~Pr220 Axial sensor type. = 1, 5			
	The matched conc	lition of sensor type ( drive	er dual feedback or semi-closed loop ):			
	<ul> <li>Driver parameter Pn-931 = 1 (Rotary), Pr201~Pr220 Axial sensor type. = 0</li> <li>Driver parameter Pn-931 = 2 (Linear), Pr201~Pr220 Axial sensor type. = 1</li> </ul>					
	Axial resolution re	lated parameters:				
	<ul> <li>Pr61~Pr80 Axial encoder resolution</li> <li>Pr81~Pr100 Axial encoder scaling factor</li> <li>Driver resolution related parameters:</li> </ul>					
	<ul><li>Pn-902 Enc</li><li>Pn-922 2nd</li></ul>	oder Resolution I Encoder Resolution				
	<ul> <li>Pn-20E Election</li> <li>Pn-210 Election</li> </ul>	ctronic Gear Ratio ( Numer ctronic Gear Ratio ( Denom	ator ) iinator )			
	Version informatio	on:				
	), 10.118.48B, 10.118.49 and later versions.					
Possible Cause	Modified the resolution related parameters in controller after the resolution synchronization of the Syntec driver.					
Solution	<ol> <li>Reset the c</li> <li>If the resolution parameters driver.</li> </ol>	t the controller. resolution related parameters need to be modified, please modify the meters in the page of serial parameters. Then restart the controller and the r.				

### 4.56 MOT-060 Torque application configuration conflicted with driver configuration (Pn002.0)

Alarm ID	MOT-060	Alarm Title	Torque application configuration conflicted with driver configuration (Pn002.0)	
Description	Torque applicatior	Torque application setting is conflicted with Yaskawa driver parameter setting.		
Possible Cause	<ol> <li>Controller needs to use torque limit mode, but Yaskawa driver parameter setting sets as torque compensation mode.</li> <li>Controller needs to use torque compensation mode, but Yaskawa driver parameter setting sets as torque limit mode.</li> </ol>			
Solution	Check if the driver parameter configuration is correct.			

### 4.57 MOT-061 Gap control mode unsupported by axis

Alarm ID	MOT-061	Alarm Title	Gap control mode unsupported by axis	
Description	Axis doesn't support switching into gap control mode.			
Possible Cause	<ol> <li>Only Syntec driver supports gap control mode.</li> <li>Syntec driver's firmware is too old.</li> </ol>			
Solution	<ol> <li>Use Syntec driver.</li> <li>Check the firmware version of the Syntec driver.</li> </ol>			

### 4.58 MOT-062 Gap control mode cannot be switched during axial movement

Alarm ID	MOT-062	Alarm Title	Gap control mode cannot be switched during axial movement		
Description	Axis is moving, can't change from position control into gap control.				
Possible Cause	When axis is moving, received the mode changing command.				
Solution	Mode can be switched after the axial movement stops completely.				

## 4.59 MOT-063 Axial sensor type not matching with home searching method

Alarm ID	MOT-063	Alarm Title	Axial sensor type not matching with home searching method
Description	Axis sensor type isn't 'Absolute encoder', but homing method setting is 'Absolute encoder index' or 'Absolute with origin switch', and the parameter is not matched.		
Possible Cause	Axis sensor type (Pr201~Pr220) sets as 0~2, and the corresponding home searching method (Pr961~Pr980) sets as 4 or 5.		
Solution	In case the axial sensor type (Pr201~Pr220) is configured to 0~2, the home searching method (Pr961~Pr980) can be configured to 0~3, not 4 or 5.		

### 4.60 MOT-064 Axis driver doesn't support selected friction compensation

Alarm ID	MOT-064	Alarm Title	Axis driver doesn't support selected friction compensation			
Description	That axis driver doe	That axis driver doesn't support the selected friction compensation.				
Possible Cause	When Pr2921~ is set to 1, but driver does not support speed spike compensation, the alarm will be issued; when Pr2921~ is set to 2, but driver does not support torque spike compensation, the alarm will be issued.					
Solution	<ol> <li>Set Pr2921~ can remove</li> <li>Drivers that         <ul> <li>a. Yaska</li> <li>10.11</li> <li>b. Synta</li> <li>10.11</li> <li>later</li> <li>c. Pana</li> <li>10.11</li> <li>d. Ether</li> <li>(Con versi</li> </ul> </li> <li>Drivers that         <ul> <li>a. Synta</li> <li>10.11</li> <li>d. Ether</li> <li>(Con versi</li> <li>Drivers that                 <ul> <li>a. Synta</li> <li>10.11</li> <li>3.0.0</li> <li>4. RETX related</li> </ul> </li> </ul> </li> </ol>	as the friction compensation this alarm. support speed spike comp awa M2/M3 serial bus drive (8.0F, 10.118.6 and later versions), 10.118.6 and later versions, driver (Con (8.16 and later versions, drivers). (8.21 and later versions). (8.21 and 10.118.120 and later versions). (9.21 and later versions). (10.22 and later versions). (21 and later versions). (21 and later versions).	ion that the axis driver supports. Press reset pensation include: er (Controller support versions: 10.116.54K, ersions). ntroller support versions: 10.118.12G, river support versions: 2.8.3, 2.9.0, 2.10.0 and driver (Controller support versions: ater versions). t support speed spike compensation 0.118.48I, 10.118.52C, 10.118.54 and later CAT Drive Application Manual. pensation include: ontroller support versions: 10.118.40A, driver supported versions: 2.14.105, 2.15.0, o RTEX Driver Application Manual.			

### 4.61 MOT-065 Axis driver doesn't support power-off retract

Alarm ID	MOT-065	Alarm Title	Axis driver doesn't support power-off retract	
Description	Driver doesn't support power-off retract function.			
Possible Cause	Driver doesn't support power-off retract function. When Pr1041~ Pr1060 setting is not 0 and this alarm will be issued.			
Solution	<ol> <li>Only Syntec Bus M3 Driver supports power-off retract function.</li> <li>Confirm Syntec Serial Bus M3 Driver's firmware version. Support firmware versions are 2.10.1, 2.11.0 and above version.</li> </ol>			

### 4.62 MOT-066 Axis driver firmware version is not supported

Alarm ID	MOT-066	Alarm Title	Axis driver firmware version is not supported
Description	Controller doesn't support axis driver's firmware version.		
Possible Cause	Driver's firmware version is too old.		
Solution	Upgrade driver firmware version. For Panasonic RETX A6N firmware version, upgrade to 1.23 or above version.		

## 4.63 MOT-067 Syntec encoder's firmware upgrade finished. Please reboot driver.

Alarm ID	MOT-067	Alarm Title	Syntec encoder's firmware upgrade finished. Please reboot driver.
Description	Syntec encoder's firmware upgrade is finished. Need to reboot driver.		
Possible Cause	Execute axis encoder's firmware upgrade.		
Solution	Reboot driver and controller.		

### 4.64 MOT-068 Syntec encoder information reading timeout

Alarm ID	MOT-068	Alarm Title	Syntec encoder information reading timeout	
Description	Syntec encoder information reading timeout.			
Possible Cause	<ol> <li>Communication between controller and driver is abnormal.</li> <li>Driver condition is abnormal.</li> </ol>			
Solution	<ol> <li>Check if communication is loose.</li> <li>Reboot driver.</li> </ol>			

### 4.65 MOT-069 Axial feedback abnormal

Alarm ID	MOT-069	Alarm Title	Axial feedback abnormal	
Description	If the difference between the axial feedback value exceeds 4 times of the maximum speed set by the controller, the number of abnormal times will be accumulated by 1 each time. This alarm will be issued when two consecutive abnormalities occur; The maximum speed is the maximum value among Pr461 ~, Pr521 ~, Pr621 ~, Pr821 ~, Pr1801 ~(when using as servo spindle).			
Possible Cause	<ol> <li>Communication between controller and driver is abnormal.</li> <li>The following parameter settings are inappropriate;         <ul> <li>Pr461~Pr480 Maximum feed rate for axial rapid movement (G00)</li> <li>Pr521~Pr540 Axial JOG speed</li> <li>Pr621~Pr640 Axial maximum cutting feedrate</li> <li>Pr821~Pr840 Axial homing feedrate</li> </ul> </li> <li>If using servo spindle, Pr1801~Pr1810 Spindle maximum speed setting is inappropriate</li> </ol>			
Solution	<ol> <li>Check if commu</li> <li>Re-set above me</li> </ol>	inication is connect well. entioned parameters.		

### 4.66 MOT-070 Axial command abnormal

Alarm ID	MOT-070	Alarm Title	Axial command abnormal
Description	The planned controller maximum speed; The maximum speed is using as servo spindle).	command exceeds 1.2 time	es of the distance that can be moved at the axial g Pr461~, Pr521~, Pr621~, Pr821~, Pr1801~ (when

Alarm ID	MOT-070	Alarm Title	Axial command abnormal
Possible Cause	<ol> <li>The following p         <ol> <li>Pr461~P</li> <li>Pr521~P</li> <li>Pr621~P</li> <li>Pr821~P</li> </ol> </li> <li>If using servo sponses</li> </ol>	arameter settings are inapp r480 Maximum feed rate for r540 Axial JOG speed r640 Axial maximum cutting r840 Axial homing feedrate pindle, Pr1801~Pr1810 Spino	propriate; • axial rapid movement (G00) g feedrate dle maximum speed setting is inappropriate
Solution	Re-set above mentioned parameters.		

### 4.67 MOT-071 Interpolation severely overtime

Alarm ID	MOT-071	Alarm Title	Interpolation severely overtime			
Description	The interpolation timeout exceeds 30ms, causing controller fail to communicate with driver normally; If within 30ms, controller will perform proxy interpolation and continue to communicate with driver.					
Possible Cause	<ol> <li>Frequent data transmission in the cloud, causes the controller system to be extremely busy, e.g. using dipole structure (the front stage simulator is connected to the back stage controller)</li> <li>Parameter Pr3251 is set to 5.</li> </ol>					
Solution	<ol> <li>Reboot contro</li> <li>.Check if Pr325 and set Pr3251</li> <li>Please upgrad</li> <li>Please contact</li> </ol>	ntroller and driver. r3251 is set to 5. If so, please take a look at "Pr3251 Touch Screen" page, 3251 to other value. grade the BSP version to 9.35 or above. ntact OEM Syntec.				

## 4.68 MOT-072 Software stroke limit setting error when using single turn absolute encoder

New Version Old Version

Versions—10.118.82B, 10.118.83 and later.

Alarm ID	MOT-072	Alarm Title	Software stroke limit setting error when using single turn absolute encoder
Description	When Pr201~Pr220 is 4 the single turn absolute encoder type and Pr221~Pr240 is 5 rotary axis type E, the software stroke limit should be activated.		
Possible Cause	<ol> <li>Pr201~Pr220 is the encoder type is single turn absolute.</li> <li>Pr2401~Pr2440 is not activated or is incorrectly set when Pr201~Pr220 is 4 the single turn absolute encoder type and Pr221~Pr240 is 5 rotary axis type E.</li> </ol>		
Solution	<ol> <li>Correct</li> <li>When Pr rotary as make su i.e. the r And the</li> <li>After corr</li> </ol>	Correct Pr201~Pr220 encoder type. When Pr201~Pr220 is 4 single turn absolute encoder type and Pr221~Pr240 is 5 rotary axis type E, make sure that Pr2401~Pr2440 are not default values, i.e. the negative and positive limits are not -999999999 and 999999999 respectively. And the positive limit should be larger than the negative limit. After correction, please reboot the controller and the drive.	

New Version Old Ve

**Old Version** 

#### Versions—10.118.82A, 10.118.82 and older.

Alarm ID	MOT-072	Alarm Title	Software stroke limit setting error when using single turn absolute encoder	
Description	Pr2401~Pr2440 encoder type.	Pr2401~Pr2440 is not activated or is incorrectly set when using the single turn absolute encoder type.		
Possible Cause	<ol> <li>The encoder type is single turn absolute.</li> <li>When using the single turn absolute encoder type, the software stroke limit should be activated and its value must be set within the distance in one motor revolution.</li> </ol>			
Solution	<ol> <li>Correct</li> <li>When Pr are not of 99999999 limit. Als revolution</li> <li>After control</li> </ol>	<ol> <li>Correct Pr201~ encoder type.</li> <li>When Pr201~ is single turn absolute encoder type, make sure that Pr2401~Pr2440 are not default values, i.e. the negative and positive limits are not -999999999 and 999999999 respectively. And the positive limit should be larger than the negative limit. Also, the stroke limit should be set within the distance in one motor revolution.</li> <li>After correction, please reboot the controller and the drive.</li> </ol>		

Alarm ID	MOT-073	Alarm Title	Fail to preload servo drive parameter	
Description	The controller fa	ails to preload nec	essary parameters from the drive during booting.	
Possible Cause	<ol> <li>The controller can't communicate with the drive normally.</li> <li>Mismatch between the controller and the drive version.</li> </ol>			
Solution	<ol> <li>Check if alarm.</li> <li>Reboot t</li> <li>Troubles</li> <li>Please u</li> <li>Please u</li> <li>Please compared</li> </ol>	<ol> <li>Check if the axis is connected to a third-party drive. If it is, check if the drive causes the alarm.</li> <li>Reboot the controller and the drive.</li> <li>Troubleshoot all critical drive alarms.</li> <li>Please upgrade the controller version.</li> <li>Please upgrade the drive version.</li> <li>Please contact OEM Syntec.</li> </ol>		

### 4.69 MOT-073 Fail to preload servo drive parameter

### 4.70 MOT-074 Fail to read absolute position from servo drive

Alarm ID	MOT-074	Alarm Title	Fail to read absolute position from servo drive			
Description	The controller fa	The controller fails to read the absolute position from the drive.				
Possible Cause	1. The controller can't communicate with the drive normally.					
Solution	<ol> <li>Check if the axis is connected to a third-party drive. If it is, check if the drive causes the alarm.</li> <li>Reboot the controller and the drive.</li> <li>Please contact OEM Syntec.</li> </ol>					

#### 4.71 MOT-075 Drive initialize timeout

Alarm ID	MOT-075	Alarm Title	Drive initialize timeout	
Description	The communication between the controller and the drive is established, but fails to complete the initialization process in 20 seconds.			
Possible Cause	<ol> <li>The controller can't communicate with the drive normally.</li> <li>The drive issues critical alarms.</li> </ol>			

CNC Alarm Manual.

Alarm ID	MOT-075	Alarm Title	Drive initialize timeout
Solution	<ol> <li>Check if alarm.</li> <li>Reboot t</li> <li>Troubles</li> <li>Please to</li> <li>Please co</li> </ol>	the axis is connect he controller and shoot all critical dr ower the interpola ontact OEM Syntee	ted to a third-party drive. If it is, check if the drive causes the the drive. ive alarms. tion time (Pr3203), then reboot the controller and the drive. c.

### 4.72 MOT-076 Servo drive parameter preload timeout

Alarm ID	MOT-076	Alarm Title	Servo drive parameter preload timeout		
Description	The communication between the controller and the drive is established, but fails to preload parameters in 20 seconds.				
Possible Cause	<ol> <li>The controller can't communicate with the drive normally.</li> <li>Take too much time to read drive parameters.</li> </ol>				
Solution	<ol> <li>Check if the axis is connected to a third-party drive. If it is, check if the drive causes the alarm.</li> <li>Reboot the controller and the drive.</li> <li>Troubleshoot all critical drive alarms.</li> <li>Please lower the interpolation time (Pr3203) and reboot the controller and the drive.</li> <li>Please lower the PLC scan time (Pr3204) and reboot the controller and the drive.</li> <li>Please contact OEM Syntec.</li> </ol>				

### 4.73 MOT-077 Fail to recover machine position

Alarm ID	MOT-077	Alarm Title	Fail to recover machine position		
Description	Fail to recover machine position from absolute encoder or Fram in 20 seconds during booting.				
Possible Cause	<ol> <li>The controller can't communicate with the drive normally.</li> <li>The drive issues absolute encoder battery alarms.</li> </ol>				
Solution	<ol> <li>Check if the axis is connected to a third-party drive. If it is, check if the drive causes the alarm.</li> <li>Reboot the controller and the drive.</li> <li>Troubleshoot drive's absolute encoder battery alarms.</li> <li>Please contact OEM Syntec.</li> </ol>				

Alarm ID	MOT-078	Alarm title	Coupling Error Exceeds Tolerance		
Description	The position error between master axis and slave axis exceeds the tolerance set by the parameter.				
Possible Reason	<ol> <li>Pr3828 is set too small.</li> <li>The loading of master axis and slave axis is not balanced.</li> <li>Master axis or slave axis is stuck.</li> </ol>				
Solution	<ol> <li>Check the set</li> <li>Using automa a. 5 key: b. 8 key: c. 10 key</li> </ol>	<ul> <li>the setting of Pr3828 and set it in reasonable range.</li> <li>automatic gantry calibration function</li> <li>5 key: F4 Monitor → F10 Next → F10 Next → F2 Gantry Calibration</li> <li>8 key: F4 Monitor → F10 Next → F4 Gantry Calibration</li> <li>10 key: Monitor → F11 Next → F2 Gantry Calibration</li> </ul>			

### 4.74 MOT-078 Coupling Error Exceeds Tolerance

### 4.75 MOT-079 Inconsistent Resolution Settings

Alarm ID	МОТ-079	Alarm 标题	[Inconsistent Resolution Settings]
说明	<ul> <li>The resolutions of the controconsistent if the following ed</li> <li>1. Single feedback: Resolution of Election</li> <li>2. Dual feedback or Sen 2nd Encoder Resolution</li> <li>Numerator of Electroconsistent</li> </ul>	oller and the drive are not set co quation is satisfied: olution (Pr61~) * Encoder Scalir cronic Gear Ratio (Pn-210) / Nur ni-Closed Loop: Resolution (Pr6 ion (Pn-902) * Denominator of I nic Gear Ratio (Pn-20E).	onsistently. The settings are considered ng Factor (Pr81~) = Resolution (Pn-902) * merator of Electronic Gear Ratio (Pn-20E). 51~) * Encoder Scaling Factor (Pr81~) = Electronic Gear Ratio (Pn-210) /
可能原 因	<ol> <li>Improper controller p         <ol> <li>Encoder Reso</li> <li>Encoder Scali</li> <li>Improper drive parar</li> <li>Electronic Gea</li> <li>Encoder Reso</li> </ol> </li> </ol>	Darameter settings: lution. ng Factor. neter settings: ar Ratio. lution.	

Alarm ID	MOT-079	Alarm 标题	[Inconsistent Resolution Settings]
排除方 法	<ol> <li>Change the controlle a. Axes: Pr61~, F</li> <li>b. Servo Spindle</li> <li>Change the drive par a. Electronic Geb b. Encoder Reso</li> <li>To clear the alarm, a. Reset the con b. Restart both con</li> </ol>	r parameters so that the equati r81~. s or Serial Rotary Spindles: Pr1 ameters so that the equation m ar Ratio: Pn-20E, Pn-210. lution: Pn-902, Pn-922. troller if ONLY the controller pa of the controller and the drive if	ion mentioned above is satisfied: 651~, Pr1661~. nentioned above is satisfied: rameter(s) is(are) modified. The drive parameter(s) is(are) modified.

### 4.76 MOT-080 Poor contact of communication wire

c

Supported versions: 10.118.86L, 10.120.16L, 10.120.24B, 10.120.27 and previous versions.			
Alarm ID	MOT-080	Alarm title	Poor contact of communication wire
Description	Drive response packet is not received for over 10ms in drive communication. Example: According to the communication time setting( Pr3203 ), 6 consecutive errors for 2ms; 4 consecutive errors for 3ms.		
Possible Reason	1. The communication cable between the controller and the driver is loose.		
Solution	<ol> <li>Check the drive.</li> <li>Contact Sy</li> </ol>	wiring of the communic ntec OEM.	ation cable between the controller and the

### 4.77 MOT-081 The hardware doesn't receive communication packet

Supported versions: 10.118.86L, 10.120.16L, 10.120.24B, 10.120.27 and previous versions.			
Alarm ID	MOT-081	Alarm title	The hardware doesn't receive communication packet
Description	Drive response pack Example: According 2ms; 4 consecutive o	tet is not received for over to the communication time errors for 3ms.	10ms in communication. ne setting( Pr3203 ), 6 consecutive errors for

Possible Reason	<ol> <li>The drive station number does not correspond to the controller parameters correctly.</li> <li>The communication cable between the controller and the drive is loose.</li> </ol>
Solution	<ol> <li>Check whether the drive parameter DIP switch setting corresponds to the controller parameter (Pr21 ~) correctly.</li> <li>Check the wiring of the communication cable between the controller and the drive.</li> <li>Contact Syntec OEM.</li> </ol>

### 4.78 MOT-082 The communication packet is disturbed by noise

Supported versions: 10.118.86L, 10.120.16L, 10.120.24B, 10.120.27 and previous versions.			
Alarm ID	MOT-082	Alarm title	The communication packet is disturbed by noise
Description	Drive response packet is disturbed by noise to generate CRC error for over 10ms in communication. Example: According to the communication time setting( Pr3203 ), 6 consecutive errors for 2ms; 4 consecutive errors for 3ms.		
Possible Reason	1. The quality of the communication cable is poor, or there is noise interference.		
Solution	<ol> <li>Check whether the machine is properly grounded.</li> <li>Contact Syntec OEM.</li> </ol>		

### 4.79 MOT-083 Driver software misses communication packet

Alarm ID	МОТ-083	Alarm title	Driver software misses communication packet
Description	Response packet Watchdog(M3) or Working Counter(EtherCAT) is wrong for over 10ms in M3 communication. Example: According to the communication time setting(Pr3203), 6 consecutive errors for 2ms; 4 consecutive errors for 3ms.		
Possible Reason	Drive response pack	et Watchdog(M3) or Workir	ng Counter(EtherCAT) is wrong

Supported versions: 10.118.86L, 10.120.16L, 10.120.24B, 10.120.27 and previous versions.

#### Solution

Contact Syntec OEM.

### 4.80 MOT-084 Friction compensation mode of drive and controller are discrepant

Alarm ID	MOT-084	Alarm title	Friction compensation mode of drive and controller are discrepant	
Description	The friction compensation of the controller (based on Pr2921~) conflicts with the one of the driver.			
Possible Reason	<ul> <li>This alarm happens if any of the following occurs while Syntec driver is connected:</li> <li>1. The friction compensation of the controller is selected as "Torque compensation" (Pr2921~ is set as 2) while the friction compensation of Syntec driver is deactivated (Pn290 is set as 0).</li> <li>2. The friction compensation of the controller is NOT selected as "Torque compensation" (Pr2921~ is other than 2) while the friction compensation of Syntec driver is activated (Pn290 is set as 1).</li> </ul>			
Solution	<ol> <li>Press RES This make deactivat</li> <li>Contact S</li> </ol>	SET to clear this alar es the controller re-a e the friction compe Syntec OEM.	m. activate the compensation mode of Pr2921~ and activate/ ensation (Pn290) of Syntec driver accordingly.	

## 4.81 MOT-085 Trigger PLC MoveAx component for the roaming axis in borrowing

Alarm ID	MOT-085	Alarm title	Trigger PLC MoveAx components for the roaming axis in borrowing
Description	When the PLC MoveAx component is triggered, the axis cannot be borrowed by other axis groups or PLC Rn subprogram components.		
Reason	When Pr742 is set to 1, for the roaming axis that has been borrowed by other axis groups or PLC Rn subprogram components, trigger the PLC MoveAx component to move.		
Solution	After confirming that other axis groups or PLC Rn subprogram components have removed the roaming axis, trigger the PLC MoveAx component to move.		

#### 4.82 MOT-086 Drive is abnormally switch to servo off state when running

Alarm ID	MOT-086	Alarm Title	Drive is abnormally switch to servo off state when running
Description	Drive is abnormally switch to servo off state when running.		
Possible Cause	When drive is abnormally changed from servo on state to servo off state, controller will send this alarm.		
Solution	<ol> <li>Check if the drive power supply is normal.</li> <li>Check if the wiring is correct.</li> <li>After resolving the problem that the drive cannot servo on, reset the controller to clear the alarm.</li> </ol>		

#### 4.83 MOT-087 Inaccurate stop position. Please check if there are any mechanisms are stuck

Alarm ID	MOT-087	Alarm Title	Inaccurate stop position. Please check if there are any mechanisms stuck
Description	After sending the last command, start to check whether the difference between the feedback and the command exceeds the loss pulse check window( Pr561~Pr580 ). If it exceeds, this alarm will be issued		
Possible Cause	<ol> <li>Mechanical movement was hindered.</li> <li>Unstable position feedback at idle.</li> <li>Improper setting of Loss pulse check window (Pr561~Pr580)</li> </ol>		
Solution	<ol> <li>Check whet</li> <li>Open the cc</li> <li>Rotate screw</li> <li>Use the auto frequency.</li> <li>Adjust Loss follows:         <ul> <li>a. linea</li> <li>b. rotat</li> </ul> </li> </ol>	heck whether the mechanical lubrication system and track lubrication are good. pen the cover of axial to check if any foreign matter blocks the motion of axial. otate screw to check if the mechanism is stuck (loading of driver) se the automatic tuning function to adjust the servo and suppress the vibration requency. djust Loss pulse check window (Pr561~Pr580). Recommended values are as ollows: a. linear axis : 100 b. rotary axis : 500	

#### 4.84 MOT-088 Servo on failed. Unable to execute operation.

**1** This alarm is not support on 10.118.72B, 10.118.74O, 10.118.82M, 10.118.86F, 10.118.90B, 10.118.93 and later

Alarm ID	MOT-088	Alarm Title	Servo on failed. Unable to execute operation.
Description	The servo can not se	ervo on, after cycle start or c	other manual function is triggered.
Possible Cause	<ol> <li>When power on, axis doesn't complete magnetic pole angle detection which cause servo disabled.</li> <li>Driver alarms or abnormal power supplication will cause servo driver become servo off.</li> <li>Driver is malfunction.</li> </ol>		
Solution	<ol> <li>After power of</li> <li>Check if the state</li> <li>Check the state</li> </ol>	on, wait for a while before o servo drive power supply sta atus of the servo drive.	peration. atus is normal and if there is driver alarm.

### 4.85 MOT-089 Not allow the PLC axis controls the indexing axis

Alarm ID	MOT-089	Alarm Title	Not allow the PLC axis controls the indexing axis
Description	The indexing axis is operated using PLC control component.		
Possible Cause	Use PLC Run or PLC Move to control the indexing axis.		
Solution	Remove the use of PLC Run or PLC Move to control the indexing axis in the ladder diagram.		

# 4.86 MOT-090 Forbid to set as linear axis type when using single turn absolute encoder

Alarm ID	МОТ-090	Alarm Title	[Forbid to set as linear axis type when using single turn absolute encoder]
Description	While using single turn absolute encoder, axis type is prohibited to set as linear axis type( Pr221 ~ sets as 0 ).		
Possible Cause	<ol> <li>The encoder type is single turn absolute( Pr201 ~ sets as 4).</li> <li>While using single turn absolute encoder, axis type is prohibited to set as linear axis type( Pr221 ~ sets as 0).</li> </ol>		

Alarm ID	MOT-090	Alarm Title	[Forbid to set as linear axis type when using single turn absolute encoder]
Solution	<ol> <li>Correct Pr201~ encoder type.</li> <li>While using single turn absolute encoder, axis type is prohibited to set as linear axis type(Pr221 ~ sets as 0).</li> <li>After correction, please reboot the controller and the drive.</li> </ol>		

### 4.87 MOT-091 Fail to read 64-bit encoder position

New Version is 10.118.86K, 10.120.16K, 10.120.24B, 10.120.27 and after Old Version is 10.118.86J, 10.118.94 and before

New Version Old Version			
Alarm ID	MOT-091-1	Alarm Title	【Fail to read 64-bit absolution encoder position for Syntec drive】
Description	The Syntec drive does not support reading 64-bit absolute encoder position information, or an exception occurs during reading.		
Possible Cause	<ol> <li>The drive version is mismatched.</li> <li>An exception occurs during reading drive parameters.</li> <li>To change to use non-package motor.</li> </ol>		
Solution	<ol> <li>Please follow the below steps to solve problem:</li> <li>If it is a Syntec drive, please upgrade drive firmware to 3.0.50, 4.2.30, 4.4.12, 4.6.4, 5.2.11, 6.0.5 and later versions.</li> <li>Reset the absolute home position.</li> </ol>		
Alarm ID	MOT-091-3 Alarm Title [The brand of drive was changed. Fail to read 64-bit absolution encoder position]		
Description	The brand of drive was changed. An exception occurs during reading 64-bit encoder position information.		
Possible Cause	The brand of drive was changed: The drive was changed from "Syntec" to other third party drive.		
Solution	Reset the absolute home position.		

DescriptionThe drive does not support reading 64-bit absolute encoder position information, or an exception occurs during reading.Possible Cause1. Syntec drive: a. The drive version is mismatched. b. An exception occurs during reading drive parameters. c. To change to use non-package motor. 2. The brand of drive was changed: The drive was changed from "Syntec" to other third party drive.SolutionPlease follow the below steps to solve problem: 1. If it is a Syntec drive, please upgrade drive firmware to 3.0.50, 4.2.30, 4.4.12, 4.6.4, 5.2.11, 6.0.5 and later versions. 2. Poset the absolute home position	Alarm ID	MOT-091	Alarm Title	[Fail to read 64-bit absolution encoder position]	
Possible Cause       1. Syntec drive:         a. The drive version is mismatched.         b. An exception occurs during reading drive parameters.         c. To change to use non-package motor.         2. The brand of drive was changed: The drive was changed from "Syntec" to other third party drive.         Solution         Please follow the below steps to solve problem:         1. If it is a Syntec drive, please upgrade drive firmware to 3.0.50, 4.2.30, 4.4.12, 4.6.4, 5.2.11, 6.0.5 and later versions.         2. Boset the absolute home position	Description	The drive does not an exception occur	The drive does not support reading 64-bit absolute encoder position information, or an exception occurs during reading.		
SolutionPlease follow the below steps to solve problem:1. If it is a Syntec drive, please upgrade drive firmware to 3.0.50, 4.2.30, 4.4.12, 4.6.4, 5.2.11, 6.0.5 and later versions.2. Poset the absolute home position	Possible Cause	<ol> <li>Syntec drive:         <ul> <li>The drive version is mismatched.</li> <li>An exception occurs during reading drive parameters.</li> <li>To change to use non-package motor.</li> </ul> </li> <li>The brand of drive was changed: The drive was changed from "Syntec" to other third party drive.</li> </ol>			
2. Reset the absolute nome position.	Solution	Please follow the b 1. If it is a Synt 4.6.4, 5.2.11 2. Reset the al	pelow steps to solve proble tec drive, please upgrade I, 6.0.5 and later versions. bsolute home position.	em: drive firmware to 3.0.50, 4.2.30, 4.4.12,	

(before 10.118.74M, 10.118.82K, 10.118.86D, 10.118.91)

New Version

**Old Version** 

3. Sub Alarm MOT-091-3 [The brand of drive was changed, please reset the absolute home position]



## 4.88 MOT-092 Stroke limit exceed the limit of absolut encoder mulit-turn data

Alarm ID	MOT-092	Alarm Title	[Stroke limit exceed the limit of absolut encoder mulit-turn data]	
Description	<ul> <li>The range line resolution (resolution) (resoluti</li></ul>	mit of absolute encoder is ange limit = mulit-turn lim ange limit, the position is of Axial position coordinate imitm, or the stroke limit p pos. coordinate of stroke li data * Axial screw side gea unt(Pr161~)) / Axial moto neg. coordinate of stroke li data * Axial screw side gea unt(Pr161~)) / Axial moto f absolute encoder mulit-tu AWA M3 driver(Sigma-X, S 58~32767 ec driver: depand on Pn-E8 • The max value of mulit-t • The min value of mulit-turn dat nin value of mulit-turn dat nax value of Axis pos. coor (Pr161) * 1(Pr121) / 1(Pr1 nin value of Axis neg. coord (Pr161) * 1(Pr121) / 1(Pr1 1) / 1(Pr1 )	dapand on mulit-turn limit and it * resolution ). If machine positon is unpredictable after reboot controller. of stroke limit 1( Pr2401~ ) must smaller protect will be fail. mit 1( Pr2401~ ) > ( The max value of mulit- r number( Pr121~ ) * Axial pitch or side gear number( Pr122~ ) mit 11( Pr2402~ ) < ( The min value of mulit- r number( Pr121~ ) * Axial pitch or side gear number( Pr122~ ) urn data Sigma-7S, Sigma-7W, Sigma-M ): 81, turn data=floor( Pn-E81 / 2 ) -1 urn data = -1 *floor( Pn-E81 / 2 ) Pr122=1, Pr161=5000, Pn-E81=65536 ta= (65536 / 2) = -32768 dinate of stroke limit 1( Pr2401 ) = 32767 * 122 ) = 163835000 BLU dinate of stroke limit 11( Pr2402 ) = -32768 * 122 ) = -163840000 BLU	
Possible Cause	The setting of Axial position coordinate of stroke limit 1 (BLU)( $\mbox{Pr2401}\-$ ) is wrong.			
Solution	<ol> <li>Change the sencoder mu</li> <li>Change the sence will not check</li> </ol>	Change the stroke limit, make sure the value will not exceed the limit of absolut encoder mulit-turn data. Change the stroke to default value( Axis pos: 999999999, Axis neg.: -999999999) ), it will not check the value of stroke limit		

### 4.89 MOT-093 When switching temperature compensation accuracy, the axial temperature compensation amount should be zero

Alarm ID	MOT-093	Alarm Title	[When switching temperature compensation accuracy, the axial temperature compensation amount should be zero]
Description	When the axial temperature compensation amount R901~ is not 0, it is prohibited to switch the temperature compensation accuracy setting value.		
Possible Cause	When the axial temperature compensation amount R901~ is not 0, switching the temperature compensation accuracy setting value may cause an incorrect compensation command to be issued.		
Solution	Please contact the vendor.		

### 4.90 MOT-094 Current axial applications cannot combine with PLC axes

Alarm ID	MOT-094	Alarm title	【 Current axial applications cannot combine with PLC axes】	
Description	Current axial applications combine with PLC axes is NOT allowed, including: spindle、chopping axis and servo tail axis.			
Possible Cause	<ol> <li>Current axis is set as a spindle and NOT in the C63 / R581.x position control mode (C-Axis mode), then turn on C66~C69 / C260~C273 for switching PLC axis.</li> <li>Current axis is set as a spindle and turns on C63 / R581.x and C66~C69 / C260~C273 into PLC axis, then turns off C63 / R581.x into spindle.</li> <li>Current axis is set as chopping axis by G81.1 / G81.2, then turn on C66~C69 / C260~C273 for switching PLC axis.</li> <li>Current axis is set as servo tail axis.</li> </ol>			
Solution	<ol> <li>Check the ax</li> </ol>	the axis is NOT a spindle before switching the PLC axis. the axis is NOT in PLC axis before turning off the spindle C-Axis mode. the axis is NOT set as chopping axis before switching the PLC axis. the axis is NOT set as servo tail axis before switching the PLC axis.		
## 4.91 MOT-901 Electrical angle detection is in progress, please wait for a few seconds before operating.

This alarm is not support on 10.118.72B, 10.118.74O, 10.118.82M, 10.118.86F, 10.118.90B, 10.118.93 and later							
Alarm ID	MOT-901	Alarm Title	Electrical angle detection is in progress, please wait for a few seconds before operating.				
Description	Electrical angle detection is in progress, please wait for a few seconds before operating. If Cycle Start (C0) or home request is still triggered during alarm, the command will be executed after electrical angle detection is completed.						
Possible Cause	Electrical angle detection is in progress.						
Solution	After electrical angle detection is completed, you can continue to complete the actions.						



## 4.92 MOT-902 Absolute position has the risk of overflow within the software stroke

Alar m ID	MOT-902	Alarm title	【Absolute position has the risk of overflow within the software stroke】					
Desc ripti on	When the controller uses 32bit to store absolute encoder information, insufficient storage size may cause an overflow problem. When the first software stroke limit (Pr2401~) is set out of range of the 32bit absolute position non-overflow negative limit and the positive limit, this alarm will be triggered to remind the user that an overflow problem may occur within the current stroke range.							
	Note:							
	<ul><li>If Pr1021</li><li>This function case, J28</li></ul>	~ is set, this alarm will no tion is not supported for 1/J282 is meaningless.	ot be triggered. · virtual axis or general axis(Pr9 = 9 or Pr21~ = 17/18). In this					
	Formula:							
	<ul> <li>Negative Pitch(Pr1</li> <li>Positive 3 Pitch(Pr1</li> </ul>	<ul> <li>Negative 32bit absolute position non-overflow limit (BLU) = 32Bit Minimum Value (Pulse) * Pitch(Pr161~) / (Gear Ratio(Pr121~) * Encoder Resolution) - Home Offset</li> <li>Positive 32bit absolute position non-overflow limit (BLU) = 32Bit Maximum Value (Pulse) * Pitch(Pr161~) / (Gear Ratio(Pr121~) * Encoder Resolution) - Home Offset</li> </ul>						
	Note:							
	The above formula is applicable when the motor rotates forward(Pr41~). If the motor rotates reversely, the value of positive and negative 32bit absolute non-overflow limits are exchanged. ( the positive and negative signs remain unchanged )							
	Example:							
	<ul> <li>32Bit Mir Encoder</li> </ul>	nimum/Maximum Value = Resolution = 16,777,216	= -2,147,483,648/2,147,483,647、 Pitch = 5,000、 Gear Ratio = 1、 、Home Offset = 5960					
	The negative formula i	ntive/positive 32bit abso is -645960 / 634040 respe	ute position non-overflow limit calculated by the above					
	When the	e controller detects that	the first software stroke limit (Pr2401~) setting is outside the					
	<ul> <li>range of</li> <li>Before set</li> </ul>	-645960~634040, this wa etting Pr2401~, check J28	rning will be triggered. 31( negative 32bit absolute position non-overflow limit ) and					
	J282 ( po	sition 32bit absolute po	sition non-overflow limit ) to make sure the settings are correct.					
Reas on	Please refer to t	he description.						

Alar m ID	MOT-902	Alarm title	【Absolute position has the risk of overflow within the software stroke】
Solu tion	<ol> <li>Check wh incorrect</li> <li>If the first position addition, negative</li> <li>Set the d absolute</li> <li>Set Pr102</li> <li>If 32bit al absolute limit is set cleared v emergen move axi</li> </ol>	nether the mechanism p ly or not, if not correct t t software stroke limit is non-overflow) and J282 if you want to turn off tl limits to the same value river electronic gear rati position non-overflow li 21~ to enable position of bsolute position non-over position non-overflow li 21~ to enable position of bsolute position non-over position non-overflow li 21 to -500,000~500,000), i when setting the origin. Y cy stop (Servo Off), reservally to the mechanical o	arameters (Pitch, Gear Ratio, Encoder Resolution ) are set hem. set incorrectly, you can check J281 (negative limit for absolute (positive limit for absolute position non-overflow) to adjust. In he first software stroke limit, you can set the positive and or set them to positive and negative 9999999999 respectively. o and reduce the resolution so that the calculated 32bit imit can support a wider range. Ifset check window during power off and press reset. erflow range deviates (for example, the calculated 32bit imit can cover -1,000,000~280,000 but the first software stroke it means that the encoder multi-turn information was not (ou can move axis to the middle of the machine and press the t the encoder to clear the multi-turn information, and then rigin to reset the origin.



### 5 Spindle Alarm - SPD

Alarm ID	SPD-001	Alarm Title	A, B Encoder Feedback Signal Error		
Description	Axial card detects A, E	encoder has feedback sign	al error.		
Possible Cause	Only happens when Pr9 parameter axis board type sets as 0 (EMP2). When axis board type sets as EMP2, axis board internally will automatically detects A, B encoder signal. If the signal is wrong, or there is a phase A signal but no phase B signal, then this alarm is issued.				
Solution	Check servo cable or o	change axis board.			
Alarm ID	SPD-002	Alarm Title	Error counter overflows		
Description	Axis card detects enc	oder feedback overflows.			
Possible Cause	Only happen when Pr9 parameter axis card type sets as 0(EMP2), 4(PMC4), and 6(SERVO6). When axis card type sets as 0(EMP2), 4(PMC4), and 6(SERVO6), axis card inside will detects A, B encoder signal. If signal is wrong or input signal is too big, and this alarm will be issued.				
Solution	Check servo cable or	change axis card.			
Alarm ID	SPD-003	Alarm Title	Encoder module error		
Description	Currently no applica	tion.			
Possible Cause					
Solution					
Alarm ID	SPD-004	Alarm Title	NO interrupted index signal		
Description	No application currer	ntly.			
Possible Cause					
Solution					

Alarm ID	SPD-005	Alarm Title	Pulse signal is over rated value			
Description	The command count 2047 pluses in a inter	send from controller is too r polation time needs to be se	nuch. Software calculate that over end.			
Possible Cause	<ol> <li>Software interpolation time sets too long.</li> <li>Movement speed is too fast.</li> <li>Servo resolution sets too high.</li> <li>Backlash compensation value or pitch compensation value sets too large.</li> <li>Start feedforward compensation function.</li> </ol>					
Solution	<ol> <li>Decrease software interpolation time setting (Pr3203), nott recommend to set lower than 2000.</li> <li>Lower movement speed limit setting. (Pr461~Pr480)</li> <li>Reduce servo resolution. (Driver and Pr61~Pr80)</li> <li>Sets appropriate mechanism compensation time constant. (Pr1401~Pr1420)</li> <li>Reduce or close feedforward compensation function. (Pr581~Pr600)</li> <li>Please contact machine manufacturer.</li> </ol>					
Alarm ID	SPD-006	Alarm Title	Can't clear index condition			
Description	No application curre	ntly.				
Possible Cause						
Solution						
Alarm ID	SPD-009	Alarm Title	Driver Alarm			
Description	Driver sends an ala	ırm signal.				
Possible Cause	<ul> <li>Driver alarm is mostly because of external reasons:</li> <li>For example: <ol> <li>Driver temperature is too high.</li> <li>Encoder cable wiring is wrong.</li> <li>Internal parameter setting is wrong.</li> <li>Not matched with servo motor.</li> <li>Driver malfunction.</li> </ol> </li> </ul>					
Solution	Please follow drive	er alarm manual for troubles	hooting.			

Alarm ID	SPD-017	Alarm Title	Spindle Orientation Position check error				
Description	Spindle orientation over one degree.	(C61) triggered and spindle	is stopped. Spindle orientation error is				
Possible Cause	<ol> <li>During spind activated.</li> <li>Bad spindle after finish o</li> <li>Motor feedb.</li> <li>Spindle zero</li> </ol>	<ol> <li>During spindle orientation, inverter module position control mode is not activated.</li> <li>Bad spindle motor tuning and caused the motor stills under jitter correction state after finish orientation.</li> <li>Motor feedback signal lose position command.</li> <li>Spindle zero speed check window (Pr901~Pr916) sets too large.</li> </ol>					
Solution	<ol> <li>Confirm inverse</li> <li>Retune the s</li> <li>Confirm mot encoder is al</li> <li>Reduce zero</li> </ol>	<ol> <li>Confirm inverter module's control mode.</li> <li>Retune the spindle motor.</li> <li>Confirm motor feedback cable's quality, or contact motor supplier to check if the encoder is abnormal.</li> <li>Reduce zero check window.</li> </ol>					
Advanced Explanation	Observe System Dat will increase or decr feedback signal lose cable, or contact me	Observe System Data No. 52 when motor operate in the same direction, if the variation will increase or decrease by a multiple of Pr1651*Pr1661? If it's not, it means motor feedback signal lose position command. Please increase the quality of motor feedback cable, or contact motor supplier to check if encoder is abnormal.					
Alarm ID	SPD-018	Alarm Title	Can't find spindle orientation index signal				
Description	During spindle orien	itation, can't find index sign	al over a certain time.				
Possible Cause	<ol> <li>If system data no. 52 doesn't change with rotation of motor, it means controller can't read motor index signal.</li> <li>If system data no. 52 change with the rotation of motor, it means controller can read motor index signal, but because spindle rotation speed is not reduced to half of the rated speed, so it can't execute orientation.</li> </ol>						
Solution	<ol> <li>Please increase quality of motor feedback cable, or contact motor supplier to check if encoder is abnormal.</li> <li>Please check if belt is loose or gear setting ratio is correct.</li> </ol>						
Alarm ID	SPD-020	Alarm Title	Spindle can't take correct index signal as reference				
Description	Spindle can't use ha	rdware and software's inde	x signal.				

Alarm ID	SPD-020	Alarm Title	Spindle can't take correct index signal as reference		
Possible Cause	<ol> <li>If encoder sets on the motor side (Pr1811 sets as 1). When gear number of motor (Pr1681~): gear number of ballscrew (Pr1682~) is not integer ratio, it can't correspond all motor position to all screw position, so the index signal may be inaccurate.</li> <li>If encoder is on the motor side (Pr1811 sets as 1). When axis type (Pr221~) sets as 3 or 5, because the mechanical coordinate is not between 0~360, so it can't calculate the index signal position from feedback.</li> <li>When the spindle rotates more than one revolution,         <ul> <li>a. If the diagnosis variable 52 has changed, check whether the Pr1993 is set too small.</li> <li>b. If the diagnostic variable 52 remains unchanged, check whether</li></ul></li></ol>				
Solution	<ol> <li>The controller doesn't support threading or homing function under this condition, please use other rotation type axial.</li> <li>Refer to the following:         <ul> <li>a. Enlargement Pr1993 setting value.</li> <li>b. Or                 <ul> <li>i. Connect the encoder signal cable securely.</li> <li>ii. Replace the axis board.</li> <li>iii. Replace the encoder Z phase signal.</li> </ul> </li> </ul> </li> <li>Please contact the drive vendor.</li> </ol>				
Alarm ID	SPD-021	Alarm Title	Do tapping when neutral		
Description	When spindle swit	tch to neutral, and execute	tapping command.		
Possible Cause	Spindle doesn't change to the right gear position.				
Solution	Change spindle's gear (R24) to 1~3 gear, then execute tapping command.				
Alarm ID	SPD-022	Alarm Title	Pr1791~ sets as 4. Only support Syntec Inverter Module		
Description	When Pr1791~ sets as 4, it has to be used only with Syntec Spindle Motor Module.				
Possible Cause	Use Yaskawa or other brand's serial bus driver as spindle.				

Alarm ID	SPD-022	Alarm Title	Pr1791~ sets as 4. Only support Syntec Inverter Module	
Solution	Change Pr1791~ into 1 or 3.			





Spindle Alarm - SPD – 224

Alarm ID	SPD-02	23	Alarm Title	Spindle rotation speed hasn't reached yet. Please check parameter setting.		
Description	After er speed h be issue	After enables spindle rotation speed reach function (Pr1991 not sets as 0), spindle rotation speed has to reach to user's setting spindle speed during the check time, or this alarm will be issued.				
	(Spindle rotation speed reach check time= Max( 30, 3 * Pr1831 * 1000), i the maximum value between 30 seconds and 3 times of spindle accelera deceleration time.)					
	•	If you want to use Pr1991 spindle rotation speed reach check function, even if it is inverter spindle, it also needs to trigger spindle clockwise/counter-clockwise rotation signal C64/C65, R583.x/R584.x to turn the system spindle into rotation condition. Adjust inverter spindle's rotation speed reach check regulation to be the same with servo spindle. When Pr1991 is not equals to 0, spindle speed reach conditions are as following:				
		Spindle cl clockwise C65, R583	ockwise / counter- rotation signal C64/ s.x/R584.x	Established conditions of spindle rotation reach		
	• 1 i s	On		The speed difference between spindle feedback (Fbk) and speed command (Cmd) is smaller than speed command (Cmd) times spindle speed reach check range's percentage. (Pr1992 or Pr1993)		
				ie   Fbk - Cmd   < Cmd * ( Pr1992 or Pr1993 ) * 0.01		
		Off		Spindle feedback (Fbk) is smaller than 50RPM.		
				i.e. Fbk < 50 (RPM)		
		Note: If spin in order to p status turn speed, and	dle clockwise/counter-clo process when spindle clock from on to off, have to ens will be identified as spindl	ockwise rotation signal is off it will also check, kwise/counter-clockwise rotation signal ure spindle speed has reduce to certain low e speed reached.		

 When spindle doesn't install encoder (Pr1711~ sets as 0), spindle speed reach conditions are as following:

Alarm ID	SPD-0	23	Alarm Title		Spindle rotation speed hasn't reached yet. Please check parameter setting.
		Spindle Ty	ре	Establ reach	ished conditions of spindle rotation
		Serial Bus S	Spindle	Directly speed	y shows driver's information if spindle has reached or not.
		General Pulse Spindle		<ul> <li>When S59 bit sets as on, controller will consider that spindle speed has reached.</li> <li>If you want to do spindle rotation speed reach check, send an O bit to TB16IN from driver, and PLC can gets this information and execute speed reach check in PLC.</li> </ul>	
Possible Cause	When spindle speed check function enables, spindle speed can't reach to target speed during rotation speed check's set time. (Spindle rotation speed reach check time= Max( 30, 3 * Pr1831 * 1000), it means take the maximum value between 30 seconds and 3 times of spindle acceleration/ deceleration time.)				
Solution	<ol> <li>Please confirm spindle rotation speed check function's related parameter setting is correct. (Pr1991, Pr1992, Pr1993)</li> <li>Please confirm spindle acceleration/ deceleration speed setting is correct. (Pr1831~)</li> <li>Please confirm spindle clockwise / counter-clockwise rotation signal C64/C65, R583.x/R584.x triggered normally.</li> <li>Please confirm spindle works well.</li> <li>Please confirm spindle feedback works well.</li> </ol>				check function's related parameter setting eceleration speed setting is correct. hter-clockwise rotation signal C64/C65, well.
Alarm ID	SPD-	024	Alarm Title		Fail to do spindle zero speed check
Description	This a and t check 1 2 3 Note: trigge	<ul> <li>This alarm will be triggered while a spand the feedback speed is not decreat check:</li> <li>1. For a serial spindles with no serial after passing zero speed</li> <li>2. When exiting the orientation mafter passing zero speed chect</li> <li>3. Under circumstances of emer spindle will enter servo-off state</li> <li>Note: The zero speed check window triggered, otherwise it is based on Proceed.</li> </ul>		spindle fa asing. Th servo cor d check. mode, a ck. rgency st ate after is 3 rpm r901~Pr9	ails to pass zero speed check over 5 seconds the following situations require zero speed mmand, the spindle will enter servo-off spindle will do coordinate synchronization top (while C36 is on) or critical alarms, a passing zero speed check. if the emergency stop or a critical alarm is 20 Axis zero speed check window.

Alarm ID	SPD-024	Alarm Title	Fail to do spindle zero speed check		
Possible Cause	<ol> <li>Insufficient control performance of spindle motor.</li> <li>Abnormity of spindle motor feedback.</li> <li>Pr901~Pr920 Axis zero speed check window is too narrow. (For Serial Bus Line especially )</li> </ol>				
Solution	<ol> <li>Please re-tune servo drive.</li> <li>Check whether the motor feedback of the spindle is functioned well.</li> <li>Increase Pr901~Pr920 Axis zero speed check window, a setting value within 0.1 to 0.5 degree is recommended. (The suggested setting value = (0.1~0.5) * spindle resolution/ 360 )</li> </ol>				
Advanced Explanation	Check the fluctuation rotating command. A speed fluctuation b improper servo tunir	n of speed and loading rate o beyond Pr901~Pr920 Axis zer ng- would make it fail to pass	of the spindle when it is under constant to speed check window -normally led by s zero speed check.		

Alarm ID	SPD-025	Alarm Title	Please modified resolution related parameters from the page of serial parameters		
Description	The axis of the Syntec driver can synchronize the resolution related setting. If the sensor type of controller and driver are the same, the related controller parameters will be synchronized from the driver. If the resolution related parameters need to be modified, please modify the parameters in the page of serial parameters. The matched condition of sensor type ( single feedback ): • Driver parameter Pn-911 = 1 ( Rotary ), Pr201~Pr220 Axial sensor type. = 0, 3, 4 • Driver parameter Pn-911 = 2 ( Linear ), Pr201~Pr220 Axial sensor type. = 1, 5 The matched condition of sensor type ( driver dual feedback or semi-closed loop ): • Driver parameter Pn-931 = 1 ( Rotary ), Pr201~Pr220 Axial sensor type. = 0, 3, 4 • Driver parameter Pn-931 = 2 ( Linear ), Pr201~Pr220 Axial sensor type. = 1, 5 Axial resolution related parameters: • Pr61~Pr80 Axial encoder resolution • Pr81~Pr100 Axial encoder scaling factor Driver resolution related parameters: • Pn-902 Encoder Resolution • Pn-902 Encoder Resolution • Pn-20E Electronic Gear Ratio ( Numerator ) • Pn-210 Electronic Gear Ratio ( Denominator ) Version information:				
Possible Cause	Modified the resolution related parameters in controller after the resolution synchronization of the Syntec driver.				
Solution	<ol> <li>Reset the controller.</li> <li>If the resolution related parameters need to be modified, please modify the parameters in the page of serial parameters. Then restart the controller and the driver.</li> </ol>				
Alarm ID	SPD-026	Alarm Title	Spindle orientation offset. Please fix this parameter in Syntec spindle into zero.		
Description	If the spindle is Syntec serial bus spindle, then the modification of spindle orientation offset parameter (Pr1751~Pr1756) is invalid.				
Possible Cause	When controller detects that the spindle is Syntec serial bus, corresponding spindle orientation offset parameter (Pr1751~Pr1756) set value should be non-zero.				

Alarm ID	SPD-026	Alarm Title	Spindle orientation offset. Please fix this parameter in Syntec spindle into zero.		
Solution	Sets corresponding this alarm.	spindle orientation offset	parameter as zero. Press to reset to remove		
Alarm ID	SPD-027	Alarm Title	This spindle type doesn't support spindle orientation function		
Description	This spindle type d	loesn't support spindle or	ientation function.		
Possible Cause	This spindle type d	loesn't support spindle or	ientation function.		
Solution	Set Pr1791~ as oth	er spindle types (0~5), wh	ich support spindle orientation function.		
Alarm ID	SPD-028	Alarm Title	This spindle type doesn't support spindle tapping function		
Description	This spindle type d	This spindle type doesn't support spindle tapping function.			
Possible Cause	This spindle type doesn't support spindle tapping function.				
Solution	Set Pr1791~ as oth	er spindle types (0~5), wh	ich support spindle tapping function.		
Alarm ID	SPD-029	Alarm Title	This spindle type doesn't support C axis mode		
Description	This spindle type	doesn't support C axis mo	de.		
Possible Cause	This spindle type	doesn't support C axis mo	de.		
Solution	Set Pr1791~ as ser	Set Pr1791~ as servo spindle types 1~4, which support C axis mode.			
Alarm ID	SPD-030	Alarm Title	This product doesn't support Syntec Spindle		
Description	This product doesn't support Syntec Spindle.				
Possible Cause	This spindle of thi	s controller product does	n't support Syntec driver.		

Alarm ID	SPD-030	Alarm Title	This product doesn't support Syntec Spindle		
Solution	<ol> <li>Please chan</li> <li>Please contained</li> </ol>	ge spindle into other non-s act sales personnel to buy	Syntec driver. other types of controller.		
Alarm ID	SPD-031	SPD-031 Alarm Title The spindle does not support the dua winding switching function.			
Description	This spindle type or	drive type does not suppo	rt the dual winding switching function.		
Possible Cause	<ol> <li>This spindle</li> <li>The driver do</li> </ol>	does not support the wind bes not support the windin	ing switching function. g switching function.		
Solution	<ol> <li>Set R631 and</li> <li>The spindle to</li> <li>Set Pr1791~1</li> <li>Update the dot</li> </ol>	<ol> <li>Set R631 and R632 to zero.</li> <li>The spindle uses a Syntec driver.</li> <li>Set Pr1791~ to 2 and 4.</li> <li>Update the drive to version 2.14.0 or above.</li> </ol>			
Alarm ID	SPD-032	Alarm Title	dual winding switch failed		
Description	An abnormality oc	An abnormality occurred during the dual winding switching process.			
Possible Cause	<ol> <li>The state of R631.x is changed during the winding switching.</li> <li>When R632.x is updating, its status is different from R602.x.</li> <li>The winding switching process takes more than five seconds.</li> <li>The drive does not turn on the dual coil parameters switching function.</li> </ol>				
Solution	<ol> <li>Switch R631.x to the low speed state. This requirement is removed after (included) software version 10.118.85.</li> <li>Switch R632.x to the state to which R602.x belongs.</li> <li>When the above conditions are met, after the spindle stops, press reset to remove the alarm.</li> </ol>				
Alarm ID	SPD-033	SPD-033   Alarm Title   Y-Delta zero speed start check failed			
Description	The controller will start the spindle in the high speed coil state. This alarm is removed after ( included ) software version 10.118.85.				
Possible Cause	<ol> <li>R631.x is in</li> <li>Both R631.x the high spectrum</li> </ol>	the high speed state when and R602.x are in the low eed state.	servo-on. speed state when servo-on, but R632.x is in		

Alarm ID		SPD-033	Alarm Title	Y-Delta zero speed start check failed		
Solution		<ol> <li>Set R631.x to</li> <li>When both Resound be in the should be in the should</li></ol>	<ol> <li>Set R631.x to the low speed state.</li> <li>When both R631.x and R602.x are in the low speed state, check that R632.x should be in the low speed state.</li> </ol>			
Alarm ID		SPD-036	Alarm title	Drive communication error		
Description		<ul> <li>At least 2 errors listed below occur for over 10ms totally in communication.</li> <li>1. Drive response packet not received.</li> <li>2. Drive response packet CRC error.</li> <li>3. Drive response packet watchdog error.</li> <li>Example: According to the communication time setting(Pr3203), 6 consecutive errors for 2ms; 4 consecutive errors for 3ms.</li> </ul>				
Possible Rea	ason	<ol> <li>The communication cable between the controller and the driver is loose.</li> <li>The quality of the communication cable is poor, or there is noise interference.</li> <li>Drive response packet watchdog error.</li> </ol>				
Solution		<ol> <li>Check the wiring of the communication cable between the controller and the drive.</li> <li>Check whether the machine is properly grounded, and add a terminal resistor t the communication port of the end drive.</li> <li>Contact Syntec OEM.</li> </ol>				
Alarm ID	SPD-037	Alarm 标题 【Inconsistent Resolution Settings】				
Descriptio n	The reso consister 1. S (F N 2. D E E	lutions of the controller and the drive are not set consistently. The settings are considered nt if the following equation is satisfied: ingle feedback: Spindle Encoder Resolution (Pr1651~) * Spindle Encoder Scaling Factor Pr1661~) = Resolution (Pn-902) * Denominator of Electronic Gear Ratio (Pn-210) / umerator of Electronic Gear Ratio (Pn-20E). ual feedback or Semi-Closed Loop: Spindle Encoder Resolution (Pr1651~) * Spindle ncoder Scaling Factor (Pr1661~) = 2nd Encoder Resolution (Pn-922) * Denominator of lectronic Gear Ratio (Pn-210) / Numerator of Electronic Gear Ratio (Pn-20E).				
Possible Cause	1. lr 2. lr	ectronic Gear Ratio (Pn-210) / Numerator of Electronic Gear Ratio (Pn-20E). nproper controller parameter settings: a. Spindle Encoder Resolution. b. Spindle Encoder Scaling Factor. nproper driver parameter settings: a. Electronic Gear Ratio. b. Encoder Resolution.				

Alarm ID	SPD-037	Y Alarm 标题 【	Inconsistent Resolution S	ettings]		
Solution	1. C a 2. C 3. T	<ul> <li>Change the controller parameters Pr1651~ and Pr1661~ so that the equation mentioned above is satisfied.</li> <li>Change the drive parameters so that the equation mentioned above is satisfied: <ul> <li>a. Electronic Gear Ratio: Pn-20E, Pn-210.</li> <li>b. Encoder Resolution: Pn-902, Pn-922.</li> </ul> </li> <li>Fo clear the alarm, <ul> <li>a. Reset the controller if ONLY the controller parameter(s) is(are) modified.</li> <li>b. Restart both of the controller and the driver if the driver parameter(s) is(are) modified.</li> </ul> </li> </ul>				
Alarm ID		SPD-038	Alarm title	Poor contact of communication wire		
Description		Drive response packet is not received for over 10ms in drive communication. Example: According to the communication time setting( Pr3203 ), 6 consecutive errors for 2ms; 4 consecutive errors for 3ms.				
Possible Rea	ason	1. The commu	nication cable between the	controller and the driver is loose.		
Solution		<ol> <li>Check the wiring of the communication cable between the controller and the drive.</li> <li>Contact Syntec OEM.</li> </ol>				
Alarm ID		SPD-039 Alarm title The hardware doesn't receive communication packet				
Description		Drive response packet is not received for over 10ms in communication. Example: According to the communication time setting( Pr3203 ), 6 consecutive errors for 2ms; 4 consecutive errors for 3ms.				
Possible Rea	ason	<ol> <li>The drive station number does not correspond to the controller parameters correctly.</li> <li>The communication cable between the controller and the drive is loose.</li> </ol>				
Solution		<ol> <li>Check whether the drive parameter DIP switch setting corresponds to the controller parameter (Pr21 ~) correctly.</li> <li>Check the wiring of the communication cable between the controller and the drive.</li> <li>Contact Syntec OEM.</li> </ol>				
Alarm ID		SPD-040	Alarm title	The communication packet is disturbed by noise		

Description	Drive response packet is disturbed by noise to generate CRC error for over 10ms in communication. Example: According to the communication time setting(Pr3203), 6 consecutive errors for 2ms; 4 consecutive errors for 3ms.			
Possible Reason	1. The quality c	of the communication cable	e is poor, or there is noise interference.	
Solution	<ol> <li>Check wheth</li> <li>Contact Synt</li> </ol>	ner the machine is properly tec OEM.	grounded.	
Alarm ID	SPD-041 Alarm title Driver software misses communication packet			
Description	Drive response packet watchdog is wrong for over 10ms in communication. Example: According to the communication time setting( Pr3203 ), 6 consecutive errors for 2ms; 4 consecutive errors for 3ms.			
Possible Reason	Drive response packet watchdog is wrong			
Solution	Contact Syntec OEM	1.		
Alarm ID	SPD-042Alarm title[The drive does not support control parameters switch]			
Description	The drive does not support control parameters switch but Pr1994 was set 1.			
Possible Reason	It is not a Syntec drive and Pr1994 set 1.			
Solution	<ol> <li>Use the Synta</li> <li>Set Pr1994 to</li> </ol>	ec drive which support con 00.	trol parameters switch.	

P.S. Valid version of SPD-042 : Before 10.118.30H, 10.118.32H, 10.118.40L, 10.118.41L, 10.118.47.

Alarm ID	SPD-043	Alarm title	【The control parameters switch failed】	
Description	The drive failed to switch the control parameters.			
Possible Reason	<ol> <li>Enabling the following functions may cause the control parameters switch to fail. :         <ul> <li>a. V/F control</li> <li>b. Auto tunning</li> </ul> </li> <li>Abnormal communication may cause control parameters switch to fail.</li> </ol>			

Solution	<ol> <li>Disable the mentioned functions.</li> <li>Please check communication system.</li> </ol>			
Alarm ID	SPD-044	Alarm Title	Spindle is stalled. Please check environment and parameter setting.	
Description	<ul> <li>When the spindle rotation signal is triggered, the spindle speed cannot reach 15% of user's setting spindle speed during the stall check time.</li> <li>(Spindle stall check time= Max( 15, 3 * Pr1831~ * 1000), it means take the maximum value between 15 seconds and 3 times of spindle acceleration/deceleration time.)</li> <li>This alarm only protects servo spindle from stalling.</li> </ul>			
Possible Cause	<ol> <li>The mechanism is stuck or loading is too heavy.</li> <li>Insufficient control performance of spindle motor.</li> <li>Abnormity of spindle motor feedback.</li> <li>When the physical encoder is not installed, Pr1711~ (*Spindle pos. sensor exist or not) is 1.</li> </ol>			
Solution	<ol> <li>Please confirm whether the mechanism is stuck or loading is too heavy.</li> <li>Please confirm spindle acceleration/ deceleration speed setting is correct. (Pr1831~).</li> <li>Please confirm spindle works well.</li> <li>Please re-tune servo drive.</li> <li>If the physical encoder is not installed, set Pr1711~(*Spindle pos. sensor exist or not) to 0.</li> </ol>			

### New Version is 10.118.86K, 10.120.16K, 10.120.24B, 10.120.27 and after Old Version is 10.118.86J, 10.118.94 and before

#### New Version Old Version

Alarm ID	SPD-045-1	Alarm title	【Not support Syntec EtherCAT drive】	
Description	Model not support the drive vendor in use.			
Possible Cause	Not support Syntec EtherCAT drive as spindle when machine type is Lathe or Milling.			
Solution	Lathe and Milling machine type 1. Use other machine types controller except Lathe and Milling. 2. Use non-Syntec EtherCAT drive as spindle.			

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Alarm ID	SPD-045-2	Alarm title	【Only support Syntec M3 drive 】	
Description	Model not support the drive vendor in use.			
Possible Cause	Only support Syntec M3 drive as spindle when model is 7TA or 7TA PLUS.			
Solution	7TA and 7TA PLUS mod 1. Use other mode 2. Use Syntec M3 d	el ls controller except 7TA an Irive as spindle.	d 7TA PLUS.	

New Version Old Version				
Alarm ID	SPD-045	Alarm Title	Drive vendor is not supported	
Description	Model not support th	e drive vendor in use.		
Possible Cause	<ol> <li>Not support Syntec EtherCAT drive as spindle when machine type is Lathe or Milling.</li> <li>Only support Syntec M3 drive as spindle when model is 7TA or 7TA PLUS.</li> </ol>			
Solution	<ol> <li>Lathe and Milling machine type         <ul> <li>a. Use other machine types controller except Lathe and Milling.</li> <li>b. Use non-Syntec EtherCAT drive as spindle.</li> </ul> </li> <li>TTA and 7TA PLUS model         <ul> <li>a. Use other models controller except 7TA and 7TA PLUS.</li> <li>b. Use Syntec M3 drive as spindle.</li> </ul> </li> </ol>			
1. Sub Alarm SPD-04	45-1 【Not support Syn	tec EtherCAT drive】		

o Alarm SPD-045 ot support Syntec EtherCAT drive

2. Sub Alarm SPD-045-2 [Only support Syntec M3 drive]

### 5.1 SPD-020 Spindle can't take correct index signal as reference

Alarm ID	SPD-020	Alarm Title	Spindle can't take correct index signal as reference
Description	Spindle can't use hardware and software's index signal.		

Alarm ID	SPD-020	Alarm Title	Spindle can't take correct index signal as reference
Possible Cause	<ol> <li>If encoder sets on the motor side (Pr1811 sets as 1). When gear number of motor (Pr1681~): gear number of ballscrew (Pr1682~) is not integer ratio, it can't correspond all motor position to all screw position, so the index signal may be inaccurate.</li> <li>If encoder is on the motor side (Pr1811 sets as 1). When axis type (Pr221~) sets as 3 or 5, because the mechanical coordinate is not between 0~360, so it can't calculate the index signal position from feedback.</li> <li>When the spindle rotates more than one revolution,         <ul> <li>a. If the diagnosis variable 52 has changed, check whether the Pr1993 is set too small.</li> <li>b. If the diagnostic variable 52 remains unchanged, check whether</li></ul></li></ol>		
Solution	<ol> <li>The controller please use of 2. Refer to the factor a. Enlar b. Or i iii</li> <li>3. Please containing the control of the co</li></ol>	roller doesn't support threading or homing function under this condition, se other rotation type axial. the following: nlargement Pr1993 setting value. 'r i. Connect the encoder signal cable securely. ii. Replace the axis board. iii. Replace the encoder Z phase signal. contact the drive vendor.	

### 5.2 SPD-034 Dynamic Inspection Setting Error

Alarm ID	SPD-034	Alarm Topic	[Dynamic Inspection Setting Error]
Description	When enable the spindle dynamic equilibrium inspection function, not set software, hardware deployment properly.		
Probable Reason	<ol> <li>The encoder port did not connect with Syntec acceleration gauge.</li> <li>The setting error of encoder parameter in Syntec driver parameter.</li> <li>The driver version did not support Syntec acceleration gauge.</li> </ol>		

Exclusion Method	<ol> <li>Please following the setting step below:         <ul> <li>Use Syntec acceleration gauge.</li> <li>Ensure Syntec driver parameter Pn-810 setting value.</li> <li>If the configuration is semi-closed loop, please set Pn-810 as 1.</li> <li>Set the Syntec acceleration gauge port number to Syntec driver parameter Pn-901.</li> <li>Set Syntec driver parameter Pn-900 as 13.</li> <li>Set Syntec driver parameter Pn-90D as 3.</li> <li>If the configuration is other, set Pn-810 as 0.</li> <li>Set the Syntec acceleration gauge port number to Syntec driver parameter Pn-921.</li> <li>Set Syntec driver parameter Pn-920 as 13.</li> <li>Set Syntec driver parameter Pn-920 as 3.</li> </ul> </li> </ol>
	<ol> <li>Set Syntec driver parameter Pn-92D as 3.</li> <li>c. Do power outage and reopen the controller and driver,</li> </ol>
	2. Please upload the driver to 2.5.1 or afterward version.

### 5.3 SPD-035 Dynamic Equilibrium Function Timeout

Alarm ID	SPD-035	Alarm Topic	[Dynamic Equilibrium Function Timeout ]
Description	Timeout occurred in spindle dynamic equilibrium function.		
Probable Reas ons	<ol> <li>The spindle steady speed inspection fail. The probable reason is following:         <ul> <li>a. Spindle encoder is abnormal.</li> <li>b. The spindle rotation does not reach steady speed standard. The dynamic equilibrium function request the difference between the target speed and the return speed is within 10RPM.</li> </ul> </li> <li>When open dynamite equilibrium inspection function, you could also open analysis platform (or OpenGuide) oscilloscope function.</li> <li>When open dynamite equilibrium adjustment function, you could also open analysis platform (or OpenGuide) oscilloscope function.</li> </ol>		
Exclusion method	<ol> <li>To exclude         <ul> <li>a. Plea</li> <li>10RI</li> <li>b. Plea</li> <li>c. Plea</li> <li>doin</li> </ul> </li> <li>Choose one         <ul> <li>a. Plea</li> <li>equi</li> <li>b. Plea</li> <li>3. Choose one</li> <li>a. Plea</li> <li>equi</li> <li>b. Plea</li> </ul> </li> </ol>	the steady speed inspect se check whether the spin PM. se check whether spindle se check the spindle wou g dynamic equilibrium fu of the following options. se close analysis platforn librium inspection. se close dynamic equilibr of the following options. se close analysis platforn librium adjustment. se close dynamic equilibr	on failure, you can refer to following method: ndle is adjusted to steady speed error is less than encoder is operating correctly. Id not frequently accelerate or decelerate when nction. : n (or OpenGuide) and open dynamic ium inspection. : n (or OpenGuide) and open dynamic ium adjustment.

5.4	SPD-001 A, B	Encoder Feedback Signal Error	
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Alarm ID	SPD-001	Alarm Title	A, B Encoder Feedback Signal Error
Description	Axial card detects A,	B encoder has feedback sigr	nal error.
Possible Cause	Only happens when Pr9 parameter axis board type sets as 0 (EMP2). When axis board type sets as EMP2, axis board internally will automatically detects A, B encoder signal. If the signal is wrong, or there is a phase A signal but no phase B signal, then this alarm is issued.		
Solution	Check servo cable or	change axis board.	

### 5.5 SPD-002 Error counter overflows

Alarm ID	SPD-002	Alarm Title	Error counter overflows
Description	Axis card detects encoder feedback overflows.		
Possible Cause	Only happen when Pr9 parameter axis card type sets as 0(EMP2), 4(PMC4), and 6(SERVO6). When axis card type sets as 0(EMP2), 4(PMC4), and 6(SERVO6), axis card inside will detects A, B encoder signal. If signal is wrong or input signal is too big, and this alarm will be issued.		
Solution	Check servo cable or o	change axis card.	

### 5.6 SPD-003 Encoder module error

Alarm ID	SPD-003	Alarm Title	Encoder module error
Description	Currently no applicati	on.	
Possible Cause			
Solution			

### 5.7 SPD-004 NO interrupted index signal

Alarm ID	SPD-004	Alarm Title	NO interrupted index signal
Description	No application curre	ntly.	
Possible Cause			
Solution			

### 5.8 SPD-005 Pulse signal is over rated value

Alarm ID	SPD-005	Alarm Title	Pulse signal is over rated value
Description	The command count send from controller is too much. Software calculate that over 2047 pluses in a interpolation time needs to be send.		
Possible Cause	<ol> <li>Software interpolation time sets too long.</li> <li>Movement speed is too fast.</li> <li>Servo resolution sets too high.</li> <li>Backlash compensation value or pitch compensation value sets too large.</li> <li>Start feedforward compensation function.</li> </ol>		
Solution	<ol> <li>Decrease soft lower than 20</li> <li>Lower moven</li> <li>Reduce servo</li> <li>Sets appropri</li> <li>Reduce or clo</li> <li>Please contact</li> </ol>	se software interpolation time setting (Pr3203), nott recommend to set han 2000. movement speed limit setting. (Pr461~Pr480) e servo resolution. (Driver and Pr61~Pr80) opropriate mechanism compensation time constant. (Pr1401~Pr1420) e or close feedforward compensation function. (Pr581~Pr600) contact machine manufacturer.	

### 5.9 SPD-006 Can't clear index condition

Alarm ID	SPD-006	Alarm Title	Can't clear index condition
Description	No application currently.		
Possible Cause			
Solution			

### 5.10 SPD-009 Driver Alarm

Alarm ID	SPD-009	Alarm Title	Driver Alarm
Description	Driver sends an alarm s	ignal.	
Possible Cause	<ul> <li>Driver alarm is mostly because of external reasons:</li> <li>For example: <ol> <li>Driver temperature is too high.</li> <li>Encoder cable wiring is wrong.</li> <li>Internal parameter setting is wrong.</li> <li>Not matched with servo motor.</li> <li>Driver malfunction.</li> </ol> </li> </ul>		
Solution	Please follow driver ala	rm manual for troubleshooting	

### 5.11 SPD-017 Spindle Orientation Position check error

Alarm ID	SPD-017	Alarm Title	Spindle Orientation Position check error
Description	Spindle orientation (C61) triggered and spindle is stopped. Spindle orientation error is over one degree.		
Possible Cause	<ol> <li>During spindle orientation, inverter module position control mode is not activated.</li> <li>Bad spindle motor tuning and caused the motor stills under jitter correction state after finish orientation.</li> <li>Motor feedback signal lose position command.</li> <li>Spindle zero speed check window (Pr901~Pr916) sets too large.</li> </ol>		
Solution	<ol> <li>Confirm inverter module's control mode.</li> <li>Retune the spindle motor.</li> <li>Confirm motor feedback cable's quality, or contact motor supplier to check if the encoder is abnormal.</li> <li>Reduce zero check window.</li> </ol>		
Advanced Explanation	Observe System Dat will increase or decre feedback signal lose cable, or contact mo	a No. 52 when motor operat ease by a multiple of Pr1651 position command. Please tor supplier to check if enco	te in the same direction, if the variation L*Pr1661? If it's not, it means motor increase the quality of motor feedback oder is abnormal.

Alarm ID	SPD-018	Alarm Title	Can't find spindle orientation index signal		
Description	During spindle orientation, can't find index signal over a certain time.				
Possible Cause	<ol> <li>If system data no. 52 doesn't change with rotation of motor, it means controller can't read motor index signal.</li> <li>If system data no. 52 change with the rotation of motor, it means controller can read motor index signal, but because spindle rotation speed is not reduced to half of the rated speed, so it can't execute orientation.</li> </ol>				
Solution	<ol> <li>Please increa check if enco</li> <li>Please check</li> </ol>	ase quality of motor feedba oder is abnormal. x if belt is loose or gear setti	ck cable, or contact motor supplier to ng ratio is correct.		

#### 5.12 SPD-018 Can't find spindle orientation index signal

### 5.13 SPD-021 Do tapping when neutral

Alarm ID	SPD-021	Alarm Title	Do tapping when neutral		
Description	When spindle switch to neutral, and execute tapping command.				
Possible Cause	Spindle doesn't change to the right gear position.				
Solution	Change spindle's gear	r (R24) to 1~3 gear, then exec	ute tapping command.		

### 5.14 SPD-022 Pr1791~ sets as 4. Only support Syntec Inverter Module

Alarm ID	SPD-022	Alarm Title	Pr1791~ sets as 4. Only support Syntec Inverter Module		
Description	When Pr1791~ sets as 4, it has to be used only with Syntec Spindle Motor Module.				
Possible Cause	Use Yaskawa or other brand's serial bus driver as spindle.				
Solution	Change Pr1791~ into 1 or 3.				

### 5.15 SPD–023 Spindle rotation speed hasn't reached yet. Please check parameter setting.

Alarm ID	SPD-0	23	Alarm Title	Spindle rotation speed hasn't reached yet. Please check parameter setting.		
Description	After er speed I be issu	After enables spindle rotation speed reach function (Pr1991 not sets as 0), spindle rotation speed has to reach to user's setting spindle speed during the check time, or this alarm will be issued.				
	(Spind the ma decele	le rotation s ximum valu ration time	speed reach check time= ue between 30 seconds a .)	Max( 30, 3 * Pr1831 * 1000), it means take nd 3 times of spindle acceleration/		
	<ul> <li>If you want to use Pr1991 spindle rotation speed reach check function, even if it is inverter spindle, it also needs to trigger spindle clockwise/counter-clockwise rotation signal C64/C65, R583.x/R584.x to turn the system spindle into rotation condition.</li> <li>Adjust inverter spindle's rotation speed reach check regulation to be the same with servo spindle. When Pr1991 is not equals to 0, spindle speed reach conditions are as following:</li> </ul>					
		Spindle cl clockwise C65, R583	ockwise / counter- rotation signal C64/ s.x/R584.x	Established conditions of spindle rotation reach		
	On	On		The speed difference between spindle feedback (Fbk) and speed command (Cmd) is smaller than speed command (Cmd) times spindle speed reach check range's percentage. (Pr1992 or Pr1993)		
				ie   Fbk - Cmd   < Cmd * ( Pr1992 or Pr1993 ) * 0.01		
		Off		Spindle feedback (Fbk) is smaller than 50RPM.		
				i.e. Fbk < 50 (RPM)		
	•	Note: If spin in order to p	dle clockwise/counter-clo process when spindle cloc	ockwise rotation signal is off it will also check, kwise/counter-clockwise rotation signal		

- in order to process when spindle clockwise/counter-clockwise rotation signal status turn from on to off, have to ensure spindle speed has reduce to certain low speed, and will be identified as spindle speed reached.
- When **spindle doesn't install encoder (Pr1711~ sets as 0)**, spindle speed reach conditions are as following:

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Alarm ID	SPD-02	23	Alarm Title		Spindle rotation speed hasn't reached yet. Please check parameter setting.
		Spindle Type		Estat react	lished conditions of spindle rotation
		Serial Bus Spindle		Directly shows driver's information if spindle speed has reached or not.	
		General P	General Pulse Spindle		S59 bit sets as on, controller will consider pindle speed has reached.
				If you want to do spindle rotation speed reach check, send an O bit to TB16IN from driver, and PLC can gets this information and execute speed reach check in PLC.	
Possible Cause	When spindle speed check function enables, spindle speed can't reach to target speed during rotation speed check's set time. (Spindle rotation speed reach check time= Max( 30, 3 * Pr1831 * 1000), it means take the maximum value between 30 seconds and 3 times of spindle acceleration/ deceleration time.)				
Solution	1. 2. 3. 4. 5.	Please confirm spindle rotation speed check function's related parameter setting is correct. (Pr1991, Pr1992, Pr1993) Please confirm spindle acceleration/ deceleration speed setting is correct. (Pr1831~) Please confirm spindle clockwise / counter-clockwise rotation signal C64/C65, R583.x/R584.x triggered normally. Please confirm spindle works well. Please confirm spindle feedback works well.			



Alarm ID	SPD-024	Alarm Title	Fail to do spindle zero speed check		
Description	<ul> <li>This alarm will be triggered while a spindle fails to pass zero speed check over 5 seconds and the feedback speed is not decreasing. The following situations require zero speed check:</li> <li>1. For a serial spindles with no servo command, the spindle will enter servo-off state after passing zero speed check.</li> <li>2. When exiting the orientation mode, a spindle will do coordinate synchronization after passing zero speed check.</li> <li>3. Under circumstances of emergency stop (while C36 is on) or critical alarms, a spindle will enter servo-off state after passing zero speed check.</li> <li>Note: The zero speed check window is 3 rpm if the emergency stop or a critical alarm is triggered, otherwise it is based on Pr901~Pr920 Axis zero speed check window.</li> </ul>				
Possible Cause	<ol> <li>Insufficient control performance of spindle motor.</li> <li>Abnormity of spindle motor feedback.</li> <li>Pr901~Pr920 Axis zero speed check window is too narrow. (For Serial Bus Line especially )</li> </ol>				
Solution	<ol> <li>Please re-tune servo drive.</li> <li>Check whether the motor feedback of the spindle is functioned well.</li> <li>Increase Pr901~Pr920 Axis zero speed check window, a setting value within 0.1 to 0.5 degree is recommended. (The suggested setting value = (0.1~0.5) * spindle resolution/ 360)</li> </ol>				
Advanced Explanation	Check the fluctuation rotating command. A speed fluctuation b improper servo tunir	n of speed and loading rate o beyond Pr901~Pr920 Axis zer ng- would make it fail to pass	of the spindle when it is under constant to speed check window -normally led by s zero speed check.		

### 5.16 SPD-024 Fail to do spindle zero speed check



# 5.17 SPD–025 Please modified resolution related parameters from the page of serial parameters

Alarm ID	SPD-025	Alarm Title	Please modified resolution related parameters from the page of serial parameters		
Description	The axis of the Syn	tec driver can synchronize	e the resolution related setting.		
	If the sensor type of will be synchronized	of controller and driver are ed from the driver.	the same, the related controller parameters		
	If the resolution re the page of serial p	lated parameters need to parameters.	be modified, please modify the parameters in		
	The matched cond	lition of sensor type ( singl	e feedback ):		
	<ul><li>Driver para</li><li>Driver para</li></ul>	meter Pn-911 = 1 ( Rotary ) meter Pn-911 = 2 ( Linear )	), Pr201~Pr220 Axial sensor type. = 0, 3, 4 , Pr201~Pr220 Axial sensor type. = 1, 5		
	The matched cond	lition of sensor type ( drive	er dual feedback or semi-closed loop ):		
	<ul> <li>Driver parameter Pn-931 = 1 (Rotary), Pr201~Pr220 Axial sensor type. = 0, 3, 4</li> <li>Driver parameter Pn-931 = 2 (Linear), Pr201~Pr220 Axial sensor type. = 1, 5</li> </ul>				
	Axial resolution re	ated parameters:			
	<ul> <li>Pr61~Pr80 Axial encoder resolution</li> <li>Pr81~Pr100 Axial encoder scaling factor</li> </ul>				
	Driver resolution related parameters:				
	<ul> <li>Pn-902 Encoder Resolution</li> <li>Pn-922 2nd Encoder Resolution</li> <li>Pn-20E Electronic Gear Ratio (Numerator)</li> <li>Pn-210 Electronic Gear Ratio (Denominator)</li> </ul>				
	Version informatio	n:			
	• This alarm is supported in 10.118.41Q, 10.118.48B, 10.118.49 and later versions				
Possible Cause	Modified the resolution related parameters in controller after the resolution synchronization of the Syntec driver.				
Solution	<ol> <li>Reset the c</li> <li>If the resolution parameters driver.</li> </ol>	ontroller. ution related parameters r in the page of serial para	need to be modified, please modify the meters. Then restart the controller and the		

### 5.18 SPD–026 Spindle orientation offset. Please fix this parameter in Syntec spindle into zero.

Alarm ID	SPD-026	Alarm Title	Spindle orientation offset. Please fix this parameter in Syntec spindle into zero.		
Description	If the spindle is Syntec serial bus spindle, then the modification of spindle orientation offset parameter (Pr1751~Pr1756) is invalid.				
Possible Cause	When controller detects that the spindle is Syntec serial bus, corresponding spindle orientation offset parameter (Pr1751~Pr1756) set value should be non-zero.				
Solution	Sets corresponding this alarm.	g spindle orientation offse	t parameter as zero. Press to reset to remove		

### 5.19 SPD–027 This spindle type doesn't support spindle orientation function

Alarm ID	SPD-027	Alarm Title	This spindle type doesn't support spindle orientation function		
Description	This spindle type doesn't support spindle orientation function.				
Possible Cause	This spindle type doesn't support spindle orientation function.				
Solution	Set Pr1791~ as other spindle types (0~5), which support spindle orientation function.				

#### 5.20 SPD-028 This spindle type doesn't support spindle tapping function

Alarm ID	SPD-028	Alarm Title	This spindle type doesn't support spindle tapping function		
Description	This spindle type doesn't support spindle tapping function.				
Possible Cause	This spindle type doesn't support spindle tapping function.				
Solution	Set Pr1791~ as othe	er spindle types (0~5), whic	h support spindle tapping function.		

#### 5.21 SPD-029 This spindle type doesn't support C axis mode

Alarm ID	SPD-029	Alarm Title	This spindle type doesn't support C axis mode	
Description	This spindle type doesn't support C axis mode.			
Possible Cause	This spindle type doesn't support C axis mode.			
Solution	Set Pr1791~ as serve	Set Pr1791~ as servo spindle types 1~4, which support C axis mode.		

### 5.22 SPD-030 This product doesn't support Syntec Spindle

Alarm ID	SPD-030	Alarm Title	This product doesn't support Syntec Spindle		
Description	This product doesn't support Syntec Spindle.				
Possible Cause	This spindle of this controller product doesn't support Syntec driver.				
Solution	<ol> <li>Please change spindle into other non-Syntec driver.</li> <li>Please contact sales personnel to buy other types of controller.</li> </ol>				

### 5.23 SPD–031 The spindle does not support the dual winding switching function.

Alarm ID	SPD-031	Alarm Title	The spindle does not support the dual winding switching function.
Description	This spindle type or drive type does not support the dual winding switching function.		
Possible Cause	<ol> <li>This spindle does not support the winding switching function.</li> <li>The driver does not support the winding switching function.</li> </ol>		
Solution	<ol> <li>Set R631 and R632 to zero.</li> <li>The spindle uses a Syntec driver.</li> <li>Set Pr1791~ to 2 and 4.</li> <li>Update the drive to version 2.14.0 or above.</li> </ol>		

### 5.24 SPD-032 dual winding switch failed

Alarm ID	SPD-032	Alarm Title	dual winding switch failed
Description	An abnormality occurred during the dual winding switching process.		
Possible Cause	<ol> <li>The state of R631.x is changed during the winding switching.</li> <li>When R632.x is updating, its status is different from R602.x.</li> <li>The winding switching process takes more than five seconds.</li> <li>The drive does not turn on the dual coil parameters switching function.</li> </ol>		
Solution	<ol> <li>Switch R631.x to the low speed state. This requirement is removed after (included) software version 10.118.85.</li> <li>Switch R632.x to the state to which R602.x belongs.</li> <li>When the above conditions are met, after the spindle stops, press reset to remove the alarm.</li> </ol>		

### 5.25 SPD-033 Y-Delta zero speed start check failed

Alarm ID	SPD-033	Alarm Title	Y-Delta zero speed start check failed
Description	The controller will start the spindle in the high speed coil state. This alarm is removed after ( included ) software version 10.118.85.		
Possible Cause	<ol> <li>R631.x is in the high speed state when servo-on.</li> <li>Both R631.x and R602.x are in the low speed state when servo-on, but R632.x is in the high speed state.</li> </ol>		
Solution	<ol> <li>Set R631.x to the low speed state.</li> <li>When both R631.x and R602.x are in the low speed state, check that R632.x should be in the low speed state.</li> </ol>		

### 5.26 SPD-036 Drive communication error

Description	<ul> <li>At least 2 errors listed below occur for over 10ms totally in communication.</li> <li>1. Drive response packet not received.</li> <li>2. Drive response packet CRC error.</li> <li>3. Drive response packet watchdog error.</li> <li>Example: According to the communication time setting(Pr3203), 6 consecutive errors for 2ms; 4 consecutive errors for 3ms.</li> </ul>
Possible Reason	<ol> <li>The communication cable between the controller and the driver is loose.</li> <li>The quality of the communication cable is poor, or there is noise interference.</li> <li>Drive response packet watchdog error.</li> </ol>
Solution	<ol> <li>Check the wiring of the communication cable between the controller and the drive.</li> <li>Check whether the machine is properly grounded, and add a terminal resistor to the communication port of the end drive.</li> <li>Contact Syntec OEM.</li> </ol>

### 5.27 SPD-037 Inconsistent Resolution Settings

Alarm ID	SPD-037	Alarm 标题	[Inconsistent Resolution Settings]	
Descriptio n	The resolutions of the controller and the drive are not set consistently. The settings are considered consistent if the following equation is satisfied:			
	1. Sin (Pr: Nur 2. Dua Enc Elec	gle feedback: S 1661~) = Resolu merator of Elec al feedback or S coder Scaling Fa ctronic Gear Ra	pindle Encoder Resolution (Pr1651~) * Spindle Encoder Scaling Factor ition (Pn-902) * Denominator of Electronic Gear Ratio (Pn-210) / tronic Gear Ratio (Pn-20E). Semi-Closed Loop: Spindle Encoder Resolution (Pr1651~) * Spindle actor (Pr1661~) = 2nd Encoder Resolution (Pn-922) * Denominator of itio (Pn-210) / Numerator of Electronic Gear Ratio (Pn-20E).	
Possible Cause	1. Imp 2. Imp	oroper controlle a. Spindle Ene b. Spindle Ene oroper driver pa a. Electronic b. Encoder Re	er parameter settings: coder Resolution. coder Scaling Factor. arameter settings: Gear Ratio. esolution.	

Alarm ID	SPD-037	Alarm 标题	[Inconsistent Resolution Settings]
Solution	1. Cha abc 2. Cha 3. To d	ange the contro ove is satisfied. ange the drive p a. Electronic ( b. Encoder Re clear the alarm a. Reset the c b. Restart bot modified.	oller parameters Pr1651~ and Pr1661~ so that the equation mentioned parameters so that the equation mentioned above is satisfied: Gear Ratio: Pn-20E, Pn-210. esolution: Pn-902, Pn-922. , ontroller if ONLY the controller parameter(s) is(are) modified. th of the controller and the driver if the driver parameter(s) is(are)

### 5.28 SPD-038 Poor contact of communication wire

Alarm ID	SPD-038	Alarm title	Poor contact of communication wire
Description	Drive response packet is not received for over 10ms in drive communication. Example: According to the communication time setting( Pr3203 ), 6 consecutive errors for 2ms; 4 consecutive errors for 3ms.		
Possible Reason	1. The communication cable between the controller and the driver is loose.		
Solution	<ol> <li>Check the wir drive.</li> <li>Contact Synte</li> </ol>	ing of the communication ca	able between the controller and the

### 5.29 SPD-039 The hardware doesn't receive communication packet

Alarm ID	SPD-039	Alarm title	The hardware doesn't receive communication packet
Description	Drive response packet is not received for over 10ms in communication. Example: According to the communication time setting(Pr3203), 6 consecutive errors for 2ms; 4 consecutive errors for 3ms.		
Possible Reason	<ol> <li>The drive station number does not correspond to the controller parameters correctly.</li> <li>The communication cable between the controller and the drive is loose.</li> </ol>		

ler parameter (Pr21 ~) correctly.
he wiring of the communication cable between the controller and the

#### 5.30 SPD-040 The communication packet is disturbed by noise

Alarm ID	SPD-040	Alarm title	The communication packet is disturbed by noise
Description	Drive response packet is disturbed by noise to generate CRC error for over 10ms in communication. Example: According to the communication time setting(Pr3203), 6 consecutive errors for 2ms; 4 consecutive errors for 3ms.		
Possible Reason	1. The quality of the communication cable is poor, or there is noise interference.		
Solution	<ol> <li>Check whether the machine is properly grounded.</li> <li>Contact Syntec OEM.</li> </ol>		

#### 5.31 SPD-041 Driver software misses communication packet

Alarm ID	SPD-041	Alarm title	Driver software misses communication packet
Description	Drive response packet watchdog is wrong for over 10ms in communication. Example: According to the communication time setting( Pr3203 ), 6 consecutive errors for 2ms; 4 consecutive errors for 3ms.		
Possible Reason	Drive response packet watchdog is wrong		
Solution	Contact Syntec OEM.		

#### 5.32 SPD-042 The drive does not support control parameters switch

Alarm ID	SPD-042	Alarm title	【The drive does not support control parameters switch】
Description	The drive does not support control parameters switch but Pr1994 was set 1.		

Possible Reason	It is not a Syntec drive and Pr1994 set 1.
Solution	<ol> <li>Use the Syntec drive which support control parameters switch.</li> <li>Set Pr1994 to 0.</li> </ol>

P.S. Valid version of SPD-042 : Before 10.118.30H, 10.118.32H, 10.118.40L, 10.118.41L, 10.118.47.

#### 5.33 SPD-043 The control parameters switch failed

Alarm ID	SPD-043	Alarm title	【The control parameters switch failed】		
Description	The drive failed to switch the control parameters.				
Possible Reason	<ol> <li>Enabling the following functions may cause the control parameters switch to fail.:         <ul> <li>V/F control</li> <li>Auto tunning</li> </ul> </li> <li>Abnormal communication may cause control parameters switch to fail.</li> </ol>				
Solution	<ol> <li>Disable the mentioned functions.</li> <li>Please check communication system.</li> </ol>				

## 5.34 SPD–044 Spindle is stalled. Please check environment and parameter setting.

Alarm ID	SPD-044	Alarm Title	Spindle is stalled. Please check environment and parameter setting.	
Description	<ul> <li>When the spindle rotation signal is triggered, the spindle speed cannot reach 15% of user's setting spindle speed during the stall check time.</li> <li>(Spindle stall check time= Max(15, 3 * Pr1831~ * 1000), it means take the maximum value between 15 seconds and 3 times of spindle acceleration/deceleration time.)</li> <li>This alarm only protects servo spindle from stalling.</li> </ul>			
Possible Cause	<ol> <li>The mechar</li> <li>Insufficient</li> <li>Abnormity c</li> <li>When the ph not ) is 1.</li> </ol>	nism is stuck or loading is too heavy. control performance of spindle motor. of spindle motor feedback. nysical encoder is not installed, Pr1711~ (*Spindle pos. sensor exist or		
Alarm ID	SPD-044	Alarm Title	Spindle is stalled. Please check environment and parameter setting.	
----------	--	---	--	
Solution	<ol> <li>Please confi</li> <li>Please confi (Pr1831~).</li> <li>Please confi</li> <li>Please confi</li> <li>Please re-tu</li> <li>If the physic not ) to 0.</li> </ol>	rm whether the mechanisr rm spindle acceleration/ d rm spindle works well. ne servo drive. al encoder is not installed,	m is stuck or loading is too heavy. eceleration speed setting is correct. , set Pr1711~( *Spindle pos. sensor exist or	

## 5.35 SPD-045 Drive vendor is not supported

New Version is 10.118.86K, 10.120.16K, 10.120.24B, 10.120.27 and after Old Version is 10.118.86J, 10.118.94 and before

**New Version** 

Old Version

Alarm ID	SPD-045-1	Alarm title	【Not support Syntec EtherCAT drive】		
Description	Model not support the	Model not support the drive vendor in use.			
Possible Cause	Not support Syntec EtherCAT drive as spindle when machine type is Lathe or Milling.				
Solution	<ol> <li>Lathe and Milling machine type</li> <li>Use other machine types controller except Lathe and Milling.</li> <li>Use non-Syntec EtherCAT drive as spindle.</li> </ol>				
Alarm ID	SPD-045-2	Alarm title	【Only support Syntec M3 drive 】		
Description	Model not support the drive vendor in use.				
Possible Cause	Only support Syntec M3 drive as spindle when model is 7TA or 7TA PLUS.				
Solution	<ul><li>7TA and 7TA PLUS model</li><li>1. Use other models controller except 7TA and 7TA PLUS.</li><li>2. Use Syntec M3 drive as spindle.</li></ul>				

**New Version Old Version** 

Alarm ID	SPD-045	Alarm Title	Drive vendor is not supported
Description	Model not support the drive vendor in use.		
Possible Cause	<ol> <li>Not support Syntec EtherCAT drive as spindle when machine type is Lathe or Milling.</li> <li>Only support Syntec M3 drive as spindle when model is 7TA or 7TA PLUS.</li> </ol>		
Solution	<ol> <li>Lathe and Milling mathematical and Milling mathematical and the mathematical anditext and the mathematical and the mathematical and the mathema</li></ol>	nachine type ne types controller except La EtherCAT drive as spindle. model s controller except 7TA and 7 rive as spindle.	the and Milling. TA PLUS.

Sub Alarm SPD-045-1 [Not support Syntec EtherCAT drive]
 Sub Alarm SPD-045-2 [Only support Syntec M3 drive]



# 6 Syntax Compiler Alarm - COM

Alarm ID	COM-001	Alarm Title	EOF in comment		
Description	The symbol "(*" and beginning of the con will issue this alarm.	The symbol "(*" and "*)" must be used in pairs, if the program uses "(*" as the beginning of the comment, but doesn't use "*)" at the end of the comment. System will issue this alarm.			
Possible Cause	Programming error.				
Solution	Using symbol "(*" be	fore command and symbol '	"*)" after command in MACRO.		
Alarm ID	COM-002	Alarm Title	No string ending character		
Description	In MACRO the string in	brackets of PRINT command	d has no " string ending character.		
Possible Cause	MACRO programming	error.			
Solution	Check PRINT comman	d in MACRO.			
Alarm ID	СОМ-003	Alarm Title	Syntax error		
Description	MACRO has syntax error when controller interprets it.				
Possible Cause	<ol> <li>MACRO Programming error.</li> <li>Use APP syntax incorrectly in G code macro, for example: G200 X10. APP "appname".</li> <li>Use APP syntax in M/T code</li> <li>The single line syntax in MACRO program is too complicated to parse</li> </ol>				
Solution	<ol> <li>Check MACRO syntax according to line number shown in the alarm.</li> <li>The APP argument must be the first of the G code argument, for example: G200 APP"appname" X10.</li> <li>M/T code does not support using APP syntax, please rewrite the program.</li> <li>Split calculations to simplify statements.</li> </ol>				
Alarm ID	COM-004	Alarm Title	Illegal variable		
Description	To save in a variable	which is not accessible in sy	stem.		
Possible Cause	Variable usage error.				

Solution	Check variable in MACRO and confirm the variable is accessible in system.			
Alarm ID	СОМ-005	Alarm Title	Expression too complex	
Description	When MACRO is too	complicated.		
Possible Cause	MACRO programmi	ng error.		
Solution	Check whether MAG	CRO logic is clear and correc	ct.	
Alarm ID	COM-006	Alarm Title	EXIT statement outside loop statement	
Description	If EXIT command is n	ot inside loop command, sy	ystem will issue alarm.	
Possible Cause	MACRO Programming	MACRO Programming error.		
Solution	Check whether EXIT	command in MACRO progra	m is used correctly.	
Alarm ID	COM-007	Alarm Title	Repeat command too deep	
Description	If command in MACRO such as CASE, IF, WHILE, FOR repeats more than 10 times, system will issue this alarm.			
Possible Cause	MACRO Programmi	MACRO Programming error.		
Solution	Modify MACRO prog	ram to avoid too many rep	eated MACRO commands.	
Alarm ID	COM-008	Alarm Title	absent statement ending character ';'	
Description	Program doesn't hav	e ending character";" wher	MACRO command finishes.	
Possible Cause	MACRO Programming	g error.		
Solution	Check MACRO progra	m to confirm whether it ha	s the ending character.	

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Alarm ID	COM-010	Alarm Title	absent right ')'
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Description	In program, symb	In program, symbol "(" and ")" must be used in pairs.		
Possible Cause	MACRO programn	MACRO programming error		
Solution	Check MACRO pro	Check MACRO program to confirm whether using "(" and ")" symbol is used in pairs.		
Alarm ID	COM-011	COM-011 Alarm Title absent right ']'		
Description	In MACRO program	n, symbol "[" and "]" must <code>k</code>	be used in pairs.	
Possible Cause	MACRO programn	ning error.		
Solution	Check MACRO pro	gram to confirm if "[" and "	]" is used in pairs.	
Alarm ID	COM-012	Alarm Title	absent 'FOR' keyword in FOR statement	
Description	In MACRO, incorrect	In MACRO, incorrectly uses TO to define loop condition in FOR loop.		
Possible Cause	MACRO programmin	g error.		
Solution	Check MACRO progra	am to confirm TO is correctl	y used in FOR loop.	
Alarm ID	COM-013	Alarm Title	Absent 'FOR' or 'DO' keyword in FOR statement	
Description	In MACRO, FOR or DC	In MACRO, FOR or DO is used incorrectly in FOR command.		
Possible Cause	MACRO programmin	g error.		
Solution	1. Check MACRC 2. Check MACRC	<ol> <li>Check MACRO program to confirm if FOR is used correctly in FOR loop.</li> <li>Check MACRO program to confirm if DO is used correctly in FOR loop.</li> </ol>		
Alarm ID	COM-014	Alarm Title	absent 'END_FOR' keyword in FOR statement	
Description	In MACRO, END_FOR	In MACRO, END_FOR is not used correctly in FOR loop to finish loop.		
Possible Cause	MACRO programmin	g error.		
Solution	Check MACRO progra	am to confirm if END_FOR is	s correctly used in FOR loop.	

Alarm ID	COM-015	Alarm Title	absent 'UNTIL' keyword in REPEAT statement	
Description	In MACRO, REPEAT loop uses UNTIL to define loop condition incorrectly.			
Possible Cause	MACRO programmir	ng error		
Solution	Check MACRO progr	am to confirm if UNTIL is us	sed correctly in REPEAT loop.	
Alarm ID	COM-016	Alarm Title	absent 'END_REPEAT' keyword in REPEAT statement	
Description	In MACRO, REPEAT l	oop doesn't have END_REP	PEAT to finish loop.	
Possible Cause	MACRO programmir	ng error.		
Solution	Check MACRO progr	am to confirm if END_REPE	EAT is used correctly in REPEAT loop.	
Alarm ID	COM-017	Alarm Title	Absent 'WHILE' or 'DO' keyword in WHILE statement	
Description	In MACRO, WHILE or DO is used incorrectly in WHILE command.			
Possible Cause	MACRO programming error.			
Solution	1. Check MACRO 2. Check MACRO	D program to confirm if WH D program to confirm if DO	ILE is correctly used in WHILE loop. is correctly used in WHILE loop.	
Alarm ID	COM-018	Alarm Title	absent 'END_WHILE' keyword in WHILE statement	
Description	In MACRO, WHILE lo	op doesn't have END_WHIL	E to finish loop.	
Possible Cause	MACRO programming error.			
Solution	Check MACRO program to confirm if END_WHILE is used correctly to end the WHILE loop.			
Alarm ID	COM-019	Alarm Title	Absent 'IF' or 'THEN' keyword in IF statement	
Description	In MACRO, IF or THEN is used incorrectly in IF command.			

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Possible Cause	MACRO programming error.			
Solution	<ol> <li>Check MACRO program to confirm if IF is correctly used in IF command.</li> <li>Check MACRO program to confirm if THEN is correctly used in IF command.</li> </ol>			
Alarm ID	COM-020	Alarm Title	absent 'END_IF' or 'ELSE' keyword in IF statement	
Description	In MACRO, IF loop de	oesn't use ELSE or END_IF o	correctly.	
Possible Cause	MACRO programmir	ng error.		
Solution	Check MACRO progr	ram, if ELSE or END_IF is use	ed correctly in IF loop.	
Alarm ID	COM-021	Alarm Title	absent 'END_IF' keyword in IF statement	
Description	In MACRO, IF loop uses END_IF to finish loop incorrectly.			
Possible Cause	MACRO programmi	ng error.		
Solution	Check MACRO prog	ram, END_IF is correctly us	ed in IF loop.	
Alarm ID	COM-022	Alarm Title	Absent 'CASE' or 'OF' keyword in CASE statement	
Description	In MACRO, CASE or	OF is used incorrectly in CA	SE command.	
Possible Cause	MACRO programmi	ng error.		
Solution	<ol> <li>Check MACR</li> <li>Check MACR</li> </ol>	<ol> <li>Check MACRO program, if CASE is used correctly in CASE command.</li> <li>Check MACRO program, if OF is used correctly in CASE command.</li> </ol>		
Alarm ID	COM-023	Alarm Title	absent 'END_CASE' or 'ELSE' keyword in CASE statement	
Description	In MACRO program, ELSE or END_CASE is used incorrectly in CASE command.			
Possible Cause	MACRO programmir	ng error.		
Solution	Check MACRO program, if ELSE or END_CASE is used correctly in CASE command.			

Alarm ID	COM-024	Alarm Title	absent 'END_CASE' keyword in CASE statement
Description	In MACRO, END_CASE keyword is used incorrectly in CASE command.		
Possible Cause	MACRO programming error.		
Solution	Check MACRO program, ensure that END_CASE is used before CASE statement ending.		

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Alarm ID	COM-026	Alarm Title	Illegal MOVJ instruction input
Description	Illegal MOVJ command input.		
Possible Cause	MOVJ command form	at error.	
Solution	Check if MOVJ comma	and format is correct.	
Alarm ID	СОМ-027	Alarm Title	Invalid Character
Description	<ul> <li>Only ASCII characters are acceptable in NC files. Using non-ASCII characters is thus unacceptable.</li> <li>Note: Listed below are the special cases in which non-ASCII characters are considered acceptable: <ol> <li>Comment.</li> <li>Arguments of MACRO functions that are of string type.</li> </ol> </li> </ul>		
Possible Cause	<ol> <li>There are non-ASCII characters in the NC file. Common cases include:</li> <li>Using full width semicolons instead of half width ones.</li> <li>Writing comments without using comment characters.</li> <li>Using full-width spaces instead of half width ones.</li> </ol>		
Solution	<ul> <li>Please check the machining program to make sure that only ASCII is used in comments and macros.</li> <li>Recommended to check: <ol> <li>Make sure that full-width semicolons is not used.</li> <li>Make sure that all the program comments are added with comment syntax.</li> <li>Make sure that full-width space is not used.</li> </ol> </li> <li>Suggested exclusions: <ul> <li>Confirm the line number of the stopped processing file, delete and re-enter the processing file of this line on the controller.</li> </ul> </li> </ul>		

Alarm ID	COM-028	Alarm Title	Illegal use of ' / '	
Description	Incorrectly use single block optional skip function " / ".			
Possible Cause	MACRO programm	ing error, function syntax or	variable calculation is written after " / ".	
Solution	Check the incorrec written after " / ".	Check the incorrect line to ensure no function syntax or variable operation is written after " / ".		
Alarm ID	СОМ-029	Alarm Title	【CASE MACRO usage exceeds support limit 】	
Description	CASE MACRO usage	exceeds the support number	1.	
Possible Cause	The number of CASE	MACRO exceeds 256.		
Solution	Please reduce the nu	Imber of CASE MACRO.		
Alarm ID	СОМ-030	Alarm Title	【IF MACRO usage exceeds support limit】	
Description	IF MACRO usage exceeds the support number.			
Possible Cause	The number of IF MACRO exceeds 256.			
Solution	Please reduce the nu	Imber of IF MACRO.		
Alarm ID	COM-031	Alarm Title	【REPEAT MACRO usage exceeds support limit 】	
Description	REPEAT MACRO usage exceeds the support number.			
Possible Cause	The number of REPEAT MACRO exceeds 256.			
Solution	Please reduce the nu	Imber of REPEAT MACRO.		
Alarm ID	COM-032	Alarm Title	【WHILE MACRO usage exceeds support limit 】	
Description	WHILE MACRO usage	exceeds the support number	er.	

Possible Cause	The number of WHILE MACRO exceeds 256.			
Solution	Please reduce the number of REPEAT MACRO.			
Alarm ID	COM-033 Alarm Title [FOR MACRO usage exceeds support limit ]			
Description	FOR MACRO usage exceeds the support number.			
Possible Cause	The number of FOR MACRO exceeds 256.			
Solution	Please reduce the n	Please reduce the number of FOR MACRO.		
Alarm ID	COM-034 Alarm Title [Absent 'REPEAT' keyword in REPEAT statement]			
Description	In MACRO program, REPEAT is used incorrectly in REPEAT command.			
Possible Cause	MACRO programming error.			
Solution	Check MACRO program to confirm if REPEAT is correctly used in REPEAT loop.			

### 6.1 COM-001 EOF in comment

Alarm ID	COM-001	Alarm Title	EOF in comment
Description	The symbol "(*" and "*)" must be used in pairs, if the program uses "(*" as the beginning of the comment, but doesn't use "*)" at the end of the comment. System will issue this alarm.		
Possible Cause	Programming error.		
Solution	Using symbol "(*" before command and symbol "*)" after command in MACRO.		after command in MACRO.

# 6.2 COM-002 No string ending character

Alarm ID	COM-002	Alarm Title	No string ending character
Description	In MACRO the string i	n brackets of PRINT comman	nd has no " string ending character.

Possible Cause	MACRO programming error.
Solution	Check PRINT command in MACRO.

#### 6.3 COM-003 Syntax error

Alarm ID	COM-003	Alarm Title	Syntax error
Description	MACRO has syntax erro	r when controller interprets it.	
Possible Cause	<ol> <li>MACRO Programming error.</li> <li>Use APP syntax incorrectly in G code macro, for example: G200 X10. APP "appname".</li> <li>Use APP syntax in M/T code</li> <li>The single line syntax in MACRO program is too complicated to parse</li> </ol>		
Solution	<ol> <li>Check MACRO syntax according to line number shown in the alarm.</li> <li>The APP argument must be the first of the G code argument, for example: G200 APP"appname" X10.</li> <li>M/T code does not support using APP syntax, please rewrite the program.</li> <li>Split calculations to simplify statements.</li> </ol>		shown in the alarm. de argument, for example: please rewrite the program.

### 6.4 COM-004 Illegal variable

Alarm ID	COM-004	Alarm Title	Illegal variable
Description	To save in a variable which is not accessible in system.		
Possible Cause	Variable usage error.		
Solution	Check variable in MACRO and confirm the variable is accessible in system.		

# 6.5 COM-005 Expression too complex

Alarm ID	COM-005	Alarm Title	Expression too complex
Description	When MACRO is too complicated.		
Possible Cause	MACRO programming error.		

Solution	Check whether MACRO logic is clear and correct.
Solution	Check whether MACRO logic is clear and correct.

## 6.6 COM-006 EXIT statement outside loop statement

Alarm ID	COM-006	Alarm Title	EXIT statement outside loop statement
Description	If EXIT command is not inside loop command, system will issue alarm.		
Possible Cause	MACRO Programming error.		
Solution	Check whether EXIT command in MACRO program is used correctly.		

#### 6.7 COM-007 Repeat command too deep

Alarm ID	COM-007	Alarm Title	Repeat command too deep
Description	If command in MACRO such as CASE, IF, WHILE, FOR repeats more than 10 times, system will issue this alarm.		
Possible Cause	MACRO Programming error.		
Solution	Modify MACRO program to avoid too many repeated MACRO commands.		

#### 6.8 COM-008 absent statement ending character ';'

Alarm ID	COM-008	Alarm Title	absent statement ending character ';'
Description	Program doesn't have ending character";" when MACRO command finishes.		
Possible Cause	MACRO Programming error.		
Solution	Check MACRO program to confirm whether it has the ending character.		

### 6.9 COM-009 Wrong assignment character ':='

Alarm ID	COM-009	Alarm Title	wrong assignment character ':='
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Description	In MACRO program, if assigning value to variable doesn't use the correct character ':= ' system will issue alarm.
Possible Cause	MACRO programming error.
Solution	Check MACRO program, whether value assignment character is correctly used.

### 6.10 COM-010 absent right ')'

Alarm ID	COM-010	Alarm Title	absent right ')'
Description	In program, symbol "(" and ")" must be used in pairs.		
Possible Cause	MACRO programming error		
Solution	Check MACRO program to confirm whether using "(" and ")" symbol is used in pairs.		

# 6.11 COM-011 absent right ']'

Alarm ID	COM-011	Alarm Title	absent right ']'
Description	In MACRO program, symbol "[" and "]" must be used in pairs.		
Possible Cause	MACRO programming error.		
Solution	Check MACRO program	n to confirm if "[" and "]" is use	d in pairs.

### 6.12 COM-012 absent 'FOR' keyword in FOR statement

Alarm ID	COM-012	Alarm Title	absent 'FOR' keyword in FOR statement
Description	In MACRO, incorrectly uses TO to define loop condition in FOR loop.		
Possible Cause	MACRO programming error.		
Solution	Check MACRO program to confirm TO is correctly used in FOR loop.		

#### 6.13 COM-013 Absent 'FOR' or 'DO' keyword in FOR statement

Alarm ID	COM-013	Alarm Title	Absent 'FOR' or 'DO' keyword in FOR statement	
Description	In MACRO, FOR or D	In MACRO, FOR or DO is used incorrectly in FOR command.		
Possible Cause	MACRO programming error.			
Solution	<ol> <li>Check MACRO program to confirm if FOR is used correctly in FOR loop.</li> <li>Check MACRO program to confirm if DO is used correctly in FOR loop.</li> </ol>			

#### 6.14 COM-014 absent 'END\_FOR' keyword in FOR statement

Alarm ID	COM-014	Alarm Title	absent 'END_FOR' keyword in FOR statement
Description	In MACRO, END_FOR is not used correctly in FOR loop to finish loop.		
Possible Cause	MACRO programming error.		
Solution	Check MACRO program to confirm if END_FOR is correctly used in FOR loop.		

#### 6.15 COM-015 absent 'UNTIL' keyword in REPEAT statement

Alarm ID	COM-015	Alarm Title	absent 'UNTIL' keyword in REPEAT statement
Description	In MACRO, REPEAT loop uses UNTIL to define loop condition incorrectly.		
Possible Cause	MACRO programming error		
Solution	Check MACRO program to confirm if UNTIL is used correctly in REPEAT loop.		

#### 6.16 COM-016 absent 'END\_REPEAT' keyword in REPEAT statement

Alarm ID	COM-016	Alarm Title	absent 'END_REPEAT' keyword in REPEAT statement
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Description	In MACRO, REPEAT loop doesn't have END_REPEAT to finish loop.
Possible Cause	MACRO programming error.
Solution	Check MACRO program to confirm if END_REPEAT is used correctly in REPEAT loop.

## 6.17 COM-017 Absent 'WHILE' or 'DO' keyword in WHILE statement

Alarm ID	COM-017	Alarm Title	Absent 'WHILE' or 'DO' keyword in WHILE statement	
Description	In MACRO, WHILE or	In MACRO, WHILE or DO is used incorrectly in WHILE command.		
Possible Cause	MACRO programming error.			
Solution	<ol> <li>Check MACRO program to confirm if WHILE is correctly used in WHILE loop.</li> <li>Check MACRO program to confirm if DO is correctly used in WHILE loop.</li> </ol>			

### 6.18 COM-018 absent 'END\_WHILE' keyword in WHILE statement

Alarm ID	COM-018	Alarm Title	absent 'END_WHILE' keyword in WHILE statement
Description	In MACRO, WHILE loop doesn't have END_WHILE to finish loop.		
Possible Cause	MACRO programming error.		
Solution	Check MACRO program to confirm if END_WHILE is used correctly to end the WHILE loop.		

# 6.19 COM-019 Absent 'IF' or 'THEN' keyword in IF statement

Alarm ID	COM-019	Alarm Title	Absent 'IF' or 'THEN' keyword in IF statement
Description	In MACRO, IF or THEN is used incorrectly in IF command.		
Possible Cause	MACRO programmir	ng error.	

Solution 1. Che	eck MACRO program to confirm if IF is correctly used in IF command.
2. Che	Eck MACRO program to confirm if THEN is correctly used in IF command.

#### 6.20 COM-020 absent 'END\_IF' or 'ELSE' keyword in IF statement

Alarm ID	COM-020	Alarm Title	absent 'END_IF' or 'ELSE' keyword in IF statement
Description	In MACRO, IF loop doesn't use ELSE or END_IF correctly.		
Possible Cause	MACRO programming error.		
Solution	Check MACRO program, if ELSE or END_IF is used correctly in IF loop.		

### 6.21 COM-021 absent 'END\_IF' keyword in IF statement

Alarm ID	COM-021	Alarm Title	absent 'END_IF' keyword in IF statement
Description	In MACRO, IF loop uses END_IF to finish loop incorrectly.		
Possible Cause	MACRO programming error.		
Solution	Check MACRO program, END_IF is correctly used in IF loop.		

## 6.22 COM-022 Absent 'CASE' or 'OF' keyword in CASE statement

Alarm ID	COM-022	Alarm Title	Absent 'CASE' or 'OF' keyword in CASE statement	
Description	In MACRO, CASE or C	In MACRO, CASE or OF is used incorrectly in CASE command.		
Possible Cause	MACRO programming error.			
Solution	<ol> <li>Check MACRO program, if CASE is used correctly in CASE command.</li> <li>Check MACRO program, if OF is used correctly in CASE command.</li> </ol>			

#### 6.23 COM-023 absent 'END\_CASE' or 'ELSE' keyword in CASE statement

Alarm ID	СОМ-023	Alarm Title	absent 'END_CASE' or 'ELSE' keyword in CASE statement
Description	In MACRO program, ELSE or END_CASE is used incorrectly in CASE command.		
Possible Cause	MACRO programming error.		
Solution	Check MACRO program, if ELSE or END_CASE is used correctly in CASE command.		

# 6.24 COM-024 absent 'END\_CASE' keyword in CASE statement

Alarm ID	COM-024	Alarm Title	absent 'END_CASE' keyword in CASE statement
Description	In MACRO, END_CASE keyword is used incorrectly in CASE command.		
Possible Cause	MACRO programming error.		
Solution	Check MACRO program, ensure that END_CASE is used before CASE statement ending.		

### 6.25 COM-025 Absent ':' or delimiter ',' in CASE statement

Alarm ID	COM-025	Alarm Title	Absent ':' or delimiter ',' in CASE statement
Description	In MACRO program, ': ' or ', ' is used incorrectly in CASE command.		
Possible Cause	MACRO programming error.		
Solution	<ol> <li>Check MACRO program, ': ' condition statement is used correctly in CASE command.</li> <li>Check MACRO program, ', ' is used correctly in the middle of condition statement, and ': ' is used correctly in the end of condition statement.</li> </ol>		

## 6.26 COM-026 Illegal MOVJ instruction input

Alarm ID	COM-026	Alarm Title	Illegal MOVJ instruction input
Description	Illegal MOVJ command input.		
Possible Cause	MOVJ command format error.		
Solution	Check if MOVJ command format is correct.		

### 6.27 COM-027 Invalid character

Alarm ID	COM-027	Alarm Title	Invalid Character
Description	<ul> <li>Only ASCII characters are acceptable in NC files. Using non-ASCII characters is thus unacceptable.</li> <li>Note: Listed below are the special cases in which non-ASCII characters are considered acceptable: <ol> <li>Comment.</li> <li>Arguments of MACRO functions that are of string type.</li> </ol> </li> </ul>		
Possible Cause	<ol> <li>There are non-ASCII characters in the NC file. Common cases include:</li> <li>Using full width semicolons instead of half width ones.</li> <li>Writing comments without using comment characters.</li> <li>Using full-width spaces instead of half width ones.</li> </ol>		
Solution	<ul> <li>Please check the machining program to make sure that only ASCII is used in comments and macros.</li> <li>Recommended to check: <ol> <li>Make sure that full-width semicolons is not used.</li> <li>Make sure that all the program comments are added with comment syntax.</li> <li>Make sure that full-width space is not used.</li> </ol> </li> <li>Suggested exclusions: <ul> <li>Confirm the line number of the stopped processing file, delete and re-enter the processing file of this line on the controller.</li> </ul> </li> </ul>		

### 6.28 COM-028 Illegal use of '/'

Alarm ID	COM-028	Alarm Title	Illegal use of ' / '
Description	Incorrectly use single block optional skip function " / ".		
Possible Cause	MACRO programming error, function syntax or variable calculation is written after " / ".		
Solution	Check the incorrect line to ensure no function syntax or variable operation is written after " / ".		

## 6.29 COM-029 CASE MACRO usage exceeds support limit

Alarm ID	COM-029	Alarm Title	【CASE MACRO usage exceeds support limit 】
Description	CASE MACRO usage exceeds the support number.		
Possible Cause	The number of CASE MACRO exceeds 256.		
Solution	Please reduce the number of CASE MACRO.		

### 6.30 COM-030 IF MACRO usage exceeds support limit

Alarm ID	СОМ-030	Alarm Title	【IF MACRO usage exceeds support limit】
Description	IF MACRO usage exceeds the support number.		
Possible Cause	The number of IF MACRO exceeds 256.		
Solution	Please reduce the number of IF MACRO.		

## 6.31 COM-031 REPEAT MACRO usage exceeds support limit

Alarm ID	COM-031	Alarm Title	【REPEAT MACRO usage exceeds support limit 】
Description	REPEAT MACRO usage exceeds the support number.		

Possible Cause	The number of REPEAT MACRO exceeds 256.
Solution	Please reduce the number of REPEAT MACRO.

#### 6.32 COM-032 WHILE MACRO usage exceeds support limit

Alarm ID	COM-032	Alarm Title	【WHILE MACRO usage exceeds support limit 】		
Description	WHILE MACRO usage exceeds the support number.				
Possible Cause	The number of WHILE MACRO exceeds 256.				
Solution	Please reduce the number of REPEAT MACRO.				

#### 6.33 COM-033 FOR MACRO usage exceeds support limit

Alarm ID	COM-033	Alarm Title	[FOR MACRO usage exceeds support limit]		
Description	FOR MACRO usage exceeds the support number.				
Possible Cause	The number of FOR MACRO exceeds 256.				
Solution	Please reduce the number of FOR MACRO.				

#### 6.34 COM-034 Absent 'REPEAT' keyword in REPEAT statement

Alarm ID	COM-034	Alarm Title	【Absent 'REPEAT' keyword in REPEAT statement】	
Description	In MACRO program, REPEAT is used incorrectly in REPEAT command.			
Possible Cause	MACRO programming error.			
Solution	Check MACRO program to confirm if REPEAT is correctly used in REPEAT loop.			

# 7 Program Execute Error Alarm - COR

Alarm ID	COR-001 BGND-001	Alarm title	Array Variable is empty		
Description	Indirect assigned variab i.e. @[#1], if #1 is empty	Indirect assigned variable number is empty. i.e. @[#1], if #1 is empty, this alarm will be issued.			
Reason	Programming error.				
Solution	Please check the NC pro empty.	ogram, make sure that indire	ct assigned variable's number is not		
Alarm ID	COR-002 BGND-002	Alarm title	File not exist		
Description	If the file that the syste	If the file that the system wants to read does not exist i.e. use M98 (or G65, G66, and etc.) to call a non existing file.			
Reason	Programming error.				
Solution	Check the NC program	to make sure the existence	of the file.		
Alarm ID	COR-003Alarm titleDevide by zero errorBGND-003				
Description	If denominator in division of MACRO is equal to 0 i.e. #1:=(#2/ #3); if #3 equals to zero, system will issue this alarm.				
Reason	Programming error				
Solution	Check the NC program	Check the NC program to ensure that the denominator is not equal to 0.			
Alarm ID	COR-004 BGND-004	Alarm title	Operation domain error		
Description	Operation domain erro	Operation domain error.			
Reason	Programming error				

Solution	Please check the NC program.			
Alarm ID	COR-005 BGND-005	Alarm title	Program loading failure	
Description	MACRO syntax error.			
Reason	Programming error.			
Solution	Please check the NC pr	ogram.		
Alarm ID	COR-006 BGND-006	Alarm title	Arc not on work plane	
Description	<ol> <li>In clockwise, counter-clockwise arc cutting (G02, G03) syntax, if the vector from center of circle to starting point doesn't exist on the arc working surface. i.e. execute G17 G02 I50. K10., and system will issue this alarm.</li> <li>In spiral interpolation (G02, G03) syntax, when corresponding to G17, G18, and G19 three surface conditions, if K, J, and I arguments are not zero, system will issue this alarm.</li> </ol>			
Reason	Programming error.			
Solution	Check the NC program	to ensure that G02 and G03	are used correctly.	
Alarm ID	COR-007 BGND-007	Alarm title	Arc radius too short	
Description	In G02 and G03 syntax, if Arc radius is smaller than 10 to the power of minus 10 BLU (10^-10), system will issue this alarm.			
Reason	Programming error.			
Solution	Check the NC program to ensure that the Arc radius of G02 and G03 are used correctly.			
Alarm ID	COR-008 BGND-008	Alarm title	Arc destination not on arc	

Description	In G02 and G03 syntax issue this alarm.	, if the Arc end point coordi	nate is not on the circle, system will		
	From 8.31 version, adding Pr3807 setting arc final point is not on the check window, allowing to set window range's error in Pr3807.				
	When arc end point po system will auto corre locate on the circle co	When arc end point position's error is smaller than Pr3807 setting window's range, system will auto correct the circle's center position, and make the end point position to locate on the circle correctly.			
	When arc end point po will issue this alarm.	When arc end point position error is bigger than Pr3807 window range setting, system will issue this alarm.			
Reason	Programming error.				
Solution	Check the NC program	n to ensure that the Arc radi	us of G02 and G03 are used correctly.		
Alarm ID	COR-009 BGND-009	Alarm title	G65 layers called by Macro too deep		
Description	Use G65 to call MACRO program layer more than 12 layers.				
Reason	Programming error.				
Solution	Check NC program to a layers.	ensure that G65 calls MACRO	) program less than or equal to 12		
Alarm ID	COR-010 BGND-010	Alarm title	G66 layers called by Macro too deep		
Description	Use G66 to call MACRO program layer more than 4 layers. It is possible in the following situations:				
	<ol> <li>Improper use G66. Use G66 to call MACRO program layer more than 4 layers.</li> <li>Lathe A Type G70 ~ G73 or Lathe C Type G72 ~ G75 Q_ sequence numbers does not exist.</li> </ol>				
Reason	Programming error.				
Solution	<ol> <li>Check NC program 4 layers.</li> <li>Check NC program 675 Q_ sequen</li> </ol>	ram to ensure that G66 calls ram to ensure that Lathe A 1 ce numbers exist.	MACRO program less than or equal to ype G70 ~ G73 or Lathe C Type G72 ~		

Alarm ID	COR-011 BGND-011	Alarm title	Subprogram call too deep	
Description	Use M98 to call subprogram that has more than 16 layers.			
Reason	Programming error.			
Solution	Check NC program to e	ensure that M98 calls subpro	ogram that has less than 16 layers.	
Alarm ID	COR-012 BGND-012	Alarm title	G66 mode not cancel by G67	
Description	G66 and G67 need to be used in pairs, when numbers of G67 is more than G66 in one NC program, this alarm will be issued.			
Reason	Programming error.			
Solution	Check NC program to e	nsure that G66 and G67 are	used in pairs	
Alarm ID	COR-013 BGND-013	Alarm title	G65, G66 must be at the end of the block	
Description	G65 and G66 are MACRO, so in one same block the program on the right hand side of G65 and G66 will be processed as G65 and G66's arguments. So in one same block, if there is other G code command please write them in the left hand side of G65 and G66. In one same block, if the right hand side of G65 and G66 has G code or M code, system will issue this alarm.			
Reason	Programming error.			
Solution	Please check the NC pro	ogram.		
Alarm ID	COR-014 BGND-014	Alarm title	Absent program number	
Description	The right hand side of G65 and G66 doesn't have P argument to specify program number.			
Reason	Programming error.			

Solution		Please check the NC program to ensure G65 and G66 use P argument to specify program number.			
Alarm ID	COR-015 Alarm title BGND-015			Too many auxiliary M codes	
Description	There ar	re more	than 5 auxiliary	M codes in a single block.	
Reason	Program	nming e	error.		
Solution	Please c single b	heck th lock	ne NC program to	o ensure that there are equ	ial or less than 5 auxiliary M codes in a
Alarm ID	COR-016 BGND-01	COR-016 Alarm title BGND-016			Illegal variable access
Descriptio n	Attempted to access a variable that does not exist.				
Reason	<ol> <li>Programming error.</li> <li>Illegal access to # or @ variable.</li> <li>The parameter of SYSDATA function is out of system data range.</li> <li>The controller does not support the status variable which DRVDATA is to read.</li> <li>The program that attempts to access AR or MAR variables does NOT lie within the scope of App Macros.</li> <li>The AR or MAR variables to access do NOT lie within the range defined by the App.</li> <li>Non-integer numbers are used to specify the addresses of AR or MAR variables. ONLY integers are acceptable.</li> <li>The background computing program executed an unsupported instruction.</li> </ol>				
Solution	<ol> <li>Make sure the accessing variable exists.</li> <li>Make sure the variable to read is readable.</li> <li>Make sure the variable to write is writable.</li> <li>Make sure the variable which DRVDATA is to read can be found on the "Controller Axis Info." page.</li> <li>Make sure the AR and the MAR variables are accessed ONLY in App Macros.</li> <li>Make sure the AR and the MAR variables to access lie within the range defined by the App.</li> <li>Make sure only integers are used to specify the addresses of AR or MAR variables.</li> <li>Make sure that no unsupported instructions are used in the background computing program.</li> </ol>				
Alarm ID		COR- BGND	017 9-017	Alarm title	Sequence number not found

Description	The NC program sequen	ce number is used incorrectly	<i>\</i> .		
Reason	<ol> <li>When running the GOTO command, the corresponding sequence number (N code) cannot be found.</li> <li>When running the M99 command, sequence number (N code) specified by the P argument cannot be found in the main(parent) program.</li> </ol>				
Solution	Please check the NC program.				
Alarm ID	COR-018Alarm titleLine number not foundBGND-018				
Description	Input line number is inc	orrect.			
Reason	<ol> <li>When Pr3851 sets as 888800, input breakpoint's line number exceeds NC program's maximum line number.</li> <li>When Pr3851 sets as 999900, input breakpoint's line number exceeds NC program's maximum line number.</li> <li>When Pr3851 sets as 999901, input breakpoint's line number exceeds NC program's maximum line number or positioning command line number cannot be found after scanning through entire NC program.</li> <li>When M99 Q_ sub-program returns to the line number which is assigned by main program, the line number Q_ assigned is over main program's maximum line number.</li> </ol>				
Solution	<ol> <li>Input the correct program line number.</li> <li>When Pr3851 sets as 999901, modify NC program by inserting positioning command after initial assigned breakpoint.</li> </ol>				
Alarm ID	COR-019 BGND-019	Alarm title	sub-program has no M99		
Description	When main program calls sub-procedure, if sub-program finish executing and need to return the main program, there is no M99.				
Reason	Programming error.				
Solution	Write in M99 when sub-program finish executing and return the main program.				
Alarm ID	COR-020 BGND-020	Alarm title	Too many G code		
Description	There are more than 10 G codes in a single block.				

Reason	Programming error.				
Solution	Breakdown that single block which has over 10 G codes into single blocks that has less than 10 G codes.				
Alarm ID	COR-021 BGND-021	Alarm title	Too many (I,J,K) triples		
Description	Repeat too much I, J, a	nd K command in the same	block.		
Reason	Programming error.				
Solution	Please check the NC pr	ogram.			
Alarm ID	COR-022Alarm titleUse undefined workpiece coordinateBGND-022				
Description	Use an undefined G54 c	Use an undefined G54 coordinate system.			
Reason	Programming error.				
Solution	Use the correct G54 coo	rdinate system.			
Alarm ID	COR-023 BGND-023	Alarm Title	Semantic error		
Description	<ol> <li>When using G code, different G code can input different argument (P_, L_, R_, and etc.), if argument setting is wrong, and system will issue this alarm.</li> <li>The argument of macro function is wrong.</li> </ol>				
Reason	Programming error.				
Solution	Check the NC program to ensure the argument is used correctly by referring the manual.				
Alarm ID	COR-024 BGND-024	Alarm title	Invalid arc radius value		

Description	When executing G02, G03, appointed Arc end point and given radius is contradicted, which the given radius cannot meet appointing Arc end point. i.e. G91 G03 X1500 Y4000 R2000.							
Reason	Programming error.							
Solution	Check the program and recalculate.							
Alarm ID	COR-025Alarm titleMacro stack is overflow or STKTOP[] argument error							
Description	<ol> <li>STACK can store maximum 4095 values. If stored value exceeding the maximum number, controller issue this alarm.</li> <li>In STKTOP[n], n is started from 0, if the value of n is bigger than the value storing in stack-1, controller issue this alarm</li> </ol>							
Reason	<ol> <li>Too much value store in STACK.</li> <li>STKTOP[] arguments exceeds the value storing in STACK.</li> </ol>							
Solution	<ol> <li>Stack is full, do not use store command anymore.</li> <li>Input a reasonable argument in STKTOP[].</li> </ol>							
Alarm ID	COR-026 BGND-026	Alarm title	macro stack is empty					
Description	Empty stack still wa	ant to pop value, system is	sue this alarm.					
Reason	The numbers of Push commands and Pop commands are not the same.							
Solution	Check the program to ensure that the number of Push commands is the same with that of Pop commands.							
Alarm ID	COR-027Alarm titleInvalid macro argumentsBGND-027							
Description	Macro issue self-defined alarm.							
Possible Cause	Once Macro determines the self-defined alarm error condition is meet, NC program will be stopped and alarm will appear.							

Solution	According to the display content of alarm to find out the error.							
Alarm ID	COR-028 BGND-028	Alarm title	System program error, can't normally machining.					
Description	Use Quiet Mode in MACRO, but can't leave Quiet Mode when program finished.							
Reason	Programming error.							
Solution	Please check the NC program.							
Alarm ID	COR-029 BGND-029	Alarm title	Tool length offset change at arc					
Description	G43, G44, G49 only receive linear interpolation command in the next block.							
Possible Cause	Programming error.							
Solution	Please check the NC program.							
Alarm ID	COR-030Alarm TitleCutting speed command isBGND-030							
Description	When execute cutting	command, given F code ar	gument is zero.					
Possible Cause	Programming error.							
Solution	Check the NC program	n to ensure the argument o	f F code shall not be 0.					
Alarm ID	COR-031 BGND-031	031     Alarm title     Radius compensation cancel a       0-031     -031						
Description	G40 only receives line	ar interpolation command i	n the next block					
Possible Cause	Programming error.							
Solution	Please check the NC program.							

Alarm ID		COR-032 BGND-032	DR-032 Alarm title Radius compensation GND-032 arc				activate at	
Description	G41,G42 only receive linear interpolation command in the next block.							
Reason	Programming error.							
Solution		Please chee	k the NC program.					
Alarm ID	COR-033 A BGND-033		Alarm tit	le Im	proper use of A, F	e, or C command		
Description	Timing	of using A, R	, or C comm	nand is ir	ncompatible with t	he specification.		
Reason	Progra	mming error.						
Solution	Check	NC program t	to confirm t	hat if the	e blocks are compa	atible with specifications		
Alarm ID	COR-034 Alarm t BGND-034		Alarm tit	itle		Path expand argument does not exist		
Description	NC pro ",A_" a	NC program contains non-existed path expand argument, such as ",Z_". Only ",C_", ",R_" and ",A_" arguments are supported.						
Reason	Progra	mming error.						
Solution	Revise	NC program,	make sure	non-sup	ported path expar	nd arguments are excluded	ł.	
Alarm ID	COR-0 BGND-	35 035	5 Alarm title Corner is too s			nall can't insert round co	rner chamfer	
Description	Angel b calcula	Angel between blocks, which to be inserted round corner or chamfer is too small so system can't calculate it.						
Reason	Progra	mming error.						
Solution	<ol> <li>Check NC program to confirm that whether the block is compatible with specifications.</li> <li>Check and confirm the working plane and round corner plane are the same.</li> </ol>							

Alarm ID		COR- BGND	036 9-036	Alarm title	Inappropriate A angle command					
Description		A is va	A is valid only in linear interpolation of single block.							
Reason		Progr	Programming error.							
Solution		Check NC program to confirm that whether A angle command is compatible with specifications								
Alarm ID		COR-C BGND	)37 -037	Chamfer value bigger than displacement						
Description		Chamf it.	er value is bigge	er than pre-block and post-l	block length, so system can't calculate					
Reason		Progra	mming errors.							
Solution		<ol> <li>Check NC program to confirm that whether inserted value of chamfer is compatible with specifications.</li> <li>Check to confirm whether C value is compatible with specification.</li> </ol>								
Alarm ID		COR-C BGND	)38 -038	Alarm title	Incorrect block jump's switch number.					
Description	Incorrect block jump switch number. i.e. / 2 G00 X100. ; If assigned number is bigger than 9 or equals to 0, system wi alarm.				n 9 or equals to 0, system will issue this					
Reason		Blockj	ump switch nun	nber is 0 or bigger than 9.						
Solution		Check	the NC program	, and confirm block jump s	witch number is between 1 and 9.					
Alarm ID	COR-039Alarm titleMeasure function can't start tool radius compensationBGND-039				art tool radius compensation					
Description	Meas	ure func	tion can't start t	cool radius compensation.						
Reason	Measure function related instruction (i.e., G31, G31.10, G31.11) is executed after tool compensation command.									

Alarm ID	COR- BGNI	-039 D-039	Alarm title	Measure function can't start tool radius compensation							
Solution	Confi comr	rm ther nand.	m there is no measure function related command is executed after tool compensation and.								
Alarm ID		COR-040 BGND-040		Alarm title	Block end point exceed software stroke limit						
<b>Description</b> The machine coordinate in the program exceeds the software stroke limit.											
Reason		Progra	ming error.								
Solution		Check	the NC progran	n, and correct coordinate p	osition.						
Alarm ID		COR- BGNI	041 D-041	Alarm title	GOTO label must be integer						
Description	The input GOTO label is not an integer. i.e. GOTO 1 Correct GOTO 1. Wrong N1; Correct N1.; Wrong										
Reason		Progr	amming error.								
Solution		Checl	< the NC progra	m, and input integer in GO <sup>-</sup>	TO argument.						
Alarm ID		COR-042 BGND-042		Alarm title	Logic operand is non-integer or empty						
Description		Logic	operand must b	e non-integer or empty.							
Reason		Logic operand has floating point. i.e. #1=1.5And3. System will issue this alarm.									
Solution		Please check NC program. Confirm logic operand is integer or empty.									

Alarm ID	COR-043 BGND-043	Alarm title	ASIN, ACOS operand must between ±1.0					
Description	ASIN() and ACOS() operand is not between -1.0 and 1.0.							
Reason	Programming error.							
Solution	Check the NC program							
Alarm ID	COR-044 BGND-044	Alarm title	SQRT operand should not be negative					
Description	The square root of a negative value will be imaginary number, but the controller does not provide imaginary number function.							
Reason	Programming error.							
Solution	Check the NC program; enter a positive value in SQRT operand.							
Alarm ID	COR-045 BGND-045	Alarm title	L address should be integer					
Description	The L address is not an integer.							
Reason	Programming error.							
Solution	Check the NC program	n, and use integer in L addre	SS.					
Alarm ID	COR-046 BGND-046	Alarm title	O address should be integer					
Description	The O address is not a	n integer.						
Reason	Programming error.							
Solution	Check the NC program	n, and use integer in O addre	ess.					
Alarm ID	COR-047 BGND-047	Alarm title	M address should be integer					

Description	The M address is not an integer.						
Reason	Programming error.						
Solution	Check the NC program	m, and use integer in M add	lress.				
Alarm ID	COR-048 BGND-048	R-048 Alarm title Spindle speed S should be integ					
Description	The spindle speed S is	s not an integer.					
Reason	Programming error.						
Solution	Check the NC program	Check the NC program, and use integer in the spindle speed S.					
Alarm ID	COR-049 BGND-049	DR-049Alarm titleTool length compensation H should be integerGND-049Image: Since the state of th					
Description	Tool length compensation H is not an integer.						
Reason	Programming error.						
Solution	Please check the NC p	rogram, and use integer in	tool length compensation H.				
Alarm ID	COR-050Alarm titleTool radius compensation D should be integerBGND-050Image: Comparison of the integerImage: Comparison of the integer						
Description	Tool radius compensation D is not an integer.						
Reason	Programming error.						
Solution	Please check the NC program, and use integer in tool radius compensation.						
Alarm ID	COR-051Alarm titleTool number T should be integerBGND-051						
Description	Tool number T is not	an integer.					
Reason	Programming error.						

Solution		Please check the NC program, and use tool number T in integer.					
Alarm ID		COR-052 BGND-052	A	Alarm title		Sub inte	-program number, P, should be ger
<b>Description</b> Sub-program number P is not an integer.							
Reason		Programming error.					
Solution		Please check the NC program, and use the sub-program number P in integer.					
Alarm ID		COR-053 BGND-053		Alarm title		Repeat count L should be integer	
Description		Repeat count L is not an integer.					
Reason		Programming error.					
Solution		Please check the NC program, and use the repeat count L in integer.					
Alarm ID		COR-054 BGND-054	COR-054 Alarm title BGND-054			Incompatible data type	
Description		Data format	is incompa	atible w	ith controller spec	cificat	tions.
Reason		NC program	is not com	patible	with the SYNTEC	contr	oller.
Solution		Make sure that the NC program data format is compatible with Syntec controller specifications.					
Alarm ID	COR- BGNI	R-055 Alarm title Tool length compensation H out of range			sation H out of range		
Description	The t	tool length compensation H exceeds the range of tool number.					
Reason	Prog	ogramming error.					
Solution	Make	Make sure that the tool length compensation H, is in the range of tool number.					

Alarm ID		COR-05 BGND-0	6 56	Alarm title	G10 table index P is out of range				
Description		<ol> <li>G10's format is G10 L_ P_ R_; Different number L will correspond to different number P.</li> <li>L10 corresponding number P is tool number. Input P1000 means the 1000<sup>th</sup> tool. If that tool number doesn't exist, and controller will issue this alarm.</li> <li>L1600 corresponding number P is the spindle synchronization group number. If the input parameter is not within the range of 1-3, the controller will issue this alarm.</li> </ol>							
Reason		Programming error.							
Solution		Confirm	G10 data tabl	e address number P is in rea	asonable range.				
Alarm ID		COR-05 BGND-0	Tool radius D out of range						
Description		The tool radius number D exceeds the range of tool number.							
Reason		Programming error.							
Solution		Make sure that the tool radius number D is in the range of tool number.							
Alarm ID		COR-058 BGND-05	3 58	Alarm title	Tool nose compensation D is out of range				
Description		The tool	nose compen	sation D exceeds the range	of tool number.				
Reason		Program	error.						
Solution		Make sur	e that the too	l radius compensation D is i	n the range of tool number.				
Alarm ID	COI BGN	R-059 ND-059	ust be integer						
Description	Sub	program c	all H is not an	integer.					
Reason	Pro	ogram error.							
Solution	Con	onfirm the subprogram call H is an integer.							
Alarm ID		COR-060 Alarm title M BGND-060			larm title	M99 ret	urn number P must integer		
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Description		The	M99 return seq	luence	number P is not an integ	er.			
Reason		Pro	gram error.						
Solution		Con	Confirm the M99 return sequence number P is an integer.						
Alarm ID		COR-061 Alarm title Wo BGND-061			Workpie	ece number is out of range			
Description		The number of work pieces exceeds the allowable range of the controller.				he controller.			
Reason		Program error.							
Solution	Make sure the number of work pieces is in the allowed range of the controller.			e of the controller.					
Alarm ID	COR-00 BGND-0	62 Alarm title Dwell skip source Q must be integer 062			nteger				
Description	Dwell s	kip sc	ource Q is not a	n integ	er.				
Reason	Program	n erro	or.						
Solution	Change	the c	lwell skip sourc	ce Q int	to an integer.				
Alarm ID	COR-00 BGND-0	63 063	Alarm title	Dwell	skip source Q out of rar	ige			
Description	Dwell s	ell skip source Q exceeds the allowed range.							
Reason	Program	Program error.							
Solution	Make si	ure th	e dwell skip so	urce Q	is in the allowed range.				
Alarm ID		CC BC	DR-064 GND-064		Alarm title	Inv	valid P address		

CNC	Alarm	Manual	

Description	Invalid P address.				
Reason	<ol> <li>Address P is less than 0.</li> <li>Address P is not integer.</li> <li>Address P is out of range.</li> </ol>				
Solution	<ol> <li>Make sure add</li> <li>Make sure add</li> <li>Make sure add</li> <li>Make sure add</li> </ol>	dress P is greater or equal dress P is integer. dress P is within the range.	to 0.		
Alarm ID	COR-065 BGND-065	Alarm title	,A command format error		
Description	In NC program ,A com	mand's format is wrong.			
Reason	Programming error.				
Solution	<ul> <li>Please confirm ,A command format is one of the followings: <ol> <li>In the same block command as ,A, Moving instruction only includes one of x axis or z axis. i.e. G01 X10. ,A30.</li> <li>Use ,A advanced function in two separate line. The first line will assign ,A angle, and the second line will assign X, Z and ,A at the same time.</li> </ol> </li> <li>i.e.</li> <li>G01 ,A30.</li> <li>G01 X0. Z50. ,A45</li> </ul>				
Alarm ID	COR-066 BGND-066	Alarm title	Inc. axis command and abs. axis command conflict		
Description	Both G91 and G90 are ir	n the same line.			
Reason	Programming error.				
Solution	Decide to use incremental or absolute command in one line, and enter the correct command.				
Alarm ID	COR-067 BGND-067	Alarm title	Arc center vector and radius conflict		
Description	The arc end point is no center.	t on the arc created by the	arc starting point and the specify		

Reason	F	Programming error.					
Solution	F	Please check the NC program.					
Alarm ID	C B	COR-068Alarm titleQuiet Mode not support imperial Metric switch commandBGND-068Image: Command State Sta			ode not support imperial witch command		
Description	Т	he single block co	mmand	in Quiet n	node operati	on cann	ot switch Metric/ imperial unit.
Reason	P	rogramming error	•				
Solution	P	lease check the N	C progra	m.			
Alarm ID	(	COR-069 3GND-069	Ala	rm title		Round confli	d corner and chamfer cmd. ct
Description	(	Chamfer command and round corner command are in the same line.					
Reason	F	Program error.					
Solution	[	Do not let chamfer	comma	nd and ro	und corner c	comman	d exist in the same line.
Alarm ID		COR-070 BGND-070	COR-070 3GND-070		Alarm title		Invalid G Code
Description		Enter incorrect (	er incorrect G code to controller.				
Reason		Program error.					
Solution		Enter the valid G	i-code.				
Alarm ID	COI BGI	COR-071 Alarm title BGND-071		itle	No main p	orogram	name assigned
Description	The	The name of main program is not specified.					
Reason	The	NC program is no	t loaded				
Solution	Spe	cify the name of n	nain pro	gram.			

Alarm ID	COR-072 BGND-072	Alarm title	Threading command exceeds max. cutting speed		
Description	Threading command	exceeds the maximum cutti	ing speed.		
Reason	Program error.				
Solution	Decrease the cutting s	peed of threading.			
Alarm ID	COR-073 BGND-073	Alarm title	Tapping command exceed max. cutting speed		
Description	Tapping command sp	eed exceeds the maximum	cutting speed.		
Reason	Program error.				
Solution	Decrease the cutting speed of tapping.				
Alarm ID	COR-074 BGND-074	Alarm title	Tool radius too big, path overcut		
Description	<ol> <li>During maching</li> <li>During maching</li> <li>tool radius.</li> </ol>	ning notch, the notch width ning trapezoidal, the height	is smaller than two times of tool radius. of trapezoidal is less than two times of		
Reason	Tool compensation c	auses path overcut.			
Solution	Please check the NC cancels tool radius co	program, and decide wheth ompensation.	er this part of the machining should		
Alarm ID	COR-075 BGND-075	Alarm title	Exact stop wait timeout		
Description	After 2 seconds after feedback and comm determined by Pr48.	After 2 seconds after sending Exact stop (G09/G61) command, the difference between feedback and command exceeds allowable value (G01 is determined by Pr421~; G00 is determined by Pr481~).			
Reason	Servo vibration.				

Solution		<ol> <li>Servo tuning.</li> <li>Modify parameters Pr421~ or Pr481~.</li> </ol>				
Alarm ID	COR-076 Alarm title BGND-076			G04 dwell time cannot be negative		
Description	Input value of dwell time G04 is negative.					
Reason		Program error.				
Solution		Check the NC pro <sub>§</sub>	gram	n, and enter a positive or zero	value in G04 argument.	
Alarm ID	COR-077 BGND-07	Alarm Title	N	URBS curve format is wron	3	
Description	G6.2 forn	nat is wrong.				
Reason	Input arg	Input argument P, K, R is against allowable format.				
Solution	Refer the	program manual	to c	correct the command syntax.		
Alarm ID	COR-078 Alarm Title N BGND-078		URBS curve system memor	y insufficient		
Description	NURBS c	urve memory is in	suff	icient.		
Reason	System p	processing defection	ve.			
Solution	Contact	DEM Syntec.				
Alarm ID	COR-079 BGND-07	Alarm Title	N	umber of Nurbs curve node	s more than the upper limit	
Description	NURBS c	NURBS curve control point is over limit.				
Reason	NC file G	6.2 curve is too lor	ng ai	nd cause using too many cor	trol point.	
Solution	Re-gener	ate the CAM, and	rest	rict the number of curve nod	es less than 400.	

Alarm ID	COR-080 BGND-080	Alarm Title	2	Threading pitch is negative				
Description	Threading p	itch distance	can't be	e negative value.				
Reason	Threading p	Threading pitch distance setting error.						
Solution	Check and c	Check and correct the configured threading pitch to be positive value.						
Alarm ID	COR-08 1 BGND-0 81	Alarm Title	Use ai doesn	rc interpolation under tool offset fun 't use assigned angle.	ction. Arc command			
Description	In tool offse	In tool offset function (G45~G48), G02 and G03 can only be 90 degree or 270 degree.						
Reason	In NC progra degree or 2	In NC program's tool offset function (G45~G48) block, all arc interpolation angle can only be 90 degree or 270 degree.						
Solution	Check if G45 IJK to speci	i∼G48 is 90 or fy circle cente	270 deg er shall b	ree when using them in the arc interpo e used.	olation (G02/G03). Note,			
Alarm ID	COR-082 Alarm Title BGND-082		le	Tool compensation function and tool offset function can't use at the same time				
Description	Can't use to compensati	ol offset func on at the san	tion (G4 ne time.	5~G47) and tool compensation functio	n (G41, G42) or tool radius			
Reason	NC program	edit error.						
Solution	Check NC program, and confirm tool offset function (G45~G47) and tool compensation function (G41, G42) are not used at the same time.							
Alarm ID	COR-0 83 BGND- 083	larm Title	When p manua	ull tool back to pause point, and mo lly.	ve axis position			
Description	Before pull	tool back to p	oause po	int, press stop and manually move too	d.			
Reason	Operation e	rror.						

Alarm ID	COR-0 83 BGND- 083	Alarm Title	Whe mar	en pull tool back to pause point, and move axis position nually.	
Solution	Please mover	wait until tool is p ent.	oullec	l exactly back to pause po	int, then execute the manual position
Alarm ID		COR-084 BGND-084		Alarm Title	P Argument unassigned when using the rapid drilling
Description		When using rapid drilling function, must set P argument (bottom hole dwell time) system will issue this alarm.			rgument (bottom hole dwell time), or
Reason		Programming error.			
Solution		Check the NC pro rapid drilling.	ne NC program to ensure the P Argument is assigned when using the G code of illing.		
Alarm ID C		COR-085 BGND-085		Alarm Title	F Argument unassigned in Inverse Time Feed mode
Description		Under Inverse Ti system will issue	me Fe e this a	eed mode, if F argument is alarm.	not assigned in command line and
Reason		Programming er	ror.		
Solution		Check the NC pro after Inverse Tim	ogran 1e Fee	n to ensure there is F comi ed mode.	mand is given following in each line
Alarm ID COR BGN		COR-086 BGND-086		Alarm Title	R and I arguments unassigned in G10 L1501 mode
Description		G10 L1501 argun	nento	only has argument R or arg	gument I.
Reason		Programming er	ror.		
Solution	Check the NC program to ensure the R and I arguments are not used independently.				uments are not used independently.

Alarm ID	COR-087 BGND-087	Alarm Title	P and Q arguments must be different in G10 L1501 mode			
Description	P and Q argument in	G10 L1501 mode setting a	re the same.			
Reason	Programming error.					
Solution	Please check prograr same.	n, and confirm P and Q arg	gument in G10 L1501 mode aren't the			
Alarm ID	COR-088 BGND-088	Alarm Title	No time-axis command after the I argument in G10 L1501 mode			
Description	In spring machine dee before the next G10 L axis) in G1 0L1501.	In spring machine dedicated machine's motion plan, if use I argument in G10 L1501, before the next G10 L1502 command, user can't command P argument axis number (time axis) in G1 0L1501.				
Reason	Programming error.					
Solution	Check the NC program	n.				
Alarm ID	COR-089 BGND-089	Alarm Title	Main axis must be increment command in G10L1501 mode			
Description	G10 L1501 mode spir	ndle must be incremental c	command.			
Reason	Programming error.					
Solution	Under G10 L1501 mo command.	de, confirm the command	which sends to spindle is incremental			
Alarm ID	COR-090 BGND-090	Alarm Title	C-axis zero-speed check failed in G12.1 mode			
Description	When start to switch	polar coordinate, C axis m	uust be totally stop.			
Reason	When C axis uses as s	spindle, but spindle not ye	t stop rotating.			
Solution	Switch the spindle to	C-axis mode before activa	ating polar coordinate.			

Alarm ID	COR-091 BGND-091	Alarm Title	Main axis synchronization – basic main axis number error			
Description	When using spindle s	ynchronous function G114	1.1, Pr4021, Pr4023, Pr4025 can't be zero.			
Reason	Parameter setting er	ror.				
Solution	Check if values of Pr4	1021/Pr4023/Pr4025 are co	rrect.			
Alarm ID	COR-092 BGND-092	Alarm Title	Main axis synchronization – synchronization main axis number error			
Description	When using spindle s	ynchronous function G114	.1, Pr4022, Pr4024, Pr4026 can't be zero.			
Reason	Parameter setting err	Parameter setting error.				
Solution	Check if values of Pr4	022/Pr4024/Pr4026 are co	rrect.			
Alarm ID	COR-093 BGND-093	Alarm Title	Main axis synchronization – spindle type error			
Description	When using spindle s motor type.	synchronous and Superim	position function, setting wrong spindle			
Reason	Parameter setting er	ror.				
Solution	Check 1791~Pr1800	to set correct spindle confi	gurations by referring to HELP.			
Alarm ID	COR-094 BGND-094	Alarm Title	Under spindle load rigid tapping spindle rotation speed exceed			
Description	When using spindle load function to do rigid tapping, tool axis must synchronize with offset axis speed, and then do end surface taping according to user setting tapping speed. If tool axis speed is over spindle rotation speed maximum value, and system will issue this alarm.					
Reason	Command is over ran	ge that mechanical can be	ar.			

Alarm ID	COR-094 BGND-094	Alarm Title	Under spindle load rigid tapping spindle rotation speed exceed			
Solution	<ol> <li>Reduce the rotatic</li> <li>Reduce the rotatic</li> </ol>	on speed (tapping speed) on speed of workpiece axis	of tool axis. 5.			
Alarm ID	COR-095 BGND-095	Alarm Title	In polygon cutting function, basic spindle rotation speed ratio is wrong			
Description	When using polygon argument) must be b	When using polygon cutting G51.2 function, basic spindle rotation speed ratio (P argument) must be bigger than zero.				
Reason	Programming error.	Programming error.				
Solution	Check the value of P	Check the value of P argument in G51.2.				
Alarm ID	COR-096 BGND-096	Alarm Title	In polygon cutting function, synchronous spindle rotation speed ratio is wrong			
Description	When using polygon argument) must be b	cutting G51.2 function, ba igger than zero.	sic spindle rotation speed ratio (Q			
Reason	Programming error.					
Solution	Check the value of Q	argument in G51.2.				
Alarm ID	COR-097 BGND-097	Alarm Title	Axis coupling function ON or OFF failed			
Description	Axis coupling functi	Axis coupling function ON or OFF failed.				
Reason	Too much axis coup	Too much axis coupling groups is used.				
Solution	Check if the numbe axis coupling group	r of axis coupling groups i configured in parameter)	s more than 16 (including the number of			

Alarm ID	COR-098 BGND-098	Alarm Title	Parameter learning argument error		
Description	When using learning function, if argument (P, Q, R, K) setting is wrong, system will issue this alarm.				
Reason	Programming error.				
Solution	Check the NC program to ensure the arguments are in compliance with specifications.				

P.S. Valid version of COR-336 : before 10.118.60J、10.118.66D、10.118.69 (included).

Alarm ID	COR-099 BGND-099	Alarm Title	Tapping learning condition is not matched			
Description	Condition of tapping learning function is not matched					
Reason	When activating tapping learning function, if tapping condition (tapping depth, R point height, feedrate, rotation speed, and etc.) is different, it can't apply to same learning data. If force different tapping condition to use same learning data, it may misuse learning data, and cause tapping error or even tool break.					
Solution	Check tapping instruction in tapping learning function, and confirm all tapping instruction arguments are the same.					

P.S. Valid version of COR-336 : before 10.118.60J、10.118.66D、10.118.69 (included).

Alarm ID	COR-100 BGND-100	Alarm Title	Unsupported G code command or option software is not activated		
Description	Different controllers will have correspond G code, but not all G code can use.				

Alarm ID		COR-10 BGND-1	0 .00	A	Alarm Title Unsupported G code command or option software is not activated						larm Title Unsupported G coo option software is		Unsupported G code command or option software is not activated
<ul> <li>Reason</li> <li>1. This controller type may not support this</li> <li>2. This controller type will not support series</li> <li>G33, G34, G78 commands.</li> <li>3. This controller type will not support series</li> <li>G73, G76, G92 commands.</li> <li>4. This controller type can support this G controller type can support this G controller type can support this G controller path and Wood auxiliary path on</li> <li>G00, G01, G02, G03, G04, G04.1, G09, G10</li> <li>G54, G55, G56, G57, G58, G59, G59.x, G90</li> <li>6. The setting of Pr3802 is incorrect. This controller</li> <li>7. Synchronized positioning axis only support</li> </ul>				his eria co ch 10, 90, co	G code command. al bus spindle (C-Type) to use lathe G21, al bus spindle (A-Type) to use lathe G32, ode command, but the option software makes the G code unusable. y support part of G codes: , G17, G18, G19, G22, G23, G31, G52, G53, G91, G92. ontroller type does not support the G62 ort part of G codes:								
Solution	Solution1-4. Please contact administrator.5. Do not use Loader path and Wood auxiliary path to do process operation.6. Set Pr3802 to 0.7. Do not use synchronized positioning axis to do process operation.				o process operation.								
Alarm ID	CC BC	0R-101 iND-101	Alarm Titl	e	Under Spindle syn spindle is inconsis	chr ten	ronization – thread pitches of two nt						
Description	Wł dif pro	nen using s ferent and otection.	pindle synch will cause s	nron ynch	ize, if basic spindle a nronous abnormal co	nd ndi	synchronous spindle pitch setting are ition. And will issue this alarm for						
Possible Cause	Pa	rameter se	etting error.										
Solution	Ch	eck the sp	indle used ir	۱ Pr1	.61~180 to ensure the	e pa	arameter configurations are the same.						
Alarm ID COR-102 BGND-102			2 02	Ala	Alarm Title		nder Spindle synchronization - ynchronization command duplicated or onflicted						
Description		When sp	indle synchr	oniz	ing, repeat G51.2, G1	14.	1 or G114.3 commands.						
<b>Possible Cause</b> Haven't use G113 to cancel G114.1 and G114.3, or use G50.2 to cancel G51.2, and agai a repeated G114.1, G114.3 or G51.2 commands.				r use G50.2 to cancel G51.2, and again set									

Alarm ID	COR-102 BGND-102	Alarm Title	Unde syncl confl	er Spindle synchronization – hronization command duplicated or licted					
Solution	Cancel the G114.1 ar execute the G114.1/ machining.	Cancel the G114.1 and G114.3 mode with G113, or cancel G51.2 mode with G50.2. Then execute the G114.1/G114.3/G51.2 commands to avoid the angle difference for repeated machining.							
Alarm ID	COR-103 BGND-103	Alarm Title		Invalid precision channel setting					
Description	Invalid precision c	hannel setting.							
Possible Cause	Using G64, G62P_ Currently can only 1. G64、G62 2. G120.1 P0、	Using G64, G62P_ or G120.1 P_Q_ to choose invalid precision channel. Currently can only choose: 1. G64、G62 P0~P9、G62/G64 P21 ~ P23 2. G120.1 P0、G120.1 P1 Q1 ~ G120.1 P3 Q3							
Solution	To select precision Check the NC prog	n channel with the G64/G gram to ensure if any non	62 P_ o -existin	r G120.1 P_ Q g precision channel is selected.					
Alarm ID	COR-104 BGND-104	Alarm Title		Virtual axis function enabling failed					
Description	The virtual axis fur	nction failed to be functio	ned.						
Possible Cause	<ol> <li>The P and C</li> <li>No F</li> <li>The</li> <li>T</li></ol>	<ol> <li>The P and Q arguments in G10 L800 P_ Q_ or G10 L801 P_ Q_ are set incorrectly.         <ol> <li>No P, Q arguments.</li> <li>The P argument is set incorrectly and the value is invalid.</li> <li>The Q argument is set incorrectly, the value is invalid; or the corresponding axis is not set to the axis of the parameter table that has been turned on.</li> </ol> </li> <li>In the same machining, G10 L800 and G10 L801 appear at the same time.</li> <li>The robot does not support the virtual axis function.</li> </ol>							
Solution	<ol> <li>Ine robot does not support the virtual axis function.</li> <li>Check the virtual axis commands to ensure the P and Q Arguments are configured.</li> <li>Check the virtual axis commands to ensure the P Argument shall be within 100~999 and the Q Argument shall be within 1~16 (axis number) or 100~999 (axis name).</li> <li>Check the axial direction (Q Argument) mapped with the virtual axis to ensure the parameter table is configured to the enabled axial direction.</li> <li>Check if the G10 L800 and G10 L801 shall not be existent in the same NC program.</li> </ol>								

Alarm ID	COR- BGNI	105 D-105	Alarm Title		Axial coup	ling configuration error				
Description	The a	axis coupling function is set incorrectly.								
Possible Cause	ln G1	0 L900 P_ Q_ F	R_, the P	and Q argume	ents are set in	correctly.				
Solution	1 2 3	<ol> <li>Check the name or number of coupling axis is mapped to ensure the axial direction is enabled.</li> <li>Chedk the specified coupling axis is not assigned to inclined axes control.</li> <li>Check the specified coupling axis is not assigned to indexing axis.</li> </ol>								
Alarm ID		COR-106 BGND-106		Alarm Title		Prohibit to use G5.1 in G61/G63/ G63.2 mode				
Description		<ol> <li>G5.1 path smoothing. In G61, G63, G63.2 mode, it is forbidden to use G5.1 smoothing function, otherwise the system will issue an alarm; If G61, G63, G63.2 are enabled in G5.1 mode, the system will stop the smoothing function until it jumps out of G61, G63, G63.2 mode and then activate again.</li> <li>G05 High Precision Contour Control.         <ul> <li>a. 10.116.16J previous version, in G61, G63, G63.2 mode, it is forbidden to us G05 High Precision Contour Control function, otherwise the system will issue an alarm; If G61, G63, G63.2 is enabled in G05 mode, no alarm will be issued, but the High Precision Contour Control function is disabled, It is necessary to command G05 again to activate.</li> <li>b. above 10.116.16K versions, no alarm will be issued, and the G05 High Precision Contour Control function will be issued, and can be valid afte G61, G63, and G63, 2</li> </ul> </li> </ol>								
Possible Cause		The cutting n	node sett	ing in the NC	program is in	correct.				
Solution		<ol> <li>Do not mix use G5.1 path smoothing with G61/G63/G63.2 functions.</li> <li>In the version before 10.116.16J (included), do not mix use the G05 High Precision Contour Control with the G61/G63/G63.2 functions.</li> </ol>								
Alarm ID		COR-107 BGND-107		Alarm Tit	le	G5.1/G05 command format error				
Description		The G5.1 an	d G05 co	mmands are i	n the wrong f	ormat.				

Alarm ID	COR-107 BGND-107	Alarm Title	G5.1/G05 command format error			
Possible Cause	<ol> <li>The format of t</li> <li>The G05 high-p incorrect.</li> </ol>	he G5.1 path smoothing co precision cutting mode com	mmand in the NC program is incorrect. mand format in the NC program is			
Solution	<ul> <li>Confirm the following command formats are correct not have these error: <ol> <li>G5.1</li> <li>Q argument: None, more than 2, or less than 0.</li> <li>E argument: None or less than 0.</li> </ol> </li> <li>G05 <ol> <li>System issue alarm when using G05 in following cases for each version: <ol> <li>G05 P argument is not 10000 nor 0.</li> <li>G05 E argument is not positive.</li> </ol> </li> <li>Activate command G05 P10000 X0 Y0 Z0 α_β_ in 10.116.36 or above versions: <ol> <li>More than 5 axial directions are assigned.</li> <li>The geometry axis argument not 0.</li> <li>The rotary axis argument is configured to 0.</li> <li>The axial direction of geometry axis is configured but this of rotary axis is not.</li> <li>The axis of the rotation axis is not set when the axis of the geometry axis is not set.</li> <li>More than 2 axial directions of rotation axes are configured.</li> <li>Any axial arguments is negative.</li> </ol> </li> </ol></li></ul>					
Alarm ID	COR-108Alarm TitleG10 L1501/L1502 command form errorBGND-108Image: Command form error					
Description	There is no NC program	n between G10 L1501 and G	10 L1502.			
Possible Cause	The NC program was w	ritten incorrectly.				
Solution	Check the NC program correct.	to ensure the programmin	g between G10 L1501 and G10 L1502 is			

Alarm ID	COR-109 BGND-109	Alarm Title	The second software stroke limit command error, activating failure					
Description	The second sc software strok	oftware stroke limi te limit fail to activ	t (G22) command is written incorrectly, causing the second <i>v</i> ate.					
Possible Cause	The argument the same grou	s written after the p parameters sho	second software stroke limit (G22) command are wrong, and uld exist at the same time.					
Solution	Check if the ar	guments in the sa	me set after G22 are defined completely.					
Alarm ID	COR-110 BGND-110	Alarm Title N li	IC program of spring machine motion plan more than 500 ines					
Description	The number of	machining lines b	etween G10 L1501 and G10 L1502 exceeds 500 lines.					
Possible Cause	There are too n	There are too many single blocks in the NC program.						
Solution	Check and refir	ne the NC program	ı.					
Alarm ID	COR-111 /	Alarm Title	Axis exchange function – axial configuration error					
Description	Under the axis ex	change function,	the axial setting is incorrect.					
Possible Cause	The two axial's a	xis exchange para	meters are set incorrectly.					
Solution	Check if Pr3721 a axis.	nd Pr3722 are ma	pped to physical axial directions (Pr21~) and to 2 different					
Alarm ID	COR-112 BGND-112	Alarm Title Axis exchange function – diameter/radius axis configuration error						
Description	Under the axis e	exchange function	, the diameter axis and radius axis are set incorrectly.					
Possible Cause	The parameters	s of the diameter a	nd radius axis of the two axis exchange are set incorrectly.					

Alarm ID	CO BG	DR-112 GND-112	Alarm T	tle	Axis e config	exchange fun guration erro	ction – diameter/radius axis or	
Solution	Ch co	eck if the dia nsistent.	ameter an	d radius	s axis co	nfigurations (	Pr281~) of the 2 axis to be exchanged is	
Alarm ID		COR-113 BGND-113	COR-113 Alarm Title BGND-113			Axis exchange function - ON or OFF timing error		
Description		When the a	xis exchar	ge funct	tion is ei	nabled, the er	nabled or disabled timing error.	
Possible Cause	2	When the c	ross-path	axis is ex	xchange	d, the G04.1 v	waiting action is not performed.	
Solution		Check PLC	to ensure	10 G04.1	Lwaiting	g command is	executed in more than 1 path.	
Alarm ID		COR-114 BGND-12	l L4	Alarm Title		•	Axis exchange function - path configuration error	
Description		When us	ing the ax	s excha	nge fund	ction, the patl	h setting is incorrect.	
Possible Cause	2	The axis	used for a	kis exch	ange be	long to multi	-paths.	
Solution		Check pa multiple	ath param path.	eter ( Pr	701~) if	the two axis t	o be exchanged are mapped to the	
Alarm ID		COR-115 BGND-115	AI	arm Tit	le	G92.1 axia	al configuration error	
Description		When usin	g the G92	1 rotati	on funct	ion, the axial	setting is incorrect.	
Possible Cause	•	The param	neter sets	he first	3 axis of	f the path con	itains the rotary axis.	
Solution		Check the	paramete	r to ens	ure the f	first 3 axis are	linear axis.	
Alarm ID		COR-116 BGND-12	; 16	Ala	rm Title	•	Absolute coordinate system synchronization failed	
Description		Absolute	coordina	e syster	m failed	to synchroniz	ze when using C35.	

Alarm ID		COR-116 BGND-11	.6	Alarm	Title	Absolute coordinate system synchronization failed		
Possible Cause	2	Machine is not stationary or the program is continuously interpreted.						
Solution		To execu machine	te the synchr is still and th	onizatio e progr	on of coordinate sy am stops to interp	rstem in C35 mode shall ensure the ret (i.e. Using M code shall turn C38 off).		
Alarm ID	CO BGI	R-117 ND-117	Alarm Title	M	code not disabled	in the interrupt subprogram		
Description	lf P wit erro	r3600 is set to n, when the interrupt type subprogram is used, it starts with M(n) and ends h M(n+1). If M(n) is used and M(n+1) is not used to end the function, it will cause an action or; therefore, this alarm is issued for protection.						
Possible Cause	The	NC progra	mming error	•				
Solution	Che	eck the NC	program to e	nsure tł	ne M(n+1) comman	ıd is given.		
Alarm ID		COR-118 BGND-11	3 18	Alarm Title		Prohibit G53 commands in tool tip control mode		
Description		G53 com	mand canno	t be use	d in the tool point	control mode.		
Possible Cause	2	1. T 2. T	he NC progra he machine t	mming ype is tl	error. he tool point contr	ol mode.		
Solution		<ol> <li>Please check the NC program, make sure that the G53 command is not within the validity range of G43.4 or G43.5.</li> <li>Please check the NC program, make sure that the G53 command is not within the validity of G12.1.</li> <li>If the machine configuration used is the tool point control mode, the G53 command cannot be used.</li> </ol>						
Alarm ID	COR BGN	-119 D-119	Alarm Title	e	G10 L16 comma	nd format error		
Description	Since G12. com	Since the command G10 L16 (virtual circle radius) does not support functions such as G05, G7.1, G12.1, G93, G95, and G05, therefore, an alarm will be issued if G10 L16 is used when the above command is issued.						

Alarm ID	COR-119 BGND-119	Alarm Title	G10 L16	command format error					
Possible Cause	<ol> <li>The axis issued).</li> <li>When u also giv</li> </ol>	<ol> <li>The axis type is linear axis (i.e. G10 L16 X50., and X is set to a linear axis, this alarm is issued).</li> <li>When using G10 L16 while command G05, G7.1, G12.1, G93, G95 and etc. functions are also given.</li> </ol>							
Solution	1. Check F 2. G10 L16	<ol> <li>Check Pr221~ to ensure the correct axis type.</li> <li>G10 L16 and G7.1/G12.1/G93/G95/G05 shall not be executed at the same time.</li> </ol>							
Alarm ID	COR-120 BGND-120	120Alarm TitleMore than the maximum number of cutting synchronization axis0-120-120							
Description	Different contr cutting axis, ar (i.e. G01 X10. Y	fferent controller products can correspond to different maximum number of simultaneous utting axis, and if this limit is exceeded, an alarm will be issued. e. G01 X10. Y10 .Z10. Represents the number of simultaneous axes is 3).							
Possible Cause	Please refer to Properties" an Following exam 1. If "Mac axis is 9 2. If the "I numbe	<ul> <li>Please refer to "System Information" under the controller HMI screen to check "Machine Properties" and "Machine Code". Please refer to the catalogue for each product specification.</li> <li>Following examples: <ol> <li>If "Machine Properties" is Mill, "Machine Code" is 200A-5, and the maximum number of axis is 9.</li> <li>If the "Machine Properties" is Lathe, the "Machine Code" is 6B, and the maximum number of axis is 4.</li> </ol> </li> </ul>							
Solution	The number o specifications.	f simultaneous a	axis in the NC p	rogram shall be according to the product					
Alarm ID	COR-121 BGND-12	L Alarn 21	n Title	LN operator shall be positive					
Description	The oper	rands after the L	N function can	not be negative.					
Possible Cause	e The NC p	orogram was wri	tten incorrectl	у.					
Solution	Modify the contents of the NC program.								

Alarm ID	COR-122 BGND-122	Alarm Title	The 1 <sup>st</sup> operator of POW shall not be negative					
Description	The base opera	nd of the POW fun	ction must not be a negative number.					
Possible Cause	The NC program	n was written inco	rrectly.					
Solution	Modify the cont	ents of the NC pro	gram.					
Alarm ID	COR-123 BGND-123	Alarm Title	Illegal STR2INT input or too long string					
Description	The syntax of	The syntax of the STR2INT function is incorrect or the string is too long.						
Possible Cause	The NC progra	m was written inc	orrectly.					
Solution	Modify the cor	ntents of the NC pr	ogram.					
Alarm ID	COR-124 BGND-124	124     Alarm Title     S code commands unsupported in the machine       0-124						
Description	This model do	es not support S c	ode commands.					
Possible Cause	This model do	es not support S c	ode commands.					
Solution	Replace a con	troller model that	supports S codes.					
Alarm ID	COR-125 BGND-125	COR-125Alarm TitleT code commands unsupported in the machineBGND-125						
Description	T code comm	and is illegal.						
Possible Cause	1. Thism 2. The To	odel does not sup code command is c	port T code commands. out of the T code range supported by the product.					
Solution	Replace a con	troller model that	supports T codes.					

Alarm ID	COI BGI	R-126 ND-126	Alarm Titl	le H	code command	s unsupported in the machine	
Description	This	s model doe	es not suppo	ort H code o	commands.		
Possible Cause	This	s model doe	es not suppo	ort H code o	commands.		
Solution	Rep	olace a cont	roller model	that supp	orts H codes.		
Alarm ID	COR-127 Alarm Title I BGND-127		e D co	D code commands unsupported in the machine			
Description	This	model doe	s not suppor	rt D code c	ommands		
Possible Cause	This	model doe	s not suppor	rt D code c	ommands		
Solution	Repl	Replace a controller model that supports D codes.					
Alarm ID		COR-131 BGND-131		Alarm Ti	1 Title Too much M/T code macros in a block		
Description		The total n	umber of M	code maci	ros and T code ma	acros in the same block exceeds 20.	
Possible Cause		NC program	mming error				
Solution		Check the than 20 in	NC program one single b	to ensure lock.	the total number	of M and T code macros are not more	
Alarm ID	CC BG	DR-132 GND-132	Alarm	Title	Illegal charact	ter in the program name	
Description	Wł	When open a file using Macro, the specified file name contains illegal characters.					
Possible Cause	NC	NC programming error.					
Solution	Ch	Check the specified file names.					

Alarm ID	COR-1 BGND	.33 -133	Alarm Title		Command unsuppo interpolation mode	orte	d in Three-points arc
Description	This co	ommand	is not support	ted i	n the three-point arc ir	nter	polation mode (G02.4, G03.4)
Possible Cause	<ol> <li>The tool radius compensation function is not turned off before using this function.</li> <li>It is not supported in G62 cutting mode.</li> <li>In the three-point arc interpolation mode (G02.4, G03.4), A, C, and R commands are not supported.</li> </ol>						
Solution	Check	the NC p	orogram to ens	sure	there is no command c	deso	cribed in the Possible Cause.
Alarm ID		COR-1 BGND-	34 134	P	Alarm Title		Three-points arc interpolation command format error
Description	<b>Description</b> The three-point arc interpolation (G02.4, G03.4) command format is wrong.				mmand format is wrong.		
Possible Caus	e	The three-point arc interpolation (G02.4, G03.4) command is regarded as a group of two lines, which can be specified continuously. The end point of the previous arc is the starting point of the next arc, but the F command can only be in the odd line. This alarm is issued if the total number of lines in the command is odd or the number of lines in the F command is even.					
Solution		Check	the three-poin	nt arc	c interpolation G02.4/G	603.	4 command format in NC program.
Alarm ID		COR-13 BGND-1	5 .35	Ala	ırm Title	Re fo	ead/write command format error or R value
Description		SETRREGBIT, READRREGBIT bring in an argument with type error or range error.					ith type error or range error.
Possible Cause1. SETRREGBIT (R value number, specify BIT, on or off) a. If the R value is less than 0 or greater than 65535. b. Specify if the BIT is less than 0 or greater than 31. c. If the third argument is not 0 (off) or 1 (on).2. READRREGBIT (R value number, specify BIT) a. If the R value is less than 0 or greater than 65535. b. Specify if the BIT is less than 0 or greater than 65535.				n or off) than 65535. .ter than 31. . (on). than 65535. .ter than 31.			
Solution		Correct	the argument	type	e or range in the comm	anc	ds, SETRREGBIT and READRREGBIT

Alarm ID	COR-136 BGND-136	Alarm Title	Please reboot the co	Please reboot the controller when axis tuning failed		
Description	After a certai	fter a certain serial bus axial tuning fails, without rebooting, cycle start is triggered.				
Possible Cause	The serial bu	The serial bus axial tuning failed.				
Solution	Reboot conti	oller.				
Alarm ID	Alarm ID COR-137 BGND-137		Alarm title	Path synchronization waiting's P- argument sequence error		
Description	The m wait fo 1. 2.	<ol> <li>The machining multi-path program uses the path synchronization waiting (G04.1) to wait for the synchronization action:         <ol> <li>When the Q argument is not selected, when two programs go to the position of the path synchronization waiting (G04.1) at the same time, if the P arguments substituted are different, this alarm is issued for reminder.</li> <li>When the next Q argument (decimal) specifies the path waiting for each other, when the two programs go to the position of the path synchronization waiting (G04.1) at the same time, and wait for each other, but the P arguments substituted are different, this alarm is issued for reminder.</li> </ol> </li> </ol>				
Possible Cause	1. 2. 3. 4.	<ol> <li>In the NC program of multiple paths, the order of P arguments is abnormal or the number is incorrect.</li> <li>Machining is performed using M99, but in each program, the path without Q argument is synchronously waiting (G04.1), and the number is different.</li> <li>Machining is performed using M99, but in each program, the path with the same Q argument is synchronously waiting (G04.1), and the number is different.</li> <li>The two paths "wait for each other", but the P argument substituted are not the same. i.e. G04.1 P1 Q123 under the first path and G04.1 P2 Q124 under the second path.</li> </ol>				
Solution	Please of the	check the nun assigned value	nber of Synchronization v for argument P.	vait between paths (G04.1) and the order		
Alarm ID	COR-13 BGND-1	8 138	Alarm Title	Read/write command format error at the I/O/A point		
<b>Description</b> The system provides 512 I/O/A points, the input I/O/A point number shall be w when using the commands, SETDO, SETABIT, READDI, READDO, and READABIT			I/O/A point number shall be within 0~511 EADDI, READDO, and READABIT.			
Possible Cause	NC Prog	gramming erroi				

Alarm ID	COR-138 BGND-138	Alarm Title	Read/write command format error at the I/O/A point			
Solution	Check if there is any c READDO, and READAI	of I/O/A point number in th BIT in the NC program is ov	e commands, SETDO, SETABIT, READDI, ver the range of 0 ~ 511.			
Alarm ID	COR-139 BGND-139	COR-139Alarm TitlePolynomial solution erBGND-139				
Description	Determine the poly	nomial cannot be derived	to solutions in case of the alarm.			
Possible Cause	Numerical processi	Numerical processing calculation errors cause root failure.				
Solution	Check the value of solutions.	Check the value of system data no. 321, and provide it to the controller OEM Syntec for solutions.				
Alarm ID	COR-140 BGND-140	Alarm Title	Invalid high-precision contour control mode using			
Description	<ol> <li>Turn on G05 high-s</li> <li>When the high-pred block stop C40.</li> <li>When the STCP mo</li> </ol>	<ol> <li>Turn on G05 high-speed high-precision mode in the RTCP/STCP mode.</li> <li>When the high-precision contour control mode is enabled during processing, use single plock stop C40.</li> <li>When the STCP mode is enabled during processing, use single block stop C40.</li> </ol>				
Possible Cause	<ol> <li>In the RTCP/STCP r commands, such as 0</li> <li>When the high-pred block stop C40.</li> <li>When the STCP mod</li> </ol>	<ol> <li>In the RTCP/STCP mode, turn on the G05 high-precision contour control mode with commands, such as G05 P10000.</li> <li>When the high-precision contour control mode is enabled during processing, use single block stop C40.</li> <li>When the STCP mode is enabled during processing, use single block stop C40.</li> </ol>				
Solution	<ol> <li>Check the mode to be turned on is (1) RTCP/STCP mode or (2) G05 high-precision contour control mode.</li> <li>If (1), remove the command to turn on the G05 high-precision contour control mode in the RTCP/STCP mode.</li> <li>If (2), turn off the RTCP/STCP mode before turning on the G05 high-precision contour control control mode.</li> <li>When the high-precision contour control mode is enabled during processing, do not use the single block stop C40 at the same time.</li> <li>When the STCP mode is enabled during processing, do not use the single block stop C40 at the same time.</li> </ol>					

Alarm ID	COR-141 BGND-141	Alarm Title	G68.3 command format error			
Description	<ul> <li>[command format]</li> <li>G68.3 X_Y_Z_R_; // The origin and z-axis rotation angle in the characteristic coordinate system.</li> <li>G68.3 P1 X_Y_Z_; // The origin of the characteristic coordinate system, and the coordinate system is determined with the tool rotation angle.</li> </ul>					
Possible Cause	G68.3 command form	at, X, Y and Z are all exist o	r non-exist at the same time.			
Solution	Check if G68.3 comm	Check if G68.3 command format is correct.				
Alarm ID	COR-142 BGND-142	Alarm Title	Spindle synchronization – K Argument error			
Description	K Argument error while using Spindle synchronization function.					
Possible Cause	The inputted K Argument is not within the valid range.					
Solution	Input a K Argument wi	thin the valid range to enab	le the Spindle synchronization.			
Alarm ID	COR-143 BGND-143	Alarm Title F a	Programmable data input specified axis does not exist			
Description	In G10 L1501 mode, the	e P argument is set incorrec	tly.			
Possible Cause	The axial direction sub	stituted by the P Argument	is inexistent.			
Solution	Check Pr21~ to ensure	the axial direction is ON.				
Alarm ID	COR-144 BGND-144	Alarm Title	Path synchronization waiting Q Argument content error			
Description	When the machining multiple path program applies the G04.1 to wait for synchronization, the Q Argument assigns the paths to be waited for each other (decimally). The alarm is used to remind the users if the Q Argument type error or the assigned path is inexistent.					

Alarm ID	COR-144 BGND-144	Alarm Title	Path synchronization waiting Q Argument content error		
Possible Cause	<ol> <li>The Q Argument is not a positive integer (negative number, decimal point and zero are all illegal).</li> <li>The path assigned by the Q Argument is inexistent. i.e. Q24 is used to assign the 2<sup>nd</sup> and 4<sup>th</sup> path to wait for each other. However, the Pr731=3 and there are only 3 CNC main system paths.</li> <li>The Q Argument includes 0 when assigning the paths. i.e. Q103.</li> <li>The paths assigned by the Q Argument do not include this in which the command is. ie. In the 2<sup>nd</sup> path, the G04.1 P1 Q13 assigns the 1<sup>st</sup> and 3<sup>rd</sup> paths to wait for each other, but it does not assign the path in which it is.</li> </ol>				
Solution	Check the Path synchronization waiting (G04.1) in the program to ensure the type and the assigned path are correct for a given Q Argument.				
Alarm ID	COR-145 BGND-145	Alarm Title	Failed to activate Spindle positioning		
Description	Spindle positioning fai	led.			
Possible Cause	<ol> <li>Incorrect Spindle ID is assigned.</li> <li>The Spindle is operating in the tapping mode when the Spindle positioning function is ON.</li> <li>After starting the positioning, C61 is OFF so that the positioning is broken.</li> </ol>				
Solution	<ol> <li>Check the Spindle parameter configuration.</li> <li>Check the NC program to ensure the execution of Spindle positioning in non-tapping mode.</li> <li>Check the PLC to ensure C61 is ON.</li> </ol>				
Alarm ID	COR-146 BGND-146	Alarm Title	Single block argument type error		
Description	Argument type error ir	n a block.			
Possible Cause	<ol> <li>The two following situations may trigger this alarm:</li> <li>Input float value to an argument required integer value.</li> <li>Input integer value to an argument required float value.</li> </ol>				
Solution	Correct the argument	type in the block.			

Alarm ID		COR-147 BGND-147	Alarm Title	Spindle is not enabled when path machining	
Description		The machining Spino commands related to	lle assigned by the path is not the Spindle.	ot enabled when executing the	
Possible Cau	ıse	When executing the enabled.	G33/G34/G63/G74/G84, the S	Spindle assigned by the R791~R794 is not	
Solution1. Check if the PLC sw program about the 2. Check if the Pr1621 R791~R794).			LC switches R791~R794 valu ut the alarm. r1621~Pr1628 configuration	ues correctly in the block and whole NC as are correct (cooperate with	
Alarm ID		COR-148Alarm TitleThe use of tool retract functionBGND-148error			
<b>Description</b> When using the tool retract function, a given improper argument results in the f cannot be executed.			proper argument results in the function		
Possible Cau	ISE	<ol> <li>In the Tilted working plane machining (G68.2/G68.3) or RTCP (G43.4/G43.5) mode, the C21 ON is triggered to execute the assigned axial position retraction.</li> <li>In the non-Tilted working plane machining (G68.2/G68.3) or non- RTCP (G43.4/ G43.5) mode, the C21 ON is triggered to execute the assigned retraction along the tool vector.</li> </ol>			
<ol> <li>Solution</li> <li>In the slopping plane machining (G68, apply G10.6 R_ to assign the tool retra</li> <li>In the non-slopping plane machining mode, apply G10.6 X_ to assign the to</li> </ol>			ng plane machining (G68.2/C R_ to assign the tool retraction opping plane machining (G6 G10.6 X_ to assign the tool r	668.3) or RTCP (G43.4/G43.5) mode, on function. 8.2/G68.3) or non- RTCP (G43.4/G43.5) etraction function.	
Alarm ID	COR-14 BGND-1 9	L49 Alarm Title Tilted working plane machining tool alignment P Argument ov range			
Descriptio n	P Argument is over range in Tilted working plane machining tool alignment mode.				
Possible Cause	P Argur	ment is not within 0~2			
Solution	Do not i working	input the P Argument g plane machining too	or input the correction conf l alignment mode.	iguration for the P Argument in Tilted	

Alarm ID	COR-151 BGND-151	Alarm Title	1 <sup>st</sup> rotation axis entering illegal range			
Description	1 <sup>st</sup> rotation axis enteri	ng illegal range.				
Possible Cause	1. Pr3007, Pr3009, or F 2. The angle of 1 <sup>st</sup> rota	Pr3010 configuration error. Ition axis is incorrect in the	executed 5-axis NC program.			
Solution	<ol> <li>Check if Pr3009 and configurations is relate configurations.</li> <li>Check the NC programmer</li> </ol>	<ol> <li>Check if Pr3009 and Pr3010 are configured correctly. The determination of such two configurations is related to Pr3007. In case of the alarm, please re-confirm these 3 configurations.</li> <li>Check the NC program.</li> </ol>				
Alarm ID	COR-152 BGND-152	Alarm Title	2 <sup>nd</sup> rotation axis entering illegal range			
Description	2 <sup>nd</sup> rotation axis enter	2 <sup>nd</sup> rotation axis entering illegal range				
Possible Cause	1. Pr3008, Pr3011 or Pr 2. The angle of 2 <sup>nd</sup> rota	<ol> <li>Pr3008, Pr3011 or Pr3012 configuration error.</li> <li>The angle of 2<sup>nd</sup> rotation axis is incorrect in the executed 5-axis NC program.</li> </ol>				
Solution	<ol> <li>Check if Pr3011 and configurations is relate configurations.</li> <li>Check the NC program</li> </ol>	<ol> <li>Check if Pr3011 and Pr3012 are configured correctly. The determination of such two configurations is related to Pr3008. In case of the alarm, please re-confirm these 3 configurations.</li> <li>Check the NC program.</li> </ol>				
Alarm ID	COR-153 BGND-153	Alarm Title	Tool direction unknown			
Description	Tool direction unkno	Tool direction unknown.				
Possible Cause	5-axis configurations	5-axis configurations and machine mechanism is incompatible.				
Solution	The tool cannot reac configurations and n	h the destination. It may be nachine mechanism. Please	e caused by the incompatible 5-axis e check all 5-axis configurations.			

Alarm ID	COR-154 BGND-154	Alarm Title		No 5-axis function		
Description	No 5-axis function.					
Possible Cause	Pr3001 is not config	gured when executing G	53.1 tool a	lignment command.		
Solution	Check if Pr3001 is c the 5-axis mechanis	onfigured to 0. If yes, co sm type and reboot.	onfigure th	e other non-zero values based on		
Alarm ID	COR-155 BGND-155	Alarm Title	5-	axis tool direction error		
Description	5-axis tool direction	error.				
Possible Cause	5-axis tool direction configuration error.	5-axis tool direction (Pr3002) or the 1 <sup>st</sup> and 2 <sup>nd</sup> rotation axis (Pr3005 and Pr3006) configuration error.				
Solution	Check if the Pr3002 i correctly. The alarm Spindle in the Spind workbench type.	Check if the Pr3002 is configured correctly, or if the Pr3005 or Pr3006 is configured correctly. The alarm will be triggered in case the 2 <sup>nd</sup> rotation axis is parallel to the Spindle in the Spindle type, or the 1 <sup>st</sup> rotation axis is parallel to the Spindle in the workbench type.				
Alarm ID	COR-156 BGND-156	Alarm Title	5-	axis axial direction error		
Description	5-axis axial direction	error.				
Possible Cause	Incorrect configurati	ons are mapped to the	axial direc	tion parameters of 5 axis.		
Solution	Check if each axial d and Pr3008 is config Pr3006.	Check if each axial direction is configured completely (Pr21~), if Pr3005, Pr3006, Pr3007 and Pr3008 is configured correctly, or if the axis name (Pr321~) is mapped to Pr3005 and Pr3006.				
Alarm ID	COR-157 //	Alarm Title	Incompa directio	atible direction of 5-axis tool n and this of rotation axis		
Description	Incompatible direction	of 5-axis tool direction	and this o	f rotation axis.		

Alarm ID	COR-157 BGND-157	Alarm Title	Incompatible direction of 5-axis tool direction and this of rotation axis	
Possible Cause	<ol> <li>The 2<sup>nd</sup> axial direction and the tool direction are the same in the Spindle type.</li> <li>The 1<sup>st</sup> axial direction and the tool direction are the same in the table type.</li> <li>The 1<sup>st</sup> axial direction and the tool direction are the same in the hybrid type.</li> </ol>			
Solution	Check if the tool dire used 5-axis mechani	ool direction and the rotation axial direction are the same depended onechanism type.		

P.S. Valid version of COR-157 : before 10.118.41M, 10.118.47 (included).

Alarm ID	COR-158 BGND-158	Alarm Title	Prohibit the 1 <sup>st</sup> and 2 <sup>nd</sup> rotary axis commands in the G43.5 mode				
Description	Since the G43.5 mode specifies the tool attitude based on the tool vector I, J and K, it shall not be executed for the 1 <sup>st</sup> and 2 <sup>nd</sup> rotation axis commands which can also specify the tool attitude.						
Possible Cause	Programming error.	Programming error.					
Solution	Check the NC program to ensure the movement commands of the 1 <sup>st</sup> and 2 <sup>nd</sup> rotation axis are over the valid range in the G43.5 mode.						
Alarm ID	COR-159 BGND-159	Alarm Title	Illegal tool vector				
Description	In NC program, a movement block assigns an incorrect tool vector.						
Possible Cause	Programming error. i.e. Execute G01 X_Y_Z_I0 J0 K0 in the G43.5 mode, and the I0 J0 K0 refers to the 0 vector, 0 vector is illegal.						
Solution	Check the NC progra indicated by the alar	m to ensure the assigned to m line number	Check the NC program to ensure the assigned tool vector is correct in the block indicated by the alarm line number				

Alarm ID	COR-160 BGND-160	Alarm Title	5-axis mechanism chain switched when the 5-axis function is ON			
Description	In NC program, the co when turning on the 5 characteristic coordin	mmand G10 L5000 [P_] is a-axis function (RTCP or th ate system is completed)	executed to switch the 5-axis mechanism e tool vector alignment on the			
Possible Cause	Programming error. i.e. Execute G10 L5000	) [P_] in the G43.4 mode.				
Solution	Check the NC progran by the alarm line num	n to ensure the 5-axis fund ber.	tion is not turned on in the block indicated			
Alarm ID	COR-161 BGND-161	Alarm Title	Selected 5-axis mechanism chain is not ON			
Description	In NC program, the 5 L5000 [P_] is not ON.	In NC program, the 5-axis mechanism chain parameters assigned by the command G10 L5000 [P_] is not ON.				
Possible Cause	Programming error. i.e. The assigned 5-a command G10 L5000	Programming error. i.e. The assigned 5-axis mechanism chain is not configured correctly when executing a command G10 L5000 [P_].				
Solution	Check the 5-axis med chain function is turn 1. 1 <sup>st</sup> set: Pr3002 2. 2 <sup>nd</sup> set: Pr310 3. 3 <sup>rd</sup> set: Pr550 4. 4 <sup>th</sup> set: Pr560	<ul> <li>Check the 5-axis mechanism chain parameters to ensure the assigned 5-axis mechanism chain function is turned on correctly:</li> <li>1. 1<sup>st</sup> set: Pr3001</li> <li>2. 2<sup>nd</sup> set: Pr3101</li> <li>3. 3<sup>rd</sup> set: Pr5501</li> <li>4. 4<sup>th</sup> set: Pr5601</li> </ul>				
Alarm ID	COR-162 BGND-162	Alarm Title	4-axis RTCP configuration error			
Description	The controller will is	The controller will issue the alarm in case the 4-axis RTCP configuration is incorrect.				
Possible Cause	The 5-axis mechanis 1~3 in case the speci tool tip control funct	The 5-axis mechanism parameters, Pr3001, Pr3101, Pr5501 and Pr5601 are configured to 1~3 in case the specific 4-axis tool tip control function (option-29) is turned on but the tool tip control function (option-12) is not.				
Solution	<ol> <li>Configure the</li> <li>Turn on the t</li> </ol>	e 5-axis mechanism paran ool tip control function (o	neters to 4 or 5 correctly. ption-12).			

Alarm ID	COR-163 BGND-163	Alarm Title	Multi-kinematic chain command Q Argument setting error.		
Description	Command G10 L5000	)P_Q_, Q argument range	error.		
Possible Cause	Command G10 L5000	)P_Q_, Q argument range	error.		
Solution	While using G10 L500	00P_ Q_, check Q argumer	nt to be within 0~4, and is a integer.		
Alarm ID	COR-164 BGND-164	Alarm Title	Multi-kinematic chain command related 5-Axis mechanism setting error.		
Description	Command G10 L5000 mechanism paramete	P_ Q_ specified the 5-Axis er setting error.	kinematic chain, and the 5-Axis		
Possible Cause	While executing G10 L5000P_Q_, Q argument is given, but the 5-Axis mechanism parameter of the designated 5-Axis kinematic-chain is not a spindle-type 5-Axis machine.				
Solution	<ul> <li>Please check the designated 5-Axis kinematic-chain. The 5-Axis mechanism configuration parameter must be a spindle-type 5-Axis machine.</li> <li>1. The first group : Pr3001 is 1.</li> <li>2. The second group : Pr3101 is 1.</li> <li>3. The third group : Pr5501 is 1.</li> <li>4. The fourth group : Pr5601 is 1.</li> </ul>				
Alarm ID	COR-165 BGND-165	Alarm Title Multi-kinematic chain comm illegal.			
Description	Command G10 L5000P_Q_ is used for switching 5-Axis kinematic chain, and only provides partial 5-Axis mechanism function command.				
Possible Cause	<ul> <li>G10 L5000 P_Q_ command, the Q argument is set to 2~4 (not the first group of sub-kinematic chain), and only supports the following 5-Axis machine function command.</li> <li>1. RTCP: G43.4.</li> <li>2. RTCP: G43.5.</li> <li>3. Tilted working plane : G68.2 + Tool alignment functions.</li> <li>4. Tilted working plane : G68.3.</li> <li>Notice: Tool alignment functions include G53.1, G53.3, G53.6,</li> </ul>				
Solution	When using the G10 the supported 5-Axis	L5000 P_ Q_ command to machine function comm	switch multi-kinematic chains, please use and.		

Alarm ID	COR-1 6 BGND 66	16 D-1	Alarm Title	Characteristic Coordinate System Option not supported		
Descrip tion	Option13 ( Characteristic Coordinate System Option ) was not active, therefore the CNC couldn't execute relevant commands.					
Possibl e Cause	One or more commands below were given while the Option13 ( Characteristic Coordinate System Option ) was inactive: 1. G68.2, G68.3 2. G53.1, G53.3, G53.6 3. Other commands that are relevant to Option13 ( Characteristic Coordinate System Option )					
Solutio n	<ol> <li>Activate Option13 ( Characteristic Coordinate System Option )</li> <li>Avoid using the commands listed above</li> </ol>					
Alarm ID		COR-167 BGND-167		Alarm Title	Program File name conflicts in NcFiles	
Descriptio	on F	Program File name conflicts in NcFiles folder.				
Possible CauseWhen Pr3220 is set to 1, "non-main system", "PLC axis", " programs" restrict calling files from the Macro folder, and having the same file name.			Pr3220 is se ams" restric g the same f	tem", "PLC axis", "pre- and post-processing auxiliary e Macro folder, and prohibit the NcFiles folder from		
Solution	<ul><li>Solution</li><li>1. Set Pr3220 to 0.</li><li>2. Remove the conflicting files in the NcFiles folder or change the file name.</li></ul>				cFiles folder or change the file name.	
Alarm ID	COR-16 8Alarm TitleIllegal tool compensation.BGND-1 6868			pensation.		
Descrip tion	Illegal tool compensation					
Possibl e Cause	1. Trying to use non-zero tool length or tool radius compensation value on a machine type which doesn't support tool compensation					
Solutio n	<ol> <li>Set tool compensation value as zero</li> <li>Turn off tool compensation related functions</li> </ol>					

Alarm ID	COR-16 9 BGND-1 69	Alarm Title	Overlap on the	e same axis			
Descrip tion	Overlap on the same axis.						
Possibl e Cause	Using G1.10 with argument Q on the same axis with two consecutive blocks.						
Solutio n	Please check NC Program and avoid overlapping on the same axis with two consecutive blocks.						
Alarm ID		COR-17 BGND-1	0 .70	Alarm 标题 D		【G43.4 L2 illegal argument value 】	
说明		When u	When using G43.4 L2. E_ R_, Illegal argument value is assigned				
可能原因		Illegal a 1.   2.	Illegal argument value 1. R value is negative 2. E value is not in the range of 0.001 to 179.999				
排除方法		Please	Please check the E_ R_ argument values				
Alarm ID	Alarm ID COF BGN		Alarm titl	Alarm title		-linear kinematic transform is not d in inclined axes control】	
Description Whe		When inclined	en inclined axes control is enabled, it can't work with non-linear kinematic transform.				
Possible C	ause	using followir 1. G43.4 F 2. G43.5 F 3. G68.2,0 compe 4. G41.1,	<ol> <li>ng following function, when inclined axes control is enabled.</li> <li>G43.4 Rotate tool center point Type 1.</li> <li>G43.5 Rotate tool center point Type 2.</li> <li>G68.2,G68.3 Titled working plane machining with G43,G44 Tool length compensation.</li> <li>G41.1, G42.1 tangential control.</li> </ol>				
Solution		Don't use thes	n't use these functions at program when inclined axes control is enabled.				
New Versi Old Versic	New Version is 10.118.86K, 10.120.16K, 10.120.24A, 10.120.27 and after Old Version is 10.118.86L, 10.120.16L, 10.120.24B, 10.120.28 and before						

New Version Old V	New Version Old Version				
Alarm ID	COR-180-1	Alarm Title	[Feed axes for tangential control do not exist]		
Description	Invalid command or parameters setting for tangential control.				
Reason	Feed axes for tangential control do not exist.				
Solution	X or Y or Z axis do not exist. Please ensure axis exist( Pr21~ ) and axis name( Pr321~ ) correct.				
Alarm ID	COR-180-2	Alarm Title	[Specified axis for tangential control does not exist]		
Description	Invalid command or parameters setting for tangential control.				
Reason	Specified axis for tangential control does not exist.				
Solution	Axis for tangential control( Pr5801 ) should be the existing axis( Pr21~ ).				
Alarm ID	COR-180-3	Alarm Title	[Do not support specified axis type for tangential control]		
Description	Invalid command or	valid command or parameters setting for tangential control.			
Reason	Do not support specified axis type for tangential control.				
Solution	Set axis type( Pr221~ ) of the tangential control axis to 2 or 5.				
Alarm ID	COR-180-4	Alarm Title	[Rotary axis mode is invalid for tangential control. Switch spindle mode to C-axis mode.]		
Description	Invalid command or parameters setting for tangential control.				
Reason	Using spindle as rotary axis for tangential control but axis is not in C-axis mode.				
Solution	Switch spindle mode to C-axis mode( C63 ) before start tangential control.				

Alarm ID	COR-180-5	Alarm Title	[Rotation direction or location of the tangential control axis is not yet set]		
Description	Invalid command or parameters setting for tangential control.				
Reason	<ol> <li>Rotation direction of the tangential control axis is not yet set.</li> <li>Location of the tangential control axis is not yet set.</li> </ol>				
Solution	<ol> <li>Set rotation direction of the tangential control axis( Pr5802 ) to 1, 2, or 3.</li> <li>Set location of the tangential control axis( Pr5803 ) to 1 or 2.</li> </ol>				
Alarm ID	COR-180-6	Alarm Title	[G41.1, G42.1 command format is wrong]		
Description	Invalid command or parameters setting for tangential control.				
Reason	<ul> <li>G41.1, G42.1 command:</li> <li>1. Value of the Q argument is out of range.</li> <li>2. Value of the E argument is out of range.</li> <li>3. Value of the P argument is neither 0 or 1.</li> </ul>				
Solution	Please refer to the G41.1/G42.1 command description.				

## New Version Old Version

Alarm ID	COR-180	Alarm Title	[Invalid parameters setting for tangential control]		
Description	Invalid command or parameters setting for tangential control.				
Reason	<ol> <li>Feed axes for tangential control do not exist.</li> <li>Specified axis for tangential control does not exist.</li> <li>Do not support specified axis type for tangential control.</li> <li>Using spindle as rotary axis for tangential control but axis is not in C-axis mode.</li> <li>Rotation direction of the tangential control axis is not yet set.</li> <li>Location of the tangential control axis is not yet set.</li> <li>G41.1, G42.1 command:         <ul> <li>Value of the Q argument is out of range.</li> <li>Value of the E argument is peither 0 or 1</li> </ul> </li> </ol>				
Solution	<ol> <li>X or Y or Z axis do not exist. Please ensure axis exist(Pr21~) and axis name(Pr321~) correct.</li> <li>Axis for tangential control(Pr5801) should be the existing axis(Pr21~).</li> <li>Set axis type(Pr221~) of the tangential control axis to 2 or 5.</li> <li>Switch spindle mode to C-axis mode(C63) before start tangential control.</li> <li>Set rotation direction of the tangential control axis(Pr5802) to 1, 2, or 3.</li> </ol>				
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	6. Set location of the tangential control axis( Pr5803 ) to 1 or 2.				
	7. Please refer to the G41.1/G42.1 command description.				

Alarm ID	COR-181	Alarm Title	[Tangential control plane conflict]				
Description	Work plane is conflict with the tangential control plane.						
Reson	After tangential control function enabled, user has specified conflict work plane.						
Solution	Reassign tangential control axis and rotation direction of the tangential control axis or remove the conflict workplane specified.						

New Version is 10.118.86K, 10.120.16K, 10.120.24A, 10.120.27 and after Old Version is 10.118.86L, 10.120.16L, 10.120.24B, 10.120.28 and before

## Old Version **New Version** Alarm ID Alarm Title COR-182-1 [Should not put movement to rotary axis of tangential control while tangential control enabled) Description When tangential control function is enabled, do not support some other functions. Reason Put movement command to tangential control rotary axis. Solution Don't use these functions until reset or tangential control function disabled(G40.1 or G49). Alarm ID Alarm Title [Should not use tool compensation COR-182-2 command such as G41, G42, G43.4, G43.5 while tangential control enabled] When tangential control function is enabled, do not support some other functions. Description Reason Using tool compensation command such as G41, G42, G43.4, G43.5.

Solution	Don't use these functions until reset or tangential control function disabled( G40.1 or G49 ).						
Alarm ID	COR-182-3	Alarm Title	[Should not use G02/G03 L_ command to do multiple turns of circle cutting while tangential control enabled]				
Description	When tangential cont	rol function is ena	bled, do not support some other functions.				
Reason	Using G02/G03 L_ con	nmand to do multi	ple turns of circle cutting.				
Solution	Don't use these functi G49 ).	ons until reset or t	angential control function disabled( G40.1 or				
Alarm ID	COR-182-4	Alarm Title	[Should not use G10L1150 to write parameters of tangential control mechanism while tangential control enabled]				
Description	When tangential control function is enabled, do not support some other functions.						
Reason	Using G10L1150 to wri	ite parameters of t	he tangential control mechanism.				
Solution	Don't use these function G49 ).	ons until reset or t	angential control function disabled( G40.1 or				
Alarm ID	COR-182-5	Alarm Title	[Should not put chopping command to axes under tangential control]				
Description	When tangential con	trol function is ena	abled, do not support some other functions.				
Reason	Put chopping comma	and to axes under	tangential control.				
Solution	Don't use these functions until reset or tangential control function disabled( G40.1 or G49 ).						
Alarm ID	COR-182-6	Alarm Title	[Should not turn on the G05 high-speed high-precision mode with command while tangential control enabled]				
Description	When tangential cont	rol function is ena	bled, do not support some other functions.				

Reason	Turn on the G05 high-speed high-precision mode with command, such as G05 P10000.					
Solution	Don't use these function G49 ).	ons until reset or ta	ngential control function disabled( G40.1 or			
Alarm ID	COR-182-7 Alarm Title [Should not use G53 to do machine coordinate orientation while tangential control enabled]					
Description	When tangential control function is enabled, do not support some other functions.					
Reason	Using G53 to do machine coordinate orientation.					
Solution	Don't use these function G49 ).	ons until reset or ta	ngential control function disabled( G40.1 or			
Alarm ID	COR-182-8Alarm Title[Should not use G10L1500 to do rotary axis auxiliary brake while tangential control enabled]					
Description	When tangential control function is enabled, do not support some other functions.					
Reason	Using G10L1500 to do rotary axis auxiliary brake.					
Solution	Don't use these function G49 ).	ons until reset or ta	ngential control function disabled( G40.1 or			

## New Version Old Version

Alarm ID	COR-182	Alarm Title	[Unsupport functions under tangential control]
Description	When tangential cor	ntrol function is enab	led, do not support some other functions.

Reason	<ol> <li>Put movement command to tangential control rotary axis.</li> <li>Using tool compensation command such as G41, G42, G43.4, G43.5.</li> <li>Using G02/G03 L_ command to do multiple turns of circle cutting.</li> <li>Using G10L1150 to write parameters of the tangential control mechanism.</li> <li>Put chopping command to axes under tangential control.</li> <li>Turn on the G05 high-speed high-precision mode with command, such as G05 P10000.</li> <li>Using G10L1500 to do rotary axis auxiliary brake.</li> </ol>
Solution	Don't use these functions until reset or tangential control function disabled( G40.1 or G49 ).

Alarm ID	COR-18 3	Alarm Tit le	[Angle between start and end tool vector approach 180 during tool vector interpolation mode]						
Descrip tion	When the RTCP interpolation mode is set to tool vector, the angle between the starting and ending tool vectors approaches 180.								
Reason	When the RTCP interpolation mode is set to tool vector and the tool vector at the end point of a segment is parallel to the current tool vector, it is not possible to determine a single movement plane.								
Solutio n	1. Plo se 2. Se	<ol> <li>Please modify the NC file to ensure that the angle between tool vector at the end point of a segment and the current tool vector is not close to 180 degrees.</li> <li>Set Pr3054 to 0.</li> </ol>							
Alarm ID		COR-201 BGND-201	Alarm titl	le Program file not exist					
Descripti	on	The specified	ed program does not exist.						
Possible	Cause	The specified	d program do	es not	exist.				
Solution		Ensure that	orogram file e	exists.					
Alarm ID		COR-202 BGND-202	2	Alarm title Com			munication link error		
Descripti	on	Communi	cation link is o	droppe	ed.				
Possible	Cause	The transmission communication link is dropped.							

Solution	Reconnect a good transmission communication link.						
Alarm ID	COR-203 BGND-203	Alarm title	Illegal NC file format				
Description	NC program format not program.	valid, as a result, the system	cannot fully interpret the NC				
Possible Cause	<ol> <li>The NC file is in macro format.</li> <li>Use M98 to call a multi-path subprogram (including \$1 and \$2), and the size of the subprogram is greater than 60KB(60000bytes).</li> </ol>						
Solution	<ol> <li>Update the controller to 10.114.50I or the later version.</li> <li>For M98 application, reduce the size of subprogram. Or, split it into individual single-path subprograms, then call each of them by coordinate respectively.</li> </ol>						
Alarm ID	COR-204 BGND-204	Alarm title	File size too large				
Description	Program file is too larg	2.					
Possible Cause	If the size of MACRO pro scope statement. The syntax with scope s	ogram is larger than 60KB(600 statement contains: IF, CASE,	000bytes) and use the syntax with REPEAT, FOR, WHILE				
Solution	<ol> <li>Reduce the program</li> <li>Remove all the synta</li> </ol>	size, or split program into tw x with scope statement.	o subprograms.				
Alarm ID	COR-205 BGND-205	Alarm title	File content is empty				
Description	After controller loads th	ne program, the file content f	ound to be null.				
Possible Cause	Program loading error or CF card damaged.						
Solution	Reload program or rep	ace CF card.					
Alarm ID	COR-206 BGND-206	Alarm title	Loading page lock failure				

Description	New NC program fails to required the system to distribute loading page.						
Possible Cause	Lack of memory when multi-system executes large-size program.						
Solution	Please contact OEM Syntec.						
Alarm ID	COR-207Alarm titleSpecified sequence number not foundBGND-207Image: Sequence number not foundImage: Sequence number not found						
Description	Specified sequence number is not found.						
Possible Cause	Programming error.						
Solution	Use a sequence number within the NC program range.						
Alarm ID	COR-208Alarm titleCannot use jump statement in sequential fileBGND-208						
Description	Using jump command to execute sequential file.						
Possible Cause	Use the jump comman	d when executing the sequ	ence file.				
Solution	Do not use jump comm	nand to execute sequential	file.				
Alarm ID	COR-209 BGND-209	Alarm title	[File format error]				
Description	Invalid File Format.						
Possible Cause	<ol> <li>It is not a MACRO format file. For example, using APP syntax to call MARCO G200, G200 APP "appname", but this G200 file is not declared as a MACRO format file.</li> <li>It is not a ISO format file.</li> </ol>						
Solution	Please check the NC requirements.	program, which should be	written according to the file opening				

Alarm ID		COR-250 BGND-250	Alarm title	title Wrong mechanism axial setting				
Description		The axial setting	he axial setting of the mechanism is wrong.					
Possible Cau	se	The number of a conversion are r	The number of axis and the axis name required for the corresponding mechanism conversion are not set.					
Solution		Set sufficient nu	Imber of axis (Pr21	~), and required	axis names (Pr321~).			
Alarm ID		COR-251 BGND-251	Alarm title [The joint is not set to rotate in the right/left- hand direction]					
Description		The joint is not s	et to the direction	of rotation as the	e right hand, left hand rule.			
Possible Cau	se	Pr4141~Pr4150 a	Pr4150 are not set to the right-hand rule or the left-hand rule.					
Solution		Set the rotation	direction of each jo	pint, 0 is not allow	ved.			
Alarm ID	COR- 2 BGNI 52	25 Alarm title D-2	【The target po transformation	sition cannot be . Please enter a	e reached due to 2D mechanism reasonable target position】			
Description	The 2 reasc	D mechanism is onable target pos	converted and the tition.	target position c	annot be reached. Please enter a			
Possible Cause	The p	program coordinate position exceeds the limit of the machine.						
Solution	The p	position is not reasonable. Please re-check the NC program.						
Alarm ID		COR -253 BGND-253	Alarm title [Unworkable parallel mechanism posture]					
Description		Parallel mech	Parallel mechanism posture that is not feasible.					
Possible Cau	se	Currently at a parallel mechanism posture that is not feasible.						

Alarm ID		COF BGN	R -253 ID-253	Alarm titl	e	【Unworkable parallel mechanism posture】				
Solution		Afte poir	After Reset, use the axial movement mode to leave this posture, or modify the target point.							
Alarm ID		CO BG	COR-301Alarm title[OPEN command format errorBGND-301J							
Description		OP [cc OP (i) l ou (ii) and	<ul> <li>OPEN command format error</li> <li>[command format]</li> <li>OPEN ("file name", "write file mode")</li> <li>(i) Designated as 'a': Represent retains the original file content and continuously outputs the new data in the text file.</li> <li>(ii) Not specified or designated as 'w': Represents the emptying of the original content and re-outputs the new material in the text file.</li> </ul>							
Possible Caus	se	"W Thi	"Write mode" in the OPEN command format specifies an error. This alarm is issued if the string is specified as a string other than 'a' or 'w'.							
Solutio	on	Set	t "FileWrite moo	de" to "a" or "v	" according to	the requirement of FileWrite.				
Alarm ID		COR-3 BGND	302 Ala -302	rm title	[G10 L1150	command format error]				
Description		G10 L1	1150 command	format error.						
Possible Caus	se	G10 L1 or not The in G10 L1	510 L1150 parameter numbering (P argument) is a non-integer or the input is out of range or not entered. The input value (P argument) corresponding to the parameter does not exist. G10 L1150 parameter value (R argument) is out of range or not entered.							
Solution		Set th	e G10 L1150 pa	rameter numbe	ering and values	s (P and R arguments) correctly.				
Alarm ID	COR BGN 3	-303 D-30	Alarm title	itle 【The basic spindle cannot use the Spindle Synchronization function in position control mode (C63)】						
Description	The cont	The basic spindle uses the spindle synchronization (G114.1, G51.2) commands in the position control mode.								

Alarm ID	COR-30 BGND-3 3	03 Ala 30	arm title	【The basic spindle cannot use the Spindle Synchronization function in position control mode (C63)】			
Possible Cause	When using this function, the basic spindle cannot be in position control mode.						
Solution	Write the NC program or PLC correctly so that the principal axis leaves the position control mode before the same period (C63).						axis leaves the position control mode
Alarm ID		COR-304 BGND-304			Alarm ti	tle	【Thread cutting geometrical axis name error】
Description		Thread such as	cutting (G3 5 X, Y, Z, X1,	ing (G33, G34) command format is incorrect. , Z, X1, Y1, Z1, etc. are supported.			rrect. Only the geometric axis names
Possible Caus	se	When the th geometric as		thread cutting (G33, G34) does not have X, Y, Z, X1, Y1, Z1 and other axis arguments, this alarm is issued.			
Solution		Adjust	ust the axis names (Pr321~) of the geometrical axis to XYZ, X1/Y1/Z1				
Alarm ID	COR-3 BGND	05 -305	Alarn	Alarm title [Relative position input method is forbidden in current mode]			tion input method is forbidden in
Description	The m comm	ode in wł and.	nich the sys	stem i	is currentl	y running cannot	be used with the G91 incremental
Possible Cause	G43.5 attituc quanti	3.5 cannot be used with the G91 incremental command function: G43.5 determines the tool itude through the tool vectors I, J, and K. The tool attitude is expressed only in absolute antities.					
Solution	Check execut	the NC p ed in G9:	the NC program to confirm that G91 was not executed in G43.5 mode and G43.5 was not ed in G91 mode				
Alarm ID	COR- BGNE	306 9-306	Alarm titl	title [Advanced look-ahead function without the specified M code]			
Description	The a comp	dvanced lete NC p	ed look-ahead function is enabled, and the specified M code is not found after the IC program is interpreted.				
Possible Cause	<ol> <li>Pr3599 is not set.</li> <li>The NC programming error.</li> </ol>						

Alarm ID	COR-306 BGND-306	Alarm titl	e 【Ady code】	vanced look-ahead function without the specified M		
Solution	1. Conf 2. Cheo pred	irm whether t k the NC prog ecode M code	he setting of ram to confi (Pr3599).	Pr3599 is correct. rm that an command has been given to speedily		
Alarm ID	COR-307 BGND-307	Alarm title	e [Adva argum	anced look-ahead of M code, wrong designation of ent P】		
Description	The advanc	ed look-ahead	d M code (Pr	3599) must specify the P argument.		
Possible Cause	When using argument is	the advanced not an intege	l look-aheac er	function, the P argument is not specified or the P		
Solution	Check the N subprogram	IC program an n.	ıd confirm tł	hat there is a P argument and specify a 4-digit code		
Alarm ID	COR-308 BGND-30 8	Alarm title d	n [Insufficient system memory, increase a single step displacement for advanced look-ahead function]			
Description	The system lo interpreted a	ok-ahead mei nd is stuck.	mory is insul	ficient, and the subsequent move command cannot be		
Possible Cause	There are too met.	many very she	ort blocks in	the program, so the interpretation conditions cannot be		
Solution	Check the NC	program and	increase a si	ngle step displacement amount appropriately.		
Alarm ID	COR-309 BGND-309	Alarm	title	[Advanced look-ahead function failed]		
Description	The advanc	The advanced look-ahead function cannot be executed correctly.				
Possible Cause	1. The 2. The	interpolation contents of th	mode is inco e look-ahea	prrect during advanced look-ahead. d NC program cannot be stored correctly.		
Solution	1. Che thar 2. Che	ck if the subpr 1 G01, G02, and ck if disk space	ogram of the d G03. e is adequat	e look-ahead NC programs contains commands other e.		

Alarm ID		COR- BGNI	310 9-310	Alarm title 【Look-ahead NC programs failed】			
<b>Description</b> Look-ahead NC program cannot be executed correctly.					tly.		
Possible Cause		2. The	<ol> <li>The condition of the look-ahead NC program does not match:         <ul> <li>The version of the advanced look-ahead, the interpolation time, the number of axes, do not match.</li> <li>There is an abnormal interruption in the look-ahead, resulting in incomplete content of the look-ahead.</li> <li>To look-ahead the axis of movement in the subprogram, enter the advanced look-ahead M code in the main program. The coordinates before (i.e. M298) should be the same.                 (i.e. if the subprogram has X, Y, and Z three-axis movement commands, if the X, Y, and Z coordinates before look-ahead M code are modified after the look-ahead is completed, the look-ahead NC program will be executed. Issue this alarm.)</li> </ul> </li> <li>The contents of the look-ahead NC program cannot be read correctly.</li> </ol>				
Solution		After progr	After advanced look-ahead under correct conditions, execute the look-ahead NC programs.				
Alarm ID	CO BG	R-311 ND-311	Alarm title N	[Hard disk storage space is i C programs]	nsufficient to place look-ahead		
Description	Th	e hard disk	storage space is	not enough to place the look-	ahead NC program.		
Possible Cause	Th	ere is not e	nough storage sp	ace on the hard drive.			
Solution	Re	lease hard	disk storage spac	e.			
Alarm ID CO		COR-320 BGND-32	Alarm title	[Friction Compensatio	n Adjustment setting is illegal]		
Description Fr		Friction c	riction compensation adjustment setting is illegal.				
Possible Cause		1. Se 2. No 3. Ra 4. No	<ol> <li>Selected adjustment mode is not supported.</li> <li>No axis is assigned for adjustment.</li> <li>Radius or feedrate is not configured in Comp ON/Comp OFF mode .</li> <li>No. of circular setting is not configured in Comp Learning mode.</li> </ol>				

Alarm ID	C( B(	DR-320 GND-320	Alarm title	e	[Friction Compensation Adjustment setting is illegal]	
Solution	Jtion1. Select other com 2. Please set a set o 3. Please set correct 4. Please set correct If the alarm still exists, p			pens f ava t rad t No. lease	sation mode and try again. ilable axes. ius or feedrate. of circular setting. e contact Syntec OEM.	
Alarm ID	COR-321 Alarm title BGND-321		【The arguments (P,Q,R) retrieved from the I point position must be integers】			
Description	TheIv	value posit	ion taken ar	gum	ent (G10 L1010 P_ Q_ R_) is r	not an integer.
Possible Cause	NC programming error.					
Solution	Modif	y the NC pr	ogram to sp	ecify	y correct P, Q, and R argumer	nts.
Alarm ID CO BG		COR-32 BGND-3	2 22		Alarm title	【I point position capture failed】
Description		I value p	osition capt	uref	function (G10 L1010 P_ Q_ R_	_), startup failed.
Possible Cause	<ol> <li>Possible Cause</li> <li>The specified P argument (axis number) does not exist.</li> <li>The specified Q argument (I value) is not supported.</li> <li>Exceeding the limit of the number of used groups, currently support three I value location captures at the same time.</li> </ol>			not exist. oorted. ups, currently support to start ne.		
Solution	<ol> <li>Modify the program to specify correct P, Q, and R arguments.</li> <li>Turn off settings that are not in use.</li> </ol>			d R arguments.		
Alarm ID	COR-323 Alarm title BGND-32 3		m title po	【The arguments (P,R,I,J,K) captured from the driver signal position must be integers】		
Description	The arg	gument of t	he drive sigr	nal p	oosition (G10 L1011 P_ R_ I_ 、	J_ K_) is not an integer.
Possible Cause	The NC	programm	ning error.			

Alarm ID	COR-32 BGND-3 3	3 Alarm title 2	[TI posi	ne arguments (P tion must be int	,R,I,J,K) car egers]	otured from the driver signal
Solution	Modify t	he program to sp	ecify co	orrect P, R, I, J, an	d K argumer	nts.
Alarm ID		COR-324 BGND-324		Alarm title		[Driver signal position captured failed to activate]
Description		The drive signal	positio	n capture functio	on (G10 L101	1 P_ R_ I_ J_ K_) failed to activate.
Possible Caus	e	<ol> <li>The range of R values set by the specified P and R arguments is invalid (occupied by the system or out of range).</li> <li>The specified I argument (axis number) does not exist.</li> <li>The specified J argument (which set of latches to use) is out of range.</li> <li>The specified K argument (select signal source) is out of range.</li> </ol>				
Solution		Modify the NC p	rogram	to specify correc	t arguments	
Alarm ID	CO BG	COR-325 Aları BGND-325		n title [In the polar coordinate interpolatio mode, the use of the diameter and rad axis programming command is prohib ]		olar coordinate interpolation e use of the diameter and radius ramming command is prohibited
Description	In t pro	he polar coordin ogramming switc	ate inte hing co	rpolation (G12.1) mmand (G10.9) c	) mode, the c annot be use	diameter and radius axis ed.
Possible Caus	e In pro ala	In polar coordinate interpolation (G12.1) mode, if switch the diameter and radius axis program with the diameter and radius axis programming switching command (G10.9), this alarm is issued.				
Solution	In t axi dia [Re Foi X a	In the polar coordinate interpolation (G12.1) mode, do not use the diameter and radius axis to program the switching command (G10.9). Please follow Pr281~Axis radius axis or diameter axis set value to move the command. [Remarks] For milling machine G12.1, the X axis is programmed in radius axis. For lathe machine G12.1, and the X axis programming mode can be set using Pr4020 (G12.1				

Alarm ID	COR BGN	-326 D-326	Alarm title	【Diameter and radiu error】	s axis programming command ar	gument	
Description	Dian inco	neter and Radius axis programming (G10.9) switching, command arguments are written prrectly.					
Possible Cause	No a	axial programming is specified, or programming is specified as a value other than 0 and 1.					
Solution	-	<ol> <li>Specify any axial direction after diameter and radius axis programming (G10.9).</li> <li>Specify the argument value (programming mode) as 0 or 1.</li> </ol>					
Alarm ID		COR-327 BGND-327		Alarm title	[Skip function argument in error]	nput	
Description	DescriptionSkip function (G31) input argument is incorrect.						
Possible Cause		Skip fu	nction (G31) s	specifies both P and R arg	uments.		
Solution		Please	modify the SI	kip function (G31), no spe	cified both P and R.		
Alarm ID (		COR-328 BGND-32	3 28	Alarm title	[G10 L1800 command argumen number, out of specification lim	nt hit]	
DescriptionThe command argument number is outside the specification limit.i.e. G10 L1800 I514 P10 R1, I argument is out of range.							
Possible Cause	• The NC programming error.						
Solution		Please co	onfirm the arg	gument value of G10 L180	0.		
P.S. Valid version	of COF	R-328 : ra	nge from 10.1	.18.12B, 10.118.13 to 10.1	18.28D, 10.118.31 (included).		

Alarm ID	COR-329 BGND-329	Alarm title	[G10 L1800 command number has exceeded the single block limit]			
Description	The number of G10 L1800 commands with different arguments exceeds the upper limit allowed by a single block, up to 5, or too many G10 L1800 commands.					
Possible Cause	The NC programming error.					

Alarm ID	COR-329 BGND-329	Alarm title	[G10 L1800 command number has exceeded the single block limit]		
Solution	Please reduce the number of G10 L1800 commands with different arguments to less than 5 in a block, or reduce the number of G10 L1800s as a whole.				

P.S. Valid version of COR-329 : range from 10.118.12B, 10.118.13 to 10.118.28D, 10.118.31 (included).

Alarm ID	COR-330 BGND-330		Alarm title	3	【Illegal interrupt signal format】
Description	The command i.e. M96 P5566	d argume 5 14 Q100	ent number i ) R1 L1000; l a	s outside the sport spect	pecification limit. ifies the error signal source.
Possible Cause	The NC progra	amming	error		
Solution	Please check t	he NC p	rogram to er	sure that the c	ommand arguments are correct.
Alarm ID	COR-331 BGND-331	Alarm	title	【This product limits T Code function】	
Description	This product or	nly supp	orts T0~T4.		
Possible Cause	This product o	nly supp	orts T0~T4.		
Solution	Use a products	that su	pport the full	T-code functio	on.
Alarm ID	COR-332 BGND-332	OR-332 Alar GND-332			【Interrupt type subprogram (M96, M97) execution failure】
Description	When the interrupt type subprogram function is used, the execution fails when the interrupt signal is triggered.				
	Note: Due to th that it will stop	ne pre-so p at the p	olved relation problem line.	nship when iss	uing this alarm, there is no guarantee
Possible Cause	Only support t cancel (M96, M	o trigge 197). Trig	r interrupt wl ggering interr	nere in the inte rupt signals in o	errupt type subprogram enable or other subprograms is not supported.

Alarm ID	COR-332	Alarm title	[Interrupt type subprogram (M96,				
	BGND-332		M97) execution failure】				
Solution	<ol> <li>Make sure to cancel (M96,</li> <li>Set #1510 to main program, but</li> </ol>	<ol> <li>Make sure to trigger interrupt where in the interrupt type subprogram enable or cancel (M96, M97).</li> <li>Set #1510 to 4 (the second bit is set to on) and only display the line number of the main program. This can be regarded as triggering the interrupt in the main program, but this setting will re-execute the subprogram when it returns.</li> </ol>					
Alarm ID	COR-333 BGND-333	Alarm title	[Single end point exceeds hardware stroke limit]				
Description	The coordinate posit machine.	ion in the program exceed	Is the hardware stroke limit set by the				
Possible Cause	<ol> <li>The NC progr</li> <li>The hardware</li> </ol>	<ol> <li>The NC program is wrong.</li> <li>The hardware stroke limit signal is abnormal.</li> </ol>					
Solution	<ol> <li>Check the NC</li> <li>First confirm is no longer e If so, it may b disappears; p abnormality.</li> </ol>	<ol> <li>Check the NC program and correct the coordinate position.</li> <li>First confirm whether it is occasionally happen during machining, and MOT-25, 26 is no longer exists after the system enters the feedhold. If so, it may be that an axis hardware stroke limit signal is triggered, but then disappears; please check the limit switch wiring or the hardware itself for abnormality.</li> </ol>					
Alarm ID	COR-334 BGND-334	Alarm title	[G10 L1810 illegal signal condition command format]				
Description	G10 L1810 command format error.						
Possible Cause	<ol> <li>One of the I, Q, and R arguments is not set.</li> <li>The I, Q, R, and J arguments are out of range, set to a negative, or a decimal value.</li> </ol>						
Solution	Please refer to the manual for troubleshooting.						
P.S. Valid version of CC	R-334 : before 10.118.3	34 (included).					
Alarm ID	COR-335 BGND-335	Alarm title	[G10 L1810 signal waiting condition is too many or repeat the same signal]				

Description	The G10 L1810 signal waiting condition exceeds the allowable number, or the G10 L1810 repeatedly sets the same signal
	repeatedly sets the same signal.

Alarm ID	COR-335 BGND-335	Alarm title	【G10 L1810 signal waiting condition is too many or repeat the same signal】			
Possible Cause	1. G10 L1810 cor 2. The same G10	<ol> <li>G10 L1810 continuously sets more than 5 commands.</li> <li>The same G10 L1810 signal command has been set.</li> </ol>				
Solution	Please combine mult condition.	Please combine multiple signals into one signal to wait, or reduce the signal waiting condition.				
Alarm ID	COR-336 BGND-336	Alarm title	【G10 L1820 illegal waiting signal condition command format】			
Description	G10 L1820 command format error.					
Possible Cause	P, K arguments are c	P, K arguments are out of range, set negative or decimal.				
Solution	Please refer to the m	nanual for troubleshooting	g.			

P.S. Valid version of COR-336 : before 10.118.34 (included).

Alarm ID	COR-337 BGND-337	Alarm title	[G10 L1820 without G10 L1810 command in the front]			
Description	The G10 L1820 command needs to wait for the G10 L1810 signal wait condition. At least one G10 L1810 command must be programmed first.					
Possible Cause	The G10 L1820 comm	and was not written before	e the G10 L1820 command.			
Solution	Modify the NC program and write the G10 L1810 command before the G10 L1820 command.					
Alarm ID	COR-338 BGND-338	Alarm title	[G10 L1820 signal condition waiting timeout]			
Description	G10 L1820 waiting sig	G10 L1820 waiting signal condition exceeds the waiting time.				
Possible Cause	The signal status condition was not reached within the waiting time.					
Solution	<ol> <li>Check if the G</li> <li>Check if the PL</li> <li>Check the hard</li> </ol>	10 L1810 setting signal con C wait signal is processed dware device to confirm wł	dition is correct. correctly. ny the signal status is not reached.			

Alarm ID		COR-339 Alarm title [Chopp BGND-339		[Chopping axis prohibition movement command]		
Description	The chopping axial direction does not accept any movement commands.					
Possible Cause		After using the chopping function (G81.1, G81.2, C86), give movement command to the axis before closing. Note: C86 valid version: 10.118.19 and previous versions.				
Solution	Check the movement command of the NC program G code, whether there is chopp axis, and it is executed before the chopping function is turned off. The movement command G code is, for example, G0, G1, G2, G3, G31, G53.			m G code, whether there is chopping ion is turned off. The movement G31, G53.		
Alarm ID	COR BGN	2-340 ID-340	Alarm title	【Chopping axis prohib	its changing coordinate system】	
Description	The proh	axis in chopping cannot change any coordinate system, and the related functions will be hibited.				
Possible Cause	Note	<ol> <li>After using the chopping function (G81.1, G81.2, C86), switch the coordinate system before closing and affect the chopping axis.</li> <li>Simultaneously use of chopping function (G81.1, G81.2, C86) and tilted work plane machining function (G68.2, G68.3).</li> <li>Simultaneously use the chopping function (G81.1, G81.2, C86) and the axis exchange function (C133~C136).</li> <li>e: C86 support version: 10.118.19 and earlier.</li> </ol>				
Solution	Note Note L130 Note	<ol> <li>Check if the system operation and programming coordinate system are switched or changed, and whether the chopping axis is affected.</li> <li>Check if the NC program uses the chopping function (G81.1, G81.2, C86) and the tilted work plane machining function at the same time. (G68.2, G68.3).</li> <li>Check if the NC program has the chopping function (G81.1, G81.2, C86) and the shaft exchange of the chopping shaft. (C133~C136).</li> <li>Coordinate system related programming: G54 P1~G54 P100, G92, G92.1, G10 L2, G10 800, G68, #value (#1880~#1933, #20001~#20658).</li> <li>Coordinate system related operations: external coordinate offset, MPG offset.</li> </ol>				
Alarm ID		COR-3 BGND-	41 341	Alarm title	[Chopping axial switching error ]	
Description		The sp	ecified axis can	not be switched to the cho	pping axis.	

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Alarm ID		COR-341 BGND-341		Alarm title	[Cho ]	pping axial switching error
Possible Cause	2	<ol> <li>This axis has been designated as the PLC axis.</li> <li>The axis has been designated as the spindle.</li> <li>The axis has been designated as the servo tail axis</li> <li>This axis has been designated as a chopping axis by other paths.</li> </ol>				
Solution		<ol> <li>Do not specify the PLC axis as the chopping axis.</li> <li>Do not specify the spindle as the chopping axis.</li> <li>Do not specify the servo tail axis as the chopping axis.</li> <li>Check if the multi-path repeats the chopping function for the same axis (G81.1, G81.2, C86).</li> <li>Note: C86 support version: 10.118.19 and earlier version.</li> </ol>				is. on for the same axis (G81.1,
Alarm ID		COR-342 BGND-342		Alarm title	[Choppir kinematic	g axis prohibits non-linear transform】
Description		Non-linear kinematic transform is prohibited for the chopping axis.				
Possible Cause	<ul> <li>e 1. Using non-linear kinematic transform when chopping function is enabled.</li> <li>2. The machine type used is two-dimensional kinemetic (special model).</li> </ul>				g function is enabled. c (special model).	
Solution		<ol> <li>Check the NC program to make sure that the chopping function (G81.1, G81.2, C86) is not within the range of the RTCP (G43.4, G43.5).</li> <li>Check the NC program to make sure that the chopping function (G81.1, G81.2, C86) is not within the range of the tangential control (G41.1, G42.1).</li> <li>Check the NC program to make sure that the chopping function (G81.1, G81.2, C86) is not within the effective range of the polar coordinate interpolation (G12.1).</li> <li>The machine configuration used is the two-dimensional kinemetic (special model), and the chopping function (G81.1, G81.2, C86) cannot be used.</li> <li>Note: C86 support version: 10.118.19 and earlier.</li> </ol>				
Alarm ID	COR BGN	2-343 Alai ID-343	rm title	【The main program o	oes not use	e the ending M code】
Description	M02	/M30/M99 is no	ot used at	the end of the main prog	ım.	
Possible Cause		<ol> <li>Programmi</li> <li>NC program</li> <li>Some mach</li> </ol>	ng error. n is damag nining info	ged. Irmation was lost due to f	e transmiss	ion errors.

Alarm ID	COR-343 BGND-343	Alarm title	【The main pr	ne main program does not use the ending M code】		
Solution	1. Check 2. Close	<ul> <li>Check the NC program to reset the alarm and clear it.</li> <li>Close the Pr3853-NC program error check function.</li> </ul>				
Alarm ID	COR-3 BGND-	44 344	Alarm title		【The NC program under invalid paragraph】	
Description	1. 2.	There is contin more than 8KB There are no va	ere is continuous blank/annotation/garbled in the NC program, and the size is ore than 8KB. ere are no valid commands in the NC program.			
Possible Cause	1. 2.	<ol> <li>Programmning error.</li> <li>NC program is damaged.</li> </ol>				
Solution	1. 2. 3.	<ol> <li>Avoid writing lots of consecutive blanks or annotations.</li> <li>Please check if the NC program is damaged. After the problem is solved, reset to remove the alarm.</li> <li>Close the Pr3853 - NC program error check function.</li> </ol>			r annotations. d. After the problem is solved, reset to < function.	
Alarm ID	COR-345 BGND-34	Alarm tit 5	itle 【Illegally format input to programmable data】			
Description	Programm	Programmable data input argument format error.				



Program Execute Error Alarm - COR – 344

Alarm ID	COR-345 BGND-345	Alarm title	[Illegally format input to programmable data]
Possible Cause	1.       Wobbla         a.       b.         c.       2.         G10 L1       a.         b.       c.         3.       G10 L1         a.       b.         c.       3.         G10 L1       a.         b.       c.         4.       G10 L1         a.       b.         5.       G10 L4         a.       b.         c.       d.         6.       G10 L1         a.       b.         c.       d.         6.       G10 L1         a.       b.         c.       d.         7.       G10 L1         a.       b.         c.       8.         G10 L1       a.         b.       c.         9.       G10 L1         a.       b.         c.       10.         G10 L1       a.         b.       c.         10.       G10 L1         a.       b.         c.       11.         G10 L1       a.         b.       c.     <	e command One of the I, Q, R ar I, Q, R arguments o I argument not inte 803 command One of the I, Q, P, R I, Q, P, R, J, E argun I, Q, R, J, K, E argun 805 、 G10 L1810 co One of the I, Q, R ar I, Q, R, J arguments 820 command P, K arguments out P, K arguments out 20, R arguments out 500 command One of the P, Q, R a P argument is not a Q, R arguments out 300 command P, Q, R, X, Y, Z Q, X, Y, Z, I, J 031 command R argument is not s R, V arguments out S, V arguments out S, V arguments out G, R argument is not S00 command P, E argument is not S00 command P argument is not S00 command P argum	guments is not set. ut of range. ger. arguments is not set. hents out of range. hents not integer. mmand guments is not set. out of range. not integer. of range. positive integer. rguments is not set. string. of range. integer. Z, I, J, K, U, V arguments out of range. integer. Z, I, J, K, U, V arguments out of range. k, K, U, V arguments not integer. et. of range. integer. guments is not set. guments is not an integer. t set. t of range. eger. : set. et. et. et. et. t set. t of range. eger. : set. et. et. et. et. t of range. eger. : set. et. et. t set to 1, the Q and R arguments are not set.
Solution	Please refer to	command descript	ion to troubleshoot.

Alarm ID	COR-346 BGND-346	Alarm title	[Illegally data entry	use of programmable	
Description	Programmable data ir	nput conflicts with spec	fications.		
Possible Cause	<ol> <li>Between wobb</li> <li>G10 L1803 com by a single blog</li> <li>Too many G10</li> <li>The feature as 10.118.41P, 10.</li> <li>Any axis belong</li> </ol>	<ol> <li>Between wobble command, only one block is allowed to wobble.</li> <li>G10 L1803 commands with different arguments exceeds the upper limit allowed by a single block, up to 12.</li> <li>Too many G10 L1803 and G10 L1805 commands.</li> <li>The feature as L-argument specified is unsupported for current version (from 10.118.41P, 10.118.49).</li> <li>Any axis belongs to multiple coordinates.</li> </ol>			
Solution	<ol> <li>Remove the ex</li> <li>Reduce the number of the number</li></ol>	<ol> <li>Remove the exceeding number of wobble moving blocks.</li> <li>Reduce the number of G10 L1803 commands in a single movement block to less than 12.</li> <li>Reduce G10 L1803 and G10 L1805 commands.</li> <li>Update to the version which supports the feature as L-argument specified.</li> <li>Please set Pr701~ of the axis to only belong to a single axis group.</li> </ol>			
Alarm ID	COR-347 BGND-347	Alarm title	【This function only supports Syntec axis】		
Description	Only Syntec axis can u	ise this function.			
Possible Cause	The weave function or	nly supports Syntec driv	es.		
Solution	Please use Syntec driv	/er.			
Alarm ID	Alarm ID COR-348 BGND-348			【APP command error 】	
Description	There is an	error in the APP command.			
Possible Cause	<ol> <li>APP name</li> <li>The length</li> <li>No APP na</li> </ol>	is not a string. of APP name is over 20 me is specified.	characters.		
Solution	Please make sure	that APP commands a	e used correctly i	n the NC program.	

Alarm ID	COR-349 BGND-34 9	Alarm title	【This encode	function only support er]	s Syn	ntec magnetic gear or ring gear
Descript ion	Limited to u	use with Synte	c magne	tic gear or ring gear enc	oder	S.
Possible Cause	DescriptionThe following function is limited to use Syntec magnetic gear or ring gear encoders:1. complex threading cycle( G78 or G78.2 ) enables chip removal function ( the argument of D is set by 1 ).When applying the function mentioned above, the system detect the active spindle is not Syntec magnetic gear or ring gear encoders which satisfies following conditions:1. the encoder communication type Pn-900 is equal to 13.2. the pole pair number is greater than or equal to 124.3. the serial communication support M3 Syntec and EtherCAT Syntec ( EtherCAT support software versions: 10.118.66M, 10.118.70H, 10.118.78 and later versions ).In dual-feedback system, it is sufficient for either of the 1st or 2nd encoders to satisfy the above conditions.					
Solution	1. If us Synt 2. If the	er wants to en tec magnetic g e chip remova	able chip gear or rin l function	o removal function durin ng gear encoders to sati n is not used, please set	ng co isfy th : the a	mplex threading cycle, please use ne condition. argument of D to 0.
Alarm ID		COR-350 BGND-350		Alarm title	[1]	nvalid EnIP Macro]
Descriptio	n	EnIP macros	syntax er	ror.		
Possible C	ause	The format o	or range o	of the input macro argu	ment	s is incorrect.
Solution		Refer to the	EnIP mad	ro syntax description.		
Alarm ID	rm ID COR-351 BGND-351			Alarm title		【Communication command abnormal】
Descriptio	n	<ol> <li>The execution of the macro communication command failed.</li> <li>The macro communication to driver failed.</li> </ol>				
Possible C	ause	<ol> <li>The cc</li> <li>The Er</li> <li>An error</li> </ol>	ontroller nIP functi or occurr	does not support EnIP c on input request data v ed while sending or rec	comm value eivinį	nunication. range is incorrect. g a communication command.

Alarm ID	COR-351 BGND-351	Alarm title	【Communication command abnormal】			
Solution	<ol> <li>Please conta</li> <li>Each request</li> <li>This alarm is description feedback</li> </ol>	<ol> <li>Please contact the Syntec OEM.</li> <li>Each request data of EnIP represents a 1 value ranging from 0 to 255.</li> <li>This alarm is accompanied by a more detailed error alarm, refer to the alarm description for troubleshooting.</li> </ol>				
Alarm ID	COR-352 BGND-352	Alarm title	【Communication command response data is too long】			
Description	The device return dat	a length is too long.				
Possible Cause	The storage space pro	ovided by the user for re	turning data is insufficient.			
Solution	Make sure that the sto	orage space for the retu	rned data is sufficient.			
Alarm ID	COR-353 BGND-353	Alarm title	【Invalid argument of CHKINF】			
Description	The type of argumer	nt of CHKINF() is incorre	ct, or the category number is out of range.			
Reason	Programming error.					
Solution	<ol> <li>Please check</li> <li>Check the typ</li> <li>Check the typ</li> <li>Check the typ</li> <li>Ensure the ca Development</li> </ol>	<ol> <li>Please check the NC program.</li> <li>Check the type of first argument is integer.</li> <li>Check the type of second argument is string.</li> <li>Ensure the category number is in the range, please refer to OpenCNC_Macro Development Manual.</li> </ol>				
Alarm ID	COR-354 A BGND-354	larm title	【With RTCP enabled, the usage of G10 L1150 to set Five-Axis mechanism parameter is prohibited.】			
Description	With Rotate Tool Cente set Five-Axis mechanis	With Rotate Tool Center Point function(G43.4, G43.5) enabled, the usage of G10 L1150 to set Five-Axis mechanism parameter is prohibited.				
Reason	The NC file was written	incorrectly.				
Solution	Please modify the NC fi L1150 to set the Five-Ax	le, cancel Rotate Tool C kis mechanism paramet	enter Point function(G49), and then use G10 er.			

Alarm ID	COR-355 BGND-355	Alarm title	Need geometric axes positioning after tool length compensation changed		
Description	Positioning of the axe tool length compens	es on work plane(G17: X ation commands, if tool	XY, G18: ZX, G19: YZ) is required after executing ol radius compensation commands needed.		
Reason	No positioning of the executing tool length commands. Tool length compens L1050, G10 L1051 Tool radius compens	No positioning of the axes on work plane(G17: XY, G18: ZX, G19: YZ) between executing tool length compensation commands and tool radius compensation commands. Fool length compensation commands: H, T(Lathe), G43, G44, G43.4, G43.5, G49, G10 L1050, G10 L1051 Fool radius compensation commands: G41, G42			
Solution	Please modify the NC G18: ZX, G19: YZ) afte compensation comm Positioning comman	Please modify the NC file. Add positioning command of the axes on work plane(G17: XY, G18: ZX, G19: YZ) after tool length compensation commands and before tool radius compensation commands. Positioning commands: G90 G00, G90 G01, G92			
Alarm ID	COR-356 BGND-356	Alarm title	【Invalid APP command】		
Description	There is a syntax e	error on the Modbus cor	mmand(G10 L1900/1901/1910/1911).		
Possible Cause	The format or ran	ge of the input argumer	nt is incorrect.		
Solution	Please refer to the	e Industry Machine Appl	lication Manual.		
Alarm ID	COR-357 BGND-357	Alarm title	【Illegal Modbus packet contents 】		
Description	The contents of the	e Modbus command pa	icket is illegal.		
Possible Cause	The contents of the	e customized package is	is incorrect.		
Solution	Please refer to R50	)39, as this register provi	vides the error code for troubleshooting.		
Alarm ID	COR-358 BGND-358	Alarm title	[Modbus communication timeout]		
Description	The Modbus comm	nunication experienced	a timeout.		

Alarm ID	COR-358 BGND-358	Alarm title		[Modbus communication timeout]	
Possible Cause	Abnormal communica timeout.	ition or unestablish	ed comm	unication causes the connection	
Solution	Please refer to R5039,	as this register prov	/ides the o	error code for troubleshooting.	
Alarm ID	COR-359 BGND-359	Alarm title		[Modbus communication failure ]	
Description	The Modbus commun	ication failed.			
Possible Cause	1. There is a com	munication error or	device se	etting error.	
Solution	1. Please refer to	R5039, as this regis	ter provid	les the error code for troubleshooting	
Alarm ID	COR-361 BGND-361	Alarm title	e) ui	[The number of non-moving blocks acceeds the permissible value nder tool radius compensation]	
Description	The machining program compensation is enable	The machining program has programmed too many non-moving blocks when tool radius compensation is enable.			
Possible Cause	Programming error.				
Solution	<ol> <li>Modify the machining program and issue the non-moving blocks when tool radius compensation is disable.</li> <li>Modify the machining program and reduce the number of non-moving blocks when tool radius compensation is enable.</li> </ol>				
Alarm ID	COR-362 BGND-362	Alarm 标题	【Multi- (G31.10,	axis multi-signal skip function , G31.11) command error】	
说明	Multi-axis multi-signal	skip function (G31.	10, G31.11	1) command error	

可能原因	<ol> <li>Setting commalone, and of then execute</li> <li>A set of mult command at Both commalarit is not a</li> <li>Supports up function.</li> <li>Same axis is skip functior         <ul> <li>a. Same</li> <li>b. Assig comm (E.g., G31.1</li> <li>c. Assig (E.g.,</li> </ul> </li> </ol>	mand (G31.10) or execution ther commands cannot be i e. i-axis multi-signal skip func c least and one G31.11 com ands should be issued in a se allowed to insert other com to six G31.10 commands in used in different G31.10 con h. E.g., e axis name is used in differe n same axis by using virtual mands. Virtual axis Z is correspond 10 command, and Z1 in ano n same axis by misusing alia There are axis X, Y, Z1, Z2, Z	command (G31.11) cannot be issued issued between them. Always set first tion is composed of one G31.10 nand. Set first then execute. et of multi-axis multi-signal skip function, mands in between. a set of multi-axis multi-signal skip mmands in a set of multi-axis multi-signal ent G31.10 commands. axis function in different G31.10 ing to axis Z1 and Z2. Using axis Z in one ther G31.10 command.) as of axis. Z3, Z4, the alias of Z1 is Z.)	
排除方法	<ol> <li>Make sure there is always an execution command (G31.11) behind setting command (G31.10), and there is no execution command (G31.11) left alone.</li> <li>Make sure there are six G31.10 commands at most in each set of multi-axis multi- signal skip function.</li> <li>Make sure there is no axis assigned repeatedly in each set of multi-axis multi- signal skip function.</li> </ol>			
Alarm ID	COR-363	Alarm title	[Invalid axis removal/axis borrowing function]	
Description	Axis removal (G52.1)	or axis borrowing (G52.2) f	unction is used incorrectly.	
Reason	<ul> <li>Axis removal (G52.1) or axis borrowing (G52.2) function is used incorrectly.</li> <li>1. Without any argument of P, Q, R in the G52.1 and G52.2 commands.</li> <li>2. The axes corresponding to the P, Q, R arguments does not exist in the system.</li> <li>3. I, J, K arguments are integers but out of the settable range.</li> <li>4. Issue the G52.1 or G52.2 command for non-roaming axis.</li> <li>5. When using the axis removal command, the axis to be removed hasn't been borrowed by the axis group.</li> <li>6. When using the axis borrowing command, the axis to be borrowed has been borrowed by the axis group.</li> <li>7. It is not allowed to set the related axes of nonlinear mechanism transform as roaming axes, including: <ul> <li>RTCP (G43.4, G43.5);</li> <li>Tilted plane function (G68.2, G68.3 and G53.1, G53.3, G53.6);</li> <li>Tangential control function (G41.1, G42.1);</li> <li>Polar coordinate conversion (G12.1);</li> <li>Two-Dimensional Kinemetic (special model).</li> </ul> </li> <li>8. Issue the G52.1 or G52.2 command for Indexing axis.</li> </ul>			

Solution	<ol> <li>In the G52.1 or G52.2 command, at least one argument among P, Q, R is required.</li> <li>Please refer to Pr321~ setting value, modify the NC program, and specify the correct axes.</li> <li>Please refer to the command format, modify the NC program, and set the parameters within the settable range.</li> <li>Please set Pr701~ to belong to multiple axis groups, and set Pr742 to 1(i.e., set the axis to be borrowed as the roaming axis.); Or please modify the processing program and delete the G52.1 or G52.2 command.</li> <li>Check the NC program, fix the P, Q, R argument assignment error.</li> <li>Check the NC program, fix the P, Q, R argument assignment error.</li> <li>Please set Pr742 to 0 to avoid the disallowed usages in No.7 of the possible reason.</li> <li>Check and modify the NC program, don't remove or borrow indexing axis.</li> </ol>				
Alarm ID	COR-364	Alarm title	[Axis borrowing function failed to borrow]		
Description	Use axis borrowing	(G52.2) function, unable to	borrow all specified axes successfully.		
Reason	Because the axis to borrowed successfu	Because the axis to be borrowed is being borrowed by other axis groups, it cannot be borrowed successfully.			
Solution	<ol> <li>Check the NC program and confirm that the axis to be borrowed has been removed by other axis groups before issuing the borrow instruction.</li> <li>Enlarge the K argument setting value, so that extends the waiting time.</li> <li>Set the I parameter to 0, and continue to wait for other axis groups to remove the axis.</li> </ol>				
Alarm ID	COR-365	Alarm title	[Issue a movement command to the unborrowed roaming axis]		
Description	Issue a movement co	ommand to the unborrowe	ed roaming axis.		
Reason	<ol> <li>When Pr742 is set to 1, the axis group or PLC Rn sub-program component issue a movement command to the unborrowed roaming axis.</li> <li>The tool break retract is performed on the path with the roaming axis command, and the roaming axis that has not been borrowed successfully, so an alarm is issued.</li> </ol>				
Solution	<ol> <li>For the axis g command to axis.</li> <li>Modify the to command.</li> </ol>	roup or PLC Rn sub-progra the roaming axis, use the C ol break retract setting line	im component, before issuing a movement G52.2 command to successfully borrow the e number or serial number before G52.2		

Alarm ID	COR-366 BGND-366	Alarm Title	【The parameters of rotary axis auxiliary brake are set incorrectly】			
Description	Using the rotary axis incorrectly.	auxiliary brake, the param	eters mapped to the enable group are set			
Possible Cause	Parameters are incor Enable G10 L1500 rot 1. The axis ID of 2. The axis type 3. The M code of	<ul> <li>Parameters are incorrect.</li> <li>Enable G10 L1500 rotary axis auxiliary brake: <ol> <li>The axis ID of the rotary axis auxiliary brake is not specified.</li> <li>The axis type of the specified axis is linear.</li> <li>The M code of the rotary axis auxiliary brake is not specified.</li> </ol> </li> </ul>				
Solution	Modify parameters P	r3741~Pr3744.				
Alarm ID	COR-367 BGND-367	Alarm Title	【Prohibited commands in rotary axis auxiliary brake mode】			
Description	When the rotary axis program.	auxiliary brake is enabled	, prohibited commands are used in the nc			
Possible Cause	<ol> <li>The axis, which is in rotary axis auxiliary brake mode, is specified by skip function(G28.1, G31, G31.11).</li> <li>The axis, which is in rotary axis auxiliary brake mode, is specified by chopping function(G81.1, G81.2).</li> <li>Enable the rotary axis auxiliary brake in RTCP mode(G43.4, G43.5).</li> <li>Enable both the rotary axis auxiliary brake mode and the polar coordinate mode(G12.1).</li> </ol>					
Solution	Check the NC progra	m.				
Alarm ID	COR-368 BGND-368	Alarm title	【The position command of the indexing axis is inaccurate】			
Description	The index position co	The index position command isn't an integral multiple of the minimum precision angle.				
Possible Cause	The index position of of the minimum prec	r movement command at e cision angle.	current program isn't an integral multiple			
Solution	Please check the pro to an integer multipl	gram, correct the position e of the minimum precisio	or movement command of the index table n angle.			

Alarm ID	COR-369 BGND-369	Alarm title	【Illegal indexing axis command 】			
Description	The command of the indexing axis in the program is illegal.					
Possible Cause	<ol> <li>There are both indexing axis and normal axes in the same G01、G02、G03、G02.4、G03.4、G33、G34 command.</li> <li>G12.1 polar coordinate interpolation specifies the indexing axis as the rotation axis.</li> <li>G28.1,G31,G31.10 skip function specifies the indexing axis.</li> <li>G80.1,G80.2,G81.1,G81.2 command the indexing axis to chopping.</li> </ol>					
Solution	<ol> <li>Please check and modify the program, and split the indexing axis and normal axis into different G01、G02、G03、G02.4、G03.4、G33、G34 command.</li> <li>Don't specify an indexing axis as a rotation axis for polar coordinate interpolation.</li> <li>Don't use the indexing axis for the skip function.</li> <li>Don't use indexing axis for chopping.</li> </ol>					
Alarm ID	COR-370 BGND-370	Alarm title	【Failed to enable chopping function】			
Description	Failed to enable the chopping function .					
Possible Cause	<ol> <li>G81.2 or G81.1 command repeatedly         <ol> <li>G81.1 command repeatedly.</li> <li>G81.2 and G81.1 command simultaneously.</li> </ol> </li> <li>Using G81.2 to make 2 axis in the same axis group do advanced chopping simultaneously.</li> </ol>					
Solution	Please activate or deactivate the chopping function correctly.					
Alarm ID	COR-371 BGND-371	Alarm Title	Prohibit two or more macros read M code argument simultaneously in one block			
Description	One block only allows one M code argument being read by macro.					
Possible Cause	NC programming error.					
Solution	Check the NC program to ensure that there is only one macro read M code argument in one single block.					

Alarm ID	COR-376	Alarm title	[Serv	o Tail Axis disallowed movement command]			
Descriptio n	When the servo tails axis is activated, it cannot accept any movement commands.						
Reason	After activating deactivating it.	; the servo tails f	unction,	issue a movement command to the axis before			
Solution	Check the move and ensure tha Examples of me	ement command t they are execut ovement comma	ds in the ted befor ands in G	program G-code to see if they include the servo tails axis, e the servo tails function is deactivated. -code include: G0, G1, G2, G3, G31, G53, etc.			
Alarm ID	COR-377	Alarm tit	le	[Servo Tail Axis switching error]			
Description	The specified	l axis cannot act	ivate the	servo tails function.			
Reason	1. The a 2. The a 3. The a	<ol> <li>The axis has been designated as a PLC axis.</li> <li>The axis has been designated as a Spindle axis.</li> <li>The axis has been designated as a Chopping axis.</li> </ol>					
Solution	1. Do no 2. Do no 3. Do no	<ol> <li>Do not designate the PLC axis as the servo tails axis.</li> <li>Do not designate the Spindle axis as the servo tails axis.</li> <li>Do not designate the Chopping axis as the servo tails axis.</li> </ol>					
Alarm ID	COR-378     Alarm title     [Servo Tail Axis repeatly enable]						
Description	Servo tails function repeatedly activated.						
Reason	Repeatedly issuing commands to activate the servo tails function for same axis before the servo tails axis is deactivated.						
Solution	Please correctly activate the servo tails function and ensure no duplicate commands are issued.						
Alarm ID	COR-379 Alarm title [Servo Tail Axis enable with wrong servo control mode]						
Descriptio n	Servo tails control mode error.						
Reason	Enable the servo tails function on an axis specified in a non-position control mode.						

Solution	Before a axis in R	activating the servo tails function, ensure that the control mode for the corresponding R4821~R4840 is show as <b>position control.</b>				
Alarm ID		COR-401 BGND-401	Alarm title			Path planning plug-in error
Description	ption Path planning plug-in error.					
Reason		Path planni	ng plug-in e	error leads to system	n abnorn	nality.
Solution		Please cont	act OEM Sy	ntec.		
Alarm ID		COR-402Alarm title[Cycle start is not allowed after us expire ]BGND-402			e start is not allowed after use time ]	
Description		Cycle Start	is not allow	ved after use time ex	pire.	
Reason		The use time of the controller has been expired, hence the controller is locked.				
Solution	ion1. Extend the use time of the controller.2. Please contact the controller vendor to unlock the controller.			ock the controller.		
Alarm ID	COR-60 1 BGND-6 01	Alarm title	Alarm [RTCP is not properly enabled during the execution of 3D tool radius compensation ]			ring the execution of 3D tool radius
Descriptio n	Executin	ng 3-dimensional cutter compensation without correctly enabling RTCP.				
Possible Cause	<ol> <li>Before using G41.2 or G42.2 functions, RTCP was not enabled with G43.4.</li> <li>Before using G41.6 or G42.6 functions, RTCP was not enabled with G43.5.</li> <li>During the execution of 3D tool radius compensation, switching RTCP mode from G43.4 to G43.5, or vice versa.</li> <li>During the execution of 3D tool radius compensation, RTCP was turned off.</li> </ol>					
Solution	During th correctly	he execution of 3D tool radius compensation, use the corresponding RTCP commands y.				
Alarm ID	COR-6 BGND	502Alarm title[Unsupported command used when 3D tool radius compensation is enabled]				

Description	Using unsupported commands when enabling 3D tool radius compensation.				
Possible Cause	<ol> <li>The following commands are present between the blocks where 3D tool radius compensation is enabled:         <ul> <li>Arc interpolation (G02、G03、G02.4、G03.4)。</li> <li>Polar Interpolation (G12.1、G13.1)。</li> <li>polar coordinate command (G16)。</li> <li>Reference point returning (G28、G29、G30)。</li> <li>High-Speed Positioning(G28.1)。</li> <li>Skip command(G31、G31.10、G31.11)。</li> <li>Screw cutting(G33)。</li> <li>Tangential control, left compensation(G41.1、G42.1)。</li> <li>Mechanical coordinate orientation(G53)。</li> <li>Tapping mode(G63)。</li> <li>Feed per revolution(G95)。</li> <li>Equal surface cutting speed(G96).</li> </ul> </li> <li>Modifying the offset values corresponding to the tool number currently in use while 3D tool radius compensation is enabled.</li> </ol>				
Solution	<ol> <li>For arc interpolation, use alternative commands such as G00 or G01.</li> <li>Please remove unsupported commands described above, or disable 3D tool radius compensation before executing those commands.</li> <li>Please wait until 3D tool radius compensation is turned off before modifying the offset values for the tool number in use.</li> </ol>				
Alarm ID	COR-603 BGND-60 3	Alarm title	【When 3D tool compensation is enabled, changing the coordinate system is not supported】		
Description	Changing the coordinate system while the 3D tool radius compensation function is enabled.				
Possible Cause	<ul> <li>While 3D tool radius compensation is enabled, the following commands are used:</li> <li>1. Local Coordinate System Setup (G52)</li> <li>2. Workpiece Coordinate System Setup (G54-G59.9)</li> <li>3. Enable/Disable Workpiece Coordinate Rotation Functionality (G54.4)</li> <li>4. Tool orientation reference coordinate system setting (G43.4 Q1)</li> <li>5. Coordinate Rotation (G68)</li> <li>6. Tilted Working Plane Machining (G68.2、G68.3)</li> <li>7. Absolute Zero Point Coordinate Setup (G92、G92.1)</li> </ul>				
Solution	Before changing the coordinate system, use G40 to deactivate the 3D tool radius compensation function.				

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Alarm ID	COR-605 BGND-605	Alarm ti	tle	[Tool radius compensation mode conflict]	
Descriptio n	Changing the tool radius compensation mode is prohibited while 3D tool radius compensation is enabled.				
Possible Cause	<ol> <li>Using G41.2 or G42.2 3D tool radius compensation commands while G41 or G42 cutter radius compensation is enabled.</li> <li>Using G41 or G42 cutter radius compensation commands while G41.2 or G42.2 3D tool radius compensation is enabled.</li> </ol>				
Solution	Before switc radius comp	hing the cut ensation mo	ter rad ode, th	ius compensation mode, use G40 to cancel the current cutter en enable the new cutter radius compensation mode.	
Alarm ID	COR-606 BGND-60 6	Alarm titl e	m titl [While coordinate transformation is enabled, the use of 3D tool radius compensation is prohibited]		
Descriptio n	While coordinate transformation is enabled, the use of 3D tool radius compensation is prohibited				
Possible Cause	<ul> <li>When the following coordinate transformation functions are enabled, 3D tool radius compensation is activated: <ol> <li>Activate/Deactivate Polar Coordinate Interpolation (G12.1、G13.1)</li> <li>Polar Coordinates Command Mode (G16)</li> <li>Tool attitude reference coordinate system(Pr3057 - Tool attitude reference coordinate system = 1)</li> <li>Coordinate Rotation(G68)</li> <li>Tilted Working Plane Machining (G68.2、G68.3)</li> </ol> </li> </ul>				
Solution	<ol> <li>Remove 3D tool radius compensation commands.</li> <li>Disable those above unsupported coordinate settings for 3D tool radius compensation.</li> </ol>				
Alarm ID	COR-60 A 7 ti BGND-6 07	larm itle a	(This moun	block cannot calculate the 3D tool radius compensation t]	
Descriptio n	This block cannot calculate the 3D tool radius compensation amount				
Possible Cause	1. If the tool orientation and path are coplanar, the 3D tool radius compensation amount cannot be calculated.				

Solution	1. Please modify the machining program so that the tool orientation is not coplanar with the path					
Alarm ID	COR-60 8 BGND-6 08	Alarm title	【Incorrect tool number specified while 3D tool compensation is enabled】			
Descriptio n	After 3D tool radius compensation is enabled, an incorrect cutter radius number is specified.					
Possible Cause	<ul> <li>After 3D tool radius compensation is enabled, the following situations occur:</li> <li>1. Cutter number D is not specified.</li> <li>2. After specifying cutter number D, another cutter number D is specified again.</li> <li>3. The specified cutter number has invalid offset values or wear values set.</li> </ul>					
Solution	<ol> <li>Please specify cutter number D before the first movement block after G41.2, G42.2, G41.6, or G42.6.</li> <li>Please ensure there is only one cutter number D specified within the 3D tool radius compensation activation period.</li> <li>Please correctly set the compensation and wear values for the cutter, ensuring they comply with the following principles:         <ul> <li>The compensation value cannot be less than 0.</li> <li>If the compensation value is greater than 0, the sum of the compensation value and wear value cannot be less than 0.</li> </ul> </li> </ol>					
Alarm ID	COR-60 9 BGND-6 09	Alarm title	【There are too many ineffective blocks between the compensable blocks】			
Descriptio n	The system cannot retain excessive invalid compensation blocks inserted between contour blocks when 3D tool radius compensation is activated.					

Possible Cause	<ol> <li>When 3D tool radius compensation is enabled, too many invalid compensation blocks are inserted between contour blocks, exceeding the system's capacity limit.</li> <li>The following conditions define an "invalid compensation block":         <ul> <li>G00/G01 blocks that only specify movements for the A, B, or C rotational axes.</li> <li>G00/G01 blocks where the tool center point coordinates remain unchanged from the previous tool center point coordinates, meaning there is no movement of the tool center point.</li> <li>The G00/G01 block's tool center point coordinates cause the tool center point to move in a direction parallel to the tool axis, indicating that the block is used for the tool to enter or exit the workpiece machining area in a parallel manner</li> <li>Any G-codes other than G00/G01.</li> <li>M-codes, H-codes, T-codes, etc.</li> <li>G-code macro</li> </ul> </li> </ol>				
Solution	Please reduce	the number	of invalid compensation blocks between contour blocks.		
Alarm ID	COR-610 BGND-61 0	COR-610Alarm title[Corner type change by tool rotation is disallowed]BGND-610			
Description	In 3D tool radius compensation mode, tool rotation causes a change in the corner type.				
Possible Cause	• Variations in tool rotation angles between blocks can lead to the system misjudging the corner type, increasing the risk of cutting errors.				
Solution	Modify the tool rotation block to avoid misinterpretation of corner types.				

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## 7.1 COR-001 Array Variable is empty

Alarm ID	COR-001 BGND-001	Alarm title	Array Variable is empty		
Description	Indirect assigned variable number is empty. i.e. @[#1], if #1 is empty, this alarm will be issued.				
Reason	Programming error.				
Solution	Please check the NC program, make sure that indirect assigned variable's number is not empty.				
#### 7.2 COR-002 File not exist

Alarm ID	COR-002 BGND-002	Alarm title	File not exist
Description	If the file that the system wants to read does not exist i.e. use M98 (or G65, G66, and etc.) to call a non existing file.		
Reason	Programming error.		
Solution	Check the NC program to	o make sure the existence of th	ne file.

## 7.3 COR-003 Devide by zero error

Alarm ID	COR-003 BGND-003	Alarm title	Devide by zero error
Description	If denominator in division of MACRO is equal to 0 i.e. #1:=(#2/ #3); if #3 equals to zero, system will issue this alarm.		
Reason	Programming error		
Solution	Check the NC program to ensure that the denominator is not equal to 0.		

## 7.4 COR-004 Operation domain error

Alarm ID	COR-004 BGND-004	Alarm title	Operation domain error
Description	Operation domain error.		
Reason	Programming error		
Solution	Please check the NC program.		

## 7.5 COR-005 Program loading failure

Alarm ID	COR-005 BGND-005	Alarm title	Program loading failure
Description	MACRO syntax error.		
Reason	Programming error.		
Solution	Please check the NC program.		

#### 7.6 COR-006 Arc not on work plane

Alarm ID	COR-006 BGND-006	Alarm title	Arc not on work plane
Description	<ol> <li>In clockwise, counter-clockwise arc cutting (G02, G03) syntax, if the vector from center of circle to starting point doesn't exist on the arc working surface. i.e. execute G17 G02 I50. K10. , and system will issue this alarm.</li> <li>In spiral interpolation (G02, G03) syntax, when corresponding to G17, G18, and G19 three surface conditions, if K, J , and I arguments are not zero, system will issue this alarm.</li> </ol>		
Reason	Programming error.		
Solution	Check the NC program	to ensure that G02 and G03 a	re used correctly.

## 7.7 COR-007 Arc radius too short

Alarm ID	COR-007 BGND-007	Alarm title	Arc radius too short
Description	In G02 and G03 syntax, if Arc radius is smaller than 10 to the power of minus 10 BLU (10^-10), system will issue this alarm.		
Reason	Programming error.		
Solution	Check the NC program	to ensure that the Arc radius	of G02 and G03 are used correctly.

Alarm ID	COR-008 BGND-008	Alarm title	Arc destination not on arc
Description	In G02 and G03 syntax, issue this alarm. From 8.31 version, add allowing to set window When arc end point po system will auto correc locate on the circle cor When arc end point po will issue this alarm.	if the Arc end point coordin ling Pr3807 setting arc final p v range's error in Pr3807. sition's error is smaller than ct the circle's center position rectly. sition error is bigger than Pr	ate is not on the circle, system will point is not on the check window, Pr3807 setting window's range, n, and make the end point position to 3807 window range setting, system
Reason	Programming error.		
Solution	Check the NC program to ensure that the Arc radius of G02 and G03 are used correctly.		

## 7.8 COR-008 Arc destination not on arc

## 7.9 COR-009 G65 layers called by Macro too deep

Alarm ID	COR-009 BGND-009	Alarm title	G65 layers called by Macro too deep
Description	Use G65 to call MACRO program layer more than 12 layers.		
Reason	Programming error.		
Solution	Check NC program to ensure that G65 calls MACRO program less than or equal to 12 layers.		

# 7.10 COR-010 G66 layers called by Macro too deep

Alarm ID COR-010 BGND-010	Alarm title	G66 layers called by Macro too deep
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Description	<ul> <li>Use G66 to call MACRO program layer more than 4 layers. It is possible in the following situations:</li> <li>1. Improper use G66. Use G66 to call MACRO program layer more than 4 layers.</li> <li>2. Lathe A Type G70 ~ G73 or Lathe C Type G72 ~ G75 Q_ sequence numbers does not exist.</li> </ul>
Reason	Programming error.
Solution	<ol> <li>Check NC program to ensure that G66 calls MACRO program less than or equal to 4 layers.</li> <li>Check NC program to ensure that Lathe A Type G70 ~ G73 or Lathe C Type G72 ~ G75 Q_ sequence numbers exist.</li> </ol>

## 7.11 COR-011 Subprogram layer call too deep

Alarm ID	COR-011 BGND-011	Alarm title	Subprogram call too deep
Description	Use M98 to call subprogram that has more than 16 layers.		
Reason	Programming error.		
Solution	Check NC program to e	ensure that M98 calls subprog	gram that has less than 16 layers.

# 7.12 COR-012 G66 mode not cancel by G67

Alarm ID	COR-012 BGND-012	Alarm title	G66 mode not cancel by G67
Description	G66 and G67 need to be used in pairs, when numbers of G67 is more than G66 in one NC program, this alarm will be issued.		
Reason	Programming error.		
Solution	Check NC program to e	ensure that G66 and G67 are	used in pairs

#### 7.13 COR-013 G65, G66 must be at the end of the block

Alarm ID	COR-013 BGND-013	Alarm title	G65, G66 must be at the end of the block
Description	<ul> <li>G65 and G66 are MACRO, so in one same block the program on the right hand side of G65 and G66 will be processed as G65 and G66's arguments. So in one same block, if there is other G code command please write them in the left hand side of G65 and G66.</li> <li>In one same block, if the right hand side of G65 and G66 has G code or M code, system will issue this alarm.</li> </ul>		
Reason	Programming error.		
Solution	Please check the NC p	rogram.	

#### 7.14 COR-014 Absent program number

Alarm ID	COR-014 BGND-014	Alarm title	Absent program number
Description	The right hand side of G65 and G66 doesn't have P argument to specify program number.		
Reason	Programming error.		
Solution	Please check the NC program to ensure G65 and G66 use P argument to specify program number.		use P argument to specify

#### 7.15 COR-015 Too many auxiliary M codes

Alarm ID	COR-015 BGND-015	Alarm title	Too many auxiliary M codes
Description	There are more than 5 auxiliary M codes in a single block.		
Reason	Programming error.		
Solution	Please check the NC program to ensure that there are equal or less than 5 auxiliary M codes in a single block		

## 7.16 COR-016 Illegal variable access

Alarm ID	COR-016 BGND-016	Alarm title	Illegal variable access		
Descriptio n	Attempted to access a variable that does not exist.				
Reason	<ol> <li>Programming error.</li> <li>Illegal access to # or @ variable.</li> <li>The parameter of SYSDATA function is out of system data range.</li> <li>The controller does not support the status variable which DRVDATA is to read.</li> <li>The program that attempts to access AR or MAR variables does NOT lie within the scope of App Macros.</li> <li>The AR or MAR variables to access do NOT lie within the range defined by the App.</li> <li>Non-integer numbers are used to specify the addresses of AR or MAR variables. ONLY integers are acceptable.</li> <li>The background computing program executed an unsupported instruction.</li> </ol>				
Solution	<ol> <li>Make su</li> <li>Make su</li> <li>Make su</li> <li>Make su Info." pa</li> <li>Make su</li> <li>Make su</li> <li>Make su</li> <li>Make su</li> <li>Make su</li> <li>Make su</li> </ol>	re the accessing variable exists. re the variable to read is readable. re the variable to write is writable. re the variable which DRVDATA is to read c age. re the AR and the MAR variables are access re the AR and the MAR variables to access re only integers are used to specify the add re that no unsupported instructions are us n.	an be found on the "Controller Axis an be found on the "Controller Axis sed ONLY in App Macros. lie within the range defined by the App. dresses of AR or MAR variables. and in the background computing		

#### 7.17 COR-017 Label not found

Alarm ID	COR-017 BGND-017	Alarm title	Sequence number not found
Description	The NC program sequence number is used incorrectly.		
Reason	<ol> <li>When running the GOTO command, the corresponding sequence number (N code) cannot be found.</li> <li>When running the M99 command, sequence number (N code) specified by the P argument cannot be found in the main(parent) program.</li> </ol>		
Solution	Please check the NC program.		

#### 7.18 COR-018 Line number not found

Alarm ID	COR-018 BGND-018	Alarm title	Line number not found
Description	Input line number is incorrect.		
Reason	<ol> <li>When Pr3851 sets as 888800, input breakpoint's line number exceeds NC program's maximum line number.</li> <li>When Pr3851 sets as 999900, input breakpoint's line number exceeds NC program's maximum line number.</li> <li>When Pr3851 sets as 999901, input breakpoint's line number exceeds NC program's maximum line number or positioning command line number cannot be found after scanning through entire NC program.</li> <li>When M99 Q_ sub-program returns to the line number which is assigned by main program, the line number Q_ assigned is over main program's maximum line number.</li> </ol>		
Solution	<ol> <li>Input the correc</li> <li>When Pr3851 se command after</li> </ol>	t program line number. ts as 999901, modify NC prog initial assigned breakpoint.	ram by inserting positioning

# 7.19 COR-019 sub-program has no M99

Alarm ID	COR-019 BGND-019	Alarm title	sub-program has no M99
Description	When main program calls sub-procedure, if sub-program finish executing and need to return the main program, there is no M99.		
Reason	Programming error.		
Solution	Write in M99 when sub-	program finish executing and	l return the main program.

## 7.20 COR-020 Too many G code

Alarm ID	COR-020 BGND-020	Alarm title	Too many G code
Description	There are more than 10 (	G codes in a single block.	

Reason	Programming error.
Solution	Breakdown that single block which has over 10 G codes into single blocks that has less than 10 G codes.

#### 7.21 COR-021 Too many (I,J,K) parameters

Alarm ID	COR-021 BGND-021	Alarm title	Too many (I,J,K) triples
Description	Repeat too much I, J, and K command in the same block.		
Reason	Programming error.		
Solution	Please check the NC pr	ogram.	

## 7.22 COR-022 Use undefined G54 workpiece coordinate

Alarm ID	COR-022 BGND-022	Alarm title	Use undefined workpiece coordinate
Description	Use an undefined G54 coordinate system.		
Reason	Programming error.		
Solution	Use the correct G54 coordinate system.		

#### 7.23 COR-023 Semantic error

Alarm ID	COR-023 BGND-023	Alarm Title	Semantic error
Description	<ol> <li>When using G code, different G code can input different argument (P_, L_, R_, and etc.), if argument setting is wrong, and system will issue this alarm.</li> <li>The argument of macro function is wrong.</li> </ol>		
Reason	Programming error.		

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Alarm ID	COR-023 BGND-023	Alarm Title	Semantic error
Solution	Check the NC program to ensure the argument is used correctly by referring the manual.		correctly by referring the

### 7.24 COR-024 Invalid arc radius value

Alarm ID	COR-024 BGND-024	Alarm title	Invalid arc radius value
Description	When executing G02, G03, appointed Arc end point and given radius is contradicted, which the given radius cannot meet appointing Arc end point. i.e. G91 G03 X1500 Y4000 R2000.		
Reason	Programming error.		
Solution	Check the program and	l recalculate.	

## 7.25 COR-025 Macro stack is overflow or STKTOP[] argument error

Alarm ID	COR-025 BGND-025	Alarm title	Macro stack is overflow or STKTOP[ ] argument error
Description	<ol> <li>STACK can store maximum 4095 values. If stored value exceeding the maximum number, controller issue this alarm.</li> <li>In STKTOP[n], n is started from 0, if the value of n is bigger than the value storing in stack-1, controller issue this alarm</li> </ol>		
Reason	<ol> <li>Too much value store in STACK.</li> <li>STKTOP[] arguments exceeds the value storing in STACK.</li> </ol>		
Solution	<ol> <li>Stack is full, do not use store command anymore.</li> <li>Input a reasonable argument in STKTOP[].</li> </ol>		

#### 7.26 COR-026 Macro stack is empty

Alarm ID	COR-026 BGND-026	Alarm title	macro stack is empty
Description	Empty stack still want to pop value, system issue this alarm.		
Reason	The numbers of Push commands and Pop commands are not the same.		
Solution	Check the program to ensure that the number of Push commands is the same with that of Pop commands.		

#### 7.27 COR-027 Invalid macro arguments

Alarm ID	COR-027 BGND-027	Alarm title	Invalid macro arguments
Description	Macro issue self-defined alarm.		
Possible Cause	Once Macro determines the self-defined alarm error condition is meet, NC program will be stopped and alarm will appear.		
Solution	According to the display content of alarm to find out the error.		

#### 7.28 COR-028 System program error, can't normally machining.

Alarm ID	COR-028 BGND-028	Alarm title	System program error, can't normally machining.
Description	Use Quiet Mode in MACRO, but can't leave Quiet Mode when program finished.		
Reason	Programming error.		
Solution	Please check the NC program.		

#### 7.29 COR-029 Tool length offset change at arc

Alarm ID	COR-029 BGND-029	Alarm title	Tool length offset change at arc
Description	G43, G44, G49 only receive linear interpolation command in the next block.		
Possible Cause	Programming error.		
Solution	Please check the NC program.		

## 7.30 COR-030 Cutting speed command is 0

Alarm ID	COR-030 BGND-030	Alarm Title	Cutting speed command is 0
Description	When execute cutting command, given F code argument is zero.		
Possible Cause	Programming error.		
Solution	Check the NC program to ensure the argument of F code shall not be 0.		

#### 7.31 COR-031 Radius compensation cancel at arc

Alarm ID	COR-031 BGND-031	Alarm title	Radius compensation cancel at arc
Description	G40 only receives linear interpolation command in the next block		
Possible Cause	Programming error.		
Solution	Please check the NC program.		

#### 7.32 COR-032 Radius compensation activate at arc

Alarm ID	COR-032 BGND-032	Alarm title	Radius compensation activate at arc
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Description	G41,G42 only receive linear interpolation command in the next block.
Reason	Programming error.
Solution	Please check the NC program.

## 7.33 COR-033 Improper use of A, R, or C command

Alarm ID	COR-033 BGND-033	Alarm title	Improper use of A, R, or C command	
Description	Timing of using A, R	Timing of using A, R, or C command is incompatible with the specification.		
Reason	Programming error.			
Solution	Check NC program t	Check NC program to confirm that if the blocks are compatible with specifications		

## 7.34 COR-034 Path expand argument does not exist

Alarm ID	COR-034 BGND-034	Alarm title	Path expand argument does not exist
Description	NC program contains non-existed path expand argument, such as ",Z_". Only ",C_", ",R_" and ",A_" arguments are supported.		
Reason	Programming error.		
Solution	Revise NC program, make sure non-supported path expand arguments are excluded.		

## 7.35 COR-035 Corner is too small can't insert round corner chamfer

Alarm ID	COR-035 BGND-035	Alarm title	Corner is too small can't insert round corner chamfer
Description	Angel between blocks, which to be inserted round corner or chamfer is too small so system can't calculate it.		
Reason	Programming error	r.	

Solution	1. Check NC program to confirm that whether the block is compatible with specifications.
	2. Check and confirm the working plane and round corner plane are the same.

#### 7.36 COR-036 Inappropriate A angle command

Alarm ID	COR-036 BGND-036	Alarm title	Inappropriate A angle command
Description	A is valid only in linear interpolation of single block.		
Reason	Programming error.		
Solution	Check NC program to confirm that whether A angle command is compatible with specifications		

## 7.37 COR-037 Chamfer value bigger than displacement

Alarm ID	COR-037 BGND-037	Alarm title	Chamfer value bigger than displacement
Description	Chamfer value is bigger than pre-block and post-block length, so system can't calculate it.		
Reason	Programming errors.		
Solution	<ol> <li>Check NC program to confirm that whether inserted value of chamfer is compatible with specifications.</li> <li>Check to confirm whether C value is compatible with specification.</li> </ol>		

# 7.38 COR-038 Incorrect block jump's switch number.

Alarm ID	COR-038 BGND-038	Alarm title	Incorrect block jump's switch number.
Description	Incorrect block jump switch number. i.e. / 2 G00 X100. ; If assigned number is bigger than 9 or equals to 0, system will issue this alarm.		

Alarm ID	COR-038 BGND-038	Alarm title	Incorrect block jump's switch number.
Reason	Block jump switch number is 0 or bigger than 9.		
Solution	Check the NC program, and confirm block jump switch number is between 1 and 9.		

#### 7.39 COR-039 Measure function can't start tool radius compensation

Alarm ID	COR-039 BGND-039	Alarm title	Measure function can't start tool radius compensation	
Description	Measure fund	Measure function can't start tool radius compensation.		
Reason	Measure function related instruction (i.e., G31, G31.10, G31.11) is executed after tool compensation command.			
Solution	Confirm there is no measure function related command is executed after tool compensation command.			

## 7.40 COR-040 Block end point exceed software stroke limit

Alarm ID	COR-040 BGND-040	Alarm title	Block end point exceed software stroke limit
Description	The machine coordinate in the program exceeds the software stroke limit.		
Reason	Programing error.		
Solution	Check the NC program, and correct coordinate position.		

## 7.41 COR-041 GOTO label must be integer

Alarm ID	COR-041	Alarm title	GOTO label must be integer
	BGND-041		

Description	The input GOTO label is not an integer. i.e. GOTO 1 Correct GOTO 1. Wrong N1; Correct N1.; Wrong
Reason	Programming error.
Solution	Check the NC program, and input integer in GOTO argument.

#### 7.42 COR-042 Logic operand is non-integer or empty

Alarm ID	COR-042 BGND-042	Alarm title	Logic operand is non-integer or empty
Description	Logic operand must be non-integer or empty.		
Reason	Logic operand has floating point. i.e. #1=1.5And3. System will issue this alarm.		
Solution	Please check NC program. Confirm logic operand is integer or empty.		

## 7.43 COR-043 ASIN, ACOS operand must between ±1.0

Alarm ID	COR-043 BGND-043	Alarm title	ASIN, ACOS operand must between ±1.0
Description	ASIN() and ACOS() operand is not between -1.0 and 1.0.		
Reason	Programming error.		
Solution	Check the NC program.		

7.44	COR-044 S	SQRT op	erand sl	hould no	ot be nega	ative

Alarm ID	COR-044 BGND-044	Alarm title	SQRT operand should not be negative
Description	The square root of a negative value will be imaginary number, but the controller does not provide imaginary number function.		
Reason	Programming error.		
Solution	Check the NC program; enter a positive value in SQRT operand.		

## 7.45 COR-045 L address should be integer

Alarm ID	COR-045 BGND-045	Alarm title	L address should be integer
Description	The L address is not an integer.		
Reason	Programming error.		
Solution	Check the NC program, and use integer in L address.		

#### 7.46 COR-046 O address should be integer

Alarm ID	COR-046 BGND-046	Alarm title	O address should be integer
Description	The O address is not an integer.		
Reason	Programming error.		
Solution	Check the NC program, and use integer in O address.		

#### 7.47 COR-047 M address should be integer

Alarm ID	COR-047	Alarm title	M address should be integer
	BGND-047		

Description	The M address is not an integer.
Reason	Programming error.
Solution	Check the NC program, and use integer in M address.

## 7.48 COR-048 Spindle speed S should be integer

Alarm ID	COR-048 BGND-048	Alarm title	Spindle speed S should be integer
Description	The spindle speed S is not an integer.		
Reason	Programming error.		
Solution	Check the NC program, and use integer in the spindle speed S.		

# 7.49 COR-049 Tool length compensation H should be integer

Alarm ID	COR-049 BGND-049	Alarm title	Tool length compensation H should be integer
Description	Tool length compensation H is not an integer.		
Reason	Programming error.		
Solution	Please check the NC program, and use integer in tool length compensation H.		

# 7.50 COR-050 Tool radius compensation D should be integer

Alarm ID	COR-050 BGND-050	Alarm title	Tool radius compensation D should be integer
Description	Tool radius compensation D is not an integer.		
Reason	Programming error.		

Solution	Please check the NC program, and use integer in tool radius compensation.
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#### 7.51 COR-051 Tool number T should be integer

Alarm ID	COR-051 BGND-051	Alarm title	Tool number T should be integer
Description	Tool number T is not an integer.		
Reason	Programming error.		
Solution	Please check the NC program, and use tool number T in integer.		

#### 7.52 COR-052 Sub-program number P should be integer

Alarm ID	COR-052 BGND-052	Alarm title	Sub-program number, P, should be integer	
Description	Sub-program number P is not an integer.			
Reason	Programming error.			
Solution	Please check the NC program, and use the sub-program number P in integer.			

#### 7.53 COR-053 Repeat count L should be integer

Alarm ID	COR-053 BGND-053	Alarm title	Repeat count L should be integer	
Description	Repeat count L is not an integer.			
Reason	Programming error.			
Solution	Please check the NC program, and use the repeat count L in integer.			

#### 7.54 COR-054 Incompatible data type

Alarm ID	COR-054 BGND-054	Alarm title	Incompatible data type		
Description	Data format is incompatible with controller specifications.				
Reason	NC program is not compatible with the SYNTEC controller.				
Solution	Make sure that the NC program data format is compatible with Syntec controller specifications.				

## 7.55 COR-055 Tool length compensation H out of range

Alarm ID	COR-055 BGND-055	Alarm title	Tool length compensation H out of range		
Description	The tool length compensation H exceeds the range of tool number.				
Reason	Programming error				
Solution	Make sure that the	tool length compe	nsation H, is in the range of tool number.		

### 7.56 COR-056 G10 table index P is out of range

Alarm ID	COR-056 BGND-056	Alarm title	G10 table index P is out of range
Description	G10's format is G10 L_ 1. L10 correspond If that tool num 2. L1600 correspond the input paramalarm.	P_ R_; Different number L v ding number P is tool number ober doesn't exist, and cont onding number P is the spin meter is not within the range	vill correspond to different number P. er. Input P1000 means the 1000 <sup>th</sup> tool. roller will issue this alarm. dle synchronization group number. If e of 1-3, the controller will issue this
Reason	Programming error.		
Solution	Confirm G10 data tabl	e address number P is in rea	asonable range.

#### 7.57 COR-057 Tool radius D out of range

Alarm ID	COR-057 BGND-057	Alarm title	Tool radius D out of range	
Description	The tool radius number D exceeds the range of tool number.			
Reason	Programming error.			
Solution	Make sure that the too	l radius number D is in the ra	ange of tool number.	

#### 7.58 COR-058 Tool nose compensation D is out of range

Alarm ID	COR-058 BGND-058	Alarm title	Tool nose compensation D is out of range	
Description	The tool nose compensation D exceeds the range of tool number.			
Reason	Program error.			
Solution	Make sure that the too	Make sure that the tool radius compensation D is in the range of tool number.		

#### 7.59 COR-059 Subprogram call H must be integer

Alarm ID	COR-059 BGND-059	Alarm title	Subprogram Call H must be integer	
Description	Subprogram o	all H is not an int	eger.	
Reason	Program error			
Solution	Confirm the su	ubprogram call H	is an integer.	

## 7.60 COR-060 M99 return number P must integer

Alarm ID	COR-060	Alarm title	M99 return number P must integer
	BGND-060		

Description	The M99 return sequence number P is not an integer.
Reason	Program error.
Solution	Confirm the M99 return sequence number P is an integer.

## 7.61 COR-061 Workpiece number is out of range

Alarm ID	COR-061 BGND-061	Alarm title	Workpiece number is out of range		
Description	The number of work pieces exceeds the allowable range of the controller.				
Reason	Program error.				
Solution	Make sure the number	of work pieces is in the allo	wed range of the controller.		

# 7.62 COR-062 Dwell skip source Q must be integer

Alarm ID	COR-062 BGND-062	Alarm title	Dwell skip source Q must be integer		
Description	Dwell skip source Q is not an integer.				
Reason	Program err	or.			
Solution	Change the	dwell skip sou	rce Q into an integer.		

# 7.63 COR-063 Dwell skip source Q out of range

Alarm ID	COR-063 BGND-063	Alarm title	Dwell skip source Q out of range	
Description	Dwell skip so	ource Q exceed	ds the allowed range.	
Reason	Program error.			

Solution	Make sure the dwell skip source Q is in the allowed range.
Solution	Make sure the dwell skip source Q is in the allowed range.

#### 7.64 COR-064 Invalid P address

Alarm ID	COR-064 BGND-064	Alarm title	Invalid P address
Description	Invalid P address.		
Reason	<ol> <li>Address P is less than 0.</li> <li>Address P is not integer.</li> <li>Address P is out of range.</li> </ol>		
Solution	<ol> <li>Make sure address P is greater or equal to 0.</li> <li>Make sure address P is integer.</li> <li>Make sure address P is within the range.</li> </ol>		

# 7.65 COR-065 A command format error

Alarm ID	COR-065 BGND-065	Alarm title	,A command format error	
Description	In NC program ,A comn	In NC program ,A command's format is wrong.		
Reason	Programming error.			
Solution	<ul> <li>Please confirm ,A command format is one of the followings: <ol> <li>In the same block command as ,A, Moving instruction only includes one of x axis or z axis. i.e. G01 X10. ,A30.</li> <li>Use ,A advanced function in two separate line. The first line will assign ,A angle, and the second line will assign X, Z and ,A at the same time.</li> </ol> </li> <li>i.e. G01 ,A30.</li> <li>G01 ,A30.</li> <li>G01 X0. Z50. ,A45</li> </ul>			

#### 7.66 COR-066 Inc. axis command and abs. axis command conflict

Alarm ID	COR-066 BGND-066	Alarm title	Inc. axis command and abs. axis command conflict
Description	Both G91 and G90 are	Both G91 and G90 are in the same line.	
Reason	Programming error.		
Solution	Decide to use incremental or absolute command in one line, and enter the correct command.		

#### 7.67 COR-067 Arc center vector and radius conflict

Alarm ID	COR-067 BGND-067	Alarm title	Arc center vector and radius conflict
Description	The arc end point is not on the arc created by the arc starting point and the specify center.		
Reason	Programming error.		
Solution	Please check the NC p	rogram.	

#### 7.68 COR-068 Quiet Mode not support imperial Metric switch command

Alarm ID	COR-068 BGND-068	Alarm title	Quiet Mode not support imperial Metric switch command
Description	The single block command in Quiet mode operation cannot switch Metric/ imperial unit.		
Reason	Programming error.		
Solution	Please check the NC	orogram.	

#### 7.69 COR-069 Round corner and chamfer cmd. conflict

Alarm ID	COR-069 BGND-069	Alarm title	Round corner and chamfer cmd. conflict
Description	Chamfer command ar	Chamfer command and round corner command are in the same line.	
Reason	Program error.		
Solution	Do not let chamfer co	mmand and round corner c	ommand exist in the same line.

#### 7.70 COR-070 Invalid G Code

Alarm ID	COR-070 BGND-070	Alarm title	Invalid G Code
Description	Enter incorrect G code to	o controller.	
Reason	Program error.		
Solution	Enter the valid G-code.		

#### 7.71 COR-071 No main program name assigned

Alarm ID	COR-071 BGND-071	Alarm title	No main program name assigned
Description	The name of main program is not specified.		
Reason	The NC program is no	ot loaded.	
Solution	Specify the name of	main program.	

#### 7.72 COR-072 Threading command exceeds max. cutting speed

Alarm ID COR-072 BGND-072	Alarm title	Threading command exceeds max. cutting speed
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Description	Threading command exceeds the maximum cutting speed.
Reason	Program error.
Solution	Decrease the cutting speed of threading.

## 7.73 COR-073 Tapping command exceed max. cutting speed

Alarm ID	COR-073 BGND-073	Alarm title	Tapping command exceed max. cutting speed
Description	Tapping command speed exceeds the maximum cutting speed.		
Reason	Program error.		
Solution	Decrease the cutting speed of tapping.		

## 7.74 COR-074 Tool radius too big, path overcut

Alarm ID	COR-074 BGND-074	Alarm title	Tool radius too big, path overcut
Description	<ol> <li>During machining notch, the notch width is smaller than two times of tool radius.</li> <li>During machining trapezoidal, the height of trapezoidal is less than two times of tool radius.</li> </ol>		
Reason	Tool compensation causes path overcut.		
Solution	Please check the NC program, and decide whether this part of the machining should cancels tool radius compensation.		

## 7.75 COR-075 Exact stop wait timeout

Alarm ID	COR-075	Alarm title	Exact stop wait timeout
	BGND-075		

Description	After 2 seconds after sending Exact stop (G09/G61) command, the difference between feedback and command exceeds allowable value (G01 is determined by Pr421~; G00 is determined by Pr481~).
Reason	Servo vibration.
Solution	<ol> <li>Servo tuning.</li> <li>Modify parameters Pr421~ or Pr481~.</li> </ol>

## 7.76 COR-076 G04 dwell time cannot be negative

Alarm ID	COR-076 BGND-076	Alarm title	G04 dwell time cannot be negative
Description	Input value of dwell time G04 is negative.		
Reason	Program error.		
Solution	Check the NC program, and enter a positive or zero value in G04 argument.		

## 7.77 COR-077 NURBS curve format is wrong

Alarm ID	COR-077 BGND-077	Alarm Title	NURBS curve format is wrong	
Description	G6.2 format	G6.2 format is wrong.		
Reason	Input argument P, K, R is against allowable format.			
Solution	Refer the program manual to correct the command syntax.			

## 7.78 COR-078 NURBS curve system memory insufficient

Alarm ID	COR-078 BGND-078	Alarm Title	NURBS curve system memory insufficient
Description	NURBS curv	e memory is insufficient.	

Alarm ID	COR-078 BGND-078	Alarm Title	NURBS curve system memory insufficient
Reason	System processing defective.		
Solution	Contact OEM Syntec.		

## 7.79 COR-079 Number of NURBS curve nodes more than the upper limit

Alarm ID	COR-079 BGND-079	Alarm Title	Number of Nurbs curve nodes more than the upper limit		
Description	NURBS curve	NURBS curve control point is over limit.			
Reason	NC file G6.2 curve is too long and cause using too many control point.				
Solution	Re-generate the CAM, and restrict the number of curve nodes less than 400.				

## 7.80 COR-080 Threading pitch is negative

Alarm ID	COR-080 BGND-080	Alarm Title	Threading pitch is negative
Description	Threading pitch distance can't be negative value.		
Reason	Threading pitch distance setting error.		
Solution	Check and correct the configured threading pitch to be positive value.		

# 7.81 COR-081 Use arc interpolation under tool offset function. Arc command doesn't use assigned angle.

Alarm ID	COR-08 1 BGND-0 81	Alarm Title	Use arc interpolation under tool offset function. Arc command doesn't use assigned angle.	
Description	In tool offs	In tool offset function (G45~G48), G02 and G03 can only be 90 degree or 270 degree.		
Reason	In NC program's tool offset function (G45~G48) block, all arc interpolation angle can only be 90 degree or 270 degree.			
Solution	Check if G45~G48 is 90 or 270 degree when using them in the arc interpolation (G02/G03). Note, IJK to specify circle center shall be used.			

# 7.82 COR-082 Tool compensation function and tool offset function can't use at the same time

Alarm ID	COR-082 BGND-082	Alarm Title	Tool compensation function and tool offset function can't use at the same time	
Description	Can't use too compensatio	Can't use tool offset function (G45~G47) and tool compensation function (G41, G42) or tool radius compensation at the same time.		
Reason	NC program edit error.			
Solution	Check NC program, and confirm tool offset function (G45~G47) and tool compensation function (G41, G42) are not used at the same time.			

# 7.83 COR-083 When pull tool back to pause point, and move axis position manually.

Alarm ID	COR-0 83 BGND- 083	Alarm Title	When pull tool back to pause point, and move axis position manually.	
Description	Before p	Before pull tool back to pause point, press stop and manually move tool.		

Alarm ID	COR-0 83 BGND- 083	Alarm Title	When pull tool back to pause point, and move axis position manually.	
Reason	Operatio	Operation error.		
Solution	Please wait until tool is pulled exactly back to pause point, then execute the manual position movement.			

## 7.84 COR-084 P Argument unassigned when using the rapid drilling

Alarm ID	COR-084 BGND-084	Alarm Title	P Argument unassigned when using the rapid drilling
Description	When using rapid drilling function, must set P argument (bottom hole dwell time), or system will issue this alarm.		
Reason	Programming error.		
Solution	Check the NC program to ensure the P Argument is assigned when using the G code of rapid drilling.		

#### 7.85 COR-085 F Argument unassigned in Inverse Time Feed mode

Alarm ID	COR-085 BGND-085	Alarm Title	F Argument unassigned in Inverse Time Feed mode
Description	Under Inverse Time Feed mode, if F argument is not assigned in command line and system will issue this alarm.		
Reason	Programming error.		
Solution	Check the NC program to ensure there is F command is given following in each line after Inverse Time Feed mode.		

#### 7.86 COR-086 R and I arguments unassigned in G10 L1501 mode

Alarm ID	COR-086 BGND-086	Alarm Title	R and I arguments unassigned in G10 L1501 mode
Description	G10 L1501 argument only has argument R or argument I.		
Reason	Programming error.		
Solution	Check the NC program to ensure the R and I arguments are not used independently.		

## 7.87 COR-087 P and Q arguments must be different in G10 L1501 mode

Alarm ID	COR-087 BGND-087	Alarm Title	P and Q arguments must be different in G10 L1501 mode	
Description	P and Q argument in	P and Q argument in G10 L1501 mode setting are the same.		
Reason	Programming error.			
Solution	Please check program, and confirm P and Q argument in G10 L1501 mode aren't the same.			

# 7.88 COR-088 No time-axis command after the I argument in G10 L1501 mode

Alarm ID	COR-088 BGND-088	Alarm Title	No time-axis command after the I argument in G10 L1501 mode
Description	In spring machine dedicated machine's motion plan, if use I argument in G10 L1501, before the next G10 L1502 command, user can't command P argument axis number (time axis) in G1 0L1501.		
Reason	Programming error.		
Solution	Check the NC program.		

#### 7.89 COR-089 Main axis must be increment command in G10 L1501 mode

Alarm ID	COR-089 BGND-089	Alarm Title	Main axis must be increment command in G10L1501 mode
Description	G10 L1501 mode spindle must be incremental command.		
Reason	Programming error.		
Solution	Under G10 L1501 mode, confirm the command which sends to spindle is incremental command.		

#### 7.90 COR-090 C-axis zero-speed check failed in G12.1 mode

Alarm ID	COR-090 BGND-090	Alarm Title	C-axis zero-speed check failed in G12.1 mode	
Description	When start to switch	When start to switch polar coordinate, C axis must be totally stop.		
Reason	When C axis uses as spindle, but spindle not yet stop rotating.			
Solution	Switch the spindle to C-axis mode before activating polar coordinate.			

#### 7.91 COR-091 Main axis synchronization – basic main axis number error

Alarm ID	COR-091 BGND-091	Alarm Title	Main axis synchronization – basic main axis number error
Description	When using spindle synchronous function G114.1, Pr4021, Pr4023, Pr4025 can't be zero.		
Reason	Parameter setting error.		
Solution	Check if values of Pr4021/Pr4023/Pr4025 are correct.		

# 7.92 COR-092 Main axis synchronization – synchronization main axis number error

Alarm ID	COR-092 BGND-092	Alarm Title	Main axis synchronization – synchronization main axis number error
Description	When using spindle synchronous function G114.1, Pr4022, Pr4024, Pr4026 can't be zero.		
Reason	Parameter setting error.		
Solution	Check if values of Pr4022/Pr4024/Pr4026 are correct.		

#### 7.93 COR-093 Main axis synchronization – spindle type error

Alarm ID	COR-093 BGND-093	Alarm Title	Main axis synchronization – spindle type error
Description	When using spindle synchronous and Superimposition function, setting wrong spindle motor type.		
Reason	Parameter setting error.		
Solution	Check 1791~Pr1800 to set correct spindle configurations by referring to HELP.		

# 7.94 COR-094 Under spindle load rigid tapping spindle rotation speed exceed

Alarm ID	COR-094 BGND-094	Alarm Title	Under spindle load rigid tapping spindle rotation speed exceed
Description	When using spindle load function to do rigid tapping, tool axis must synchronize with offset axis speed, and then do end surface taping according to user setting tapping speed. If tool axis speed is over spindle rotation speed maximum value, and system will issue this alarm.		
Reason	Command is over range that mechanical can bear.		

Alarm ID	COR-094 BGND-094	Alarm Title	Under spindle load rigid tapping spindle rotation speed exceed
Solution	<ol> <li>Reduce the rotation speed (tapping speed) of tool axis.</li> <li>Reduce the rotation speed of workpiece axis.</li> </ol>		of tool axis.

# 7.95 COR-095 In polygon cutting function, basic spindle rotation speed ratio is wrong

Alarm ID	COR-095 BGND-095	Alarm Title	In polygon cutting function, basic spindle rotation speed ratio is wrong
Description	When using polygon cutting G51.2 function, basic spindle rotation speed ratio (P argument) must be bigger than zero.		
Reason	Programming error.		
Solution	Check the value of P argument in G51.2.		

# 7.96 COR-096 In polygon cutting function, synchronous spindle rotation speed ratio is wrong

Alarm ID	COR-096 BGND-096	Alarm Title	In polygon cutting function, synchronous spindle rotation speed ratio is wrong
Description	When using polygon cutting G51.2 function, basic spindle rotation speed ratio (Q argument) must be bigger than zero.		
Reason	Programming error.		
Solution	Check the value of Q argument in G51.2.		

#### 7.97 COR-097 Axis coupling function ON or OFF failed

Alarm ID	COR-097 BGND-097	Alarm Title	Axis coupling function ON or OFF failed
Description	Axis coupling function ON or OFF failed.		
Reason	Too much axis coupling groups is used.		
Solution	Check if the number of axis coupling groups is more than 16 (including the number of axis coupling group configured in parameter).		

#### 7.98 COR-098 Parameter learning argument error

Alarm ID	COR-098 BGND-098	Alarm Title	Parameter learning argument error
Description	When using learning function, if argument (P, Q, R, K) setting is wrong, system will issue this alarm.		
Reason	Programming error.		
Solution	Check the NC program to ensure the arguments are in compliance with specifications.		

P.S. Valid version of COR-336 : before 10.118.60J、10.118.66D、10.118.69 (included).

#### 7.99 COR-099 Tapping learning condition is not matched

Alarm ID	COR-099 BGND-099	Alarm Title	Tapping learning condition is not matched	
Description	Condition of tapping learning function is not matched			
Reason	When activating tapping learning function, if tapping condition (tapping depth, R point height, feedrate, rotation speed, and etc.) is different, it can't apply to same learning data. If force different tapping condition to use same learning data, it may misuse learning data, and cause tapping error or even tool break.			
Solution	Check tapping instruction in tapping learning function, and confirm all tapping instruction arguments are the same.			

P.S. Valid version of COR-336 : before 10.118.60J、10.118.66D、10.118.69 (included).

# 7.100 COR-100 Unsupported G code command or option software is not activated

Alarm ID	COR-100 BGND-100	Alarm Title	Unsupported G code command or option software is not activated	
Description	Different controllers	will have correspond G co	de, but not all G code can use.	
Reason	<ol> <li>This controller type may not support this G code command.</li> <li>This controller type will not support serial bus spindle (C-Type) to use lathe G21, G33, G34, G78 commands.</li> <li>This controller type will not support serial bus spindle (A-Type) to use lathe G32, G73, G76, G92 commands.</li> <li>This controller type can support this G code command, but the option software function has not been purchased, which makes the G code unusable.</li> <li>Loader path and Wood auxiliary path only support part of G codes: G00, G01, G02, G03, G04, G04.1, G09, G10, G17, G18, G19, G22, G23, G31, G52, G53, G54, G55, G56, G57, G58, G59, C59.x, G90, G91, G92.</li> <li>The setting of Pr3802 is incorrect. This controller type does not support the G62 command.</li> <li>Synchronized positioning axis only support part of G codes: G00, G53</li> </ol>			
Solution	<ol> <li>1-4. Please contact a</li> <li>5. Do not use Loader</li> <li>6. Set Pr3802 to 0.</li> <li>7. Do not use synchromic</li> </ol>	. Please contact administrator. Oo not use Loader path and Wood auxiliary path to do process operation. Set Pr3802 to 0. Oo not use synchronized positioning axis to do process operation.		

# 7.101 COR-101 Under Spindle synchronization – thread pitches of two spindle is inconsistent

Alarm ID	COR-101 BGND-101	Alarm Title	Under Spindle synchronization - thread pitches of two spindle is inconsistent		
Description	When using spindle synchronize, if basic spindle and synchronous spindle pitch setting are different and will cause synchronous abnormal condition. And will issue this alarm for protection.				
Possible Cause	Parameter setting error.				
Solution	Check the spi	Check the spindle used in Pr161~180 to ensure the parameter configurations are the same.			

# 7.102 COR-102 Under Spindle synchronization – synchronization command duplicated or conflicted

Alarm ID	COR-102 BGND-102	Alarm Title	Under Spindle synchronization – synchronization command duplicated or conflicted	
Description	When spindle synchronizing, repeat G51.2, G114.1 or G114.3 commands.			
Possible Cause	Haven't use G113 to cancel G114.1 and G114.3, or use G50.2 to cancel G51.2, and again set a repeated G114.1, G114.3 or G51.2 commands.			
Solution	Cancel the G114.1 and G114.3 mode with G113, or cancel G51.2 mode with G50.2. Then execute the G114.1/G114.3/G51.2 commands to avoid the angle difference for repeated machining.			

# 7.103 COR-103 Invalid precision channel setting

Alarm ID	COR-103 BGND-103	Alarm Title	Invalid precision channel setting	
Description	Invalid precision chan	nel setting.		
Possible Cause	Using G64, G62P_ or G120.1 P_Q_ to choose invalid precision channel. Currently can only choose: 1. G64、G62 P0~P9、G62/G64 P21 ~ P23 2. G120.1 P0、G120.1 P1 Q1 ~ G120.1 P3 Q3			
Solution	To select precision channel with the G64/G62 P_ or G120.1 P_ Q Check the NC program to ensure if any non-existing precision channel is selected.			

# 7.104 COR-104 Virtual axis function enabling failed

Alarm ID	COR-104 BGND-104	Alarm Title	Virtual axis function enabling failed	
Description	The virtual axis function	on failed to be functioned.		
Alarm ID	COR-104 BGND-104	Alarm Title	Virtual axis function enabling failed	
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Possible Cause	<ol> <li>The P and Q arguments in G10 L800 P_Q_ or G10 L801 P_Q_ are set incorrectly.         <ol> <li>No P, Q arguments.</li> <li>The P argument is set incorrectly and the value is invalid.</li> <li>The Q argument is set incorrectly, the value is invalid; or the corresponding axis is not set to the axis of the parameter table that has been turned on.</li> </ol> </li> <li>In the same machining, G10 L800 and G10 L801 appear at the same time.</li> <li>The robot does not support the virtual axis function.</li> </ol>			
Solution	<ol> <li>Check the virtual axis commands to ensure the P and Q Arguments are configured.</li> <li>Check the virtual axis commands to ensure the P Argument shall be within 100~999 and the Q Argument shall be within 1~16 (axis number) or 100~999 (axis name).</li> <li>Check the axial direction (Q Argument) mapped with the virtual axis to ensure th parameter table is configured to the enabled axial direction.</li> <li>Check if the G10 L800 and G10 L801 shall not be existent in the same NC program</li> </ol>			

# 7.105 COR-105 Axial coupling configuration error

Alarm ID	COR-105 BGND-105	Alarm Title	Axial coupling configuration error			
Description	The axis coupling function is set incorrectly.					
Possible Cause	In G10 L900 P_ Q_ R_, the P and Q arguments are set incorrectly.					
Solution	<ol> <li>Check the name or number of coupling axis is mapped to ensure the axial direction is enabled.</li> <li>Chedk the specified coupling axis is not assigned to inclined axes control.</li> <li>Check the specified coupling axis is not assigned to indexing axis.</li> </ol>					

# 7.106 COR-106 Prohibit to use G5.1 in G61/G63/G63.2 mode

Alarm ID	COR-106 BGND-106	Alarm Title	Prohibit to use G5.1 in G61/G63/ G63.2 mode		
Description	<ol> <li>G5.1 path smoothing. In G61, G63, G63.2 mode, it is forbidden to use G5.1 smoothing function, otherwis the system will issue an alarm; If G61, G63, G63.2 are enabled in G5.1 mode, the system will stop the smoothing function until it jumps out of G61, G63, G63.2 mode and then activate again.</li> <li>G05 High Precision Contour Control.         <ul> <li>a. 10.116.16J previous version, in G61, G63, G63.2 mode, it is forbidden to use G05 High Precision Contour Control function, otherwise the system will issue an alarm; If G61, G63, G63.2 is enabled in G05 mode, no alarm will be issued, but the High Precision Contour Control function is disabled, It is necessary to command G05 again to activate.</li> <li>b. above 10.116.16K versions, no alarm will be issued, and the G05 High Precision Contour Control function will be issued, and the G05 High Precision Contour Control function will be disabled, and can be valid after G61, G63, and G63, 2</li> </ul> </li> </ol>				
Possible Cause	The cutting mode setting in the NC program is incorrect.				
Solution	<ol> <li>Do not mix use G5.1 path smoothing with G61/G63/G63.2 functions.</li> <li>In the version before 10.116.16J (included), do not mix use the G05 High Precision Contour Control with the G61/G63/G63.2 functions.</li> </ol>				

# 7.107 COR-107 G5.1/G05 command format error

Alarm ID	COR-107 BGND-107	Alarm Title	G5.1/G05 command format error
Description	The G5.1 and G05 commands are in the wrong format.		
Possible Cause	<ol> <li>The format of the G5.1 path smoothing command in the NC program is incorrect.</li> <li>The G05 high-precision cutting mode command format in the NC program is incorrect.</li> </ol>		

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Alarm ID	COR-107 BGND-107	Alarm Title	G5.1/G05 command format error
Solution	Confirm the following 1. G5.1 a. Q argum b. E argum 2. G05 a. System i. C ii. C b. Activate versions i. N ii. T iii. T iv. T v. T E vi. N vii. A c. In the versions a. C c. In the versions c. In the version	command formats are correct nent: None, more than 2, or la tent: None or less than 0. issue alarm when using G05 G05 P argument is not 10000 G05 E argument is not positive command G05 P10000 X0 Y0 command G05 P1000 X0 Y0 command G05 P1000 X0 Y0 command G05 P1000 X0 Y0 command G05 P1000 X0 command G05 P1000 X0 command G05 P1000 X0 command G05 P1000 X0 command G05 P1000	ct not have these error: ess than 0. in following cases for each version: nor 0. re. $0 \ Z0 \ \alpha_{\beta_{in}}$ in 10.116.36 or above are assigned. not 0. onfigured to 0. cry axis is configured but this of rotary s not set when the axis of the of rotation axes are configured. ive. ere is the 4 <sup>th</sup> axis command in nmands of X, Y, or Z axes after G05 is

# 7.108 COR-108 G10 L1501/L1502 command format error

Alarm ID	COR-108 BGND-108	Alarm Title	G10 L1501/L1502 command format error		
Description	There is no NC program between G10 L1501 and G10 L1502.				
Possible Cause	The NC program was written incorrectly.				
Solution	Check the NC program to ensure the programming between G10 L1501 and G10 L1502 is correct.				

# 7.109 COR-109 The second software stroke limit command error, activating failure

Alarm ID	COR-109 BGND-109	Alarm Title	The second software stroke limit command error, activating failure	
Description	The second software stroke limit (G22) command is written incorrectly, causing the second software stroke limit fail to activate.			
Possible Cause	The arguments written after the second software stroke limit (G22) command are wrong, and the same group parameters should exist at the same time.			
Solution	Check if the arguments in the same set after G22 are defined completely.			

#### 7.110 COR-110 NC program of spring machine motion plan more than 500 lines

Alarm ID	COR-110 BGND-110	Alarm Title	NC program of spring machine motion plan more than 500 lines
Description	The number of machining lines between G10 L1501 and G10 L1502 exceeds 500 lines.		
Possible Cause	There are too many single blocks in the NC program.		
Solution	Check and refine the NC program.		

# 7.111 COR-111 Axis exchange function – axial configuration error

Alarm ID	COR-111 BGND-111	Alarm Title	Axis exchange function - axial configuration error		
Description	Under the axis exchange function, the axial setting is incorrect.				
Possible Cause	The two axial's axis exchange parameters are set incorrectly.				
Solution	Check if Pr3721 and Pr3722 are mapped to physical axial directions (Pr21~) and to 2 different axis.				

# 7.112 COR-112 Axis exchange function – diameter/radius axis configuration error

Alarm ID	COR-112 BGND-112	Alarm Title	Axis exchange function - diameter/radius axis configuration error	
Description	Under the axis exchange function, the diameter axis and radius axis are set incorrectly.			
Possible Cause	The parameters of the diameter and radius axis of the two axis exchange are set incorrectly.			
Solution	Check if the diameter and radius axis configurations (Pr281~) of the 2 axis to be exchanged is consistent.			

### 7.113 COR-113 Axis exchange function – ON or OFF timing error

Alarm ID	COR-113 BGND-113	Alarm Title	Axis exchange function - ON or OFF timing error		
Description	When the axis exchange function is enabled, the enabled or disabled timing error.				
Possible Cause	When the cross-path axis is exchanged, the G04.1 waiting action is not performed.				
Solution	Check PLC to ensure no G04.1 waiting command is executed in more than 1 path.				

### 7.114 COR-114 Axis exchange function – path configuration error

Alarm ID	COR-114 BGND-114	Alarm Title	Axis exchange function - path configuration error		
Description	When using the axis exchange function, the path setting is incorrect.				
Possible Cause	The axis used for axis exchange belong to multi-paths.				
Solution	Check path parameter ( Pr701~) if the two axis to be exchanged are mapped to the multiple path.				

### 7.115 COR-115 G92.1 axial configuration error

Alarm ID	COR-115 BGND-115	Alarm Title	G92.1 axial configuration error
Description	When using the G92.1 rotation function, the axial setting is incorrect.		
Possible Cause	The parameter sets the first 3 axis of the path contains the rotary axis.		
Solution	Check the parameter to ensure the first 3 axis are linear axis.		

# 7.116 COR-116 Absolute coordinate system synchronization failed

Alarm ID	COR-116 BGND-116	Alarm Title	Absolute coordinate system synchronization failed		
Description	Absolute coordinate system failed to synchronize when using C35.				
Possible Cause	Machine is not stationary or the program is continuously interpreted.				
Solution	To execute the synchronization of coordinate system in C35 mode shall ensure the machine is still and the program stops to interpret (i.e. Using M code shall turn C38 off).				

# 7.117 COR-117 M code not disabled in the interrupt subprogram

Alarm ID	COR-117 BGND-117	Alarm Title	M code not disabled in the interrupt subprogram		
Description	If Pr3600 is se with M(n+1). error; therefo	If Pr3600 is set to n, when the interrupt type subprogram is used, it starts with M(n) and ends with M(n+1). If M(n) is used and M(n+1) is not used to end the function, it will cause an action error; therefore, this alarm is issued for protection.			
Possible Cause	The NC programming error.				
Solution	Check the NC program to ensure the M(n+1) command is given.				

# 7.118 COR-118 Prohibit G53 commands in tool tip control mode

Alarm ID	COR-118 BGND-118	Alarm Title	Prohibit G53 commands in tool tip control mode		
Description	G53 command cannot be used in the tool point control mode.				
Possible Cause	<ol> <li>The NC programming error.</li> <li>The machine type is the tool point control mode.</li> </ol>				
Solution	<ol> <li>Please check the NC program, make sure that the G53 command is not within the validity range of G43.4 or G43.5.</li> <li>Please check the NC program, make sure that the G53 command is not within the validity of G12.1.</li> <li>If the machine configuration used is the tool point control mode, the G53 command cannot be used.</li> </ol>				

#### 7.119 COR-119 G10 L16 command format error

Alarm ID	COR-119 BGND-119	Alarm Title	G10 L16 command format error	
Description	Since the comm G12.1, G93, G95 command is iss	nand G10 L16 (virtua , and G05, therefore ued.	I circle radius) does not support functions such as G05, G7.1, , an alarm will be issued if G10 L16 is used when the above	
Possible Cause	<ol> <li>The axis type is linear axis (i.e. G10 L16 X50., and X is set to a linear axis, this alarm is issued).</li> <li>When using G10 L16 while command G05, G7.1, G12.1, G93, G95 and etc. functions are also given.</li> </ol>			
Solution	<ol> <li>Check Pr221~ to ensure the correct axis type.</li> <li>G10 L16 and G7.1/G12.1/G93/G95/G05 shall not be executed at the same time.</li> </ol>			

# 7.120 COR-120 More than the maximum number of cutting synchronization axis

Alarm ID	COR-120 BGND-120	Alarm Title	More than the maximum number of cutting synchronization axis			
Description	Different controller products can correspond to different maximum number of simultaneous cutting axis, and if this limit is exceeded, an alarm will be issued. (i.e. G01 X10. Y10 .Z10. Represents the number of simultaneous axes is 3).					
Possible Cause	<ul> <li>Please refer to "System Information" under the controller HMI screen to check "Machine Properties" and "Machine Code". Please refer to the catalogue for each product specification.</li> <li>Following examples: <ol> <li>If "Machine Properties" is Mill, "Machine Code" is 200A-5, and the maximum number of axis is 9.</li> <li>If the "Machine Properties" is Lathe, the "Machine Code" is 6B, and the maximum number of axis is 4.</li> </ol> </li> </ul>					
Solution	The number of simultaneous axis in the NC program shall be according to the product specifications.					

### 7.121 COR-121 LN operator shall be positive

Alarm ID	COR-121 BGND-121	Alarm Title	LN operator shall be positive	
Description	The operands after the LN function cannot be negative.			
Possible Cause	The NC program was written incorrectly.			
Solution	Modify the contents of the NC program.			

# 7.122 COR-122 The 1st operator of POW shall not be negative

Alarm ID	COR-122 BGND-122	Alarm Title	The 1 <sup>st</sup> operator of POW shall not be negative
Description	The base operand of the POW function must not be a negative number.		

Alarm ID	COR-122 BGND-122	Alarm Title	The 1 <sup>st</sup> operator of POW shall not be negative
Possible Cause	The NC program was written incorrectly.		
Solution	Modify the contents of the NC program.		

### 7.123 COR-123 Illegal STR2INT input or too long string

Alarm ID	COR-123 BGND-123	Alarm Title	Illegal STR2INT input or too long string	
Description	The syntax of the STR2INT function is incorrect or the string is too long.			
Possible Cause	The NC program was written incorrectly.			
Solution	Modify the contents of the NC program.			

# 7.124 COR-124 S code commands unsupported in the machine

Alarm ID	COR-124 BGND-124	Alarm Title	S code commands unsupported in the machine	
Description	This model does not support S code commands.			
Possible Cause	This model does not support S code commands.			
Solution	Replace a controller model that supports S codes.			

# 7.125 COR-125 T code commands unsupported in the machine

Alarm ID	COR-125 BGND-125	Alarm Title	T code commands unsupported in the machine
Description	T code command is illegal.		

Alarm ID	COR-125 BGND-125	Alarm Title	T code commands unsupported in the machine		
Possible Cause	<ol> <li>This model does not support T code commands.</li> <li>The T code command is out of the T code range supported by the product.</li> </ol>				
Solution	Replace a controller model that supports T codes.				

# 7.126 COR-126 H code commands unsupported in the machine

Alarm ID	COR-126 BGND-126	Alarm Title	H code commands unsupported in the machine		
Description	This model does not support H code commands.				
Possible Cause	This model does not support H code commands.				
Solution	Replace a controller model that supports H codes.				

# 7.127 COR-127 D code commands unsupported in the machine

Alarm ID	COR-127 BGND-127	Alarm Title	D code commands unsupported in the machine		
Description	This model does not support D code commands				
Possible Cause	This model does not support D code commands				
Solution	Replace a controller model that supports D codes.				

# 7.128 COR-131 Too much M/T code macros in a block

Alarm ID	COR-131 BGND-131	Alarm Title	Too much M/T code macros in a block
Description	The total number of M code macros and T code macros in the same block exceeds 20.		

Alarm ID	COR-131 BGND-131	Alarm Title	Too much M/T code macros in a block		
Possible Cause	NC programming error.				
Solution	Check the NC program to ensure the total number of M and T code macros are not more than 20 in one single block.				

# 7.129 COR-132 Illegal character in the program name

Alarm ID	COR-132 BGND-132	Alarm Title	Illegal character in the program name		
Description	When open a file using Macro, the specified file name contains illegal characters.				
Possible Cause	NC programming error.				
Solution	Check the specified file names.				

# 7.130 COR-133 Command unsupported in Three-points arc interpolation mode

Alarm ID	COR-133 BGND-133	Alarm Title	Command unsupported in Three-points arc interpolation mode			
Description	This command	This command is not supported in the three-point arc interpolation mode (G02.4, G03.4)				
Possible Cause	<ol> <li>The tool radius compensation function is not turned off before using this function.</li> <li>It is not supported in G62 cutting mode.</li> </ol>					
	3. In the three-point arc interpolation mode (G02.4, G03.4), A, C, and R commands are not supported.					
Solution	Check the NC program to ensure there is no command described in the Possible Cause.					

Alarm ID	COR-134 BGND-134	Alarm Title	Three-points arc interpolation command format error		
Description	The three-point arc interpolation (G02.4, G03.4) command format is wrong.				
Possible Cause	The three-point arc interpolation (G02.4, G03.4) command is regarded as a group of two lines, which can be specified continuously. The end point of the previous arc is the starting point of the next arc, but the F command can only be in the odd line. This alarm is issued if the total number of lines in the command is odd or the number of lines in the F command is even.				
Solution	Check the three-point arc interpolation G02.4/G03.4 command format in NC program.				

#### 7.131 COR-134 Three-points arc interpolation command format error

# 7.132 COR-135 Read/write command format error for R value

Alarm ID	COR-135 BGND-135	Alarm Title	Read/write command format error for R value
Description	SETRREGBIT, READRE	EGBIT bring in an argumer	it with type error or range error.
Possible Cause	<ol> <li>SETRREGBIT (R value number, specify BIT, on or off)         <ol> <li>If the R value is less than 0 or greater than 65535.</li> <li>Specify if the BIT is less than 0 or greater than 31.</li> <li>If the third argument is not 0 (off) or 1 (on).</li> </ol> </li> <li>READRREGBIT (R value number, specify BIT)         <ol> <li>If the R value is less than 0 or greater than 65535.</li> <li>Specify if the BIT is less than 0 or greater than 31.</li> </ol> </li> </ol>		
Solution	Correct the argument type or range in the commands, SETRREGBIT and READRREGBIT		

# 7.133 COR-136 Please reboot the controller when axis tuning failed

Alarm ID	COR-136 BGND-136	Alarm Title	Please reboot the controller when axis tuning failed	
Description	After a certair	a certain serial bus axial tuning fails, without rebooting, cycle start is triggered.		

Alarm ID	COR-136 BGND-136	Alarm Title	Please reboot the controller when axis tuning failed	
Possible Cause	The serial bus axial tuning failed.			
Solution	Reboot controller.			

# 7.134 COR-137 Path synchronization waiting's P-argument sequence error

Alarm ID	COR-137 BGND-137	Alarm title	Path synchronization waiting's P- argument sequence error	
Description	<ol> <li>The machining multi-path program uses the path synchronization waiting (G04.1) to wait for the synchronization action:         <ol> <li>When the Q argument is not selected, when two programs go to the position of the path synchronization waiting (G04.1) at the same time, if the P arguments substituted are different, this alarm is issued for reminder.</li> <li>When the next Q argument (decimal) specifies the path synchronization waiting (G04.1) at the same time, for each other, when the two programs go to the position of the path synchronization waiting (G04.1) at the same time, and wait for each other, but the P arguments substituted are different, this alarm is issued for reminder.</li> </ol> </li> </ol>			
Possible Cause	<ol> <li>In the NC program of multiple paths, the order of P arguments is abnormal or the number is incorrect.</li> <li>Machining is performed using M99, but in each program, the path without Q argument is synchronously waiting (G04.1), and the number is different.</li> <li>Machining is performed using M99, but in each program, the path with the same Q argument is synchronously waiting (G04.1), and the number is different.</li> <li>The two paths "wait for each other", but the P argument substituted are not the same. i.e. G04.1 P1 Q123 under the first path and G04.1 P2 Q124 under the second path.</li> </ol>			
Solution	Please check the number of Synchronization wait between paths (G04.1) and the order of the assigned value for argument P.			

### 7.135 COR-138 Read/write command format error at the I/O/A point

Alarm ID	COR-138 BGND-138	Alarm Title	Read/write command format error at the I/O/A point
Description	The system provides 512 I/O/A points, the input I/O/A point number shall be within 0~511 when using the commands, SETDO, SETABIT, READDI, READDO, and READABIT.		
Possible Cause	NC Programming error.		
Solution	Check if there is any of I/O/A point number in the commands, SETDO, SETABIT, READDI, READDO, and READABIT in the NC program is over the range of 0 ~ 511.		

# 7.136 COR-139 Polynomial solution error

Alarm ID	COR-139 BGND-139	Alarm Title	Polynomial solution error
Description	Determine the polynomial cannot be derived to solutions in case of the alarm.		
Possible Cause	Numerical processing calculation errors cause root failure.		
Solution	Check the value of syst solutions.	em data no. 321, and provide	e it to the controller OEM Syntec for

# 7.137 COR-140 Invalid high-precision contour control mode using

Alarm ID	COR-140 BGND-140	Alarm Title	Invalid high-precision contour control mode using
Description	<ol> <li>Turn on G05 high-speed high-precision mode in the RTCP/STCP mode.</li> <li>When the high-precision contour control mode is enabled during processing, use block stop C40.</li> </ol>		in the RTCP/STCP mode. de is enabled during processing, use single
	3. When the STCP mo	de is enabled during proce	essing, use single block stop C40.

Alarm ID	COR-140 BGND-140	Alarm Title	Invalid high-precision contour control mode using
Possible Cause	<ol> <li>In the RTCP/STCP r commands, such as 0</li> <li>When the high-pred block stop C40.</li> <li>When the STCP mod</li> </ol>	mode, turn on the G05 high 605 P10000. cision contour control moo de is enabled during proce	n-precision contour control mode with de is enabled during processing, use single essing, use single block stop C40.
Solution	<ol> <li>Check the mode to contour control mode</li> <li>If (1), remove the cont the RTCP/STCP mode</li> <li>If (2), turn off the RTC control mode.</li> <li>When the high-pre- use the single block s</li> <li>When the STCP mode</li> <li>When the STCP mode</li> <li>C40 at the same time</li> </ol>	be turned on is (1) RTCP/S e. mmand to turn on the G05 H e. P/STCP mode before turni cision contour control mod top C40 at the same time. de is enabled during proce	STCP mode or (2) G05 high-precision high-precision contour control mode in ing on the G05 high-precision contour de is enabled during processing, do not essing, do not use the single block stop

# 7.138 COR-141 G68.3 command format error

Alarm ID	COR-141 BGND-141	Alarm Title	G68.3 command format error
Description	[command format] G68.3 X_Y_Z_R_; // TH system. G68.3 P1 X_Y_Z_; // TH coordinate system is d	ne origin and z-axis rotation ne origin of the characteristi etermined with the tool rota	angle in the characteristic coordinate c coordinate system, and the ation angle.
Possible Cause	G68.3 command format, X, Y and Z are all exist or non-exist at the same time.		
Solution	Check if G68.3 command format is correct.		

### 7.139 COR-142 Spindle synchronization – K Argument error

Alarm ID	COR-142 BGND-142	Alarm Title	Spindle synchronization – K Argument error
Description	K Argument error while using Spindle synchronization function.		
Possible Cause	The inputted K Argument is not within the valid range.		
Solution	Input a K Argument within the valid range to enable the Spindle synchronization.		

# 7.140 COR-143 Programmable data input specified axis does not exist

Alarm ID	COR-143 BGND-143	Alarm Title	Programmable data input specified axis does not exist
Description	In G10 L1501 mode, the P argument is set incorrectly.		
Possible Cause	The axial direction substituted by the P Argument is inexistent.		
Solution	Check Pr21~ to ensure the axial direction is ON.		

### 7.141 COR-144 Path synchronization waiting Q Argument content error

Alarm ID	COR-144 BGND-144	Alarm Title	Path synchronization waiting Q Argument content error
Description	When the machining m synchronization, the Q (decimally). The alarm assigned path is inexis	nultiple path program applie Argument assigns the paths is used to remind the users tent.	es the G04.1 to wait for s to be waited for each other if the Q Argument type error or the

Alarm ID	COR-144 BGND-144	Alarm Title	Path synchronization waiting Q Argument content error
Possible Cause	<ol> <li>The Q Argumen zero are all illeg</li> <li>The path assign 2<sup>nd</sup> and 4<sup>th</sup> path 3 CNC main sys</li> <li>The Q Argumen</li> <li>The paths assig is. ie. In the 2<sup>nd</sup> each other, but</li> </ol>	It is not a positive integer (ne gal). hed by the Q Argument is ine n to wait for each other. How tem paths. It includes 0 when assigning ned by the Q Argument do r path, the G04.1 P1 Q13 assig it does not assign the path i	egative number, decimal point and existent. i.e. Q24 is used to assign the vever, the Pr731=3 and there are only the paths. i.e. Q103. not include this in which the command gns the 1 <sup>st</sup> and 3 <sup>rd</sup> paths to wait for in which it is.
Solution	Check the Path synchr the assigned path are o	onization waiting (G04.1) in correct for a given Q Argume	the program to ensure the type and ent.

# 7.142 COR-145 Failed to activate Spindle positioning

Alarm ID	COR-145 BGND-145	Alarm Title	Failed to activate Spindle positioning
Description	Spindle positioning failed.		
Possible Cause	<ol> <li>Incorrect Spindle ID is assigned.</li> <li>The Spindle is operating in the tapping mode when the Spindle positioning function is ON.</li> <li>After starting the positioning, C61 is OFF so that the positioning is broken.</li> </ol>		
Solution	<ol> <li>Check the Spindle parameter configuration.</li> <li>Check the NC program to ensure the execution of Spindle positioning in non-tapping mode.</li> <li>Check the PLC to ensure C61 is ON.</li> </ol>		

# 7.143 COR-146 Single block argument type error

Alarm ID	COR-146 BGND-146	Alarm Title	Single block argument type error
Description	Argument type error in a block.		

Alarm ID	COR-146 BGND-146	Alarm Title	Single block argument type error
Possible Cause	The two following situations may trigger this alarm: 1. Input float value to an argument required integer value. 2. Input integer value to an argument required float value.		
Solution	Correct the argument	type in the block.	

# 7.144 COR-147 Spindle is not enabled when path machining

Alarm ID	COR-147 BGND-147	Alarm Title	Spindle is not enabled when path machining		
Description	The machining Spindle assigned by the path is not enabled when executing the commands related to the Spindle.				
Possible Cause	When executing the G33/G34/G63/G74/G84, the Spindle assigned by the R791~R794 is not enabled.				
Solution	<ol> <li>Check if the PLC switches R791~R794 values correctly in the block and whole NC program about the alarm.</li> <li>Check if the Pr1621~Pr1628 configurations are correct (cooperate with R791~R794).</li> </ol>				

# 7.145 COR-148 The use of tool retract function error

Alarm ID	COR-148 BGND-148	Alarm Title	The use of tool retract function error	
Description	When using the tool retract function, a given improper argument results in the function cannot be executed.			
Possible Cause	<ol> <li>In the Tilted working plane machining (G68.2/G68.3) or RTCP (G43.4/G43.5) mode, the C21 ON is triggered to execute the assigned axial position retraction.</li> <li>In the non-Tilted working plane machining (G68.2/G68.3) or non- RTCP (G43.4/ G43.5) mode, the C21 ON is triggered to execute the assigned retraction along the tool vector.</li> </ol>			

Alarm ID	COR-148 BGND-148	Alarm Title	The use of tool retract function error
Solution	<ol> <li>In the slopping apply G10.6 R_</li> <li>In the non-slop mode, apply G</li> </ol>	g plane machining (G68.2/G to assign the tool retractio oping plane machining (G68 10.6 X_ to assign the tool re	68.3) or RTCP (G43.4/G43.5) mode, In function. 3.2/G68.3) or non- RTCP (G43.4/G43.5) etraction function.

# 7.146 COR-149 Tilted working plane machining tool alignment P Argument over range

Alarm ID	COR-149 BGND-14 9	Alarm Title	Tilted working plane machining tool alignment P Argument over range		
Descriptio n	P Argument is over range in Tilted working plane machining tool alignment mode.				
Possible Cause	P Argument is not within 0~2.				
Solution	Do not input the P Argument or input the correction configuration for the P Argument in Tilted working plane machining tool alignment mode.				

# 7.147 COR-151 1st rotation axis entering illegal range

Alarm ID	COR-151 BGND-151	Alarm Title	1 <sup>st</sup> rotation axis entering illegal range	
Description	1 <sup>st</sup> rotation axis entering illegal range.			
Possible Cause	<ol> <li>Pr3007, Pr3009, or Pr3010 configuration error.</li> <li>The angle of 1<sup>st</sup> rotation axis is incorrect in the executed 5-axis NC program.</li> </ol>			
Solution	<ol> <li>Check if Pr3009 and Pr3010 are configured correctly. The determination of such two configurations is related to Pr3007. In case of the alarm, please re-confirm these 3 configurations.</li> <li>Check the NC program.</li> </ol>			

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Alarm ID	COR-152 BGND-152	Alarm Title	2 <sup>nd</sup> rotation axis entering illegal range	
Description	2 <sup>nd</sup> rotation axis entering illegal range			
Possible Cause	<ol> <li>Pr3008, Pr3011 or Pr3012 configuration error.</li> <li>The angle of 2<sup>nd</sup> rotation axis is incorrect in the executed 5-axis NC program.</li> </ol>			
Solution	<ol> <li>Check if Pr3011 and Pr3012 are configured correctly. The determination of such two configurations is related to Pr3008. In case of the alarm, please re-confirm these 3 configurations.</li> <li>Check the NC program.</li> </ol>			

# 7.149 COR-153 Tool direction unknown

Alarm ID	COR-153 BGND-153	Alarm Title	Tool direction unknown		
Description	Tool direction unknown.				
Possible Cause	5-axis configurations and machine mechanism is incompatible.				
Solution	The tool cannot reach the destination. It may be caused by the incompatible 5-axis configurations and machine mechanism. Please check all 5-axis configurations.				

#### 7.150 COR-154 No 5-axis function

Alarm ID	COR-154 BGND-154	Alarm Title	No 5-axis function	
Description	No 5-axis function.			
Possible Cause	Pr3001 is not configured when executing G53.1 tool alignment command.			
Solution	Check if Pr3001 is configured to 0. If yes, configure the other non-zero values based on the 5-axis mechanism type and reboot.			

#### 7.151 COR-155 5-axis tool direction error

Alarm ID	COR-155 BGND-155	Alarm Title	5-axis tool direction error		
Description	5-axis tool direction error.				
Possible Cause	5-axis tool direction (Pr3002) or the 1 <sup>st</sup> and 2 <sup>nd</sup> rotation axis (Pr3005 and Pr3006) configuration error.				
Solution	Check if the Pr3002 is configured correctly, or if the Pr3005 or Pr3006 is configured correctly. The alarm will be triggered in case the 2 <sup>nd</sup> rotation axis is parallel to the Spindle in the Spindle type, or the 1 <sup>st</sup> rotation axis is parallel to the Spindle in the workbench type.				

### 7.152 COR-156 5-axis axial direction error

Alarm ID	COR-156 BGND-156	Alarm Title	5-axis axial direction error		
Description	5-axis axial direction error.				
Possible Cause	Incorrect configurations are mapped to the axial direction parameters of 5 axis.				
Solution	Check if each axial direction is configured completely (Pr21~), if Pr3005, Pr3006, Pr3007 and Pr3008 is configured correctly, or if the axis name (Pr321~) is mapped to Pr3005 and Pr3006.				

# 7.153 COR-157 Incompatible direction of 5-axis tool direction and this of rotation axis

Alarm ID	COR-157 BGND-157	Alarm Title	Incompatible direction of 5-axis tool direction and this of rotation axis		
Description	Incompatible direction of 5-axis tool direction and this of rotation axis.				
Possible Cause	<ol> <li>The 2<sup>nd</sup> axial direction and the tool direction are the same in the Spindle type.</li> <li>The 1<sup>st</sup> axial direction and the tool direction are the same in the table type.</li> <li>The 1<sup>st</sup> axial direction and the tool direction are the same in the hybrid type.</li> </ol>				

Alarm ID	COR-157 BGND-157	Alarm Title	Incompatible direction of 5-axis tool direction and this of rotation axis
Solution	Check if the tool direction and the rotation axial direction are the same depended on the used 5-axis mechanism type.		

P.S. Valid version of COR-157 : before 10.118.41M, 10.118.47 (included).

# 7.154 COR-158 Prohibit the 1st and 2nd rotary axis commands in the G43.5 mode

Alarm ID	COR-158 BGND-158	Alarm Title	Prohibit the 1 <sup>st</sup> and 2 <sup>nd</sup> rotary axis commands in the G43.5 mode
Description	Since the G43.5 mode specifies the tool attitude based on the tool vector I, J and K, it shall not be executed for the 1 <sup>st</sup> and 2 <sup>nd</sup> rotation axis commands which can also specify the tool attitude.		
Possible Cause	Programming error.		
Solution	Check the NC program to ensure the movement commands of the 1 <sup>st</sup> and 2 <sup>nd</sup> rotation axis are over the valid range in the G43.5 mode.		

### 7.155 COR-159 Illegal tool vector

Alarm ID	COR-159 BGND-159	Alarm Title	Illegal tool vector	
Description	In NC program, a movement block assigns an incorrect tool vector.			
Possible Cause	Programming error. i.e. Execute G01 X_Y_Z_I0 J0 K0 in the G43.5 mode, and the I0 J0 K0 refers to the 0 vector, 0 vector is illegal.			
Solution	Check the NC program to ensure the assigned tool vector is correct in the block indicated by the alarm line number			

# 7.156 COR-160 5-axis mechanism chain switched when the 5-axis function is ON

Alarm ID	COR-160 BGND-160	Alarm Title	5-axis mechanism chain switched when the 5-axis function is ON
Description	In NC program, the command G10 L5000 [P_] is executed to switch the 5-axis mechanism when turning on the 5-axis function (RTCP or the tool vector alignment on the characteristic coordinate system is completed).		
Possible Cause	Programming error. i.e. Execute G10 L5000 [P_] in the G43.4 mode.		
Solution	Check the NC program to ensure the 5-axis function is not turned on in the block indicated by the alarm line number.		

# 7.157 COR-161 Selected 5-axis mechanism chain is not ON

Alarm ID	COR-161 BGND-161	Alarm Title	Selected 5-axis mechanism chain is not ON	
Description	In NC program, the 5-axis mechanism chain parameters assigned by the command G10 L5000 [P_] is not ON.			
Possible Cause	Programming error. i.e. The assigned 5-axis mechanism chain is not configured correctly when executing a command G10 L5000 [P_].			
Solution	Check the 5-axis mechanism chain parameters to ensure the assigned 5-axis mechanism chain function is turned on correctly: 1. 1 <sup>st</sup> set: Pr3001 2. 2 <sup>nd</sup> set: Pr3101 3. 3 <sup>rd</sup> set: Pr5501 4. 4 <sup>th</sup> set: Pr5601			

#### 7.158 COR-162 4-axis RTCP configuration error

Alarm ID	COR-162 BGND-162	Alarm Title	4-axis RTCP configuration error
Description	The controller will issue the alarm in case the 4-axis RTCP configuration is incorrect.		
Possible Cause	The 5-axis mechanism parameters, Pr3001, Pr3101, Pr5501 and Pr5601 are configured to 1~3 in case the specific 4-axis tool tip control function (option-29) is turned on but the tool tip control function (option-12) is not.		
Solution	<ol> <li>Configure the 5</li> <li>Turn on the too</li> </ol>	5-axis mechanism paramete ol tip control function (optio	rs to 4 or 5 correctly. n-12).

# 7.159 COR-163 Multi-kinematic chain command Q Argument setting error.

Alarm ID	COR-163 BGND-163	Alarm Title	Multi-kinematic chain command Q Argument setting error.
Description	Command G10 L5000P_Q_, Q argument range error.		
Possible Cause	Command G10 L5000P_ Q_, Q argument range error.		
Solution	While using G10 L5000P_ Q_, check Q argument to be within 0~4, and is a integer.		

# 7.160 COR-164 Multi-kinematic chain command related 5-Axis mechanism setting error.

Alarm ID	COR-164 BGND-164	Alarm Title	Multi-kinematic chain command related 5-Axis mechanism setting error.
Description	Command G10 L5000P_ Q_ specified the 5-Axis kinematic chain, and the 5-Axis mechanism parameter setting error.		
Possible Cause	While executing G10 L5000P_ Q_, Q argument is given, but the 5-Axis mechanism parameter of the designated 5-Axis kinematic-chain is not a spindle-type 5-Axis machine.		

Alarm ID	COR-164 BGND-164	Alarm Title	Multi-kinematic chain command related 5-Axis mechanism setting error.
Solution	<ul> <li>Please check the designated 5-Axis kinematic-chain. The 5-Axis mechanism configuration parameter must be a spindle-type 5-Axis machine.</li> <li>1. The first group : Pr3001 is 1.</li> <li>2. The second group : Pr3101 is 1.</li> <li>3. The third group : Pr5501 is 1.</li> </ul>		
	<ol> <li>The second g</li> <li>The third group</li> <li>The fourth group</li> </ol>	roup : Pr3101 IS 1. up : Pr5501 is 1. oup : Pr5601 is 1.	

# 7.161 COR-165 Multi-kinematic chain command not illegal.

Alarm ID	COR-165 BGND-165	Alarm Title	Multi-kinematic chain command not illegal.
Description	Command G10 L5000P_ Q_ is used for switching 5-Axis kinematic chain, and only provides partial 5-Axis mechanism function command.		
Possible Cause	<ul> <li>G10 L5000 P_ Q_ command, the Q argument is set to 2~4 (not the first group of sub-kinematic chain), and only supports the following 5-Axis machine function command.</li> <li>1. RTCP: G43.4.</li> <li>2. RTCP: G43.5.</li> <li>3. Tilted working plane : G68.2 + Tool alignment functions.</li> <li>4. Tilted working plane : G68.3.</li> <li>Notice: Tool alignment functions include G53.1, G53.3, G53.6,</li> </ul>		
Solution	When using the G10 L5000 P_ Q_ command to switch multi-kinematic chains, please use the supported 5-Axis machine function command.		

# 7.162 COR-166 Characteristic Coordinate System Option not supported

Alarm ID	COR-16 6 BGND-1 66	Alarm Title	Characteristic Coordinate System Option not supported
Descrip tion	Option13 ( Characteristic Coordinate System Option ) was not active, therefore the CNC couldn't execute relevant commands.		

Alarm ID	COR-16 6 BGND-1 66	Alarm Title	Characteristic Coordinate System Option not supported
Possibl e Cause	One or more commands below were given while the Option13 ( Characteristic Coordinate System Option ) was inactive: 1. G68.2, G68.3 2. G53.1, G53.3, G53.6 3. Other commands that are relevant to Option13 ( Characteristic Coordinate System Option )		
Solutio n	<ol> <li>Activate Option13 (Characteristic Coordinate System Option)</li> <li>Avoid using the commands listed above</li> </ol>		

# 7.163 COR-167 File name conflicts in NcFiles

Alarm ID	COR-167 BGND-167	Alarm Title	Program File name conflicts in NcFiles
Description	Program File name conflicts in NcFiles folder.		
Possible Cause	When Pr3220 is set to 1, "non-main system", "PLC axis", "pre- and post-processing auxiliary programs" restrict calling files from the Macro folder, and prohibit the NcFiles folder from having the same file name.		
Solution	<ol> <li>Set Pr3220 to 0.</li> <li>Remove the conflicting files in the NcFiles folder or change the file name.</li> </ol>		

# 7.164 COR-168 Illegal tool compensation

Alarm ID	COR-16 8 BGND-1 68	Alarm Title	Illegal tool compensation.
Descrip tion	Illegal tool compensation		
Possibl e Cause	1. Trying to use non-zero tool length or tool radius compensation value on a machine type which doesn't support tool compensation		

Alarm ID	COR-16 8 BGND-1 68	Alarm Title	Illegal tool compensation.
Solutio n	<ol> <li>Set tool compensation value as zero</li> <li>Turn off tool compensation related functions</li> </ol>		

# 7.165 COR-169 Overlap on the same axis

Alarm ID	COR-16 9 BGND-1 69	Alarm Title	Overlap on the same axis
Descrip tion	Overlap on the same axis.		
Possibl e Cause	Using G1.10 with argument Q on the same axis with two consecutive blocks.		
Solutio n	Please che	eck NC Progran	n and avoid overlapping on the same axis with two consecutive blocks.

# 7.166 COR-170 G43.4 L2 illegal argument value

Alarm ID	COR-170 BGND-170	Alarm 标题	【G43.4 L2 illegal argument value 】
说明	When using G43.4 L2. E_ R_, Illegal argument value is assigned		
可能原因	Illegal argument value <ol> <li>R value is negative</li> <li>E value is not in the range of 0.001 to 179.999</li> </ol>		
排除方法	Please check the E_ R_ argument values		

# 7.167 COR-171 Non-linear kinematic transform is not allowed in inclined axes control

Alarm ID	COR-171 BGND-171	Alarm title	[Non-linear kinematic transform is not allowed in inclined axes control]
Description	When inclined axes control is enabled, it can't work with non-linear kinematic transform.		
Possible Cause	<ol> <li>using following function, when inclined axes control is enabled.</li> <li>G43.4 Rotate tool center point Type 1.</li> <li>G43.5 Rotate tool center point Type 2.</li> <li>G68.2,G68.3 Titled working plane machining with G43,G44 Tool length compensation.</li> <li>G41.1, G42.1 tangential control.</li> </ol>		
Solution	Don't use these func	tions at program when in	clined axes control is enabled.

### 7.168 COR-172 G43.4/G43.5 I illegal argument value

Alarm ID	COR-172 BGND-172	Alarm Title	[G43.4/G43.5 I illegal argument value ]
Description	When using G43.4/G43.5 I_, illegal argument value is assigned		
Possible Cause	Illegal argument value 1. The I value is not within the range of 0 to 3600000.		
Solution	Please check that the I_ argument is within a reasonable range.		

### 7.169 COR-180 Invalid parameters setting for tangential control

New Version is 10.118.86K, 10.120.16K, 10.120.24A, 10.120.27 and after Old Version is 10.118.86L, 10.120.16L, 10.120.24B, 10.120.28 and before

# New Version Old Version Alarm ID COR-180-1 Alarm Title [Feed axes for tangential control do not exist]

Description	Invalid command or	parameters setting for t	angential control.	
Reason	Feed axes for tangential control do not exist.			
Solution	X or Y or Z axis do not exist. Please ensure axis exist( Pr21~ ) and axis name( Pr321~ ) correct.			
Alarm ID	COR-180-2	Alarm Title	[Specified axis for tangential control does not exist]	
Description	Invalid command or	parameters setting for ta	angential control.	
Reason	Specified axis for tan	gential control does not	exist.	
Solution	Axis for tangential co	ntrol( Pr5801 ) should b	e the existing axis( Pr21~ ).	
Alarm ID	COR-180-3	Alarm Title	[Do not support specified axis type for tangential control]	
Description	Invalid command or parameters setting for tangential control.			
Reason	Do not support specified axis type for tangential control.			
Solution	Set axis type( Pr221~	) of the tangential contr	ol axis to 2 or 5.	
Alarm ID	COR-180-4	Alarm Title	[Rotary axis mode is invalid for tangential control. Switch spindle mode to C-axis mode.]	
Description	Invalid command or parameters setting for tangential control.			
Reason	Using spindle as rotary axis for tangential control but axis is not in C-axis mode.			
Solution	Switch spindle mode to C-axis mode( C63 ) before start tangential control.			
Alarm ID	COR-180-5	180-5Alarm Title[Rotation direction or location of the tangential control axis is not yet set]		
Description	Invalid command or p	parameters setting for ta	ngential control.	

Reason	<ol> <li>Rotation direction of the tangential control axis is not yet set.</li> <li>Location of the tangential control axis is not yet set.</li> </ol>		
Solution	<ol> <li>Set rotation direction of the tangential control axis( Pr5802 ) to 1, 2, or 3.</li> <li>Set location of the tangential control axis( Pr5803 ) to 1 or 2.</li> </ol>		
Alarm ID	COR-180-6	Alarm Title	[G41.1, G42.1 command format is wrong]
Description	Invalid command or parameters setting for tangential control.		
Reason	<ul> <li>G41.1, G42.1 command:</li> <li>1. Value of the Q argument is out of range.</li> <li>2. Value of the E argument is out of range.</li> <li>3. Value of the P argument is neither 0 or 1.</li> </ul>		
Solution	Please refer to the G41	.1/G42.1 command descri	ption.

#### New Version Old Version

Alarm ID	COR-180	Alarm Title	[Invalid parameters setting for tangential control]
Description	Invalid command o	or parameters setting for t	angential control.
Reason	<ol> <li>Feed axes for</li> <li>Specified axis</li> <li>Do not supp</li> <li>Using spind</li> <li>Rotation din</li> <li>Location of</li> <li>G41.1, G42</li> <li>a. Valu</li> <li>b. Valu</li> <li>c. Valu</li> </ol>	or tangential control do no xis for tangential control do port specified axis type for lle as rotary axis for tangen rection of the tangential co the tangential control axi 1 command: le of the Q argument is out le of the E argument is out le of the P argument is nei	ot exist. loes not exist. tangential control. ntial control but axis is not in C-axis mode. ontrol axis is not yet set. s is not yet set. t of range. of range. ther 0 or 1.

Solution	<ol> <li>X or Y or Z axis do not exist. Please ensure axis exist(Pr21~) and axis name(Pr321~) correct.</li> <li>Axis for tangential control(Pr5801) should be the existing axis(Pr21~).</li> <li>Set axis type(Pr221~) of the tangential control axis to 2 or 5.</li> <li>Switch spindle mode to C-axis mode(C63) before start tangential control.</li> <li>Set rotation direction of the tangential control axis(Pr5802) to 1, 2, or 3.</li> <li>Set location of the tangential control axis(Pr5803) to 1 or 2.</li> <li>Please refer to the G41.1/G42.1 command description.</li> </ol>

### 7.170 COR-181 Tangential control plane conflict

Alarm ID	COR-181	Alarm Title	[Tangential control plane conflict]	
Description	Work plane is conflict with the tangential control plane.			
Reson	After tangential control function enabled, user has specified conflict work plane.			
Solution	Reassign tangential control axis and rotation direction of the tangential control axis o remove the conflict workplane specified.			

# 7.171 COR-182 Unsupport functions under tangential control

New Version is 10.118.86K, 10.120.16K, 10.120.24A, 10.120.27 and after Old Version is 10.118.86L, 10.120.16L, 10.120.24B, 10.120.28 and before

Old Version

New Version	Old Version			
Alarm ID	COR-	182-1	Alarm Title	[Should not put movement to rotary axis of tangential control while tangential control enabled]
Description	When	When tangential control function is enabled, do not support some other functions.		
Reason	Put m	Put movement command to tangential control rotary axis.		
Solution	Don't G49 ).	use these functions until reset or tangential control function disabled( G40.1 or		

Alarm ID	COR-182-2	Alarm Title	[Should not use tool compensation command such as G41, G42, G43.4, G43.5 while tangential control enabled]
Description	When tangential cont	rol function is enal	bled, do not support some other functions.
Reason	Using tool compensat	ion command suc	h as G41, G42, G43.4, G43.5.
Solution	Don't use these functi G49 ).	ons until reset or t	angential control function disabled( G40.1 or
Alarm ID	COR-182-3	Alarm Title	[Should not use G02/G03 L_ command to do multiple turns of circle cutting while tangential control enabled]
Description	When tangential cont	rol function is enal	bled, do not support some other functions.
Reason	Using G02/G03 L_ command to do multiple turns of circle cutting.		
Solution	Don't use these functions until reset or tangential control function disabled( G40.1 or G49 ).		
Alarm ID	COR-182-4	Alarm Title [Should not use G10L1150 to write parameters of tangential control mechanism while tangential control enabled]	
Description	When tangential control function is enabled, do not support some other functions.		
Reason	Using G10L1150 to write parameters of the tangential control mechanism.		
Solution	Don't use these functions until reset or tangential control function disabled( G40.1 or G49 ).		
Alarm ID	COR-182-5	Alarm Title	[Should not put chopping command to axes under tangential control]
Description	When tangential con	trol function is ena	bled, do not support some other functions.
Reason	Put chopping command to axes under tangential control.		

Solution	Don't use these functions until reset or tangential control function disabled( G40.1 or G49 ).			
Alarm ID	COR-182-6	Alarm Title	【Should not turn on the G05 high-speed high-precision mode with command while tangential control enabled】	
Description	When tangential contr	rol function is enab	led, do not support some other functions.	
Reason	Turn on the G05 high-s	speed high-precisio	on mode with command, such as G05 P10000.	
Solution	Don't use these function G49 ).	ons until reset or ta	angential control function disabled( G40.1 or	
Alarm ID	COR-182-7	Alarm Title	【Should not use G53 to do machine coordinate orientation while tangential control enabled】	
Description	When tangential control function is enabled, do not support some other functions.			
Reason	Using G53 to do machine coordinate orientation.			
Solution	Don't use these functi G49 ).	Don't use these functions until reset or tangential control function disabled( G40.1 or G49 ).		
Alarm ID	COR-182-8	Alarm Title	[Should not use G10L1500 to do rotary axis auxiliary brake while tangential control enabled]	
Description	When tangential control function is enabled, do not support some other functions.			
Reason	Using G10L1500 to do rotary axis auxiliary brake.			
Solution	Don't use these functions until reset or tangential control function disabled( G40.1 or G49 ).			

#### New Version Old Version

Alarm ID	COR-182	Alarm Title	[Unsupport functions under tangential control]
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Description	When tangential control function is enabled, do not support some other functions.
Reason	<ol> <li>Put movement command to tangential control rotary axis.</li> <li>Using tool compensation command such as G41, G42, G43.4, G43.5.</li> <li>Using G02/G03 L_ command to do multiple turns of circle cutting.</li> <li>Using G10L1150 to write parameters of the tangential control mechanism.</li> <li>Put chopping command to axes under tangential control.</li> <li>Turn on the G05 high-speed high-precision mode with command, such as G05 P10000.</li> <li>Using G53 to do machine coordinate orientation.</li> <li>Using G10L1500 to do rotary axis auxiliary brake.</li> </ol>
Solution	Don't use these functions until reset or tangential control function disabled( G40.1 or G49 ).

# 7.172 COR-183 Angle between start and end tool vector approach 180 during tool vector interpolation mode

Alarm ID	COR-18 3	Alarm Tit le	[Angle between start and end tool vector approach 180 during tool vector interpolation mode]	
Descrip tion	When the RTCP interpolation mode is set to tool vector, the angle between the starting and ending tool vectors approaches 180.			
Reason	When the RTCP interpolation mode is set to tool vector and the tool vector at the end point of a segment is parallel to the current tool vector, it is not possible to determine a single movement plane.			
Solutio n	<ol> <li>Please modify the NC file to ensure that the angle between tool vector at the end point of a segment and the current tool vector is not close to 180 degrees.</li> <li>Set Pr3054 to 0.</li> </ol>			

# 7.173 COR-201 Program file not exist

Alarm ID	COR-201 BGND-201	Alarm title	Program file not exist	
Description	The specified program does not exist.			
Possible Cause	The specified program does not exist.			

Solution	Ensure that program file exists.
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### 7.174 COR-202 Communication link error

Alarm ID	COR-202 BGND-202	Alarm title	Communication link error
Description	Communication link is dropped.		
Possible Cause	The transmission communication link is dropped.		
Solution	Reconnect a good transmission communication link.		

# 7.175 COR-203 Illegal NC file format

Alarm ID	COR-203 BGND-203	Alarm title	Illegal NC file format
Description	NC program format not valid, as a result, the system cannot fully interpret the NC program.		
Possible Cause	<ol> <li>The NC file is in macro format.</li> <li>Use M98 to call a multi-path subprogram (including \$1 and \$2), and the size of the subprogram is greater than 60KB(60000bytes).</li> </ol>		
Solution	<ol> <li>Update the controller to 10.114.50I or the later version.</li> <li>For M98 application, reduce the size of subprogram. Or, split it into individual single-path subprograms, then call each of them by coordinate respectively.</li> </ol>		er version. ogram. grams, then call each of them by

# 7.176 COR-204 File size too large

Alarm ID	COR-204 BGND-204	Alarm title	File size too large
Description	Program file is too large	3.	

Possible Cause	If the size of MACRO program is larger than 60KB(60000bytes) and use the syntax with scope statement. The syntax with scope statement contains: IF, CASE, REPEAT, FOR, WHILE
Solution	<ol> <li>Reduce the program size, or split program into two subprograms.</li> <li>Remove all the syntax with scope statement.</li> </ol>

# 7.177 COR-205 File content is empty

Alarm ID	COR-205 BGND-205	Alarm title	File content is empty		
Description	After controller loads the program, the file content found to be null.				
Possible Cause	Program loading error or CF card damaged.				
Solution	Reload program or replace CF card.				

# 7.178 COR-206 Loading page lock failure

Alarm ID	COR-206 BGND-206	Alarm title	Loading page lock failure	
Description	New NC program fails to required the system to distribute loading page.			
Possible Cause	Lack of memory when multi-system executes large-size program.			
Solution	Please contact OEM Syntec.			

# 7.179 COR-207 Specified sequence number not found

Alarm ID	COR-207 BGND-207	Alarm title	Specified sequence number not found		
Description	Specified sequence number is not found.				
Possible Cause	Programming error.				
Solution	Use a sequence number within the NC program range.				
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#### 7.180 COR-208 Cannot use jump statement in sequential file

Alarm ID	COR-208 BGND-208	Alarm title	Cannot use jump statement in sequential file
Description	Using jump command to execute sequential file.		
Possible Cause	Use the jump command when executing the sequence file.		
Solution	Do not use jump command to execute sequential file.		

### 7.181 COR-209 File format error

Alarm ID	COR-209 BGND-209	Alarm title	[File format error]
Description	Invalid File Format.		
Possible Cause	<ol> <li>It is not a MACRO format file. For example, using APP syntax to call MARCO G200, G200 APP "appname", but this G200 file is not declared as a MACRO format file.</li> <li>It is not a ISO format file.</li> </ol>		
Solution	Please check the NC program, which should be written according to the file opening requirements.		

#### 7.182 COR-210 The axis group identification symbol(\$1~\$4) exists outside the program execution range(apart %)

Alarm ID	COR-210 BGND-210	Alarm title	[The axis group identification symbol(\$1~\$4) exists outside the program execution range(apart %)]
Description	The machining files contain \$1, \$2, \$3, and \$4 axis group identification symbols separated by %.		
Possible Cause	The processing program is written incorrectly.		

Solution	Please check the processing program to make sure that symbols such as \$1, \$2, \$3, and \$4 are all within two % symbols.
	It is recommended to delete the % symbol to solve the problem.

#### 7.183 COR-250 Wrong mechanism axial setting

Alarm ID	COR-250 BGND-250	Alarm title	Wrong mechanism axial setting	
Description	The axial setting	The axial setting of the mechanism is wrong.		
Possible Cause	The number of axis and the axis name required for the corresponding mechanism conversion are not set.			
Solution	Set sufficient number of axis (Pr21~), and required axis names (Pr321~).			

# 7.184 COR-251 The joint is not set to rotate in the right/left-hand direction

Alarm ID	COR-251 BGND-251	Alarm title	【The joint is not set to rotate in the right/left- hand direction】	
Description	The joint is not	The joint is not set to the direction of rotation as the right hand, left hand rule.		
Possible Cause	Pr4141~Pr4150 are not set to the right-hand rule or the left-hand rule.			
Solution	Set the rotation direction of each joint, 0 is not allowed.			

# 7.185 COR-252 The target position cannot be reached due to 2D mechanism transformation. Please enter a reasonable target position

Alarm ID	COR-25 2 BGND-2 52	Alarm title	【The target position cannot be reached due to 2D mechanism transformation. Please enter a reasonable target position】	
Description	The 2D me reasonabl	The 2D mechanism is converted and the target position cannot be reached. Please enter a reasonable target position.		
Possible Cause	The progr	The program coordinate position exceeds the limit of the machine.		
Solution	The positi	The position is not reasonable. Please re-check the NC program.		

#### 7.186 COR-253 Unworkable parallel mechanism posture

Alarm ID	COR -253 BGND-253	Alarm title	【Unworkable parallel mechanism posture】	
Description	Parallel mechanism posture that is not feasible.			
Possible Cause	Currently at a parallel mechanism posture that is not feasible.			
Solution	After Reset, use the axial movement mode to leave this posture, or modify the target point.			



Alarm ID	COR-301 BGND-301	Alarm title	【OPEN command format error 】	
Description	<ul> <li>OPEN command format error</li> <li>[command format]</li> <li>OPEN ("file name", "write file mode")</li> <li>(i) Designated as 'a': Represent retains the original file content and continuously outputs the new data in the text file.</li> <li>(ii) Not specified or designated as 'w': Represents the emptying of the original content and re-outputs the new material in the text file.</li> </ul>			
Possible Cause	"Write mode" in the OPEN command format specifies an error. This alarm is issued if the string is specified as a string other than 'a' or 'w'.			
Solution	Set "FileWrite mode" to	o "a" or "w" according to the	requirement of FileWrite.	

#### 7.187 COR-301 OPEN command format error

#### 7.188 COR-302 G10 L1150 command format error

Alarm ID	COR-302 BGND-302	Alarm title	[G10 L1150 c	ommand format error】	
Description	G10 L1150 comm	nand format error.			
Possible Cause	<ul> <li>G10 L1150 parameter numbering (P argument) is a non-integer or the input is out of range or not entered.</li> <li>The input value (P argument) corresponding to the parameter does not exist.</li> <li>G10 L1150 parameter value (R argument) is out of range or not entered.</li> </ul>			ıge	
Solution	Set the G10 L1150 parameter numbering and values (P and R arguments) correctly.				

#### 7.189 COR-303 The basic spindle cannot use the Spindle Synchronization function in position control mode (C63)

Alarm ID	COR-303 BGND-30 3	Alarm title	【The basic spindle cannot use the Spindle Synchronization function in position control mode (C63)】		
Description	The basic sp control moc	The basic spindle uses the spindle synchronization (G114.1, G51.2) commands in the position control mode.			
Possible Cause	When using this function, the basic spindle cannot be in position control mode.				
Solution	Write the NC program or PLC correctly so that the principal axis leaves the position control mode before the same period (C63).				

#### 7.190 COR-304 Thread cutting geometrical axis name error

Alarm ID	COR-304 BGND-304	Alarm title	【Thread cutting geometrical axis name error】	
Description	Thread cutting (G33, G34) command format is incorrect. Only the geometric axis names such as X, Y, Z, X1, Y1, Z1, etc. are supported.			
Possible Cause	When the thread cutting (G33, G34) does not have X, Y, Z, X1, Y1, Z1 and other geometric axis arguments, this alarm is issued.			
Solution	Adjust the axis names (Pr321~) of the geometrical axis to XYZ, X1/Y1/Z1			

### 7.191 COR-305 Relative position input method is forbidden in current mode

Alarm ID	COR-305 BGND-305	Alarm title	[Relative position input method is forbidden in current mode]	
Description	The mode in which the system is currently running cannot be used with the G91 incremental command.			

Alarm ID	COR-305 BGND-305	Alarm title	【Relative position input method is forbidden in current mode】	
Possible Cause	G43.5 cannot be used with the G91 incremental command function: G43.5 determines the tool attitude through the tool vectors I, J, and K. The tool attitude is expressed only in absolute quantities.			
Solution	Check the NC program to confirm that G91 was not executed in G43.5 mode and G43.5 was no executed in G91 mode			

### 7.192 COR-306 Advanced look-ahead function without the specified M code

Alarm ID	COR-306 BGND-306	Alarm title	[Advanced look-ahead function without the specified M code]		
Description	The advanced look-ahead function is enabled, and the specified M code is not found after the complete NC program is interpreted.				
Possible Cause	<ol> <li>Pr3599 is not set.</li> <li>The NC programming error.</li> </ol>				
Solution	<ol> <li>Confirm whether the setting of Pr3599 is correct.</li> <li>Check the NC program to confirm that an command has been given to speedily predecode M code (Pr3599).</li> </ol>				

# 7.193 COR-307 Advanced look-ahead of M code, wrong designation of argument P

Alarm ID	COR-307 BGND-307	Alarm title	[Advanced look-ahead of M code, wrong designation of argument P]			
Description	The advance	The advanced look-ahead M code (Pr3599) must specify the P argument.				
Possible Cause	When using the advanced look-ahead function, the P argument is not specified or the P argument is not an integer					
Solution	Check the NC program and confirm that there is a P argument and specify a 4-digit code subprogram.					

## 7.194 COR-308 Insufficient system memory, increase a single step displacement for advanced look-ahead function

Alarm ID	COR-308 BGND-30 8	Alarm title	[Insufficient system memory, increase a single step displacement for advanced look-ahead function]			
Description	The system interpreted	The system look-ahead memory is insufficient, and the subsequent move command cannot be interpreted and is stuck.				
Possible Cause	There are too many very short blocks in the program, so the interpretation conditions cannot be met.					
Solution	Check the NC program and increase a single step displacement amount appropriately.					

#### 7.195 COR-309 Advanced look-ahead function failed

Alarm ID	COR-309 BGND-309	Alarm title	[Advanced look-ahead function failed]		
Description	The advanced look-ahead function cannot be executed correctly.				
Possible Cause	<ol> <li>The interpolation mode is incorrect during advanced look-ahead.</li> <li>The contents of the look-ahead NC program cannot be stored correctly.</li> </ol>				
Solution	<ol> <li>Check if the subprogram of the look-ahead NC programs contains commands other than G01, G02, and G03.</li> <li>Check if disk space is adequate.</li> </ol>				

#### 7.196 COR-310 Look-ahead NC programs failed

Alarm ID	COR-310 BGND-310	Alarm title	【Look-ahead NC programs failed】
Description	Look-ahead NC program cannot be executed correctly.		

Alarm ID	COR-310 BGND-310	Alarm title	【Look-ahead NC programs failed】
Possible Cause	<ol> <li>The condition of the look-ahead NC program does not match:         <ul> <li>The version of the advanced look-ahead, the interpolation time, the number of axes, do not match.</li> <li>There is an abnormal interruption in the look-ahead, resulting in incomplete content of the look-ahead.</li> <li>To look-ahead the axis of movement in the subprogram, enter the advanced look-ahead M code in the main program. The coordinates before (i.e. M298) should be the same.</li> <li>(i.e. if the subprogram has X, Y, and Z three-axis movement comman the X, Y, and Z coordinates before look-ahead M code are modified a the look-ahead is completed, the look-ahead NC program will be executed. Issue this alarm.)</li> </ul> </li> </ol>		does not match: ad, the interpolation time, the he look-ahead, resulting in l. n the subprogram, enter the nain program. The coordinates three-axis movement commands, if k-ahead M code are modified after k-ahead NC program will be
	2. The contents of the look-ahead NC program cannot be read correctly.		
Solution	After advanced look-ahead under correct conditions, execute the look-ahead NC programs.		

#### 7.197 COR-311 Hard disk storage space is insufficient to place lookahead NC programs

Alarm ID	COR-311 BGND-311	Alarm title	【Hard disk storage space is insufficient to place look-ahead NC programs】		
Description	The hard dis	The hard disk storage space is not enough to place the look-ahead NC program.			
Possible Cause	There is not	There is not enough storage space on the hard drive.			
Solution	Release hard disk storage space.				

### 7.198 COR-320 Friction Compensation Adjustment setting is illegal

Alarm ID	COR-320 BGND-320	Alarm title	[Friction Compensation Adjustment setting is illegal]
Description	Friction compensation adjustment setting is illegal.		

Alarm ID	COR-320 BGND-320	Alarm title	[Friction Compensation Adjustment setting is illegal]	
Possible Cause	<ol> <li>Selected adjustment mode is not supported.</li> <li>No axis is assigned for adjustment.</li> <li>Radius or feedrate is not configured in Comp ON/Comp OFF mode .</li> <li>No. of circular setting is not configured in Comp Learning mode.</li> </ol>			
Solution	<ol> <li>Select other compensation mode and try again.</li> <li>Please set a set of available axes.</li> <li>Please set correct radius or feedrate.</li> <li>Please set correct No. of circular setting.</li> <li>If the alarm still exists, please contact Syntec OEM.</li> </ol>			

# 7.199 COR-321 The arguments (P,Q,R) retrieved from the I point position must be integers

Alarm ID	COR-321 BGND-321	Alarm title	【The arguments (P,Q,R) retrieved from the I point position must be integers】			
Description	The I value p	The I value position taken argument (G10 L1010 P_ Q_ R_) is not an integer.				
Possible Cause	NC programming error.					
Solution	Modify the NC program to specify correct P, Q, and R arguments.					

#### 7.200 COR-322 I point position capture failed

Alarm ID	COR-322 BGND-322	Alarm title	【I point position capture failed】
Description	I value position capture function (G10 L1010 P_ Q_ R_), startup failed.		
Possible Cause	<ol> <li>The specified P argument (axis number) does not exist.</li> <li>The specified Q argument (I value) is not supported.</li> <li>Exceeding the limit of the number of used groups, currently support to start three I value location captures at the same time.</li> </ol>		

Alarm ID	COR-322 BGND-322	Alarm title	【I point position capture failed】
Solution	<ol> <li>Modify the progr</li> <li>Turn off settings</li> </ol>	am to specify correct P, Q, an that are not in use.	d R arguments.

# 7.201 COR-323 The arguments (P,R,I,J,K) captured from the driver signal position must be integers

Alarm ID	COR-323 BGND-32 3	Alarm title	【The arguments (P,R,I,J,K) captured from the driver signal position must be integers】			
Description	The argume	The argument of the drive signal position (G10 L1011 P_ R_ I_ J_ K_) is not an integer.				
Possible Cause	The NC programming error.					
Solution	Modify the program to specify correct P, R, I, J, and K arguments.					

#### 7.202 COR-324 Driver signal position captured failed to activate

Alarm ID	COR-324 BGND-324	Alarm title	[Driver signal position captured failed to activate]	
Description	The drive signal position capture function (G10 L1011 P_ R_ I_ J_ K_) failed to activate.			
Possible Cause	<ol> <li>The range of R values set by the specified P and R arguments is invalid (occupied by the system or out of range).</li> <li>The specified I argument (axis number) does not exist.</li> <li>The specified J argument (which set of latches to use) is out of range.</li> <li>The specified K argument (select signal source) is out of range.</li> </ol>			
Solution	Modify the NC program to specify correct arguments.			

### 7.203 COR-325 In the polar coordinate interpolation mode, the use of the diameter and radius axis programming command is prohibited

Alarm ID	COR-325 BGND-325	Alarm title	[In the polar coordinate interpolation mode, the use of the diameter and radius axis programming command is prohibited ]	
Description	In the polar coordinate interpolation (G12.1) mode, the diameter and radius axis programming switching command (G10.9) cannot be used.			
Possible Cause	In polar coordinate interpolation (G12.1) mode, if switch the diameter and radius axis program with the diameter and radius axis programming switching command (G10.9), this alarm is issued.			
Solution	In the polar coordinate interpolation (G12.1) mode, do not use the diameter and radius axis to program the switching command (G10.9). Please follow Pr281~Axis radius axis or diameter axis set value to move the command. [Remarks] For milling machine G12.1, the X axis is programmed in radius axis.			

# 7.204 COR-326 Diameter and radius axis programming command argument error

Alarm ID	COR-326 BGND-326	Alarm title	【Diameter and radius axis programming command argument error】		
Description	Diameter and incorrectly.	Diameter and Radius axis programming (G10.9) switching, command arguments are written incorrectly.			
Possible Cause	No axial programming is specified, or programming is specified as a value other than 0 and 1.				
Solution	<ol> <li>Specify any axial direction after diameter and radius axis programming (G10.9).</li> <li>Specify the argument value (programming mode) as 0 or 1.</li> </ol>				

#### 7.205 COR-327 Skip function argument input error

Alarm ID	COR-327 BGND-327	Alarm title	【Skip function argument input error】	
Description	Skip function (G31) input argument is incorrect.			
Possible Cause	Skip function (G31) specifies both P and R arguments.			
Solution	Please modify the Skip function (G31), no specified both P and R.			

### 7.206 COR-328 G10 L1800 command argument number, out of specification limit

Alarm ID	COR-328 BGND-328	Alarm title	[G10 L1800 command argument number, out of specification limit]
Description	The command argument number is outside the specification limit. i.e. G10 L1800 I514 P10 R1, I argument is out of range.		
Possible Cause	The NC programming error.		
Solution	Please confirm the argument value of G10 L1800.		

P.S. Valid version of COR-328 : range from 10.118.12B, 10.118.13 to 10.118.28D, 10.118.31 (included).

### 7.207 COR-329 G10 L1800 command number has exceeded the single block limit

Alarm ID	COR-329 BGND-329	Alarm title	[G10 L1800 command number has exceeded the single block limit]	
Description	The number of G10 L allowed by a single b	The number of G10 L1800 commands with different arguments exceeds the upper limit allowed by a single block, up to 5, or too many G10 L1800 commands.		
Possible Cause	The NC programming error.			
Solution	Please reduce the number of G10 L1800 commands with different arguments to less than 5 in a block, or reduce the number of G10 L1800s as a whole.			

P.S. Valid version of COR-329 : range from 10.118.12B, 10.118.13 to 10.118.28D, 10.118.31 (included).

#### 7.208 COR-330 Illegal interrupt signal format

Alarm ID	COR-330 BGND-330	Alarm title	[Illegal interrupt signal format]	
Description	The command argument number is outside the specification limit. i.e. M96 P5566 I4 Q100 R1 L1000; I argument specifies the error signal source.			
Possible Cause	The NC programming error			
Solution	Please check the NC p	rogram to ensure that the co	ommand arguments are correct.	

#### 7.209 COR-331 This product limits T Code function

Alarm ID	COR-331 BGND-331	Alarm title	[This product limits T Code function]	
Description	This product only supports T0~T4.			
Possible Cause	This product only supports T0~T4.			
Solution	Use a products	Use a products that support the full T-code function.		

#### 7.210 COR-332 Interrupt type subprogram (M96, M97) execution failure

Alarm ID	COR-332 BGND-332	Alarm title	【Interrupt type subprogram (M96, M97) execution failure】
Description	When the interrupt type subprogram function is used, the execution fails when the interrupt signal is triggered. Note: Due to the pre-solved relationship when issuing this alarm, there is no guarantee that it will stop at the problem line.		
Possible Cause	Only support to trigger interrupt where in the interrupt type subprogram enable or cancel (M96, M97). Triggering interrupt signals in other subprograms is not supported.		

Alarm ID	BGND-332	Alarm title	[Interrupt type subprogram (M96, M97) execution failure]
Solution	<ol> <li>Make sure to tr cancel (M96, M</li> <li>Set #1510 to 4 main program, program, but t</li> </ol>	rigger interrupt where in the 197). (the second bit is set to on) . This can be regarded as tri his setting will re-execute th	e interrupt type subprogram enable or and only display the line number of the ggering the interrupt in the main he subprogram when it returns.

#### 7.211 COR-333 Single end point exceeds hardware stroke limit

Alarm ID	COR-333 BGND-333	Alarm title	[Single end point exceeds hardware stroke limit]	
Description	The coordinate position in the program exceeds the hardware stroke limit set by the machine.			
Possible Cause	<ol> <li>The NC program is wrong.</li> <li>The hardware stroke limit signal is abnormal.</li> </ol>			
Solution	<ol> <li>Check the NC program and correct the coordinate position.</li> <li>First confirm whether it is occasionally happen during machining, and MOT-25, 26 is no longer exists after the system enters the feedhold. If so, it may be that an axis hardware stroke limit signal is triggered, but then disappears; please check the limit switch wiring or the hardware itself for abnormality.</li> </ol>			

#### 7.212 COR-334 G10 L1810 illegal signal condition command format

Alarm ID	COR-334 BGND-334	Alarm title	[G10 L1810 illegal signal condition command format]
Description	G10 L1810 command format error.		
Possible Cause	<ol> <li>One of the I, Q, and R arguments is not set.</li> <li>The I, Q, R, and J arguments are out of range, set to a negative, or a decimal value.</li> </ol>		
Solution	Please refer to the manual for troubleshooting.		

P.S. Valid version of COR-334 : before 10.118.34 (included).

#### 7.213 COR-335 G10 L1810 signal waiting condition is too many or repeat the same signal

Alarm ID	COR-335 BGND-335	Alarm title	【G10 L1810 signal waiting condition is too many or repeat the same signal】
Description	The G10 L1810 signal waiting condition exceeds the allowable number, or the G10 L1810 repeatedly sets the same signal.		
Possible Cause	<ol> <li>G10 L1810 continuously sets more than 5 commands.</li> <li>The same G10 L1810 signal command has been set.</li> </ol>		
Solution	Please combine multiple signals into one signal to wait, or reduce the signal waiting condition.		

# 7.214 COR-336 G10 L1820 illegal waiting signal condition command format

Alarm ID	COR-336 BGND-336	Alarm title	[G10 L1820 illegal waiting signal condition command format]	
Description	G10 L1820 command format error.			
Possible Cause	P, K arguments are out of range, set negative or decimal.			
Solution	Please refer to the manual for troubleshooting.			

P.S. Valid version of COR-336 : before 10.118.34 (included).

#### 7.215 COR-337 G10 L1820 without G10 L1810 command in the front

Alarm ID	COR-337 BGND-337	Alarm title	【G10 L1820 without G10 L1810 command in the front】
Description	The G10 L1820 command needs to wait for the G10 L1810 signal wait condition. At least one G10 L1810 command must be programmed first.		
Possible Cause	The G10 L1820 command was not written before the G10 L1820 command.		

Alarm ID	COR-337 BGND-337	Alarm title	[G10 L1820 without G10 L1810 command in the front]
Solution	Modify the NC program and write the G10 L1810 command before the G10 L1820 command.		

#### 7.216 COR-338 G10 L1820 signal condition waiting timeout

Alarm ID	COR-338 BGND-338	Alarm title	【G10 L1820 signal condition waiting timeout】			
Description	G10 L1820 waiting sig	G10 L1820 waiting signal condition exceeds the waiting time.				
Possible Cause	The signal status condition was not reached within the waiting time.					
Solution	<ol> <li>Check if the G10 L1810 setting signal condition is correct.</li> <li>Check if the PLC wait signal is processed correctly.</li> <li>Check the hardware device to confirm why the signal status is not reached.</li> </ol>					

### 7.217 COR-339 Chopping axis prohibition movement command

Alarm ID	COR-339 BGND-339	Alarm title	[Chopping axis prohibition movement command]		
Description	The chopping axial direction does not accept any movement commands.				
Possible Cause	After using the chopping function (G81.1, G81.2, C86), give movement command to the axis before closing. Note: C86 valid version: 10.118.19 and previous versions.				
Solution	Check the movement command of the NC program G code, whether there is chopping axis, and it is executed before the chopping function is turned off. The movement command G code is, for example, G0, G1, G2, G3, G31, G53.				

#### 7.218 COR-340 Chopping axis prohibits changing coordinate system

Alarm ID	COR-340 BGND-340	Alarm title	[Chopping axis prohibits changing coordinate system]		
Description	The axis in ch prohibited.	nopping cannot	change any coordinate system, and the related functions will be		
Possible Cause	<ol> <li>After using the chopping function (G81.1, G81.2, C86), switch the coordinate system before closing and affect the chopping axis.</li> <li>Simultaneously use of chopping function (G81.1, G81.2, C86) and tilted work plane machining function (G68.2, G68.3).</li> <li>Simultaneously use the chopping function (G81.1, G81.2, C86) and the axis exchange function (C133~C136).</li> <li>Note: C86 support version: 10.118.19 and earlier.</li> </ol>				
Solution	<ol> <li>Check if the system operation and programming coordinate system are switched or changed, and whether the chopping axis is affected.</li> <li>Check if the NC program uses the chopping function (G81.1, G81.2,C86) and the tilted work plane machining function at the same time. (G68.2, G68.3).</li> <li>Check if the NC program has the chopping function (G81.1, G81.2, C86) and the shaft exchange of the chopping shaft. (C133~C136).</li> <li>Note 1: C86 support version: 10.118.19 and earlier.</li> <li>Note 2: Coordinate system related programming: G54 P1~G54 P100, G92, G92.1, G10 L2, G10 L1300, G68, #value (#1880~#1933, #20001~#20658).</li> </ol>				
	Note 3: Coor	dinate system ro	elated operations: external coordinate offset, MPG offset.		

#### 7.219 COR-341 Chopping axial switching error

Alarm ID	COR-341 BGND-341	Alarm title	【Chopping axial switching error 】	
Description	The specified axis cannot be switched to the chopping axis.			
Possible Cause	<ol> <li>This axis has been designated as the PLC axis.</li> <li>The axis has been designated as the spindle.</li> <li>The axis has been designated as the servo tail axis</li> <li>This axis has been designated as a chopping axis by other paths.</li> </ol>			

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Alarm ID	COR-341 BGND-341	Alarm title	【Chopping axial switching error 】
Solution	<ol> <li>Do not specify t</li> <li>Do not specify t</li> <li>Do not specify t</li> <li>Check if the mu G81.2, C86).</li> </ol>	the PLC axis as the chopping the spindle as the chopping a the servo tail axis as the chop lti-path repeats the choppin sion: 10.118.19 and earlier ve	axis. axis. oping axis. ng function for the same axis (G81.1, ersion.

### 7.220 COR-342 Chopping axis prohibits non-linear kinematic transform

Alarm ID	COR-342 BGND-342	Alarm title	[Chopping axis prohibits non-linear kinematic transform]
Description	Non-linear kinematic transform is prohibited for the chopping axis.		
Possible Cause	<ol> <li>Using non-linear kinematic transform when chopping function is enabled.</li> <li>The machine type used is two-dimensional kinemetic (special model).</li> </ol>		
Solution	<ol> <li>Check the NC program to make sure that the chopping function (G81.1, G81.2, G is not within the range of the RTCP (G43.4, G43.5).</li> <li>Check the NC program to make sure that the chopping function (G81.1, G81.2, G is not within the range of the tangential control (G41.1, G42.1).</li> <li>Check the NC program to make sure that the chopping function (G81.1, G81.2, G is not within the effective range of the polar coordinate interpolation (G12.1).</li> <li>The machine configuration used is the two-dimensional kinemetic (special model), and the chopping function (G81.1, G81.2, C86) cannot be used.</li> <li>Note: C86 support version: 10.118.19 and earlier.</li> </ol>		t the chopping function (G81.1, G81.2, C86) .4, G43.5). t the chopping function (G81.1, G81.2, C86) control (G41.1, G42.1). t the chopping function (G81.1, G81.2, C86) olar coordinate interpolation (G12.1). wo-dimensional kinemetic (special L.1, G81.2, C86) cannot be used. r.

#### 7.221 COR-343 The main program does not use the ending M code

Alarm ID	COR-343 BGND-343	Alarm title	[The main program does not use the ending M code]	
Description	M02/M30/M9	M02/M30/M99 is not used at the end of the main program.		
Possible Cause	<ol> <li>Programming error.</li> <li>NC program is damaged.</li> <li>Some machining information was lost due to file transmission errors.</li> </ol>		red. rmation was lost due to file transmission errors.	

Alarm ID	COR-343 BGND-343	Alarm title	【The main program does not use the ending M code】
Solution	<ol> <li>Check the NC program to reset the alarm and clear it.</li> <li>Close the Pr3853-NC program error check function.</li> </ol>		n to reset the alarm and clear it. program error check function.

#### 7.222 COR-344 The NC program under invalid paragraph

Alarm ID	COR-344 BGND-344	Alarm title	【The NC program under invalid paragraph】
Description	<ol> <li>There is continuous blank/annotation/garbled in the NC program, and the size is more than 8KB.</li> <li>There are no valid commands in the NC program.</li> </ol>		
Possible Cause	<ol> <li>Programmning error.</li> <li>NC program is damaged.</li> </ol>		
Solution	<ol> <li>Avoid writing lots of consecutive blanks or annotations.</li> <li>Please check if the NC program is damaged. After the problem is solved, reset to remove the alarm.</li> <li>Close the Pr3853 - NC program error check function.</li> </ol>		r annotations. ed. After the problem is solved, reset to k function.

#### 7.223 COR-345 Illegally format input to programmable data

Alarm ID	COR-345 BGND-345	Alarm title	[Illegally format input to programmable data]
Description	Programmable data input argument format error.		
5			

Alarm ID	COR-345 BGND-345	Alarm title	[Illegally format input to programmable data]
Possible Cause	BGND-345 1. Wobble a. b. c. 2. G10 L1 a. b. c. 3. G10 L1 a. b. c. 4. G10 L1 a. b. c. 4. G10 L1 a. b. c. 4. G10 L1 a. b. c. d. 6. G10 L1 a. b. c. 4. G10 L1 a. b. c. 6. G10 L1 a. b. c. 7. G10 L1 a. b. c. 8. G10 L1 a. b. c. 9. G10 L1 a. b. c. 10. 10. 11. a. b. c. 10. 11. a. b. c. 10. 11. a. b. c. 10. 11. a. b. c. 10. 11. a. b. c. 10. 11. a. b. c. 10. 11. a. b. c. 11. a. b. c. 10. 11. a. b. c. 11. a. b. c. 10. 11. a. b. c. 10. 11. a. b. c. 11. a. b. c. 11. a. b. b. c. 11. a. b. b. c. 11. a. b. b. c. 11. b. b. b. b. b. b. b. b. b. b	e command One of the I, Q, R ar I, Q, R arguments of I argument not inte 803 command One of the I, Q, P, R I, Q, P, R, J, E argum I, Q, R, J, K, E argum 805 、G10 L1810 co One of the I, Q, R ar I, Q, R, J arguments 820 command P, K arguments out P, K arguments out Q, R argument sout Q, R argument sout Command P, Q, R, X, Y, Z Q, X, Y, Z, I, J O31 command R argument is not s R, V arguments out R, V arguments out S00 command Cone of the P, Q arg One of the P, Q arg One of the P, Q arg One of the P, Q arg S00 command P, E argument is no S00 command P, E argument is no P, E argument is no P argument is no S00 command P argument is no P argument is	guments is not set. ut of range. ger. arguments is not set. hents out of range. hents not integer. mmand guments is not set. out of range. not integer. of range. positive integer. rguments is not set. string. of range. integer. Z. I. J. K. U. V arguments out of range. integer. Z. I. J. K. U. V arguments out of range. integer. et. of range. integer. guments is not set. guments is not an integer. t set. t of range. eger. : set. et. et. et. int is set to 1, the Q and R arguments are not set.
<ul> <li>12. G10 L1830 command</li> <li>a. P argument is not set.</li> <li>13. G10 L1100 command</li> <li>a. R argument is out of range.</li> </ul>			et. f range.
Solution	Please refer to	command descript	ion to troubleshoot.

Alarm ID	COR-346 BGND-346	Alarm title	【Illegally use of programmable data entry】
Description	Programmable data input conflicts with specifications.		
Possible Cause	<ol> <li>Between wobble command, only one block is allowed to wobble.</li> <li>G10 L1803 commands with different arguments exceeds the upper limit allowed by a single block, up to 12.</li> <li>Too many G10 L1803 and G10 L1805 commands.</li> <li>The feature as L-argument specified is unsupported for current version (from 10.118.41P, 10.118.49).</li> <li>Any axis belongs to multiple coordinates.</li> </ol>		
Solution	<ol> <li>Remove the ex</li> <li>Reduce the nu than 12.</li> <li>Reduce G10 L1</li> <li>Update to the</li> <li>Please set Pr70</li> </ol>	cceeding number of wobble mber of G10 L1803 comma 803 and G10 L1805 comma version which supports the D1~ of the axis to only belon	moving blocks. nds in a single movement block to less nds. feature as L-argument specified. g to a single axis group.

#### 7.224 COR-346 Illegally use of programmable data entry

### 7.225 COR-347 This function only supports Syntec axis

Alarm ID	COR-347 BGND-347	Alarm title	【This function only supports Syntec axis】
Description	Only Syntec axis can use this function.		
Possible Cause	The weave function only supports Syntec drives.		
Solution	Please use Syntec driver.		

#### 7.226 COR-348 APP command error

Alarm ID	COR-348 BGND-348	Alarm title	【APP command error 】
Description	There is an error	in the APP command.	

Alarm ID	COR-348 BGND-348	Alarm title	【APP command error 】
Possible Cause	<ol> <li>APP name is not a string.</li> <li>The length of APP name is over 20 characters.</li> <li>No APP name is specified.</li> </ol>		
Solution	Please make sure that APP commands are used correctly in the NC program.		n the NC program.

#### 7.227 COR-349 This function only supports Syntec encoder

Alarm ID	COR-349 BGND-34 9	Alarm title	【This function only supports Syntec magnetic gear or ring gear encoder】			
Descript ion	Limited to use with Syntec magnetic gear or ring gear encoders.					
Possible Cause	<ul> <li>The following function is limited to use Syntec magnetic gear or ring gear encoders: <ol> <li>complex threading cycle(G78 or G78.2) enables chip removal function (the argument of D set by 1).</li> </ol> </li> <li>When applying the function mentioned above, the system detect the active spindle is not Syntec magnetic gear or ring gear encoders which satisfies following conditions: <ol> <li>the encoder communication type Pn-900 is equal to 13.</li> <li>the pole pair number is greater than or equal to 124.</li> <li>the serial communication support M3 Syntec and EtherCAT Syntec (EtherCAT support software versions: 10.118.66M, 10.118.70H, 10.118.78 and later versions).</li> </ol> </li> <li>In dual-feedback system, it is sufficient for either of the 1st or 2nd encoders to satisfy the above conditions.</li> </ul>					
Solution	1. If us Synt 2. If the	er wants to en ec magnetic g e chip remova	able chip removal function during complex threading cycle, please use gear or ring gear encoders to satisfy the condition. I function is not used, please set the argument of D to 0.			

### 7.228 COR-350 Invalid EnIP Macro

Alarm ID	COR-350 BGND-350	Alarm title	[Invalid EnIP Macro]
Description	EnIP macro syntax ei	rror.	

Alarm ID	COR-350 BGND-350	Alarm title	[Invalid EnIP Macro]
Possible Cause	The format or range of the input macro arguments is incorrect.		
Solution	Refer to the EnIP mad	cro syntax description.	

#### 7.229 COR-351 Communication command abnormal

Alarm ID	COR-351 BGND-351	Alarm title	【Communication command abnormal】
Description	<ol> <li>The execution of the macro communication command failed.</li> <li>The macro communication to driver failed.</li> </ol>		
Possible Cause	<ol> <li>The controller does not support EnIP communication.</li> <li>The EnIP function input request data value range is incorrect.</li> <li>An error occurred while sending or receiving a communication command.</li> </ol>		
Solution	<ol> <li>Please contact</li> <li>Each request data</li> <li>This alarm is act description for</li> </ol>	ct the Syntec OEM. data of EnIP represents a 1 value ranging from 0 to 255. accompanied by a more detailed error alarm, refer to the alarm or troubleshooting.	

### 7.230 COR-352 Communication command response data is too long

Alarm ID	COR-352 BGND-352	Alarm title	【Communication command response data is too long】
Description	The device return data length is too long.		
Possible Cause	The storage space provided by the user for returning data is insufficient.		
Solution	Make sure that the sto	orage space for the returne	d data is sufficient.

#### 7.231 COR-353 Invalid argument of CHKINF

Alarm ID	COR-353 BGND-353	Alarm title	[Invalid argument of CHKINF]
Description	The type of argument of CHKINF() is incorrect, or the category number is out of range.		
Reason	Programming error.		
Solution	<ol> <li>Please check the NC program.</li> <li>Check the type of first argument is integer.</li> <li>Check the type of second argument is string.</li> <li>Ensure the category number is in the range, please refer to OpenCNC_Macro Development Manual.</li> </ol>		

#### 7.232 COR-354 With RTCP enabled, the usage of G10 L1150 to set Five-Axis mechanism parameter is prohibited.

Alarm ID	COR-354 BGND-354	Alarm title	【With RTCP enabled, the usage of G10 L1150 to set Five-Axis mechanism parameter is prohibited.】
Description	With Rotate Tool Center Point function(G43.4, G43.5) enabled, the usage of G10 L1150 to set Five-Axis mechanism parameter is prohibited.		
Reason	The NC file was written incorrectly.		
Solution	Please modify the NC file, cancel Rotate Tool Center Point function(G49), and then use G10 L1150 to set the Five-Axis mechanism parameter.		

# 7.233 COR-355 Need geometric axes positioning after tool length compensation changed

Alarm ID	COR-355 BGND-355	Alarm title	Need geometric axes positioning after tool length compensation changed
Description	Positioning of the ax tool length compens	ning of the axes on work plane(G17: XY, G18: ZX, G19: YZ) is required after executin gth compensation commands, if tool radius compensation commands needed.	

Reason	No positioning of the axes on work plane(G17: XY, G18: ZX, G19: YZ) between executing tool length compensation commands and tool radius compensation commands. Tool length compensation commands: H, T(Lathe), G43, G44, G43.4, G43.5, G49, G10 L1050, G10 L1051 Tool radius compensation commands: G41, G42
Solution	Please modify the NC file. Add positioning command of the axes on work plane(G17: XY, G18: ZX, G19: YZ) after tool length compensation commands and before tool radius compensation commands. Positioning commands: G90 G00, G90 G01, G92

#### 7.234 COR-356 Invalid APP command

Alarm ID	COR-356 BGND-356	Alarm title	【Invalid APP command】
Description	There is a syntax error on the Modbus command(G10 L1900/1901/1910/1911).		
Possible Cause	The format or range of the input argument is incorrect.		
Solution	Please refer to the Industry Machine Application Manual.		

#### 7.235 COR-357 Illegal Modbus packet contents

Alarm ID	COR-357 BGND-357	Alarm title	【Illegal Modbus packet contents 】
Description	The contents of the Modbus command packet is illegal.		
Possible Cause	The contents of the customized package is incorrect.		
Solution	Please refer to R5039, a	as this register provides the	error code for troubleshooting.

Alarm ID	COR-358 BGND-358	Alarm title	[Modbus communication timeout]
Description	The Modbus communication experienced a timeout.		
Possible Cause	Abnormal communication or unestablished communication causes the connection timeout.		
Solution	Please refer to R5039, as this register provides the error code for troubleshooting.		

#### 7.236 COR-358 Modbus communication timeout

#### 7.237 COR-359 Modbus communication failure

Alarm ID	COR-359 BGND-359	Alarm title	[Modbus communication failure ]
Description	The Modbus communication failed.		
Possible Cause	1. There is a communication error or device setting error.		
Solution	1. Please refer to	R5039, as this register provid	des the error code for troubleshooting

### 7.238 COR-361 The number of non-moving blocks exceeds the permissible value under tool radius compensation

Alarm ID	COR-361 BGND-361	Alarm title	[The number of non-moving blocks exceeds the permissible value under tool radius compensation]
Description	The machining program has programmed too many non-moving blocks when tool radius compensation is enable.		
Possible Cause	Programming error.		
Solution	<ol> <li>Modify the machining program and issue the non-moving blocks when tool radiu compensation is disable.</li> <li>Modify the machining program and reduce the number of non-moving blocks when tool radius compensation is enable.</li> </ol>		the non-moving blocks when tool radius ce the number of non-moving blocks e.

## 7.239 COR-362 Multi-axis multi-signal skip function (G31.10, G31.11) command error

Alarm ID	COR-362 BGND-362	Alarm 标题	[Multi-axis multi-signal skip function (G31.10, G31.11) command error]
说明	Multi-axis multi-signal	skip function (G31	10, G31.11) command error
可能原因	<ol> <li>Setting command alone, and other then execute.</li> <li>A set of multi-accommand at lead both command at lead both command and it is not all</li> <li>Supports up to function.</li> <li>Same axis is us skip function.</li> <li>Categories and the state of the stat</li></ol>	<ol> <li>Setting command (G31.10) or execution command (G31.11) cannot be issued alone, and other commands cannot be issued between them. Always set first then execute.</li> <li>A set of multi-axis multi-signal skip function is composed of one G31.10 command at least and one G31.11 command. Set first then execute. Both commands should be issued in a set of multi-axis multi-signal skip function and it is not allowed to insert other commands in between.</li> <li>Supports up to six G31.10 commands in a set of multi-axis multi-signal skip function.</li> <li>Same axis is used in different G31.10 commands in a set of multi-axis multi-signal skip function.</li> <li>Same axis is used in different G31.10 commands.</li> <li>Assign same axis by using virtual axis function in different G31.10 commands.</li> <li>(E.g., Virtual axis Z is corresponding to axis Z1 and Z2. Using axis Z in one G31.10 command, and Z1 in another G31.10 command.)</li> <li>Assign same axis by misusing alias of axis.</li> </ol>	
排除方法	<ol> <li>Make sure ther command (G3)</li> <li>Make sure ther signal skip fund</li> <li>Make sure ther signal skip fund</li> </ol>	e is always an exec L.10), and there is r e are six G31.10 co ction. e is no axis assigne ction.	eution command (G31.11) behind setting no execution command (G31.11) left alone. mmands at most in each set of multi-axis multi- ed repeatedly in each set of multi-axis multi-

#### 7.240 COR-363 Invalid axis removal/axis borrowing function

Alarm ID	COR-363	Alarm title	[Invalid axis removal/axis borrowing function]
Description	Axis removal (G52.1) or axis borrowing (G52.2) function is used incorrectly.		

Reason	<ol> <li>Without any argument of P, Q, R in the G52.1 and G52.2 commands.</li> <li>The axes corresponding to the P, Q, R arguments does not exist in the system.</li> <li>I, J, K arguments are integers but out of the settable range.</li> <li>Issue the G52.1 or G52.2 command for non-roaming axis.</li> <li>When using the axis removal command, the axis to be removed hasn't been borrowed by the axis group.</li> <li>When using the axis borrowing command, the axis to be borrowed has been borrowed by the axis group.</li> <li>It is not allowed to set the related axes of nonlinear mechanism transform as roaming axes, including:         <ul> <li>RTCP (G43.4, G43.5);</li> <li>Tilted plane function (G68.2, G68.3 and G53.1, G53.3, G53.6);</li> <li>Tangential control function (G12.1);</li> <li>Polar coordinate conversion (G12.1);</li> <li>Two-Dimensional Kinemetic (special model).</li> </ul> </li> </ol>
Solution	<ol> <li>In the G52.1 or G52.2 command, at least one argument among P, Q, R is required.</li> <li>Please refer to Pr321~ setting value, modify the NC program, and specify the correct axes.</li> <li>Please refer to the command format, modify the NC program, and set the parameters within the settable range.</li> <li>Please set Pr701~ to belong to multiple axis groups, and set Pr742 to 1(i.e., set the axis to be borrowed as the roaming axis.); Or please modify the processing program and delete the G52.1 or G52.2 command.</li> <li>Check the NC program, fix the P, Q, R argument assignment error.</li> <li>Check the NC program, fix the P, Q, R argument assignment error.</li> <li>Please set Pr742 to 0 to avoid the disallowed usages in No.7 of the possible reason.</li> <li>Check and modify the NC program, don't remove or borrow indexing axis.</li> </ol>

#### 7.241 COR-364 Axis borrowing function failed to borrow

Alarm ID	COR-364	Alarm title	[Axis borrowing function failed to borrow]
Description	Use axis borrowing	(G52.2) function, unable to l	borrow all specified axes successfully.
Reason	Because the axis to be borrowed is being borrowed by other axis groups, it cannot be borrowed successfully.		
Solution	<ol> <li>Check the NC program and confirm that the axis to be borrowed has been removed by other axis groups before issuing the borrow instruction.</li> <li>Enlarge the K argument setting value, so that extends the waiting time.</li> <li>Set the I parameter to 0, and continue to wait for other axis groups to remove the axis.</li> </ol>		

### 7.242 COR-365 Issue a movement command to the unborrowed roaming axis

Alarm ID	COR-365	Alarm title	[Issue a movement command to the unborrowed roaming axis]
Description	Issue a movement command to the unborrowed roaming axis.		
Reason	<ol> <li>When Pr742 is set to 1, the axis group or PLC Rn sub-program component issue a movement command to the unborrowed roaming axis.</li> <li>The tool break retract is performed on the path with the roaming axis command, and the roaming axis that has not been borrowed successfully, so an alarm is issued.</li> </ol>		
Solution	<ol> <li>For the axis group or PLC Rn sub-program component, before issuing a moveme command to the roaming axis, use the G52.2 command to successfully borrow th axis.</li> <li>Modify the tool break retract setting line number or serial number before G52.2 command.</li> </ol>		am component, before issuing a movement G52.2 command to successfully borrow the e number or serial number before G52.2

## 7.243 COR-366 The parameters of rotary axis auxiliary brake are set incorrectly

Alarm ID	COR-366 BGND-366	Alarm Title	[The parameters of rotary axis auxiliary brake are set incorrectly]
Description	Using the rotary axis auxiliary brake, the parameters mapped to the enable group are set incorrectly.		
Possible Cause	<ul> <li>Parameters are incorrect.</li> <li>Enable G10 L1500 rotary axis auxiliary brake: <ol> <li>The axis ID of the rotary axis auxiliary brake is not specified.</li> <li>The axis type of the specified axis is linear.</li> <li>The M code of the rotary axis auxiliary brake is not specified.</li> </ol> </li> </ul>		
Solution	Modify parameters Pr3741~Pr3744.		

#### 7.244 COR-367 Prohibited commands in rotary axis auxiliary brake mode

Alarm ID	COR-367 BGND-367	Alarm Title	[Prohibited commands in rotary axis auxiliary brake mode]
Description	When the rotary axis program.	auxiliary brake is enabled,	prohibited commands are used in the nc
Possible Cause	<ol> <li>The axis, which is in rotary axis auxiliary brake mode, is specified by skip function(G28.1, G31, G31.11).</li> <li>The axis, which is in rotary axis auxiliary brake mode, is specified by chopping function(G81.1, G81.2).</li> <li>Enable the rotary axis auxiliary brake in RTCP mode(G43.4, G43.5).</li> <li>Enable both the rotary axis auxiliary brake mode and the polar coordinate mode(G12.1).</li> </ol>		
Solution	Check the NC program	n.	

#### 7.245 COR-368 The position command of the indexing axis is inaccurate

Alarm ID	COR-368 BGND-368	Alarm title	[The position command of the indexing axis is inaccurate]
Description	The index position command isn't an integral multiple of the minimum precision angle.		
Possible Cause	The index position or movement command at current program isn't an integral multiple of the minimum precision angle.		
Solution	Please check the program, correct the position or movement command of the index tabl to an integer multiple of the minimum precision angle.		

### 7.246 COR-369 Illegal indexing axis command

Alarm ID	COR-369 BGND-369	Alarm title	【Illegal indexing axis command 】
Description	The command of the ir	ndexing axis in the program	is illegal.

Alarm ID	COR-369 BGND-369	Alarm title	【Illegal indexing axis command 】
Possible Cause	<ol> <li>There are both G02.4、G03.4、</li> <li>G12.1 polar coc axis.</li> <li>G28.1,G31,G31</li> <li>G80.1,G80.2,G</li> </ol>	indexing axis and normal ax G33、G34 command. ordinate interpolation specif L.10 skip function specifies th 81.1, G81.2 command the ind	es in the same G01、G02、G03、 ies the indexing axis as the rotation ne indexing axis. dexing axis to chopping.
Solution	<ol> <li>Please check and modify the program, and split the indexing axis and normal axis into different G01、G02、G03、G02.4、G03.4、G33、G34 command.</li> <li>Don't specify an indexing axis as a rotation axis for polar coordinate interpolation.</li> <li>Don't use the indexing axis for the skip function.</li> <li>Don't use indexing axis for chopping.</li> </ol>		

### 7.247 COR-370 Failed to enable chopping function

Alarm ID	COR-370 BGND-370	Alarm title	【Failed to enable chopping function】
Description	Failed to enable the chopping function .		
Possible Cause	<ol> <li>G81.2 or G81.1 command repeatedly         <ol> <li>G81.1 command repeatedly.</li> <li>G81.2 and G81.1 command simultaneously.</li> </ol> </li> <li>Using G81.2 to make 2 axis in the same axis group do advanced chopping simultaneously.</li> </ol>		
Solution	Please activate or deactivate the chopping function correctly.		

### 7.248 COR-371 Prohibit two or more macros read M code argument simultaneously in one block

Alarm ID	COR-371 BGND-371	Alarm Title	Prohibit two or more macros read M code argument simultaneously in one block
Description	One block only allows one M code argument being read by macro.		

Alarm ID	COR-371 BGND-371	Alarm Title	Prohibit two or more macros read M code argument simultaneously in one block	
Possible Cause	NC programming error.			
Solution	Check the NC program to ensure that there is only one macro read M code argument in one single block.			

# 7.249 COR-375 Not Posing before indexing axis processes incremental command

Alar m ID	COR-375	Alarm title	[Not Posing before indexing axis processes incremental command]		
Descr iptio n	The indexir integer, and	າg axis is curren d positioning is	tly positioned at a multiple of the minimum precision angle that is not an required before using incremental commands.		
Possi ble Caus e	i The current indexing axis is positioned at a non-integer multiple of the minimum indexing angle, and there is no guarantee that using incremental commands will accurately stop at an integer multiple of the minimum indexing angle				
Solut ion	<ol> <li>Please switch to manual mode and jog the indexing axis to the position that is an interger multiple of the minimum precision angle.</li> <li>Please switch to MDI mode and use the G90 command to move the indexing axis to the position that is an interger multiple of the minimum precision angle.</li> <li>Please use the G90 command to move the indexing axis to the position that is an interger multiple of the minimum precision angle at machining program before incremental movement commant for indexing axis.</li> </ol>				

### 7.250 COR-376 Servo Tail Axis disallowed movement command

Alarm ID	COR-376	Alarm title	[Servo Tail Axis disallowed movement command]	
Descriptio n	When the servo tails axis is activated, it cannot accept any movement commands.			
Reason	After activating the servo tails function, issue a movement command to the axis before deactivating it.			

Solution	Check the movement commands in the program G-code to see if they include the servo tails axis, and ensure that they are executed before the servo tails function is deactivated.
	Examples of movement commands in G-code include: G0, G1, G2, G3, G31, G53, etc.

#### 7.251 COR-377 Servo Tail Axis switching error

Alarm ID	COR-377	Alarm title	[Servo Tail Axis switching error]			
Description	The specified axis cannot activate the servo tails function.					
Reason	<ol> <li>The axis has been designated as a PLC axis.</li> <li>The axis has been designated as a Spindle axis.</li> <li>The axis has been designated as a Chopping axis.</li> </ol>					
Solution	<ol> <li>Do not designate the PLC axis as the servo tails axis.</li> <li>Do not designate the Spindle axis as the servo tails axis.</li> <li>Do not designate the Chopping axis as the servo tails axis.</li> </ol>					

#### 7.252 COR-378 Servo Tail Axis repeatly enable

Alarm ID	COR-378	Alarm title	[Servo Tail Axis repeatly enable]			
Description	Servo tails function repeatedly activated.					
Reason	Repeatedly issuing commands to activate the servo tails function for same axis before the servo tails axis is deactivated.					
Solution	Please correctly a issued.	Please correctly activate the servo tails function and ensure no duplicate commands are issued.				

#### 7.253 COR-379 Servo Tail Axis enable with wrong servo control mode

Alarm ID	COR-379	Alarm title	[Servo Tail Axis enable with wrong servo control mode]	
Descriptio n	Servo tails control mode error.			
Reason	Enable the servo tails function on an axis specified in a non-position control mode.			

Solution	Before activating the servo tails function, ensure that the control mode for the corresponding
	axis in R4821~R4840 is show as <b>position control.</b>

## 7.254 COR-380 Skip function can't specify rotation axis or tool vector in RTCP mode

Alarm ID	COR-380 BGND-380	Alarm title	Skip function can't specify rotation axis or tool vector in RTCP mode
Descripti on	When RTCP is enabled, the skip function (G31) block is prohibited from commanding a rotary axis (Type I) or tool vector (Type II).		
Reason	When RTCP is enabled, commanding a rotary axis (Type I) or tool vector (Type II) within the skip function (G31) block is prohibited.		
Solution	Remove the rotary a	axis (Type I) o	or tool vector (Type II) command.

### 7.255 COR-381 G68.3 function usage error

Alarm ID	COR-381 BGND-381	Alarm title	G68.3 function usage error		
Description	Tilted working plane machining referenced by tool direction (G68.3) is invalid to use i combination with specific functions, resulting in an error.				
Reason	<ol> <li>When the tilted working plane (G68.3) has activated, it is NOT allowed to enable the RTCP function(G43.4 / G43.5).</li> <li>When the workpiece coordinate rotation (G54.4) has activated, it is NOT allowed to enable the tilted working plane function(G68.3), and vice versa.</li> </ol>				
Solution	<ol> <li>Do not enable F</li> <li>Do not enable C</li> <li>function when C</li> </ol>	RTCP function when G68.3 ac G68.3 function when G54.4 ac G68.3 activated.	ctivated. ctivated, and do not enable G54.4		

#### 7.256 COR-401 Path planning plug-in error

Alarm ID	COR-401	Alarm title	Path planning plug-in error
	BGND-401		

Description	Path planning plug-in error.	
Reason	Path planning plug-in error leads to system abnormality.	
Solution	Please contact OEM Syntec.	

#### 7.257 COR-402 Cycle start is not allowed after use time expire

Alarm ID	COR-402 BGND-402	Alarm title	【Cycle start is not allowed after use time expire 】	
Description	Cycle Start is not allowed after use time expire.			
Reason	The use time of the controller has been expired, hence the controller is locked.			
Solution	<ol> <li>Extend the use time of the controller.</li> <li>Please contact the controller vendor to unlock the controller.</li> </ol>			

# 7.258 COR-601 RTCP is not properly enabled during the execution of 3D tool radius compensation

Alarm ID	COR-60 1 BGND-6 01	Alarm title	[RTCP is not properly enabled during the execution of 3D tool radius compensation ]		
Descriptio n	Executing 3-dimensional cutter compensation without correctly enabling RTCP.				
Possible Cause	<ol> <li>Before using G41.2 or G42.2 functions, RTCP was not enabled with G43.4.</li> <li>Before using G41.6 or G42.6 functions, RTCP was not enabled with G43.5.</li> <li>During the execution of 3D tool radius compensation, switching RTCP mode from G43.4 to G43.5, or vice versa.</li> <li>During the execution of 3D tool radius compensation, RTCP was turned off.</li> </ol>				
Solution	During the execution of 3D tool radius compensation, use the corresponding RTCP commands correctly.				

# 7.259 COR-602 Unsupported command used when 3D tool radius compensation is enabled

Alarm ID	COR-602 BGND-602	Alarm title	【Unsupported command used when 3D tool radius compensation is enabled】		
Description	Using unsupported commands when enabling 3D tool radius compensation.				
Possible Cause	<ol> <li>The following commands are present between the blocks where 3D tool radius compensation is enabled:         <ul> <li>Arc interpolation (G02、G03、G02.4、G03.4)。</li> <li>Polar Interpolation (G12.1、G13.1)。</li> <li>polar coordinate command (G16)。</li> <li>Reference point returning (G28、G29、G30)。</li> <li>High-Speed Positioning(G28.1)。</li> <li>Skip command(G31、G31.10、G31.11)。</li> <li>Screw cutting(G33)。</li> <li>Tangential control, left compensation(G41.1、G42.1)。</li> <li>Mechanical coordinate orientation(G53)。</li> <li>Tapping mode(G63)。</li> <li>Feed per revolution(G95)。</li> <li>Equal surface cutting speed(G96)。</li> </ul> </li> <li>Modifying the offset values corresponding to the tool number currently in use while 3D tool radius compensation is enabled.</li> </ol>				
Solution	<ol> <li>For arc interpolation, use alternative commands such as G00 or G01.</li> <li>Please remove unsupported commands described above, or disable 3D tool radius compensation before executing those commands.</li> <li>Please wait until 3D tool radius compensation is turned off before modifying the offset values for the tool number in use.</li> </ol>				

# 7.260 COR-603 When 3D tool compensation is enabled, changing the coordinate system is not supported

Alarm ID	COR-603 BGND-60 3	Alarm title	[When 3D tool compensation is enabled, changing the coordinate system is not supported]	
Description	Changing the coordinate system while the 3D tool radius compensation function is enabled.			
Possible Cause	<ul> <li>While 3D tool radius compensation is enabled, the following commands are used:</li> <li>1. Local Coordinate System Setup (G52)</li> <li>2. Workpiece Coordinate System Setup (G54-G59.9)</li> <li>3. Enable/Disable Workpiece Coordinate Rotation Functionality (G54.4)</li> <li>4. Tool orientation reference coordinate system setting (G43.4 Q1)</li> <li>5. Coordinate Rotation (G68)</li> <li>6. Tilted Working Plane Machining (G68.2、G68.3)</li> <li>7. Absolute Zero Point Coordinate Setup (G92、G92.1)</li> </ul>			
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Solution	Before changing the coordinate system, use G40 to deactivate the 3D tool radius compensation function.			

# 7.261 COR-604 When 3D tool radius compensation is enabled, changing the machining plane is not allowed

Alarm ID	COR-604 BGND-60 4	Alarm title	【When 3D tool radius compensation is enabled, changing the machining plane is not allowed】			
Description	Changing th controller to	Changing the machining plane while 3D tool radius compensation is enabled will cause the controller to be unable to calculate the correct offset path.				
Possible Cause	While 3D tool radius compensation is enabled, changing the machining plane with G17, G18, or G19.					
Solution	Before changing the machining plane, first deactivate 3D tool radius compensation, and then reactivate it after the machining plane change is complete.					

#### 7.262 COR-605 Tool radius compensation mode conflict

Alarm ID	COR-605 BGND-605	Alarm title	[Tool radius compensation mode conflict]		
Descriptio n	Changing the tool radius compensation mode is prohibited while 3D tool radius compensation is enabled.				
Possible Cause	<ol> <li>Using G41.2 or G42.2 3D tool radius compensation commands while G41 or G42 cutter radius compensation is enabled.</li> <li>Using G41 or G42 cutter radius compensation commands while G41.2 or G42.2 3D tool radius compensation is enabled.</li> </ol>				

Solution	Before switching the cutter radius compensation mode, use G40 to cancel the current cutter
	radius compensation mode, then enable the new cutter radius compensation mode.

7.263 COR-606 While coordinate transformation is enabled, the use of 3D tool radius compensation is prohibited

Alarm ID	COR-606 BGND-60 6	Alarm titl e	[While coordinate transformation is enabled, the use of 3D tool radius compensation is prohibited]		
Descriptio n	While coord	While coordinate transformation is enabled, the use of 3D tool radius compensation is prohibited			
Possible Cause	<ul> <li>When the following coordinate transformation functions are enabled, 3D tool radius compensation is activated: <ol> <li>Activate/Deactivate Polar Coordinate Interpolation (G12.1、G13.1)</li> <li>Polar Coordinates Command Mode (G16)</li> <li>Tool attitude reference coordinate system(Pr3057 - Tool attitude reference coordinate system = 1)</li> <li>Coordinate Rotation(G68)</li> <li>Tilted Working Plane Machining (G68.2、G68.3)</li> </ol> </li> </ul>				
Solution	1. Ren 2. Disa	nove 3D tool r able those abo	adius compensation commands. ove unsupported coordinate settings for 3D tool radius compensation.		

# 7.264 COR-607 Current block cannot calculate the compensation amount for 3D tool radius compensation

Alarm ID	COR-60 7 BGND-6 07	Alarm title	【This block cannot calculate the 3D tool radius compensation amount】	
Descriptio n	This block cannot calculate the 3D tool radius compensation amount			
Possible Cause	1. If the tool orientation and path are coplanar, the 3D tool radius compensation amount cannot be calculated.			
Solution	1. Ple pat	ease modify t th	he machining program so that the tool orientation is not coplanar with the	

# 7.265 COR-608 Incorrect tool number specified while 3D tool radius compensation is enabled

Alarm ID	COR-60 8 BGND-6 08	Alarm title	[Incorrect tool number specified while 3D tool compensation is enabled]			
Descriptio n	After 3D to	After 3D tool radius compensation is enabled, an incorrect cutter radius number is specified.				
Possible Cause	<ul> <li>After 3D tool radius compensation is enabled, the following situations occur:</li> <li>1. Cutter number D is not specified.</li> <li>2. After specifying cutter number D, another cutter number D is specified again.</li> <li>3. The specified cutter number has invalid offset values or wear values set.</li> </ul>					
Solution	<ol> <li>Ple or</li> <li>Ple con</li> <li>Ple con</li> </ol>	ase specify c G42.6. ase ensure t npensation a ase correctly nply with the a. The com b. If the co wear val	cutter number D before the first movement block after G41.2, G42.2, G41.6, here is only one cutter number D specified within the 3D tool radius activation period. y set the compensation and wear values for the cutter, ensuring they e following principles: opensation value cannot be less than 0. mpensation value is greater than 0, the sum of the compensation value and lue cannot be less than 0.			

# 7.266 COR-609 There are too many ineffective blocks between the compensable blocks

Alarm ID	COR-60 9 BGND-6 09	Alarm title	【There are too many ineffective blocks between the compensable blocks】
Descriptio	The syster	m cannot reta	ain excessive invalid compensation blocks inserted between contour blocks mpensation is activated.
n	when 3D t	cool radius co	

Possible Cause	<ol> <li>When 3D tool radius compensation is enabled, too many invalid compensation blocks are inserted between contour blocks, exceeding the system's capacity limit.</li> <li>The following conditions define an "invalid compensation block":         <ul> <li>G00/G01 blocks that only specify movements for the A, B, or C rotational axes.</li> <li>G00/G01 blocks where the tool center point coordinates remain unchanged from the previous tool center point coordinates, meaning there is no movement of the tool center point.</li> <li>The G00/G01 block's tool center point coordinates cause the tool center point to move in a direction parallel to the tool axis, indicating that the block is used for the tool to enter or exit the workpiece machining area in a parallel manner</li> <li>Any G-codes other than G00/G01.</li> <li>M-codes, H-codes, T-codes, etc.</li> <li>G-code macro</li> </ul> </li> </ol>
Solution	Please reduce the number of invalid compensation blocks between contour blocks.

#### 7.267 COR-610 Corner type change by tool rotation is disallowed

Alarm ID	COR-610 BGND-61 0	Alarm title	[Corner type change by tool rotation is disallowed]	
Description	In 3D tool radius compensation mode, tool rotation causes a change in the corner type.			
Possible Cause	<ul> <li>Variations in tool rotation angles between blocks can lead to the system misjudging the corner type, increasing the risk of cutting errors.</li> </ul>			
Solution	Modify the tool rotation block to avoid misinterpretation of corner types.			

#### 7.268 COR-611 The system does not support excessive invalid compensation blocks inserted between effective compensation blocks during 3D tool radius compensation mode

Alarm ID	COR-611 BGND-611	Alarm ti tle	[The system does not support excessive invalid compensation blocks inserted between effective compensation blocks during 3D tool radius compensation mode.]
Descriptio	The system i compensation	is unable to	retain excess invalid compensation blocks inserted between effective
n		on blocks w	hen 3D tool radius compensation is activated

Possible Cause	<ul> <li>When 3D tool radius compensation is enabled, the system cannot retain excessive invalid compensation blocks inserted between effective compensation blocks.</li> <li>A block is considered an "invalid compensation block" if it meets the following conditions: <ul> <li>a. The G00/G01 block only involves movement of the A, B, or C rotary axes.</li> <li>b. G00/G01 blocks where the tool center point coordinates remain unchanged from the previous tool center point coordinates, meaning there is no movement of the</li> </ul> </li> </ul>
	<ul> <li>c. The G00/G01 block's tool center point coordinates cause the tool center point to move in a direction parallel to the tool axis, indicating that the block is used for the tool to enter or exit the workpiece machining area in a parallel manner</li> <li>d. Auxiliary G codes are not supported by the 3D tool radius compensation.</li> <li>e. M-codes, H-codes, T-codes, etc.</li> </ul>



Program Execute Error Alarm - COR – 473

#### 8 Background Execute Alarm - BGND

Alarm ID	COR-001 BGND-001	Alarm title	Array Variable is empty				
Description	Indirect assigned variab i.e. @[#1], if #1 is empty	ble number is empty. r, this alarm will be issued.					
Reason	Programming error.						
Solution	Please check the NC pro empty.	ogram, make sure that indire	ct assigned variable's number is not				
Alarm ID	COR-002 BGND-002	Alarm title	File not exist				
Description	If the file that the syste	If the file that the system wants to read does not exist i.e. use M98 (or G65, G66, and etc.) to call a non existing file.					
Reason	Programming error.						
Solution	Check the NC program	to make sure the existence	of the file.				
Alarm ID	COR-003 BGND-003	COR-003Alarm titleDevide by zero errorBGND-003					
Description	If denominator in divisi i.e. #1:=(#2/ #3); if #3 ec	on of MACRO is equal to 0 Juals to zero, system will issu	ie this alarm.				
Reason	Programming error						
Solution	Check the NC program	to ensure that the denomina	itor is not equal to 0.				
Alarm ID	COR-004 BGND-004	COR-004Alarm titleOperation domain errorBGND-004					
Description	Operation domain erro	r.					
Reason	Programming error						

Solution	Please check the NC pr	Please check the NC program.			
Alarm ID	COR-005 BGND-005	Alarm title	Program loading failure		
Description	MACRO syntax error.				
Reason	Programming error.				
Solution	Please check the NC pr	ogram.			
Alarm ID	COR-006 BGND-006	Alarm title	Arc not on work plane		
Description	<ol> <li>In clockwise, counter-clockwise arc cutting (G02, G03) syntax, if the vector from center of circle to starting point doesn't exist on the arc working surface. i.e. execute G17 G02 I50. K10. , and system will issue this alarm.</li> <li>In spiral interpolation (G02, G03) syntax, when corresponding to G17, G18, and G19 three surface conditions, if K, J , and I arguments are not zero, system will issue this alarm.</li> </ol>				
Reason	Programming error.				
Solution	Check the NC program	to ensure that G02 and G03	are used correctly.		
Alarm ID	COR-007 BGND-007	Alarm title	Arc radius too short		
Description	In G02 and G03 syntax, (10^-10), system will is	In G02 and G03 syntax, if Arc radius is smaller than 10 to the power of minus 10 BLU (10^-10), system will issue this alarm.			
Reason	Programming error.				
Solution	Check the NC program	to ensure that the Arc radiu	s of G02 and G03 are used correctly.		
Alarm ID	COR-008 BGND-008	Alarm title	Arc destination not on arc		

Description	In G02 and G03 syntax issue this alarm.	, if the Arc end point coordi	nate is not on the circle, system will			
	From 8.31 version, add allowing to set window	From 8.31 version, adding Pr3807 setting arc final point is not on the check window, allowing to set window range's error in Pr3807.				
	When arc end point po system will auto corre locate on the circle co	osition's error is smaller tha ect the circle's center positio rrectly.	n Pr3807 setting window's range, n, and make the end point position to			
	When arc end point po will issue this alarm.	osition error is bigger than P	r3807 window range setting, system			
Reason	Programming error.					
Solution	Check the NC program	n to ensure that the Arc radi	us of G02 and G03 are used correctly.			
Alarm ID	COR-009 BGND-009	Alarm title	G65 layers called by Macro too deep			
Description	Use G65 to call MACRO program layer more than 12 layers.					
Reason	Programming error.					
Solution	Check NC program to e layers.	ensure that G65 calls MACRO	) program less than or equal to 12			
Alarm ID	COR-010 BGND-010	Alarm title	G66 layers called by Macro too deep			
Description	Use G66 to call MACRO program layer more than 4 layers. It is possible in the following situations:					
	<ol> <li>Improper use G66. Use G66 to call MACRO program layer more than 4 layers.</li> <li>Lathe A Type G70 ~ G73 or Lathe C Type G72 ~ G75 Q_ sequence numbers does not exist.</li> </ol>					
Reason	Programming error.					
Solution	<ol> <li>Check NC program 4 layers.</li> <li>Check NC program 675 Q_ sequen</li> </ol>	ram to ensure that G66 calls ram to ensure that Lathe A T ce numbers exist.	MACRO program less than or equal to ype G70 ~ G73 or Lathe C Type G72 ~			

Alarm ID	COR-011 BGND-011	Alarm title	Subprogram call too deep		
Description	Use M98 to call subpro	gram that has more than 16	i layers.		
Reason	Programming error.				
Solution	Check NC program to e	ensure that M98 calls subpro	ogram that has less than 16 layers.		
Alarm ID	COR-012 BGND-012	Alarm title	G66 mode not cancel by G67		
Description	G66 and G67 need to be used in pairs, when numbers of G67 is more than G66 in one NC program, this alarm will be issued.				
Reason	Programming error.				
Solution	Check NC program to e	nsure that G66 and G67 are	used in pairs		
Alarm ID	COR-013 BGND-013	Alarm title	G65, G66 must be at the end of the block		
Description	G65 and G66 are MACRO, so in one same block the program on the right hand side of G65 and G66 will be processed as G65 and G66's arguments. So in one same block, if there is other G code command please write them in the left hand side of G65 and G66. In one same block, if the right hand side of G65 and G66 has G code or M code, system will issue this alarm.				
Reason	Programming error.				
Solution	Please check the NC pro	gram.			
Alarm ID	COR-014 BGND-014	Alarm title	Absent program number		
Description	The right hand side of number.	G65 and G66 doesn't have F	Pargument to specify program		
Reason	Programming error.				

Solution		Please check the NC program to ensure G65 and G66 use P argument to specify program number.			
Alarm ID	COR-01 BGND-0	5 15		Alarm title	Too many auxiliary M codes
Description	There ar	re more	than 5 auxiliary	M codes in a single block.	
Reason	Program	nming e	error.		
Solution	Please c single b	heck th lock	ne NC program to	o ensure that there are equ	ial or less than 5 auxiliary M codes in a
Alarm ID	COR-016 Alarm title BGND-016				Illegal variable access
Descriptio n	Attempte	ed to ac	ccess a variable t	hat does not exist.	
Reason	<ol> <li>Programming error.</li> <li>Illegal access to # or @ variable.</li> <li>The parameter of SYSDATA function is out of system data range.</li> <li>The controller does not support the status variable which DRVDATA is to read.</li> <li>The program that attempts to access AR or MAR variables does NOT lie within the scope of App Macros.</li> <li>The AR or MAR variables to access do NOT lie within the range defined by the App.</li> <li>Non-integer numbers are used to specify the addresses of AR or MAR variables. ONLY integers are acceptable.</li> <li>The background computing program executed an unsupported instruction.</li> </ol>				
Solution	<ol> <li>Make sure the accessing variable exists.</li> <li>Make sure the variable to read is readable.</li> <li>Make sure the variable to write is writable.</li> <li>Make sure the variable which DRVDATA is to read can be found on the "Controller Axis Info." page.</li> <li>Make sure the AR and the MAR variables are accessed ONLY in App Macros.</li> <li>Make sure the AR and the MAR variables to access lie within the range defined by the App.</li> <li>Make sure only integers are used to specify the addresses of AR or MAR variables.</li> <li>Make sure that no unsupported instructions are used in the background computing program.</li> </ol>				
Alarm ID		COR- BGND	017 9-017	Alarm title	Sequence number not found

Description	The NC program sequen	ce number is used incorrectly	<i>J</i> .		
Reason	<ol> <li>When running the GO cannot be found.</li> <li>When running the M99 argument cannot be four</li> </ol>	TO command, the correspond command, sequence number nd in the main(parent) progr	ding sequence number (N code) er (N code) specified by the P am.		
Solution	Please check the NC pro	gram.			
Alarm ID	COR-018Alarm titleLine number not foundBGND-018				
Description	Input line number is inc	orrect.			
Reason	<ol> <li>When Pr3851 sets as 888800, input breakpoint's line number exceeds NC program's maximum line number.</li> <li>When Pr3851 sets as 999900, input breakpoint's line number exceeds NC program's maximum line number.</li> <li>When Pr3851 sets as 999901, input breakpoint's line number exceeds NC program's maximum line number or positioning command line number cannot be found after scanning through entire NC program.</li> <li>When M99 Q_ sub-program returns to the line number which is assigned by main program, the line number Q_ assigned is over main program's maximum line number.</li> </ol>				
Solution	<ol> <li>Input the correct</li> <li>When Pr3851 set command after i</li> </ol>	<b>program line number.</b> Is as 999901, modify NC progr nitial assigned breakpoint.	am by inserting positioning		
Alarm ID	COR-019 BGND-019	Alarm title	sub-program has no M99		
Description	When main program calls sub-procedure, if sub-program finish executing and need to return the main program, there is no M99.				
Reason	Programming error.				
Solution	Write in M99 when sub-J	program finish executing and	return the main program.		
Alarm ID	COR-020 BGND-020	Alarm title	Too many G code		
Description	There are more than 10	) G codes in a single block.			

Reason	Programming error.				
Solution	Breakdown that singl than 10 G codes.	e block which has over 10 G	i codes into single blocks that has less		
Alarm ID	COR-021 BGND-021	Alarm title	Too many (I,J,K) triples		
Description	Repeat too much I, J, a	nd K command in the same	block.		
Reason	Programming error.				
Solution	Please check the NC pr	ogram.			
Alarm ID	COR-022     Alarm title     Use undefined workpiece       BGND-022     coordinate				
Description	Use an undefined G54 coordinate system.				
Reason	Programming error.				
Solution	Use the correct G54 coo	rdinate system.			
Alarm ID	COR-023 BGND-023	Alarm Title	Semantic error		
Description	<ol> <li>When using G code, different G code can input different argument (P_, L_, R_, and etc.), if argument setting is wrong, and system will issue this alarm.</li> <li>The argument of macro function is wrong.</li> </ol>				
Reason	Programming error.				
Solution	Check the NC program to ensure the argument is used correctly by referring the manual.				
Alarm ID	COR-024 BGND-024	Alarm title	Invalid arc radius value		

Description	When executing G02, G03, appointed Arc end point and given radius is contradicted, which the given radius cannot meet appointing Arc end point. i.e. G91 G03 X1500 Y4000 R2000.					
Reason	Programming error.					
Solution	Check the program	and recalculate.				
Alarm ID	COR-025 BGND-025	COR-025Alarm titleMacro stack is overflow or STKTOP[] argument error3GND-025Image: Solution of State				
Description	<ol> <li>STACK can store manumber, controller iss</li> <li>In STKTOP[n], n is s</li> <li>stack-1, controller iss</li> </ol>	<ol> <li>STACK can store maximum 4095 values. If stored value exceeding the maximum number, controller issue this alarm.</li> <li>In STKTOP[n], n is started from 0, if the value of n is bigger than the value storing in stack-1, controller issue this alarm</li> </ol>				
Reason	1. Too much value sto 2. STKTOP[] argumen	<ol> <li>Too much value store in STACK.</li> <li>STKTOP[] arguments exceeds the value storing in STACK.</li> </ol>				
Solution	1.Stack is full, do not o 2. Input a reasonable	use store command anyme argument in STKTOP[].	ore.			
Alarm ID	COR-026 BGND-026	Alarm title	macro stack is empty			
Description	Empty stack still wa	int to pop value, system is	sue this alarm.			
Reason	The numbers of Pus	sh commands and Pop cor	nmands are not the same.			
Solution	Check the program of Pop commands.	to ensure that the numbe	r of Push commands is the same with that			
Alarm ID	COR-027 BGND-027	COR-027Alarm titleInvalid macro argumentsBGND-027				
Description	Macro issue self-def	ined alarm.				
Possible Cause	Once Macro determ be stopped and alar	ines the self-defined alarm m will appear.	n error condition is meet, NC program will			

Solution	According to the display content of alarm to find out the error.			
Alarm ID	COR-028 BGND-028	Alarm title	System program error, can't normally machining.	
Description	Use Quiet Mode in MAC	CRO, but can't leave Quiet M	lode when program finished.	
Reason	Programming error.			
Solution	Please check the NC pr	ogram.		
Alarm ID	COR-029 BGND-029	Alarm title	Tool length offset change at arc	
Description	G43, G44, G49 only receive linear interpolation command in the next block.			
Possible Cause	Programming error.			
Solution	Please check the NC p	rogram.		
Alarm ID	COR-030Alarm TitleCutting speed command is 0BGND-030			
Description	When execute cutting	command, given F code ar	gument is zero.	
Possible Cause	Programming error.			
Solution	Check the NC program	n to ensure the argument o	f F code shall not be 0.	
Alarm ID	COR-031 BGND-031	Alarm title	Radius compensation cancel at arc	
Description	G40 only receives linear interpolation command in the next block			
Possible Cause	Programming error.			
Solution	Please check the NC p	rogram.		

Alarm ID		COR-032 BGND-032	COR-032 Alarm title Radius compensation activate at arc				
Description		G41,G42 or	ıly receive li	near inte	erpolation comma	nd in the next block.	
Reason		Programmi	ng error.				
Solution	Please check the NC program.						
Alarm ID	COR-033 Alarn BGND-033		Alarm tit	le Im	Improper use of A, R, or C command		
Description	Timing	of using A, R	, or C comm	nand is ir	ncompatible with t	he specification.	
Reason	Progra	mming error.					
Solution	Check	NC program t	to confirm t	hat if the	e blocks are compa	tible with specifications	
Alarm ID	COR-0 BGND-	COR-034 Alarm ti BGND-034		tle i		Path expand argument d exist	loes not
Description	NC pro ",A_" a	program contains non-existed path expand argument, such as ",Z_". Only ",C_", ",R_" and _" arguments are supported.				",R_" and	
Reason	Progra	mming error.					
Solution	Revise	NC program,	make sure	non-sup	ported path expar	d arguments are excluded	l.
Alarm ID	COR-0 BGND-	-035 Alarm title		Corner is too sn	nall can't insert round co	rner chamfer	
Description	Angel k calcula	ngel between blocks, which to be inserted round corner or chamfer is too small so system can't alculate it.				system can't	
Reason	Progra	mming error.					
Solution	1. 2.	Check NC pro Check and co	ogram to co onfirm the v	onfirm th working	at whether the blo plane and round co	ock is compatible with spec orner plane are the same.	cifications.

Alarm ID		COR- BGND	036 0-036	Alarm title	Inappropriate A angle command
Description		A is va	alid only in linea	r interpolation of single blo	ck.
Reason		Programming error.			
Solution		Check NC program to confirm that whether A angle command is compatible with specifications			
Alarm ID	COR-037 Alarm title BGND-037			Alarm title	Chamfer value bigger than displacement
Description		Chamfer value is bigger than pre-block and post-block length, so system can't calculate it.			
Reason		Programming errors.			
Solution		<ol> <li>Check NC program to confirm that whether inserted value of chamfer is compatible with specifications.</li> <li>Check to confirm whether C value is compatible with specification.</li> </ol>			r inserted value of chamfer is atible with specification.
Alarm ID	Alarm ID		)38 -038	Alarm title Incorrect block jump's swit number.	
Description		Incorre i.e. / 2 alarm.	ect block jump s G00 X100. ; If ass	witch number. signed number is bigger tha	n 9 or equals to 0, system will issue this
Reason		Blockj	jump switch nun	nber is 0 or bigger than 9.	
Solution		Check	the NC program	, and confirm block jump s	witch number is between 1 and 9.
Alarm ID	COR-039 Alarm title M BGND-039		Alarm title	Measure function can't st	art tool radius compensation
Description	Meas	ure func	tion can't start t	cool radius compensation.	
Reason	Meas comp	ure func ensatio	tion related inst n command.	ruction (i.e., G31, G31.10, G	31.11) is executed after tool

Alarm ID	COR- BGNI	-039 D-039	Alarm title	Measure function can't start tool radius compensation				
Solution	Confi comr	rm ther nand.	rm there is no measure function related command is executed after tool compensation nand.					
Alarm ID		COR-0 BGND-	940 •040	Alarm title	Block end point exceed software stroke limit			
Description		The machine coordinate in the program exceeds the software stroke limit.						
Reason		Programing error.						
Solution		Check	the NC progran	n, and correct coordinate p	osition.			
Alarm ID CC		COR- BGNI	041 D-041	Alarm title	GOTO label must be integer			
Description		The input GOTO label is not an integer. i.e. GOTO 1 Correct GOTO 1. Wrong N1; Correct N1.; Wrong						
Reason		Progr	amming error.					
Solution		Checl	< the NC progra	m, and input integer in GO <sup>-</sup>	TO argument.			
Alarm ID		COR-( BGND	)42 -042	Alarm title	Logic operand is non-integer or empty			
Description		Logic	operand must b	e non-integer or empty.				
Reason		Logic operand has floating point. i.e. #1=1.5And3. System will issue this alarm.						
Solution		Please	e check NC prog	ram. Confirm logic operand	d is integer or empty.			

Alarm ID	COR-043 BGND-043	Alarm title	ASIN, ACOS operand must between ±1.0				
Description	ASIN() and ACOS() ope	rand is not between -1.0 and	d 1.0.				
Reason	Programming error.						
Solution	Check the NC program						
Alarm ID	COR-044 BGND-044	Alarm title	SQRT operand should not be negative				
Description	The square root of a negative value will be imaginary number, but the controller does not provide imaginary number function.						
Reason	Programming error.						
Solution	Check the NC program; enter a positive value in SQRT operand.						
Alarm ID	COR-045 BGND-045	Alarm title	L address should be integer				
Description	The L address is not ar	n integer.					
Reason	Programming error.						
Solution	Check the NC program	n, and use integer in L addre	SS.				
Alarm ID	COR-046 BGND-046	Alarm title	O address should be integer				
Description	The O address is not a	n integer.					
Reason	Programming error.						
Solution	Check the NC program	n, and use integer in O addre	ess.				
Alarm ID	COR-047 BGND-047	Alarm title	M address should be integer				

Description	The M address is not	The M address is not an integer.						
Reason	Programming error.							
Solution	Check the NC progra	m, and use integer in M add	ress.					
Alarm ID	COR-048 BGND-048	Alarm title	Spindle speed S should be integer					
Description	The spindle speed S i	s not an integer.						
Reason	Programming error.							
Solution	Check the NC program, and use integer in the spindle speed S.							
Alarm ID	COR-049 BGND-049	Alarm title	Tool length compensation H should be integer					
Description	Tool length compensa	Tool length compensation H is not an integer.						
Reason	Programming error.							
Solution	Please check the NC p	rogram, and use integer in	tool length compensation H.					
Alarm ID	COR-050 BGND-050	Alarm title	Tool radius compensation D should be integer					
Description	Tool radius compensa	tion D is not an integer.						
Reason	Programming error.							
Solution	Please check the NC p	rogram, and use integer in	tool radius compensation.					
Alarm ID	COR-051 BGND-051	Alarm title	Tool number T should be integer					
Description	Tool number T is not	an integer.						
Reason	Programming error.							

Solution		Please check the NC program, and use tool number T in integer.						
Alarm ID	COR-052 BGND-052		A	Alarm title		Sub inte	-program number, P, should be ger	
Description		Sub-program	number P i	is not aı	n integer.			
Reason	>n Programming error.							
Solution		Please check the NC program, and use the sub-program number P in integer.					n number P in integer.	
Alarm ID		COR-053 BGND-053		Alarm title		Re	Repeat count L should be integer	
Description		Repeat count L is not an integer.						
Reason		Programming error.						
Solution		Please check the NC program, and use the repeat count L in integer.					nt L in integer.	
Alarm ID		COR-054 BGND-054		Alarm title			Incompatible data type	
Description		Data format	is incompa	atible w	ith controller spec	cificat	tions.	
Reason		NC program	is not com	patible	with the SYNTEC	contr	oller.	
Solution		Make sure th specification	nat the NC p ns.	progran	n data format is co	ompa	tible with Syntec controller	
Alarm ID	COR- BGNI	OR-055 Alarm t GND-055		itle Tool length compensation H out of range		sation H out of range		
Description	The t	ool length com	pensation	H exce	eds the range of to	ool nu	ımber.	
Reason	Prog	ramming error.						
Solution	Make	Make sure that the tool length compensation H, is in the range of tool number.						

Alarm ID		COR-05 BGND-0	6 56	Alarm title	G10 table index P is out of range				
Description		<ol> <li>G10's format is G10 L_ P_ R_; Different number L will correspond to different number P</li> <li>L10 corresponding number P is tool number. Input P1000 means the 1000<sup>th</sup> too If that tool number doesn't exist, and controller will issue this alarm.</li> <li>L1600 corresponding number P is the spindle synchronization group number. It the input parameter is not within the range of 1-3, the controller will issue this alarm.</li> </ol>							
Reason		Programming error.							
Solution		Confirm	G10 data tabl	e address number P is in rea	asonable range.				
Alarm ID		COR-057 BGND-057		Alarm title	Tool radius D out of range				
Description		The too	l radius numbo	er D exceeds the range of to	ol number.				
Reason		Program	nming error.						
Solution		Make su	re that the too	ol radius number D is in the	range of tool number.				
Alarm ID		COR-058 BGND-05	3 58	Alarm title	Tool nose compensation D is out of range				
Description		The tool	nose compen	sation D exceeds the range	of tool number.				
Reason		Program	error.						
Solution		Make sur	e that the too	l radius compensation D is i	n the range of tool number.				
Alarm ID	COI BGN	COR-059 Alarm title BGND-059		Subprogram Call H m	ust be integer				
Description	Sub	program c	all H is not an	integer.					
Reason	Pro	gram error							
Solution	Con	firm the su	ubprogram ca	ll H is an integer.					

Alarm ID		COF BGN	₹-060 ID-060	A	larm title	M99 ret	urn number P must integer	
Description		The	The M99 return sequence number P is not an integer.					
Reason		Pro	gram error.					
Solution		Con	firm the M99 re	eturn se	equence number P is an ir	nteger.		
Alarm ID		COF BGN	R-061 ID-061	A	larm title	Workpie	ece number is out of range	
Description		The	number of wor	rk piece	es exceeds the allowable i	range of t	he controller.	
Reason		Pro	gram error.					
Solution		Make sure the number of work pieces is in the allowed range of the controller.					e of the controller.	
Alarm ID	COR-0 BGND-	62 062	Alarm title Dwell skip source Q must be integ					
Description	Dwell s	kip so	ource Q is not a	n integ	jer.			
Reason	Progra	m erre	or.					
Solution	Change	e the d	dwell skip sour	ce Q int	to an integer.			
Alarm ID	COR-0 BGND-	63 063	Alarm title	Dwell	skip source Q out of ran	ige		
Description	Dwell s	kip so	ource Q exceed	s the al	llowed range.			
Reason	Progra	m erre	or.					
Solution	Make s	ure th	e dwell skip so	urce Q	is in the allowed range.			
Alarm ID		CC BC	DR-064 GND-064		Alarm title	Inv	valid P address	

CNC	Alarm	Manual.

Description	Invalid P address.							
Reason	<ol> <li>Address P is less than 0.</li> <li>Address P is not integer.</li> <li>Address P is out of range.</li> </ol>							
Solution	<ol> <li>Make sure add</li> <li>Make sure add</li> <li>Make sure add</li> <li>Make sure add</li> </ol>	<ol> <li>Make sure address P is greater or equal to 0.</li> <li>Make sure address P is integer.</li> <li>Make sure address P is within the range.</li> </ol>						
Alarm ID	COR-065 BGND-065	COR-065Alarm title,A command format errorBGND-065						
Description	In NC program ,A com	In NC program ,A command's format is wrong.						
Reason	Programming error.	Programming error.						
Solution	<ul> <li>Please confirm ,A command format is one of the followings: <ol> <li>In the same block command as ,A, Moving instruction only includes one of x axis or z axis. i.e. G01 X10. ,A30.</li> <li>Use ,A advanced function in two separate line. The first line will assign ,A angle, and the second line will assign X, Z and ,A at the same time.</li> </ol> </li> <li>i.e. G01 ,A30.</li> <li>G01 ,A30.</li> <li>G01 X0. Z50. ,A45</li> </ul>							
Alarm ID	COR-066 BGND-066	Alarm title	Inc. axis command and abs. axis command conflict					
Description	Both G91 and G90 are i	n the same line.						
Reason	Programming error.							
Solution	Decide to use incremen command.	ntal or absolute command	in one line, and enter the correct					
Alarm ID	COR-067 BGND-067	Alarm title	Arc center vector and radius conflict					
Description	The arc end point is no center.	t on the arc created by the	e arc starting point and the specify					

Reason	F	Programming error.						
Solution	F	Please check the NC program.						
Alarm ID	C B	COR-068Alarm titleQuiet Mode not support imperial Metric switch commandBGND-068Image: Command State Sta					ode not support imperial witch command	
Description	Т	The single block command in Quiet mode operation cannot switch Metric/ imperial unit.						
Reason	P	Programming error.						
Solution	P	lease check the N	C progra	m.				
Alarm ID	(	COR-069 3GND-069	Alarm title			Round corner and chamfer cmd. conflict		
Description	(	Chamfer command and round corner command are in the same line.						
Reason	F	Program error.						
Solution	[	Do not let chamfer	comma	nd and ro	und corner c	comman	d exist in the same line.	
Alarm ID		COR-070 BGND-070	Alarm title		itle		Invalid G Code	
Description		Enter incorrect (	G code to controller.					
Reason		Program error.						
Solution		Enter the valid G	i-code.					
Alarm ID	COI BGI	R-071 ND-071	Alarm t	itle	No main p	orogram	name assigned	
Description	The	name of main pro	ogram is	not speci	ied.			
Reason	The	NC program is no	t loaded					
Solution	Spe	cify the name of n	nain prog	gram.				

Alarm ID	COR-072 BGND-072	Alarm title	Threading command exceeds max. cutting speed				
Description	Threading command	exceeds the maximum cutti	ing speed.				
Reason	Program error.						
Solution	Decrease the cutting s	peed of threading.					
Alarm ID	COR-073 BGND-073	Alarm title	Tapping command exceed max. cutting speed				
Description	Tapping command speed exceeds the maximum cutting speed.						
Reason	Program error.						
Solution	Decrease the cutting speed of tapping.						
Alarm ID	COR-074 BGND-074	Alarm title	Tool radius too big, path overcut				
Description	<ol> <li>During maching</li> <li>During maching</li> <li>tool radius.</li> </ol>	ning notch, the notch width ning trapezoidal, the height	is smaller than two times of tool radius. of trapezoidal is less than two times of				
Reason	Tool compensation c	auses path overcut.					
Solution	Please check the NC cancels tool radius co	program, and decide wheth pmpensation.	er this part of the machining should				
Alarm ID	COR-075 BGND-075	Alarm title	Exact stop wait timeout				
Description	After 2 seconds after feedback and comm determined by Pr48.	sending Exact stop (G09/G and exceeds allowable valu I~).	61) command, the difference between ue (G01 is determined by Pr421~; G00 is				
Reason	Servo vibration.						

Solution		<ol> <li>Servo tuning.</li> <li>Modify parameters Pr421~ or Pr481~.</li> </ol>						
Alarm ID		COF BGN	R-076 ND-076	G04 dwell tim	e cannot be ne	gative		
Description	tion Input value of dwell time G04 is negative.							
Reason	ason Program error.							
Solution		Che	ck the NC prog	gram	n, and enter a positive or zero	value in G04 a	rgument.	
Alarm ID	COR-077 Alarm Title NU BGND-077		URBS curve format is wron	g				
Description	G6.2 for	mat	is wrong.					
Reason	Input ar	Input argument P, K, R is against allowable format.						
Solution	Refer th	ie pro	ogram manual	to c	correct the command syntax.			
Alarm ID	COR-07 BGND-0	'8 )78	Alarm Title	N	URBS curve system memor	y insufficient		
Description	NURBS	curve	e memory is ins	suff	icient.			
Reason	System	proc	essing defectiv	/e.				
Solution	Contact	t OEM	1 Syntec.					
Alarm ID	COR-07 BGND-0	Alarm Title Number of Nurbs curve nodes more than the upper limit						
Description	NURBS	curve	e control point	is o	over limit.			
Reason	NC file (	G6.2 (	curve is too lon	ıg aı	nd cause using too many con	trol point.		
Solution	Re-gene	erate	the CAM, and r	rest	rict the number of curve nod	es less than 400	).	

Alarm ID	COR-080 BGND-080	Alarm Title	2	Threading pitch is negative					
Description	Threading p	itch distance	can't be	e negative value.					
Reason	Threading p	itch distance	setting	error.					
Solution	Check and c	orrect the co	nfigured	I threading pitch to be positive value.					
Alarm ID	COR-08 1 BGND-0 81	Alarm Title	Use ai doesn	rc interpolation under tool offset fun 't use assigned angle.	ction. Arc command				
Description	In tool offse	t function (G4	45~G48),	G02 and G03 can only be 90 degree or	270 degree.				
Reason	In NC progra degree or 2	In NC program's tool offset function (G45~G48) block, all arc interpolation angle can only be 90 degree or 270 degree.							
Solution	Check if G45 IJK to speci	i∼G48 is 90 or fy circle cente	270 deg er shall b	ree when using them in the arc interpo e used.	olation (G02/G03). Note,				
Alarm ID	COR-082 BGND-082	Alarm Tit	le	Tool compensation function and tool offset function can't use at the same time					
Description	Can't use to compensati	ol offset func on at the san	tion (G4 ne time.	5~G47) and tool compensation functio	n (G41, G42) or tool radius				
Reason	NC program	edit error.							
Solution	Check NC pi (G41, G42) a	ogram, and o re not used a	confirm t t the sar	tool offset function (G45~G47) and tool ne time.	compensation function				
Alarm ID	COR-0 83 BGND- 083	larm Title	When pull tool back to pause point, and move axis position manually.						
Description	Before pull	tool back to p	oause po	int, press stop and manually move too	d.				
Reason	Operation e	rror.							

Alarm ID	COR-0 83 BGND- 083	Alarm Title	Wh ma	n pull tool back to pause point, and move axis position nually.			
Solution	Please mover	e wait until tool is pulled exactly back to pause point, then execute the manual position ment.					
Alarm ID		COR-084 Alarn BGND-084		Alarm Title	P Argument unassigned when using the rapid drilling		
Description		When using rapid system will issue	rapid drilling function, must set P argument (bottom hole dwell time), or issue this alarm.				
Reason		Programming er	amming error.				
Solution		Check the NC pro rapid drilling.	he NC program to ensure the P Argument is assigned when using the G code of rilling.				
Alarm ID		COR-085 Alarm Title F Argu BGND-085 Time F		F Argument unassigned in Inverse Time Feed mode			
Description		Under Inverse Ti system will issue	ime F e this	eed mode, if F argument is alarm.	not assigned in command line and		
Reason		Programming er	ror.				
Solution		Check the NC pro after Inverse Tim	ograi ne Fe	m to ensure there is F com ed mode.	mand is given following in each line		
Alarm ID		COR-086 BGND-086		Alarm Title	R and I arguments unassigned in G10 L1501 mode		
Description		G10 L1501 argur	nent	only has argument R or arg	gument I.		
Reason		Programming er	ror.				
Solution		Check the NC program to ensure the R and I arguments are not used independently.					

Alarm ID	COR-087 BGND-087	Alarm Title	P and Q arguments must be different in G10 L1501 mode				
Description	P and Q argument in	P and Q argument in G10 L1501 mode setting are the same.					
Reason	Programming error.						
Solution	Please check program same.	n, and confirm P and Q arg	gument in G10 L1501 mode aren't the				
Alarm ID	COR-088Alarm TitleNo time-axis command after the argument in G10 L1501 modeBGND-088Image: Common sector of the sector o						
Description	In spring machine de before the next G10 L axis) in G1 0L1501.	In spring machine dedicated machine's motion plan, if use I argument in G10 L1501, before the next G10 L1502 command, user can't command P argument axis number (time axis) in G1 0L1501.					
Reason	Programming error.	Programming error.					
Solution	Check the NC program	n.					
Alarm ID	COR-089 BGND-089	Alarm Title	Main axis must be increment command in G10L1501 mode				
Description	G10 L1501 mode spir	ndle must be incremental c	command.				
Reason	Programming error.						
Solution	Under G10 L1501 mo command.	de, confirm the command	which sends to spindle is incremental				
Alarm ID	COR-090 BGND-090	Alarm Title	C-axis zero-speed check failed in G12.1 mode				
Description	When start to switch	polar coordinate, C axis m	nust be totally stop.				
Reason	When C axis uses as s	spindle, but spindle not ye	t stop rotating.				
Solution	Switch the spindle to C-axis mode before activating polar coordinate.						

Alarm ID	COR-091 BGND-091	Alarm Title	Main axis synchronization – basic main axis number error	
Description	When using spindle s	synchronous function G114	l.1, Pr4021, Pr4023, Pr4025 can't be zero.	
Reason	Parameter setting er	ror.		
Solution	Check if values of Pr4	4021/Pr4023/Pr4025 are co	rrect.	
Alarm ID	COR-092 BGND-092	Alarm Title	Main axis synchronization – synchronization main axis number error	
Description	When using spindle s	ynchronous function G114	.1, Pr4022, Pr4024, Pr4026 can't be zero.	
Reason	Parameter setting err	ror.		
Solution	Check if values of Pr4	022/Pr4024/Pr4026 are co	rrect.	
Alarm ID	COR-093 BGND-093	Alarm Title	Main axis synchronization – spindle type error	
Description	When using spindle s motor type.	synchronous and Superim	position function, setting wrong spindle	
Reason	Parameter setting er	ror.		
Solution	Check 1791~Pr1800	to set correct spindle confi	gurations by referring to HELP.	
Alarm ID	COR-094 BGND-094	Alarm Title	Under spindle load rigid tapping spindle rotation speed exceed	
Description	When using spindle load function to do rigid tapping, tool axis must synchronize with offset axis speed, and then do end surface taping according to user setting tapping speed. If tool axis speed is over spindle rotation speed maximum value, and system will issue this alarm.			
Reason	Command is over range that mechanical can bear.			

Alarm ID	COR-094 BGND-094	Alarm Title	Under spindle load rigid tapping spindle rotation speed exceed			
Solution	<ol> <li>Reduce the rotatic</li> <li>Reduce the rotatic</li> </ol>	on speed (tapping speed) on speed of workpiece axis	of tool axis. 5.			
Alarm ID	COR-095 BGND-095	Alarm Title	In polygon cutting function, basic spindle rotation speed ratio is wrong			
Description	When using polygon argument) must be b	cutting G51.2 function, ba igger than zero.	sic spindle rotation speed ratio (P			
Reason	Programming error.					
Solution	Check the value of P	argument in G51.2.				
Alarm ID	COR-096 BGND-096	Alarm Title	In polygon cutting function, synchronous spindle rotation speed ratio is wrong			
Description	When using polygon argument) must be b	cutting G51.2 function, ba igger than zero.	sic spindle rotation speed ratio (Q			
Reason	Programming error.					
Solution	Check the value of Q	argument in G51.2.				
Alarm ID	COR-097 BGND-097	Alarm Title	Axis coupling function ON or OFF failed			
Description	Axis coupling functi	Axis coupling function ON or OFF failed.				
Reason	Too much axis coupling groups is used.					
Solution	Check if the number of axis coupling groups is more than 16 (including the number of axis coupling group configured in parameter).					

Alarm ID	COR-098 BGND-098	Alarm Title	Parameter learning argument error		
Description	When using learning function, if argument (P, Q, R, K) setting is wrong, system will issue this alarm.				
Reason	Programming error.				
Solution	Check the NC program to ensure the arguments are in compliance with specifications.				

P.S. Valid version of COR-336 : before 10.118.60J、10.118.66D、10.118.69 (included).

Alarm ID	COR-099 BGND-099	Alarm Title	Tapping learning condition is not matched		
Description	Condition of tapping learning function is not matched				
Reason	When activating tapping learning function, if tapping condition (tapping depth, R point height, feedrate, rotation speed, and etc.) is different, it can't apply to same learning data. If force different tapping condition to use same learning data, it may misuse learning data, and cause tapping error or even tool break.				
Solution	Check tapping instruction in tapping learning function, and confirm all tapping instruction arguments are the same.				

P.S. Valid version of COR-336 : before 10.118.60J、10.118.66D、10.118.69 (included).

Alarm ID	COR-100 BGND-100	Alarm Title	Unsupported G code command or option software is not activated		
Description	Different controllers will have correspond G code, but not all G code can use.				

Alarm ID		COR-10 BGND-1	0 .00	Alarm Title Unsupported G code command or option software is not activated			
Reason	<ol> <li>This controller type may not support this G code command.</li> <li>This controller type will not support serial bus spindle (C-Type) to use G33, G34, G78 commands.</li> <li>This controller type will not support serial bus spindle (A-Type) to use G73, G76, G92 commands.</li> <li>This controller type can support this G code command, but the option function has not been purchased, which makes the G code unusable.</li> <li>Loader path and Wood auxiliary path only support part of G codes: G00, G01, G02, G03, G04, G04.1, G09, G10, G17, G18, G19, G22, G23, G31, G54, G55, G56, G57, G58, G59, G59.x, G90, G91, G92.</li> <li>The setting of Pr3802 is incorrect. This controller type does not suppor command.</li> <li>Synchronized positioning axis only support part of G codes: G00, G53</li> </ol>			s G code command. al bus spindle (C-Type) to use lathe G21, al bus spindle (A-Type) to use lathe G32, ode command, but the option software makes the G code unusable. ly support part of G codes: , G17, G18, G19, G22, G23, G31, G52, G53, , G91, G92. ontroller type does not support the G62 ort part of G codes:			
Solution	<ul> <li>on 1-4. Please contact administrator.</li> <li>5. Do not use Loader path and Wood auxiliary path to do process operation.</li> <li>6. Set Pr3802 to 0.</li> <li>7. Do not use synchronized positioning axis to do process operation.</li> </ul>			ath to do process operation. o process operation.			
Alarm ID	CC BC	0R-101 iND-101	Alarm Titl	e	Under Spindle syn spindle is inconsis	ch ter	ronization – thread pitches of two nt
Description	Wł dif pro	nen using s ferent and otection.	pindle synch will cause s	nron ynch	ize, if basic spindle a nronous abnormal co	nd nd	synchronous spindle pitch setting are ition. And will issue this alarm for
Possible Cause	Pa	rameter se	etting error.				
Solution	Ch	eck the sp	indle used ir	۱ Pr1	.61~180 to ensure the	e pa	arameter configurations are the same.
Alarm ID	COR-102 BGND-102			Ala	arm Title Under Spindle synchronization – synchronization command duplicat conflicted		Inder Spindle synchronization – ynchronization command duplicated or onflicted
Description	<b>scription</b> When spindle synchronizing, repeat G51.2, G114.1 or G114.3 commands.				.1 or G114.3 commands.		
Possible Cause	Haven't use G113 to cancel G114.1 and G114.3, or use G50.2 to cancel G51.2, and again s a repeated G114.1, G114.3 or G51.2 commands.			r use G50.2 to cancel G51.2, and again set			

Alarm ID	COR-102 BGND-102	Alarm Title	Unde sync conf	er Spindle synchronization – hronization command duplicated or licted			
Solution	Cancel the G114.1 ar execute the G114.1/ machining.	Cancel the G114.1 and G114.3 mode with G113, or cancel G51.2 mode with G50.2. Then execute the G114.1/G114.3/G51.2 commands to avoid the angle difference for repeated machining.					
Alarm ID	COR-103 BGND-103	Alarm Title		Invalid precision channel setting			
Description	Invalid precision c	hannel setting.					
Possible Cause	Using G64, G62P_ Currently can only 1. G64、G62 2. G120.1 P0、	Using G64, G62P_ or G120.1 P_Q_ to choose invalid precision channel. Currently can only choose: 1. G64、G62 P0~P9、G62/G64 P21 ~ P23 2. G120.1 P0、G120.1 P1 Q1 ~ G120.1 P3 Q3					
Solution	To select precision Check the NC prog	n channel with the G64/G gram to ensure if any non	62 P_ o -existin	r G120.1 P_ Q ng precision channel is selected.			
Alarm ID	COR-104 BGND-104	Alarm Title Virtual axis function enabli		Virtual axis function enabling failed			
Description	The virtual axis fur	nction failed to be functio	ned.				
Possible Cause	<ol> <li>The P and Q arguments in G10 L800 P_ Q_ or G10 L801 P_ Q_ are set incorrectly.         <ol> <li>No P, Q arguments.</li> <li>The P argument is set incorrectly and the value is invalid.</li> <li>The Q argument is set incorrectly, the value is invalid; or the corresponding axis is not set to the axis of the parameter table that has been turned on.</li> </ol> </li> <li>In the same machining, G10 L800 and G10 L801 appear at the same time.</li> <li>The robot does not support the virtual axis function.</li> </ol>						
Solution	<ol> <li>Check the virtual axis commands to ensure the P and Q Arguments are configured.</li> <li>Check the virtual axis commands to ensure the P Argument shall be within 100~999 and the Q Argument shall be within 1~16 (axis number) or 100~999 (axis name).</li> <li>Check the axial direction (Q Argument) mapped with the virtual axis to ensure the parameter table is configured to the enabled axial direction.</li> <li>Check if the G10 L800 and G10 L801 shall not be existent in the same NC program.</li> </ol>						

Alarm ID	COR- BGNI	105 D-105	Alarm <sup>-</sup>	<b>Fitle</b>	Axial coup	ling configuration error		
Description	The a	axis coupling function is set incorrectly.						
Possible Cause	ln G1	10 L900 P_ Q_ R_, the P and Q arguments are set incorrectly.						
Solution	1 2 3	<ol> <li>Check the name or number of coupling axis is mapped to ensure the axial direction is enabled.</li> <li>Chedk the specified coupling axis is not assigned to inclined axes control.</li> <li>Check the specified coupling axis is not assigned to indexing axis.</li> </ol>						
Alarm ID		COR-106 BGND-106		Alarm Title		Prohibit to use G5.1 in G61/G63/ G63.2 mode		
Description		<ol> <li>G5.1 path smoothing. In G61, G63, G63.2 mode, it is forbidden to use G5.1 smoothing function, otherwise the system will issue an alarm; If G61, G63, G63.2 are enabled in G5.1 mode, the system will stop the smoothing function until it jumps out of G61, G63, G63.2 mode and then activate again.</li> <li>G05 High Precision Contour Control.         <ul> <li>a. 10.116.16J previous version, in G61, G63, G63.2 mode, it is forbidden to use G05 High Precision Contour Control function, otherwise the system will issue an alarm; If G61, G63, G63.2 is enabled in G05 mode, no alarm will be issued, but the High Precision Contour Control function is disabled, It is necessary to command G05 again to activate.</li> <li>b. above 10.116.16K versions, no alarm will be issued, and the G05 High Precision Contour Control function will be issued, and the G05 High Precision Contour Control function will be disabled, and can be valid after G61, G63 and G63.2.</li> </ul> </li> </ol>						
Possible Cause		The cutting mode setting in the NC program is incorrect.						
Solution		<ol> <li>Do not mix use G5.1 path smoothing with G61/G63/G63.2 functions.</li> <li>In the version before 10.116.16J (included), do not mix use the G05 High Precision Contour Control with the G61/G63/G63.2 functions.</li> </ol>						
Alarm ID		COR-107Alarm TitleG5.1/G05 command forBGND-107				G5.1/G05 command format error		
Description		The G5.1 and G05 commands are in the wrong format.						

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Alarm ID	COR-107 BGND-107	Alarm Title	G5.1/G05 command format error			
Possible Cause	<ol> <li>The format of the G5.1 path smoothing command in the NC program is incorrect.</li> <li>The G05 high-precision cutting mode command format in the NC program is incorrect.</li> </ol>					
Solution	<ul> <li>Confirm the following command formats are correct not have these error: <ol> <li>G5.1</li> <li>Q argument: None, more than 2, or less than 0.</li> <li>E argument: None or less than 0.</li> </ol> </li> <li>G05 <ol> <li>System issue alarm when using G05 in following cases for each version: <ol> <li>G05 P argument is not 10000 nor 0.</li> <li>G05 E argument is not positive.</li> </ol> </li> <li>Activate command G05 P10000 X0 Y0 Z0 α β in 10.116.36 or above versions: <ol> <li>More than 5 axial directions are assigned.</li> <li>The geometry axis argument not 0.</li> <li>The rotary axis argument is configured to 0.</li> <li>The axial direction of geometry axis is configured but this of rotary axis is not.</li> <li>The axis of the rotation axis is not set when the axis of the geometry axis is not set.</li> <li>More than 2 axial directions of rotation axes are configured.</li> <li>Any axial arguments is negative.</li> </ol> </li> <li>In the version before 10.116.16B, there is the 4<sup>th</sup> axis command in addition to the block movement commands of X, Y, or Z axes after G05 is executed.</li> </ol></li></ul>					
Alarm ID	COR-108Alarm TitleG10 L1501/L1502 command f errorBGND-108Image: State of the state					
Description	There is no NC program	n between G10 L1501 and G	10 L1502.			
Possible Cause	The NC program was written incorrectly.					
Solution	Check the NC program to ensure the programming between G10 L1501 and G10 L1502 is correct.					
Alarm ID	COR-109 BGND-109	Alarm Title	The second software stroke limit command error, activating failure			
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Description	The second sc software strok	oftware stroke limi te limit fail to activ	t (G22) command is written incorrectly, causing the second <i>v</i> ate.			
Possible Cause	The argument the same grou	s written after the p parameters sho	second software stroke limit (G22) command are wrong, and uld exist at the same time.			
Solution	Check if the ar	guments in the sa	me set after G22 are defined completely.			
Alarm ID	COR-110 BGND-110	Alarm Title N li	IC program of spring machine motion plan more than 500 ines			
Description	The number of	machining lines b	etween G10 L1501 and G10 L1502 exceeds 500 lines.			
Possible Cause	There are too n	nany single blocks	in the NC program.			
Solution	Check and refir	ne the NC program	ı.			
Alarm ID	COR-111 /	Alarm Title Axis exchange function – axial configuration error				
Description	Under the axis ex	change function,	the axial setting is incorrect.			
Possible Cause	The two axial's a	xis exchange para	meters are set incorrectly.			
Solution	Check if Pr3721 a axis.	nd Pr3722 are ma	pped to physical axial directions (Pr21~) and to 2 different			
Alarm ID	COR-112 BGND-112	Alarm Title Axis exchange function – diameter/radius axis configuration error				
Description	Under the axis e	exchange function	, the diameter axis and radius axis are set incorrectly.			
Possible Cause	The parameters	s of the diameter a	nd radius axis of the two axis exchange are set incorrectly.			

Alarm ID	CO BG	DR-112 GND-112	Alarm T	tle	Axis e config	exchange fun guration erro	ction – diameter/radius axis or		
Solution	Ch co	eck if the dia nsistent.	ck if the diameter and radius axis configurations (Pr281~) of the 2 axis to be exchanged is istent.						
Alarm ID	COR-113 BGND-113	Ala	Alarm Title		Axis exchan	ge function - ON or OFF timing error			
Description		When the a	xis exchar	ge funct	tion is ei	nabled, the er	nabled or disabled timing error.		
Possible Cause	2	When the c	ross-path	axis is ex	xchange	d, the G04.1 v	waiting action is not performed.		
<b>Solution</b> Check PLC to ensure no G04.1 waiting command is executed in more than 1 path.					executed in more than 1 path.				
Alarm ID		COR-114 BGND-12	l L4	Alarm		•	Axis exchange function - path configuration error		
Description		When us	ing the ax	s excha	nge fund	ction, the patl	h setting is incorrect.		
Possible Cause	2	The axis	used for a	kis exch	ange be	long to multi	-paths.		
Solution		Check pa multiple	ath param path.	eter ( Pr	701~) if	the two axis t	o be exchanged are mapped to the		
Alarm ID		COR-115 BGND-115	AI	arm Tit	le	G92.1 axial configuration error			
Description		When usin	g the G92	1 rotati	on funct	ion, the axial	setting is incorrect.		
Possible Cause	•	The param	neter sets	he first	3 axis of	f the path con	itains the rotary axis.		
Solution		Check the parameter to ensure the first 3 axis are linear axis.							
Alarm ID		COR-116 BGND-12	; 16	Ala	rm Title	•	Absolute coordinate system synchronization failed		
Description		Absolute	coordina	e syster	m failed	to synchroniz	ze when using C35.		

Alarm ID		COR-116 BGND-11	Alarm Title		Title	Absolute coordinate system synchronization failed	
<b>Possible Cause</b> Machine is not stationary or the program is continuously interpreted.					inuously interpreted.		
Solution To execute the machine is still			te the synchr is still and th	e synchronization of coordinate system in C35 mode shall ensure the I and the program stops to interpret (i.e. Using M code shall turn C38 off).			
Alarm ID	CO BGI	R-117 Alarm Title ND-117			M code not disabled in the interrupt subprogram		
Description	lf P wit erro	r3600 is set to n, when the interrupt type subprogram is used, it starts with M(n) and ends h M(n+1). If M(n) is used and M(n+1) is not used to end the function, it will cause an action or; therefore, this alarm is issued for protection.					
Possible Cause	The	NC progra	mming error	•			
Solution	Che	eck the NC	program to e	nsure tł	ne M(n+1) comman	ıd is given.	
Alarm ID		COR-118 BGND-11	3 18	Alarm Title		Prohibit G53 commands in tool tip control mode	
Description		G53 com	mand canno	t be use	d in the tool point	control mode.	
Possible Cause	2	1. T 2. T	he NC progra he machine t	programming error. chine type is the tool point control mode.			
<ol> <li>Please check the NC program, make sure that the G53 command is not win validity range of G43.4 or G43.5.</li> <li>Please check the NC program, make sure that the G53 command is not win validity of G12.1.</li> <li>If the machine configuration used is the tool point control mode, the G53 command cannot be used.</li> </ol>					e that the G53 command is not within the e that the G53 command is not within the tool point control mode, the G53		
Alarm ID	COR BGN	-119 D-119	Alarm Title	e	nd format error		
Description	Since G12. com	e the command G10 L16 (virtual circle radius) does not support functions such as G05, G7.1, .1, G93, G95, and G05, therefore, an alarm will be issued if G10 L16 is used when the above imand is issued.					

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Alarm ID	COR-119 BGND-119	Alarm Title	G10 L16	command format error				
Possible Cause	<ol> <li>The axis issued).</li> <li>When u also giv</li> </ol>	<ol> <li>The axis type is linear axis (i.e. G10 L16 X50., and X is set to a linear axis, this alarm is issued).</li> <li>When using G10 L16 while command G05, G7.1, G12.1, G93, G95 and etc. functions are also given.</li> </ol>						
Solution	1. Check F 2. G10 L16	<ol> <li>Check Pr221~ to ensure the correct axis type.</li> <li>G10 L16 and G7.1/G12.1/G93/G95/G05 shall not be executed at the same time.</li> </ol>						
Alarm ID	COR-120 BGND-120	Alarm Title More than the maximum number of cutting synchronization axis						
Description	Different contr cutting axis, ar (i.e. G01 X10. Y	erent controller products can correspond to different maximum number of simultaneous ting axis, and if this limit is exceeded, an alarm will be issued. . G01 X10. Y10 .Z10. Represents the number of simultaneous axes is 3).						
Possible Cause	Please refer to Properties" an Following exam 1. If "Mac axis is 9 2. If the "I numbe	<ul> <li>Please refer to "System Information" under the controller HMI screen to check "Machine Properties" and "Machine Code". Please refer to the catalogue for each product specification.</li> <li>Following examples: <ol> <li>If "Machine Properties" is Mill, "Machine Code" is 200A-5, and the maximum number of axis is 9.</li> <li>If the "Machine Properties" is Lathe, the "Machine Code" is 6B, and the maximum number of axis is 4.</li> </ol> </li> </ul>						
Solution	The number o specifications.	The number of simultaneous axis in the NC program shall be according to the product specifications.						
Alarm ID	COR-121 BGND-12	L Alarn 21	n Title	LN operator shall be positive				
Description	The oper	rands after the L	N function can	not be negative.				
Possible Cause	e The NC p	orogram was wri	tten incorrectl	у.				
Solution	Modify the contents of the NC program.							

Alarm ID	COR-122 BGND-122	Alarm Title	The 1 <sup>st</sup> operator of POW shall not be negative					
Description	The base opera	The base operand of the POW function must not be a negative number.						
Possible Cause	The NC program	n was written inco	rrectly.					
Solution	Modify the cont	ents of the NC pro	gram.					
Alarm ID	COR-123 BGND-123	Alarm Title	Illegal STR2INT input or too long string					
Description	The syntax of	he STR2INT functi	ion is incorrect or the string is too long.					
Possible Cause	The NC progra	m was written inc	orrectly.					
Solution	Modify the cor	ntents of the NC pr	ogram.					
Alarm ID	COR-124 BGND-124	Alarm Title	S code commands unsupported in the machine					
Description	This model do	es not support S c	ode commands.					
Possible Cause	This model do	es not support S c	ode commands.					
Solution	Replace a con	troller model that	supports S codes.					
Alarm ID	COR-125 BGND-125	Alarm Title	T code commands unsupported in the machine					
Description	T code comm	and is illegal.						
Possible Cause	1. Thism 2. The To	odel does not sup code command is c	port T code commands. out of the T code range supported by the product.					
Solution	Replace a con	troller model that	supports T codes.					

Alarm ID	COR-126 BGND-126	Alarm Title	H code command	s unsupported in the machine				
Description	This model do	es not support H co	ode commands.					
Possible Cause	This model do	es not support H co	ode commands.					
Solution	Replace a con	troller model that s	supports H codes.					
Alarm ID	COR-127 Alarm Title I BGND-127		D code commands unsupported in the machine					
Description	This model do	This model does not support D code commands						
Possible Cause	This model do	This model does not support D code commands						
Solution	Replace a cont	roller model that s	upports D codes.					
Alarm ID	COR-131 BGND-13	Aları 1	m Title	Too much M/T code macros in a block				
Description	The total	number of M code ı	macros and T code m	acros in the same block exceeds 20.				
Possible Cause	NC progra	amming error.						
Solution	Check the than 20 in	NC program to ensone single block.	sure the total number	r of M and T code macros are not more				
Alarm ID	COR-132 BGND-132	Alarm Title	Illegal charac	ter in the program name				
Description	When open a	file using Macro, th	ne specified file name	contains illegal characters.				
Possible Cause	NC programr	ning error.						
Solution	Check the sp	ecified file names.						

Alarm ID	COR-1 BGND	.33 -133	Alarm Title		Command unsuppo interpolation mode	orte	d in Three-points arc	
Description	This co	command is not supported in the three-point arc interpolation mode (G02.4, G03.4)						
Possible Cause	1. 2. 3. In th suppo	<ol> <li>The tool radius compensation function is not turned off before using this function.</li> <li>It is not supported in G62 cutting mode.</li> <li>In the three-point arc interpolation mode (G02.4, G03.4), A, C, and R commands are not supported.</li> </ol>						
Solution	Check	the NC p	orogram to ens	sure	there is no command c	deso	cribed in the Possible Cause.	
Alarm ID		COR-1 BGND-	NR-134		Alarm Title		Three-points arc interpolation command format error	
Description		The th	ree-point arc i	nterı	polation (G02.4, G03.4)	) COI	mmand format is wrong.	
Possible CauseThe three-point arc interpolate lines, which can be specified a starting point of the next arc, is issued if the total number of F command is even.				nteri pecil next numb	polation (G02.4, G03.4) fied continuously. The arc, but the F commar per of lines in the comr	enc enc nd c mar	mmand is regarded as a group of two d point of the previous arc is the can only be in the odd line. This alarm nd is odd or the number of lines in the	
Solution		Check	the three-poin	nt arc	c interpolation G02.4/G	603.	4 command format in NC program.	
Alarm ID		COR-13 BGND-1	5 .35	Ala	ırm Title	Re fo	ead/write command format error or R value	
Description		SETRRE	GBIT, READRR	EGB	IT bring in an argumen	nt w	ith type error or range error.	
Possible Caus	e	<ol> <li>SETRREGBIT (R value number, specify BIT, on or off)         <ol> <li>If the R value is less than 0 or greater than 65535.</li> <li>Specify if the BIT is less than 0 or greater than 31.</li> <li>If the third argument is not 0 (off) or 1 (on).</li> </ol> </li> <li>READRREGBIT (R value number, specify BIT)         <ol> <li>If the R value is less than 0 or greater than 65535.</li> <li>Specify if the BIT is less than 0 or greater than 31.</li> </ol> </li> </ol>						
Solution		Correct	the argument	type	e or range in the comm	anc	ds, SETRREGBIT and READRREGBIT	

Alarm ID	COR-136 BGND-136	Alarm Title	Please reboot the co	Please reboot the controller when axis tuning failed				
Description	After a certai	ter a certain serial bus axial tuning fails, without rebooting, cycle start is triggered.						
Possible Cause	The serial bu	Γhe serial bus axial tuning failed.						
Solution	Reboot contr	oller.						
Alarm ID	COR-137 BGND-137		Alarm title	Path synchronization waiting's P- argument sequence error				
Description	<ul> <li>The machining multi-path program uses the path synchronization waiting (G04 wait for the synchronization action:         <ol> <li>When the Q argument is not selected, when two programs go to the post the path synchronization waiting (G04.1) at the same time, if the P argum substituted are different, this alarm is issued for reminder.</li> <li>When the next Q argument (decimal) specifies the path synchronization v (G04.1) at the same time, and wait for each other, but the P arguments substituted are different, this alarm is issued for reminder.</li> </ol> </li> </ul>							
Possible Cause	1. 2. 3. 4.	<ol> <li>In the NC program of multiple paths, the order of P arguments is abnormal or the number is incorrect.</li> <li>Machining is performed using M99, but in each program, the path without Q argument is synchronously waiting (G04.1), and the number is different.</li> <li>Machining is performed using M99, but in each program, the path with the same Q argument is synchronously waiting (G04.1), and the number is different.</li> <li>The two paths "wait for each other", but the P argument substituted are not the same. i.e. G04.1 P1 Q123 under the first path and G04.1 P2 Q124 under the second path.</li> </ol>						
Solution	Please of the	check the num assigned value	ber of Synchronization v for argument P.	vait between paths (G04.1) and the order				
Alarm ID	COR-13 BGND-1	8 .38	Alarm Title	Read/write command format error at the I/O/A point				
Description	The system when us	em provides 5 sing the comma	L2 I/O/A points, the input ands, SETDO, SETABIT, RI	I/O/A point number shall be within 0~511 EADDI, READDO, and READABIT.				
Possible Cause	NC Prog	NC Programming error.						

Alarm ID	COR-138 BGND-138	Alarm Title	Read/write command format error at the I/O/A point				
Solution	Check if there is any c READDO, and READAI	of I/O/A point number in th BIT in the NC program is ov	e commands, SETDO, SETABIT, READDI, /er the range of 0 ~ 511.				
Alarm ID	COR-139 BGND-139	Alarm Title	Polynomial solution error				
Description	Determine the poly	nomial cannot be derived	to solutions in case of the alarm.				
Possible Cause	Numerical processi	Numerical processing calculation errors cause root failure.					
Solution	Check the value of solutions.	Check the value of system data no. 321, and provide it to the controller OEM Syntec for solutions.					
Alarm ID	COR-140 BGND-140	Alarm Title	Invalid high-precision contour control mode using				
Description	<ol> <li>Turn on G05 high-s</li> <li>When the high-pred block stop C40.</li> <li>When the STCP model</li> </ol>	<ol> <li>Turn on G05 high-speed high-precision mode in the RTCP/STCP mode.</li> <li>When the high-precision contour control mode is enabled during processing, use single block stop C40.</li> <li>When the STCP mode is enabled during processing, use single block stop C40.</li> </ol>					
Possible Cause	<ol> <li>In the RTCP/STCP r commands, such as 0</li> <li>When the high-pred block stop C40.</li> <li>When the STCP mod</li> </ol>	<ol> <li>In the RTCP/STCP mode, turn on the G05 high-precision contour control mode with commands, such as G05 P10000.</li> <li>When the high-precision contour control mode is enabled during processing, use single block stop C40.</li> <li>When the STCP mode is enabled during processing, use single block stop C40.</li> </ol>					
Solution	<ol> <li>Check the mode to be turned on is (1) RTCP/STCP mode or (2) G05 high-precision contour control mode.</li> <li>If (1), remove the command to turn on the G05 high-precision contour control mode in the RTCP/STCP mode.</li> <li>If (2), turn off the RTCP/STCP mode before turning on the G05 high-precision contour control mode.</li> <li>When the high-precision contour control mode is enabled during processing, do not use the single block stop C40 at the same time.</li> <li>When the STCP mode is enabled during processing, do not use the single block stop C40 at the same time.</li> </ol>						

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Alarm ID	COR-141 BGND-141	Alarm Title	G68.3 command format error				
Description	<ul> <li>[command format]</li> <li>G68.3 X_Y_Z_R_; // The origin and z-axis rotation angle in the characteristic coordinate system.</li> <li>G68.3 P1 X_Y_Z_; // The origin of the characteristic coordinate system, and the coordinate system is determined with the tool rotation angle.</li> </ul>						
Possible Cause	G68.3 command format, X, Y and Z are all exist or non-exist at the same time.						
Solution	Check if G68.3 comm	and format is correct.					
Alarm ID	COR-142 BGND-142	Alarm Title	Spindle synchronization - K Argument error				
Description	K Argument error while using Spindle synchronization function.						
Possible Cause	The inputted K Argument is not within the valid range.						
Solution	Input a K Argument wi	thin the valid range to enal	ble the Spindle synchronization.				
Alarm ID	COR-143 BGND-143	Alarm Title	Programmable data input specified axis does not exist				
Description	In G10 L1501 mode, the	e P argument is set incorrec	ctly.				
Possible Cause	The axial direction sub	stituted by the P Argument	is inexistent.				
Solution	Check Pr21~ to ensure	the axial direction is ON.					
Alarm ID	COR-144Alarm TitlePath synchronization waiting Argument content errorBGND-144Alarm TitleArgument content error						
Description	When the machining synchronization, the (decimally). The alarr assigned path is inexi	multiple path program app Q Argument assigns the pa n is used to remind the use stent.	olies the G04.1 to wait for ths to be waited for each other rs if the Q Argument type error or the				

Alarm ID	COR-144 BGND-144	Alarm Title	Path synchronization waiting Q Argument content error			
Possible Cause	<ol> <li>The Q Argument is not a positive integer (negative number, decimal point and zero are all illegal).</li> <li>The path assigned by the Q Argument is inexistent. i.e. Q24 is used to assign the 2<sup>nd</sup> and 4<sup>th</sup> path to wait for each other. However, the Pr731=3 and there are only 3 CNC main system paths.</li> <li>The Q Argument includes 0 when assigning the paths. i.e. Q103.</li> <li>The paths assigned by the Q Argument do not include this in which the command is. ie. In the 2<sup>nd</sup> path, the G04.1 P1 Q13 assigns the 1<sup>st</sup> and 3<sup>rd</sup> paths to wait for each other, but it does not assign the path in which it is.</li> </ol>					
Solution	Check the Path synchronization waiting (G04.1) in the program to ensure the type and the assigned path are correct for a given Q Argument.					
Alarm ID	COR-145 BGND-145	Alarm Title	Failed to activate Spindle positioning			
Description	Spindle positioning fai	led.				
Possible Cause	<ol> <li>Incorrect Spindle ID is assigned.</li> <li>The Spindle is operating in the tapping mode when the Spindle positioning function is ON.</li> <li>After starting the positioning, C61 is OFF so that the positioning is broken.</li> </ol>					
Solution	<ol> <li>Check the Spindle parameter configuration.</li> <li>Check the NC program to ensure the execution of Spindle positioning in non-tapping mode.</li> <li>Check the PLC to ensure C61 is ON.</li> </ol>					
Alarm ID	COR-146 BGND-146	Alarm Title	Single block argument type error			
Description	Argument type error ir	a block.				
Possible Cause	The two following situ 1. Input float valu 2. Input integer va	ations may trigger this alarr e to an argument required i alue to an argument require	n: nteger value. d float value.			
Solution	Correct the argument	type in the block.				

Alarm ID		COR-147 BGND-147	Alarm Title	Spindle is not enabled when path machining		
Description		The machining Spino commands related to	lle assigned by the path is not the Spindle.	ot enabled when executing the		
Possible Cau	ıse	When executing the enabled.	G33/G34/G63/G74/G84, the S	Spindle assigned by the R791~R794 is not		
Solution		<ol> <li>Check if the PLC switches R791~R794 values correctly in the block and whole NC program about the alarm.</li> <li>Check if the Pr1621~Pr1628 configurations are correct (cooperate with R791~R794).</li> </ol>				
Alarm ID		COR-148 BGND-148	Alarm Title	The use of tool retract function error		
<b>Description</b> When using the tool retract function, a given improper argument results in the f cannot be executed.						
Possible Cau	ISE	<ol> <li>In the Tilted working plane machining (G68.2/G68.3) or RTCP (G43.4/G43.5) mode, the C21 ON is triggered to execute the assigned axial position retraction.</li> <li>In the non-Tilted working plane machining (G68.2/G68.3) or non- RTCP (G43.4/ G43.5) mode, the C21 ON is triggered to execute the assigned retraction along the tool vector.</li> </ol>				
Solution		<ol> <li>In the slopping plane machining (G68.2/G68.3) or RTCP (G43.4/G43.5) mode, apply G10.6 R_ to assign the tool retraction function.</li> <li>In the non-slopping plane machining (G68.2/G68.3) or non- RTCP (G43.4/G43.5) mode, apply G10.6 X_ to assign the tool retraction function.</li> </ol>				
Alarm ID	COR-14 BGND-1 9	49     Alarm Title     Tilted working plane machining tool alignment P Argument       -14     range				
Descriptio n	P Argur	P Argument is over range in Tilted working plane machining tool alignment mode.				
Possible Cause	P Argur	ment is not within 0~2				
Solution	Do not i working	input the P Argument g plane machining too	or input the correction conf l alignment mode.	iguration for the P Argument in Tilted		

Alarm ID	COR-151 BGND-151	Alarm Title	1 <sup>st</sup> rotation axis entering illegal range		
Description	1 <sup>st</sup> rotation axis enteri	ng illegal range.			
Possible Cause	1. Pr3007, Pr3009, or F 2. The angle of 1 <sup>st</sup> rota	r3010 configuration error. tion axis is incorrect in the	executed 5-axis NC program.		
Solution	<ol> <li>Check if Pr3009 and configurations is relate configurations.</li> <li>Check the NC programmer</li> </ol>	<ol> <li>Check if Pr3009 and Pr3010 are configured correctly. The determination of such two configurations is related to Pr3007. In case of the alarm, please re-confirm these 3 configurations.</li> <li>Check the NC program.</li> </ol>			
Alarm ID	COR-152 BGND-152	Alarm Title 2 <sup>nd</sup> rotation axis er range			
Description	2 <sup>nd</sup> rotation axis enter	ing illegal range			
Possible Cause	1. Pr3008, Pr3011 or Pr 2. The angle of 2 <sup>nd</sup> rota	r3012 configuration error. ation axis is incorrect in the	executed 5-axis NC program.		
Solution	<ol> <li>Check if Pr3011 and configurations is relate configurations.</li> <li>Check the NC program</li> </ol>	Pr3012 are configured corr ed to Pr3008. In case of the am.	ectly. The determination of such two alarm, please re-confirm these 3		
Alarm ID	COR-153 BGND-153	Alarm Title	Tool direction unknown		
Description	Tool direction unkno	own.			
Possible Cause	5-axis configurations	and machine mechanism	is incompatible.		
Solution	The tool cannot reac configurations and n	h the destination. It may be nachine mechanism. Please	e caused by the incompatible 5-axis e check all 5-axis configurations.		

Alarm ID	COR-154 BGND-154	Alarm Title		No 5-axis function	
Description	No 5-axis function.				
Possible Cause	Pr3001 is not confi	gured when executing G	53.1 tool a	lignment command.	
Solution	Check if Pr3001 is c the 5-axis mechani	configured to 0. If yes, co ism type and reboot.	onfigure the	e other non-zero values based on	
Alarm ID	COR-155 BGND-155	Alarm Title	5-	axis tool direction error	
Description	5-axis tool direction	error.			
Possible Cause	5-axis tool direction configuration error.	(Pr3002) or the 1 <sup>st</sup> and 2	2 <sup>nd</sup> rotatio	n axis (Pr3005 and Pr3006)	
Solution	Check if the Pr3002 correctly. The alarm Spindle in the Spind workbench type.	is configured correctly, o will be triggered in case lle type, or the 1 <sup>st</sup> rotatio	or if the Pr3 e the 2 <sup>nd</sup> ro on axis is p	8005 or Pr3006 is configured otation axis is parallel to the arallel to the Spindle in the	
Alarm ID	COR-156 BGND-156	Alarm Title	5-	axis axial direction error	
Description	5-axis axial directior	ı error.			
Possible Cause	Incorrect configurat	ions are mapped to the	axial direc	tion parameters of 5 axis.	
Solution	Check if each axial d and Pr3008 is config Pr3006.	Check if each axial direction is configured completely (Pr21~), if Pr3005, Pr3006, Pr3007 and Pr3008 is configured correctly, or if the axis name (Pr321~) is mapped to Pr3005 and Pr3006.			
Alarm ID	COR-157 BGND-157	Alarm Title	Incompa direction	atible direction of 5-axis tool n and this of rotation axis	
Description	Incompatible direction	n of 5-axis tool direction	and this o	f rotation axis.	

Alarm ID	COR-157 BGND-157	Alarm Title	Incompatible direction of 5-axis tool direction and this of rotation axis		
Possible Cause	<ol> <li>The 2<sup>nd</sup> axial direction and the tool direction are the same in the Spindle type.</li> <li>The 1<sup>st</sup> axial direction and the tool direction are the same in the table type.</li> <li>The 1<sup>st</sup> axial direction and the tool direction are the same in the hybrid type.</li> </ol>				
Solution	Check if the tool direction and the rotation axial direction are the same depended on th used 5-axis mechanism type.				

P.S. Valid version of COR-157 : before 10.118.41M, 10.118.47 (included).

Alarm ID	COR-158 BGND-158	Alarm Title	Prohibit the 1 <sup>st</sup> and 2 <sup>nd</sup> rotary axis commands in the G43.5 mode		
Description	Since the G43.5 mode specifies the tool attitude based on the tool vector I, J and K, it shall not be executed for the 1 <sup>st</sup> and 2 <sup>nd</sup> rotation axis commands which can also specify the tool attitude.				
Possible Cause	Programming error.				
Solution	Check the NC program to ensure the movement commands of the 1 <sup>st</sup> and 2 <sup>nd</sup> rotation axis are over the valid range in the G43.5 mode.				
Alarm ID	COR-159Alarm TitleIllegal tool vectorBGND-159				
Description	In NC program, a movement block assigns an incorrect tool vector.				
Possible Cause	Programming error. i.e. Execute G01 X_Y_Z_I0 J0 K0 in the G43.5 mode, and the I0 J0 K0 refers to the 0 vector, 0 vector is illegal.				
Solution	Check the NC progra indicated by the alar	m to ensure the assigned to m line number	ool vector is correct in the block		

Alarm ID	COR-160 BGND-160	Alarm Title	5-axis mechanism chain switched when the 5-axis function is ON			
Description	In NC program, the co when turning on the 5 characteristic coordir	ommand G10 L5000 [P_] is 5-axis function (RTCP or th nate system is completed)	executed to switch the 5-axis mechanism le tool vector alignment on the			
Possible Cause	Programming error. i.e. Execute G10 L5000	) [P_] in the G43.4 mode.				
Solution	Check the NC program by the alarm line num	n to ensure the 5-axis fund ber.	tion is not turned on in the block indicated			
Alarm ID	COR-161 BGND-161	Alarm Title	Selected 5-axis mechanism chain is not ON			
Description	In NC program, the 5 L5000 [P_] is not ON	-axis mechanism chain pa	arameters assigned by the command G10			
Possible Cause	Programming error. i.e. The assigned 5-a command G10 L5000	xis mechanism chain is nc ) [P_].	t configured correctly when executing a			
Solution	Check the 5-axis mea chain function is turn 1. 1 <sup>st</sup> set: Pr300 2. 2 <sup>nd</sup> set: Pr310 3. 3 <sup>rd</sup> set: Pr550 4. 4 <sup>th</sup> set: Pr560	<ul> <li>Check the 5-axis mechanism chain parameters to ensure the assigned 5-axis mechanism chain function is turned on correctly:</li> <li>1. 1<sup>st</sup> set: Pr3001</li> <li>2. 2<sup>nd</sup> set: Pr3101</li> <li>3. 3<sup>rd</sup> set: Pr5501</li> <li>4. 4<sup>th</sup> set: Pr5601</li> </ul>				
Alarm ID	COR-162 BGND-162	COR-162Alarm Title4-axis RTCP configuration errorBGND-162				
Description	The controller will is	sue the alarm in case the	4-axis RTCP configuration is incorrect.			
Possible Cause	The 5-axis mechanis 1~3 in case the spec tool tip control func	m parameters, Pr3001, Pr ific 4-axis tool tip control f tion (option-12) is not.	3101, Pr5501 and Pr5601 are configured to function (option-29) is turned on but the			
Solution	<ol> <li>Configure the</li> <li>Turn on the t</li> </ol>	e 5-axis mechanism paran ool tip control function (o	neters to 4 or 5 correctly. ption-12).			

Alarm ID	COR-163 BGND-163	Alarm Title	Multi-kinematic chain command Q Argument setting error.			
Description	Command G10 L5000	Command G10 L5000P_ Q_, Q argument range error.				
Possible Cause	Command G10 L5000	)P_Q_, Q argument range	error.			
Solution	While using G10 L500	00P_ Q_, check Q argumer	nt to be within 0~4, and is a integer.			
Alarm ID	COR-164 BGND-164	Alarm Title	Multi-kinematic chain command related 5-Axis mechanism setting error.			
Description	Command G10 L5000 mechanism paramete	P_ Q_ specified the 5-Axis er setting error.	kinematic chain, and the 5-Axis			
Possible Cause	While executing G10 L parameter of the desi	.5000P_ Q_, Q argument i gnated 5-Axis kinematic-o	s given, but the 5-Axis mechanism chain is not a spindle-type 5-Axis machine.			
Solution	<ul> <li>Please check the designated 5-Axis kinematic-chain. The 5-Axis mechanism configuration parameter must be a spindle-type 5-Axis machine.</li> <li>1. The first group : Pr3001 is 1.</li> <li>2. The second group : Pr3101 is 1.</li> <li>3. The third group : Pr5501 is 1.</li> <li>4. The fourth group : Pr5601 is 1.</li> </ul>					
Alarm ID	COR-165 BGND-165	Alarm Title	Multi-kinematic chain command not illegal.			
Description	Command G10 L5000P_Q_ is used for switching 5-Axis kinematic chain, and only provides partial 5-Axis mechanism function command.					
Possible Cause	<ul> <li>G10 L5000 P_Q_ command, the Q argument is set to 2~4 (not the first group of sub-kinematic chain), and only supports the following 5-Axis machine function command.</li> <li>1. RTCP: G43.4.</li> <li>2. RTCP: G43.5.</li> <li>3. Tilted working plane : G68.2 + Tool alignment functions.</li> <li>4. Tilted working plane : G68.3.</li> <li>Notice: Tool alignment functions include G53.1, G53.3, G53.6,</li> </ul>					
Solution	When using the G10 the supported 5-Axis	L5000 P_ Q_ command to machine function comm	switch multi-kinematic chains, please use and.			

Alarm ID	COR-1 6 BGND 66	16 D-1	Alarm Title	Characteristic C	Characteristic Coordinate System Option not supported			
Descrip tion	Optio execu	on13 ( ite rel	Characteris levant comr	stic Coordinate System nands.	m Option ) was not active, therefore the CNC couldn't			
Possibl e Cause	One c Optio 1. 2. 3.	or mo n ) wa . G68 . G53 . Oth	re comman as inactive: 8.2, G68.3 8.1, G53.3, G er comman	ds below were given 53.6 ds that are relevant to	while the Option13 ( Characteristic Coordinate System o Option13 ( Characteristic Coordinate System Option )			
Solutio n	1. 2.	Acti Avo	ivate Optior id using the	13 ( Characteristic Co commands listed ab	oordinate System Option ) ove			
Alarm ID	C E	COR-1 BGND	167 )-167	Alarm Title Program File name conflicts in NcFiles				
Descriptio	on F	Progra	am File nam	e conflicts in NcFiles	folder.			
Possible Cause	V F H	When progra having	Pr3220 is se ams" restric g the same f	et to 1, "non-main sys t calling files from the ile name.	tem", "PLC axis", "pre- and post-processing auxiliary e Macro folder, and prohibit the NcFiles folder from			
Solution	1	1. Set 2. Ren	Pr3220 to 0 nove the co	nflicting files in the N	cFiles folder or change the file name.			
Alarm ID	COR-1 8 BGND 68	16 )-1	Alarm Title	Illegal tool com	Illegal tool compensation.			
Descrip tion	Illegal tool compensation							
Possibl e Cause	1.	. Try whi	ing to use n ch doesn't s	on-zero tool length o support tool compens	r tool radius compensation value on a machine type sation			
Solutio n	1. 2.	Set Tur	tool compe n off tool co	nsation value as zero mpensation related f	unctions			

Alarm ID	COR-16 9 BGND-1 69	Alarm Title	Overlap on the same axis				
Descrip tion	Overlap o	p on the same axis.					
Possibl e Cause	Using G1.1	LO with argume	ent Q on the same	axis with two consecu	tive blocks.		
Solutio n	Please che	eck NC Progran	n and avoid overla	apping on the same axi	s with two consecutive blocks.		
Alarm ID		COR-17 BGND-1	COR-170 Alarm 标题 【G43.4 L2 illegal al value 】				
说明		When us	When using G43.4 L2. E_ R_, Illegal argument value is assigned				
可能原因		Illegal an 1. F 2. E	Illegal argument value 1. R value is negative 2. E value is not in the range of 0.001 to 179.999				
排除方法		Please c	heck the E_ R_ ar	gument values			
Alarm ID		COR-201 BGND-201	Alarm title	Program file not ex	ist		
Descriptio	on	The specified	program does not	exist.			
Possible C	Cause	The specified	program does not	exist.			
Solution		Ensure that pr	Ensure that program file exists.				
Alarm ID		COR-202 BGND-202	Alarm title Communication link error				
Descriptio	on	Communica	ition link is dropp	ed.			
Possible C	Cause	The transmi	ssion communica	tion link is dropped.			

Solution	Reconnect a good trans	mission communication link		
Alarm ID	COR-203 BGND-203	Alarm title	Illegal NC file format	
Description	NC program format not program.	valid, as a result, the system	cannot fully interpret the NC	
Possible Cause	<ol> <li>The NC file is in</li> <li>Use M98 to call the subprogram</li> </ol>	macro format. a multi-path subprogram (inc is greater than 60KB(60000b	cluding \$1 and \$2), and the size of sytes).	
Solution	<ol> <li>Update the controller to 10.114.50I or the later version.</li> <li>For M98 application, reduce the size of subprogram. Or, split it into individual single-path subprograms, then call each of them by coordinate respectively.</li> </ol>			
Alarm ID	COR-204 BGND-204	Alarm title	File size too large	
Description	Program file is too larg	2.		
Possible Cause	If the size of MACRO pro scope statement. The syntax with scope s	ogram is larger than 60KB(600 statement contains: IF, CASE,	000bytes) and use the syntax with REPEAT, FOR, WHILE	
Solution	1. Reduce the program 2. Remove all the synta	size, or split program into tw x with scope statement.	o subprograms.	
Alarm ID	COR-205 Alarm title BGND-205		File content is empty	
Description	After controller loads th	ne program, the file content f	ound to be null.	
Possible Cause	Program loading error or CF card damaged.			
Solution	Reload program or replace CF card.			
Alarm ID	COR-206 BGND-206	Alarm title	Loading page lock failure	

Description	New NC program fails	s to required the system to	distribute loading page.		
Possible Cause	Lack of memory whe	n multi-system executes la	ge-size program.		
Solution	Please contact OEM S	Syntec.			
Alarm ID	COR-207Alarm titleSpecified sequence number not foundBGND-207Specified sequence number not found				
Description	Specified sequence nu	umber is not found.			
Possible Cause	Programming error.				
Solution	Use a sequence numb	er within the NC program r	ange.		
Alarm ID	COR-208Alarm titleCannot use jump statement in sequential fileBGND-208				
Description	Using jump command	to execute sequential file.			
Possible Cause	Use the jump comman	d when executing the sequ	ence file.		
Solution	Do not use jump comm	nand to execute sequential	file.		
Alarm ID	COR-209 BGND-209	Alarm title	[File format error]		
Description	Invalid File Format.				
Possible Cause	<ol> <li>It is not a MAGE G200, G200 A format file.</li> <li>It is not a ISO</li> </ol>	CRO format file. For examp PP "appname", but this G2 format file.	le, using APP syntax to call MARCO 00 file is not declared as a MACRO		
Solution	Please check the NC requirements.	program, which should be	written according to the file opening		

Alarm ID		COR-250 BGND-250	Alarm title	Wrong mecha	nism axial setting	
Description		The axial settin	The axial setting of the mechanism is wrong.			
Possible Cau	se	The number of conversion are	axis and the axis ı not set.	name required for	the corresponding mechanism	
Solution		Set sufficient n	umber of axis (Pr2	1~), and required	axis names (Pr321~).	
Alarm ID		COR-251 BGND-251	Alarm title	[The joint is hand direction	not set to rotate in the right/left- n]	
Description		The joint is not	set to the directio	n of rotation as th	e right hand, left hand rule.	
Possible Cau	se	Pr4141~Pr4150	are not set to the	right-hand rule or	the left-hand rule.	
Solution		Set the rotation	direction of each	joint, 0 is not allo	wed.	
Alarm ID	COR- 2 BGNI 52	25 Alarm title D-2	【The target p transformatio	osition cannot bo n. Please enter a	e reached due to 2D mechanism reasonable target position】	
Description	The 2 reaso	2D mechanism is onable target pos	converted and th sition.	e target position c	annot be reached. Please enter a	
Possible Cause	The p	program coordinate position exceeds the limit of the machine.			machine.	
Solution	The p	position is not rea	asonable. Please	e-check the NC pr	ogram.	
Alarm ID		COR -253Alarm title[Unworkable parallel mechanism posture]BGND-253Image: Constant of the second se			【Unworkable parallel mechanism posture】	
Description		Parallel mech	anism posture th	at is not feasible.		
Possible Cau	se	Currently at a	parallel mechani	sm posture that is	not feasible.	

Alarm ID		COR BGN	2 -253 ID-253	Alarm titl	e	【Unworkable parallel mechanism posture】	
Solution		Afte poir	r Reset, use the it.	axial moveme	nt mode to leav	ve this posture, or modify the target	
Alarm ID		CO BG	COR-301Alarm title[OPEN command format errorBGND-301J				
Description		OP [co OP (i) I out (ii) and	<ul> <li>OPEN command format error</li> <li>[command format]</li> <li>OPEN ("file name", "write file mode")</li> <li>(i) Designated as 'a': Represent retains the original file content and continuously outputs the new data in the text file.</li> <li>(ii) Not specified or designated as 'w': Represents the emptying of the original content and re-outputs the new material in the text file.</li> </ul>				
Possible Caus	se	"W Thi	rite mode" in th s alarm is issued	e OPEN comm I if the string i	and format spe s specified as a	ecifies an error. string other than 'a' or 'w'.	
Solutio	n	Set	"FileWrite mod	e" to "a" or "w	" according to	the requirement of FileWrite.	
Alarm ID		COR-3 BGND	02 Alaı -302	m title	<b>[</b> G10 L1150	command format error]	
Description		G10 L1	.150 command f	ormat error.			
Possible Caus	se	G10 L1 or not The in G10 L1	10 L1150 parameter numbering (P argument) is a non-integer or the input is out of range r not entered. he input value (P argument) corresponding to the parameter does not exist. 510 L1150 parameter value (R argument) is out of range or not entered.				
Solution		Set the	e G10 L1150 para	ameter numbe	ering and values	s (P and R arguments) correctly.	
Alarm ID	COR BGN 3	-303 D-30	Alarm title [The basic spindle cannot use the Spindle Synchronization function in position control mode (C63)]				
Description	The cont	basic sp rol mod	indle uses the s e.	oindle synchro	onization (G114	.1, G51.2) commands in the position	

Alarm ID	COR-303 Alarm BGND-30 3		arm title	【The basic spindle cannot use the Spindle Synchronization function in position control mode (C63)】				
Possible Cause	When u	When using this function, the basic spindle cannot be in position control mode.						
Solution	Write the NC program or PLC correctly so that the principal axis leaves the position control mod before the same period (C63).					axis leaves the position control mode		
Alarm ID	COR-304 BGND-304		)4 304	Alarm t		tle	【Thread cutting geometrical axis name error】	
Description	tion Thread cut such as X, Y			ting (G33, G34) command format is incorrect. Only the geometric axis names ', Z, X1, Y1, Z1, etc. are supported.				
Possible Cause When the geometric			he thread c tric axis arg	thread cutting (G33, G34) does not have X, Y, Z, X1, Y1, Z1 and other axis arguments, this alarm is issued.				
Solution	<b>Solution</b> Adjust the a			axis names (Pr321~) of the geometrical axis to XYZ, X1/Y1/Z1				
Alarm ID	COR-3 BGND	COR-305 Alarm ti BGND-305			tle [Relative position input method is forbidden in current mode]			
Description	The m comm	ode in wł and.	nich the sys	stem i	is currentl	y running cannot	be used with the G91 incremental	
Possible Cause	G43.5 cannot be used with the G91 incremental command function: G43.5 determines the tool attitude through the tool vectors I, J, and K. The tool attitude is expressed only in absolute quantities.					function: G43.5 determines the tool de is expressed only in absolute		
Solution	Check execut	the NC p ed in G9:	rogram to o 1 mode	confir	rm that GS	91 was not execute	ed in G43.5 mode and G43.5 was not	
Alarm ID	COR- BGNE	COR-306 Alarm title [Advanced look-ahead function without the specified code]			function without the specified M			
Description	The a comp	The advanced look-ahead function is enabled, and the specified M code is not found after the complete NC program is interpreted.					ecified M code is not found after the	
Possible Cause	1. Pr3 2. The	<ol> <li>Pr3599 is not set.</li> <li>The NC programming error.</li> </ol>						

Alarm ID	COR-306 BGND-306	Alarm titl	e 【Ady code】	vanced look-ahead function without the specified M			
Solution	1. Conf 2. Cheo pred	<ol> <li>Confirm whether the setting of Pr3599 is correct.</li> <li>Check the NC program to confirm that an command has been given to speedily predecode M code (Pr3599).</li> </ol>					
Alarm ID	COR-307 BGND-307	Alarm title	e [Adva argum	[Advanced look-ahead of M code, wrong designation of argument P]			
Description	The advanc	ed look-ahead	d M code (Pr	3599) must specify the P argument.			
Possible Cause	When using argument is	When using the advanced look-ahead function, the P argument is not specified or the P argument is not an integer					
Solution	Check the N subprogram	Check the NC program and confirm that there is a P argument and specify a 4-digit code subprogram.					
Alarm ID	COR-308 BGND-30 8	Alarm title d	m 【Insufficient system memory, increase a single step displacement for advanced look-ahead function】				
Description	The system lo interpreted a	ok-ahead mei nd is stuck.	mory is insul	ficient, and the subsequent move command cannot be			
Possible Cause	There are too met.	many very sh	ort blocks in	the program, so the interpretation conditions cannot be			
Solution	Check the NC	program and	increase a si	ngle step displacement amount appropriately.			
Alarm ID	COR-309 BGND-309	Alarm	title	[Advanced look-ahead function failed]			
Description	The advanc	ed look-ahead	d function ca	nnot be executed correctly.			
Possible Cause	1. The 2. The	interpolation contents of th	mode is inco e look-ahea	prrect during advanced look-ahead. d NC program cannot be stored correctly.			
Solution	1. Che thar 2. Che	ck if the subpr 1 G01, G02, and ck if disk space	ogram of the d G03. e is adequat	e look-ahead NC programs contains commands other e.			

Alarm ID		COR- BGNI	310 9-310	Alarm title	【Look-ahead NC programs failed】		
<b>Description</b> Look-ahead NC program cannot be executed correctly.					tly.		
Possible Cause		2. The	<ol> <li>The condition of the look-ahead NC program does not match:         <ul> <li>The version of the advanced look-ahead, the interpolation time, the number of axes, do not match.</li> <li>There is an abnormal interruption in the look-ahead, resulting in incomplete content of the look-ahead.</li> <li>To look-ahead the axis of movement in the subprogram, enter the advanced look-ahead M code in the main program. The coordinates before (i.e. M298) should be the same.</li> <li>(i.e. if the subprogram has X, Y, and Z three-axis movement commands, if the X, Y, and Z coordinates before look-ahead M code are modified after the look-ahead is completed, the look-ahead NC program will be executed. Issue this alarm.)</li> </ul> </li> <li>The contents of the look-ahead NC program cannot be read correctly.</li> </ol>				
Solution		After progr	After advanced look-ahead under correct conditions, execute the look-ahead NC programs.				
Alarm ID	CO BG	R-311 ND-311	Alarm title N	【Hard disk storage space is insufficient to place look-ahead NC programs】			
Description	Th	e hard disk	storage space is	not enough to place the look-	ahead NC program.		
Possible Cause	Th	ere is not e	nough storage sp	ace on the hard drive.			
Solution	Re	lease hard	disk storage spac	e.			
Alarm ID C		COR-320 BGND-32	Alarm title	[Friction Compensatio	n Adjustment setting is illegal]		
Description		Friction c	riction compensation adjustment setting is illegal.				
Possible Cause		1. Se 2. No 3. Ra 4. No	<ol> <li>Selected adjustment mode is not supported.</li> <li>No axis is assigned for adjustment.</li> <li>Radius or feedrate is not configured in Comp ON/Comp OFF mode .</li> <li>No. of circular setting is not configured in Comp Learning mode.</li> </ol>				

Alarm ID CO BG		DR-320 GND-320	Alarm title	e	[Friction Compensation	Adjustment setting is illegal]
Solution1. Select other 2. Please set 3. Please set 4. Please set 9. If the alarm still ex			t other comp e set a set of e set correct e set correct still exists, pl	pens f ava t rad t No. lease	sation mode and try again. ilable axes. ius or feedrate. of circular setting. e contact Syntec OEM.	
Alarm ID	COR-321 Alarm title BGND-321		【The arguments (P,Q,R) retrieved from the I point position must be integers】			
Description	TheIv	value posit	ion taken ar	gum	ent (G10 L1010 P_ Q_ R_) is r	not an integer.
Possible Cause	NC programming error.					
Solution	Modif	y the NC pr	ogram to sp	ecify	y correct P, Q, and R argumer	nts.
Alarm ID C		COR-32 BGND-3	·322 D-322		Alarm title	【I point position capture failed】
Description		I value p	osition capt	uref	function (G10 L1010 P_ Q_ R_	_), startup failed.
Possible Cause 1. T 2. T 3. E th			The specified P argument (axis number) does not exist. The specified Q argument (I value) is not supported. Exceeding the limit of the number of used groups, currently support to start three I value location captures at the same time.			
Solution		1. N 2. T	Iodify the pr Turn off setti	rogra ngs l	am to specify correct P, Q, an that are not in use.	d R arguments.
Alarm ID	COR-323 Alarm title BGND-32 3		m title po	【The arguments (P,R,I,J,K) captured from the driver signal position must be integers】		
Description	The arg	gument of t	he drive sigr	nal p	oosition (G10 L1011 P_ R_ I_ 、	J_ K_) is not an integer.
Possible Cause	The NC	programm	ning error.			

Alarm ID	COR-32 BGND-3 3	3 Alarm title 2	arm title [The arguments (P,R,I,J,K) captured from position must be integers]		otured from the driver signal		
Solution	Modify t	ify the program to specify correct P, R, I, J, and K arguments.					
Alarm ID		COR-324 BGND-324		Alarm title		[Driver signal position captured failed to activate]	
Description		The drive signa	l positio	n capture functio	on (G10 L101	1 P_ R_ I_ J_ K_) failed to activate.	
Possible Caus	e	<ol> <li>The range of R values set by the specified P and R arguments is invalid (occupied by the system or out of range).</li> <li>The specified I argument (axis number) does not exist.</li> <li>The specified J argument (which set of latches to use) is out of range.</li> <li>The specified K argument (select signal source) is out of range.</li> </ol>					
Solution		Modify the NC	orogram	to specify correc	t arguments		
Alarm ID	CO BG	COR-325 Alarm BGND-325		n title	[In the polar coordinate interpolation mode, the use of the diameter and radiu axis programming command is prohibite ]		
Description	In f pro	the polar coordin ogramming swite	nate inte ching co	erpolation (G12.1 mmand (G10.9) c	) mode, the c annot be use	diameter and radius axis ed.	
Possible Caus	e Ing pro ala	In polar coordinate interpolation (G12.1) mode, if switch the diameter and radius axis program with the diameter and radius axis programming switching command (G10.9), this alarm is issued.					
Solution	In t axi dia [Re Foi	In the polar coordinate interpolation (G12.1) mode, do not use the diameter and radius axis to program the switching command (G10.9). Please follow Pr281~Axis radius axis or diameter axis set value to move the command. [Remarks]					
	Foi X a	For lathe machine G12.1, and the X axis programming mode can be set using Pr4020 (G12.1 X axis programming).					

Alarm ID	COR BGN	-326 D-326	Alarm title	【Diameter and radius error】	s axis programming command argument			
Description	Dian inco	neter and Radius axis programming (G10.9) switching, command arguments are written prrectly.						
Possible Cause	No a	axial programming is specified, or programming is specified as a value other than 0 and 1.						
Solution	-	<ol> <li>Specify any axial direction after diameter and radius axis programming (G10.9).</li> <li>Specify the argument value (programming mode) as 0 or 1.</li> </ol>						
Alarm ID		COR-327 BGND-327		Alarm title	[Skip function argument input error]			
Description	tion Skip function (G31) input argument is incorrect.							
Possible Cause		Skip fu	nction (G31) s	specifies both P and R arg	uments.			
Solution		Please	modify the Sl	kip function (G31), no spe	cified both P and R.			
Alarm ID		COR-328 BGND-32	3 28	Alarm title	【G10 L1800 command argument number, out of specification limit】			
DescriptionThe command argument number is outside the specification limit.i.e. G10 L1800 I514 P10 R1, I argument is out of range.					e specification limit. range.			
Possible Cause		The NC p	orogramming	error.				
Solution		Please co	onfirm the ar	gument value of G10 L180	00.			
P.S. Valid version	of COF	R-328 : ra	nge from 10.1	18.12B, 10.118.13 to 10.1	18.28D, 10.118.31 (included).			

Alarm ID	COR-329 BGND-329	Alarm title	[G10 L1800 command number has exceeded the single block limit]			
Description	The number of G10 L1800 commands with different arguments exceeds the upper limit allowed by a single block, up to 5, or too many G10 L1800 commands.					
Possible Cause	The NC programming error.					

Alarm ID	COR-329 BGND-329	Alarm title	[G10 L1800 command number has exceeded the single block limit]		
Solution	Please reduce the number of G10 L1800 commands with different arguments to less than 5 in a block, or reduce the number of G10 L1800s as a whole.				

P.S. Valid version of COR-329 : range from 10.118.12B, 10.118.13 to 10.118.28D, 10.118.31 (included).

Alarm ID	COR-330 BGND-330		Alarm title	3	【Illegal interrupt signal format】		
Description	The command i.e. M96 P5566	d argume 5 14 Q100	ent number i R1 L1000; I a	s outside the s argument speci	pecification limit. ifies the error signal source.		
Possible Cause	The NC progra	amming	error				
Solution	Please check t	Please check the NC program to ensure that the command arguments are correct.					
Alarm ID	COR-331 BGND-331	Alarm	title	【This prod	uct limits T Code function】		
Description	This product o	This product only supports T0~T4.					
Possible Cause	This product o	nly supp	orts T0~T4.				
Solution	Use a products	that sup	oport the full	T-code functio	on.		
Alarm ID	COR-332 BGND-332		Alarm title		【Interrupt type subprogram (M96, M97) execution failure】		
Description	When the interrupt type subprogram function is used, the execution fails when the interrupt signal is triggered.						
	Note: Due to th that it will stop	ne pre-so p at the p	olved relation problem line.	nship when iss	uing this alarm, there is no guarantee		
Possible Cause	Only support t cancel (M96, M	o triggeı 197). Trig	r interrupt wl ggering interr	nere in the inte rupt signals in o	rrupt type subprogram enable or other subprograms is not supported.		

Alarm ID	COR-332 BGND-332	Alarm title	【Interrupt type subprogram (M96, M97) execution failure】					
Solution	<ol> <li>Make sure to trigger interrupt where in the interrupt type subprogram enable or cancel (M96, M97).</li> <li>Set #1510 to 4 (the second bit is set to on) and only display the line number of the main program. This can be regarded as triggering the interrupt in the main program, but this setting will re-execute the subprogram when it returns.</li> </ol>							
Alarm ID	COR-333 BGND-333	Alarm title	[Single end point exceeds hardware stroke limit]					
Description	The coordinate posit machine.	The coordinate position in the program exceeds the hardware stroke limit set by the machine.						
Possible Cause	<ol> <li>The NC program is wrong.</li> <li>The hardware stroke limit signal is abnormal.</li> </ol>							
Solution	<ol> <li>Check the NC program and correct the coordinate position.</li> <li>First confirm whether it is occasionally happen during machining, and MOT-25, 26 is no longer exists after the system enters the feedhold. If so, it may be that an axis hardware stroke limit signal is triggered, but then disappears; please check the limit switch wiring or the hardware itself for abnormality.</li> </ol>							
Alarm ID	COR-334 BGND-334	Alarm title	[G10 L1810 illegal signal condition command format]					
Description	G10 L1810 command	format error.						
Possible Cause	<ol> <li>One of the I, Q, and R arguments is not set.</li> <li>The I, Q, R, and J arguments are out of range, set to a negative, or a decimal value.</li> </ol>							
Solution	Please refer to the m	Please refer to the manual for troubleshooting.						
P.S. Valid version of CC	R-334 : before 10.118.3	34 (included).						
Alarm ID	COR-335 BGND-335	Alarm title	[G10 L1810 signal waiting condition is too many or repeat the same signal]					

Description	The G10 L1810 signal waiting condition exceeds the allowable number, or the G10 L1810 repeatedly sets the same signal.

Alarm ID	COR-335 BGND-335	Alarm title	【G10 L1810 signal waiting condition is too many or repeat the same signal】			
Possible Cause	<ol> <li>G10 L1810 continuously sets more than 5 commands.</li> <li>The same G10 L1810 signal command has been set.</li> </ol>					
Solution	Please combine multiple signals into one signal to wait, or reduce the signal waiting condition.					
Alarm ID	COR-336 BGND-336	Alarm title	【G10 L1820 illegal waiting signal condition command format】			
Description	G10 L1820 command	G10 L1820 command format error.				
Possible Cause	P, K arguments are c	out of range, set negative	or decimal.			
Solution	Please refer to the m	nanual for troubleshooting	g.			

P.S. Valid version of COR-336 : before 10.118.34 (included).

Alarm ID	COR-337 BGND-337	Alarm title	[G10 L1820 without G10 L1810 command in the front]	
Description	The G10 L1820 command needs to wait for the G10 L1810 signal wait condition. At least one G10 L1810 command must be programmed first.			
Possible Cause	The G10 L1820 command was not written before the G10 L1820 command.			
Solution	Modify the NC program and write the G10 L1810 command before the G10 L1820 command.			
Alarm ID	COR-338 BGND-338	Alarm title	【G10 L1820 signal condition waiting timeout】	
Description	G10 L1820 waiting signal condition exceeds the waiting time.			
Possible Cause	The signal status condition was not reached within the waiting time.			
Solution	<ol> <li>Check if the G10 L1810 setting signal condition is correct.</li> <li>Check if the PLC wait signal is processed correctly.</li> <li>Check the hardware device to confirm why the signal status is not reached.</li> </ol>			

Alarm ID		COR-339 BGND-339		Alarm title	【Chopping axis prohibition movement command】	
Description		The chopping axial direction does not accept any movement commands.				
Possible Cause		After using the chopping function (G81.1, G81.2, C86), give movement command to axis before closing. Note: C86 valid version: 10.118.19 and previous versions.			286), give movement command to the ersions.	
Solution	Check the movement command of the NC program G coc axis, and it is executed before the chopping function is tu command G code is, for example, G0, G1, G2, G3, G31, G5			m G code, whether there is chopping ion is turned off. The movement G31, G53.		
Alarm ID	COR BGN	2-340 ID-340	Alarm title   [Chopping axis prohibits changing coordinate system]     0		its changing coordinate system】	
Description	The proh	<sup>-</sup> he axis in chopping cannot change any coordinate system, and the related functions will be prohibited.				
Possible Cause	Note	<ol> <li>After using the chopping function (G81.1, G81.2, C86), switch the coordinate system before closing and affect the chopping axis.</li> <li>Simultaneously use of chopping function (G81.1, G81.2, C86) and tilted work plane machining function (G68.2, G68.3).</li> <li>Simultaneously use the chopping function (G81.1, G81.2, C86) and the axis exchange function (C133~C136).</li> <li>ote: C86 support version: 10.118.19 and earlier.</li> </ol>				
Solution	Note L130	<ol> <li>Check if the system operation and programming coordinate system are switched or changed, and whether the chopping axis is affected.</li> <li>Check if the NC program uses the chopping function (G81.1, G81.2,C86) and the tilted work plane machining function at the same time. (G68.2, G68.3).</li> <li>Check if the NC program has the chopping function (G81.1, G81.2, C86) and the shaft exchange of the chopping shaft. (C133~C136).</li> <li>Note 1: C86 support version: 10.118.19 and earlier.</li> <li>Note 2: Coordinate system related programming: G54 P1~G54 P100, G92, G92.1, G10 L2, G10 L1300, G68, #value (#1880~#1933, #20001~#20658).</li> <li>Note 3: Coordinate system related operations: external coordinate offset, MPG offset.</li> </ol>				
Alarm ID		COR-3 BGND-	41 341	Alarm title	[Chopping axial switching error ]	
Description		The specified axis cannot be switched to the chopping axis.				

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Alarm ID		COR-341 BGND-341		Alarm title		【Chopping axial switching error 】
Possible Cause	2	<ol> <li>This axis has been designated as the PLC axis.</li> <li>The axis has been designated as the spindle.</li> <li>The axis has been designated as the servo tail axis</li> <li>This axis has been designated as a chopping axis by other paths.</li> </ol>				
Solution		<ol> <li>Do not specify the PLC axis as the chopping axis.</li> <li>Do not specify the spindle as the chopping axis.</li> <li>Do not specify the servo tail axis as the chopping axis.</li> <li>Check if the multi-path repeats the chopping function for the same axis (G81.1, G81.2, C86).</li> <li>Note: C86 support version: 10.118.19 and earlier version.</li> </ol>				
Alarm ID	n ID COR BGN			Alarm title	[C kine	hopping axis prohibits non-linear ematic transform】
Description		Non-linear kinematic transform is prohibited for the chopping axis.				
Possible Cause	9	<ol> <li>Using non-linear kinematic transform when chopping function is enabled.</li> <li>The machine type used is two-dimensional kinemetic (special model).</li> </ol>				
Solution		<ol> <li>Check the NC program to make sure that the chopping function (G81.1, G81.2, C86) is not within the range of the RTCP (G43.4, G43.5).</li> <li>Check the NC program to make sure that the chopping function (G81.1, G81.2, C86) is not within the range of the tangential control (G41.1, G42.1).</li> <li>Check the NC program to make sure that the chopping function (G81.1, G81.2, C86) is not within the effective range of the polar coordinate interpolation (G12.1).</li> <li>The machine configuration used is the two-dimensional kinemetic (special model), and the chopping function (G81.1, G81.2, C86) cannot be used.</li> <li>Note: C86 support version: 10.118.19 and earlier.</li> </ol>				
Alarm ID	COR BGN	2-343 Ala ID-343	arm title 【The main program does not use the ending M code】			not use the ending M code】
Description	M02	02/M30/M99 is not used at the end of the main program.				
Possible Cause		<ol> <li>Programming error.</li> <li>NC program is damaged.</li> <li>Some machining information was lost due to file transmission errors.</li> </ol>				

Alarm ID	COR-343 BGND-343	Alarm title	【The mair	ı program do	pes not use the ending M code】
Solution	1. Check 2. Close	Check the NC program to reset the alarm and clear it. Close the Pr3853-NC program error check function.			
Alarm ID	COR-3 BGND-	COR-344 BGND-344			【The NC program under invalid paragraph】
Description	1. 2.	<ol> <li>There is continuous blank/annotation/garbled in the NC program, and the size is more than 8KB.</li> <li>There are no valid commands in the NC program.</li> </ol>			
Possible Cause	1. 2.	<ol> <li>Programmning error.</li> <li>NC program is damaged.</li> </ol>			
Solution	1. 2. 3.	<ol> <li>Avoid writing lots of consecutive blanks or annotations.</li> <li>Please check if the NC program is damaged. After the problem is solved, reset to remove the alarm.</li> <li>Close the Pr3853 - NC program error check function.</li> </ol>			
Alarm ID	COR-345 BGND-34	Alarm tit 5	ile [II	legally form	at input to programmable data]
Description	Programm	Programmable data input argument format error.			



Background Execute Alarm - BGND - 539

Alarm ID	COR-345 BGND-345	Alarm title	[Illegally format input to programmable data]				
Possible Cause	1.       Wobble         a.       b.         c.       2.         G10 L1       a.         b.       c.         3.       G10 L1         a.       b.         c.       3.         G10 L1       a.         b.       c.         3.       G10 L1         a.       b.         c.       4.         G10 L1       a.         b.       c.         d.       G10 L1         a.       b.         c.       d.         floor L1       a.         b.       c.         d.       G10 L1         a.       b.         c.       g.         g.       G10 L1         a.       b.         c.       g.      g.       G10 L1 <tr< th=""><th>e command One of the I, Q, R ar I, Q, R arguments of I argument not inte 803 command One of the I, Q, P, R I, Q, P, R, J, E argum I, Q, R, J, K, E argum 805 、G10 L1810 co One of the I, Q, R ar I, Q, R, J arguments 820 command P, K arguments out P, K arguments out 20 command One of the P, Q, R a P argument is not a Q, R arguments out Q, R arguments out Q, R arguments not 500 command P, Q, R, X, Y, Z Q, X, Y, Z, I, J 031 command R argument is not s R, V arguments out S00 command R argument is not 500 command P, E argument is not 500 command One of the P, Q arg One of the P, Q arg S0 command P, E argument is not 726 command I, K argument is not 728 command P argument is not s When the P argument 830 command P argument is not s When the P argument 830 command P argument is not s</th><th>guments is not set. ut of range. ger. arguments is not set. hents out of range. hents not integer. mmand guments is not set. out of range. not integer. of range. positive integer. rguments is not set. string. of range. integer. Z, I, J, K, U, V arguments out of range. integer. Z, I, J, K, U, V arguments out of range. integer. guments is not set. guments is not an integer. t set. t of range. eger. : set. et. et. et. t is set to 1, the Q and R arguments are not set. et.</th></tr<>	e command One of the I, Q, R ar I, Q, R arguments of I argument not inte 803 command One of the I, Q, P, R I, Q, P, R, J, E argum I, Q, R, J, K, E argum 805 、G10 L1810 co One of the I, Q, R ar I, Q, R, J arguments 820 command P, K arguments out P, K arguments out 20 command One of the P, Q, R a P argument is not a Q, R arguments out Q, R arguments out Q, R arguments not 500 command P, Q, R, X, Y, Z Q, X, Y, Z, I, J 031 command R argument is not s R, V arguments out S00 command R argument is not 500 command P, E argument is not 500 command One of the P, Q arg One of the P, Q arg S0 command P, E argument is not 726 command I, K argument is not 728 command P argument is not s When the P argument 830 command P argument is not s When the P argument 830 command P argument is not s	guments is not set. ut of range. ger. arguments is not set. hents out of range. hents not integer. mmand guments is not set. out of range. not integer. of range. positive integer. rguments is not set. string. of range. integer. Z, I, J, K, U, V arguments out of range. integer. Z, I, J, K, U, V arguments out of range. integer. guments is not set. guments is not an integer. t set. t of range. eger. : set. et. et. et. t is set to 1, the Q and R arguments are not set. et.				
Solution	Please refer to command description to troubleshoot.						
Alarm ID	COR-346 BGND-346	Alarm title	【Illegally data entry】	use of programmable 			
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Description	Programmable data ir	nput conflicts with speci	ications.				
Possible Cause	<ol> <li>Between wobb</li> <li>G10 L1803 com by a single blog</li> <li>Too many G10</li> <li>The feature as 10.118.41P, 10.</li> <li>Any axis belong</li> </ol>	<ol> <li>Between wobble command, only one block is allowed to wobble.</li> <li>G10 L1803 commands with different arguments exceeds the upper limit allowed by a single block, up to 12.</li> <li>Too many G10 L1803 and G10 L1805 commands.</li> <li>The feature as L-argument specified is unsupported for current version (from 10.118.41P, 10.118.49).</li> <li>Any axis belongs to multiple coordinates.</li> </ol>					
Solution	<ol> <li>Remove the ex</li> <li>Reduce the number of the number</li></ol>	<ol> <li>Remove the exceeding number of wobble moving blocks.</li> <li>Reduce the number of G10 L1803 commands in a single movement block to less than 12.</li> <li>Reduce G10 L1803 and G10 L1805 commands.</li> <li>Update to the version which supports the feature as L-argument specified.</li> <li>Please set Pr701~ of the axis to only belong to a single axis group.</li> </ol>					
Alarm ID	COR-347 BGND-347	Alarm title	larm title [This function only suppor Syntec axis]				
Description	Only Syntec axis can u	ise this function.					
Possible Cause	The weave function or	nly supports Syntec drive	es.				
Solution	Please use Syntec driv	/er.					
Alarm ID	COR-348 BGND-348	Alarm title		【APP command error 】			
Description	There is an error in the APP command.						
Possible Cause	<ol> <li>APP name is not a string.</li> <li>The length of APP name is over 20 characters.</li> <li>No APP name is specified.</li> </ol>						
Solution	Please make sure	that APP commands are	used correctly i	n the NC program.			

Alarm ID	COR-349 BGND-34 9	Alarm title	(This encode	his function only supports Syntec magnetic gear or ring gear oder】				
Descript ion	Limited to u	use with Synte	c magne	tic gear or ring gear enc	oders	5.		
Possible Cause	<ul> <li>The following function is limited to use Syntec magnetic gear or ring gear encoders: <ol> <li>complex threading cycle(G78 or G78.2) enables chip removal function (the argument of D is set by 1).</li> </ol> </li> <li>When applying the function mentioned above, the system detect the active spindle is not Syntec magnetic gear or ring gear encoders which satisfies following conditions: <ol> <li>the encoder communication type Pn-900 is equal to 13.</li> <li>the pole pair number is greater than or equal to 124.</li> <li>the serial communication support M3 Syntec and EtherCAT Syntec (EtherCAT support software versions: 10.118.66M, 10.118.70H, 10.118.78 and later versions).</li> </ol> </li> <li>In dual-feedback system, it is sufficient for either of the 1st or 2nd encoders to satisfy the above conditions.</li> </ul>							
Solution	1. If us Synt 2. If the	er wants to en tec magnetic g e chip remova	able chip gear or rir l functior	o removal function durin ng gear encoders to sati n is not used, please set	ng coi isfy th : the a	mplex threading cycle, please use le condition. Irgument of D to 0.		
Alarm ID		COR-350 BGND-350		Alarm title	[Ir	nvalid EnIP Macro】		
Descriptio	n	EnIP macro s	syntax er	ror.				
Possible C	ause	The format o	or range o	of the input macro argu	ments	s is incorrect.		
Solution		Refer to the	EnIP mad	ro syntax description.				
Alarm ID COR-351 BGND-351				Alarm title		【Communication command abnormal】		
Descriptio	n	<ol> <li>The execution of the macro communication command failed.</li> <li>The macro communication to driver failed.</li> </ol>						
Possible C	ause	<ol> <li>The controller does not support EnIP communication.</li> <li>The EnIP function input request data value range is incorrect.</li> <li>An error occurred while sending or receiving a communication command.</li> </ol>				unication. range is incorrect. g a communication command.		

Alarm ID	COR-351 BGND-351	Alarm title	【Communication command abnormal】				
Solution	<ol> <li>Please conta</li> <li>Each request</li> <li>This alarm is description feedback</li> </ol>	<ol> <li>Please contact the Syntec OEM.</li> <li>Each request data of EnIP represents a 1 value ranging from 0 to 255.</li> <li>This alarm is accompanied by a more detailed error alarm, refer to the alarm description for troubleshooting.</li> </ol>					
Alarm ID	COR-352 BGND-352	Alarm title	【Communication command response data is too long】				
Description	The device return dat	a length is too long.					
Possible Cause	The storage space pro	ovided by the user for re	turning data is insufficient.				
Solution	Make sure that the sto	Make sure that the storage space for the returned data is sufficient.					
Alarm ID	COR-353 BGND-353	Alarm title	【Invalid argument of CHKINF】				
Description	The type of argumer	nt of CHKINF() is incorre	ct, or the category number is out of range.				
Reason	Programming error.						
Solution	<ol> <li>Please check</li> <li>Check the typ</li> <li>Check the typ</li> <li>Check the typ</li> <li>Ensure the ca Development</li> </ol>	<ol> <li>Please check the NC program.</li> <li>Check the type of first argument is integer.</li> <li>Check the type of second argument is string.</li> <li>Ensure the category number is in the range, please refer to OpenCNC_Macro Development Manual.</li> </ol>					
Alarm ID	COR-354 A BGND-354	larm title	【With RTCP enabled, the usage of G10 L1150 to set Five-Axis mechanism parameter is prohibited.】				
Description	With Rotate Tool Cente set Five-Axis mechanis	With Rotate Tool Center Point function(G43.4, G43.5) enabled, the usage of G10 L1150 to set Five-Axis mechanism parameter is prohibited.					
Reason	The NC file was written	incorrectly.					
Solution	Please modify the NC file, cancel Rotate Tool Center Point function(G49), and then use G10 L1150 to set the Five-Axis mechanism parameter.						

Alarm ID	COR-355 BGND-355	Alarm title	Need geometric axes positioning after tool length compensation changed				
Description	Positioning of the axe tool length compens	es on work plane(G17: X ation commands, if tool	XY, G18: ZX, G19: YZ) is required after executing ol radius compensation commands needed.				
Reason	No positioning of the executing tool length commands. Tool length compens L1050, G10 L1051 Tool radius compens	o positioning of the axes on work plane(G17: XY, G18: ZX, G19: YZ) between xecuting tool length compensation commands and tool radius compensation ommands. ool length compensation commands: H, T(Lathe), G43, G44, G43.4, G43.5, G49, G10 1050, G10 L1051 ool radius compensation commands: G41, G42					
Solution	Please modify the NC G18: ZX, G19: YZ) afte compensation comm Positioning comman	lease modify the NC file. Add positioning command of the axes on work plane(G17: XY, 18: ZX, G19: YZ) after tool length compensation commands and before tool radius ompensation commands. Positioning commands: G90 G00, G90 G01, G92					
Alarm ID	COR-356 BGND-356	Alarm title	【Invalid APP command】				
Description	There is a syntax e	error on the Modbus cor	mmand(G10 L1900/1901/1910/1911).				
Possible Cause	The format or ran	The format or range of the input argument is incorrect.					
Solution	Please refer to the	Please refer to the Industry Machine Application Manual.					
Alarm ID	COR-357 BGND-357	【Illegal Modbus packet contents 】					
Description	The contents of the	e Modbus command pa	icket is illegal.				
Possible Cause	The contents of the	The contents of the customized package is incorrect.					
Solution	Please refer to R50	Please refer to R5039, as this register provides the error code for troubleshooting.					
Alarm ID	COR-358 BGND-358	COR-358Alarm title[Modbus communication timeout]BGND-358					
Description	The Modbus comm	The Modbus communication experienced a timeout.					

Alarm ID	COR-358 BGND-358	Alarm title		[Modbus communication timeout]			
Possible Cause	Abnormal communica timeout.	ition or unestablish	ed comm	unication causes the connection			
Solution	Please refer to R5039,	as this register prov	/ides the o	error code for troubleshooting.			
Alarm ID	COR-359 BGND-359	Alarm title		[Modbus communication failure ]			
Description	The Modbus commun	ication failed.					
Possible Cause	1. There is a com	1. There is a communication error or device setting error.					
Solution	1. Please refer to	1. Please refer to R5039, as this register provides the error code for troubleshooting					
Alarm ID	COR-361Alarm title[The number of non-moving bloc exceeds the permissible value under tool radius compensation]						
Description	The machining program compensation is enable	The machining program has programmed too many non-moving blocks when tool radius compensation is enable.					
Possible Cause	Programming error.						
Solution	<ol> <li>Modify the machining program and issue the non-moving blocks when tool radius compensation is disable.</li> <li>Modify the machining program and reduce the number of non-moving blocks when tool radius compensation is enable.</li> </ol>						
Alarm ID	COR-362Alarm 标题【Multi-axis multi-signal skip function (G31.10, G31.11) command error】						
说明	Multi-axis multi-signal	skip function (G31.	10, G31.11	1) command error			

可能原因	<ol> <li>Setting command (G31.10) or execution command (G31.11) cannot be issued alone, and other commands cannot be issued between them. Always set first then execute.</li> <li>A set of multi-axis multi-signal skip function is composed of one G31.10 command at least and one G31.11 command. Set first then execute. Both commands should be issued in a set of multi-axis multi-signal skip function, and it is not allowed to insert other commands in between.</li> <li>Supports up to six G31.10 commands in a set of multi-axis multi-signal skip function.</li> <li>Same axis is used in different G31.10 commands in a set of multi-axis multi-signal skip function.</li> <li>Same axis name is used in different G31.10 commands.</li> <li>Assign same axis by using virtual axis function in different G31.10 commands.</li> <li>(E.g., Virtual axis Z is corresponding to axis Z1 and Z2. Using axis Z in one G31.10 command, and Z1 in another G31.10 command.)</li> <li>Assign same axis by misusing alias of axis.</li> <li>(E.g., There are axis X, Y, Z1, Z2, Z3, Z4, the alias of Z1 is Z.)</li> </ol>					
排除方法	<ol> <li>Make sure there is always an execution command (G31.11) behind setting command (G31.10), and there is no execution command (G31.11) left alone.</li> <li>Make sure there are six G31.10 commands at most in each set of multi-axis multi- signal skip function.</li> <li>Make sure there is no axis assigned repeatedly in each set of multi-axis multi- signal skip function.</li> </ol>					
Alarm ID	COR-366Alarm Title[The parameters of rotary axis auxiliary brake are set incorrectlyBGND-366Image: Second					
Description	Using the rotary axis auxiliary brake, the parameters mapped to the enable group are set incorrectly.					
Possible Cause	<ul> <li>Parameters are incorrect.</li> <li>Enable G10 L1500 rotary axis auxiliary brake: <ol> <li>The axis ID of the rotary axis auxiliary brake is not specified.</li> <li>The axis type of the specified axis is linear.</li> <li>The M code of the rotary axis auxiliary brake is not specified.</li> </ol> </li> </ul>					
Solution	Modify parameters P	r3741~Pr3744.				
Alarm ID	COR-367 BGND-367	Alarm Title	【Prohibited commands in rotary axis auxiliary brake mode】			
Description	When the rotary axis program.	When the rotary axis auxiliary brake is enabled, prohibited commands are used in the nc program.				

Possible Cause	<ol> <li>The axis, which is in rotary axis auxiliary brake mode, is specified by skip function(G28.1, G31, G31.11).</li> <li>The axis, which is in rotary axis auxiliary brake mode, is specified by chopping function(G81.1, G81.2).</li> <li>Enable the rotary axis auxiliary brake in RTCP mode(G43.4, G43.5).</li> <li>Enable both the rotary axis auxiliary brake mode and the polar coordinate mode(G12.1).</li> </ol>					
Solution	Check the NC program	1.				
Alarm ID	COR-370 BGND-370	Alarm title	【Failed to enable chopping function】			
Description	Failed to enable the o	hopping function .				
Possible Cause	<ol> <li>G81.2 or G81.1 command repeatedly         <ol> <li>G81.1 command repeatedly.</li> <li>G81.2 and G81.1 command simultaneously.</li> </ol> </li> <li>Using G81.2 to make 2 axis in the same axis group do advanced chopping simultaneously.</li> </ol>					
Solution	Please activate or de	activate the chopping func	tion correctly.			
Alarm ID	COR-371 BGND-371	Prohibit two or more macros read M code argument simultaneously in one block				
Description	One block only allows	one M code argument beir	ng read by macro.			
Possible Cause	NC programming erro	r.				
Solution	Check the NC program one single block.	Check the NC program to ensure that there is only one macro read M code argument in one single block.				
Alarm ID	COR-401Alarm titlePath planning plug-in errorBGND-401					
Description	Path planning plug-i	n error.				
Reason	Path planning plug-i	n error leads to system abr	ormality.			
Solution	Please contact OEM	Please contact OEM Syntec.				

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Alarm ID		COR-402Alarm title[Cycle start is not allowed after use timesBGND-402BGND-402BGND-402					
Description		Cycle Start is not allowed after use time expire.					
Reason		The use time of the controller has been expired, hence the controller is locked.					
Solution	<ol> <li>Extend the use time of the controller.</li> <li>Please contact the controller vendor to unlock the controller.</li> </ol>					er. or to unlock the controller.	
Alarm ID	BGND-5	01 Ala	arm title	Regist	er not enoug	h, program execution failed	
Descriptio n	Insuffici	ent contro	ller remainin	g regist	ers cause the	background execution unit to fail to activate.	
Possible Cause	1. L 2. T	<ol> <li>Use too many background execution units in ladder.</li> <li>The system remaining register is too low.</li> </ol>					
Solution	Contact	machinery	manufactur	er.			
Alarm ID	BGND-5	BGND-502 Alarm title Invalid program command					
Descriptio n	Incorrec	Incorrect G code is used in program or use M, T code to call MACRO.					
Possible Cause	Program	Program editing error.					
Solution	Please c	heck the M	ACRO progra	am to co	onfirm that th	e unsupported G/M/T codes are not used.	
Alarm ID	BGND-5	BGND-503 Alarm Illegal G code argument title					
Description	Enter in	correct G1	0 argument f	format o	or range in the	e program.	
Possible Cause	Prograr	n editing e	rror.				
Solution	Please	check the N	ACRO progr	am, and	l refer to man	nual to input correct argument.	

Alarm ID	BGND-50 4	Alarm       S code not supported in background execute mode         title				
Descriptio n	S code com	mand is used	in program.			
Possible Cause	Program ed	iting error.				
Solution	Please chec	k the MACRO	program, and confirm S code is not used.			
Alarm ID	BGND-50 5	Alarm title	F code not supported in background execute mode			
Descriptio n	F code com	mand is used	in MACRO program.			
Possible Cause	Program ed	Program editing error.				
Solution	Please chec	k the MACRO	program and confirm F code is not used.			
Alarm ID	BGND-50 6	BGND-50Alarm titleH code not supported in background execute mode6title				
Descriptio n	H code is us	H code is used in MACRO program.				
Possible Cause	Program ed	Program editing error.				
Solution	Please chec	Please check the MACRO program, and confirm H codes is not used.				
Alarm ID	BGND-50Alarm titleD code not supported in background execute mode7title					
Descriptio n	D ode is used in MACRO program.					
Possible Cause	Program ed	iting error.				

Solution	Please check the MACRO program, and confirm D codes is not used.						
Alarm ID	BGND-50 8	Alarm title	T code not supported in background execute mode				
Descriptio n	T code is	used in MACRO p	rogram.				
Possible Cause	Program	editing error.					
Solution	Please ch	eck the MACRO p	program, and confirm T codes	is not used.			
Alarm ID	BGND-50 9	Alarm title	M code not supported in background execute mode				
Descriptio n	M code is	M code is used in MACRO program.					
Possible Cause	Program	Program editing error.					
Solution	Please ch	eck the MACRO p	program, and confirm M codes	s is not used.			
Alarm ID	E	GND-510	Alarm title	[Quantities of Background execute unit exceeds capacity]			
Description	T e	The number of enabled BGND components exceeds the upper limit (20), and can not enable more BGND components.					
Possible Cause	ι	Use too many background execute unit in ladder.					
Solution	C	Contact machinery manufacturer.					

# 8.1 BGND-001 ~ BGND-499

Alarm ID	BGND-001 ~	Alarm title	Titles are the same as COR alarm with corresponding ID
	BGND-499		

Description	Please refer to COR alarm with corresponding ID
Possible Cause	Please refer to COR alarm with corresponding ID
Solution	Please refer to COR alarm with corresponding ID

# 8.2 BGND-001 Array Variable is empty

Alarm ID	COR-001 BGND-001	Alarm title	Array Variable is empty
Description	Indirect assigned varial i.e. @[#1], if #1 is empty	ble number is empty. y, this alarm will be issued.	
Reason	Programming error.		
Solution	Please check the NC program, make sure that indirect assigned variable's number is not empty.		

#### 8.3 BGND-002 File not exist

Alarm ID	COR-002 BGND-002	Alarm title	File not exist
Description	If the file that the system wants to read does not exist i.e. use M98 (or G65, G66, and etc.) to call a non existing file.		
Reason	Programming error.		
Solution	Check the NC program to make sure the existence of the file.		

# 8.4 BGND-003 Devide by zero error

Alarm ID	COR-003	Alarm title	Devide by zero error
	BGND-003		

Description	If denominator in division of MACRO is equal to 0 i.e. #1:=(#2/ #3); if #3 equals to zero, system will issue this alarm.
Reason	Programming error
Solution	Check the NC program to ensure that the denominator is not equal to 0.

#### 8.5 BGND-004 Operation domain error

Alarm ID	COR-004 BGND-004	Alarm title	Operation domain error
Description	Operation domain error.		
Reason	Programming error		
Solution	Please check the NC program.		

# 8.6 BGND-005 Program loading failure

COR-005 BGND-005	Alarm title	Program loading failure
MACRO syntax error.		
Programming error.		
Please check the NC program.		
	COR-005 BGND-005 MACRO syntax error. Programming error. Please check the NC pr	COR-005 BGND-005Alarm titleMACRO syntax error.Programming error.Please check the NC program.

# 8.7 BGND-006 Arc not on work plane

Alarm ID	COR-006 BGND-006	Alarm title	Arc not on work plane

Description	<ol> <li>In clockwise, counter-clockwise arc cutting (G02, G03) syntax, if the vector from center of circle to starting point doesn't exist on the arc working surface. i.e. execute G17 G02 I50. K10. , and system will issue this alarm.</li> <li>In spiral interpolation (G02, G03) syntax, when corresponding to G17, G18, and G19 three surface conditions, if K, J , and I arguments are not zero, system will issue this alarm.</li> </ol>
Reason	Programming error.
Solution	Check the NC program to ensure that G02 and G03 are used correctly.

#### 8.8 BGND-007 Arc radius too short

Alarm ID	COR-007 BGND-007	Alarm title	Arc radius too short
Description	In G02 and G03 syntax, if Arc radius is smaller than 10 to the power of minus 10 BLU (10^-10), system will issue this alarm.		
Reason	Programming error.		
Solution	Check the NC program to ensure that the Arc radius of G02 and G03 are used correctly.		

# 8.9 BGND-008 Arc destination not on arc

Alarm ID	COR-008 BGND-008	Alarm title	Arc destination not on arc
Description	In G02 and G03 syntax, issue this alarm. From 8.31 version, add allowing to set window When arc end point po system will auto correc locate on the circle cor When arc end point po will issue this alarm.	if the Arc end point coordin ling Pr3807 setting arc final p v range's error in Pr3807. sition's error is smaller than ct the circle's center positior rectly. sition error is bigger than Pr	ate is not on the circle, system will point is not on the check window, Pr3807 setting window's range, a, and make the end point position to 3807 window range setting, system
Reason	Programming error.		

Solution	Check the NC program to ensure that the Arc radius of G02 and G03 are used correctly.

#### 8.10 BGND-009 G65 layers called by Macro too deep

Alarm ID	COR-009 BGND-009	Alarm title	G65 layers called by Macro too deep
Description	Use G65 to call MACRO program layer more than 12 layers.		
Reason	Programming error.		
Solution	Check NC program to ensure that G65 calls MACRO program less than or equal to 12 layers.		

# 8.11 BGND-010 G66 layers called by Macro too deep

Alarm ID	COR-010 BGND-010	Alarm title	G66 layers called by Macro too deep
Description	<ul> <li>Use G66 to call MACRO program layer more than 4 layers. It is possible in the following situations:</li> <li>1. Improper use G66. Use G66 to call MACRO program layer more than 4 layers.</li> <li>2. Lathe A Type G70 ~ G73 or Lathe C Type G72 ~ G75 Q_ sequence numbers does not exist.</li> </ul>		
Reason	Programming error.		
Solution	<ol> <li>Check NC prog 4 layers.</li> <li>Check NC prog G75 Q_ sequen</li> </ol>	ram to ensure that G66 calls ram to ensure that Lathe A T ce numbers exist.	s MACRO program less than or equal to Type G70 ~ G73 or Lathe C Type G72 ~

# 8.12 BGND-011 Subprogram layer call too deep

Alarm ID	COR-011 BGND-011	Alarm title	Subprogram call too deep
Description	Use M98 to call subprogram that has more than 16 layers.		ayers.

Reason	Programming error.
Solution	Check NC program to ensure that M98 calls subprogram that has less than 16 layers.

# 8.13 BGND-012 G66 mode not cancel by G67

Alarm ID	COR-012 BGND-012	Alarm title	G66 mode not cancel by G67
Description	G66 and G67 need to be used in pairs, when numbers of G67 is more than G66 in one NC program, this alarm will be issued.		
Reason	Programming error.		
Solution	Check NC program to e	ensure that G66 and G67 are	used in pairs

# 8.14 BGND-013 G65, G66 must be at the end of the block

Alarm ID	COR-013 BGND-013	Alarm title	G65, G66 must be at the end of the block
Description	G65 and G66 are MACRO, so in one same block the program on the right hand side of G65 and G66 will be processed as G65 and G66's arguments. So in one same block, if there is other G code command please write them in the left hand side of G65 and G66. In one same block, if the right hand side of G65 and G66 has G code or M code, system will issue this alarm.		
Reason	Programming error.		
Solution	Please check the NC p	program.	

# 8.15 BGND-014 Absent program number

Alarm ID	COR-014 BGND-014	Alarm title	Absent program number
Description	The right hand side of G number.	65 and G66 doesn't have P a	rgument to specify program

Reason	Programming error.
Solution	Please check the NC program to ensure G65 and G66 use P argument to specify program number.

#### 8.16 BGND-015 Too many auxiliary M codes

Alarm ID	COR-015 BGND-015	Alarm title	Too many auxiliary M codes
Description	There are more than 5 auxiliary M codes in a single block.		
Reason	Programming error.		
Solution	Please check the NC program to ensure that there are equal or less than 5 auxiliary M codes in a single block		

# 8.17 BGND-016 Illegal variable access

Alarm ID	COR-016 BGND-016	Alarm title	Illegal variable access
Descriptio n	Attempted to access a variable that does not exist.		
Reason	<ol> <li>Program</li> <li>Illegal ac</li> <li>The para</li> <li>The cont</li> <li>The prog App Mac</li> <li>The AR o</li> <li>Non-integers</li> <li>The back</li> </ol>	ming error. ccess to # or @ variable. meter of SYSDATA function is out of syste croller does not support the status variable gram that attempts to access AR or MAR va ros. r MAR variables to access do NOT lie with ger numbers are used to specify the addre are acceptable. ground computing program executed an	m data range. e which DRVDATA is to read. ariables does NOT lie within the scope of in the range defined by the App. esses of AR or MAR variables. ONLY unsupported instruction.

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Solution	<ol> <li>Make sure the accessing variable exists.</li> <li>Make sure the variable to read is readable.</li> </ol>
	3. Make sure the variable to write is writable.
	<ol><li>Make sure the variable which DRVDATA is to read can be found on the "Controller Axis Info." page.</li></ol>
	5. Make sure the AR and the MAR variables are accessed ONLY in App Macros.
	6. Make sure the AR and the MAR variables to access lie within the range defined by the App.
	7. Make sure only integers are used to specify the addresses of AR or MAR variables.
	8. Make sure that no unsupported instructions are used in the background computing program.

#### 8.18 BGND-017 Label not found

Alarm ID	COR-017 BGND-017	Alarm title	Sequence number not found
Description	The NC program sequence number is used incorrectly.		
Reason	<ol> <li>When running the GOTO command, the corresponding sequence number (N code) cannot be found.</li> <li>When running the M99 command, sequence number (N code) specified by the P argument cannot be found in the main(parent) program.</li> </ol>		
Solution	Please check the NC pr	ogram.	

# 8.19 BGND-018 Line number not found

Alarm ID	COR-018 BGND-018	Alarm title	Line number not found
Description	Input line number is incorrect.		
Reason	<ol> <li>When Pr3851 set program's maxin</li> <li>When Pr3851 set program's maxin</li> <li>When Pr3851 set program's maxin be found after set</li> <li>When M99 Q_ su main program, t line number.</li> </ol>	ts as 888800, input breakpoir mum line number. ts as 999900, input breakpoir mum line number. ts as 999901, input breakpoir mum line number or position canning through entire NC pr b-program returns to the line he line number Q_ assigned i	it's line number exceeds NC it's line number exceeds NC it's line number exceeds NC ing command line number cannot ogram. e number which is assigned by is over main program's maximum

Solution	<ol> <li>Input the correct program line number.</li> <li>When Pr3851 sets as 999901, modify NC program by inserting positioning command after initial assigned breakpoint.</li> </ol>
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#### 8.20 BGND-019 sub-program has no M99

Alarm ID	COR-019 BGND-019	Alarm title	sub-program has no M99
Description	When main program calls sub-procedure, if sub-program finish executing and need to return the main program, there is no M99.		
Reason	Programming error.		
Solution	Write in M99 when sub-	program finish executing and	l return the main program.

# 8.21 BGND-020 Too many G code

Alarm ID	COR-020 BGND-020	Alarm title	Too many G code
Description	There are more than 10 G codes in a single block.		
Reason	Programming error.		
Solution	Breakdown that single block which has over 10 G codes into single blocks that has less than 10 G codes.		

# 8.22 BGND-021 Too many (I, J, K) parameters

Alarm ID	COR-021 BGND-021	Alarm title	Too many (I,J,K) triples
Description	Repeat too much I, J, and K command in the same block.		
Reason	Programming error.		
Solution	Please check the NC program.		

# 8.23 BGND-022 Use undefined G54 workpiece coordinate

Alarm ID	COR-022 BGND-022	Alarm title	Use undefined workpiece coordinate
Description	Use an undefined G54 coordinate system.		
Reason	Programming error.		
Solution	Use the correct G54 coordinate system.		

#### 8.24 BGND-023 Semantic error

Alarm ID	COR-023 BGND-023	Alarm Title	Semantic error
Description	<ol> <li>When using G code, different G code can input different argument (P_, L_, R_, and etc.), if argument setting is wrong, and system will issue this alarm.</li> <li>The argument of macro function is wrong.</li> </ol>		
Reason	Programming error.		
Solution	Check the NC program to manual.	o ensure the argument is used	correctly by referring the

# 8.25 BGND-024 Invalid arc radius value

Alarm ID	COR-024 BGND-024	Alarm title	Invalid arc radius value
Description	When executing G02, G03, appointed Arc end point and given radius is contradicted, which the given radius cannot meet appointing Arc end point. i.e. G91 G03 X1500 Y4000 R2000.		
Reason	Programming error.		
Solution	Check the program and	l recalculate.	

#### 8.26 BGND-025 Macro stack is overflow or STKTOP[] argument error

Alarm ID	COR-025 BGND-025	Alarm title	Macro stack is overflow or STKTOP[ ] argument error
Description	<ol> <li>STACK can store maximum 4095 values. If stored value exceeding the maximum number, controller issue this alarm.</li> <li>In STKTOP[n], n is started from 0, if the value of n is bigger than the value storing in stack-1, controller issue this alarm</li> </ol>		
Reason	<ol> <li>Too much value store in STACK.</li> <li>STKTOP[] arguments exceeds the value storing in STACK.</li> </ol>		
Solution	<ol> <li>Stack is full, do not use store command anymore.</li> <li>Input a reasonable argument in STKTOP[].</li> </ol>		

# 8.27 BGND-026 Macro stack is empty

Alarm ID	COR-026 BGND-026	Alarm title	macro stack is empty
Description	Empty stack still want to pop value, system issue this alarm.		
Reason	The numbers of Push commands and Pop commands are not the same.		
Solution	Check the program to e of Pop commands.	nsure that the number of Pus	sh commands is the same with that

#### 8.28 BGND-027 Invalid macro arguments

Alarm ID	COR-027 BGND-027	Alarm title	Invalid macro arguments
Description	Macro issue self-defined alarm.		
Possible Cause	Once Macro determines the self-defined alarm error condition is meet, NC program will be stopped and alarm will appear.		
Solution	According to the display content of alarm to find out the error.		it the error.

#### 8.29 BGND-028 System program error, can't normally machining.

Alarm ID	COR-028 BGND-028	Alarm title	System program error, can't normally machining.
Description	Use Quiet Mode in MACRO, but can't leave Quiet Mode when program finished.		
Reason	Programming error.		
Solution	Please check the NC program.		

#### 8.30 BGND-029 Tool length offset change at arc

Alarm ID	COR-029 BGND-029	Alarm title	Tool length offset change at arc
Description	G43, G44, G49 only receive linear interpolation command in the next block.		
Possible Cause	Programming error.		
Solution	Please check the NC p	rogram.	

#### 8.31 BGND-030 Cutting speed command is 0

Alarm ID	COR-030 BGND-030	Alarm Title	Cutting speed command is 0
Description	When execute cutting command, given F code argument is zero.		
Possible Cause	Programming error.		
Solution	Check the NC program to ensure the argument of F code shall not be 0.		

#### 8.32 BGND-031 Radius compensation cancel at arc

Alarm ID	COR-031	Alarm title	Radius compensation cancel at arc
	BGND-031		

Description	G40 only receives linear interpolation command in the next block
Possible Cause	Programming error.
Solution	Please check the NC program.

#### 8.33 BGND-032 Radius compensation activate at arc

Alarm ID	COR-032 BGND-032	Alarm title	Radius compensation activate at arc
Description	G41,G42 only receive linear interpolation command in the next block.		
Reason	Programming error.		
Solution	Please check the NC program.		

# 8.34 BGND-033 Improper use of A, R, or C command

Alarm ID	COR-033 BGND-033	Alarm title	Improper use of A, R, or C command
Description	Timing of using A, R, or C command is incompatible with the specification.		
Reason	Programming error.		
Solution	Check NC program to confirm that if the blocks are compatible with specifications		

# 8.35 BGND-034 Path expand argument does not exist

Alarm ID	COR-034 BGND-034	Alarm title	Path expand argument does not exist
Description	NC program contains non-existed path expand argument, such as ",Z_". Only ",C_", ",R_" and ",A_" arguments are supported.		
Reason	Programming error.		

Alarm ID	COR-034 BGND-034	Alarm title	Path expand argument does not exist
Solution	Revise NC program,	C program, make sure non-supported path expand arguments are excluded.	

#### 8.36 BGND-035 Corner is too small can't insert round corner chamfer

Alarm ID	COR-035 BGND-035	Alarm title	Corner is too small can't insert round corner chamfer
Description	Angel between blocks, which to be inserted round corner or chamfer is too small so system can't calculate it.		
Reason	Programming error.		
Solution	<ol> <li>Check NC pi</li> <li>Check and c</li> </ol>	rogram to confirm th confirm the working	at whether the block is compatible with specifications. blane and round corner plane are the same.

#### 8.37 BGND-036 Inappropriate A angle command

Alarm ID	COR-036 BGND-036	Alarm title	Inappropriate A angle command
Description	A is valid only in linear interpolation of single block.		
Reason	Programming error.		
Solution	Check NC program to confirm that whether A angle command is compatible with specifications		

# 8.38 BGND-037 Chamfer value bigger than displacement

Alarm ID	COR-037 BGND-037	Alarm title	Chamfer value bigger than displacement
Description	Chamfer value is bigg it.	hamfer value is bigger than pre-block and post-block length, so system can't calcul	

Reason	Programming errors.
Solution	<ol> <li>Check NC program to confirm that whether inserted value of chamfer is compatible with specifications.</li> <li>Check to confirm whether C value is compatible with specification.</li> </ol>

#### 8.39 BGND-038 Incorrect block jump's switch number.

Alarm ID	COR-038 BGND-038	Alarm title	Incorrect block jump's switch number.
Description	Incorrect block jump switch number. i.e. / 2 G00 X100. ; If assigned number is bigger than 9 or equals to 0, system will issue this alarm.		
Reason	Block jump switch number is 0 or bigger than 9.		
Solution	Check the NC program	n, and confirm block jump s	witch number is between 1 and 9.

# 8.40 BGND-039 Measure function can't start tool radius compensation

Alarm ID	COR-039 BGND-039	Alarm title	Measure function can't start tool radius compensation		
Description	Measure fund	Measure function can't start tool radius compensation.			
Reason	Measure function related instruction (i.e., G31, G31.10, G31.11) is executed after tool compensation command.				
Solution	Confirm there is no measure function related command is executed after tool compensation command.				

# 8.41 BGND-040 Block end point exceed software stroke limit

Alarm ID	COR-040 BGND-040	Alarm title	Block end point exceed software stroke limit
Description	The machine coordinate in the program exceeds the software stroke limit.		

Reason	Programing error.
Solution	Check the NC program, and correct coordinate position.

#### 8.42 BGND-041 GOTO label must be integer

Alarm ID	COR-041 BGND-041	Alarm title	GOTO label must be integer
Description	The input GOTO label i i.e. GOTO 1 Correct GOTO 1. Wrong N1; Correct N1.; Wrong	s not an integer.	
Reason	Programming error.		
Solution	Check the NC program	, and input integer in GOTO	argument.

# 8.43 BGND-042 Logic operand is non-integer or empty

Alarm ID	COR-042 BGND-042	Alarm title	Logic operand is non-integer or empty
Description	Logic operand must be non-integer or empty.		
Reason	Logic operand has floating point. i.e. #1=1.5And3. System will issue this alarm.		
Solution	Please check NC program. Confirm logic operand is integer or empty.		

# 8.44 BGND-043 ASIN, ACOS operand must between ±1.0

Alarm ID	COR-043 BGND-043	Alarm title	ASIN, ACOS operand must between ±1.0

Description	ASIN() and ACOS() operand is not between -1.0 and 1.0.		
Reason	Programming error.		
Solution	Check the NC program.		

# 8.45 BGND-044 SQRT operand should not be negative

Alarm ID	COR-044 BGND-044	Alarm title	SQRT operand should not be negative
Description	The square root of a negative value will be imaginary number, but the controller does not provide imaginary number function.		
Reason	Programming error.		
Solution	Check the NC program; enter a positive value in SQRT operand.		

# 8.46 BGND-045 L address should be integer

Alarm ID	COR-045 BGND-045	Alarm title	L address should be integer
Description	The L address is not an integer.		
Reason	Programming error.		
Solution	Check the NC program, and use integer in L address.		

# 8.47 BGND-046 O address should be integer

Alarm ID	COR-046 BGND-046	Alarm title	O address should be integer
Description	The O address is not an integer.		
Reason	Programming error.		

Solution	Check the NC program, and use integer in O address.

#### 8.48 BGND-047 M address should be integer

Alarm ID	COR-047 BGND-047	Alarm title	M address should be integer
Description	The M address is not an integer.		
Reason	Programming error.		
Solution	Check the NC program, and use integer in M address.		

# 8.49 BGND-048 Spindle speed S should be integer

Alarm ID	COR-048 BGND-048	Alarm title	Spindle speed S should be integer
Description	The spindle speed S is not an integer.		
Reason	Programming error.		
Solution	Check the NC program, and use integer in the spindle speed S.		

#### 8.50 BGND-049 Tool length compensation H should be integer

Alarm ID	COR-049 BGND-049	Alarm title	Tool length compensation H should be integer
Description	Tool length compensation H is not an integer.		
Reason	Programming error.		
Solution	Please check the NC program, and use integer in tool length compensation H.		

# 8.51 BGND-050 Tool radius compensation D should be integer

Alarm ID	COR-050 BGND-050	Alarm title	Tool radius compensation D should be integer
Description	Tool radius compensation D is not an integer.		
Reason	Programming error.		
Solution	Please check the NC program, and use integer in tool radius compensation.		

#### 8.52 BGND-051 Tool number T should be integer

Alarm ID	COR-051 BGND-051	Alarm title	Tool number T should be integer
Description	Tool number T is not an integer.		
Reason	Programming error.		
Solution	Please check the NC program, and use tool number T in integer.		

#### 8.53 BGND-052 Sub-program number P should be integer

Alarm ID	COR-052 BGND-052	Alarm title	Sub-program number, P, should be integer
Description	Sub-program number P is not an integer.		
Reason	Programming error.		
Solution	Please check the NC program, and use the sub-program number P in integer.		

#### 8.54 BGND-053 Repeat count L should be integer

Alarm ID	COR-053	Alarm title	Repeat count L should be integer
	BGND-053		

Description	Repeat count L is not an integer.
Reason	Programming error.
Solution	Please check the NC program, and use the repeat count L in integer.

# 8.55 BGND-054 Incompatible data type

Alarm ID	COR-054 BGND-054	Alarm title	Incompatible data type
Description	Data format is incompatible with controller specifications.		
Reason	NC program is not compatible with the SYNTEC controller.		
Solution	Make sure that the NC program data format is compatible with Syntec controller specifications.		

#### 8.56 BGND-055 Tool length compensation H out of range

Alarm ID	COR-055 BGND-055	Alarm title	Tool length compensation H out of range	
Description	The tool length com	The tool length compensation H exceeds the range of tool number.		
Reason	Programming error.			
Solution	Make sure that the tool length compensation H, is in the range of tool number.			

# 8.57 BGND-056 G10 table index P is out of range

Alarm ID	COR-056	Alarm title	G10 table index P is out of range
	BGND-056		

Description	<ol> <li>G10's format is G10 L_ P_ R_; Different number L will correspond to different number P.</li> <li>L10 corresponding number P is tool number. Input P1000 means the 1000<sup>th</sup> tool. If that tool number doesn't exist, and controller will issue this alarm.</li> <li>L1600 corresponding number P is the spindle synchronization group number. If the input parameter is not within the range of 1-3, the controller will issue this alarm.</li> </ol>
Reason	Programming error.
Solution	Confirm G10 data table address number P is in reasonable range.

# 8.58 BGND-057 Tool radius D out of range

Alarm ID	COR-057 BGND-057	Alarm title	Tool radius D out of range
Description	The tool radius number D exceeds the range of tool number.		
Reason	Programming error.		
Solution	Make sure that the tool radius number D is in the range of tool number.		

# 8.59 BGND-058 Tool nose compensation D is out of range

Alarm ID	COR-058 BGND-058	Alarm title	Tool nose compensation D is out of range
Description	The tool nose compensation D exceeds the range of tool number.		
Reason	Program error.		
Solution	Make sure that the tool radius compensation D is in the range of tool number.		

#### 8.60 BGND-059 Subprogram call H must be integer

Alarm ID	COR-059	Alarm title	Subprogram Call H must be integer
	BGND-059		

Description	Subprogram call H is not an integer.
Reason	Program error.
Solution	Confirm the subprogram call H is an integer.

# 8.61 BGND-060 M99 return number P must integer

Alarm ID	COR-060 BGND-060	Alarm title	M99 return number P must integer
Description	The M99 return sequence number P is not an integer.		
Reason	Program error.		
Solution	Confirm the M99 return sequence number P is an integer.		

# 8.62 BGND-061 Workpiece number is out of range

Alarm ID	COR-061 BGND-061	Alarm title	Workpiece number is out of range
Description	The number of work pieces exceeds the allowable range of the controller.		
Reason	Program error.		
Solution	Make sure the number of work pieces is in the allowed range of the controller.		

# 8.63 BGND-062 Dwell skip source Q must be integer

Alarm ID	COR-062 BGND-062	Alarm title	Dwell skip source Q must be integer	
Description	Dwell skip source Q is not an integer.			
Reason	Program error.			

# 8.64 BGND-063 Dwell skip source Q out of range

Alarm ID	COR-063 BGND-063	Alarm title	Dwell skip source Q out of range	
Description	Dwell skip source Q exceeds the allowed range.			
Reason	Program error.			
Solution	Make sure the dwell skip source Q is in the allowed range.			

# 8.65 BGND-064 Invalid P address

Alarm ID	COR-064 BGND-064	Alarm title	Invalid P address
Description	Invalid P address.		
Reason	<ol> <li>Address P is less than 0.</li> <li>Address P is not integer.</li> <li>Address P is out of range.</li> </ol>		
Solution	<ol> <li>Make sure address P is greater or equal to 0.</li> <li>Make sure address P is integer.</li> <li>Make sure address P is within the range.</li> </ol>		

#### 8.66 BGND-065 A command format error

Alarm ID	COR-065 BGND-065	Alarm title	,A command format error
Description	In NC program ,A command's format is wrong.		
Reason	Programming error.		

Solution	Please confirm .A command format is one of the followings:
Solution	<ol> <li>Please confirm ,A command format is one of the followings:         <ol> <li>In the same block command as ,A, Moving instruction only includes one of x axis or z axis. i.e. G01 X10. ,A30.</li> <li>Use ,A advanced function in two separate line. The first line will assign ,A angle, and the second line will assign X, Z and ,A at the same time.</li> <li>i.e.</li> <li>G01 ,A30.</li> </ol> </li> </ol>
	G01 X0. 250. ,A45

# 8.67 BGND-066 Inc. axis command and abs. axis command conflict

Alarm ID	COR-066 BGND-066	Alarm title	Inc. axis command and abs. axis command conflict
Description	Both G91 and G90 are in the same line.		
Reason	Programming error.		
Solution	Decide to use incremental or absolute command in one line, and enter the correct command.		

#### 8.68 BGND-067 Arc center vector and radius conflict

Alarm ID	COR-067 BGND-067	Alarm title	Arc center vector and radius conflict
Description	The arc end point is not on the arc created by the arc starting point and the specify center.		
Reason	Programming error.		
Solution	Please check the NC p	rogram.	

#### 8.69 BGND-068 Quiet Mode not support imperial Metric switch command

Alarm ID COR-068 BGND-068	Alarm title	Quiet Mode not support imperial Metric switch command
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Description	The single block command in Quiet mode operation cannot switch Metric/ imperial unit.
Reason	Programming error.
Solution	Please check the NC program.

# 8.70 BGND-069 Round corner and chamfer cmd. conflict

Alarm ID	COR-069 BGND-069	Alarm title	Round corner and chamfer cmd. conflict
Description	Chamfer command and round corner command are in the same line.		
Reason	Program error.		
Solution	Do not let chamfer command and round corner command exist in the same line.		

#### 8.71 BGND-070 Invalid G Code

Alarm ID	COR-070 BGND-070	Alarm title	Invalid G Code
Description	Enter incorrect G code to controller.		
Reason	Program error.		
Solution	Enter the valid G-code.		

# 8.72 BGND-071 No main program name assigned

Alarm ID	COR-071 BGND-071	Alarm title	No main program name assigned
Description	The name of main program is not specified.		
Reason	The NC program is n	ot loaded.	

Specify the name of main program.

#### 8.73 BGND-072 Threading command exceeds max. cutting speed

Alarm ID	COR-072 BGND-072	Alarm title	Threading command exceeds max. cutting speed
Description	Threading command exceeds the maximum cutting speed.		
Reason	Program error.		
Solution	Decrease the cutting speed of threading.		

# 8.74 BGND-073 Tapping command exceed max. cutting speed

Alarm ID	COR-073 BGND-073	Alarm title	Tapping command exceed max. cutting speed
Description	Tapping command speed exceeds the maximum cutting speed.		
Reason	Program error.		
Solution	Decrease the cutting speed of tapping.		

#### 8.75 BGND-074 Tool radius too big, path overcut

Alarm ID	COR-074 BGND-074	Alarm title	Tool radius too big, path overcut
Description	<ol> <li>During machining notch, the notch width is smaller than two times of tool radius.</li> <li>During machining trapezoidal, the height of trapezoidal is less than two times of tool radius.</li> </ol>		
Reason	Tool compensation causes path overcut.		
Solution	Please check the NC p cancels tool radius co	rogram, and decide whethe npensation.	r this part of the machining should

#### 8.76 BGND-075 Exact stop wait timeout

Alarm ID	COR-075 BGND-075	Alarm title	Exact stop wait timeout
Description	After 2 seconds after sending Exact stop (G09/G61) command, the difference between feedback and command exceeds allowable value (G01 is determined by Pr421~; G00 is determined by Pr481~).		
Reason	Servo vibration.		
Solution	<ol> <li>Servo tuning.</li> <li>Modify paramet</li> </ol>	ers Pr421~ or Pr481~.	

# 8.77 BGND-076 G04 dwell time cannot be negative

Alarm ID	COR-076 BGND-076	Alarm title	G04 dwell time cannot be negative
Description	Input value of dwell time G04 is negative.		
Reason	Program error.		
Solution	Check the NC program, and enter a positive or zero value in G04 argument.		

# 8.78 BGND-077 NURBS curve format is wrong

Alarm ID	COR-077 BGND-077	Alarm Title	NURBS curve format is wrong	
Description	G6.2 format is wrong.			
Reason	Input argument P, K, R is against allowable format.			
Solution	Refer the program manual to correct the command syntax.			
#### 8.79 BGND-078 NURBS curve system memory insufficient

Alarm ID	COR-078 BGND-078	Alarm Title	NURBS curve system memory insufficient			
Description	NURBS curv	NURBS curve memory is insufficient.				
Reason	System processing defective.					
Solution	Contact OEM Syntec.					

## 8.80 BGND-079 Number of NURBS curve nodes more than the upper limit

Alarm ID	COR-079 BGND-079	Alarm Title	Number of Nurbs curve nodes more than the upper limit			
Description	NURBS curve	NURBS curve control point is over limit.				
Reason	NC file G6.2 curve is too long and cause using too many control point.					
Solution	Re-generate the CAM, and restrict the number of curve nodes less than 400.					

#### 8.81 BGND-080 Threading pitch is negative

Alarm ID	COR-080 BGND-080	Alarm Title	Threading pitch is negative	
Description	Threading p	itch distance can't be		
Reason	Threading p	itch distance setting		
Solution	Check and c	orrect the configured	I threading pitch to be positive value.	

#### 8.82 BGND-081 Use arc interpolation under tool offset funct

Alarm ID	COR-08 1 BGND-0 81	Alarm Title	Use arc interpolation under tool offset function. Arc command doesn't use assigned angle.			
Description	In tool offs	In tool offset function (G45~G48), G02 and G03 can only be 90 degree or 270 degree.				
Reason	In NC program's tool offset function (G45~G48) block, all arc interpolation angle can only be 90 degree or 270 degree.					
Solution	Check if G45~G48 is 90 or 270 degree when using them in the arc interpolation (G02/G03). Note, IJK to specify circle center shall be used.					

## 8.83 BGND-082 Tool compensation function and tool offset function can't use at the same time

Alarm ID	COR-082 BGND-082	Alarm Title	Tool compensation function and tool offset function can't use at the same time			
Description	Can't use too compensatio	Can't use tool offset function (G45~G47) and tool compensation function (G41, G42) or tool radius compensation at the same time.				
Reason	NC program edit error.					
Solution	Check NC program, and confirm tool offset function (G45~G47) and tool compensation function (G41, G42) are not used at the same time.					

## 8.84 BGND-083 When pull tool back to pause point, and move axis position manually.

Alarm ID	COR-0 83 BGND- 083	Alarm Title	When pull tool back to pause point, and move axis position manually.
Description	Before p	ull tool back to	pause point, press stop and manually move tool.
Reason	Operation error.		

Alarm ID	COR-0 83 BGND- 083	Alarm Title	When pull tool back to pause point, and move axis position manually.
Solution	Please w moveme	ait until tool is nt.	pulled exactly back to pause point, then execute the manual position

## 8.85 BGND-084 P Argument unassigned when using the rapid drilling

Alarm ID	COR-084 BGND-084	Alarm Title	P Argument unassigned when using the rapid drilling		
Description	When using rapid drilling function, must set P argument (bottom hole dwell time), or system will issue this alarm.				
Reason	Programming error.				
Solution	Check the NC program to ensure the P Argument is assigned when using the G code of rapid drilling.				

### 8.86 BGND-085 F Argument unassigned in Inverse Time Feed mode

Alarm ID	COR-085 BGND-085	Alarm Title	F Argument unassigned in Inverse Time Feed mode		
Description	Under Inverse Time Feed mode, if F argument is not assigned in command line and system will issue this alarm.				
Reason	Programming error.				
Solution	Check the NC program to ensure there is F command is given following in each line after Inverse Time Feed mode.				

#### 8.87 BGND-086 R and I arguments unassigned in G10 L1501 mode

Alarm ID	COR-086 BGND-086	Alarm Title	R and I arguments unassigned in G10 L1501 mode		
Description	G10 L1501 argument only has argument R or argument I.				
Reason	Programming error.				
Solution	Check the NC program to ensure the R and I arguments are not used independently.				

### 8.88 BGND-087 P and Q arguments must be different in G10 L1501 mode

Alarm ID	COR-087 BGND-087	Alarm Title	P and Q arguments must be different in G10 L1501 mode		
Description	P and Q argument in G10 L1501 mode setting are the same.				
Reason	Programming error.				
Solution	Please check program, and confirm P and Q argument in G10 L1501 mode aren't the same.				

## 8.89 BGND-088 No time-axis command after the I argument in G10 L1501 mode

Alarm ID	COR-088 BGND-088	Alarm Title	No time-axis command after the I argument in G10 L1501 mode		
Description	In spring machine dedicated machine's motion plan, if use I argument in G10 L1501, before the next G10 L1502 command, user can't command P argument axis number (time axis) in G1 0L1501.				
Reason	Programming error.				
Solution	Check the NC program.				

## 8.90 BGND-089 Main axis must be increment command in G10 L1501 mode

Alarm ID	COR-089 BGND-089	Alarm Title	Main axis must be increment command in G10L1501 mode
Description	G10 L1501 mode spindle must be incremental command.		
Reason	Programming error.		
Solution	Under G10 L1501 mode, confirm the command which sends to spindle is incremental command.		

### 8.91 BGND-090 C-axis zero-speed check failed in G12.1 mode

Alarm ID	COR-090 BGND-090	Alarm Title	C-axis zero-speed check failed in G12.1 mode
Description	When start to switch polar coordinate, C axis must be totally stop.		
Reason	When C axis uses as spindle, but spindle not yet stop rotating.		
Solution	Switch the spindle to C-axis mode before activating polar coordinate.		

#### 8.92 BGND-091 Main axis synchronization – basic main axis number error

Alarm ID	COR-091 BGND-091	Alarm Title	Main axis synchronization – basic main axis number error
Description	When using spindle synchronous function G114.1, Pr4021, Pr4023, Pr4025 can't be zero.		
Reason	Parameter setting error.		
Solution	Check if values of Pr4021/Pr4023/Pr4025 are correct.		

## 8.93 BGND-092 Main axis synchronization – synchronization main axis number error

Alarm ID	COR-092 BGND-092	Alarm Title	Main axis synchronization – synchronization main axis number error
Description	When using spindle synchronous function G114.1, Pr4022, Pr4024, Pr4026 can't be zero.		
Reason	Parameter setting error.		
Solution	Check if values of Pr4022/Pr4024/Pr4026 are correct.		

#### 8.94 BGND-093 Main axis synchronization – spindle type error

Alarm ID	COR-093 BGND-093	Alarm Title	Main axis synchronization – spindle type error
Description	When using spindle synchronous and Superimposition function, setting wrong spindle motor type.		
Reason	Parameter setting error.		
Solution	Check 1791~Pr1800 to set correct spindle configurations by referring to HELP.		

## 8.95 BGND-094 Under spindle load rigid tapping spindle rotation speed exceed

Alarm ID	COR-094 BGND-094	Alarm Title	Under spindle load rigid tapping spindle rotation speed exceed
Description	When using spindle load function to do rigid tapping, tool axis must synchronize with offset axis speed, and then do end surface taping according to user setting tapping speed. If tool axis speed is over spindle rotation speed maximum value, and system will issue this alarm.		
Reason	Command is over range that mechanical can bear.		

Alarm ID	COR-094 BGND-094	Alarm Title	Under spindle load rigid tapping spindle rotation speed exceed
Solution	<ol> <li>Reduce the rotation speed (tapping speed) of tool axis.</li> <li>Reduce the rotation speed of workpiece axis.</li> </ol>		of tool axis.

# 8.96 BGND-095 In polygon cutting function, basic spindle rotation speed ratio is wrong

Alarm ID	COR-095 BGND-095	Alarm Title	In polygon cutting function, basic spindle rotation speed ratio is wrong
Description	When using polygon cutting G51.2 function, basic spindle rotation speed ratio (P argument) must be bigger than zero.		
Reason	Programming error.		
Solution	Check the value of P argument in G51.2.		

## 8.97 BGND-096 In polygon cutting function, synchronous spindle rotation speed ratio is wrong

Alarm ID	COR-096 BGND-096	Alarm Title	In polygon cutting function, synchronous spindle rotation speed ratio is wrong
Description	When using polygon cutting G51.2 function, basic spindle rotation speed ratio (Q argument) must be bigger than zero.		
Reason	Programming error.		
Solution	Check the value of Q argument in G51.2.		

#### 8.98 BGND-097 Axis coupling function ON or OFF failed

Alarm ID	COR-097 BGND-097	Alarm Title	Axis coupling function ON or OFF failed
Description	Axis coupling function ON or OFF failed.		
Reason	Too much axis coupling groups is used.		
Solution	Check if the number of axis coupling groups is more than 16 (including the number of axis coupling group configured in parameter).		

#### 8.99 BGND-098 Parameter learning argument error

Alarm ID	COR-098 BGND-098	Alarm Title	Parameter learning argument error
Description	When using learning function, if argument (P, Q, R, K) setting is wrong, system will issue this alarm.		
Reason	Programming error.		
Solution	Check the NC program to ensure the arguments are in compliance with specifications.		

P.S. Valid version of COR-336 : before 10.118.60J、10.118.66D、10.118.69 (included).

#### 8.100 BGND-099 Tapping learning condition is not matched

Alarm ID	COR-099 BGND-099	Alarm Title	Tapping learning condition is not matched	
Description	Condition of tapping learning function is not matched			
Reason	When activating tapping learning function, if tapping condition (tapping depth, R point height, feedrate, rotation speed, and etc.) is different, it can't apply to same learning data. If force different tapping condition to use same learning data, it may misuse learning data, and cause tapping error or even tool break.			
Solution	Check tapping instruction in tapping learning function, and confirm all tapping instruction arguments are the same.			

P.S. Valid version of COR-336 : before 10.118.60J、10.118.66D、10.118.69 (included).

## 8.101 BGND-100 Unsupported G code command or option software is not activated

Alarm ID	COR-100 BGND-100	Alarm Title	Unsupported G code command or option software is not activated
Description	Different controllers	will have correspond G co	de, but not all G code can use.
Reason	<ol> <li>This controller type may not support this G code command.</li> <li>This controller type will not support serial bus spindle (C-Type) to use lathe G21, G33, G34, G78 commands.</li> <li>This controller type will not support serial bus spindle (A-Type) to use lathe G32, G73, G76, G92 commands.</li> <li>This controller type can support this G code command, but the option software function has not been purchased, which makes the G code unusable.</li> <li>Loader path and Wood auxiliary path only support part of G codes: G00, G01, G02, G03, G04, G04.1, G09, G10, G17, G18, G19, G22, G23, G31, G52, G53, G54, G55, G56, G57, G58, G59, G59.x, G90, G91, G92.</li> <li>The setting of Pr3802 is incorrect. This controller type does not support the G62 command.</li> <li>Synchronized positioning axis only support part of G codes: G00, G53</li> </ol>		
Solution	<ol> <li>1-4. Please contact administrator.</li> <li>5. Do not use Loader path and Wood auxiliary path to do process operation.</li> <li>6. Set Pr3802 to 0.</li> <li>7. Do not use synchronized positioning axis to do process operation.</li> </ol>		

# 8.102 BGND-101 Under Spindle synchronization – thread pitches of two spindle is inconsistent

Alarm ID	COR-101 BGND-101	Alarm Title	Under Spindle synchronization - thread pitches of two spindle is inconsistent	
Description	When using s different and protection.	When using spindle synchronize, if basic spindle and synchronous spindle pitch setting are different and will cause synchronous abnormal condition. And will issue this alarm for protection.		
Possible Cause	Parameter setting error.			
Solution	Check the sp	Check the spindle used in Pr161~180 to ensure the parameter configurations are the same.		

## 8.103 BGND-102 Under Spindle synchronization – synchronization command duplicated or conflicted

Alarm ID	COR-102 BGND-102	Alarm Title	Under Spindle synchronization – synchronization command duplicated or conflicted		
Description	When spindle synchronizing, repeat G51.2, G114.1 or G114.3 commands.				
Possible Cause	Haven't use G113 to cancel G114.1 and G114.3, or use G50.2 to cancel G51.2, and again set a repeated G114.1, G114.3 or G51.2 commands.				
Solution	Cancel the G114.1 and G114.3 mode with G113, or cancel G51.2 mode with G50.2. Then execute the G114.1/G114.3/G51.2 commands to avoid the angle difference for repeated machining.				

## 8.104 BGND-103 High-speed high-precision configuration improper

Alarm ID	COR-103 BGND-103	Alarm Title	Invalid precision channel setting		
Description	Invalid precision channel setting.				
Possible Cause	Using G64, G62P_ or G120.1 P_Q_ to choose invalid precision channel. Currently can only choose: 1. G64、G62 P0~P9、G62/G64 P21 ~ P23 2. G120.1 P0、G120.1 P1 Q1 ~ G120.1 P3 Q3				
Solution	To select precision channel with the G64/G62 P_ or G120.1 P_ Q Check the NC program to ensure if any non-existing precision channel is selected.				

## 8.105 BGND-104 Virtual axis function enabling failed

Alarm ID	COR-104 BGND-104	Alarm Title	Virtual axis function enabling failed
Description	The virtual axis function failed to be functioned.		

Alarm ID	COR-104 BGND-104	Alarm Title	Virtual axis function enabling failed
Possible Cause	<ol> <li>The P and Q arguments in G10 L800 P_ Q_ or G10 L801 P_ Q_ are set incorrectly.         <ol> <li>No P, Q arguments.</li> <li>The P argument is set incorrectly and the value is invalid.</li> <li>The Q argument is set incorrectly, the value is invalid; or the corresponding axis is not set to the axis of the parameter table that has been turned on.</li> </ol> </li> <li>In the same machining, G10 L800 and G10 L801 appear at the same time.</li> <li>The robot does not support the virtual axis function.</li> </ol>		
Solution	<ol> <li>Check the virtual axis commands to ensure the P and Q Arguments are configured.</li> <li>Check the virtual axis commands to ensure the P Argument shall be within 100~999 and the Q Argument shall be within 1~16 (axis number) or 100~999 (axis name).</li> <li>Check the axial direction (Q Argument) mapped with the virtual axis to ensure the parameter table is configured to the enabled axial direction.</li> <li>Check if the G10 L800 and G10 L801 shall not be existent in the same NC program.</li> </ol>		

### 8.106 BGND-105 Axial coupling configuration error

Alarm ID	COR-105 BGND-105	Alarm Title	Axial coupling configuration error		
Description	The axis coupling function is set incorrectly.				
Possible Cause	In G10 L900 P_ Q_ R_, the P and Q arguments are set incorrectly.				
Solution	<ol> <li>Check the name or number of coupling axis is mapped to ensure the axial direction is enabled.</li> <li>Chedk the specified coupling axis is not assigned to inclined axes control.</li> <li>Check the specified coupling axis is not assigned to indexing axis.</li> </ol>				

### 8.107 BGND-106 Prohibit to use G5.1 in G61/G63/G63.2 mode

Alarm ID	COR-106 BGND-106	Alarm Title	Prohibit to use G5.1 in G61/G63/ G63.2 mode	
Description	<ol> <li>G5.1 path smoothing. In G61, G63, G63.2 mode, it is forbidden to use G5.1 smoothing function, otherwise the system will issue an alarm; If G61, G63, G63.2 are enabled in G5.1 mode, the system will stop the smoothing function until it jumps out of G61, G63, G63.2 mode and then activate again.</li> <li>G05 High Precision Contour Control.         <ul> <li>a. 10.116.16J previous version, in G61, G63, G63.2 mode, it is forbidden to use G05 High Precision Contour Control function, otherwise the system will issue an alarm; If G61, G63, G63.2 is enabled in G05 mode, no alarm will be issued, but the High Precision Contour Control function is disabled, It is necessary to command G05 again to activate.</li> <li>b. above 10.116.16K versions, no alarm will be issued, and the G05 High Precision Contour Control function will be disabled, and can be valid after G61, G63 and G63.2.</li> </ul> </li> </ol>			
Possible Cause	The cutting mode setting in the NC program is incorrect.			
Solution	<ol> <li>Do not mix use G5.1 path smoothing with G61/G63/G63.2 functions.</li> <li>In the version before 10.116.16J (included), do not mix use the G05 High Precision Contour Control with the G61/G63/G63.2 functions.</li> </ol>			

### 8.108 BGND-107 G5.1/G05 command format error

Alarm ID	COR-107 BGND-107	Alarm Title	G5.1/G05 command format error
Description	The G5.1 and G05 commands are in the wrong format.		
Possible Cause	<ol> <li>The format of the G5.1 path smoothing command in the NC program is incorrect</li> <li>The G05 high-precision cutting mode command format in the NC program is incorrect.</li> </ol>		

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Alarm ID	COR-107 BGND-107	Alarm Title	G5.1/G05 command format error
Solution	Confirm the following 1. G5.1 a. Q argum b. E argum 2. G05 a. System i. C i. C b. Activate versions i. N ii. 1 iii. 1 iv. 1 a v. 1 E vi. M vii. A c. In the versions a c. In the versions c. In the versions a c. In the versions a c. In the versions a c. In the versions a c. In the versions a a a a a a a a a a a a a	command formats are corre- nent: None, more than 2, or l tent: None or less than 0. issue alarm when using G05 G05 P argument is not 10000 G05 E argument is not positive command G05 P10000 X0 Y0 c More than 5 axial directions a The geometry axis argument is c The axial direction of geometry axis is not. The axis of the rotation axis is geometry axis is not set. More than 2 axial directions c Any axial arguments is negative ersion before 10.116.16B, the is to the block movement correct.	ct not have these error: ess than 0. in following cases for each version: nor 0. /e. 0 Z0 $\alpha_{-}\beta_{-}$ in 10.116.36 or above are assigned. not 0. onfigured to 0. try axis is configured but this of rotary s not set when the axis of the of rotation axes are configured. ive. ere is the 4 <sup>th</sup> axis command in nmands of X, Y, or Z axes after G05 is

## 8.109 BGND-108 G10 L1501/L1502 command format error

Alarm ID	COR-108 BGND-108	Alarm Title	G10 L1501/L1502 command format error
Description	There is no NC program between G10 L1501 and G10 L1502.		
Possible Cause	The NC program was written incorrectly.		
Solution	Check the NC program to ensure the programming between G10 L1501 and G10 L1502 is correct.		

## 8.110 BGND-109 The second software stroke limit command error, activating failure

Alarm ID	COR-109 BGND-109	Alarm Title	The second software stroke limit command error, activating failure	
Description	The second sof software stroke	The second software stroke limit (G22) command is written incorrectly, causing the second software stroke limit fail to activate.		
Possible Cause	The arguments written after the second software stroke limit (G22) command are wrong, and the same group parameters should exist at the same time.			
Solution	Check if the arguments in the same set after G22 are defined completely.			

#### 8.111 BGND-110 NC program of spring machine motion plan more than 500 lines

Alarm ID	COR-110 BGND-110	Alarm Title	NC program of spring machine motion plan more than 500 lines		
Description	The number of machining lines between G10 L1501 and G10 L1502 exceeds 500 lines.				
Possible Cause	There are too many single blocks in the NC program.				
Solution	Check and refine the NC program.				

### 8.112 BGND-111 Axis exchange function – axial configuration error

Alarm ID	COR-111 BGND-111	Alarm Title	Axis exchange function - axial configuration error			
Description	Under the axis	Under the axis exchange function, the axial setting is incorrect.				
Possible Cause	The two axial's axis exchange parameters are set incorrectly.					
Solution	Check if Pr3721 and Pr3722 are mapped to physical axial directions (Pr21~) and to 2 different axis.					

## 8.113 BGND-112 Axis exchange function – diameter/radius axis configuration error

Alarm ID	COR-112 BGND-112	Alarm Title	Axis exchange function - diameter/radius axis configuration error			
Description	Under the axis	Under the axis exchange function, the diameter axis and radius axis are set incorrectly.				
Possible Cause	The parameters of the diameter and radius axis of the two axis exchange are set incorrectly.					
Solution	Check if the diameter and radius axis configurations (Pr281~) of the 2 axis to be exchanged is consistent.					

#### 8.114 BGND-113 Axis exchange function – ON or OFF timing error

Alarm ID	COR-113 BGND-113	Alarm Title	Axis exchange function - ON or OFF timing error			
Description	When the axis exchange function is enabled, the enabled or disabled timing error.					
Possible Cause	When the cross-path axis is exchanged, the G04.1 waiting action is not performed.					
Solution	Check PLC to ensure no G04.1 waiting command is executed in more than 1 path.					

#### 8.115 BGND-114 Axis exchange function – path configuration error

Alarm ID	COR-114 BGND-114	Alarm Title	Axis exchange function - path configuration error		
Description	When using the axis exchange function, the path setting is incorrect.				
Possible Cause	The axis used for axis exchange belong to multi-paths.				
Solution	Check path parameter ( Pr701~) if the two axis to be exchanged are mapped to the multiple path.				

#### 8.116 BGND-115 G92.1 axial configuration error

Alarm ID	COR-115 BGND-115	Alarm Title	G92.1 axial configuration error		
Description	When using the G92.1 rotation function, the axial setting is incorrect.				
Possible Cause	The parameter sets the first 3 axis of the path contains the rotary axis.				
Solution	Check the parameter to ensure the first 3 axis are linear axis.				

### 8.117 BGND-116 Absolute coordinate system synchronization failed

Alarm ID	COR-116 BGND-116	Alarm Title	Absolute coordinate system synchronization failed			
Description	Absolute coordinate	Absolute coordinate system failed to synchronize when using C35.				
Possible Cause	Machine is not stationary or the program is continuously interpreted.					
Solution	To execute the synchronization of coordinate system in C35 mode shall ensure the machine is still and the program stops to interpret (i.e. Using M code shall turn C38 off).					

### 8.118 BGND-117 M code not disabled in the interrupt subprogram

Alarm ID	COR-117 BGND-117	Alarm Title	M code not disabled in the interrupt subprogram		
Description	If Pr3600 is se with M(n+1). error; therefo	If Pr3600 is set to n, when the interrupt type subprogram is used, it starts with M(n) and ends with M(n+1). If M(n) is used and M(n+1) is not used to end the function, it will cause an action error; therefore, this alarm is issued for protection.			
Possible Cause	The NC programming error.				
Solution	Check the NC program to ensure the M(n+1) command is given.				

### 8.119 BGND-118 Prohibit G53 commands in tool tip control mode

Alarm ID	COR-118 BGND-118	Alarm Title	Prohibit G53 commands in tool tip control mode		
Description	G53 command cannot be used in the tool point control mode.				
Possible Cause	<ol> <li>The NC programming error.</li> <li>The machine type is the tool point control mode.</li> </ol>				
Solution	<ol> <li>Please check the NC program, make sure that the G53 command is not within the validity range of G43.4 or G43.5.</li> <li>Please check the NC program, make sure that the G53 command is not within the validity of G12.1.</li> <li>If the machine configuration used is the tool point control mode, the G53 command cannot be used.</li> </ol>				

#### 8.120 BGND-119 G10 L16 command format error

Alarm ID	COR-119 BGND-119	Alarm Title	G10 L16 command format error		
Description	Since the comm G12.1, G93, G95 command is iss	nand G10 L16 (virtua , and G05, therefore ued.	I circle radius) does not support functions such as G05, G7.1, , an alarm will be issued if G10 L16 is used when the above		
Possible Cause	<ol> <li>The axis type is linear axis (i.e. G10 L16 X50., and X is set to a linear axis, this alarm is issued).</li> <li>When using G10 L16 while command G05, G7.1, G12.1, G93, G95 and etc. functions are also given.</li> </ol>				
Solution	<ol> <li>Check Pr221~ to ensure the correct axis type.</li> <li>G10 L16 and G7.1/G12.1/G93/G95/G05 shall not be executed at the same time.</li> </ol>				

## 8.121 BGND-120 More than the maximum number of cutting synchronization axis

Alarm ID	COR-120 BGND-120	Alarm Title	More than the maximum number of cutting synchronization axis			
Description	Different controller products can correspond to different maximum number of simultaneous cutting axis, and if this limit is exceeded, an alarm will be issued. (i.e. G01 X10. Y10 .Z10. Represents the number of simultaneous axes is 3).					
Possible Cause	<ul> <li>Please refer to "System Information" under the controller HMI screen to check "Machine Properties" and "Machine Code". Please refer to the catalogue for each product specification.</li> <li>Following examples: <ol> <li>If "Machine Properties" is Mill, "Machine Code" is 200A-5, and the maximum number of axis is 9.</li> <li>If the "Machine Properties" is Lathe, the "Machine Code" is 6B, and the maximum number of axis is 4.</li> </ol> </li> </ul>					
Solution	The number of simultaneous axis in the NC program shall be according to the product specifications.					

#### 8.122 BGND-121 LN operator shall be positive

Alarm ID	COR-121 BGND-121	Alarm Title	LN operator shall be positive		
Description	The operands after the LN function cannot be negative.				
Possible Cause	The NC program was written incorrectly.				
Solution	Modify the contents of the NC program.				

### 8.123 BGND-122 The 1st operator of POW shall not be negative

Alarm ID	COR-122 BGND-122	Alarm Title	The 1 <sup>st</sup> operator of POW shall not be negative
Description	The base opera	erand of the POW function must not be a negative number.	

Alarm ID	COR-122 BGND-122	Alarm Title	The 1 <sup>st</sup> operator of POW shall not be negative
Possible Cause	The NC program was written incorrectly.		
Solution	Modify the contents of the NC program.		

#### 8.124 BGND-123 Illegal STR2INT input or too long string

Alarm ID	COR-123 BGND-123	Alarm Title	Illegal STR2INT input or too long string	
Description	The syntax of the STR2INT function is incorrect or the string is too long.			
Possible Cause	The NC program was written incorrectly.			
Solution	Modify the contents of the NC program.			

#### 8.125 BGND-124 S code commands unsupported in the machine

Alarm ID	COR-124 BGND-124	Alarm Title	S code commands unsupported in the machine	
Description	This model does not support S code commands.			
Possible Cause	This model does not support S code commands.			
Solution	Replace a controller model that supports S codes.			

### 8.126 BGND-125 T code commands unsupported in the machine

Alarm ID	COR-125 BGND-125	Alarm Title	T code commands unsupported in the machine
Description	T code comma	nand is illegal.	

Alarm ID	COR-125 BGND-125	Alarm Title	T code commands unsupported in the machine
Possible Cause	<ol> <li>This model does not support T code commands.</li> <li>The T code command is out of the T code range supported by the product.</li> </ol>		
Solution	Replace a controller model that supports T codes.		

### 8.127 BGND-126 H code commands unsupported in the machine

Alarm ID	COR-126 BGND-126	Alarm Title	H code commands unsupported in the machine	
Description	This model does not support H code commands.			
Possible Cause	This model does not support H code commands.			
Solution	Replace a controller model that supports H codes.			

#### 8.128 BGND-127 D code commands unsupported in the machine

Alarm ID	COR-127 BGND-127	Alarm Title	D code commands unsupported in the machine	
Description	This model does not support D code commands			
Possible Cause	This model does not support D code commands			
Solution	Replace a controller model that supports D codes.			

## 8.129 BGND-131 Too much M/T code macros in a block

Alarm ID	COR-131 BGND-131	Alarm Title	Too much M/T code macros in a block
Description	The total number of M	code macros and T code m	acros in the same block exceeds 20.

Alarm ID	COR-131 BGND-131	Alarm Title	Too much M/T code macros in a block
Possible Cause	NC programming error.		
Solution	Check the NC program to ensure the total number of M and T code macros are not more than 20 in one single block.		

## 8.130 BGND-132 Illegal character in the program name

Alarm ID	COR-132 BGND-132	Alarm Title	Illegal character in the program name
Description	When open a file using Macro, the specified file name contains illegal characters.		
Possible Cause	NC programming error.		
Solution	Check the specified file names.		

# 8.131 BGND-133 Command unsupported in Three-points arc interpolation mode

Alarm ID	COR-133 BGND-133	Alarm Title	Command unsupported in Three-points arc interpolation mode		
Description	This command is not supported in the three-point arc interpolation mode (G02.4, G03.4)				
Possible Cause	<ol> <li>The tool radius compensation function is not turned off before using this function.</li> <li>It is not supported in G62 cutting mode.</li> </ol>				
	3. In the three-point arc interpolation mode (G02.4, G03.4), A, C, and R commands are not supported.				
Solution	Check the NC program to ensure there is no command described in the Possible Cause.				

#### 8.132 BGND-134 Three-points arc interpolation command format error

Alarm ID	COR-134 BGND-134	Alarm Title	Three-points arc interpolation command format error	
Description	The three-point arc interpolation (G02.4, G03.4) command format is wrong.			
Possible Cause	The three-point arc interpolation (G02.4, G03.4) command is regarded as a group of two lines, which can be specified continuously. The end point of the previous arc is the starting point of the next arc, but the F command can only be in the odd line. This alarm is issued if the total number of lines in the command is odd or the number of lines in the F command is even.			
Solution	Check the three-point arc interpolation G02.4/G03.4 command format in NC program.			

### 8.133 BGND-135 Read/write command format error for R value

Alarm ID	COR-135 BGND-135	Alarm Title	Read/write command format error for R value	
Description	SETRREGBIT, READRE	SETRREGBIT, READRREGBIT bring in an argument with type error or range error.		
Possible Cause	<ol> <li>SETRREGBIT (R value number, specify BIT, on or off)         <ul> <li>a. If the R value is less than 0 or greater than 65535.</li> <li>b. Specify if the BIT is less than 0 or greater than 31.</li> <li>c. If the third argument is not 0 (off) or 1 (on).</li> </ul> </li> <li>READRREGBIT (R value number, specify BIT)         <ul> <li>a. If the R value is less than 0 or greater than 65535.</li> <li>b. Specify if the BIT is less than 0 or greater than 31.</li> </ul> </li> </ol>			
Solution	Correct the argument type or range in the commands, SETRREGBIT and READRREGBIT			

## 8.134 BGND-136 Please reboot the controller when axis tuning failed

Alarm ID	COR-136 BGND-136	Alarm Title	Please reboot the controller when axis tuning failed
Description	After a certair	After a certain serial bus axial tuning fails, without rebooting, cycle start is triggered.	

Alarm ID	COR-136 BGND-136	Alarm Title	Please reboot the controller when axis tuning failed
Possible Cause	The serial bus axial tuning failed.		
Solution	Reboot controller.		

## 8.135 BGND-137 Path synchronization waiting's P-argument sequence error

Alarm ID	COR-137 BGND-137	Alarm title	Path synchronization waiting's P- argument sequence error
Description	<ol> <li>The machining multi-path program uses the path synchronization waiting (G04.1) to wait for the synchronization action:         <ol> <li>When the Q argument is not selected, when two programs go to the position of the path synchronization waiting (G04.1) at the same time, if the P arguments substituted are different, this alarm is issued for reminder.</li> <li>When the next Q argument (decimal) specifies the path waiting for each other, when the two programs go to the position of the path synchronization waiting (G04.1) at the same time, and wait for each other, but the P arguments substituted are different, this alarm is issued for reminder.</li> </ol> </li> </ol>		
Possible Cause	<ol> <li>In the NC program of multiple paths, the order of P arguments is abnormal or number is incorrect.</li> <li>Machining is performed using M99, but in each program, the path without Q argument is synchronously waiting (G04.1), and the number is different.</li> <li>Machining is performed using M99, but in each program, the path with the san Q argument is synchronously waiting (G04.1), and the number is different.</li> <li>The two paths "wait for each other", but the P argument substituted are not th same. i.e. G04.1 P1 Q123 under the first path and G04.1 P2 Q124 under the second path.</li> </ol>		
Solution	Please check the numb of the assigned value f	per of Synchronization wait or argument P.	between paths (G04.1) and the order

#### 8.136 BGND-138 Read/write command format error at the I/O/A point

Alarm ID	COR-138 BGND-138	Alarm Title	Read/write command format error at the I/O/A point
Description	The system provides 512 I/O/A points, the input I/O/A point number shall be within 0~511 when using the commands, SETDO, SETABIT, READDI, READDO, and READABIT.		
Possible Cause	NC Programming error.		
Solution	Check if there is any of I/O/A point number in the commands, SETDO, SETABIT, READDI, READDO, and READABIT in the NC program is over the range of 0 ~ 511.		

### 8.137 BGND-139 Polynomial solution error

Alarm ID	COR-139 BGND-139	Alarm Title	Polynomial solution error	
Description	Determine the polynomial cannot be derived to solutions in case of the alarm.			
Possible Cause	Numerical processing calculation errors cause root failure.			
Solution	Check the value of system data no. 321, and provide it to the controller OEM Syntec for solutions.			

#### 8.138 BGND-140 Prohibit G05 in tool tip control mode

Alarm ID	COR-140 BGND-140	Alarm Title	Invalid high-precision contour control mode using
Description	<ol> <li>Turn on G05 high-speed high-precision mode in the RTCP/STCP mode.</li> <li>When the high-precision contour control mode is enabled during processing, use block stop C40.</li> <li>When the STCP mode is enabled during processing, use single block stop C40.</li> </ol>		in the RTCP/STCP mode. de is enabled during processing, use single essing, use single block stop C40.

Alarm ID	COR-140 BGND-140	Alarm Title	Invalid high-precision contour control mode using
Possible Cause	<ol> <li>In the RTCP/STCP mode, turn on the G05 high-precision contour control mode with commands, such as G05 P10000.</li> <li>When the high-precision contour control mode is enabled during processing, use single block stop C40.</li> <li>When the STCP mode is enabled during processing, use single block stop C40.</li> </ol>		
Solution	<ol> <li>Check the mode to be turned on is (1) RTCP/STCP mode or (2) G05 high-precision contour control mode.</li> <li>If (1), remove the command to turn on the G05 high-precision contour control mode in the RTCP/STCP mode.</li> <li>If (2), turn off the RTCP/STCP mode before turning on the G05 high-precision contour control mode.</li> <li>When the high-precision contour control mode is enabled during processing, do not use the single block stop C40 at the same time.</li> <li>When the STCP mode is enabled during processing, do not use the single block stop C40 at the same time.</li> </ol>		

### 8.139 BGND-141 G68.3 command format error

Alarm ID	COR-141 BGND-141	Alarm Title	G68.3 command format error
Description	<ul> <li>[command format]</li> <li>G68.3 X_Y_Z_R_; // The origin and z-axis rotation angle in the characteristic coordinate system.</li> <li>G68.3 P1 X_Y_Z_; // The origin of the characteristic coordinate system, and the coordinate system is determined with the tool rotation angle.</li> </ul>		
Possible Cause	G68.3 command format, X, Y and Z are all exist or non-exist at the same time.		
Solution	Check if G68.3 command format is correct.		

#### 8.140 BGND-142 Spindle synchronization – K Argument error

Alarm ID	COR-142 BGND-142	Alarm Title	Spindle synchronization - K Argument error	
Description	K Argument error whi	K Argument error while using Spindle synchronization function.		
Possible Cause	The inputted K Argument is not within the valid range.			
Solution	Input a K Argument within the valid range to enable the Spindle synchronization.			

#### 8.141 BGND-143 Programmable data input specified axis does not exist

Alarm ID	COR-143 BGND-143	Alarm Title	Programmable data input specified axis does not exist
Description	In G10 L1501 mode, the P argument is set incorrectly.		
Possible Cause	The axial direction substituted by the P Argument is inexistent.		
Solution	Check Pr21~ to ensure the axial direction is ON.		

#### 8.142 BGND-144 Path synchronization waiting Q Argument content error

Alarm ID	COR-144 BGND-144	Alarm Title	Path synchronization waiting Q Argument content error
Description	When the machining m synchronization, the Q (decimally). The alarm assigned path is inexis	nultiple path program applie Argument assigns the paths is used to remind the users i tent.	es the G04.1 to wait for s to be waited for each other if the Q Argument type error or the

Alarm ID	COR-144 BGND-144	Alarm Title	Path synchronization waiting Q Argument content error
Possible Cause	<ol> <li>The Q Argumen zero are all illeg</li> <li>The path assign 2<sup>nd</sup> and 4<sup>th</sup> path 3 CNC main sys</li> <li>The Q Argumen</li> <li>The paths assig is. ie. In the 2<sup>nd</sup> each other, but</li> </ol>	It is not a positive integer (ne gal). hed by the Q Argument is ine n to wait for each other. How tem paths. It includes 0 when assigning ned by the Q Argument do r path, the G04.1 P1 Q13 assig it does not assign the path i	egative number, decimal point and existent. i.e. Q24 is used to assign the vever, the Pr731=3 and there are only the paths. i.e. Q103. not include this in which the command gns the 1 <sup>st</sup> and 3 <sup>rd</sup> paths to wait for in which it is.
Solution	Check the Path synchronic the assigned path are o	onization waiting (G04.1) in correct for a given Q Argume	the program to ensure the type and ent.

## 8.143 BGND-145 Failed to activate Spindle positioning

Alarm ID	COR-145 BGND-145	Alarm Title	Failed to activate Spindle positioning		
Description	Spindle positioning failed.				
Possible Cause	<ol> <li>Incorrect Spindle ID is assigned.</li> <li>The Spindle is operating in the tapping mode when the Spindle positioning function is ON.</li> <li>After starting the positioning, C61 is OFF so that the positioning is broken.</li> </ol>				
Solution	<ol> <li>Check the Spindle parameter configuration.</li> <li>Check the NC program to ensure the execution of Spindle positioning in non-tapping mode.</li> <li>Check the PLC to ensure C61 is ON.</li> </ol>				

## 8.144 BGND-146 Single block argument type error

Alarm ID	COR-146 BGND-146	Alarm Title	Single block argument type error
Description	Argument type error in a block.		

Alarm ID	COR-146 BGND-146	Alarm Title	Single block argument type error
Possible Cause	<ul><li>The two following situations may trigger this alarm:</li><li>1. Input float value to an argument required integer value.</li><li>2. Input integer value to an argument required float value.</li></ul>		
Solution	Correct the argument	type in the block.	

### 8.145 BGND-147 Spindle is not enabled when path machining

Alarm ID	COR-147 BGND-147	Alarm Title	Spindle is not enabled when path machining	
Description	The machining Spindle assigned by the path is not enabled when executing the commands related to the Spindle.			
Possible Cause	When executing the G33/G34/G63/G74/G84, the Spindle assigned by the R791~R794 is not enabled.			
Solution	<ol> <li>Check if the PLC switches R791~R794 values correctly in the block and whole NC program about the alarm.</li> <li>Check if the Pr1621~Pr1628 configurations are correct (cooperate with R791~R794).</li> </ol>			

### 8.146 BGND-148 The use of tool retract function error

Alarm ID	COR-148 BGND-148	Alarm Title	The use of tool retract function error
Description	When using the tool retract function, a given improper argument results in the function cannot be executed.		
Possible Cause	<ol> <li>In the Tilted working plane machining (G68.2/G68.3) or RTCP (G43.4/G43.5) mode the C21 ON is triggered to execute the assigned axial position retraction.</li> <li>In the non-Tilted working plane machining (G68.2/G68.3) or non- RTCP (G43.4/ G43.5) mode, the C21 ON is triggered to execute the assigned retraction along th tool vector.</li> </ol>		

Alarm ID	COR-148 BGND-148	Alarm Title	The use of tool retract function error
Solution	<ol> <li>In the slopping apply G10.6 R_</li> <li>In the non-slop mode, apply G</li> </ol>	g plane machining (G68.2/G to assign the tool retractio oping plane machining (G68 10.6 X_ to assign the tool re	68.3) or RTCP (G43.4/G43.5) mode, n function. 3.2/G68.3) or non- RTCP (G43.4/G43.5) etraction function.

### 8.147 BGND-149 Tilted working plane machining tool alignment P Argument over range

Alarm ID	COR-149 BGND-14 9	Alarm Title	Tilted working plane machining tool alignment P Argument over range	
Descriptio n	P Argument is over range in Tilted working plane machining tool alignment mode.			
Possible Cause	P Argument is not within 0~2.			
Solution	Do not input the P Argument or input the correction configuration for the P Argument in Tilted working plane machining tool alignment mode.			

### 8.148 BGND-151 1st rotation axis entering illegal range

Alarm ID	COR-151 BGND-151	Alarm Title	1 <sup>st</sup> rotation axis entering illegal range		
Description	1 <sup>st</sup> rotation axis enter	1 <sup>st</sup> rotation axis entering illegal range.			
Possible Cause	<ol> <li>Pr3007, Pr3009, or Pr3010 configuration error.</li> <li>The angle of 1<sup>st</sup> rotation axis is incorrect in the executed 5-axis NC program.</li> </ol>				
Solution	<ol> <li>Check if Pr3009 and Pr3010 are configured correctly. The determination of such two configurations is related to Pr3007. In case of the alarm, please re-confirm these 3 configurations.</li> <li>Check the NC program.</li> </ol>				

### 8.149 BGND-152 2nd rotation axis entering illegal range

Alarm ID	COR-152 BGND-152	Alarm Title	2 <sup>nd</sup> rotation axis entering illegal range		
Description	2 <sup>nd</sup> rotation axis enter	2 <sup>nd</sup> rotation axis entering illegal range			
Possible Cause	<ol> <li>Pr3008, Pr3011 or Pr3012 configuration error.</li> <li>The angle of 2<sup>nd</sup> rotation axis is incorrect in the executed 5-axis NC program.</li> </ol>				
Solution	<ol> <li>Check if Pr3011 and Pr3012 are configured correctly. The determination of such two configurations is related to Pr3008. In case of the alarm, please re-confirm these 3 configurations.</li> <li>Check the NC program.</li> </ol>				

## 8.150 BGND-153 Tool direction unknown

Alarm ID	COR-153 BGND-153	Alarm Title	Tool direction unknown
Description	Tool direction unknown.		
Possible Cause	5-axis configurations and machine mechanism is incompatible.		
Solution	The tool cannot reach the destination. It may be caused by the incompatible 5-axis configurations and machine mechanism. Please check all 5-axis configurations.		

#### 8.151 BGND-154 No 5-axis function

Alarm ID	COR-154 BGND-154	Alarm Title	No 5-axis function
Description	No 5-axis function.		
Possible Cause	Pr3001 is not configured when executing G53.1 tool alignment command.		
Solution	Check if Pr3001 is configured to 0. If yes, configure the other non-zero values based on the 5-axis mechanism type and reboot.		

#### 8.152 BGND-155 5-axis tool direction error

Alarm ID	COR-155 BGND-155	Alarm Title	5-axis tool direction error	
Description	5-axis tool direction error.			
Possible Cause	5-axis tool direction (Pr3002) or the 1 <sup>st</sup> and 2 <sup>nd</sup> rotation axis (Pr3005 and Pr3006) configuration error.			
Solution	Check if the Pr3002 is configured correctly, or if the Pr3005 or Pr3006 is configured correctly. The alarm will be triggered in case the 2 <sup>nd</sup> rotation axis is parallel to the Spindle in the Spindle type, or the 1 <sup>st</sup> rotation axis is parallel to the Spindle in the workbench type.			

#### 8.153 BGND-156 5-axis axial direction error

Alarm ID	COR-156 BGND-156	Alarm Title	5-axis axial direction error
Description	5-axis axial direction error.		
Possible Cause	Incorrect configurations are mapped to the axial direction parameters of 5 axis.		
Solution	Check if each axial direction is configured completely (Pr21~), if Pr3005, Pr3006, Pr3007 and Pr3008 is configured correctly, or if the axis name (Pr321~) is mapped to Pr3005 and Pr3006.		

## 8.154 BGND-157 Incompatible direction of 5-axis tool direction and this of rotation axis

Alarm ID	COR-157 BGND-157	Alarm Title	Incompatible direction of 5-axis tool direction and this of rotation axis
Description	Incompatible direction of 5-axis tool direction and this of rotation axis.		
Possible Cause	<ol> <li>The 2<sup>nd</sup> axial direction and the tool direction are the same in the Spindle type.</li> <li>The 1<sup>st</sup> axial direction and the tool direction are the same in the table type.</li> <li>The 1<sup>st</sup> axial direction and the tool direction are the same in the hybrid type.</li> </ol>		

Alarm ID	COR-157 BGND-157	Alarm Title	Incompatible direction of 5-axis tool direction and this of rotation axis
Solution	Check if the tool direction and the rotation axial direction are the same depended on the used 5-axis mechanism type.		

P.S. Valid version of COR-157 : before 10.118.41M, 10.118.47 (included).

# 8.155 BGND-158 Prohibit the 1st and 2nd rotary axis commands in the G43.5 mode

Alarm ID	COR-158 BGND-158	Alarm Title	Prohibit the 1 <sup>st</sup> and 2 <sup>nd</sup> rotary axis commands in the G43.5 mode
Description	Since the G43.5 mode specifies the tool attitude based on the tool vector I, J and K, it shall not be executed for the 1 <sup>st</sup> and 2 <sup>nd</sup> rotation axis commands which can also specify the tool attitude.		
Possible Cause	Programming error.		
Solution	Check the NC program to ensure the movement commands of the 1 <sup>st</sup> and 2 <sup>nd</sup> rotation axis are over the valid range in the G43.5 mode.		

#### 8.156 BGND-159 Illegal tool vector

Alarm ID	COR-159 BGND-159	Alarm Title	Illegal tool vector	
Description	In NC program, a movement block assigns an incorrect tool vector.			
Possible Cause	Programming error. i.e. Execute G01 X_Y_Z_I0 J0 K0 in the G43.5 mode, and the I0 J0 K0 refers to the 0 vector, 0 vector is illegal.			
Solution	Check the NC program to ensure the assigned tool vector is correct in the block indicated by the alarm line number			

# 8.157 BGND-160 5-axis mechanism chain switched when the 5-axis function is ON

Alarm ID	COR-160 BGND-160	Alarm Title	5-axis mechanism chain switched when the 5-axis function is ON
Description	In NC program, the command G10 L5000 [P_] is executed to switch the 5-axis mechanism when turning on the 5-axis function (RTCP or the tool vector alignment on the characteristic coordinate system is completed).		
Possible Cause	Programming error. i.e. Execute G10 L5000 [P_] in the G43.4 mode.		
Solution	Check the NC program to ensure the 5-axis function is not turned on in the block indicated by the alarm line number.		

# 8.158 BGND-161 Selected 5-axis mechanism chain is not ON

Alarm ID	COR-161 BGND-161	Alarm Title	Selected 5-axis mechanism chain is not ON		
Description	In NC program, the 5-a L5000 [P_] is not ON.	In NC program, the 5-axis mechanism chain parameters assigned by the command G10 L5000 [P_] is not ON.			
Possible Cause	Programming error. i.e. The assigned 5-axis mechanism chain is not configured correctly when executing a command G10 L5000 [P_].				
Solution	<ul> <li>Check the 5-axis mechanism chain parameters to ensure the assigned 5-axis mechanism chain function is turned on correctly:</li> <li>1. 1<sup>st</sup> set: Pr3001</li> <li>2. 2<sup>nd</sup> set: Pr3101</li> <li>3. 3<sup>rd</sup> set: Pr5501</li> <li>4. 4<sup>th</sup> set: Pr5601</li> </ul>				

#### 8.159 BGND-162 4-axis RTCP configuration error

Alarm ID	COR-162 BGND-162	Alarm Title	4-axis RTCP configuration error
Description	The controller will issue the alarm in case the 4-axis RTCP configuration is incorrect.		
Possible Cause	The 5-axis mechanism parameters, Pr3001, Pr3101, Pr5501 and Pr5601 are configured to 1~3 in case the specific 4-axis tool tip control function (option-29) is turned on but the tool tip control function (option-12) is not.		
Solution	<ol> <li>Configure the 5-axis mechanism parameters to 4 or 5 correctly.</li> <li>Turn on the tool tip control function (option-12).</li> </ol>		

## 8.160 BGND-163 Multi-kinematic chain command Q Argument setting error.

Alarm ID	COR-163 BGND-163	Alarm Title	Multi-kinematic chain command Q Argument setting error.
Description	Command G10 L5000P_ Q_, Q argument range error.		
Possible Cause	Command G10 L5000P_ Q_, Q argument range error.		
Solution	While using G10 L5000P_ Q_, check Q argument to be within 0~4, and is a integer.		

## 8.161 BGND-164 Multi-kinematic chain command related 5-Axis mechanism setting error.

Alarm ID	COR-164 BGND-164	Alarm Title	Multi-kinematic chain command related 5-Axis mechanism setting error.
Description	Command G10 L5000P_ Q_ specified the 5-Axis kinematic chain, and the 5-Axis mechanism parameter setting error.		
Possible Cause	While executing G10 L5000P_ Q_, Q argument is given, but the 5-Axis mechanism parameter of the designated 5-Axis kinematic-chain is not a spindle-type 5-Axis machine.		

Alarm ID	COR-164 BGND-164	Alarm Title	Multi-kinematic chain command related 5-Axis mechanism setting error.
Solution	<ul> <li>Please check the designated 5-Axis kinematic-chain. The 5-Aparameter must be a spindle-type 5-Axis machine.</li> <li>1. The first group : Pr3001 is 1.</li> <li>2. The second group : Pr3101 is 1.</li> <li>3. The third group : Pr5501 is 1.</li> <li>4. The fourth group : Pr5601 is 1.</li> </ul>		chain. The 5-Axis mechanism configuration nine.

### 8.162 BGND-165 Multi-kinematic chain command not illegal.

Alarm ID	COR-165 BGND-165	Alarm Title	Multi-kinematic chain command not illegal.
Description	Command G10 L5000P_Q_ is used for switching 5-Axis kinematic chain, and only provides partial 5-Axis mechanism function command.		
Possible Cause	<ul> <li>G10 L5000 P_Q_ command, the Q argument is set to 2~4 (not the first group of sub-kinematic chain), and only supports the following 5-Axis machine function command.</li> <li>1. RTCP: G43.4.</li> <li>2. RTCP: G43.5.</li> <li>3. Tilted working plane : G68.2 + Tool alignment functions.</li> <li>4. Tilted working plane : G68.3.</li> <li>Notice: Tool alignment functions include G53.1, G53.3, G53.6,</li> </ul>		
Solution	When using the G10 L5000 P_ Q_ command to switch multi-kinematic chains, please use the supported 5-Axis machine function command.		

#### 8.163 BGND-166 Characteristic Coordinate System Option not supported

Alarm ID	COR-16 6 BGND-1 66	Alarm Title	Characteristic Coordinate System Option not supported
Descrip tion	Option13 ( Characteristic Coordinate System Option ) was not active, therefore the CNC couldn't execute relevant commands.		

Alarm ID	COR-16 6 BGND-1 66	Alarm Title	Characteristic Coordinate System Option not supported
Possibl e Cause	One or more commands below were given while the Option13 ( Characteristic Coordinate System Option ) was inactive: 1. G68.2, G68.3 2. G53.1, G53.3, G53.6 3. Other commands that are relevant to Option13 ( Characteristic Coordinate System Option )		
Solutio n	<ol> <li>Activate Option13 (Characteristic Coordinate System Option)</li> <li>Avoid using the commands listed above</li> </ol>		

## 8.164 BGND-167 File name conflicts in NcFiles

Alarm ID	COR-167 BGND-167	Alarm Title	Program File name conflicts in NcFiles
Description	Program File name conflicts in NcFiles folder.		
Possible Cause	When Pr3220 is set to 1, "non-main system", "PLC axis", "pre- and post-processing auxiliary programs" restrict calling files from the Macro folder, and prohibit the NcFiles folder from having the same file name.		
Solution	<ol> <li>Set Pr3220 to 0.</li> <li>Remove the conflicting files in the NcFiles folder or change the file name.</li> </ol>		

### 8.165 BGND-168 Illegal tool compensation

Alarm ID	COR-16 8 BGND-1 68	Alarm Title	Illegal tool compensation.
Descrip tion	Illegal tool compensation		
Possibl e Cause	1. Trying to use non-zero tool length or tool radius compensation value on a machine type which doesn't support tool compensation		
Alarm ID	COR-16 8 BGND-1 68	Alarm Title	Illegal tool compensation.
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Solutio	1. Set	tool compens	ation value as zero
n	2. Tur	n off tool com	pensation related functions

# 8.166 BGND-169 Overlap on the same axis

Alarm ID	COR-16 9 BGND-1 69	Alarm Title	Overlap on the same axis	
Descrip tion	Overlap on the same axis.			
Possibl e Cause	Using G1.10 with argument Q on the same axis with two consecutive blocks.			
Solutio n	Please check NC Program and avoid overlapping on the same axis with two consecutive blocks.			

# 8.167 BGND-170 G43.4 L2 illegal argument value

Alarm ID	COR-170 BGND-170	Alarm 标题	【G43.4 L2 illegal argument value 】
说明	When using G43.4 L2. E_ R_, Illegal argument value is assigned		
可能原因	Illegal argument value <ol> <li>R value is negative</li> <li>E value is not in the range of 0.001 to 179.999</li> </ol>		
排除方法	Please check the E_ R_ argument values		

# 8.168 BGND-201 Program file not exist

Alarm ID	COR-201 BGND-201	Alarm title	Program file not exist
Description	The specified program does not exist.		
Possible Cause	The specified program does not exist.		
Solution	Ensure that program file exists.		

#### 8.169 BGND-202 Communication link error

Alarm ID	COR-202 BGND-202	Alarm title	Communication link error
Description	Communication link is dropped.		
Possible Cause	The transmission communication link is dropped.		
Solution Reconnect a good trans		smission communication lin	k.

### 8.170 BGND-203 Illegal NC file format

Alarm ID	COR-203 BGND-203	Alarm title	Illegal NC file format	
Description	NC program format not valid, as a result, the system cannot fully interpret the NC program.			
Possible Cause	<ol> <li>The NC file is in macro format.</li> <li>Use M98 to call a multi-path subprogram (including \$1 and \$2), and the size of the subprogram is greater than 60KB(60000bytes).</li> </ol>			
Solution	<ol> <li>Update the controller to 10.114.50l or the later version.</li> <li>For M98 application, reduce the size of subprogram. Or, split it into individual single-path subprograms, then call each of them b coordinate respectively.</li> </ol>		er version. ogram. grams, then call each of them by	

# 8.171 BGND-204 File size too large

Alarm ID	COR-204 BGND-204	Alarm title	File size too large	
Description	Program file is too large.			
Possible Cause	If the size of MACRO program is larger than 60KB(60000bytes) and use the syntax with scope statement. The syntax with scope statement contains: IF, CASE, REPEAT, FOR, WHILE			
Solution	<ol> <li>Reduce the program size, or split program into two subprograms.</li> <li>Remove all the syntax with scope statement.</li> </ol>		o subprograms.	

# 8.172 BGND-205 File content is empty

Alarm ID	COR-205 BGND-205	Alarm title	File content is empty
Description	After controller loads the program, the file content found to be null.		
Possible Cause	Program loading error or CF card damaged.		
Solution	Reload program or repl	ace CF card.	

# 8.173 BGND-206 Loading page lock failure

Alarm ID	COR-206 BGND-206	Alarm title	Loading page lock failure
Description	New NC program fails to required the system to distribute loading page.		
Possible Cause	se Lack of memory when multi-system exec		size program.
Solution	Please contact OEM Sy	ntec.	

# 8.174 BGND-207 Specified sequence number not found

Alarm ID	COR-207 BGND-207	Alarm title	Specified sequence number not found
Description	Specified sequence number is not found.		
Possible Cause	Programming error.		
Solution	Solution Use a sequence number within the NC program range.		nge.

# 8.175 BGND-208 Cannot use jump statement in sequential file

Alarm ID	COR-208 BGND-208	Alarm title	Cannot use jump statement in sequential file
Description	Using jump command to execute sequential file.		
Possible Cause Use the jump comman		nd when executing the seq	uence file.
<b>Solution</b> Do not use jump command to execute sequential file.		al file.	

#### 8.176 BGND-209 File format error

Alarm ID	COR-209 BGND-209	Alarm title	[File format error]
Description	Invalid File Format.		
Possible Cause	<ol> <li>It is not a MACRO format file. For example, using APP syntax to call MARCO G200, G200 APP "appname", but this G200 file is not declared as a MACRO format file.</li> <li>It is not a ISO format file.</li> </ol>		ng APP syntax to call MARCO is not declared as a MACRO
Solution	Please check the NC program, which should be written according to the file openin requirements.		n according to the file opening

#### 8.177 BGND-250 Wrong mechanism axial setting

Alarm ID	COR-250 BGND-250	Alarm title	Wrong mechanism axial setting
Description	The axial setting of the mechanism is wrong.		
Possible Cause	The number of axis and the axis name required for the corresponding mechanism conversion are not set.		
Solution	Set sufficient number of axis (Pr21~), and required axis names (Pr321~).		

# 8.178 BGND-251 The joint is not set to rotate in the right/left-hand direction

Alarm ID	COR-251 BGND-251	Alarm title	【The joint is not set to rotate in the right/left- hand direction】		
Description	The joint is not set to the direction of rotation as the right hand, left hand rule.				
Possible Cause	Pr4141~Pr4150 are not set to the right-hand rule or the left-hand rule.				
Solution	Set the rotation direction of each joint, 0 is not allowed.				

# 8.179 BGND-252 The target position cannot be reached due to 2D mechanism transformation. Please enter a reasonable target position

Alarm ID	COR-25 2 BGND-2 52	Alarm title	[The target position cannot be reached due to 2D mechanism transformation. Please enter a reasonable target position]	
Description	The 2D mechanism is converted and the target position cannot be reached. Please enter a reasonable target position.			
Possible Cause	The program coordinate position exceeds the limit of the machine.			

Alarm ID	COR-25 2 BGND-2 52	Alarm title	【The target position cannot be reached due to 2D mechanism transformation. Please enter a reasonable target position】
Solution	The position is not reasonable. Please re-check the NC program.		

# 8.180 BGND-253 Unworkable parallel mechanism posture

Alarm ID	COR -253 BGND-253	Alarm title	【Unworkable parallel mechanism posture】	
Description	Parallel mechanism posture that is not feasible.			
Possible Cause	Currently at a parallel mechanism posture that is not feasible.			
Solution	After Reset, use the axial movement mode to leave this posture, or modify the target point.			

# 8.181 BGND-301 OPEN command format error

Alarm ID	COR-301 BGND-301	Alarm title	【OPEN command format error 】	
Description	OPEN command format [command format] OPEN ("file name", "wr (i) Designated as ' <b>a</b> ': Re outputs the new data in (ii) Not specified or des and <b>re-outputs</b> the new	t error ite file mode") present <b>retains</b> the original n the text file. ignated as ' <b>w</b> ': Represents th w material in the text file.	file content and <b>continuously</b> ne <b>emptying</b> of the original content	
Possible Cause	"Write mode" in the OPEN command format specifies an error. This alarm is issued if the string is specified as a string other than 'a' or 'w'.			
Solution	Set "FileWrite mode" to "a" or "w" according to the requirement of FileWrite.			

#### 8.182 BGND-302 G10 L1150 command format error

Alarm ID	COR-302 BGND-302	Alarm title	[G10 L1150 command format error]	
Description	G10 L1150 command format error.			
Possible Cause	<ul><li>G10 L1150 parameter numbering (P argument) is a non-integer or the input is out of range or not entered.</li><li>The input value (P argument) corresponding to the parameter does not exist.</li><li>G10 L1150 parameter value (R argument) is out of range or not entered.</li></ul>			
Solution	Set the G10 L1150 parameter numbering and values (P and R arguments) correctly.			

### 8.183 BGND-303 The basic spindle cannot use the Spindle Synchronization function in position control mode (C63)

Alarm ID	COR-303 BGND-30 3	Alarm title	【The basic spindle cannot use the Spindle Synchronization function in position control mode (C63)】		
Description	The basic spindle uses the spindle synchronization (G114.1, G51.2) commands in the position control mode.				
Possible Cause	When using this function, the basic spindle cannot be in position control mode.				
Solution	Write the NC program or PLC correctly so that the principal axis leaves the position control mode before the same period (C63).				

# 8.184 BGND-304 Thread cutting geometrical axis name error

Alarm ID	COR-304 BGND-304	Alarm title	【Thread cutting geometrical axis name error】
Description	Thread cutting (G33, G34) command format is incorrect. Only the geometric axis names such as X, Y, Z, X1, Y1, Z1, etc. are supported.		
Possible Cause	When the thread cutting (G33, G34) does not have X, Y, Z, X1, Y1, Z1 and other geometric axis arguments, this alarm is issued.		

Alarm ID	COR-304 BGND-304	Alarm title	【Thread cutting geometrical axis name error】
Solution	Adjust the axis names (Pr321~) of the geometrical axis to XYZ, X1/Y1/Z1		

# 8.185 BGND-305 Relative position input method is forbidden in current mode

Alarm ID	COR-305 BGND-305	Alarm title	[Relative position input method is forbidden in current mode]		
Description	The mode in which the system is currently running cannot be used with the G91 incremental command.				
Possible Cause	G43.5 cannot be used with the G91 incremental command function: G43.5 determines the tool attitude through the tool vectors I, J, and K. The tool attitude is expressed only in absolute quantities.				
Solution	Check the NC program to confirm that G91 was not executed in G43.5 mode and G43.5 was not executed in G91 mode				

# 8.186 BGND-306 Advanced look-ahead function without the specified M code

Alarm ID	COR-306 BGND-306	Alarm title	【Advanced look-ahead function without the specified M code】		
Description	The advanced look-ahead function is enabled, and the specified M code is not found after the complete NC program is interpreted.				
Possible Cause	<ol> <li>Pr3599 is not set.</li> <li>The NC programming error.</li> </ol>				
Solution	<ol> <li>Confirm whether the setting of Pr3599 is correct.</li> <li>Check the NC program to confirm that an command has been given to speedily predecode M code (Pr3599).</li> </ol>				

# 8.187 BGND-307 Advanced look-ahead of M code, wrong designation of argument P

Alarm ID	COR-307 BGND-307	Alarm title	[Advanced look-ahead of M code, wrong designation of argument P]	
Description	The advanced look-ahead M code (Pr3599) must specify the P argument.			
Possible Cause	When using the advanced look-ahead function, the P argument is not specified or the P argument is not an integer			
Solution	Check the NC program and confirm that there is a P argument and specify a 4-digit code subprogram.			

# 8.188 BGND-308 Insufficient system memory, increase a single step displacement for advanced look-ahead function

Alarm ID	COR-308 BGND-30 8	Alarm title	[Insufficient system memory, increase a single step displacement for advanced look-ahead function]		
Description	The system look-ahead memory is insufficient, and the subsequent move command cannot be interpreted and is stuck.				
Possible Cause	There are too many very short blocks in the program, so the interpretation conditions cannot be met.				
Solution	Check the NC program and increase a single step displacement amount appropriately.				

#### 8.189 BGND-309 Advanced look-ahead function failed

Alarm ID	COR-309 BGND-309	Alarm title	[Advanced look-ahead function failed]		
Description	The advanced look-ahead function cannot be executed correctly.				
Possible Cause	<ol> <li>The interpolation mode is incorrect during advanced look-ahead.</li> <li>The contents of the look-ahead NC program cannot be stored correctly.</li> </ol>				

Alarm ID	COR-309 BGND-309	Alarm title	[Advanced look-ahead function failed]		
Solution	<ol> <li>Check if th than G01,</li> <li>Check if d</li> </ol>	the subprogram of the look-ahead NC programs contains commands other 1, G02, and G03. disk space is adequate.			

# 8.190 BGND-310 Look-ahead NC programs failed

Alarm ID	COR-310 BGND-310	Alarm title	【Look-ahead NC programs failed】		
Description	Look-ahead NC program cannot be executed correctly.				
Possible Cause	<ol> <li>The condition of the look-ahead NC program does not match:         <ul> <li>The version of the advanced look-ahead, the interpolation time, the number of axes, do not match.</li> <li>There is an abnormal interruption in the look-ahead, resulting in incomplete content of the look-ahead.</li> <li>To look-ahead the axis of movement in the subprogram, enter the advanced look-ahead M code in the main program. The coordinates before (i.e. M298) should be the same.</li> <li>(i.e. if the subprogram has X, Y, and Z three-axis movement commands, i the X, Y, and Z coordinates before look-ahead M code are modified after the look-ahead is completed, the look-ahead NC program will be executed. Issue this alarm.)</li> </ul> </li> <li>The contents of the look-ahead NC program cannot be read correctly.</li> </ol>				
Solution	After advanced look-ahead under correct conditions, execute the look-ahead NC programs.				

### 8.191 BGND-311 Hard disk storage space is insufficient to place lookahead NC programs

Alarm ID	COR-311 BGND-311	Alarm title	【Hard disk storage space is insufficient to place look-ahead NC programs】	
Description	The hard disk storage space is not enough to place the look-ahead NC program.			
Possible Cause	There is not enough storage space on the hard drive.			

Alarm ID	COR-311 BGND-311	Alarm title	【Hard disk storage space is insufficient to place look-ahead NC programs】
Solution	Release hard	Release hard disk storage space.	

### 8.192 BGND-320 Friction Compensation Adjustment setting is illegal

Alarm ID	COR-320 BGND-320	Alarm title	[Friction Compensation Adjustment setting is illegal]		
Description	Friction compensation adjustment setting is illegal.				
Possible Cause	<ol> <li>Selected adjustment mode is not supported.</li> <li>No axis is assigned for adjustment.</li> <li>Radius or feedrate is not configured in Comp ON/Comp OFF mode .</li> <li>No. of circular setting is not configured in Comp Learning mode.</li> </ol>				
Solution	<ol> <li>Select other compensation mode and try again.</li> <li>Please set a set of available axes.</li> <li>Please set correct radius or feedrate.</li> <li>Please set correct No. of circular setting.</li> <li>If the alarm still exists, please contact Syntec OEM.</li> </ol>				

# 8.193 BGND-321 The arguments (P,Q,R) retrieved from the I point position must be integers

Alarm ID	COR-321 BGND-321	Alarm title	【The arguments (P,Q,R) retrieved from the I point position must be integers】	
Description	The I value position taken argument (G10 L1010 P_ Q_ R_) is not an integer.			
Possible Cause	NC programming error.			
Solution	Modify the NC program to specify correct P, Q, and R arguments.			

#### 8.194 BGND-322 I point position capture failed

Alarm ID	COR-322 BGND-322	Alarm title	【I point position capture failed】	
Description	I value position capture function (G10 L1010 P_ Q_ R_), startup failed.			
Possible Cause	<ol> <li>The specified P argument (axis number) does not exist.</li> <li>The specified Q argument (I value) is not supported.</li> <li>Exceeding the limit of the number of used groups, currently support to start three I value location captures at the same time.</li> </ol>			
Solution	<ol> <li>Modify the progr</li> <li>Turn off settings</li> </ol>	<ol> <li>Modify the program to specify correct P, Q, and R arguments.</li> <li>Turn off settings that are not in use.</li> </ol>		

# 8.195 BGND-323 The arguments (P,R,I,J,K) captured from the driver signal position must be integers

Alarm ID	COR-323 BGND-32 3	Alarm title	【The arguments (P,R,I,J,K) captured from the driver signal position must be integers】		
Description	The argument of the drive signal position (G10 L1011 P_ R_ I_ J_ K_) is not an integer.				
Possible Cause	The NC programming error.				
Solution	Modify the program to specify correct P, R, I, J, and K arguments.				

### 8.196 BGND-324 Driver signal position captured failed to activate

Alarm ID	COR-324 BGND-324	Alarm title	[Driver signal position captured failed to activate]
Description	The drive signal positio	n capture function (G10 L101	1 P_ R_ I_ J_ K_) failed to activate.

Alarm ID	COR-324 BGND-324	Alarm title	[Driver signal position captured failed to activate]
Possible Cause	<ol> <li>The range of R values set by the specified P and R arguments is invalid (occupied by the system or out of range).</li> <li>The specified I argument (axis number) does not exist.</li> <li>The specified J argument (which set of latches to use) is out of range.</li> <li>The specified K argument (select signal source) is out of range.</li> </ol>		
Solution	Modify the NC program	to specify correct arguments	j.

# 8.197 BGND-325 In the polar coordinate interpolation mode, the use of the diameter & radius axis programming command is prohibited

Alarm ID	COR-325 BGND-325	Alarm title	【In the polar coordinate interpolation mode, the use of the diameter and ra- axis programming command is prohimation 】	on dius bited
Description	In the polar coordir programming swite	nate interpolation (G12.1 hing command (G10.9) c	L) mode, the diameter and radius axis cannot be used.	
Possible Cause	In polar coordinate interpolation (G12.1) mode, if switch the diameter and radius axis program with the diameter and radius axis programming switching command (G10.9), this alarm is issued.			
Solution	In the polar coordinate interpolation (G12.1) mode, do not use the diameter and radius axis to program the switching command (G10.9). Please follow Pr281~Axis radius axis or diameter axis set value to move the command. [Remarks] For milling machine G12.1, the X axis is programmed in radius axis. For lathe machine G12.1, and the X axis programming mode can be set using Pr4020 (G12.1 X axis programming).			

# 8.198 BGND-326 Diameter & radius axis programming command argument error

Alarm ID	COR-326	Alarm	【Diameter and radius axis programming command argument	
	BGND-326	title	error】	
Description	Diameter and Radius axis programming (G10.9) switching, command arguments are written incorrectly.			
Possible Cause	No axial programming is specified, or programming is specified as a value other than 0 and 1.			
Solution	1. Specif	fy any axial di	rection after diameter and radius axis programming (G10.9).	
	2. Specif	fy the argume	nt value (programming mode) as 0 or 1.	

# 8.199 BGND-327 Skip function argument input error

Alarm ID	COR-327 BGND-327	Alarm title	【Skip function argument input error】	
Description	Skip function (G31) input argument is incorrect.			
Possible Cause	Skip function (G31) specifies both P and R arguments.			
Solution	Please modify the Skip function (G31), no specified both P and R.			

# 8.200 BGND-328 G10 L1800 command argument number, out of specification limit

Alarm ID	COR-328 BGND-328	Alarm title	[G10 L1800 command argument number, out of specification limit]	
Description	The command argument number is outside the specification limit. i.e. G10 L1800 I514 P10 R1, I argument is out of range.			
Possible Cause	The NC programming error.			
Solution	Please confirm the argument value of G10 L1800.			

P.S. Valid version of COR-328 : range from 10.118.12B, 10.118.13 to 10.118.28D, 10.118.31 (included).

# 8.201 BGND-329 G10 L1800 command number has exceeded the single block limit

Alarm ID	COR-329 BGND-329	Alarm title	[G10 L1800 command number has exceeded the single block limit]	
Description	The number of G10 L1800 commands with different arguments exceeds the upper limit allowed by a single block, up to 5, or too many G10 L1800 commands.			
Possible Cause	The NC programming error.			
Solution	Please reduce the number of G10 L1800 commands with different arguments to less than 5 in a block, or reduce the number of G10 L1800s as a whole.			

P.S. Valid version of COR-329 : range from 10.118.12B, 10.118.13 to 10.118.28D, 10.118.31 (included).

### 8.202 BGND-330 Illegal interrupt signal format

Alarm ID	COR-330 BGND-330	Alarm title	[Illegal interrupt signal format]	
Description	The command argument number is outside the specification limit. i.e. M96 P5566 I4 Q100 R1 L1000; I argument specifies the error signal source.			
Possible Cause	The NC programming error			
Solution	Please check the NC program to ensure that the command arguments are correct.			

#### 8.203 BGND-331 This product limits T Code function

Alarm ID	COR-331 BGND-331	Alarm title	【This product limits T Code function】	
Description	This product only supports T0~T4.			
Possible Cause	This product only supports T0~T4.			
Solution	Use a products that support the full T-code function.			

# 8.204 BGND-332 Interrupt type subprogram (M96, M97) execution failure

Alarm ID	COR-332 BGND-332	Alarm title	【Interrupt type subprogram (M96, M97) execution failure】	
Description	When the interrupt type subprogram function is used, the execution fails when the interrupt signal is triggered. Note: Due to the pre-solved relationship when issuing this alarm, there is no guarantee that it will stop at the problem line.			
Possible Cause	Only support to trigger interrupt where in the interrupt type subprogram enable or cancel (M96, M97). Triggering interrupt signals in other subprograms is not supported.			
Solution	<ol> <li>Make sure to trigger interrupt where in the interrupt type subprogram enable or cancel (M96, M97).</li> <li>Set #1510 to 4 (the second bit is set to on) and only display the line number of the main program. This can be regarded as triggering the interrupt in the main program, but this setting will re-execute the subprogram when it returns.</li> </ol>			

# 8.205 BGND-333 Single end point exceeds hardware stroke limit

Alarm ID	COR-333 BGND-333	Alarm title	[Single end point exceeds hardware stroke limit]	
Description	The coordinate position in the program exceeds the hardware stroke limit set by the machine.			
Possible Cause	<ol> <li>The NC program is wrong.</li> <li>The hardware stroke limit signal is abnormal.</li> </ol>			
Solution	<ol> <li>Check the NC program and correct the coordinate position.</li> <li>First confirm whether it is occasionally happen during machining, and MOT-25, 26 is no longer exists after the system enters the feedhold. If so, it may be that an axis hardware stroke limit signal is triggered, but then disappears; please check the limit switch wiring or the hardware itself for abnormality.</li> </ol>			

#### 8.206 BGND-334 G10 L1810 illegal signal condition command format

Alarm ID	COR-334 BGND-334	Alarm title	[G10 L1810 illegal signal condition command format]	
Description	G10 L1810 command format error.			
Possible Cause	<ol> <li>One of the I, Q, and R arguments is not set.</li> <li>The I, Q, R, and J arguments are out of range, set to a negative, or a decimal value.</li> </ol>			
Solution	Please refer to the manual for troubleshooting.			

P.S. Valid version of COR-334 : before 10.118.34 (included).

format

# 8.207 BGND-335 G10 L1810 signal waiting condition is too many or repeat the same signal

Alarm ID	COR-335 BGND-335	Alarm title	【G10 L1810 signal waiting condition is too many or repeat the same signal】
Description	The G10 L1810 signal waiting condition exceeds the allowable number, or the G10 L1810 repeatedly sets the same signal.		
Possible Cause	<ol> <li>G10 L1810 continuously sets more than 5 commands.</li> <li>The same G10 L1810 signal command has been set.</li> </ol>		
Solution	Please combine mul condition.	tiple signals into one sign	al to wait, or reduce the signal waiting

# 8.208 BGND-336 G10 L1820 illegal waiting signal condition command

Alarm ID	COR-336 BGND-336	Alarm title	[G10 L1820 illegal waiting signal condition command format]	
Description	G10 L1820 command format error.			
Possible Cause	P, K arguments are out of range, set negative or decimal.			
Solution	Please refer to the manual for troubleshooting.			

P.S. Valid version of COR-336 : before 10.118.34 (included).

### 8.209 BGND-337 G10 L1820 without G10 L1810 command in the front

Alarm ID	COR-337 BGND-337	Alarm title	【G10 L1820 without G10 L1810 command in the front】	
Description	The G10 L1820 command needs to wait for the G10 L1810 signal wait condition. At least one G10 L1810 command must be programmed first.			
Possible Cause	The G10 L1820 command was not written before the G10 L1820 command.			
Solution	Modify the NC program and write the G10 L1810 command before the G10 L1820 command.			

### 8.210 BGND-338 G10 L1820 signal condition waiting timeout

Alarm ID	COR-338 BGND-338	Alarm title	[G10 L1820 signal condition waiting timeout]	
Description	G10 L1820 waiting signal condition exceeds the waiting time.			
Possible Cause	The signal status condition was not reached within the waiting time.			
Solution	<ol> <li>Check if the G10 L1810 setting signal condition is correct.</li> <li>Check if the PLC wait signal is processed correctly.</li> <li>Check the hardware device to confirm why the signal status is not reached.</li> </ol>			

#### 8.211 BGND-339 Chopping axis prohibition movement command

Alarm ID	COR-339 BGND-339	Alarm title	[Chopping axis prohibition movement command]	
Description	The chopping axial direction does not accept any movement commands.			
Possible Cause	After using the chopping function (G81.1, G81.2, C86), give movement command to the axis before closing. Note: C86 valid version: 10.118.19 and previous versions.			

Alarm ID	COR-339 BGND-339	Alarm title	[Chopping axis prohibition movement command]
Solution	Check the movement	command of the NC progra	m G code, whether there is chopping
	axis, and it is executed	I before the chopping funct	ion is turned off. The movement
	command G code is, fo	or example, G0, G1, G2, G3,	G31, G53.

# 8.212 BGND-340 Chopping axis prohibits changing coordinate system

Alarm ID	COR-340 BGND-340	Alarm title	[Chopping axis prohibits changing coordinate system]		
Description	The axis in ch prohibited.	opping cannot	change any coordinate system, and the related functions will be		
Possible Cause	<ol> <li>After using the chopping function (G81.1, G81.2, C86), switch the coordinate system before closing and affect the chopping axis.</li> <li>Simultaneously use of chopping function (G81.1, G81.2, C86) and tilted work plane machining function (G68.2, G68.3).</li> <li>Simultaneously use the chopping function (G81.1, G81.2, C86) and the axis exchange function (C133~C136).</li> <li>Note: C86 support version: 10.118.19 and earlier.</li> </ol>				
Solution	<ol> <li>Check chang</li> <li>Check work</li> <li>Check</li> <li>Check excha</li> </ol>	c if the system o ged, and whethe c if the NC progr plane machinin c if the NC progr inge of the chop upport version:	stem operation and programming coordinate system are switched or whether the chopping axis is affected. C program uses the chopping function (G81.1, G81.2,C86) and the tilted achining function at the same time. (G68.2, G68.3). C program has the chopping function (G81.1, G81.2, C86) and the shaft ie chopping shaft. (C133~C136). ersion: 10.118.19 and earlier.		
	Note 2: Coord L1300, G68, #	dinate system re value (#1880~#	elated programming: G54 P1~G54 P100, G92, G92.1, G10 L2, G10 1933, #20001~#20658).		
	Note 3: Coord	dinate system re	elated operations: external coordinate offset, MPG offset.		

# 8.213 BGND-341 Chopping axial switching error

Alarm ID	COR-341 BGND-341	Alarm title	【Chopping axial switching error 】
Description	The specified axis cann	not be switched to the chopp	ping axis.

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Alarm ID	COR-341 BGND-341	Alarm title	【Chopping axial switching error 】
Possible Cause	<ol> <li>This axis has be</li> <li>The axis has be</li> <li>The axis has be</li> <li>The axis has be</li> <li>This axis has be</li> </ol>	his axis has been designated as the PLC axis. he axis has been designated as the spindle. he axis has been designated as the servo tail axis his axis has been designated as a chopping axis by other paths.	
Solution	<ol> <li>Do not specify t</li> <li>Do not specify t</li> <li>Do not specify t</li> <li>Check if the mu G81.2, C86).</li> </ol>	the PLC axis as the chopping axis. the spindle as the chopping axis. the servo tail axis as the chopping axis. ulti-path repeats the chopping function for the same axis (G81.1, rsion: 10.118.19 and earlier version.	

# 8.214 BGND-342 Chopping axis prohibits RTCP mode

Alarm ID	COR-342 BGND-342	Alarm title	【Chopping axis prohibits non-linear kinematic transform】	
Description	Non-linear kinematic transform is prohibited for the chopping axis.			
Possible Cause	<ol> <li>Using non-linear kinematic transform when chopping function is enabled.</li> <li>The machine type used is two-dimensional kinemetic (special model).</li> </ol>			
Solution	<ol> <li>Check the NC program to make sure that is not within the range of the RTCP (G43.4</li> <li>Check the NC program to make sure that is not within the range of the tangential of 3. Check the NC program to make sure that is not within the effective range of the po</li> <li>The machine configuration used is the tw model), and the chopping function (G81.</li> <li>Note: C86 support version: 10.118.19 and earlier</li> </ol>		t the chopping function (G81.1, G81.2, C86) .4, G43.5). t the chopping function (G81.1, G81.2, C86) control (G41.1, G42.1). t the chopping function (G81.1, G81.2, C86) olar coordinate interpolation (G12.1). wo-dimensional kinemetic (special l.1, G81.2, C86) cannot be used. r.	

# 8.215 BGND-343 The main program does not use the ending M code

Alarm ID	COR-343 BGND-343	Alarm title	[The main program does not use the ending M code]
Description	M02/M30/M9	9 is not used at 1	the end of the main program.

Alarm ID	COR-343 BGND-343	Alarm title	【The main program does not use the ending M code】		
Possible Cause	<ol> <li>Progra</li> <li>NC progra</li> <li>Some</li> </ol>	ogramming error. C program is damaged. The machining information was lost due to file transmission errors.			
Solution	1. Check 2. Close	he NC program to reset the alarm and clear it. he Pr3853-NC program error check function.			

# 8.216 BGND-344 The NC program under invalid paragraph

Alarm ID	COR-344 BGND-344	Alarm title	【The NC program under invalid paragraph】
Description	<ol> <li>There is continuous blank/annotation/garbled in the NC program, and the siz more than 8KB.</li> <li>There are no valid commands in the NC program.</li> </ol>		rbled in the NC program, and the size is rogram.
Possible Cause	<ol> <li>Programmning error.</li> <li>NC program is damaged.</li> </ol>		
Solution	<ol> <li>Avoid writing lots of consecutive blanks or annotations.</li> <li>Please check if the NC program is damaged. After the problem is solved, reset to remove the alarm.</li> <li>Close the Pr3853 - NC program error check function.</li> </ol>		r annotations. ed. After the problem is solved, reset to k function.

# 8.217 BGND-345 Illegally format input to programmable data

Alarm ID	COR-345 BGND-345	Alarm title	[Illegally format input to programmable data]	
Description	Programmabl	e data input argumo	ient format error.	

Alarm ID	COR-345 BGND-345	Alarm title	[Illegally format input to programmable data]
Possible Cause	1.       Wobble         a.       b.         c.       2.         G10 L1       a.         b.       c.         3.       G10 L1         a.       b.         c.       3.         G10 L1       a.         b.       c.         3.       G10 L1         a.       b.         c.       4.         G10 L1       a.         b.       c.         d.       G10 L1         a.       b.         c.       d.         floor L1       a.         b.       c.         d.       G10 L1         a.       b.         c.       g.         g.       G10 L1         a.       b.         c.       g.      g.       G10 L1 <tr< th=""><th>e command One of the I, Q, R ar I, Q, R arguments of I argument not inte 803 command One of the I, Q, P, R I, Q, P, R, J, E argum I, Q, R, J, K, E argum 805 、G10 L1810 co One of the I, Q, R ar I, Q, R, J arguments 820 command P, K arguments out P, K arguments out 20 command One of the P, Q, R a P argument is not a Q, R arguments out Q, R arguments out Q, R arguments not 500 command P, Q, R, X, Y, Z Q, X, Y, Z, I, J 031 command R argument is not s R, V arguments out S00 command R argument is not 500 command P, E argument is not 500 command One of the P, Q arg One of the P, Q arg S0 command P, E argument is not 726 command I, K argument is not 728 command P argument is not s When the P argument 830 command P argument is not s When the P argument 830 command P argument is not s</th><th>guments is not set. ut of range. ger. arguments is not set. hents out of range. hents not integer. mmand guments is not set. out of range. not integer. of range. positive integer. rguments is not set. string. of range. integer. Z, I, J, K, U, V arguments out of range. integer. Z, I, J, K, U, V arguments out of range. integer. guments is not set. guments is not an integer. t set. t of range. eger. : set. et. et. et. et. t set. t of range. : set. et. et. t set. t of range. : set. : set. et. : set. : set.</th></tr<>	e command One of the I, Q, R ar I, Q, R arguments of I argument not inte 803 command One of the I, Q, P, R I, Q, P, R, J, E argum I, Q, R, J, K, E argum 805 、G10 L1810 co One of the I, Q, R ar I, Q, R, J arguments 820 command P, K arguments out P, K arguments out 20 command One of the P, Q, R a P argument is not a Q, R arguments out Q, R arguments out Q, R arguments not 500 command P, Q, R, X, Y, Z Q, X, Y, Z, I, J 031 command R argument is not s R, V arguments out S00 command R argument is not 500 command P, E argument is not 500 command One of the P, Q arg One of the P, Q arg S0 command P, E argument is not 726 command I, K argument is not 728 command P argument is not s When the P argument 830 command P argument is not s When the P argument 830 command P argument is not s	guments is not set. ut of range. ger. arguments is not set. hents out of range. hents not integer. mmand guments is not set. out of range. not integer. of range. positive integer. rguments is not set. string. of range. integer. Z, I, J, K, U, V arguments out of range. integer. Z, I, J, K, U, V arguments out of range. integer. guments is not set. guments is not an integer. t set. t of range. eger. : set. et. et. et. et. t set. t of range. : set. et. et. t set. t of range. : set. : set. et. : set. : set.
Solution	Please refer to	command descript	ion to troubleshoot.

Alarm ID	COR-346 BGND-346	Alarm title	【Illegally use of programmable data entry】	
Description	Programmable data i	nput conflicts with specifica	ations.	
Possible Cause	<ol> <li>Between wobble command, only one block is allowed to wobble.</li> <li>G10 L1803 commands with different arguments exceeds the upper limit allowed by a single block, up to 12.</li> <li>Too many G10 L1803 and G10 L1805 commands.</li> <li>The feature as L-argument specified is unsupported for current version (from 10.118.41P, 10.118.49).</li> <li>Any axis belongs to multiple coordinates.</li> </ol>			
Solution	<ol> <li>Remove the exceeding number of wobble moving blocks.</li> <li>Reduce the number of G10 L1803 commands in a single movement block to lest than 12.</li> <li>Reduce G10 L1803 and G10 L1805 commands.</li> <li>Update to the version which supports the feature as L-argument specified.</li> <li>Please set Pr701~ of the axis to only belong to a single axis group.</li> </ol>		moving blocks. nds in a single movement block to less nds. feature as L-argument specified. Ig to a single axis group.	

# 8.218 BGND-346 Illegally use of programmable data entry

# 8.219 BGND-347 This function only supports Syntec axis

Alarm ID	COR-347 BGND-347	Alarm title	【This function only supports Syntec axis】		
Description	Only Syntec axis can use this function.				
Possible Cause	The weave function only supports Syntec drives.				
Solution	Please use Syntec driver.				

#### 8.220 BGND-348 APP command error

Alarm ID	COR-348 BGND-348	Alarm title	【APP command error 】
Description	There is an error	in the APP command.	

Alarm ID	COR-348 BGND-348	Alarm title	【APP command error 】	
Possible Cause	<ol> <li>APP name is not a string.</li> <li>The length of APP name is over 20 characters.</li> <li>No APP name is specified.</li> </ol>			
Solution	Please make sure that APF	commands are used correctly i	n the NC program.	

# 8.221 BGND-349 This function only supports Syntec encoder

Alarm ID	COR-349 BGND-34 9	Alarm title	【This function only supports Syntec magnetic gear or ring gear encoder】
Descript ion	Limited to u	ise with Synte	ec magnetic gear or ring gear encoders.
Possible Cause	The following 1. com set b When apply magnetic get 1. the e 2. the p 3. the s softwork In dual-feed conditions.	ng function is plex threading by 1 ). ring the functi ear or ring gea encoder commo oole pair num serial commun ware versions: Iback system,	limited to use Syntec magnetic gear or ring gear encoders: g cycle( G78 or G78.2 ) enables chip removal function ( the argument of D is on mentioned above, the system detect the active spindle is not Syntec ar encoders which satisfies following conditions: nunication type Pn-900 is equal to 13. ber is greater than or equal to 124. nication support M3 Syntec and EtherCAT Syntec ( EtherCAT support a 10.118.66M, 10.118.70H, 10.118.78 and later versions ). it is sufficient for either of the 1st or 2nd encoders to satisfy the above
Solution	1. If use Synt 2. If the	er wants to en ec magnetic g e chip remova	able chip removal function during complex threading cycle, please use gear or ring gear encoders to satisfy the condition. I function is not used, please set the argument of D to 0.

# 8.222 BGND-350 Invalid EnIP Macro

Alarm ID	COR-350 BGND-350	Alarm title	【Invalid EnIP Macro】
Description	EnIP macro syntax ei	rror.	

Alarm ID	COR-350 BGND-350	Alarm title	[Invalid EnIP Macro]	
Possible Cause	The format or range of the input macro arguments is incorrect.			
Solution	Refer to the EnIP ma	cro syntax description.		

#### 8.223 BGND-351 Communication command abnormal

Alarm ID	COR-351 BGND-351	Alarm title	【Communication command abnormal】		
Description	<ol> <li>The execution of the macro communication command failed.</li> <li>The macro communication to driver failed.</li> </ol>				
Possible Cause	<ol> <li>The controller does not support EnIP communication.</li> <li>The EnIP function input request data value range is incorrect.</li> <li>An error occurred while sending or receiving a communication command.</li> </ol>				
Solution	<ol> <li>Please contact the Syntec OEM.</li> <li>Each request data of EnIP represents a 1 value ranging from 0 to 255.</li> <li>This alarm is accompanied by a more detailed error alarm, refer to the alarm description for troubleshooting.</li> </ol>				

# 8.224 BGND-352 Communication command response data is too long

Alarm ID	COR-352 BGND-352	Alarm title	[Communication command response data is too long]		
Description	The device return data length is too long.				
Possible Cause	The storage space provided by the user for returning data is insufficient.				
Solution	Make sure that the storage space for the returned data is sufficient.				

#### 8.225 BGND-353 Invalid argument of CHKINF

Alarm ID	COR-353 BGND-353	Alarm title	[Invalid argument of CHKINF]		
Description	The type of argument of	of CHKINF() is incorrect, or the second s	ne category number is out of range.		
Reason	Programming error.				
Solution	<ol> <li>Please check the NC program.</li> <li>Check the type of first argument is integer.</li> <li>Check the type of second argument is string.</li> <li>Ensure the category number is in the range, please refer to OpenCNC_Macro Development Manual.</li> </ol>				

# 8.226 BGND-354 With RTCP enabled, the usage of G10 L1150 to set Five-Axis mechanism parameter is prohibited.

Alarm ID	COR-354 BGND-354	Alarm title	[With RTCP enabled, the usage of G10 L1150 to set Five-Axis mechanism parameter is prohibited.]
Description	With Rotate Tool Center Point function(G43.4, G43.5) enabled, the usage of G10 L1150 to set Five-Axis mechanism parameter is prohibited.		
Reason	The NC file was written incorrectly.		
Solution	Please modify the N L1150 to set the Five	IC file, cancel Rotate Too e-Axis mechanism param	l Center Point function(G49), and then use G10 eter.

# 8.227 BGND-355 Need geometric axes positioning after tool length compensation changed

Alarm ID	COR-355 BGND-355	Alarm title	Need geometric axes positioning after tool length compensation changed
Description	Positioning of the axes on work plane(G17: XY, G18: ZX, G19: YZ) is required after execut tool length compensation commands, if tool radius compensation commands needed.		

Reason	No positioning of the axes on work plane(G17: XY, G18: ZX, G19: YZ) between executing tool length compensation commands and tool radius compensation commands. Tool length compensation commands: H, T(Lathe), G43, G44, G43.4, G43.5, G49, G10 L1050, G10 L1051 Tool radius compensation commands: G41, G42
Solution	Please modify the NC file. Add positioning command of the axes on work plane(G17: XY, G18: ZX, G19: YZ) after tool length compensation commands and before tool radius compensation commands. Positioning commands: G90 G00, G90 G01, G92

#### 8.228 BGND-356 Invalid APP command

Alarm ID	COR-356 BGND-356	Alarm title	【Invalid APP command】
Description	There is a syntax error on the Modbus command(G10 L1900/1901/1910/1911).		
Possible Cause	The format or range of the input argument is incorrect.		
Solution	Please refer to the Industry Machine Application Manual.		

# 8.229 BGND-357 Illegal Modbus packet contents

Alarm ID	COR-357 BGND-357	Alarm title	【Illegal Modbus packet contents 】
Description	The contents of the Modbus command packet is illegal.		
Possible Cause	The contents of the customized package is incorrect.		
Solution	Please refer to R5039, as this register provides the error code for troubleshooting.		error code for troubleshooting.

#### 8.230 BGND-358 Modbus communication timeout

Alarm ID	COR-358 BGND-358	Alarm title	[Modbus communication timeout]
Description	The Modbus communication experienced a timeout.		
Possible Cause	Abnormal communication or unestablished communication causes the connection timeout.		
Solution	Please refer to R5039,	Please refer to R5039, as this register provides the error code for troubleshooting.	

# 8.231 BGND-359 Modbus communication failure

Alarm ID	COR-359 BGND-359	Alarm title	[Modbus communication failure ]
Description	The Modbus communication failed.		
Possible Cause	1. There is a communication error or device setting error.		
Solution	1. Please refer to	R5039, as this register provid	des the error code for troubleshooting

# 8.232 BGND-361 The number of non-moving blocks exceeds the permissible value under tool radius compensation

Alarm ID	COR-361 BGND-361	Alarm title	[The number of non-moving blocks exceeds the permissible value under tool radius compensation]	
Description	The machining progra compensation is enal	The machining program has programmed too many non-moving blocks when tool radius compensation is enable.		
Possible Cause	Programming error.			
Solution	<ol> <li>Modify the machining program and issue the non-moving blocks when tool radius compensation is disable.</li> <li>Modify the machining program and reduce the number of non-moving blocks when tool radius compensation is enable.</li> </ol>			

# 8.233 BGND-362 Multi-axis multi-signal skip function (G31.10, G31.11) command error

Alarm ID	COR-362 BGND-362	Alarm 标题	[Multi-axis multi-signal skip function (G31.10, G31.11) command error]
说明	Multi-axis multi-signal	skip function (G31	10, G31.11) command error
可能原因	<ol> <li>Setting comma alone, and oth then execute.</li> <li>A set of multi-a command at le Both command and it is not all</li> <li>Supports up to function.</li> <li>Same axis is us skip function. F</li> <li>a. Same a</li> <li>b. Assign s comma (E.g., Vi G31.10</li> <li>c. Assign s (E.g., Th</li> </ol>	<ol> <li>Setting command (G31.10) or execution command (G31.11) cannot be issued alone, and other commands cannot be issued between them. Always set first then execute.</li> <li>A set of multi-axis multi-signal skip function is composed of one G31.10 command at least and one G31.11 command. Set first then execute. Both commands should be issued in a set of multi-axis multi-signal skip function, and it is not allowed to insert other commands in between.</li> <li>Supports up to six G31.10 commands in a set of multi-axis multi-signal skip function.</li> <li>Same axis is used in different G31.10 commands in a set of multi-axis multi-signal skip function. E.g.,         <ul> <li>Same axis name is used in different G31.10 commands.</li> <li>Assign same axis by using virtual axis function in different G31.10 commands.</li> <li>(E.g., Virtual axis Z is corresponding to axis Z1 and Z2. Using axis Z in one G31.10 command, and Z1 in another G31.10 command.)</li> <li>Assign same axis by misusing alias of axis.</li> </ul> </li> </ol>	
排除方法	<ol> <li>Make sure ther command (G3)</li> <li>Make sure ther signal skip fund</li> <li>Make sure ther signal skip fund</li> </ol>	e is always an exec L.10), and there is r e are six G31.10 co ction. e is no axis assigne ction.	eution command (G31.11) behind setting no execution command (G31.11) left alone. mmands at most in each set of multi-axis multi- ed repeatedly in each set of multi-axis multi-

# 8.234 BGND-366 The parameters of rotary axis auxiliary brake are set incorrectly

Alarm ID	COR-366 BGND-366	Alarm Title	【The parameters of rotary axis auxiliary brake are set incorrectly】
Description	Using the rotary axis auxiliary brake, the parameters mapped to the enable group are se incorrectly.		

Possible Cause	Parameters are incorrect. Enable G10 L1500 rotary axis auxiliary brake:
	<ol> <li>The axis ID of the rotary axis auxiliary brake is not specified.</li> <li>The axis type of the specified axis is linear.</li> <li>The M code of the rotary axis auxiliary brake is not specified.</li> </ol>
Solution	Modify parameters Pr3741~Pr3744.

# 8.235 BGND-367 Prohibited commands in rotary axis auxiliary brake mode

Alarm ID	COR-367 BGND-367	Alarm Title	【Prohibited commands in rotary axis auxiliary brake mode】
Description	When the rotary axis auxiliary brake is enabled, prohibited commands are used in the nc program.		
Possible Cause	<ol> <li>The axis, which is in rotary axis auxiliary brake mode, is specified by skip function(G28.1, G31, G31.11).</li> <li>The axis, which is in rotary axis auxiliary brake mode, is specified by chopping function(G81.1, G81.2).</li> <li>Enable the rotary axis auxiliary brake in RTCP mode(G43.4, G43.5).</li> <li>Enable both the rotary axis auxiliary brake mode and the polar coordinate mode(G12.1).</li> </ol>		
Solution	Check the NC program	n.	

# 8.236 BGND-370 Failed to enable chopping function

Alarm ID	COR-370 BGND-370	Alarm title	【Failed to enable chopping function】
Description	Failed to enable the chopping function .		
Possible Cause	<ol> <li>G81.2 or G81.1 command repeatedly         <ol> <li>G81.1 command repeatedly.</li> <li>G81.2 and G81.1 command simultaneously.</li> </ol> </li> <li>Using G81.2 to make 2 axis in the same axis group do advanced chopping simultaneously.</li> </ol>		

Alarm ID	COR-370 BGND-370	Alarm title	[Failed to enable chopping function]	
Solution	Please activate or deactivate the chopping function correctly.			

# 8.237 BGND-371 Prohibit two or more macros read M code argument simultaneously in one block

Alarm ID	COR-371 BGND-371	Alarm Title	Prohibit two or more macros read M code argument simultaneously in one block	
Description	One block only allows one M code argument being read by macro.			
Possible Cause	NC programming error.			
Solution	Check the NC program to ensure that there is only one macro read M code argument in one single block.			

### 8.238 BGND-401 Path planning plug-in error

Alarm ID	COR-401 BGND-401	Alarm title	Path planning plug-in error	
Description	Path planning plug-in error.			
Reason	Path planning plug-in error leads to system abnormality.			
Solution	Please contact OEM Syntec.			

### 8.239 BGND-402 Cycle start is not allowed after use time expire

Alarm ID	COR-402 BGND-402	Alarm title	【Cycle start is not allowed after use time expire 】	
Description	Cycle Start is not allowed after use time expire.			
Reason	The use time of the controller has been expired, hence the controller is locked.			

Solution	1. Extend the use time of the controller.
	2. Please contact the controller vendor to unlock the controller.

### 8.240 BGND-501 Register not enough, program execution failed

Alarm ID	BGND-501	Alarm title	Register not enough, program execution failed		
Descriptio n	Insufficient controller remaining registers cause the background execution unit to fail to activate.				
Possible Cause	<ol> <li>Use too many background execution units in ladder.</li> <li>The system remaining register is too low.</li> </ol>				
Solution	Contact machinery manufacturer.				

### 8.241 BGND-502 Invalid program command

Alarm ID	BGND-502	Alarm title	Invalid program command		
Descriptio n	Incorrect G code is used in program or use M, T code to call MACRO.				
Possible Cause	Program editing error.				
Solution	Please check the MACRO program to confirm that the unsupported G/M/T codes are not used.				

# 8.242 BGND-503 Illegal G code argument

Alarm ID	BGND-503	Alarm title	Illegal G code argument	
Description	Enter incorre	Enter incorrect G10 argument format or range in the program.		
Possible Cause	Program editing error.			
Solution	Please check the MACRO program, and refer to manual to input correct argument.			

### 8.243 BGND-504 S code not supported in background execute mode

Alarm ID	BGND-50 4	Alarm title	S code not supported in background execute mode		
Descriptio n	S code com	S code command is used in program.			
Possible Cause	Program editing error.				
Solution	Please check the MACRO program, and confirm S code is not used.				

# 8.244 BGND-505 F code not supported in background execute mode

Alarm ID	BGND-50 5	Alarm title	F code not supported in background execute mode	
Descriptio n	F code com	F code command is used in MACRO program.		
Possible Cause	Program editing error.			
Solution	Please check the MACRO program and confirm F code is not used.			

### 8.245 BGND-506 H code not supported in background execute mode

Alarm ID	BGND-50 6	Alarm title	H code not supported in background execute mode	
Descriptio n	H code is us	H code is used in MACRO program.		
Possible Cause	Program editing error.			
Solution	Please check the MACRO program, and confirm H codes is not used.			

# 8.246 BGND-507 D code not supported in background execute mode

Alarm ID	BGND-50 7	Alarm title	D code not supported in background execute mode
Descriptio n	D ode is used in MACRO program.		
Possible Cause	Program editing error.		
Solution	Please check the MACRO program, and confirm D codes is not used.		

# 8.247 BGND-508 T code not supported in background execute mode

Alarm ID	BGND-50 8	Alarm title	T code not supported in background execute mode	
Descriptio n	T code is used in MACRO program.			
Possible Cause	Program editing error.			
Solution	Please check the MACRO program, and confirm T codes is not used.			

### 8.248 BGND-509 M code not supported in background execute mode

Alarm ID	BGND-50 9	Alarm title	M code not supported in background execute mode
Descriptio n	M code is used in MACRO program.		
Possible Cause	Program editing error.		
Solution	Please check the MACRO program, and confirm M codes is not used.		

# 8.249 BGND-510 Quantities of Background execute unit exceeds capacity

Alarm ID	BGND-510	Alarm title	[Quantities of Background execute unit exceeds capacity]		
Description	The number of enabled BGND components exceeds the upper limit (20), and can not enable more BGND components.				
Possible Cause	Use too many background execute unit in ladder.				
Solution	Contact machinery manufacturer.				





Background Execute Alarm - BGND – 647

# 9 ROT Turret Alarm - ROT

Alarm ID	ROT-001	Alarm title	[Absolute origin setting is not completed]		
Description	The ROT function only supports serial bus absolute motors.				
	Therefore, the absolute origin setting of the ROT must be completed before starting the positioning.				
Possible Cause	The ROT origin is not set.				
Solution	After reset the origin, reset to clear the alarm.				
Alarm ID	ROT-002	Alarm title o v	[Restart the machine and reset the rigin due to absolute relevant parameter ariations]		
Description	The user has modified the relevant important parameters affecting theoriginposition setting, and must power off the controller and the drive, and set the ROT origin.				
Possible Cause	Modify any of the following parameters: position sensor resolution, number of teeth on the side of the screw, and number of teeth on the motor side.				
Solution	Reboot the controller and driver.				
Alarm ID	ROT-003	Alarm title	【Incremental motors are not supported】		
Description	The ROT function only supports serial bus absolute motors.				
	If it is non-absolute motor, after enable positioning, the system will enter not ready state.				
Possible Cause	<ol> <li>Use a non-absolute motor.</li> <li>There is no driver corresponding to the ROT station number.</li> </ol>				
Solution	<ol> <li>Using an absolute motor.</li> <li>Set the correct station number.</li> </ol>				
	Reboot the controller and drive to clear alarm.				
Alarm ID	ROT-004	Alarm title	【Target tool numbers are out of range】		
Description	Enter an unreasonable target tool number.				
Alarm ID	ROT-004	Alarm title	【Target tool numbers are out of range】		
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Possible Cause	The target tool num	The target tool number is greater than the total tool number, or less than -2.			
Solution	Set the target tool n	umbers correctly, and re	set to clear the alarm.		
Alarm ID	ROT-005	Alarm title	【Driver station numbers do not exist】		
Description	There is no driver connetwork, system en	orresponding to the ROT ters not ready state.	station number on the communication		
Possible Cause	There is no driver connetwork. (Example:	orresponding to the ROT set the driver station nu	station number on the communication nber to 999)		
Solution	Set the correct ROT	station number then reb	oot the controller and driver.		
Alarm ID	ROT-006	Alarm title	[ROT/system axis/serial PLC axis driver station number repetition]		
Description	The ROT axis station enters a not ready sta	The ROT axis station number is repeated with other axis station numbers and the system enters a not ready state.			
Possible Cause	<ul> <li>The ROT axis station number is repeated with other axis station number settings.</li> <li>Please check if the following axis station number setting is repeated;</li> <li>1. System axis</li> <li>2. Serial PLC axis</li> <li>3. ROT axis</li> <li>4. ATC axis</li> <li>5. Setpoint axis</li> </ul>				
Solution	With correct parame	With correct parameter settings, reboot controller and driver.			
Alarm ID	ROT-007	Alarm title	[Registers are located in the system protection area or cannot be bitwise]		
Description	The initial register is not set properly and is located in the system protection area or does not support bit access.				

Alarm ID	ROT-007	Alarm title	[Registers are located in the system protection area or cannot be bitwise]
Possible Cause	<ol> <li>The data base address R(n) or the command status base address R(m) is set in the CNC system interface area.</li> <li>The command status base address R(m) is set to a register that does not support bit access.</li> </ol>		
Solution	Specify the correct i	nitial Register (Set R(m) t	o between R50~R80 or R256~R511.)
Alarm ID	ROT-008	Alarm title	[Excessive positioning deviation]
Description	The current ROT for The system deterr to perform tool se position.	eedback angle does not c nines that the current po quence error removal pro	orrespond to any of the tools on the ROT. sition deviation of the ROT is too large. Have ocedure to reposition the ROT to the correct
Possible Cause	<ul> <li>After the ROT starts positioning, the positioning action is not completed due to the triggering of the emergency stop, or the controller is turned off and the system detects that the current position deviation is too large.</li> <li>(The difference between the "feedbackangle" and the "positioning angle" exceeds the "position check window angle" setting, which is default is 0.1 degrees).</li> <li>For example: if there are 10 tools on the ROT, the position feedback is 40 degrees after booting, and the positioning angle is 36 * N (N=0~9)The difference is greater than the position check window setting angle (default is 0.1 degrees).</li> </ul>		
Solution	<ol> <li>Complete the tool no. sequence error removal procedure (release the emergency stop and set the mode to manual clockwise/counterclockwise) to release the alarm and enable positioning.</li> <li>Set ROT absolute origin to remove alarm, for versions 10.116.36D, 10.116.38, 10.117.38 and above.</li> </ol>		
Alarm ID	ROT-009	Alarm title	Drive communication error
Description	<ul> <li>At least 2 errors listed below occur for over 10ms totally in communication.</li> <li>1. Drive response packet not received.</li> <li>2. Drive response packet CRC error.</li> <li>3. Drive response packet watchdog error.</li> <li>Example: According to the communication time setting( Pr3203 ), 6 consecutive errors for 2ms; 4 consecutive errors for 3ms.</li> </ul>		

Possible Reason	<ol> <li>The communication cable between the controller and the driver is loose.</li> <li>The quality of the communication cable is poor, or there is noise interference.</li> <li>Drive response packet watchdog error.</li> </ol>
Solution	<ol> <li>Check the wiring of the communication cable between the controller and the drive.</li> <li>Check whether the machine is properly grounded, and add a terminal resistor to the communication port of the end drive.</li> <li>Contact Syntec OEM.</li> </ol>

Alarm ID	ROT-010	Alarm title	[Acceleration/deceleration or speed setting error]	
Description	Acceleration/decele	ration or speed set value is	out of range.	
Possible Cause	<ol> <li>The acceleration/deceleration time setting is too small, causing the corresponding acceleration exceed the allowed set value range of the driver.</li> <li>The position sensor has a high resolution, causing the corresponding acceleration exceed the allowed set value range of the driver.</li> <li>The target speed and maximum moving speed are set too large, causing the corresponding acceleration exceed the allowed set value range of the driver.</li> <li>Acceleration/deceleration time setting, exceeding the range of driver parameter values. (If the maximum acceleration is set for the Pn306 of the "SyntecII M2" driver, the parameter setting range is 0~60,000)</li> <li>Acceleration check is considered successful if the following formula is satisfied:</li> <li>M3 Syntec、 M3 Yaskawa Sigma7: (Resolution * Screw Gear) / (Acceleration Time * Motor Gear) &lt; 32,212 * 10^(Acceleration Base Unit).</li> <li>M3 Yaskawa Sigma5: (Resolution * Screw Gear) / (Acceleration Time * Motor Gear) &lt; 786 * 10^(Acceleration Base Unit).</li> <li>Velocity check is considered successful if the following formula is satisfied:</li> <li>M3 Syntec、 M3 Yaskawa: (Auto Velocity * Resolution * Screw Gear) / Motor Gear &lt; 32,212,254,705.</li> </ol>			

Alarm ID	ROT-010	Alarm title	[Acceleration/deceleration or speed setting error]
Solution	<ol> <li>Gradually increase the acceleration/deceleration time until the alarm is removed.</li> <li>Decrease the resolution and increase the electronic gear ratio (Pn-20E) until the alarm is removed.</li> <li>Increase the acceleration base unit (Syntec M3: Pn-86C, Yaskawa M3: Pn-A8C) until the alarm is removed.</li> <li>* When using Yaskawa Sigma M2 series, the problems can be eliminated by initializing the parameters or setting Pn833 to 1 and reboot controller an driver.</li> <li>Properly reduce the target speed and maximum movement speed to within a reasonable range to remove the alarm.</li> <li>When using the Syntec 2<sup>nd</sup> generation M2 drivers, set the acceleration/ deceleration time between 0 and 60,000.</li> <li>Reset to clear the alarms.</li> <li>Note:</li> <li>Yaskawa Sigma series M2, Pn833=1 are valid only for version 10.116.36R, 10.116.46, and 10.117.46 and above, otherwise, the following parameters modified on the controller are invalid:         <ol> <li>ROT tool changing acceleration time.</li> <li>Acceleration/deceleration time R(n+3) and R(n+4) of serial PLC axis positioning/ MPG mode.</li> <li>Deceleration time R(n+4) of serial PLC axis speed mode.</li> </ol> </li></ol>		
Alarm ID	ROT-011	Alarm title	[Driver power abnormality]
Description	The controller dete powered off)	ects an error in the power st	ate of the drive (servo is not on or
Possible Cause	<ol> <li>The power supply module of driver voltage unstable.</li> <li>Drive failure.</li> </ol>		
Solution	<ol> <li>Check whether the power supply status of the driver is abnormal.</li> <li>Check whether the power cable of the driver is loose or broken.</li> <li>Replace the driver.</li> <li>After the above driver problems are eliminated, reboot the controller and driver to remove alarm.</li> </ol>		
Alarm ID	ROT-012	Alarm title	【This driver type is not supported 】
Description	The drive type is no	t supported by ROT.	

Alarm ID	ROT-012	Alarm title	【This driver type is not supported 】
Possible Cause	The ROT function is supported only for the following drive types. M2: Yaskawa sigma5, Yaskawa sigma7, Yaskawa sigmaM, * Syntec 2 <sup>nd</sup> gerneration driver. M3: Yaskawa sigma5, Yaskawa sigma7S, Yaskawa sigmaM, * Syntecdriver.		
Solution	<ul> <li>Replace the driver with a supported driver type and reboot the controller and driver to remove the alarm.</li> <li>Notes: <ul> <li>The Syntec M3 drivers supports ROT function with version 10.116.38D, 10.116.54B, 10.116.0A, and above.</li> <li>The Syntec 2<sup>nd</sup> generation M2 drivers supports ROT with version 10.116.54H, 10.116.0E, and above.</li> </ul> </li> </ul>		
Alarm ID	ROT-013	Alarm title	[Parameter setting causes positioning abnormality]
Description	The gear ratio and r abnormal.	esolution settings may cau	se the tool magazine positioning function
Possible Cause	When the gear ratio is too large, and the positioning angle is large, the command will be greater than 2,147,483,647 and the overflow. The motor will not operate as expected. For example, the gear ratio is 1440:1, the resolution is 4194304 (set value 1048576), and the pulse number per degree is (1440 * 4194304) / (1 * 360) = 16,777,216, Use the maximum positioning angle of 180 degrees to check, 16777216 * 180 = 3,019,898,880, greater than 2,147,483,647, with overflow the clockwise and counterclockwise fail to positioned at the target position.		
Solution	<ol> <li>Reduce the driver electronic gear ratio.</li> <li>Reduce the resolution setting on the controller side.</li> </ol> For example: the gear ratio is 1440:1, the resolution is 4194304 (set value 1048576), the drive electronic gear numerator is 32, the resolution is reduced to 131072 (set value 32768). The pulse number per degree is (1440 * 131072) / (1 * 360) = 524, 288, and the pulse number of 180 degrees is 94,371,840. There will be no command overflow problem.		
Alarm ID	ROT-014	Alarm title	【Syntec encoder firmware upgrade is over, please restart the drive】
Description	Syntec encoder firmware upgrade is over and the drive needs to be reboot.		

Alarm ID	ROT-014	Alarm title	【Syntec encoder firmware upgrade is over, please restart the drive】	
Possible Cause	Perform axial encod	Perform axial encoder firmware upgrade.		
Solution	Reboot the controlle	er and driver.		
Alarm ID	ROT-015	Alarm title	<b>(</b> Syntec encoder information reading timeout <b>)</b>	
Description	Syntec encoder info	ormation reading timeout.		
Possible Cause	<ol> <li>The commu</li> <li>The driver st</li> </ol>	nication between the cont tatus is abnormal.	roller and the driver is abnormal.	
Solution	<ol> <li>Confirm who</li> <li>Reboot cont</li> </ol>	<ol> <li>Confirm whether the communication cable is loose.</li> <li>Reboot controller and driver.</li> </ol>		
Alarm ID	ROT-017	Alarm title	【User-defined tool position setting error】	
Description	When using user-do	When using user-defined tool position, the tool position table is set incorrectly.		
Possible Cause	The user-defined to	ool position is not set in as	cending order.	
Solution	<ol> <li>Set the user</li> <li>Check the p defined too</li> <li>Reset ROT a</li> </ol>	<ol> <li>Set the user-defined tool position in ascending order.</li> <li>Check the parameter "Total tool number" that it is matched with the user- defined tool position table.</li> <li>Reset ROT axis or fix the setting should be able to clear this alarm.</li> </ol>		
Alarm ID	ROT-018	Alarm title	Poor contact of communication wire	
Description	Drive response pao Example: Accordin for 2ms; 4 consecu	Drive response packet is not received for over 10ms in drive communication. Example: According to the communication time setting( Pr3203 ), 6 consecutive errors for 2ms; 4 consecutive errors for 3ms.		
Possible Reason	1. The commu	1. The communication cable between the controller and the driver is loose.		
Solution	<ol> <li>Check the wiring of the communication cable between the controller and the drive.</li> <li>Contact Syntec OEM.</li> </ol>			

Alarm ID	ROT-019	Alarm title	The hardware doesn't receive communication packet
Description	Drive response pack	et is not received for over 1	0ms in communication.
	Example: According to the communication time setting( Pr3203 ), 6 consecutive errors for 2ms; 4 consecutive errors for 3ms.		
Possible Reason	<ol> <li>The drive station number does not correspond to the controller parameters correctly.</li> <li>The communication cable between the controller and the drive is loose.</li> </ol>		
Solution	<ol> <li>Check wheth controller pa</li> <li>Check the wi drive.</li> <li>Contact Synt</li> </ol>	er the drive parameter DIP rameter (Pr21 ~) correctly. ring of the communication ec OEM.	switch setting corresponds to the cable between the controller and the
Alarm ID	ROT-020	Alarm title	The communication packet is disturbed by noise
Description	Drive response pack	et is disturbed by noise to	generate CRC error for over 10ms in
	Example: According to the communication time setting( Pr3203 ), 6 consecutive errors for 2ms; 4 consecutive errors for 3ms.		
Possible Reason	1. The quality of the communication cable is poor, or there is noise interference.		
Solution	<ol> <li>Check wheth</li> <li>Contact Synt</li> </ol>	er the machine is properly ec OEM.	grounded.
Alarm ID	ROT-021	Alarm title	Driver software misses communication packet
Description	Driveresponse pack	et watchdog is wrong for o	ver 10ms in communication.
	Example: According to the communication time setting( Pr3203 ), 6 consecutive errors for 2ms; 4 consecutive errors for 3ms.		
Possible Reason	Drive response packet watchdog is wrong		
Solution	Contact Syntec OEM.		
Alarm ID	ROT-022	Alarm title	Driver power-amp voltage not input

Description	Driver power-amp power is not suppled, please check power cable wiring.
Possible Cause	Driver power-amp power is not suppled.
Solution	Check if the three phase of driver electricity is input correctly.

### 9.1 ROT-001 Absolute origin setting is not completed

Alarm ID	ROT-001	Alarm title	[Absolute origin setting is not completed]
Description	The ROT function only supports serial bus absolute motors. Therefore, the absolute origin setting of the ROT must be completed before starting the positioning.		
Possible Cause	The ROT origin is not set.		
Solution	After reset the origin	n, reset to clear the alarm.	

# 9.2 ROT–002 Restart the machine and reset the origin due to absolute relevant parameter variations

Alarm ID	ROT-002	Alarm title	[Restart the machine and reset the origin due to absolute relevant parameter variations]
Description	The user has modified the relevant important parameters affecting theoriginposition setting, and must power off the controller and the drive, and set the ROT origin.		
Possible Cause	Modify any of the following parameters: position sensor resolution, number of teeth on the side of the screw, and number of teeth on the motor side.		
Solution	Reboot the controller and driver.		

Alarm ID	ROT-003	Alarm title	[Incremental motors are not supported]
Description	The ROT function only supports serial bus absolute motors. If it is non-absolute motor, after enable positioning, the system will enter not ready state.		
Possible Cause	<ol> <li>Use a non-absolute motor.</li> <li>There is no driver corresponding to the ROT station number.</li> </ol>		
Solution	<ol> <li>Using an absolute motor.</li> <li>Set the correct station number.</li> <li>Reboot the controller and drive to clear alarm.</li> </ol>		

#### 9.3 ROT-003 Incremental motors are not supported

### 9.4 ROT-004 Target tool numbers are out of range

Alarm ID	ROT-004	Alarm title	[Target tool numbers are out of range]	
Description	Enter an unreasonable target tool number.			
Possible Cause	The target tool number is greater than the total tool number, or less than -2.			
Solution	Set the target tool numbers correctly, and reset to clear the alarm.			

### 9.5 ROT-005 Driver station numbers do not exist

Alarm ID	ROT-005	Alarm title	[Driver station numbers do not exist]	
Description	There is no driver corresponding to the ROT station number on the communication network, system enters not ready state.			
Possible Cause	There is no driver corresponding to the ROT station number on the communication network. (Example: set the driver station number to 999)			
Solution	Set the correct ROT station number then reboot the controller and driver.			

# 9.6 ROT–006 ROT/system axis/serial PLC axis driver station number repetition

Alarm ID	ROT-006	Alarm title	[ROT/system axis/serial PLC axis driver station number repetition]		
Description	The ROT axis station number is repeated with other axis station numbers and the system enters a not ready state.				
Possible Cause	<ul> <li>The ROT axis station number is repeated with other axis station number settings.</li> <li>Please check if the following axis station number setting is repeated;</li> <li>1. System axis</li> <li>2. Serial PLC axis</li> <li>3. ROT axis</li> <li>4. ATC axis</li> <li>5. Setpoint axis</li> </ul>				
Solution	With correct param	eter settings, reboot contr	oller and driver.		

# 9.7 ROT–007 Registers are located in the system protection area or cannot be bitwise

Alarm ID	ROT-007	Alarm title		[Regist protect	sters are locate ion area or can	d in the syst not be bitw	tem ise]
Description	The initial register is not set properly and is located in the system protection area or does not support bit access.						
Possible Cause	<ol> <li>The data base address R(n) or the command status base address R(m) is set in the CNC system interface area.</li> <li>The command status base address R(m) is set to a register that does not support bit access.</li> </ol>						
Solution	Specify the correct initial Register (Set R(m) to between R50~R80 or R256~R511.)						

Alarm ID	ROT-008	Alarm title	[Excessive positioning deviation ]		
Description	The current ROT feedback angle does not correspond to any of the tools on the ROT. The system determines that the current position deviation of the ROT is too large. Have to perform tool sequence error removal procedure to reposition the ROT to the correct position.				
Possible Cause	After the ROT starts positioning, the positioning action is not completed due to the triggering of the emergency stop, or the controller is turned off and the system detects that the current position deviation is too large. (The difference between the "feedbackangle" and the "positioning angle" exceeds the "position check window angle" setting, which is default is 0.1 degrees). For example: if there are 10 tools on the ROT, the position feedback is 40 degrees after booting, and the positioning angle is 36 * N (N=0~9)The difference is greater than the position check window setting angle (default is 0.1 degrees).				
Solution	<ol> <li>Complete the emergency st release the al</li> <li>Set ROT abso 10.117.38 and</li> </ol>	e tool no. sequence error rer op and set the mode to man arm and enable positioning. lute origin to remove alarm, l above.	noval procedure (release the nual clockwise/counterclockwise) to for versions 10.116.36D, 10.116.38,		

### 9.8 ROT-008 Excessive positioning deviation

#### 9.9 ROT-009 Drive communication error

Alarm ID	ROT-009	Alarm title	Drive communication error	
Description	<ul> <li>At least 2 errors listed below occur for over 10ms totally in communication.</li> <li>1. Drive response packet not received.</li> <li>2. Drive response packet CRC error.</li> <li>3. Drive response packet watchdog error.</li> <li>Example: According to the communication time setting( Pr3203 ), 6 consecutive errors for 2ms; 4 consecutive errors for 3ms.</li> </ul>			
Possible Reason	<ol> <li>The communit</li> <li>The quality of</li> <li>Drive response</li> </ol>	cation cable between the cor the communication cable is p e packet watchdog error.	itroller and the driver is loose. poor, or there is noise interference.	

Solution	<ol> <li>Check the wiring of the communication cable between the controller and the drive.</li> <li>Check whether the machine is properly grounded, and add a terminal resistor to the communication port of the end drive.</li> <li>Contact Syntec OEM.</li> </ol>
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# 9.10 ROT-010 Acceleration/deceleration or speed setting error

Alarm ID	ROT-010	Alarm title	[Acceleration/deceleration or speed setting error]
Description	Acceleration/decele	ration or speed set value is	out of range.
Possible Cause	<ol> <li>The accelera correspondir</li> <li>The position acceleration</li> <li>The target sp correspondir</li> <li>Acceleration values. (If the maxim parameter set</li> </ol> Acceleration check i M3 Syntec、M3 Yask Motor Gear) < 32,212 M3 Yaskawa Sigma5 * 10^(Acceleration E Velocity check is cor M3 Syntec、M3 Yask 32,212,254,705.	tion/deceleration time setting acceleration exceed the allowed set value exceed the allowed set value eached and maximum moving acceleration exceed the allowed set transformer acceleration time setting, where a considered successful if the tawa Sigma7: (Resolution Base Unit), ansidered successful if the for sawa: (Auto Velocity * Resolution * Screw for the tawa * Construction * Screw for tawa * Construction * Screw	ing is too small, causing the allowed set value range of the driver. n, causing the corresponding ue range of the driver. speed are set too large, causing the allowed set value range of the driver. exceeding the range of driver parameter he Pn306 of the "SyntecII M2" driver, the he following formula is satisfied: * Screw Gear) / (Acceleration Time * nit)。 r) / (Acceleration Time * Motor Gear) < 786 llowing formula is satisfied: solution * Screw Gear) / Motor Gear <

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Alarm ID	ROT-010	Alarm title	[Acceleration/deceleration or speed setting error]
Solution	<ol> <li>Gradually inc</li> <li>Decrease the alarm is remo</li> <li>Increase the until the alar</li> <li>* When using initializing th</li> <li>Properly reduces</li> <li>When using to deceleration</li> <li>Reset to clea</li> <li>Note:</li> <li>Yaskawa Sigma series</li> <li>10.117.46 and above invalid:         <ol> <li>ROT tool cha</li> <li>Acceleration, MPG mode.</li> <li>Deceleration</li> </ol> </li> </ol>	crease the acceleration/dece e resolution and increase the oved. acceleration base unit ( Syn m is removed. g Yaskawa Sigma M2 series, i he parameters or setting Pn8 uce the target speed and ma ange to remove the alarm. the Syntec 2 <sup>nd</sup> generation M time between 0 and 60,000 r the alarms. es M2, Pn833=1 are valid on e, otherwise, the following p nging acceleration time. /deceleration time R(n+3) an time R(n+4) of serial PLC ax	eleration time until the alarm is removed. e electronic gear ratio (Pn-20E) until the attec M3: Pn-86C, Yaskawa M3: Pn-A8C ) the problems can be eliminated by B33 to 1 and reboot controller an driver. aximum movement speed to within a 2 drivers, set the acceleration/ ly for version 10.116.36R, 10.116.46, and barameters modified on the controller are and R(n+4) of serial PLC axis positioning/ kis speed mode.

# 9.11 ROT-011 Driver power abnormality

Alarm ID	ROT-011	Alarm title	[Driver power abnormality]		
Description	The controller detects an error in the power state of the drive (servo is not on or powered off)				
Possible Cause	<ol> <li>The power supply module of driver voltage unstable.</li> <li>Drive failure.</li> </ol>				
Solution	<ol> <li>Check whether the power supply status of the driver is abnormal.</li> <li>Check whether the power cable of the driver is loose or broken.</li> <li>Replace the driver.</li> <li>After the above driver problems are eliminated, reboot the controller and driver to remove alarm.</li> </ol>				

Alarm ID	ROT-012	Alarm title	【This driver type is not supported 】		
Description	The drive type is not	supported by ROT.			
Possible Cause	The ROT function is supported only for the following drive types. M2: Yaskawa sigma5, Yaskawa sigma7, Yaskawa sigmaM, * Syntec 2 <sup>nd</sup> gerneration driver. M3: Yaskawa sigma5, Yaskawa sigma7S, Yaskawa sigmaM, * Syntecdriver.				
Solution	<ul> <li>Replace the driver with a supported driver type and reboot the controller and driver to remove the alarm.</li> <li>Notes: <ul> <li>The Syntec M3 drivers supports ROT function with version 10.116.38D, 10.116.54B, 10.116.0A, and above.</li> <li>The Syntec 2<sup>nd</sup> generation M2 drivers supports ROT with version 10.116.54H, 10.116.0E, and above.</li> </ul> </li> </ul>				

#### 9.12 ROT-012 This driver type is not supported

# 9.13 ROT-013 Parameter setting causes positioning abnormality

Alarm ID	ROT-013	Alarm title	[Parameter setting causes positioning abnormality]		
Description	The gear ratio and rabnormal.	esolution settings may caus	se the tool magazine positioning function		
Possible Cause	When the gear ratio is too large, and the positioning angle is large, the command will be greater than 2,147,483,647 and the overflow. The motor will not operate as expected. For example, the gear ratio is 1440:1, the resolution is 4194304 (set value 1048576), and				
	the pulse number per degree is				
	0se the maximum p 3,019,898,880, great counterclockwise fa	esitioning angle of 180 deg ter than 2,147,483,647, with ill to positioned at the targe	rees to cneck, 16777216 ^ 180 = overflow the clockwise and et position.		

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Alarm ID	ROT-013	Alarm title	[Parameter setting causes positioning abnormality]			
Solution	<ol> <li>Reduce the d</li> <li>Reduce the r</li> <li>For example: the get</li> <li>drive electronic geat</li> <li>32768).</li> </ol>	Iriver electronic gear ratio. esolution setting on the cor ar ratio is 1440:1, the resolu r numerator is 32, the resolu	ntroller side. Ition is 4194304 (set value 1048576), the ution is reduced to 131072 (set value			
	The pulse number per degree is (1440 * 131072) / (1 * 360) = 524, 288, and the pulse number of 180 degrees is 94,371,840. There will be no command overflow problem.					

# 9.14 ROT-014 Syntec encoder firmware upgrade is over, please restart the drive

Alarm ID	ROT-014	Alarm title	【Syntec encoder firmware upgrade is over, please restart the drive】	
Description	Syntec encoder firmware upgrade is over and the drive needs to be reboot.			
Possible Cause	Perform axial encoder firmware upgrade.			
Solution	Reboot the control	ler and driver.		

#### 9.15 ROT-015 Syntec encoder information reading timeout

Alarm ID	ROT-015	Alarm title	【Syntec encoder information reading timeout】		
Description	Syntec encoder information reading timeout.				
Possible Cause	<ol> <li>The communication between the controller and the driver is abnormal.</li> <li>The driver status is abnormal.</li> </ol>				
Solution	<ol> <li>Confirm whe</li> <li>Reboot contr</li> </ol>	ther the communication ca roller and driver.	ble is loose.		

Alarm ID	ROT-017	Alarm title	【User-defined tool position setting error】			
Description	When using user-def	When using user-defined tool position, the tool position table is set incorrectly.				
Possible Cause	The user-defined tool position is not set in ascending order.					
Solution	<ol> <li>Set the user-o</li> <li>Check the pa defined tool</li> <li>Reset ROT ax</li> </ol>	defined tool position in asce rameter "Total tool number position table. is or fix the setting should b	ending order. " that it is matched with the user- e able to clear this alarm.			

#### 9.16 ROT-017 User-defined tool position setting error

### 9.17 ROT-018 Poor contact of communication wire

Alarm ID	ROT-018	Alarm title	Poor contact of communication wire		
Description	Drive response packet is not received for over 10ms in drive communication. Example: According to the communication time setting( Pr3203 ), 6 consecutive errors for 2ms; 4 consecutive errors for 3ms.				
Possible Reason	1. The communication cable between the controller and the driver is loose.				
Solution	<ol> <li>Check the wir drive.</li> <li>Contact Synte</li> </ol>	ing of the communication ca	able between the controller and the		

#### 9.18 ROT-019 The hardware doesn't receive communication packet

Alarm ID	ROT-019	Alarm title	The hardware doesn't receive communication packet
Description	Drive response pack Example: According 2ms; 4 consecutive	ket is not received for over g to the communication tim errors for 3ms.	10ms in communication. ne setting( Pr3203 ), 6 consecutive errors for
Possible Reason	<ol> <li>The drive sta correctly.</li> <li>The communication</li> </ol>	ation number does not corr nication cable between the	respond to the controller parameters e controller and the drive is loose.

Solution	<ol> <li>Check whether the drive parameter DIP switch setting corresponds to the controller parameter (Pr21 ~) correctly.</li> </ol>
	<ol> <li>Check the wiring of the communication cable between the controller and the drive.</li> <li>Contact Syntec OEM.</li> </ol>

#### 9.19 ROT-020 The communication packet is disturbed by noise

Alarm ID	ROT-020	Alarm title	The communication packet is disturbed by noise
Description	Drive response pack communication. Example: According for 2ms; 4 consecuti	to the communication time to the communication time ve errors for 3ms.	generate CRC error for over 10ms in e setting( Pr3203 ), 6 consecutive errors
Possible Reason	1. The quality c	of the communication cable	is poor, or there is noise interference.
Solution	<ol> <li>Check wheth</li> <li>Contact Synt</li> </ol>	er the machine is properly tec OEM.	grounded.

#### 9.20 ROT-021 Driver software misses communication packet

Alarm ID	ROT-021	Alarm title	Driver software misses communication packet		
Description	Driveresponse pack Example: According for 2ms; 4 consecuti	et watchdog is wrong for over 10ms in communication. g to the communication time setting( Pr3203 ), 6 consecutive errors ive errors for 3ms.			
Possible Reason	Drive response packet watchdog is wrong				
Solution	Contact Syntec OEM	act Syntec OEM.			

#### 9.21 ROT-022 Driver power-amp voltage not input

Alarm ID	ROT-022	Alarm title	Driver power-amp voltage not input
Description	Driver power-amp po	ower is not suppled, please c	heck power cable wiring.

Possible Cause	Driver power-amp power is not suppled.
Solution	Check if the three phase of driver electricity is input correctly.





ROT Turret Alarm - ROT – 666

### 10 ATC Alarm - ATC

Alarm ID		ATC-001	A	larm Title	e	ATC witl	axis driver station number is repeated nother axis	
Description		ATC axis statio enters Not Re	on numbe ady state.	r is repeat	ed with	other	axis station number, and the system	
Possible Cause		<ul> <li>ATC axis station number setting is repeated with other axis station number.</li> <li>Please check if the station number setting in the following axis is repeated: <ol> <li>System axis</li> <li>Serial PLC axis</li> <li>ROT axis</li> <li>ATC axis</li> <li>Setpoint axis</li> </ol> </li> </ul>						
Solution		After correctly	/ set the st	tation nun	nber, reb	oot t	he controller.	
Alarm ID	AT	C-002 Ala	rm Title	Driver	station r	numb	er not exist	
Description	Th an	e ATC station nu d the system en	umber cor ters Not R	responde eady state	d driver o e.	does	not exist on the communication network,	
Possible Cause		<ol> <li>There is no network.</li> <li>Use pulse a</li> </ol>	<ol> <li>There is no driver corresponding to the ATC station number on the communication network.</li> <li>Use pulse axis or virtual axis.</li> </ol>					
Solution	Aft	er setting the co	orrect ATC	station n	umber, r	eboo	t controller and driver.	
Alarm ID		ATC-003	А	larm Title	9		Register is in the system protected a	irea or non-bit
Description		The start regis	ster is set i	incorrectly	y, which	is in t	he system protected area or bit access is	not supported.
Possible Cause		<ol> <li>The data base address R(n) or command status base address R(m) is set in the CNC system interface.</li> <li>The command status base address R(m) is set in a register that does not support bit access.</li> </ol>						
Solution		<ol> <li>Check the target start registers (Rn)~(Rn+2), do not repeat with the system registers. The recon</li> <li>Check the command and status start registers (Rm)~(Rm+1). Do not repeat the system registers recommended interval is [50,80].</li> <li>After set correctly, reboot the controller and can remove the alarm.</li> </ol>					ers. The recomr stem registers,	
Alarm ID		ATC-004	Alarm T	itle	increm	ental	motor is not supported	

Description	ATC axis not support incremental motor, only support absolute motor.						
Possible Cause	<ol> <li>Incremental motor is used.</li> <li>Use absolute motor, but driver parameter is set as incremental type.</li> </ol>						
Solution	<ol> <li>Change to abso</li> <li>Modify the driv</li> <li>After troublesh</li> </ol>	<ol> <li>Change to absolute motor.</li> <li>Modify the driver parameter to absolute, and reboot driver.</li> <li>After troubleshoot completed, reboot controller and can remove alarm.</li> </ol>					
Alarm ID	ATC-005	Alarm Title	Absolute I	home position is not	set		
Description	ATC function only sup must be completed be	ports serial bus absolute efore cycle start.	motors. Therefore	e, the absolute home	position setting of		
Possible Cause	ATC axis home positic	on is not set.					
Solution	Use MPG mode to turn home position, and ca	Use MPG mode to turn the ATC axis to the position you want to set as home (zero degree angle), set Rm. home position, and can remove the alarm.					
Alarm ID	ATC-006	ATC-006 Alarm Title Home related parameters changed, please reboot and					
Description	The user has modified driver and re-set ATC	The user has modified the important parameters that affect the home position setting. Need to reboot c driver and re-set ATC axis home.					
Possible Cause	修改以下任一参数:位置感应器分辨率、螺杆侧齿数、电机侧齿数、电机运动方向。 Modify any of the following parameters: the position sensor resolution, the number of teeth on the balls number of teeth on the motor side, motor movement direction.						
Solution	Reboot controller and	l driver.					
Alarm ID	ATC-007	ATC-007 Alarm Title Motion plan calculation error					
Description	Controller cannot calculate the motion plan track.						
Possible Cause	<ol> <li>The tool clamp or unclamp range set by the parameter is too small.</li> <li>The advance time of tool clamp or unclamp interval set by the parameter is too large, causing the tool pre-unclamp or pre-clamp position exceed the previous interval.</li> </ol>						
Solution	<ol> <li>Please set a the specifica</li> <li>Please set th</li> </ol>	reasonable tool clamp a ations of the cam. ne advance time of tool c	nd unclamp interv lamp or unclamp s	al angle according to smaller.			

Alarm ID	ATC-008	Alarm Title		Angle setting error		
Description	The angle of each i	The angle of each interval of the ATC axis is set incorrectly.				
Possible Cause	The angle-related s unclamp then clam	The angle-related setting is wrong, and not following the process of first tool unclamp then clamp, to set the angle from small to large.				
Solution	<ol> <li>Please follo</li> <li>The angle n</li> </ol>	<ol> <li>Please follow the first tool unclamp then clamp process to set the angle.</li> <li>The angle needs to be from small to large.</li> </ol>				
Alarm ID	ATC-009 Alarm Title Tool clamp or unclamp sign triggered		clamp or unclamp signal timeout not ered			
Description	When the ATC axis enters the tool clamp or unclamp interval system starts to check corresponding signal. It is necessary to use this inspection mechanism to confirm the completion of the tool clamp and unclamp action, to avoid the machine mechanism crash.					
Possible Cause	After the ATC axis enters the 70% position of tool clamp and unclamp interval, the corresponding check signal has not been triggered (not On) when set waiting time is exceed.					
Solution	<ol> <li>Check PLC and confirm that the tool clamp and unclamp check signals are sent to Rm.8 and Rm.9.</li> <li>Check the tool clamp and unclamp sensors and wiring, and confirm whether the signal is sent normally.</li> <li>Check the mechanism, and confirm whether the ATC axis is performing the tool clamp and unclamp action normally.</li> </ol>					
Alarm ID	ATC-010 Alarm Title When activating not at zero-degree angle					
Description	When the ATC axis is activated, it must be in the check window of zero-degree angle, otherwise alarm will be triggered.					
Possible Cause	<ol> <li>The position check window is set too small.</li> <li>Unexpected ATC axial movement.</li> <li>ATC moves axially after power failure.</li> </ol>					

Solution	<ol> <li>Please adjust range.</li> <li>Please check current angle degrees.</li> <li>Use MPG mo</li> <li>Reset can ren</li> </ol>	<ol> <li>Please adjust the zero-degree position check window within a reasonable range.</li> <li>Please check whether the ATC activating process is correct in according to the current angle (Rn+1), and eliminate the reason that the angle is not at zero degrees.</li> <li>Use MPG mode to turn the ATC axis back to zero degrees.</li> <li>Reset can remove the alarm.</li> </ol>				
Alarm ID	ATC-011	Alarm Title	Exceed the when act	he tool clamp and unclamp angle tivating		
Description	The ATC axis exceed be a risk of damaging	the tool clamp and u g the mechanism.	nclamp ang	le when activating, and there may		
Possible Cause	<ol> <li>ATC axis has u</li> <li>ATC axis has r</li> </ol>	inexpected movement moved after power of	nt. f.			
Solution	<ol> <li>Use MPG mod</li> <li>Reset can rem</li> </ol>	<ol> <li>Use MPG mode to rotate ATC axis back to zero-degree angle.</li> <li>Reset can remove the alarm.</li> </ol>				
Alarm ID	ATC-012	Alarm Title	ATC axis d with othe	lriver station number is repeated r axis		
Description	When the ATC axis is a check position, other	Vhen the ATC axis is activated, the tool axis must be within the check window of the heck position, otherwise alarm will be issued.				
Possible Cause	<ol> <li>The ATC tool of position.</li> <li>The tool axis h (Pr481~) is set</li> </ol>	<ol> <li>The ATC tool change is performed before the tool axis has moved to the check position.</li> <li>The tool axis has reached the check position, but the axis position check window (Pr481~) is set too small.</li> </ol>				
Solution	<ol> <li>If you do not r</li> <li>Before cycle s set check posi</li> <li>Please proper reasonable ra</li> </ol>	<ol> <li>If you do not need to check the tool axis, set the tool axis number to 0 (off).</li> <li>Before cycle start (Rm.0 is set to On), make sure the tool axis has moved to the set check position (machine coordinate).</li> <li>Please properly adjust the tool axis position check window (Pr481~) within a reasonable range.</li> </ol>				
Alarm ID	ATC-013	Alarm Title		Tool axis not exist		
Description	The set tool axis	The set tool axis is not exist.				
Possible Cause	The set tool axis	The set tool axis is not activated.				

Solution	<ol> <li>Please che ID" is activ</li> <li>Reboot co</li> </ol>	e check whether the tool axis corresponded ATC parameter "Station activated. It controller.				
Alarm ID	ATC-014	Alarm title	Drive communication error			
Description	<ul> <li>At least 2 errors listed below occur for over 10ms totally in communication.</li> <li>1. Drive response packet not received.</li> <li>2. Drive response packet CRC error.</li> <li>3. Drive response packet watchdog error.</li> <li>Example: According to the communication time setting( Pr3203 ), 6 consecutive errors for 2ms; 4 consecutive errors for 3ms.</li> </ul>					
Possible Reason	<ol> <li>The communic</li> <li>The quality of f</li> <li>Drive response</li> </ol>	<ol> <li>The communication cable between the controller and the driver is loose.</li> <li>The quality of the communication cable is poor, or there is noise interference.</li> <li>Drive response packet watchdog error.</li> </ol>				
Solution	<ol> <li>Check the wirit drive.</li> <li>Check whether the communic</li> <li>Contact Syntee</li> </ol>	<ol> <li>Check the wiring of the communication cable between the controller and the drive.</li> <li>Check whether the machine is properly grounded, and add a terminal resistor to the communication port of the end drive.</li> <li>Contact Syntec OEM.</li> </ol>				
Alarm ID	ATC-015	ATC-015 Alarm Title Driver parameter write failed				
Description	When ATC axis failed	to write parameter into d	river.			
Possible Cause	The communication between the controller and the drive is unstable, causing the drive parameter write timeout.					
Solution	After eliminating the cause of communication error, reboot the controller and driver.					
Alarm ID	ATC-016 Alarm Title Drive power abnormal					
Description	The controller deter	The controller detected the driver power status error (the servo off or is powered off).				
Possible Cause	<ol> <li>The driver period</li> <li>Drive failure</li> </ol>	<ol> <li>The driver power-amp back power supply is unstable.</li> <li>Drive failure.</li> </ol>				

Solution	<ol> <li>Check if the</li> <li>Check if the</li> <li>Check if the</li> <li>Replace the</li> <li>After the ab drive, then</li> </ol>	<ol> <li>Check if the driver power supply status is normal.</li> <li>Check if the drive power cable is loose or damaged.</li> <li>Replace the drive.</li> <li>After the above driver problems are eliminated, reboot the controller and drive, then can remove the alarm.</li> </ol>				
Alarm ID	ATC-017	Alarm Title	Syntec encoder firmware update is over, please reboot the driver			
Description	The firmware update	of the Syntec encode	er is over, and the driver needs to be rebooted.			
Possible Cause	Perform an axial enco	der firmware upgrac	de.			
Solution	Reboot controller and driver.					
Alarm ID	ATC-018	Alarm Title	Syntec encoder information read timeout			
Description	Syntec encoder info	rmation read timeou	ıt			
Possible Cause	<ol> <li>The commun</li> <li>The drive state</li> </ol>	<ol> <li>The communication between the controller and the driver is abnormal.</li> <li>The drive status is abnormal.</li> </ol>				
Solution	<ol> <li>Check if the c</li> <li>Reboot the co</li> </ol>	communication cable ontroller and driver.	e is loose.			
Alarm ID	ATC-019	Alarm Title	Can't find HomeDog			
Description	After the controller reached the HomeDog, it cannot find the HomeDog after moving in the reverse direction.					
Possible Cause	<ol> <li>HomeDog poor contact.</li> <li>noise interference.</li> </ol>					

Solution	<ol> <li>Check if the HomeDog signal is interfered by noise.</li> <li>Check if the HomeDog contact is well.</li> <li>Reset can remove the alarm.</li> </ol> Advanced description The system first moves towards the direction of HomeDog, after the HomeDog is reached, then decelerate to stop with planned deceleration command. If the deceleration distance is too long when stopping, causing the machine to run over stop block, when the system continues to move in the reverse direction, system need to wait for the HomeDog signal to again appear and disappear before starting the home setting. If the HomeDog signal does not appear when moving in the reverse direction, when "distance moved 2.5 times of acceleration/deceleration time at home searching speed" is exceeded, this alarm will be issued.				
Alarm ID	ATC-020	Alarm Title	Home searching zero speed check failed		
Description	The HomeDog was reached during home searching but the motor could not stop completely.				
Possible Cause	<ol> <li>The driver gain setting is not good, causing the motor shaking.</li> <li>Resonance occurs when the motor is running.</li> </ol>				
Solution	<ol> <li>Check the position loop gain and speed loop gain setting of the driver.</li> <li>Activate the drive resonance frequency suppression function.</li> <li>Reset can remove the alarm.</li> <li>If it cannot be resolved, please contact Syntec OEM.</li> </ol> Advanced description When home searching, machine will move towards the HomeDog at the home searching speed until it stops after hitting the HomeDog, and then find the HomeDog at the speed of 5 (rpm) in the opposite direction. When the machine starts to decelerate when it reached the HomeDog at the home searching speed, if 0.1 seconds after the deceleration command is send, the machine still cannot decelerate to less than the zero speed check window, this alarm will be issued.				
Alarm ID	ATC-021	Alarm Title	Can't leave HomeDog		
Description	When home searching, after stop and return, axis has moved more than 20 degrees and still can't leave HomeDog.				
Possible Cause	<ol> <li>Home Dog poor contact.</li> <li>noise interference.</li> </ol>				

Solution	<ol> <li>Check if t</li> <li>Check if t</li> <li>Check if t</li> <li>Reset car</li> </ol> Advanced descu When home sear searching speed at the speed of 5 The controller ca than 20 degrees	<ol> <li>Check if the HomeDog signal is interfered by noise.</li> <li>Check if the HomeDog is not in good contact.</li> <li>Reset can remove the alarm.</li> </ol> Advanced description When home searching, machine will move towards the HomeDog at the home searching speed until it stops after hitting the HomeDog, and then find the HomeDog at the speed of 5 (rpm) in the opposite direction. The controller calculates based on the sensor resolution. If the motor moves more than 20 degrees and still not leaving the home signal, this alarm will be issued.				
Alarm ID	ATC-023	Alarm title	Poor contact of communication wire			
Description	Drive response pac Example: According for 2ms; 4 consecut	ket is not received for over g to the communication tim ive errors for 3ms.	10ms in drive communication. ne setting( Pr3203 ), 6 consecutive errors			
Possible Reason	1. The commu	nication cable between the	e controller and the driver is loose.			
Solution	<ol> <li>Check the wiring of the communication cable between the controller and the drive.</li> <li>Contact Syntec OEM.</li> </ol>					
Alarm ID	ATC-024 Alarm title The hardware doesn't rece communication packet		The hardware doesn't receive communication packet			
Description	Drive response packet is not received for over 10ms in communication. Example: According to the communication time setting( Pr3203 ), 6 consecutive errors for 2ms; 4 consecutive errors for 3ms.					
Possible Reason	<ol> <li>The drive station number does not correspond to the controller parameters correctly.</li> <li>The communication cable between the controller and the drive is loose.</li> </ol>					
Solution	<ol> <li>Check whether the drive parameter DIP switch setting corresponds to the controller parameter (Pr21 ~) correctly.</li> <li>Check the wiring of the communication cable between the controller and the drive.</li> <li>Contact Syntec OEM.</li> </ol>					
Alarm ID	ATC-025	Alarm title	The communication packet is disturbed by noise			

Description	Drive response packet is disturbed by noise to generate CRC error for over 10ms in communication. Example: According to the communication time setting( Pr3203 ), 6 consecutive errors for 2ms; 4 consecutive errors for 3ms.					
Possible Reason	1. The quality o	f the communication cable i	s poor, or there is noise interference.			
Solution	<ol> <li>Check wheth</li> <li>Contact Synt</li> </ol>	<ol> <li>Check whether the machine is properly grounded.</li> <li>Contact Syntec OEM.</li> </ol>				
Alarm ID	ATC-026 Alarm title Driver software misses communication packet					
Description	Drive response packet watchdog is wrong for over 10ms in communication. Example: According to the communication time setting( Pr3203 ), 6 consecutive errors for 2ms; 4 consecutive errors for 3ms.					
Possible Reason	Drive response packet watchdog is wrong					
Solution	Contact Syntec OEM					
Alarm ID	ATC-027 Alarm title Driver power-amp voltage not input					
Description	Driver power-amp power is not suppled, please check power cable wiring.					
Possible Cause	Driver power-amp power is not suppled.					
Solution	Check if the three p	hase of driver electricity is ir	nput correctly.			

#### 10.1 ATC-001 ATC axis driver station number is repeated with other axis

Alarm ID	ATC-001	Alarm Title	ATC axis driver station number is repeated with other axis
Description	ATC axis station num enters Not Ready sta	ber is repeated with te.	other axis station number, and the system

Possible Cause	<ul> <li>ATC axis station number setting is repeated with other axis station number.</li> <li>Please check if the station number setting in the following axis is repeated: <ol> <li>System axis</li> <li>Serial PLC axis</li> <li>ROT axis</li> <li>ATC axis</li> <li>Setpoint axis</li> </ol> </li> </ul>
Solution	After correctly set the station number, reboot the controller.

#### 10.2 ATC-002 Driver station number not exist

Alarm ID	ATC-002	Alarm Title	Driver station number not exist		
Description	The ATC station number corresponded driver does not exist on the communication network, and the system enters Not Ready state.				
Possible Cause	<ol> <li>There is no driver corresponding to the ATC station number on the communication network.</li> <li>Use pulse axis or virtual axis.</li> </ol>				
Solution	After setting t	he correct ATC	station number, reboot controller and driver.		

#### 10.3 ATC-003 Register is in the system protected area or non-bitable

Alarm ID	ATC-003	Alarm Title	[Register is in the system protected area or non-bita		
Description	The start register is set incorrectly, which is in the system protected area or bit access is not supported.				
Possible Cause	<ol> <li>The data base address R(n) or command status base address R(m) is set in the CNC system interface.</li> <li>The command status base address R(m) is set in a register that does not support bit access.</li> </ol>				
Solution	<ol> <li>Check the target start registers (Rn)~(Rn+2), do not repeat with the system registers. The recon</li> <li>Check the command and status start registers (Rm)~(Rm+1). Do not repeat the system register recommended interval is [50,80].</li> <li>After set correctly, reboot the controller and can remove the alarm.</li> </ol>				

#### 10.4 ATC-004 Incremental motor is not supported

Alarm ID	ATC-004	Alarm Title	incremental motor is not supported
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Possible Cause	<ol> <li>Incremental motor is used.</li> <li>Use absolute motor, but driver parameter is set as incremental type.</li> </ol>
	2. Use absolute motor, but unver parameter is set as incremental type.
Solution	<ol> <li>Change to absolute motor.</li> <li>Modify the driver parameter to absolute, and reboot driver.</li> <li>After troubleshoot completed, reboot controller and can remove alarm.</li> </ol>

#### 10.5 ATC-005 Absolute home position is not set

Alarm ID	ATC-005	Alarm Title	Absolute home position is not set	
Description	ATC function only supports serial bus absolute motors. Therefore, the absolute home position setting of must be completed before cycle start.			
Possible Cause	ATC axis home position is not set.			
Solution	Use MPG mode to turn the ATC axis to the position you want to set as home (zero degree angle), set Rm. home position, and can remove the alarm.			

# 10.6 ATC-006 Home related parameters changed, please reboot and reset home

Alarm ID	ATC-006	Alarm Title	Home related parameters changed, please reboot and		
Description	The user has modified the important parameters that affect the home position setting. Need to reboot co driver and re-set ATC axis home.				
Possible Cause	修改以下任一参数:位置感应器分辨率、螺杆侧齿数、电机侧齿数、电机运动方向。 Modify any of the following parameters: the position sensor resolution, the number of teeth on the ballso number of teeth on the motor side, motor movement direction.				
Solution	Reboot controller an	ıd driver.			

#### 10.7 ATC-007 Motion plan calculation error

Alarm ID	ATC-007	Alarm Title	Motion plan calculation error	
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Description	Controller cannot calculate the motion plan track.
Possible Cause	<ol> <li>The tool clamp or unclamp range set by the parameter is too small.</li> <li>The advance time of tool clamp or unclamp interval set by the parameter is too large, causing the tool pre-unclamp or pre-clamp position exceed the previous interval.</li> </ol>
Solution	<ol> <li>Please set a reasonable tool clamp and unclamp interval angle according to the specifications of the cam.</li> <li>Please set the advance time of tool clamp or unclamp smaller.</li> </ol>

#### 10.8 ATC-008 Angle setting error

Alarm ID	ATC-008	Alarm Title	Angle setting error
Description	The angle of each interval of the ATC axis is set incorrectly.		
Possible Cause	The angle-related setting is wrong, and not following the process of first tool unclamp then clamp, to set the angle from small to large.		
Solution	<ol> <li>Please follow the first tool unclamp then clamp process to set the angle.</li> <li>The angle needs to be from small to large.</li> </ol>		

#### 10.9 ATC-009 Tool clamp or unclamp signal timeout not triggered

Alarm ID	ATC-009	Alarm Title	Tool clamp or unclamp signal timeout not triggered
Description	When the ATC axis enters the tool clamp or unclamp interval system starts to check corresponding signal. It is necessary to use this inspection mechanism to confirm the completion of the tool clamp and unclamp action, to avoid the machine mechanism crash.		
Possible Cause	After the ATC axis enters the 70% position of tool clamp and unclamp interval, the corresponding check signal has not been triggered (not On) when set waiting time is exceed.		

Solution	<ol> <li>Check PLC and confirm that the tool clamp and unclamp check signals are sent to Rm.8 and Rm.9.</li> <li>Check the tool clamp and unclamp sensors and wiring, and confirm whether the signal is sent normally.</li> </ol>
	3. Check the mechanism, and confirm whether the ATC axis is performing the tool clamp and unclamp action normally.

#### 10.10 ATC-010 When activating not at zero-degree angle

Alarm ID	ATC-010	Alarm Title	When activating not at zero-degree angle
Description	When the ATC axis is activated, it must be in the check window of zero-degree angle, otherwise alarm will be triggered.		
Possible Cause	<ol> <li>The position check window is set too small.</li> <li>Unexpected ATC axial movement.</li> <li>ATC moves axially after power failure.</li> </ol>		
Solution	<ol> <li>Please adjust the zero-degree position check window within a reasonable range.</li> <li>Please check whether the ATC activating process is correct in according to the current angle (Rn+1), and eliminate the reason that the angle is not at zero degrees.</li> <li>Use MPG mode to turn the ATC axis back to zero degrees.</li> <li>Reset can remove the alarm.</li> </ol>		

# 10.11 ATC-011 Exceed the tool clamp and unclamp angle when activating

Alarm ID	ATC-011	Alarm Title	Exceed the tool clamp and unclamp angle when activating
Description	The ATC axis exceed the tool clamp and unclamp angle when activating, and there may be a risk of damaging the mechanism.		
Possible Cause	<ol> <li>ATC axis has unexpected movement.</li> <li>ATC axis has moved after power off.</li> </ol>		
Solution	<ol> <li>Use MPG mode to rotate ATC axis back to zero-degree angle.</li> <li>Reset can remove the alarm.</li> </ol>		

Alarm ID	ATC-012	Alarm Title	ATC axis driver station number is repeated with other axis
Description	When the ATC axis is activated, the tool axis must be within the check window of the check position, otherwise alarm will be issued.		
Possible Cause	<ol> <li>The ATC tool change is performed before the tool axis has moved to the check position.</li> <li>The tool axis has reached the check position, but the axis position check window (Pr481~) is set too small.</li> </ol>		
Solution	<ol> <li>If you do not need to check the tool axis, set the tool axis number to 0 (off).</li> <li>Before cycle start (Rm.0 is set to On), make sure the tool axis has moved to the set check position (machine coordinate).</li> <li>Please properly adjust the tool axis position check window (Pr481~) within a reasonable range.</li> </ol>		

#### 10.12 ATC-012 Tool axis not moved to check position

#### 10.13 ATC-013 Tool axis not exist

Alarm ID	ATC-013	Alarm Title	Tool axis not exist
Description	The set tool axis is n	ot exist.	
Possible Cause	The set tool axis is not activated.		
Solution	<ol> <li>Please check ID" is activate</li> <li>Reboot contr</li> </ol>	whether the tool axis corre ed. roller.	esponded ATC parameter "Station

#### 10.14 ATC-014 Drive communication error

Alarm ID	ATC-014	Alarm title	Drive communication error
Description	At least 2 errors listed 1. Drive response 2. Drive response 3. Drive response Example: According to for 2ms; 4 consecutive	below occur for over 10ms to packet not received. packet CRC error. packet watchdog error. the communication time se e errors for 3ms.	otally in communication. tting( Pr3203 ), 6 consecutive errors

Possible Reason	<ol> <li>The communication cable between the controller and the driver is loose.</li> <li>The quality of the communication cable is poor, or there is noise interference.</li> <li>Drive response packet watchdog error.</li> </ol>
Solution	<ol> <li>Check the wiring of the communication cable between the controller and the drive.</li> <li>Check whether the machine is properly grounded, and add a terminal resistor to the communication port of the end drive.</li> <li>Contact Syntec OEM.</li> </ol>

#### 10.15 ATC-015 Driver parameter write failed

Alarm ID	ATC-015	Alarm Title	Driver parameter write failed
Description	When ATC axis failed to	o write parameter into	driver.
Possible Cause	The communication between the controller and the drive is unstable, causing the drive parameter write timeout.		
Solution	After eliminating the ca	ause of communication	n error, reboot the controller and driver.

#### 10.16 ATC-016 Drive power abnormal

Alarm ID	ATC-016	Alarm Title	Drive power abnormal
Description	The controller detected the driver power status error (the servo off or is powered off).		
Possible Cause	<ol> <li>The driver power-amp back power supply is unstable.</li> <li>Drive failure.</li> </ol>		
Solution	<ol> <li>Check if the driv</li> <li>Check if the driv</li> <li>Replace the driv</li> <li>After the above of drive, then can replace the drive</li> </ol>	er power supply status e power cable is loose c e. driver problems are elir emove the alarm.	is normal. or damaged. ninated, reboot the controller and

# 10.17 ATC-017 Syntec encoder firmware update is over, please reboot the driver

Alarm ID	ATC-017	Alarm Title	Syntec encoder firmware update is over, please reboot the driver
Description	The firmware update of the Syntec encoder is over, and the driver needs to be rebooted.		
Possible Cause	Perform an axial encoder firmware upgrade.		
Solution	Reboot controller and driver.		

### 10.18 ATC-018 Syntec encoder information read timeout

Alarm ID	ATC-018	Alarm Title	Syntec encoder information read timeout
Description	Syntec encoder inform	nation read timeout	
Possible Cause	<ol> <li>The communication between the controller and the driver is abnormal.</li> <li>The drive status is abnormal.</li> </ol>		
Solution	<ol> <li>Check if the co</li> <li>Reboot the cor</li> </ol>	mmunication cable is ntroller and driver.	loose.

#### 10.19 ATC-019 Can't find HomeDog

Alarm ID	ATC-019	Alarm Title	Can't find HomeDog
Description	After the controller reac in the reverse direction.	hed the HomeDog, it ca	nnot find the HomeDog after moving
Possible Cause	<ol> <li>HomeDog poor c</li> <li>noise interference</li> </ol>	contact. ce.	

Solution	<ol> <li>Check if the HomeDog signal is interfered by noise.</li> <li>Check if the HomeDog contact is well.</li> <li>Reset can remove the alarm.</li> </ol>
	Advanced description
	The system first moves towards the direction of HomeDog, after the HomeDog is reached, then decelerate to stop with planned deceleration command. If the deceleration distance is too long when stopping, causing the machine to run over stop block, when the system continues to move in the reverse direction, system need to wait for the HomeDog signal to again appear and disappear before starting the home setting. If the HomeDog signal does not appear when moving in the reverse direction, when "distance moved 2.5 times of acceleration/deceleration time at home searching speed" is exceeded, this alarm will be issued.

#### 10.20 ATC-020 Home searching zero speed check failed

Alarm ID	АТС-020	Alarm Title	Home searching zero speed check failed
Description	The HomeDog was reached during home searching but the motor could not stop completely.		
Possible Cause	<ol> <li>The driver gain setting is not good, causing the motor shaking.</li> <li>Resonance occurs when the motor is running.</li> </ol>		
Solution	<ol> <li>Check the position loop gain and speed loop gain setting of the driver.</li> <li>Activate the drive resonance frequency suppression function.</li> <li>Reset can remove the alarm.</li> <li>If it cannot be resolved, please contact Syntec OEM.</li> </ol>		
	Advanced description		
	When home searching, machine will move towards the HomeDog at the home searching speed until it stops after hitting the HomeDog, and then find the HomeDog at the speed of 5 (rpm) in the opposite direction.		
	When the machine sta searching speed, if 0.1 still cannot decelerate issued.	arts to decelerate whe seconds after the dec to less than the zero	n it reached the HomeDog at the home celeration command is send, the machine speed check window, this alarm will be

#### 10.21 ATC-021 Can't leave HomeDog

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Description	When home searching, after stop and return, axis has moved more than 20 degrees and still can't leave HomeDog.
Possible Cause	<ol> <li>Home Dog poor contact.</li> <li>noise interference.</li> </ol>
Solution	<ol> <li>Check if the HomeDog signal is interfered by noise.</li> <li>Check if the HomeDog is not in good contact.</li> <li>Reset can remove the alarm.</li> </ol>
	Advanced description
	When home searching, machine will move towards the HomeDog at the home searching speed until it stops after hitting the HomeDog, and then find the HomeDog at the speed of 5 (rpm) in the opposite direction. The controller calculates based on the sensor resolution. If the motor moves more than 20 degrees and still not leaving the home signal, this alarm will be issued.

### 10.22 ATC-023 Poor contact of communication wire

Alarm ID	ATC-023	Alarm title	Poor contact of communication wire		
Description	Drive response packet is not received for over 10ms in drive communication. Example: According to the communication time setting( Pr3203 ), 6 consecutive errors for 2ms; 4 consecutive errors for 3ms.				
Possible Reason	1. The communication cable between the controller and the driver is loose.				
Solution	<ol> <li>Check the wiring of the communication cable between the controller and the drive.</li> <li>Contact Syntec OEM.</li> </ol>				

# 10.23 ATC-024 The hardware doesn't receive communication packet

Alarm ID	ATC-024	Alarm title	The hardware doesn't receive communication packet	
Description	Drive response packet is not received for over 10ms in communication. Example: According to the communication time setting( Pr3203 ), 6 consecutive errors for 2ms; 4 consecutive errors for 3ms.			
Possible Reason	<ol> <li>The drive station number does not correspond to the controller parameters correctly.</li> <li>The communication cable between the controller and the drive is loose.</li> </ol>			
-----------------	--			
Solution	<ol> <li>Check whether the drive parameter DIP switch setting corresponds to the controller parameter (Pr21 ~) correctly.</li> <li>Check the wiring of the communication cable between the controller and the drive.</li> <li>Contact Syntec OEM.</li> </ol>			

### 10.24 ATC-025 The communication packet is disturbed by noise

Alarm ID	ATC-025	Alarm title	The communication packet is disturbed by noise
Description	Drive response packet is disturbed by noise to generate CRC error for over 10ms in communication. Example: According to the communication time setting(Pr3203), 6 consecutive errors for 2ms; 4 consecutive errors for 3ms.		
Possible Reason	1. The quality of the communication cable is poor, or there is noise interference.		
Solution	<ol> <li>Check whether the machine is properly grounded.</li> <li>Contact Syntec OEM.</li> </ol>		

### 10.25 ATC-026 Driver software misses communication packet

Alarm ID	ATC-026	Alarm title	Driver software misses communication packet
Description	Drive response packet watchdog is wrong for over 10ms in communication. Example: According to the communication time setting( Pr3203 ), 6 consecutive errors for 2ms; 4 consecutive errors for 3ms.		
Possible Reason	Drive response packet watchdog is wrong		
Solution	Contact Syntec OEM		

Alarm ID	ATC-027	Alarm title	Driver power-amp voltage not input
Description	Driver power-amp power is not suppled, please check power cable wiring.		
Possible Cause	Driver power-amp power is not suppled.		
Solution	Check if the three phase of driver electricity is input correctly.		

# 10.26 ATC-027 Driver power-amp voltage not input





## 11 Serial PLC Axis Alarm – SERIALPLCAXIS

Alarm ID	SERIALPLCAXIS-001	Alarm title	[ROT/system axis/serial PLC axis driver station number repetition]	
Description	The serial PLC axis station system enters the not read	number is repeated with y state.	other axis station numbers, and the	
Reason	<ul> <li>The serial PLC station number setting to repeated with other axis. Please check if the following axis station number settings are repeated:</li> <li>1. System axis.</li> <li>2. Serial PLC axis.</li> <li>3. ROT axis.</li> <li>4. ATC axis.</li> <li>5. Setpoint axis</li> </ul>			
Solution	With correct parameter set	tings, reboot controller	and driver to remove the alarm.	
Alarm ID	SERIALPLCAXIS-002	Alarm title	[R value registers are located in the system protection area or cannot be bitwise]	
Description	The initial register is not set not set not support bit access.	properly and is located	in the system protection area or does	
Reason	<ol> <li>The data base address R(n) or the command status base address R(m) is set in the CNC system interface area.</li> <li>The command status base address R(m) is set to a register that does not support bit access.</li> </ol>			
Solution	Specify the initial R register	r correctly (Set Rm to be	tween R50~R80 or R256~R511.)	
Alarm ID	SERIALPLCAXIS-003	Alarm title	[Acceleration/deceleration or speed setting error]	
Description	Acceleration/deceleration	Acceleration/deceleration or speed set value is out of range.		

Reason	<ol> <li>The acceleration/deceleration time setting is too small, causing the corresponding acceleration exceed the allowed set value range of the driver. (The acceleration/deceleration is based on the pulse wave per square sec. of resolution, gear ratio, and the screw width, if it is the "Yakawa" drive, it must fall within the range of 1~655,350,000.)</li> <li>The position sensor has a high resolution, causing the corresponding acceleration exceed the allowed set value range of the driver.</li> <li>The target speed and maximum moving speed are set too large, causing the corresponding acceleration exceed the allowed set value range of the driver.</li> <li>Acceleration/deceleration time setting, exceeding the range of driver parameter values. (If the maximum acceleration is set for the Pn306 of the "SyntecII M2" driver, the parameter setting range is 0~60,000)</li> </ol>		
Solution	<ol> <li>Properly enlarge acceleration/deceleration time to within a reasonable range, can remove alarm,</li> <li>* When using Yaskawa Sigma M2 series, the problems can be eliminated by initializing the parameters or setting Pn833 to 1 and reboot controller an driver.</li> <li>Properly reduce the target speed and maximum movement speed to within a reasonable range to remove the alarm.</li> <li>When using the Syntec 2<sup>nd</sup> generation M2 drivers, set the acceleration/deceleration time between 0 and 60,000.</li> <li>Reset to clear the alarms.</li> <li>Note:</li> <li>Yaskawa Sigma series M2, Pn833=1 are valid only for version 10.116.36R, 10.116.46, and 10.117.46 and above, otherwise, the following parameters modified on the controller are invalid:         <ol> <li>ROT tool changing acceleration time.</li> <li>Acceleration/deceleration time R(n+3) and R(n+4) of serial PLC axis positioning/MPG mode.</li> <li>Deceleration time R(n+4) of serial PI C axis speed mode</li> </ol> </li> </ol>		
Alarm ID	SERIALPLCAXIS-004	Alarm title	[Inspection window setting error]
Description	The serial PLC axis position and speed checking window settings are incorrect. Please re- specify.		
Reason	The serial PLC axis position and speed check window settings are out of range. (The number of pulse converted by the position check window according to resolution, gear ratio, and ballscrew width must fall within the range of 0~1,073,741,824) (The RPM number converted by the speed check window according to resolution, gear ratio, and ballscrew width must fall within the range of 0 to 100 RPM)		
Solution	Set the PLC axis position and	speed inspection window	rs to be within a reasonable range.

Alarm ID	SERIALPLCAXIS-005	Alarm title	【The first phase of homing speed set is too high】	
Description	The first phase homing speed of the serial PLC axis is set too high. Please re-specify.			
Reason	The first phase homing spee (The pulse per second conve gear ratio, and ballscrew wi	The first phase homing speed of the serial PLC axis is set too high. (The pulse per second converted by first-phase homing speed according to the resolution, gear ratio, and ballscrew width, must be fall within 0~6,553,500 pulses per sec.		
Solution	Lower the first phase of hon reasonable range to remove Note: This alarm supports o before, the later versions do	Lower the first phase of homing speed on the serial PLC axis for it to fall within a reasonable range to remove the alarm. Note: This alarm supports only versions 10.116.38M, 10.116.54K, 10.118.0F, 10.118.6 and before, the later versions do not support driver homing.		
Alarm ID	SERIALPLCAXIS-006	Alarm title	【The second phase of homing speed set is too high】	
Description	The second phase homing s specify.	The second phase homing speed setting of the serial PLC axis is too large. Please re- specify.		
Reason	The second phase homing s (The pulse per second of the ratio, and ballscrew width, a	The second phase homing speed setting of the serial PLC axis is too large. (The pulse per second of the second phase homing speed depends on the resolution, gear ratio, and ballscrew width, and must fall within the range of 0~6,553,500.)		
Solution	Lower the second phase of I range. Note: This alarm only suppo and before, the later versior	Lower the second phase of homing speed on the serial PLC axis to be within a reasonable range. Note: This alarm only supports versions 10.116.38M, 10.116.54K, 10.118.0F, and 10.118.6 and before, the later version do not support the driver homing.		
Alarm ID	SERIALPLCAXIS-007	Alarm title	【The offset of homing is set too high】	
Description	The serial PLC axis homing	The serial PLC axis homing offset setting is too large, please re-specify.		
Possible causes	The offset of serial PLC axis homing is set out of range. (The number of pulse converted from the homing offset based on resolution, gear ratio, and ballscrew width must fall within the range of -1073741823~1073741823 pulse.)			
Solution	Adjust the offset of serial PL	Adjust the offset of serial PLC axis homing for it to fall within a reasonable range.		
Alarm ID	SERIALPLCAXIS-008	Alarm title	[Absolute motors do not support incremental homing]	

Description	Absolute motor cannot use incremental homing function			
Possible causes	When using an absolute mot	When using an absolute motor, the incremental homing action is triggered.		
Solution	<ol> <li>When using absolute the incremental hom</li> <li>Reset to remove the a</li> </ol>	<ol> <li>When using absolute motors, trigger mechanical origin settings (Rm.6) rather than the incremental homing (Rm.5, Rm.8).</li> <li>Reset to remove the alarm.</li> </ol>		
Alarm ID	SERIALPLCAXIS-009	Alarm title	[Absolute origin setting is not completed]	
Description	Absolute encoder needs to s	set the origin at first t	ime.	
Possible causes	Absolute encoder is used, bu	ut the machine origin	has not been set.	
Solution	Use R(m).6 to set the mecha On), the alarm can be remov	Use R(m).6 to set the mechanical origin, when the origin setting is completed (R(m+1).7 On), the alarm can be removed.		
Alarm ID	SERIALPLCAXIS-010 A	larm title	【Restart the machine and reset the origin due to absolute relevant parameter variations】	
Description	The user has modified the relevant important parameters which affects the home position setting. Must reboot controller and driver, and perform the serial PLC axis origin setting.			
Possible causes	Modify any of the following pa side of the ballscrew, and nur	Modify any of the following parameters: position sensor resolution, number of gear on the side of the ballscrew, and number of gear on the side of the motor.		
Solution	Reboot the controller and driv	ver.		
Alarm ID	SERIALPLCAXIS-011	Alarm title	[Driver station numbers do not exist]	
Description	There is no driver corresponding to the serial PLC axis station number on the communication network, and the system enters not ready state.			
Possible causes	There is no drive on the con station number. (Example: s	There is no drive on the communication network that corresponds to the serial PLC axis station number. (Example: set the drive station number to 999)		
Solution	Set the correct serial PLC ax	is station number, ar	nd reboot the controller and driver.	

Alarm ID	SERIALPLCAXIS-012	Alarm title	[Exceeding the positive software stroke limit]	
Description	The axial mechanical coordinate exceeds the positive software stroke limit.			
Possible causes	The axial movement exceeds	s the setting value.		
Solution	<ol> <li>Reset can remove the</li> <li>Move the axial in neg range, and can remove</li> </ol>	e alarms. ative direction to be out o ve alarm.	of the software stroke protection	
Alarm ID	SERIALPLCAXIS-013	Alarm title	[Exceeding the negative software stroke limit]	
Description	Axial mechanical coordinate	s exceed the negative so	ftware stroke limit.	
Possible causes	The axial movement exceeds	s the set value.		
Solution	<ol> <li>Reset to remove the a</li> <li>Move the axial in positive to remove the alarm.</li> </ol>	<ol> <li>Reset to remove the alarm.</li> <li>Move the axial in positive direction to be out of the software stroke protection range to remove the alarm.</li> </ol>		
Alarm ID	SERIALPLCAXIS-014	Alarm title	Drive communication error	
Description	<ul> <li>At least 2 errors listed below occur for over 10ms totally in M3 communication.</li> <li>1. M3 response packet not received.</li> <li>2. M3 response packet CRC error.</li> <li>3. M3 response packet watchdog error.</li> <li>Example: According to the communication time setting(Pr3203), 6 consecutive errors for 2ms; 4 consecutive errors for 3ms.</li> </ul>			
Possible Reason	<ol> <li>The communication cable between the controller and the driver is loose.</li> <li>The quality of the communication cable is poor, or there is noise interference.</li> <li>M3 response packet watchdog error.</li> </ol>			
Solution	<ol> <li>Check the wiring of the communication cable between the controller and the drive.</li> <li>Check whether the machine is properly grounded, and add a terminal resistor to the communication port of the end drive.</li> <li>Contact Syntec OEM.</li> </ol>			
Alarm ID	SERIALPLCAXIS-015	Alarm title	【Driver parameters writing failed】	

Description	Error occurred while writing	Error occurred while writing the serial PLC axis parameters to the driver.		
Possible causes	The communication betwee parameter writing timeout.	The communication between the controller and the drive is unstable, causing the driver parameter writing timeout.		
Solution	After the cause of communi- driver.	After the cause of communication instability is eliminated, reboot the controller and driver.		
Alarm ID	SERIALPLCAXIS-016 Alarm title [The origin index signal could not be found]			
Description	When searching for the origi cannot be found after movin	n, after leaving the home g more than 5 pitches.	switch, the motor index signal	
Possible causes	<ol> <li>The index signal can</li> <li>The second phase speed</li> <li>Motor reduction ration</li> <li>The index signal is more</li> </ol>	<ol> <li>The index signal cannot be read.</li> <li>The second phase speed setting of the homing is too large.</li> <li>Motor reduction ratio is set too high.</li> <li>The index signal is more than 5 pitches from the origin stroke switch.</li> </ol>		
Solution	<ol> <li>Check if the motor index wiring is normal.</li> <li>Reduce the value of the second phase of homing speed setting.</li> <li>Reset to remove the alarm.</li> </ol>			
	<ol> <li>Advanced Instructions</li> <li>When homing, the machine will move towards the origin switch with the first phase speed setting, and stop until it hits the origin switch, then move in the opposite direction at the second phase homing speed setting.</li> <li>After leaving the origin switch, start looking for the nearest motor index signal.</li> <li>When returning at the second phase speed, with the single feedback of the motor, the controller calculates the resolution of the encoder per revolution. If the index signal is not found within 5 turns of the motor, controller issues the alarm immediately.</li> </ol>			
Alarm ID	SERIALPLCAXIS-017 Alarm title [Homing zero speed check failed]			
Description	Controller will issue this alarm while homing when home switch is encountered but the motor cannot be completely stopped.			
Possible causes	<ol> <li>Driver gain setting is</li> <li>Resonance occurs w</li> </ol>	poor, causing the motor hen the motor is running	to shake.	

Solution	<ol> <li>Check the driver's position loop gain and speed loop gain settings.</li> <li>Start the driver resonance frequency suppression function.</li> <li>Reset to remove alarm.</li> <li>If it cannot be solved, please contact the Vendor.</li> </ol> Advanced Instructions When homing, the machine will move towards the origin switch with the first phase speed setting, and stops until it hits the origin switch, then move in the opposite direction to search motor index signal at the second phase homing speed setting. After hitting the origin switch at the first phase of speed machine starts to decelerate, if after 0.1 sec from deceleration command is given the machine still cannot decelerate to smaller than the "zero speed inspection window" speed, this alarm will be issued.		
Alarm ID	SERIALPLCAXIS-018	Alarm title	【Inseparable from the origin switch】
Description	While homing, after hit the ori protection encoder revolutior	gin switch and return, the but still cannot leave the	system exceed the second phase origin switch.
Possible causes	Use a multimeter to measure	whether the stroke switch	is shorted circuit or malfunction.
Solution	Resetting can remove the alarms. Advanced Instructions When homing, machine will move towards the origin switch with first phase speed until it hits the origin switch, and then move in the opposite direction at the speed of origin searching in the second phase. The controller will calculate the resolution of the encoder per revolution. If the motor exceeds "the second phase protection encoder revolution but still cannot leave the origin switch signal, this alarm is issued.		
Alarm ID	SERIALPLCAXIS-019	Alarm title	[Driver power abnormality ]
Description	When the controller sends a motion command, it detects that the power state of the drive is incorrect (servo is not on or powered off).		
Possible causes	<ol> <li>Drive power supply module voltage abnormal.</li> <li>Drive defect.</li> </ol>		
Solution	<ol> <li>Check whether the dri</li> <li>Check whether the dri</li> <li>Replace the driver.</li> <li>After the above driver remove the alarm.</li> </ol>	ver power supply status is ver power cable is loose o problems are eliminated,	s abnormal. r broken. reboot controller and driver to

Alarm ID	SERIALPLCAXIS-020	Alarm title	【This driver type is not supported】
Description	This drive type is not suppor	ted by the serial PLC axis.	
Possible causes	Serial PLC axis function is supported only by the following driver types. M2: Yaskawa sigma5, Yaskawa sigma7, Yaskawa sigmaM, * Syntec 2 <sup>nd</sup> generation driver. M3: Yaskawa sigma5, Yaskawa sigma7S, Yaskawa sigmaM, Syntec driver.		
Solution	Replace the driver with a supported driver type and reboot the driver and controller to remove the alarm. Note: The Syntec 2 <sup>nd</sup> Generation M2 drivers only support the serial PLC axis with version 10.116.54H, 10.116.0E, and above.		
Alarm ID	SERIALPLCAXIS-021	Alarm title	[Positioning moving distance exceeds upper limit]
Description	The serial PLC axis positionin	g movement distance exc	eeds the upper limit.
Possible causes	<ul> <li>When the moving distance calculated by the current position and the target position is converted into the pulse wave number, is greater than the upper limit of the moving pulse wave number 2,147,483,647.</li> <li>(Avoid to set target position too far, the user misjudge the problem of clockwise and counterclockwise failure and the inability to positioned to the target position.)</li> <li>[upper limit of the positioning moving distance calculation method]</li> <li>Upper limit of moving distance (um) = upper limit of moving pulse number x (number of moving pulse number x (number of moving x x x x x x x x x x x x x x x x x x x</li></ul>		
	of gear on the motor side x screw width) / (number of gear on the side of the screw x position sensor resolution x 4 ) For example: Number of teeth on the motor side = 1, number of gear on the side of the ballscrew = 1, position sensor resolution = 262,144 (pulse/rev), ballscrew width = 5,000 (um/rev) The upper limit of the moving distance is 2147483647 x (1 x 5000) / (1 x 262144 x 4) = 10239999 (um) =10239.999 (mm). In other words, if the calculated distance between the current position and the target position exceeds 10239.999 mm, this alarm will be issued; If it does not exceed 10239.999 mm, it is a reasonable moving distance.		

Solution	<ol> <li>Change the target position to avoid the current position and the target position exceed the moving distance of upper limit.</li> <li>Adjust the gear number ration between of motor side and ballscrew side, and reduce the resolution setting on the controller side. i.e. According to the above setting, the drive electronic gear numerator is 8, the position sensor resolution is reduced to 32,768, and the upper limit of the moving distance is enlarged to 81919.999mm.</li> <li>Adjust the gear number on motor side, and ballscrew side.</li> <li>Adjust the screw width.</li> <li>Once the above adjustments are made, the alarm can be removed.</li> <li>Reset to remove the alarms.</li> </ol>		
Alarm ID	SERIALPLCAXIS-022	Alarm title	【This driver type does not support hand wheel function】
Description	The MPG function is not ava	ilable for this drive type.	
Possible causes	Currently only the following drive types support the MPG function. M2: Yaskawa sigma5, Yaskawa sigma7, Yaskawa sigmaM, Syntec 2nd generation drive. M3: Yaskawa sigma5, Yaskawa sigma7S, Yaskawa sigmaM, Syntec drive.		
Solution	<ol> <li>Replace the driver to which supports MPG functions.</li> <li>Switch to other modes other than the MPG mode (i.e. positioning mode, speed mode) to remove the alarm.</li> <li>Notes:         <ul> <li>The Syntec M3 drivers, supported version 10.116.38D, 10.116.54B, and 10.116.0A.</li> <li>The Syntec 2<sup>nd</sup> generation M2 drivers, supported versions 10.116.54H and 10.116.0E.</li> </ul> </li> </ol>		
Alarm ID	SERIALPLCAXIS-023	Alarm title	【Syntec encoder firmware upgrade is over, please restart the drive】
Description	The Syntec of encoder firmware upgrade is over and the drive needs to be reboot.		
Possible causes	Perform axial encoder firmware upgrade.		
Solution	Reboot the controller and driver.		
Alarm ID	SERIALPLCAXIS-024	Alarm title	[Syntec encoder information reading timeout]
Description	Syntec encoder information reading timeout.		

Possible causes	<ol> <li>The communication between the controller and the drive is abnormal.</li> <li>The driver status is abnormal.</li> </ol>			
Solution	<ol> <li>Confirm whetherthe</li> <li>Reboot the controlle</li> </ol>	e communication cable is er and driver.	s loose.	
Alarm ID	SERIALPLCAXIS-025 Alarm title [Gap control mode switching failure]			
Description	Axial switching to gap con	trol mode failed.		
Possible causes	<ol> <li>The axis is not in th</li> <li>The target information</li> </ol>	<ol> <li>The axis is not in the positioning mode.</li> <li>The target information is in relative position.</li> </ol>		
Solution	<ol> <li>Set the axis to the positioning mode.</li> <li>Set target information to absolute position.</li> </ol>			
Alarm ID	SERIALPLCAXIS-026	Alarm title	Poor contact of communication wire	
Description	Drive response packet is not received for over 10ms in drive communication. Example: According to the communication time setting( Pr3203 ), 6 consecutive errors for 2ms; 4 consecutive errors for 3ms.			
Possible Reason	1. The communication cable between the controller and the driver is loose.			
Solution	<ol> <li>Check the wiring of the communication cable between the controller and the drive.</li> <li>Contact Syntec OEM.</li> </ol>			
Alarm ID	SERIALPLCAXIS-027	Alarm title	The hardware doesn't receive communication packet	
Description	Drive response packet is not received for over 10ms in communication. Example: According to the communication time setting( Pr3203 ), 6 consecutive errors for 2ms; 4 consecutive errors for 3ms.			
Possible Reason	<ol> <li>The drive station number does not correspond to the controller parameters correctly.</li> <li>The communication cable between the controller and the drive is loose.</li> </ol>			

Solution	<ol> <li>Check whether the drive parameter DIP switch setting corresponds to the controller parameter (Pr21 ~) correctly.</li> <li>Check the wiring of the communication cable between the controller and the drive.</li> <li>Contact Syntec OEM.</li> </ol>			
Alarm ID	SERIALPLCAXIS-028	Alarm title	The communication packet is disturbed by noise	
Description	Drive response packet is disturbed by noise to generate CRC error for over 10ms in communication. Example: According to the communication time setting(Pr3203), 6 consecutive errors for 2ms; 4 consecutive errors for 3ms.			
Possible Reason	1. The quality of the cor	1. The quality of the communication cable is poor, or there is noise interference.		
Solution	<ol> <li>Check whether the machine is properly grounded.</li> <li>Contact Syntec OEM.</li> </ol>			
Alarm ID	SERIALPLCAXIS-029 Alarm title Driver software misses communication packet		Driver software misses communication packet	
Description	Drive response packet watchdog is wrong for over 10ms in communication. Example: According to the communication time setting( Pr3203 ), 6 consecutive errors for 2ms; 4 consecutive errors for 3ms.			
Possible Reason	Drive response packet watchdog is wrong			
Solution	Contact Syntec OEM.			
Alarm ID	SERIALPLCAXIS-030	Alarm title	Driver power-amp voltage not input	
Description	Driver power-amp power is not suppled, please check power cable wiring.			
Possible Cause	Driver power-amp power is not suppled.			
Solution	Check if the three phase of driver electricity is input correctly.			

# 11.1 SERIALPLCAXIS-001 ROT/system axis/serial PLC axis driver station number repetition

Alarm ID	SERIALPLCAXIS-001	Alarm title	[ROT/system axis/serial PLC axis driver station number repetition]
Description	The serial PLC axis station r system enters the not ready	number is repeated with / state.	other axis station numbers, and the
Reason	<ul> <li>The serial PLC station number setting to repeated with other axis. Please check if the following axis station number settings are repeated:</li> <li>1. System axis.</li> <li>2. Serial PLC axis.</li> <li>3. ROT axis.</li> <li>4. ATC axis.</li> <li>5. Setpoint axis</li> </ul>		
Solution	With correct parameter set	tings, reboot controller a	and driver to remove the alarm.

# 11.2 SERIALPLCAXIS-002 R value registers are located in the system protection area or cannot be bitwise

Alarm ID	SERIALPLCAXIS-002	Alarm title	[R value registers are located in the system protection area or cannot be bitwise]
Description	The initial register is not set properly and is located in the system protection area or does not support bit access.		
Reason	<ol> <li>The data base address R(n) or the command status base address R(m) is set in the CNC system interface area.</li> <li>The command status base address R(m) is set to a register that does not support bit access.</li> </ol>		
Solution	Specify the initial R registe	er correctly (Set Rm to b	etween R50~R80 or R256~R511.)

#### 11.3 SERIALPLCAXIS-003 Acceleration/deceleration or speed setting error

Alarm ID SE	ERIALPLCAXIS-003	Alarm title	[Acceleration/deceleration or speed setting error]
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Description	Acceleration/deceleration or speed set value is out of range.
Reason	<ol> <li>The acceleration/deceleration time setting is too small, causing the corresponding acceleration exceed the allowed set value range of the driver. (The acceleration/deceleration is based on the pulse wave per square sec. of resolution, gear ratio, and the screw width, if it is the "Yakawa" drive, it must fall within the range of 1~655,350,000.)</li> <li>The position sensor has a high resolution, causing the corresponding acceleration exceed the allowed set value range of the driver.</li> <li>The target speed and maximum moving speed are set too large, causing the corresponding acceleration exceed the allowed set value range of the driver.</li> <li>Acceleration/deceleration time setting, exceeding the range of driver parameter values. (If the maximum acceleration is set for the Pn306 of the "SyntecII M2" driver, the parameter setting range is 0~60,000)</li> </ol>
Solution	<ol> <li>Properly enlarge acceleration/deceleration time to within a reasonable range, can remove alarm,</li> <li>* When using Yaskawa Sigma M2 series, the problems can be eliminated by initializing the parameters or setting Pn833 to 1 and reboot controller an driver.</li> <li>Properly reduce the target speed and maximum movement speed to within a reasonable range to remove the alarm.</li> <li>When using the Syntec 2<sup>nd</sup> generation M2 drivers, set the acceleration/deceleration time between 0 and 60,000.</li> <li>Reset to clear the alarms.</li> <li>Note:</li> <li>Yaskawa Sigma series M2, Pn833=1 are valid only for version 10.116.36R, 10.116.46, and 10.117.46 and above, otherwise, the following parameters modified on the controller are invalid:         <ol> <li>ROT tool changing acceleration time.</li> <li>Acceleration/deceleration time R(n+3) and R(n+4) of serial PLC axis positioning/MPG mode.</li> <li>Deceleration time R(n+4) of serial PI C axis speed mode.</li> </ol> </li> </ol>

### 11.4 SERIALPLCAXIS-004 Inspection window setting error

Alarm ID	SERIALPLCAXIS-004	Alarm title	[Inspection window setting error]
Description	The serial PLC axis position a specify.	nd speed checking windo	w settings are incorrect. Please re-

Reason	The serial PLC axis position and speed check window settings are out of range. (The number of pulse converted by the position check window according to resolution, gear ratio, and ballscrew width must fall within the range of 0~1,073,741,824) (The RPM number converted by the speed check window according to resolution, gear ratio, and ballscrew width must fall within the range of 0 to 100 RPM)
Solution	Set the PLC axis position and speed inspection windows to be within a reasonable range.

# 11.5 SERIALPLCAXIS-005 The first phase of homing speed set is too high

Alarm ID	SERIALPLCAXIS-005	Alarm title	【The first phase of homing speed set is too high】
Description	The first phase homing speed of the serial PLC axis is set too high. Please re-specify.		
Reason	The first phase homing speed of the serial PLC axis is set too high. (The pulse per second converted by first-phase homing speed according to the resolution, gear ratio, and ballscrew width, must be fall within 0~6,553,500 pulses per sec.		
Solution	Lower the first phase of hom reasonable range to remove Note: This alarm supports o before, the later versions do	ning speed on the serial F the alarm. nly versions 10.116.38M, not support driver homi	<sup>2</sup> LC axis for it to fall within a 10.116.54K, 10.118.0F, 10.118.6 and ng.

# 11.6 SERIALPLCAXIS-006 The second phase of homing speed set is too high

Alarm ID	SERIALPLCAXIS-006	Alarm title	【The second phase of homing speed set is too high】
Description	The second phase homing speed setting of the serial PLC axis is too large. Please respecify.		
Reason	The second phase homing speed setting of the serial PLC axis is too large. (The pulse per second of the second phase homing speed depends on the resolution, gear ratio, and ballscrew width, and must fall within the range of 0~6,553,500.)		

Solution	Lower the second phase of homing speed on the serial PLC axis to be within a reasonable range.
	Note: This alarm only supports versions 10.116.38M, 10.116.54K, 10.118.0F, and 10.118.6 and before, the later version do not support the driver homing.

#### 11.7 SERIALPLCAXIS-007 The offset of homing is set too high

Alarm ID	SERIALPLCAXIS-007	Alarm title	【The offset of homing is set too high】
Description	The serial PLC axis homing offset setting is too large, please re-specify.		
Possible causes	The offset of serial PLC axis homing is set out of range. (The number of pulse converted from the homing offset based on resolution, gear ratio, and ballscrew width must fall within the range of -1073741823~1073741823 pulse.)		
Solution	Adjust the offset of serial PLC	Caxis homing for it to fall	within a reasonable range.

# 11.8 SERIALPLCAXIS-008 Absolute motors do not support incremental homing

Alarm ID	SERIALPLCAXIS-008	Alarm title	[Absolute motors do not support incremental homing]
Description	Absolute motor cannot use incremental homing function		
Possible causes	When using an absolute motor, the incremental homing action is triggered.		
Solution	<ol> <li>When using absolute motors, trigger mechanical origin settings (Rm.6) rather than the incremental homing (Rm.5, Rm.8).</li> <li>Reset to remove the alarm.</li> </ol>		

### 11.9 SERIALPLCAXIS-009 Absolute origin setting is not completed

Alarm ID	SERIALPLCAXIS-009	Alarm title	[Absolute origin setting is not completed]
Description	Absolute encoder needs to set the origin at first time.		

Possible causes	Absolute encoder is used, but the machine origin has not been set.
Solution	Use R(m).6 to set the mechanical origin, when the origin setting is completed (R(m+1).7 On), the alarm can be removed.

# 11.10 SERIALPLCAXIS-010 Restart the machine and reset the origin due to absolute relevant parameter variations

Alarm ID	SERIALPLCAXIS-010	Alarm title	[Restart the machine and reset the origin due to absolute relevant parameter variations]
Description	The user has modified the relevant important parameters which affects the home position setting. Must reboot controller and driver, and perform the serial PLC axis origin setting.		
Possible causes	Modify any of the following parameters: position sensor resolution, number of gear on the side of the ballscrew, and number of gear on the side of the motor.		
Solution	Reboot the controller and driver.		

### 11.11 SERIALPLCAXIS-011 Driver station numbers do not exist

Alarm ID	SERIALPLCAXIS-011	Alarm title	[Driver station numbers do not exist]
Description	There is no driver corresponding to the serial PLC axis station number on the communication network, and the system enters not ready state.		
Possible causes	There is no drive on the communication network that corresponds to the serial PLC axis station number. (Example: set the drive station number to 999)		
Solution	Set the correct serial PLC axis station number, and reboot the controller and driver.		

### 11.12 SERIALPLCAXIS-012 Exceeding the positive software stroke limit

Alarm ID	SERIALPLCAXIS-012	Alarm title	[Exceeding the positive software stroke limit]
Description	The axial mechanical coordinate exceeds the positive software stroke limit.		e software stroke limit.

Possible causes	The axial movement exceeds the setting value.
Solution	<ol> <li>Reset can remove the alarms.</li> <li>Move the axial in negative direction to be out of the software stroke protection range, and can remove alarm.</li> </ol>

#### 11.13 SERIALPLCAXIS-013 Exceeding the negative software stroke limit

Alarm ID	SERIALPLCAXIS-013	Alarm title	[Exceeding the negative software stroke limit]
Description	Axial mechanical coordinates exceed the negative software stroke limit.		
Possible causes	The axial movement exceeds the set value.		
Solution	<ol> <li>Reset to remove the alarm.</li> <li>Move the axial in positive direction to be out of the software stroke protection range to remove the alarm.</li> </ol>		

### 11.14 SERIALPLCAXIS-014 Drive communication error

Alarm ID	SERIALPLCAXIS-014	Alarm title	Drive communication error
Description	<ul> <li>At least 2 errors listed below occur for over 10ms totally in M3 communication.</li> <li>1. M3 response packet not received.</li> <li>2. M3 response packet CRC error.</li> <li>3. M3 response packet watchdog error.</li> <li>Example: According to the communication time setting( Pr3203 ), 6 consecutive errors for 2ms; 4 consecutive errors for 3ms.</li> </ul>		
Possible Reason	<ol> <li>The communication ca</li> <li>The quality of the communication ca</li> <li>M3 response packet was</li> </ol>	ble between the controlle munication cable is poor, o atchdog error.	r and the driver is loose. or there is noise interference.
Solution	<ol> <li>Check the wiring of the drive.</li> <li>Check whether the may the communication po</li> <li>Contact Syntec OEM.</li> </ol>	communication cable bet chine is properly grounded rt of the end drive.	ween the controller and the I, and add a terminal resistor to

### 11.15 SERIALPLCAXIS-015 Driver parameters writing failed

Alarm ID	SERIALPLCAXIS-015	Alarm title	[Driver parameters writing failed]
Description	Error occurred while writing the serial PLC axis parameters to the driver.		
Possible causes	The communication between the controller and the drive is unstable, causing the driver parameter writing timeout.		
Solution	After the cause of communication instability is eliminated, reboot the controller and driver.		

### 11.16 SERIALPLCAXIS-016 The origin index signal could not be found

Alarm ID	SERIALPLCAXIS-016	Alarm title	【The origin index signal could not be found】
Description	When searching for the origin, after leaving the home switch, the motor index signal cannot be found after moving more than 5 pitches.		
Possible causes	<ol> <li>The index signal cannot be read.</li> <li>The second phase speed setting of the homing is too large.</li> <li>Motor reduction ratio is set too high.</li> <li>The index signal is more than 5 pitches from the origin stroke switch.</li> </ol>		
Solution	<ol> <li>Check if the motor index wiring is normal.</li> <li>Reduce the value of the second phase of homing speed setting.</li> <li>Reset to remove the alarm.</li> </ol>		
	Advanced Instructions		
	<ol> <li>When homing, the machine will move towards the origin switch with the first phase speed setting, and stop until it hits the origin switch, then move in the opposite direction at the second phase homing speed setting.</li> <li>After leaving the origin switch, start looking for the nearest motor index signal.</li> <li>When returning at the second phase speed, with the single feedback of the motor, the controller calculates the resolution of the encoder per revolution. If the index signal is not found within 5 turns of the motor, controller issues the alarm immediately.</li> </ol>		

### 11.17 SERIALPLCAXIS-017 Homing zero speed check failed

Alarm ID	SERIALPLCAXIS-017	Alarm title	【Homing zero speed check failed】
Description	Controller will issue this alarm while homing when home switch is encountered but the motor cannot be completely stopped.		
Possible causes	<ol> <li>Driver gain setting is poor, causing the motor to shake.</li> <li>Resonance occurs when the motor is running.</li> </ol>		
Solution	<ol> <li>Check the driver's position loop gain and speed loop gain settings.</li> <li>Start the driver resonance frequency suppression function.</li> <li>Reset to remove alarm.</li> <li>If it cannot be solved, please contact the Vendor.</li> </ol>		
	Advanced Instructions		
	When homing, the machine w setting, and stops until it hits search motor index signal at t	ill move towards the orig the origin switch, then mo he second phase homing	in switch with the first phase speed ove in the opposite direction to speed setting.
	After hitting the origin switch after 0.1 sec from deceleratio smaller than the "zero speed	at the first phase of speed n command is given the n inspection window" spee	I machine starts to decelerate, if nachine still cannot decelerate to d, this alarm will be issued.

## 11.18 SERIALPLCAXIS-018 Inseparable from the origin switch

Alarm ID	SERIALPLCAXIS-018	Alarm title	【Inseparable from the origin switch】
Description	While homing, after hit the origin switch and return, the system exceed the second phase protection encoder revolution but still cannot leave the origin switch.		
Possible causes	Use a multimeter to measure whether the stroke switch is shorted circuit or malfunction.		
Solution	Resetting can remove the ala Advanced Instructions When homing, machine will r hits the origin switch, and the searching in the second phas	rms. nove towards the origin s en move in the opposite d e.	witch with first phase speed until it irection at the speed of origin
	The controller will calculate t exceeds "the second phase p switch signal, this alarm is iss	the resolution of the enco rotection encoder revolut sued.	der per revolution. If the motor tion but still cannot leave the origin

Alarm ID	SERIALPLCAXIS-019	Alarm title	[Driver power abnormality ]
Description	When the controller sends a motion command, it detects that the power state of the drive is incorrect (servo is not on or powered off).		
Possible causes	<ol> <li>Drive power supply mo</li> <li>Drive defect.</li> </ol>	odule voltage abnormal.	
Solution	<ol> <li>Check whether the driv</li> <li>Check whether the driv</li> <li>Replace the driver.</li> <li>After the above driver premove the alarm.</li> </ol>	ver power supply status is a ver power cable is loose or problems are eliminated, r	abnormal. broken. eboot controller and driver to

#### 11.19 SERIALPLCAXIS-019 Driver power abnormality

### 11.20 SERIALPLCAXIS-020 This driver type is not supported

Alarm ID	SERIALPLCAXIS-020	Alarm title	【This driver type is not supported】
Description	This drive type is not supported by the serial PLC axis.		
Possible causes	Serial PLC axis function is supported only by the following driver types. M2: Yaskawa sigma5, Yaskawa sigma7, Yaskawa sigmaM, * Syntec 2 <sup>nd</sup> generation driver. M3: Yaskawa sigma5, Yaskawa sigma7S, Yaskawa sigmaM, Syntec driver.		
Solution	Replace the driver with a supported driver type and reboot the driver and controller to remove the alarm. Note: The Syntec 2 <sup>nd</sup> Generation M2 drivers only support the serial PLC axis with version 10.116.54H, 10.116.0E, and above.		

### 11.21 SERIALPLCAXIS-021 Positioning moving distance exceeds upper limit

Alarm ID	SERIALPLCAXIS-021	Alarm title	[Positioning moving distance exceeds upper limit]
Description	The serial PLC axis positioning movement distance exceeds the upper limit.		xceeds the upper limit.

Possible causes	<ul> <li>When the moving distance calculated by the current position and the target position is converted into the pulse wave number, is greater than the upper limit of the moving pulse wave number 2,147,483,647.</li> <li>(Avoid to set target position too far, the user misjudge the problem of clockwise and counterclockwise failure and the inability to positioned to the target position.)</li> <li>[upper limit of the positioning moving distance calculation method]</li> </ul>
	of gear on the motor side x screw width) / (number of gear on the side of the screw x position sensor resolution x 4 )
	For example: Number of teeth on the motor side = 1, number of gear on the side of the ballscrew = 1, position sensor resolution = 262,144 (pulse/rev), ballscrew width = 5,000 (um/rev)
	The upper limit of the moving distance is 2147483647 x ( 1 x 5000 ) / ( 1 x 262144 x 4 ) = 10239999 (um) =10239.999 (mm).
	In other words, if the calculated distance between the current position and the target position exceeds 10239.999 mm, this alarm will be issued; If it does not exceed 10239.999 mm, it is a reasonable moving distance.
Solution	<ol> <li>Change the target position to avoid the current position and the target position exceed the moving distance of upper limit.</li> <li>Adjust the gear number ration between of motor side and ballscrew side, and reduce the resolution setting on the controller side. i.e. According to the above setting, the drive electronic gear numerator is 8, the position sensor resolution is reduced to 32,768, and the upper limit of the moving distance is enlarged to 81919.999mm.</li> <li>Adjust the gear number on motor side, and ballscrew side.</li> <li>Adjust the screw width.</li> <li>Once the above adjustments are made, the alarm can be removed.</li> <li>Reset to remove the alarms.</li> </ol>

# 11.22 SERIALPLCAXIS-022 This driver type does not support hand wheel function

Alarm ID	SERIALPLCAXIS-022	Alarm title	【This driver type does not support hand wheel function】
Description	The MPG function is not available for this drive type.		
Possible causes	Currently only the following drive types support the MPG function. M2: Yaskawa sigma5, Yaskawa sigma7, Yaskawa sigmaM, Syntec 2nd generation drive. M3: Yaskawa sigma5, Yaskawa sigma7S, Yaskawa sigmaM, Syntec drive.		

Solution	<ol> <li>Replace the driver to which supports MPG functions.</li> <li>Switch to other modes other than the MPG mode (i.e. positioning mode, speed mode) to remove the alarm.</li> </ol>
	Notes:
	<ul> <li>The Syntec M3 drivers, supported version 10.116.38D, 10.116.54B, and 10.116.0A.</li> <li>The Syntec 2<sup>nd</sup> generation M2 drivers, supported versions 10.116.54H and 10.116.0E.</li> </ul>

# 11.23 SERIALPLCAXIS-023 Syntec encoder firmware upgrade is over, please restart the drive

Alarm ID	SERIALPLCAXIS-023	Alarm title	【Syntec encoder firmware upgrade is over, please restart the drive】
Description	The Syntec of encoder firmware upgrade is over and the drive needs to be reboot.		
Possible causes	Perform axial encoder firmware upgrade.		
Solution	Reboot the controller and c	lriver.	

### 11.24 SERIALPLCAXIS-024 Syntec encoder information reading timeout

Alarm ID	SERIALPLCAXIS-024	Alarm title	【Syntec encoder information reading timeout】
Description	Syntec encoder information reading timeout.		
Possible causes	<ol> <li>The communication between the controller and the drive is abnormal.</li> <li>The driver status is abnormal.</li> </ol>		
Solution	<ol> <li>Confirm whether the c</li> <li>Reboot the controller</li> </ol>	ommunication cable is lo and driver.	ose.

### 11.25 SERIALPLCAXIS-025 Cruise mode switching failure

Alarm ID	SERIALPLCAXIS-025	Alarm title	【Gap control mode switching failure】
Description	Axial switching to gap control r	node failed.	

Possible causes	<ol> <li>The axis is not in the positioning mode.</li> <li>The target information is in relative position.</li> </ol>
Solution	<ol> <li>Set the axis to the positioning mode.</li> <li>Set target information to absolute position.</li> </ol>

#### 11.26 SERIALPLCAXIS-026 Poor contact of communication wire

Alarm ID	SERIALPLCAXIS-026	Alarm title	Poor contact of communication wire		
Description	Drive response packet is not received for over 10ms in drive communication. Example: According to the communication time setting( Pr3203 ), 6 consecutive errors for 2ms; 4 consecutive errors for 3ms.				
Possible Reason	1. The communication cable between the controller and the driver is loose.				
Solution	<ol> <li>Check the wiring of the communication cable between the controller and the drive</li> <li>Contact Syntec OEM.</li> </ol>				

# 11.27 SERIALPLCAXIS-027 The hardware doesn't receive communication packet

Alarm ID	SERIALPLCAXIS-027	Alarm title	The hardware doesn't receive communication packet			
Description	Drive response packet is not received for over 10ms in communication. Example: According to the communication time setting( Pr3203 ), 6 consecutive errors for 2ms; 4 consecutive errors for 3ms.					
Possible Reason	<ol> <li>The drive station number does not correspond to the controller parameters correctly.</li> <li>The communication cable between the controller and the drive is loose.</li> </ol>					
Solution	<ol> <li>Check whether the drive parameter DIP switch setting corresponds to the control parameter (Pr21 ~) correctly.</li> <li>Check the wiring of the communication cable between the controller and the driv 3. Contact Syntec OEM.</li> </ol>					

# 11.28 SERIALPLCAXIS-028 The communication packet is disturbed by noise

Alarm ID	SERIALPLCAXIS-028	Alarm title	The communication packet is disturbed by noise		
Description	Drive response packet is disturbed by noise to generate CRC error for over 10ms in communication. Example: According to the communication time setting(Pr3203), 6 consecutive errors for 2ms; 4 consecutive errors for 3ms.				
Possible Reason	1. The quality of the communication cable is poor, or there is noise interference.				
Solution	<ol> <li>Check whether the m</li> <li>Contact Syntec OEM.</li> </ol>	nachine is properly groun	ded.		

### 11.29 SERIALPLCAXIS-029 Driver software misses communication packet

Alarm ID	SERIALPLCAXIS-029	Alarm title	Driver software misses communication packet		
Description	Drive response packet watchdog is wrong for over 10ms in communication. Example: According to the communication time setting( Pr3203 ), 6 consecutive errors for 2ms; 4 consecutive errors for 3ms.				
Possible Reason	Drive response packet watchdog is wrong				
Solution	Contact Syntec OEM.				

#### 11.30 SERIALPLCAXIS-030 Driver power-amp voltage not input

Alarm ID	SERIALPLCAXIS-030	Alarm title	Driver power-amp voltage not input		
Description	Driver power-amp power is not suppled, please check power cable wiring.				
Possible Cause	Driver power-amp power is not suppled.				
Solution	Check if the three phase of driver electricity is input correctly.				

## 12 SRI Alarm - SRI

Alarm ID		:	SRI-001		Alarm Ti	tle		[Scan time setting is too short]
Description	n		The actual scan time of the controller exceeds the set scan time.					
Possible Re	eason	-	The insufficient performance of the system, the number of scan points is too large and the set scan time is too short.					
Solution			Enlarge the s	scan tir	ne.			
Alarm ID			SRI-002		Alarm T	itle		[Communication Timeout]
Description	n		The device l	nas no r	esponse.			
Possible Re	eason		There is a pi	oblem	with the wir	ing or the	e device h	ardware.
Solution			Check whether the hardware setting and wiring connection is accurate.				onnection is accurate.	
Alarm ID			SRI-003		Alarm Title	2	[Pack	age CRC error]
Descriptio	n		The CRC e	rror ha	s exceeded a	certain r	number o	f times.
Possible Re	eason		The hardw	/are is r	not properly	connecte	d or the d	cable is defective
Solution			Check whe	ether th	ie hardware	is proper	ly set up a	and connected, especially the wires.
Alarm ID		S	RI-004	Aları	n Title	[Modu the par	ıle statio ameters)	n number or sorting does not match 
Description	n	W	hen the para	ameter	setting is dif	ferent fro	om the ac	tual installation configuration.
Possible Re	eason	T	The external device station number or module sequence has been changed.					
Solution		Ρ	Please reset the system parameters.					
Alarm ID	SRI-005		Alarm Title [Firmware update failure]			pdate failure]		
Descripti on	Descripti An error occurred during the firmware update process. on							

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Alarm ID	SRI-005	Alarm T	itle	(Firmware upd	late failure】		
Possible Reason	1. Modu 2. An er 3. The r 4. The u 5. FC-IC	ule station number or sorting does not match the parameters. rror occurred in the communication during the update process. module is powered abnormally during the update process. update file is broken. D module malfunction.					
Solution	<ol> <li>Refersolut</li> <li>Chectrony</li> <li>Chectrony</li> <li>Chectrony</li> <li>If the</li> </ol>	<ul> <li>Reference to SRI-004 [Module station number or sorting does not match the parameters] solution, check if the SRI-004 alarm is not issued, and re-update the firmware.</li> <li>Check if the hardware is properly set up and connected, especially the wire, and re-update the firmware.</li> <li>Check if the module power is supplied properly and re-update the firmware.</li> <li>If the firmware update continues to fail, please contact Syntec for solution.</li> </ul>					
Alarm ID		SRI-006	Alarm Title	【Module	e is in copying mode】		
Description	n	The module is o	detected in the c	opying mode whe	n it is turned on.		
Possible Re	eason	The firmware h	as failed to copy	, causing the mod	ule to stay in the copying mode.		
Solution		Please update	the firmware.				
Alarm ID		SRI-007	Alarm Tit	le	[Module communication abnormal]		
Description	n	An error code oc	curred when the	module is commu	inicating.		
Possible Re	eason	The module can	not normally cor	mmunicate.			
Solution		<ol> <li>Power off and Reboot.</li> <li>Update the firmware version.</li> <li>This alarm appears after system running for a period of time, indicating that it may be noise interference. Please check whether surrounding has interference source, whether the equipment and wire anti-noise treatment is enough.</li> </ol>					
Alarm ID		SRI-008   Alarm Title   [Module hardware configuration error]					
Description	n	Module initialization failed.					
Possible Re	eason	The HW-ID interp	pretation of this r	nodule is incorrec	t.		
Solution		Return to Syntec for repair.					

Alarm ID	SRI-009	Alarm Title	【The firmware update is successful, Please power off and reboot】	
Description	After the firmware update is successful, the system to be powered off and rebooted.			
Possible Reason	After the firmware update is successful, he system to be powered off and rebooted.			
Solution	Power off and reboot the controller and SRI module.			

### 12.1 SRI-001 Scan time setting is too short

Alarm ID	SRI-001	Alarm Title	[Scan time setting is too short]		
Description	The actual scan time of the controller exceeds the set scan time.				
Possible Reason	The insufficient performance of the system, the number of scan points is too large and the set scan time is too short.				
Solution	Enlarge the scan time.				

### 12.2 SRI-002 Communication Timeout

SRI-002	Alarm Title	[Communication Timeout]		
The device has no response.				
There is a problem with the wiring or the device hardware.				
Check whether the hardware setting and wiring connection is accurate.				
	SRI-002 The device has no res There is a problem wi Check whether the ha	SRI-002       Alarm Title         The device has no response.       Image: Check whether the hardware setting and wiring compared w		

### 12.3 SRI-003 Package CRC error

Alarm ID	SRI-003	Alarm Title	[Package CRC error]		
Description	The CRC error has exceeded a certain number of times.				
Possible Reason	The hardware is not properly connected or the cable is defective				

Alarm ID	SRI-003	Alarm Title	[Package CRC error]
Solution	Check whether t	he hardware is proper	ly set up and connected, especially the wires.

# 12.4 SRI-004 Module station number or sorting does not match the parameters

Alarm ID	SRI-004	Alarm Title	[Module station number or sorting does not match the parameters]
Description	When the parameter setting is different from the actual installation configuration.		
Possible Reason	The external device station number or module sequence has been changed.		
Solution	Please reset the system parameters.		

# 12.5 SRI-005 Firmware update failure

Alarm ID	SRI-005	Alarm Title	[Firmware update failure]	
Descripti on	An error occurred during the firmware update process.			
Possible Reason	<ol> <li>Module station number or sorting does not match the parameters.</li> <li>An error occurred in the communication during the update process.</li> <li>The module is powered abnormally during the update process.</li> <li>The update file is broken.</li> <li>FC-IO module malfunction.</li> </ol>		s not match the parameters. on during the update process. Iring the update process.	
Solution	<ol> <li>Reference to solution, che</li> <li>Check if the h the firmware</li> <li>Check if the r</li> <li>Check if the r</li> </ol>	SRI-004 【Module station ck if the SRI-004 alarm is r nardware is properly set u nodule power is supplied re update continues to fai	number or sorting does not match the parameters not issued, and re-update the firmware. p and connected, especially the wire, and re-update properly and re-update the firmware. l, please contact Syntec for solution.	

# 12.6 SRI-006 Module is in copying mode

Alarm ID	SRI-006	Alarm Title	[Module is in copying mode]
Description	The module is detected in the copying mode when it is turned on.		; mode when it is turned on.
Possible Reason	The firmware has failed to copy, causing the module to stay in the copying mode.		ng the module to stay in the copying mode.
Solution	Please update the firmware.		

#### 12.7 SRI-007 Module communication abnormal

Alarm ID	SRI-007	Alarm Title	[Module communication abnormal]
Description	An error code occurred when the module is communicating.		nicating.
Possible Reason	The module can not normally communicate.		
Solution	<ol> <li>Power off and Reboot.</li> <li>Update the firmware version.</li> <li>This alarm appears after system running for a period of time, indicating that it may be noise interference. Please check whether surrounding has interference source, whether the equipment and wire anti-noise treatment is enough.</li> </ol>		a period of time, indicating that it ether surrounding has interference ti-noise treatment is enough.

### 12.8 SRI-008 Module hardware configuration error

Alarm ID	SRI-008	Alarm Title	[Module hardware configuration error]
Description	Module initialization failed.		
Possible Reason	The HW-ID interpretation of this module is incorrect.		dule is incorrect.
Solution	Return to Syntec for repair.		

# 12.9 SRI-009 The firmware update is successful, Please power off and reboot

Alarm ID	SRI-009	Alarm Title	【The firmware update is successful, Please power off and reboot】
Description	After the firmware up	odate is successful, the syste	em to be powered off and rebooted.
Possible Reason	After the firmware up	odate is successful, he syster	n to be powered off and rebooted.
Solution	Power off and reboo	t the controller and SRI mod	ule.





# 13 MACRO Alarm - MACRO

Mill	
001	The lowest point in PROFILE is lower than the platform.
002	The amount of feed each time of the vertical axis or extension axis is less than or equal to 0.
003	The maximum arc chord length is less than or equal to 0.
004	The maximum arc radius is less than or equal to 0.
005	The specified PROFILE path is incorrect.
006	The designation of G02 or G03 in PROFILE is incorrect.
007	The minimum arc radius is less than or equal to 0.
011	The feed plane R of the drilling (boring) cycle is lower than the plane of the hole bottom.
012	The drilling (boring) cycle does not specify the depth of the hole to be drilled (bored).
013	The peck drilling cycle does not specify feed amount Q.
015	The Hole number for multi-holes drilling should not be zero.
016	Fast drilling G81 lifting rate F2 argument must be integer.
017	In tool radius compensation mode, G12.1 cannot be activated.
018	In G96 mode, G12.1 cannot be activated.
019	G12.1 axis does not exist.
020	Under G41/G42 mode, G12.1 cannot end.
031	XY plane feed depth is too small.
032	Z feed depth is too small.

Mill	
040	The machining direction is not specified.
041	The tool diameter is too large, exceed the workpiece.
042	The fillet radius is smaller than that of the tool or too large to fit into the corner.
051	The X axis step value exceeds the limit value.
052	The Y axis step value exceeds the limit value.
053	The Z axis step value exceeds the limit value.
054	X axis length is less than 0.
055	Y axis width is less than 0.
056	The maximum depth of axis Z is less than 0.
057	The X axis starting hole of the matrix hole must not be less than or equal to 0.
058	The Y axis starting hole of the matrix hole must not be less than or equal to 0.
059	The number of auto-compensation holes of the matrix hole must not be less than or equal to 0.
405	Use a custom pause point retreat program for non-conventional mills.
406	G53.6 needs to be enabled in G40 mode.
407	The selected tool number of G53.6 cannot be 0.
408	Tool alignment is invalid or failed.
499	Using G84.48 in the wrong time
500	Tapping retract argument error

Lathe	
001	The first block has no net movement on the Z-axis.
002	Turning path X, Z axis allow only unidirectional increase or decrease.
003	The first single segment has no net movement on the X-axis.
004	The Z axis of the turning path allows only unidirectional increase or decrease.
005	The starting point of turning is below the path.
006	Tool numbers are allowed only to be in four digits.
011	The feed plane R of the drilling (boring) cycle is lower than the plane of the hole bottom.
012	The drilling (boring) cycle does not specify the plane of the hole bottom.
013	The peck drilling cycle does not specify feed amount Q.
014	In G41/G42 mode, G12.1 cannot be started.
015	In G96 mode, G12.1 cannot be activated.
016	The G12.1 axis does not exist.
017	Under G41/G42 mode, G12.1 cannot end.
018	G73/G74 H value input error.
019	The thread feed has no specified length or height.
020	The chamfer length of thread feed/retraction exceeds the total movement on the Z axis.
021	The thread feed position along the X axis is higher than the starting point.
022	Z and X half-axis lengths of elliptical interpolation are not input, less than, or equal to zero.
023	The starting and end point distance of ellipse interpolation is greater than the elliptic major axis length.

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Lathe	
024	The focal length of parabolic interpolation is not input, less than, or equal to zero.
025	The starting and end point connecting line of parabolic interpolation is parallel to the symmetry axis.
026	The starting and end points of ellipse and parabolic interpolation with Z coordinates cannot be the same point.
027	The parabola end point is not on the parabola.
028	pecking type turning escape direction conflict.
Common	
300	Auto mid-point function starting point error.
301	Auto mid-point function length or safety distance input error.
302	Auto mid-point function width or safe distance input error.
303	Auto mid-point function safety height input error.
304	Auto mid-point function speed input error.
305	Auto mid-point function safety distance input error.
306	Auto mid-point function length or width input error.
307	An error occurred during auto mid-point process.
320	Input error in the distance between the spindle and the tool set probe.
321	Input error in estimated tool length.
322	Input error in the distance between the spindle and the tool set probe or in estimated tool length.
323	The error in the first/second detection exceeds the allowable range.
Common	
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324	Error occurred in tool measurement.
330	Z axis lowest point error alarm.
331	Tool measuring error alarm.
332	The error in the second/third detection exceeds the set range, or tool probe signal abnormal.
333	The Z direction starting point error alarm.
334	G37.3 compensation tool number not set.
335	The measuring position setting is wrong and the measuring signal of tool length has been triggered.
336	The measuring position setting is wrong and the measuring signal of tool length is not triggered.
401	Wrong input in workpiece coordinate system settings.
402	Wrong input in tool settings.
403	Wrong input in tool setting mode.
404	Use error reference point settings.
411	Command format error.
412	The argument setting exceeds the range.
451	The spindle tool number is different from the tool breakpoint tool number.
452	Tool retraction function only supports X/Y/Z one axis retraction or retract along tool vector.
453	Breakpoint return program does not support G91 mode.
454	Tool retraction function only supports retraction distance R greater than 0.

Alarm ID	MAR-408	Alarm Title	【Tool alignment is invalid or failed. 】		
Description	Tool alignment is invalid or failed because system is unable to calculate alignment angle.				
Reason	When system is unable to calculate alignment angle, COR alarms couldn't be normally triggered because there is no tilted working plane command preceding tool alignment command. Note: tilted working plane command includes G68.2, G68.3, Note: tool alignment command includes G53.1, G53.3, G53.6,				
Solution	Use tilted working pl can be triggered nor Then troubleshoot a	ane command before tool a mally. ccording to the COR alarm.	lignment command so that COR alarms		

# 13.1 Macro alarm - MACRO - Common

Alarm ID	MACRO-7xx	Alarm title		[Txx tool life has expired]	
Description	<ol> <li>Suitable for milling machines and lathes</li> <li>Among them, the "xx" displayed in MACRO-7xx and Txx is the tool number of the corresponding life</li> <li>Inform the user that the usage of the tool has expired the set value, please check or replace the tool</li> </ol>				
Possible reason	1. The tool life the group to	management has been t ool cannot be found	turned or	n, the used tool life has expired, and	
Method of exclusion	<ol> <li>Enter the too managemer</li> <li>Or enter the condition of</li> </ol>	<ol> <li>Enter the tool life management page and reset the current life of the tool life management to zero</li> <li>Or enter the tool life management page to make the "current life &lt; maximum life" condition of the tool established</li> </ol>			
Alarm ID	MACRO-797	Alarm title	【The please functio	life of multiple tools has expired, go to the tool management on to check]	
Description	<ol> <li>Suitable for milling machines and lathes</li> <li>The life of many tools has expired, and none of the group tools can be found</li> </ol>				

Alarm ID	MACRO-797	Alarm title	【The life of multiple tools has expired, please go to the tool management function to check】
Possible reason	1. The tool life management has been turned on, the life of multiple tools used has expired, and the group tool cannot be found		
Method of exclusion	<ol> <li>Enter the tool management</li> <li>Or enter the to condition of th</li> </ol>	life management page ar to zero ool life management page ne tool established	nd reset the current life of the tool life e to make the "current life < maximum life"

#### 13.1.1 MACRO-701~796 Txx tool life has expired

Alarm ID	MACRO-7xx	Alarm title	[Txx tool life has expired]
Description	<ol> <li>Suitable for milling machines and lathes</li> <li>Among them, the "xx" displayed in MACRO-7xx and Txx is the tool number of the corresponding life</li> <li>Inform the user that the usage of the tool has expired the set value, please check or replace the tool</li> </ol>		
Possible reason	1. The tool life man the group tool ca	agement has been turned o nnot be found	n, the used tool life has expired, and
Method of exclusion	<ol> <li>Enter the tool life management to a</li> <li>Or enter the tool condition of the tool</li> </ol>	e management page and res zero life management page to m tool established	et the current life of the tool life ake the "current life < maximum life"

# 13.1.2 MACRO-797 The life of multiple tools has expired, please go to the tool management function to check

Alarm ID	MACRO-797	Alarm title	[The life of multiple tools has expired, please go to the tool management function to check]
Description	<ol> <li>Suitable for milling machines and lathes</li> <li>The life of many tools has expired, and none of the group tools can be found</li> </ol>		
Possible reason	1. The tool life management has been turned on, the life of multiple tools used has expired, and the group tool cannot be found		

Alarm ID	MACRO-797	Alarm title	【The life of multiple tools has expired, please go to the tool management function to check】
Method of exclusion	<ol> <li>Enter the tool life management page and reset the current life of the tool life management to zero</li> <li>Or enter the tool life management page to make the "current life &lt; maximum life" condition of the tool established</li> </ol>		

#### 13.2 Macro Alarm - MACRO - Grinder

#### 13.2.1 Precautions

1. The ID attached to the MSG warning can be found in the alarm manual for the corresponding ID exclusion method. For example, pop out MSG 10115 to query the alarm manual AlarmID 10115.

警報顯示

MSG 10115 砂輪直徑小於最小直徑。

Alarm ID	MACRO-10001	Alarm title		[File Operation Error]
Description	An error occurred while op	perating the file.		
Possible reason	<ol> <li>G302 is not executed before G303 is executed.</li> <li>When using G302 to call the grinding wheel data, the grinding wheel with the specified number does not exist.</li> <li>The grinding wheel characteristics and dressing condition files do not exist.</li> <li>The grinding wheel list file does not exist.</li> </ol>			
Method of exclusion	<ol> <li>Check whether G302 is executed before the program executes G303.</li> <li>Build the tool.</li> <li>Delete the existing grinding wheel data and add new data.</li> </ol>			
Alarm ID	MACRO-10002	Alarm title	[Grin Setting	ding Wheel Tool Number g Error】
Description	The tool number of the grinding wheel is set incorrectly.			
Possible reason	<ol> <li>The tool number format</li> <li>The tool number exceed</li> </ol>	of the program is w Is the set range of 1^	rong. -15.	

Alarm ID	MACRO-10002	Alarm title	[Grinding Wheel Tool Number Setting Error]		
Method of exclusion	<ol> <li>Refer to the instruct number is two digits, tool is 12.</li> <li>Re-set the tool num</li> </ol>	<ol> <li>Refer to the instruction of the T code to confirm whether the format of the tool number is two digits, for example, the first tool is 01, the third tool is 03, and the twelfth tool is 12.</li> <li>Re-set the tool number value to be in the range of 1~15.</li> </ol>			
Alarm ID	MACRO-10003	Alarm title	[Grinding Wheel Cutting Edge Setting Error]		
Description	The cutting edge of th	e grinding wheel is set ir	ncorrectly.		
Possible reason	<ol> <li>The format of the curve of the</li></ol>	utting edge number of th Imber exceeds the range	ne program is wrong. e of 1~6.		
Method of exclusion	<ol> <li>Refer to the instruct edge number is two d</li> <li>Re-set the cutting e</li> </ol>	<ol> <li>Refer to the instruction of the T code to confirm whether the format of the cutting edge number is two digits, for example, cutting edge one is 01, cutting edge three is 03.</li> <li>Re-set the cutting edge number to be in the range of 1~6.</li> </ol>			
Alarm ID	MACRO-10004	Alarm title	【The Number of Pieces of Grinding Wheel Compensation is Incorrectly Set】		
Description	The number of pieces of grinding wheel compensation is incorrectly set.				
Possible reason	The number of pieces of	grinding wheel wearing	is set to less than 0。		
Method of exclusion	Reset the grinding whee to 0.	Reset the grinding wheel compensation piece counting to an integer greater than or equal to 0.			
Alarm ID	MACRO-10005	Alarm title	[The Wheel Rotation Function is Set Incorrectly]		
Description	When performing sand dressing or grinding wheel call, the setting of the grinding wheel rotation function condition is incorrect.				
Possible reason	<ol> <li>The grinding wheel s</li> <li>The wheel speed is n</li> </ol>	peed unit exceeds the ra ot set.	nge of 0~1.		

Alarm ID	MACRO-10005	Alarm title	[The Wheel Rotation Function is Set Incorrectly]
Method of exclusion	<ol> <li>Check if the wheel speed.</li> <li>Set the wheel speed.</li> </ol>	eed unit is 0 (M/S) or 1 (RPI	И).

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Unable to render include or excerpt-include. Could not retrieve page.

Alarm ID	MACRO-10008	Alarm title	【Incorrect Setting of Each Feed for Coarse Grinding】	
Description	The setting of each feed	(D) for coarse grinding is	incorrect.	
Possible reason	<ol> <li>When G201/G205/G207 is executed, the coarse grinding feed amount is set and the parameter Pr4003 (open check tool maximum feed depth state) is set to 1 or 2.</li> <li>When G201/G205/G207 is executed, the value of each coarse grinding feed (D) is not set.</li> <li>When G201/G205/G207 is executed, the coarse grinding feed amount (D) per time is larger than the coarse grinding amount (A).</li> </ol>			
Method of exclusion	<ol> <li>Modify the coarse grinding feed per time; or modify the grinding feed upper limit; or refer to the Special Parameter Manual of the Grinding Machine, and set the parameter Pr4003 to 0.</li> <li>Reset the coarse grinding feed (D) argument field.</li> <li>Check whether the coarse grinding amount (D) is smaller than the coarse grinding amount (A).</li> </ol>			
Alarm ID	MACRO-10009	Alarm title	【Incorrect Setting of Each Feed for Middle Grinding】	
Description	The setting of each feed (E) of the middle grinding is incorrect.			
Possible reason	<ol> <li>When G201/G205/G207 is executed, the middle grinding feed amount is set and the parameter Pr4003 (open check tool maximum feed depth state) is set to 1 or 2.</li> <li>When G201/G205/G207 is executed, the value of each middle grinding feed (D) is not set.</li> <li>When G201/G205/G207 is executed, the middle grinding feed amount (D) per time is larger than the coarse grinding amount (A).</li> </ol>			

Alarm ID	MACRO-10009	Alarm title	【Incorrect Setting of Each Feed for Middle Grinding】		
Method of exclusion	<ol> <li>Modify the middle grinding feed per time; or modify the grinding feed upper limit; or refer to the Special Parameter Manual of the Grinding Machine, and set the parameter Pr4003 to 0.</li> <li>Reset the middle grinding feed (D) argument field.</li> <li>Check whether the coarse grinding amount (D) is smaller than the middle grinding amount (A).</li> </ol>				
Alarm ID	MACRO-10010	MACRO-10010 Alarm title [Incorrect Setting of Each Feed for Fine Grinding]			
Description	The setting of each feed	៨ (E) of the fine grindinន	g is incorrect.		
Possible reason Method of exclusion	<ol> <li>When G201/G205/G2 parameter Pr4003 (ope 2. When G201/G205/G2 3. When G201/G205/G2 than the coarse grindin</li> <li>Modify the fine grind to the Special Parameter to 0.</li> <li>Reset the fine grindin</li> <li>Check whether the coarse amount (A)</li> </ol>	<ol> <li>When G201/G205/G207 is executed, the fine grinding feed amount is set and the parameter Pr4003 (open check tool maximum feed depth state) is set to 1 or 2.</li> <li>When G201/G205/G207 is executed, the value of each fine grinding feed (D) is not set.</li> <li>When G201/G205/G207 is executed, the fine grinding feed amount (D) per time is larger than the coarse grinding amount (A).</li> <li>Modify the fine grinding feed per time; or modify the grinding feed upper limit; or refer to the Special Parameter Manual of the Grinding Machine, and set the parameter Pr4003 to 0.</li> <li>Reset the fine grinding feed (D) argument field.</li> <li>Check whether the coarse grinding amount (D) is smaller than the fine grinding</li> </ol>			
Alarm ID	MACRO-10011	Alarm title	【Coarse Grinding Feed Rate is Not Set】		
Description	The coarse grinding fe	The coarse grinding feed rate is not set.			
Possible reason	<ol> <li>When the G201 command is executed, the coarse grinding feed rate(I) value is not set.</li> <li>When G202/G203/G206/G208/G209 commands are executed, the coarse grinding feed rate(D) value is not set.</li> </ol>				
Method of exclusion	<ol> <li>Reset the parameter</li> <li>Reset the parameter</li> </ol>	r field of G201 coarse gr r field of G202/G203/G2	inding feed rate(I). 06/G208/G209 coarse grinding feed rate(D).		

Alarm ID	MACRO-10012	Alarm title	[Middle Grinding Feed Rate is Not Set]			
Description	The middle grinding feed	rate is not set.				
Possible reason	<ol> <li>When the G201 command is executed, the middle grinding feed rate(P) value is not set.</li> <li>When G202/G203/G206/G208/G209 commands are executed, the middle grinding feed rate(E) value is not set.</li> </ol>					
Method of exclusion	<ol> <li>Reset the parameter fi</li> <li>Reset the parameter fi rate(D).</li> </ol>	<ol> <li>Reset the parameter field of G201 middle grinding feed rate(I).</li> <li>Reset the parameter field of G202/G203/G206/G208/G209 middle grinding feed rate(D).</li> </ol>				
Alarm ID	MACRO-10013	Alarm title	【Fine Grinding Feed Rate is Not Set】			
Description	The fine grinding feed ra	te is not set.				
Possible reason	<ol> <li>When the G201 command is executed, the fine grinding feed rate(I) value is not set.</li> <li>When G202/G203/G206/G208/G209 commands are executed, the fine grinding feed rate(D) value is not set.</li> </ol>					
Method of exclusion	<ol> <li>Reset the parameter field of G201 fine grinding feed rate(I).</li> <li>Reset the parameter field of G202/G203/G206/G208/G209 fine grinding feed rate(D).</li> </ol>					
Alarm ID	MACRO-10015	Alarm title	[G202 Shoulder Coarse Grinding Speed is Not Set]			
Description	When using the G202 straight shoulder grinding function, the coarse grinding speed (H) of the shoulder is not set.					
Possible reason	The shoulder coarse grinding speed (H) value was not set when the G202 command was executed.					
Method of exclusion	Reset the shoulder coarse	grinding speed (H) arg	ument field.			

Alarm ID		MACRO-1	0016	Alarm title	[G202 Shoul is Not Set]	der Fine Grinding Speed	
Description	I	When usin the should	When using the G202 straight shoulder grinding function, the fine grinding speed (M) of the shoulder is not set.				
Possible rea	ason	The shoulder fine grinding speed (M) value was not set when the G202 command was executed.					
Method of exclusion		Reset the	Reset the shoulder fine grinding speed (M) argument field.				
Alarm ID		MACRO-:	10018	Alarm title	【G204 Co	ndition Setting Error]	
Description	I	When G2	04 is used for rac	lius grinding, the gri	nding condition	s are set incorrectly.	
Possible rea	ason	<ol> <li>No round radius (R) value specified.</li> <li>An error occurs when the corner rounding process (H) or the value of it is not set.</li> </ol>					
Method of e	exclusion	<ol> <li>Reset the round radius (R) argument field.</li> <li>Rerun the corner rounding process (H) parameter field or delete the operation and add the operation again.</li> </ol>				elete the operation and	
Alarm ID	MACRO-1	.0019	Alarm title	[G206/G208 Z-0	lirection Infeed	Condition Error]	
Descripti on	The cond	nditions required for G206/G208 to execute Z-direction infeed are wrong or insufficient.					
Possible reason	<ol> <li>When G206/208 command is executed, the value of feed overlap amount (I) is not specified.</li> <li>The wheel currently has a width of 0 or is empty.</li> <li>When G206/208 command is executed, the value of infeed overlap (I) is larger than the current width of the grinding wheel.</li> </ol>						
Method of exclusion	<ol> <li>Reset the infeed overlap (I) parameter field.</li> <li>Reset the current width of the grinding wheel.</li> <li>Reset the feed overlap amount or the current width of the grinding wheel</li> </ol>						

Alarm ID	MACRO-10018	Alarm title	[G20 Not Se	9 Left/right Shoulder Selection is et]	
Description	When using the G209 shous selection (W) is not set.	ılder straight grind	ing funct	tion, the left/right shoulder	
Possible reason	When the G209 command set.	is executed, the le	ft/right s	houlder selection (W) value is not	
Method of exclusion	Reset the left/right should	ler selection (W) arg	gument f	field.	
Alarm ID	MACRO-10021	Alarm title	[c	G209 Arc Radius Setting Error】	
Description	When using the G209 sho incorrect.	ulder straight grind	ing func	tion, the arc radius setting (V) is	
Possible reason	When G209 command is executed, the arc radius (V) value is not set or the arc radius setting (V) value is incorrect.				
Method of exclusion	Check that the arc radius (V) argument fields are all entered with numeric values or modified argument formats.				
Alarm ID	MACRO-10022	Alarm title	[MACR Second	O-10022 G209 X-axis Dimension Coordinate Setting Error】	
Description	When using the G209 shoulder straight grinding function, the second coordinate (U) of the X-axis dimension is set incorrectly.				
Possible reason	When G209 command is executed, the value of the second coordinate (U) of the X-axis dimension is not set or the value of the second coordinate (U) of the X-axis dimension is set incorrectly.				
Method of exclusion	Check whether the second coordinate (U) argument field of the X-axis dimension has entered a value or corrected the argument format.				
Alarm ID	MACRO-10023	Alarm title		[Swing Speed is Not Set]	
Description	When using the G205/G206/G207/G208 function, the swing speed (J) is not set.				
Possible reason	When the G205/G206/G20 set.	7/G208 command is	s execute	ed, the swing speed (J) value is not	

Alarm ID	MACRO-10023	Alarm title	[Swing Speed is Not Set]			
Method of exclusion	Reset the swing speed	(J) argument field.				
Alarm ID	MACRO-10024	Alarm title	【Safe Point Return Method is Not Set】			
Description	The grinding safety poin	nt return method is not se	t.			
Possible reason	The settings are not ma	de on the Grinding Safe F	oints page.			
Method of exclusion	Go to F3 Offset/Setting set.	Go to F3 Offset/Setting $\rightarrow$ F3 Workpiece Coordinate System $\rightarrow$ F5 Grinding Safety Point to set.				
Alarm ID	MACRO-10025	Alarm title	【The End Surface Measurement Result Exceeds the Error Threshold】			
Description	The measurement error of general parts and standard parts exceeds the threshold.					
Possible reason	<ol> <li>The size of the general piece is wrong.</li> <li>The measurement result is different from the actual position of the workpiece end face.</li> </ol>					
Method of exclusion	<ol> <li>Check whether the size of the workpiece is correct or whether the position of the workpiece is correct.</li> <li>Check whether the triggering of the end surface measurement tripping signal is normal, and check whether the C bit of the specified value of the signal source is triggered. For example, fill in 111 to check whether C111 is triggered.</li> </ol>					
Alarm ID	MACRO-10026	Alarm title	【The End Surface Measurement Signal is Not Triggered】			
Description	No signal is triggered when the measurement action is completed.					
Possible reason	<ol> <li>The end surface measurement trip signal is not properly triggered.</li> <li>The starting point of measurement is too far from the workpiece, and no signal is triggered after the first stage of measurement is performed.</li> </ol>					

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Alarm ID	MACRO-10026	Alarm title	【The End Surface Measurement Signal is Not Triggered】			
Method of exclusion	<ol> <li>Check whether the C to triggered, for example, f</li> <li>Modify the measurem first section to ensure the measurement starting p</li> </ol>	<ol> <li>Check whether the C bit of the specified value of the end surface signal source is triggered, for example, fill in 111 to check whether C111 is triggered.</li> <li>Modify the measurement starting point or increase the measurement distance of the first section to ensure that the distance between the end surface of workpieces and the measurement starting point is less than the first section measurement distance.</li> </ol>				
Alarm ID	MACRO-10027	Alarm title	[M Code List - Q Code of Jump Signal is Not Set]			
Description	M code list - jump signa	l is not set.				
Possible reason	1. The M code list does r 2. The M code list does r grinding.	<ol> <li>The M code list does not set the Q code of the end surface measurement trip signal.</li> <li>The M code list does not set the Q code for the skip signal of coarse, middle and fine grinding.</li> </ol>				
Method of exclusion	1. Reset the Q code of th 2. Reset the Q code of th	ne end surface measureme ne skip signal for coarse, n	ent trip signal. niddle and fine grinding.			
Alarm ID	MACRO-10028 Alarm title [M Code List - M Code of Measuring Equipment is Not Set]					
Description	M code list - measuring e	equipment not set.				
Possible reason	<ol> <li>The M code list does not set the workpiece end surface measurement to open M code or workpiece end surface measurement to close the M code.</li> <li>The M code list does not set the outer diameter measurement on M code (1 or 2) or the outer diameter measurement off M code (1 or 2).</li> </ol>					
Method of exclusion	<ol> <li>Re-set workpiece end surface measurement to open M code or workpiece end surface measurement to close M code.</li> <li>Re-set the outer diameter measurement to open M code (1 or 2) or to close the outer diameter measurement to M code (1 or 2).</li> </ol>					
Alarm ID	MACRO-10029	Alarm title	[Problems Occurred in the Second Stage Measurement]			
Description	A problem occurred whe	en reverting to the starting	g point of the second measurement			

Alarm ID	MACRO-10029	Alarm title	[Problems Occurred in the Second Stage Measurement]			
Possible reason	<ol> <li>The measurement spetthe coordinates recordenates workpiece end surface, a starting point of the second starting point of the second surface, and the second starting point of the second starting distant triggering state when restrict the second start when restrict the second start start</li></ol>	<ol> <li>The measurement speed of the first stage is too fast, resulting in a large gap between the coordinates recorded when the probe stops and the actual coordinates of the workpiece end surface, and the probe is still in the trigger state when it returns to the starting point of the second stage of measurement.</li> <li>The measuring distance of the second stage is too short, so that the probe is still in the triggering state when returning to the starting point of the second stage.</li> </ol>				
Method of exclusion	<ol> <li>Reduce the measurement speed of the first stage, reduce the continuous moving distance after touching the end surface of the workpiece to the actual stop, so as to avoid the probe still in the triggering state after the second stage of measurement is returned.</li> <li>Increase the measurement distance of the second stage to ensure that the retraction distance of the second stage measurement is greater than the moving distance between the touch end face and the actual stop during the first stage measurement, so as to prevent the probe from being triggered.</li> </ol>					
Alarm ID	MACRO-10030	Alarm title	【Trouble Moving to the Measurement Start Point】			
Description	There is a problem with point.	There is a problem with the signal in the middle of moving to the measurement start point.				
Possible reason	The measurement signa	The measurement signal is triggered midway to the measurement starting point.				
Method of exclusion	Check whether there is a teach the measurement	any obstacle in the way to starting point position.	the measurement starting point, and re-			
Alarm ID	MACRO-10031	Alarm title	[M Code List - M Code of Workpieces is Not Set]			
Description	M code list - M code of the workpiece of the shaft equipment is not set.					
Possible reason	The M code list does not delay stopping M code.	The M code list does not set the workpiece to start forwarding or reversing M code or to delay stopping M code.				
Method of exclusion	Reset the workpiece to s	start forwarding or revers	ing M code or to delay stopping M code.			

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Alarm ID	MACRO-10032	Alarm title	[M Code List - M Code of Grinding Wheel is Not Set]			
Description	M code list - The grindi	ng wheel of the shaft equ	lipment is not set.			
Possible reason	The M code list does no wheel delay stopping r	ot set the grinding wheel n code.	to start rotating M code or the grinding			
Method of exclusion	Reset the grinding whe M code.	eel to start rotating M coc	le or the grinding wheel to delay stopping			
Alarm ID	MACRO-10033	Alarm title	[Non-grinder-specific Software, Please Contact the Original Factory for Assistance]			
Description	The software cannot be	used without decryptior	1.			
Possible reason	Option2 is not turned or	Option2 is not turned on in the system, and the grinder software cannot be used.				
Method of exclusion	Contact the original fac	Contact the original factory for assistance in decryption.				
Alarm ID	MACRO-10100	MACRO-10100 Alarm title [Pr413 G92(G92.1) Coordinate Retention Mode Setting Error]				
Description	Pr413 G92 (G92.1) coor the current set value of	Pr413 G92 (G92.1) coordinate system error after grind wheel dressing is interrupted due to the current set value of coordinate retention mode.				
Possible reason	Pr413 G92(G92.1) coord	linate retention mode is	set to 1 or 2.			
Method of exclusion	Pr413 G92 (G92.1) coor	Pr413 G92 (G92.1) coordinate retention mode is set to 0.				
Alarm ID	MACRO-10101	Alarm title	【The Edge Number Compensation Flag is Out of Range】			
Description	The advanced setting of grind wheel dressing conditions provides the user to set whether each cutting edge should be compensated after dressing. The setting value is found to be out of range in macro.					
Possible reason	The tool edge number compensation flag exceeds the range of 0~1.					

Alarm ID	MACRO-10101	Alarm title	【The Edge Number Compensation Flag is Out of Range】			
Method of exclusion	Check whether the tool of other than 0 and 1.	edge number compensati	on flag (@230~@235) contains a value			
Alarm ID	MACRO-10103	Alarm title	[Pr4004 Incorrect Spindle Number Specified]			
Description	The specified spindle nu	ımber in Pr4004 is incorre	ctly set.			
Possible reason	The spindle number spe	cified by Pr4004 is less th	an 1 or greater than 10.			
Method of exclusion	Refer to the grinder-specific parameter manual to check whether the spindle number specified by Pr4004 is between 1 and 10.					
Alarm ID	MACRO-10105	Alarm title	【The Trimming Method is Set Incorrectly】			
Description	G301 The trimming met	hod is out of range.				
Possible reason	G301 The trimming met	G301 The trimming method exceeds the range of 1, 3, and 4.				
Method of exclusion	Check whether the valu	e of the trimming method	exceeds the range of 1, 3, and 4.			
Alarm ID	MACRO-10106	Alarm title	[Fix Interruption Errors]			
Description	The setting of the grind	ding wheel dressing return	n condition is incorrect.			
Possible reason	1. The flag (@1005) of v range of 0~1 (0: no pre	1. The flag (@1005) of whether the previous dressing has been interrupted exceeds the range of 0~1 (0: no previous interrupt occurred, 1: previous interrupt occurred)				
	2. The previous dressing was interrupted, this time using interrupted dressing (with input return amount), the system check found that the grinding wheel data were different. Grinding wheel data includes grinding wheel characteristics and dressing conditions.					
Method of exclusion	1. Go to Common Varia 2. Restore the changed dressing return amour	ables to check if @1005 is I grinding wheel data or cl at of the processing monit	outside the range of 0~1. lear the interrupted grinding wheel oring.			

Alarm ID	MACRO-10107	Alarm title		[Start Offset is Not Set]	
Description	The start X offset of the	e dresser is not set.			
Possible reason	The start X offset of the	e grind wheel dressing is	s not set		
Method of exclusion	Resets the start X offse	t of the dresser .			
Alarm ID	MACRO-10108	Alarm title	[M] Trir	1 Code List - M Code of the mmer is Not Set]	
Description	M Code List - Dresser M o	code for shaft equipmer	nt is not	set.	
Possible reason	The M code list does not rotating the M code.	set the dresser to start	rotating	; the M code or the dresser to stop	
Method of exclusion	Reset the dresser to start rotating M code or the dresser to stop rotating M code.				
Alarm ID	MACRO-10109	CRO-10109 Alarm title [Remaining Diameter or Remaining Diameter or		aining Diameter or Remaining s Negative】	
Description	The remaining diameter or remaining width of the grinding wheel is less than zero.				
Possible reason	The current diameter of the grinding wheel is less than the minimum diameter or the current width is less than the minimum width.				
Method of exclusion	<ol> <li>Check whether the current diameter or current width of the grinding wheel is correct.</li> <li>Check whether the minimum diameter or minimum width of the grinding wheel is correct.</li> </ol>				
Alarm ID	MACRO-10110	Alarm title	[In Need	clined Grinding Wheel Does Not d to Be Formed】	
Description	The current side length value is wrong.				
Possible reason	The current side length of the inclined grinding wheel is the same as the side length of the target contour, and no shaping is required.				
Method of exclusion	Resets the current side length or the target outline side length.				

Alarm ID	MACRO-10111	Alarm title	【Custom Grinding Wheel Does Not Set Any Infeed】		
Description	Processing with a custom	n grinding wheel which do	es not set any infeed.		
Possible reason	X single infeed amount a	nd Z single infeed amount	are not set.		
Method of exclusion	Re-X single feed amount a	and Z single feed amount.			
Alarm ID	MACRO-10112	Alarm title	[Single Feed Amount Setting Error]		
Description	The single feed amount i	s set incorrectly.			
Possible reason	<ol> <li>Performing the rapid prototyping of the inclined grinding wheel (feeding the bottom edge) does not set the X single feed amount.</li> <li>Performing the sharpening of flat grinding wheel, side grinding wheel and inclined grinding wheel without setting X single feed amount.</li> <li>The X single feed amount is not set when performing roller grinding wheel dressing.</li> <li>The Z single feed amount is not set when performing side grinding wheel rapid prototyping or sharpening.</li> <li>The Z single feed amount is not set when performing oblique grinding wheel sharpening.</li> <li>When performing trimming, the X/Z single feed amount reaches the upper limit of the feed and the parameter Pr4003 (open to check the single feed status) is 1.</li> </ol>				
Method of exclusion	<ol> <li>Reset the X single feed.</li> <li>Reset the X single feed.</li> <li>Reset the X single feed.</li> <li>Reset the Z single feed.</li> <li>Reset the Z single feed.</li> <li>Reset the X single feed.</li> <li>Reduce the X single feed or refer to the Grinder-specific Parameter Manual, and set the parameter Pr4003 to 0 or 2.</li> </ol>				
Alarm ID	MACRO-10114	Alarm title	[Speed Setting Above Limit]		
Description	The speed setting is higher than the maximum speed.				

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Alarm ID	MACRO-10114	Alarm title	[Speed Setting Above Limit]			
Possible reason	The grinding wheel sp parameter Pr4002 (op set to 1 or 2.	The grinding wheel speed setting exceeds the upper limit of the speed, and the parameter Pr4002 (open to check the maximum speed/circumferential speed status) is set to 1 or 2.				
Method of exclusion	Modify the grinding wheel information to o Manual, and set the pa	Modify the grinding wheel speed setting for dressing or grinding, or go to the grinding wheel information to confirm the upper limit; or refer to the Grinder-specific Parameter Manual, and set the parameter Pr4002 to 0.				
Alarm ID	MACRO-10115	Alarm title	[Grinding Wheel Diameter is Smaller Than the Minimum Diameter]			
Description	Performing a pre-compe will be smaller than the	ensation/pre-dressing sy minimum wheel diamete	stem check found that the wheel diameter er.			
Possible reason	The current diameter of parameter Pr4001 (oper	The current diameter of the grinding wheel is close to the minimum diameter, and the parameter Pr4001 (open check minimum diameter/width status) is set to 1 or 2.				
Method of exclusion	Replace the grinding wh minimum diameter of th Manual, and set the para	Replace the grinding wheel and update the current diameter of the grinding wheel and the minimum diameter of the grinding wheel; or refer to the Grinder-specific Parameter Manual, and set the parameter Pr4001 to 0.				
Alarm ID	MACRO-10116 Alarm title [Wheel Width is Smaller Than the Minimum Width]					
Description	Performing a pre-compensation/pre-dressing system check found that the wheel width will be smaller than the minimum wheel width.					
Possible reason	The current width of t parameter Pr4001 (op	The current width of the grinding wheel is close to the minimum width, and the parameter Pr4001 (open check minimum diameter/width status) is set to 1 or 2.				
Method of exclusion	Replace the grinding wheel and update the current width of the grinding wheel and the minimum width of the grinding wheel; or refer to the Grinder-specific Parameter Manual, and set the parameter Pr4001 to 0.					
Alarm ID	MACRO-10118	Alarm title	【The Number of Rough Dressing is Incorrectly Set】			
Description	The number of rough dressings is incorrectly set.					
Possible reason	When the grinding wheel is sharpened or the roller grinding wheel is not set, the number of rough dressings or the number of rough dressings is equal to 0.					

Alarm ID	MACRO-10118	Alarm title	【The Number of Rough Dressing is Incorrectly Set】
Method of exclusion	Reset the number of rough dressings .		

## 13.2.2 MACRO-10001 File Operation Error

Alarm ID	MACRO-10001	Alarm title	[File Operation Error]
Description	An error occurred while op	erating the file.	
Possible reason	<ol> <li>G302 is not executed before G303 is executed.</li> <li>When using G302 to call the grinding wheel data, the grinding wheel with the specified number does not exist.</li> <li>The grinding wheel characteristics and dressing condition files do not exist.</li> <li>The grinding wheel list file does not exist.</li> </ol>		
Method of exclusion	<ol> <li>Check whether G302 is executed before the program executes G303.</li> <li>Build the tool.</li> <li>Delete the existing grinding wheel data and add new data.</li> </ol>		

## 13.2.3 MACRO-10002 Grinding Wheel Tool Number Setting Error

Alarm ID	MACRO-10002	Alarm title	[Grinding Wheel Tool Number Setting Error]	
Description	The tool number of the gr	inding wheel is set ir	ncorrectly.	
Possible reason	<ol> <li>The tool number format of the program is wrong.</li> <li>The tool number exceeds the set range of 1~15.</li> </ol>			
Method of exclusion	<ol> <li>Refer to the instruction of the T code to confirm whether the format of the tool number is two digits, for example, the first tool is 01, the third tool is 03, and the twelfth tool is 12.</li> <li>Re-set the tool number value to be in the range of 1~15.</li> </ol>			

Alarm ID	MACRO-10003	Alarm title	【Grinding Wheel Cutting Edge Setting Error】		
Description	The cutting edge of the gr	The cutting edge of the grinding wheel is set incorrectly.			
Possible reason	<ol> <li>The format of the cutting edge number of the program is wrong.</li> <li>The cutting edge number exceeds the range of 1~6.</li> </ol>				
Method of exclusion	<ol> <li>Refer to the instruction of the T code to confirm whether the format of the cutting edge number is two digits, for example, cutting edge one is 01, cutting edge three is 03.</li> <li>Re-set the cutting edge number to be in the range of 1~6.</li> </ol>				

#### 13.2.4 MACRO-10003 Grinding Wheel Cutting Edge Setting Error

#### 13.2.5 MACRO-10004 The Number of Pieces of Grinding Wheel Compensation is Incorrectly Set

Alarm ID	MACRO-10004	Alarm title	【The Number of Pieces of Grinding Wheel Compensation is Incorrectly Set】
Description	The number of pieces of grinding wheel compensation is incorrectly set.		
Possible reason	The number of pieces of grinding wheel wearing is set to less than 0 $_{\circ}$		
Method of exclusion	Reset the grinding wheel compensation piece counting to an integer greater than or equal to 0.		

#### 13.2.6 MACRO-10005 The Wheel Rotation Function is Set Incorrectly

Alarm ID	MACRO-10005	Alarm title	[The Wheel Rotation Function is Set Incorrectly]
Description	When performing sand dressing or grinding wheel call, the setting of the grinding wheel rotation function condition is incorrect.		
Possible reason	<ol> <li>The grinding wheel speed unit exceeds the range of 0~1.</li> <li>The wheel speed is not set.</li> </ol>		

Alarm ID	MACRO-10005	Alarm title	[The Wheel Rotation Function is Set Incorrectly]
Method of exclusion	<ol> <li>Check if the wheel spe</li> <li>Set the wheel speed.</li> </ol>	ed unit is 0 (M/S) or 1 (RPN	И).

## 13.2.7 MACRO-10008 Incorrect Setting of Each Feed for Coarse Grinding

Alarm ID	MACRO-10008	Alarm title	【Incorrect Setting of Each Feed for Coarse Grinding】
Description	The setting of each feed	(D) for coarse grinding is	incorrect.
Possible reason	<ol> <li>When G201/G205/G207 is executed, the coarse grinding feed amount is set and the parameter Pr4003 (open check tool maximum feed depth state) is set to 1 or 2.</li> <li>When G201/G205/G207 is executed, the value of each coarse grinding feed (D) is not set.</li> <li>When G201/G205/G207 is executed, the coarse grinding feed amount (D) per time is larger than the coarse grinding amount (A).</li> </ol>		
Method of exclusion	<ol> <li>Modify the coarse grinding feed per time; or modify the grinding feed upper limit; or refer to the Special Parameter Manual of the Grinding Machine, and set the parameter Pr4003 to 0.</li> <li>Reset the coarse grinding feed (D) argument field.</li> <li>Check whether the coarse grinding amount (D) is smaller than the coarse grinding amount (A).</li> </ol>		

## 13.2.8 MACRO-10009 Incorrect Setting of Each Feed for Middle Grinding

Alarm ID	MACRO-10009	Alarm title	【Incorrect Setting of Each Feed for Middle Grinding】	
Description	The setting of each feed (E) of the middle grinding is incorrect.			
Possible reason	<ol> <li>When G201/G205/G207 is executed, the middle grinding feed amount is set and the parameter Pr4003 (open check tool maximum feed depth state) is set to 1 or 2.</li> <li>When G201/G205/G207 is executed, the value of each middle grinding feed (D) is not set 3. When G201/G205/G207 is executed, the middle grinding feed amount (D) per time is larger than the coarse grinding amount (A).</li> </ol>			

Alarm ID	MACRO-10009	Alarm title	【Incorrect Setting of Each Feed for Middle Grinding】
Method of exclusion	<ol> <li>Modify the middle grinding feed per time; or modify the grinding feed upper limit; or refer to the Special Parameter Manual of the Grinding Machine, and set the parameter Pr4003 to 0.</li> <li>Reset the middle grinding feed (D) argument field.</li> </ol>		
	3. Check whether the co amount (A).	arse grinding amount (D)	is smaller than the middle grinding

## 13.2.9 MACRO-10010 Incorrect Setting of Each Feed for Fine Grinding

Alarm ID	MACRO-10010	Alarm title	[Incorrect Setting of Each Feed for Fine Grinding]	
Description	The setting of each feed (	E) of the fine grindin	g is incorrect.	
Possible reason	<ol> <li>When G201/G205/G207 is executed, the fine grinding feed amount is set and the parameter Pr4003 (open check tool maximum feed depth state) is set to 1 or 2.</li> <li>When G201/G205/G207 is executed, the value of each fine grinding feed (D) is not set.</li> <li>When G201/G205/G207 is executed, the fine grinding feed amount (D) per time is larger than the coarse grinding amount (A).</li> </ol>			
Method of exclusion	<ol> <li>Modify the fine grinding feed per time; or modify the grinding feed upper limit; or refer to the Special Parameter Manual of the Grinding Machine, and set the parameter Pr4003 to 0.</li> <li>Reset the fine grinding feed (D) argument field.</li> <li>Check whether the coarse grinding amount (D) is smaller than the fine grinding amount (A).</li> </ol>			

## 13.2.10 MACRO-10011 Coarse Grinding Feed Rate is Not Set

Alarm ID	MACRO-10011	Alarm title	【Coarse Grinding Feed Rate is Not Set】
Description	The coarse grinding feed rate is not set.		
Possible reason	1. When the G201 command is executed, the coarse grinding feed rate(I) value is not set. 2. When G202/G203/G206/G208/G209 commands are executed, the coarse grinding feed rate(D) value is not set.		

Alarm ID	MACRO-10011	Alarm title	【Coarse Grinding Feed Rate is Not Set】
Method of	<ol> <li>Reset the parameter fiel</li> <li>Reset the parameter fiel</li> </ol>	d of G201 coarse grir	nding feed rate(I).
exclusion		d of G202/G203/G20	6/G208/G209 coarse grinding feed rate(D).

## 13.2.11 MACRO-10012 Middle Grinding Feed Rate is Not Set

Alarm ID	MACRO-10012	Alarm title	[Middle Grinding Feed Rate is Not Set]		
Description	The middle grinding feed rate is not set.				
Possible reason	<ol> <li>When the G201 command is executed, the middle grinding feed rate(P) value is not set.</li> <li>When G202/G203/G206/G208/G209 commands are executed, the middle grinding feed rate(E) value is not set.</li> </ol>				
Method of exclusion	<ol> <li>Reset the parameter field of G201 middle grinding feed rate(I).</li> <li>Reset the parameter field of G202/G203/G206/G208/G209 middle grinding feed rate(D).</li> </ol>				

## 13.2.12 MACRO-10013 Fine Grinding Feed Rate is Not Set

Alarm ID	MACRO-10013	Alarm title	【Fine Grinding Feed Rate is Not Set】	
Description	The fine grinding feed rate is not set.			
Possible reason	<ol> <li>When the G201 command is executed, the fine grinding feed rate(I) value is not set.</li> <li>When G202/G203/G206/G208/G209 commands are executed, the fine grinding feed rate(D) value is not set.</li> </ol>			
Method of exclusion	<ol> <li>Reset the parameter field of G201 fine grinding feed rate(I).</li> <li>Reset the parameter field of G202/G203/G206/G208/G209 fine grinding feed rate(D).</li> </ol>			

Alarm ID	MACRO-10015	Alarm title	[G202 Shoulder Coarse Grinding Speed is Not Set]	
Description	When using the G202 straight shoulder grinding function, the coarse grinding speed (H) of the shoulder is not set.			
Possible reason	The shoulder coarse grinding speed (H) value was not set when the G202 command was executed.			
Method of exclusion	Reset the shoulder coarse grinding speed (H) argument field.			

## 13.2.13 MACRO-10015 G202 Shoulder Coarse Grinding Speed is Not Set

## 13.2.14 MACRO-10016 G202 Shoulder Fine Grinding Speed is Not Set

Alarm ID	MACRO-10016	Alarm title	[G202 Shoulder Fine Grinding Speed is Not Set]		
Description	When using the G202 straight shoulder grinding function, the fine grinding speed (M) of the shoulder is not set.				
Possible reason	The shoulder fine grinding speed (M) value was not set when the G202 command was executed.				
Method of exclusion	Reset the shoulder fine grinding speed (M) argument field.				

#### 13.2.15 MACRO-10018 G204 Condition Setting Error

Alarm ID	MACRO-10018	Alarm title	[G204 Condition Setting Error]		
Description	When G204 is used for radius grinding, the grinding conditions are set incorrectly.				
Possible reason	<ol> <li>No round radius (R) value specified.</li> <li>An error occurs when the corner rounding process (H) or the value of it is not set.</li> </ol>				
Method of exclusion	<ol> <li>Reset the round radius (R) argument field.</li> <li>Rerun the corner rounding process (H) parameter field or delete the operation and add the operation again.</li> </ol>				

#### 13.2.16 MACRO-10019 G206/G208 Z-direction Infeed Condition Error

Alarm ID	MACRO-10019	Alarm title	[G206/G208 Z-direction Infeed Condition Error]		
Descripti on	The conditions required for G206/G208 to execute Z-direction infeed are wrong or insufficient.				
Possible reason	<ol> <li>When G206/208 command is executed, the value of feed overlap amount (I) is not specified.</li> <li>The wheel currently has a width of 0 or is empty.</li> <li>When G206/208 command is executed, the value of infeed overlap (I) is larger than the current width of the grinding wheel.</li> </ol>				
Method of exclusion	<ol> <li>Reset the infeed ov</li> <li>Reset the current v</li> <li>Reset the feed ove</li> </ol>	verlap (I) paramet vidth of the grind rlap amount or th	ter field. ing wheel. ne current width of the grinding wheel		

# 13.2.17 MACRO-10020 G209 Left/right Shoulder Selection is Not Set

Alarm ID	MACRO-10018	Alarm title	【G209 Left/right Shoulder Selection is Not Set】		
Description	When using the G209 shoulder straight grinding function, the left/right shoulder selection (W) is not set.				
Possible reason	When the G209 command is executed, the left/right shoulder selection (W) value is not set.				
Method of exclusion	Reset the left/right shoulder selection (W) argument field.				

# 13.2.18 MACRO-10021 G209 Arc Radius Setting Error

Alarm ID	MACRO-10021	Alarm title	[G209 Arc Radius Setting Error]
Description	When using the G209 shoulder straight grinding function, the arc radius setting (V) is incorrect.		
Possible reason	When G209 command is executed, the arc radius (V) value is not set or the arc radius setting (V) value is incorrect.		

Alarm ID	MACRO-10021	Alarm title	[G209 Arc Radius Setting Error]
Method of exclusion	Check that the arc radius (\ modified argument format	/) argument fields are s.	e all entered with numeric values or

## 13.2.19 MACRO-10022 G209 X-axis Dimension Second Coordinate Setting Error

Alarm ID	MACRO-10022	Alarm title	[MACRO-10022 G209 X-axis Dimension Second Coordinate Setting Error]	
Description	When using the G209 shoulder straight grinding function, the second coordinate (U) of the X-axis dimension is set incorrectly.			
Possible reason	When G209 command is executed, the value of the second coordinate (U) of the X-axis dimension is not set or the value of the second coordinate (U) of the X-axis dimension is set incorrectly.			
Method of exclusion	Check whether the second coordinate (U) argument field of the X-axis dimension has entered a value or corrected the argument format.			

#### 13.2.20 MACRO-10023 Swing Speed is Not Set

Alarm ID	MACRO-10023	Alarm title	[Swing Speed is Not Set]		
Description	When using the G205/G206/G207/G208 function, the swing speed (J) is not set.				
Possible reason	When the G205/G206/G207/G208 command is executed, the swing speed (J) value is not set.				
Method of exclusion	Reset the swing speed (J) argument field.				

#### 13.2.21 MACRO-10024 Safe Point Return Method is Not Set

Alarm ID	MACRO-10024	Alarm title	【Safe Point Return Method is Not Set】	
Description	The grinding safety point return method is not set.			
Possible reason	The settings are not made on the Grinding Safe Points page.			

Alarm ID	MACRO-10024	Alarm title	【Safe Point Return Method is Not Set】
Method of exclusion	Go to F3 Offset/Setting – set.	→ F3 Workpiece Coordinate	e System $ ightarrow$ F5 Grinding Safety Point to

#### 13.2.22 MACRO-10025 The End Surface Measurement Result Exceeds the Error Threshold

Alarm ID	MACRO-10025	Alarm title	【The End Surface Measurement Result Exceeds the Error Threshold】	
Description	The measurement error	r of general parts and star	ndard parts exceeds the threshold.	
Possible reason	<ol> <li>The size of the general piece is wrong.</li> <li>The measurement result is different from the actual position of the workpiece end face.</li> </ol>			
Method of exclusion	<ol> <li>Check whether the size of the workpiece is correct or whether the position of the workpiece is correct.</li> <li>Check whether the triggering of the end surface measurement tripping signal is normal, and check whether the C bit of the specified value of the signal source is triggered. For example, fill in 111 to check whether C111 is triggered.</li> </ol>			

## 13.2.23 MACRO-10026 The End Surface Measurement Signal is Not Triggered

Alarm ID	MACRO-10026	Alarm title	【The End Surface Measurement Signal is Not Triggered】	
Description	No signal is triggered wl	nen the measurement act	ion is completed.	
Possible reason	<ol> <li>The end surface measurement trip signal is not properly triggered.</li> <li>The starting point of measurement is too far from the workpiece, and no signal is triggered after the first stage of measurement is performed.</li> </ol>			
Method of exclusion	<ol> <li>Check whether the C bit of the specified value of the end surface signal source is triggered, for example, fill in 111 to check whether C111 is triggered.</li> <li>Modify the measurement starting point or increase the measurement distance of the first section to ensure that the distance between the end surface of workpieces and the measurement starting point is less than the first section measurement distance.</li> </ol>			

12221	A Codo List	O Code of lun	an Signal is Not Set
13.2.24	M COUP LIST -	Q Code of Jul	ip signal is not set

Alarm ID	MACRO-10027	Alarm title	[M Code List - Q Code of Jump Signal is Not Set]	
Description	M code list - jump signal	is not set.		
Possible reason	<ol> <li>The M code list does not set the Q code of the end surface measurement trip signal.</li> <li>The M code list does not set the Q code for the skip signal of coarse, middle and fine grinding.</li> </ol>			
Method of exclusion	<ol> <li>Reset the Q code of the end surface measurement trip signal.</li> <li>Reset the Q code of the skip signal for coarse, middle and fine grinding.</li> </ol>			

## 13.2.25 MACRO-10028 M Code List - M Code of Measuring Equipment is Not Set

Alarm ID	MACRO-10028	Alarm title	[M Code List - M Code of Measuring Equipment is Not Set]	
Description	M code list - measuring	equipment not set.		
Possible reason	<ol> <li>The M code list does not set the workpiece end surface measurement to open M code or workpiece end surface measurement to close the M code.</li> <li>The M code list does not set the outer diameter measurement on M code (1 or 2) or the outer diameter measurement off M code (1 or 2).</li> </ol>			
Method of exclusion	<ol> <li>Re-set workpiece end surface measurement to open M code or workpiece end surface measurement to close M code.</li> <li>Re-set the outer diameter measurement to open M code (1 or 2) or to close the outer diameter measurement to M code (1 or 2).</li> </ol>			

# 13.2.26 MACRO-10029 Problems Occurred in the Second Stage Measurement

Alarm ID	MACRO-10029	Alarm title	[Problems Occurred in the Second Stage Measurement]
Description	A problem occurred when reverting to the starting point of the second measurement		

Alarm ID	MACRO-10029	Alarm title	[Problems Occurred in the Second Stage Measurement]
Possible reason	<ol> <li>The measurement speed of the first stage is too fast, resulting in a large gap between the coordinates recorded when the probe stops and the actual coordinates of the workpiece end surface, and the probe is still in the trigger state when it returns to the starting point of the second stage of measurement.</li> <li>The measuring distance of the second stage is too short, so that the probe is still in the triggering state when returning to the starting point of the second stage.</li> </ol>		
Method of exclusion	<ol> <li>Reduce the measurement speed of the first stage, reduce the continuous moving distance after touching the end surface of the workpiece to the actual stop, so as to avoid the probe still in the triggering state after the second stage of measurement is returned.</li> <li>Increase the measurement distance of the second stage to ensure that the retraction distance of the second stage measurement is greater than the moving distance between the touch end face and the actual stop during the first stage measurement, so as to prevent the probe from being triggered.</li> </ol>		

## 13.2.27 MACRO-10030 Trouble Moving to the Measurement Start Point

Alarm ID	MACRO-10030	Alarm title	[Trouble Moving to the Measurement Start Point]
Description	There is a problem with the signal in the middle of moving to the measurement start point.		
Possible reason	The measurement signal is triggered midway to the measurement starting point.		
Method of exclusion	Check whether there is any obstacle in the way to the measurement starting point, and re- teach the measurement starting point position.		

# 13.2.28 MACRO-10031 M Code List - M Code of the Workpiece is Not Set

Alarm ID	MACRO-10031	Alarm title	[M Code List - M Code of Workpieces is Not Set]	
Description	M code list - M code of the workpiece of the shaft equipment is not set.			
Possible reason	The M code list does not set the workpiece to start forwarding or reversing M code or to delay stopping M code.			

Alarm ID	MACRO-10031	Alarm title	[M Code List - M Code of Workpieces is Not Set]
Method of exclusion	Reset the workpiece to s	tart forwarding or reversir	ng M code or to delay stopping M code.

#### 13.2.29 MACRO-10032 M Code List - M Code of Grinding Wheel is Not Set

Alarm ID	MACRO-10032	Alarm title	[M Code List - M Code of Grinding Wheel is Not Set]	
Description	M code list - The grinding wheel of the shaft equipment is not set.			
Possible reason	The M code list does not set the grinding wheel to start rotating M code or the grinding wheel delay stopping m code.			
Method of exclusion	Reset the grinding whee M code.	el to start rotating M code	or the grinding wheel to delay stopping	

#### 13.2.30 MACRO-10033 Non-grinder-specific Software, Please Contact the Original Factory for Assistance

Alarm ID	MACRO-10033	Alarm title	【Non-grinder-specific Software, Please Contact the Original Factory for Assistance】
Description	The software cannot be used without decryption.		
Possible reason	Option2 is not turned on in the system, and the grinder software cannot be used.		
Method of exclusion	Contact the original factory for assistance in decryption.		

#### 13.2.31 MACRO-10100 Pr413 G92(G92.1) Coordinate Retention Mode Setting Error

Alarm ID	MACRO-10100	Alarm title	[Pr413 G92(G92.1) Coordinate Retention Mode Setting Error]
Description	Pr413 G92 (G92.1) coordinate system error after grind wheel dressing is interrupted due to the current set value of coordinate retention mode.		

Alarm ID	MACRO-10100	Alarm title	<b>[</b> Pr413 G92(G92.1) Coordinate Retention Mode Setting Error <b>]</b>
Possible reason	Pr413 G92(G92.1) coordinate retention mode is set to 1 or 2.		
Method of exclusion	Pr413 G92 (G92.1) coordinate retention mode is set to 0.		

# 13.2.32 MACRO-10101 The Edge Number Compensation Flag is Out of Range

Alarm ID	MACRO-10101	Alarm title	【The Edge Number Compensation Flag is Out of Range】
Description	The advanced setting of grind wheel dressing conditions provides the user to set whether each cutting edge should be compensated after dressing. The setting value is found to be out of range in macro.		
Possible reason	The tool edge number compensation flag exceeds the range of 0~1.		
Method of exclusion	Check whether the tool edge number compensation flag (@230~@235) contains a value other than 0 and 1.		

#### 13.2.33 MACRO-10103 Pr4004 Incorrect Spindle Number Specified

Alarm ID	MACRO-10103	Alarm title	[Pr4004 Incorrect Spindle Number Specified]
Description	The specified spindle number in Pr4004 is incorrectly set.		
Possible reason	The spindle number specified by Pr4004 is less than 1 or greater than 10.		
Method of exclusion	Refer to the grinder-specific parameter manual to check whether the spindle number specified by Pr4004 is between 1 and 10.		

## 13.2.34 MACRO-10105 The Trimming Method is Set Incorrectly

Alarm ID	MACRO-10105	Alarm title	【The Trimming Method is Set Incorrectly】
Description	G301 The trimming meth	od is out of range.	

Alarm ID	MACRO-10105	Alarm title	【The Trimming Method is Set Incorrectly】
Possible reason	G301 The trimming method exceeds the range of 1, 3, and 4.		
Method of exclusion	Check whether the value of the trimming method exceeds the range of 1, 3, and 4.		

# 13.2.35 MACRO-10106 Grind Wheel Dressing Interruption Error

Alarm ID	MACRO-10106	Alarm title	[Fix Interruption Errors]			
Description	The setting of the grinding	The setting of the grinding wheel dressing return condition is incorrect.				
Possible reason	<ol> <li>The flag (@1005) of whether the previous dressing has been interrupted exceeds the range of 0~1 (0: no previous interrupt occurred, 1: previous interrupt occurred)</li> <li>The previous dressing was interrupted, this time using interrupted dressing (with input return amount), the system check found that the grinding wheel data were different. Grinding wheel data includes grinding wheel characteristics and dressing conditions.</li> </ol>					
Method of exclusion	<ol> <li>Go to Common Variable</li> <li>Restore the changed grid dressing return amount of</li> </ol>	es to check if @1005 is outsic inding wheel data or clear th f the processing monitoring	de the range of 0~1. ne interrupted grinding wheel			

## 13.2.36 MACRO-10107 Start Offset is Not Set

Alarm ID	MACRO-10107	Alarm title	[Start Offset is Not Set]	
Description	The start X offset of the dresser is not set.			
Possible reason	The start X offset of the grind wheel dressing is not set.			
Method of exclusion	Resets the start X offset of the dresser .			

#### 13.2.37 MACRO-10108 M Code List - M Code of the Trimmer is Not Set

Alarm ID	MACRO-10108	Alarm title	[M Code List - M Code of the Trimmer is Not Set]	
Description	M Code List - Dresser M code for shaft equipment is not set.			
Possible reason	The M code list does not set the dresser to start rotating the M code or the dresser to stop rotating the M code.			
Method of exclusion	Reset the dresser to start rotating M code or the dresser to stop rotating M code.			

## 13.2.38 MACRO-10109 Remaining Diameter or Remaining Width is Negative

Alarm ID	MACRO-10109	Alarm title	【Remaining Diameter or Remaining Width is Negative】	
Description	The remaining diameter or remaining width of the grinding wheel is less than zero.			
Possible reason	The current diameter of the grinding wheel is less than the minimum diameter or the current width is less than the minimum width.			
Method of exclusion	<ol> <li>Check whether the current diameter or current width of the grinding wheel is correct.</li> <li>Check whether the minimum diameter or minimum width of the grinding wheel is correct.</li> </ol>			

## 13.2.39 MACRO-10110 Inclined Grinding Wheel Does Not Need to Be Formed

Alarm ID	MACRO-10110	Alarm title	【Inclined Grinding Wheel Does Not Need to Be Formed】	
Description	The current side length value is wrong.			
Possible reason	The current side length of the inclined grinding wheel is the same as the side length of the target contour, and no shaping is required.			
Method of exclusion	Resets the current side length or the target outline side length.			

13.2.40	MACRO-10111 Custor	n Grinding Wheel Does	Not Set Any Infeed
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Alarm ID	MACRO-10111	Alarm title	【Custom Grinding Wheel Does Not Set Any Infeed】
Description	Processing with a custom grinding wheel which does not set any infeed.		
Possible reason	X single infeed amount and Z single infeed amount are not set.		
Method of exclusion	Re-X single feed amount and Z single feed amount.		

# 13.2.41 MACRO-10112 Single Feed Amount Setting Error

Alarm ID	MACRO-10112	Alarm title	【Single Feed Amount Setting Error】	
Description	The single feed amount is	The single feed amount is set incorrectly.		
Possible reason	<ol> <li>Performing the rapid prototyping of the inclined grinding wheel (feeding the bottom edge) does not set the X single feed amount.</li> <li>Performing the sharpening of flat grinding wheel, side grinding wheel and inclined grinding wheel without setting X single feed amount.</li> <li>The X single feed amount is not set when performing roller grinding wheel dressing.</li> <li>The Z single feed amount is not set when performing side grinding wheel rapid prototyping or sharpening.</li> <li>The Z single feed amount is not set when performing oblique grinding wheel sharpening.</li> <li>When performing trimming, the X/Z single feed amount reaches the upper limit of the feed and the parameter Pr4003 (open to check the single feed status) is 1.</li> </ol>			
Method of exclusion	<ol> <li>Reset the X single feed.</li> <li>Reset the X single feed.</li> <li>Reset the X single feed.</li> <li>Reset the Z single feed.</li> <li>Reset the Z single feed.</li> <li>Reset the X single feed.</li> <li>Reduce the X single feed or refer to the Grinder-specific Parameter Manual, and set the parameter Pr4003 to 0 or 2.</li> </ol>			

#### 13.2.42 MACRO-10114 Speed Setting Above Limit

Alarm ID	MACRO-10114	Alarm title	[Speed Setting Above Limit]
Description	The speed setting is higher than the maximum speed.		
Possible reason	The grinding wheel speed setting exceeds the upper limit of the speed, and the parameter Pr4002 (open to check the maximum speed/circumferential speed status) is set to 1 or 2.		
Method of exclusion	Modify the grinding whee wheel information to con Manual, and set the parar	l speed setting for dressing firm the upper limit; or refe neter Pr4002 to 0.	or grinding, or go to the grinding r to the Grinder-specific Parameter

# 13.2.43 MACRO-10115 Grinding Wheel Diameter is Smaller Than the Minimum Diameter

Alarm ID	MACRO-10115	Alarm title	[Grinding Wheel Diameter is Smaller Than the Minimum Diameter]
Description	Performing a pre-compensation/pre-dressing system check found that the wheel diameter will be smaller than the minimum wheel diameter.		
Possible reason	The current diameter of the grinding wheel is close to the minimum diameter, and the parameter Pr4001 (open check minimum diameter/width status) is set to 1 or 2.		
Method of exclusion	Replace the grinding wheel and update the current diameter of the grinding wheel and the minimum diameter of the grinding wheel; or refer to the Grinder-specific Parameter Manual, and set the parameter Pr4001 to 0.		

#### 13.2.44 MACRO-10116 Wheel Width is Smaller Than the Minimum Width

Alarm ID	MACRO-10116	Alarm title	【Wheel Width is Smaller Than the Minimum Width】
Description	Performing a pre-compensation/pre-dressing system check found that the wheel width will be smaller than the minimum wheel width.		
Possible reason	The current width of the grinding wheel is close to the minimum width, and the parameter Pr4001 (open check minimum diameter/width status) is set to 1 or 2.		

Alarm ID	MACRO-10116	Alarm title	【Wheel Width is Smaller Than the Minimum Width】
Method of exclusion	Replace the grinding when minimum width of the grin and set the parameter Pr4	el and update the cu nding wheel; or refer 001 to 0.	rrent width of the grinding wheel and the • to the Grinder-specific Parameter Manual,

# 13.2.45 MACRO-10118 The Number of Rough Dressings is Incorrectly Set

Alarm ID	MACRO-10118	Alarm title	【The Number of Rough Dressing is Incorrectly Set】
Description	The number of rough dressings is incorrectly set.		
Possible reason	When the grinding wheel is sharpened or the roller grinding wheel is not set, the number of rough dressings or the number of rough dressings is equal to 0.		
Method of exclusion	Reset the number of rough dressings .		

# 13.3 Macro Program Alarm - MACRO - High Gloss Glass

Alarm ID	Macro-499	Alarm title	【Using G84.48 in the wrong time】	
Description	Using G84.48 in the wrong time			
Reason	Not abort tapping when using G74/G84			
Solution	G84.48 only can use after G74/G84 abort			
Alarm ID	Macro-500	Alarm title	【Tapping retract argument error】	
Description				
Description	Tapping retract argume	nt error		
Alarm ID	Macro-500	Alarm title		【Tapping retract argument error】
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Solution	<ol> <li>Set correct F_ S_</li> <li>Only ser F_ or S_</li> <li>Using G74/G84 before</li> </ol>	re using G84.48		
Alarm ID	MACRO-5xx	Alarm title		[Zx-Txx Tool Life Expired]
Description	<ol> <li>Suitable for high gloss glass.</li> <li>The tool life has expired and the group tool cannot be found in the tool magazine.</li> <li>MACRO-501~524 corresponds to Z1-T1~T24 tool life expired; MACRO-525~548 corresponds to Z2-T1~T24 tool life expired; So on and so forth.</li> </ol>			
Possible reasons	<ol> <li>The tool life management has been turned on, the used tool life has expired, and the group tool cannot be found.</li> </ol>			
Methods of exclusion	<ol> <li>Enter the tool life management page and reset the current life of the tool life management to zero.</li> <li>Or enter the tool life management page to make the "current life &lt; maximum life" condition of the tool established.</li> </ol>			
Alarm ID	MACRO-645 Alarm title [the Life of Multiple Tools Has Expired Please Go to the Tool Management Function to Check]			
Description	<ol> <li>Suitable for high gloss glass.</li> <li>The tool life of two or more tools with the same tool number on different axes has expired, and the group tool cannot be found in the tool magazine.</li> </ol>			
Possible reasons	1. The tool life management has been turned on, the used tool life has expired, and the group tool cannot be found.			
Methods of exclusion	<ol> <li>Enter the tool life management page and reset the current life of the tool life management to zero.</li> <li>Or enter the tool life management page to make the "current life &lt; maximum life" condition of the tool established.</li> </ol>			

Alarm ID	MACRO-20001	Alarm title	【Tool Number Setting Cannot Be Zero】	
Description	Input wrong tool nur	nber		
Possible reasons	Tool number is set to	00		
Methods of exclusion	Set the correct tool n	umber		
Alarm ID	MACRO-20002	Alarm title 【Z1 Coupling Flag Cannot Be Zero】		
Description	Input error Z1 coupling flag			
Possible reasons	The Z1 coupling flag is set to 0			
Methods of exclusion	Set the correct Z1 coupling flag			
Alarm ID	MACRO-20003	ACRO-20003 Alarm title [The Quick Tool Setting Function Cannot Be Used if Tool Setting Action Has Not Been Performed]		
Description	Because the quick tool setting needs to have the tool surface position information (tool length), the tool needs to perform the tool setting action (automatic tool setting or tool breakage detection)			
Possible reasons	Knife setting has not been performed			
Methods of exclusion	Perform automatic tool setting			

Alarm ID	MACRO-20004	A	larm title		【the Measurement Speed Cannot Be Zero】
Description	Input error measurin	g speec	d		
Possible reasons	The measurement sp	eed is (	0		
Methods of exclusion	Set the correct meas	uremen	nt speed		
Alarm ID	MACRO-20014	Alarm title 【the Multi-z Tool T Turned on, So the M Automatic Tool Set Function Cannot Be Executed】		he Multi-z Tool Table is Not med on, So the Multi-z comatic Tool Setting nction Cannot Be ecuted】	
Description	You need to open the tool table to get the tool length information				
Possible reasons	Multi-Z tool table is not turned on				
Methods of exclusion	Set Pr3816 to 3				
Alarm ID	MACRO-20021~20026	1~20026 Alarm title 【Zx Tool Length Measurement Error Valuis Too Large】		【Zx Tool Length Measurement Error Value is Too Large】	
Description	Check "2nd Tool Setting" in advanced adjustment, if the difference between the two measured tool lengths is greater than 0.01mm, it means that the measurement error is too large				
Possible reasons	<ol> <li>Tool setting speed is too fast</li> <li>There are obstacles</li> </ol>				
Methods of exclusion	<ol> <li>Slow down the</li> <li>Remove obstact</li> </ol>	tool set les	tting speed		

Alarm ID	MACRO-21008~21504	Alarm title	【Zx Starting Point Position Setting Error】	
Description	The starting point position performed	is set incorrectly, that is,	the tool setting action cannot be	
Possible reasons	<ol> <li>The position of the starting point is lower than the surface position of the tool detector</li> <li>There are obstacles</li> </ol>			
Methods of exclusion	<ol> <li>Set the correct starting point position</li> <li>Check if #1608 is expected</li> <li>Remove obstacles</li> </ol>			
Alarm ID	MACRO-23008~23504	Alarm title	【Zx Lowest Point Position Setting Error】	
Description	The lowest point position is set incorrectly, that is, the tool setting action cannot be performed			
Possible reasons	<ol> <li>Z1 trip signal source setting error</li> <li>The lowest point position is higher than the surface position of the tool detector</li> <li>There are obstacles</li> <li>Hardware wiring error</li> </ol>			
Methods of exclusion	<ol> <li>Reset Z1 Trip Source</li> <li>Set the correct starting point position</li> <li>Check if #1608 is expected</li> <li>Remove obstacles</li> <li>Check hardware for wiring errors</li> </ol>			
Alarm ID	MACRO-25008~25504	Alarm title	【There is a Tool on the Zx Axis, and the Return of the Tool Fails】	
Description	There is a tool on the spindle, that is, the return of the tool fails			
Possible reasons	The tool return action is not confirmed			

Alarm ID	MACRO-25008~25504	Alarm title	【There is a Tool on the Zx Axis, and the Return of the Tool Fails】	
Methods of exclusion	Perform the tool return act	ion		
Alarm ID	MACRO-27008~27504	Alarm title	【Zx Current Tool is Seriously Worn or Broken (Tool Needs to Be Changed)】	
Description	After the tool breakage detection, it is found that the Z1~Z6 tool is broken			
Possible reasons	<ol> <li>Z1~Z6 tool breakage</li> <li>Tool setting speed is too fast</li> <li>There are obstacles</li> <li>The allowable value of tool length error is improperly set (ex: not set, the default value is 0)</li> </ol>			
Methods of exclusion	<ol> <li>Replace Z1~Z6 tools</li> <li>Slow down the tool setting speed</li> <li>Remove obstacles</li> <li>Correct the allowable value of tool length error</li> </ol>			

#### 13.3.1 Macro-645 the Life of Multiple Tools Has Expired, Please Go to the Tool Management Function to Check

Alarm ID	MACRO-645	Alarm title	【the Life of Multiple Tools Has Expired, Please Go to the Tool Management Function to Check】	
Description	<ol> <li>Suitable for high gloss glass.</li> <li>The tool life of two or more tools with the same tool number on different axes has expired, and the group tool cannot be found in the tool magazine.</li> </ol>			
Possible reasons	1. The tool life management has been turned on, the used tool life has expired, and the group tool cannot be found.			

Alarm ID	MACRO-645	Alarm title	【the Life of Multiple Tools Has Expired, Please Go to the Tool Management Function to Check】	
Methods of exclusion	<ol> <li>Enter the tool life management page and reset the current life of the tool life management to zero.</li> <li>Or enter the tool life management page to make the "current life &lt; maximum life" condition of the tool established.</li> </ol>			

#### 13.3.2 MACRO-499 Using G84.48 in the wrong time(GlassGrind)

Alarm ID	Macro-499	Alarm title	【Using G84.48 in the wrong time】	
Description	Using G84.48 in the wrong time			
Reason	Not abort tapping when using G74/G84			
Solution	G84.48 only can use after G74/G84 abort			

#### 13.3.3 MACRO-500 Tapping retract argument error(GlassGrind)

Alarm ID	Macro-500	Alarm title	【Tapping retract argument error】	
Description	Tapping retract argument error			
Reason	<ol> <li>The retract feedrate to spindle speed ratio is wrong.</li> <li>Retract spindle speed is zero.</li> <li>Without using G74/G84 before using G84.48</li> </ol>			
Solution	<ol> <li>Set correct F_ S_</li> <li>Only ser F_ or S_</li> <li>Using G74/G84 before</li> </ol>	using G84.48		

#### 13.3.4 MACRO-501~644 Zx-Txx Tool Life Expired

Alarm ID	MACRO-5xx	Alarm title	[Zx-Txx Tool Life Expired]
Description	<ol> <li>Suitable for high gloss glass.</li> <li>The tool life has expired and the group tool cannot be found in the tool magazine.</li> <li>MACRO-501~524 corresponds to Z1-T1~T24 tool life expired; MACRO-525~548 corresponds to Z2-T1~T24 tool life expired; So on and so forth.</li> </ol>		
Possible reasons	1. The tool life management has been turned on, the used tool life has expired, and the group tool cannot be found.		
Methods of exclusion	<ol> <li>Enter the tool life management to z</li> <li>Or enter the tool life" condition of</li> </ol>	the tool life management page and reset the current life of the tool life gement to zero. er the tool life management page to make the "current life < maximum andition of the tool established.	

#### 13.3.5 MACRO-20001 Tool Number Setting Cannot Be Zero

Alarm ID	MACRO-20001	Alarm title	【Tool Number Setting Cannot Be Zero】
Description	Input wrong tool numbe	r	
Possible reasons	Tool number is set to 0		
Methods of exclusion	Set the correct tool num	ber	

#### 13.3.6 MACRO-20002 Z1 Coupling Flag Cannot Be Zero

Alarm ID	MACRO-20002	Alarm title	【Z1 Coupling Flag Cannot Be Zero】	
Description	Input error Z1 coupling flag			
Possible reasons	The Z1 coupling flag is se	t to 0		

Alarm ID	MACRO-20002	Alarm title	【Z1 Coupling Flag Cannot Be Zero】
Methods of exclusion	Set the correct Z1 coupli	ng flag	

#### 13.3.7 MACRO-20003 The Quick Tool Setting Function Cannot Be Used if the Tool Setting Action Has Not Been Performed

Alarm ID	MACRO-20003	Alarm title	【The Quick Tool Setting Function Cannot Be Used if the Tool Setting Action Has Not Been Performed】
Description	Because the quick tool setting needs to have the tool surface position information (tool length), the tool needs to perform the tool setting action (automatic tool setting or tool breakage detection)		
Possible reasons	Knife setting has not been performed		
Methods of exclusion	Perform automatic tool setting		

#### 13.3.8 MACRO-20004 The Measurement Speed Cannot Be Zero

Alarm ID	MACRO-20004	Alarm title	【the Measurement Speed Cannot Be Zero】
Description	Input error measuring speed		
Possible reasons	The measurement speed is 0		
Methods of exclusion	Set the correct measurement speed		

#### 13.3.9 MACRO-20014 The Multi-z Tool Table is Not Turned on, So the Multi-z Automatic Tool Setting Function Cannot Be Executed

Alarm ID	MACRO-20014	Alarm title	【the Multi-z Tool Table is Not Turned on, So the Multi-z Automatic Tool Setting Function Cannot Be Executed】
Description	You need to open the tool table to get the tool length information		
Possible reasons	Multi-Z tool table is not turned on		
Methods of exclusion	Set Pr3816 to 3		

#### 13.3.10 MACRO-20021-20026 Zx Tool Length Measurement Error Value is Too Large

Alarm ID	MACRO-20021~20026	Alarm title	【Zx Tool Length Measurement Error Value is Too Large】
Description	Check "2nd Tool Setting" in advanced adjustment, if the difference between the two measured tool lengths is greater than 0.01mm, it means that the measurement error is too large		
Possible reasons	<ol> <li>Tool setting speed is too fast</li> <li>There are obstacles</li> </ol>		
Methods of exclusion	<ol> <li>Slow down the tool setting speed</li> <li>Remove obstacles</li> </ol>		

#### 13.3.11 MACRO-21008-21504 Zx Starting Point Position Setting Error

Alarm ID	MACRO-21008~21504	Alarm title	【Zx Starting Point Position Setting Error】
Description	The starting point position is set incorrectly, that is, the tool setting action cannot be performed		

Alarm ID	MACRO-21008~21504	Alarm title	【Zx Starting Point Position Setting Error】
Possible reasons	<ol> <li>The position of the starting point is lower than the surface position of the tool detector</li> <li>There are obstacles</li> </ol>		
Methods of exclusion	<ol> <li>Set the correct starting point position</li> <li>Check if #1608 is expected</li> <li>Remove obstacles</li> </ol>		

#### 13.3.12 MACRO-23008-23504 Zx Lowest Point Position Setting Error

Alarm ID	MACRO-23008~23504	Alarm title	【Zx Lowest Point Position Setting Error】
Description	The lowest point position is set incorrectly, that is, the tool setting action cannot be performed		
Possible reasons	<ol> <li>Z1 trip signal source setting error</li> <li>The lowest point position is higher than the surface position of the tool detector</li> <li>There are obstacles</li> <li>Hardware wiring error</li> </ol>		
Methods of exclusion	<ol> <li>Reset Z1 Trip Source</li> <li>Set the correct starting point position</li> <li>Check if #1608 is expected</li> <li>Remove obstacles</li> <li>Check hardware for wiring errors</li> </ol>		

## 13.3.13 MACRO-25008-25504 There is a Tool on the Zx Axis, and the Return of the Tool Fails

Alarm ID	MACRO-25008~25504	Alarm title	【There is a Tool on the Zx Axis, and the Return of the Tool Fails】
Description	There is a tool on the spindle, that is, the return of the tool fails		

Alarm ID	MACRO-25008~25504	Alarm title	【There is a Tool on the Zx Axis, and the Return of the Tool Fails】
Possible reasons	The tool return action is not confirmed		
Methods of exclusion	Perform the tool return action		

## 13.3.14 MACRO-27008-27504 Zx Current Tool is Seriously Worn or Broken (Tool Needs to Be Changed)

Alarm ID	MACRO-27008~27504	Alarm title	【Zx Current Tool is Seriously Worn or Broken (Tool Needs to Be Changed)】
Description	After the tool breakage detection, it is found that the Z1~Z6 tool is broken		
Possible reasons	<ol> <li>Z1~Z6 tool breakage</li> <li>Tool setting speed is too fast</li> <li>There are obstacles</li> <li>The allowable value of tool length error is improperly set (ex: not set, the default value is 0)</li> </ol>		
Methods of exclusion	<ol> <li>Replace Z1~Z6 tools</li> <li>Slow down the tool setting speed</li> <li>Remove obstacles</li> <li>Correct the allowable value of tool length error</li> </ol>		

#### 13.4 Macro Alarm - MACRO - Mill

Alarm ID	Macro-499	Alarm title	[Using G84.48 in the wrong time]
Description	Using G84.48 in the wrong time		
Reason	Not abort tapping when using G74/G84		

Alarm ID	Macro-499	Alarm title	【Using G84.48 in the wrong time】
Solution	G84.48 only can use afte	er G74/G84 abort	
Alarm ID	Macro-500	Alarm title	【Tapping retract argument error】
Description	Tapping retract argument error		
Reason	<ol> <li>The retract feedrate to spindle speed ratio is wrong.</li> <li>Retract spindle speed is zero.</li> <li>Without using G74/G84 before using G84.48</li> </ol>		
Solution	<ol> <li>Set correct F_ S_</li> <li>Only ser F_ or S_</li> <li>Using G74/G84 before using G84.48</li> </ol>		

#### 13.4.1 MACRO-499 Using G84.48 in the wrong time(Mill)

Alarm ID	Macro-499	Alarm title	【Using G84.48 in the wrong time】
Description	Using G84.48 in the wrong time		
Reason	Not abort tapping when using G74/G84		
Solution	G84.48 only can use after G74/G84 abort		

## 13.4.2 MACRO-500 Tapping retract argument error(Mill)

Alarm ID	Macro-500	Alarm title	【Tapping retract argument error】
Description	Tapping retract argument error		
Reason	<ol> <li>1.The retract feedrate to spindle speed ratio is wrong.</li> <li>2.Retract spindle speed is zero.</li> <li>3.Without using G74/G84 before using G84.48</li> </ol>		

Alarm ID	Macro-500	Alarm title	【Tapping retract argument error】
Solution	1.Set correct F_ S_		
	2.Only ser F_ or S_		
	3.Using G74/G84 before	using G84.48	

#### 13.5 Macro Alarm - MACRO - Lathe

Alarm ID	Macro-499	Alarm title	【Using G84.48 in the wrong time】	
Description	Using G84.48 in the wro	ng time		
Reason	Not abort tapping wher	using G74/G84		
Solution	G84.48 only can use afte	G84.48 only can use after G74/G84 abort		
Alarm ID	Macro-500	Alarm title	【Tapping retract argument error】	
Description	Tapping retract argume	Tapping retract argument error		
Reason	<ol> <li>The retract feedrate to spindle speed ratio is wrong.</li> <li>Retract spindle speed is zero.</li> <li>Without using G74/G84 before using G84.48</li> </ol>			
Solution	<ol> <li>Set correct F_ S_</li> <li>Only ser F_ or S_</li> <li>Using G74/G84 before using G84.48</li> </ol>			

#### 13.5.1 MACRO-499 Using G84.48 in the wrong time(Lathe)

Alarm ID	Macro-499	Alarm title	【Using G84.48 in the wrong time】
Description	Using G84.48 in the wrong time		

Alarm ID	Macro-499	Alarm title	【Using G84.48 in the wrong time】
Reason	Not abort tapping when using G74/G84		
Solution	G84.48 only can use after G74/G84 abort		

#### 13.5.2 MACRO-500 Tapping retract argument error(Lathe)

Alarm ID	Macro-500	Alarm title	【Tapping retract argument error】
Description	Tapping retract argument error		
Reason	<ol> <li>The retract feedrate to spindle speed ratio is wrong.</li> <li>Retract spindle speed is zero.</li> <li>Without using G74/G84 before using G84.48</li> </ol>		
Solution	<ol> <li>Set correct F_ S_</li> <li>Only ser F_ or S_</li> <li>Using G74/G84 before using G84.48</li> </ol>		



### 14 Device Alarm - STATION

Alarm ID	STATION-01h	Alarm title	[M3 Information abnormal: function command error]	
Description	M3 information communication error, the drive cannot support this function command (Function code).			
Possible Causes	<ol> <li>The communication between the controller and the drive is unstable, resulting in a communication packet error.</li> <li>The driver firmware version does not support this information communication packet.</li> </ol>			
Solution	<ol> <li>Replace the cable and make sure the communication between the controller and the driver is stable.</li> <li>Update the driver firmware version.</li> <li>Update the controller software version.</li> <li>If the problem persists, please contact the distributor or the Vendor for repair.</li> </ol>			
Alarm ID	STATION-02h	Alarm title	[M3 Information exception: memory location error]	
Description	M3 information commu	nication error, access to in	valid memory location.	
Possible Causes	<ol> <li>The communication between the controller and the drive is unstable, resulting in a communication packet error.</li> <li>The driver firmware version does not support this information communication packet.</li> </ol>			
Solution	<ol> <li>Replace the cable and make sure the communication between the controller and the driver is stable.</li> <li>Update the driver firmware version.</li> <li>Update the controller software version.</li> <li>If the problem persists, please contact the distributor or the Vendor for repair.</li> </ol>			
Alarm ID	STATION-03h	Alarm title	[M3 Information exception: data length error]	
Description	M3 informationcommunication error, the length of the accessed data does not match the size of the specified memory space.			
Possible Causes	<ol> <li>The communication between the controller and the drive is unstable, resulting in a communication packet error.</li> <li>The driver firmware version does not support this information communication packet.</li> </ol>			

Alarm ID	STATION-03h	Alarm title	[M3 Information exception: data length error]	
Solution	<ol> <li>Replace the cable and make sure the communication between the controller and the driver is stable.</li> <li>Update the driver firmware version.</li> <li>Update the controller software version.</li> <li>If the problem persists, please contact the distributor or the Vendor for repair.</li> </ol>			
Alarm ID	STATION-04h	Alarm title	[M3 Information exception: data type error]	
Description	M3 information commur	nication error, the drive ca	nnot support the specified data type.	
Possible Causes	<ol> <li>The communication between the controller and the drive is unstable, resulting in a communication packet error.</li> <li>The driver firmware version does not support this information communication packet.</li> </ol>			
Solution	<ol> <li>Replace the cable and make sure the communication between the controller and the driver is stable.</li> <li>Update the driver firmware version</li> <li>Update the controller software version.</li> <li>If the problem persists, please contact the distributor or the Vendor for repair.</li> </ol>			
Alarm ID	STATION-05h	Alarm title	[M3 Information exception: access authority error]	
Description	M3 information communication error, no permission to access the specified memory space.			
Possible Causes	<ol> <li>The communication between the controller and the drive is unstable, resulting in a communication packet error.</li> <li>The driver firmware version does not support this information communication packet.</li> </ol>			
Solution	<ol> <li>Replace the cable and make sure the communication between the controller and the driver is stable.</li> <li>Update the driver firmware version.</li> <li>Update the controller software version.</li> <li>If the problem persists, please contact the distributor or the Vendor for repair.</li> </ol>			

Alarm ID	STATION-06h	Alarm title	[M3 Information exception: data setting error]	
Description	M3 information communication error, the set data size exceeds the allowable range.			
Possible Causes	<ol> <li>The communication between the controller and the drive is unstable, resulting in a communication packet error.</li> <li>The driver firmware version does not support this information communication packet.</li> </ol>			
Solution	<ol> <li>Replace the cable and make sure the communication between the controller and the driver is stable.</li> <li>Update the driver firmware version.</li> <li>Update the controller software version.</li> <li>If the problem persists, please contact the distributor or the Vendor for repair.</li> </ol>			
Alarm ID	STATION-07h	Alarm title	[M3 Information exception: data range selection error]	
Description	M3 information commur space, and data access is	nication error, the selected s not possible.	d data range is not a complete memory	
Possible Causes	<ol> <li>The communication between the controller and the drive is unstable, resulting in a communication packet error.</li> <li>The driver firmware version does not support this information communication packet.</li> </ol>			
Solution	<ol> <li>Replace the cable and make sure the communication between the controller and the driver is stable.</li> <li>Update the driver firmware version.</li> <li>Update the controller software version.</li> <li>If the problem persists, please contact the distributor or the Vendor for repair.</li> </ol>			
Alarm ID	STATION-08h	Alarm title	[M3 Information exception: state environment error]	
Description	M3 information communication error, the current state environment of the drive cannot execute this command.			
Possible Causes	<ol> <li>The current servo status cannot execute this command.</li> <li>The communication between the controller and the drive is unstable, resulting in a communication packet error.</li> <li>The driver version does not support this information communication packet.</li> </ol>			

Alarm ID	STATION-08h	Alarm title	[M3 Information exception: state environment error]		
Solution	<ol> <li>Try again after changing the servo state (Servo On/Off).</li> <li>Replace the cable and make sure the communication between the controller and the driver is stable.</li> <li>Update the driver firmware version.</li> <li>Update the controller software version.</li> <li>If the problem persists, please contact the distributor or the Vendor for repair.</li> </ol>				
Alarm ID	STATION-09h	Alarm title	[M3 Information exception: program processing conflicts]		
Description	M3 information community program.	nication error, this comma	and conflicts with the currently executing		
Possible Causes	<ol> <li>The current server</li> <li>The communication</li> <li>The driver version</li> </ol>	<ol> <li>The current servo status cannot execute this command.</li> <li>The communication between the controller and the drive is unstable, resulting in a communication packet error.</li> <li>The driver version does not support this information communication packet.</li> </ol>			
Solution	<ol> <li>Abort the command other axis are executing.</li> <li>Replace the cable and make sure the communication between the controller and the driver is stable.</li> <li>Update the driver firmware version.</li> <li>Update the controller software version.</li> <li>If the problem persists, please contact the distributor or the Vendor for repair.</li> </ol>				
Alarm ID	STATION-41h	STATION-41h Alarm title [FRAM read/write failed]			
Description	External FRAM read a	nd write failed.			
Possible Causes	The external FRAM is	corrupted, causing the pro	ogram fail to write/read normally.		
Solution	Check if the driver ha	Check if the driver hardware is malfunctioned or damaged.			
Alarm ID	STATION-42h Alarm title [Preamp FPGA cannot be use ]				
Description	Pre-amp FPGA is not a	Pre-amp FPGA is not available			
Possible Causes	There is an error in the unusable.	There is an error in the program in the preamplifier FPGA, which makes the FPGA unusable.			

Alarm ID	STATION-42h	Alarm title	【Preamp FPGA cannot be used 】		
Solution	Reburn preamp firmware, after burning completed reboot the driver.				
Alarm ID	STATION-43h	STATION-43h Alarm title [Burning failure: the driver cannot perform burning in servo enabled state ]			
Description	Cannot enter burning m	ode while the drive is sti	ll in the servo-on state.		
Possible Causes	There is servo axis in the mode.	e servo-on state, which m	akes it impossible to enter the burning		
Solution	Re-perform burning afte	er confirming that all serv	vo axis in connection is in servo-off state.		
Alarm ID	STATION-44h	Alarm title	[DSP program check error]		
Description	DSP program check error.				
Possible Causes	The firmware in the drive's preamp is incomplete.				
Solution	Reburn preamp firmv	vare, upon burning comp	letion reboot the driver.		
Alarm ID	STATION-45h	Alarm title	[DSP firmware version check error]		
Description	DSP firmware version	check error.			
Possible Causes	The firmware version in the drive's preamp is incompatible.				
Solution	Reburn preamp firmware, upon burning completion reboot the driver.				
Alarm ID	STATION-46h	Alarm title	【The driver needs to be recharged】		
Description	The drive needs to be	The drive needs to be powered back on.			
Possible Causes	After the drive firmwa	re has been burned, the o	Irive needs to be rebooted.		
Solution	Reboot the driver.				

Alarm ID	STATION-47h	Alarm title	[Module ID Data Error]	
Description	Reading module ID data error			
Possible Causes	<ol> <li>Module ID data error causing by memory ageing or communication interfered.</li> <li>Any of module number, extend card number, add-on card number is over range.</li> </ol>			
Solution	<ol> <li>Check wiring, especially if shielding is connected to ground correctly. Then reboot the drive.</li> <li>Check the drive, IO extend card, and add-on card are official version.</li> <li>Send back to Syntec.</li> </ol>			
Alarm ID	STATION-51h	Alarm title	[Burning failure: packet count is not continuous]	
Description	Packet count is not continuous.			
Possible Causes	The communication between the controller and the drive is unstable, causing the communication packet to be missed.			
Solution	<ol> <li>Replace the cable and make sure the communication between the controller and the driver is stable.</li> <li>After reboot controller and driver, re-burn firmware.</li> <li>Re-burn the driver with driver tuning software.</li> </ol>			
Alarm ID	STATION-52h	Alarm title	[Burning failure: missing packet search failed]	
Description	Try to re-search for missing packets, but an error occurred during the search.			
Possible Causes	The communication between the controller and the drive is unstable, causing the communication packet to be missed. After the communication packet is missing, try to search for the missing packet data again, but the search fails.			
Solution	<ol> <li>Replace the cable and make sure the communication between the controller and the driver is stable.</li> <li>After reboot the controller and driver, then re-burn the driver.</li> <li>Re-burn the driver with driver tuning software.</li> </ol>			

Alarm ID	STATION-61h	Alarm title	【Burning failure: missing packet recording failed】		
Description	An error occurred while package.	recording the relevant en	vironmental information of the missing		
Possible Causes	The communication bet communication packet After the communication of the missing packet, bu	The communication between the controller and the drive is unstable, causing the communication packet to be missed. After the communication packet is missing, try to record the environmental information of the missing packet, but an error occurs in the record.			
Solution	<ol> <li>Replace the cable and make sure the communication between the controller and the driver is stable.</li> <li>Reboot the controller and the driver and re-burn.</li> <li>Re-burn with the driver tuning software.</li> </ol>				
Alarm ID	STATION-71h	Alarm title	【Burning failure: invalid command】		
Description	The controller sent the	The controller sent the wrong burn command.			
Possible Causes	Drive firmware version	Drive firmware version does not support this burn command.			
Solution	Re-burn after updating	the driver firmware versic	n.		
Alarm ID	STATION-72h	Alarm title	【Burning failure: failed to perform burn initialization】		
Description	The burn initialization is	not performed before the	drive starts burning.		
Possible Causes	The communication betwinitialization command t	The communication between the controller and the drive is unstable, causing the initialization command to be missed.			
Solution	<ol> <li>Replace the cable and make sure the communication between the controller and the driver is stable.</li> <li>Re-burn with the driver tuning software.</li> <li>Check if the driver hardware is malfunctioned or damaged.</li> </ol>				
Alarm ID	STATION-73h	Alarm title	【Burning failure: failed to notify file transmission is complete】		
Description	After the burn file transfe has been completed.	er completed, the drive ha	s not been notified that the file transfer		

Alarm ID	STATION-73h	Alarm title	【Burning failure: failed to notify file transmission is complete】	
Possible Causes	The communication bet command for the comp	ween the controller and t letion of the file transfer is	he drive is unstable, and the notification s missing.	
Solution	<ol> <li>Replace the cable and make sure the communication between the controller and the driver is stable.</li> <li>Re-burn with the driver tuning software.</li> <li>Check if the driver hardware is malfunctioned or damaged.</li> </ol>			
Alarm ID	STATION-81h	Alarm title	【Burning failure: The element is damaged or non-existent】	
Description	Component is damaged or does not exist.			
Possible Causes	The programming component is damaged, making it impossible to perform the burn operation.			
Solution	<ol> <li>Re-burn with the</li> <li>Check if the drive</li> </ol>	e driver tuning software. er hardware is malfunctio	ned or damaged.	
Alarm ID	STATION-82h	Alarm title	[Burning failure: memory space cannot be erased]	
Description	Unable to erase memor	ry space (Flash).		
Possible Causes	Memory space cannot b	Memory space cannot be erased when the drive performs initialization.		
Solution	<ol> <li>Re-burn with the driver tuning software.</li> <li>Check if the driver hardware is malfunctioned or damaged.</li> </ol>			
Alarm ID	STATION-83h	Alarm title	【Burning failure: data size does not match memory space】	
Description	Data size does not mate	h memory space.		
Possible Causes	The file size of the burni	ing installation package d	oes not match the drive memory space.	

Alarm ID	STATION-83h	Alarm title	【Burning failure: data size does not match memory space】	
Solution	<ol> <li>Confirm whether the installation package is damaged. Re-download the package and re-burn.</li> <li>Verify that the content of the installation package is compatible with the hardware module in the driver.</li> <li>Re-burn with the driver tuning software.</li> </ol>			
Alarm ID	STATION-84h	Alarm title	【Burning failure: write address error】	
Description	Write in wrong address .			
Possible Causes	The module address of t configuration in the driv	he burning installation pa e.	ackage does not match the module	
Solution	<ol> <li>Confirm whether the installation package is damaged. Re-download the package and re-burn.</li> <li>Verify that the content of the installation package is compatible with the hardware module in the driver.</li> <li>Re-burn with the driver tuning software.</li> </ol>			
Alarm ID	STATION-85h	Alarm title	[Burning failure: error in memory writing]	
Description	An error occurred while	An error occurred while writing to the memory.		
Possible Causes	Memory write failure oc	Memory write failure occurred during burning.		
Solution	<ol> <li>Re-burn with the driver tuning software.</li> <li>Check if the driver hardware is malfunctioned or damaged.</li> </ol>			
Alarm ID	STATION-86h	Alarm title	[Burning failure: data packet error]	
Description	At the end of the burning process, the drive checks that the file size does not match the expected.			
Possible Causes	The communication between the controller and the drive is unstable, resulting in a communication packet error.			

Alarm ID	STATION-86h	Alarm title	[Burning failure: data packet error]	
Solution	<ol> <li>Replace the cable and make sure the communication between the controller and the driver is stable.</li> <li>Confirm whether the installation package is damaged. Re-downloading the package and re-burn.</li> <li>Re-burn with the driver tuning software.</li> </ol>			
Alarm ID	STATION-87h	Alarm title	【Burning failure: file check error 】	
Description	An error occurred while t	he drive was checking t	he contents of burn installation package.	
Possible Causes	<ol> <li>The communicati a communication</li> <li>The file content o</li> </ol>	<ol> <li>The communication between the controller and the drive is unstable, resulting in a communication packet error.</li> <li>The file content of the <b>burning</b> installation package is damaged.</li> </ol>		
Solution	<ol> <li>Replace the cable the driver is stable</li> <li>Confirm whether and re-burn.</li> <li>Re-burn with the</li> </ol>	<ol> <li>Replace the cable and make sure the communication between the controller and the driver is stable.</li> <li>Confirm whether the installation package is damaged. Re-download the package and re-burn.</li> <li>Re-burn with the driver tuning software.</li> </ol>		
Alarm ID	STATION-100h	Alarm title	【Burning failure: Drive communication timeout】	
Description	Drive communication ti	Drive communication timeout during the burning process.		
Possible Causes	<ol> <li>The M3 drive doe</li> <li>Communication message or Ethe</li> </ol>	<ol> <li>The M3 drive does not support M3 message communication.</li> <li>Communication between controller and driver is not stable, causing the M3 drive message or EtherCAT drive mailbox communication takes too much time.</li> </ol>		
Solution	<ol> <li>If it is M3 network, confirm that the drive can support M3 message communication.</li> <li>Replace the cable and make sure the communication between the controller and the drive is stable.</li> <li>Update the drive firmware version.</li> </ol>			
Alarm ID	STATION-101h A	larm title	【Burning failure: Burning can only be conducted if the servo axis is in servo disabled state】	
Description	The controller must enter the burn mode when all servo axes are in the servo-off state.			

Alarm ID	STATION-101h	Alarm title	【Burning failure: Burning can only be conducted if the servo axis is in servo disabled state】
Possible Causes	The controller still has th be connected.	e servo axis in the servo	-on state, so the drive burn mode cannot
Solution	Re-burn after confirming	that the all connected s	ervo axis is in servo-off state.
Alarm ID	STATION-102h	Alarm title	[Communication failure: the driver is in burn mode]
Description	The drive is in burn mod	le and cannot provide se	ervo and I/O functions on the drive side.
Possible Causes	<ol> <li>After the drive fir</li> <li>The driver pream functions.</li> </ol>	mware burned, the driv op firmware is incomple	e did not reboot. te and cannot enable servo and I/O
Solution	<ol> <li>Reboot the driver.</li> <li>Reburn preamp firmware before reboot the driver.</li> <li>Re-burn preamp firmware with the driver tuning software.</li> <li>Check if the driver hardware is malfunctioned or damaged.</li> </ol>		
Alarm ID	STATION-103h	Alarm title	[Burning failure: abnormal interruption occurred during the previous burning]
Description	Burn failed. The abnormality occurred during the previous burn process, causing the process to be interrupted abnormally and the new burning operation could not be performed.		
Possible Causes	An abnormality occurred during the previous burn process and the burning action was interrupted abnormally.		
Solution	<ol> <li>Re-burn after reboot the controller and driver.</li> <li>Re-burn with the driver tuning software.</li> </ol>		
Alarm ID	STATION-104h	Alarm title	[Burning failure: error in checking the burning environment]
Description	Burning failed, error occurred while checking the burning environment.		
Possible Causes	The internal file of the controller is damaged, resulting in the inability to perform the programming action.		

Alarm ID	STATION-104h	Alarm title	[Burning failure: error in checking the burning environment]	
Solution	<ol> <li>Re-burn with the driver tuning software.</li> <li>Update the controller software version.</li> <li>If the problem persists, please contact the distributor or the Vendor for repair.</li> </ol>			
Alarm ID	STATION-105h	Alarm title	[Burning failure: the drive cannot enter burn mode]	
Description	The burning failed, the d	rive cannot enter the bur	ming mode.	
Possible Causes	The driver firmware vers	ion does not support bur	n files through the controller.	
Solution	Re-burn with the driver tuning software.			
Alarm ID	STATION-106h	Alarm title	【The controller cannot identify the device information of the driver】	
Description	The controller does not recognize the drive device information of this version.			
Possible Causes	Controller software version is too old to recognize this version's drive device information.			
Solution	Update the controller so	ftware version		
Alarm ID	STATION-107h	Alarm title	【The version of the driver boot loader does not support remote burning】	
Description	The boot loader version of the drive is too old to support firmware burning via the controller.			
Possible Causes	The drive loader version of the drive is too old.			
Solution	<ol> <li>Re-burn with the driver tuning software.</li> <li>Contact the Vendor to update the driver boot loader.</li> </ol>			

#### 14.1 STATION-01h M3 Information abnormal: function command error

Alarm ID	STATION-01h	Alarm title	[M3 Information abnormal: function command error]	
Description	M3 information communication error, the drive cannot support this function command (Function code).			
Possible Causes	<ol> <li>The communication between the controller and the drive is unstable, resulting in a communication packet error.</li> <li>The driver firmware version does not support this information communication packet.</li> </ol>			
Solution	<ol> <li>Replace the cable and make sure the communication between the controller and the driver is stable.</li> <li>Update the driver firmware version.</li> <li>Update the controller software version.</li> <li>If the problem persists, please contact the distributor or the Vendor for repair.</li> </ol>			

## 14.2 STATION-02h M3 Information exception: memory location error

Alarm ID	STATION-02h	Alarm title	[M3 Information exception: memory location error]	
Description	M3 information communication error, access to invalid memory location.			
Possible Causes	<ol> <li>The communication between the controller and the drive is unstable, resulting in a communication packet error.</li> <li>The driver firmware version does not support this information communication packet.</li> </ol>			
Solution	<ol> <li>Replace the cable and make sure the communication between the controller and the driver is stable.</li> <li>Update the driver firmware version.</li> <li>Update the controller software version.</li> <li>If the problem persists, please contact the distributor or the Vendor for repair.</li> </ol>			

Alarm ID	STATION-03h	Alarm title	[M3 Information exception: data length error]
Description	M3 informationcommunication error, the length of the accessed data does not match the size of the specified memory space.		
Possible Causes	<ol> <li>The communication between the controller and the drive is unstable, resulting in a communication packet error.</li> <li>The driver firmware version does not support this information communication packet.</li> </ol>		
Solution	<ol> <li>Replace the cable and make sure the communication between the controller a the driver is stable.</li> <li>Update the driver firmware version.</li> <li>Update the controller software version.</li> <li>If the problem persists, please contact the distributor or the Vendor for repair.</li> </ol>		nication between the controller and

#### 14.3 STATION-03h M3 Information exception: data length error

#### 14.4 STATION-04h M3 Information exception: data type error

Alarm ID	STATION-04h	Alarm title	[M3 Information exception: data type error]	
Description	M3 information communication error, the drive cannot support the specified data type.			
Possible Causes	<ol> <li>The communication between the controller and the drive is unstable, resulting in a communication packet error.</li> <li>The driver firmware version does not support this information communication packet.</li> </ol>			
Solution	<ol> <li>Replace the cable and make sure the communication between the controller and the driver is stable.</li> <li>Update the driver firmware version</li> <li>Update the controller software version.</li> <li>If the problem persists, please contact the distributor or the Vendor for repair.</li> </ol>			

Alarm ID	STATION-05h	Alarm title	[M3 Information exception: access authority error]	
Description	M3 information communication error, no permission to access the specified memory space.			
Possible Causes	<ol> <li>The communication between the controller and the drive is unstable, resulting in a communication packet error.</li> <li>The driver firmware version does not support this information communication packet.</li> </ol>			
Solution	<ol> <li>Replace the cable the driver is stab</li> <li>Update the drive</li> <li>Update the contr</li> <li>If the problem per</li> </ol>	<ol> <li>Replace the cable and make sure the communication between the controller and the driver is stable.</li> <li>Update the driver firmware version.</li> <li>Update the controller software version.</li> <li>If the problem persists, please contact the distributor or the Vendor for repair.</li> </ol>		

#### 14.5 STATION-05h M3 Information exception: access authority error

#### 14.6 STATION-06h M3 Information exception: data setting error

Alarm ID	STATION-06h	Alarm title	[M3 Information exception: data setting error]
Description	M3 information commur	nication error, the set data	i size exceeds the allowable range.
Possible Causes	<ol> <li>The communication between the controller and the drive is unstable, resulting in a communication packet error.</li> <li>The driver firmware version does not support this information communication packet.</li> </ol>		
Solution	<ol> <li>Replace the cable and make sure the communication between the controller and the driver is stable.</li> <li>Update the driver firmware version.</li> <li>Update the controller software version.</li> <li>If the problem persists, please contact the distributor or the Vendor for repair.</li> </ol>		
Solution	<ol> <li>Replace the cable and make sure the communication between the controller and the driver is stable.</li> <li>Update the driver firmware version.</li> <li>Update the controller software version.</li> <li>If the problem persists, please contact the distributor or the Vendor for repair.</li> </ol>		

#### 14.7 STATION-07h M3 Information exception: data range selection error

Alarm ID	STATION-07h	Alarm title	[M3 Information exception: data range selection error]	
Description	M3 information communication error, the selected data range is not a complete memory space, and data access is not possible.			
Possible Causes	<ol> <li>The communication between the controller and the drive is unstable, resulting in a communication packet error.</li> <li>The driver firmware version does not support this information communication packet.</li> </ol>			
Solution	<ol> <li>Replace the cable and make sure the communication between the controller and the driver is stable.</li> <li>Update the driver firmware version.</li> <li>Update the controller software version.</li> <li>If the problem persists, please contact the distributor or the Vendor for repair.</li> </ol>			

#### 14.8 STATION-08h M3 Information exception: state environment error

Alarm ID	STATION-08h	Alarm title	[M3 Information exception: state environment error]	
Description	M3 information commu execute this command.	M3 information communication error, the current state environment of the drive cannot execute this command.		
Possible Causes	<ol> <li>The current servo status cannot execute this command.</li> <li>The communication between the controller and the drive is unstable, resulting in a communication packet error.</li> <li>The driver version does not support this information communication packet.</li> </ol>			
Solution	<ol> <li>Try again after cl</li> <li>Replace the cabl the driver is stab</li> <li>Update the drive</li> <li>Update the cont</li> <li>If the problem per</li> </ol>	<ol> <li>Try again after changing the servo state (Servo On/Off).</li> <li>Replace the cable and make sure the communication between the controller and the driver is stable.</li> <li>Update the driver firmware version.</li> <li>Update the controller software version.</li> <li>If the problem persists, please contact the distributor or the Vendor for repair.</li> </ol>		

## 14.9 STATION-09h M3 Information exception: program processing conflicts

Alarm ID	STATION-09h	Alarm title	[M3 Information exception: program processing conflicts]	
Description	M3 information communication error, this command conflicts with the currently executing program.			
Possible Causes	<ol> <li>The current servo status cannot execute this command.</li> <li>The communication between the controller and the drive is unstable, resulting in a communication packet error.</li> <li>The driver version does not support this information communication packet.</li> </ol>			
Solution	<ol> <li>Abort the command other axis are executing.</li> <li>Replace the cable and make sure the communication between the controller and the driver is stable.</li> <li>Update the driver firmware version.</li> <li>Update the controller software version.</li> <li>If the problem persists, please contact the distributor or the Vendor for repair.</li> </ol>			

#### 14.10 STATION-41h FRAM read/write failed

Alarm ID	STATION-41h	Alarm title	[FRAM read/write failed]
Description	External FRAM read and write failed.		
Possible Causes	The external FRAM is corrupted, causing the program fail to write/read normally.		
Solution	Check if the driver hardware is malfunctioned or damaged.		

#### 14.11 STATION-42h Preamp FPGA cannot be used

Alarm ID	STATION-42h	Alarm title	【Preamp FPGA cannot be used 】
Description	Pre-amp FPGA is not available		
Possible Causes	There is an error in the program in the preamplifier FPGA, which makes the FPGA unusable.		

Alarm ID	STATION-42h	Alarm title	[Preamp FPGA cannot be used]
Solution	Reburn preamp firmware, after burning completed reboot the driver.		

## 14.12 STATION-43h Burning failure: the driver cannot perform burning in servo enabled state

Alarm ID	STATION-43h	Alarm title	【Burning failure: the driver cannot perform burning in servo enabled state 】	
Description	Cannot enter burning n	Cannot enter burning mode while the drive is still in the servo-on state.		
Possible Causes	There is servo axis in the servo-on state, which makes it impossible to enter the burning mode.			
Solution	Re-perform burning aft	Re-perform burning after confirming that all servo axis in connection is in servo-off state.		

### 14.13 STATION-44h DSP program check error

Alarm ID	STATION-44h	Alarm title	[DSP program check error]
Description	DSP program check error.		
Possible Causes	The firmware in the drive's preamp is incomplete.		
Solution	Reburn preamp firmware, upon burning completion reboot the driver.		

### 14.14 STATION-45h DSP firmware version check error

Alarm ID	STATION-45h	Alarm title	【DSP firmware version check error】	
Description	DSP firmware version check error.			
Possible Causes	The firmware version in the drive's preamp is incompatible.			
Solution	Reburn preamp firmware, upon burning completion reboot the driver.			

#### 14.15 STATION-46h The driver needs to be recharged

Alarm ID	STATION-46h	Alarm title	【The driver needs to be recharged】
Description	The drive needs to be powered back on.		
Possible Causes	After the drive firmware has been burned, the drive needs to be rebooted.		
Solution	Reboot the driver.		

#### 14.16 STATION-47h Module ID Data Error

Alarm ID	STATION-47h	Alarm title	[Module ID Data Error]
Description	Reading module ID data error		
Possible Causes	<ol> <li>Module ID data error causing by memory ageing or communication interfered.</li> <li>Any of module number, extend card number, add-on card number is over range.</li> </ol>		
Solution	<ol> <li>Check wiring, especially if shielding is connected to ground correctly. Then reboot the drive.</li> <li>Check the drive, IO extend card, and add-on card are official version.</li> <li>Send back to Syntec.</li> </ol>		ed to ground correctly. Then rd are official version.

#### 14.17 STATION-51h Burning failure: packet count is not continuous

Alarm ID	STATION-51h	Alarm title	[Burning failure: packet count is not continuous]
Description	Packet count is not cont	inuous.	
Possible Causes	The communication between the controller and the drive is unstable, causing the communication packet to be missed.		
Solution	<ol> <li>Replace the cable and make sure the communication between the controller and the driver is stable.</li> <li>After reboot controller and driver, re-burn firmware.</li> <li>Re-burn the driver with driver tuning software.</li> </ol>		

Alarm ID	STATION-52h	Alarm title	【Burning failure: missing packet search failed】
Description	Try to re-search for miss	ing packets, but an error c	occurred during the search.
Possible Causes	The communication between the controller and the drive is unstable, causing the communication packet to be missed. After the communication packet is missing, try to search for the missing packet data again, but the search fails.		
Solution	<ol> <li>Replace the cable the driver is stab</li> <li>After reboot the of</li> <li>Re-burn the drive</li> </ol>	e and make sure the comn le. controller and driver, then er with driver tuning softw	nunication between the controller and re-burn the driver. are.

### 14.18 STATION-52h Burning failure: missing packet search failed

#### 14.19 STATION-61h Burning failure: missing packet recording failed

Alarm ID	STATION-61h	Alarm title	【Burning failure: missing packet recording failed】
Description	An error occurred while recording the relevant environmental information of the missing package.		
Possible Causes	The communication between the controller and the drive is unstable, causing the communication packet to be missed. After the communication packet is missing, try to record the environmental information of the missing packet, but an error occurs in the record.		
Solution	<ol> <li>Replace the cable the driver is stabl</li> <li>Reboot the contr</li> <li>Re-burn with the</li> </ol>	e cable and make sure the communication between the controller and s stable. controller and the driver and re-burn. th the driver tuning software.	

### 14.20 STATION-71h Burning failure: invalid command

Alarm ID	STATION-71h	Alarm title	[Burning failure: invalid command]
Description	The controller sent the w	rong burn command.	

Alarm ID	STATION-71h	Alarm title	【Burning failure: invalid command】
Possible Causes	Drive firmware version does not support this burn command.		
Solution	Re-burn after updating th	ne driver firmware version.	

#### 14.21 STATION-72h Burning failure: failed to perform burn initialization

Alarm ID	STATION-72h	Alarm title	[Burning failure: failed to perform burn initialization]
Description	The burn initialization is	s not performed before th	e drive starts burning.
Possible Causes	The communication between the controller and the drive is unstable, causing the initialization command to be missed.		
Solution	<ol> <li>Replace the cable and make sure the communication between the controller and the driver is stable.</li> <li>Re-burn with the driver tuning software.</li> <li>Check if the driver hardware is malfunctioned or damaged.</li> </ol>		

# 14.22 STATION-73h Burning failure: failed to notify file transmission is complete

Alarm ID	STATION-73h	Alarm title	[Burning failure: failed to notify file transmission is complete]
Description	After the burn file transfer completed, the drive has not been notified that the file transfer has been completed.		
Possible Causes	The communication between the controller and the drive is unstable, and the notification command for the completion of the file transfer is missing.		
Solution	<ol> <li>Replace the cable and make sure the communication between the controller and the driver is stable.</li> <li>Re-burn with the driver tuning software.</li> <li>Check if the driver hardware is malfunctioned or damaged.</li> </ol>		imunication between the controller and oned or damaged.

#### 14.23 STATION-81h Burning failure: The element is damaged or nonexistent

Alarm ID	STATION-81h	Alarm title	[Burning failure: The element is damaged or non-existent]
Description	Component is damaged or does not exist.		
Possible Causes	The programming component is damaged, making it impossible to perform the burn operation.		
Solution	<ol> <li>Re-burn with the</li> <li>Check if the drive</li> </ol>	e driver tuning software. er hardware is malfunctio	ned or damaged.

#### 14.24 STATION-82h Burning failure: memory space cannot be erased

Alarm ID	STATION-82h	Alarm title	[Burning failure: memory space cannot be erased]
Description	Unable to erase memory space (Flash).		
Possible Causes	Memory space cannot be erased when the drive performs initialization.		
Solution	<ol> <li>Re-burn with the driver tuning software.</li> <li>Check if the driver hardware is malfunctioned or damaged.</li> </ol>		

## 14.25 STATION-83h Burning failure: data size does not match memory space

Alarm ID	STATION-83h	Alarm title	[Burning failure: data size does not match memory space]	
Description	Data size does not mate	h memory space.		
Possible Causes	The file size of the burning installation package does not match the drive memory space.			
Solution	<ol> <li>Confirm whether the installation package is damaged. Re-download the package and re-burn.</li> <li>Verify that the content of the installation package is compatible with the hardware module in the driver.</li> <li>Re-burn with the driver tuning software.</li> </ol>			
Alarm ID	STATION-84h	Alarm title	【Burning failure: write address error】	
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Description	Write in wrong address .			
Possible Causes	The module address of the burning installation package does not match the module configuration in the drive.			
Solution	<ol> <li>Confirm whether the installation package is damaged. Re-download the package and re-burn.</li> <li>Verify that the content of the installation package is compatible with the hardware module in the driver.</li> <li>Re-burn with the driver tuning software.</li> </ol>			

### 14.26 STATION-84h Burning failure: write address error

### 14.27 STATION-85h Burning failure: error in memory writing

Alarm ID	STATION-85h	Alarm title	[Burning failure: error in memory writing]
Description	An error occurred while writing to the memory.		
Possible Causes	Memory write failure occurred during burning.		
Solution	<ol> <li>Re-burn with the driver tuning software.</li> <li>Check if the driver hardware is malfunctioned or damaged.</li> </ol>		

### 14.28 STATION-86h Burning failure: data packet error

Alarm ID	STATION-86h	Alarm title	【Burning failure: data packet error】
Description	At the end of the burning process, the drive checks that the file size does not match the expected.		
Possible Causes	The communication between the controller and the drive is unstable, resulting in a communication packet error.		

Alarm ID	STATION-86h	Alarm title	【Burning failure: data packet error】
Solution	<ol> <li>Replace the cable the driver is stable</li> <li>Confirm whether package and re-b</li> <li>Re-burn with the e</li> </ol>	e and make sure the commu e. the installation package is urn. driver tuning software.	unication between the controller and damaged. Re-downloading the

# 14.29 STATION-87h Burning failure: file check error

Alarm ID	STATION-87h	Alarm title	[Burning failure: file check error]	
Description	An error occurred while the drive was checking the contents of burn installation package.			
Possible Causes	<ol> <li>The communication between the controller and the drive is unstable, resulting in a communication packet error.</li> <li>The file content of the <b>burning</b> installation package is damaged.</li> </ol>			
Solution	<ol> <li>Replace the cable the driver is stable</li> <li>Confirm whether and re-burn.</li> <li>Re-burn with the end</li> </ol>	lace the cable and make sure the communication between the controller and driver is stable. firm whether the installation package is damaged. Re-download the package re-burn. purn with the driver tuning software.		

### 14.30 STATION-100h Burning failure: Drive communication timeout

Alarm ID	STATION-100h	Alarm title	[Burning failure: Drive communication timeout]
Description	Drive communication timeo	out during the burning proce	255.
Possible Causes	<ol> <li>The M3 drive does not support M3 message communication.</li> <li>Communication between controller and driver is not stable, causing the M3 drive message or EtherCAT drive mailbox communication takes too much time.</li> </ol>		
Solution	<ol> <li>If it is M3 network, confirm that the drive can support M3 message communication.</li> <li>Replace the cable and make sure the communication between the control the drive is stable.</li> <li>Update the drive firmware version.</li> </ol>		oport M3 message ation between the controller and

# 14.31 STATION-101h Burning failure: Burning can only be conducted if the servo axis is in servo disabled state

Alarm ID	STATION-101h	Alarm title	[Burning failure: Burning can only be conducted if the servo axis is in servo disabled state]
Description	The controller must enter the burn mode when all servo axes are in the servo-off state.		
Possible Causes	The controller still has the servo axis in the servo-on state, so the drive burn mode cannot be connected.		
Solution	Re-burn after confirming that the all connected servo axis is in servo-off state.		

### 14.32 STATION-102h Communication failure: the driver is in burn mode

Alarm ID	STATION-102h	Alarm title	【Communication failure: the driver is in burn mode】
Description	The drive is in burn mode	e and cannot provide serv	o and I/O functions on the drive side.
Possible Causes	<ol> <li>After the drive firmware burned, the drive did not reboot.</li> <li>The driver preamp firmware is incomplete and cannot enable servo and I/O functions.</li> </ol>		
Solution	<ol> <li>Reboot the driver.</li> <li>Reburn preamp fir</li> <li>Re-burn preamp fi</li> <li>Check if the driver</li> </ol>	<ol> <li>Reboot the driver.</li> <li>Reburn preamp firmware before reboot the driver.</li> <li>Re-burn preamp firmware with the driver tuning software.</li> <li>Check if the driver hardware is malfunctioned or damaged.</li> </ol>	

# 14.33 STATION-103h Burning failure: abnormal interruption occurred during the previous burning

Alarm ID	STATION-103h	Alarm title	[Burning failure: abnormal interruption occurred during the previous burning]
Description	Burn failed. The abnormality occurred during the previous burn process, causing the process to be interrupted abnormally and the new burning operation could not be performed.		

Alarm ID	STATION-103h	Alarm title	[Burning failure: abnormal interruption occurred during the previous burning]
Possible Causes	An abnormality occurred during the previous burn process and the burning action was interrupted abnormally.		
Solution	<ol> <li>Re-burn after reboot the controller and driver.</li> <li>Re-burn with the driver tuning software.</li> </ol>		

# 14.34 STATION-104h Burning failure: error in checking the burning environment

Alarm ID	STATION-104h	Alarm title	[Burning failure: error in checking the burning environment]
Description	Burning failed, error occurred while checking the burning environment.		
Possible Causes	The internal file of the controller is damaged, resulting in the inability to perform the programming action.		
Solution	<ol> <li>Re-burn with the driver tuning software.</li> <li>Update the controller software version.</li> <li>If the problem persists, please contact the distributor or the Vendor for repair.</li> </ol>		

### 14.35 STATION-105h Burning failure: the drive cannot enter burn mode

Alarm ID	STATION-105h	Alarm title	【Burning failure: the drive cannot enter burn mode】
Description	The burning failed, the drive cannot enter the burning mode.		
Possible Causes	The driver firmware version does not support burn files through the controller.		
Solution	Re-burn with the driver tuning software.		

# 14.36 STATION-106h The controller cannot identify the device information of the driver

Alarm ID	STATION-106h	Alarm title	[The controller cannot identify the device information of the driver]
Description	The controller does not recognize the drive device information of this version.		
Possible Causes	Controller software version is too old to recognize this version's drive device information.		
Solution	Update the controller software version		

# 14.37 STATION-107h The version of the driver boot loader does not support remote burning

Alarm ID	STATION-107h	Alarm title	[The version of the driver boot loader does not support remote burning]
Description	The boot loader version of the drive is too old to support firmware burning via the controller.		
Possible Causes	The drive loader version of the drive is too old.		
Solution	<ol> <li>Re-burn with the driver tuning software.</li> <li>Contact the Vendor to update the driver boot loader.</li> </ol>		



# 15 Mechanical Logic Control Alarm - MLC

Mechanical Logic Control Alarm-MLC			
001	R40.0: X axis exceeds the positive hardware stroke limit.		
002	R40.1: X axis exceeds the negative hardware stroke limit.		
003	R40.2: X axis has not yet returned to origin.		
004	R40.3: X axis servo driver alarm.		
009	R40.8: Y axis exceeds the positive hardware stroke limit.		
010	R40.9: Y axis exceeds the negative hardware stroke limit.		
011	R40.10: Y axis has not yet returned to the origin.		
012	R40.11: Y axis servo driver alarm.		
017	R41.0: Z axis exceeds the positive hardware stroke limit.		
018	R41.1: Z axis exceeds the negative hardware stroke limit.		
019	R41.2: Z axis has not yet returned to the origin.		
020	R41.3: Z axis servo driver alarm.		
025	R41.8: A axis exceeds the positive hardware stroke limit.		
026	R41.9: A axis exceeds the negative hardware stroke limit.		
027	R41.10: A axis has not yet returned to the origin.		
028	R41.11: A axis servo driver alarm.		
033	R42.0: B axis exceeds the positive hardware stroke limit.		
034	R42.1: B axis exceeds the negative hardware stroke limit.		

Mechanical Logic Control Alarm-MLC			
035	R42.2: B axis has not yet returned to the origin.		
036	R42.3: B axis servo driver alarm.		
041	R42.8: C axis exceeds the positive hardware stroke limit.		
042	R42.9: C axis exceeds the negative hardware stroke limit.		
043	R42.10: C axis has not yet returned to the origin.		
044	R42.11: C axis servo driver alarm.		
049	R43.0: Spindle servo driver alarm.		
050	R43.1: cutting fluid motor overload.		
051	R43.2: hydraulic oil pressure system alarm.		
052	R43.3: insufficient air pressure.		
053	R43.4: insufficient lubricant oil.		
054	R43.5: insufficient cutting fluid level.		
055	R43.6: the gripper not clamped.		
058	Insufficient remaining system memory.		
299	R43.16: cutting fluid motor overload.		
300	R43.17: hydraulic oil pressure system alarm.		
301	R43.18: insufficient air pressure.		
302	R43.19: insufficient lubricant oil.		
303	R43.20: insufficient cutting fluid level.		

Mechanical Logic Contr	rol Alarm-MLC
313	R43.30: Protective Start activated, press SIMU FWD to move to Target Pt. (Remarks: This alarm is triggered by Robot Products only.)
314	R43.31: Protective Start complete, press START to run program. (Remarks: This alarm is triggered by Robot Products only.)
<ol> <li>MLC-001~MLC-048         <ul> <li>e.g.</li> <li>MLC-001~MLC-008</li> </ul> </li> </ol>	are axis alarms (8 alarms/axis), and they are also arranged by aixs ID are alarms of NO. 1 axis

MLC-009~MLC-016 are alarms of NO. 2 axis

MLC-041~MLC-048 are alarms of NO. 6 axis

2. If some axis is not opened, the corresponding alarms will not be issued. e.g.

No.5 axis is not opened(Pr25 is set by 0), then MLC-033~040 will not be issued.

3. If some axis name doesn't match the corresponding alarm string in the above list, then user should define their own alarm string.

e.g.

....

Pr321 [No.1 axis name] is set by 200(axis-y), and Pr322 [No.2 axis name] is set by 100(axis-x).

The alarm string of MLC-001~MLC-008 should be modified as "Y axis"

The alarm string of MLC-009~MLC-016 should be modified as "X axis"



# 16 Laser Marking Alarm - LASERCTRL

Alarm ID	LASERCTRL-001	Alarm title	[Exceeding the software process limit]			
Description	The target position exceeds the stroke limit setting range.					
Possible Cause	<ol> <li>The galvanometer</li> <li>The galvanometer</li> </ol>	<ol> <li>The galvanometer is intended to travel beyond the stroke limit.</li> <li>The galvanometer parameter setting is incorrect.</li> </ol>				
Solution	<ol> <li>Modify target locat</li> <li>Set correct galvand angles as per Laser</li> </ol>	<ol> <li>Modify target location.</li> <li>Set correct galvanometer parameters and set correct resolution and scanning angles as per Laser Marking PC Software Manual.</li> </ol>				
Alarm ID	LASERCTRL-002Alarm title[Absolute coordinates are invalid]					
Description	The absolute coordinate s	The absolute coordinate setting is invalid.				
Possible Cause	After origin is set, reset th	After origin is set, reset the mechanism parameters.				
Solution	Please contact the staff o	Please contact the staff of the machine manufacturer to reset the origin.				
Alarm ID	LASERCTRL-003	Alarm title c	【The laser axis/galvanometer axis ontrol function cannot be started】			
Description	The galvanometer axis or la	The galvanometer axis or laser axis does not activated properly.				
Possible Cause	<ol> <li>In general, this action will not be triggered by any operation.</li> <li>The possible cause is that the software does not match the firmware.</li> </ol>					
Solution	Please consult the Vendor.					
Alarm ID	LASERCTRL-005 Alarm title		[Laser file loading failed]			
Description	The laser machining file cannot be turned on correctly.					
Possible Cause	The file name, file placement folder or machining file header is set incorrectly.					

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Alarm ID	LASERCTRL-005	Alar	m title	[Laser file load	ding failed】
Solution	<ol> <li>Verify that the machining file name is saved under the machining file root directory.</li> <li>Make sure the file name is entered correctly.</li> <li>Confirm that the machining files are saved under the machining root file directory.</li> <li>Check if the controller supports the version of the laser processing file.</li> <li>Check if the version number of the laser machining file supports the currently enabled marking mode.</li> <li>If the above method does not work, please contact the machine manufacturer.</li> </ol>			file root oot file g file. he currently nanufacturer.	
Alarm ID	LASERCTRL-006 Alarm [Illegal repeated interpretations title number]				
Description	The number of repea incorrectly.	ted interpreta	ion machining paths	is set	
Possible Cause	R17018 is set to 1 (lim machining paths), an is set to zero or negat	R17018 is set to 1 (limited times of repeatedly interpreted machining paths), and R17019 (repeatedly interpreted machining paths) is set to zero or negative.			
Solution	Set the number of R1 integer.	7019 reinterpr	etation machining pa	ths to a positive	
Alarm ID	LASERCTRL-007	LASERCTRL-007 Alarm Title [The memory configuration of the repeated machining path is abnormal]			
Description	The memory required be configured correct	The memory required to repeatedly interpret the machining path cannot be configured correctly.			
Possible Cause	<ul> <li>When R17018 is set to 1, 2 or 3 (repeated processing path mode, or record mode for small files), and any of the following occurs:</li> <li>1. The laser machining file is too large.</li> <li>2. Exceed the max. machining time under the record mode for small files.</li> <li>3. Use the machining file generated by the old version of CADCAM software.</li> </ul>				
Solution	<ol> <li>Reduce the file size of the machining path file.</li> <li>Please confirm that the machining file has been generated using the new version of CADCAM software.</li> <li>Please contact the Vendor.</li> </ol>				

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Alarm ID	LASERCTRL-021	Alarm title	【Coordinate s error】	ynchronization			
Description	Coordinate synchron	ization failed.					
Possible Cause	When the coordinate issued.	s are synchron	ized, there are stil	l commands not			
Solution	Re-trigger reset. The coordinates.	reset clears the	command and sy	vnchronize			
Alarm ID	LASERCTRL-022	Alarm	title	[Distortion correc of range]	tion table out		
Description	The galvanometer p	osition table c	hecking failed.				
Possible Cause	The target point is o	ut of range and	the table check f	ails.			
Solution	<ol> <li>Trigger Reset controller.</li> <li>Change the target position to be within the range of the distortion correction table.</li> <li>Check whether the displacement and zoom of the calibration table are set. If set, the scope of the calibration table will be changed, causing the target position to be out of the calibration range.</li> <li>Refer to Laser Marking PC Software Manual to expand the scope of the distortion correction table.</li> </ol>						
Alarm ID	LASERCTRL-024	LASERCTRL-024 Alarm title [Correction table header error ]					
Description	The distortion correction header has an error.						
Possible Cause	The calibration table version does not match the controller version.						
Solution	<ol> <li>Confirm that the controller version is consistent with the marking software version.</li> <li>Refer to Laser Marking PC Software Manual for recalibration.</li> </ol>						
Alarm ID	LASERCTRL-026 Alarm title [Laser machining fierror]				y file content		
Description	Incorrect laser machining file content.						
Possible Cause	The laser machining file has incorrect command.						

Alarm ID	LASERCTRL-026	Alarm title	【Laser machining file content error】	
Solution	<ol> <li>Reconvert the machining files</li> <li>Please contact the staff of the machine manufacturer.</li> </ol>			
Alarm ID	LASERCTRL-027	Alarm title	[XY axis command beyond the distortion correction table range]	
Description	The X and Y axis comman	ds are outside the range	of the distortion correction table.	
Possible Cause	The X and Y axis comman	ds are outside the range	of the distortion correction table.	
Solution	<ol> <li>Trigger Reset to reset the controller.</li> <li>Change the XY axis target position of the pattern to be within the range of the distortion correction table.</li> <li>Check whether the overall shift and rotate value(R1241~R1244) and galvo shift and rotate value(R17001~R17004) is zero, or lower the shift rotate value to let pattern inside the calibration range.</li> <li>Check whether the displacement, zoom, and process limit of the calibration table are set. If set, the scope of the calibration range.</li> <li>Check whether the displacement, zoom, and process limit of the calibration table are set. If set, the scope of the calibration range.</li> <li>Refer to Laser Marking PC Software Manual; check the galvanometer parameters settings to uncheck the stroke limit and use a full calibration table size; if this alarm is still activated when using the complete distortion correction table, it is necessary to recalibrate a range to meet the calibration table with machining process.</li> <li>When synchronization marking is enabled, refer to Laser Synchronization Marking Operation Manual, and confirm the setting value of laser control parameters Pr61~Pr62</li> </ol>			
Alarm ID	LASERCTRL-028	Alarm title	【Z axis command beyond the distortion correction table range】	
Description	The Z axis command is outside the range of the distortion correction table.			
Possible Cause	The Z axis command is outside the range of the distortion correction table.			
Solution	<ol> <li>Trigger Reset to reset the controller.</li> <li>Change the Z axis target position to be within the range of the distortion correction table.</li> <li>Refer to the Laser Marking PC Software Manual to expand the scope of the distortion correction table.</li> <li>When synchronization marking is enabled, refer to Laser Synchronization Marking Operation Manual, and confirm the setting value of laser control parameter Pr63.</li> </ol>			

CNC Alarm Manual.

Alarm ID	LASERCTRL-029	Alarm tit	le	【3D laser marking supported】	function is not
Description	The option software C files is not supported.	The option software Option35 "3D Laser Marking" is not activated, and 3D laser machining files is not supported.			
Possible Cause	The option software C files is not supported.	)ption35 "3D La	aser Marking" is	s not activated, and 3D	laser machining
Solution	<ol> <li>Purchase Option</li> <li>For only 2D las zero.</li> </ol>	<ol> <li>Purchase Option35 for 3D laser marking.</li> <li>For only 2D laser marking, the Z axis instruction of laser processing files must be zero.</li> </ol>			
Alarm ID	LASERCTRL-030	Alarm tit	le	【The distortion cor does not exist】	rection table
Description	Distortion correction t	table does not	exist.		
Possible Cause	Initial processing but the distortion correction table does not exist.				
Solution	<ol> <li>Trigger Reset to reset the controller.</li> <li>Re-import the distortion correction table.</li> </ol>				
Alarm ID	LASERCTRL-041 Alarm Title [Illegal usage in record mode or play mode]				
Description	There is a problem of illegal operation in record mode or play mode.				
Possible Cause	<ol> <li>Try to do the synchronous marking or the tracking marking, when R17018 is set to 3 or 4.</li> <li>Try to switch R17018 under the state of laser running.</li> </ol>				
Solution	<ol> <li>R17018 must be set to 0 in the synchronous marking and the tracking marking.</li> <li>Do not switch R17018 under the state of laser running.</li> </ol>				
Alarm ID	LASERCTRL-042	CTRL-042 Alarm Title [The specific mode is not supported]			
Description	The specific mode is not supported.				
Possible Cause	1. Try to use the record/ play feature for small files with 70SB.				

#### 16.1 LASERCTRL-001 Exceeding the software process limit

Alarm ID	LASERCTRL-001	Alarm title	[Exceeding the software process limit]	
Description	The target position exceeds the stroke limit setting range.			
Possible Cause	<ol> <li>The galvanometer is intended to travel beyond the stroke limit.</li> <li>The galvanometer parameter setting is incorrect.</li> </ol>			
Solution	<ol> <li>Modify target location.</li> <li>Set correct galvanometer parameters and set correct resolution and scanning angles as per Laser Marking PC Software Manual.</li> </ol>			

### 16.2 LASERCTRL-002 Absolute coordinates are invalid

Alarm ID	LASERCTRL-002	Alarm title	【Absolute coordinates are invalid】
Description	The absolute coordinate setting is invalid.		
Possible Cause	After origin is set, reset the mechanism parameters.		
Solution	Please contact the staff of the machine manufacturer to reset the origin.		

# 16.3 LASERCTRL-003 The laser axis/galvanometer axis control function cannot be started

Alarm ID	LASERCTRL-003	Alarm title	【The laser axis/galvanometer axis control function cannot be started】
Description	The galvanometer axis or laser axis does not activated properly.		
Possible Cause	<ol> <li>In general, this action will not be triggered by any operation.</li> <li>The possible cause is that the software does not match the firmware.</li> </ol>		

Alarm ID	LASERCTRL-003	Alarm title	【The laser axis/galvanometer axis control function cannot be started】
Solution	Please consult the Vendo	or.	

### 16.4 LASERCTRL-005 Laser file loading failed

Alarm ID	LASERCTRL-005	Alarm title	[Laser file loading failed]	
Description	The laser machining file cannot be turned on correctly.			
Possible Cause	The file name, file placement folder or machining file header is set incorrectly.			
Solution	<ol> <li>Verify that the mach directory.</li> <li>Make sure the file na Gonfirm that the mach directory.</li> <li>Check if the controll</li> <li>Check if the version enabled marking model.</li> <li>If the above method</li> </ol>	ining file name is saved und ame is entered correctly. chining files are saved und er supports the version of t number of the laser machir ode. does not work, please cont	der the machining file root er the machining root file he laser processing file. ning file supports the currently tact the machine manufacturer.	

### 16.5 LASERCTRL-006 Illegal repeated interpretations number

Alarm ID	LASERCTRL-006	Alarm title	【Illegal repeated interpretations number】			
Description	The number of repeated interpretation machining paths is set incorrectly.					
Possible Cause	R17018 is set to 1 (limited times of repeatedly interpreted machining paths), and R17019 (repeatedly interpreted machining paths) is set to zero or negative.					
Solution	Set the number of R1 integer.	per of R17019 reinterpretation machining paths to a positive				

# 16.6 LASERCTRL-007 The memory configuration of the repeated machining path is abnormal

Alarm ID	LASERCTRL-007	Alarm Title	[The memory configuration of the repeated machining path is abnormal]
Description	The memory required to repeatedly interpret the machining path cannot be configured correctly.		
Possible Cause	<ul> <li>When R17018 is set to 1, 2 or 3 (repeated processing path mode, or record mode for small files), and any of the following occurs:</li> <li>1. The laser machining file is too large.</li> <li>2. Exceed the max. machining time under the record mode for small files.</li> <li>3. Use the machining file generated by the old version of CADCAM software.</li> </ul>		
Solution	<ol> <li>Reduce the fil</li> <li>Please confirm the new version</li> <li>Please contact</li> </ol>	e file size of the machining path file. nfirm that the machining file has been generated usir ersion of CADCAM software. ntact the Vendor.	

# 16.7 LASERCTRL-008 2D simultaneous marking is not supported

Alarm ID	LASERCTRL-008	Alarm title	【2D simultaneous marking is not supported】	
Description	The software optional function Option39 "2D simultaneous marking" is not activated, and the 2D simultaneous marking machining file is not supported.			
Possible Cause	Use the simultaneous marking function without Option 39. During machining, it was detected that two or more axis had a displacement in the mechanical command within first three axis of CNC. Use overall shift rotate R value(R1241~R1244) when only has 1D simultaneous marking, leads to two axis movement in flying marking.			

Solution	<ol> <li>To use the 2D simultaneous marking function, please purchase Option39.</li> <li>If use overall shift rotate R value(R1241~R1244), please purchase Option39. If the shift rotate value is small or only has same direction shift without rotate, consider using laser parameter Pr61~63 to close galvo axis to syncronize with CNC axis.</li> <li>If you do not use the 2D simultaneous marking function, please use the correct marking machining file.</li> </ol>
	5 5

### 16.8 LASERCTRL-021 Coordinate synchronization error

Alarm ID	LASERCTRL-021	Alarm title	【Coordinate synchronization error】	
Description	Coordinate synchronization failed.			
Possible Cause	When the coordinates are synchronized, there are still commands not issued.			
Solution	Re-trigger reset. The reset clears the command and synchronize coordinates.			

# 16.9 LASERCTRL-022 Distortion correction table out of range

Alarm ID	LASERCTRL-022	Alarm title	[Distortion correction table out of range]
Description	The galvanometer position table checking failed.		
Possible Cause	The target point is out of range and the table check fails.		
Solution	<ol> <li>Trigger Reset contr</li> <li>Change the target  </li> <li>Check whether the the scope of the ca out of the calibration</li> <li>Refer to Laser Mark correction table.</li> </ol>	eset controller. The target position to be within the range of the distortion correction tall ether the displacement and zoom of the calibration table are set. If set of the calibration table will be changed, causing the target position to calibration range. aser Marking PC Software Manual to expand the scope of the distortion n table.	

Alarm ID	LASERCTRL-024	Alarm title	[Correction table header error ]	
Description	The distortion correction header has an error.			
Possible Cause	The calibration table version does not match the controller version.			
Solution	<ol> <li>Confirm that the controller version is consistent with the marking software version.</li> <li>Refer to Laser Marking PC Software Manual for recalibration.</li> </ol>			

#### 16.10 LASERCTRL-024 Correction table header error

### 16.11 LASERCTRL-026 Laser machining file content error

Alarm ID	LASERCTRL-026	Alarm title	[Laser machining file content error]	
Description	Incorrect laser machining file content.			
Possible Cause	The laser machining file has incorrect command.			
Solution	<ol> <li>Reconvert the machining files</li> <li>Please contact the staff of the machine manufacturer.</li> </ol>			

# 16.12 LASERCTRL-027 XY axis command beyond the distortion correction table range

Alarm ID	LASERCTRL-027	Alarm title	[XY axis command beyond the distortion correction table range]		
Description	The X and Y axis commands are outside the range of the distortion correction table.				
Possible Cause	The X and Y axis commands are outside the range of the distortion correction table.				

Alarm ID	LASERCTRL-027	Alarm title	【XY axis command beyond the distortion correction table range】
Solution	<ol> <li>Trigger Reset to r</li> <li>Change the XY axidistortion correct</li> <li>Check whether the rotate value(R170 inside the calibrat</li> <li>Check whether the are set. If set, the target position to</li> <li>Refer to Laser Ma settings to unche is still activated w to recalibrate a ra</li> <li>When synchronize Operation Manua Pr61~Pr62.</li> </ol>	eset the controller. is target position of the p tion table. ne overall shift and rotate 201~R17004) is zero, or lo tion range. ne displacement, zoom, a scope of the calibration be out of the calibration rking PC Software Manua ck the stroke limit and us when using the complete ange to meet the calibrati ation marking is enabled il, and confirm the setting	Pattern to be within the range of the evalue(R1241~R1244) and galvo shift and ower the shift rotate value to let pattern and process limit of the calibration table table will be changed, causing the XY axis or range. al; check the galvanometer parameters se a full calibration table size; if this alarm distortion correction table, it is necessary ion table with machining process. I, refer to Laser Synchronization Marking g value of laser control parameters

# 16.13 LASERCTRL-028 Z axis command beyond the distortion correction table range

Alarm ID	LASERCTRL-028	Alarm title	【Z axis command beyond the distortion correction table range】		
Description	The Z axis command is outside the range of the distortion correction table.				
Possible Cause	The Z axis command is outside the range of the distortion correction table.				
Solution	<ol> <li>Trigger Reset to re</li> <li>Change the Z axis table.</li> <li>Refer to the Laser distortion correct</li> <li>When synchronize Operation Manual</li> </ol>	eset the controller. target position to be wit Marking PC Software Ma ion table. ation marking is enabled l, and confirm the setting	hin the range of the distortion correction mual to expand the scope of the , refer to Laser Synchronization Marking g value of laser control parameter Pr63.		

#### 16.14 LASERCTRL-029 3D laser marking function is not supported

Alarm ID	LASERCTRL-029	Alarm title	【3D laser marking function is not supported】		
Description	The option software Option35 "3D Laser Marking" is not activated, and 3D laser machining files is not supported.				
Possible Cause	The option software Option35 "3D Laser Marking" is not activated, and 3D laser machining files is not supported.				
Solution	<ol> <li>Purchase Option35 for 3D laser marking.</li> <li>For only 2D laser marking, the Z axis instruction of laser processing files must be zero.</li> </ol>				

### 16.15 LASERCTRL-030 The distortion correction table does not exist

Alarm ID	LASERCTRL-030	Alarm title	【The distortion correction table does not exist】	
Description	Distortion correction table does not exist.			
Possible Cause	Initial processing but the distortion correction table does not exist.			
Solution	<ol> <li>Trigger Reset to reset the controller.</li> <li>Re-import the distortion correction table.</li> </ol>			

#### 16.16 LASERCTRL-041 Illegal usage in record mode or play mode

Alarm ID	LASERCTRL-041	Alarm Title	[Illegal usage in record mode or play mode]		
Description	There is a problem of				
Possible Cause	<ol> <li>Try to do the s R17018 is set</li> <li>Try to switch</li> </ol>				
Solution	<ol> <li>R17018 must tracking mark</li> <li>Do not switch</li> </ol>	<ol> <li>R17018 must be set to 0 in the synchronous marking and the tracking marking.</li> <li>Do not switch R17018 under the state of laser running.</li> </ol>			

### 16.17 LASERCTRL-042 The specific mode is not supported

Alarm ID	LASERCTRL-042	Alarm Title	【The specific mode is not supported】		
Description	The specific mode is not supported.				
Possible Cause	1. Try to use the record/ play feature for small files with 70SB.				
Solution	1. R17018 must be set to 0, 1 or 2, since this model does not support the record/ play mode for small files.				



Laser Marking Alarm - LASERCTRL – 813

# 17 CIP Alarm - CIP

Alarm ID	CIP-001	Alarm Title	[Connection failure]			
Description	A connection related se	A connection related service failed along the connection path.				
Possible Cause	Please refer to the CIP	manual specifications.				
Solution	Please refer to the CIP	manual specifications.				
Alarm ID	CIP-002	Alarm Title	[Resource unavailable]			
Description	Resources needed for th	e object to perform th	e requested service were unavailable.			
Possible Cause	Please refer to the CIP m	nanual specifications.				
Solution	Please refer to the CIP m	nanual specifications.				
Alarm ID	CIP-003	Alarm Title	[Invalid parameter value]			
Description	See Status Code 0x20, w	hich is the preferred v	alue to use for this condition.			
Possible Cause	Please refer to the CIP manual specifications.					
Solution	Please refer to the CIP m	nanual specifications.				
Alarm ID	CIP-004	Alarm Title	[Path segment error]			
Description	The path segment identifier or the segment syntax was not understood by the processing node. Path processing shall stop when a path segment error is encountered.					
Possible Cause	The processed node does not understand the path paragraph identifier or paragraph syntax. When the path is wrong, the processing node will stop the path processing.					
Solution	Please refer to the CIP m	nanual specifications.				
Alarm ID	CIP-005	Alarm Title	[Path destination unknown]			

Description	The path is referencing an object class, instance or structure element that is not known or is not contained in the processing node. Path processing shall stop when a path destination unknown error is encountered.			
Possible Cause	This path uses an object Class, Instance or Structure item that is unknown or not included in the processing node.			
Solution	Please refer to the CIP m	anual specifications.		
Alarm ID	CIP-006	Alarm Title	[Partial transfer]	
Description	Only part of the expecte	ed data was transferred	•	
Possible Cause	There is not enough inf	ormation required for tl	ne service.	
Solution	Please refer to the CIP r	nanual specifications.		
Alarm ID	CIP-007	Alarm Title	[Connection lost]	
Description	The messaging connection was lost.			
Possible Cause	Please refer to the CIP manual specifications.			
Solution	Please refer to the CIP	manual specifications.		
Alarm ID	CIP-008	Alarm Title	[Service not supported]	
Description	The requested service was not implemented or was not defined for this Object Class/ Instance.			
Possible Cause	The Service code of the instruction is not implemented or undefined in the corresponding object Class/Instance.			
Solution	Please use the object Cl	ass/Instance to have a i	mplemented or defined Service code.	
Alarm ID	CIP-009	Alarm Title	[Invalid Attribute value]	
Description	Invalid Attribute data detected.			
Possible Cause	The specified Attribute data is non-compliance.			

Solution	According to the description of the Attribute, give the correct value.				
Alarm ID	CIP-010	Alarm Title	[Attribute list error]		
Description	An attribute in the Ge status.	t_Attribute_List or Set_	_Attribute_List response has a non-zero		
Possible Cause	When using the Get_A an access to an Attrib	ttribute_List (0x03) or ute data is unsuccessfu	Set_Attribute_List (0x04) service code, if Jl, this alarm will be issued.		
Solution	According to the acce confirm the following 1. Whether the sp 2. Whether the se	<ul> <li>According to the access specification of the object related to the Attribute list, confirm the following specifications:</li> <li>1. Whether the specified Attribute can be obtained or set.</li> <li>2. Whether the set Attribute value is correct.</li> </ul>			
Alarm ID	CIP-011	Alarm Title	[Already in requested mode/state]		
Description	The object is already in	The object is already in the mode/state being requested by the service.			
Possible Cause	Please refer to the CIP r	manual specifications.			
Solution	Please refer to the CIP r	manual specifications.			
Alarm ID	CIP-012	Alarm Title	[Object state conflict]		
Description	The object cannot perform the requested service in its current mode/state.				
Possible Cause	Please refer to the CIF	o manual specifications	5.		
Solution	Please refer to the CIF	o manual specifications	5.		
Alarm ID	CIP-013	Alarm Title	[Object already exists]		
Description	The requested instance of object to be created already exists.				
Possible Cause	Please refer to the CIP manual specifications.				
Solution	Please refer to the CIF	manual specifications	5.		
Alarm ID	CIP-014	Alarm Title	[Attribute not settable]		

Description	A request to modify a non-modifiable attribute was received.				
Possible Cause	Try to set an Attribute that cannot be modified.				
Solution	Do not set Attributes t	hat cannot be modifie	ed.		
Alarm ID	CIP-015	Alarm Title	[Privilege violation]		
Description	A permission/privileg	e check failed.			
Possible Cause	The permission/right	s check failed.			
Solution	Please refer to the CII	<sup>o</sup> manual specificatior	IS.		
Alarm ID	CIP-016	Alarm Title	[Device state conflict]		
Description	The device's current	mode/state prohibits t	he execution of the requested service.		
Possible Cause	Please refer to the CII	<sup>o</sup> manual specificatior	IS.		
Solution	Please refer to the CIP manual specifications.				
Alarm ID	CIP-017 Alarm Title [Reply data too large]				
Description	The data to be transmitted in the response buffer is larger than the allocated response buffer.				
Possible Cause	The amount of data responded is greater than the size of the response buffer configuration.				
Solution	Please refer to the CII	<sup>o</sup> manual specificatior	IS.		
Alarm ID	CIP-018 Alarm Title [Fragmentation of a primitive value]				
Description	The service specified an operation that is going to fragment a primitive data value, i.e. half a REAL data type.				
Possible Cause	This service operation	splits the basic data va	alues, for example: half REAL data type.		
Solution	The service cannot spl	t the data values of th	e basic type.		

Alarm ID	CIP-019	Alarm Title	[Not enough data]		
Description	The service did not supply enough data to perform the specified operation.				
Possible Cause	Please refer to the (	CIP manual specificat	ions.		
Solution	Please refer to the 0	CIP manual specifica	ions.		
Alarm ID	CIP-020	CIP-020 Alarm Title [Attribute not supported]			
Description	The attribute specifie	ed in the request is no	ot supported.		
Possible Cause	The Attribute code of corresponding object	f the command is uni t Class/Instance.	mplemented or undefined in the		
Solution	Please use the object or definition.	Please use the object Class/Instance to have an Attribute code with implementation or definition.			
Alarm ID	CIP-021	Alarm Title	[Too much data]		
Description	The service supplie	ed more data than wa	s expected.		
Possible Cause	Please refer to the 0	CIP manual specificat	ions.		
Solution	Please refer to the	CIP manual specifica	ions.		
Alarm ID	CIP-022	Alarm Title	[object does not exist]		
Description	The object specified	does not exist in the	device.		
Possible Cause	Please refer to the C	IP manual specificati	ons.		
Solution	Please refer to the C	IP manual specificati	ons.		
Alarm ID	CIP-023	CIP-023 Alarm Title [Service fragmentation sequence not in progress]			
Description	The fragmentation sequence for this service is not currently active for this data.				
Possible Cause	The target node failed to receive the information tag correctly.				

Alarm ID	CIP-023	Alarm Title	[S in p	ervice fragmentation sequence not progress]	
Solution	Please refer to the CIF	Please refer to the CIP manual specifications.			
Alarm ID	CIP-024	Alarm Title		[No stored attribute data]	
Description	The attribute data o	f this object was not	saved	I prior to the requested service.	
Possible Cause	The Attribute data f	or this object was not	store	ed until the service was requested.	
Solution	Please refer to the C	IP manual specificati	ons.		
Alarm ID	CIP-025	Alarm Title		[Store operation failure]	
Description	The attribute data o	f this object was not	saved	l due to a failure during the attempt.	
Possible Cause	An error occurred in	An error occurred in the process of storing the Attribute data to target node.			
Solution	Please refer to the C	IP manual specificati	ons.		
Alarm ID	CIP-026	Alarm Title [Routing failure, request packet large]		touting failure, request packet too ge]	
Description	The service request pathe destination. The r	The service request packet was too large for transmission on a network in the path to the destination. The routing device was forced to abort the service.			
Possible Cause	The command packet to the destination, an	The command packet of the service is too large to be transmitted on the network path to the destination, and the routing device is forced to terminate the service.			
Solution	Please refer to the CIF	Please refer to the CIP manual specifications.			
Alarm ID	CIP-027	Alarm Title	[R larg	touting failure, response packet too ge]	
Description	The service response packet was too large for transmission on a network in the path from the destination. The routing device was forced to abort the service.				
Possible Cause	The response packet of the service is too large to be transmitted from the target network path, and the routing device is forced to terminate the service.				

Solution	Please refer to the CIP manual specifications.				
Alarm ID	CIP-028	Alarm Title	[Missing attribute list entry data]		
Description	The service did not sup service to perform the	oply an attribute in a lis requested behavior.	st of attributes that was needed by the		
Possible Cause	Please refer to the CIP	manual specifications.			
Solution	Please refer to the CIP	manual specifications.			
Alarm ID	CIP-029	Alarm Title	[Invalid Attribute Value List]		
Description	The service is returnin attributes that were ir	The service is returning the list of attributes supplied with status information for those attributes that were invalid.			
Possible Cause	Please refer to the CIP	manual specifications			
Solution	Please refer to the CIP	manual specifications			
Alarm ID	CIP-030	Alarm Title	[Embedded service error]		
Description	An embedded service resulted in an error.				
Possible Cause	Please refer to the CI	Please refer to the CIP manual specifications.			
Solution	Please refer to the CI	P manual specification	s.		
Alarm ID	CIP-031	Alarm Title	[Vendor specific error]		
Description	A vendor specific error has been encountered. The Additional Code Field of the Error Response defines the particular error encountered. Use of this General Error Code should only be performed when none of the Error Codes presented in this table or within an Object Class definition accurately reflect the error.				
Possible Cause	Use this error code only when the "CIP General Status Code" or "Object Class Definition" does not accurately reflect the error.				
Solution	This special error is d Status". Currently, yo Then follow the Venc	escribed in the respon ou need to contact the lor's manual for trouble	se packet with the code field of "Extra Vendor to get the "extra status" code. eshooting!		

Alarm ID	CIP-032	Alarm Title		[Invalid parameter]	
Description	A parameter associ parameter does no requirements defin	A parameter associated with the request was invalid. This code is used when a parameter does not meet the requirements of this specification and/or the requirements defined in an Application Object Specification.			
Possible Cause	When the parameters specification" and/ alarm is issued.	When the parameter does not meet the "necessary requirements of the specification" and/or "the requirements defined in the object specification", this alarm is issued.			
Solution	Please refer to the	CIP manual specifica	itions.		
Alarm ID	CIP-033	Alarm Title	[Writewritte	te-once value or medium already n]	
Description	An attempt was made has already been writt established.	An attempt was made to write to a write-once medium (e.g. WORM drive, PROM) that nas already been written, or to modify a value that cannot be changed once established.			
Possible Cause	Please refer to the CIP	o manual specificatic	ons.		
Solution	Please refer to the CIP	<sup>o</sup> manual specificatic	ons.		
Alarm ID	CIP-034	CIP-034 Alarm Title [Invalid Reply Received]			
Description	An invalid reply is re code, or reply messa code can serve for o	An invalid reply is received (e.g. reply service code does not match the request service code, or reply message is shorter than the minimum expected reply size). This status code can serve for other causes of invalid replies			
Possible Cause	<ol> <li>The response</li> <li>The length of length.</li> </ol>	<ol> <li>The responsed Service code does not match the service code of the command.</li> <li>The length of the response message is shorter than the minimum expected length.</li> </ol>			
Solution	Please refer to the C	Note: This CIP alarm is also reserved for other reasons causing invalid response.			
Alarm ID	CIP-035	CIP-035 Alarm Title [buffer overflow]			
Description	The message recei message was disca	The message received is larger than the receiving buffer can handle. The entire message was discarded.			
Possible Cause	Please refer to the	Please refer to the CIP manual specifications.			

Solution	Please refer to the CIP manual specifications.			
Alarm ID	CIP-036	Alarm Title	[Message Format Error]	
Description	The format of the recei	ved message is not sup	ported by the server.	
Possible Cause	Please refer to the CIP manual specifications			
Solution	Please refer to the CIP	manual specifications		
Alarm ID	CIP-037	Alarm Title	[Key Failure in path]	
Description	The Key Segment that was included as the first segment in the path does not match the destination module. The object specific status shall indicate which part of the key check failed.			
Possible Cause	The first segment in the path that contains the key does not match the target module.			
Solution	Referring to the particular state of the object, it will indicate which part of the key check failed.			
Alarm ID	CIP-038	Alarm Title	[Path Size Invalid]	
Description	The size of the path which was sent with the Service Request is either not large enough to allow the Request to be routed to an object or too much routing data was included.			
Possible Cause	<ol> <li>The path sent is not large, not enough to allow the request command to be sent to the specified object.</li> <li>The path sent is too long, and contains too much mediation information on the path.</li> </ol>			
Solution	Please refer to the CIP manual specifications			
Alarm ID	CIP-039	Alarm Title	[Unexpected attribute in list]	
Description	An attempt was made to set an attribute that is not able to be set at this time.			
Possible Cause	Please refer to the CIP n	Please refer to the CIP manual specifications.		
Solution	Please refer to the CIP manual specifications.			

Alarm ID	CIP-040	Alarm Title	[Invalid member ID]		
Description	The Member ID specifi Instance/Attribute.	The Member ID specified in the request does not exist in the specified Class/ Instance/Attribute.			
Possible Cause	Please refer to the CIP	manual specifications			
Solution	Please refer to the CIP	manual specifications			
Alarm ID	CIP-041	Alarm Title	[Member not settable]		
Description	A request to modify a n	on-modifiable membe	r was received.		
Possible Cause	Try to set a member th	at cannot be modified.			
Solution	Do not set up members	that cannot be modif	ed.		
Alarm ID	CIP-042 A	larm Title	Group 2 only server general failure		
Description	This error code may only code space and only in p Attribute not settable.	This error code may only be reported by DeviceNet Group 2 Only servers with 4K or less code space and only in place of Service not supported, Attribute not supported and Attribute not settable.			
Possible Cause	This wrong alarm is only of code space. And only r and Attribute are not set.	This wrong alarm is only issued by a server with DeviceNet Group 2 that has 4K or less of code space. And only replace the unsupported Service, the unsupported Attribute and Attribute are not set.			
Solution	Please refer to the CIP m	anual specifications.			
Alarm ID	CIP-043	Alarm Title	[Unknown Modbus Error]		
Description	A CIP to Modbus transla	A CIP to Modbus translator received an unknown Modbus Exception Code.			
Possible Cause	The CIP to Modbus converter received an unknown Modbus error code.				
Solution	Please refer to the CIP	Please refer to the CIP manual specifications.			
Alarm ID	CIP-044	CIP-044 Alarm Title [Attribute not gettable]			
Description	A request to read a non-readable attribute was received.				

Possible Cause	Try to get a value from an Attribute that cannot be read.			
Solution	Do not get value on A	Attributes that cannot	be read.	
Alarm ID	CIP-045 Alarm Title [Instance Not Deletable]			
Description	The requested objec	t instance cannot be	deleted.	
Possible Cause	Please refer to the CI	Please refer to the CIP manual specifications.		
Solution	Please refer to the CI	Please refer to the CIP manual specifications.		
Alarm ID	CIP-046 Alarm Title [Service Not Supported for Specified Path ]			
Description	The object supports the service, but not for the designated application path (e.g. attribute). NOTE: Not to be used for any set service (use General Status Code 0x0E or 0x29 instead)			
Possible Cause	Please refer to the CIP manual specifications.			
Solution	Please refer to the CIP manual specifications.			

### 17.1 CIP-001 Connection failure

Alarm ID	CIP-001	Alarm Title	[Connection failure]	
Description	A connection related service failed along the connection path.			
Possible Cause	Please refer to the CIP manual specifications.			
Solution	Please refer to the CIP manual specifications.			

# 17.2 CIP-002 Resource unavailable

Alarm ID	CIP-002	Alarm Title	[Resource unavailable]
Description	Resources needed for th	ne object to perform the	e requested service were unavailable.

Possible Cause	Please refer to the CIP manual specifications.
Solution	Please refer to the CIP manual specifications.

### 17.3 CIP-003 Invalid parameter value

Alarm ID	CIP-003	Alarm Title	[Invalid parameter value]	
Description	See Status Code 0x20, which is the preferred value to use for this condition.			
Possible Cause	Please refer to the CIP manual specifications.			
Solution	Please refer to the CIP manual specifications.			

# 17.4 CIP-004 Path segment error

Alarm ID	CIP-004	Alarm Title	[Path segment error]	
Description	The path segment identifier or the segment syntax was not understood by the processing node. Path processing shall stop when a path segment error is encountered.			
Possible Cause	The processed node does not understand the path paragraph identifier or paragraph syntax. When the path is wrong, the processing node will stop the path processing.			
Solution	Please refer to the CIP manual specifications.			

#### 17.5 CIP-005 Path destination unknown

Alarm ID	CIP-005	Alarm Title	[Path destination unknown]	
Description	The path is referencing an object class, instance or structure element that is not known or is not contained in the processing node. Path processing shall stop when a path destination unknown error is encountered.			
Possible Cause	This path uses an object Class, Instance or Structure item that is unknown or not included in the processing node. When the path target is unknown, the processing node stops the path processing.			

Solution	Please refer to the CIP manual specifications.

### 17.6 CIP-006 Partial transfer

Alarm ID	CIP-006	Alarm Title	[Partial transfer]
Description	Only part of the expected data was transferred.		
Possible Cause	There is not enough information required for the service.		
Solution	Please refer to the CIP manual specifications.		

### 17.7 CIP-007 Connection lost

Alarm ID	CIP-007	Alarm Title	[Connection lost]
Description	The messaging connection was lost.		
Possible Cause	Please refer to the CIP manual specifications.		
Solution	Please refer to the CIP m	anual specifications.	

#### 17.8 CIP-008 Service not supported

Alarm ID	CIP-008	Alarm Title	[Service not supported]
Description	The requested service was not implemented or was not defined for this Object Class, Instance.		r was not defined for this Object Class/
Possible Cause	The Service code of the instruction is not implemented or undefined in the corresponding object Class/Instance.		
Solution	Please use the object Cl	ass/Instance to have a	implemented or defined Service code.

#### 17.9 CIP-009 Invalid Attribute value

Alarm ID	CIP-009	Alarm Title	[Invalid Attribute value]

Description	Invalid Attribute data detected.
Possible Cause	The specified Attribute data is non-compliance.
Solution	According to the description of the Attribute, give the correct value.

#### 17.10 CIP-010 Attribute list error

Alarm ID	CIP-010	Alarm Title	[Attribute list error]	
Description	An attribute in the Get_Attribute_List or Set_Attribute_List response has a non-zero status.			
Possible Cause	When using the Get_Attribute_List (0x03) or Set_Attribute_List (0x04) service code, if an access to an Attribute data is unsuccessful, this alarm will be issued.			
Solution	According to the access specification of the object related to the Attribute list, confirm the following specifications: <ol> <li>Whether the specified Attribute can be obtained or set.</li> </ol>			
	2. Whether the set	Attribute value is corre	St.	

### 17.11 CIP-011 Already in requested mode/state

Alarm ID	CIP-011	Alarm Title	[Already in requested mode/state]
Description	The object is already in the mode/state being requested by the service.		
Possible Cause	Please refer to the CIP manual specifications.		
Solution	Please refer to the CIP manual specifications.		

### 17.12 CIP-012 Object state conflict

Alarm ID	CIP-012	Alarm Title	[Object state conflict]
Description	The object cannot perform the requested service in its current mode/state.		
Possible Cause	Please refer to the CIP manual specifications.		

Solution	Please refer to the CIP manual specifications.

# 17.13 CIP-013 Object already exists

Alarm ID	CIP-013	Alarm Title	[Object already exists]
Description	The requested instance of object to be created already exists.		
Possible Cause	Please refer to the CIP manual specifications.		
Solution	Please refer to the CIP manual specifications.		

### 17.14 CIP-014 Attribute not settable

Alarm ID	CIP-014	Alarm Title	[Attribute not settable]
Description	A request to modify a non-modifiable attribute was received.		
Possible Cause	Try to set an Attribute that cannot be modified.		
Solution	Do not set Attributes th	at cannot be modified.	

# 17.15 CIP-015 Privilege violation

Alarm ID	CIP-015	Alarm Title	[Privilege violation]	
Description	A permission/privilege check failed.			
Possible Cause	The permission/rights check failed.			
Solution	Please refer to the CIP manual specifications.			

#### 17.16 CIP-016 Device state conflict

Alarm ID	CIP-016	Alarm Title	[Device state conflict]
Description	The device's current mode/state prohibits the execution of the requested service.		
Possible Cause	Please refer to the CIP manual specifications.		
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Solution	Please refer to the CIP manual specifications.		

#### 17.17 CIP-017 Reply data too large

Alarm ID	CIP-017	Alarm Title	[Reply data too large]
Description	The data to be transmitted in the response buffer is larger than the allocated response buffer.		fer is larger than the allocated
Possible Cause	The amount of data responded is greater than the size of the response buffer configuration.		
Solution	Please refer to the CIP r	nanual specifications.	

### 17.18 CIP-018 Fragmentation of a primitive value

Alarm ID	CIP-018	Alarm Title	[Fragmentation of a primitive value ]	
Description	The service specified an operation that is going to fragment a primitive data value, i.e. half a REAL data type.			
Possible Cause	This service operation splits the basic data values, for example: half REAL data type.			
Solution	The service cannot spl	The service cannot split the data values of the basic type.		

## 17.19 CIP-019 Not enough data

Alarm ID	CIP-019	Alarm Title	[Not enough data]
Description	The service did not supply enough data to perform the specified operation.		
Possible Cause	Please refer to the CIP manual specifications.		
Solution	Please refer to the CIP manual specifications.		

#### 17.20 CIP-020 Attribute not supported

Alarm ID	CIP-020	Alarm Title	[Attribute not supported]
Description	The attribute specified in the request is not supported.		
Possible Cause	The Attribute code of the command is unimplemented or undefined in the corresponding object Class/Instance.		
Solution	Please use the object C or definition.	lass/Instance to have a	n Attribute code with implementation

#### 17.21 CIP-021 Too much data

Alarm ID	CIP-021	Alarm Title	[Too much data]
Description	The service supplied more data than was expected.		
Possible Cause	Please refer to the CIP manual specifications.		
Solution	Please refer to the CIP manual specifications.		

#### 17.22 CIP-022 object does not exist

Alarm ID	CIP-022	Alarm Title	[object does not exist]
Description	The object specified does not exist in the device.		
Possible Cause	Please refer to the CIP manual specifications.		
Solution	Please refer to the CIP manual specifications.		

### 17.23 CIP-023 Service fragmentation sequence not in progress

Alarm ID	CIP-023	Alarm Title	[Service fragmentation sequence not in progress]
Description	The fragmentation sequence for this service is not currently active for this data.		e is not currently active for this data.

Alarm ID	CIP-023	Alarm Title	[Service fragmentation sequence not in progress]
Possible Cause	The target node failed to receive the information tag correctly.		
Solution	Please refer to the CIP manual specifications.		

#### 17.24 CIP-024 No stored attribute data

Alarm ID	CIP-024	Alarm Title	[No stored attribute data]
Description	The attribute data of this object was not saved prior to the requested service.		
Possible Cause	The Attribute data for this object was not stored until the service was requested.		
Solution	Please refer to the CIP I	nanual specifications.	

### 17.25 CIP-025 Store operation failure

Alarm ID	CIP-025	Alarm Title	[Store operation failure]
Description	The attribute data of this object was not saved due to a failure during the attempt.		
Possible Cause	An error occurred in the process of storing the Attribute data to target node.		
Solution	Please refer to the CIP r	manual specifications.	

#### 17.26 CIP-026 Routing failure, request packet too large

Alarm ID	CIP-026	Alarm Title	【Routing failure, request packet too large】	
Description	The service request packet was too large for transmission on a network in the path to the destination. The routing device was forced to abort the service.			
Possible Cause	The command packet of the service is too large to be transmitted on the network path to the destination, and the routing device is forced to terminate the service.			
Solution	Please refer to the CIF	Please refer to the CIP manual specifications.		

Alarm ID	CIP-027	Alarm Title	【Routing failure, response packet too large】
Description	The service response packet was too large for transmission on a network in the path from the destination. The routing device was forced to abort the service.		
Possible Cause	The response packet of the service is too large to be transmitted from the target network path, and the routing device is forced to terminate the service.		
Solution	Please refer to the CIP manual specifications.		

#### 17.27 CIP-027 Routing failure, response packet too large

#### 17.28 CIP-028 Missing attribute list entry data

Alarm ID	CIP-028	Alarm Title	[Missing attribute list entry data]
Description	The service did not supply an attribute in a list of attributes that was needed by the service to perform the requested behavior.		
Possible Cause	Please refer to the CIP manual specifications.		
Solution	Please refer to the CIP manual specifications.		

#### 17.29 CIP-029 Invalid Attribute Value List

Alarm ID	CIP-029	Alarm Title	[Invalid Attribute Value List]
Description	The service is returning the list of attributes supplied with status information for those attributes that were invalid.		
Possible Cause	Please refer to the CIP manual specifications.		
Solution	Please refer to the CIP manual specifications.		

#### 17.30 CIP-030 Embedded service error

Alarm ID	CIP-030	Alarm Title	[Embedded service error]

Description	An embedded service resulted in an error.
Possible Cause	Please refer to the CIP manual specifications.
Solution	Please refer to the CIP manual specifications.

### 17.31 CIP-031 Vendor specific error

Alarm ID	CIP-031	Alarm Title	[Vendor specific error]
Description	A vendor specific error has been encountered. The Additional Code Field of the Error Response defines the particular error encountered. Use of this General Error Code should only be performed when none of the Error Codes presented in this table or within an Object Class definition accurately reflect the error.		
Possible Cause	Use this error code only when the "CIP General Status Code" or "Object Class Definition" does not accurately reflect the error.		
Solution	This special error is deso Status". Currently, you Then follow the Vendor	s described in the response packet with the code field of "Extra you need to contact the Vendor to get the "extra status" code. ndor's manual for troubleshooting!	

#### 17.32 CIP-032 Invalid parameter

Alarm ID	CIP-032	Alarm Title	[Invalid parameter]
Description	A parameter associated parameter does not mee requirements defined in	with the request was in et the requirements of t an Application Object S	valid. This code is used when a his specification and/or the Specification.
Possible Cause	When the parameter does not meet the "necessary requirements of the specification" and/or "the requirements defined in the object specification", this alarm is issued.		
Solution	Please refer to the CIP manual specifications.		

#### 17.33 CIP-033 Write-once value or medium already written

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Description	An attempt was made to write to a write-once medium (e.g. WORM drive, PROM) that has already been written, or to modify a value that cannot be changed once established.
Possible Cause	Please refer to the CIP manual specifications.
Solution	Please refer to the CIP manual specifications.

#### 17.34 CIP-034 Invalid Reply Received

Alarm ID	CIP-034	Alarm Title	[Invalid Reply Received]
Description	An invalid reply is recei code, or reply message code can serve for othe	ved (e.g. reply service c is shorter than the mir r causes of invalid repl	code does not match the request service nimum expected reply size). This status ies
Possible Cause	<ol> <li>The responsed Service code does not match the service code of the command.</li> <li>The length of the response message is shorter than the minimum expected length.</li> <li>Note: This CIP alarm is also reserved for other reasons causing invalid response.</li> </ol>		
Solution	Please refer to the CIP manual specifications.		

#### 17.35 CIP-035 buffer overflow

Alarm ID	CIP-035	Alarm Title	[buffer overflow]
Description	The message received is larger than the receiving buffer can handle. The entire message was discarded.		
Possible Cause	Please refer to the CIP manual specifications.		
Solution	Please refer to the CIP manual specifications.		

### 17.36 CIP-036 Message Format Error

Alarm ID	CIP-036	Alarm Title	[Message Format Error]
Description	The format of the received message is not supported by the server.		

Possible Cause	Please refer to the CIP manual specifications
Solution	Please refer to the CIP manual specifications

#### 17.37 CIP-037 Key Failure in path

Alarm ID	CIP-037	Alarm Title	[Key Failure in path]	
Description	The Key Segment that was included as the first segment in the path does not match the destination module. The object specific status shall indicate which part of the key check failed.			
Possible Cause	The first segment in the path that contains the key does not match the target module.			
Solution	Referring to the particu key check failed.	lar state of the object, i	t will indicate which part of the	

## 17.38 CIP-038 Path Size Invalid

Alarm ID	CIP-038	Alarm Title	[Path Size Invalid]
Description	The size of the path which was sent with the Service Request is either not large enough to allow the Request to be routed to an object or too much routing data was included.		
Possible Cause	<ol> <li>The path sent is not large, not enough to allow the request command to be sent to the specified object.</li> <li>The path sent is too long, and contains too much mediation information on the path.</li> </ol>		
Solution	Please refer to the CIP m	anual specifications	

## 17.39 CIP-039 Unexpected attribute in list

Alarm ID	CIP-039	Alarm Title	[Unexpected attribute in list]
Description	An attempt was made to set an attribute that is not able to be set at this time.		
Possible Cause	Please refer to the CIP manual specifications.		

Solution	Please refer to the CIP manual specifications.

#### 17.40 CIP-040 Invalid member ID

Alarm ID	CIP-040	Alarm Title	[Invalid member ID]
Description	The Member ID specified in the request does not exist in the specified Class/ Instance/Attribute.		
Possible Cause	Please refer to the CIP manual specifications.		
Solution	Please refer to the CIP manual specifications.		

## 17.41 CIP-041 Member not settable

Alarm ID	CIP-041	Alarm Title	[Member not settable]
Description	A request to modify a non-modifiable member was received.		
Possible Cause	Try to set a member that cannot be modified.		
Solution	Do not set up members	that cannot be modifie	d.

#### 17.42 CIP-042 Group 2 only server general failure

Alarm ID	CIP-042	Alarm Title	[Group 2 only server general failure]
Description	This error code may only be reported by DeviceNet Group 2 Only servers with 4K or less code space and only in place of Service not supported, Attribute not supported and Attribute not settable.		
Possible Cause	This wrong alarm is only issued by a server with DeviceNet Group 2 that has 4K or less of code space. And only replace the unsupported Service, the unsupported Attribute and Attribute are not set.		
Solution	Please refer to the CIP manual specifications.		

#### 17.43 CIP-043 Unknown Modbus Error

Alarm ID	CIP-043	Alarm Title	[Unknown Modbus Error]
Description	A CIP to Modbus translator received an unknown Modbus Exception Code.		
Possible Cause	The CIP to Modbus converter received an unknown Modbus error code.		
Solution	Please refer to the CIP manual specifications.		

#### 17.44 CIP-044 Attribute not gettable

Alarm ID	CIP-044	Alarm Title	[Attribute not gettable]
Description	A request to read a non-readable attribute was received.		
Possible Cause	Try to get a value from an Attribute that cannot be read.		
Solution	Do not get value on Attributes that cannot be read.		

#### 17.45 CIP-045 Instance Not Deletable

Alarm ID	CIP-045	Alarm Title	[Instance Not Deletable]
Description	The requested object instance cannot be deleted.		
Possible Cause	Please refer to the CIP manual specifications.		
Solution	Please refer to the CIP manual specifications.		

## 17.46 CIP-046 Service Not Supported for Specified Path

Alarm ID	CIP-046	Alarm Title	[Service Not Supported for Specified Path]
Description	The object supports the service, but not for the designated application path (e.g. attribute). NOTE: Not to be used for any set service (use General Status Code 0x0E or 0x29 instead		

Possible Cause	Please refer to the CIP manual specifications.
Solution	Please refer to the CIP manual specifications.





CIP Alarm - CIP – 838

## 18 ENIP Alarm - ENIP

Alarm ID	ENIP-001	Alarm Title	[Failed to establish connection]	
Description	Failed to establish connection to the target EnIP device.			
Possible Cause	<ol> <li>The hardware device mulfunction or the network cable is loosed.</li> <li>Exceeds the maximum number of connections supported by the controller.</li> <li>The controller network card IP, device IP or connected device changes.</li> <li>The connection initialization failed.</li> </ol>			
Solution	<ol> <li>Check hardware devices and network routing materials.</li> <li>Currently controller supports up to 32 sets of different device IPs' connection. Please confirm the total connection number.</li> <li>Rescan and update the connected device information.</li> <li>Please contact Vendor.</li> </ol>			
Alarm ID	ENIP-002	Alarm Title	[Command failed to send]	
Description	Failed to send an instrue	ction to the target EnIF	<sup>p</sup> device.	
Possible Cause	The "instruction data le	ngth" of this command	d is greater than the default 256-bytes.	
Solution	Check if the "instructior than the default 256-byt	data length" is correctes, please contact Ver	t. If it is necessary to set value greater ndor.	
Alarm ID	ENIP-003	Alarm Title	[Instruction reply timeout]	
Description	The target EnIP device re	eply command timeou	t.	
Possible Cause	The device response tim	e exceeds the controll	er timeout setting (default 40ms).	
Solution	Please contact Vendor. (the appropriate timeou	Please contact Vendor. (the appropriate timeout settings will be opened for user to modify in the future)		
Alarm ID	ENIP-004	Alarm Title	[Package information error]	
Description	Encountered an unexpe	ected error when analy	zing the EnIP package.	
Possible Cause	The device returns une	The device returns unexpected package information.		
Solution	Please contact the Vendor.			

Alarm ID	ENIP-005	Alarm Title	[Network connection interruption]
Description	The connection to the target EnIP device network is interrupted.		
Possible Cause	<ol> <li>Hardware device malfunction or the network cable is loose.</li> <li>The controller is abnormal and cannot send or read network packets.</li> </ol>		
Solution	<ol> <li>Check hardware devices and network cables.</li> <li>Please contact the Vendor.</li> </ol>		
Alarm ID	ENIP-006	Alarm Title	[Establish Implicit Connection Failure]
Description	Failed to establish an im	plicit connection to th	ne target EnIP device.
Possible Cause	<ol> <li>Hardware equipment failure or loose network cable.</li> <li>Exceeding the maximum number of controller connections of 32 groups.</li> <li>The controller network card IP, device IP, or connected device changes.</li> <li>Connection initialization failed.</li> <li>The implicit connection parameter settings of the hardware device is wrong.</li> </ol>		
Solution	<ol> <li>Check hardware devices and network cables.</li> <li>Currently, the controller supports a maximum of 32 groups of different device IPs for connection.</li> <li>Broadcast again to update connected device information.</li> <li>Please reconfirm whether the T2O/O2T instance ID and configuration instance ID parameters are set correctly.</li> <li>Please reconfirm whether the T2O/O2T data length parameter is set correctly.</li> <li>After trying the above solutions, please restart the controller and hardware devices.</li> <li>Please contact OEM Syntec.</li> </ol>		
Alarm ID	ENIP-007	Alarm Title	[Implicit Connection Exception]
Description	The implicit connection	n to the target EnIP de	vice was interrupted.
Possible Cause	Hardware equipment f	ailure or loose networ	k cable.
Solution	<ol> <li>Check hardware devices and network cables.</li> <li>Broadcast again to update connected device information.</li> <li>After trying the above solutions, please restart the controller and hardware devices.</li> <li>Please contact OEM Syntec.</li> </ol>		

Alarm ID	ENIP-008	Alarm Title	[Unsupported Request Packet Interval]	
Description	The target EnIP device does not support the RPI value set by the user.			
Possible Cause	The set RPI value is not	The set RPI value is not in the range of [10000, 3200000].		
Solution	Adjust the RPI value, and restart the controller and hardware devices.			
Alarm ID	ENIP-005 Alarm Title [Invalid Start Registry Settings]			
Description	The T2O/O2T start registry is not set properly.			
Possible Cause	<ol> <li>The exchange packet register location intervals overlap.</li> <li>The register location is set to the range occupied by the controller system.</li> <li>The register location is already occupied by another device.</li> </ol>			
Solution	Adjust the T2O/O2T data length and the T2O/O2T start registry parameters, and restart the controller and hardware devices.			

## 18.1 ENIP-001 Failed to establish connection

Alarm ID	ENIP-001	Alarm Title	[Failed to establish connection]
Description	Failed to establish conn	ection to the target En	IP device.
Possible Cause	<ol> <li>The hardware device mulfunction or the network cable is loosed.</li> <li>Exceeds the maximum number of connections supported by the controller.</li> <li>The controller network card IP, device IP or connected device changes.</li> <li>The connection initialization failed.</li> </ol>		
Solution	<ol> <li>Check hardware devices and network routing materials.</li> <li>Currently controller supports up to 32 sets of different device IPs' connection. Please confirm the total connection number.</li> <li>Rescan and update the connected device information.</li> <li>Please contact Vendor.</li> </ol>		

#### 18.2 ENIP-002 Command failed to send

Alarm ID	ENIP-002	Alarm Title	[Command failed to send]

Description	Failed to send an instruction to the target EnIP device.
Possible Cause	The "instruction data length" of this command is greater than the default 256-bytes.
Solution	Check if the "instruction data length" is correct. If it is necessary to set value greater than the default 256-bytes, please contact Vendor.

### 18.3 ENIP-003 Instruction reply timeout

Alarm ID	ENIP-003	Alarm Title	[Instruction reply timeout]
Description	The target EnIP device reply command timeout.		
Possible Cause	The device response time exceeds the controller timeout setting (default 40ms).		
Solution	Please contact Vendor. (the appropriate timeout settings will be opened for user to modify in the future)		

## 18.4 ENIP-004 Package information error

Alarm ID	ENIP-004	Alarm Title	[Package information error]
Description	Encountered an unexpected error when analyzing the EnIP package.		
Possible Cause	The device returns unexpected package information.		
Solution	Please contact the Vendo	r.	

#### 18.5 ENIP-005 Network connection interruption

Alarm ID	ENIP-005	Alarm Title	[Network connection interruption]
Description	The connection to the target EnIP device network is interrupted.		
Possible Cause	<ol> <li>Hardware device malfunction or the network cable is loose.</li> <li>The controller is abnormal and cannot send or read network packets.</li> </ol>		
Solution	<ol> <li>Check hardware devices and network cables.</li> <li>Please contact the Vendor.</li> </ol>		

Alarm ID	ENIP-006	Alarm Title	[Establish Implicit Connection Failure]	
Description	Failed to establish an in	mplicit connection to	the target EnIP device.	
Possible Cause	<ol> <li>Hardware equipment failure or loose network cable.</li> <li>Exceeding the maximum number of controller connections of 32 groups.</li> <li>The controller network card IP, device IP, or connected device changes.</li> <li>Connection initialization failed.</li> <li>The implicit connection parameter settings of the hardware device is wrong.</li> </ol>			
Solution	<ol> <li>Check hardware</li> <li>Currently, the control of the connection</li> <li>Broadcast again</li> <li>Please reconfirming parameters and</li> <li>Please reconfirming</li> <li>After trying the devices.</li> <li>Please contact of the contact of</li></ol>	Check hardware devices and network cables. Currently, the controller supports a maximum of 32 groups of different device Ps for connection. Broadcast again to update connected device information. Please reconfirm whether the T2O/O2T instance ID and configuration instance D parameters are set correctly. Please reconfirm whether the T2O/O2T data length parameter is set correctly. After trying the above solutions, please restart the controller and hardware devices. Please contact OEM Syntec.		

#### 18.6 ENIP-006 Establish Implicit Connection Failure

#### 18.7 ENIP-007 Implicit Connection Exception

Alarm ID	ENIP-007	Alarm Title	[Implicit Connection Exception]
Description	The implicit connection to the target EnIP device was interrupted.		
Possible Cause	Hardware equipment failure or loose network cable.		
Solution	<ol> <li>Check hardware devices and network cables.</li> <li>Broadcast again to update connected device information.</li> <li>After trying the above solutions, please restart the controller and hardware devices.</li> <li>Please contact OEM Syntec.</li> </ol>		

#### 18.8 ENIP-008 Unsupported Request Packet Interval

Alarm ID	ENIP-008	Alarm Title	【Unsupported Request Packet Interval】
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Description	The target EnIP device does not support the RPI value set by the user.
Possible Cause	The set RPI value is not in the range of [10000, 3200000].
Solution	Adjust the RPI value, and restart the controller and hardware devices.

## 18.9 ENIP-009 Invalid Start Registry Settings

Alarm ID	ENIP-005	Alarm Title	[Invalid Start Registry Settings]		
Description	The T2O/O2T start registry is not set properly.				
Possible Cause	<ol> <li>The exchange packet register location intervals overlap.</li> <li>The register location is set to the range occupied by the controller system.</li> <li>The register location is already occupied by another device.</li> </ol>				
Solution	Adjust the T2O/O2T data the controller and hards	djust the T2O/O2T data length and the T2O/O2T start registry parameters, and restart ne controller and hardware devices.			



## 19 Extended Software Stroke Limit Alarm - EXTSTROKELIMIT

Alarm ID	EXTSTROKELIMIT-001	Alarm Title	【Group N Extended Software Stroke Limit Prohibited Entry】		
Description	The moving position of the m	nachine enters the e	extended software limit protection range.		
Possible Cause	<ol> <li>Set the wrong protection range, causing the current position of the machine to enter the protection range.</li> <li>The moving direction of the machine is about to enter the extended software limit protection area.</li> </ol>				
Solution	<ol> <li>Check the corresponding extended software limit protection area parameters, and reset the alarm after resetting the protection range correctly.</li> <li>In the auto mode, check whether the machining program will eater the protection zone. After modifying the machining program/protection zone setting value, Reset to clear the alarm.</li> <li>In the manual mode, check whether the protection range setting is correct. If yes, then move the axis in reverse direction to release alarm; if not, modify the protection range parameter or turn off the expansion software stroke limit, Reset to clear the alarm.</li> </ol>				
Alarm ID	EXTSTROKELIMIT-002	Alarm Title	[Group N Extended Software Stroke Limit Protection Range Error]		
Description	Positive and negative limit parameter setting error.				
Possible Cause	Positive limit value is less tha	Positive limit value is less than negative limit value.			
Solution	Set the correct extended software limit protection parameters.				

#### 19.1 EXTSTROKELIMIT-001 Group N Extended Software Stroke Limit Prohibited Entry

Alarm ID	EXTSTROKELIMIT-001	Alarm Title	[Group N Extended Software Stroke Limit Prohibited Entry]	
Description	The moving position of the machine enters the extended software limit protection range.			
Possible Cause	<ol> <li>Set the wrong protection range, causing the current position of the machine to enter the protection range.</li> <li>The moving direction of the machine is about to enter the extended software limit protection area.</li> </ol>			

Solution	<ol> <li>Check the corresponding extended software limit protection area parameters, and reset the alarm after resetting the protection range correctly.</li> <li>In the auto mode, check whether the machining program will eater the protection zone. After modifying the machining program/protection zone setting value, Reset to clear the alarm.</li> <li>In the manual mode, check whether the protection range setting is correct. If yes, then move the axis in reverse direction to release alarm; if not, modify the protection range parameter or turn off the expansion software stroke limit, Reset to clear the alarm.</li> </ol>

#### 19.2 EXTSTROKELIMIT-002 Group N Extended Software Stroke Limit Protection Range Error

Alarm ID	EXTSTROKELIMIT-002	Alarm Title	[Group N Extended Software Stroke Limit Protection Range Error]		
Description	Positive and negative limit parameter setting error.				
Possible Cause	Positive limit value is less than negative limit value.				
Solution	Set the correct extended software limit protection parameters.				



## 20 Setpoint Axis Alarm - SETPOINTAXIS

Alarm ID	SETPOINTAXIS-001	Alarm Title	Setpo other	int axis station ID is repeated with devices	
Description	Setpoint axis station numbe enters Not Ready state.	er is repeated with	other sta	tion number, and the system	
Possible Cause	<ul> <li>Setpoint axis station number setting is repeated with other axis station number.</li> <li>Please check if the station number setting in the following axis is repeated: <ol> <li>System axis</li> <li>Serial PLC axis</li> <li>ROT axis</li> <li>ATC axis</li> <li>Setpoint axis</li> </ol> </li> </ul>				
Solution	After setting the station nur	After setting the station number correctly, reboot the controller and the drive.			
Alarm ID	SETPOINTAXIS-002	Alarm Title	Starting please r	R Register setting is out of range, eassign R register	
Description	The starting register is set in not supported.	correctly, which is	in the sys	stem protected area or bit access is	
Possible Cause	<ol> <li>The command status base address R(m) or status starting register R(n) is in the CNC system interface area.</li> <li>The command status base address R(m) does not support bit access.</li> </ol>				
Solution	<ol> <li>After setting a valid starting register value, reboot the controller and the drive.</li> <li>Valid range of command starting register R(m): R50~R80, R256~R511.</li> <li>Valid range of status starting register R(n): R50~R80, R193~R511, R1033~R2049, R2091~R2099, R3101~R4095, R6000~R7999, R20000~R65535.</li> <li>Status starting register R(n) will occupy 20 consecutive R values, all of them must be valid.</li> </ol>				
Alarm ID	SETPOINTAXIS-003	Alarm Title	Acc erro	eleration time or speed setting or	
Description	Acceleration time or speed setting value is out of range.				

Possible Cause	<ol> <li>The acceleration time setting is too small, causing the corresponding acceleration exceed the allowed set value range of the drive. (The acceleration is based on the pulse wave per square sec. of gear teeth number on screw side, gear teeth number on motor side, pitch amount, encoder resolution. When using the "Yakawa" drive, it must fall within the range of 1~655,350,000.)</li> <li>The position sensor has a high resolution, causing the corresponding acceleration exceed the allowed set value range of the driver.</li> <li>The target speed and maximum moving speed are set too large, causing the corresponding acceleration exceed the allowed set value range of the driver.</li> <li>Acceleration time setting exceeds the range of drive parameter values. (If the maximum acceleration is set for the Pn306 of the "SyntecII M2" drive, the parameter setting range is 0~60,000)</li> </ol>			
Solution	<ol> <li>Reset to clear the alarm.</li> <li>Properly enlarge acceleration time to a reasonable value to avoid issuing this alarm again.</li> <li>Properly reduce the target speed and maximum moving speed to a reasonable value to avoid issuing this alarm again.</li> <li>When using Yaskawa Sigma M2 series, the problems can be eliminated by initializing the parameters or setting Pn833 to 1 and reboot the controller and the drive.</li> <li>When using the Syntec 2<sup>nd</sup> generation M2 driver, set the acceleration time between 0 and 60,000.</li> </ol>			
Alarm ID	SETPOINTAXIS-004	Alarm Title	Check window setting error	
Description	Check window setting error.			
Possible Cause	The position check window setting is out of range. (The number of pulse converted by the position check window according to gear teeth number on screw side, gear teeth number on motor side, pitch amount, encoder resolution, must fall within the range of 0~1,073,741,824)			
Solution	Set the position check window within a reasonable range.			
Alarm ID	SETPOINTAXIS-005	Alarm Title	Incremental encoder is not supported	
Description	Setpoint axis does not support incremental encoder, only supports absolute encoder.			
Possible Cause	<ol> <li>Incremental encoder is used.</li> <li>Absolute encoder is used, but drive parameter is set as incremental type.</li> </ol>			

Solution	<ol> <li>Use absolute encoder.</li> <li>Set the drive parameter as absolute type.</li> <li>After solving the above problems, reboot the controller and the drive.</li> </ol>					
Alarm ID	SETPOINTAXIS-006	Alarm Title	<b>arm Title</b> Home position is not set, please set home position first			
Description	Home position is not set,	please set home	position first.			
Possible Cause	Home position is not set.					
Solution	Move axis to home position	on, then trigger F	(m).2 to set hom	ne position.		
Alarm ID	SETPOINTAXIS-007	Alarn	n Title	Absolute enco	oder related p	arameter changed
Description	The user has modified t	he absolute enco	oder related para	ameter. please r	eboot reboot	the controller and
Possible Cause	<ol> <li>Modified any of the following parameters: gear teeth number on screw side, gear teeth number of 2. Modified Pr17: Control precision.</li> </ol>					
Solution	Reboot the controller and the drive.					
Alarm ID	SETPOINTAXIS-008 Alarm Title				Drive station ID d	
Description	Drive corresponding to the station ID does not exist on the communication network.					
Possible Cause	<ol> <li>There is no drive corresponding to the station ID on the communication network.</li> <li>Setpoint axis station number setting is repeated with other axis station number. Please check if the station number setting in the following axis is repeated:         <ul> <li>a. System axis</li> <li>b. Serial PLC axis</li> <li>c. ROT axis</li> <li>d. ATC axis</li> <li>e. Setpoint axis</li> </ul> </li> </ol>					
Solution	After setting the correct station ID, reboot the controller and the drive.					
Alarm ID	SETPOINTAXIS-009 Alarm title Drive commu			nication erro	r	

Description	<ul> <li>At least 2 errors listed below occur for over 10ms totally in communication.</li> <li>1. Drive response packet not received.</li> <li>2. Drive response packet CRC error.</li> <li>3. Drive response packet watchdog error.</li> <li>Example: According to the communication time setting( Pr3203 ), 6 consecutive errors for 2ms; 4 consecutive errors for 3ms.</li> </ul>			
Possible Reason	<ol> <li>The communication call</li> <li>The quality of the communication call</li> <li>Drive response packet v</li> </ol>	nunication cable is p vatchdog error.	oor, or there is noise interference.	
Solution	<ol> <li>Check the wiring of the communication cable between the controller and the drive.</li> <li>Check whether the machine is properly grounded, and add a terminal resistor to the communication port of the end drive.</li> <li>Contact Syntec OEM.</li> </ol>			
Alarm ID	SETPOINTAXIS-010	Alarm Title	Drive parameter writing failed	
Description	Setpoint axis axis failed to wri	te drive parameter.		
Possible Cause	The communication between parameter writing timeout.	the controller and th	ne drive is unstable, causing the drive	
Solution	After solving the cause of com	imunication error, re	boot the controller and drive.	
Alarm ID	SETPOINTAXIS-011	Alarm Title	Drive power is abnormal	
Description	The controller detected the d	rive power status eri	or.	
Possible Cause	<ol> <li>The drive power-amp back power supply is unstable.</li> <li>Drive failure.</li> </ol>			
Solution	<ol> <li>Check if the drive power supply status is normal.</li> <li>Check if the drive power cable is loose or damaged.</li> <li>Replace the drive.</li> <li>After solving the above problems, reboot the controller and the drive.</li> </ol>			
Alarm ID	SETPOINTAXIS-012	Alarm Title	Setpoint axis command exceeds limit	
Description	Setpoint axis command exceeds limit.			

Possible Cause	The command calculated by the current position and the target position is greater than the limit pulse: 2,147,483,647.			
	(This alarm is issued to avoid when setting target position too far, the user misjudges the clockwise/counterclockwise failure and the inability to move to the target position.)			
	[Method of calculating the	limit of the comm	and]	
	Limit of the command(un width) / (number of gear	n) = limit pulse x ( on screw side x p	number of gear on motor side x screw osition sensor resolution x 4 )	
	For example: Number of ge 1, position sensor resolution	ear on the motor s on = 262,144 (pulse	de = 1, number of gear on the screw side = /rev), screw width = 5,000 (um/rev)	
	The limit of command is 21 =10239.999 (mm).	L47483647 x ( 1 x 5	000 ) / ( 1 x 262144 x 4 ) = 10239999 (um)	
	In other words, if the calcu position exceeds 10239.99 10239.999 mm, it is a reasc	lated command b 9 mm, this alarm v onable displaceme	etween the current position and the target /ill be issued; If it does not exceed nt .	
Solution	<ol> <li>Reset to clear the alarm.</li> <li>Change the target position to avoid exceeding the the limit of displacement.</li> <li>Set drive electronic gear numerator, and reduce the encoder resolution setting of controller.         <ol> <li>e. According to the above setting, set the drive electronic gear numerator as 8 and the encoder resolution as 32,768, the limit of posing displacement will become 81919.999mm.</li> <li>Adjust the gear number on motor side / screw side.</li> <li>Adjust the screw width.</li> <li>Once the above adjustments are properly made, this alarm should not be issued again.</li> </ol> </li> </ol>			
Alarm ID	SETPOINTAXIS-013	Alarm Title	The firmware update of Syntec encoder is finished, please reboot the drive	
Description	The firmware update of Synt	ec encoder is finis	hed, please reboot the drive	
Possible Cause	Performed encoder firmware	e upgrade.		
Solution	Reboot the controller and dr	ive.		
Alarm ID	SETPOINTAXIS-014	Alarm Title	Syntec encoder information reading timeout	
Description	Syntec encoder information	n reading timeout.		
Possible Cause	<ol> <li>The communication between the controller and the drive is abnormal.</li> <li>The drive status is abnormal.</li> </ol>			

Solution	<ol> <li>Check if the communication cable is loose.</li> <li>Reboot the controller and drive.</li> </ol>			
Alarm ID	SETPOINTAXIS-015	Alarm Title	Axial feedback is abnormal	
Description	If the difference betweer speed set by the control the number of abnormal This alarm will be issued The maximum speed is t	If the difference between the axial feedback value exceeds 4 times of the maximum speed set by the controller, the number of abnormal times will be accumulated by 1 each time. This alarm will be issued when two consecutive abnormalities occur. The maximum speed is the value of parameter: Maximum moving speed(mm/min)		
Possible Cause	<ol> <li>Communication</li> <li>Parameter: Maxir</li> </ol>	<ol> <li>Communication between controller and drive is abnormal.</li> <li>Parameter: Maximum moving speed settings is inappropriate.</li> </ol>		
Solution	<ol> <li>Check if the comi</li> <li>Adjust parameter</li> </ol>	<ol> <li>Check if the communication cable is loose.</li> <li>Adjust parameter setting: Maximum moving speed.</li> </ol>		
Alarm ID	SETPOINTAXIS-016	Alarm title	Poor contact of communication wire	
Description	Drive response packet is n Example: According to the 2ms; 4 consecutive errors	Drive response packet is not received for over 10ms in drive communication. Example: According to the communication time setting( Pr3203 ), 6 consecutive errors for 2ms; 4 consecutive errors for 3ms.		
Possible Reason	1. The communicatio	n cable between the cor	troller and the driver is loose.	
Solution	<ol> <li>Check the wiring of drive.</li> <li>Contact Syntec OE</li> </ol>	<ol> <li>Check the wiring of the communication cable between the controller and the drive.</li> <li>Contact Syntec OEM.</li> </ol>		
Alarm ID	SETPOINTAXIS-017	Alarm title	The hardware doesn't receive communication packet	
Description	Drive response packet is not received for over 10ms in communication. Example: According to the communication time setting( Pr3203 ), 6 consecutive errors for 2ms; 4 consecutive errors for 3ms.			
Possible Reason	<ol> <li>The drive station number does not correspond to the controller parameters correctly.</li> <li>The communication cable between the controller and the drive is loose.</li> </ol>			

Solution	<ol> <li>Check whether the drive parameter DIP switch setting corresponds to the controller parameter (Pr21 ~) correctly.</li> <li>Check the wiring of the communication cable between the controller and the drive.</li> <li>Contact Syntec OEM.</li> </ol>				
Alarm ID	SETPOINTAXIS-018	Alarm title	The communication packet is disturbed by noise		
Description	Drive response packet is dis communication. Example: According to the o 2ms; 4 consecutive errors fo	Drive response packet is disturbed by noise to generate CRC error for over 10ms in communication. Example: According to the communication time setting( Pr3203 ), 6 consecutive errors for 2ms; 4 consecutive errors for 3ms.			
Possible Reason	1. The quality of the co	mmunication cable is p	poor, or there is noise interference.		
Solution	<ol> <li>Check whether the r</li> <li>Contact Syntec OEM</li> </ol>	<ol> <li>Check whether the machine is properly grounded.</li> <li>Contact Syntec OEM.</li> </ol>			
Alarm ID	SETPOINTAXIS-019	Alarm title	Driver software misses communication packet		
Description	Drive response packet watc Example: According to the c 2ms; 4 consecutive errors fo	Drive response packet watchdog is wrong for over 10ms in communication. Example: According to the communication time setting( Pr3203 ), 6 consecutive errors for 2ms; 4 consecutive errors for 3ms.			
Possible Reason	Drive response packet watc	hdog is wrong			
Solution	Contact Syntec OEM.				
Alarm ID	SETPOINTAXIS-020	Alarm Title	Exceeding the positive software stroke limit		
Description	The axial mechanical coor	The axial mechanical coordinate exceeds the positive software stroke limit.			
Possible Cause	The axial movement exceeds the setting value.				
Solution	<ol> <li>Reset to clear the alarm.</li> <li>Move the axial in negative direction to be out of the software stroke protection range, and can remove alarm.</li> </ol>				
Alarm ID	SETPOINTAXIS-022	SETPOINTAXIS-022 Alarm Title Driver power-amp voltage not input			

Description	Driver power-amp power is not suppled, please check power cable wiring.
Possible Cause	Driver power-amp power is not suppled.
Solution	Check if the three phase of driver electricity is input correctly.

# 20.1 SETPOINTAXIS-001 Setpoint axis station ID is repeated with other devices

Alarm ID	SETPOINTAXIS-001	Alarm Title	Setpoint axis station ID is repeated with other devices
Description	Setpoint axis station number is repeated with other station number, and the system enters Not Ready state.		
Possible Cause	<ul> <li>Setpoint axis station number setting is repeated with other axis station number.</li> <li>Please check if the station number setting in the following axis is repeated: <ol> <li>System axis</li> <li>Serial PLC axis</li> <li>ROT axis</li> <li>ATC axis</li> <li>Setpoint axis</li> </ol> </li> </ul>		
Solution	After setting the station num	nber correctly, rebo	ot the controller and the drive.

# 20.2 SETPOINTAXIS-002 Starting R Register setting is out of range, please reassign R register

Alarm ID	SETPOINTAXIS-002	Alarm Title	Starting R Register setting is out of range, please reassign R register
Description	The starting register is set incorrectly, which is in the system protected area or bit access is not supported.		
Possible Cause	<ol> <li>The command status base address R(m) or status starting register R(n) is in the CNC system interface area.</li> <li>The command status base address R(m) does not support bit access.</li> </ol>		

Solution	<ol> <li>After setting a valid starting register value, reboot the controller and the drive.</li> <li>Valid range of command starting register R(m): R50~R80, R256~R511.</li> <li>Valid range of status starting register R(n): R50~R80, R193~R511, R1033~R2049, R2091~R2099, R3101~R4095, R6000~R7999, R20000~R65535.</li> <li>Status starting register R(n) will occupy 20 consecutive R values, all of them must</li> </ol>
	be valid.

#### 20.3 SETPOINTAXIS-003 Acceleration time or speed setting error

Alarm ID	SETPOINTAXIS-003	Alarm Title	Acceleration time or speed setting error
Description	Acceleration time or speed se	etting value is out of	range.
Possible Cause	<ol> <li>The acceleration time setting is too small, causing the corresponding acceleration exceed the allowed set value range of the drive. (The acceleration is based on the pulse wave per square sec. of gear teeth number on screw side, gear teeth number on motor side, pitch amount, encoder resolution. When using the "Yakawa" drive, it must fall within the range of 1~655,350,000.)</li> <li>The position sensor has a high resolution, causing the corresponding acceleration exceed the allowed set value range of the driver.</li> <li>The target speed and maximum moving speed are set too large, causing the corresponding acceleration exceed the allowed set value range of the driver.</li> <li>Acceleration time setting exceeds the range of drive parameter values. (If the maximum acceleration is set for the Pn306 of the "SyntecII M2" drive, the parameter setting range is 0~60,000)</li> </ol>		
Solution	<ol> <li>Reset to clear the alarm.</li> <li>Properly enlarge acceleration time to a reasonable value to avoid issuing this alarm again.</li> <li>Properly reduce the target speed and maximum moving speed to a reasonable value to avoid issuing this alarm again.</li> <li>When using Yaskawa Sigma M2 series, the problems can be eliminated by initializing the parameters or setting Pn833 to 1 and reboot the controller and th drive.</li> <li>When using the Syntec 2<sup>nd</sup> generation M2 driver, set the acceleration time between 0 and 60,000.</li> </ol>		

## 20.4 SETPOINTAXIS-004 Check window setting error

Alarm ID	SETPOINTAXIS-004	Alarm Title	Check window setting error
Description	Check window setting error.		

Possible Cause	The position check window setting is out of range. (The number of pulse converted by the position check window according to gear teeth number on screw side, gear teeth number on motor side,	
Solution	Set the position check window within a reasonable range.	

#### 20.5 SETPOINTAXIS-005 Incremental encoder is not supported

Alarm ID	SETPOINTAXIS-005	Alarm Title	Incremental encoder is not supported
Description	Setpoint axis does not support incremental encoder, only supports absolute encoder.		
Possible Cause	<ol> <li>Incremental encoder is used.</li> <li>Absolute encoder is used, but drive parameter is set as incremental type.</li> </ol>		
Solution	<ol> <li>Use absolute encoder.</li> <li>Set the drive parameter as absolute type.</li> <li>After solving the above problems, reboot the controller and the drive.</li> </ol>		

# 20.6 SETPOINTAXIS-006 Home position is not set, please set home position first

Alarm ID	SETPOINTAXIS-006	Alarm Title	Home position is not set, please set home position first	
Description	Home position is not set, please set home position first.			
Possible Cause	Home position is not set.			
Solution	Move axis to home position, then trigger R(m).2 to set home position.			

# 20.7 SETPOINTAXIS-007 Absolute encoder related parameter changed, please reboot the CNC controller and reset home position

Alarm ID	SETPOINTAXIS-007	Alarm Title	Absolute encoder related parameter changed,
Description	The user has modified the absolu	te encoder related para	ameter. please reboot reboot the controller and t

Possible Cause	<ol> <li>Modified any of the following parameters: gear teeth number on screw side, gear teeth number of</li> <li>Modified Pr17: Control precision.</li> </ol>
Solution	Reboot the controller and the drive.

#### 20.8 SETPOINTAXIS-008 Drive station ID does not exist

Alarm ID	SETPOINTAXIS-008	Alarm Title	Drive station ID do
Description	Drive corresponding to the station ID does not exist	t on the communication network.	
Possible Cause	<ol> <li>There is no drive corresponding to the station</li> <li>Setpoint axis station number setting is reperied Please check if the station number setting in a. System axis</li> <li>Berial PLC axis</li> <li>ROT axis</li> <li>ATC axis</li> <li>Setpoint axis</li> </ol>	on ID on the communication netwo ated with other axis station numbe I the following axis is repeated:	rk. r.
Solution	After setting the correct station ID, reboot the cont	roller and the drive.	

#### 20.9 SETPOINTAXIS-009 Drive communication Error

Alarm ID	SETPOINTAXIS-009	Alarm title	Drive communication error
Description	At least 2 errors listed below 1. Drive response packe 2. Drive response packe 3. Drive response packe Example: According to the co 2ms; 4 consecutive errors for	occur for over 10ms totally t not received. t CRC error. t watchdog error. ommunication time setting <sup>-</sup> 3ms.	in communication. ( Pr3203 ), 6 consecutive errors for
Possible Reason	<ol> <li>The communication of</li> <li>The quality of the con</li> <li>Drive response packet</li> </ol>	cable between the controllen nmunication cable is poor, t watchdog error.	er and the driver is loose. or there is noise interference.
Solution	<ol> <li>Check the wiring of th drive.</li> <li>Check whether the mathematication p</li> <li>Contact Syntec OEM.</li> </ol>	ne communication cable be achine is properly grounde Port of the end drive.	tween the controller and the d, and add a terminal resistor to

#### 20.10 SETPOINTAXIS-010 Drive parameter writing failed

Alarm ID	SETPOINTAXIS-010	Alarm Title	Drive parameter writing failed
Description	Setpoint axis axis failed to wri	te drive parameter.	
Possible Cause	The communication between parameter writing timeout.	the controller and th	e drive is unstable, causing the drive
Solution	After solving the cause of com	munication error, re	boot the controller and drive.

#### 20.11 SETPOINTAXIS-011 Drive power is abnormal

Alarm ID	SETPOINTAXIS-011	Alarm Title	Drive power is abnormal
Description	The controller detected the dri	ve power status erro	r.
Possible Cause	<ol> <li>The drive power-amp b</li> <li>Drive failure.</li> </ol>	ack power supply is ı	unstable.
Solution	<ol> <li>Check if the drive powe</li> <li>Check if the drive powe</li> <li>Replace the drive.</li> <li>After solving the above</li> </ol>	r supply status is nor r cable is loose or dai problems, reboot the	mal. maged. e controller and the drive.

#### 20.12 SETPOINTAXIS-012 Setpoint axis command exceeds limit

Alarm ID	SETPOINTAXIS-012	Alarm Title	Setpoint axis command exceeds limit
Description	Setpoint axis command excee	eds limit.	

Possible Cause	The command calculated by the current position and the target position is greater than the limit pulse: 2,147,483,647.
	(This alarm is issued to avoid when setting target position too far, the user misjudges the clockwise/counterclockwise failure and the inability to move to the target position.)
	[Method of calculating the limit of the command]
	Limit of the command(um) = limit pulse x (number of gear on motor side x screw width) / (number of gear on screw side x position sensor resolution x 4 )
	For example: Number of gear on the motor side = 1, number of gear on the screw side = 1, position sensor resolution = 262,144 (pulse/rev), screw width = 5,000 (um/rev)
	The limit of command is 2147483647 x ( 1 x 5000 ) / ( 1 x 262144 x 4 ) = 10239999 (um) =10239.999 (mm).
	In other words, if the calculated command between the current position and the target position exceeds 10239.999 mm, this alarm will be issued; If it does not exceed 10239.999 mm, it is a reasonable displacement .
Solution	<ol> <li>Reset to clear the alarm.</li> <li>Change the target position to avoid exceeding the the limit of displacement.</li> <li>Set drive electronic gear numerator, and reduce the encoder resolution setting of controller.         <ol> <li>e. According to the above setting, set the drive electronic gear numerator as 8 and the encoder resolution as 32,768, the limit of posing displacement will become 81919.999mm.</li> <li>Adjust the gear number on motor side / screw side.</li> <li>Adjust the screw width.</li> <li>Once the above adjustments are properly made, this alarm should not be issued again.</li> </ol> </li> </ol>

# 20.13 SETPOINTAXIS-013 The firmware update of Syntec encoder is finished, please reboot the drive

Alarm ID	SETPOINTAXIS-013	Alarm Title	The firmware update of Syntec encoder is finished, please reboot the drive
Description	The firmware update of Syr	ntec encoder is finis	shed, please reboot the drive
Possible Cause	Performed encoder firmwa	re upgrade.	
Solution	Reboot the controller and c	lrive.	

#### 20.14 SETPOINTAXIS-014 Syntec encoder information reading timeout

Alarm ID	SETPOINTAXIS-014	Alarm Title	Syntec encoder information reading timeout
Description	Syntec encoder information	reading timeout.	
Possible Cause	<ol> <li>The communication b</li> <li>The drive status is ab</li> </ol>	petween the control normal.	ller and the drive is abnormal.
Solution	<ol> <li>Check if the commun</li> <li>Reboot the controller</li> </ol>	ication cable is loos and drive.	e.

### 20.15 SETPOINTAXIS-015 Axial feedback is abnormal

Alarm ID	SETPOINTAXIS-015	Alarm Title	Axial feedback is abnormal
Description	If the difference between the a speed set by the controller, the number of abnormal times This alarm will be issued wher The maximum speed is the val	ixial feedback value s will be accumulated two consecutive ab ue of parameter: Ma	exceeds 4 times of the maximum d by 1 each time. normalities occur. ximum moving speed(mm/min)
Possible Cause	<ol> <li>Communication betwee</li> <li>Parameter: Maximum r</li> </ol>	en controller and dri noving speed setting	ive is abnormal. gs is inappropriate.
Solution	<ol> <li>Check if the communic</li> <li>Adjust parameter setting</li> </ol>	ation cable is loose. ıg: Maximum movinį	g speed.

#### 20.16 SETPOINTAXIS-016 Poor contact of communication wire

Alarm ID	SETPOINTAXIS-016	Alarm title	Poor contact of communication wire
Description	Drive response packet is not Example: According to the c 2ms; 4 consecutive errors fo	t received for over 10ms in ommunication time settir r 3ms.	drive communication. ng( Pr3203 ), 6 consecutive errors for
Possible Reason	1. The communication	cable between the contro	ller and the driver is loose.

Solution	1. Check the wiring of the communication cable between the controller and the drive.
	2. Contact Syntec OEM.

# 20.17 SETPOINTAXIS-017 The hardware doesn't receive communication packet

Alarm ID	SETPOINTAXIS-017	Alarm title	The hardware doesn't receive communication packet		
Description	Drive response packet is not received for over 10ms in communication. Example: According to the communication time setting( Pr3203 ), 6 consecutive errors for 2ms; 4 consecutive errors for 3ms.				
Possible Reason	<ol> <li>The drive station number does not correspond to the controller parameters correctly.</li> <li>The communication cable between the controller and the drive is loose.</li> </ol>				
Solution	<ol> <li>Check whether the parameter (Pr21 ~)</li> <li>Check the wiring of</li> <li>Contact Syntec OEI</li> </ol>	ne drive parameter DIP switch setting corresponds to the control ~) correctly. of the communication cable between the controller and the driv DEM.			

# 20.18 SETPOINTAXIS-018 The communication packet is disturbed by noise

Alarm ID	SETPOINTAXIS-018	Alarm title	The communication packet is disturbed by noise		
Description	Drive response packet is disturbed by noise to generate CRC error for over 10ms in communication. Example: According to the communication time setting(Pr3203), 6 consecutive errors for 2ms; 4 consecutive errors for 3ms.				
Possible Reason	1. The quality of the communication cable is poor, or there is noise interference.				
Solution	<ol> <li>Check whether the</li> <li>Contact Syntec OEM</li> </ol>	e machine is properly grounded. M.			

#### 20.19 SETPOINTAXIS-019 Driver software misses communication packet

Alarm ID	SETPOINTAXIS-019	Alarm title	Driver software misses communication packet		
Description	Drive response packet watchdog is wrong for over 10ms in communication. Example: According to the communication time setting( Pr3203 ), 6 consecutive errors for 2ms; 4 consecutive errors for 3ms.				
Possible Reason	Drive response packet watchdog is wrong				
Solution	Contact Syntec OEM.				

#### 20.20 SETPOINTAXIS-020 Exceeding the positive software stroke limit

Alarm ID	SETPOINTAXIS-020	Alarm Title	Exceeding the positive software stroke limit		
Description	The axial mechanical coordinate exceeds the positive software stroke limit.				
Possible Cause	The axial movement exceeds the setting value.				
Solution	<ol> <li>Reset to clear the alarm.</li> <li>Move the axial in negative direction to be out of the software stroke protection range, and can remove alarm.</li> </ol>				

#### 20.21 SETPOINTAXIS-021 Exceeding the negative software stroke limit

Alarm ID	SETPOINTAXIS-021	Alarm Title	Exceeding the negative software stroke limit		
Description	The axial mechanical coordinate exceeds the negative software stroke limit.				
Possible Cause	The axial movement exceeds the setting value.				
Solution	<ol> <li>Reset to clear the alarm.</li> <li>Move the axial in positive direction to be out of the software stroke protection range, and can remove alarm.</li> </ol>				

20.22	SETPOINTAXIS-	022 Driver	power-amp	voltage	not input
			1 1	0	

Alarm ID	SETPOINTAXIS-022	Alarm Title	Driver power-amp voltage not input			
Description	Driver power-amp power is not suppled, please check power cable wiring.					
Possible Cause	Driver power-amp power is not suppled.					
Solution	Check if the three phase of driver electricity is input correctly.					





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## 21 Routine Script-RS

Alarm ID	RS-00	1	Alarm titl	Alarm title [File too big]				
Description	Script	file size is too big. The file size limit id 64KB.						
Reason	Script	file size is	too big.					
Solution	Modify	script file	e, make sure	e the file siz	e is smaller	than 64KI	В.	
Alarm ID		RS-002		Alarm ti	tle		【Too ma	ny script file】
Description		The count of script is too many. System will stop execute part of script. The maximum file count is 8.			of script. The maximum			
Reason		The nu	mber of scrij	ot is too ma	iny.			
Solution		Please	remove unu	sed script,	or merge th	e script ha	as similar fu	unction.
Alarm ID		RS-003 Alarm title Script loading failure			ding failure			
Description		The script has syntax error, cause system can not load script.						
Reason		Programming error.						
Solution		Please check the script.						
Alarm ID		RS-004	4	Alarm	title		Unsuppo	orted syntax
Description		Use the unsupported syntax in script.						
Reason		<ol> <li>Programming error.</li> <li>Use unsupported function.</li> </ol>						
<b>Solution</b> Please check the script, make sure the syntax and function is supported.			supported.					
Alarm ID	RS-005	Alarr	n title Ille	agal variable access				
Description	Attempte	ed to access a variable that does not exist.						
Reason	1. P 2. Il	ogramming error. egal access to # or @ variable.						
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Solution	1. M 2. M 3. M	ake sure the accessing ake sure the variable ake sure the variable	g variable exists. to read is readable. to write is writable.					
Alarm ID	Alarm ID RS-006 Alarm title			Invalid array index type				
Description		Indirect assigned variable number is empty. i.e. @[#1], if #1 is empty, this alarm will be issued.						
Reason		Programming error.						
Solution		Please check the NC not empty.	Please check the NC program, make sure that indirect assigned variable's number is not empty.					
Alarm ID		RS-007	Alarm title	Invalid argument type				
Description		Th argument type of function or operator is invalid. i.e. @1=#1 MOD #2, if type of #1 or #2 is float, this alarm will be issued.						
Reason		Programming error.						
Solution		Please check the script, make sure that argument type is right.						
Alarm ID		RS-008	Alarm title	Operation domain error				
Description		The argument of function has wrong domain. i.e: SQRT( #5 ), if #5 < 0, system will issue this alarm.						
Reason		Programming error						
Solution		Please check the script, make sure the domain of function argument is right.						
Alarm ID		RS-009	Alarm title	Devide by zero error				
Description		If denominator in di i.e. #1:=(#2/ #3); if #3	vision of script is equal t 8 equals to zero, system	to 0 will issue this alarm.				

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Reason	Programming error.
Solution	Check the script to ensure that the denominator is not equal to 0.

#### 21.1 RS-001 File too big

Alarm ID	RS-001	Alarm title	[File too big]
Description	Script file size is too big. The file size limit id 64KB.		
Reason	Script file size is too big.		
Solution	Modify script file	e, make sure the file size	e is smaller than 64KB.

# 21.2 RS-002 Too many script file

Alarm ID	RS-002	Alarm title	[Too many script file]
Description	The count of script is too many. System will stop execute part of script. The maximum file count is 8.		
Reason	The number of script is too many.		
Solution	Please remove unus	ed script, or merge the script h	nas similar function.

## 21.3 RS-003 Script loading failure

Alarm ID	RS-003	Alarm title	Script loading failure
Description	The script has syntax error, cause system can not load script.		
Reason	Programming error.		
Solution	Please check the scr	ipt.	

#### 21.4 RS-004 Unsupported syntax

Alarm ID	RS-004	Alarm title	Unsupported syntax
Description	Use the unsupported syntax in script.		
Reason	<ol> <li>Programming error.</li> <li>Use unsupported function.</li> </ol>		
Solution	Please check the scri	pt, make sure the syntax and f	unction is supported.

### 21.5 RS-005 Illegal variable access

Alarm ID	RS-005	Alarm title	Illegal variable access		
Description	Attempted to access a variable that does not exist.				
Reason	<ol> <li>Programming error.</li> <li>Illegal access to # or @ variable.</li> </ol>				
Solution	<ol> <li>Make sure the accessing variable exists.</li> <li>Make sure the variable to read is readable.</li> <li>Make sure the variable to write is writable.</li> </ol>				

### 21.6 RS-006 Invalid array index type

Alarm ID	RS-006	Alarm title	Invalid array index type
Description	Indirect assigned variable number is empty. i.e. @[#1], if #1 is empty, this alarm will be issued.		
Reason	Programming error.		
Solution	Please check the NC not empty.	C program, make sure that ind	irect assigned variable's number is

#### 21.7 RS-007 Invalid argument type

Alarm ID	RS-007	Alarm title	Invalid argument type

Description	Th argument type of function or operator is invalid. i.e. @1=#1 MOD #2, if type of #1 or #2 is float, this alarm will be issued.
Reason	Programming error.
Solution	Please check the script, make sure that argument type is right.

#### 21.8 RS-008 Domain error

Alarm ID	RS-008	Alarm title	Operation domain error
Description	The argument of function has wrong domain. i.e: SQRT( #5 ), if #5 < 0, system will issue this alarm.		
Reason	Programming error		
Solution	Please check the scr	ipt, make sure the domain of f	function argument is right.

#### 21.9 RS-009 Devide by zero error

Alarm ID	RS-009	Alarm title	Devide by zero error
Description	If denominator in div i.e. #1:=(#2/ #3); if #3	vision of script is equal to 0 8 equals to zero, system will iss	sue this alarm.
Reason	Programming error.		
Solution	Check the script to ensure that the denominator is not equal to 0.		

## 22 Alarm Class Table

() Mandarin Version 中文版: 警報類別對照表

I D	Categories	I D	Categories	ID	Categories	ID	Categories	ID	Categories
1	Mechanical Logic Control Alarm - MLC	1 5	ROT Turret Alarm - ROT	10 1	DELTA Servo Alarm	20 2	DELTA ECAT Servo Alarm	21 2	INVENTOR ECAT Servo Alarm
2	Program Execute Error Alarm - COR	1 6	Laser Marking Alarm - LASERCTRL	10 2	YASKAWA M2 Servo Alarm	20 3	DELTA ECAT Servo Warning	21 3	INVENTOR ECAT Servo Warning
3	Axial Motion Alarm - MOT	1 7	Device Alarm - STATION	10 3	SYNTEC M2 Servo Alarm	20 4	PANASONIC ECAT Servo Alarm	21 4	INOVANCE ECAT Servo Alarm
4	Spindle Alarm - SPD	1 8	Extended Software Stroke Limit Alarm - EXTSTROKELIMI T	10 4	YASKAWA M3 Servo Alarm	20 5	PANASONIC ECAT Servo Warning	21 5	INOVANCE ECAT Servo Warning
5	Syntax Compiler Alarm - COM	1 9	ATC Alarm - ATC	10 5	SYNTEC M3 Servo Alarm	20 6	PANASONIC RTEX Servo Alarm	21 6	SYNTEC STEPPER Servo Alarm
6	Operation Alarm - OP	2 0	Setpoint Axis Alarm - SETPOINTAXIS	10 6	YASKAWA M2 Servo Warning	20 7	PANASONIC RTEX Servo Warning	21 7	SYNTEC STEPPER Servo Warning
7	Mechanical Logic Control Hint - MLC	2 1	Routine Script - RS	10 7	YASKAWA M3 Servo Warning	20 8	Servotronix ECAT Servo Alarm	21 8	SYNTEC ECAT Servo Alarm
9	MACRO Alarm - MAR	3 1	CIP Alarm - CIP	10 8	SYNTEC M2 Servo Warning	20 9	Servotronix ECAT Servo Warning	21 9	SYNTEC ECAT Servo Warning
1 0	Message Alarm - MSG	3 2	ENIP Alarm - ENIP	10 9	SYNTEC M3 Servo Warning	21 0	Mitsubishi ECAT Servo Alarm		

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I D	Categories	I D	Categories	ID	Categories	ID	Categories	ID	Categories
1 1	Servo Alarm - SERVO	5 1	Robot Alarm - RBT	11 0	SYNTEC M2_V2 Servo Alarm	21 1	Mitsubishi ECAT Servo Warning		
1 2	Serial PLC Axis Alarm – SERIALPLCAXI S	5 2	Robot Warning - RBTWRN	11 1	SYNTEC M2_V2 Servo Warning				
1 3	SRI Alarm - SRI	5 3	Robot Critical - RBTCRI						
1 4	Background Execute Alarm - BGND								

Note: The alarm correlated information will be shown in R514 ~ R517 in PLC interface. Please refer to PLC Interface.

