

**Hosonsoft**

Shenzhen Hosonsoft Co., Ltd.

No.: HS/D-YF-A0-005

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## **Printing Software Instruction**

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## Revision Record

Date	Version	Revised sections	Revision description	Author
March 15, 2018	First version			Liu Guangtao, Chenyan
April 17, 2018			Add button description, operation steps of new version of card, network access method, judgment method of gigabit NIC, firmware import/export and so on.	Liu Guangtao

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## I. Printing software

Developed by Hosonsoft, PrintExp software is a kind of control software that works with printer. It features user-friendly interface, simple operation and meets the needs of end users and manufacturers. It is mainly used for printer control, printer calibration, program upgrade and update, import and export of parameters, saving of parameters to the board. In order to enable users to quickly and comprehensively understand the printing software, get familiar with the various functional operations, precautions and possible problems, the following is an introduction to the different kinds of printing software.

## II. Software start and online

### 1. Start print control software

The PrintExp software can be used directly. First find the PrintExp software folder, open the folder, find the PrintExp.exe application, and double-click the program to start the PrintExp software.

### 2. Software online settings

#### 2.1 Gigabit NIC judgment

Before network connection, first ensure that the computer's NIC is Gigabit NIC for normal connection. The difference between a 100M NIC and a Gigabit NIC is:

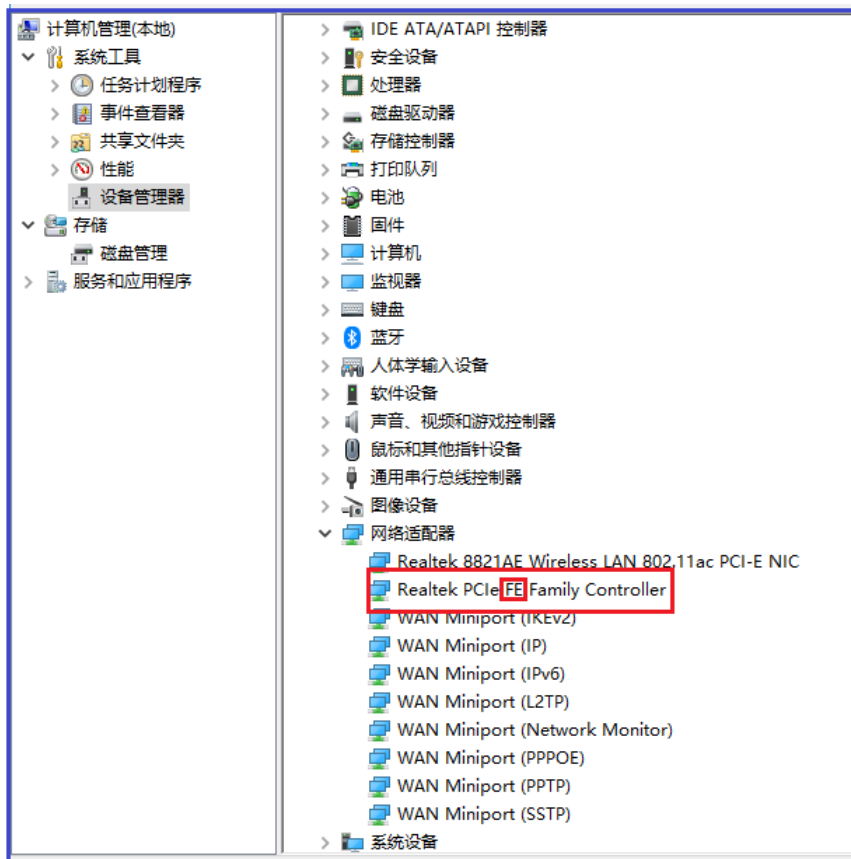
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Gigabit NIC contains these characters: Gigabit, GBE, 10/100/1000M, RTL8169.

100M NIC contains these characters: Fast Ethernet, 10/100, FE.

Enter the computer device manager, check the network adapter to make a judgment. The picture shown below is the 100M NIC:



## 2.2 Network settings

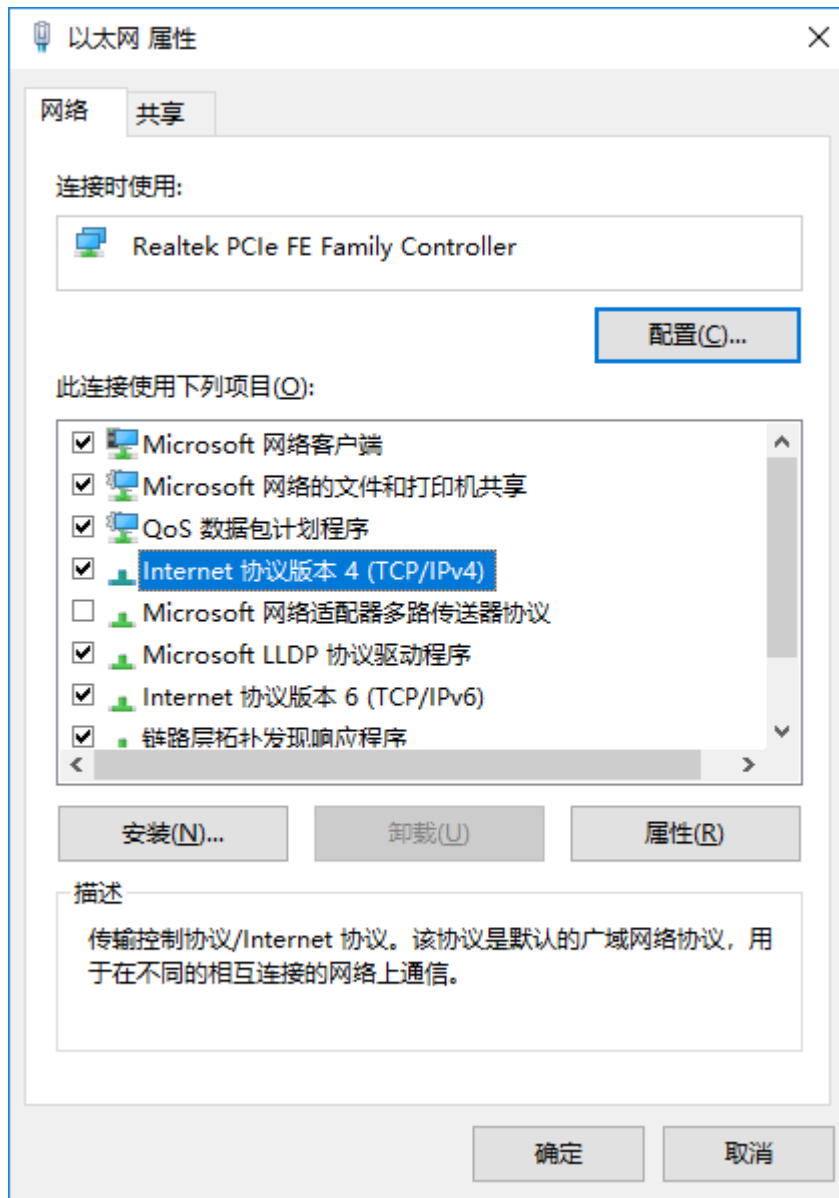
For the first time, you must set the network connection parameters to connect to the network and connect TCP/IP network cable for network setup.

Network setting method: Advanced menu → Network settings, you can see the network settings window at this time, as shown below:



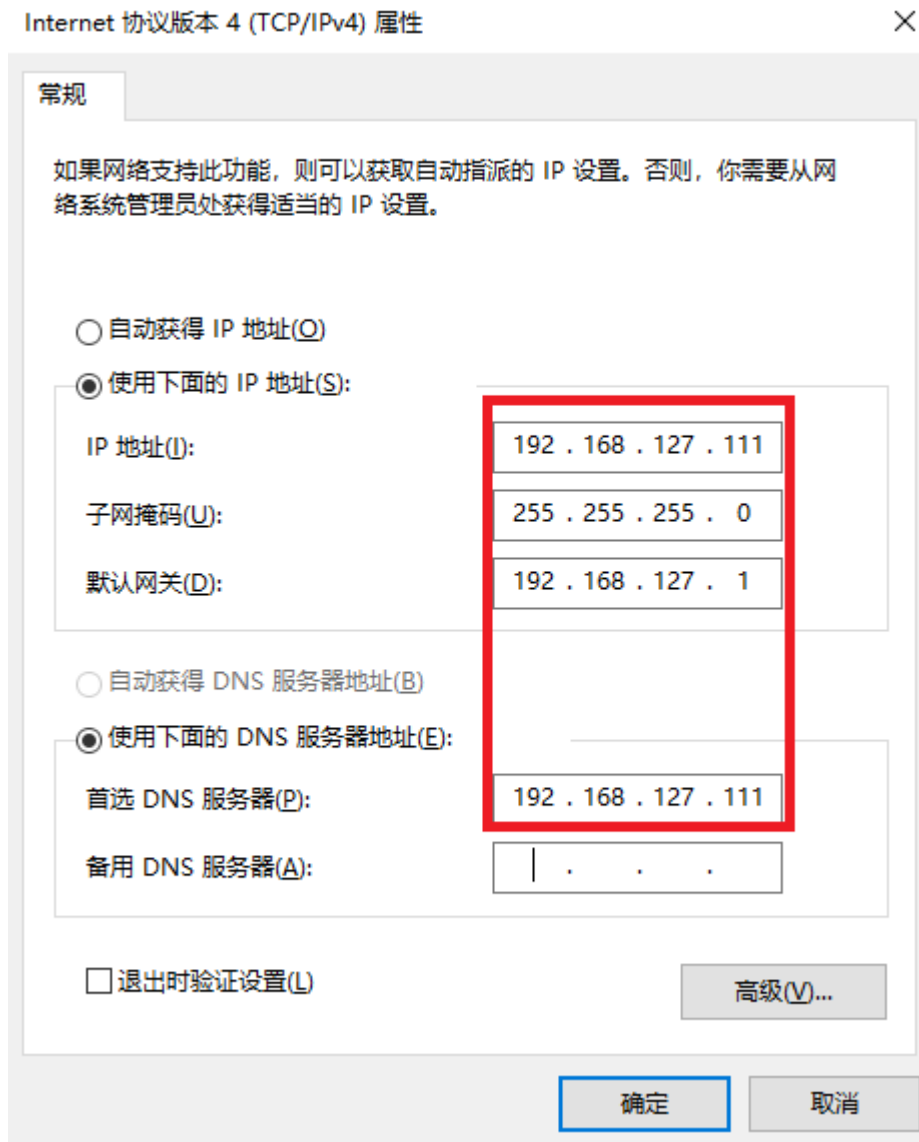
As the server IP and server port settings have been fixed, you only need to set the local IP. As shown above, enter 192.168.127.111 in the local IP address (note that the first three digits can be any number within 1-255 except for 10), click "settings" to complete the setting, check if the network is accessible. If it still cannot connect, you can address with the following methods:

Go to control panel → network and internet → view network status and tasks → change adapter settings → click Ethernet or local area connection → attributes to display the following window:



Double-click the highlight bar in the above image to enter the following window:





Enter the same address in the red box above and click OK to complete. Go back to the main interface window, check the first icon at the lower left corner of the main interface displayed in green to indicate that it is connected. If it is still red, it means that it is not online. You can unplug the network cable and try again to see if it is online. If you still cannot connect, check if the network cable is in good condition.

### III. Operation steps before the new board card is used

For a new set of board cards and software, the steps before using:

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1 Set the IP address

The specific setting method can be seen in the "Software Online Settings" in "Software Online and Start" above.

2 Motor gear ratio calibration

It is described in the following section "Factory Settings" in detail

3 Clean print head

Ensure that all orifices of the print head can be inked normally

4 Calibration

In the following section, "Calibration" is described in detail

5 Drawing printing settings

In the following section, "sharpen and print" is described in detail.

IV. Introduction of main interface window of the software

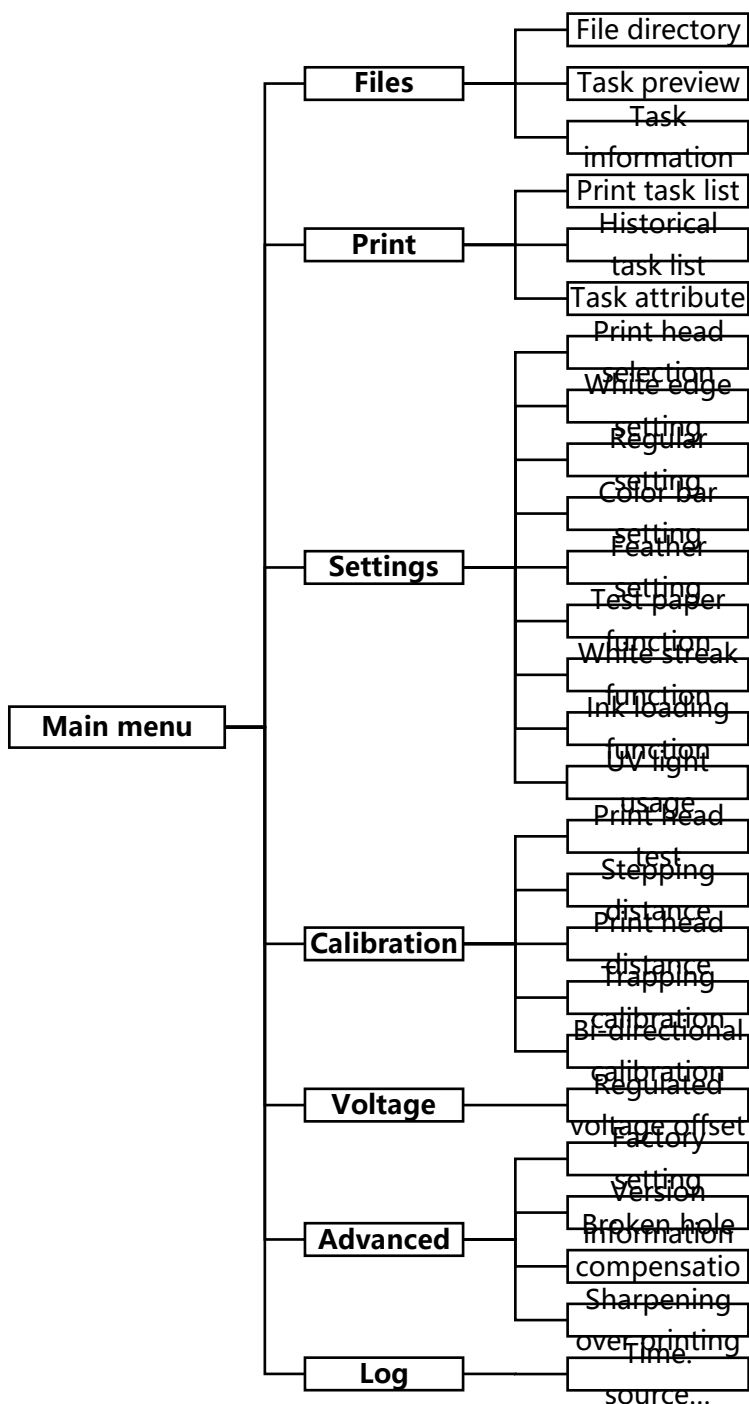
The main interface of PrintExp software is as follows:



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

## 1 Main menu

The menu tree of the main menu is as follows:



2 Files

Click the file in the menu bar to enter the file interface. The interface mainly includes the file directory window, the image preview window, and the picture information display bar is shown below:



No.	Name	Function description
1	File directory function area	Select the folder where the print files are stored
2	Print file preview function area	Display all print files under the specified print file folder
3	Print file information display function area	Display print information of the selected print file

If you select the preview image and right click, the menu list will pop up as shown below:



No.	Name	Function description
1	Re-preview	Regenerate a preview of the currently specified print file
2	Refresh the directory	Refresh all the print files in the specified print file folder
3	Delete files	Delete print files
4	Print now	Add the current print file to the print task list and print immediately
5	Add to print	Add the selected print file to the print task list
6	Open directory	Open the folder corresponding to the print file

### 3 Print

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



No.	Name	Function description
1	Main menu function area	Display the area of the main function buttons of the system
2	Shortcut button function area	Display the area of frequently used command buttons
3	Task list function area	Display the current area of all tasks that are being printed or to be printed
4	Task preview display function area	Display the area of preview of selected print task
5	Print task information function area	Display the area of all print information for the current print task
6	Status bar	Display the area of current working status or connection status of the system

--	--	--

The print interface includes a print task list window, a history task list window, a print task preview window, and a print information window; select a task in the print task list, right click topop up the drop-down menu as shown below:

### 3.1 Open the task list



No.	Name	Function description
1	Start printing	Perform printing
2	Delete task	Delete from print task list
3	Wait for printing	Add the current task to the queue to be printed
4	Cancel task	Cancel the printing or cancel the waiting for printing status
5	Move to the top	Move the selected task to the top of the task list
6	Move up	Move the print task forward one bit



7	Move down	Move the print task backward one bit
8	Move to the last	Move the selected task to the end of the task list
9	Clear list	Clear all tasks in the print task list
10	Open directory	Open the folder where the print file is located

### 3.2 Historical task list



No.	Name	Function description
1	Add to print	Add a task to the print task list
2	Print now	Add a task to the print task list and print immediately
3	Delete task	Delete task from history print list
4	Clear list	Clear the tasks in the history print list
5	Open directory	Open the folder where the print file is located

### 3.3 Task attributes

Double-click a task in the print task list to enter the task property window of the task, as shown below:



No.	Name		Function description
1	Print settings	Number of copies	Set the number of times of repeated printing
2	Photocomposing setting	Horizontal photo number	Horizontal photocomposing number
		Vertical photo	Vertical photocomposing number

		number	
		Horizontal spacing	Horizontal photocomposing spacing(mm)
		Vertical spacing	Vertical photocomposing spacing(mm)
3	Regional printing	X position	Loading position in X direction in print files
		Y position	Loading position in Y direction in print files
		Width	Print width of selected area in print files
		Height	Print height of selected area in print files
4	Task attribute		Include the name of the task, the print precision of the task, the size of the print job, the number of color of print tasks, and the number of pass of task.

#### 4 Settings

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



No.	Name	Function description	
1	Nozzle selection	Only specific model can have nozzle selection	
2	X white edge	Set loading position	
3	General setting	Print speed	Set the print speed to be low, medium and high speed
		Print direction	Set the print direction to be leftwards printing, rightwards printing and bi-directional printing
		Flash work before printing	Set flash work on or off before printing
		Automatic cleaning	Set automatic cleaning on or automatic cleaning off
4	Color bar setting	Color bar setting	Set the color bar position to be left color bar, right color bar and color bars on both sides or color bar off
		Color bar	Difference between two kinds of color bar modes

		mode	
		Color bar concentration	Set color bar concentration to be weak, medium and strong
		Color bar width	Width of color bar
		Color bar distance	Blank spacing between color bar and print picture
5	Feather setting	Feather range	Feather range selection
		Feather type	Feather type selection
6	Ink loading function		Put inking loading function on or off
7	Test paper function		Click “start test” to test the width of printing paper
8	White streak function	Stepping white streak	Enable white streak, follow PASS feeding in vertical white streak
		Continuous white streak	Enable white streak, follow continuous feeding in vertical white streak
		Close white streak	Close white streak function

## 5 Calibration

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

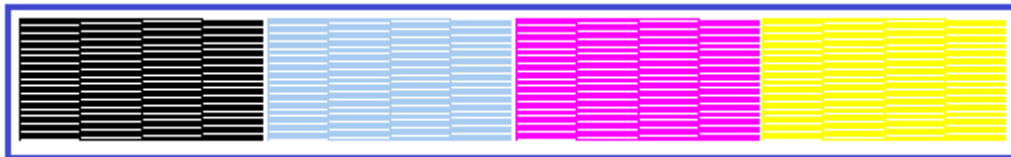


No.	Name		Function description
1	print head detection	Nozzle detection	Check whether the ink jet of orifice of the print head are in good condition
		Level detection	Check whether the entire nozzle plane of the print head is parallel to the horizontal plane.
		Vertical detection	Check whether the print head is skewed.
2	Stepping calibration		Calibrate stepping parameters and fine-tuning stepping parameters for different pass modes
3	print head range	print head horizontal spacing calibration	Calibrate horizontal spacing between print heads
		print head vertical	Calibrate vertical spacing between print heads

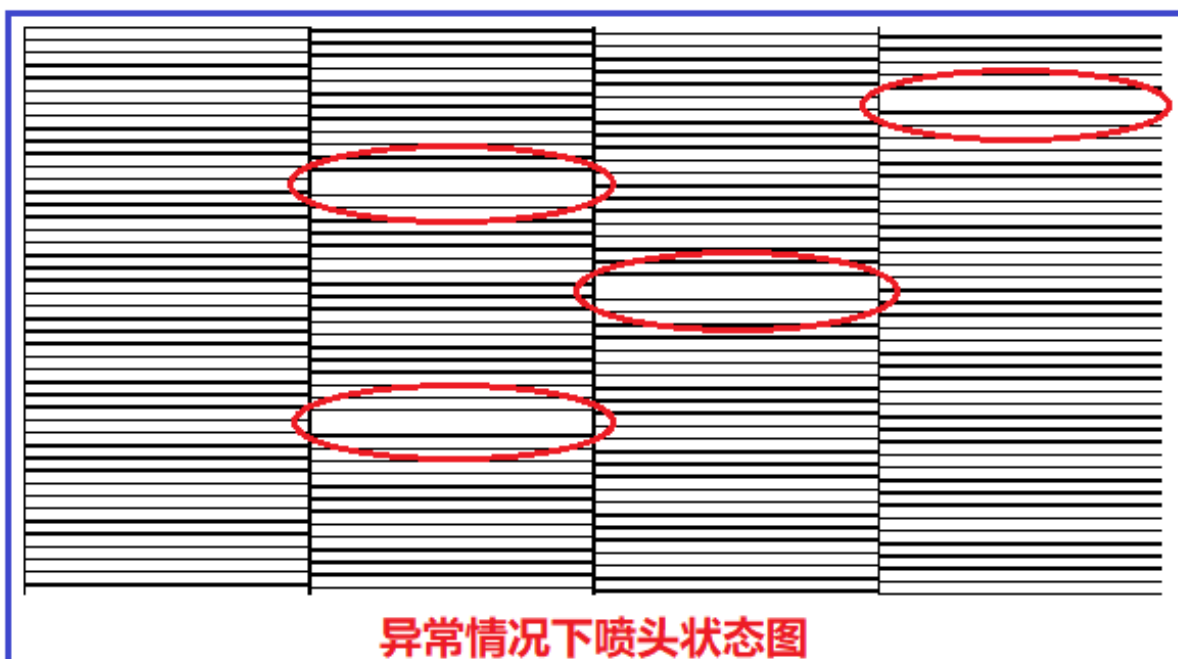
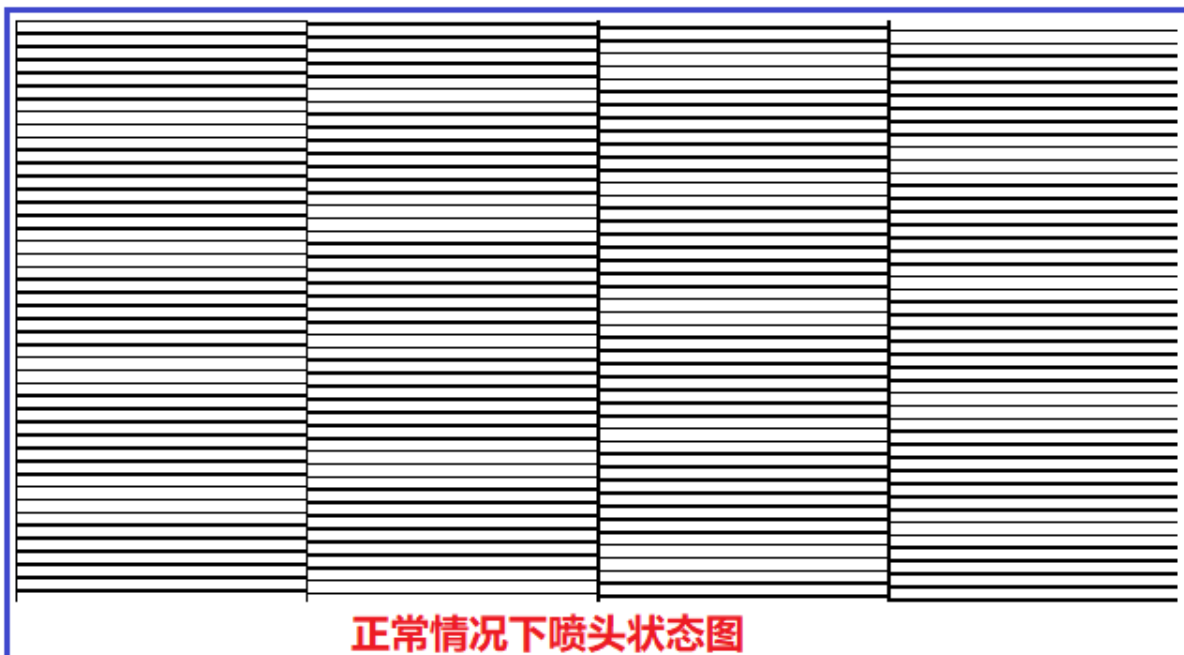
		spacing calibration	
4	Trapping printing calibration		Calibrate the vertical and horizontal location of each passage of print head
5	Bi-directional calibration		Calibrate bi-directional offset under different speed of bi-directional printing

## 5.1 Introduction to nozzle detection function

Click “nozzle detection”, the system will print the nozzle detection pattern, such as the print head state diagram of EPSON DX5 printer, as shown below:



Partially enlarge the normal and abnormal conditions of the black state diagram, as shown below:



The state diagram in the above picture may be blocked and needs to be cleaned until the nozzle inkjet is optimal.

## 5.2 Introduction to level detection function

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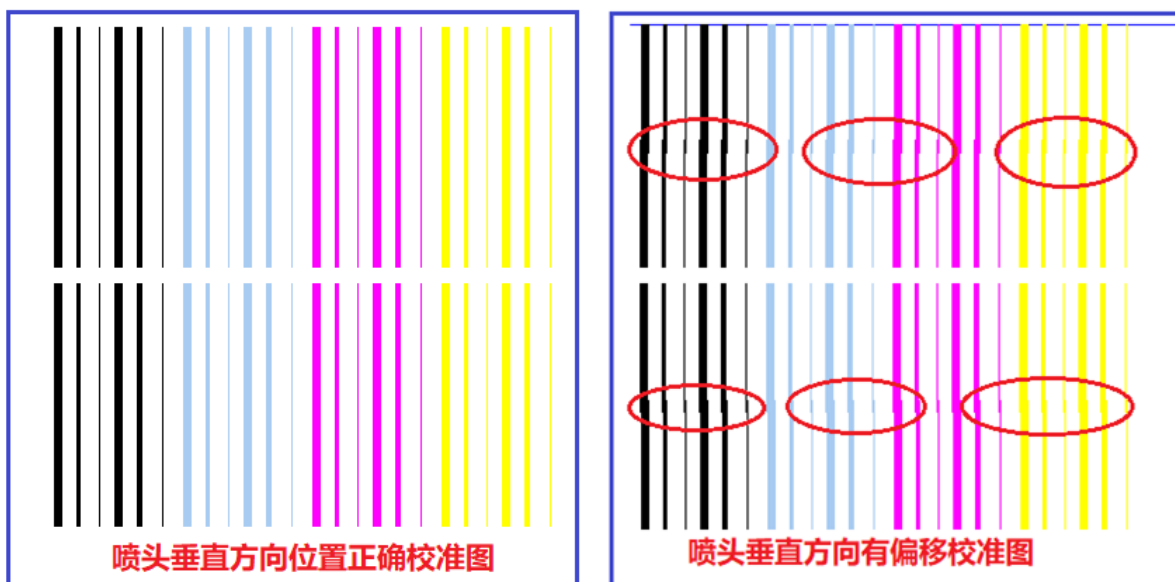


Click “level detection”, the system will print out the level detection pattern, such as the level detection pattern of EPSON DX5 printer, as shown below:



### 5.3 Introduction to vertical detection function

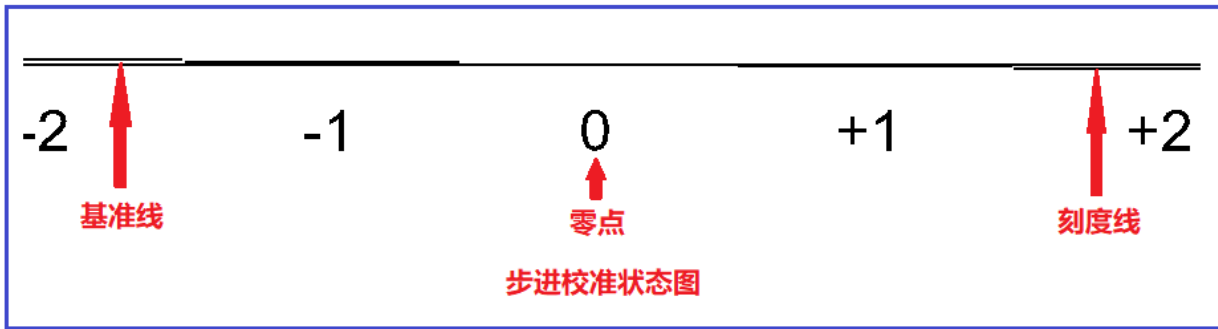
Click “vertical detection”. The system will print a vertical detection pattern, such as the vertical detection pattern of EPSON DX5 printer, as shown below:



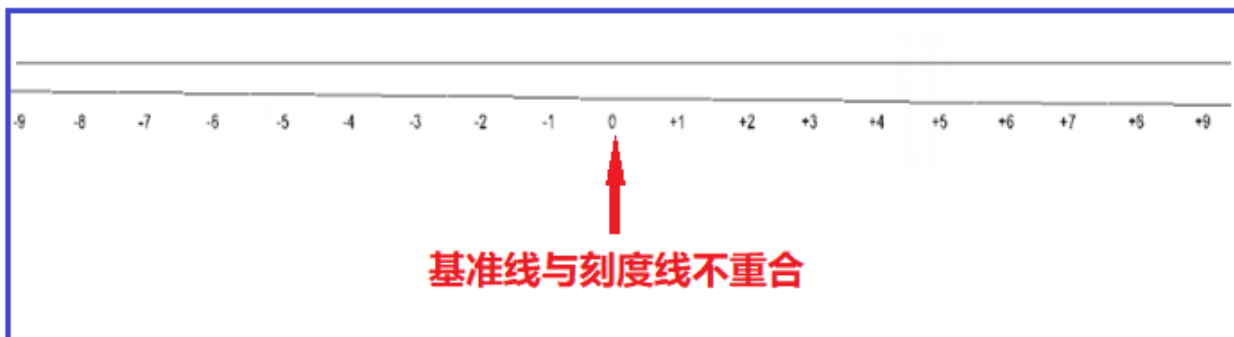
The calibration chart on the right side of the figure above needs to be adjusted vertically until the vertical calibration chart is in the correct state.

### 5.4 Introduction to stepping calibration function

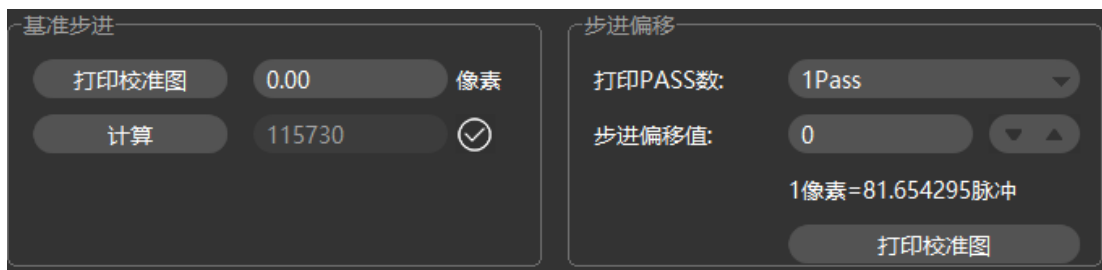
Click “print calibration chart” under the reference stepping box. The system will print. For example, the stepping calibration chart of EPSON DX5 printer is as follows:



The above figure shows that the stepping is calibrated and the reference line and the tick mark are completely coincident at 0. If the stepping is not calibrated, the following situation will appear:

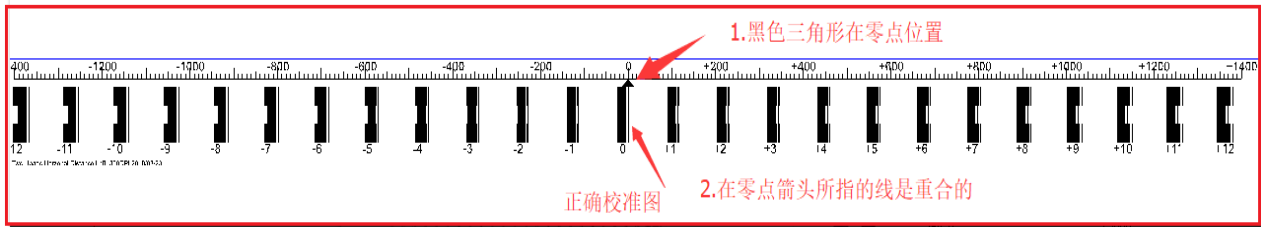


The above picture needs to be adjusted. Adjustment window is as shown below. Input the adjustment value, click calculation, and reprint the calibration chart until the baseline and the print line completely coincide at 0.

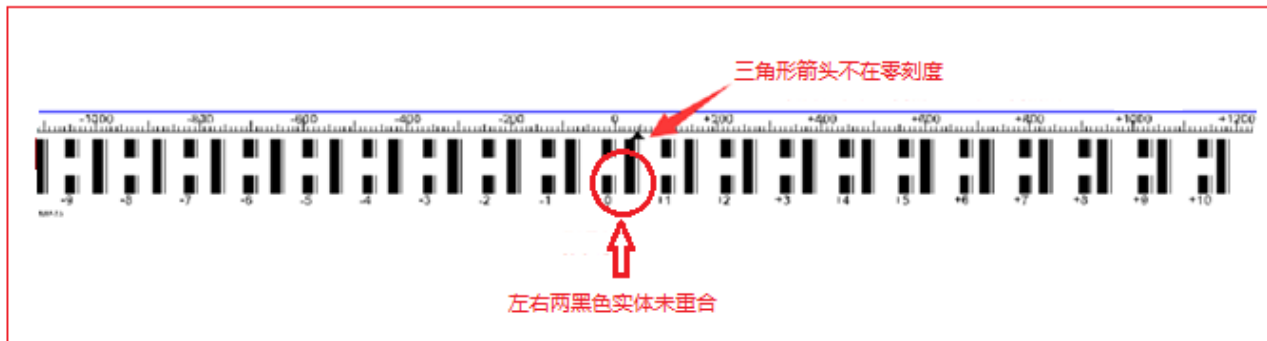


## 5.5 Introduction to print head horizontal spacing calibration

Click "Print left/right calibration chart" under the horizontal spacing calibration box of the print head. The system will print.



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

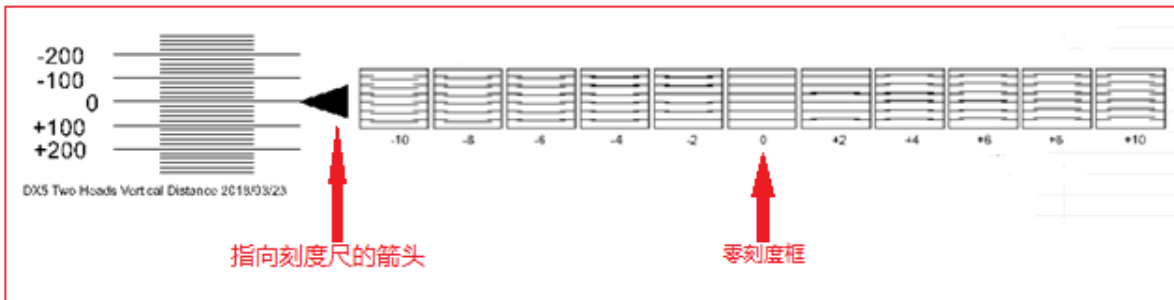


The above picture needs to be adjusted. The adjustment window is shown below. After inputting the adjustment value in the position H2 in the figure below, reprint the calibration chart until the mark of 0 is pointing to 0.

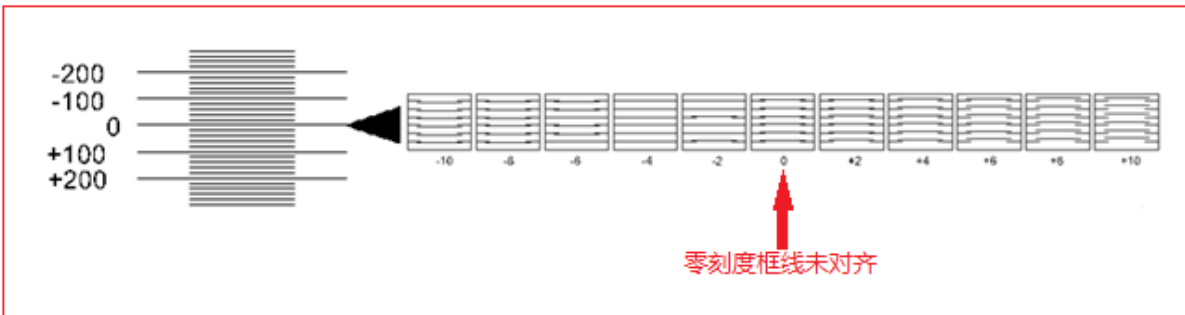


## 5.6 Introduction to print head vertical spacing calibration

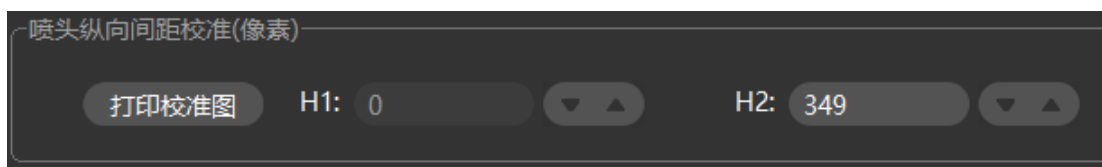
Click “print calibration chart” under the vertical spacing calibration frame of print head. The system will print.



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

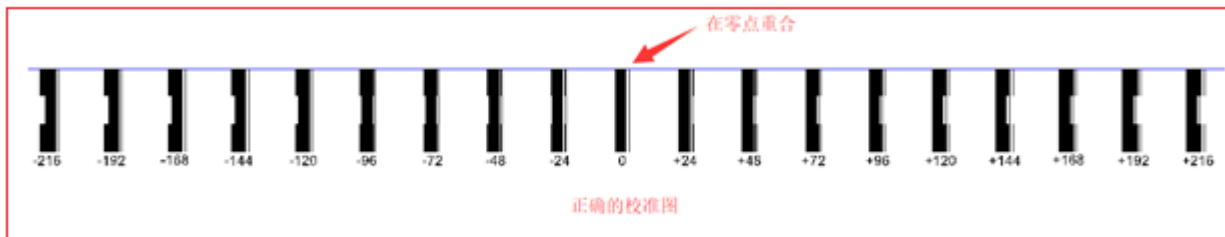


All the lines in the 0-point scale box are not parallel, but all the lines in the -4 scale box are parallel, so it needs to be adjusted. Subtract 4 from the original calibration value, and then re-calibrate until all the lines in the 0-point scale box are parallel. The adjustment window is as follows:

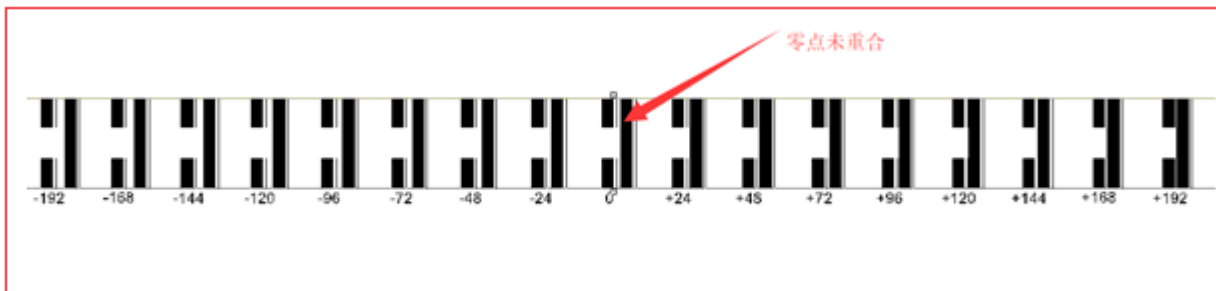


## 5.7 Introduction to bidirectional calibration function

Click “print calibration chart” under the bidirectional calibration interface, the system will print



The figure above shows the calibration. The uncalibrated situation is as follows:

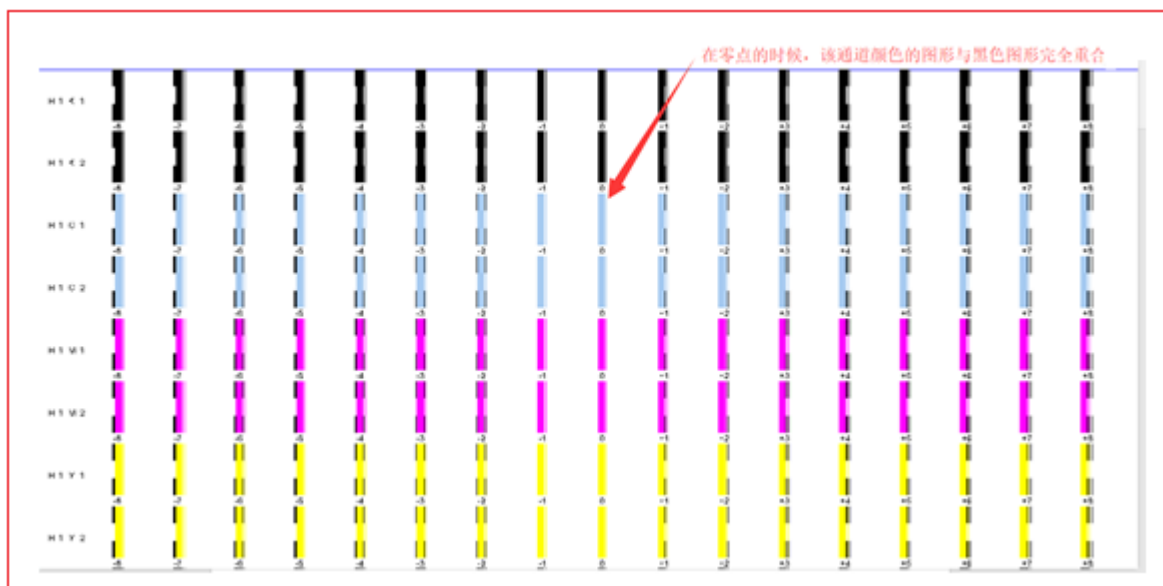


The calibration value must be filled in and recalibrated, as shown below:

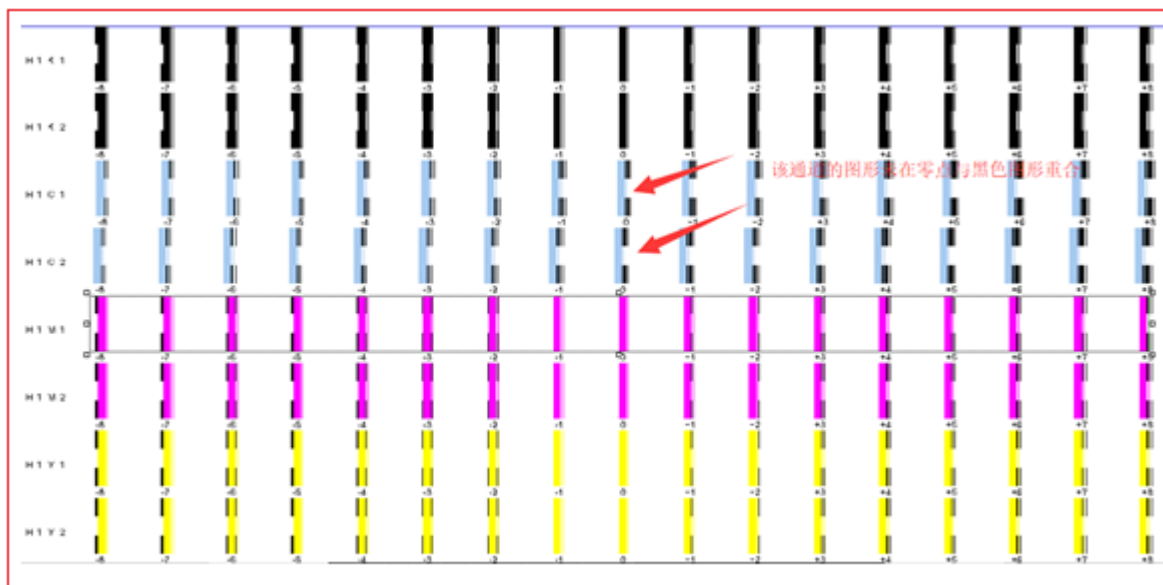


## 5.8 Introduction to trapping printing calibration function

Click “Print left/right calibration chart” under the color calibration interface, the system will print



The figure above shows the calibration. The uncalibrated situation is as follows:



The calibration value must be filled in and recalibrated, as shown below:

	CH0	CH1	CH2	CH3	CH4	CH5	CH6	CH7
G00	K0	K1	C0	C1	M0	M1	Y0	Y1
-->	0	0	0	0	0	0	0	0
<--	0	0	0	0	0	0	0	0
G01	K2	K3	C2	C3	M2	M3	Y2	Y3
-->	0	0	0	0	0	0	0	0
<--	0	0	0	0	0	0	0	0

复制参数    横向打印精度: 360DPI

粘贴参数    打印速度选择: 中速

打印右校准图

打印左校准图

## 6Voltage window

Click the main menu voltage to enter the voltage window, as shown below:

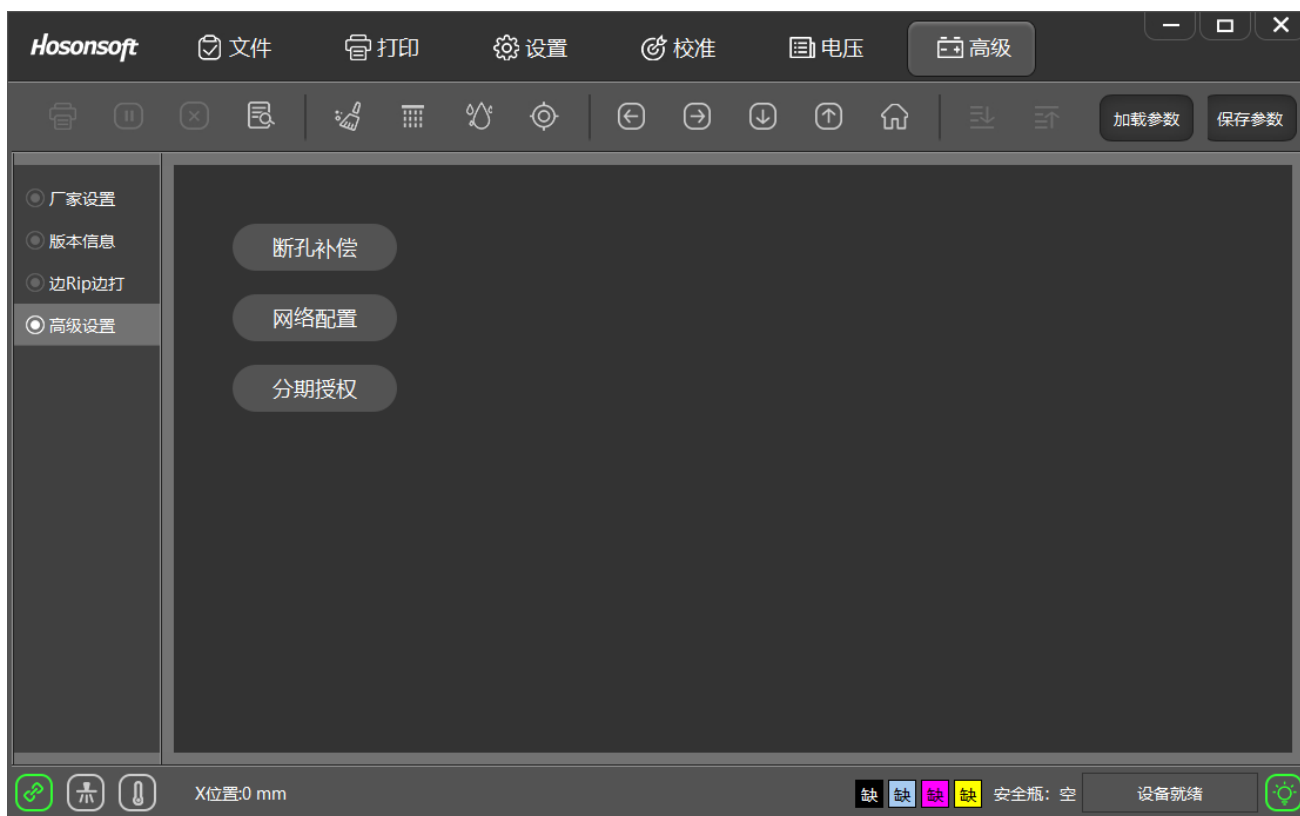


No.	Name	Function description
1	Voltage regulation voltage offset	Set the offset voltage of the specified print head channel
2	Refresh voltage	Update current print head channel voltage value
3	Set the voltage	Save the current print head voltage offset value
4	print head temperature (read only)	Display the specified print head temperature

## 7. Advanced

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





No.	Name	Function description
1	Manufacturer setting	Enter the entrance of the manufacturer parameter setting interface
2	Version Information	Display system board card related version information
3	Rip over printing	Select the precision mode for rip over printing
4	Advanced settings	Broken hole compensation, network configuration, installment authorization settings

## 7.1 Version information

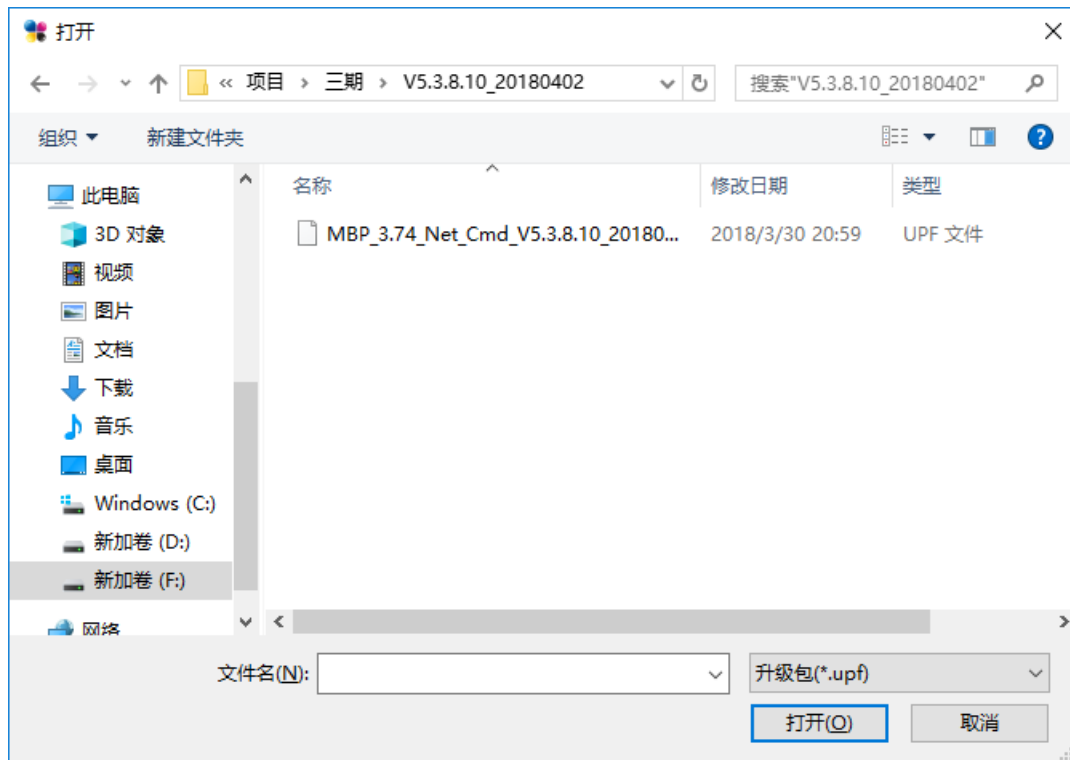
Click the version information in the advanced interface and enter the following interface:

主板序列号	0000-5C1DC06C-008854BB	升级
喷车序列号	0301-36CD2EEB-957ECF00	刷新
主板逻辑版本号	1.1.2.16	
喷车逻辑版本号	2.1.0.3	
主板程序版本号	0.5.3.8.7	
主板固件版本号	-1.0.1.5.D	
软件控制版本号	5.3.8.4.R	

## 7.2 Upgrade

The mainboard logic, the sweep logic, the motherboard program, and the MCU program can be upgraded and updated separately. After the program is upgraded, the power must be turned off and then powered back on. Click refresh to check whether the newly upgraded program has been updated. The upgrade method is as follows:

Click the "Upgrade" button above to pop up the following window:



Select the program to be upgraded, and then click the "Open" button to enter the upgrade window. Click "OK" to enter the upgrade. The upgrade will prompt whether the upgrade is successful. After upgrade, power back on again, check the version information to confirm that it has been upgraded.

### 7.3 Sharpening over printing

In the advanced interface, click the sharpening over printing button to enter the following interface:



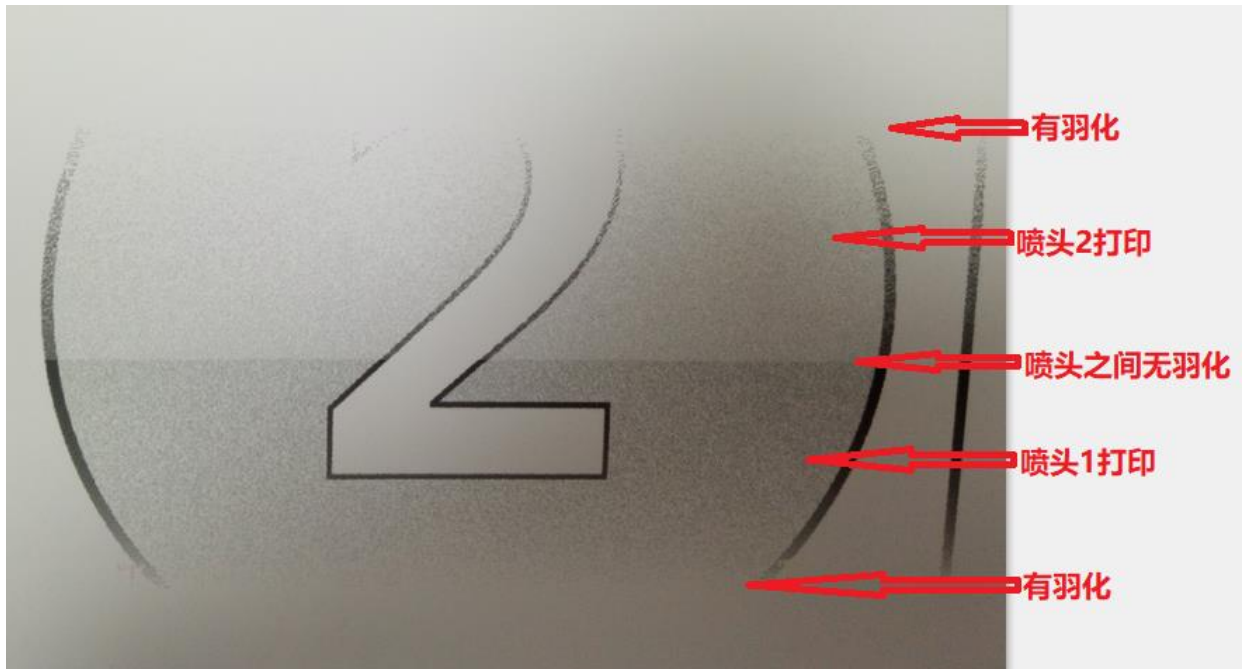
No.	Name		Function description
1	Basic setting	Buffer ratio	Indicate that RIP reaches the set value and start printing
		Port number	Default value: 9100
2	Printing mode	Determined by RIP software	RIP software determines the printing mode in the case of RIP over printing
		Determined by RIP software	Printing control software determines the printing mode in the case of RIP over printing

How does printing software set printing mode

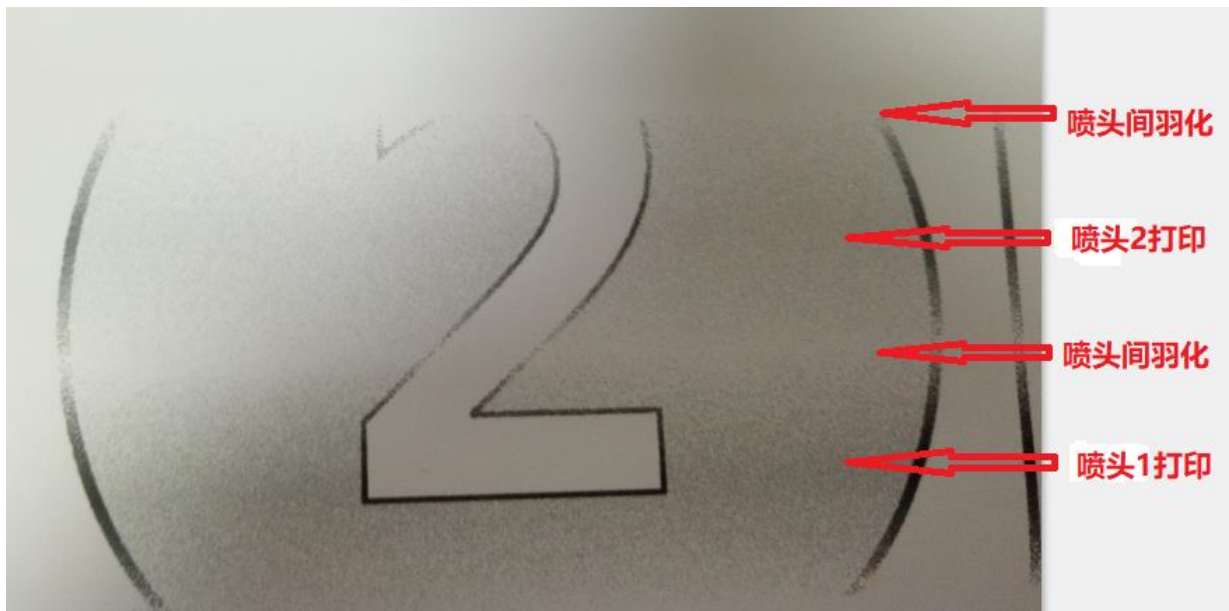
Open the printing software, add the print task to the print list, click the print mode drop-down list of the print task, select different print modes, as shown below:



No.	Name	Function description
1	VSD_L	For normal mode large dot printing, the effect is as shown in Figure 7-3-1
2	VSD_M	Normal mode midpoint printing
3	VSD_EXT1	Normal mode extension point printing
4	VSD_L_H	For horizontal connected large dot printing, the effect is as shown in Figure 7-3-2
5	VSD_L_V	For longitudinal connected large dot printing, the effect is as shown in Figure 7-3-2



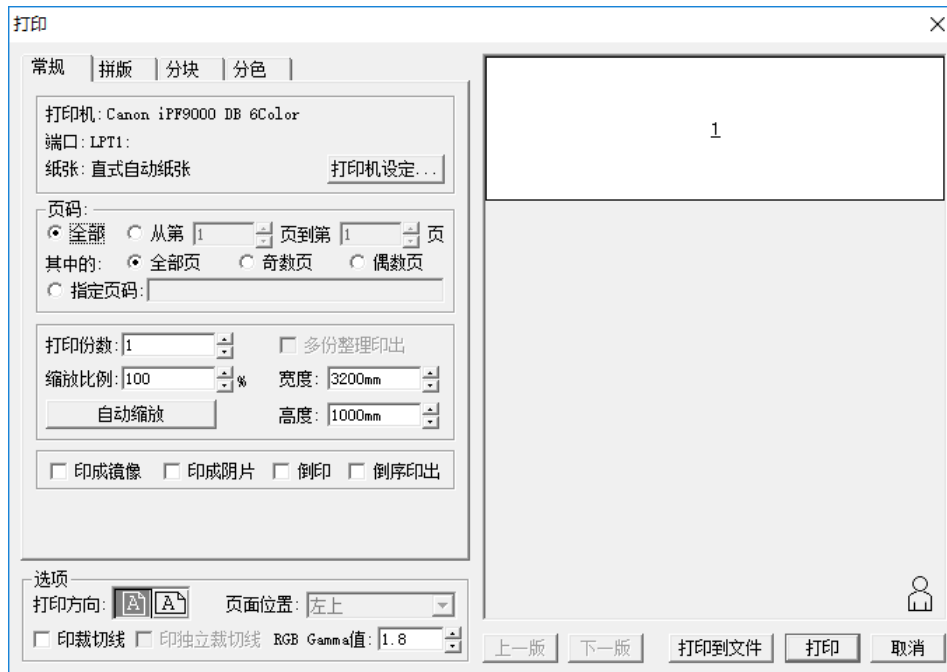
Normal mode Figure 7-3-1



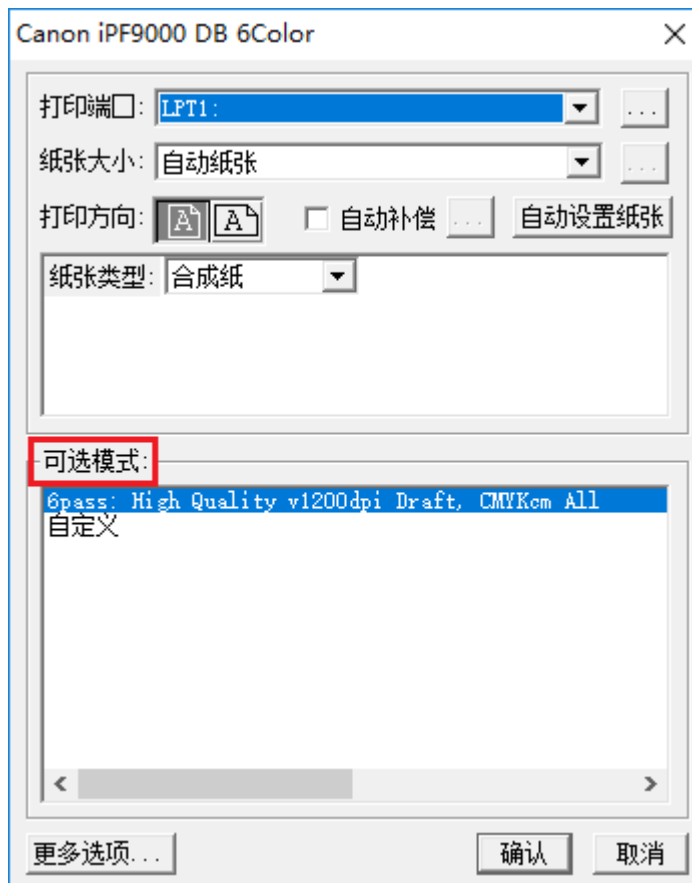
Horizontal connection Figure 7-3-2

How to set the print mode by Maintop Rip software

Open Maintop software maintop-file - create new file - load picture - print, pop up the following window

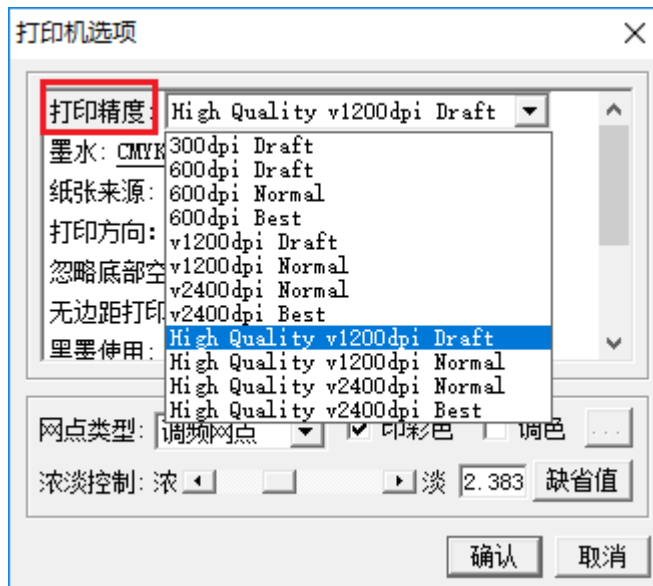


Click the "Printer Settings" button in the above figure to set the print mode and enter the red box as shown below.



Click the “More Options” button in the above figure to set the printing precision, and select the printing precision from the precision drop-down list, as shown below.





How to set the print mode by Hoson Rip software

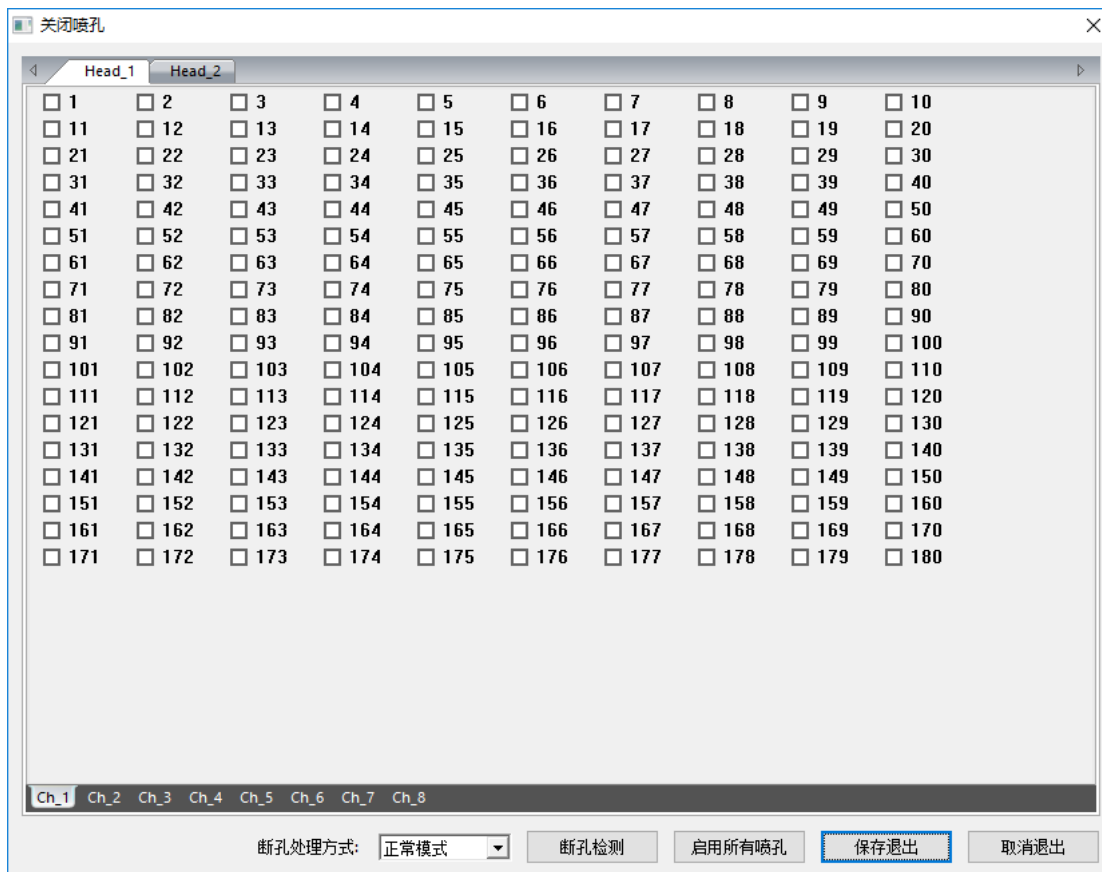
Open Hoson Software UltraPrint - New Canvas - Place Image - Print Canvas, enter the settings interface, as shown below:



The red box in the figure is the setting for the precision and print mode.

## 7.4 Broken hole compensation

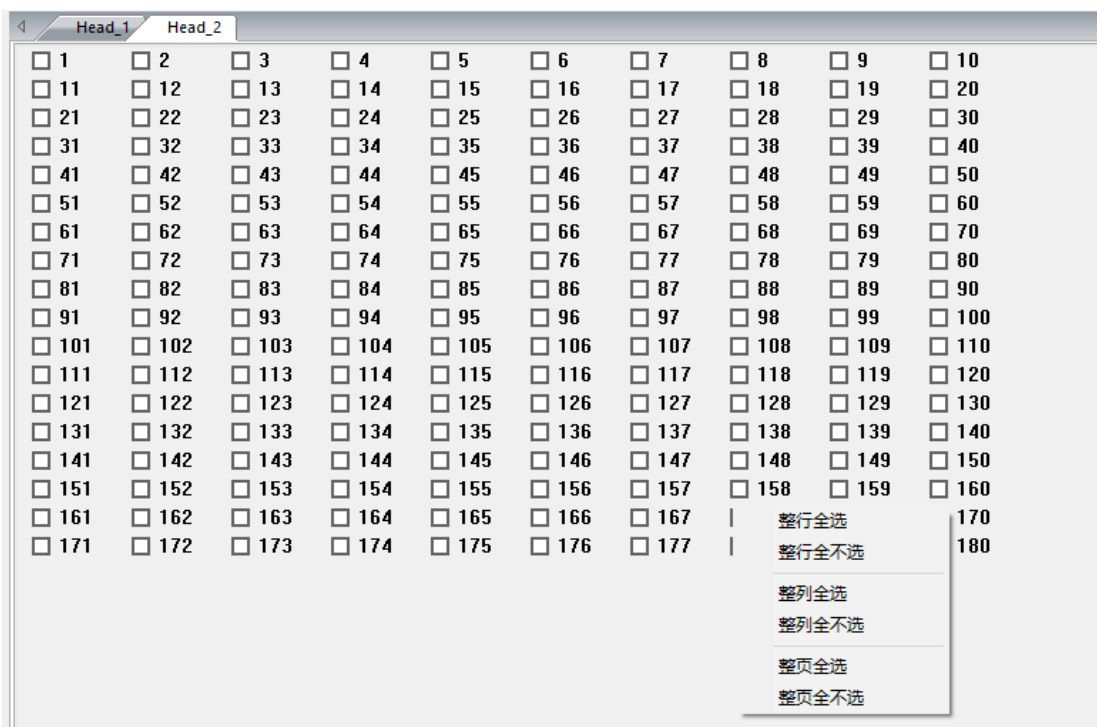
In the advanced settings menu, click the broken hole compensation button to enter the following interface:



No.	Name	Function description
1	Broken hole treatment method	Broken hole treatment method selection
2	Broken hole detection	Check the broken hole status of each orifice of the print head
3	Enable all orifices	All orifices opening/closing options
4	Save and exit	Save the current settings and exit the broken hole settings.
5	Cancel and exit	Don't save the current setting and directly exit the broken hole setting

		state
--	--	-------

Right click the orifice setting interface to pop up a drop-down menu, as shown below:

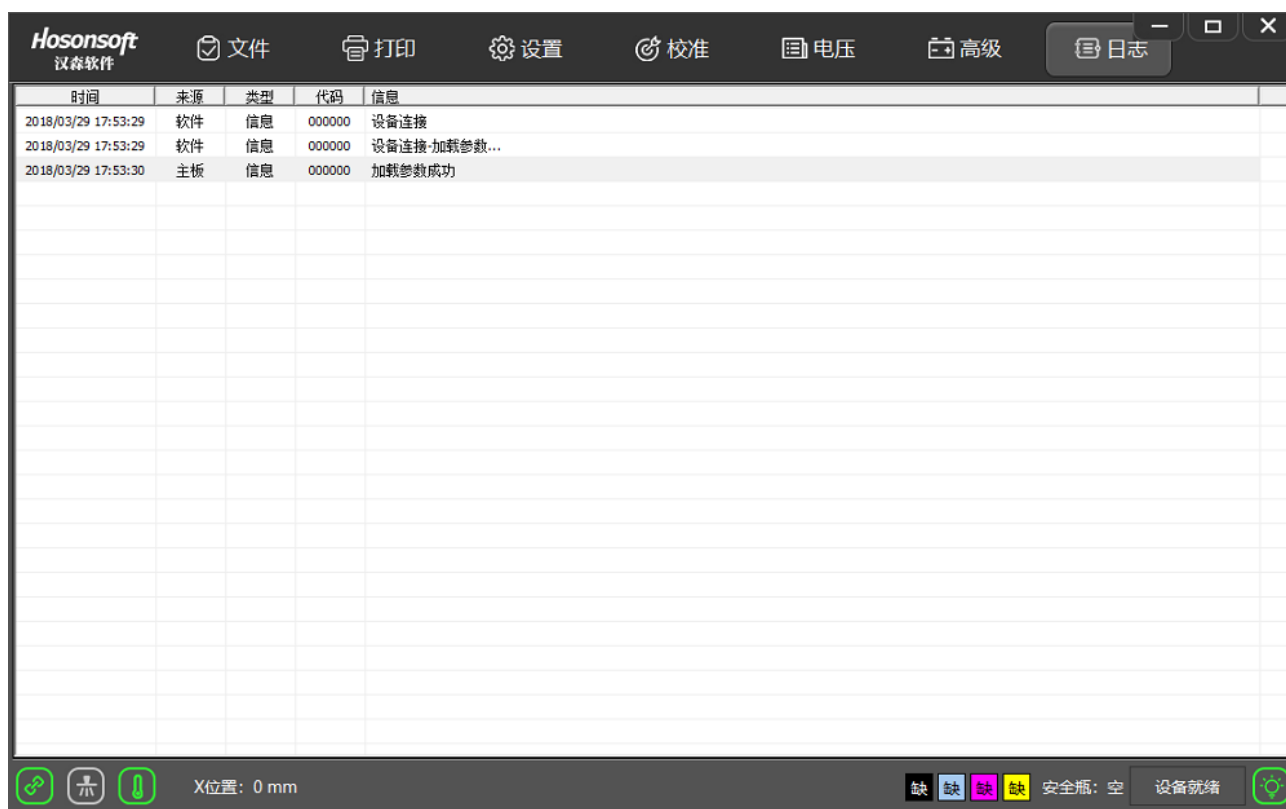


No.	Name	Function description
1	Select whole row	Select the whole row at the same time
2	Unselect the whole row	Unselect the whole row at the same time
3	Select the whole line	Select the whole line at the same time

4	Unselect the whole line	Unselect the whole line at the same time
5	Select the whole page	Select the whole page at the same time
6	Unselect the whole page	Unselect the whole page at the same time














## 8Logs





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













Through this window, you can see the current operation, especially when there is an error or a fault, you can know which type of error information is generated by viewing the debugging information, so that the error is solved in a targeted manner.




## 9. Shortcut button

Shortcut	Function description
	Printing start button to execute the print command
	print head check button to execute print head printing state
	Printing pause/resume button
	Printing cancel button to execute the end printing command
	print head cleaning button to execute print head cleaning command
	Flash spray on/off button
	White edge positioning button
	Moisturizing off/on button
	Reset button
	X motor right shift button
	Feed button
	Return button
	Stepping fine adjustment reduction button

	Stepping fine adjustment increase button
	Two-way fine adjustment reduction button
	Two-way fine adjustment increase button
	Entry into height measurement control panel button

## 10 Status bar

Status bar icon	Description
	Network cable normal connection
	Network cable disconnection
	Offline
	Turn on the flash spray
	Turn off the flash spray
	System functions normally
	System error
	System warning
	Offline
	Normal print head temperature

	Abnormal print head temperature
	print head temperature warning
	Offline

## V. Factory mode

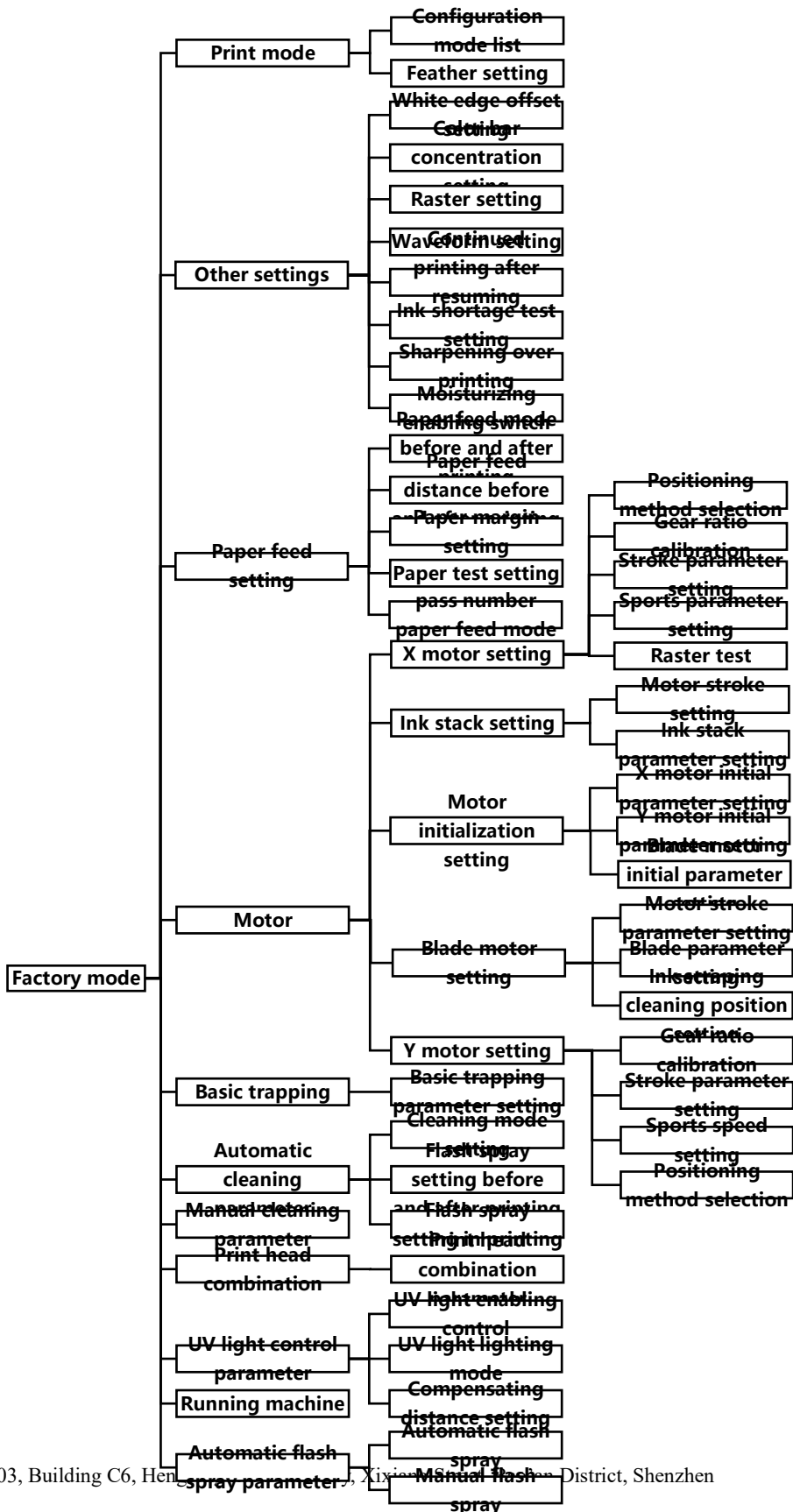
Click the factory settings in the advanced interface, enter the password directly, enter the factory mode, as shown below:





## 1. Main content of factory mode

The main content of factory mode refers to the following menu tree



## 2 Boot initialization

Perform the motor's action parameters during power-on initialization, as shown below:

马达初始化参数

**X马达**

加减速距离:  脉冲(2.44毫米)

原点反向移动距离:  脉冲(47.62毫米)

撞限位后回零距离:  脉冲(4.00毫米)

马达移动速度:  脉冲/秒(47.62毫米/秒)

**Y马达**

加减速距离:  脉冲(0.26毫米)

原点反向移动距离:  脉冲(0.00毫米)

撞限位后回零距离:  脉冲(0.00毫米)

马达移动速度:  脉冲/秒(0.87毫米/秒)

**刮片马达**

加减速距离:  脉冲(0.06毫米)

原点反向移动距离:  脉冲(0.20毫米)

撞限位后回零距离:  脉冲(0.00毫米)

马达移动速度:  脉冲/秒(0.20毫米/秒)

The parameters of the X motor, the Y motor, and the blade motor are the same. The X motor is taken as an example for explanation. See the following table:

No.	Name	Function description
1	Acceleration and deceleration distance	Acceleration and deceleration distance
2	Origin reverse movement distance	The distance the motor moves away from the origin
3	Returning to the zero position after hitting the limit	After the motor moves to the origin direction, the distance of the reverse movement after hitting the limiter

4	Motor moving speed	Motor moving speed
---	--------------------	--------------------

3X motor

The settings of the X motor parameters are as follows:

x马达参数

齿轮比

目标移动值:  毫米

齿轮比:

行程参数

正方向最大行程:  脉冲 (3333.53毫米)

负方向最大行程:  脉冲 (0.00毫米)

运动参数

加减速距离:  脉冲(157.81毫米)

复位速度:  毫米/秒

常规移动速度:  毫米/秒

打印空跑速度:  毫米/秒

打印速度(慢):  %

打印速度(中):  %

打印速度(快):  %

光栅测试

当前位置:  光栅

偏移距离:  光栅

定位方式:

No.	Name	Function description
1	Gear ratio calibration	Calibrate the gear ratio of the X motor
2	Stroke parameters	The maximum range of motion of the X-direction trolley
3	Acceleration and deceleration distance	Acceleration and deceleration distance
4	Reset speed	The speed of the trolley movement during the reset

5	Regular moving speed	The speed of trolley when moving to the left and right in manual mode
6	Invalid running speed of printing	The back running speed of trolley in one-way printing
7	Print speed	The ratio of the maximum spray frequency to the speed, the difference of the different speeds
8	Raster test	Raster test has two main functions: First, it is confirmed whether the precision of the grating is accurate by comparing the set offset distance with the raster value reported in real time; in addition, determining whether the direction of the raster is correct
9	Pulse positioning	Locate the current position of the trolley by pulse
10	Raster positioning	Locate the current position of the trolley through the raster

4Y motor

**Y马达参数**

**齿轮比**

目标移动:  毫米

实际移动:  毫米

齿轮比:

**行程参数**

正方向最大行程:  脉冲

负方向最大行程:  脉冲

**运动参数**

加减速距:  脉冲(6.11毫米)

常规走纸速度:  毫米/秒

打印走料速度(慢):  毫米/秒

打印走料速度(中):  毫米/秒

打印走料速度(快):  毫米/秒

No.	Name	Function description
1	Gear ratio calibration	Calibrate the gear ratio of the Y motor
2	Stroke parameters	The maximum range of motion of the Y-direction motor
3	Acceleration and deceleration distance	The motor accelerates from the stop state to the constant speed or decelerates from the constant speed to 0.
4	Conventional feed speed	The speed of the Y motor at a constant speed during manual feed/return movement
5	Printing speed	The ratio of the maximum jetting frequency to the speed, the ratio of the different speeds varies.

--	--	--

5Ink stack

**墨栈参数**

---

马达行程设置

正方向最大行程:  脉冲

负方向最大行程:  脉冲

---

墨栈参数

加减速距离:  脉冲

墨栈运动速度:  脉冲/秒

保湿墨栈高度:  脉冲

闪喷墨栈高度:  脉冲

刮墨墨栈高度:  脉冲

限位检测墨栈高度:  脉冲

No.	Name	Function description
1	Motor stroke setting	Maximum range of motion of the ink stack
2	Acceleration and deceleration distance	Acceleration and deceleration distance
3	Ink stack movement speed	Ink stack movement speed
4	Moisturizing ink stack height	The height of the ink stack in a moisturizing state
5	Flash inkjet stack height	The height of the ink stack in the flash spray state

6	Scrape ink stack height	The height of the ink stack when it is moisturized
7	Limit detection ink stack height	When entering the limit detection, the height of the ink stack (the height is as small as possible, but it must be out of the limit position)

## 6 Blade

刮片参数

马达行程参数

正方向最大行程:  脉冲

负方向最大行程:  脉冲

刮片参数

加减速距离:  脉冲

刮墨小车运动速度:  脉冲/秒

刮墨片运动速度:  脉冲/秒

刮墨位置:

刮片位置:  脉冲

刮墨开始位置:  脉冲

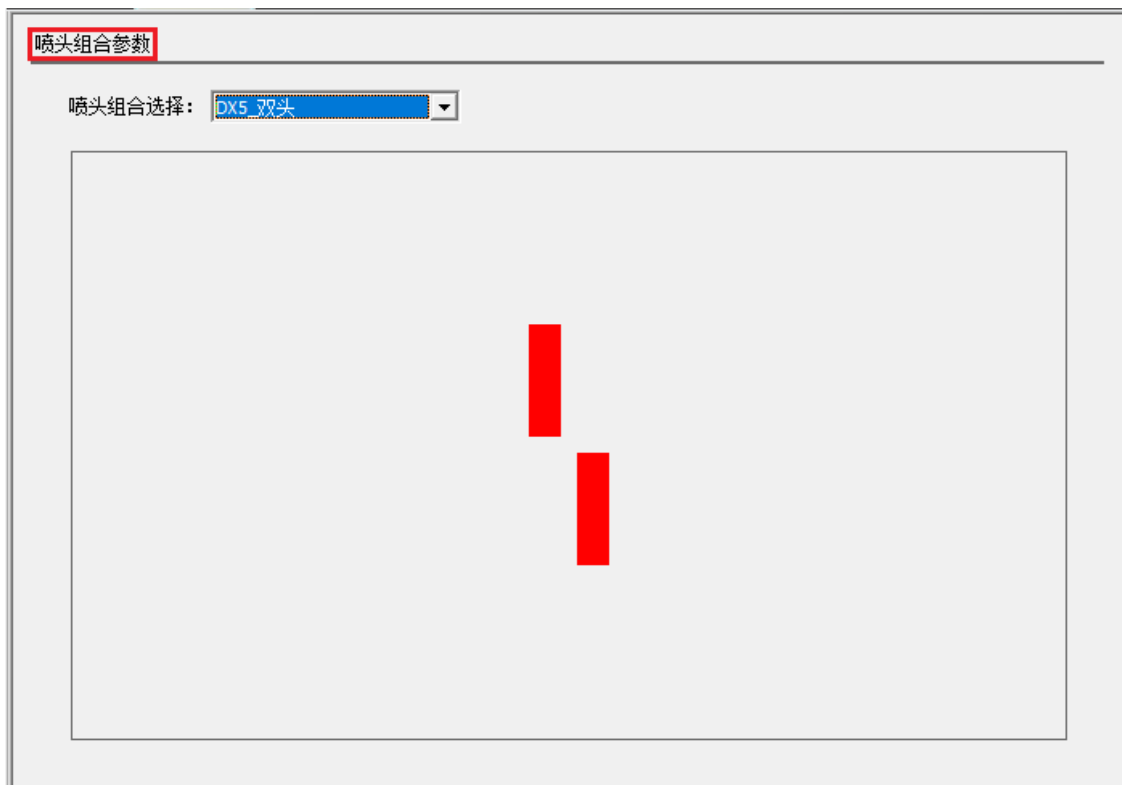
刮墨结束位置:  脉冲

No.	Name	Function description
1	Motor stroke parameters	Setting of the maximum stroke parameter of the blade motor
2	Blade parameter setting	Blade motor acceleration/deceleration distance parameter and motion speed parameter setting



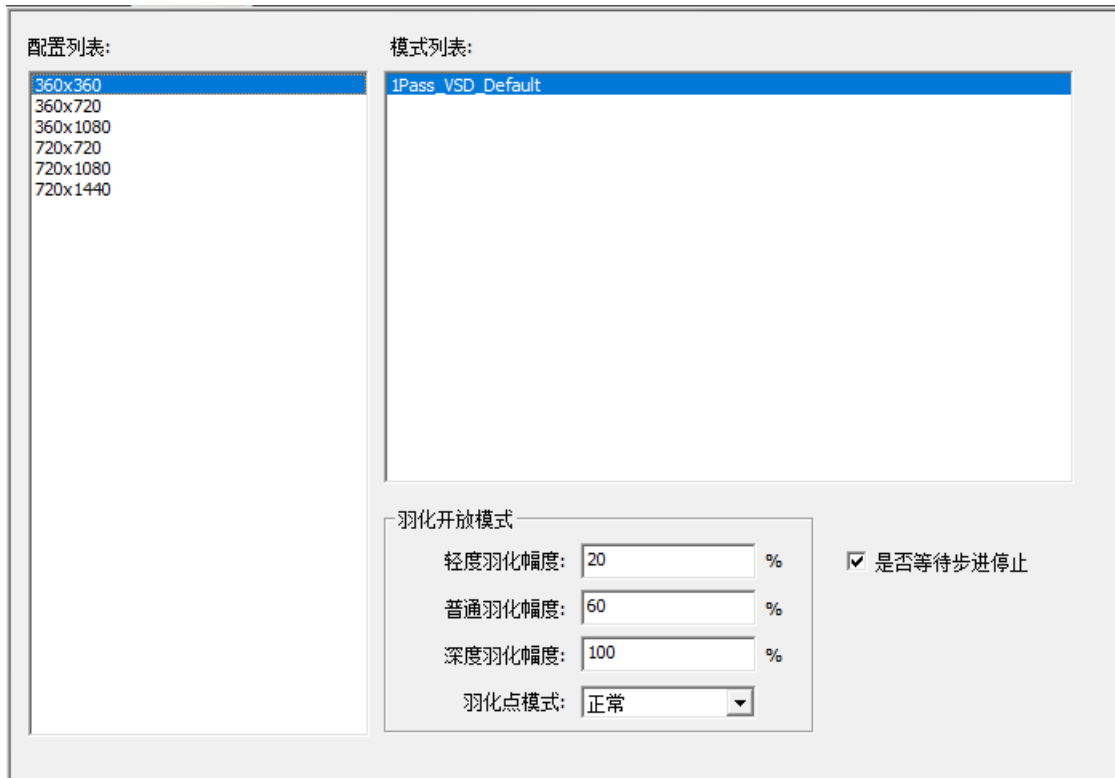
3	Start position of ink scraping	The starting position of the trolley when the scraper is scraping the print head
4	End position of ink scraping	The end position of the trolley when the scraper is scraping the print head

## 7 Print head combination



Show a variety of different arrangements of multiple print heads.

## 8 Print mode



No.	Name	Function description
1	Configuration list	Currently configured all precision list of the print head
2	Mode list	List of print modes for each precision
3	Feathering mode setting	Feathering amplitude setting and feathering point mode selection

## 9Reference trapping

基准套色参数 (注:以最大物理光栅为参考)										打印左校准图	打印右校准图
	H00	H01	H02	H03	H04	H05	H06	H07			
G00	K0	K1	C0	C1	M0	M1	Y0	Y1			
-->	0	64	280	344	560	624	840	904			
<--	0	64	280	344	560	624	840	904			
G01	K2	K3	C2	C3	M2	M3	Y2	Y3			
-->	0	64	280	344	560	624	840	904			
<--	0	64	280	344	560	624	840	904			

The trapping color value here is used to fill the internal trapping color shift of the print head.

## 10 Automatic cleaning

工程模式 厂家模式 网络设置

**自动清洗参数**

清洗模式

清洗模式:

喷头组合:

清洗间隔:  PASS

打印前闪喷

闪喷频率:  Hz

闪喷次数:  次

单次闪喷时间:  毫秒

闪喷间隔时间:  毫秒

打印中闪喷

闪喷频率:  Hz

闪喷次数:  次

单次闪喷时间:  毫秒

闪喷间隔时间:  毫秒

No.	Name	Function description
1	Cleaning mode	Automatic cleaning on/off selection
2	print head combination	Selection of combined cleaning between different print heads
3	Cleaning	When the flash spraying printing is on, the flash spray is carried out

	interval	after each set number of passes.
4	Flash spray frequency	The number of times the print head ejects per second
5	Flash spray times	Stop the flash spray after several flash spray cycles in succession
6	Single flash spray time	One flash spray cycle, continuous flash spray time
7	Flash spray interval time	Two flash spray intervals

## 11 Manual cleaning

**手动清洗参数**

**抽墨参数** 清洗: 弱

抽墨次数:  次

抽墨时间:  毫秒

抽墨后静止时间:  毫秒

抽废墨时间:  毫秒

**闪喷参数**

闪喷频率:  Hz

闪喷次数:  次

单次闪喷时间:  毫秒

闪喷间隔时间:  毫秒

**滑靠式闪喷位移动参数**

小车移出速度:  毫米/秒

小车移出距离:  毫米

No.	Name	Function description
1	Number of ink pumping	Number of ink pumping during manual cleaning

2	Ink pumping time	The duration of each ink pumping
3	Static time after ink pumping	After the ink pumping is completed, wait for the set time before proceeding to the next operation.
	Waste ink pumping time	Start time to pump waste ink from motor
	Trolley removal speed	In sliding flash spray, the speed of movement when the trolley moves to the specified position
	Trolley removal distance	The flash spray position in sliding flash spray

## 12. Automatic flash spray

**自动闪喷参数**

<p><input checked="" type="checkbox"/> 自动闪喷</p> <p>自动闪喷频率: <input type="text" value="512"/> Hz</p> <p>单次闪喷时间: <input type="text" value="1000"/> 毫秒</p> <p>闪喷间隔时间: <input type="text" value="5000"/> 毫秒</p> <p>自动抽废墨周期: <input type="text" value="50"/> 次数</p> <p>抽废墨时间: <input type="text" value="1000"/> 毫秒</p>	<p>手动闪喷</p> <p>闪喷频率: <input type="text" value="512"/> Hz</p> <p>闪喷次数: <input type="text" value="2"/> 次</p> <p>单次闪喷时间: <input type="text" value="15000"/> 毫秒</p> <p>闪喷间隔时间: <input type="text" value="0"/> 毫秒</p>
--	--

No.	Name	Function description
1	Automatic flash spray frequency	The number of inkjet ejections per second during automatic flash spray

2	Single flash spray time	One flash spray cycle, continuous flash spray time
3	Flash spray interval time	Interval between two flash sprays
4	Automatic waste ink pumping cycle	During the automatic flash spray process, carry out one waste ink pumping after setting flash spray times
5	Waste ink pumping time	Start time to evacuate the waste ink motor

## 13Running machine

跑机参数

小车开始位置:	<input type="text" value="0"/>	脉冲(0.00毫米)	
小车最大位置:	<input type="text" value="200000"/>	脉冲(1904.88毫米)	<input type="button" value="确认位置"/>
单向走纸距离:	<input type="text" value="6"/>	毫米	
最大走纸距离:	<input type="text" value="120"/>	毫米	<input type="button" value="确认位置"/>
刮片移出位置:	<input type="text" value="12300"/>	脉冲	<input type="button" value="确认位置"/>

No.	Name	Function description
-----	------	----------------------

1	The starting position of the trolley	The starting position of the trolley when running the machine
2	The maximum position of the trolley	The end position of the trolley when running the machine
3	One-way paper-feeding distance	The distance of paper feeding of one round of trolley movement in the Y direction
4	Maximum paper-feeding distance	The total distance of the paper feeding in the Y direction in the machine running
5	Blade removal position	The distance the blade is removed from the origin of the blade during the running

## 14 Paper feeding

The screenshot shows a configuration window with several sections:

- 打印前/后走纸模式 (Paper Feed Mode Before/After Printing):** Two dropdown menus, both set to "不走纸" (No paper feed).
- 纸张边距 (Paper Margin):** Two input fields for "纸张左边距微调" (Left margin fine adjustment) and "纸张右边距微调" (Right margin fine adjustment), both set to 0 mm.
- 打印前/后走纸模式 (Paper Feeding Distance Before/After Printing):** Four input fields for "打印前进纸距离" (Paper feeding distance before printing), "打印前退纸距离" (Paper return distance before printing), "打印后进纸距离" (Paper feeding distance after printing), and "打印后退纸距离" (Paper return distance after printing), all set to 50 mm.
- 纸张检测 (Paper Detection):** Two checked checkboxes for "启用印前缺纸检测功能" (Enable paper shortage detection before printing) and "启用测纸功能" (Enable paper detection). Below are two input fields: "测纸传感器偏移" (Paper sensor offset) set to 30 mm and "测纸非检测区域" (Paper non-detection area) set to 100 mm.
- 反向打印 (Reverse Printing):** An unchecked checkbox for "启用反向打印功能" (Enable reverse printing function).

No.	Name	Function description
1	Paper feed mode before printing	Paper feed mode selection before printing
2	Paper feeding mode after printing	Paper feed mode selection after printing
3	Paper feeding distance before printing	Set distance of paper feeding before printing
	Paper return distance before printing	Set distance of paper return before printing
4	Paper feeding distance after printing	Stop printing after the printing task is completed and paper feeding distance is set
	Paper return distance after printing	Stop printing after the printing task is completed and paper return distance is set
8	Fine adjustment of left margin and right margin of paper	Fine adjustment of the distance between the drawing to be printed and paper edge
9	Paper detection	Turn on/turn off paper detection of paper shortage detection
10	Test paper sensor offset	The horizontal distance between the test paper sensor probe and the raster decoder
11	Test paper non-detection area	The distance of the test paper sensor detection probe to the paper start mark



15 Others

<p><b>偏移设置</b></p> <p>X白边起始偏移: <input type="text" value="120"/> 毫米</p> <p>X白边定位偏移: <input type="text" value="-40"/> 毫米</p>	<p><b>彩条浓度设置</b></p> <p>彩条浓度弱: <input type="text" value="20"/> 百分比</p> <p>彩条浓度中: <input type="text" value="50"/> 百分比</p> <p>彩条浓度强: <input type="text" value="100"/> 百分比</p>
<p><b>光栅设置</b></p> <p>X光栅精度: <input type="text" value="720"/> DPI</p>	<p><b>波形</b></p> <p>默认波形选择: <input type="text" value="波形1"/></p>
<p><b>断线续打</b></p> <p>打印中超时暂停时间: <input type="text" value="30000"/> 毫秒</p> <p>暂停后自动恢复时间: <input type="text" value="1200000"/> 毫秒</p>	<p><b>缺墨检测</b></p> <p><input checked="" type="checkbox"/> 是否显示缺墨状态</p> <p><input checked="" type="checkbox"/> 缺墨时允许打印</p> <p><input type="checkbox"/> 缺墨是否报警</p>
<p><b>边锐边打</b></p> <p>启动任务百分比: <input type="text" value="5"/> %</p>	
<p><b>保湿</b></p> <p><input checked="" type="checkbox"/> 启用保湿功能</p>	

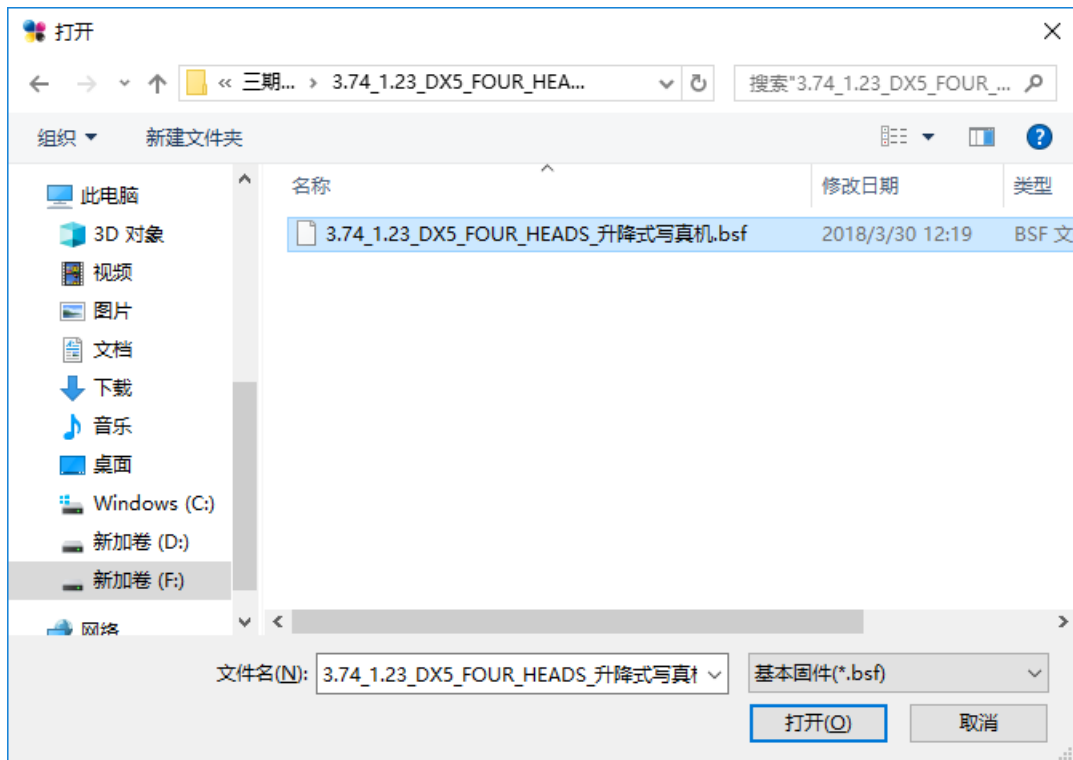
No.	Name	Function description
1	X white edge start offset	The distance from the print head to the printed material
2	X white edge positioning offset	White edge positioning error setting, its calculation formula: white edge positioning value - white edge positioning offset= white edge value + white edge starting offset
3	Raster setting	Set the precision of the grating (precision after four-way frequency)
4	Color bar concentration	The color bar concentration of different grades set different

		proportions
5	Waveform	Waveform selection
6	Timeout in printing	In the print, the dropout time reaches the set time and print pauses
7	Automatic recovery time after pause	After the pause, the network cable is detected to be connected within the set time, and the printing resumes automatically.
8	Ink shortage detection	Select the action to be taken when the ink is in shortage
9	Moisturizing	Turns on/off moisturizing function

## 16 Import / export firmware

### 16.1 Import firmware configuration

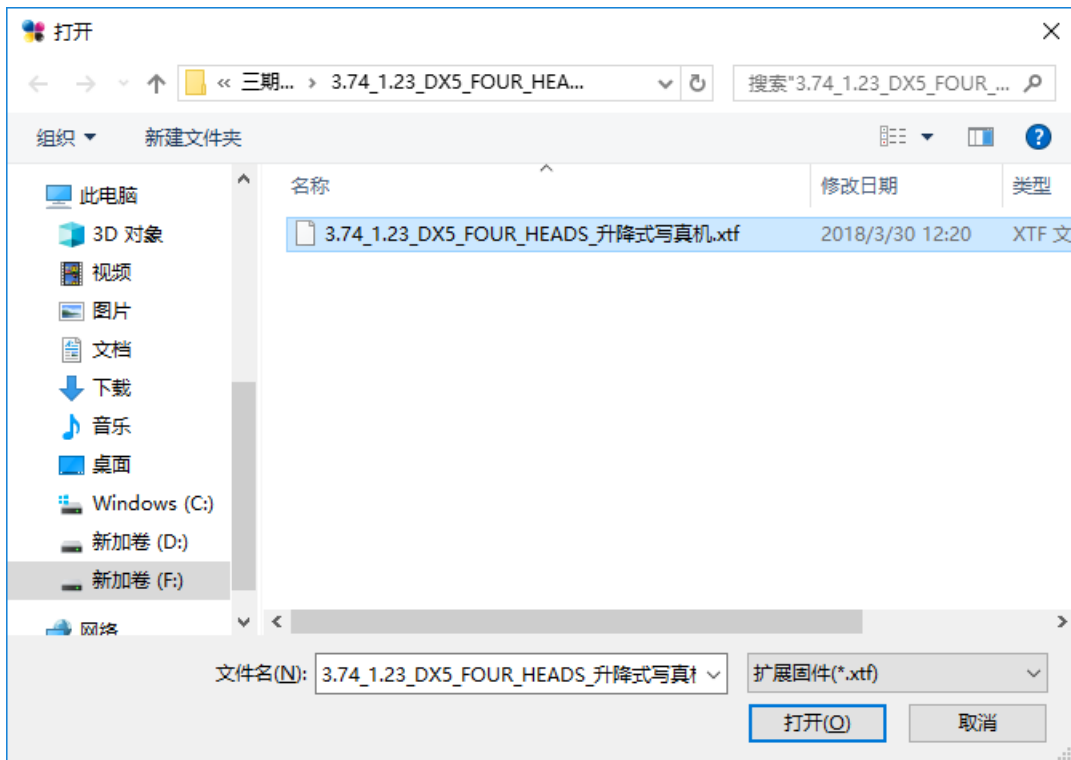
Click “Firmware Menu” to pop up the drop-down menu list and select “Import Firmware Configuration” to select the firmware configuration to be imported. Note the suffix is .bsf, as shown below:



Click "Open" to enter the import firmware configuration state. At this time, you should not do anything. You will be prompted to "Import successfully" and view the debugging information. The message "Loading Flash successfully" indicates that the import is successful.

## 16.2 Import firmware parameters

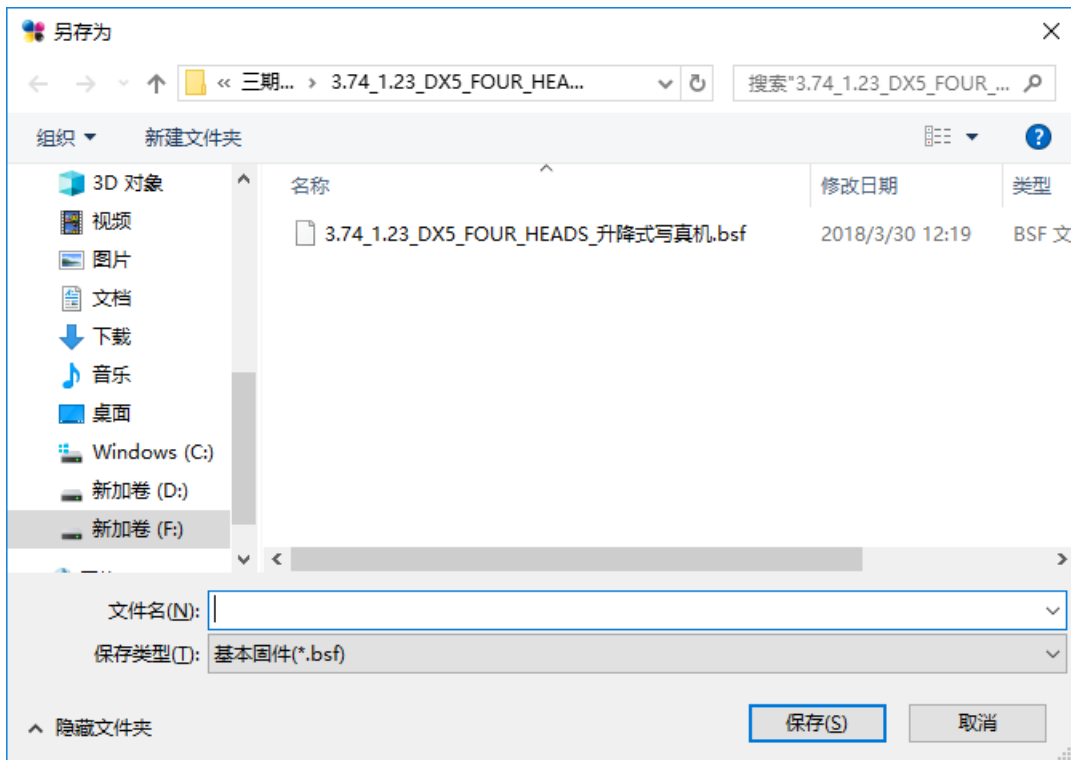
Click "Firmware Menu" to pop up the drop-down menu list and select "Import Firmware Configuration" to select the firmware configuration to be imported. Note that the suffix is .xtf, as shown below:



Click "Open" to enter the import firmware configuration state. At this time, you should not do anything. You will be prompted to "Import successfully" and check the debugging information. The message "Load parameter is successful" indicates that the import is successful.

### 16.3 Exporting firmware configuration

Click "Firmware Menu" to pop up the drop-down menu list, select "Export Firmware Configuration", save it in the specified directory, note that the suffix is .bsf, as shown below:



Click "Open" to enter the export firmware configuration state. At this time, you should not do anything. You will be prompted to "export successfully"

## 16.4 Exporting firmware parameters

Click "Firmware Menu" to pop up the drop-down menu list, select "Export Firmware Parameters", save it in the specified directory, note the suffix is .xtf, click "Open" to enter the export firmware parameter status. No action should be done at this time and you will be prompted "export successful" later.

## VI. Button board operation instructions

### 1. Keyboard board button layout as shown below



Button function list description

No.	Button name	Button function description
1	QUALITY	Feathering settings
2	CLEANING	Print cleaning
3	CANCEL	Print cancel



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4	PAUSE	Print pause
5	ORIGIN	Reset to original point
6	NOZZLE TEST	Print head status
7	UP	Return
8	DOWN	Feed
9	LEFT	Left shift
10	RIGHT	Right shift
11	MENU	Menu
12	ENTER	Confirmation
13	POWER	

## 2. Menu item description

All the functions of the menu items have been introduced in the print software setting interface or the manufacturer mode, and will not be described here.

## 3. Menu list

Add: Room 1703, Building C6, Hengfeng Industrial City, Xixiang Street, Bao'an District, Shenzhen

Tel: 86-0755-2894 0020      Fax: 27961549      <http://www.hosonsoft.com>

