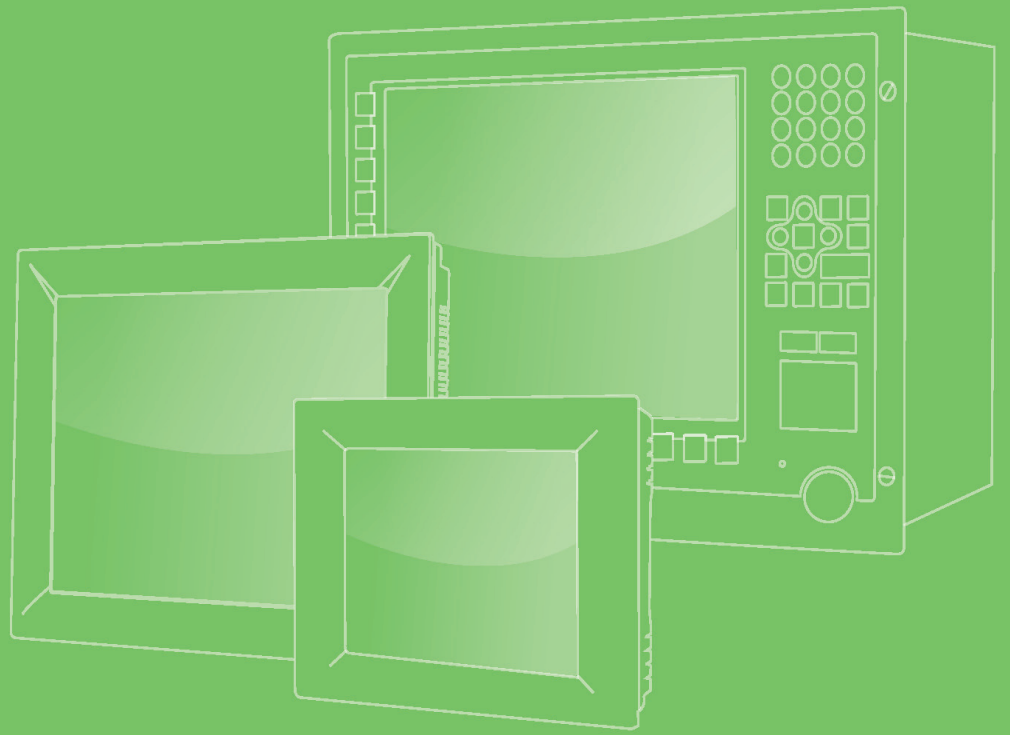


User Manual



Web Operating Panel AP User Manual

General Settings, Updating and
Troubleshooting

ADVANTECH

eAutomation

VICPAS
HMI Parts Center

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1. Visit the Advantech web site at www.advantech.com/support where you can find the latest information about the product.
2. Contact your distributor, sales representative, or Advantech's customer service center for technical support if you need additional assistance. Please have the following information ready before you call:
 - Product name and serial number
 - Description of your peripheral attachments
 - Description of your software (operating system, version, application software, etc.)
 - A complete description of the problem
 - The exact wording of any error messages

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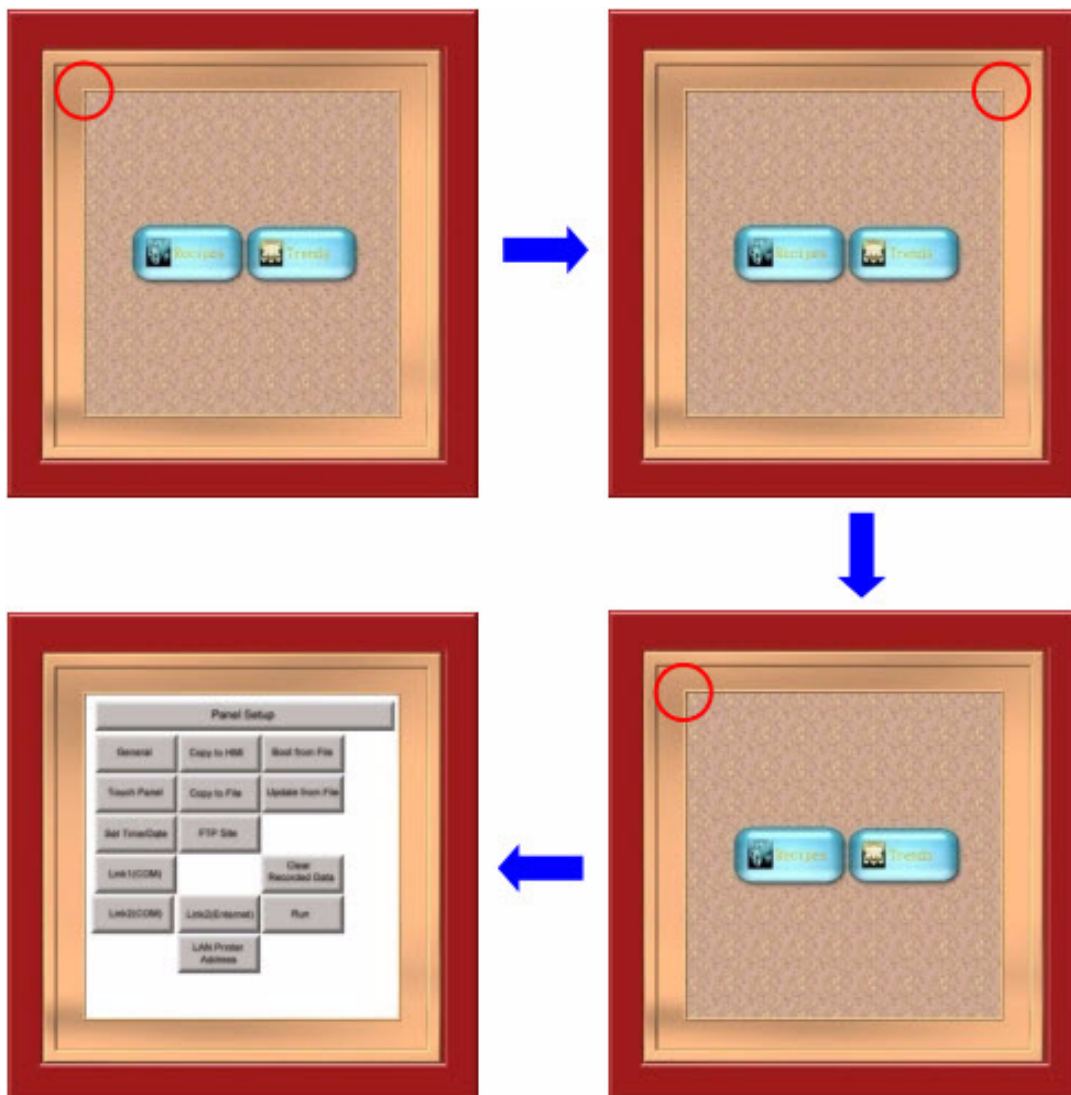
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Chapter 1

Getting Started

1.1 Running the Panel Setup Mode

If the HMI is running the application program, use the touch screen interface to enter the Panel Setup mode. Main keyword: touchscreen upper-left →upper-right →upper-left.

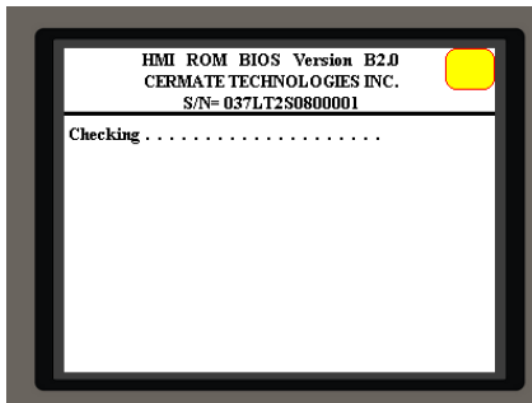


Note! If the AP screen has an object in the upper-left / upper-right part of the screen (ex. button) , this function is disabled.



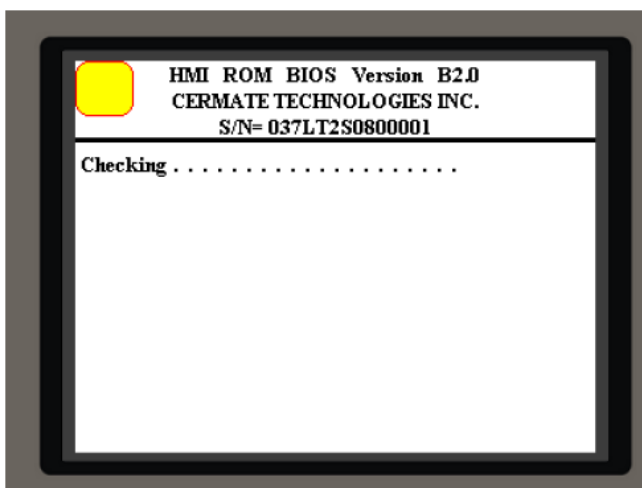
1.2 Powering on Directly Into Panel Setup Mode

If the start-up mode is set to automatically run the application program, simply click on the upper-right position while the HMI is powering on. After 3-5 seconds, the HMI will beep and then you can enter the Panel Setup mode directly.

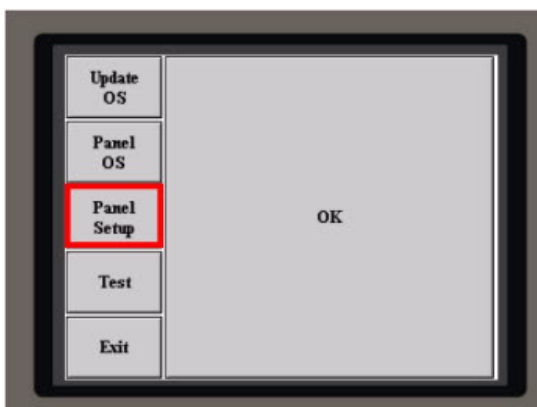


1.3 Entering BIOS

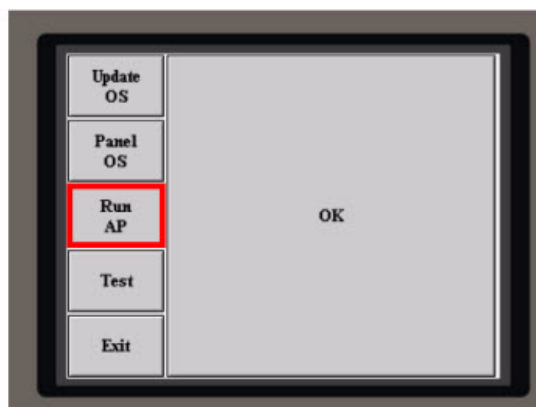
1. When powering on, press the upper-left position until the HMI beeps . (3~5 sec.)



2. Under the BIOS mode, you can execute the "Update OS"; "BIOS Test"; and select the start-up screen is "Panel Setup" or "Run AP", next power on will enter "Panel Setup" or "Run AP" automatically.



Panel Setup Mode



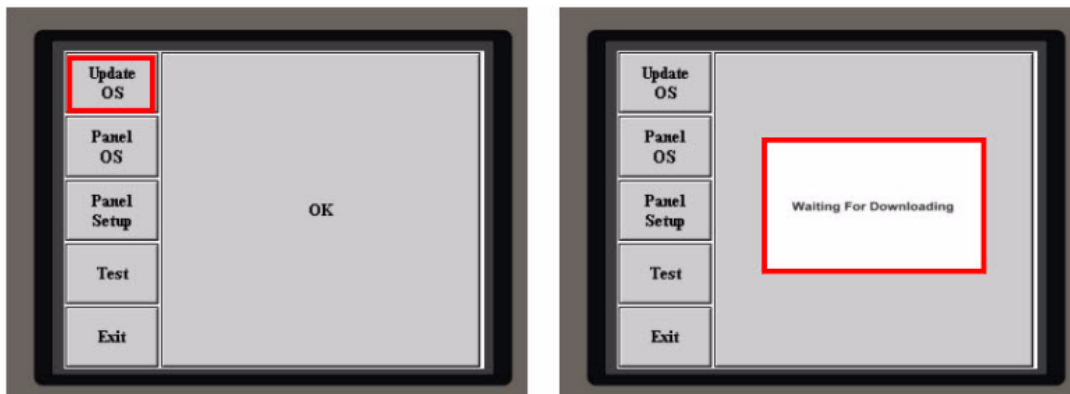
Run AP Mode

Chapter 2

Downloading and Backing Up

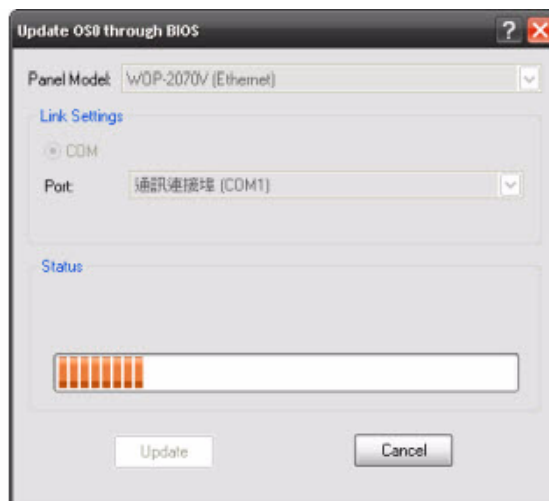
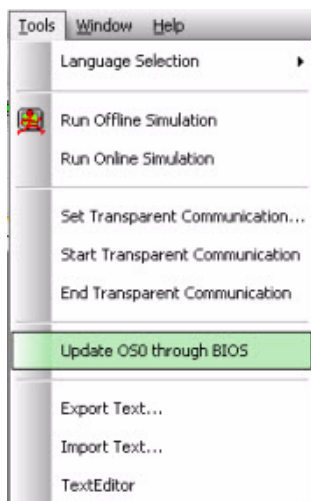
2.1 Updating the OS

Usually HMI will set Panel Setup or Run AP mode on BIOS when product produced. To avoid user download AP into HMI occur abnormal power off or Ethernet unstable cause OS disable or download AP failed, we design "Update OS0 through BIOS" function for user.



1. Enter BIOS mode, select Update OS you can see "Waiting For Downloading" chart. In WebOP Designer software, select Tools Update OS0 through BIOS.

Note! Update OS0 only can use serial port (RS232/RS485)"Cross over cable", cannot use Ethernet TCP/IP.



Connections

Com 1 (DB-9 Female)

Pin	Description
1	RD-422 TXD+ / RS-485+
2	RS-232 RXD
3	RS-232 TXD
4	RS-422 RXD+
5	GND
6	RS-422 TXD- / RS-485-
7	RS-232 RTS
8	RS-232 CTS
9	RS-422 RXD-

Com 2 (DB-9 Male)

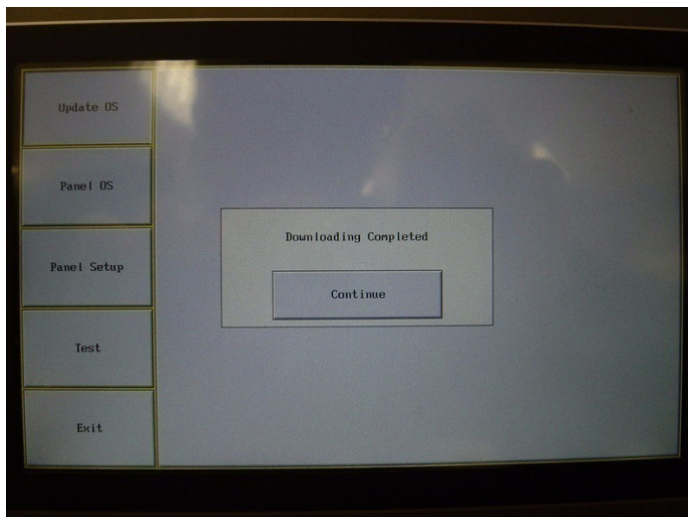
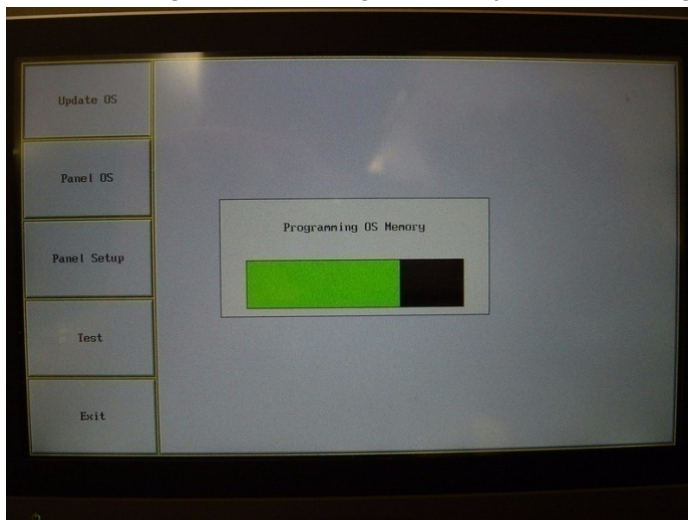
Pin	Description
1	
2	RS-232 RXD
3	RS-232 TXD
4	
5	GND
6	
7	RS-232 RTS
8	RS-232 CTS
9	Optional 5V output

Com1 Connector	PC Connector
9Pin Male	9Pin Female
RXD 2	3 TXD
TXD 3	2 RXD
SG 5	5 SG

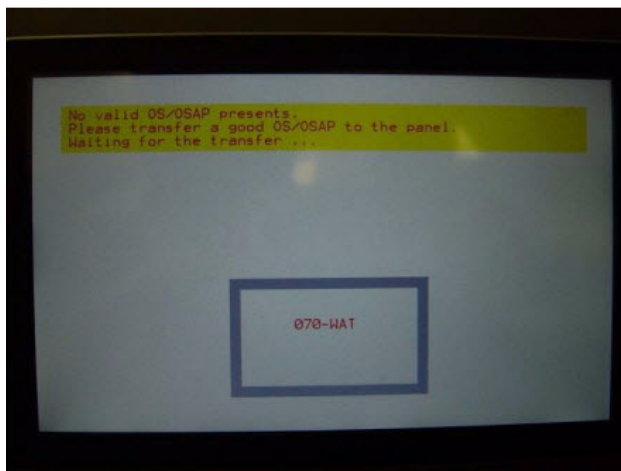
Com2 Connector	PC Connector
9Pin Female	9Pin Female
RXD 2	3 TXD
TXD 3	2 RXD
SG 5	5 SG

Com3 Connector	PC Connector
Terminal Block	9Pin Female
RXD	3 TXD
TXD	2 RXD
GND	5 SG

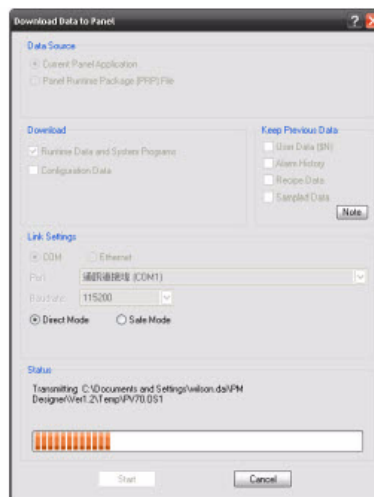
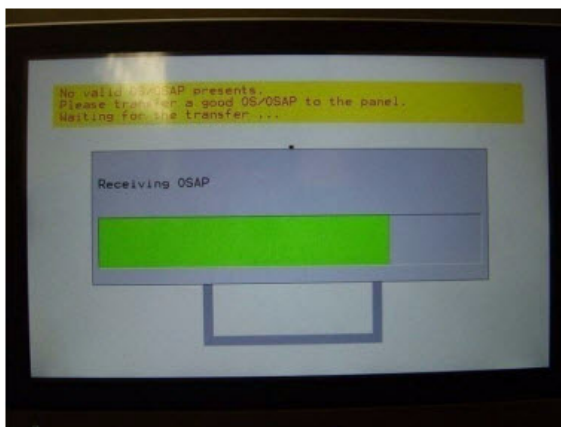
- The OS0 is now updating, after finishing, it will say "Downloading Completed."



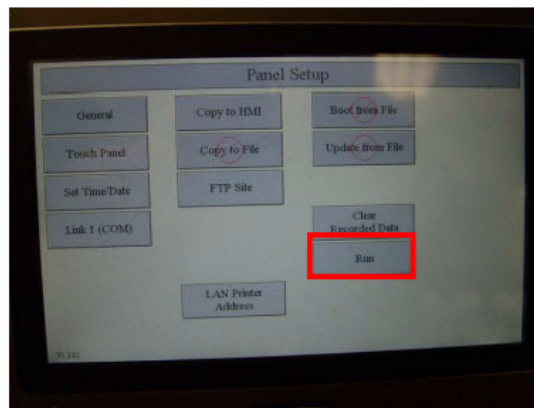
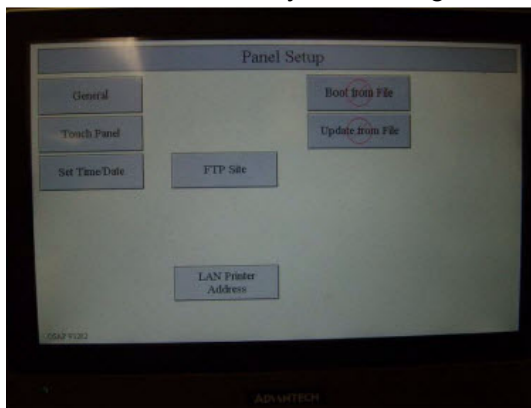
- After downloading is complete, select “Continue” and you will see the following screen. Now download program to update OS/OSAP.



- Updating OS/OSAP.

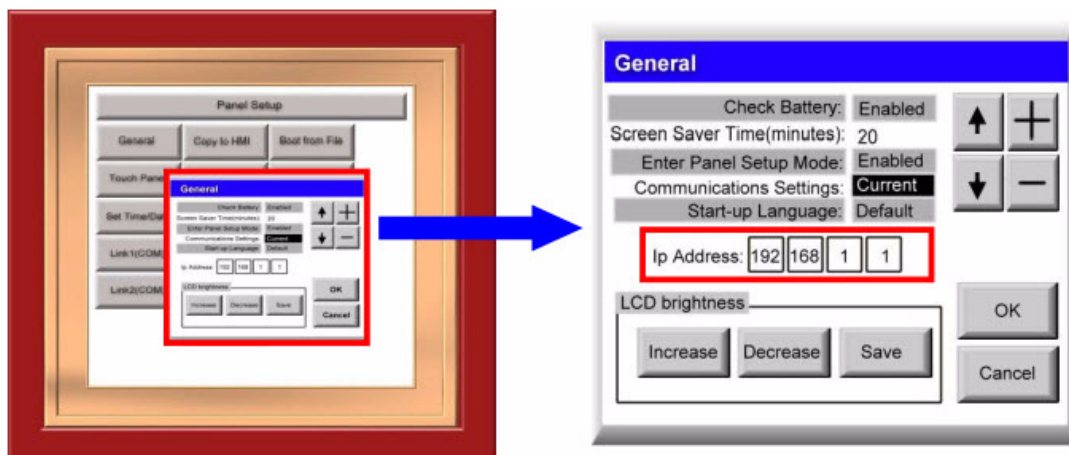


- After the OS/OSAP update is complete, you will automatically see the Panel Setup screen. In this state, we cannot see the “RUN” button, you have to download the AP into your HMI again.

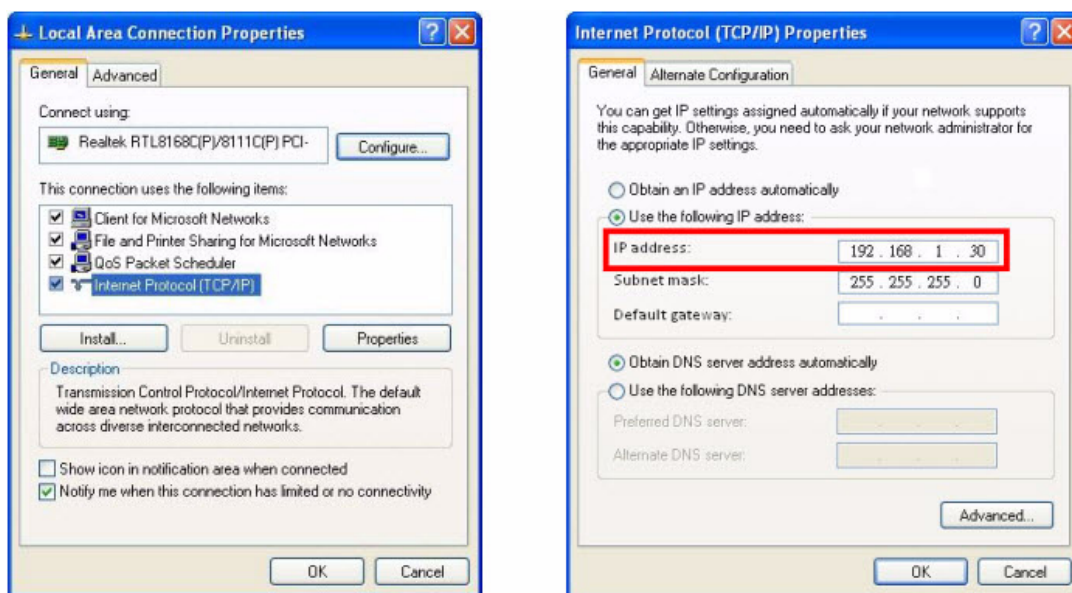


2.2 Downloading the AP Through Ethernet

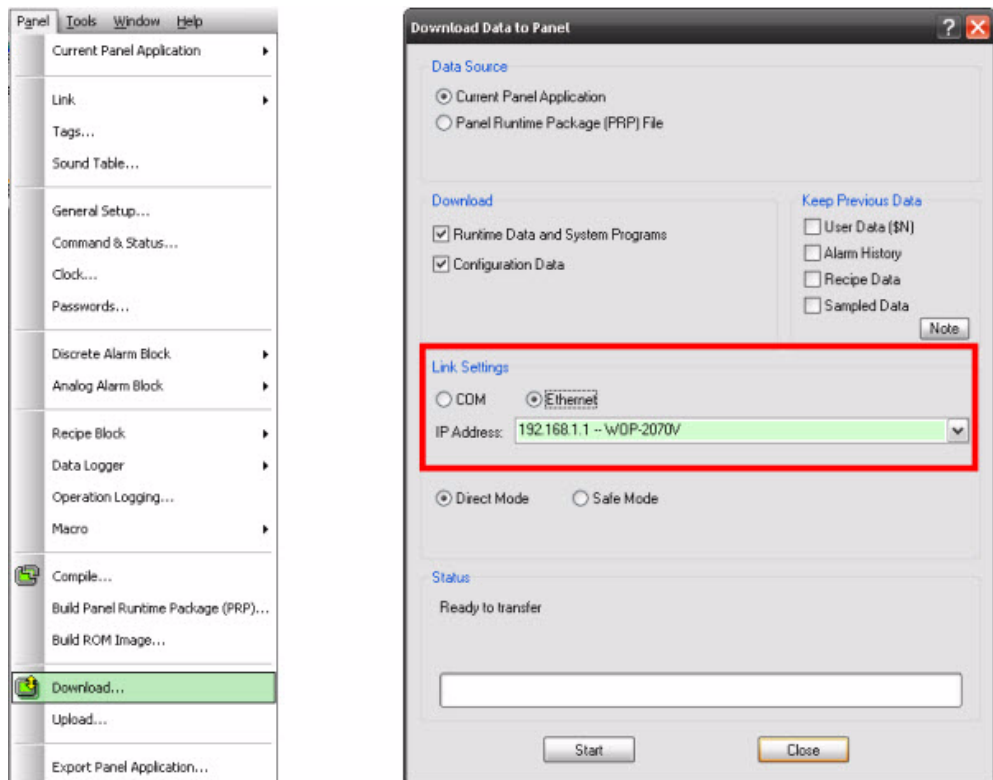
1. In Panel Setup mode, Select "General" to setup an IP Address in the Panel Setup mode. Assume the IP Address set to 192.168.1.1



2. Change the IP address in the Internet Protocol (TCP/IP) properties. The IP address must have same domain as the HMI's IP address.

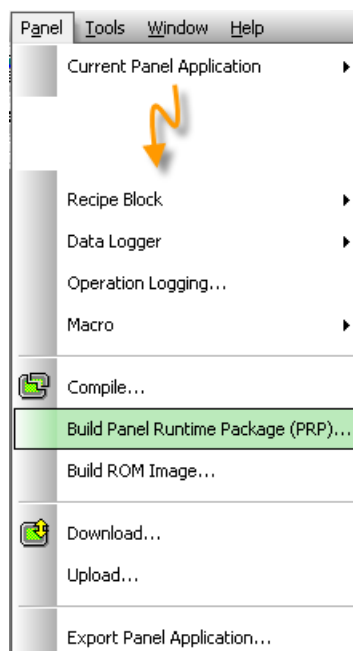


3. In the WebOP Designer software, select “Panel Download Data to Panel”. Link Settings chose Ethernet, it will show IP Address and HMI type automatically. Press “Start” download AP to HMI.



2.3 Updating the HMI AP Through USB

1. In WebOP Designer software, select “Panel Build Panel Runtime Package (PRP)”. Save PRP to USB disk.



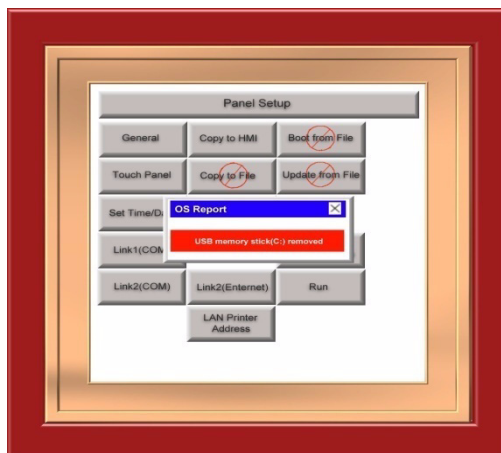
- Put on USB disk with HMI, the screen will appear green chart "safe to use the USB memory disk". Now user can use USB disk update AP, press "Update from file" to start update AP.



- Select .prp file, press "OK" to start the download. After updating the AP, press "RUN" to execute.



- Remove the USB, HMI will show a red chart that says "USB memory removed".

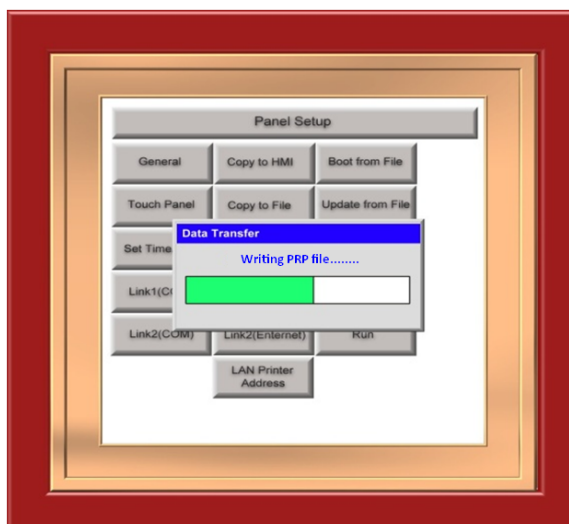


2.4 Backing Up to USB Disk

1. In Panel Setup mode, user can see “Copy to file”. When USB disk connect with HMI this function can work.



2. Select “Copy to File” copy AP to USB disk.



Chapter 3

Testing and Troubleshooting

3.1 COM Port Testing

- Before doing the COM port test, we must have to make the COM port loopback device.



- The HMI I/O connections are as follows:

Connections

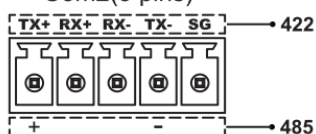
Com 1 (DB-9 Female)

Pin	Description
1	RD-422 TXD+ / RS-485+
2	RS-232 RXD
3	RS-232 TXD
4	RS-422 RXD+
5	GND
6	RS-422 TXD- / RS-485-
7	RS-232 RTS
8	RS-232 CTS
9	RS-422 RXD-

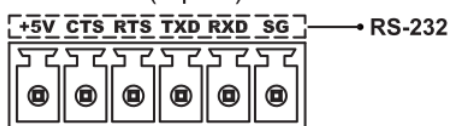
Com 2 (DB-9 Male)

Pin	Description
1	
2	RS-232 RXD
3	RS-232 TXD
4	
5	GND
6	
7	RS-232 RTS
8	RS-232 CTS
9	Optional 5V output

Com2(5 pins)



Com3(6 pins)



Com1 Connector	PC Connector
9Pin Male	9Pin Female
RXD 2	3 TXD
TXD 3	2 RXD
SG 5	5 SG

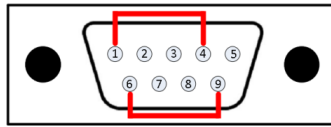
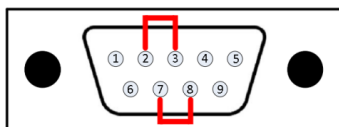
Com2 Connector	PC Connector
9Pin Female	9Pin Female
RXD 2	3 TXD
TXD 3	2 RXD
SG 5	5 SG

Com3 Connector	PC Connector
Terminal Block	9Pin Female
RXD	3 TXD
TXD	2 RXD
GND	5 SG

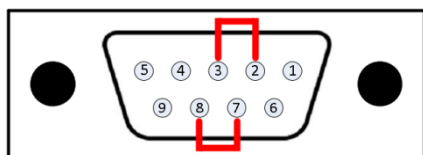
3. COM port loopback connection like following description:

COM 1 RS-232 (DB9 male)

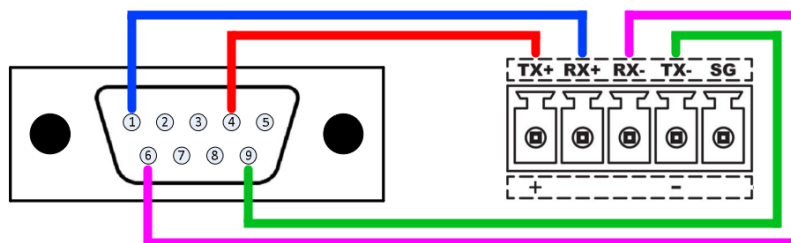
COM 1 RS-422/485 (DB9 male)



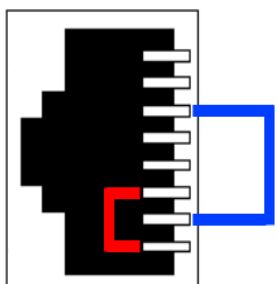
COM 2 RS-422/485 (DB9 female)



COM 1 (male) to COM2 (5 pins) loopback

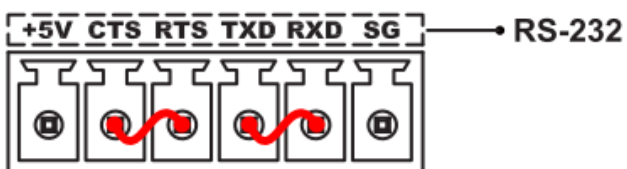
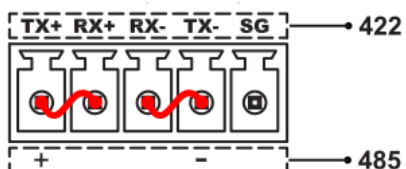


Ethernet loopback (RJ45)

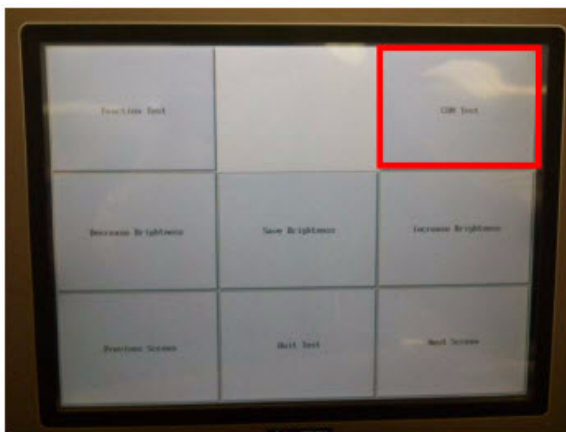
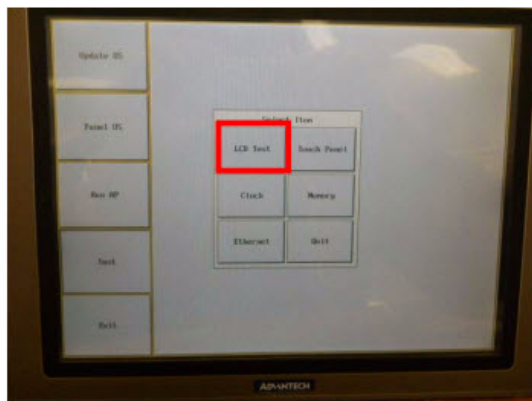
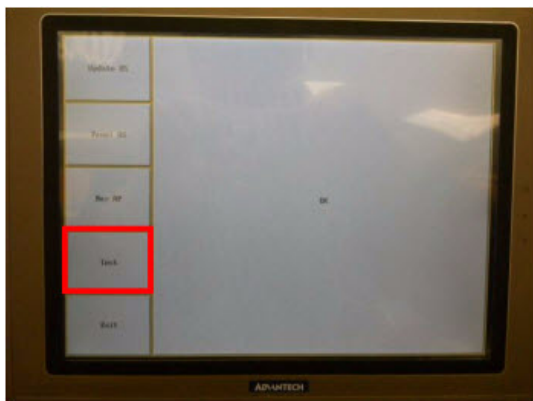


COM 2 (5 pins)

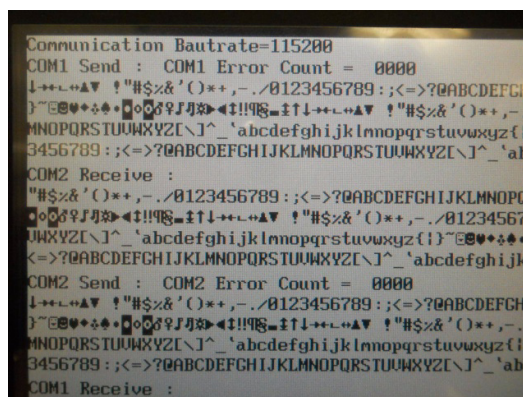
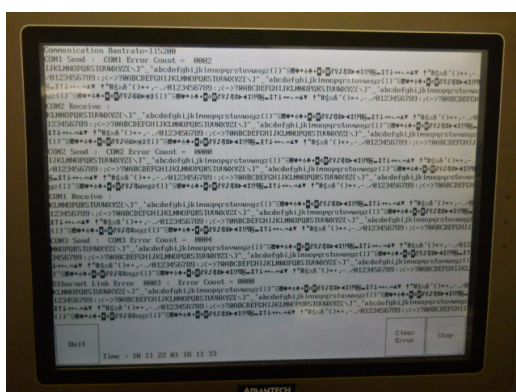
COM 3 (6 pins)



4. Enter BIOS mode and select "TEST" → "LCD TEST" → "COM TEST".



5. After select "COM TEST", it's start doing COM port test procedure when COM port loopback device connect with HMI.



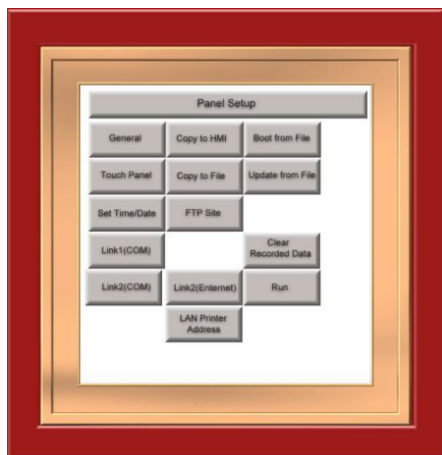
3.2 Calibrating the Touch Panel



(Error Message)
Invalid TP parameters!
The TP needs calibration.
Touch the screen to continue.

If the touch position between BIOS and Panel Setup over 5% displacements, the HMI will show this message automatically. This is not hardware problem; you just follow below steps to execute touch panel calibration.

1. Enter Panel Setup mode and select "Touch Panel" to execute the calibration.



Panel Setup Mode

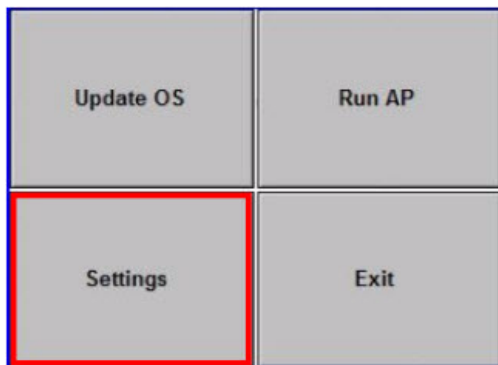


Upper-Left°

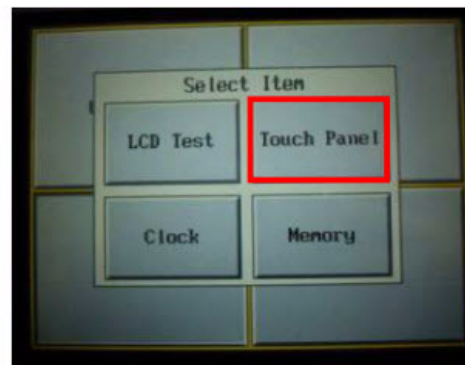


Lower-Right

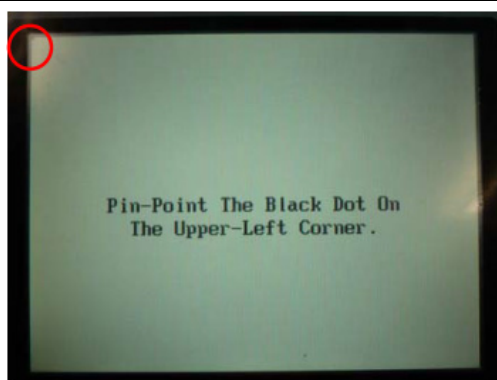
- If you still see the same error message after calibration, please enter BIOS mode and execute below touch calibration steps.



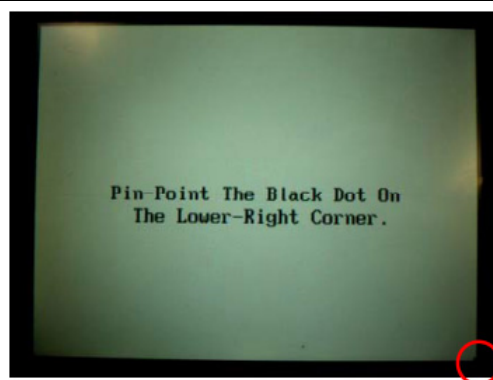
BIOS Mode



Settings Option



Upper-Left Dot

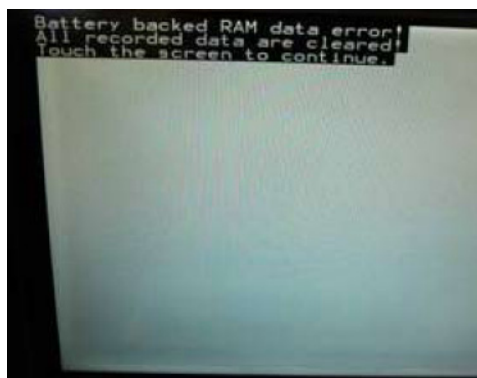


Lower-Right Dot



Finally, Press "OK" to terminate the calibration steps.

3.3 Dealing with a Low Battery Status



Error Message
Battery backup RAM data error!
All recorded data are cleared!
Touch the screen to continue.

Cause:

1. Low voltage cause backup memory error (Lower than 2.1V).
2. Battery Damage cause backup memory error.

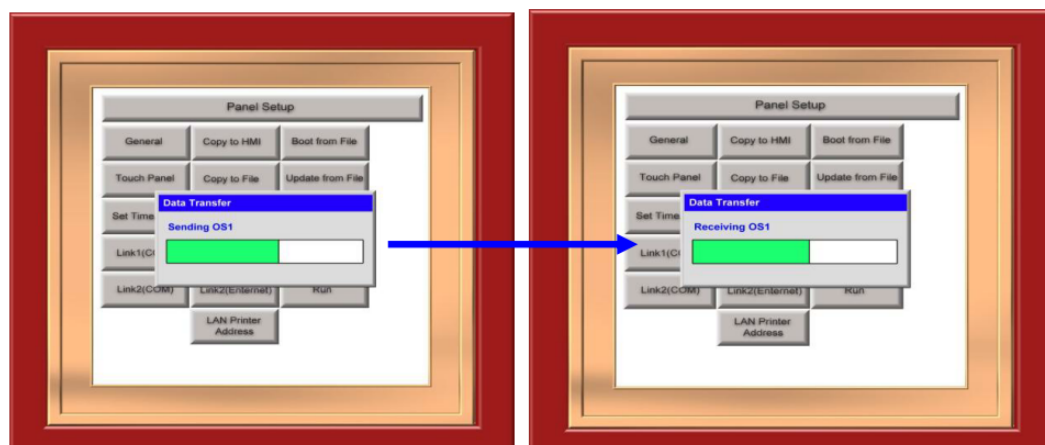
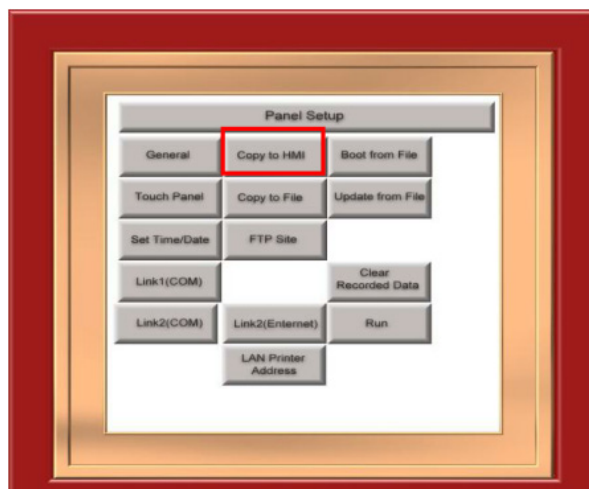
Solution:

1. Power on the HMI with 24~48 hours to charge the battery voltage. If this problem is the battery low voltage, the HMI can be used after the battery charging.
2. After you execute the battery charging, the error message is still appear while HMI starting. Please send this HMI back to Manufacturer to check and repair.

3.4 Copying AP to Another HMI of the Same Size

How to copy HMI AP to another HMI with same size?

1. Connect HMI 1 with HMI 2 through RS-485, user can use COM 1 or COM 2.
2. HMI 1 enter Panel Setup mode and select "Copy to HMI" on HMI 1.



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