Coolmay Technical Question Collection

V21.21

Catalog

Ⅰ. HMI problems and solutions

1. Why is the HMI turned on, the screen is black, and the buttons make a sound but the screen cannot be displayed?

There are generally several reasons for the black screen:

a. First check whether the power supply is a 24V switching power supply. If there is a screen at boot, but the screen will be black immediately after entering the system, this is a FLASH problem, and you need to send it back to flash.

b. If the screen goes black as soon as it is powered on, but there is a sound when tapping on the screen, this situation is generally because the backlight of the touch screen is broken;

c. If there is no sound when you tap the screen, it may be that the LCD screen is broken or the power chip of the touch screen is broken, and you need to send it back for repair.

2. When the HMI program is being downloaded, it suddenly fails to download the program. The display shows that the HMI connection is OK and the IP setting is OK, but when you click download, it prompts that the port is not connected?

Solution: Restart after 2 minutes of power failure. If the download still fails after restarting, check the driver.

3. Why can't the HMI program be downloaded?

Solution: First ask clearly the corresponding product model(For example, HB series all-in-one machines; MT90 series HMIs; and MX series all-in-one machines are all drive-free;)

✓ Check whether the driver is installed;
✓ Confirm that the software is the latest version;
✓ Determine the IP address;

✓ Check the storage path of the file;

✓ Choose to run as an administrator;

✓ Turn off the firewall;

The program cannot be downloaded even after the above settings are completed, it is recommended to download the program with a U disk.

4. How to solve the problem that the screen saver of the HMI is always on?

Method 1: Make a function key on the screen to change the basic function to No. 255: system menu screen and then click the function key on the product. After entering the system menu screen, change the LCD backlight time to 0, and the touch screen will take effect after power off and restart.

Method 2: Open HMI software → Application → Set working parameters → Alarm/Other → Change the screen saver time to 0; then compile and download the program. The touch screen will take effect after power off and restart.

5. The touch screen occasionally has the problem that the program cannot be downloaded?

a. After updating the driver on the touch screen, the program can be downloaded normally. If the download fails occasionally, it may be a hardware problem; if the network adapter keeps identifying it as an unknown device, this situation is related to the computer environment and the driver cannot be updated;

b. Another way: U disk download (you may have a password input error when downloading from a U disk. Check the password in the 0P working parameters to see if you have changed it before)

6. Can the PLC data be read after the touch screen exits the lock screen interface?

Answer: The data can be read out. This has nothing to do with whether the screen is locked or not.

7. How to use U disk to export the data in the historical data curve of the touch screen?

    a. First download the touch screen program to the PLC HMI all-in-one machine;

    b. Insert the U disk on the touch screen;

    c. Click on data selection;

    d. According to the admission database/download to U disk → enter the password 12345678;

    e. Download click yes;

    f. Download successfully click Yes;

    g. Then unplug the U disk and plug it into the computer, find the Buffer file (type: Data Base file) in the computer U disk, and copy this file to the desktop;

    h. Open the touch screen programming software, find the database browser, click Yes, open, find the Buffer file (type: Data Base file) copied on the desktop, click open, and export EXCEL.

8. About MT60 series touch screen and MT90 series touch screen driver download

Solution: Manually update the driver for the touch screen of MT60 series, among which the driver-free products include

(1) MX series all-in-one machine;

(2) HB series all-in-one machine;

(3) MT90 series touch screen;

9. How to enter text on the touch screen?

Solution: add variable text, find pinyin in the variable text "》》", input pinyin can type Chinese characters, as shown below
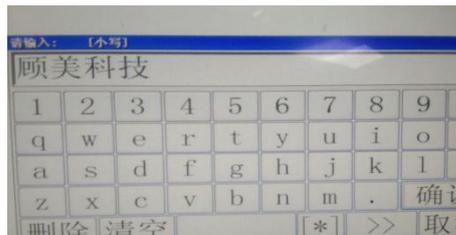
10. What should I do if the touch screen program needs to be read out?

a. First, when downloading the touch screen program, make a backup copy (Apply→Save and Backup);

b. If you do not click Backup when downloading the touch screen program, the program in the touch screen cannot be read;

c. To upload, you need to click Ethernet on the touch screen, and then select IP address 222.222.222.222→Connect;

d. Open the source file extraction option in the Ethernet monitoring software tool;

11. What protocol can be used to communicate between HMI's 485 port and PLC's 485 port?

HMI and PLC are connected with 485, so they can communicate through MODBUS RTU or Mitsubishi programming port protocol.

12. After manually setting the time on the touch screen once, it cannot be set manually for the second time. How to modify it?

Solution: First select the setting permission, then compile and download to the touch screen, set the time, wait for the RAM to be stored in the ROM (reason: the time is not lost after downloading again), cancel the setting permission, and then compile and download to the HMI.

13. The MX2N series touch screen program is not downloaded successfully?

Solution: There are too many pictures stored in the touch screen, occupying a large part of the memory, which will also affect the download

of the program. It is recommended to clear all the programs downloaded in the touch screen, which can be achieved by using the function keys.

14. How to synchronize the time of the touch screen with the time of the PLC?

Solution: Touch screen OP working parameters, network settings, automatic synchronization settings.

15. After the recording meter is powered off, the power-on data is gone. How to solve it?

Solution: Change to RAM in OP working parameter setting (ROM backup is generally 6 minutes)

16. After the alarm M point is reset, the record table disappears. How to keep the contents of the record table from being lost?

To record the content of the alarm, use the alarm log list

17. What should I pay attention to about the file save path of the touch screen?

Solution: After installing the touch screen driver for the customer, and want to test whether the touch screen program can run on the customer's software, first we must check whether the customer program has been saved, and it is best not to choose the default OPP1 for the name of the program. Because some customers did not change it, it is also opp1, if the naming is consistent, it is very likely that the client program will be overwritten.

18. How to solve the problem that the touch screen cannot be downloaded occasionally?

Solution: If there is no problem with the touch screen settings, it may be a hardware problem. If it cannot be downloaded with the download cable of the touch screen, you can download it with a USB flash drive. However, some customers can't download after plugging in a USB flash drive. We need to rule out that it is caused by OP's working parameter settings. In

addition, when the touch screen is downloaded from the U disk, the default password is 12345678. If you still can't download it, you should also rule out whether you have set a super password before.

19. What causes the touch screen not to light up?

a. Solution: Check whether the wiring of the touch screen is suitable, the positive pole of the power supply 24V is connected to the DC24V of the touch screen, and the negative pole of the power supply 24V is connected to the 0V of the touch screen;

b. The screen is blank when power on, and there is a sound when pressing the keys, it may be that the backlight board of the touch screen power supply is broken;

c. After power on, if there is no sound when you click the button, it may be that the LCD screen is broken, or the chip of the power supply is broken;

20. How does the touch screen start screen click response?

Solution: There is a sound when you click on the touch screen, indicating that the screen of the touch screen is not calibrated. You can calibrate the screen with a U disk (or click the touch screen continuously to enter the calibration interface) Reason: There is no calibration screen, the lower left corner is clicked, and the actual point is in the lower right corner.

21. If you want to realize the page jump function in the HMI software, which component can be used?

Solution: HMI software → component menu bar → function buttons → basic functions

22. When using function keys to switch screens, it is prompted to enter a password?

Solution: If you select effective touch in the function key settings, the password protection level will be automatically set. Because the HMI super password is 12345678 by default, but the function keys default to the normal password,

which does not correspond to the super password, so entering the super password is invalid.

23. How to import the data of the historical data list in the HMI program into the EXCEL table?

Solution:

 a. First download the HMI touch screen program to the HMI PLC all-in-one machine; insert the U disk into the touch screen;

 b. Click on data selection;

 c. According to the admission database/download to U disk → enter the password 12345678;

 d. Download click yes;

 e. Download successfully Click Yes;

 f. Then unplug the U disk and plug it into the computer, find the Buffer file (type: Data Base file) in the computer U disk, and copy this file to the desktop;

 g. Open the HMI touch screen programming software, find the database browser, click Yes, open, find the Buffer file (type: Data Base file) copied on the desktop, click open, and export EXCEL.

24. Why is there an error message that the download path is incorrect when the HMI touch screen program is downloaded?

Solution: Check whether the target file is consistent with the download path of the software if there is no problem with the driver.

25. What are the requirements for the working environment temperature of the touch screen?

Solution: The working environment of the touch screen is generally 0-50℃

26. Why is the license file not installed on the interface after the touch screen program is downloaded?

Solution: Add a function key on the touch screen program interface, choose to jump to page 255, download to the touch screen, and then change the

hardware code. If the hardware code cannot be changed, send it back for repair.

27. Can the screen be rotated? How to do it?

Solution:

a. Plug in the U disk and jump to the USB screen, change the data selection to screen rotation - click to upload to this machine --- enter the super password (default 12345678) --- confirm the rotation, it will rotate 90 degrees

b. The screen must be calibrated after rotation. If the pen needle calibration button cannot be touched directly on the screen with a pen or hand, you can plug in the USB mouse and click the pen needle calibration button. After the cross cursor appears, no matter how many degrees of rotation, the screen should be held upright, and then press and hold the middle in the order, press and hold the upper left, press the lower left, press the lower right, and press the upper right to calibrate.

Note: When there is a problem that cannot be calibrated all the time during calibration, take the method of staggering one point calibration. For example, if the cross cursor appears in the upper left corner, you must click the cross cursor in the lower left corner; it is necessary to advance one position before clicking the calibration screen.

28. How to set user permissions?

a. First set the system preset super password; Software path: application --- setting working parameters (alarms and others).

b. Make a function key in the user's configuration screen, double-click to set its attribute to: Jump to No. 251; in the user configuration screen, tick the effective touch to effectively select super.

c. After compiling, download to the touch screen. After setting different levels of passwords, you can choose different permissions passwords

according to your needs in the subsequent compilation process. The super password is the highest user, and only he can set different levels of passwords.

d. After all the above settings are completed, such as adding a switch and selecting password protection, you can choose different levels of passwords.

29. How to download programs with U disk?

a. After saving the program, compile the program (shortcut key F5);

b. Under the target file path (check the default disk in the software application --- target file path, generally the default is the C drive;

c. Copy the .hw6 file in the target file path to the U disk;

d. Insert the USB flash drive into the USB port of the product - the USB setting screen will pop up;

e. Click to update the *.hw6 file and enter the password of the corresponding level. The default super password is 12345678, and the default normal password is empty (confirm directly); if you have changed the password, you need to enter the corresponding correct password;

f. After confirming, find the .HW6 file in the lower right corner, double-click it and a confirmation box will pop up, click Yes. If a progress bar appears, it means it is automatically updating;

30. How to modify the size of the keyboard?

Solution: Open the touch screen software, apply → set OP working parameters, modify the input keyboard size, select (1#······8#), 1# is the smallest, 8# is the largest.

31. How to set the date and time of the HMI PLC all-in-one machine?

Solution: Add date and clock components to the software, select the setting permission in the properties, compile and download the program to the product, and then click the time and date on the touch screen to modify.

(You can modify the date and time by setting the permission)

32. Why does the HMI screen of the MX2N-70H series HMI PLC all-in-one machine jump randomly after starting up, and there is a sound when clicked, but the interface does not respond?

Solution: It may be caused by mechanical pressure (the touch screen board is squeezed). Loosen the screws (on the back cover of the touch screen) fixing the touch screen board a bit.

33. How does the touch screen use the U disk to release the memory? Need to release memory when fatal application errors occur

Solution:

a. Copy a compiled simple program to the root directory of the U disk, that is, not put it under any folder;

b. When the product is powered on, tap the touch screen quickly and continuously before the screen is on, then it will jump to the calibration screen. After calibration, tap the touch screen again to jump directly to the USB setting screen, and then insert the U disk into the product's USB mouth;

Note: Be sure to jump to the USB setting screen before the progress bar appears, because the existing error program in the touch screen has been loaded after the progress bar appears. If the existing program memory is large, it will crash.

Click to update the *.hw6 file, enter the super password (default) 95959595, and then find the simple program copied to the U disk, double-click to update, and all the memory space of the original program can be released. After updating, check the remaining space in the USB setting screen: 40 MB to 70 MB is normal.

34. Why does the USB screen not pop up when the USB flash drive is inserted on the touch screen?

Solution: U disk must meet the following conditions:

a. U disk memory below 16G;

b. The data format of the U disk is FAT32 and the data transmission speed of 2.0.

35. How to trigger the buzzer function when the all-in-one machine alarms? Is the frequency of this buzzing intermittent or continuous?

Solution:

a. Write a clock macro instruction (Clock macro) on the touch screen and define the buzzer function LW8205=2 (enable the buzzer function)

b. Then write a trigger condition of LW8202=D10 (for example). We only support continuous beep for the time being.

36. Why does the MX2N all-in-one machine occasionally display the screen not moving or the black screen, and the black screen is normal after restarting (the temperature here is around -2~-4 degrees)?

Solution: This situation is caused by the temperature being too low. The ambient temperature for the normal operation of the MX2N machine is within the range of 0-50℃, otherwise a similar situation will occur.

37. What is the picture format on the touch screen?

Solution: The picture must be in .bmp format

38. How to turn off the sound of touch screen buttons?

Solution: Add a function key in the touch screen program, set it to jump to the 255 system menu screen, and then compile and download the program to the product. Click this function key on the product to jump to the system menu page and select the buzzer function as not used. Then power off the product and restart it.

39. During the touch screen upgrade process, it prompts that licenses are not installed?

Solution: Add a function key on the touch screen program interface, jump to page 255, download to the touch screen, and then change the hardware code. If it is 2, change it to 1, and if it is 1, change it to 2.

40. What should I do if the touch screen prompts that the licenses are lost after the USB flash drive is used to upgrade?

Solution: The latest touch screen registration machine Fiat-CM11-12 in Z:\Company internal technical information\Company upgrade file can be used to activate.

41. The historical data/historical alarm data of the touch screen is not saved after the power is off. What should I do if the data disappears when the HMI powers off or re-downloads the program?

In the HMI software, set the working parameters → Alarm/Other → HMI database storage option. The data is stored in the SD card by default. If there is no SD card, historical data will not be stored.

Solution: Change this item to store in [RAM (ROM. Backup inhibition** minutes)] or [RAM (U disk. Backup inhibition** minutes)], externally insert U disk storage.

42. How to make a pop-up screen?

Solution: The pop-up window can also be used to display a screen, just superimpose the display on the current screen

a. First select a screen, then right click on properties, check "This screen is a window", then open, apply-set working parameters, click on the network settings page, there is an interactive function at the bottom of the page, check "Automatically change display screen function"；

b. Then set a PLC register, when the register value is what, HMI will automatically jump to the corresponding screen number. When the window is number 2 and the current screen number is 1, if the register value is 2, a pop-up window will appear on the screen 1 currently displayed on the touch screen. When the register value is 1, the pop-up window disappears, which means to jump to screen 1.

43. Why is the screen black after updating and downloading the HMI program with a USB flash drive, the PWR light is on when the power is plugged in, but there is no sound when the screen is clicked, the USB flash drive cannot be downloaded, and the data cable cannot be connected?

Solution: Clear the memory when power off and restart, download the empty touch screen program with a U disk, and use the download cable to upgrade to the latest version

44. Why can't I find the driver in the device manager when my download cable is connected to the HMI?

Solution: If the computer system is Win10, you need to disable the digital signature before installing the touch screen driver. For the solution, see the manual Win10 automatic driver installation steps.

45. Why does the drop-down box next to the alarm table exist before downloading to the HMI when adding an alarm table, but it is not displayed after downloading to the HMI?

Solution: If a few alarms occur, this drop-down box will not come out. After adding a full screen alarm, the drop-down box on the right will appear.

46. 6100HA series HMI, software version 5.80, may crash when downloading HMI program, and cannot be downloaded for the second time

Solution: After you clear the memory with a U disk, you can download it for the second time. You need to update the software version to 5.86 and download again (if it doesn't work, try a few more times)

47. The Win7 system can download the program originally, but it cannot be downloaded later, the driver also shows an unknown error, and there is no network card information.

Solution:

a. Check whether it is blocked by anti-virus software and cause the driver

installation to fail, be sure to turn off the anti-virus software and firewall

b. The second is to check whether the download path is wrong in the HMI software. The target path is usually under the root directory of a certain disk. If the download path is very long, it will make an error and cause download failure.

48. In Win10 system, the HMI software displays incorrect language and font?

Solution: First check which language font is incorrect, and then modify the font in Coolmay HMI software-set working parameters-font/language.

49. Can the 10-inch touch screen be displayed vertically?

Solution: 10-inch can't display in vertical screen, 10-inch HMI touch screen is HA system

Note: HA/HAS/KHA and HB series do not support vertical display for the time being, H or KH series support vertical display

50. The COM light of the HMI touch screen flashes, the data of the register can be read from the PLC, but the M button cannot control the PLC

Solution: Generally this situation is the wrong setting of the working parameters on the HMI

a. Check the model of the all-in-one machine, 2N corresponds to the device type Coolmay HMI 2N on the HMI;

b. 3G corresponds to the device type CoolmayHMI (3G/3U) on the HMI;

c. Check whether COM1 is selected as the communication port of the working parameter Link1, and secondly check whether there is an error in the HMI device corresponding to the PLC device.

51. The historical data is downloaded to the U disk and becomes a DB file. How to convert it to an EXCLE file?

Solution: The .DB file downloaded to the U disk must be opened through the database browser in the HMI before it can be exported as an EXCEL

file.

52. How to solve the problem that the alarm text is too long and the display is not complete?

Solution: Manually pull the vertical bar of the alarm content frame to the back.

53. How to prevent the time on the HMI from being manually set for the second time after the first manual setting?

Solution: Open the time component properties, tick the setting permission, then compile and download to the touch screen, set the time, and wait for the RAM to be stored in the ROM (the reason is that the time will not be lost after re-downloading). Then remove the setting permission, compile and download to HMI.

54. Can the touch screen be set to prohibit reading after downloading the program? What should I do when I want to read the program on the screen?

Solution: The touch screen program downloaded to the screen is encrypted by default, and the touch screen program cannot be read after it is downloaded. If you want to read the screen program, you need to set it in the touch screen software: Apply→Save and Backup→Check Save and Backup, and then read it through the specific document steps.

55. There is a fatal error on the touch screen, and sometimes it is stuck in a real screen. What should I do?

Solution: If your screen is stuck in the normal operation screen and a fatal error appears, you can perform the following operation to release the touch screen memory:

a. Copy a compiled simple program to the root directory of the U disk, that is, not put it under any folder;

b. When the product is powered on, tap the touch screen quickly and continuously before the screen is on, and it will jump to the calibration

screen. After calibration, tap the touch screen to jump directly to the USB setting screen, and then insert the U disk into the product's USB port;

Note: Be sure to jump to the USB setting screen before the progress bar appears, because the existing error program in the touch screen has been loaded after the progress bar appears. If the existing program has a large memory, it will crash.

c. Click to update the *.hw6 file, enter the super password (default) 95959595, and then find the simple program copied to the U disk, double-click to update, you can release all the memory space of the original program. After updating, check the remaining space in the usb setting screen: 40 MB to 70 MB is normal.

56. Why does the screen not change after setting the register assignment when controlling the screen jump of the touch screen on the PLC?

Solution:

a. If the screen does not jump, please check whether the register you set is within the scope of the application-setting working parameter-fast reading area;

b. In addition, check the assignment method of your PLC, assigning K1 to the register means jumping to screen 1, and so on;

57. Why does the touch screen display 0606 after downloading the screen? This happens to both H and HB series screens

Solution: It may be caused by the low version of the touch screen

a. First, check the machine version of H and HB (the version can be seen by adding a function key to jump to the USB screen);

b. After confirming the version, the corresponding H series screen can be directly upgraded with a U disk (you need to upgrade to version 5.02 to automatically upgrade to the latest version through the HMI

software), and the HB machine needs to flash the firmware version.

58. What should I do to make the touch screen need to enter a password when entering a screen?

Solution: You can add a function key, set the corresponding screen to jump, and at the same time select the touch effective and set the corresponding password, and then select logout.

59. When using the touch screen to download the program, some elements on the screen display "□□" garbled characters?

Solution:

a. This is a problem caused by a low firmware version, which requires flashing (send the latest firmware version and flashing operation method)

b. You can remotely assist or the customer sends back the device that needs to be flashed.

60. The touch screen gets stuck on the startup screen (self-testing...) after powering on, how to solve it?

Solution: First determine the customer's machine model and production date. This is a hardware problem caused by FLASH and needs to be sent back to the machine for flashing.

61. Why can't it be used when using macro instructions to transfer D3000 register?

Solution: The D3000 register must be in the screen (setting the D3000 register to hide) or in the fast reading area, and only one of the two is required.

62. Why does a pop-up screen display "Device No Response" when the touch screen program is downloaded to the machine?

Solution: This is because there is no communication prompt on the touch screen

a. If this happens to the all-in-one machine, check the application → set

working parameters→communication port should choose COM1, the device type should be selected according to the machine model, and the other parameter settings can be consistent (2N choose CoolmayHMI 2N; 3G choose CoolmayHMI 3G/3U) ；

b. If the communication fails after the modification is correct, change the baud rate to 19200 and 115200 and try again;

c. If it still doesn't work, the communication cable inside the all-in-one may be broken. If it is a single screen, confirm whether the communication parameters on both sides of the machine are set consistent? The baud rate/parity bit/stop bit/data bit settings are consistent. If you want to close the pop-up window directly, apply→set working parameters→alarm/other→communication failure prompt (uncheck).

63. Is it possible to hide the arrow on the HMI? How to do it?

Solution: Open the touch screen software-help-help topic-special register, and write the command SETB LB8020 into the Clock macro.

64. Why does the screen not change after the touch screen program is modified and downloaded? Is it still the original interface, exactly the same as the original?

Solution: Click the hard disk icon next to the download on the HMI software, find the location where the HW6 file is generated, and recompile it to see if the latest time of the generated HW6 file is consistent with the time just compiled. If the time of the HW6 file does not change after compilation, it means that the disk where you save the HW6 file is write-protected, and the compiled file cannot be generated. It is recommended to run the HMI software as an administrator to recompile, or change the disk that stores the HW6 file.

65. (EX2N-70H series all-in-one machine) When using the latest version of the touch screen software to download the program, why does it prompt that the version is lower than V3.61?

Solution: The version is too low and requires a U disk upgrade. It is recommended to use a U disk in FAT32 format, and then upgrade from V3.61 to V5.02, and finally update to V6.0 for you when downloading the program through the download cable.

66. How to implement a complete alarm function so that it has an alarm rolling prompt when an alarm occurs, and it is recorded in the table?

Solution:

a. Click on the touch screen software: application → set working parameters→alarm/other

b. Then select the alarm/voice, the trigger condition is based on your actual control mode, to choose whether to set the D register to trigger the alarm or the M switch to trigger the alarm. When it is set to M to trigger an alarm, an alarm content setting will appear directly below, click to enter to trigger the corresponding alarm content for the corresponding M point. When the D register is selected to trigger the alarm content, a dynamic text component needs to be added to set the alarm information. When set to M trigger, add a dynamic alarm bar to the window. When an alarm M is triggered, the dynamic alarm bar will scroll. When it is set to trigger D, add dynamic text in the window, and then set the corresponding display alarm information according to the value of register D. After setting these, add an alarm list in the window, when there is an alarm, it will record the alarm information (only the current alarm content will be displayed in real time).

67. Need to record a historical trend chart trend of data, how to set related parameters?

Solution: You need to set a buffer for recording the data, click the touch

screen software application→set working parameters→record buffer. First, set a buffer 1, select the data register D to be recorded as the data source; then the trigger flag and the recording interval are two recording methods to record the data. When the trigger flag mode is selected for triggering, this trigger flag refers to the 32-bit register of the first address of the quick read area in the OP working parameter → communication settings.For example, the first address of the fast read area is D0, then when I need to record a data curve or value, its trigger flag is the 32-bit register of D0 and D1. When you need to record the data in D20, select the trigger flag, and the trigger flag is set to 1, which means that when I trigger the bit1 position of the D0.1 register (using the contact on and off can directly control the bit, for example: MOV K2M0 D0 When M1 is closed, bit1 is 1), it starts to record the value of this data, and it is reflected in the record list or trend graph; then the length of each record means that if the recorded data is D20, the record length is 10. In this way, the data I record is not one, but a series of data from D20 to D29; then the total number of records can be directly set to the maximum number of one million. The following recording interval has the same meaning as the trigger flag, one is triggered by a time interval (the maximum is 7200 seconds to record once) and the other is triggered by a flag bit. After setting the above record buffer parameters, you can add historical trend graphs in the window, select the corresponding area number of the record buffer selection setting, the buffer access type is selected according to the data source of the PLC, and the others can be selected according to your control requirements. It should be noted that when the buffer data location is 0, it corresponds to the address of the data source D of the recording buffer. (For example, if the data source D is D0, then the buffer data location 0 is D0, 1 corresponds to D1, and so on.).

68. The HB model does not have a USB port, can I send it back to increase it? If there is no way to increase, is there any way to read the recorded buffer data? I want to export it.

Solution: There is no chance to increase the USB port. This is due to the limitation of the model hardware, so there is no way to add it ((43HB series does not support USB flash drive download). If you want to read the buffer record data or other data list data , You can connect the HMI to the computer with a communication cable. After confirming that the program can be downloaded normally, click the Ethernet monitoring on the HMI. After entering the Ethernet monitoring, select 222.222.222.222 as the IP address, click connect, the current touch screen screen will be displayed on the computer, and the event is displayed in the lower right corner will show a successful connection event prompt:

Then click Manage, Record Buffer, click Open, you can see the recorded buffer data, you can output the data into an Excel table or print it into a report form. The last thing to note is that the HMI software OP working parameter setting-alarm/other-HMI database storage selection needs to select RAM (ROM save backup).

69. Does HMI software have report components that can be used directly? Can it be used directly, and then it can be printed out?

Solution: There is no report component for the time being, but you can use the table in the component to make one yourself, and add text to the table to create it. Save and print a screenshot of the screen content when printing.

70. For EX3G products, the customer has customized the audio cable to the external terminal, and connects the amplifier by himself. When the volume of the connected audio is adjusted, there will be a lot of noise, but it is fine to turn on a low volume. What caused this?

Solution: This is caused by the large ripple of the power supply. Using battery power supply or power frequency transformer rectification power supply will make the noise situation better.

71. What should I do to display the value of the D88 (floating point number) register on the history data list?

Solution:

a. First, we need to make a data setting for this data source D88.

b. Click Apply-set working parameters-record buffer, select record 1. Because we want to record the data of D88, the data source D is set to D88. There are two ways to record data, one is to trigger the flag, and the other is to record data through the recording interval. The trigger flag means that when one of my bits is turned on, I will record the data of D88 once. Then the trigger flag here is defined by the 32-bit register of the first address of the fast read area (click on the communication setting, you can see the setting of the fast read area). The first address of my fast read area is set to D80. When the trigger flag is selected and set to 0, if the D80.0 Bit position is 1, the data in D88 will be recorded once. The second type is the recording interval, which means that the data will be automatically recorded once in a period of time to the list. Here, the maximum data can be set to record once in 7200 seconds, that is, once every 2 hours. After determining the trigger mode of the recorded data, select the length of each record. Here, each buffer record data can record the data of 10 registers at most once, that is, the maximum length of each record can be set to 10. Read the value of D88-D97. Because the recorded D88 data is a

floating point number, the length here should be set to 2 (floating point number occupies two registers), and the total number of transactions can be directly set to a maximum of one million. In addition, which data is recorded, the registers of the collected data must be placed in the range of the fast reading area (the function is to quickly refresh the data passed by the PLC, so that the HMI can display more quickly). Click "Set working parameters-LINK 1 of communication settings", there is a quick reading area D here is the first address of the quick reading area. The following data length means the first address + length = how many registers to put in the range of the fast read area, as long as D88 and D89 are put in this range, you can define it yourself. After setting these, add a list of historical data on the screen, double-click to select the buffer address of the record, because we set it to 1, so check 1, and other settings can be set according to your own control requirements. The first column displays the time fixedly, and the second column starts to display the corresponding data. The data position corresponds to the data source set by our buffer, 0 corresponds to D88   1 corresponds to D89... and so on. Because we are recording D88 and it is a floating point number, so the data position is set to 0, and the data format is set to floating point. Other display digits and decimal points can be changed according to the actual value displayed by your PLC.

72. Customer feedback said that the temperature fluctuation of 3GPLC thermocouple K is larger than that of the previous 2N series PLC. What is the reason?

Solution: The reason is that there is artificial compensation on the cold end of the 2 N series PLC, which makes the temperature change gradually change by 1 ℃, while the 3G series PLC temperature change is sensitive. Put the 3G series PLC at 300° C, and it will become 300° C at once.

Unlike 2N, which slowly changes from 1°C to 300°C, the delay is large. Now the customer requires 3G to be adjusted to a temperature that changes slowly like 2N, so the only way to adjust the filter time of temperature collection. Set in R23600, change the filter time to make it less sensitive, and then increase the R23604 (cold-junction filter).

73. The maximum value of the Xinje protocol register value of the touch screen and Xinje PLC communication is 8768, and other registers cannot be used.

Solution: Use Modbus RTU protocol to connect Xinje PLC register number can reach 20000, but use thinger XC/XCM series Xinje's protocol register can only reach 8768.

74. When using the online simulation function, can I save and download historical trends and historical data, and then view the trends and data on other computers?

Solution: Yes, the HMI online simulation function can realize all the functions of the touch screen.

75. How to query historical data according to time conditions?

Solution: Need to use SQL function in HMI. The usage of SQL function, insert SQL control, the first three are: the button LB that triggers the search function, start time, end time, (the time is selected inside, not others). The latter LW10000 needs to use the LW8244 and LW8245 functions (BMOV) to transfer the registers after LW10000 to LW0-9000. The total number of displayed addresses needs to be set on the BMOV, but the number of displayed registers needs to be selected in the color coverage at the bottom of the SQL.

76. The historical data is selected to be stored in the ROM of the HMI. When the ROM memory is full, will it overwrite the previous one or will it not add a new record? What if SD card is selected?

Solution: The historical data we store is stored in the ROM, and it will be

overwritten when it is full. For example, if you store 100 articles, article 101 will cover article 1. However, it will not be overwritten when stored in the SD card, and new records will not be added when the memory is full.

77. Why does the H series touch screen respond so slowly when switching screens?

Solution: The touch screen adds formatting to the rectangular element attributes, that is, gradient color, which will cause the screen to wait 3-4 seconds before it reacts when switching screens. Remove the fill and the response will be quicker. This is one reason for the slow response of the screen, and another reason is that too large a picture is inserted. This seemingly compiled file is very small, only 50-80K, but it can also cause lag.

78. In CoolMayHMI software, before the button is operated, it is necessary to confirm that the attribute is gray and cannot be selected?

Solution: The button on the touch screen needs to add a second confirmation. The confirmation button below can only be selected when the button is set to on or of.

79. Can the touch screen play audio?

Solution: The touch screen with sound card can play audio, play audio files, and play audio files according to conditions.

80. Why can't my touch screen software be installed after uninstalling?

Solution: As the 5.81 software has been installed before, the uninstall method is to directly delete the folder. Failure to uninstall according to the regular channels will cause the latest version of the touch screen software to not install. You need to find the HMI in the program and function to uninstall, and finally delete the folder under the C drive to install the latest version of the touch screen software.

81. Link1 is 485 communication, and link2 is programming port protocol communication. How to use the macro program to transfer the parameters of link1 (4x) to link2 (zone D)?

Solution: Use movlink1 and movlink2 of the macro program, depending on the completed statement. For example, 4x100 (link2)=4x100, it means that 4x100 of link1 is transferred to D100 of link2. Note that floating-point numbers cannot be transferred.

82. The touch screen needs to be a slave station, where to set the station number?

Solution: When the touch screen is the slave, the station number of the slave is not set in the device ID (the device ID expresses the ID of other devices when the touch screen is the master). You must enter the 255 screen to set the slave station number through the function key, or use LW8206 to set it.

83. What are the prerequisites for the touch screen to use the network port to download programs? What should I do?

Solution: The touch screen has a network port, you can connect the computer with a network cable, and then download the touch screen program and perform Ethernet monitoring. The premise is that the computer and the touch screen can be pinged. Then change the IP address to the address of the touch screen in the download window.

84. How to make the cursor disappear on the HMI interface?

Solution: SETB LB8020 can close the cursor in the initial macro.

Codename   LB8020   Cursor hiding (Initial macro SETB LB8020 effective)

85. Can the dynamic picture inserted in HMI be stretched?

Solution: The dynamic picture in the touch screen cannot be stretched, and it will not move after being stretched.

86. Can a 10-inch HMI be capable of rotating the screen?

Solution: The HA touch screen cannot be used to rotate the screen. If you select the rotate screen 90° in the USB interface, an English error will be displayed after the boot, and it can be used normally, but the rotating screen is not successful. It can only be rotated 4 times and it becomes 0°, and the boot error will disappear.

87. What should I do if the register exceeds the scope of MOVlink1 for HMI multi-machine control? Can only use pictures for text superimposed?

Solution: The excess MOVlink cannot use multi-machine communication, and the text cannot be superimposed.

88. HMI and equipment free port communication, how to put SWAP type register in PLC?

Solution: HMI uses a floating-point SWAP type register, which also needs to be converted to 3u in the PLC, and switched back with the SWAP function command to display normally. Usually HMI needs to use SWAP because direct communication with the instrument requires high and low byte exchange.

89. There is an error (I/O error 103) when the touch is clicked to download

Solution: The file is damaged.

90. Touch LW, which area is the power-off retain?

Solution: All the values in the LW register are retained when power is off.

91. Why can't the touch screen perform offline simulation?

Solution: The software of the touch screen can be run as an administrator.

92. What's the matter that the alarm content shows *?

Solution: The alarm content must be entered manually. If the alarm content is copied and pasted, the phenomenon of * will appear.

| 图 1 | 图 2 |

93. After the screen saver time of the touch screen is set to 0, why does the machine still enter the screen saver?

Answer: If it is a HA screen, it will take effect after power off and restart.

94. What is the power supply voltage of the touch screen?

Answer:

◆ **Specifications and parameters**   Table 1 MT60 series

Model	MT6037H	MT6043H	MT6050H	MT6070H	MT6100HA	MT6150HA
Display panel	3.5"TFT LCD	4.3"TFT LCD	5.0"TFT LCD	7.0"TFT LCD	10.1"TFT LCD	15.0" TFT LCD
Resolution	320*240	480*272	800*480	800*480/1024*600	1024*600	1024*768
Dimension	88*88*25mm	134*102*30mm	146*88*25mm	212*148*40mm	275*194*36mm	365*290*36mm
Cut-out size	72*72mm	120*94mm	137*72mm	194*138mm	262*180mm	352*279mm
Display	73*56mm	97*56mm	108*65mm	154*87mm	222*125mm	304*228mm
Power consumption	100mA/24V	150mA/24V	150mA/24V	200mA/24V	280mA/24V	500mA/24V
Weight	0.3kg	0.33kg	0.33kg	0.54kg	0.7kg	3.414kg
Brightness	300cd/m²					450cd/m²
Power	12-24VDC±10%<150mA@24VDC					12-24VDC±10%<500mA@24VDC
RAM	H series: 64MB HA series: 128M					
CPU	H series: ARM9 kernel 400MHz HA series: Cortex A8 720MHz-1GHz					
ROM	128MB Flash ROM					
Communication	RS232, RS485 (optional network port)					
Color	65536 true color					

II. PLC problems and solutions

1. Why can't the computer of WIN10 even download the software of 2N series PLC?

Solution: If the GX Developer software is installed on the 2N series PLC, you can download and upload the program normally if you can install it. If another GX Works2 (3G software) is installed in the 2N series PLC, you can only download the program, not upload the program. If the two software on the computer cannot be downloaded, it means that it is a computer system problem. It may be that the software is downloaded but cannot be used due to the loss of computer components. It is recommended to replace a computer and try.

2. Can EX3G-43H-24MT be equipped with a stepper motor?

Solution: It can be equipped with a stepper motor. Ordinary PLCs can also be equipped with stepping motors, but it is best to use a PLC with high-speed output, because the PLC control uses pulses to control the stepping motors. If the pulse frequency is high, ordinary transistors cannot be used.

3. About CX3G series PLC high-speed pulse output?

Solution: Coolmay CX3G series PLC high-speed pulse output conventionally 8 channels, Y0~Y3 each 100KHz, Y4~Y7 each 10KHz support variable speed, start/stop initial/final speed is 0

4. Precautions for Coolmay PLC output type selection

MT: means transistor output, MR: means relay output, MRT: means relay transistor mixed output, the main difference between transistor output and relay output is:

a. The difference in current load. At present, the maximum current load of transistors we use is 500MA, and the maximum current load of relays is 5A. (EX2N(S)/DX2N(S) series single PLC's relay current maximum

load is 3A);

b. Output power supply: The transistor can only be connected to DC24V power output, and the relay can be connected to DC24V AC220V power output;

c. Functional characteristics: If you need to send pulses with a stepper motor, you should choose transistor output or mixed output. If the output switching action is very frequent, it is recommended to use transistor output;

d. If both the relay and the transistor can be used, it is recommended to use the transistor output, because the transistor has no contact life limit, as long as the current does not exceed the limit, the service life will be longer than the relay.

5. What are the anti-interference measures of MX2N?

① If the load is connected to DC, add a freewheeling diode

② If the load is connected to AC, add a varistor

Note：If you bundle the power cord and communication cable together or put them too close together, you should keep a distance of more than 10cm. In addition, effective grounding should be used to separate strong and weak currents, and shielded cables should be used for high-frequency cables for communication and high-frequency input and output. The terminal FG on this machine must be connected correctly to improve the anti-interference ability.

6. Can Coolmay's PLC connect to XXX sensors?

Solution:

There are many types of sensors. The sensor is only a component that converts physical quantities into electrical signals. It cannot explain what requirements the sensor has on the PLC.Because sensors have switching signals, analog signals, and communication methods, there are many types, so we usually need to ask the customer what specifications the

sensor is used. If the customer does not know and cannot answer, we need to contact the sensor manufacturer. The common sensor types are listed below:

Coolmay's PLC or integrated machine only supports NPN type switch sensor

Analog signal input only supports thermocouple, thermal resistance, voltage, current and load cell in the product selection catalog (only MX2N integrated machine or PLC supports load cell).Other analog signals do not support direct access. You need to purchase an additional transmitter module to convert the signal into a signal we support (usually voltage, current or use 232, 485 communication to read).

Answering words: Ask the customer whether it is a switch or pulse sensor or an analog signal sensor. If all are not, just ask if the communication method is used for reading. If they can't tell, you need to contact the technology. If it is a switch sensor, inform the customer that we accept the 24V NPN signal by default. If it is a pulse sensor (encoder and handwheel), the default is still 24V NPN signal. In addition, we need to know whether the highest frequency is within the upper limit of our high-speed counting frequency. If it is a communicating sensor, see the second question for details.

7. Does Coolmay's PLC support XXX communication?

Solution: Coolmay communication interface has only three categories:

(1) Serial communication using 232 or 485 ports

(2) Network communication using the network port (also called RJ45),

(3) Use CAN port for communication. Generally speaking, when you ask about communication, you must ask clearly about the interface and protocol used, otherwise the model cannot be confirmed.

1) For PLC serial communication, we only have 232 or 485 ports. Whether the machine supports optional installation, please refer to "Coolmay

Product Catalog". There are 3 protocols supported by PLC, namely modbus RTU protocol, modbus ASCII protocol, and Mitsubishi programming port protocol. Among them, 2N products need to note that not all function codes of modbus protocol (RTU and ASCII) are supported, only function codes 03, 06, and 10 are supported. Customers should be informed of this. Other protocols cannot be used directly, please consult the technology for specific situations, because some protocols can be implemented by freeport communication;

2) For PLC network port communication, we currently only support modbus TCP protocol (master and slave stations can be set), other protocols are temporarily not supported;

3) For PLC's CAN port communication, currently PLC can choose to install CAN port. There are two specifications for the interface, CAN2.0A and CAN2.0B. Ask the customer which one they need. Currently, neither of them supports any protocol. Customers who need to use the CAN port should contact the technology to find out whether it can be used.

Answering words: Generally, first ask about the interface that the customer uses. After confirming the interface, learn about the communication protocol used. Any communication protocol that does not appear in the above is not supported by default. You need to contact the technology to confirm whether the use of Freeport communication can meet the requirements.

8. How to encrypt PLC program?

Solution:

(1) Connect the PLC to ensure normal communication with the PC, and open the PLC program file;

(2) "Online", "Password/Keyword" PLC dial to stop running state; Keyword protection "8 bits", login condition "Read/write prohibited", Keyword input 12345678, click execute after input. Save the file after completion, open

the download to the PLC next time and enter the password. After the download is complete, it will be encrypted;

(3) The encrypted PLC cannot be read and downloaded, and the program cannot be read even if the password or crack is known.

9. Why does the PLC power indicator light up and the run indicator light does not light up?

Solution:

(1) PLC POWER (power) light is on, but RUN light is off, it means that the program is not running. Confirm whether the toggle switch on the PLC is turned to RUN; the switch for downloading the program is turned to the stop state, and it is turned to the running state when monitoring the program;

(2) If the PLC toggle switch is in the RUN position, check online to see if there is a program. If there is no program, it will not run;

(3) There is a program, and the toggle switch is also in RUN. You can use the programming software to control the PLC operation. For this, switch the toggle switch to STOP on the hardware, and it can also be switched back to RUN;

(4) Check whether the ERROR light is on or not. If the alarm light is on, it means that the alarm is triggered. The program will not run during the alarm, so the RUN light will not be on. Disable the alarm first and restart;

(5) See if there is an instruction to stop the PLC operation in the program. Some PLCs have made some programs such as dunning, and the time is up to control the PLC not to run;

If none of the above is mentioned, the PLC should be broken;

10. The high number count of x0x1 in PLC, is it corresponding to c253? (There is in the programming manual of the corresponding model)

Solution:

Single phase: x0 c235   x1 c236

Dual-phase: x0x1   c251

Three-phase: x0x1x2   c252

11. When the PLC of the 2N series is running, why does the M8000 display not working in the monitoring state?

Solution:

(1) The 2N series PLC cannot open the operation monitoring and soft element monitoring at the same time;

(2) Check whether the PLC operation switch is in the RUN state.

12. The CX3GPLC shell is marked with H L. What do these two terminals mean?

Solution: HL is (CAN port). If there are these two terminals (ports) on the plc hardware, but the model does not choose to install the CAN port, it means that the CAN port cannot be used

13. Can PLC create multiple main programs in GX work2? Can other programming languages be used?

Solution: GX WORK2 cannot create multiple main programs, and cannot have labels, only ladder diagrams and SFCs.

14. How to clear the PLC memory?

Solution: First, the communication must be successful, click the PLC memory under the download program interface to clear.

15. The 3G PLC communicates with the water pump meter. The meter is used to measure humidity. The meter needs to be powered off frequently and sometimes abnormal communication occurs.

Solution: The 485 line is a line without a metal mesh shielding layer. In actual use, try to use the 485 line with a shielding layer.

16. Why can't the PLC touch screen all-in-one machine program be downloaded?

Solution: On the premise that the PLC driver is assembled, check whether the hardware port is selected correctly. Secondly, before writing the

program, when creating a new project, select the correct PLC series and PLC type (to match the product). When the program is written and downloaded, the port must be selected correctly, and at the same time, switch to the RUN state on the touch screen of the all-in-one machine. When the touch screen program is downloaded, set the OP parameter setting (in Link1, select COM1 as the communication port.

17. Can both PLC and HMI have an optional CAN port? What protocols do they support?

Solution: PLC3G series can be equipped with CAN port, support CAN2.0A, CAN2.0B, free port, modbus protocol. Only the 90 series touch screen of HMI can be equipped with CAN port, but it can only use the free port protocol. The standard charging pile CAN2.0 protocol does not support it.

18. The PLC has set a password and cannot download the program now, what should I do?

Solution: The password and keywords need to be cleared. After the PLC memory is cleared, the download can be restarted.

19. 3G PLC analog input K-type thermocouple temperature measurement is not accurate.

Solution: When 3GPLC has a thermocouple, AD4 is connected to a temperature sensor (NTC10K) internally, that is, the cold junction (ambient temperature), which is directly placed inside the PLC, so nothing can be connected to the outside. A thermocouple will occupy AD4. Like thermal resistance (PT100, NTC10K), there is no cold junction (ambient temperature) inside the PLC, so this port is not occupied. If you want to know whether the PLC has a cold junction or not, you can directly connect to the D8034 that monitors the PLC. Other unwired ones are 4095, and D8034 has a cold junction.

20. Can CX2N series PLC use WR3A? Can RD3A/WR3A be used to read and write coils?

Solution: 2N series PLC can use WR3A instruction, but it is different from Mitsubishi's instruction. The second is that it can only read and write areas 3 and 4, area 0 and area 1 cannot read and write, only read and write registers, and cannot read and write digital quantities. For this kind of fixed instrument, it communicates with plc, plc acts as the master station, and communicates with modbus through 485, only 3G series PLC can be used. Because the 3G series PLC has a function command ADPRW command, modbus function code, code 02 and code 05 can be used.

21. MODBUS RTU, using ADPRW instruction, used two ADPRW instructions, now it is using M8013, polling once every 1s, and it is not working. I want to ask what the polling time is, so that I can complete this instruction.

Solution: M8029 means ADPRW will be connected after the command is sent. M8029 will not be reset as long as the previous conditions are not disconnected. After M8029 is switched on, a reset condition can be added.

22. 3G PLC is the master station, and it cannot communicate with 2N. Can't write data with WR3A?

Solution: 3GPLC needs to poll when using WR3A/RD3A instructions, and M8000 cannot be used for the previous conditions.

23. If the internal battery of the PLC is dead, will the PLC clock be maintained? Will the save register of the PLC become invalid?

Solution: If the internal battery is dead, the PLC clock will restore the factory clock, but the holding registers will not fail due to power failure, because these are stored in the Flash.

24. Can PLC do PWM?

Answer: This needs to be answered according to different PLCs, so you need to first ask which PLC the customer needs. The PWM instructions for

different PLCs are as follows:

(1) 2N products other than the MX2N series: There are four conventional PWM outputs, all of which are milliseconds. They are built on the pulse output port and are compatible with Mitsubishi's PWM function. In addition, it can be customized to use the analog output port for PWM output. Before placing a customized order, you need to ask the customer about the PWM output voltage, PWM output frequency, how many PWM channels, and whether there are other analog outputs.

    1) The standard PWM output voltage is 3.3V, and 5V and 22V are also available for special designs;

    2) 2. The output frequency of PWM needs to be fixed (please ask the production department for specific frequency);

    3) 3. Up to 8 channels of PWM can be customized;

    4) If there is another optional analog quantity, you need to pay attention to one group of analog quantity output terminals DA0 to DA3, and one group from DA4 to DA7. If PWM and optional analog are in the same group, the switches of analog and PWM are the same switch, that is, when PWM is turned on, the analog will also be turned on.

(2) 3G series products: There are 8 conventional PWM outputs, which are on Y0~Y7, all in milliseconds, compatible with Mitsubishi's PWM function, and can also be customized to use analog output for PWM output. To place a customized order, you need to ask the customer about the PWM output voltage, PWM output frequency, how many PWM channels, and whether there are other analog outputs.

    1) The standard PWM output voltage is 3.3V, and 5V and 22V are also available for special order;

    2) The output frequency of 3G PWM is adjustable from 5Hz to 100KHZ;

    3) Customize up to 8 PWM channels;

4) If there is another optional analog quantity, you need to pay attention to one group of analog quantity output terminals DA0 to DA3, and one group from DA4 to DA7. If 3G PWM only uses 21KHz frequency, it can be installed in one group with analog quantity. If it is other frequency, it cannot be in the same group.

(3) MX2N products: There are four conventional PWM outputs, and the ones on Y0 and Y1 are microsecond PWM, which are controlled by PWM commands. The next two channels on Y2 and Y3 are millisecond-level PWM, which are also controlled by PWM commands. MX2N PLC does not support custom analog output to be changed to PWM output.

In summary, when the customer asks, answer our regular PWM function first. The regular PWM is compatible with Mitsubishi. If the customer does not know how to use Mitsubishi's PWM, then turn to technology. If it is customized, ask clearly whether there is any conflict between voltage, frequency, several outputs, and analog quantity, and answer the customer with the above technical points.

25. Why is the temperature fluctuation of 3GPLC thermocouple k larger than the previous 2N fluctuation?

Solution: The reason is that there is an artificial compensation on the cold end of the 2N, which makes the temperature change by 1℃ each time. The 3GPLC temperature changes sensitively. When it is placed at 300°C, it becomes 300°C at once, unlike 2N, which slowly changes from 1°C to 300°C, which has a large delay. Now the customer requires 3G to be adjusted to 2N, the temperature change is not so fast, only to adjust the filter time of temperature collection, set in R23600, the filter time is shortened, so that its sensitivity is not so fast. Secondly, R23604 (cold-junction filter) should be adjusted larger.

26. 3G and 2N modbus RTU communication 2N serves as the slave station, and secondly 2N serves as the master station and the instrument communication. In 2N, there are instructions from the slave station and also from the master station. Is this okay?

Solution: It can be used in this way, but the serial port 2 and serial port 3 on the PLC must be used at the same time, because there is only one master station on a 485 network.

27. The pointer on the touch screen is abnormal, I enter the U disk mode, and the calibration button cannot be clicked. What should I do?

Solution: You can't click the button on the touch screen. You can enter the calibration screen by quickly tapping on the screen when it is powered on.

28. EX2N all-in-one machine, there is no optional 232/485 on the touch screen, how to set it to communicate with 3UPLC as the screen now?

Solution: No way. Only indirect PLC communication and then host computer control to achieve the purpose of communication.

29. EX2N all-in-one machine, external hardware triggers the X signal, but GX work2 monitors the X input is not turned on, why?

Solution: BUG may appear in the monitor in the program, add an indicator light to the HMI, use the X signal to control the indicator light in the ladder diagram, and the screen display light is on.

30. PLC analog quantity chooses to install a channel pt100, and at the same time want to connect to the external instrument to display, is this okay?

Solution: The general recommendation is not to do this, because pt100 is used to test the temperature by voltammetry. This approach will divide the voltage, resulting in inaccurate temperature display.

31. When the PLC sends J, the monitoring pulse port (Y) in GX WORK2 always displays OFF status.

Solution: It is not accurate to monitor the status of Y in the PLC program.

Check M8340, D8340 (the first pulse operation monitoring, position pulse amount) for actual pulses. The output corresponds to the Y point, check the corresponding pulse volume register.

32. Siemens PLC is connected to our all-in-one machine through WIFI-2NET module. Siemens has a network port, and the all-in-one has 485 ports, which are transmitted through the conversion between MODBUS TCP and MODBUS RTU. Siemens is the slave station and our all-in-one machine is the master station. Is this okay?

Solution: This is possible. The WIFI-2NET module can perform protocol conversion, which is equivalent to adding a network port to the integrated machine to communicate with Siemens PLC through MODBUS TCP protocol.

33. How to extract the first few digits or the last few digits of the decimal system of a 32-bit D register?

Solution: Write a transfer instruction DMOV D0 K8M0, it can be realized.

34. Why can't my PLC communicate with PC to download programs?

Solution:

(1) First confirm whether the driver is installed normally when the machine is plugged into the computer, check whether the device manager is refreshed when the download line is inserted, and check whether the driver location is abnormal;

(2) Then for the link target of the PLC software, select the serial port correctly according to the machine model (RS232, you have to check the device manager COM port to set the corresponding COM port and 9.6bps baud rate). If you are using a mini USB port to download the cable, select the USB port;

(3) Finally, check whether the PLC type set is wrong, whether it is inconsistent with the machine model, or the cable is broken.

35. Why can my PLC download programs, but cannot read them?

Solution: First confirm your product model. If the machine is below 48 points, the program cannot be read by works2. It is recommended to use GX Developer V5.82 to read the program.

36. Why do I get the message "The installation and initialization of Melsoft Common Components 2 failed" when I install DX Developer V8.52?

Solution: When installing, it is recommended to install the setup.exe program in the ENVMEL folder first. Generally, it is caused by the computer system. It is recommended to try to install GX works2, or install it on another computer, or try to reinstall the system.

37. Why does my CX3GPLC sometimes fail to read the analog quantity when it reads the analog quantity, but it is better after restarting?

Solution: First of all, you have to determine the major version (D8100) and minor version number (D8101) of your PLC. It is generally due to the PLC firmware version (caused by 26236-5). If it is determined to be 26236-5, you need to send it back to flash the machine.

38. Why doesn't my retentive register hold after power off?

Solution: Generally, there are two reasons why the retentive register is not held:

(1) First, the power supply is too low, 16V<DC<19V will cause such problems, you need to measure the actual voltage of the power supply;

(2) The second is that the farad capacitor inside the PLC discharges too fast;

(3) There is another possibility that there is an error in the internal FLASH, it is recommended to send it back for processing.

39. The all-in-one machine has optional analog quantity and a temperature control module. What is their accuracy?

Solution: The accuracy of the analog quantity on the PLC is 12 bits; the

temperature control module is 16 bits; the optional weighing module has an accuracy of 24 bits. (The accuracy of the weighing module is 24 bits)

40. Can the CX3G PLC I purchased use 485 port to download programs?

Solution: Yes, it can be achieved with 485 to USB, but when downloading the program, you need to turn the PLC switch to the off position.

41. During the PLC wiring, if the +24V is connected to the AB serial port by mistake, will it burn out?

Solution: The maximum voltage of the serial port can only withstand about 5V. It may be burnt out.

42. For your company's 3G and 2N products, should I read the R23660 register or the D8030 register for the analog input? Is there a difference between the voltage and current types and their ranges? Is there a difference between the range of analog output 2N and 3G? If I want to convert the analog value read in the PLC into actual voltage, current or temperature, how should I calculate it?

Solution: directly MOV the register value of D8030, don't read R register. 2N and 3G analog input voltage and current input such as: 0~10V, -10~10V, 0~5V, -5~5V, V4~20mA, 0~20mA range are 0-4000. The analog output of 2N and 3G is slightly different. First, set M8080 (DA0-DA3) and M8084 (DA4-DA7) when the 2N analog output needs to be used, otherwise the analog output cannot be output. Secondly, DA0 corresponds to D8080 address, other DAs are pushed back, the range is 0-1000. The 3G analog output DA0 corresponds to the start of D8050, and the range is 0-4000, and when using it, it is not necessary to set the corresponding enable output flag bit, just assign the output directly. If you want to calculate the actual current and voltage by numerical values, you need to refer to the following formula for calculation: When the input is 0-10V analog, the actual analog value = register reading/400. When the input is temperature, the actual temperature value = register reading/10. When the

input is 0-20mA analog quantity, the actual analog quantity value = register reading/200. When the input is 4-20mA analog quantity, the actual analog quantity value = register reading/250+4.

43. I bought the CX3G and want to communicate with other devices via Modbus. May I ask the AB and A1B1, how should I choose?

Solution: Both are ok. It's just that the communication parameter settings are different, AB serial port 2, A1B1 serial port 3, it's up to you to choose, and then set the corresponding communication parameters.

44. Why does D8030 display a large value instead of 0 when the analog input is not connected?

Solution: When the 3G machine is not connected to the analog quantity, it will display a very large value, such as 4096, 8043 and so on. This is a disconnection value, not 0. This is not because the machine is broken. If you want to display 0 when it is not connected, you can do some calculations in the program yourself.

45. For 3G products, why does the monitoring PLC Y point do not work when I use pulse commands, as if pulses are not sent?

Solution: Do not directly look at the switch status of point Y to judge whether there is a pulse output, you need to check the designated pulse output point. For example, [PLSY K100 K0 Y0] specifies Y as the pulse output port, then check the manual, the corresponding pulse accumulation register is D8340-D8341. Then check the register value in the software component batch monitoring, you can see the pulse accumulation, and the product must meet the type of switch output is the transistor type.

46. Can our PLC support tags? Can structured engineering be used?

Solution: The use of tags may cause errors in the program. It is recommended not to use tags. In addition, our PLC programming only supports ladder diagrams and SFCs, and does not support structured programming.

47. What does the COM indicator on EX3G mean?

Solution: RUN refers to the running indicator light of the PLC, COM refers to the indicator light when the PLC and HMI are connected for communication, and PWR is the power indicator light.

48. How do I wire the input and output of the 3G all-in-one machine? What does this input S/S mean?

Solution: S/S refers to the COM terminal. Because 3G is an external power supply of DC24V (passive), S/S needs to be connected to 24V+, and X is connected to 0V, which means it is on. For output, if it is transistor output (NPN), COM is connected to negative pole, and Y is connected to 24V+ through the load; if it is relay output, COM can be connected to 24V+ or 0V, dry contact output.

49. 3GPLC, after the analog temperature is corrected, the display temperature is normal (18°C) after booting, and the temperature will rise to 39°C after two hours, but the actual temperature is not so high. The PT100 is connected.

Solution: This problem is generally caused by abnormal ambient temperature (AD4). The general temperature reading is the mutual influence of the measured temperature and the AD4 ambient temperature. First, you need to correct AD4, connect the thermocouple to AD4 to view the display value of D8034 (for example, if it shows 240°C and the ambient temperature is 190°C, you need to correct R23964 to -50 to get 190°C). Short-circuit AD0 and GND, check whether there is a difference between the specific value and the value displayed on D8030, if there is, then modify the register R23960 corresponding to D8030.

50. 3G series PLC, AD0 temperature display is not normal, which register should be corrected when correcting AD0 temperature?

Solution: AD0 corresponds to R23960, and the corresponding registers are arranged in sequence. R23960 starts with the zero point correction value,

and the default value is 0 (that is, size correction).

51. Is the 3G PLC PID instruction the same as the Mitsubishi programming manual? Besides setting the basic output values of S1, S2, S3 and D registers, do I need to set other things? In addition, does 3G support auto-tuning?

Solution: There are subtle differences. Depending on the machine version, the parameter settings may change accordingly. In addition to setting the basic command parameters, it is also necessary to set the value of the S3+123...24*[1] register (refer to the manual for specific parameters). In addition, 3G supports self-tuning function (that is, auto-tuning). The corresponding precautions and cases can refer to the chapter of PID instruction in 3G programming manual.

52. Do 3G's RD3A and WR3A support modbus RTU 04 function?

Solution: This is not supported. When using RD3A and WR3A instructions, only functions 3, 6, and 10 are supported. If you need to use the 4th function, you can use the ADPRW instruction to read and write data, and support the 1, 2, 3, 4, 5, 6, 0F and 10 functions.

53. Can the AB and A1B1 communication ports on a 3G PLC be used at the same time? Will they interfere with each other if they are used at the same time?

Solution: It can be used at the same time. Two 485 communication ports, AB refers to the serial port, and A1B1 refers to the serial port 3. When using at the same time, just assign parameters to different registers.

54. Why my Y0 point coil, after the front contact is connected, Y can not be connected?

Solution: First check whether your PLC switch is turned to the ON position. Check whether the Y0 coil repeats in the program. If it does, change the program logic to prevent double coils. It is also possible that the connection processing method of your contact point is incorrect. If it's like

just a rising edge and falling edge processing, the Y point will only be turned on for a short time, and you will not see this phenomenon. If there is no problem with the program logic, you can try to change Y0 to Y1 and try to rule out whether it is a hardware problem.

55. For EX3G-70KH all-in-one machine, can I download PLC programs via U disk? What should I do?

Solution: Yes. In the case of 3G, the PLC must first convert the PMW file, and then save the PMW file to the U disk and plug it into the USB port behind the touch screen. The touch screen will pop up the USB screen, click to update the HW6/PMW file, enter the password, and click the program to be downloaded (I will send you the operation document).

56. I want to read the PLC time directly, what command should I use? Can it be corrected if there is an error in the reading?

Solution: To read the internal time of the PLC, you can use the clock data to read the instruction TRD instruction. D8018~D8013 store the year, month, day, hour, minute and second respectively, and D8019 store the week (Read 7 registers such as TRD D0 (store D8018~D8013 into D0~D5, and store week into D6)). If you want to modify the PLC time value, you can use the clock data write instruction TWR to directly assign the corresponding register (For example: TWR D0, assign value to D0~D6 (D6 storage week)).

57. The AD analog quantity read is temperature with a decimal point. How can I convert the integer displayed by the PLC to data with a decimal point?

Solution: You can first convert the read D8030 data into a floating point number (use the FLT instruction to convert to a floating point number, it will occupy two registers, you need to reserve the register location in advance)

58. 485 is half-duplex, can you explain what is half-duplex?

Solution: Half-duplex data transmission allows data to be transmitted in

both directions. However, at a certain moment, data is only allowed to be transmitted in one direction. It is actually a simplex communication that switches directions; only one party can receive or send information at the same time, but two-way communication can be achieved. Example: walkie talkie.

59. The 3GPLC I purchased uses the mini USB port to download the program. Is there a length limit for this cable?

Solution: The distance and length of this download line is best controlled at about 15M.

60. 3G series single PLC, does it support PWM instruction?

Solution: Both our 3G products and 2N products support PWM instructions, but it should be noted that there can only be one PWM instruction in the entire program. If there are more than one, the instruction will not be executed.

61. For the EX3G-43HB machine, why does it display "Wrong password" when entering the set password?

Solution: Generally, when this kind of problem occurs, you first download a program with a password login button to test it. If the setting is consistent with the input password, and there is still an error message that the password is incorrect, it is generally that the channel for verifying the password of the FLASH chip inside the touch screen is damaged and you need to perform a flashing operation. And before flashing, you need to erase the internal program of FLASH. You can choose to flash the machine yourself (I will send the hairbrush package to you), or you can directly send it back for flashing.

62. 3G series single PLC, optional analog 0-10V and 4-20mA, will display -1 when connected with analog and when not connected? What caused this?

Solution: Preliminarily judge that this is caused by the wrong setting of the

PLC's internal parameter values. You need to provide the version number of the PLC (D8001 major version number, D8101 minor version number), and then enter the software component monitoring of the programming software, check the values of R23960 and R23940, and then I will give you the specific modification method.

63. Why can a single PLC and a single screen use the Mitsubishi programming port protocol through the 485 communication interface to control the on and off of the PLC switch, but cannot display the PLC data?

Solution: There is a situation where the data cannot be displayed, but the switch can be controlled, usually because the HMI software is set incorrectly, or the hardware wiring of both parties is incorrect.

(1) First, check whether the communication parameters on the HMI software are set incorrectly. Communicate through the 485 communication interface, the COM terminal should choose COM2 (means 485 communication), and the communication parameters should be 9600 baud rate-even parity-7 data bits-1 stop bit (the PLC connected in the example is our 2N type , so the equipment type is 2N, and customers should choose according to their own PLC model);

(2) If the data still cannot be displayed, check the wiring. Some customers may find that the 16 pins (485 communication) on PLC AB and HMI are connected reversely. Or the AB connected to the PLC but the 235 (232 communication) connected to the HMI will cause such problems.

64. When editing the PLC program, the program is modified. Why is there an extra line of program before compiling after the modification?

Solution: If this kind of problem occurs, check if you press the "Insert" key on the keyboard. This kind of problem will occur if you press this key.

65. All-in-one EX3G-100HA-44MT machine, the above said that the conventional first four channels with 100K, the last four channels with 10K pulse output, what do these 100K and 10K mean?

Solution: The 100K and 10K represent the pulse frequency, and K stands for thousand, which means that the maximum output frequency is 100000 and 10000HZ. For example, write command [PLSY K10000 K0 Y0], if it is 100K pulse output, then the highest frequency can only be set to 100000HZ.

66. X point cannot be input x8 x9, is there a problem with my software?

Solution: Because our products are compatible with Mitsubishi PLC and Mitsubishi FX series PLC. The input and output relays are coded with octal numbers, so X8 X9 cannot be input (for example: X00-X07; X10-X17)

67. 3G single PLC, PLC as the master station, using modbus RTU protocol communication as the host, now I need to write data to the slave station instrument, what should I do?

Solution: Write data, we take WR3A instruction as an example, as shown in the figure below:
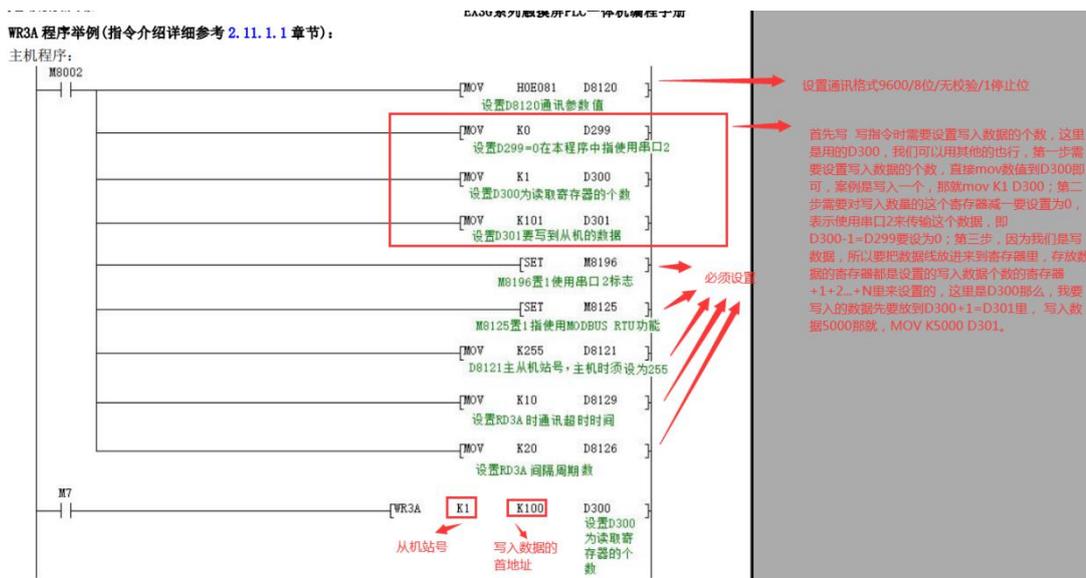
68. The meter data needs to be read, but the high and low bytes need to be exchanged. How to operate?

Solution: You can directly use the high and low byte swap command SWAP to perform the conversion. The command usage is shown in the figure below:

69. When I use GX Developer 8.52 to download the program, why is it grayed out when I click the transfer setting?

Solution: If you have used the monitoring function in a programmed PLC, it may cause the transmission settings to be grayed out and the PLC type cannot be changed. In this way, when you change to another computer, you may not be able to download the program because the COM port cannot be changed. You can click window-close all screens, and then click the MAIN of the program to download normally.

70. The PLC communicates with the other two devices via modbus rtu, and the polling method used for reading and writing instructions cannot communicate successfully now.

Solution: When 3GPLC modbus polling, when reading and writing one of the devices, communication is not successful (no connection or no data is returned when reading and writing data), then M8028 will not work. This causes the read and write command loop to be disconnected, making the two devices unable to communicate successfully. The M8129 communication super flag can be added in the program, and the logic can

select after M8129 is connected. So you can skip this paragraph.

71. How to set the communication between Siemens 200PLC and Coolmay touch screen in HMI software?

Solution: Siemens 200PLC communicates with our touch screen, the device type is Siemens 200 series, and the COM port can only be COM2, because Siemens PLC has only 485 ports.

Note: 200 smart PLC and Coolmay HMI touch screen cannot communicate.

72. How to wire the COM port of EX3G 4.3 inch all-in-one machine (I chose the mixed type)?

Solution: EX3G 4.3-inch all-in-one machine has only one COM port at 16 o'clock and 24 o'clock. Either com is connected to 24V or com is connected to 220v. If a mixed MRT is selected, one Y output will be cut off and become a common terminal, thus forming two common terminals, which can be connected to 24V and 220V at the same time.

73. Is there any special auxiliary relay in 3GPLC with the same function as M8123 of 2NPLC?

Solution: 2N M8123 (RS2 receiving end flag) has the same function as 3G m8128.

74. Can the PLC output be connected to 12V control equipment?

Solution: PLC output transistors and relays have the lowest voltage, 24V. Although 5V and 12V can be used, they are unstable and may not work, so we do not recommend using them in this way.

75. Is it possible to control 4 inverters with a single touch screen without PLC?

Solution: One touch screen with 4 inverters can be controlled without PLC. But it should be noted that if the communication address of the inverter is too large, 4 units cannot be brought. If the address is too large, only one inverter can be used, which is a defect.

76. The pulse output command is used in SFC language, but the display is incorrect. Why?

Solution: Used in SFC, ordinary basic function instructions are available. But pulse positioning used in SFC may cause conflicts. We do not recommend using pulse output instructions in SFC.

77. When the PLC communicates with the touch screen, it prompts that the communication has failed. Is it because the PLC is not running?

Solution: PLC and touch screen use communication, touch screen is the master. Only when there are components that use communication on the touch screen, the touch screen will have the function of communication failure prompt. Secondly, the PLC switch will not affect the communication when it is in the running state and the stop state.

78. PLC is programmed in work2, can the instruction list be used to write programs?

Solution: In work2, the instruction list cannot be used to write programs, only ladder diagrams can be used, but the .CSV file can be exported to the instruction list format, and the instruction list file in the .CSV format can also be read.

79. The PLC program cannot run correctly when using tags. How to remove tags quickly?

Solution: The plc program uses tags. If you want to remove the tags, you only need to download to the PLC, then create a new one without tags, and just read the PLC program.

80. How does CX3G series PLC communicate with MCGS touch screen?

Solution: Single PLC communicates with MCGS, MCGS does not have 3G option, just choose 3U. Also note that the com port can be selected in the parent serial bus. 485 is com2. In our case 2n MCGS communication, only need to change the parent serial to com2 and the programming port protocol to 3u.

81. Is there a difference between MX2N all-in-one and EX2N all-in-one in selecting temperature analog NTC?

Solution: Pay special attention to the NTC of the MX2N. One NTC of 43 inches occupies two ADs, the NTC of 7 inches occupies AD4 and the range of 10k and 50k are both -40, which is different from the ordinary 2n.

82. 3G series PLC's analog quantity 4-20mA, 0-10v display more than 30,000, what is going on?

Solution: 3G all-in-one analog current or voltage, display more than 30,000 is the disconnection value; if it exceeds the maximum range, it will display 4000; if it is less than the minimum range, it will display 0, which is not wrong.

83. How to remove the arrow on the EX3G-43HB screen?

Solution: only need to write a macro program, in the Initial macro SETB LB8020

代 号　　LB8020　　　　光标隐藏(Initial宏: SETB LB8020 有效)

84. Download and upload of PLC program?

Solution: EX2N-70H (you can download and upload PLC programs normally with Works2); EX2N-50KH (you can download and upload programs normally with Works2, but the program cannot be uploaded)

85. The protection that cannot be removed by PLC, can the protection that cannot be removed be downloaded to the program MA?

Solution: 3G products can be downloaded into the program when they are set to unremovable protection, but 2N products cannot. The password/keyword in the programming software of Works2 has an unremovable protection, while the password/keyword in the programming software of GX Developer does not have an unremovable protection.

86. What are the interference measures of PLC?

Solution:

(1) Shielding method: The shielding method is to pass the thermocouple signal wire through an iron pipe or other metal shield for shielding. This can prevent electromagnetic interference and high-voltage electric field interference. When using this method, the iron pipe and other shields should be well grounded;

(2) Isolation method: The isolation method is to install the thermocouple in the air so that the thermocouple does not contact the refractory bricks on the furnace wall. The thermocouple and the support are also insulated by insulation. This method can well prevent the interference of high temperature leakage;

(3) Grounding method: This method is to ground the measurement loop and introduce interference into the ground to ensure the measurement accuracy of the instrument. This method has two grounding forms: the first is the grounding of the thermocouple reference terminal, and the second is the grounding of the thermocouple measurement terminal. Note: the ground terminal cannot be shared with strong current;

87. The points to be noted in the use of PLC are as follows.

Communication function: When you use 3GPLC for RS or MODBUS communication, please note that our timeout registers (D8129, D8409) are different from Mitsubishi. Our timeout time is not the real communication timeout, but the end waiting time for the completion of a frame of data. When the last bit of a frame of data is sent and the timeout period expires, the PLC will start processing the data. Therefore, the larger the value is not the better, the larger value may cause abnormal communication. Instead, set the appropriate value. For communication between two PLCs, the timeout time of the slave must be set to be smaller than that of the master. In addition, the time base of this register is different on the PLC version: 26234 and below versions, the register is based on 10MS; 26235 and later versions, the register is based on 1MS. So the default value of the old version of D8129 and D8409 is 2, which is 20MS; the default value of the new version is 6, which is 6MS. Generally, this register can communicate normally with the default value, and there is no need to change it.

Positioning: Positioning instructions cannot be used in STL steps, but should be placed in ordinary ladder diagrams.The ADPRW instruction cannot be used in the PLC of the 26235 version with 48 points or less.

88. What is the difference between source type and sink type?

Solution: Sink type: NPN (common terminal connected to 24V+)

Source type: PNP (power supply with its own output, public terminal connected to 0V)

Note: Whether it is PNP or NPN, it is mainly for the input signal;

-----Coolmay 3G products are passive; 2N products are passive;

89. EX3G-70KH-60MTR-S (28R/2T), which terminal are the two transistors used for?

Solution: 2 transistors are made on Y22 and Y23

90. How are communication issues tested?

Solution: Use the serial debugging assistant to send 05H, and the PLC reply 06H, then the connection is normal; if the reply is 15H, the lower computer does not exist.

91. What are the factors that determine the length of the scan cycle in PLC?

Solution: The speed at which the CPU executes instructions;

The time taken to execute each instruction;

How many instructions are in the program;

92. In the CX3G PLC, what is the protocol support for the custom network port transmission based on Modbus TCP in the communication protocol?

Solution: Because Modbus TCP includes a lot of protocols, including Modbus TCP/IP protocol, but our products only support Modbus protocol, and do not support Modbus TPC custom network port transmission protocol.

93.In the CX3G-80MT PLC (version 26236-6), during the test with the handwheel, Y0 jitter is very small, and Y1 Y2 jitter is very large. What is the reason?

Solution: The main reason is the version problem. The 23236-6 version of the PLC has this jitter. Now, it is necessary to flash the PLC version to the most model version 23237-0. Only the updated version can alleviate the jitter.