

Hanrun Paper

Super A-800 Series DTF Printer

User's Guide

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1. Safety Precautions

Preface

Thank you very much for choosing a Hanrun Paper printer.

- In order to ensure a comprehensive understanding of the performance of this product and its correct and safe use, please read this manual thoroughly and keep it in a safe place.
- It is forbidden to illegally copy this manual in whole or in part, otherwise the company will pursue its legal responsibility in accordance with the law.
- In order to ensure safe and correct use of this product, please read this manual carefully before use.
- Be sure to keep it in a safe place and refer to it when necessary.
- Do not allow children to touch this product.
- The following introduction is very important for safe operation, please be sure to follow it strictly.

Ensure Safe And Correct Use

Manual usage conventions

Ensure the safe and correct use of this product can avoid personal injury and property damage.

Relevant safety prevention knowledge is classified into 3 categories in this manual for description.

Before reading the manual, ensure that you have a comprehensive understanding of the differences between the following categories.

 **DANGER** If this kind of preventive information is ignored, it may cause serious injury to the operator.

 **WARNING** If this type of precautionary information is ignored and may cause injury to the operator.

 **CAUTION** If this kind of precautionary information is ignored, it may result in injury to the operator or damage to the equipment.

Meaning of Safety Symbols



Caution



Prohibited behavior



Necessary behavior

Safety Guidance

Please read the following guidelines before using this product.

Printer Installation Precautions



WARNING

Do not install the printer near volatile solvents (alcohol or thinner). 

- Contact of volatile solvents with electronic components may cause fires and short circuits in the equipment.

Do not place any objects on this product. 

- Objects can cause equipment failure.



CAUTION

Do not place this product in a place that is inclined or prone to vibration. 

- Such a placement area will cause the equipment to tip over or be damaged.

If the equipment is placed on a smooth surface, make sure to use wheel brakes to prevent the equipment from moving when it is working. 

- If the equipment is not placed properly, it will tip over or be damaged.

Ensure that the equipment has enough operating space

- To ensure smooth operation, sufficient operating space should be reserved at the front, rear, left, and right of the equipment

Power Safety Precautions **WARNING****If the power cord is damaged, do not repair it by yourself.**

- This may cause leakage in the damaged area, which may cause a fire or a short circuit.
- It is forbidden to plug and unplug the power supply with wet hands to avoid electric shock or short circuit.

Avoid using the same power outlet for multiple devices.

- This may cause a fire or short circuit.

Do not bundle or twist the power cord.

- This may cause a fire or short circuit.

Make sure that the power cord is firmly plugged into the power outlet.

- Otherwise, it may cause a fire or short circuit.

Do not use a power cord that does not match the model of this product.

- This may cause a fire or short circuit.

Please pay attention to the following points when connecting the ground wire.**Ground wire position suitable for connection**

- The ground terminal of the power supply

- Intact ground pile ground terminal

Prohibited grounding position

- Water pipe
- Gas Pipe
- Telephone line and lightning cable

 CAUTION

Please follow the instructions to use the power supply voltage. 

- Failure to use the specified power supply voltage may cause a fire or short circuit.

When disconnecting the power cord, be sure to pull the plug, not the power cord itself. 

- Normally, there is no need to use an additional power cord. 
- If you use an additional power cord, remember that the total amperage of the equipment plugged into the additional power cord should not exceed the rated amperage of the power supply.
- In addition, remember that the total amperage of all devices plugged into the wall should not exceed the rated amperage of the wall socket. 
- Make sure that the power plug can be easily unplugged at any time and make sure that no objects are placed around it. 
- **Ensure that the wire is grounded good.** 
- Avoid using sockets and copiers or air-conditioning systems that regularly switch between on and off in the same circuit.
- Avoid using sockets controlled by wall switches or automatic timers. 
- Keep your computer system away from potential sources of electromagnetic interference. 

For example: speaker or cordless telephone base.

- Do not use damaged or frayed power cords. 

Operation Safety Precautions

WARNING

Don't try to disassemble and repair the printer by yourself

If the printer produces abnormal noise, smoke, dust, temperature rise, strange smell or other abnormal functions, turn off the power immediately and unplug the power cord.

Do not use flammable objects or similar products around the printer.



Always use the power switch to turn off the printer. But when the key is pressed, the power will be cut off. Do not unplug the printer plug or data cable before the power is cut off.



Before transporting the printer, make sure that the print head is fixed in its original position and fixed.



CAUTION

Pay attention to prevent metal objects or liquids from contacting internal electrical components, otherwise it may cause fire or electric shock.

It is strictly forbidden to put your hands on the printer when printing.

Make sure the power cord is connected properly.

In the following situations, please have experienced maintenance personnel to maintain after cutting off the power supply:

- If the power cord or plug is damaged;
- If liquid spills into the printer;
- If the printer falls down or the case is damaged;
- If the printer cannot operate normally or has obvious changes in performance;

Maintenance And Inspection Precautions

WARNING

Be sure to turn off the power and do not perform any cleaning work before unplugging the power plug from the power socket. 

- If you do not do this, it may cause a fire hazard or electric shock.

Clean the printer with cloth that has been moistened with cleaning fluid. Do not use volatile solvents such as alcohol or benzene to clean the printer.

Do not use any lubricants on the parts of the machine.

CAUTION

At least once a year, remove the power plug from the power outlet and clean the surrounding area.

- The accumulated dust may cause a fire hazard.

When cleaning or inspecting the printer inside, make sure that metal objects, such as necklaces or bracelets, do not touch any internal components.

- Such actions may cause injury or electric shock.

Prevent handling of consumables

CAUTION

When the printer is in operation, do not touch any metal parts and the print head.

- Printing failure may occur.
- Easily generate static electricity and cause damage.
- For safety, store the print head and ink in a place out of the reach of children.
- If the ink is licked or ingested, consult your doctor immediately.

Prevention measures, on how to handle ink cartridges and consumables

WARNING

Be careful not to splash the ink into your eyes or mouth.

- This can cause difficulty breathing or damage to your eyes.
- If the ink splashes into your eyes, rinse immediately and consult your doctor.

If you accidentally eat ink, do not try to induce vomiting, consult your doctor immediately.

The inflow of ink can cause damage that can affect the surface coating of the printer.

 CAUTION

Do not use any ink outside the specified range as it may not only affect print quality but also cause failure.

Do not use expired ink because this can cause failure.

Ink waste disposal shall be implemented in accordance with relevant laws and regulations.

Be careful not to let ink into your skin or clothing. If the ink enters your skin, rinse it immediately with soap and water.

Check waste ink ink bottles regularly to avoid overflow.

Store the ink, in the dark and cold places. Do not store sites exposed to high temperatures or direct sunlight. This may affect its quality.

2. Environmental Impact Statement for Users

Using this product in the following locations may cause fire or short circuit.

- Places with excessive humidity or dryness
- Direct sunlight exposure
- High-temperature environments
- Areas near open flames or moisture

Using this product in the following locations may cause machine failure

- Areas near strong magnetic fields or magnetic equipment
- The recommended operating temperature is between 25°C and 35°C, with humidity levels between 40% and 65%.

3.Product Overview

3.1 Product Introduction

The Super 800 Series combines high-speed productivity with precision color performance to meet diverse production needs.

The Super A-806 is equipped with six EPSON I3200-A1 printheads, delivering fast output and fine detail reproduction. Its intelligent control system improves operational stability, reduces manual adjustment, and supports multiple RIP platforms for smooth, high-quality workflows.

Building on this foundation, the Super A-808 upgrades to eight high-performance printheads and a 13-color configuration, achieving richer tones, deeper color expression, and outstanding image accuracy. A fully enclosed powdering system helps maintain a clean, dust-free environment, enhancing workplace safety and comfort.

With an 800mm printing width and stable industrial design, the Super A-800 Series offers long-run reliability, strong scalability, and excellent economic efficiency—ideal for businesses looking to expand production capacity and deliver professional-grade output.

3.2 aCompatible Consumables

Ink: DTF ink

Media: DTF film, DTF foil, etc.

4. Printer Components

4.1 Front View



Ink Supply Unit

Feeds ink to the printer from individual ink tanks. One tank is provided for each color.

Emergency Stop Buttons

Located on both the left and right sides. Press either button to immediately cut power in emergency situations.

Job Progress Indicator

Displays the progress of the current print job. One indicator will illuminate for every 10% of job completion.

Front Cover

Open to load media or clean internal areas. Keep closed during normal operation.

Left Maintenance Cover

Open to clean the printhead bottom plate. Keep closed during normal operation.

Front Heater

Integrated heater that gently dries ink after printing.

Right Maintenance Cover

Open to clean the capping station area. Keep closed during normal operation.

Service Access Panel

Open to install the printhead or inspect its condition. Keep closed during normal operation.

Status Indicator Lights

Three-color LED indicators for system status:

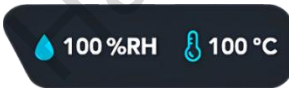
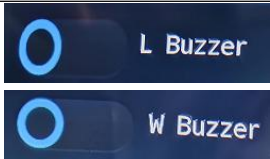
Red: Error present; printing unavailable

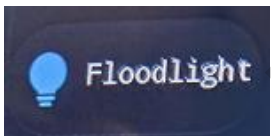
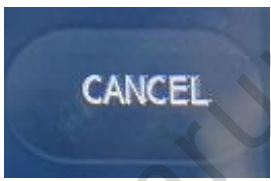
Yellow: Standby

Green: Printing or ready to print

Control Panel

Used to control printer functions and display operating status.

Key / Function	Icon	Description
Board Connection Status		Indicates connection status to the control board
Temp & Humidity Display		Shows environmental temperature and humidity when the sensor module is connected
Function Keys		Move left, move right, media feed, media reverse, standby
Ink Volume		Displays ink volume; orange indicator appears when ink is low
Buzzer / L Buzzer / W Buzzer		Feature not enabled

Top LED		Controls top-area lighting
Platen LED		Controls platform lighting
Motorized Pinch Roller Lift		Raises/lowers pinch rollers; no action indicates control board needs inspection
Menu Key		Enter password 666666 to access system settings: 5/9/13-color modes, circulation test, oscillation on/off
Platen Vacuum		Adjusts vacuum strength on platen
Pause		Pauses current job
Cancel		Cancels current job
—		No function
Heater Control		Displays device code. No display indicates a heater control board connection issue
Ink Cartridge Connection		Illuminates blue when connected; red when waste ink is full

USB Interface

Connects to the computer for printer control via software.

AC Power Output Port

Provides AC output to external devices; voltage matches printer rating.

AC Power Input Port

Connects to AC power for the printer.

Right Upper Housing Cover

Open to inspect internal components.

Right Lower Housing Cover

Open to inspect internal components.

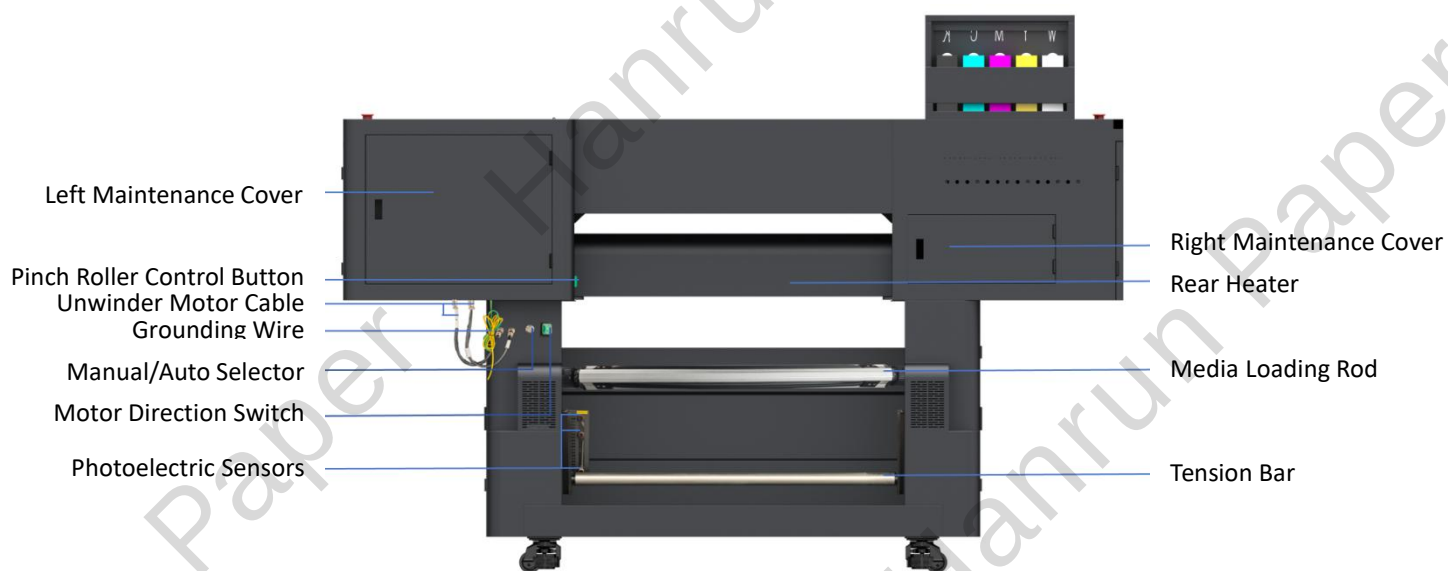
Waste Ink Tank

Collects waste ink. When the panel shows “waste ink full,” open the valve and drain the tank.

Caster Wheels

Four wheels support the printer. Lock wheels at all times during operation.

4.2 Rear View



Left Maintenance Cover

Access to power board and mainboard. Do not open unless the printer requires inspection.

Pinch Roller Control Button

Raises/lowers the pinch rollers.

Unwinder Motor Power Cable

Provides power to the unwinder motor.

Grounding Wire

Use when no proper grounding is available. Connect to earth ground or place into salt water.

Manual/Auto Unwinding Selector

Switches media unwinder mode. Recommended setting: Auto.

Motor Direction Switch

Controls forward or reverse rotation of the unwinder motor.

Photoelectric Sensors

Detect tension bar position:

Upper sensor → No-media alarm

Middle sensor → Unwinder motor engages to feed media

Lower sensor → Unwinder motor stops feeding

Right Maintenance Cover

Contains white-ink agitator to prevent white-ink sedimentation.

Rear Heater

Integrated heater to keep media dry. Prevents moisture-related print quality issues.

Media Loading Rod

Insert rolls with a 3-inch paper core; max roll length: ~500 m.

Tension Bar

Works with sensors to maintain stable media tension for consistent feeding.

5.Installation Instructions

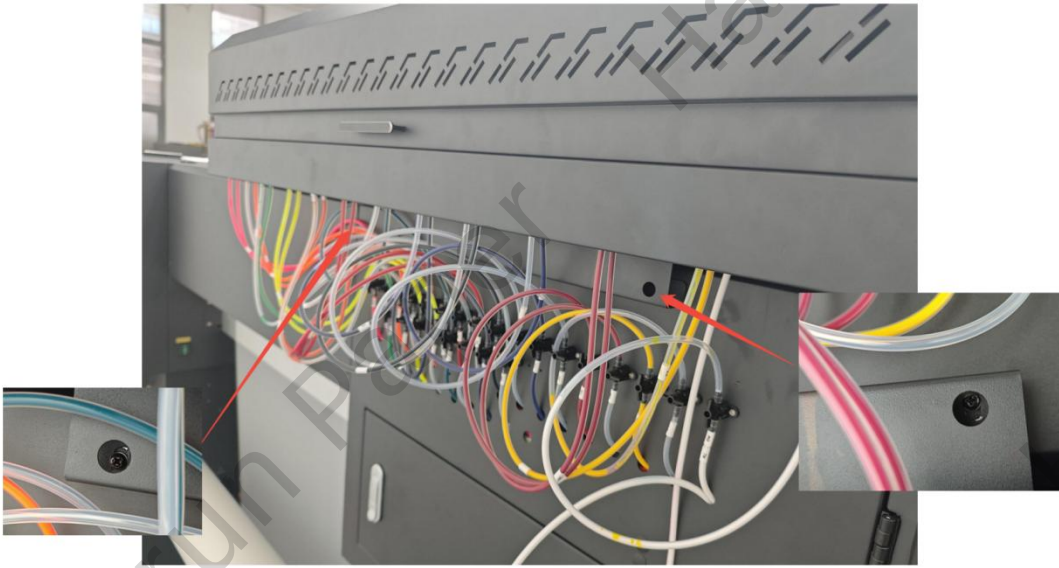
5.1 Hardware Installation

5.1.1 Ink Tank Assembly Installation

Remove the packaged ink supply unit from the crate.Place the unit on top of the printer.Secure the front of the ink supply unit using two screws.



Secure the rear using two additional screws.



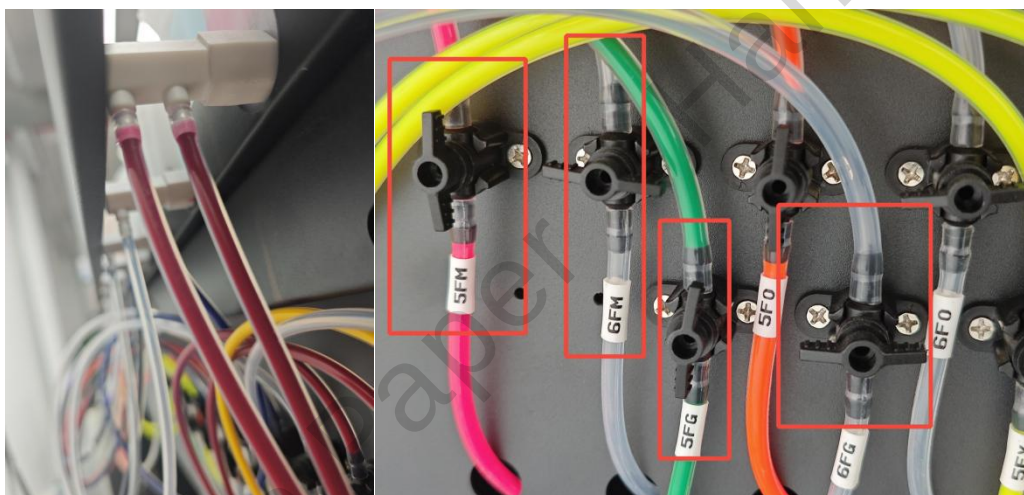
After installation, connect the three cable groups from the ink supply unit to the corresponding internal cables inside the printer.



5.1.2 Ink Tubing Installation

Insert the ink tube at the rear of the printer into the bottom port of the corresponding ink tank. The label “5FM” indicates the FM color for Printhead No. 5.

⚠ Important: Ensure that tubing colors match correctly; incorrect color connection may cause printing errors.



5.1.3 Removing the Carriage Transport Lock

Remove the yellow metal carriage-locking bracket.



Recommended:

Before installing the printhead, install the printer control software and perform a dry-run test (without printing).

After confirming proper operation, power off the machine and wait at least 2 minutes before

installing the printhead.

5.1.4 Printhead Installation

Step 1 — Remove Covers

Remove the carriage protective cover and carriage board protective cover.

Step 2 — Install Printhead Data Cables

The cable with printed letters faces outward; the blank side faces inward. Insert the data cables into the printhead ports, ensuring that the alignment teeth are properly engaged.

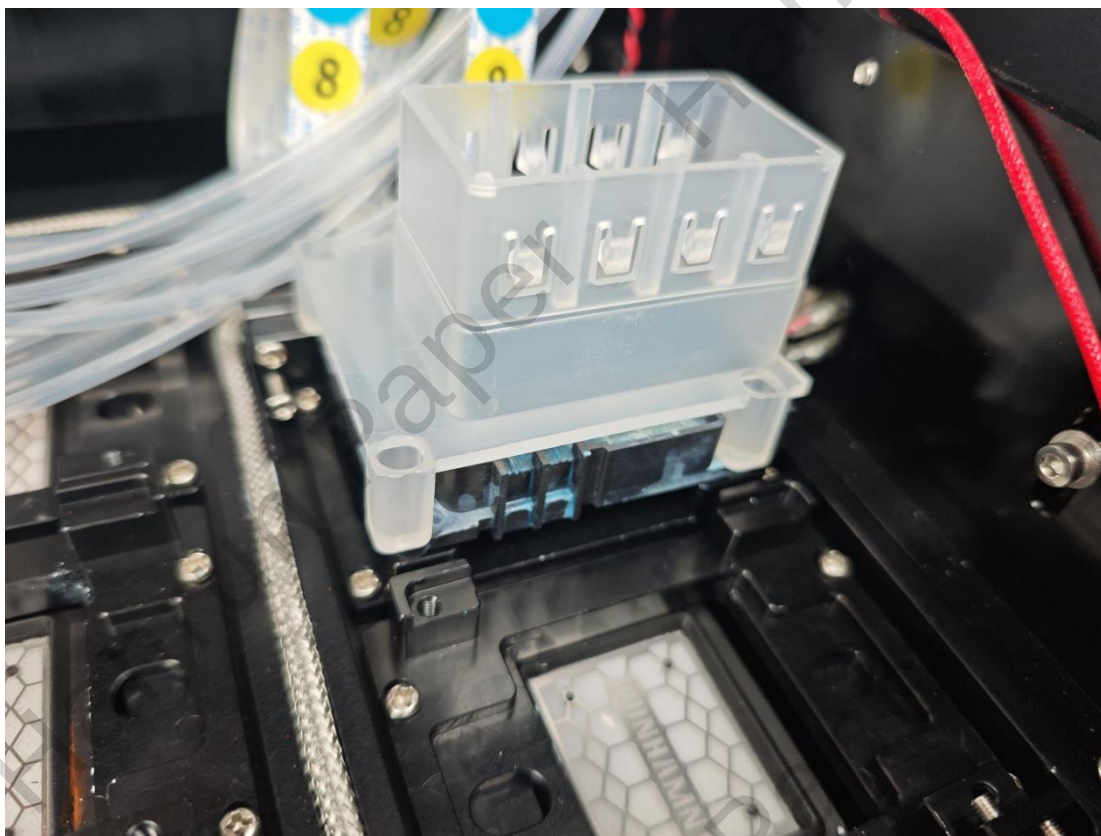


Step 3 — Install Printhead + Dampers Bracket

Position the printhead flat onto the printhead base; ensure full alignment and proper seating. Position the damper bracket over the printhead. Tighten the three screws to secure the assembly.

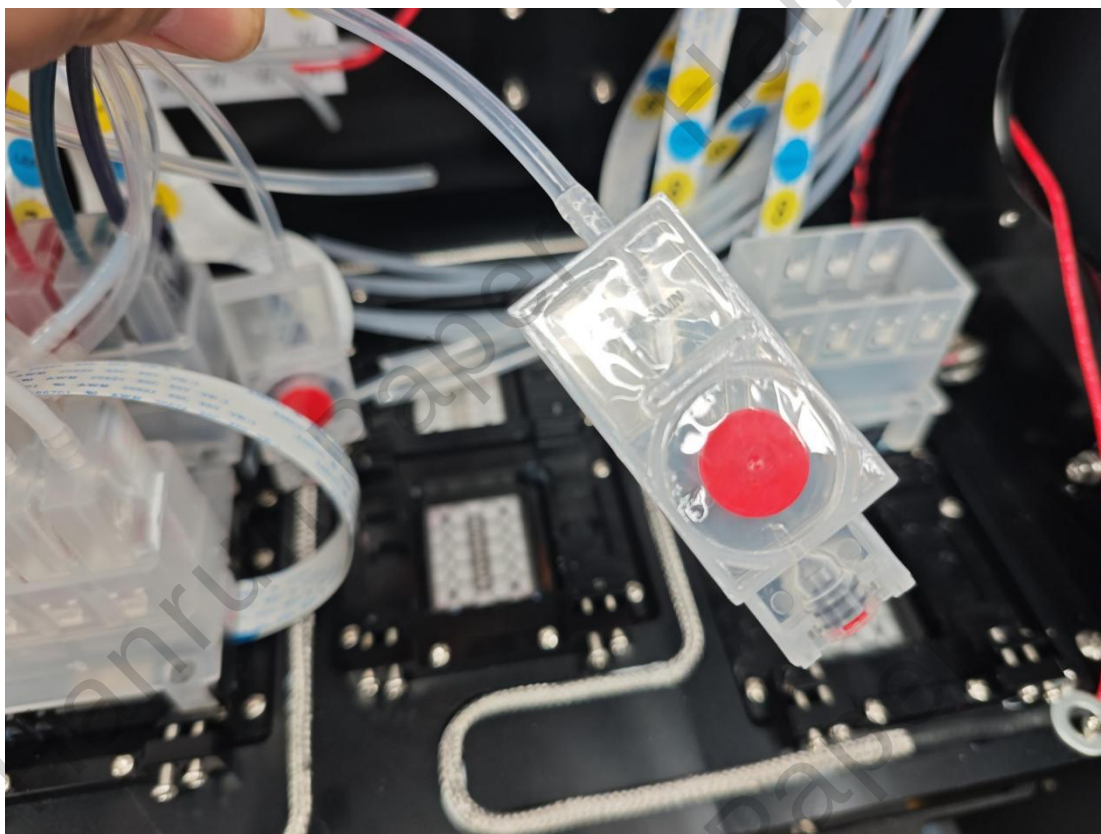
⚠ CAUTION:

Do not touch, scrape, or apply force to the printhead surface.



Step 4 — Install Ink Dampers

Insert the dampers into the ink tubes according to the correct color order.

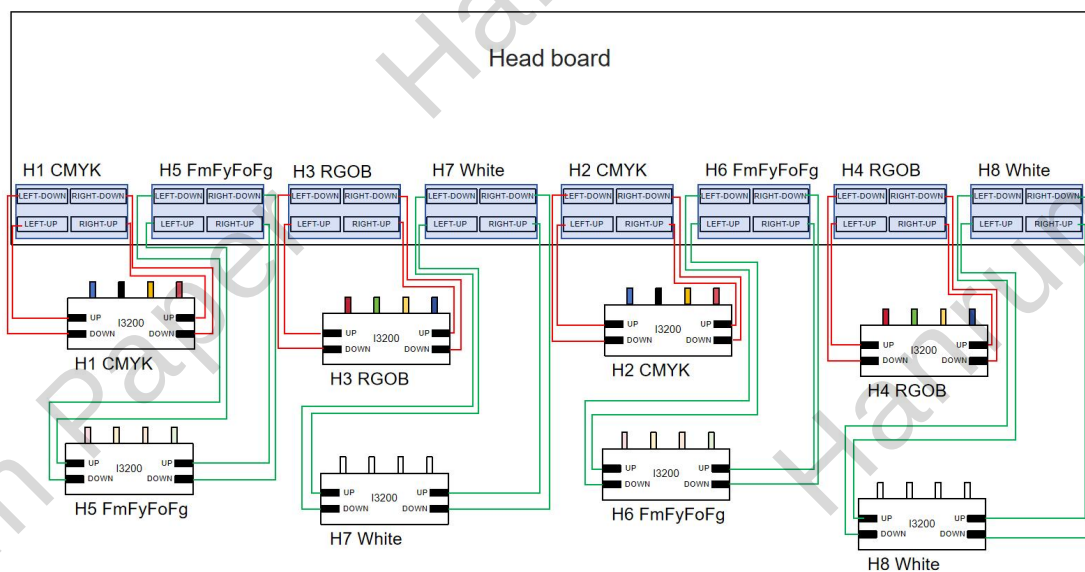


Step 5 — Connect Printhead to Carriage Board

In standard configuration, most data cables on the carriage board are pre-installed.

Ensure that the printhead is positioned correctly.

Refer to the data cable connection diagram below.



After confirming alignment, reinstall the carriage protective cover and carriage board cover.

5.2 Software Installation

5.2.1 PrintEXP Runtime Environment Setup

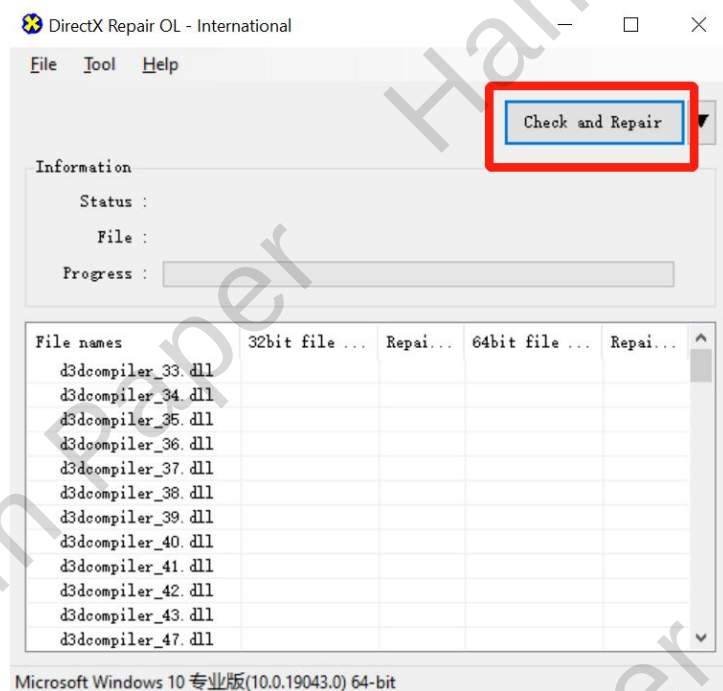
(1) Open the “**DirectX Repair**” folder



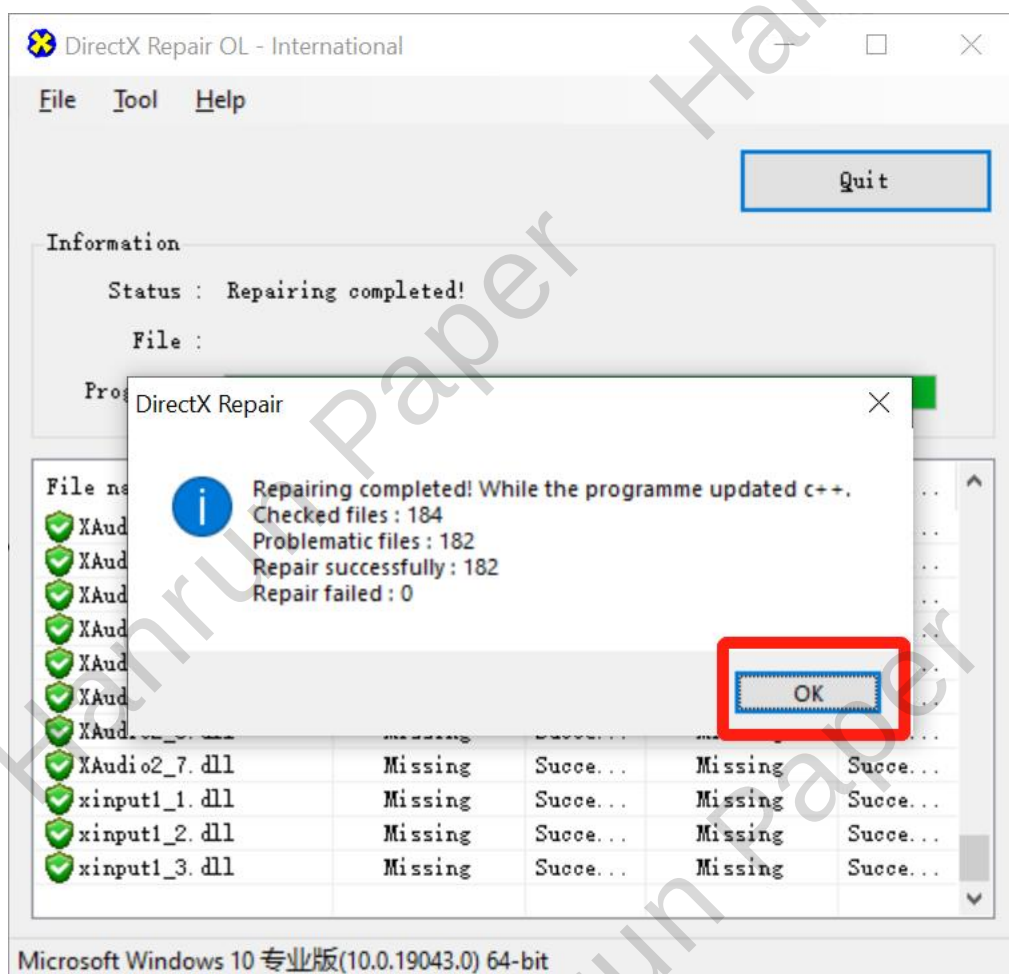
(2) Double-click “**DirectX Repair**” to launch the program.

名称	修改日期	类型	大小
Data	2022/9/5 14:42	文件夹	
DirectX Repair.exe	2020/6/10 19:37	应用程序	1,024 KB
DirectX Repair.exe.config	2020/3/10 22:27	CONFIG 文件	1 KB
log.dat	2022/9/2 16:15	DAT 文件	1 KB
Settings.ini	2018/4/20 21:36	配置设置	1 KB
常见问题解答.txt	2020/5/20 10:47	文本文件	35 KB
点我查看更多资源	2018/11/14 16:09	Internet 快捷方式	1 KB
访问易破解网站	2018/12/21 20:10	Internet 快捷方式	1 KB
更新日志.txt	2020/6/11 21:04	文本文件	76 KB
技术文档.txt	2020/5/20 10:48	文本文件	11 KB
免责声明.TXT	2020/4/4 17:24	文本文件	2 KB
使用说明 (必看).TXT	2020/6/15 12:31	文本文件	19 KB
致Windows XP用户.txt	2020/5/20 10:53	文本文件	2 KB
转载请保留并注明出处	2018/12/21 20:10	Internet 快捷方式	1 KB

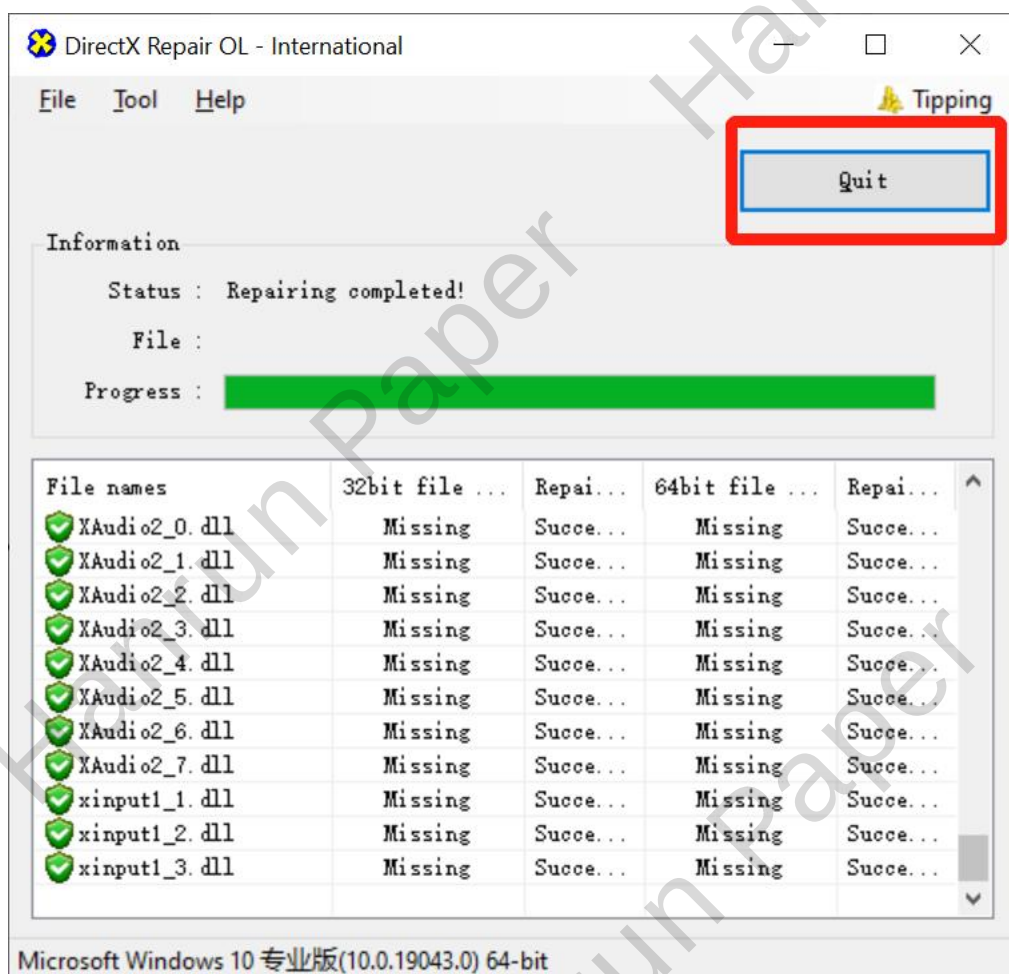
(3) Click “**Check and Repair**” to begin the repair process.



(4) Wait until the update completes, then click “**OK.**”



(5) Click “Quit” to exit the program.



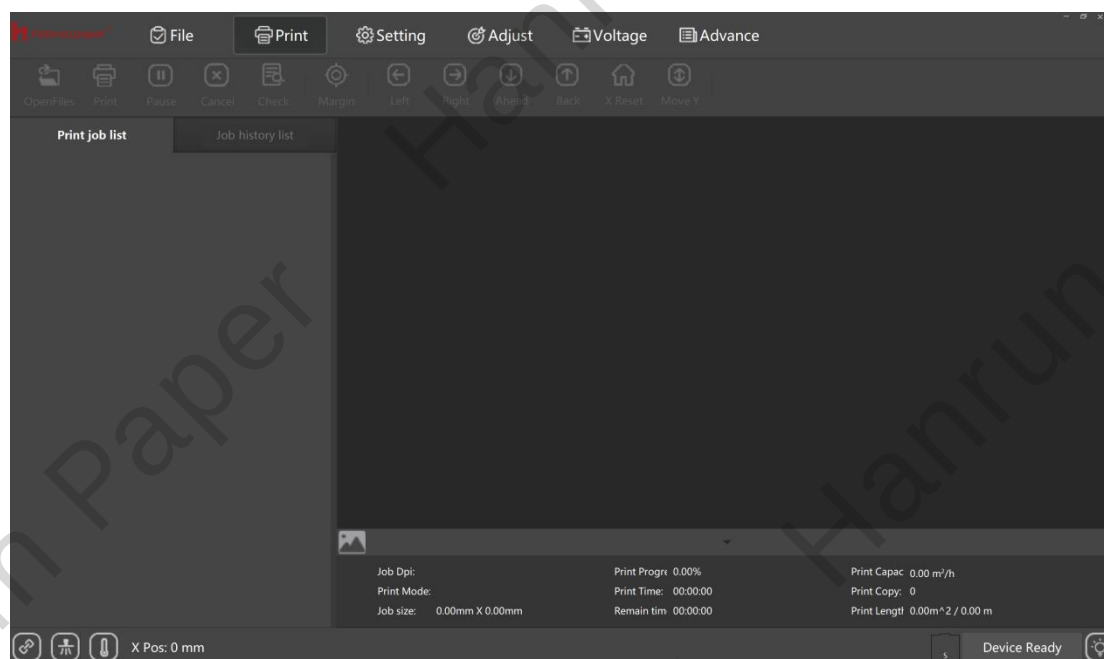
- (6) Open the software package (the image shown is for reference only; confirm the actual version in your package).Open the software package (the image shown is for reference only; confirm the actual version in your package).



- (7) Locate the PrintEXP application file and double- click to open it.

NOVRIGHTSWITCH.dll	2025/1/15 10:23
libcurl.dll	2023/2/6 11:24
mfc100.dll	2023/9/21 14:14
msvc100.dll	2023/9/21 14:14
msvcr100.dll	2023/9/21 14:14
NozzleClose.dll	2025/3/28 14:42
NWRReceive	2025/3/28 14:42
NWRReceiveProc.dll	2025/3/28 14:42
opencv_core249.dll	2025/2/25 10:01
opencv_highgui249.dll	2025/2/25 10:01
opencv_imgproc249.dll	2025/2/25 10:01
PassDataProc.dll	2025/3/20 18:23
PrintExp_X64	2025/3/28 14:45
PrintExp_X64.exe.20250806174134.dmp	2025/8/6 17:41
PrintExpStyle.dll	2025/3/28 14:44
PrintModule.dll	2025/3/20 18:23
PrnContours.dll	2025/3/20 18:23
Project	2025/10/24 17:50
PublicApp.dll	2025/3/28 14:42
SDM8P.DLL	2024/6/3 10:23
SDMCS.dll	2024/1/15 16:50
SimpleXmaste.dll	2025/2/25 10:00
StatisticsInfo.dll	2025/2/10 16:21

(8) When the software interface appears as shown below, installation is complete.

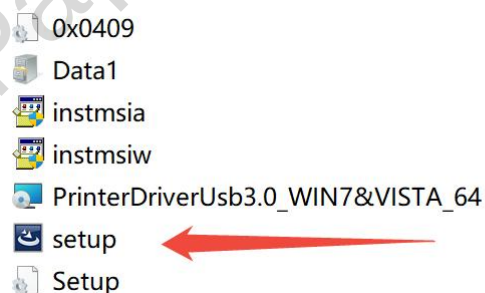


5.2.2 USB Driver Installation

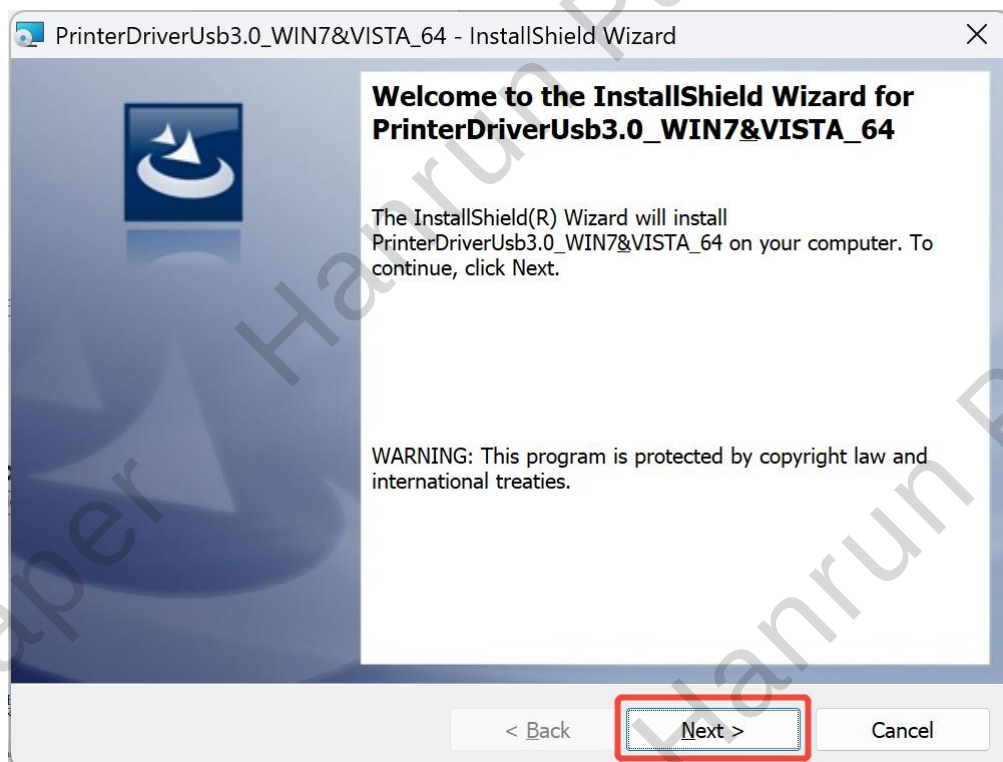
(1) Open the designated folder in the software package.



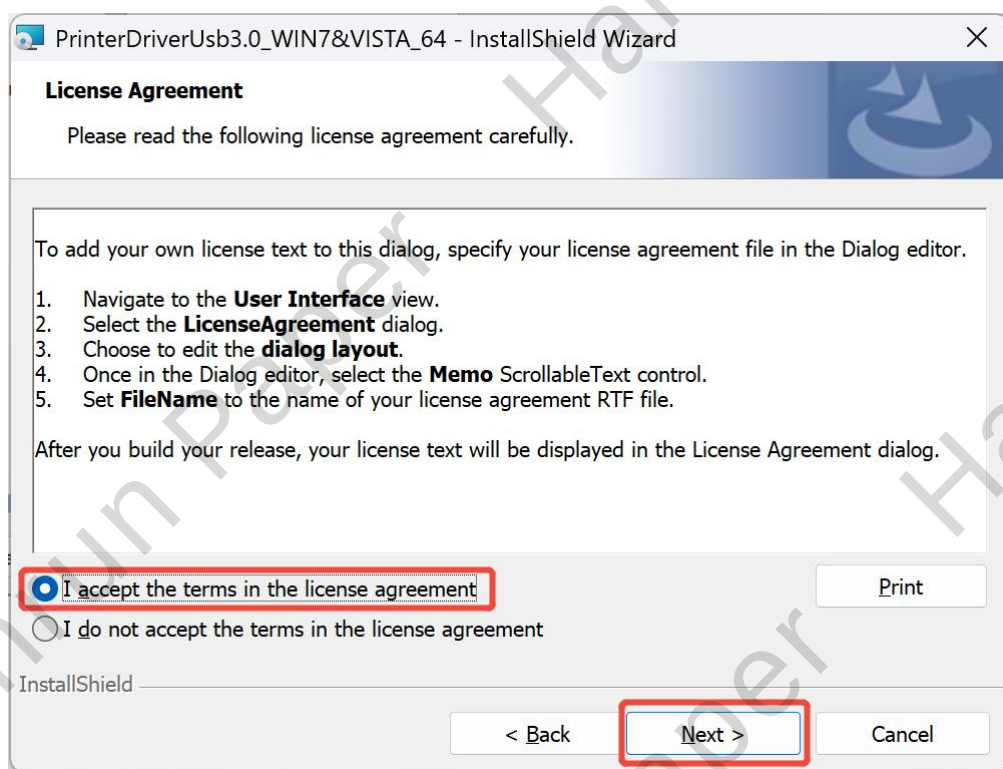
(2) Double-click “setup”.



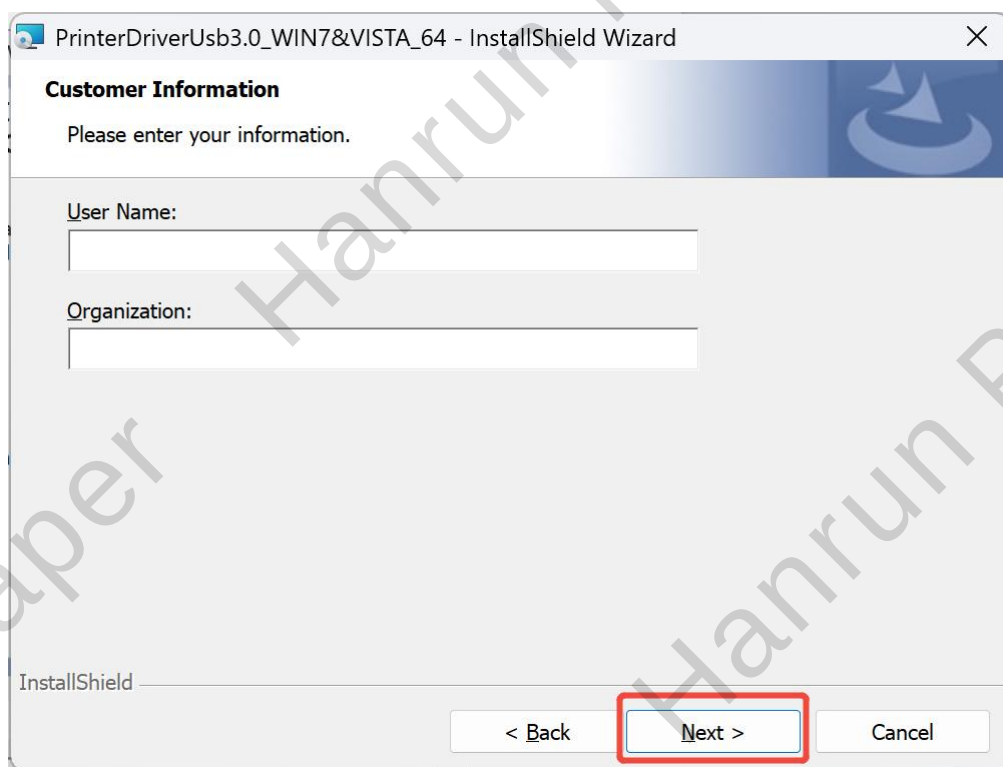
(3) Click Next.



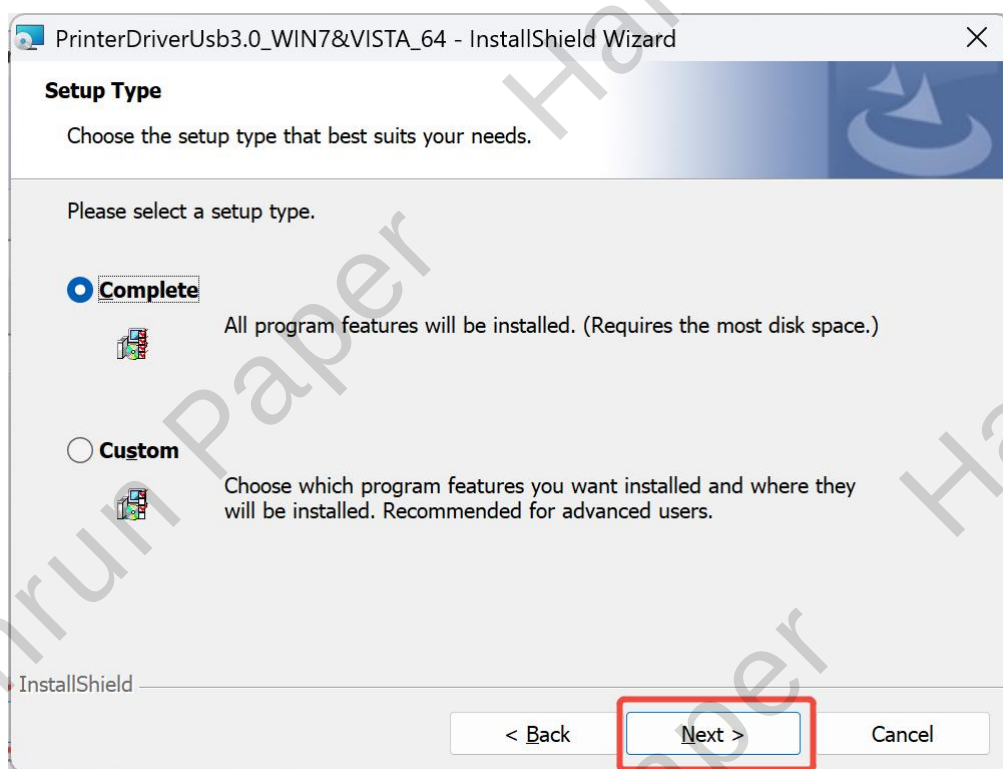
(4) Select “I accept the terms in the license agreement”, then click Next.



(5) Click Next.



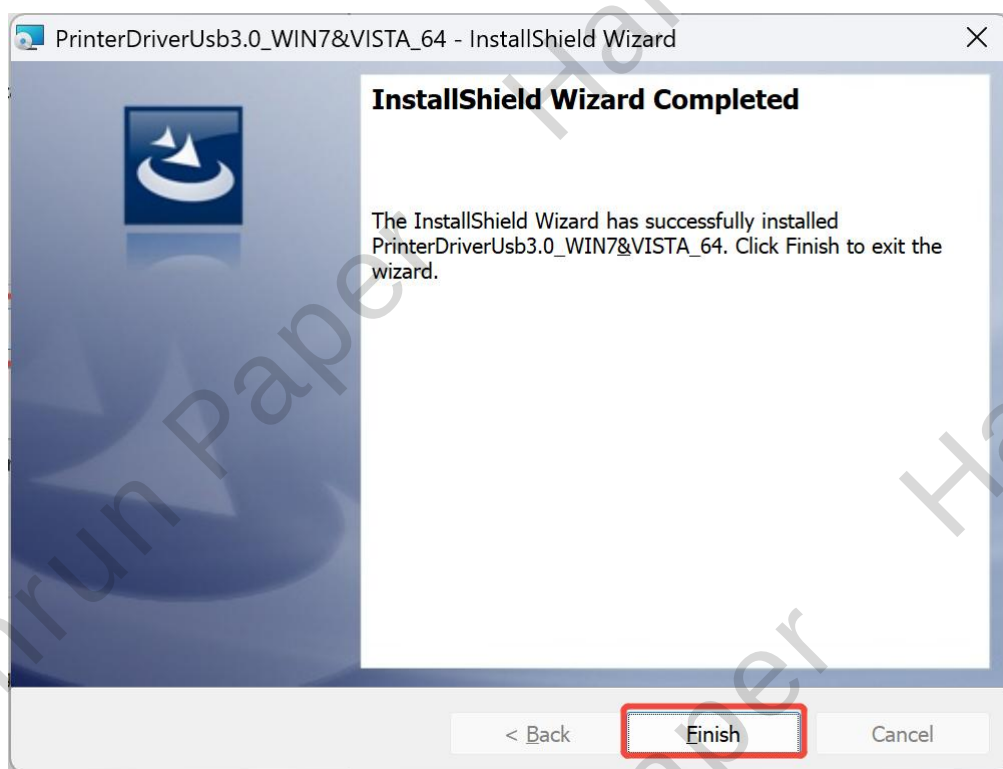
(6) Click Next.



(7) Click Install to begin installation.



(8) Click Finish to complete the process.



5.2.3 RIP Software Installation

(1) MainTop Installation

- a. Insert the **Hanrun Edition MainTop** installation USB into the computer.



- b. Open the folder and click "SETUP".

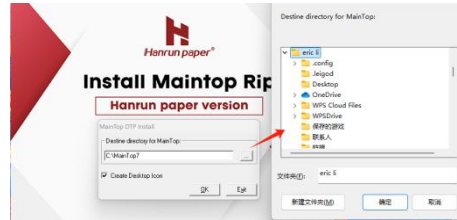


- c. Select a language and click



"OK".

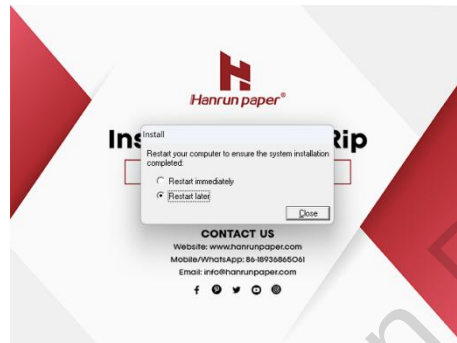
- d. Choose the desired installation location.



- e. Wait for the installation to complete.



- f. Select "Restart later", then click "Close".



- g. Once the desktop icon appears, the installation is complete.



(2) PhotoPrint Installation

Visit the website <https://www.saicloud.com/>. For first-time activation, enter the **PhotoPrint activation code** in the left input field.

Cloud

Welcome to the SAI Cloud.

Activate a New License or Prepaid Subscription

Please enter the activation code that accompanied your software purchase.

Activation Code

Activate

Use this only if you have purchased a new license or prepaid subscription and you are activating this license for the first time.

Login to SAI Cloud Account

Email

Password

Login

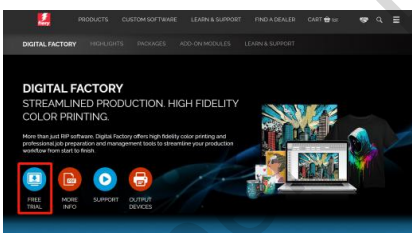
[Forgot Password?](#)

Use this if you have already activated your license and are checking back in for an overview of your licenses, managing your subscriptions, editing your account information or reviewing approval jobs.

(3) CADLink Installation

a. Go to

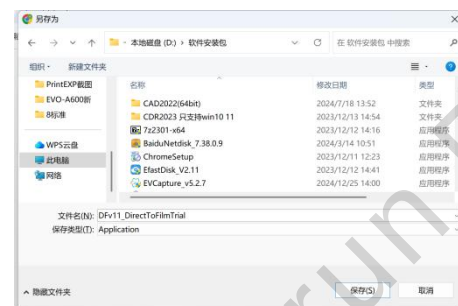
<https://www.cadlink.com/product/digitalfactory/> and click **"FREE TRIAL"**.



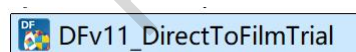
b. Select **"DIRECT TO FILM"**.



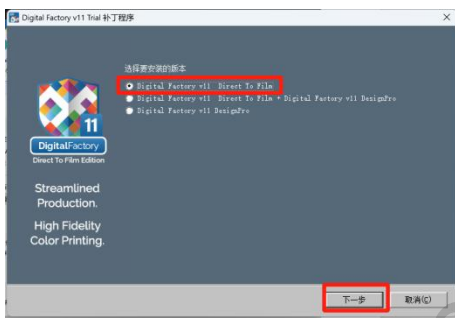
c. Choose a suitable download location.



d. Locate the downloaded file and double-click to run it.



e. Select the first option and click **"Next"**.



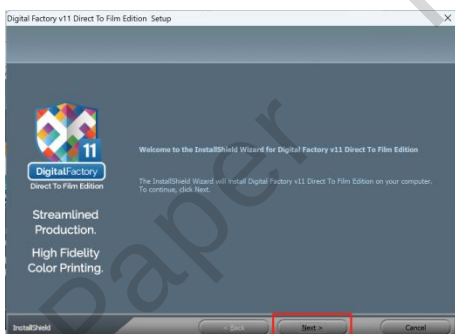
f. Click "Start".



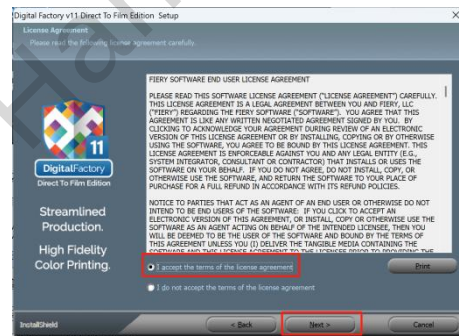
g. Select the desired language and click "OK".



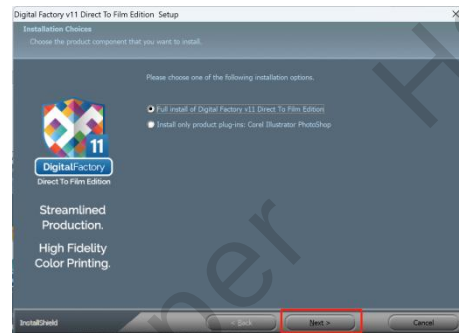
h. Click "Next".



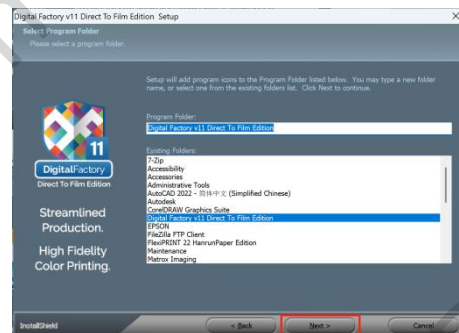
i. Accept the license agreement by selecting "I accept the terms of the license agreement", then click "Next".



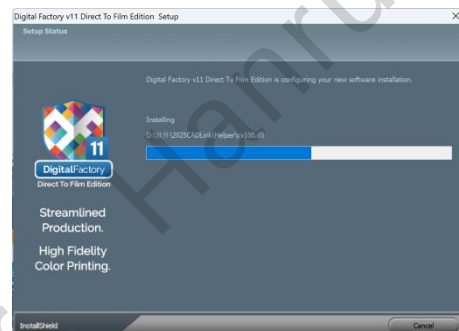
j. Click "Next" again.



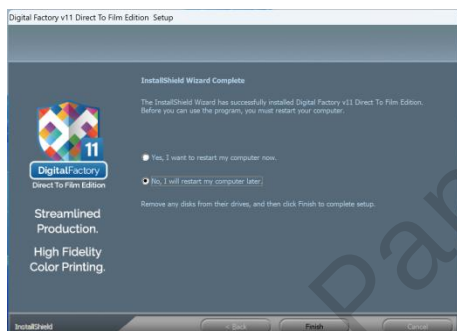
k. Click "Next" once more.



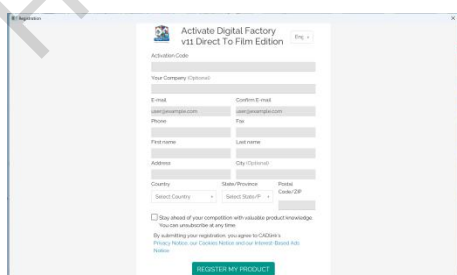
l. Wait for the installation process to complete.



- m. Select "No, I will restart my computer later".**



- n. Open the software, enter the registration details and activation code, and complete the installation.**



6. Basic Operation

To achieve optimal printing results on the printer, the following conditions must be met:

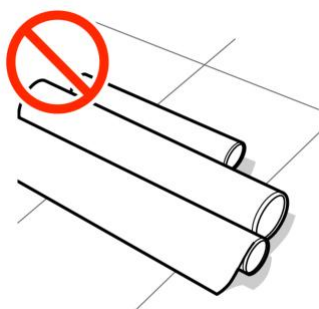
- The media must be properly loaded into the printer.
- Necessary printing adjustments (head calibration and paper feed adjustment) have been performed.
- The printer is in good condition.

6.1 Precautions

6.1.1 Media Storage and Handling Precautions

Improper handling of media can lead to the accumulation of dust and lint, which, if the following guidelines are not followed, may result in ink spots on prints or nozzle clogging:

- Do not place exposed media directly on the floor. Always store media rolled up and securely placed back in its original or a new protective packaging.



- Avoid contact between the media surface and clothing during transport. Ensure that the media remains in its original packaging until ready for use in the printer.

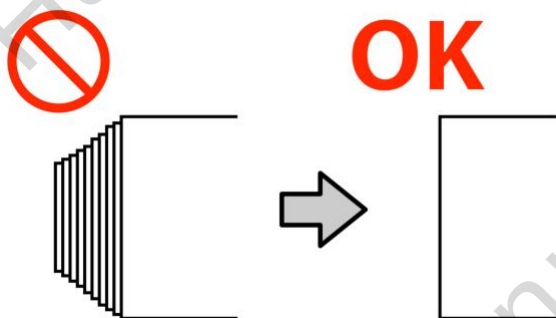


6.1.2 Machine Observation and Maintenance Precautions

- The front and rear heating elements can become quite hot. Always take proper precautions to prevent burns.
- The edges of the media can be sharp; handle with care to avoid injury.
- When opening or closing covers, be cautious not to pinch your hands or fingers.

6.1.3 Media Loading Precautions

- Do not leave media inside the printer for extended periods as the pinch rollers may leave indentations on the media. Additionally, media may wrinkle, curl, or interfere with the print head during feeding.
- When loading media, ensure the left and right edges are aligned. Misalignment can cause the media to shift during printing. If misalignment occurs, rewind the media to realign the edges, or use a fresh roll of media.



- Do not use media that is folded, wrinkled, worn, torn, or dirty. Such media may distort, causing the print head to come into contact with the media and potentially leading to damage.

6.2 Installing the Print Media

- (1) Connect the power cable and turn on the main power switch.



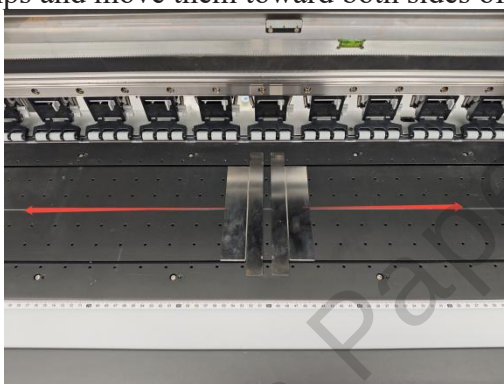
Rotate the emergency stop buttons on both sides of the printer clockwise and wait

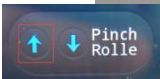
for the printer to finish initialization.

- (2) Open the front cover.

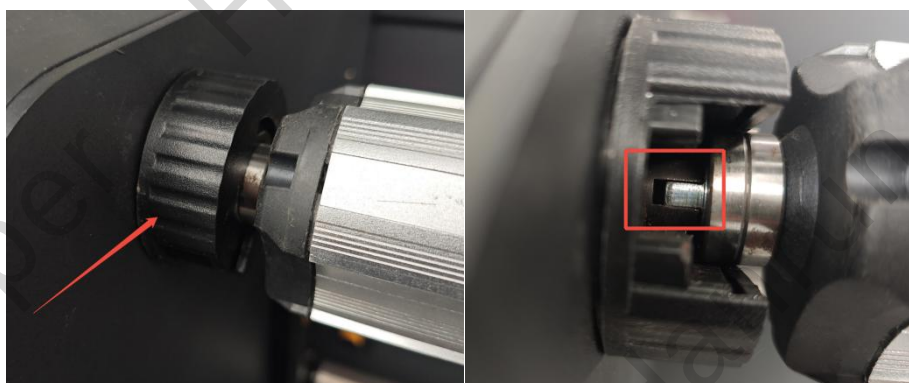


- (3) Press the media edge clamps and move them toward both sides of the platen.



- (4) On the touchscreen , tap the button to lift the pinch rollers.

- (5) Move to the back of the printer. Rotate the locking covers on both sides of the feed shaft, then rotate the shaft until the buckle is exposed. Remove the media loading rod.



- (6) Install the media roll onto the loading rod.

NOTE:

Only media with a 3-inch core is supported.

A smaller core will not fit, and a larger core may slip on the shaft, causing media-feeding failure and

resulting in banding or print defects.



- (7) Align the buckles on the loading rod with the mounting positions on the printer, then insert the rod. Rotate the side covers to lock it in place. Ensure the media orientation is correct.



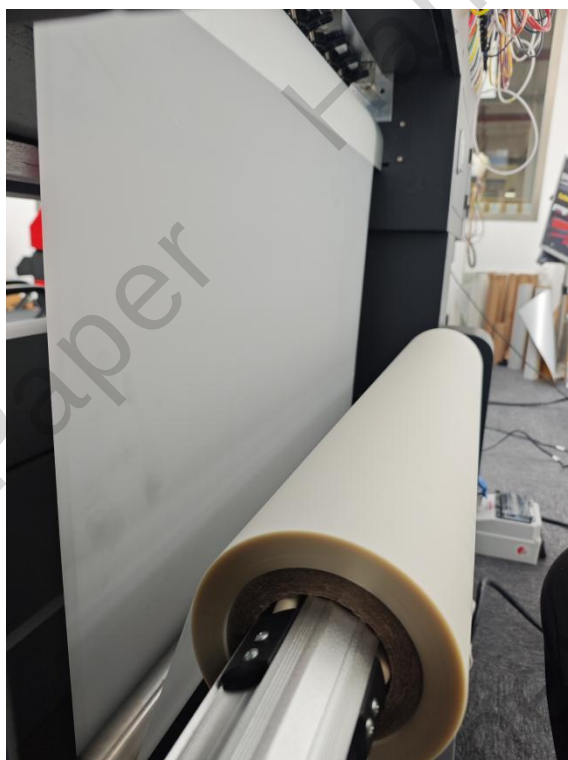
- (8) Pull approximately 1 meter of media from the roll. Route the media around the tension bar, and feed approximately 20 cm into the printer.

Press the pinch-roller button on the side panel. After the pinch rollers lower, return the button to

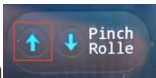


the middle position.

The media should now be held securely.



(9) Move to the front of the printer. Hold the media to prevent it from dropping back, then tap the

touchscreen button  to raise the pinch rollers.

(10) Hold the center portion of the media and pull it straight toward the front. Do not pull the media using both hands —this may skew the media left or right.



(11) Tap the touchscreen button to lower the pinch rollers.

(12) Move to the back of the printer and lightly press both media edges. Check for tension differences between the left and right sides. If the tension is uneven or loose, return to the front of the printer, raise the pinch rollers, adjust the media, and then lower the rollers again.



(13) Manually rotate the loading rod until the tension bar reaches the middle photo-sensor.

Switch the unwinding system to AUTO mode. The unwinding motor will continue to feed media until the tension bar drops to the lower photo-sensor.



(14) Move to the front of the printer and slide the media edge clamps inward so they cover about 5 mm of the media edge.

These clamps help prevent edge lift and keep the coated edge from contacting the printhead.

After powering on the powder shaker, press the Start button



and rotate the

emergency-stop knob



clockwise to release it. Tap the Heating button



to begin heating, and fill the powder bin with sufficient hot-melt powder.

- (15) Once the printer has printed a sufficient length of media, feed the printed media into the powder shaker.

Place it across the suction roller and enable the Vacuum function



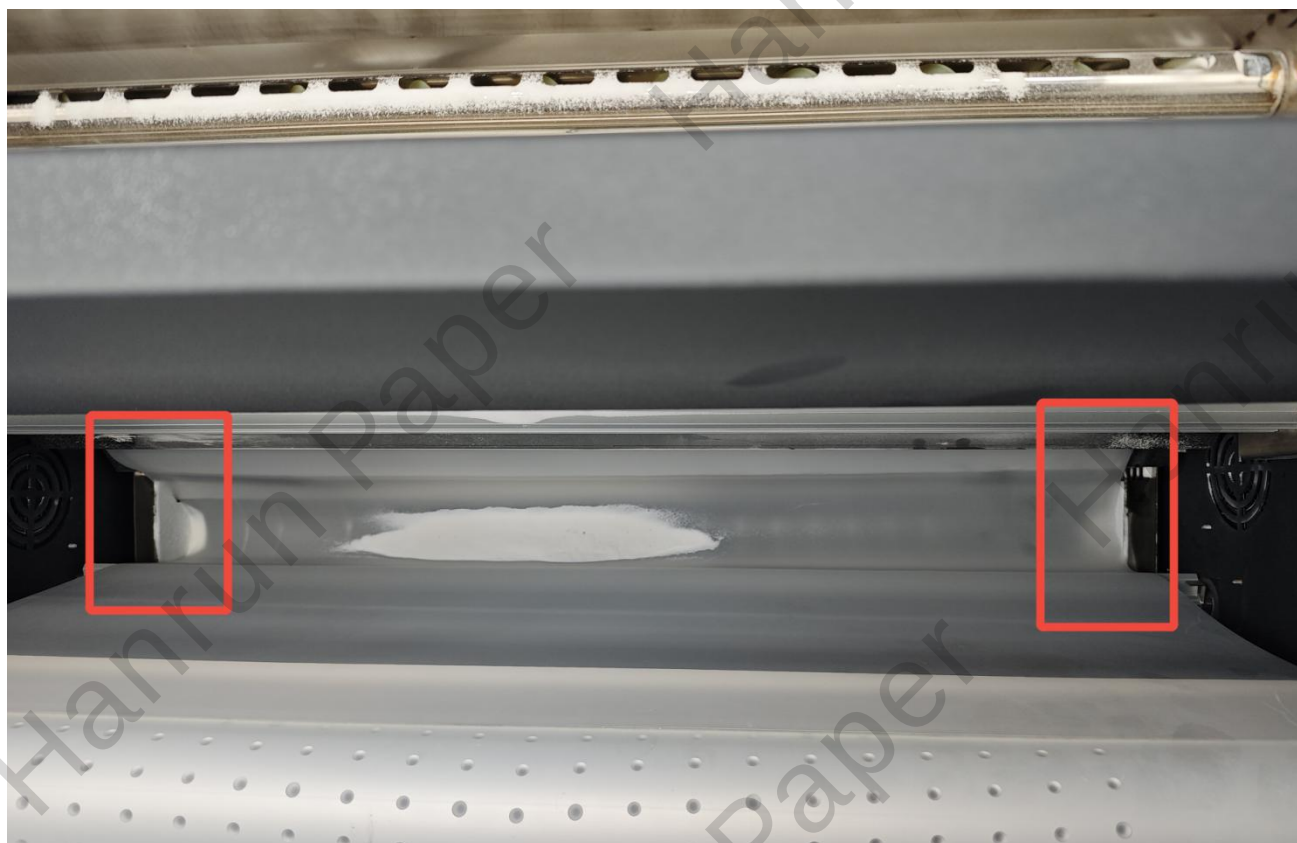
from the shaker touchscreen.



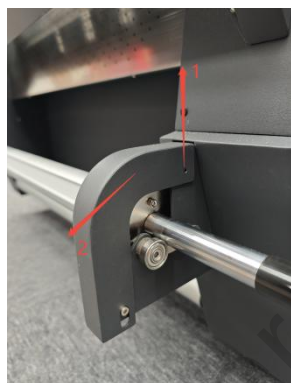
- (16) On the shaker touchscreen, tap Manual → Auto.

The powder shaker will now automatically advance the media according to the printing speed.

- (17) Adjust the left and right metal guides so the media is fully seated within the channel.



At the shaker outlet, lift the right-side metal cover upward and outward to open the protective housing. Remove the winding rod.



Remove the left clamping piece, slide an empty paper core onto the rod, reinstall the clamp, and tighten the screw. Reinstall the rod into the powder shaker.

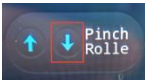


- (18) When enough media exits the shaker, route it under the tension bar and adhere it to the empty paper core.



- (19) After printing is finished, press and hold the Forward button  to advance approximately 50 cm of media for cutting.

- (20) On the powder shaker touchscreen, tap Link . The shaker will automatically transport the remaining media.

- (21) Press the media edge clamps outward, then tap the touchscreen button  to raise the pinch rollers.

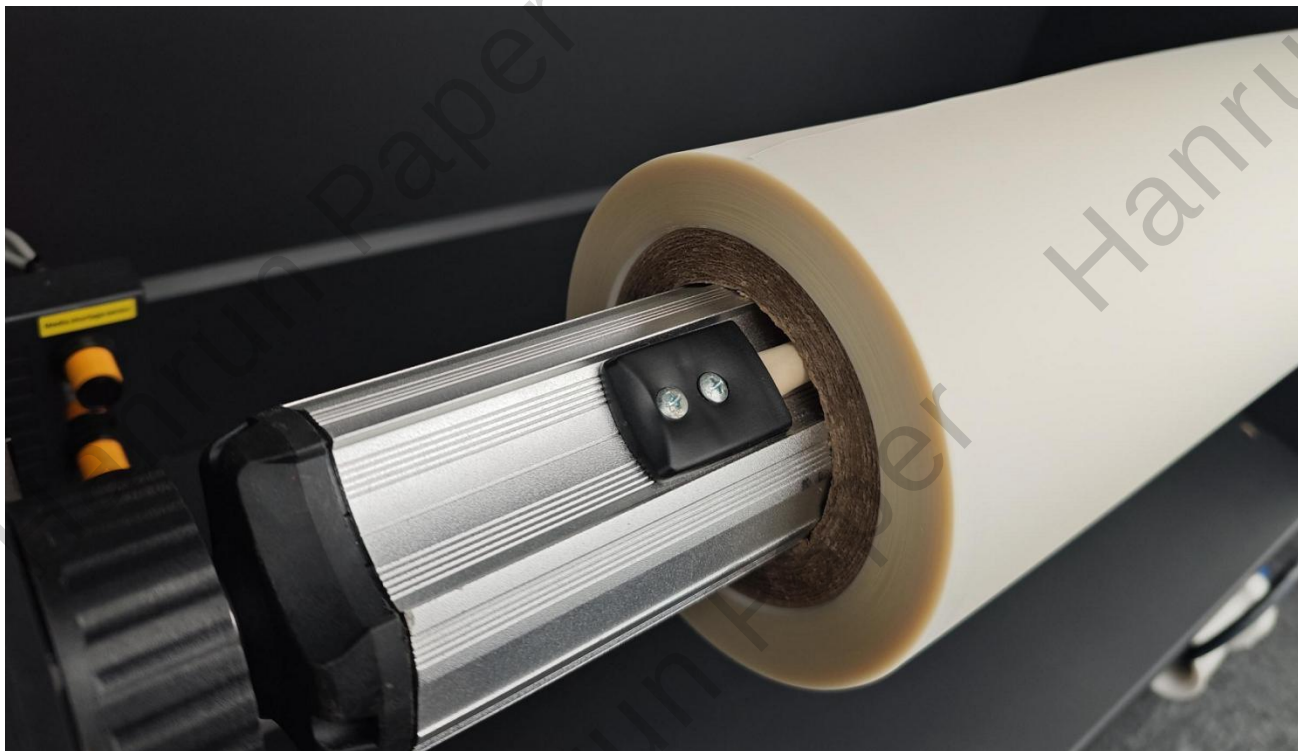
- (22) Move to the back of the printer and switch to Manual Rewind mode.





After rewinding is complete, return the mode switch to the middle position.

Open the locking covers on both sides and remove the media loading rod.

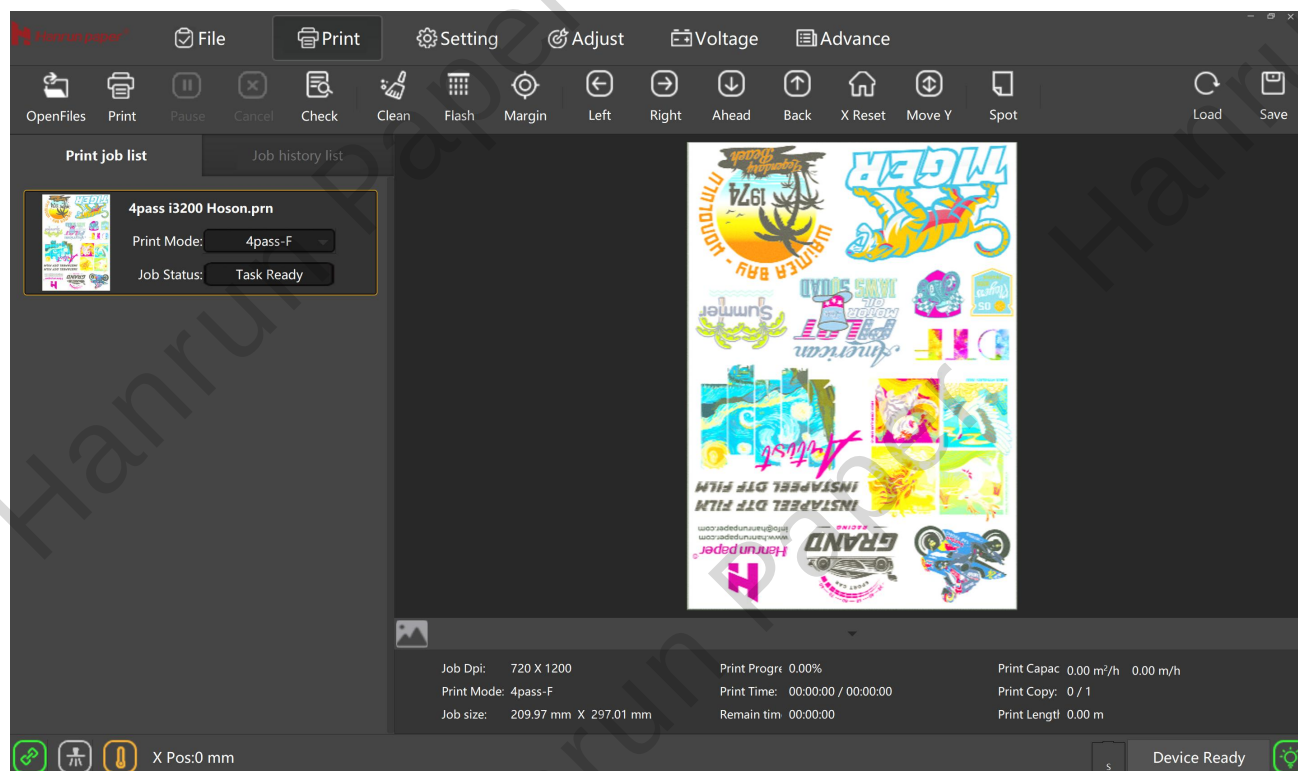


(23) Remove the media, store it in a protective bag. Reinstall the loading rod, lock both covers, and close the front cover.

7. Software Usage Instructions

7.1.1 Introduction of the software main interface window

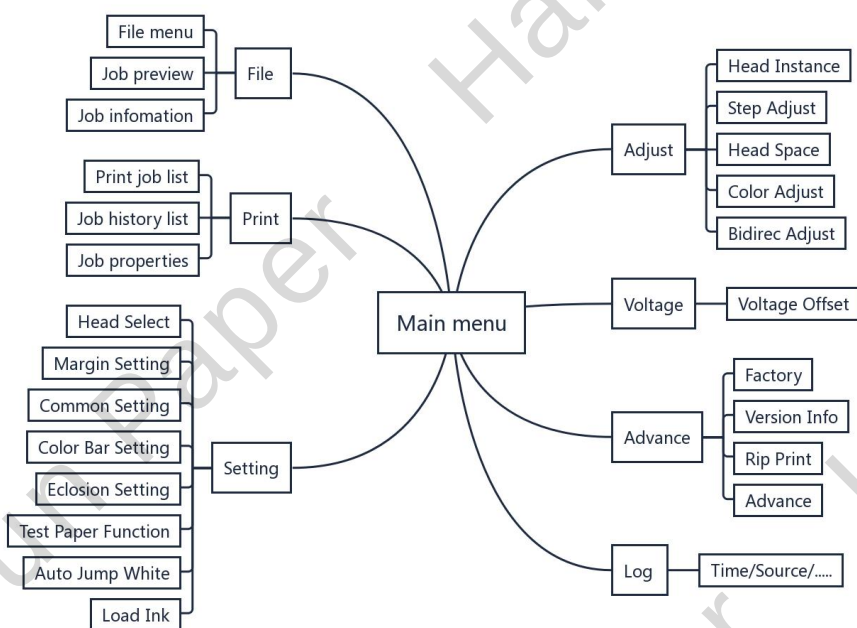
The main software interface of PrintExp is shown below:



The main interface of PrintExp software mainly includes the main menu function area, shortcut button function area, print list function area, task preview map display function area, printing task information function area, status bar, etc. The following parts are introduced respectively.

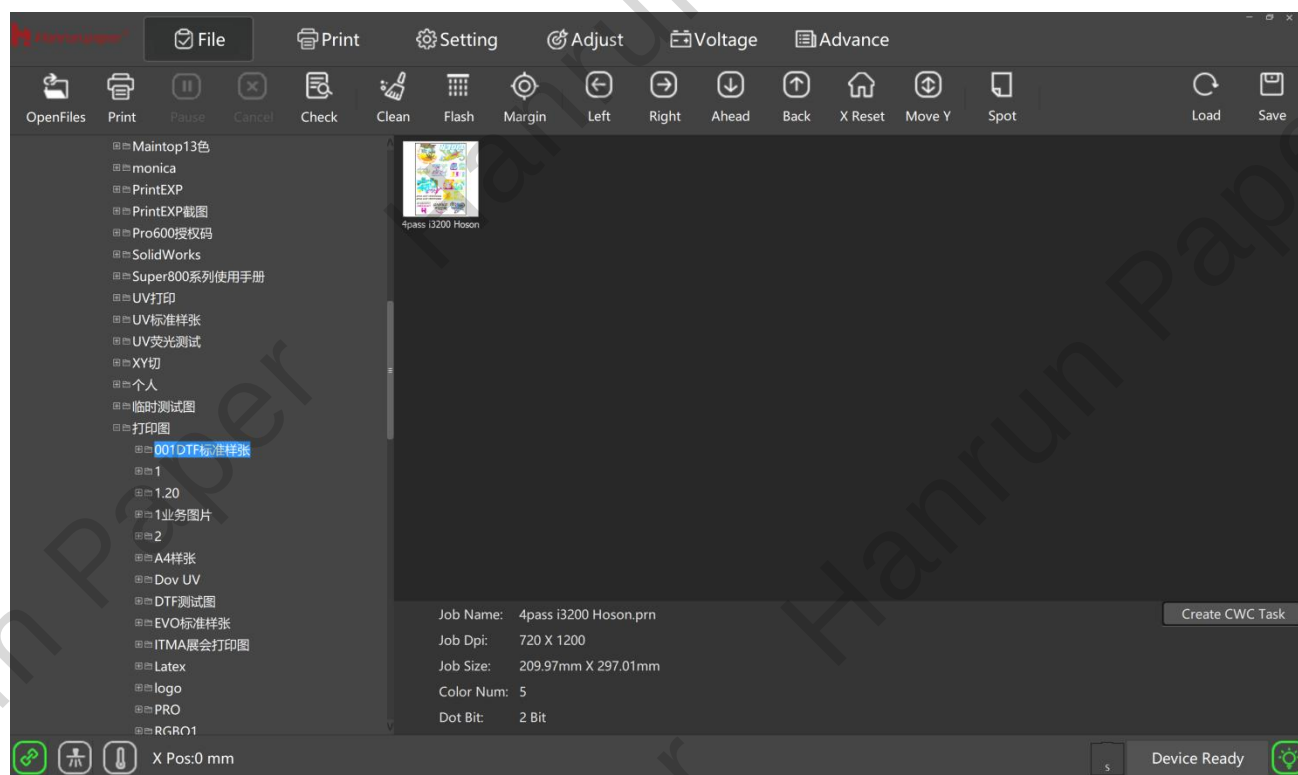
7.1.2 Primary menu

The menu tree for the main menu is shown below:



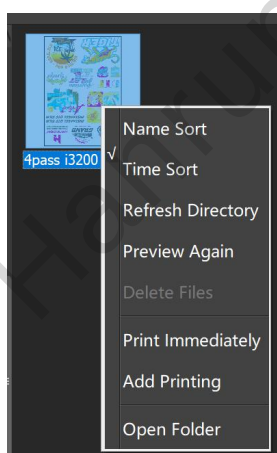
7.1.3 Document

Click the file in the menu bar to enter the file interface, which mainly includes the file directory window, the picture preview window, and the picture information display column in the figure below:



No.	Name	Function Description
1	The File Directory	Select the storage folder for the print file
2	Print File Preview	Displays all print files under the specified print file file
3	Print File Information Display	Displays the print information for the selected print file

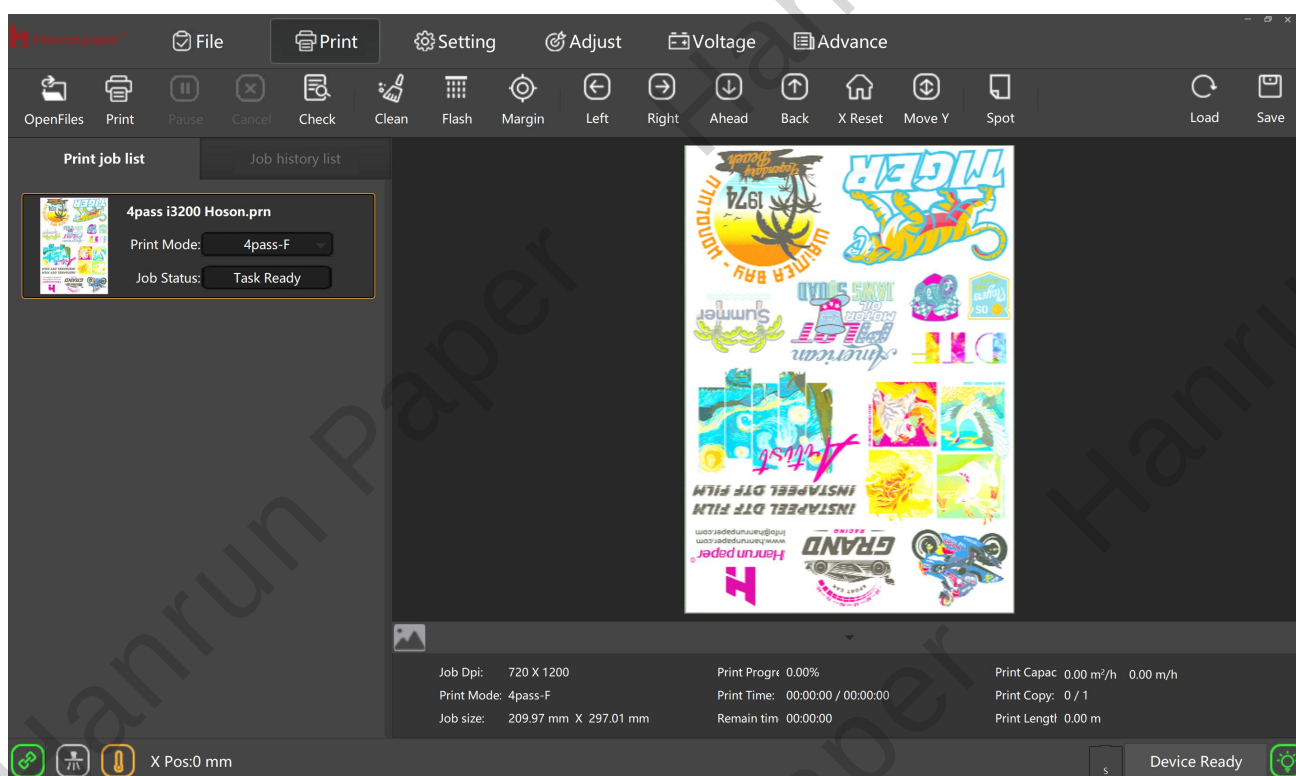
If you select the preview image and then right-click, the menu list will pop up in the following figure:



No.	Name	Function Description
1	Refresh Directory	Refresh all print files under the specified print file folder
2	Preview Again	Regenerates the preview map of the currently specified print file
3	Deleted Files	Delete the print file
4	Print Immediately	Add the current print file to the print task list, and perform the print immediately
5	Add Printing	Add the selected print file to the print task list
6	Open Folder	Open the folder corresponding to the print file

7.1.4 Put a seal on

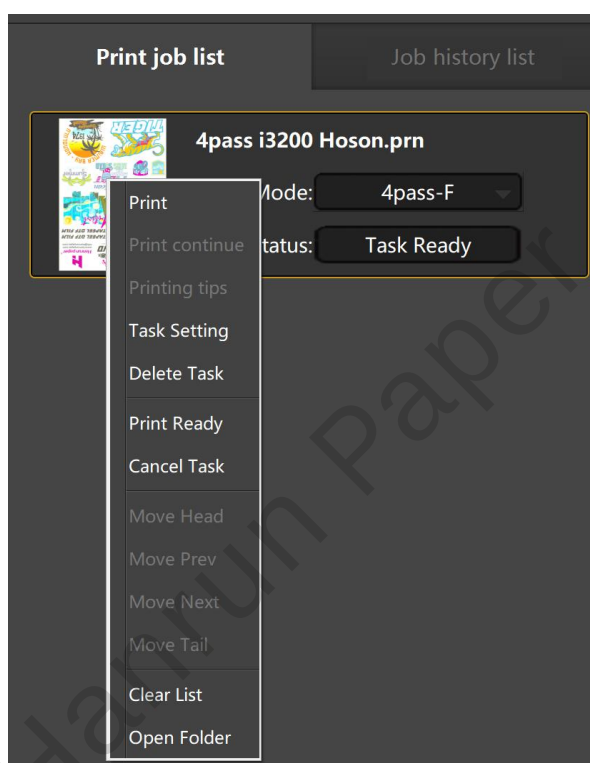
Click the Print in the menu bar to enter the printing interface, as shown in the figure below:



No.	Name	Function Description
1	Main Menu	Area displaying the system's main function buttons
2	Shortcut Buttons	Area displaying frequently used command buttons
3	Task List	Displays the area for all of the tasks currently being printed or to be printed
4	Task Preview Display Area	The area that displays the preview map of the selected print task
5	Print Task Information	The area that displays all of the print information for the current print task
6	Status Bar	The area that displays the current working status or connection status of the system

The printing interface includes printing task list window, historical task list window, printing task preview window and printing information window; select a task in the printing task list, and the click of the right button brings up the next menu.as illustrated in following figure:

(1) Open the list of tasks



No.	Name	Function Description
1	Print	Execute print
2	Delete Task	Remove from the list of print tasks
3	Print Ready	Add the current task to the pending print queue
4	Cancel Task	Cancel printing or cancel the waiting-to-print status
5	Move Head	Move the selected task to the top of the task list
6	Move Prev	Move the printing task forward by one bit
7	Move Next	Move the printing task back to one bit
8	Move Tail	Move the selected task to the end of the task list
9	Clear List	Clear all tasks in the print task list
10	Open Folder	Open the folder where the print file is located

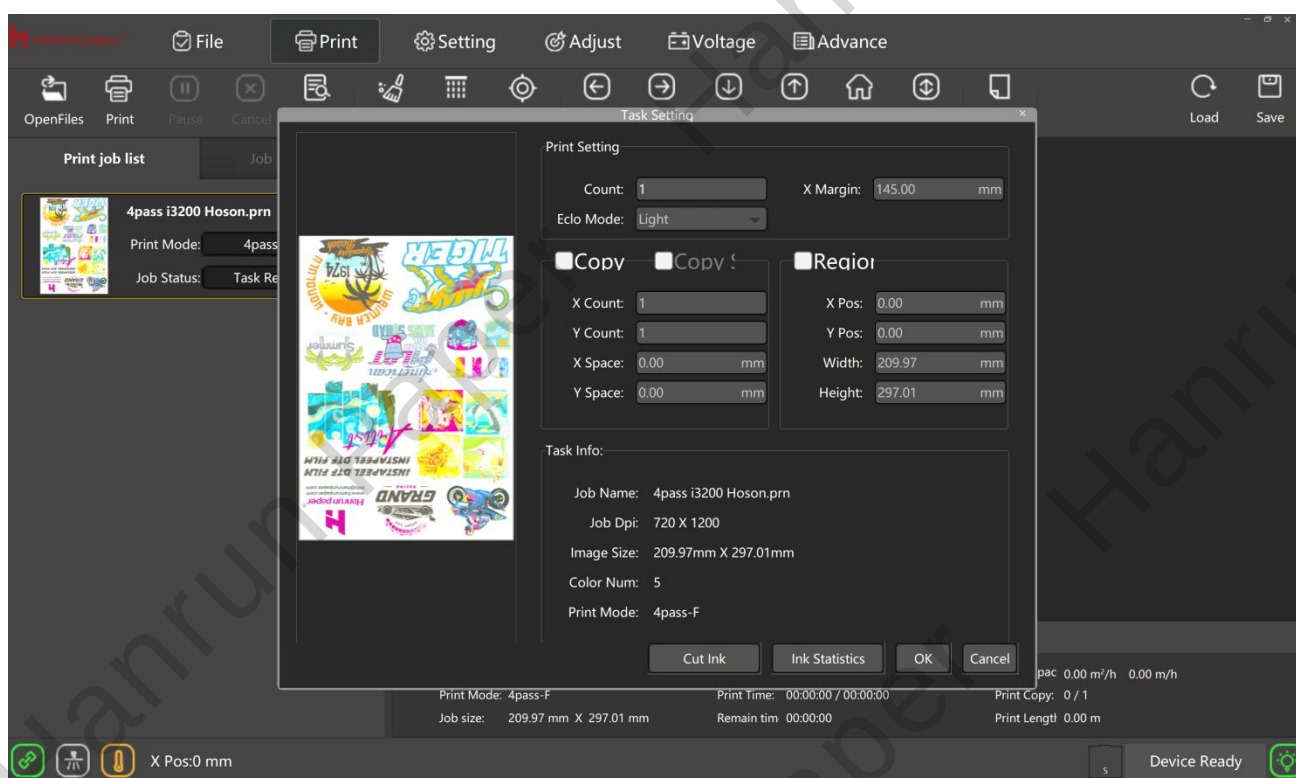
(2) Job history list



No.	Name	Function Description
1	Add Print	Add a task to the print task list
2	Print Immediately	Add a task to the print task list, and execute the print immediately
3	Delete Task	Remove the task from the history print list
4	Clear List	Clear all the tasks in the history print list
5	Open Folder	Open the folder where the print file is located

(3) Task properties

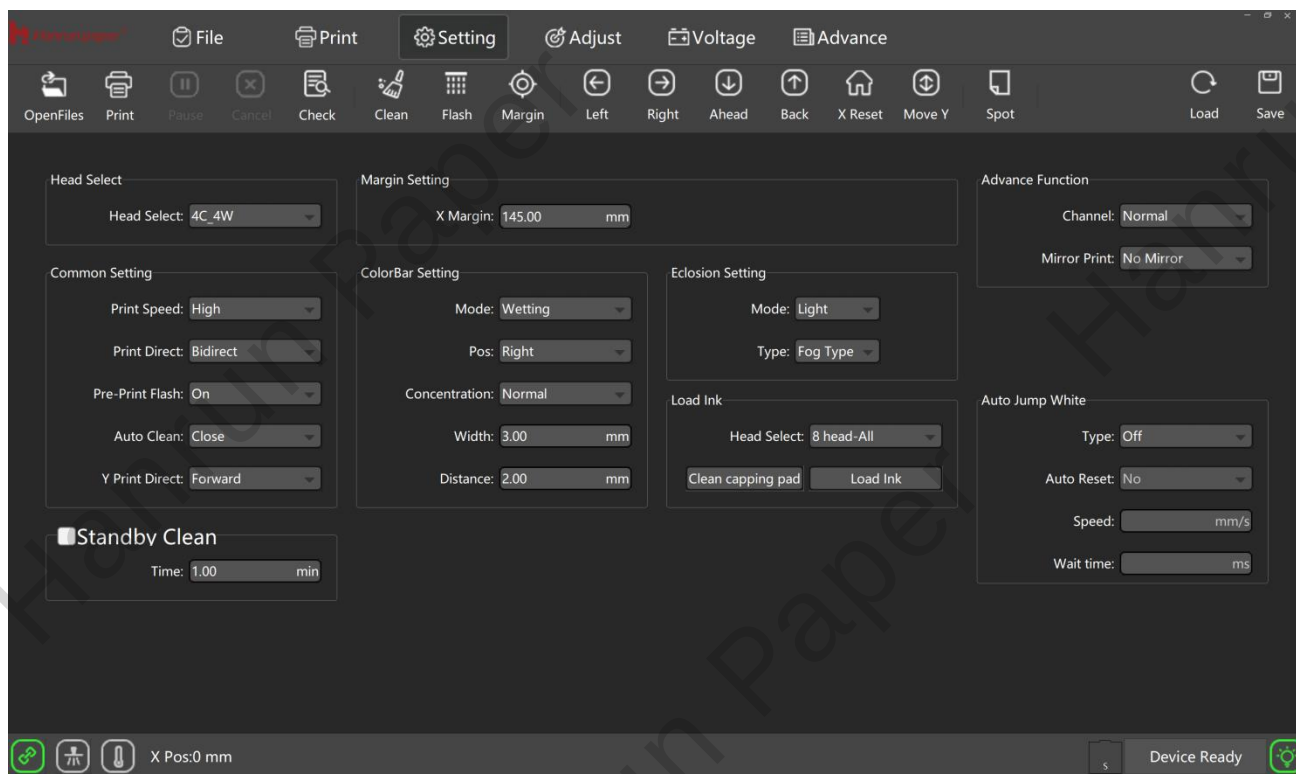
Double-click a task in the print task list to enter the task properties window for the task, in the following figure:



No.	Name		Function Description
1	Print Setting	Print the number of copies	Sets the number of times the task does repeated printing
2	Copy	X count	The number of horizontal continuous bask in
		Y count	Longitudinal number of consecutive sun amplitudes
		X space	Horizontal joint exposure interval (mm unit)
		Y space	Longitudinal continuous exposure interval (mm unit)
3	Region Printing	X position	The X-direction start printing location in the print file
		Y position	The Y-direction start print location in the print file
		Width	Print width of the selected area in the print file
		Height	Print height of the selected area in the print file
4	Task Info		Includes the name of the task, the printing accuracy of the task, the size of the printing task, and the dozen Number of print task colors, the number of pass of the print task

(4) Setting

Click the settings in the menu bar to enter the Settings interface as shown in the figure:

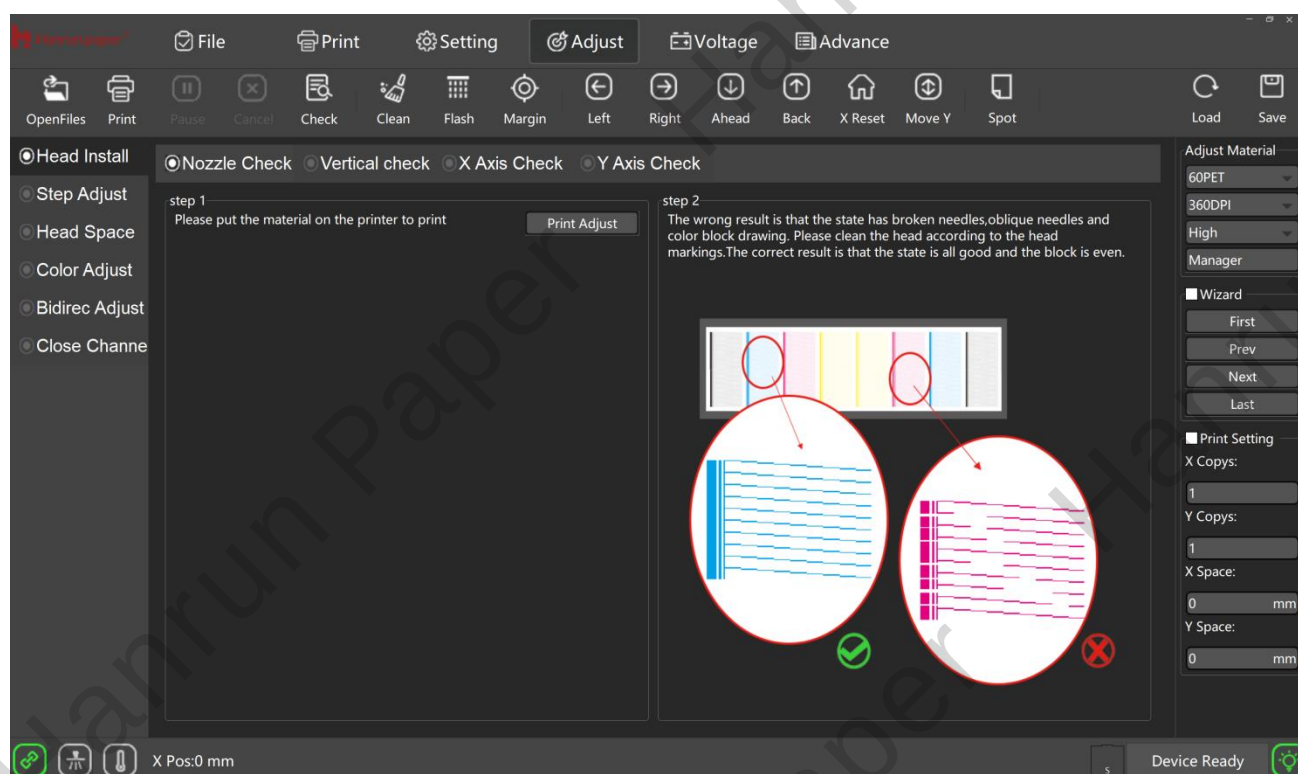


No.	Name		Function Description
1	Head Select		Head selection settings are only available for specific model conditions
2	Margin setting		Sets the starting location of the print
3	Common Settings	Print Speed	Set the printing speed to low speed, medium speed, and high speed
		Print Direction	Set the printing direction to left, right, two-way printing
		Pre-Print Flash	Set the front flash on or off
		Auto Clean	Set up automatic cleaning on or automatic cleaning off

4	Color Bar Setting	Color Bar Position	Can set the position of the bar for the left of the bar, the right of the bar, both sides Color strip, close the color strip.
		Color Bar Mode	The difference between the two color bar patterns
		Concentration	Can set the color bar concentration is weak, medium, strong gear
		Color Bar Width	The width of the color bar
		Color Bar Distance	Blank spacing between the color bars and the printed picture
5	Eclosion Setting	Feather Amplitude	Plume amplitude selection
		Feather Type	Plume type selection
6	Load Ink Function		Turn on the ink loading function and stop the ink loading function
7	Paper Measuring Function		Click Start Test to test the width of the print paper
8	Auto Jump White Function	Step In And Jump White	Enable white jump, press PASS
		Continuous White Jump	Enable the white jump, vertical white jump when the continuous material walking
		Turn Off And Jump White	Turn off the white jumping function

(5) Calibration

Click the calibration in the menu bar to enter the calibration interface, as shown in the figure below:

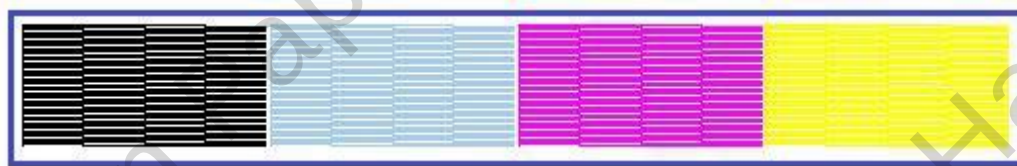


No.	Name		Function Description
1	Head Detection	Jet Detection	Check whether the ink out of each nozzle hole is good
		Level Detection	Check the entire nozzle plane for being parallel to the horizontal plane
		Vertical Detection	Check that the nozzle is tilted from left to side
2	Step Adjust		Calibrate the benchmark step parameters and the fine-tuning step parameters for different pass modes
3	Head Space	Head Horizontal Spacing Calibration	Calibrate horizontal spacing between heads
		Longitudinal Spacing Calibration Of The Nozzle	Calibrate the longitudinal spacing between the spray heads
4	Colour Adjust		The longitudinal and horizontal positions of each nozzle channel were calibrated

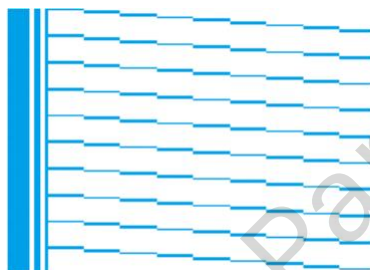
5	Bi-direct Adjust		Calibrate the bidirectional offset at different speeds for bidirectional printing
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(6) Introduction of the nozzle detection function

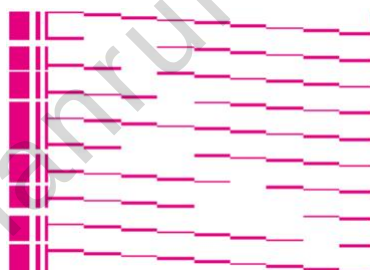
Click "Nozzle Detection", the system will print out the nozzle detection pattern, such as the nozzle status diagram of the EPS O N DX 5 writer, the figure below:



Normal situation and abnormal situation for the black state diagram



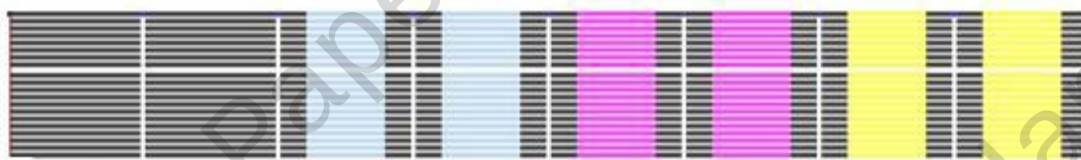
The condition is locally enlarged, as shown below:



The status chart in the picture above, may be blocked and needs to be cleaned until the jet jet reaches the best state.

(7) Introduction of the horizontal detection function

Click "horizontal detection", the system will print out the horizontal detection pattern, such as the horizontal detection map of the EPS O N DX 5 writer, the figure below:



(8) Introduction of vertical detection function

Click "vertical detection", the system will print the vertical detection pattern, such as the vertical detection map of the EPS O N DX 5 writer, the following figure below:

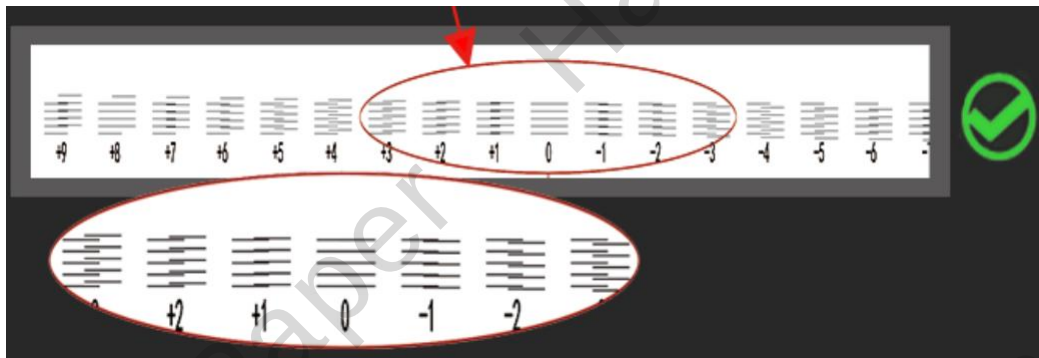


The calibration map on the right side of the figure above needs to adjust the vertical direction of the nozzle until the vertical direction calibration map reaches the correct state.

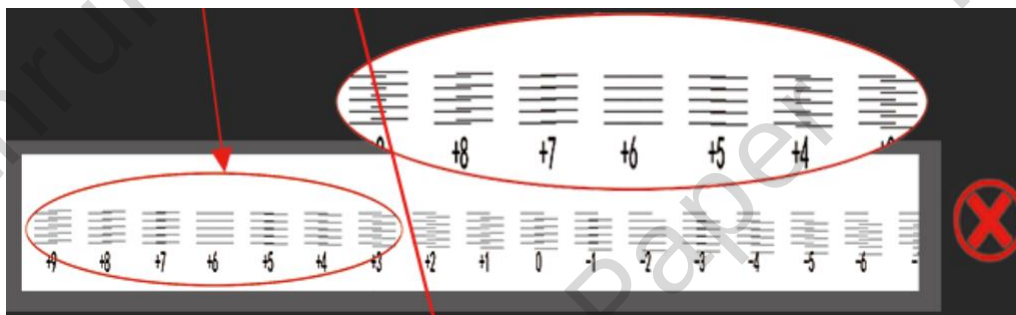
(9) Introduction of the step-in calibration function

Click the "Print calibration map" under the benchmark step box, and the system will print, for

example, the step calibration map of the EPS O N DX 5 writer is as follows:



The above figure shows that the step is calibrated, and the reference line and the scale line completely coincide at 0 points. If the step is not calibrated, as shown in the following figure:



The above figure needs to be adjusted. If the adjustment window is shown in the following figure, enter the adjustment value, click the calculation, and reprint the calibration figure until the reference line and the printing line completely coincide at 0 points.

Base Step

Print Adjust 0.00 Pixel

Calculate 21479 ✓

Step Offset

Print Pass Mode: 1Pass

Step Offset Value: 0

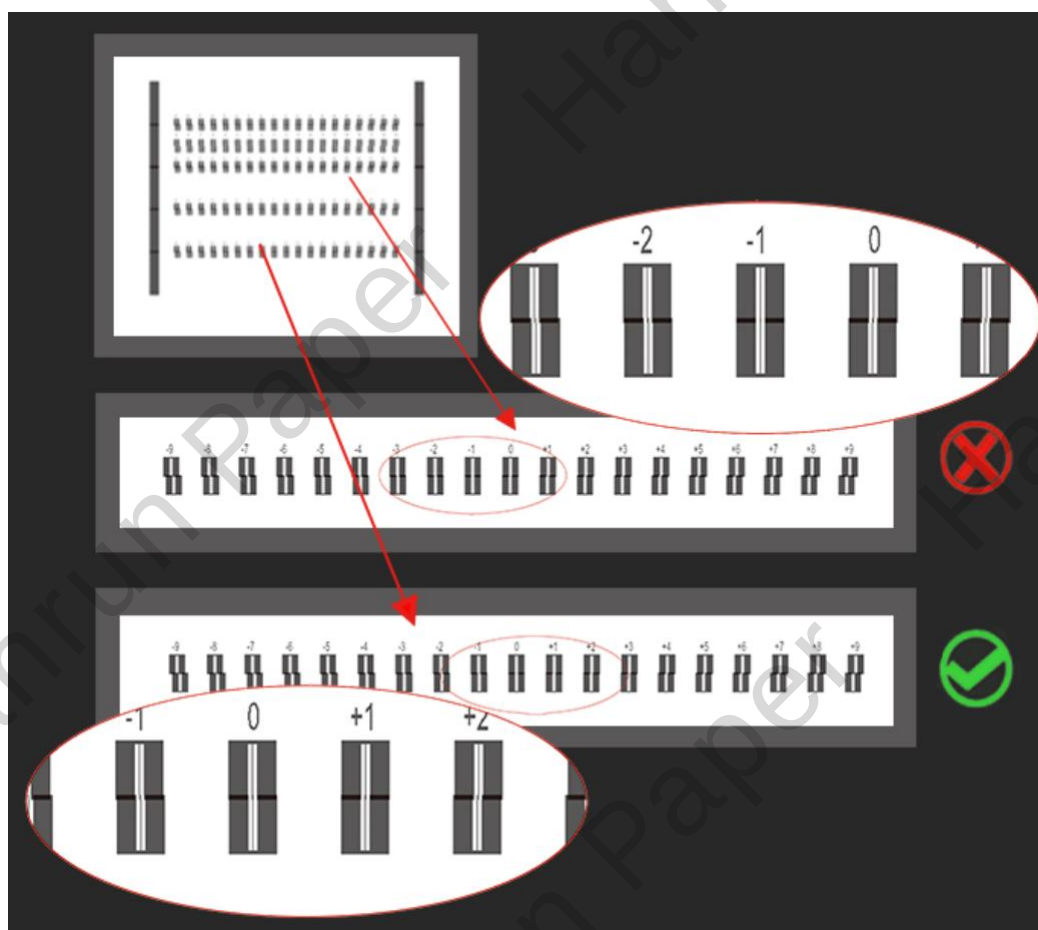
1Pixel=9.093058Pulse

Print Adjust

(10) Introduction of the horizontal pitch calibration of the nozzle

Click "Print Left / Right calibration map" under the nozzle horizontal spacing calibration box, and the system will print

The above figure shows that the horizontal distance between the spray heads is normal, and when the spray heads' horizontal spacing is not calibrated, the following figure will appear:



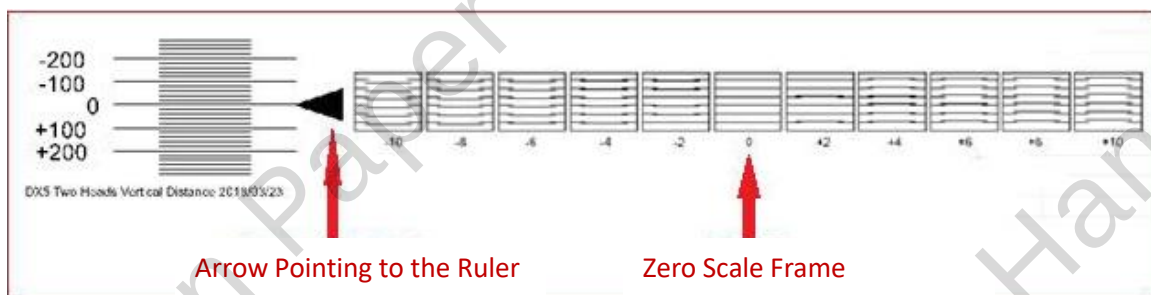
The above figure needs to be adjusted. The adjustment window is shown below. After entering the adjustment value in position H2 below, reprint the calibration map until the scale line of point 0 point points to point 0.

☒ Horizontal dist: ☐ Vertical distanc ☐ Overlap offset

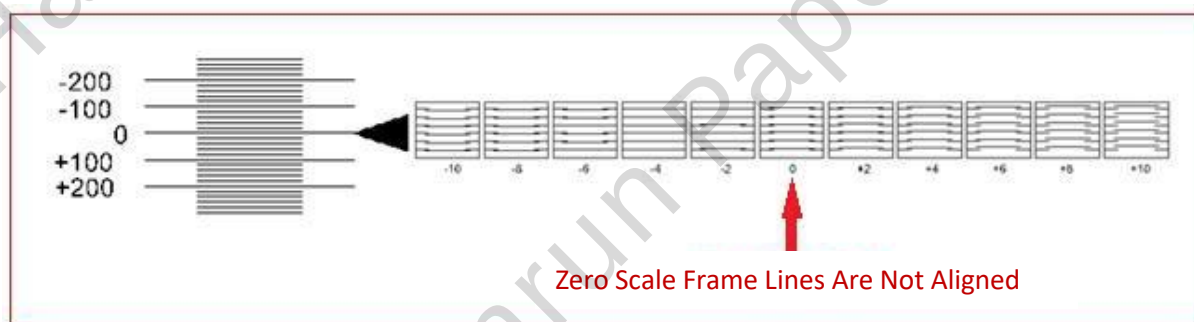
Left distance: Print Adjust				Right distance: Print Adjust			
H1	0	H2	0	H1	0	H2	0

(11) Introduction of the longitudinal spacing calibration of the nozzle

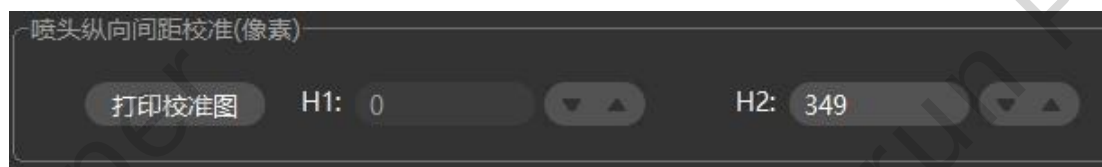
Click the "Print calibration drawing" under the vertical spacing calibration box of the nozzle, and the system will print



The above picture shows that the longitudinal distance between the nozzle is normal, and all the lines in the 0-point mark box are parallel. The left arrow points to the 0-point mark line. If the longitudinal distance is not calibrated, the following figure will appear:

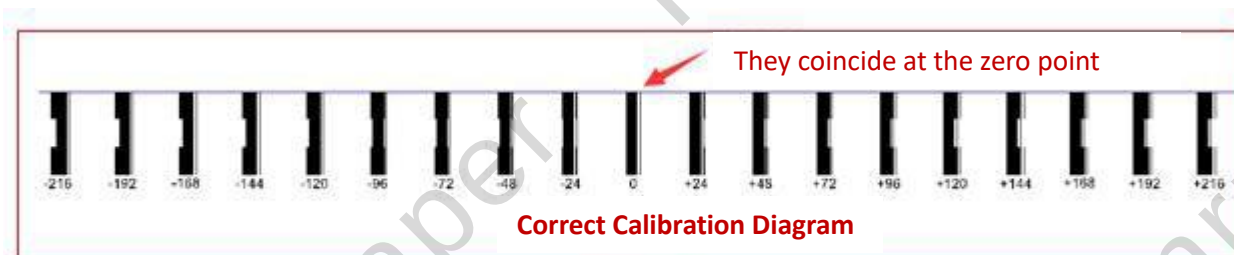


All lines in the 0-point scale box above are not parallel, but all lines in the -4 scale box, so they must be adjusted, minus 4 on the benchmark of the original calibration value, and then re-calibrated until all lines in the 0-point scale box are parallel. The adjustment window is the figure below:

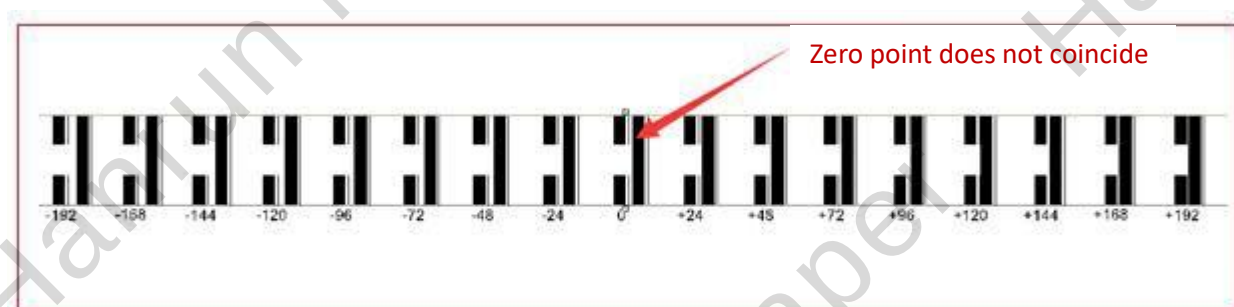


(12) Introduction of two-way calibration function

Click the "Print Calibration Map" under the two-way calibration interface, and the system will print



The above figure shows the calibration situation, and the no calibration situation is shown below:



The calibration values must be filled in and recalibrated, as shown in the figure below:

Material Select:

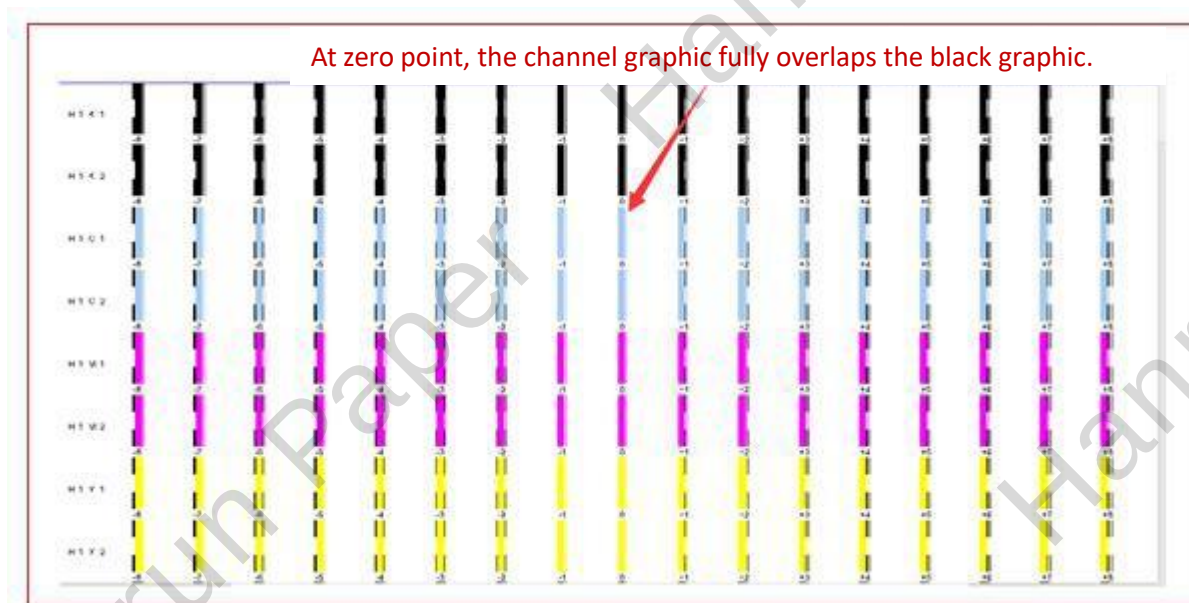
X Print Dpi:

Print Speed:

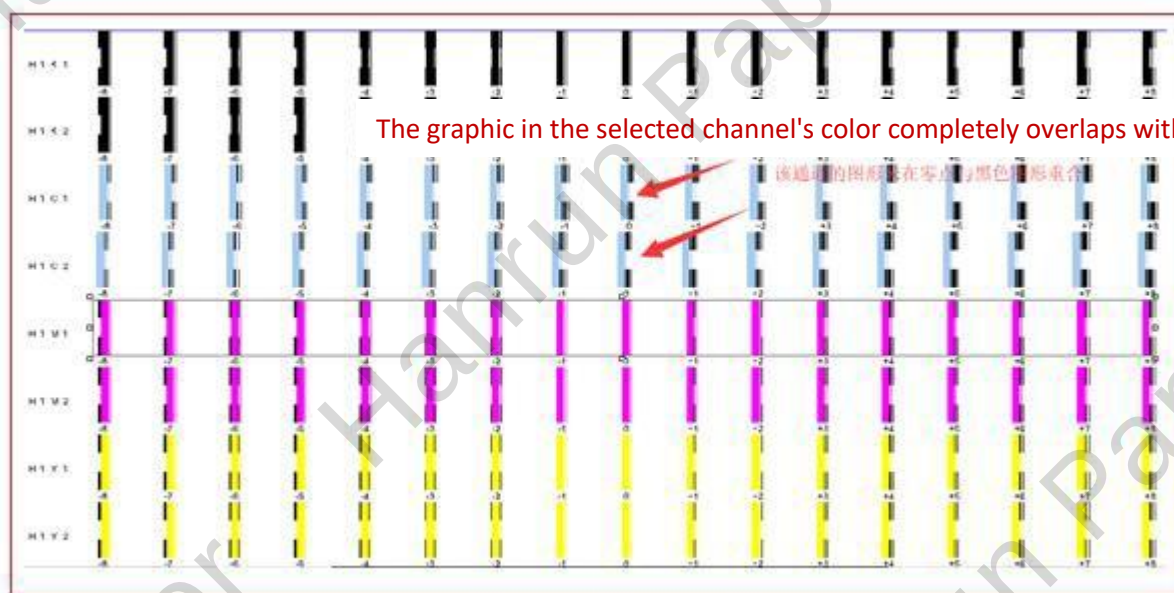
Bidirect Value:

(13) Introduction of the set of color calibration function

Click the "Print left / right calibration map" under the set of color calibration interface, and the system will print



The above figure shows the well-calibrated situation, and the no-calibration situation is shown below:



The calibration values must be filled in and recalibrated, as shown in the figure below:

Material Select: Subpaper_1H4C+1W Add Delete Edit Copy Paste

X Print Dpi: 480DPI

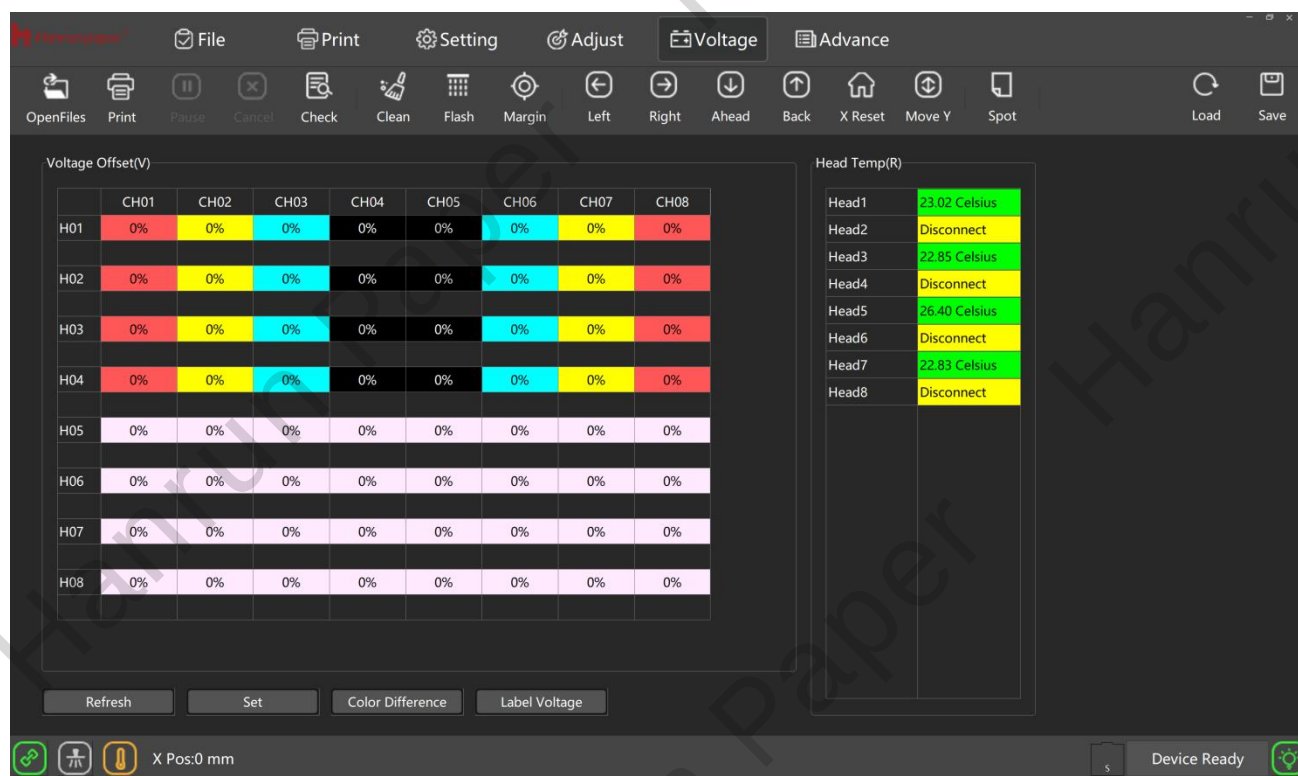
Print Speed: High

Copy Paste

Left Adjust									Right Adjust								
<--	CH1	CH2	CH3	CH4	CH5	CH6	CH7	CH8	-->	CH1	CH2	CH3	CH4	CH5	CH6	CH7	CH8
H01	0	0	0	0	0	0	0	0	H01	0	0	0	0	0	0	0	0
H02	0	0	0	0	0	0	0	0	H02	0	0	0	0	0	0	0	0

(14) Voltage window

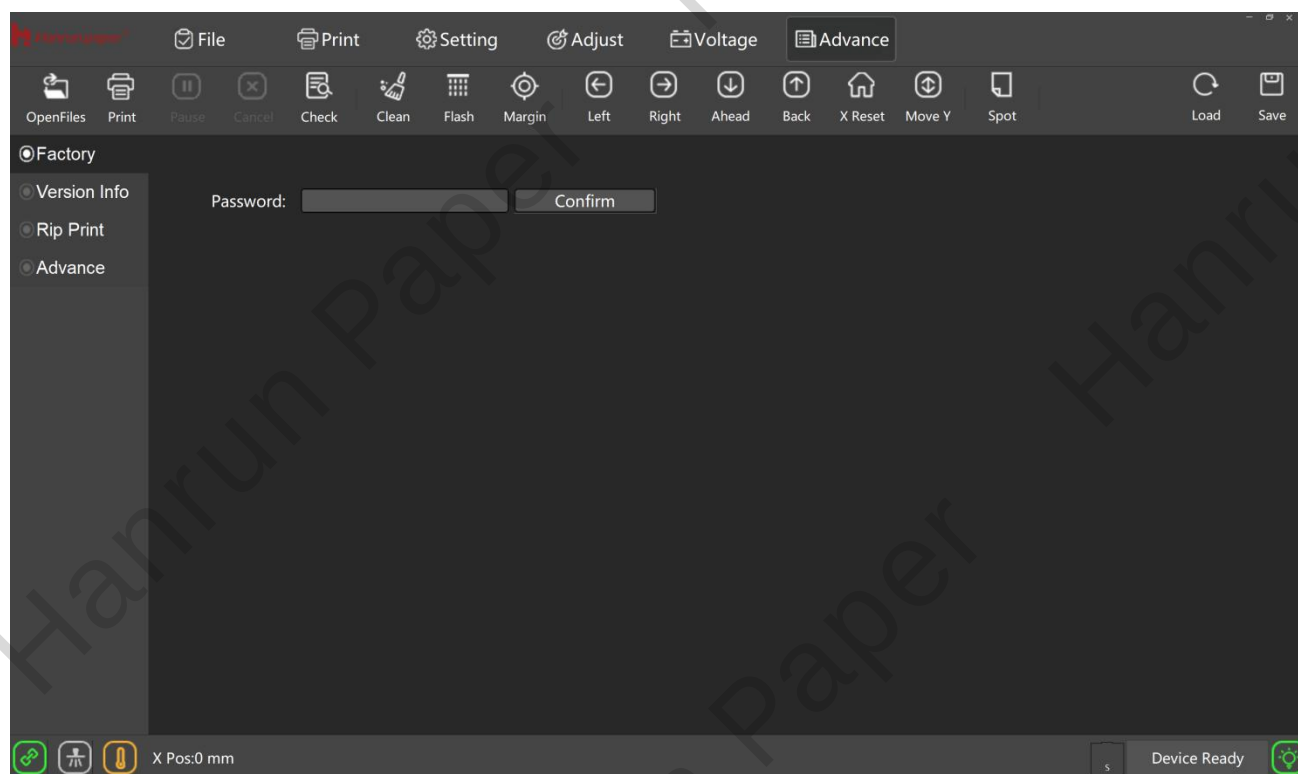
Click the main menu voltage enters the voltage window, as shown below:



No.	Name	Function Description
1	Voltage Offset Adjustment	Set the offset voltage for the specified nozzle channel
2	Refresh Voltage	Update the current nozzle channel voltage value
3	Set Voltage	Saves the current nozzle voltage offset value
4	Printhead Temperature (Read-Only)	Display the temperature of the specified printhead

(15) Advance

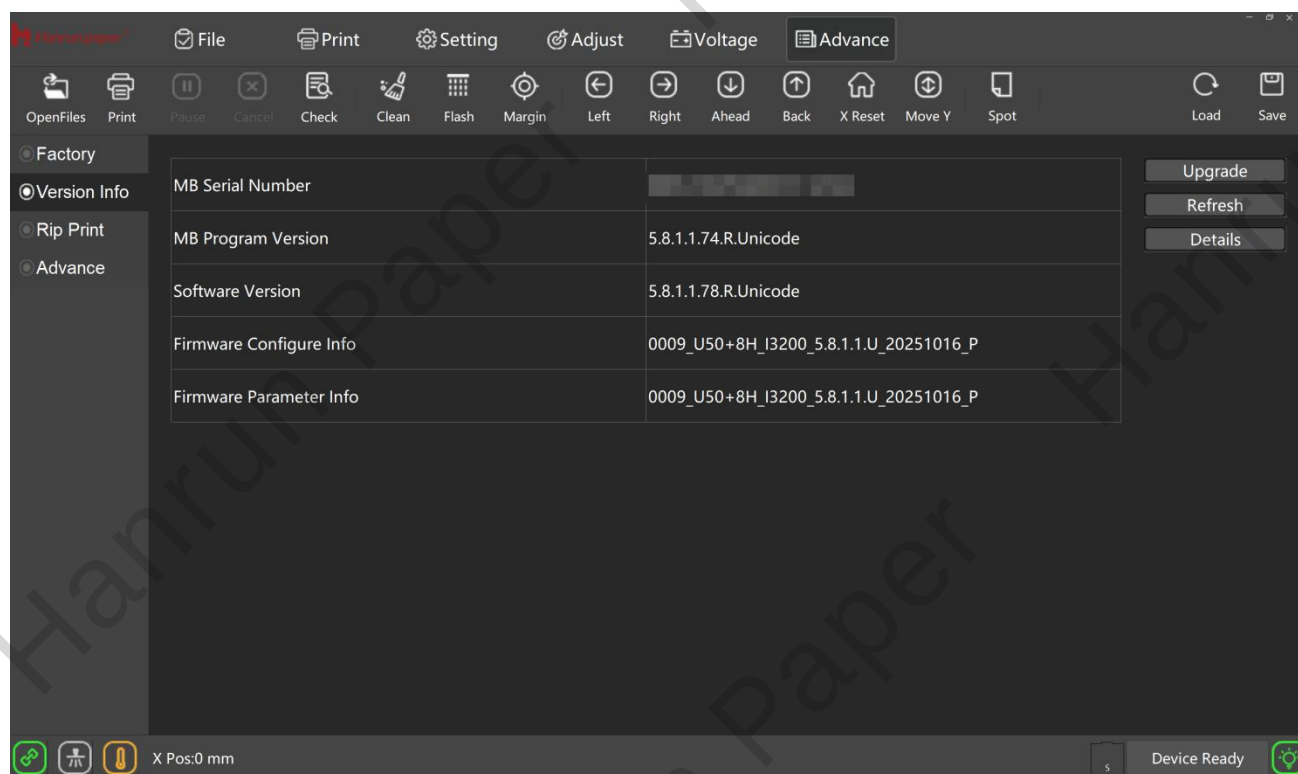
Click the main menu to enter the advanced interface, as shown below:



No.	Name	Function Description
1	Factory Settings	Entry to the factory parameter settings interface
2	Version Info	Displays the relevant version information about the system board card
3	Rip Print	Select the accuracy mode of edge RIP-edge printing
4	Advanced	Settings for broken nozzle compensation, network configuration, and phased authorization

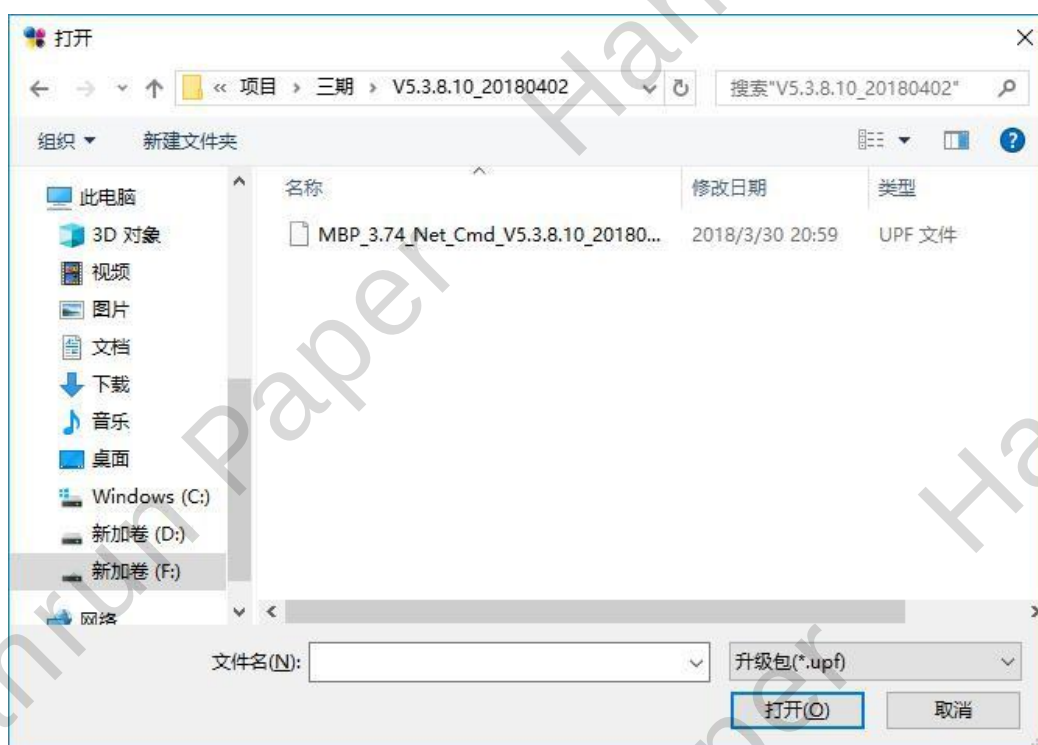
(16) Version Information

Click on the version information at the advanced interface and enter the following figure interface:



(17) Upgrade

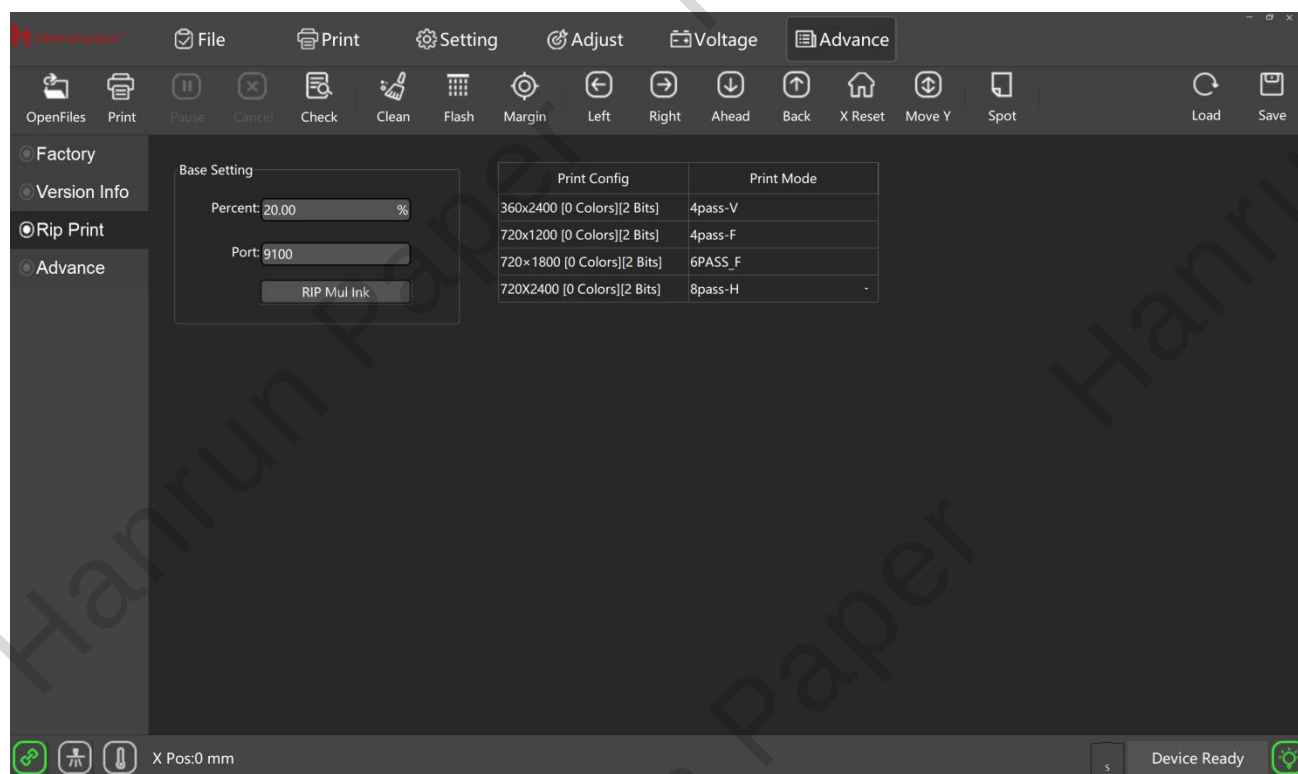
The logic of the main board, the main board program and the monchip program can be upgraded and updated separately. After upgrading the program, the power must be restarted after power off. Click Refresh to see whether the newly upgraded program has been updated. The upgrade method is as follows: Click the "Upgrade" button above, and the following window will pop up:



Select the program to be upgraded, and then click the "Open" button, that is, to enter the upgrade window, click "OK" to enter the upgrade, the completion of the upgrade will prompt whether the upgrade is successful. Upgrade successfully, re-power, and then check the version information, confirm the upgrade.

(18) Rip print

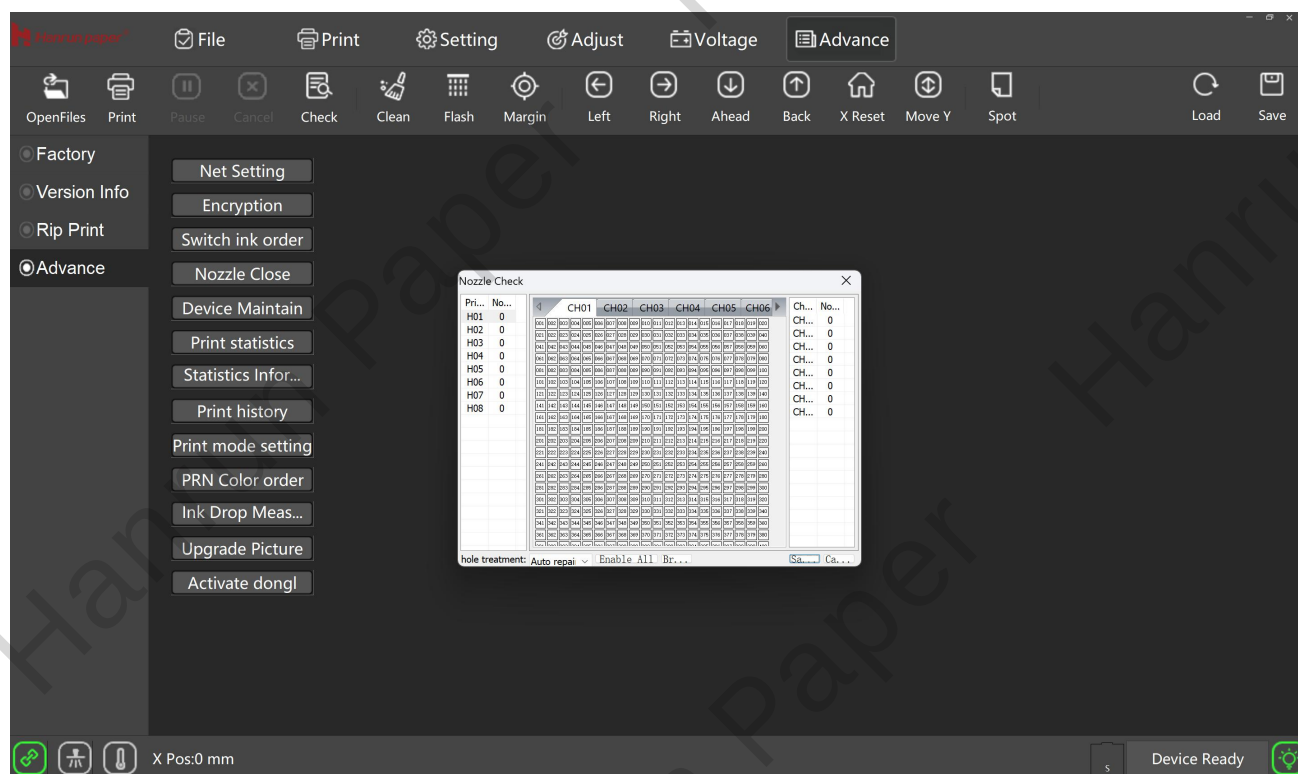
Click at the advanced interface and hit the button at the edge, and enter the figure interface below:



No.	Name		Function Description
1	Basic Setting	Buffer ratio	Indicates RIP to the set value.
		Port number	The default is all 9100
2	Print mode	As determined by the RIP software	The RIP software determines the printing mode for side RIP side printing
		Identified by the print software	The printing control software determines the printing mode for side RIP side printing

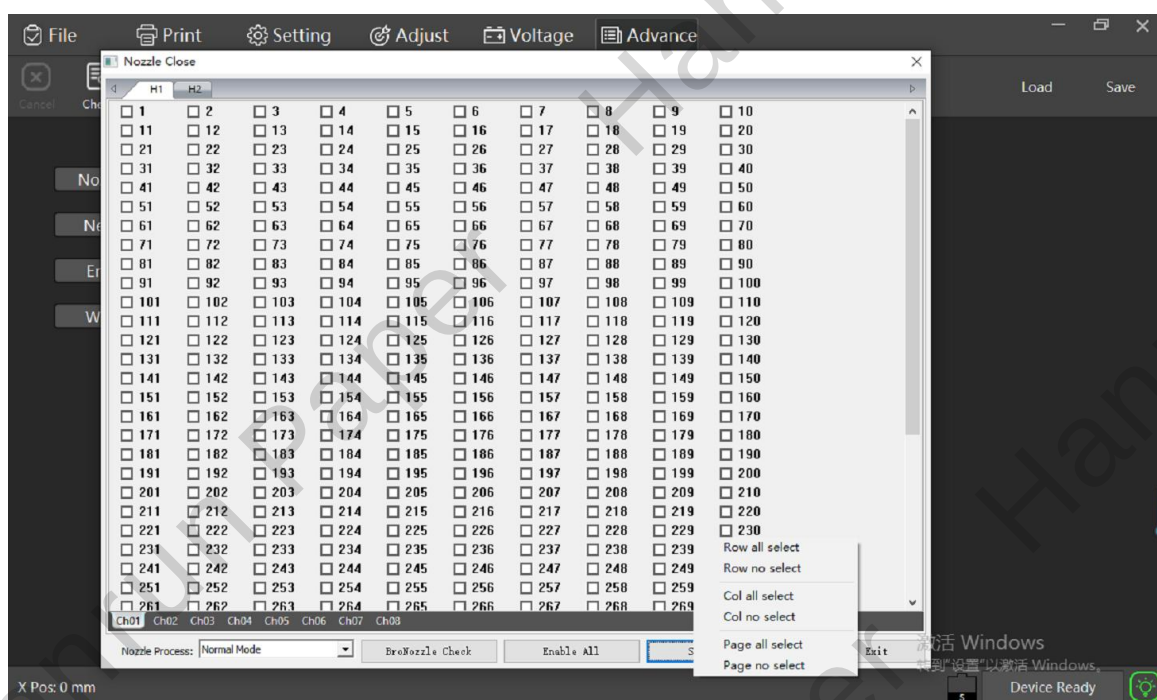
(19) Hole compensation

In the Advanced Settings menu, click the hole compensation button to enter the following interface:



No.	Name	Function Description
1	Nozzle Process	Select the method for nozzle compensation
2	Break Nozzle Check	Check the fracture state of each column of nozzle
3	Enable All	Select to enable or disable all nozzles
4	Save Exit	Save the current settings and exit the hole settings state
5	Cancel Exit	The current setting is not saved, directly exit the broken hole setting state

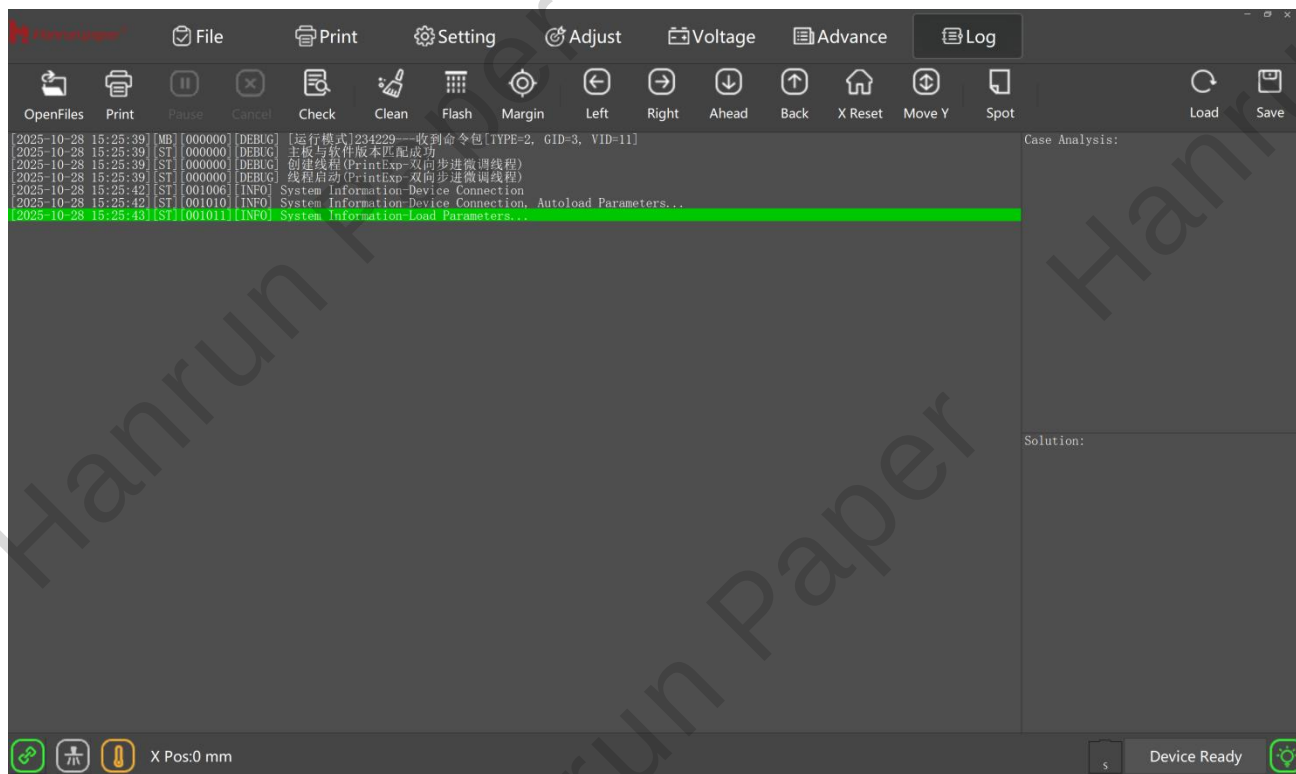
Press the right mouse button at the nozzle setting interface brings up the drop-down menu as shown below:



No.	Name	Function Description
1	Row All Select	Simultaneously select the entire row.
2	Row No Select	Simultaneously deselect the entire row.
3	Col All Select	Simultaneously select the entire column.
4	Col No Select	Simultaneously deselect the entire column.
5	Page All Select	Simultaneously select the entire page.
6	Page No Select	Simultaneously deselect the entire page.

(20) Log

Click the log button in the lower right corner of the printing software will enter the log window, as shown in the figure below:



This window can see the current operation, especially if an error or fault is generated, by viewing the debugging information, so as to solve the error.

(21) Shortcut button

Shortcut Button	Function Description
	Start the print button and execute the print command
	Check nozzle check button to print nozzle status diagram
	Pause / Continue with the print button
	Cancel the print button and execute the end print command
	Head cleaning button and execute the nozzle cleaning command

	Flash spray the on / off button
	White edge positioning button
	Moisturize the off / on button
	reset button
	X motor left-shift button
	X motor right-shift button
	Feed button
	Return button
	Step tuning reduction button
	Step fine tuning add button
	Two-way fine-tuning of the reduction button
	Two-way fine-tuning to add the button
	Enter the height measurement control panel button

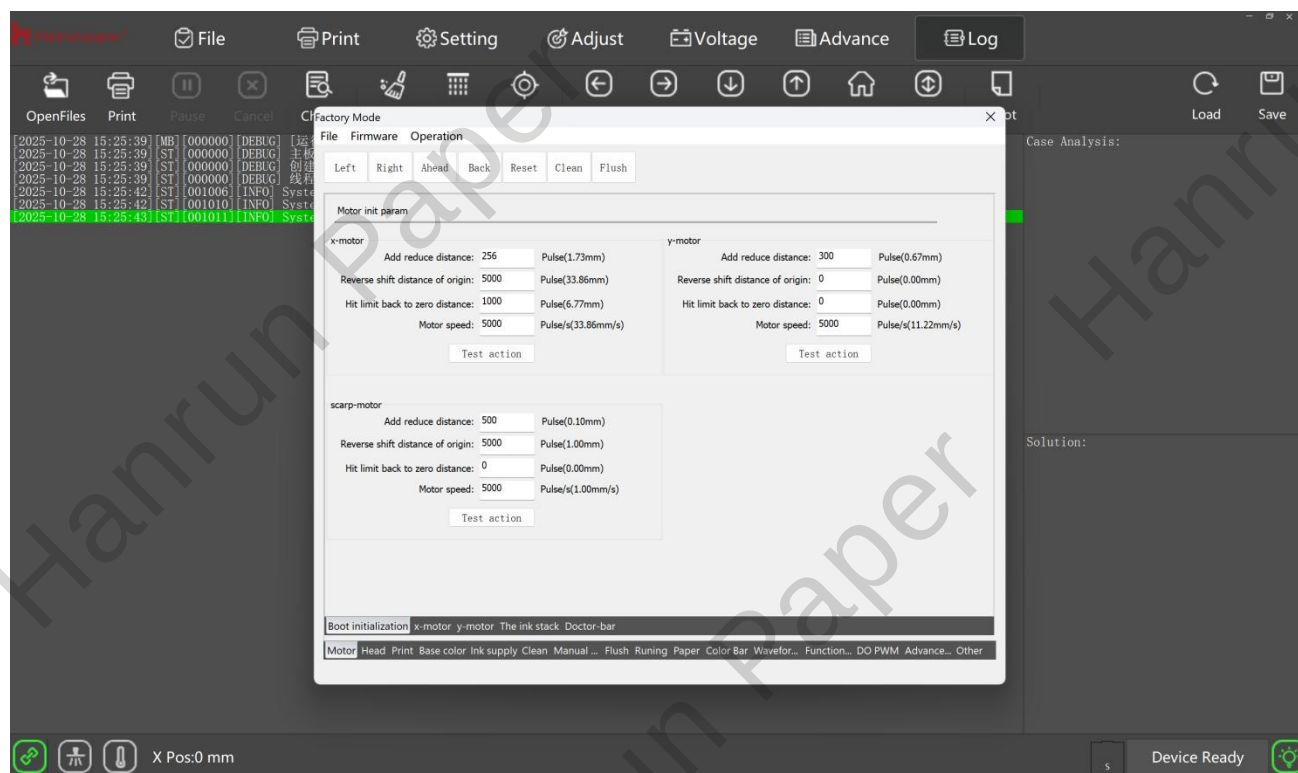
(22) Status bar

Status Bar Icons	State Icon Description
	Normal connection state of the network cable
	Network line disconnect state
	Off-line state

	Turn on the flash spray state
	Turn off the flash spray state
	The system is working normally
	The system reported the wrong state
	System warning status
	Off-line state
	The nozzle temperature is normal
	The nozzle temperature is abnormal
	Nozzle temperature warning status
	Off-line state

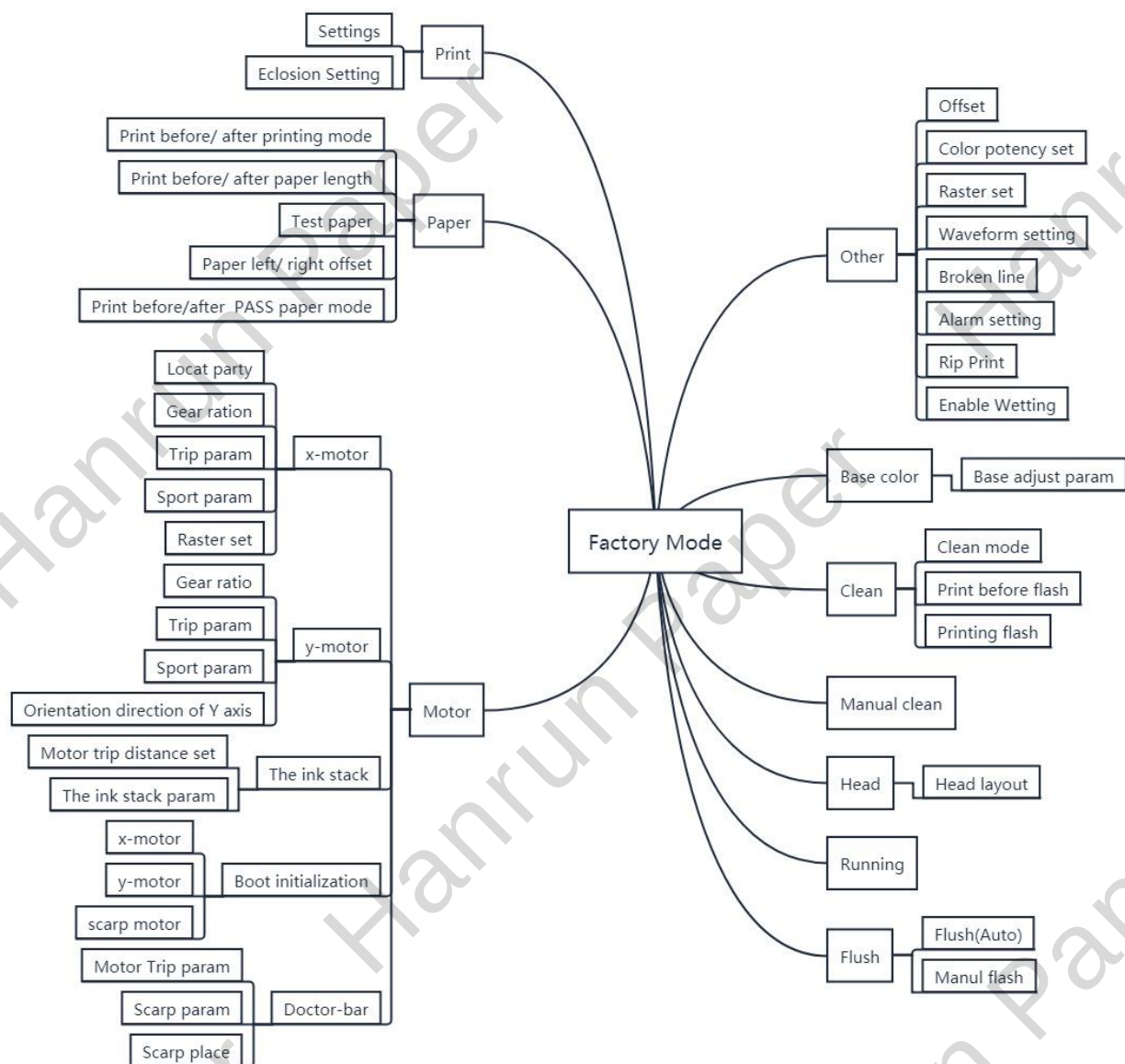
7.1.5 Factory Mode

In the advanced interface, the Confirm password is "111111"; click "Ctrl + F12", switch to Factory mode, password "222222", the figure below:



(1) Main content of the factory mode

Main content of manufacturer mode, see the following menu tree diagram:



(2) Boot Initialization

Action parameters of the motor during startup initialization, as shown below:

Factory Mode ×

File Firmware Operation

Left
Right
Ahead
Back
Reset
Flush
Clean

Motor init param

x-motor

Add reduce distance: Pulse(2.18mm)

Reverse shift distance of origin: Pulse(42.50mm)

Hit limit back to zero distance: Pulse(3.40mm)

Motor speed: Pulse/s(42.50mm/s)

Test action

y-motor

Add reduce distance: Pulse(1.39mm)

Reverse shift distance of origin: Pulse(0.00mm)

Hit limit back to zero distance: Pulse(0.00mm)

Motor speed: Pulse/s(4.64mm/s)

Test action

scarp-motor

Add reduce distance: Pulse(0.06mm)

Reverse shift distance of origin: Pulse(0.00mm)

Hit limit back to zero distance: Pulse(0.00mm)

Motor speed: Pulse/s(0.00mm/s)

Test action

Boot initialization
x-motor
y-motor
The ink stack
Doctor-bar

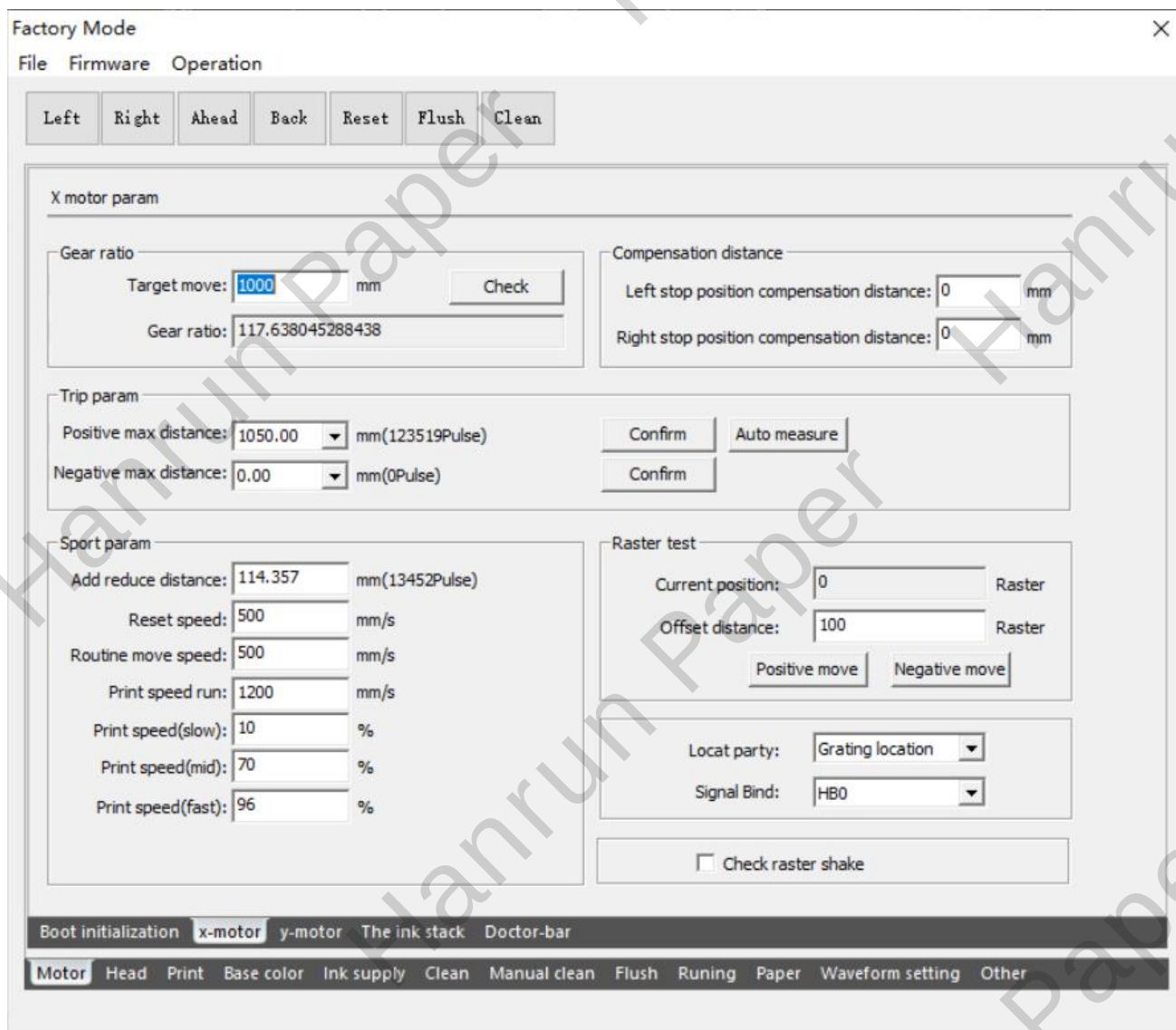
Motor
Head
Print
Base color
Ink supply
Clean
Manual clean
Flush
Runing
Paper
Waveform setting
Other

The parameters of X motor, Y motor and blade motor are the same. Take X motor as an example, see the table below:

No.	Name	Function Description
1	Add Reduce Distance	Add deceleration distance
2	Reverse Shift Distance of Origin	The distance that the motor moves away from the origin
3	Hit Limit Back to Zero Distance	The motor moves toward the origin, the reverse distance after hitting the limiter
4	Motor Movement Speed	Motor movement speed

(3) X motor

The X motor parameters are set in the following figure:



No.	Name	Function Description
1	Gear Ratio Calibration	Calibrate the gear ratio of the X motor
2	Trip Param	Maximum range of X-direction trolley movement
3	Add Reduce Distance	Add deceleration distance
4	Reset Speed	The speed of the trolley movement during the reset process
5	Routine Move Speed	The movement speed of the car when moving left and right manually
6	Print Speed Run	The movement speed of the car when running back during one-way printing

7	Print Speed	The maximum spray frequency corresponds to the proportion of speed, different speed transmission for different
8	Raster Test	Rating test mainly has two functions: one is to set the offset distance and real-time reported light To confirm the accuracy of the grille, determine whether the direction is correct
9	Pulse Location	The system location the current position of the trolley through the pulse
10	Grating Location	The system location the current position of the trolley via the grating

(4) Y motor

Factory Mode
×

File Firmware Operation

Left Right Ahead Back Reset Flush Clean

Y motor param

Gear ratio

Target move: mm
Fact move: mm
Gear ratio:

Trip param

Positive max distance:
Negative max distance:

Sport param

Add reduce distance: mm(2608Pulse)
Reset speed: mm/s
Routine paper feed speed: mm/s
Print speed(slow): mm/s
Print speed(mid): mm/s
Print speed(fast): mm/s
Orientation direction of Y axis:
Double Y error max: mm

Boot initialization x-motor y-motor The ink stack Doctor-bar

Motor Head Print Base color Ink supply Clean Manual clean Flush Runing Paper Waveform setting Other

No.	Name	Function Description
-----	------	----------------------

1	Gear Ratio Calibration	Calibrate the gear ratio of the Y motor
2	Trip Param	Maximum range of Y-direction motor movements
3	Add Reduce Distance	The motor accelerates from stop to uniform or from uniform to 0
4	Routine Paper Feed Speed	The speed of Y motor during manual feed / feed movement
5	Print Speed	The maximum spray frequency corresponds to the proportion of speed, different speed transmission for different

(5) Ink stack

Factory Mode

File Firmware Operation

Left

Right

Ahead

Back

Reset

Flush

Clean

The ink stack param

Motor trip distance set

Positive max distance:

No limit

Pulse

Confirm

Negative max distance:

No limit

Pulse

Confirm

The ink stack param

Ink stack type:

Up down

Add reduce distance:

200

Pulse

The ink stack speed:

13000

Pulse/s

Wetting the ink stack height:

45000

Pulse

Pump the ink stack height:

45000

Pulse

Flash the ink stack height:

30000

Pulse

Scarp the ink stack height:

12000

Pulse

Confirm

Confirm

Confirm

Confirm

Boot initialization

x-motor

y-motor

The ink stack

Doctor-bar

Motor

Head

Print

Base color

Ink supply

Clean

Manual clean

Flush

Runing

Paper

Waveform setting

Other

No.	Name	Function Description
1	Motor Trip Distance Set	Maximum range of values where the ink stack can move
2	Add Reduce Distance	Add deceleration distance
3	Ink Stack Speed	The speed of the ink-stack movement
4	Wetting Ink Stack Height	Height of the ink stack when in the moisturizing state
5	Pump Ink Stack Height	Height of the ink stack when in the flash spray state
6	Flash Ink Stack Height	Height of the ink stack when in the moisturizing state
7	Scarp the Ink Stack Height	Height of the ink stack (as low as possible, but must leave the limit position)

(6) Doctor-bar

Factory Mode ×

File Firmware Operation

Left Right Ahead Back Reset Flush Clean

Scarp param

Motor Trip param

Positive max distance: Pulse

Negative max distance: Pulse

Scarp param

Scraper type:

Add reduce distance: Pulse

Scarp car run speed: mm/s

Scarp run speed: Pulse/s

Scarp place

Scarp place: Pulse

Scarp start place: mm

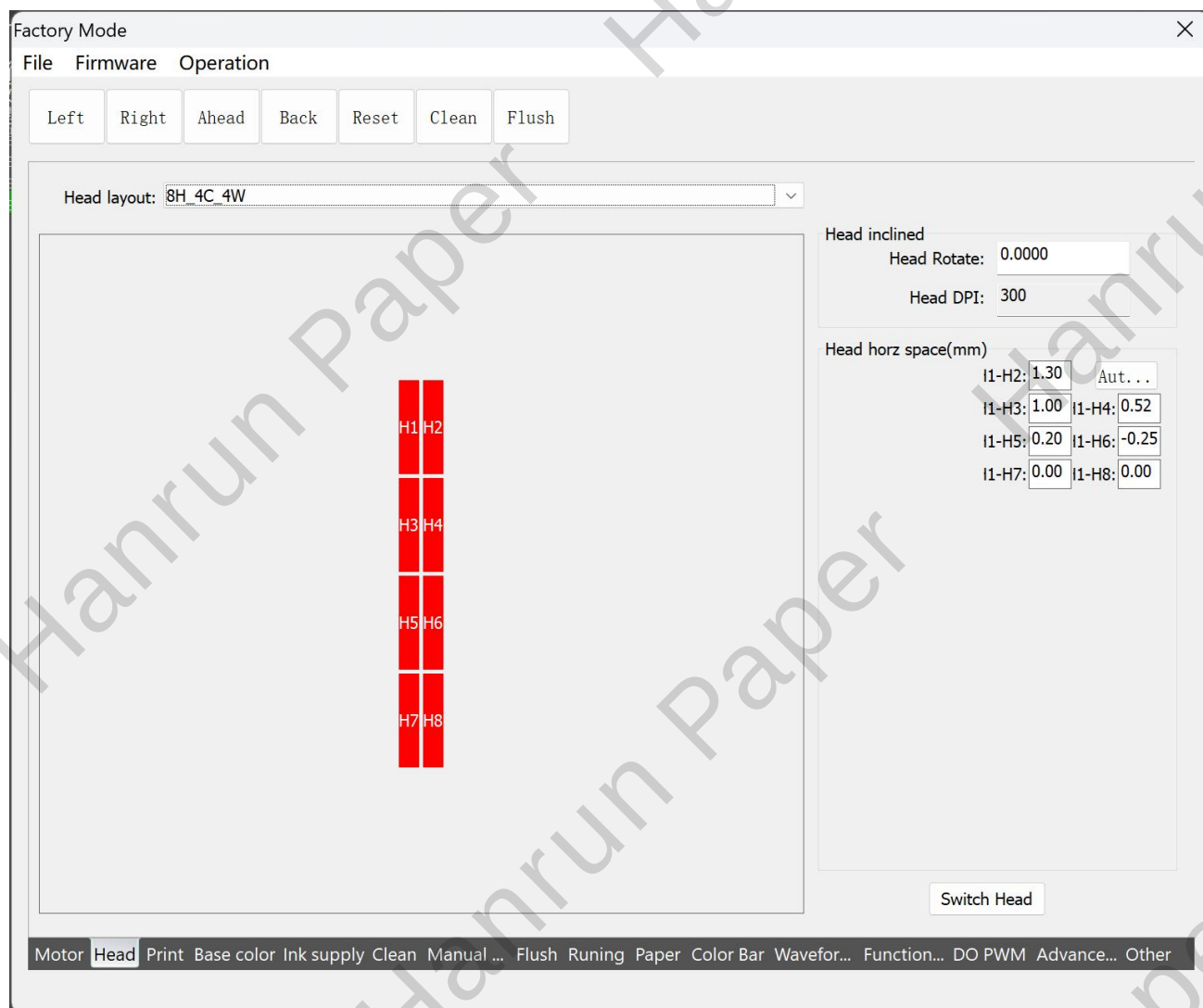
Scarp end place: mm

Boot initialization x-motor y-motor The ink stack **Doctor-bar**

Motor Head Print Base color Ink supply Clean Manual clean Flush Runing Paper Waveform setting Other

No.	Name	Function Description
1	Motor Trip Param	Setting of the maximum stroke parameters of the scratch blade motor
2	Scrap Param Settings	Setting of deceleration distance and parameters of motion speed
3	Scarp Start Place	Start position of the car during the blade wiper head
4	Scarp End Place	End position of the car at the blade wiper head

(7) Head Layout



Shows the various and different arrangements of multiple spray heads

(8) Print mode

Factory Mode ×

File Firmware Operation

Left Right Ahead Back Reset Flush Clean

Configuration list:

- 360x600
- 360x1200
- 360x1800
- 360x2400
- 720x600
- 720x1200
- 720x1800
- 720x2400
- 720x3600
- 360x3600
- 480x1800
- 480x1200
- 480x600
- 480x2400
- 480x3600

Model list:

- IPASS

Weaken open mode

Light weaken range: %

Common weaken range: %

Depth weaken range: %

Weaken dot mode:

☒ Whether wait step stop

Motor Head **Print** Base color Ink supply Clean Manual clean Flush Runing Paper Waveform setting Other

No.	Name	Function Description
1	Configuration List	Current configure nozzle all precision list
2	Model List	Shows the list of print modes corresponding to each precision setting.
3	Weaken Open Mode	Allows adjustment of feathering amplitude and selection of feathering point modes.

(9) Base Color Adjust

Factory Mode

File Firmware Operation

Left Right Ahead Back Reset Clean Flush

Base adjust param

Base X Dpi: 720 Save ChangeS Max color offset: 2000 ☐ Head select: H1 Base channel: K1

	CH1	CH2	CH3	CH4	CH5	CH6	CH7	CH8
H1	M1	Y1	C1	K1	K2	C2	Y2	M2
-->	0.0	30.0	230.0	260.0	460.0	490.0	690.0	720.0
<--	0.0	30.0	230.0	260.0	460.0	490.0	690.0	720.0
↑↓	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
H2	M5	Y5	C5	K5	K6	C6	Y6	M6
-->	0.0	30.0	230.0	260.0	460.0	490.0	690.0	720.0
<--	0.0	30.0	230.0	260.0	460.0	490.0	690.0	720.0
↑↓	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
H3	M3	Y3	C3	K3	K4	C4	Y4	M4
-->	0.0	30.0	230.0	260.0	460.0	490.0	690.0	720.0
<--	0.0	30.0	230.0	260.0	460.0	490.0	690.0	720.0
↑↓	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
H4	M7	Y7	C7	K7	K8	C8	Y8	M8
-->	0.0	30.0	230.0	260.0	460.0	490.0	690.0	720.0
<--	0.0	30.0	230.0	260.0	460.0	490.0	690.0	720.0
↑↓	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
H5	W~1	W~5	W~9	W...	W...	W...	W~6	W~2
-->	0.0	30.0	230.0	260.0	460.0	490.0	690.0	720.0
<--	0.0	30.0	230.0	260.0	460.0	490.0	690.0	720.0
↑↓	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
H6	W...	W...	W...	W...	W...	W...	W...	W...

Motor Head Print Base color Ink supply Clean Manual ... Flush Runing Paper Color Bar Wavefor... Function... DO PWM Advance... Other

The color value is used to fill in the nozzle internal color offset.

(10) Ink supply

Factory Mode

File Firmware Operation

Left Right Ahead Back Reset Clean Flush

Ink control

Automatic ink

supply ink: Disabled

Supply delay: 0 ms (0~65000)

☒ In parallel for the ink

supply ink Time: 25 s (0~25)

☐ Cycle for the ink

Ink supply times: 5 Times

Ink supply time: 15 s (0~25)

Supply Interval: 15 s (0~25)

☐ Enable supply ink border

White ink circulation

White ink circulation work: Disabled

Printed in the loop: Enabled

White ink cycle interval: 12 second

White ink cycle start waiting time: 5 second

White ink cycle work time: 2 second

White ink loop start work: 3 minute

Circulation power: p1 %

White ink stirring

White ink stirring: Enabled

White ink stirring interval time: 10 second

White ink stirring work time: 8 second

White ink stirring start work time: 3 minute

Stirring power: p1 %

Motor Head Print Base color Ink supply Clean Manual ... Flush Runing Paper Color Bar Wavefor... Function... DO PWM Advance... Other

No.	Name	Function Description
1	Automatic Ink Supply	Automatic ink supply on / off selection
2	Concurrent Ink Supply	Set the time duration of the ink supply
3	Cycle For Ink	Set the ink supply period
4	White Ink Cycle	Set the cycle of the white ink cycle

(11) Self-cleaning

Factory Mode

File Firmware Operation

Left

Right

Ahead

Back

Reset

Clean

Flush

Clean Param

Clean mode:

Clean mode: Close

Head layout: 8 head-All

Clean reset time: 20000 PASS

KeepWet Position

Keep wet X pos: 0 mm

Keep wet Z pos: 0 mm

Print before flash

Flash frequency: 2K Hz

Flash times: 4 Times

Single flash time: 1000 ms

Flash space time: 500 ms

Printing flash

Flash frequency: 2K Hz

Flash times: 0 Times

Single flash time: 0 ms

Flash space time: 0 ms

Motor

Head

Print

Base color

Ink supply

Clean

Manual ...

Flush

Runing

Paper

Color Bar

Wavefor...

Function...

DO PWM

Advance...

Other

No.	Name	Function Description
1	Clean Mode	Automatic cleaning on / off selection
2	Head layout	Selection of combined cleaning between different heads
3	Printing flash	When printing, flash after the number of pass set per print
4	Flash Frequency	Number of inkjet per second
5	Flash Times	Stop flashing after how many consecutive flash cycles
6	Single flash time	A flash spray cycle, a continuous flash spray of time
7	Flash space time	The interval between the two flashes

(12) Manual cleaning

Factory Mode
✕

File
Firmware
Operation

Left
Right
Ahead
Back
Reset
Clean
Flush

Clean manual

Pumping ink param Light Cleani

Pumping ink times: Times

Pumping ink take time: ms

Wait time pumping ink finish: ms

Pumping useless ink time: ms

Flash param

Flash frequency: Hz

Flash times: Times

Single flash time: ms

Flash space time: ms

Slip displacement parameter of flicker

X move speed: mm/s

X move distance: mm Confirm

Motor
Head
Print
Base color
Ink supply
Clean
Manual ...
Flush
Runing
Paper
Color Bar
Wavefor...
Function...
DO PWM
Advance...
Other

No.	Name	Function Description
1	The number of ink extraction	How many inks are performed during manual cleaning
2	Draw ink time	The duration of each ink extraction
3	Still time after ink extraction	The ink completes the waiting time before the next operation
4	Time to smoke and waste ink	Start the ink extraction time of the waste ink motor
5	The car moves out of speed	When sliding flash, the car moves speed when moving to the specified position
6	The car moved out of distance	The position of the flash spray when sliding back type flash spray

(13) Flush

Factory Mode

File Firmware Operation

Left Right Ahead Back Reset Clean Flush

Flush param

☒ Flush

Flush frequency: 16 Hz

Single flash time: 6000 ms

Flash space time: 200 ms

Auto pump ink enable: Disabled

Auto pump waste ink: 30 Times

Auto pump waste ink time: 800 ms

☐ Enable flash slot

Flash slot left pos: 0 mm

Flash slot right pos: 0 mm

Flash slot width: 20 mm

Flash Flot Period: 1

Manul flash

Flash frequency: 2K Hz

Flash times: 2 Times

Single flash time: 600 ms

Flash space time: 400 ms

Flash while keep wet

☐ Enable flash while keep wet

Motor Head Print Base color Ink supply Clean Manual ... **Flush** Runing Paper Color Bar Wavefor... Function... DO PWM Advance... Other

No.	Name	Function Description
1	Automatic Flush Frequency	The number of head ink sprays per second during automatic flash spraying
2	Single Space Time	A flash spray cycle, a continuous flash spray of time
3	Flash Injection Interval Time	The interval between the two flashes
4	Auto Pump Waste Ink	During the process of automatic flash spray, remove the waste ink once after the number of flash spray is set
5	Auto Pump W Waste Ink Time	Time to start the waste ink motor

(14) Running machine

Factory Mode

File Firmware Operation

Left

Right

Ahead

Back

Reset

Clean

Flush

Run machine

X start:

100

mm(14766Pulse)

X car max distance:

1200

mm(177201Pulse)

Confirm

Car speed:

1000

mm/s(147667Pulse/s)

Single run paper distance:

15

mm

Max run paper distance:

2000000

mm

Confirm

Scarp move position:

12300

Pulse

Confirm

Start

Stop

Motor

Head

Print

Base color

Ink supply

Clean

Manual ...

Flush

Runing

Paper

Color Bar

Wavefor...

Function...

DO PWM

Advance...

Other

No.	Name	Function Description
1	X Start	The start point of the car when running
2	X Car Max Distance	The end point of the car when running
3	Single Run Paper Distance	The car moves a back and forth, Y direction of the paper distance
4	Max Run Paper Distance	Total paper feed distance in the Y direction during this run
5	Scarp Move Position	During the machine run, the distance the wiper blade moves from its home position

(15) Paper feeding

Factory Mode

File Firmware Operation

Left

Right

Ahead

Back

Reset

Clean

Flush

Print before / after printing mode

Paper before print mode: No paper skip

Paper after print mode: No paper skip

Print before / after printing mode

Print before the paper length: 0 mm

Print before the back paper length: 110 mm

Print after the paper length: 0 mm

Print after the back paper length: 0 mm

Print before/after PASS paper mode

Front and back PASS paper: Normal paper skip

☐ Drying after print

Paper movement all length: 0 mm

Each pass wait time: 0 ms

☐ Move back

Check paper

☐ Check paper when printing

Check valid pass count: 1

☐ Test paper

Paper test sensor offset: 15 mm

Paper test invalid space: 170 mm

Paper left offset: 0 mm

Paper right offset: 0 mm

Test paper width: 2400 mm

X margin offset: 0 mm

Y margin offset: 0 mm

☐ Empty X Margin

Other

☒ Reverse printing

☐ Multiple prints before printing tips

☐ The last pass material movement

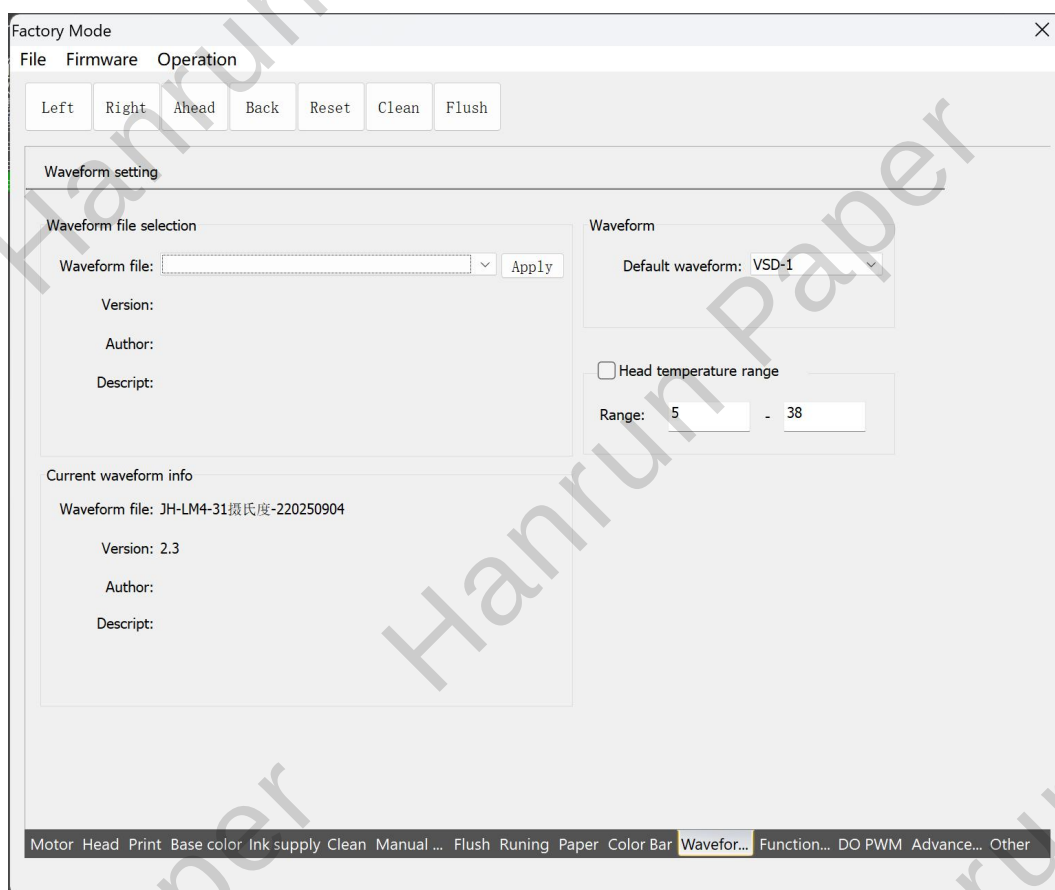
☐ Enable material length statistics

Motor Head Print Base color Ink supply Clean Manual ... Flush Runing Paper Color Bar Wavefor... Function... DO PWM Advance... Other

No.	Name	Function Description
1	Paper before print mode	Choose the paper way before printing
2	Paper after print mode	After printing, choose the paper way
3	Print the forward paper distance	Take the paper set distance before printing
4	Return the paper distance before printing	Drop the paper to set the distance before starting printing
5	Enter the paper distance after printing	The printing task is stopped before the paper has set the distance
6	Print the back paper distance	The printing task is finished before returning the paper and setting the distance
7	Fine tuning of the left /	Fine-tune the distance between the drawing and the paper

	right distance of the paper	edge
8	Paper detection	On / off the test paper or missing paper detection
9	Paper measuring sensor offset	The horizontal distance between the paper sensor probe and the raster decoder
10	Non-test area	The paper measuring sensor detects the distance of the probe to the paper starting mark

(16) Waveform Settings



No.	Name	Function Description
1	Waveform File Selection	Select the appropriate waveform file
2	Waveform	Select the specific waveform

(17) Other

Factory Mode

File Firmware Operation

Left Right Ahead Back Reset Clean Flush

offset

X white edge start: 140 mm

X white edge location: 0 mm

Raster set

X physical raster: 720 Resolution

Alarm Setting

Alarm type: Prevent impact

Alarm enable: Enabled

Ring interval time: 2000

Ring times per second: 3

Dot per milliliter

Small: 3.5 pl

Middle: 7 pl

Large: 11 pl

Clear statistics

Color potency set

Color potency weak: 20 %

Color potency middle: 50 %

Color potency strong: 100 %

Broken line

Print over pause time: 300000 ms

Pause after auto recovery time: 1200000 ms

Calibration

Color Split Type: Head And Color

Head between eclosion mode

Eclosion mode: New Easy mode

Function param

Position unit: mm

Measurement Unit: mm

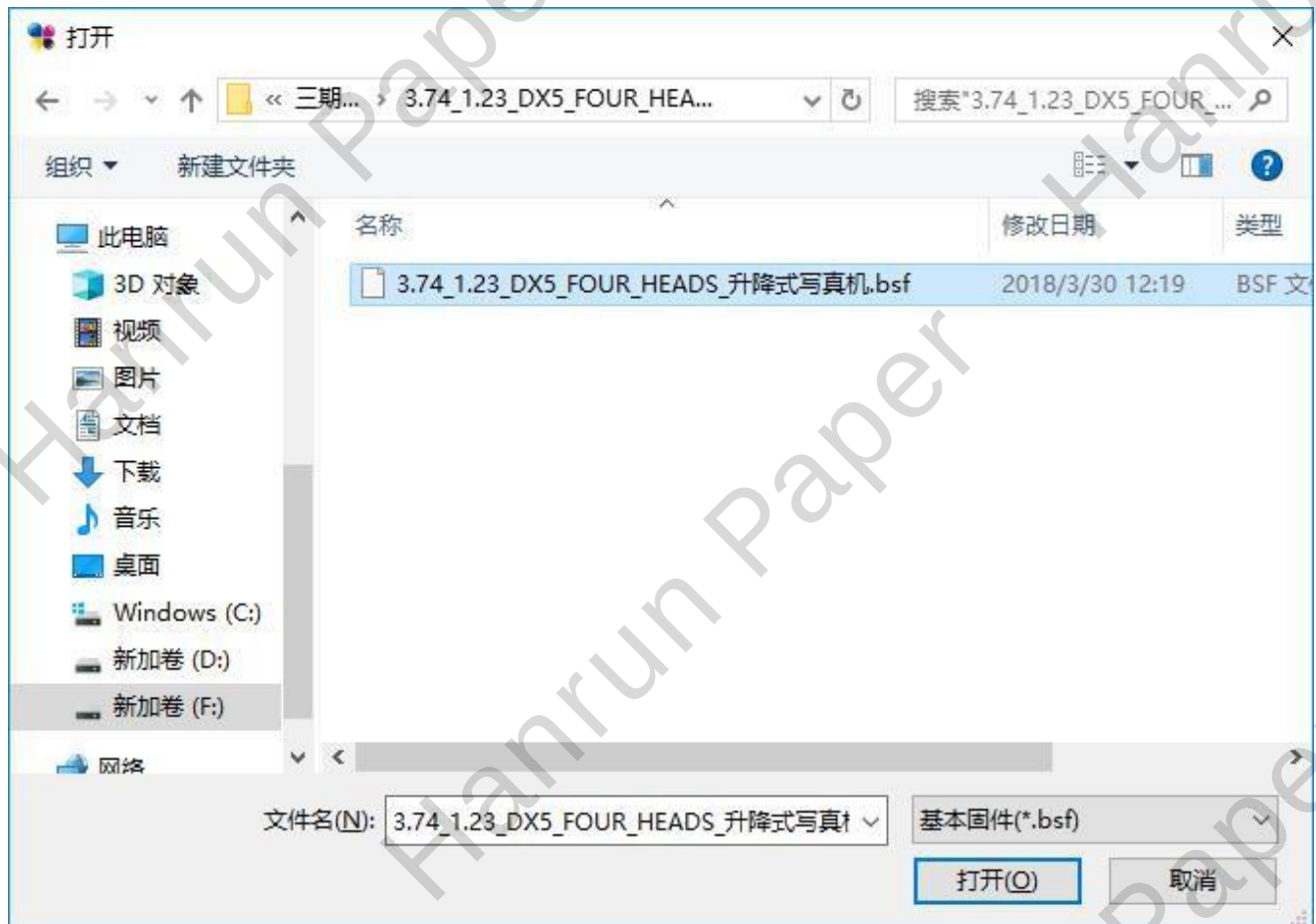
Motor Head Print Base color Ink supply Clean Manual ... Flush Runing Paper Color Bar Wavefor... Function... DO PWM Advance... Other

No.	Name	Function Description
1	X White Edge Start	Distance from the print nozzle to the printed material
2	X White Edge Location	White edge positioning error setting, its calculation formula: white edge positioning value-white edge positioning offset = white edge value + white edge start offset
3	Raster Set	Set the accuracy of raster (accuracy after four frequency)
4	Color Potency Set	Different levels of color potency concentration, accounting for different setting
5	Print Over Pause Time	Drop in print reaches set time into print pause
6	Pause After Auto Recovery Time	After the pause, the network cable restored connection is detected within the setting time and automatically restored
7	Alarm Setting	Select the action to take place for a lack of ink
8	Wetting	Moisturize function on / off

7.1.6 Import / export the Firmware

(1) Import the firmware configuration

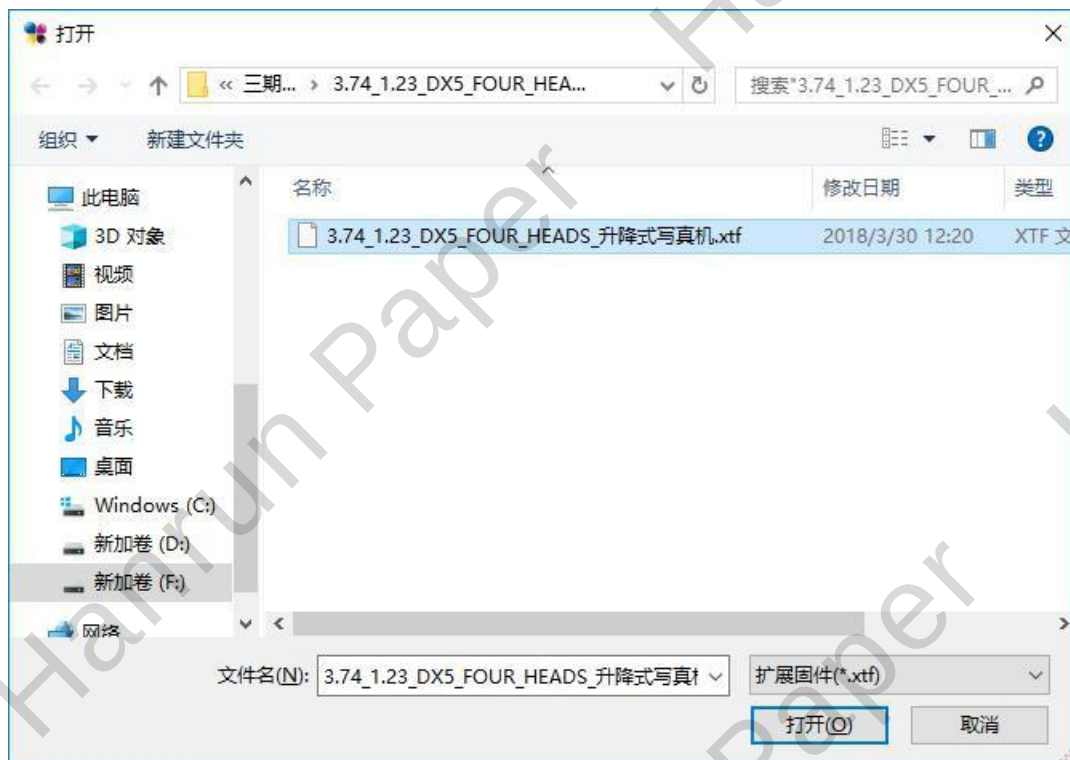
Click the Firmware menu to open the drop-down list, then select Export Firmware Configuration. Save the file to the designated directory and note that the file extension is .bsf, as shown below.



Click "Open" will enter the import firmware configuration state. At this time, nothing should not be done. It will later prompt "import successfully", view the debugging information, and prompt "load Flash successfully" indicating that it has been successfully imported.

(2) Import the firmware parameters

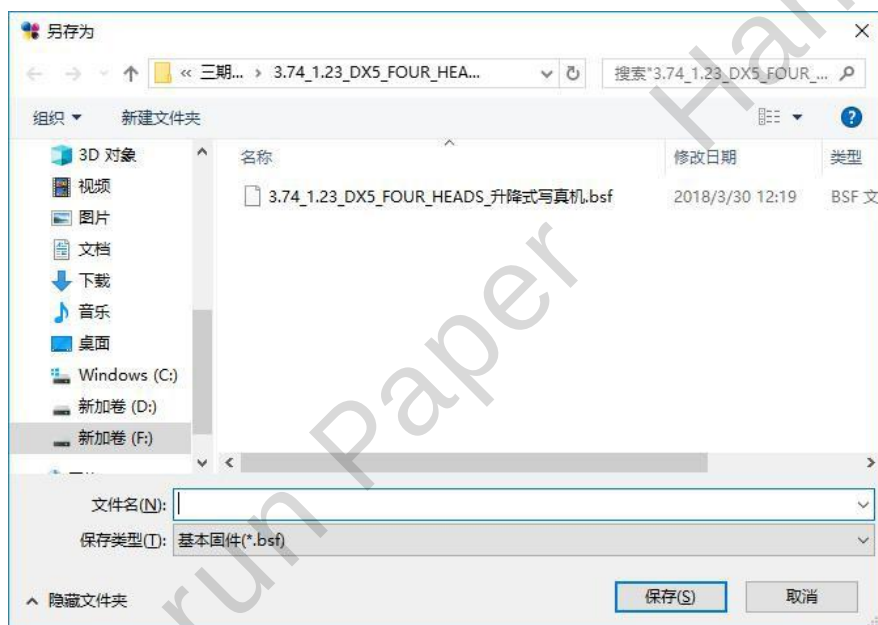
Click the Firmware menu to open the drop-down list. Select Import Firmware Configuration, then choose the firmware configuration file to import. Ensure that the file extension is .xtf, as shown below.



Click "Open" will enter the import firmware configuration state. At this time, nothing should be done. It will later prompt "import successfully", view the debugging information, and prompt "load parameters successfully" indicating that it has been successfully imported.

(3) Export the firmware configuration

Click the Firmware menu to open the drop-down list. Select Export Firmware Configuration, then save the file to the designated directory. Ensure that the file extension is .bsf, as shown below.



Click "Open" to enter the export firmware configuration state, no action should be done, and "Export Success" is prompted later

(4) Export the firmware parameters

Click the Firmware menu to open the drop-down list. Select Export Firmware Parameters, then save the file to the designated directory. Ensure that the file extension is .xtf.

8.Error Code Table

Error code	Module	Type	Resume	Reason	Solution
10000	Error	Communications	Pass parameter transmission error	Possible 1. The software program and motherboard program versions do not match. Possible 2. The printer software is communicating abnormally with the motherboard program	1. Check whether the first four digits of the software and motherboard program version numbers match in the software version information. 2. Check the device connection status in the lower-left corner of the software.
10001	Error	Communications	Failed to turn off flash spray	Possible 1. The motherboard and spray car plate fiber optic connection failed Possible 2. The motherboard or spray car plate fiber optic module is abnormal Possible 3. Power supply abnormality in the spray plate	1. Replace the new optical fiber cable and perform a connection test. 2. Replace the optical fiber module and test. 3. Check whether the power voltage of the spray plate meets the standard requirements.
10002	Error	Communications	Failed to load system parameters	Possible 1. The software program and motherboard program versions do not match. Possible 2. The printer software is communicating abnormally with the motherboard program	1. Check whether the first four digits of the software and motherboard program version numbers match in the software version information. 2. Check the device connection status in the lower-left corner of the software.
10003	Error	Communications	Failed to reset the spray plate	Possible 1. The motherboard and spray car plate have communication issues.	1. Replace the new optical fiber cable and perform a connection test. 2. Replace the optical fiber module and test. 3. Check whether the power voltage of the spray plate meets the standard requirements.
10004	Error	Communications	Upgrade failed	Possible 1. The printer software is communicating abnormally with the motherboard program File 2 may be corrupted or incorrect Possible 3. The print software version does not match the motherboard program version	1. Check the device connection status in the lower-left corner of the software. 2. Do not disconnect or power off during the upgrade. 3. Use the correct file for upgrade. 4. Restart the device and upgrade the software.

10005	Error	Communications	Failed to upgrade the spray plate	Possible 1. Communication failure between the spray plate and the motherboard	1. Replace the new optical fiber cable and perform a connection test. 2. Replace the optical fiber module. 3. Use the correct file for upgrade. 4. Do not disconnect or power off during the upgrade.
10006	Error	Communications	Printing failed. Failed to set ignition signal.	Possible 1. Power supply abnormality in the spray plate Possible 2. Communication failure between the spray plate and the motherboard	1. Replace the new optical fiber line and connect and test. 2. Replace the optical fiber module and test. 3. Check whether the power voltage of the spray plate meets the standard requirements.
10007	Error	Communications	The motherboard and spray car plate fiber optic connection failed	Possible 1. The motherboard and spray car plate fiber optic connection failed Possible 2. The motherboard or spray car plate fiber optic module is abnormal	1. Replace the new optical fiber and connect and test. 2. Replace the optical fiber module and test.
10008	Error	Communications	Failed to initialize the spray plate	Possible 1. Communication failure between the motherboard and the spray car plate Possible 2. The firmware configuration is incompatible with the spray car panel Possible 3. The motherboard program is incompatible with the microcontroller version of the spray car board	1. Replace the new optical fiber cable and perform a connection test. 2. Replace the optical fiber module and test. 3. Import the correct firmware configuration. 4. Check the software version details to verify compatibility between the motherboard and the spray car board.
10009	Error	Communications	Failed to set waveform parameters	Possible 1. The motherboard and spray car plate fiber optic connection failed Possible 2. The motherboard or spray car plate fiber optic module is abnormal Possible 3. The spray plate is running abnormally, and the error light is on Possible 4. The firmware configuration does not match the spray car panel. Possible 5. Firmware configuration does not match the logic version of the spray car panel Possible 6. The motherboard program	1. Replace the new optical fiber cable and perform a connection test. 2. Replace the optical fiber module and test. 3. Check whether the power voltage of the spray plate meets the standard requirements. 4. Check the software version details to verify compatibility between the motherboard and the spray car board. 5. Re-import the correct firmware configuration file and firmware parameter file.

				and the logic version of the spray car board do not match	
10010	Error	Communications	The motherboard and expansion board have communication issues (serial port data reception error)	Possible 1. Expansion board connection error	1. Check whether the extension board wiring is normal. 2. Check whether the hardware interface is normal.
10011	Error	Communications	Failed to load data. No data packet was received.	Possible 1. Printing software and device connection error Possible 2. The motherboard is not functioning properly Possible 3. Tcp/usb communication settings are incorrect Possible 4. Incorrect software configuration	1. Check the device connection status in the lower-left corner of the software. 2. Check whether the motherboard is working properly. If not, contact the supplier. 3. Verify that the software's communication settings with the motherboard are correct.
10012	Error	Communications	Printing failed. The printer software is communicating with the motherboard .	Possible 1. Printing software communication with the device is abnormal Possible 2. The motherboard is not functioning properly	1. Check the device connection status in the lower-left corner of the software. 2. Check whether the first four digits of the software and motherboard program version numbers in the software version information are the same, and check whether the firmware is correct.

10013	Error	Communications	Cleaning nozzle failed	Possible 1. The printer software is communicating abnormally with the motherboard Possible 2. The motherboard is not functioning properly Possible 3. The print software version does not match the motherboard version	1. Check if the device is properly connected 2. Check if the motherboard is functioning properly. If not, contact the supplier. 3. Verify that the software matches the motherboard program version
10014	Error	Communications	Failed to retrieve pressure adjustment information	Possible 1. Printing software communication with the device is abnormal Possible 2. The motherboard is not functioning properly	1. Check the device connection status in the lower-left corner of the software. 2. Check whether the first four digits of the software and motherboard program version numbers in the software version information are the same, and check whether the firmware is correct.
10015	Error	Communications	Printing failed. Failed to send print data.	Possible 1. Printing software communication with the device is abnormal Possible 2. The motherboard is not functioning properly	1. Check the device connection status in the lower-left corner of the software. 2. Check whether the first four digits of the software and motherboard program version numbers in the software version information are the same, and check whether the firmware is correct.
10016	Error	Communications	Printing failed. Failed to send print information.	Possible 1. Printing software communication with the device is abnormal Possible 2. The motherboard is not functioning properly	1. Check the device connection status in the lower-left corner of the software. 2. Check whether the first four digits of the software and motherboard program version numbers in the software version information are the same, and check whether the firmware is correct.
10017	Error	Communications	Waiting to obtain motor grating precision or calculate x gear ratio action timeout	Possible 1. Incorrect or corrupted firmware configuration or parameters Possible 2. The printer software is communicating abnormally with the motherboard Possible 3. The motherboard is not functioning properly	1. Re-import the correct firmware configuration and firmware parameter files. 2. Check the device connection status in the lower-left corner of the software. 3. Check whether the first four digits of the software and motherboard

					program version numbers in the software version information are the same, and check whether the firmware is correct.
10018	Error	Communications	Waiting for motor grating precision or calculating x gear ratio action timed out	Possible 1. Incorrect or corrupted firmware configuration or parameters Possible 2. The printer software is communicating abnormally with the motherboard Possible 3. The motherboard is not functioning properly	1. Re-import the correct firmware configuration and firmware parameter files. 2. Check the device connection status in the lower-left corner of the software. 3. Check whether the first four digits of the software and motherboard program version numbers in the software version information are the same, and check whether the firmware is correct.
10019	Error	Communications	System parameter error. Failed to retrieve the x white edge position.	Possible 1. The printer software is communicating abnormally with the motherboard Possible 2. The motherboard is not functioning properly	1. Check the device connection status in the lower-left corner of the software. 2. Check whether the first four digits of the software and motherboard program version numbers in the software version information are the same, and check whether the firmware is correct.
10020	Error	Communications	System parameter error. Failed to retrieve the x gear ratio.	Possible 1. The printer software is communicating abnormally with the motherboard Possible 2. The motherboard is not functioning properly	1. Check the device connection status in the lower-left corner of the software. 2. Check whether the first four digits of the software and motherboard program version numbers in the software version information are the same, and check whether the firmware is correct.

10021	Error	Communications	Printing failed. The device timed out during the printing process.	Possible 1. The printer software is communicating abnormally with the motherboard Possible 2. The motherboard is not functioning properly Possible 3. The firmware configuration and parameters are incorrect or corrupted	1. Check the device connection status in the lower-left corner of the software. 2. Check whether the first four digits of the software and motherboard program version numbers in the software version information are the same, and check whether the firmware is correct. 3. Re-import the correct firmware configuration and firmware parameter files.
10022	Error	Communications	Printing failed. The device timed out while printing.	Possible 1. Printing initialization action execution error Possible 2. The printer software is communicating abnormally with the motherboard Possible 3. The motherboard is not functioning properly Possible 4. The firmware configuration and parameters are incorrect or corrupted	1. Check the log to verify if the print initialization action is executed properly. 2. Check the device connection status in the lower-left corner of the software. 3. Check whether the first four digits of the software and motherboard program version numbers in the software version information are the same, and check whether the firmware is correct. 4. Re-import the correct firmware configuration and parameter files.
11000	Error	Parameter	Failed to retrieve the logical nozzle id	Possible 1. Firmware parameters or configuration are incorrect	1. Re-import the correct firmware configuration and parameter files.
11001	Error	Parameter	Failed to get the physical nozzle id	Possible 1. Firmware parameters or configuration are incorrect	1. Re-import the correct firmware configuration and parameter files.
11002	Error	Parameter	The physical nozzle is empty	Possible 1. Firmware parameters or configuration are incorrect	1. Re-import the correct firmware configuration and parameter files.
11003	Error	Parameter	Failed to parse parameters for the combination operation	Possible 1. Firmware parameters or configuration are incorrect	1. Re-import the correct firmware configuration and parameter files.

11004	Error	Parameter	The combination operation is not available	Possible 1. Firmware parameters or configuration are incorrect	1. Re-import the correct firmware configuration and parameter files.
11005	Error	Parameter	Authorization failed	Possible 1. Authorization code used	1. Use the new authorization code.
11006	Error	Parameter	Authorization failed	Possible 1. The authorization code cannot be recognized	1. Use the correct authorization code.
11007	Error	Parameter	Authorization failed	Possible 1. Invalid authorization code. Manufacturer id does not match.	1. Use the correct authorization code.
11008	Error	Parameter	Authorization failed	Possible 1. Invalid authorization code. The motherboard serial number does not match.	1. Use the correct authorization code.
11010	Error	Parameter	Failed to save system parameters	Option 1: Save parameters that are not local	1. Load parameters before saving them in the software.
11011	Error	Parameter	Failed to modify language authorization	Possible 1. Invalid authorization code. Manufacturer id does not match.	1. Use the correct authorization code.
11012	Error	Parameter	The motherboard is not compatible with the device type	Possible 1. The firmware configuration is incorrect or corrupted	1. Import the correct firmware configuration
11013	Error	Parameter	The motherboard does not support the current spray plate	Possible 1. Abnormal connection of the spray plate Possible 2. The motherboard does not support the current spray plate	1. Check the connection of the spray plate.
11014	Error	Parameter	Authorization expired	Possible 1. Authorization expired	1. Contact the supplier to authorize the extension of use.
11022	Error	Parameter	The nozzle type of the current waveform data is	System waveform data may not match the current spray plate. Possible 2. The waveform data is incorrect or corrupted Possible 3. The firmware parameters	1. Re-import the correct firmware configuration file and firmware parameter file 2. Import the correct waveform file

			inconsistent	are incorrect or corrupted	
11023	Error	Parameter	Failed to get the nozzle layout management module	Possible 1. The firmware parameters or configuration are incorrect or corrupted Possible 2. Firmware parameters and firmware configuration do not match	1. Re-import the correct firmware configuration file and firmware parameter file
11024	Error	Parameter	Failed to retrieve the material management module	Possible 1. The firmware parameters or configuration are incorrect or corrupted Possible 2. Firmware parameters and firmware configuration do not match	1. Re-import the correct firmware configuration file and firmware parameter file
11025	Error	Parameter	Failed to get the horizontal print precision management module	Possible 1. The firmware parameters or configuration are incorrect or corrupted Possible 2. Firmware parameters and firmware configuration do not match	1. Re-import the correct firmware configuration file and firmware parameter file
11026	Error	Parameter	Failed to get the global parameter management module	Possible 1. The firmware parameters or configuration are incorrect or corrupted Possible 2. Firmware parameters and firmware configuration do not match	1. Re-import the correct firmware configuration file and firmware parameter file
11027	Error	Parameter	Failed to get the print mode management module	Possible 1. The firmware parameters or configuration are incorrect or corrupted Possible 2. Firmware parameters and firmware configuration do not match	1. Re-import the correct firmware configuration file and firmware parameter file
11028	Error	Parameter	Failed to manage access speed	Possible 1. The firmware parameters or configuration are incorrect or corrupted Possible 2. Firmware parameters and firmware configuration do not match	1. Re-import the correct firmware configuration file and firmware parameter file
11029	Error	Parameter	Failed to obtain the board encryption module	Possible 1. The firmware parameters or configuration are incorrect or corrupted Possible 2. Firmware parameters and firmware configuration do not match	1. Re-import the correct firmware configuration file and firmware parameter file

11030	Error	Parameter	Failed to get the nozzle management module	Possible 1. The firmware parameters or configuration are incorrect or corrupted Possible 2. Firmware parameters and firmware configuration do not match	1. Re-import the correct firmware configuration file and firmware parameter file
11031	Error	Parameter	The cleaning nozzle is not bound to an id	Possible 1. The firmware parameters or configuration are incorrect or corrupted Possible 2. Firmware parameters and firmware configuration do not match	1. Re-import the correct firmware configuration file and firmware parameter file
11032	Error	Parameter	The inkjet nozzle is not bound to an id	Possible 1. The firmware parameters or configuration are incorrect or corrupted Possible 2. Firmware parameters and firmware configuration do not match	1. Re-import the correct firmware configuration file and firmware parameter file
11033	Error	Parameter	The required horizontal print precision index does not exist	Possible 1. The firmware parameters or configuration are incorrect or corrupted Possible 2. Firmware parameters and firmware configuration do not match	1. Re-import the correct firmware configuration file and firmware parameter file
11034	Error	Parameter	The speed index number required is not available	Possible 1. The firmware parameters or configuration are incorrect or corrupted Possible 2. Firmware parameters and firmware configuration do not match	1. Re-import the correct firmware configuration file and firmware parameter file
11035	Error	Parameter	The required material index number does not exist	Possible 1. The firmware parameters or configuration are incorrect or corrupted Possible 2. Firmware parameters and firmware configuration do not match	1. Re-import the correct firmware configuration file and firmware parameter file
11036	Error	Parameter	The cleaning nozzle index number required does not exist	Possible 1. The firmware parameters or configuration are incorrect or corrupted Possible 2. Firmware parameters and firmware configuration do not match	1. Re-import the correct firmware configuration file and firmware parameter file
11037	Error	Parameter	The required cleaning nozzle mode index does not exist	Possible 1. The firmware parameters or configuration are incorrect or corrupted Possible 2. Firmware parameters and firmware configuration do not match	1. Re-import the correct firmware configuration file and firmware parameter file

11038	Error	Parameter	The inkjet head index number required is not available	Possible 1. The firmware parameters or configuration are incorrect or corrupted Possible 2. Firmware parameters and firmware configuration do not match	1. Re-import the correct firmware configuration file and firmware parameter file
11039	Error	Parameter	The logical nozzle layout index number required previously does not exist	Possible 1. The firmware parameters or configuration are incorrect or corrupted Possible 2. Firmware parameters and firmware configuration do not match	1. Re-import the correct firmware configuration file and firmware parameter file
11040	Error	Parameter	Incorrect number of horizontal and vertical interpolations	Possible 1. The firmware parameters or configuration are incorrect or corrupted Possible 2. Firmware parameters and firmware configuration do not match	1. Re-import the correct firmware configuration file and firmware parameter file
11041	Error	Parameter	No logical nozzle found	Possible 1. The firmware parameters or configuration are incorrect or corrupted Possible 2. Firmware parameters and firmware configuration do not match	1. Re-import the correct firmware configuration file and firmware parameter file
11042	Error	Parameter	No logical channel found	Possible 1. The firmware parameters or configuration are incorrect or corrupted Possible 2. Firmware parameters and firmware configuration do not match	1. Re-import the correct firmware configuration file and firmware parameter file
11043	Error	Parameter	No physical channel found	Possible 1. The firmware parameters or configuration are incorrect or corrupted Possible 2. Firmware parameters and firmware configuration do not match	1. Re-import the correct firmware configuration file and firmware parameter file
11044	Error	Parameter	Ink not found	Possible 1. The firmware parameters or configuration are incorrect or corrupted Possible 2. Firmware parameters and firmware configuration do not match	1. Re-import the correct firmware configuration file and firmware parameter file
11045	Error	Parameter	The ink color does not match the prin color	Possible 1. The firmware parameters or configuration are incorrect or corrupted Possible 2. Firmware parameters and	1. Re-import the correct firmware configuration file and firmware parameter file

				firmware configuration do not match	
11047	Error	Parameter	Invalid hole range	Possible 1. The firmware parameters or configuration are incorrect or corrupted Possible 2. Firmware parameters and firmware configuration do not match	1. Re-import the correct firmware configuration file and firmware parameter file
11048	Error	Parameter	Invalid broken link id	Possible 1. The firmware parameters or configuration are incorrect or corrupted Possible 2. Firmware parameters and firmware configuration do not match	1. Re-import the correct firmware configuration file and firmware parameter file
11049	Error	Parameter	Invalid hardware configuration	Possible 1. The firmware parameters or configuration are incorrect or corrupted Possible 2. Firmware parameters and firmware configuration do not match	1. Re-import the correct firmware configuration file and firmware parameter file
11050	Error	Parameter	Hardware cache fill error	Possible 1. The firmware parameters or configuration are incorrect or corrupted Possible 2. Firmware parameters and firmware configuration do not match	1. Re-import the correct firmware configuration file and firmware parameter file. 2. Import the correct waveform file.
11051	Error	Parameter	Invalid print task type	Possible 1. Task type parameter is invalid	1. Re-import the correct firmware configuration file and firmware parameter file.
11052	Error	Parameter	Boardid and board channel id errors	Possible 1. The firmware parameters or configuration are incorrect or corrupted Possible 2. Firmware parameters and firmware configuration do not match	1. Re-import the correct firmware configuration file and firmware parameter file
11053	Error	Parameter	Physical channel attribute id does not exist	Possible 1. The firmware parameters or configuration are incorrect or corrupted Possible 2. Firmware parameters and firmware configuration do not match	1. Re-import the correct firmware configuration file and firmware parameter file
11055	Error	Parameter	Failed to get layout management	Possible 1. Incorrect or corrupted firmware configuration or parameters Possible 2. Firmware configuration and firmware parameters do not match Possible 3. The print software version does not match the motherboard	1. Re-import the correct firmware configuration file and firmware parameter file. 2. Check whether the first four digits of the software and motherboard program version numbers in the

				program version	software version information are the same.
11056	Error	Parameter	Failed to get the current nozzle selection	Possible 1. Incorrect or corrupted firmware configuration or parameters Possible 2. Firmware configuration and firmware parameters do not match Possible 3. The print software version does not match the motherboard program version	1. Re-import the correct firmware configuration file and firmware parameter file. 2. Check whether the first four digits of the software and motherboard program version numbers in the software version information are the same.
11057	Error	Parameter	Failed to get the current nozzle selection parameters (physical layout)	Possible 1. Incorrect or corrupted firmware configuration or parameters Possible 2. Firmware configuration and firmware parameters do not match Possible 3. The print software version does not match the motherboard program version	1. Re-import the correct firmware configuration file and firmware parameter file. 2. Check whether the first four digits of the software and motherboard program version numbers in the software version information are the same.
11058	Error	Parameter	Failed to get the current nozzle selection parameters (logical layout)	Possible 1. Incorrect or corrupted firmware configuration or parameters Possible 2. Firmware configuration and firmware parameters do not match Possible 3. The print software version does not match the motherboard program version	1. Re-import the correct firmware configuration file and firmware parameter file. 2. Check whether the first four digits of the software and motherboard program version numbers in the software version information are the same.
11059	Error	Parameter	Failed to get print mode parameters (data processing mode)	Maybe 1. This task does not support the specified precision, number of colors, or number of points. Possible firmware configuration or parameter errors or corruption Possible 3. Firmware configuration and firmware parameters do not match Possible 4. The print software version does not match the motherboard program version	1. Confirm whether task accuracy, color count, and point count are supported. 2. Re-import the correct firmware configuration file and firmware parameter file. 3. Check whether the first four digits of the software and motherboard program version numbers in the software version information are the same.

11060	Error	Parameter	Failed to get the current calibration chart parameters	Possible 1. Incorrect or corrupted firmware configuration or parameters Possible 2. Firmware configuration and firmware parameters do not match Possible 3. The print software version does not match the motherboard program version	1. Re-import the correct firmware configuration file and firmware parameter file. 2. Check whether the first four digits of the software and motherboard program version numbers in the software version information are the same.
11061	Error	Parameter	Failed to retrieve the current calibration chart parameters (calibration template chart)	Possible 1. Incorrect or corrupted firmware configuration or parameters Possible 2. Firmware configuration and firmware parameters do not match Possible 3. The print software version does not match the motherboard program version	1. Re-import the correct firmware configuration file and firmware parameter file. 2. Check whether the first four digits of the software and motherboard program version numbers in the software version information are the same.
11062	Error	Parameter	Failed to retrieve the physical channel hole parameters	Possible 1. Incorrect or corrupted firmware configuration or parameters Possible 2. Firmware configuration and firmware parameters do not match Possible 3. The print software version does not match the motherboard program version	1. Re-import the correct firmware configuration file and firmware parameter file. 2. Check whether the first four digits of the software and motherboard program version numbers in the software version information are the same.
11063	Error	Parameter	Failed to retrieve the physical channel status (channel closed)	Possible 1. Incorrect or corrupted firmware configuration or parameters Possible 2. Firmware configuration and firmware parameters do not match Possible 3. The print software version does not match the motherboard program version	1. Re-import the correct firmware configuration file and firmware parameter file. 2. Check whether the first four digits of the software and motherboard program version numbers in the software version information are the same.
11064	Error	Parameter	Failed to get the default waveform	Possible 1. Incorrect or corrupted firmware configuration or parameters Possible 2. Firmware configuration and firmware parameters do not match Possible 3. The print software version does not match the motherboard program version	1. Re-import the correct firmware configuration file and firmware parameter file. 2. Check whether the first four digits of the software and motherboard program version numbers in the software version information are the same.

11065	Error	Parameter	Failed to get print speed	Possible 1. Incorrect or corrupted firmware configuration or parameters Possible 2. Firmware configuration and firmware parameters do not match Possible 3. The print software version does not match the motherboard program version	1. Re-import the correct firmware configuration file and firmware parameter file. 2. Check whether the first four digits of the software and motherboard program version numbers in the software version information are the same.
11066	Error	Parameter	Failed to get horizontal print precision	Possible 1. Incorrect or corrupted firmware configuration or parameters Possible 2. Firmware configuration and firmware parameters do not match Possible 3. The print software version does not match the motherboard program version	1. Re-import the correct firmware configuration file and firmware parameter file. 2. Check whether the first four digits of the software and motherboard program version numbers in the software version information are the same.
11067	Error	Parameter	Failed to retrieve calibration parameters-reference color alignment to the left	Possible 1. Incorrect or corrupted firmware configuration or parameters Possible 2. Firmware configuration and firmware parameters do not match Possible 3. The print software version does not match the motherboard program version	1. Re-import the correct firmware configuration file and firmware parameter file. 2. Check whether the first four digits of the software and motherboard program version numbers in the software version information are the same.
11068	Error	Parameter	Failed to retrieve calibration parameters-reference color alignment to the right	Possible 1. Incorrect or corrupted firmware configuration or parameters Possible 2. Firmware configuration and firmware parameters do not match Possible 3. The print software version does not match the motherboard program version	1. Re-import the correct firmware configuration file and firmware parameter file. 2. Check whether the first four digits of the software and motherboard program version numbers in the software version information are the same.
11069	Error	Parameter	Failed to retrieve calibration parameters-color offset left	Possible 1. Incorrect or corrupted firmware configuration or parameters Possible 2. Firmware configuration and firmware parameters do not match Possible 3. The print software version does not match the motherboard program version	1. Re-import the correct firmware configuration file and firmware parameter file. 2. Check whether the first four digits of the software and motherboard program version numbers in the software version information are the same.

11070	Error	Parameter	Failed to retrieve calibration parameters-color offset to the right	Possible 1. Incorrect or corrupted firmware configuration or parameters Possible 2. Firmware configuration and firmware parameters do not match Possible 3. The print software version does not match the motherboard program version	1. Re-import the correct firmware configuration file and firmware parameter file. 2. Check whether the first four digits of the software and motherboard program version numbers in the software version information are the same.
11071	Error	Parameter	Failed to retrieve calibration parameters-the horizontal spacing between nozzles is too far to the left	Possible 1. Incorrect or corrupted firmware configuration or parameters Possible 2. Firmware configuration and firmware parameters do not match Possible 3. The print software version does not match the motherboard program version	1. Re-import the correct firmware configuration file and firmware parameter file. 2. Check whether the first four digits of the software and motherboard program version numbers in the software version information are the same.
11072	Error	Parameter	Failed to retrieve calibration parameters-the horizontal spacing between nozzles is set to the right	Possible 1. Incorrect or corrupted firmware configuration or parameters Possible 2. Firmware configuration and firmware parameters do not match Possible 3. The print software version does not match the motherboard program version	1. Re-import the correct firmware configuration file and firmware parameter file. 2. Check whether the first four digits of the software and motherboard program version numbers in the software version information are the same.
11073	Error	Parameter	Failed to retrieve calibration parameters-longitudinal spacing between nozzles	Possible 1. Incorrect or corrupted firmware configuration or parameters Possible 2. Firmware configuration and firmware parameters do not match Possible 3. The print software version does not match the motherboard program version	1. Re-import the correct firmware configuration file and firmware parameter file. 2. Check whether the first four digits of the software and motherboard program version numbers in the software version information are the same.
11074	Error	Parameter	Failed to calculate the maximum color offset	Possible 1. Incorrect or corrupted firmware configuration or parameters Possible 2. Firmware configuration and firmware parameters do not match Possible 3. The print software version	1. Re-import the correct firmware configuration file and firmware parameter file. 2. Check whether the first four digits of the software and motherboard

				does not match the motherboard program version	program version numbers in the software version information are the same.
11075	Error	Parameter	Failed to retrieve the white border parameters	Possible 1. Incorrect or corrupted firmware configuration or parameters Possible 2. Firmware configuration and firmware parameters do not match Possible 3. The print software version does not match the motherboard program version	1. Re-import the correct firmware configuration file and firmware parameter file. 2. Check whether the first four digits of the software and motherboard program version numbers in the software version information are the same.
11076	Error	Parameter	Failed to set ink multiplier	Possible 1. Incorrect or corrupted firmware configuration or parameters Possible 2. Firmware configuration and firmware parameters do not match Possible 3. The print software version does not match the motherboard program version	1. Re-import the correct firmware configuration file and firmware parameter file. 2. Check whether the first four digits of the software and motherboard program version numbers in the software version information are the same.
11077	Error	Parameter	Failed to retrieve channel control parameters	Possible 1. Incorrect or corrupted firmware configuration or parameters Possible 2. Firmware configuration and firmware parameters do not match Possible 3. The print software version does not match the motherboard program version	1. Re-import the correct firmware configuration file and firmware parameter file. 2. Check whether the first four digits of the software and motherboard program version numbers in the software version information are the same.
11081	Error	Parameter	Printing failed. The system parameter is invalid.	Possible 1. The firmware configuration or parameters are incorrect or corrupted Possible 2. Firmware configuration and firmware parameters do not match Possible 3. The print software does not match the firmware configuration or parameters	1. Re-import the correct firmware configuration file and firmware parameter file.
11082	Error	Parameter	Layout configuration error (physical nozzle not found)	Possible 1. Incorrect or corrupted firmware configuration or parameters Possible 2. Firmware configuration and firmware parameters do not match Possible 3. The print software version does not match the motherboard	1. Re-import the correct firmware configuration file and firmware parameter file. 2. Check whether the first four digits of the software and motherboard program version numbers in the

				program version	software version information are the same.
11083	Error	Parameter	Layout configuration error (physical channel not found)	Possible 1. Incorrect or corrupted firmware configuration or parameters Possible 2. Firmware configuration and firmware parameters do not match Possible 3. The print software version does not match the motherboard program version	1. Re-import the correct firmware configuration file and firmware parameter file. 2. Check whether the first four digits of the software and motherboard program version numbers in the software version information are the same.
11084	Error	Parameter	Layout configuration error (specified physical channel not found)	Possible 1. Incorrect or corrupted firmware configuration or parameters Possible 2. Firmware configuration and firmware parameters do not match Possible 3. The print software version does not match the motherboard program version	1. Re-import the correct firmware configuration file and firmware parameter file. 2. Check whether the first four digits of the software and motherboard program version numbers in the software version information are the same.
11085	Error	Parameter	Logical layout configuration error (physical channel not found)	Possible 1. Incorrect or corrupted firmware configuration or parameters Possible 2. Firmware configuration and firmware parameters do not match Possible 3. The print software version does not match the motherboard program version	1. Re-import the correct firmware configuration file and firmware parameter file. 2. Check whether the first four digits of the software and motherboard program version numbers in the software version information are the same.
11086	Error	Parameter	The logical layout configuration is incorrect (the specified physical channel is not found).	Possible 1. Incorrect or corrupted firmware configuration or parameters Possible 2. Firmware configuration and firmware parameters do not match Possible 3. The print software version does not match the motherboard program version	1. Re-import the correct firmware configuration file and firmware parameter file. 2. Check whether the first four digits of the software and motherboard program version numbers in the software version information are the same.

11087	Error	Parameter	Failed to get the current physical layout	Possible 1. Incorrect or corrupted firmware configuration or parameters Possible 2. Firmware configuration and firmware parameters do not match Possible 3. The print software version does not match the motherboard program version	1. Re-import the correct firmware configuration file and firmware parameter file. 2. Check whether the first four digits of the software and motherboard program version numbers in the software version information are the same.
11088	Error	Parameter	Failed to retrieve calibration chart information	Possible 1. Incorrect or corrupted firmware configuration or parameters Possible 2. Firmware configuration and firmware parameters do not match Possible 3. The print software version does not match the motherboard program version	1. Re-import the correct firmware configuration file and firmware parameter file. 2. Check whether the first four digits of the software and motherboard program version numbers in the software version information are the same.
11089	Error	Parameter	Failed to get the calibration print mode	Possible 1. Incorrect or corrupted firmware configuration or parameters Possible 2. Firmware configuration and firmware parameters do not match Possible 3. The print software version does not match the motherboard program version	1. Re-import the correct firmware configuration file and firmware parameter file. 2. Check whether the first four digits of the software and motherboard program version numbers in the software version information are the same.
11090	Error	Parameter	Failed to get the calibrated print speed	Possible 1. Incorrect or corrupted firmware configuration or parameters Possible 2. Firmware configuration and firmware parameters do not match Possible 3. The print software version does not match the motherboard program version	1. Re-import the correct firmware configuration file and firmware parameter file. 2. Check whether the first four digits of the software and motherboard program version numbers in the software version information are the same.
11091	Error	Parameter	Failed to retrieve the calibration print waveform	Possible 1. Incorrect or corrupted firmware configuration or parameters Possible 2. Firmware configuration and firmware parameters do not match Possible 3. The print software version does not match the motherboard program version	1. Re-import the correct firmware configuration file and firmware parameter file. 2. Check whether the first four digits of the software and motherboard program version numbers in the software version information are the same.

11092	Error	Parameter	Failed to add calibration task	Possible 1. Incorrect or corrupted firmware configuration or parameters Possible 2. Firmware configuration and firmware parameters do not match Possible 3. The print software version does not match the motherboard program version	1. Re-import the correct firmware configuration file and firmware parameter file. 2. Check whether the first four digits of the software and motherboard program version numbers in the software version information are the same.
11093	Error	Parameter	Failed to retrieve the calibration chart	Possible 1. Incorrect or corrupted firmware configuration or parameters Possible 2. Firmware configuration and firmware parameters do not match Possible 3. The print software version does not match the motherboard program version	1. Re-import the correct firmware configuration file and firmware parameter file. 2. Check whether the first four digits of the software and motherboard program version numbers in the software version information are the same.
11094	Error	Parameter	Waveform authorization failed	Possible 1. Waveform file error	1. Waveform authorization verification failed. Apply for waveform authorization
11095	Error	Parameter	Waveform authentication failed	Possible 1. Waveform file error	1. Waveform authentication failed. Send waveform data to the software provider for authentication.
12000	Error	Hardware	Failed to save data on the motherboard	Possible 1. The motherboard flash chip may be damaged Possible 2. Insufficient storage space on the motherboard flash chip	1. Check if the parameters are set too high.
12002	Error	Hardware	Printing failed. Paper is missing.	Possible 1. Paper shortage	1. Please supplement the materials. 2. Check whether the paper sensor is working properly. 3. Check whether the paper sensor wiring is correct.
12003	Error	Hardware	Grating error	Possible 1. Abnormal raster reading	1. Check if the grating interface wiring is abnormal
12004	Error	Hardware	The printer is out of paper	Possible 1. Paper shortage	1. Please add materials. 2. Check whether the paper sensor is working properly. 3. Check whether the paper sensor wiring is correct.

12005	Error	Hardware	Safety bottle full	Possible 1. Safety bottle full	1. Check that the safety bottle is full. 2. Check whether the safety bottle sensor is normal. 3. Check whether the wiring of the safety bottle sensor is correct.
12006	Error	Hardware	The secondary ink cartridge is low	Possible 1. The secondary ink cartridge is low	1. Add ink. 2. Check the ink sensor. 3. Check whether the ink sensor wiring is correct.
12007	Error	Hardware	System exception triggered an emergency stop	Possible 1. The emergency stop signal was triggered	1. Check whether external factors trigger the emergency stop signal. 2. Check whether the wiring of the emergency stop signal is abnormal. 3. Re-import the correct firmware configuration file and firmware parameter file.
12008	Error	Hardware	System error triggered collision prevention	Possible 1. Collision warning triggered	1. Check the external factors that trigger the collision prevention signal. 2. Check whether the anti-collision signal wiring is abnormal. 3. Re-import the correct firmware configuration file and firmware parameter file.
12009	Error	Hardware	The first-level ink cartridge is low	Possible 1. The first-level ink cartridge is low	1. Add ink. 2. Check the ink sensor. 3. Check whether the ink sensor wiring is correct.
12010	Error	Hardware	Ink waste detected	Possible 1. Ink waste detected	1. Check whether the ink bottle is empty
12012	Error	Hardware	Nozzle voltage protection	- Possible 1. The nozzle voltage is short-circuited. 2. The nozzle voltage exceeds the normal range.	1. Cut off the power and remove the nozzle. Re-power the circuit to check whether it is normal.
12014	Error	Hardware	Abnormal nozzle temperature	Possible 1. The nozzle temperature exceeds the normal range.	1. Please pause printing and wait for the nozzle temperature to drop before printing.
12500	Error	Hardware	C ink cartridge error	- Possible 1. c ink bottle is empty - Possible 2. Float level sensor is damaged	1. Click the ink refill button in the status bar to auto-reload. 2. Check whether the float level sensor is normal.

12501	Error	Hardware	M ink cartridge error	Possible 1. The ink bottle is empty Possible 2. Float level sensor is damaged	1. Click the ink refill button in the status bar to auto-reload. 2. Check whether the float level sensor is normal.
12502	Error	Hardware	Y ink bottle error	Possible 1. The ink bottle is empty Possible 2. Float level sensor is damaged	1. Click the ink refill button in the status bar to auto-reload. 2. Check whether the float level sensor is normal.
12503	Error	Hardware	K ink cartridge error	Possible 1.k ink bottle is empty Possible 2. Float level sensor is damaged	1. Click the ink refill button in the status bar to auto-reload. 2. Check whether the float level sensor is normal.
12504	Error	Hardware	Lc ink bottle error	Possible 1.lc ink bottle is empty Possible 2. Float level sensor is damaged	1. Click the ink refill button in the status bar to auto-reload. 2. Check whether the float level sensor is normal.
12505	Error	Hardware	Lm ink bottle error	Possible 1. L.m ink bottle is empty Possible 2. Float level sensor is damaged	1. Click the ink refill button in the status bar to auto-reload. 2. Check whether the float level sensor is normal.
12506	Error	Hardware	Ly bottle error	Possible 1. The ly ink bottle is empty Possible 2. Float level sensor is damaged	1. Click the ink refill button in the status bar to auto-reload. 2. Check whether the float level sensor is normal.
12507	Error	Hardware	Lk ink bottle error	Possible 1.lk ink bottle is empty Possible 2. Float level sensor is damaged	1. Click the ink refill button in the status bar to auto-reload. 2. Check whether the float level sensor is normal.
12508	Error	Hardware	Color safety bottle error	Color ink shortage Possible 2. Float level sensor is damaged	1. Click the ink refill button in the status bar to auto-reload. 2. Check whether the float level sensor is normal.
12509	Error	Hardware	Black ink safety bottle error	Possible 1. White ink is low Possible 2. Float level sensor is damaged	1. Click the ink refill button in the status bar to auto-reload. 2. Check whether the float level sensor is normal.
12510	Error	Hardware	Level 1 c ink bottle error	Possible 1. Level c ink shortage Possible 2. Float level sensor is damaged	1. Replenish c ink promptly 2. Check whether the float level sensor is working properly
12511	Error	Hardware	Level 1 m ink bottle error	Possible 1. Level 1 m ink shortage Possible 2. Float level sensor is damaged	1. Please refill the m ink bottle promptly. 2. Check whether the float level sensor is working properly

12512	Error	Hardware	Level 1 y ink bottle error	Possible 1. Level y ink shortage Possible 2. Float level sensor is damaged	1. Please refill the y ink bottle promptly 2. Check whether the float level sensor is working properly
12513	Error	Hardware	Level 1 k ink bottle error	Possible 1. Level k ink shortage Possible 2. Float level sensor is damaged	1. Replenish k ink promptly 2. Check whether the float level sensor is normal
12514	Error	Hardware	Level 1 lc ink bottle error	Possible level 1 lc ink shortage Possible 2. Float level sensor is damaged	1. Please replenish the lc ink bottle promptly. 2. Check whether the float level sensor is working properly
12515	Error	Hardware	Level 1 lm bottle error	Possible level 1 lm ink shortage Possible 2. Float level sensor is damaged	1. Please replenish the lm ink bottle promptly. 2. Check whether the float level sensor is working properly
12516	Error	Hardware	Level 1 yl bottle error	Possible level 1 ly ink shortage Possible 2. Float level sensor is damaged	1. Please replenish the ink in the ly ink bottle promptly. 2. Check whether the float level sensor is working properly
12517	Error	Hardware	Level 1 lk ink bottle error	Level 1 lk ink shortage Possible 2. Float level sensor is damaged	1. Please replenish the ink in the lk ink bottle promptly. 2. Check whether the float level sensor is working properly
12518	Error	Hardware	Level 1 w ink bottle error	Possible 1. Level w ink shortage Possible 2. Float level sensor is damaged	1. Please replenish the w ink bottle promptly. 2. Check whether the float level sensor is working properly
12519	Error	Hardware	Level 1 v-moon bottle error	Possible 1. Level v ink shortage Possible 2. Float level sensor is damaged	1. Please replenish the v-ink bottle promptly. 2. Check whether the float level sensor is working properly
12520	Error	Hardware	Moisturizing limit is abnormal	Possible issue 1: Motherboard and limit connector malfunction Possible 2. Limit sensor abnormality Possible 3. The limit input signal is incorrectly bound to the board signal	1. Check if the motherboard and limit line connections are correct 2. Is the limit sensor working properly? 3. Import the correct firmware configuration and parameter files
12521	Error	Hardware	Moisturizer upper limit is abnormal	Possible issue 1: Motherboard and limit connector malfunction Possible 2. Limit sensor abnormality Possible 3. The limit input signal is incorrectly bound to the board signal	1. Check if the motherboard and limit line are properly connected 2. Is the limit sensor working properly? 3. Import the correct firmware configuration and parameter files

12522	Error	Hardware	Cleaning origin limit error	Possible issue 1: Motherboard and limit connector malfunction Possible 2. Limit sensor abnormality Possible 3. The limit input signal is incorrectly bound to the board signal	1. Check if the motherboard and limit switch wires are properly connected 2. Is the limit sensor working properly? 3. Import the correct firmware configuration and parameter files
12523	Error	Hardware	Cleaning endpoint limit error	Possible issue 1: Motherboard and limit connector malfunction Possible 2. Limit sensor abnormality Possible 3. The limit input signal is incorrectly bound to the board signal	1. Check if the motherboard and limit line are properly connected 2. Is the limit sensor working properly? 3. Import the correct firmware configuration and parameter files
12532	Error	Hardware	Double y mobile anomaly	Possible 1. Dual-y imbalance alarm Possible 2.y motor connection error Possible 3.y motor encoder feedback error	1. Restart the machine 2. Check the motor connection port to ensure good contact 3. Check the encoder feedback connection or signal polarity
13000	Error	Molluscs	Failed to open the file	File 1. The file does not exist File 2 is in use	1. Check if the file exists 2. Confirm the file is open
13001	Error	Molluscs	File format flag error. Failed to open firmware parameters or firmware configuratio n file.	Possible 1. The file format is incorrect File data may be corrupted.	1. Verify that the firmware parameters or configuration file version are correct 2. Re-import the correct firmware parameter file or firmware configuration file
13002	Error	Molluscs	The file compatibilit y code is incorrect. Failed to open the firmware parameters or configuratio n file.	Possible 1. The file format is incorrect File data may be corrupted.	1. Verify that the firmware parameters or configuration file version are correct 2. Re-import the correct firmware parameter file or firmware configuration file

13003	Error	Molluscs	The file version number is incorrect. Failed to open the firmware parameters or configuration file.	Possible 1. The file format is incorrect File data may be corrupted.	1. Verify that the firmware parameters or configuration file version are correct 2. Re-import the correct firmware parameter file or firmware configuration file
13004	Error	Molluscs	The file data type is incorrect. Failed to open the firmware parameters or configuration file.	Possible 1. The file format is incorrect File data may be corrupted.	1. Verify that the firmware parameters or configuration file version are correct 2. Re-import the correct firmware parameter file or firmware configuration file
13005	Error	Molluscs	Memory overrun	Possible 1. Memory access error	1. Restart the machine
13006	Error	Molluscs	Run out of memory	Possible 1. Insufficient memory	1. Restart the machine
13007	Error	Molluscs	Md5 data verification failed	Possible 1. File parsing failed or file data is corrupted Possible 2. The print software version does not match the motherboard program version	1. Verify the file is correct 2. Check whether the first four digits of the software and motherboard program version numbers in the software version information are the same.
13008	Error	Molluscs	Upgrade failed. Failed to parse the file.	Possible 1. File parsing failed or file data is corrupted Possible 2. The print software version does not match the motherboard program version	1. Verify the file is correct 2. Check whether the first four digits of the software and motherboard program version numbers in the software version information are the same.
13009	Error	Molluscs	Failed to read flash area a	Possible 2. The motherboard parameters are corrupted or abnormal Possible 3. The motherboard flash chip may be damaged	1. Re-import the correct firmware configuration and parameter files 2. Check whether the first four digits of the software and motherboard program version numbers in the

					software version information are the same.
13010	Error	Molluscs	Failed to read flash b area	Possible 2. The motherboard parameters are corrupted or abnormal Possible 3. The motherboard flash chip may be damaged	1. Re-import the correct firmware configuration and parameter files 2. Check whether the first four digits of the software and motherboard program version numbers in the software version information are the same.
13011	Error	Molluscs	Failed to parse the flash data	Possible 2. The motherboard parameters are corrupted or abnormal	1. Re-import the correct firmware configuration and parameter files 2. Check whether the first four digits of the software and motherboard program version numbers in the software version information are the same.
13012	Error	Molluscs	Flash loading failed. Enter reset mode. Upgrade the motherboard program or reset the flash.	Possible 1. Motherboard parameters not initialized	1. Reset motherboard flash parameters
13013	Error	Molluscs	System initialization failed	Possible 1. The firmware configuration is incorrect or corrupted Possible 2. The firmware parameters are incorrect or corrupted Possible 3. The motherboard and spray plate are not connected properly Possible 4. Limit switch failure or wiring abnormality Possible 5. Motor or servo movement abnormality Possible 6. Too slow motion time out	1. Check the connections between motherboards 2. Check if the power supply on each motherboard is normal
13014	Error	Molluscs			

13015	Error	Molluscs	Failed to read the clock	Possible 1. Clock chip or motherboard time error	1. Check if the clock can be calibrated in the post-sales mode and determine whether the clock chip is working properly
13016	Error	Molluscs	Failed to set the clock	Possible 1. Clock chip or motherboard time error	1. Check if the clock can be calibrated in the post-sales mode and determine whether the clock chip is working properly
13017	Error	Molluscs	Payment plan configuration error	Possible 1. Clock chip or motherboard time error	1. Check if the clock can be calibrated in the post-sales mode and determine whether the clock chip is working properly
13018	Error	Molluscs	The combination operation is not allowed	Possible 1. Other actions are in progress Action 2. This action is disabled in the current system state.	1. Wait for the other action command to complete 2. Check if the system status is normal
13019	Error	Molluscs	Basic operations are disabled	Possible 1. Other operations are in progress Possible 2. This operation is disabled in the current system state	1. Wait for other operation commands to complete 2. Check if the system status is normal
13020	Error	Molluscs	Height measurement failed	Possible 1. The height sensor microswitch is faulty and failed to detect the microswitch signal Possible 2. Z-axis motor or driver failure Possible 3. The z-axis movement speed is too slow, resulting in movement timeout	1. Check whether the elevation microswitch is invalid 2. Check if the z motor or driver is faulty
13021	Error	Molluscs	Calibration of x gear ratio failed	Possible 1. X-axis motor or driver failure. Possible 2. The x-axis movement speed is too slow, resulting in movement timeout	1. Check if the x motor or driver is faulty
13022	Error	Molluscs	Paper test failed	Possible 1. Does the non-detection area exceed the print area? Possible 2. Test paper sensor abnormal	1. Check if the non-detection area exceeds the print area 2. Check the test paper sensor
13023	Error	Molluscs	Ink pad error	Possible 1. Ink stack motor malfunction Possible 2. Mostack limit anomaly	1. Check if the ink stack motor and limit switch are functioning properly

13024	Error	Molluscs	Failed to print initialization action	Possible 1. The firmware configuration and parameters are incorrect or corrupted Possible 2. The motherboard and spray plate are not connected properly Possible 3. Limit switch failure or wiring abnormality Possible 4. Motor or servo movement abnormality Possible 5. The car is moving too slowly and is overdue Possible 6. The motherboard program and the logic of the spray car board do not match	1. Import the correct firmware configuration and parameters. 2. Check the wiring in the error description. 3. Check if the motor or servo is moving abnormally 4. Check whether the motherboard program and the logic version of the spray car board match in the software version information
13025	Error	Molluscs	Print failed. Pausing action execution failed.	Possible 1. The firmware configuration and parameters are incorrect or corrupted Possible 2. The motherboard and spray plate are not connected properly Possible 3. Limit switch failure or wiring abnormality Possible 4. Motor or servo movement abnormality Possible 5. The car is moving too slowly and is overdue Possible 6. The motherboard program and the logic of the spray car board do not match	1. Import the correct firmware configuration and parameters. 2. Check the wiring in the error description. 3. Check if the motor or servo is moving abnormally 4. Check whether the motherboard program and the logic version of the spray car board match in the software version information
13026	Error	Molluscs	Printing failed. The system status is incorrect.	Possible 1. The system is in error state	1. Restart the machine and software
13027	Error	Molluscs	Printing failed. The system status is abnormal.	Possible 1. The system is in an abnormal state	1. Restart the machine and software

13028	Error	Molluscs	Printing failed. The automatic cleaning action failed.	Possible 1. The firmware configuration and parameters are incorrect or corrupted Possible 2. The motherboard and spray plate are not connected properly Possible 3. Limit switch failure or wiring abnormality Possible 4. Motor or servo movement abnormality Possible 5. Too slow motion time out Possible 6. The motherboard program and the logic of the spray car board do not match	1. Import the correct firmware configuration and parameters. 2. Check the wiring in the error description. 3. Check if the motor or servo is moving abnormally 4. Check whether the motherboard program and the logic version of the spray car board match in the software version information
13029	Error	Molluscs	Printing failed. Canceling action execution failed.	Possible 1. The firmware configuration and parameters are incorrect or corrupted Possible 2. The motherboard and spray plate are not connected properly Possible 3. Limit switch failure or wiring abnormality Possible 4. Motor or servo movement abnormality Possible 5. Too slow motion time out Possible 6. The motherboard program and the logic of the spray car board do not match	1. Import the correct firmware configuration and parameters. 2. Check the wiring in the error description. 3. Check if the motor or servo is moving abnormally 4. Check whether the motherboard program and the logic version of the spray car board match in the software version information
13030	Error	Molluscs	Print failed. Continuing the action failed.	Possible 1. The firmware configuration and parameters are incorrect or corrupted Possible 2. The motherboard and spray plate are not connected properly Possible 3. Limit switch failure or wiring abnormality Possible 4. Motor or servo movement abnormality Possible 5. Too slow motion time out Possible 6. The motherboard program and the logic of the spray car board do not match	1. Import the correct firmware configuration and parameters. 2. Check the wiring in the error description. 3. Check whether the motherboard program and the logic version of the spray car board match in the software version information

13031	Error	Molluscs	Printing failed. Cleaning action failed.	Possible 1. The firmware configuration and parameters are incorrect or corrupted Possible 2. The motherboard and spray plate are not connected properly Possible 3. Limit switch failure or wiring abnormality Possible 4. Motor or servo movement abnormality Possible 6. Too slow motion time out Possible 6. The motherboard program and the logic of the spray car board do not match	1. Import the correct firmware configuration and parameters. 2. Check the wiring in the error description. 3. Check if the motor or servo is moving abnormally 4. Check whether the motherboard program and the logic version of the spray car board match in the software version information
13032	Error	Molluscs	Printing failed. The left move action failed.	Possible 1. The firmware configuration and parameters are incorrect or corrupted Possible 2. The motherboard and spray plate are not connected properly Possible 3. Limit switch failure or wiring abnormality Possible 4. Motor or servo movement abnormality Possible 5. Too slow motion time out Possible 6. The motherboard program and the logic of the spray car board do not match	1. Import the correct firmware configuration and parameters. 2. Check the wiring in the error description. 3. Check if the motor or servo is moving abnormally 4. Check whether the motherboard program and the logic version of the spray car board match in the software version information
13033	Error	Molluscs	Print failed. Right move action failed.	Possible 1. The firmware configuration and parameters are incorrect or corrupted Possible 2. The motherboard and spray plate are not connected properly Possible 3. Limit switch failure or wiring abnormality Possible 4. Motor or servo movement abnormality Possible 5. Too slow motion time out Possible 6. The motherboard program and the spray car board logic do not match	1. Import the correct firmware configuration and parameters. 2. Check the wiring in the error description. 3. Check whether the motherboard program and the logic version of the spray car board match in the software version information

13034	Error	Molluscs	Printing failed. The ascent action failed.	Possible 1. The firmware configuration and parameters are incorrect or corrupted Possible 2. The motherboard and spray plate are not connected properly Possible 3. Limit switch failure or wiring abnormality Possible 4. Motor or servo movement abnormality Possible 5. Too slow motion time out Possible 6. The motherboard program and the logic of the spray car board do not match	1. Import the correct firmware configuration and parameters. 2. Check the wiring in the error description. 3. Check if the motor or servo is moving abnormally 4. Check whether the motherboard program and the logic version of the spray car board match in the software version information
13035	Error	Molluscs	Print failed. The drop action failed.	Possible 1. The firmware configuration and parameters are incorrect or corrupted Possible 2. The motherboard and spray plate are not connected properly Possible 3. Limit switch failure or wiring abnormality Possible 4. Motor or servo movement abnormality Possible 5. Too slow motion time out Possible 6. The motherboard program and the logic of the spray car board do not match	1. Import the correct firmware configuration and parameters. 2. Check the wiring in the error description. 3. Check if the motor or servo is moving abnormally 4. Check whether the motherboard program and the logic version of the spray car board match in the software version information
13036	Error	Molluscs	Printing failed, white page failed	Possible 1. The firmware configuration and parameters are incorrect or corrupted Possible 2. The motherboard and spray plate are not connected properly Possible 3. Limit switch failure or wiring abnormality Possible 4. Motor or servo movement abnormality Possible 5. Too slow motion time out Possible 6. The motherboard program and the logic of the spray car board do not match	1. Import the correct firmware configuration and parameters. 2. Check the wiring in the error description. 3. Check if the motor or servo is moving abnormally 4. Check whether the motherboard program and the logic version of the spray car board match in the software version information

13037	Error	Molluscs	Print failed. Failed to execute the pre-print action for pass.	Possible 1. The firmware configuration and parameters are incorrect or corrupted Possible 2. The motherboard and spray plate are not connected properly Possible 3. Limit switch failure or wiring abnormality Possible 4. Motor or servo movement abnormality Possible 5. Too slow motion time out Possible 6. The motherboard program and the logic of the spray car board do not match	1. Import the correct firmware configuration and parameters. 2. Check the wiring in the error description. 3. Check if the motor or servo is moving abnormally 4. Check whether the motherboard program and the logic version of the spray car board match in the software version information
13038	Error	Molluscs	Printing failed. Failed to execute the pass print action.	Possible 1. The firmware configuration and parameters are incorrect or corrupted Possible 2. The motherboard and spray plate are not connected properly Possible 3. Limit switch failure or wiring abnormality Possible 4. Too slow motion time out Possible 5. The motherboard program and the spray car board logic do not match	1. Import the correct firmware configuration and parameters. 2. Check the wiring in the error description. 3. Check if the motor or servo is moving abnormally 4. Check whether the motherboard program and the logic version of the spray car board match in the software version information
13039	Error	Molluscs	Printing failed. The action after pass printing failed.	Possible 1. The firmware configuration and parameters are incorrect or corrupted Possible 2. The motherboard and spray plate are not connected properly Possible 3. Limit switch failure or wiring abnormality Possible 4. Too slow motion time out Possible 5. The motherboard program and the spray car board logic do not match	1. Import the correct firmware configuration and parameters. 2. Check the wiring in the error description. 3. Check if the motor or servo is moving abnormally 4. Check whether the motherboard program and the logic version of the spray car board match in the software version information
13041	Error	Molluscs	Printing failed. The starting position of the next pass cart is incorrect.	Possible 1. Grid anomaly Possible 2. Gear ratio anomaly	1. Check for any abnormality in the grating reading 2. Check for gear ratio abnormalities

13042	Error	Molluscs	Ink stack drop timeout	Possible 1. Ink stack motor malfunction Possible 2. Mostack limit anomaly	1. Check if the ink stack motor is working properly 2. Check if the ink stack limit is normal
13043	Error	Molluscs	Ink stack timeout	Possible 1. Ink stack motor malfunction Possible 2. Mostack limit anomaly	1. Check if the ink stack motor is working properly 2. Check if the ink stack limit is normal
13044	Error	Molluscs	Wait for the motor to stop	Possible 1. The firmware configuration parameter time is too short	1. Import the correct firmware configuration and parameters
13045	Error	Molluscs	Failed to automatically spray and remove residual ink	Possible 1. Failed to remove residual ink Possible 2. The firmware configuration or parameters are incorrect or corrupted Possible 3. Firmware parameters and firmware configuration do not match	1. Check if the ink stack movement of the device is normal 2. Re-import the correct firmware configuration file and firmware parameter file
13046	Error	Molluscs	Waiting for the stop signal to time out	Possible 1. The firmware configuration parameter time is too short	1. Import the correct firmware configuration and parameters
13047	Error	Molluscs	Printing failed. The pass data was not printed.	Possible 1. Grid anomaly Possible 2. Gear ratio anomaly Possible 3. x limit or motor malfunction Possible 4. Abnormal connection of the spray plate Possible 5. Power supply abnormality in the spray plate Possible 6. Motherboard program or nozzle plate logic mismatch	1. Check if the grating is normal 2. Check if the gear ratio is correct 3. Check if the x limit is normal 4. Check whether the wiring of the spray car plate is normal 5. Check whether the power supply of the spray car plate is normal 6. Check if the logic version of the spray car plate is correct
13048	Error	Molluscs	System error. The altimeter is malfunctioning.	Possible 1. The altimeter is abnormal Possible 2. The firmware configuration is incorrect or corrupted	1. Check if the altimeter is abnormal 2. Re-import the correct firmware configuration
13049	Error	Molluscs	Wait for the motor to stop	Possible 1. The firmware configuration parameter time is too short	1. Import the correct firmware configuration and parameters
13050	Error	Molluscs	Exit due to grating jitter timeout (1s)	Possible 1. The motor or driver is abnormal	1. Check for abnormalities in the motor or driver

13051	Error	Molluscs	Failed to read prn file data	The prn file is likely occupied and cannot be opened. Possible 2. The prn file format is incorrect Possible 3. The rip software version is incorrect or the rip software is abnormal	1. Check if the prn file is in use 2. Verify the rip software version is correct 3. If it's an isolated case, please rip and print again. 4. If you encounter issues with printing while rip, contact the supplier 6 restart software test
13052	Error	Molluscs	Data to color separation buff processing failed	The prn file is likely occupied and cannot be opened. Possible 2. The prn file format is incorrect Possible 3. The rip software version is incorrect or the rip software is abnormal	1. Check if the prn file is in use 2. Verify the rip software version is correct 3. Verify if all rip-generated prn files report errors. If so, contact the supplier. 4. Verify whether the rip-generated prn file printing error is an isolated case. If so, the rip software or system may be experiencing an anomaly. Re-run rip and print again, then contact the supplier to report the issue. 5. If there are no issues with rip to file printing, but problems occur during the rip-to-print process, please contact the supplier. 6. Restart software testing
13053	Error	Molluscs	Failed to process split data to channel buffer	The prn file is likely occupied and cannot be opened. Possible 2. The prn file format is incorrect Possible 3. The rip software version is incorrect or the rip software is abnormal	1. Check if the prn file is in use 2. Verify the rip software version is correct 3. Verify if all rip-generated prn files report errors. If so, contact the supplier. 4. Verify whether the rip-generated prn file printing error is an isolated case. If so, the rip software or system may be experiencing an anomaly. Re-run rip and print again, then contact the supplier to report the issue. 5. If the rip to file printing works fine but issues occur during the rip-to-print process, contact the

					supplier. 6. Restarting the software still does not resolve the issue. Contact the supplier.
13054	Error	Molluscs	Printing failed. Data processing for ink capture failed.	Possible 1. The firmware parameters or configuration are incorrect or corrupted Possible 2. Firmware parameters and firmware configuration do not match	1. Re-import the correct firmware configuration file and firmware parameter file
13055	Error	Molluscs	This print pass mode is not supported	Possible 1. The firmware parameters or configuration are incorrect or corrupted Possible 2. Firmware parameters and firmware configuration do not match	1. Re-import the correct firmware configuration file and firmware parameter file
13056	Error	Molluscs	The number of prn channels exceeds the range	Possible 1. The rip software version is incorrect or the rip software is abnormal Possible 2. The prn file format is incorrect	1. Verify the rip software version is correct
13057	Error	Molluscs	Data processing error. Failed to print the file.	Possible 1. The firmware configuration or parameters are incorrect or corrupted Possible 2. Firmware configuration and firmware parameters do not match Possible 3. The print software does not match the firmware configuration or parameters	1. Re-import the correct firmware configuration file and firmware parameter file
13058	Error	Molluscs	The printer software does not support this device	Possible 1. Printing software is not installed or is incorrect Possible 2. The motherboard initialization parameters are incorrect or corrupted	1. Check if the print software is open or installed incorrectly 2. Check if the motherboard initialization parameters are lost or corrupted

13059	Error	Molluscs	No print jobs	Possible 1. Printing status is abnormal	1. Restart the device and software
13060	Error	Molluscs	Printing status is abnormal	Possible 2. Printing thread is running	1. Restart the device and software
13061	Error	Molluscs	Index error for the print task	Possible 3. Printing status is abnormal	1. Restart the device and software
13062	Error	Molluscs	The task file does not exist	Task file may have been deleted	1. Refresh the file preview interface to check if the task file exists 2. Restart the software
13063	Error	Molluscs	Print failed	Possible 1. Printing failed, system error Possible firmware configuration or parameters are incorrect or corrupted Possible 3. Firmware configuration and firmware parameters do not match Possible 4. The print software version does not match the motherboard program version	1. Restart the device and software 2. Re-import the correct firmware configuration file and firmware parameter file 3. Check whether the first four digits of the software and motherboard program version numbers in the software version information are the same.
13064	Error	Molluscs	The print control thread encountered an error, causing the print to fail and the program to exit.	Possible 1. The motherboard version is incorrect Possible firmware configuration or parameters are incorrect or corrupted Possible 3. Firmware configuration and firmware parameters do not match Possible 4. The print software version does not match the motherboard program version	1. Restart the device and software 2. Re-import the correct firmware configuration file and firmware parameter file 3. Check whether the first four digits of the software and motherboard program version numbers in the software version information are the same.
13065	Error	Molluscs	Error-initial state of the slave device	Possible 1. Motherboard print initialization error Possible firmware configuration or parameters are incorrect or corrupted Possible 3. Firmware configuration and firmware parameters do not match Possible 4. The print software version does not match the motherboard program version	1. Restart the device and software 2. Re-import the correct firmware configuration file and firmware parameter file 3. Check whether the first four digits of the software and motherboard program version numbers in the software version information are the same.

13066	Error	Molluscs	Unknown error... (printing thread error)	Possible 1. The motherboard version is incorrect Possible firmware configuration or parameters are incorrect or corrupted Possible 3. Firmware configuration and firmware parameters do not match Possible 4. The print software version does not match the motherboard program version	1. Restart the device and software 2. Re-import the correct firmware configuration file and firmware parameter file 3. Check whether the first four digits of the software and motherboard program version numbers in the software version information are the same.
13067	Error	Molluscs	Printing failed. Initialization error.	Possible 1. The motherboard version is incorrect Possible firmware configuration or parameters are incorrect or corrupted Possible 3. Firmware configuration and firmware parameters do not match Possible 4. The print software version does not match the motherboard program version	1. Restart the device and software 2. Re-import the correct firmware configuration file and firmware parameter file 3. Check whether the first four digits of the software and motherboard program version numbers in the software version information are the same.
13068	Error	Molluscs	Printing failed. Unknown print result (printing thread is waiting)	Possible 1. The motherboard version is incorrect Possible firmware configuration or parameters are incorrect or corrupted Possible 3. Firmware configuration and firmware parameters do not match Possible 4. The print software version does not match the motherboard program version	1. Restart the device and software 2. Re-import the correct firmware configuration file and firmware parameter file 3. Check whether the first four digits of the software and motherboard program version numbers in the software version information are the same.
13069	Error	Molluscs	Printing failed. The printer is idle.	Possible 1. The motherboard version is incorrect Possible firmware configuration or parameters are incorrect or corrupted Possible 3. Firmware configuration and firmware parameters do not match Possible 4. The print software version does not match the motherboard program version	1. Restart the device and software 2. Re-import the correct firmware configuration file and firmware parameter file 3. Check whether the first four digits of the software and motherboard program version numbers in the software version information are the same.
13070	Error	Molluscs	Print failed. Print initialization	Possible 1. The motherboard version is incorrect Possible firmware configuration or parameters are incorrect or corrupted Possible 3. Firmware configuration and firmware parameters do not match Possible 4. The print software version	1. Restart the device and software 2. Re-import the correct firmware configuration file and firmware parameter file 3. Check whether the first four digits of the software and motherboard program version numbers in the

				does not match the motherboard program version	software version information are the same.
13071	Error	Molluscs	Printing failed. The printing status is unknown.	Possible 1. The motherboard version is incorrect Possible firmware configuration or parameters are incorrect or corrupted Possible 3. Firmware configuration and firmware parameters do not match Possible 4. The print software version does not match the motherboard program version	1. Restart the device and software 2. Re-import the correct firmware configuration file and firmware parameter file 3. Check whether the first four digits of the software and motherboard program version numbers in the software version information are the same.
13072	Error	Molluscs	Printing failed. Sending error.	Possible 1. The motherboard version is incorrect Possible firmware configuration or parameters are incorrect or corrupted Possible 3. Firmware configuration and firmware parameters do not match Possible 4. The print software version does not match the motherboard program version	1. Check if the printer software communicates properly with the motherboard 2. Restart the print software 3. Restart the machine 4. Re-import the correct firmware configuration file and firmware parameter file
13073	Error	Molluscs	The printer is in error state	Possible 1. The motherboard version is incorrect Possible firmware configuration or parameters are incorrect or corrupted Possible 3. Firmware configuration and firmware parameters do not match Possible 4. The print software version does not match the motherboard program version	1. Check if the printer software communicates properly with the motherboard 2. Restart the print software 3. Restart the machine 4. Re-import the correct firmware configuration file and firmware parameter file
13074	Error	Molluscs	The vertical spacing between nozzles is incorrect in this print mode	Possible 1. The nozzle spacing configuration is incorrect in this print mode Possible firmware configuration or parameters are incorrect or corrupted Possible 3. Firmware configuration and firmware parameters do not match	1. Check if the vertical spacing configuration between the print pattern nozzles is correct 2. Re-import the correct firmware configuration file and firmware parameter file
13075	Error	Molluscs	Printing is not supported in	Possible 1. The system is in humidification mode, debugging mode, or reset mode	1. Check the system status in the lower-right corner of the software to see if it is in any of these three states.

			this system state		
13076	Error	Molluscs	The motherboard is not initialized	Possible 1. The motherboard is not initialized Possible 2. Motherboard parameters are abnormal	1. The motherboard is not initialized. Contact the manufacturer.
13077	Error	Molluscs	Rip error during printing, cancel automatically	Possible 1.rip software error Possible error 2. Rip and receiving module error	1. Restart the rip software
13078	Error	Molluscs	Failed to upgrade the motherboard program	File 1 may be corrupted or incorrect Possible 2. The print software version does not match the motherboard program version	1. Verify the upgrade file is correct. 2. Check whether the first four digits of the software and motherboard program version numbers in the software version information are the same.
13079	Error	Molluscs	Language mismatch	Possible 1. Language not modified online	1. Please modify the language online to match
15000	Error	Molluscs	The camera did not reach the specified height	Possible 1. The camera has not been raised to the specified height	1. Check firmware configuration and parameters
15001	Error	Molluscs	The ab mode does not select the print file	The ab mode may not select the print file.	1. Select the print file in the pcb settings interface
15002	Error	Molluscs	The mark point information file is incorrect. Confirm the mark point information.	Mark point information file may be incorrect. Verify the mark point information.	1. Check if the mark file is correct or reselect the points
15003	Error	Molluscs	Rip error	Possible 1.ripingtoprn error	1. Failed to convert prn. Please send the original image to the manufacturer.

15004	Error	Molluscs	Preload prn header error	Possible 1. Reload prn head info error	1. Check if the prn is occupied 2. Does the prn file exist? 3. Please send the original image to the manufacturer
15008	Error	Molluscs	The print file no longer exists. Re-import the gerber file.	File 1 may no longer exist. Re-import the gerber file.	1. Check if the current print file exists
15009	Error	Molluscs	Pins positioning-failed to calculate positioning holes	Possible 1. Pin positioning-failed to calculate the positioning hole	1. Send the gbr file back to the manufacturer
15010	Error	Molluscs	Gbrtoimg() failed	Possible 1. Gbrtoimg() failed	1. Send the gbr file back to the manufacturer
15011	Error	Molluscs	The file bound to the ab printing mode is incorrect. Check it.	The file bound to the ab printing mode may be incorrect. Check the file.	1. Select the print file in the pcb settings interface
15012	Error	Molluscs	Platform height detection error before printing	Possible 1. Abnormal platform height detection before printing	1. Check if the configuration signal is bound
15013	Error	Molluscs	Load _loadpcb_locationmodule failed	Possible error: Load _loadpcb_locationmodule failed	1. Failed to load the module. Contact the manufacturer
15014	Error	Molluscs	Loadgerberimageproc failed	Possible 1. _loadgerberimageproc failed	1. Failed to load the module. Contact the manufacturer
15015	Error	Molluscs	Calccamerasizeperpixel failed	Calccamerasizeperpixel failed	1. Check that the camera is working properly and not being used by other related software

15016	Error	Molluscs	Setcamerasizeperpixel failed	Possible 1.setcamerasizeperpixel failed	1. Check that the camera is working properly and not being used by other related software
15017	Error	Molluscs	Camera initialization failed	Camera initialization failed	1. Check that the camera is working properly and not being used by other related software
15018	Error	Molluscs	Loadcamera module failed	Possible 1._loadcameramodule	1. Check that the camera is working properly and not being used by other related software
15019	Error	Molluscs	Camera opening failed	Camera opening failed	1. Check that the camera is working properly and not being used by other related software
15020	Error	Molluscs	Camera capture failed	Camera capture failed	1. Check that the camera is working properly and not being used by other related software
15021	Error	Molluscs	Camera unit failed	Possible 1.camera_unit failed	1. Check that the camera is working properly and not being used by other related software
15022	Error	Molluscs	Camera location start	Possible 1. Camera location start	1. Check that the camera is working properly and not being used by other related software
15023	Error	Molluscs	Failed to end thread	Possible 1. Failed to end thread	1. Re-position
15024	Error	Molluscs	Calcpcbposparam calculates the rotation angle	Possible 1.calcpcbposparam calculates rotation angle	1. Re-position
15025	Error	Molluscs	The zoom ratio is abnormal. Check the location.	Possible issue 1: The zoom ratio is abnormal. Check the location.	1. Check if the motor position is valid 2. Log sent back to the manufacturer
15026	Error	Molluscs	Failed to resolve the layer	Location layer analysis failed	1. Check if the location layer file is complete
15027	Error	Molluscs	Failed to get the mark points	Mark 1: The score may be incorrect Possible error 2: Invalid mark point in file analysis	1.mark the point range (2~4) 2. Check for file issues
15028	Error	Molluscs	Barcode integration error	Possible 1. Barcode area error	1. Check the barcode position or add it again

15029	Error	Molluscs	Failed to print	Possible 1. Incorrect location	1. Check if the area location is correct or add the area again
15030	Error	Molluscs	Failed to create location template	Template 1. The template is not clear Template incomplete Possible issue 3. Extract library	1. Adjust the camera settings to ensure clear images. 2. Create a template from another complete image 3. Switch location mode
15031	Error	Molluscs	Exceeds the maximum allowable positioning error	Possible error 1: Incorrect mark point selection during positioning	1. Re-position and verify the accuracy of the mark points
03000	Warn	Warning category	Print auto pause	Possible 1. The printer software communication with the motherboard is unstable Possible 2. Insufficient data transfer speed of the print software	1. Check if the computer and device connection is working properly 2. Check if the computer system is running properly
03001	Warn	Warning category	Upgrading the program. Do not power off.		
03002	Warn	Warning category	The operation failed	1. Other actions are in progress 2. This action is disabled in the current system state	1. Wait for the other action command to complete
03003	Warn	Warning category	The configuration directory does not exist	Possible 1. The print software and firmware configuration version do not match Possible 2. The firmware configuration or parameters are incorrect or corrupted Possible 3. The print software is not installed correctly or the file directory is missing	1. Verify that the print software matches the firmware configuration 2. Re-import the correct firmware configuration file and firmware parameter file 3. Reinstall the printer software
03004	Warn	Warning category	Device disconnected	Possible 1. Device power off Possible 2. The printer software is not connected to the device Possible issue 3: The computer may have a non-gigabit network card or abnormal network driver (tcp communication). Possible 4. The computer ip address is not set correctly (tcp communication)	1. Check if the computer has a gigabit network card (tcp communication) 2. Check if the computer network driver is functioning properly (tcp communication) 3. Check if the computer usb2.0/3.0 driver is functioning properly (usb communication)

				Possible issue 5: Computer usb2.0/3.0 driver malfunction (usb communication)	
03005	Warn	Warning category	The motherboard is not initialized	Possible 1. The motherboard is not initialized Possible 2. Motherboard parameters are abnormal	1. The motherboard is not initialized. Contact the manufacturer.
03006	Warn	Warning category	System initialization is not complete	Possible 1. System initialization action not completed Possible 2. The motherboard is not functioning properly Possible 3. The firmware configuration and parameters are incorrect or corrupted	1. Check if the motherboard is functioning properly 2. Check if the system initialization is working properly 3. Re-import the correct firmware configuration file and firmware parameter file
03007	Warn	Warning category	Failed to restore factory settings. The factory settings parameters are empty.	Possible 1. Factory settings are not initialized, preventing restoration.	1. Re-import firmware configuration and parameters, then save factory settings.
03008	Warn	Warning category	Failed to restore factory settings. Data is incorrect.	Possible 1. Factory settings are incorrect or corrupted, preventing restoration.	1. Re-import firmware configuration and parameters, then save factory settings.
03009	Warn	Warning category	Failed to parse waveform data	Possible 1. The motherboard and spray plate are not properly connected Possible 2. The firmware configuration is incorrect or corrupted Possible 3. Firmware configuration does not match the logic of the spray car panel Possible 4. The waveform file is abnormal or corrupted	1. Check whether the spray plate is properly connected. 2. Import the correct firmware configuration. 3. Check the version information to ensure compatibility. 4. Import the correct waveform file.

03010	Warn	Warning category	Invalid waveform type	Possible 1. System parameter waveform data loss or damage	1. Re-import the correct firmware configuration file and firmware parameter file. 2. Import the correct waveform file.
03011	Warn	Warning category	No waveform data	Possible 1. System parameter waveform data loss or damage	1. Re-import the correct firmware configuration file and firmware parameter file 2. Import the correct waveform file
03012	Warn	Warning category	Failed to parse waveform data	Possible 1. System parameter waveform data loss or damage System waveform data may not match the current spray plate	1. Re-import the correct firmware configuration file and firmware parameter file 2. Import the correct waveform file
03013	Warn	Warning category	The waveform dot pattern exceeds the maximum range	Possible 1. The waveform data is incorrect or corrupted Possible 2. The firmware parameters are incorrect or corrupted Possible 3. System waveform data does not match the current spray plate	1. Re-import the correct firmware configuration file and firmware parameter file 2. Import the correct waveform file
03014	Warn	Warning category	The cart traveled more than x white edge positions before the print job was executed	Possible 1. The cart position and x white edge position are inconsistent before printing	1. Ensure the cart's acceleration distance is less than the x white edge position
03015	Warn	Warning category	The cart traveled beyond the y white edge before the print job began.	Possible 1. The cart position and y white edge position are inconsistent before printing	1. Ensure the cart's acceleration distance is less than the y white edge position
03016	Warn	Warning category	Parameter error: X gear ratio is less than 0	Possible error 1: The x gear ratio is less than 0.	1. Check the gear ratio parameter in the manufacturer mode interface for any errors.
03017	Warn	Warning category	Flash tank parameter setting error	Possible 1. Flash tank width is incorrect Possible 2. Flash tank distance setting is incorrect	1. Check if the flash tank width parameter is set correctly 2. Check if the flash tank distance parameter is set correctly

03018	Warn	Warning category	Strip color parameter error	Possible 1. Color bar parameters are incorrect Possible firmware configuration or parameters are incorrect or corrupted Possible 3. Firmware configuration and firmware parameters do not match	1. Check if the color bar parameters are set correctly. 2. Re-import the correct firmware configuration file and firmware parameter file.
03019	Warn	Warning category	Printing failed. The width exceeds the travel distance.	Possible 1. The print width exceeds the maximum travel Possible 2. Grid anomaly	1. Check if the white edge or width exceeds the maximum travel of the device 2. Check for any abnormal grating readings
03020	Warn	Warning category	Printing failed. The image exceeds the material area.	Possible 1. Image width exceeds paper width 2. The white border is too large.	1. Check whether the horizontal setting range is too large 2. Check if the x white edge parameter is set too high
03021	Warn	Warning category	Printing failed. The print width exceeds the maximum travel.	Possible 1. x white border parameter is too large Possible 2. Image width exceeds paper width Possible 3. The firmware configuration or parameters are incorrect or corrupted	1. Check if the x white border parameter is set too large 2. Check whether the horizontal setting range of the continuous exposure is too large 3. Re-import the correct firmware configuration file and firmware parameter file.
03022	Warn	Warning category	Printing failed. The print height exceeds the maximum travel.	Possible 1. The white border parameter is set too large Possible 2. Image height exceeds paper width Possible 3. The firmware configuration or parameters are incorrect or corrupted	1. Check if the y white border parameter is set too large. 2. Check whether the longitudinal setting range of the continuous exposure is too large 3. Re-import the correct firmware configuration file and firmware parameter file.
03023	Warn	Warning category	Waiting for rip data	Possible 1. Insufficient rip software speed	
03024	Warn	Warning category	Infrared trigger	Possible 1. Touch the infrared sensor Possible 2. Is the limit connected correctly?	1. Check limit
03500	Warn	Warning category	Ccd cancel	Cancel ccd	

03501	Warn	Warning category	Auto positioning failed	Possible 1. Failed auto-location	
01000	Information	Status	Print auto pause	1. Skip the moisturizer for a long time and return to the original point	
01001	Information	Status	Print paused, ink running low	Possible 1. Ink shortage	1. Add ink 2. Check the ink sensor 3. Check the ink sensor wiring is correct
01002	Information	Status	Print auto pause, safety bottle full	Possible 1. Safety bottle full	1. Stop ink supply 2. Check the safety bottle sensor is working properly 3. Check whether the wiring of the safety bottle sensor is correct
01003	Information	Status	System information-upgrade successful. Power off and restart the machine.		
01004	Information	Status	System information-motherboard initialization succeeded		
01005	Information	Status	System info-manufacturer initialization successful		
01006	Information	Status	System info-device connection		
01007	Information	Status	System information-the spray car panel is connected via optical fiber. The		

			spray car panel has been successfully initialized.		
01008	Information	Status	System information-subordinate machine initialization completed, parameters loaded automatically		
01009	Information	Status	System info-waiting for the spray car panel's optical fiber connection signal		
01010	Information	Status	System info-device connection, auto load parameters		
01011	Information	Status	System information-load parameters		
01012	Information	Status	System info-enter reset mode	Possible 1. The dial switch is on-on	1. Reset the dip switch to 1-2
01013	Information	Status	System info-enter mode	Possible 1: The dip switch is set to on-2 or 1-on	1. Reset the dip switch to 1-2
01014	Information	Status	Flash saved successfully		
01015	Information	Status	System info-flash read		

			successfully		
01016	Information	Status	System information-execute initialization action		
01017	Information	Status	System info-initialization completed		
01018	Information	Status	System info-modify parameters on the keypad and load them automatically		
01019	Information	Status	System initialization actions are disabled		
01020	Information	Status	System info-system initialization completed		
02000	Information	Execution	The motherboard and expansion board are communicating abnormally.		
02001	Information	Execution	System info-system initializing		
02002	Information	Execution	System information-print canceled		

02003	Information	Execution	Writing flash		
02004	Information	Execution	System information-user canceled printing		
02500	Information	Execution	Print non-pcb files		

9. Maintenance (Daily / Vacation Maintenance 3–7 Days)

9.1 Daily Maintenance

9.1.1 Daily Checklist

Waste Ink Tank Level

DTF printing produces waste ink during operation. Check whether the waste ink tank is full and empty it in a timely manner to prevent overflow.

Air in Ink Tubes

Inspect ink cartridges and ink supply tubes for the presence of air. Air bubbles may cause pigment coagulation, resulting in ink flow issues. If detected, purge the ink line and remove trapped air.

Printhead Nozzle Check

Before production, perform a nozzle check to verify printhead condition. If missing or scattered lines appear, perform printhead cleaning. Printing without restoring proper nozzle status may lead to unsatisfactory output quality.

9.1.2 Bi-Weekly Maintenance (Every Two Weeks)

Carriage Belt Lubrication

Apply lubricant to the timing belt at both ends of the printer. The lubricant will coat the belt and transfer to the belt-gear contact area, reducing wear.

Capping Station Cleaning

Move the carriage away from the capping station. Activate the pump test function, then slowly pour clean water onto the capping station to rinse.

For heavily stained areas, use a scraper, or wipe with a lint-free cloth or wipes moistened with clean water or cleaning solution.

9.1.3 Quarterly Maintenance (Every 3 Months)

Encoder Strip Cleaning

The encoder strip should be inspected and cleaned every three months.

Use a lint-free cloth moistened with alcohol to wipe the strip gently.

If the working environment is poor, cleaning is recommended once per month or more frequently.

9.1.4 Annual Maintenance

Power Inspection

Inspect power cables and electrical sockets for signs of aging. Replace immediately if aging or damage is found.

Note

These periodic maintenance tasks are intended for printers operating under normal usage conditions.

If the printer remains idle for an extended period:

If idle for 1 month, clean the printhead every two weeks.

If idle for 3 months or longer, empty the ink system, remove the printhead for cleaning, and store it separately.

Perform actual procedures as required by the working environment.

9.1.5 Maintenance methods for holidays or long periods of non-use

Within 7 days:

Check the condition of the printhead test strip to ensure that the printhead is in optimal condition

Ensure that the equipment is shut down properly and that the printheads are in a properly moisturized state

Ensure that all power switches on the equipment are turned off.

Within 30 days:

Check the condition of the printhead test strip to ensure that the printhead is in optimal condition

Ensure that the clamp from the large ink drum to the secondary cartridge ink tube is locked in place

Ink stack add ink special cleaning fluid (except with corrosive cleaning fluid), and then moisturize the printhead.

It is recommended to print printhead test strips and perform a printhead cleaning once a week.

Over 30 days:

Check the condition of the printhead test strip to ensure that the printhead is in optimum condition

Empty the ink from the secondary cartridge and the ink circuit, and the clamp from the large ink drum to the secondary cartridge ink tube locks in place

Printhead using dispersed ink special cleaning solution repeatedly rinsed, the internal ink cleaned up, injected into the moisturizing liquid after the moisturizing, to ensure that the ink stack and printhead sealing.

10. Common Issues and Troubleshooting

10.1 Printhead Clogging

Symptoms:

Banding, uneven colors, missing lines, blurry text

Missing colors, unexpected blank areas in printed images

Solutions:

Clean the printhead using professional cleaning solution or distilled water to remove ink residue around the printhead.

If clogging persists, remove the printhead and perform reverse flushing.

10.2 Ink Spattering (Ink Mist)

Symptoms:

Excessive printhead voltage

Nozzle misfiring

Improper control signal pulse timing

Printhead is too far from the media

Solutions:

Adjust printhead voltage

Clean printhead ink channels

Repair the printhead control circuit

Adjust printhead-to-media distance (recommended: 1.5–2 mm)

10.3 Static Electricity Causing White Edges

Symptoms:

Static attraction causes UV ink to scatter, resulting in ink dispersion or white edges on printed output.

Solutions:

Ensure the image itself does not include white outlines.

Maintain ambient humidity at 50%–75% RH and temperature 15–30°C.

Properly ground the printer.

Wipe the printing film with alcohol before printing to remove static electricity.

10.4 Ink Dropout / Missing Ink

Symptoms:

Printed image displays two-tone color, jagged edges, discoloration, or ghosting. Typically caused by interrupted ink supply.

Solutions:

Pause the machine, return the carriage to the X-axis home position, and troubleshoot using the following methods:

(1) Ink Cartridge Empty

Check whether the ink cartridge is empty.

When refilling, pour slowly in dim light to prevent drying or photochemical reactions.

Models with low-ink alarms are recommended.

(2) Printhead Clogging

Stop printing immediately and return the carriage to home.

Raise the carriage approx. 20 cm, press the ink pressure button, observe negative pressure value.

When negative pressure reaches 10, press Pause and inspect droplets.

Resume printing only when droplet formation is normal.

(3) Piezoelectric Element Damage

If the internal piezoelectric crystal is damaged due to low voltage or ink corrosion, the printhead

must be replaced.

Avoid damage by protecting the printhead from contamination and improper operation.

(4) Blocked Ink Tubes

If ink tubing is blocked, power off the printer, disconnect carriage supply, then use a syringe to inject air to clear blockages.

Resume printing after ink flow is restored.

10.5 Printer Not Printing One Color

Symptoms:

Banding, color deviation, or complete loss of one color. Generally caused by ink supply issues rather than printhead clogging.

Solutions:

Check the ink supply system—cartridge, ink tubes, ink bag, ink level. Check for ink shortage or tube leakage.

Check if the ink damper is damaged.

Swap the suspected color damper with a normal one; refill ink and print test patterns to determine whether the issue lies in the printhead.

Perform 2–3 printhead clean cycles, then check nozzle test pattern.

If unresolved, remove printhead and clean manually.

10.6 Garbled Characters During Printing

Possible causes and solutions:

TCP/IP Cable Issue: Check whether the cable is firmly connected; replace if damaged.

Optical Fiber Cable Issue: Check whether the fiber cable is properly seated; replace if faulty.

Static Interference: Static may result in image misalignment or ghosting. Ensure grounding to

minimize static problems.

Color-Specific Garbled Output: May indicate a faulty printhead of that color. Clean or replace the printhead.

Insufficient Rendering / Buffering: Insufficient computer processing or memory may cause data corruption. Avoid overloading the computer during printing.

Do not install antivirus software on the RIP workstation to avoid possible driver conflicts.

11. After-Sales Service for the Machine

11.1 Hanrun Paper Standard Warranty Policy Declaration:

The warranty period for Hanrun products starts from the customer's goods arrival at the port (ETA). Any Hanrun Paper products purchased within the warranty period are eligible for repair, replacement, or return based on the "Three Guarantees" policy. The return shipping fee for products within the "Three Guarantees" period must be borne by the customer.

When requesting a return or exchange, the user needs to provide valid proof, such as the invoice, bill of lading, order number, "Three Guarantees" certificate (warranty card or original warranty manual including the warranty label), original packaging of the product, and any accessories that came with the product.

Users must keep the warranty card safe as no duplicate warranty certificates will be issued.

11.2 Hanrun Paper After-Sales Service:

11.2.1 Pre-Sales Services:

- Technical advisors offer professional consultation on equipment technology.
- Provide product and consumable selection based on customer needs.
- Provide sample production based on customer-provided materials.

11.2.2 Warranty Period Services:

(1) The warranty period for the products sold by our company is as follows:

Item	Unit	Warranty Period
Mainboard	Each	12 months
Headboard	Each	12 months
Printhead	Each	Not covered

Fiber Optic Cable	Each	3 months
Long Ribbon Cable	Each	3 months
Printhead Data Cable	Each	3 months
Vacuum Adjustment	Each	3 months
Heating Wire Adjustment	Each	3 months
HS Decoder	Each	3 months
Raster Bar	Each	3 months
Digital Delay Relay	Each	3 months
Electromagnetic Relay	Each	3 months
24V-1A Power Box	Each	3 months
Maintenance Station Motor	Each	12 months
Paper Sensor	Each	3 months
24V 10-turn Motor	Each	12 months
Belt	Each	12 months
Maintenance Station Gear	Set	3 months
Small Power Board	Each	3 months
Paper Press Seat	Each	3 months
Photoelectric Sensor	Each	3 months
Emergency Stop Switch	Each	12 months
Speed Regulator	Each	12 months
Ink Tank	Each	12 months
Servo Motor	Each	12 months, free replacement within 3 months
Stepper Motor	Each	12 months, free replacement within 3 months
Frame	Set	12 months, free replacement within 3 months

For parts required beyond the warranty period, we will guide repairs according to the agreement with the customer, but the customer will bear the material and transportation costs.

(2) After the customer receives the machine and confirms it passes the inspection, we will provide the following materials:

- ① Technical documentation and manuals related to the purchased equipment.
- ② Assistance in optimizing the equipment and system compatibility.
- ③ Provide reasonable installation suggestions and installation plans.
- ④ Provide technical support for installation guidance, testing, and debugging, with records of tests and adjustments.
- ⑤ Custom curve configuration.

- (3) We will respond within 24 hours on working days after receiving notification of equipment issues and cooperate with the customer to troubleshoot.
- (4) Under normal usage and operating conditions, parts damaged due to equipment quality issues will be replaced or repaired free of charge.
- (5) Free product software upgrades.

11.2.3 Equipment Installation Service

All models sold by our company come with complete installation and operation video guides, as well as written manuals for user reference. For some models with simple operations, installation and debugging can be completed via remote assistance.

11.2.4 Technical Training

- (1) Provide equipment installation manuals and related technical materials.
- (2) Training covers equipment operation procedures, debugging procedures, daily maintenance, and safety measures.
- (3) Free training for your maintenance personnel during each installation or maintenance session.

11.2.5 Unpacking Precautions

- (1) After unpacking, check if the machine or accessories are damaged.
- (2) If there are accessories in the box, take them out carefully and check their quantity and specifications.
- (3) Safely remove the machine from the packaging box.
- (4) Carefully inspect the main machine and accessories for damage. If there are any issues, contact your sales consultant with videos or pictures.

11.2.6 Random Accessories Precautions

Loss or damage to random accessories, product manuals, USB drives, etc., must be purchased by the customer.

11.2.7 Exclusions from the "Three Guarantees" during the Warranty Period

- (1) If the customer cannot provide the product warranty card or invoice, or if the warranty card, warranty manual, or invoice contains incomplete, altered, or forged information such as the purchase date or sales unit name (with valid stamp), the product will not be eligible for the "Three Guarantees" service.
- (2) If the product failure or damage is caused by the use of non-original or non-designated parts or accessories (e.g., battery leakage or explosion), it will not be covered.
- (3) Failures or damages caused by improper storage (e.g., temperature, humidity, pests, liquid infiltration, foreign objects entering, etc.) or loss of parts will not be covered.
- (4) Failures or damages caused by human factors or failure to follow the usage instructions (from the product itself, packaging, manuals, or other materials) will not be covered.
- (5) Failures or damages caused by viral infections or similar issues during use will not be covered.
- (6) If the customer disassembles, repairs, or modifies the product themselves, leading to failure or damage, it will not be covered.
- (7) We do not bear any responsibility for indirect losses or future profits caused by product failures.
- (8) Failures or damages caused by force majeure events will not be covered.

12. After-Sales Service

Hanrun Paper unified after-sales service mailbox: technical_support@hanrunpaper.com

Fill in the corresponding after-sales service questions/suggestions to get the corresponding services.

13. Warranty Card

Dear Customer,

Thank you for choosing Hanrun Paper products. To ensure you receive the best possible service, please retain both the warranty card and your purchase invoice, as they will serve as your proof of warranty.

This warranty card is an essential document for accessing warranty services, so please keep it in a safe place. Ensure all relevant details, such as the purchase date, are filled in accurately.

Hanrun Paper Warranty Card

The following columns with * are required items.

【User saves the link】

User Name*:	_____	Telephone Number*:	_____
Company Name*:	_____	Product Name*:	_____
Product Model*:	_____	Product Number*:	_____
Purchase Date*:	_____	Invoice Number*:	_____
Purchase Price*:	_____	User Address*:	_____
User Phone*:	_____	Email Address*:	_____

Sales Unit Name*:	_____	Sales Date*(Seal valid):	_____
Address*:	_____	Invoice Number*:	_____
Contact*:	_____	Contact Phone*:	_____
Installation and commissioning date*:	_____		

This Warranty Card is an important document for the purchaser to enjoy the "Hanrun Paper Guarantees" and warranty service. Please keep this copy when you ask for an invoice.

You can visit our global website www.hanrunpaper.com anytime or contact us via email for any inquiries info@hanrunpaper.com.

【Hanrun Product Service & Repair Record】

Before requesting warranty service, please refer to the original warranty manual (with warranty label attached) and contact Hanrun After-Sales Service.

Repair Record

Service Date	Fault Description & Repair Details	Handler	Inspection Date / Signature