

16 Faulty Troubleshoot

1 Display faulty

The following is mainly talking about the how to judge and treat the HMI when the users come across the faulty issue.

There are mainly three kinds of most common display failures:

1. Black screen;
2. White screen,
3. Blurry screen.

In view of these three failure phenomena, the judgments and solutions are as follow.

Black screen

After the HMI is powered on, the screen is black, and the beeper keeps repeating a beep at a certain frequency, indicating that the power supply is insufficient.

- Please use the power supply with Voltage **DC12V~30V**, Output current **500mA** and above.

After the HMI is powered on, the screen is always black, the beeper does not sound at all and all lights off:

- Check whether the power supply wiring is OK, is it the wiring has poor contact or not. And use the multimeter to test whether the terminal head of power supply has 12~30V DC, pay attention to the positive and negative poles cannot be reversed.

After the HMI is powered one, the screen can show the LOGO, the beeper beep once, the power light is on, and the screen is turning into black after loading into the project screen:

- Check whether the project is lost, redownload a normal project. After the HMI is restarted, whether it can back to normal;
 - Normal download but still black: The underlying file is lost;
 - Cannot download: The hardware flash issue;

After the HMI is powered on, the screen is always black, the beeper has a beep, and the power light is on:

- **Method 1:** Touch the screen see whether it can light on the TCH(touch) light.
 - If the touch light does not turn on, it is mostly a motherboard problem, please replace a normal motherboard.
 - If the touch light is on:
- It may be the lcd problem, please confirm whether the contact between the lcd and the motherboard is intact, and whether the lcd cable is oxidized.
 - If it is confirmed that the contact is good and not oxidized, please try with a new lcd screen;

- If the replacement of the touch screen still does not work, it means the motherboard is faulty, please replace with a normal motherboard.
- **Method 2:** Click on the upper right corner of HMI to see if it can enter the backstage.
 - If yes, it can enter the backstage interface, please check whether the LCD is in good contact, whether the cable is oxidized, or try to replace the normal LCD;
 - If not, it cannot enter that interface, please replace a normal motherboard;

After the HMI is power on, the screen is always black, the beeper does not make a beep, and the power light is on:

- **Method 1:** Touch the screen see whether it can light on the TCH(touch) light.
 - If the touch light does not turn on, it is mostly a motherboard problem, please replace with a normal motherboard;
 - If the touch light is on:
- It may be the lcd problem, please confirm whether the contact between the lcd and the motherboard is intact, and whether the lcd cable is oxidized.
 - If it is confirmed that the contact is good and not oxidized, please try with a new lcd screen;
 - If the replacement of the touch screen still does not work, it means the motherboard is faulty, please replace with a normal motherboard.
- **Method 2:** Click on the upper right corner of HMI to see if it can enter the backstage.
 - If yes, it can enter the backstage interface, please check whether the LCD is in good contact, whether the cable is oxidized, or try to replace the normal LCD;

-After the HMI is power on, the screen is always black, the beeper does not make a beep, and the power, touch and com light all three are light on:

- **Method 1:** Click on the upper right corner of HMI to see if it can enter the backstage.
 - If yes, it can enter the backstage interface, it means it is a hardware issue, please replace the motherboard;
 - If not, it cannot enter that interface, it means the firmware is lost, please replace the motherboard;
- **Method 2:** Connect to the PC by a USB-B cable:
 - If it can be recognized USB, it means a hardware problem, please replace the motherboard;
 - If not recognized, it means that the firmware files are missing, please replace the motherboard;

Blank screen (White screen)

Please make sure the voltage used is **DC12V~30V**, Output current **500mA** Powered by switching power supply and above, and the wiring is correct.

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- Check whether the project is lost, redownload a normal project. After the HMI is restarted, whether it can back to normal;
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 - If the touch light is on:

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 - If not, please replace the motherboard;

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 - If yes, it can enter the backstage interface, please check whether the LCD is in good contact, whether the cable is oxidized, or try to replace the normal LCD;
 - If not, please replace the motherboard;

Blurry screen

Please make sure the voltage used is **DC12V~30V**, Output current **500mA** Powered by switching power supply and above, and the wiring is correct.

After the HMI is powered one, the screen can show the LOGO, the beeper beep once, the power light is on, and the screen is turning into blurred after loading into the project screen:

- Check whether the project is lost, redownload a normal project. After the HMI is restarted, whether it can back to normal;
 - Normal download but still blurry: The underlying file is lost;
 - Cannot download: The hardware flash issue;

After the HMI is powered on, the screen is always blurred, the beeper has a beep, and the power light is on:

- **Method 1:** Touch the screen see whether it can light on the TCH(touch) light.
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 - If not, please replace the motherboard;

2 USB faulty

This document is mainly teaching that how to locate the problem if the HMI cannot be detected when connect to PC by the USB cable. Totally there are 3 aspects need to consider: PC USB port, HMI USB port, USB cable.

PC USB port

See whether the problem is from PC Port, if change another one USB port, can it be OK?

USB cable

See whether the problem is from cable, if change another one cable, can it be OK?

HMI USB-B port

See whether the problem just happen on the single one HMI, if at the same condition of PC and cable, is it able to detect the others HMI?

- See whether Device Manager can detect the USB.
- Run the PISstudio as Administrator.

When Happen Issue

First time usage and it happened: It probably the pseudo welding problem.

Already used for a while, USB is OK and fine before: Maybe it is caused by interference from the site, check all the devices whether are well grounded or not.

3 Touch faulty

This document is mainly teaching that how to locate the problem if the HMI cannot exit the calibration screen. Totally there are 3 aspects need to consider: calibrate tool, calibration settings, touch board.

Calibrate tool

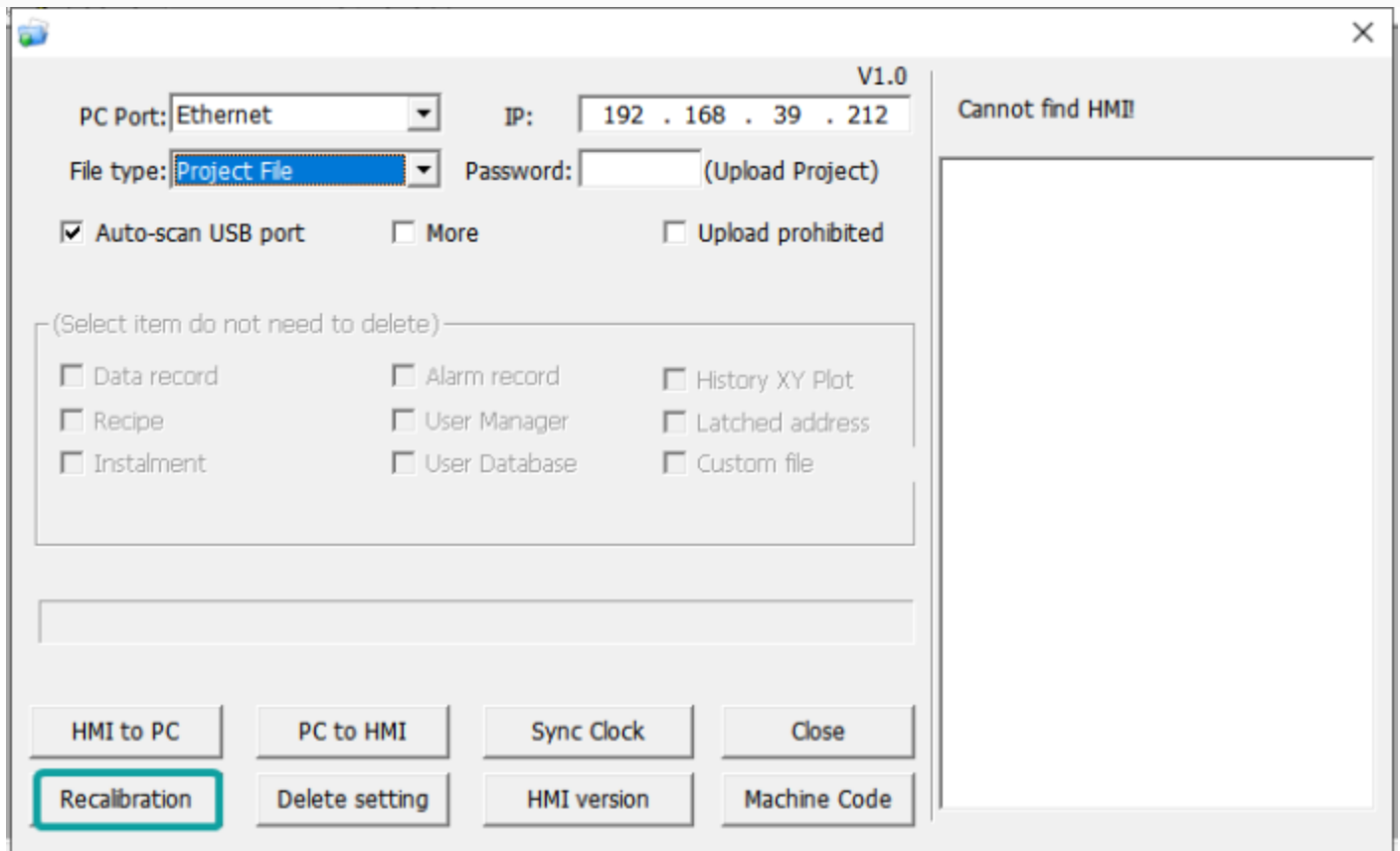
Please do not use the finger to calibrate the screen, it is the most imprecise method to do so. Please use the pen or screwdriver to calibrate it. When finish the five coordinates, please notice whether there is a pop-up tips on the middle screen. If it is succeed, it will show green tips, while not, it will show a red one. Please refer to the following video:

[Video Link](#)

Calibration settings

Unable to exit calibration screen at power on :

- **Method 1:** Is the HMI already installed on the cabinet?
 - please uninstall it from cabinet and try to calibrate it again. if the pressure of the lock on the cabinet too much may cause the HMI to touch abnormally.
- **Method 2:** Please check whether the protective film of HMI is abnormal or bulging.
 - please remove the protective film and try the calibration again. Because HMI's protective film may cause touch abnormalities if it is stuck to the touch board.
- **Method 3:** Please use the download tool of the software to remove the calibration, please try to use the tip object to calibrate the HMI accurately.



Touch board

- **Method** : Please check whether the TCH light of the HMI is abnormally on or always on without touching the HMI?
 - please replace the new touch board.
- If all options above are still not help to the calibration, please connect us.