

# Printer system common fault analysis (HS)

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## Indicator signal analysis:



RUN running status light: This light flashes to indicate that the system is in normal operation

LINK communication status light: This light is always on after the head board and the main board communicate normally

BUSY printing status light: normally, this light is always off (it will only be on when motion control or ink is required)

ERROR abnormal state light: when the printing is in an abnormal state, this light is on or flashing

## Digital tube display value meaning:

0: Normal operation ready state

1: Initialization state: the ink stack drops to the lower limit

2: Initialization state: the scraper returns to the origin

3: Initialization state: the car goes in the non-origin direction for a period of time

4: Initialization state: the trolley returns to the origin

5: Initialization state: ink stack rises

6: Ink shortage state (accompanied by ink supply at this time)

7: Firmware corruption

8: Firmware corruption

9: The safety bottle is full (when the system is operating normally, this bottle should always be empty;

Once the bottle is full, the system will stop supplying ink)

A or R: The optical fiber is not connected properly, and the communication is abnormal

E: The board reports an abnormal error

## The "ERROR" indicator on the head board is always on or flashing



Picture:

Possible reason:

1. The adapter board is inserted in the wrong position or not inserted
2. The 42V power supply voltage of the board is too low, lower than 38V
3. The headboard is broken

Check steps:

1. Keep the adapter board on the head board, remove all the nozzle cables, and check whether the "ERROR" light is still on. If it does not light up, the print head board is normal, check the print head and the cable connecting the print head.
2. If the "ERROR" light is still on after the first step, measure the power supply voltage of the head board. If the voltage is lower than 38V, check the corresponding 42V switching power supply or replace it, and confirm whether the printer uses the correct external input voltage (110V or 220V).
3. If the previous steps are normal and the "ERROR" light is still on, replace the headboard.

## The head board digital tube displays "A" or "R"



Picture:

Possible reason:

1. Swap the TX and RX connectors of the fiber optic cable
2. Optical fiber communication is abnormal
3. The main board or head board is abnormal

Check steps:

1. Check whether the optical fiber cable connector is loose, whether the TX and RX connectors are exchanged, and replace the optical fiber cable.
2. Whether the optical fiber interface of the head board or main board is abnormal, replace the main board or head board.

## 03004\_Printer and PC disconnected

Possible reason:

1. The device is powered off
2. The printing software is not connected to the device
3. The computer is not a gigabit network card or the computer network driver is abnormal (TCP communication)
4. The IP address of the computer is not set correctly (TCP communication)
5. The computer USB2.0/3.0 driver is abnormal (USB communication)

Check steps:

1. Check whether the printer is powered on and whether the power supply of the mainboard is normal
2. Check whether the computer configuration is a Gigabit network card (TCP communication)
3. Check whether the computer network driver is normal (TCP communication)
4. Check whether the computer USB2.0/3.0 driver is normal (USB communication)

## 03021\_Failed to print,the print width exceeds the distance of max motion

Possible reason:

1. X white margin parameter setting is too large
2. The image width exceeds the media width
3. The firmware configuration or firmware parameters incorrect or destroyed

Check steps:

1. Check whether X white margin parameter setting is too large
2. Check whether the step and repeat horizontal setting value is too large
3. Re-import the correct firmware configuration file and firmware parameter file

## **12002\_Print failed, lack paper**

Possible reason:

1. Lack paper
2. The paper measuring sensor is abnormal

Check steps:

1. Please provide additional materials.
2. Please check the detection distance and angle of the paper out sensor
3. Please check whether the paper out sensor and wires are normal.

## **12008\_System exception triggered anti-collision**

Possible reason:

1. The anti-collision signal is triggered

Check steps:

1. Check the external factors to trigger the anti-collision signal.
2. Check whether the anti-collision signal wiring is abnormal.
3. Re-import the correct firmware configuration file and firmware parameter file.

## **13023\_Abnormal ink stack**

Possible reason:

1. Ink stack motor is abnormal
2. Ink stack limit is abnormal

Check steps:

1. Check whether the connecting wires of the ink stack motor or the ink stack limit are normal
2. Check whether the ink stack motor is normal
3. Check whether the ink stack limit is normal

## **12003\_CR Scale exception**

Possible reason:

1. The decoder read value is abnormal

Check steps:

1. Check whether the connection between the headboard and the decoder interface is abnormal.

### **03000\_Printing automatically paused**

Possible reason:

1. The Rip file is incomplete and has blank data
2. The communication between the printing software and the mainboard is unstable
3. Insufficient data transmission speed of printing software

Check steps:

1. Check whether the Rip file is normal, change and test other files.
2. Please check whether the connection between the computer and the device is normal.
3. Confirm whether the computer system is running normally.

### **13051\_Failed to print; Reading PRN file data failed**

Possible reason:

1. PRN file occupied and failed to open
2. PRN file format incorrect
3. RIP software version incorrect or exception

Check steps:

1. Check whether the PRN file is occupied.
2. Establish whether RIP software version is correct.
3. If it's the individual case, please restart RIP and printer.
4. Restart the PrintExp and test.
5. Restart the PrintExp and RIP.

### **13047\_Failed to print; the PASS data printing was unfinished**

Possible reason:

1. The grating ruler or decoder is abnormal
2. The gear ratio is abnormal
3. X limit or abnormal motor
4. The connection of the head board is abnormal
5. The power supply of the head board is abnormal
6. The main board program or header board logic does not match

Check steps:

1. Check whether the grating ruler or decoder is normal
2. Check whether the gear ratio is correct
3. Check whether the X limit is normal
4. Check whether the wiring of the head board is normal
5. Check whether the power supply of the head board is normal
6. Check whether the logic version of the header board is correct

### **13038\_Failed to print;The action when executing PASS Failed to print**

Possible reason:

1. The firmware configuration and firmware parameters are incorrect or corrupted
2. The connection between the main board and the head board is not normal
3. The limit switch fails or the wiring is abnormal
4. The motor or servo movement is abnormal
5. The movement speed is too slow to cause a timeout
6. The main board program does not match the logic of the head board

Check steps:

1. Check whether there is any abnormality in raster reading
2. Check whether the gear ratio is abnormal
3. Please import the correct firmware configuration and parameters.
4. Please check the wiring in the error description.
5. Please check whether the motor or servo moves abnormally
6. Please check whether the main board program matches the logic version of the head board from the software version information

### **13067\_Failed to print, print initialization error**

### **13064\_Print control thread error, which caused a print error and exit**

Possible reason:

1. The mainboard version is incorrect
2. The firmware configuration or firmware parameters are incorrect or damaged
3. The firmware configuration and firmware parameters do not match
4. The printing software does not match the mainboard program version

Check steps:

1. Check whether the communication between the printing software and the mainboard is abnormal
2. Restart the printing software and device
3. Re-import the correct firmware configuration file and firmware parameter file
4. In the software version information, check whether the first four-digit version numbers of the software and the mainboard program are equal.

### **13013\_Failed to execute the system initialization**

Possible reason:

1. The system initialization action has not been completed
2. The mainboard is not functioning properly
3. The firmware configuration and firmware parameters are incorrect or corrupted

Check steps:

1. Confirm whether the mainboard is operating normally
2. Confirm whether the system initialization action is normal
3. Re-import the correct firmware configuration file and firmware parameter file

### **10022\_Failed to print; Timeout when printer entering the print status**

Possible reason:

1. Print initialization execution is abnormal
2. Communication error between PrintExp and mainboard program
3. Mainboard run exception
4. The firmware configuration or firmware parameters is incorrect or destroyed

Check steps:

1. Check whether the print initialization executes normally by log.
2. Check whether the device is connected properly through the connection status diagram in the lower left corner of the software.
3. Check in the software version information to confirm whether the first four version numbers of both PrintExp and mainboard program are same.
4. Re-import the correct firmware configuration file and firmware parameter file.

### **13063\_Failed to print**

Possible reason:

1. Failed to print, system exception
2. The firmware configuration or firmware parameters incorrect or destroyed
3. The firmware configuration mismatched with the firmware parameters
4. The PrintExp version is mismatched with the mainboard program version

Check steps:

1. Restart printer and software.
2. Re-import the correct firmware configuration and firmware parameter.
3. Check in the software version information to confirm whether the first four version numbers of both PrintExp and mainboard program are same .

## **10009\_Failed to set the waveform parameter**

Possible reason:

1. The optical fiber connection between the mainboard and the head board failed.
2. The optical fiber module of mainboard or head board is abnormal
3. Head board run exception and indicator tower light calls error
4. Mismatch between firmware configuration and head board
5. Mismatch between firmware configuration and head board logic version
6. Mismatch between mainboard program version and head board logic version

Check steps:

1. Replace new optical fiber and test.
2. Replace new optical fiber module of mainboard or head board and test.
3. Check whether the power voltage of the head board meets the standard requirements.
4. Check the PrintExp version information to confirm whether the version of mainboard is matched with head board version.
5. Re-import the correct firmware configuration file and firmware parameter file.

## **13024\_Print initialization action failed**

Possible reason:

1. Firmware configuration or firmware parameter is incorrect or destroyed
2. The connection between mainboard and head board is abnormal
3. Limit switch invalid or connection abnormal
4. Motor or servo movement abnormal
5. Slow carriage movement speed causes the timeout
6. Mismatch between the mainboard program and head board logic

Check steps:

1. Import the correct firmware configuration and firmware parameter.
2. Please check the connection in the error description.
3. Check in the software version information to confirm whether the mainboard program version is matched with head board logic version.

## **13073\_Printing status is printing result error**

Possible reason:

1. Mainboard print initialization exception
2. The firmware configuration or firmware parameter incorrect or destroyed
3. The firmware configuration is mismatched with the firmware parameter
4. The PrintExp version is mismatched with the mainboard program version

Check steps:

1. Check whether the communication between the PrintExp and the mainboard is normal.
2. Restart printer and PrintExp.
3. Re-import the correct firmware configuration files and firmware parameter files.