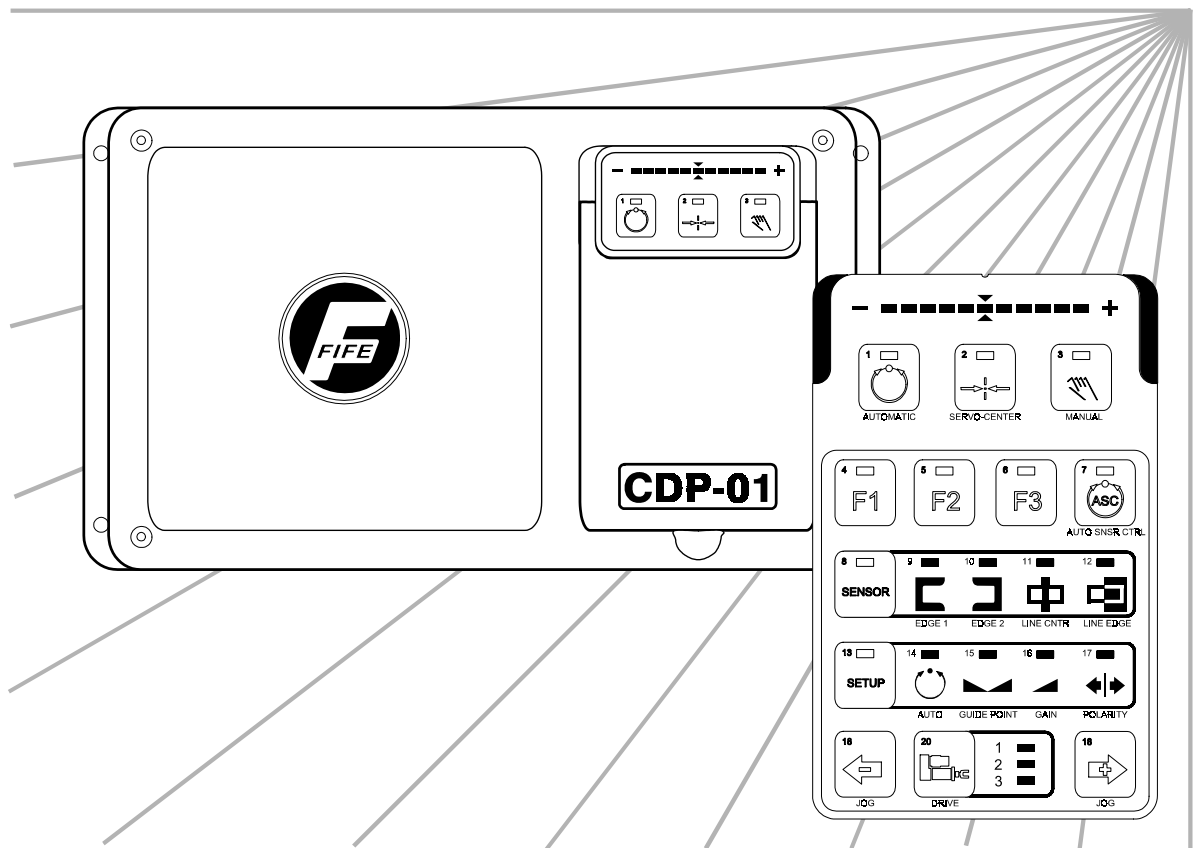




CDP-01

Additional Instruction Manual

For Moving Sensor Center Guide



NOTE

These additional instructions explain the special features of the system delivered to the customer. They are intended for being used in conjunction with the CDP-01 Reference Manual. The CDP-01 Reference Manual applies except as noted to the contrary in these instructions.

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We have compiled this Additional Instruction Manual with the greatest possible care and attention; however, the possibility of error can not be completely excluded. FIFE accepts no legal liability for incorrect information given and the consequences arising therefrom.

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FIFE GmbH, Postfach 1240, D-65762 Kelkheim/Ts., Germany



Table of contents

GENERAL	1
SOFTWARE PART NUMBERS	1-1
CONNECTING THE SYSTEM COMPONENTS.....	1-2
APPLICATION DESCRIPTION	1-2
OVERVIEW OF FUNCTION	2
OPERATOR CONTROL OPTIONS	2-1
SPECIAL FEATURES OF EXTERNAL CONTROL.....	2-1
INPUT MATRIX - EXTERNAL CONTROL	2-2
EXPLANATORY NOTES ON THE MODES.....	2-3
SENSOR SELECTION - SENSOR INDICATOR.....	2-8
TROUBLESHOOTING	3
FAULT DIAGNOSIS - FAULT RECTIFICATION.....	3-1



GENERAL

Software part numbers

The specific functions of this application are pre-set by Matrix Setup and State Machine.

The software part numbers are indicated on a label on the side of the CDP-01 housing. They include the Matrix Setup No. (MS), the State Machine No. (SM) and the firmware version (Dx).

The software part numbers differ depending on the type of the application (electrical or hydraulic control of the sensor positioner and/or the guide):

CDP version: CDP-01-MM

D1:565023.02x MS: 581033.02x
D2:565024.02x SM: 581034.02x
D3: FIFE

Please quote these details when making inquiries

CDP version: CDP-01-MH

D1:565023.02x MS: 581035.02x
D2:565024.02x SM: 581036.02x
D3: FIFE

CDP version: CDP-01-MHH

D1:565023.02x MS: 581037.02x
D2:565024.02x SM: 581038.02x
D3:565024.02x FIFE

Note: for these applications, signal amplifiers with firmware version ≥ 2.0 must be used.



OVERVIEW OF FUNCTION

Operator control options

The CDP-01 signal amplifier can be operated from the control panel (internal control panel) or via the parallel port with a remote control panel or a programmable logic controller (PLC, external operation).

The following symbols are used for the various operator controls in the remainder of this description:

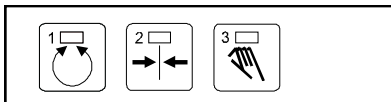


Internal operation

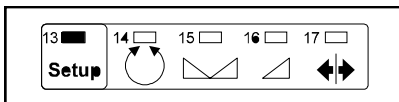


External operation

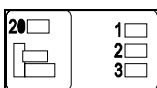
Special features of external control



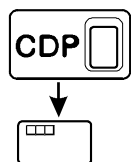
The mode keys (Automatic, Servo-Center, Manual) on the internal control panel are disabled.



Changing mode via external control is not possible when the *SETUP* function is activated on the internal control panel.



In the 'Manual - Guide' and 'Manual - Sensor Positioner' modes, the drive selector key is disabled.



When the remote control panel is disconnected the last mode selected is retained until other settings are made on the internal control panel.



Input Matrix - external control

CDP-01 inputs Modes	I0	I1	I2	I3	I4	I5
Lockout	H	-	-	-	-	-
Manual - Guide	-	H	H	L	-	-
Manual - Sensor positioner	-	H	L	H	-	-
Automatic	-	L	L	H	-	-
Servo-center	-	L	H	L	-	-
Jog Left - Guide	-	H	H	L	H	L
Jog Right - Guide	-	H	H	L	L	H
Jog Left - Sensor positioner	-	H	L	H	H	L
Jog Right - Sensor positioner	-	H	L	H	L	H
Automatic - Left web displacement	-	L	L	H	H	L
Automatic - Right web displacement	-	L	L	H	L	H

L = Low level
H = High level
- = Either state

XX



Explanatory notes on the modes

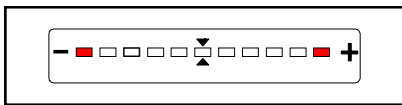
LOCKOUT



'Lockout'

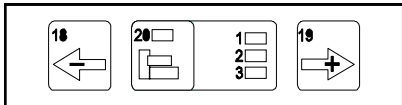
Set lockout.

Note: 'LOCKOUT' mode can only be set via the parallel port.



The guide and the sensor positioner are locked.

Check: left and right LEDs of the LED bar and LED for drive 1 (CDP version -MM) or LED for drive 2 (CDP version -MH or -MHH) flashing.

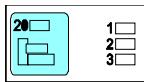


Note: lockout is only effective in 'AUTOMATIC' mode.

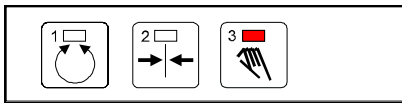
MANUAL - Guide



'Manual-Guide'



Press key 3, then press the drive selector key until the LED for drive 1 (CDP version -MM) or the LED for drive 2 (CDP version -MH or MHH) lights up, or select 'Manual-Guide' via external control.



The sensor positioner and the guide are switched to Manual.

Check: LED 3 lit

In this mode, Setup functions and various sensor modes can be selected.



'Left'

With the - or + keys, or the 'Left' or 'Right' keys, the position of the guide can be changed.

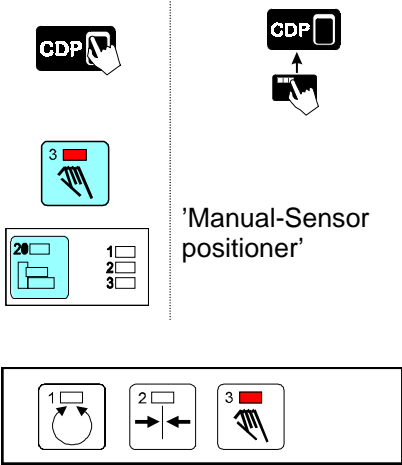


'Right'

Note: with external control, 'Jog Left-Guide' or 'Jog Right-Guide' mode must be set.



MANUAL - Sensor positioner



Press key 3, then press the drive selector key until the LED for drive 2 (CDP version -MM) or the LED for drive 1 (CDP version -MH or MHH) lights up, or select 'Manual - Sensor positioner' via external control.

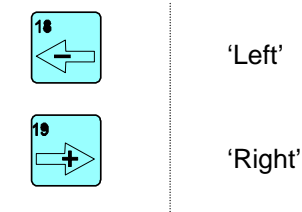
The sensor positioner and the guide are switched to Manual.

Check: LED 3 lit

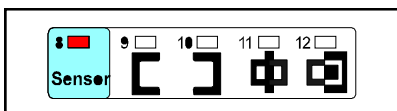
In this mode, Setup functions and various sensor modes can be selected.

With the - or + keys or the 'Left' or 'Right' keys, the position of the sensors can be changed.

Note: with external control, 'Jog Left - Sensor Positioner' or 'Jog Right - Sensor Positioner' mode must be set.

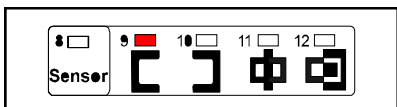


AUTOMATIC



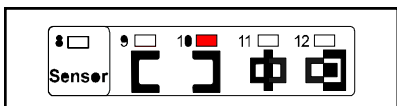
Select the sensor mode.

Note: only possible in the 'Manual - Guide' or 'Manual - Sensor Positioner' or 'Servo-center' modes.



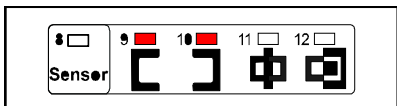
Left edge guiding configuration

or



Right edge guiding configuration

or



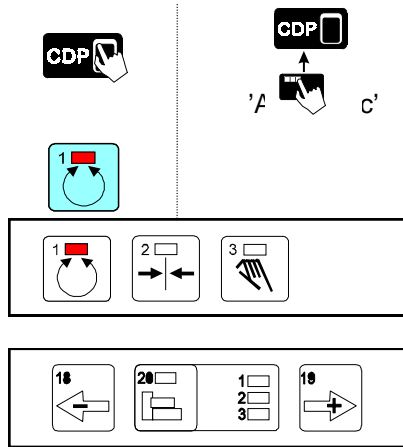
Center guiding configuration

AUTOMATIC edge guiding



**configuration
with manual web edge search**

Press key 1, or select 'Automatic' via external control.



The guide is set to 'Automatic mode'. The sensor positioner is in 'Manual' mode.

Check: LED 1 and the LED for drive 1 (CDP version -MM) or the LED for drive 2 (CDP version -MH or -MHH) light up.



'Left'

Position the sensor with the - or + keys or with the 'Left' or 'Right' keys.



'Right'

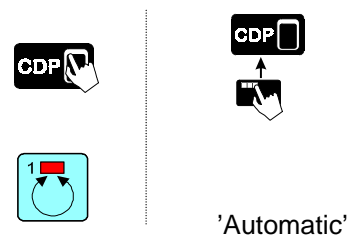
Note: with external control, 'Automatic - Left web displacement' or 'Automatic - Right web displacement' must be set.

The sensor position can be changed at any time.

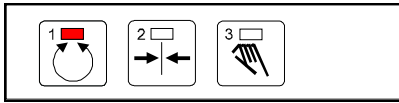
The sensor guide point and the system gain (control sensitivity) of the guide can be changed.

**AUTOMATIC center guiding
configuration**

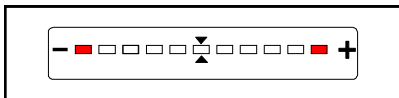
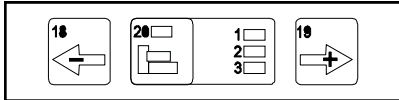
Press key 1, or select 'Automatic' via external control.



The sensors search for the edge of the web.

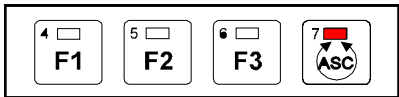


Check: LED 1 and the LED for drive 1 (CDP version -MM) or the LED for drive 2 (CDP version -MH or -MHH) light up.



During the edge search, the guide is in the 'Automatic' mode. The ASC function (Autolock function) is activated.

Check: LED 7 and the two outer LEDs of the LED bar flash during edge search.



When one of the sensors finds the web, the guide is enabled and the web is slaved until the second sensor has found the opposite edge of the web.

Note: LED 7 lights up constantly, while the outer LEDs of the LED bar no longer flash.

The sensor positioner and the guide are in the Automatic mode. The sensors adapt to a fluctuating web width.

If the search detects no web, or if the web tears during guiding, the sensors reach their inner extreme position. The system switches to 'Servo-center' mode, and the sensors retract.

Note: With external control, the error must be acknowledged by selecting the 'Servo-center' mode.



'Left'



'Right'

The web can be displaced in the sensor field of view with the - or + keys or the 'Left' or 'Right' keys.

Note: with external control, 'Automatic - Left web displacement' or 'Automatic - Right web displacement' must be set.

The sensor guide point and the system gain (control sensitivity) of the guide can be changed.

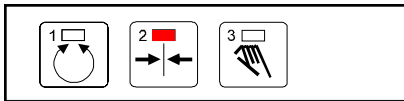


SERVO-CENTER



'Servo -center'

Press key 2, or select 'Servo-center' via external control.



The sensors Retract. The guide moves to the center position.

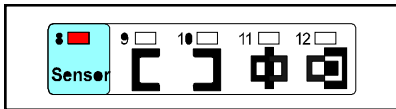
Check: LED 2 lit

The sensor mode can be changed in this mode of operation.



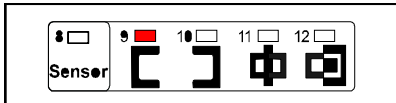
Sensor selection - Sensor indicator

In the 'Manual - Guide' or 'Manual - Sensor positioner' or the 'Servo-center' mode, a sensor selection can be made, regardless of the displayed drive.

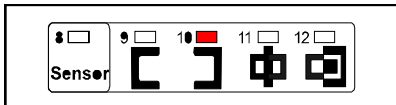


Press the sensor key until the required sensor mode is indicated.

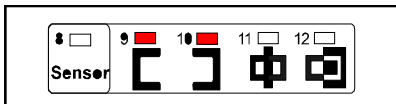
The following sensor modes are allowed:



Left edge guiding configuration



Right edge guiding configuration



Center guiding configuration



TROUBLESHOOTING

The reason for incorrect or undesired guidance is often an incorrect setting on the CDP-01. The chapter entitled "Frequent Setting Errors" in the CDP-01 Reference Manual describes faults and procedures for rectifying them in more detail. Application-specific faults are outlined below.

Fault diagnosis - Fault rectification

Fault: the sensors move in the wrong direction during the web edge search.

Remedy 1: If any of the line sensor modes is selected (LED 11, 12, or 11 & 12), select 'Manual-Guide' as outlined earlier in this supplement, then select the proper edge guide sensor mode (LED 9, 10, or 9 & 10). Refer to the CDP-01 Reference Manual, chapter entitled "Control Panel Description".

Remedy 2: If the proper edge sensor mode is selected (LED 9, 10, or 9 & 10), select 'Manual-Sensor Positioner' as outlined earlier in this supplement, then change the polarity (guide direction) for the corresponding sensor mode. Refer to: "Changing the Guide Direction" in the CDP-01 Reference Manual.

Fault: the guide moves in the wrong direction in Automatic mode.

Remedy: Select 'Manual - guide' as outlined earlier in this supplement, then change the polarity (guide direction) for the corresponding sensor mode. Refer to: "Changing the Guide Direction" in the CDP-01 Reference Manual.