WE VALUE YOUR TRUST

UV-F30

SERIES MANUAL



Thank you for purchasing our company's products.

Here are the specific instructions for using the equipment.

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CONTENT

Firstly we would like to express our thanks to you for choosing our "A3 UV DTF Printer". Reading this manual will help you utilize your printer more effectively.

O About this manual

The manual introduces "A3 UV DTF Printer" (abbreviation "This printer") operation and maintenance methods. Before operate this printer, please carefully read and understand this manual. Besides, please place this manual at a proper place so that you can read it at any time. Please make sure that this manual is given to the operator for this printer. To help you understand easier, we wrote this manual deliberately. But if you find any points improper, please contact with our agent or service center. If any description from this manual is changed in future, we will not inform you and modify. Sorry for the inconvenience. If the manual is lost or damaged and cant be read, please contact with local agent or service center to buy a new one. You can also download the newest manual from our website.

O Please kindly note

Beyond warranty terms, any lost caused by using this printer or cant use this printer, including interest lost, indirect damage, special damage or other economic lost, as well as other damages besides above points, we will not bear any responsibility. Besides, even if informed us in advance, the company will still not bear responsibility. For example, material lost, consumption, and any indirect damages caused by production, etc.. We will not bear any responsibility. For the economic lost caused by using this printer, and interest lost from third party's request, we will not bear any responsibility.

O Please cooperate

This manual was edited deliberately. But if you find any point are improper, please contact with agents or service center.

In order to increase level of this manual, we will process modification, but will not proceed further notice.

O Self-regulation of radio wave interference

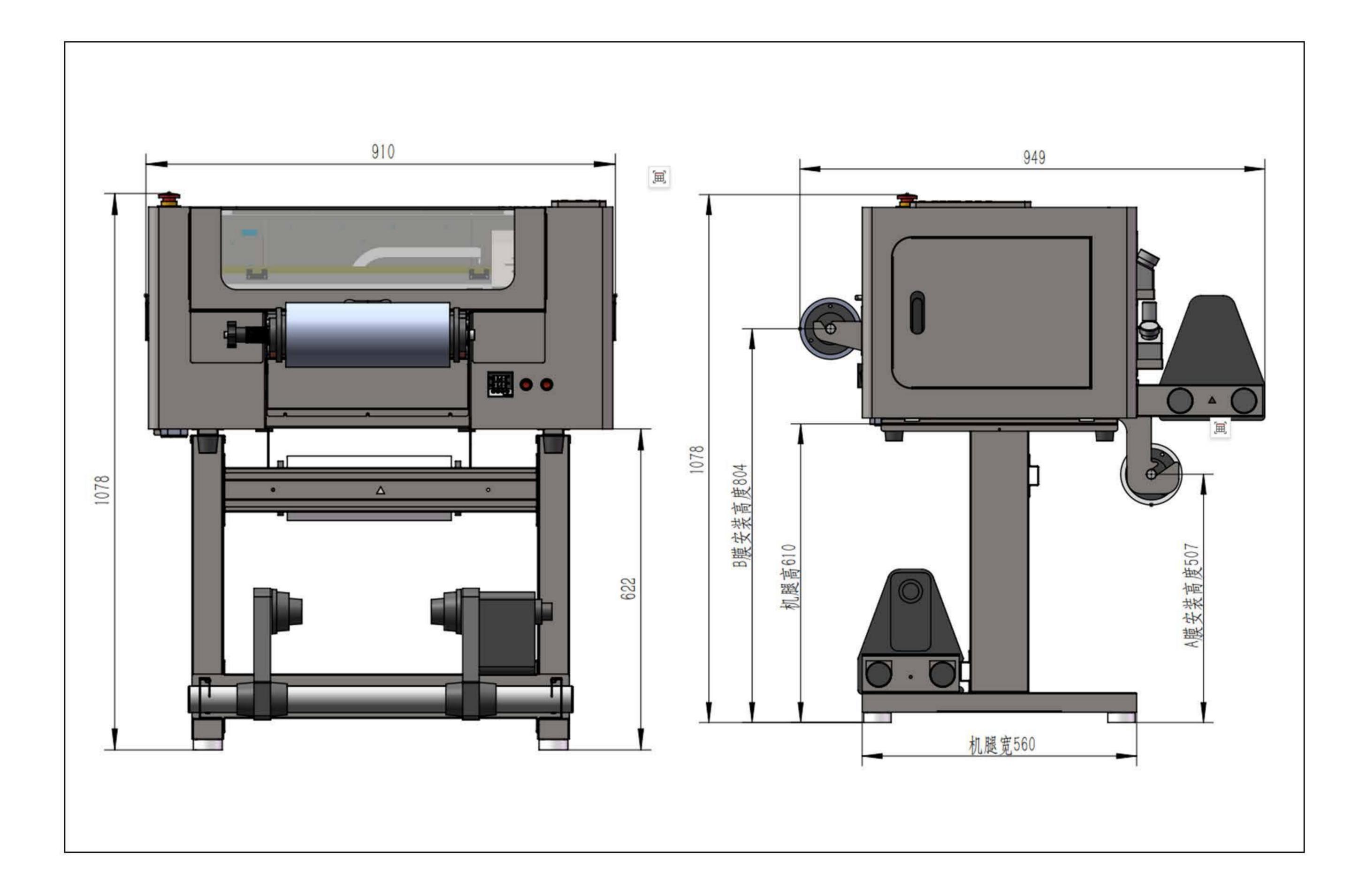
This unit is a Class A digital device. When the unit is used at home, radio interference may occur. In this case, the user is required to take appropriate measures.

O Signal interference from television or radio

This printer generates high-frequency waves when it is running. Thus if the printer is placed or used under improper conditions, the radio and television may be subject to interference. Therefore, we do not guarantee the normal use of radio and television. If you feel that the radio or TV is disturbed by this printer, please turn off the power of this unit for confirmation. If radio interference is eliminated when power is cut off, the printer is considered to be the cause of interference. After confirming that the unit is the cause of the interference, please try using one or a combination of the following: Try changing the direction of the TV or radio antenna to find out a location that is not disturbed. Keep the TV or radio away from the printer. Connect the power cord of the TV or radio to an outlet on the other power supply line that is different from the printer.

NO.1 Installation Guidance

Before installing the machine, make sure there is enough reserved space. The installation site must provide sufficient space not only for the machine itself, but also for printing operations.



>1 Precautions for moving the machine

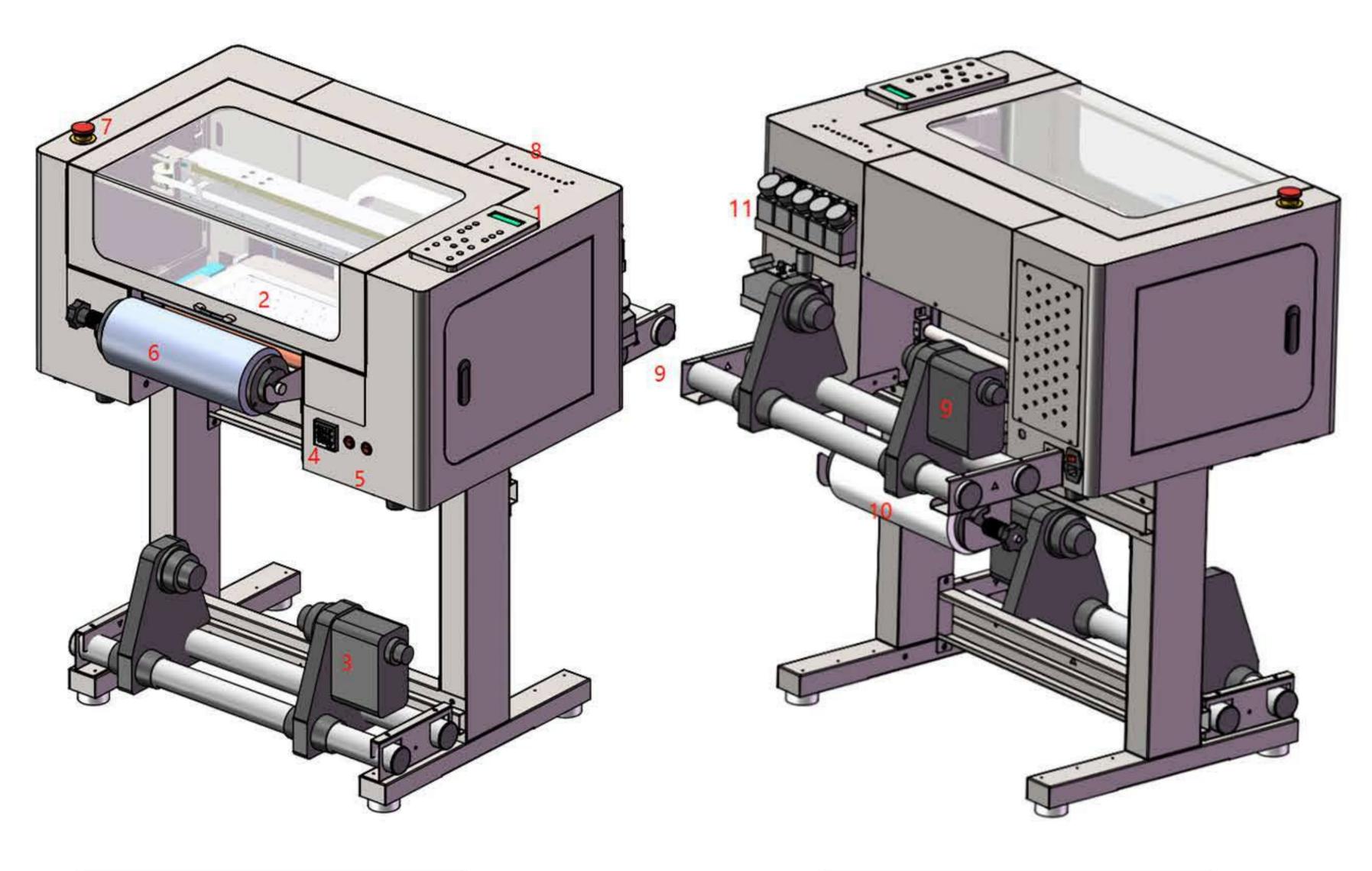
- (1) Please be careful that the machine is not allowed to bear excessive vibration.
- (2) Please pay attention to check whether the fixing parts of the carriage /platform are removed.
- (3) Please try to keep level when moving. It is strictly forbidden to put the machine down and carry it which may cause malfunction.
- (4) When moving the machine, please be sure to carry it by more than 2 people.

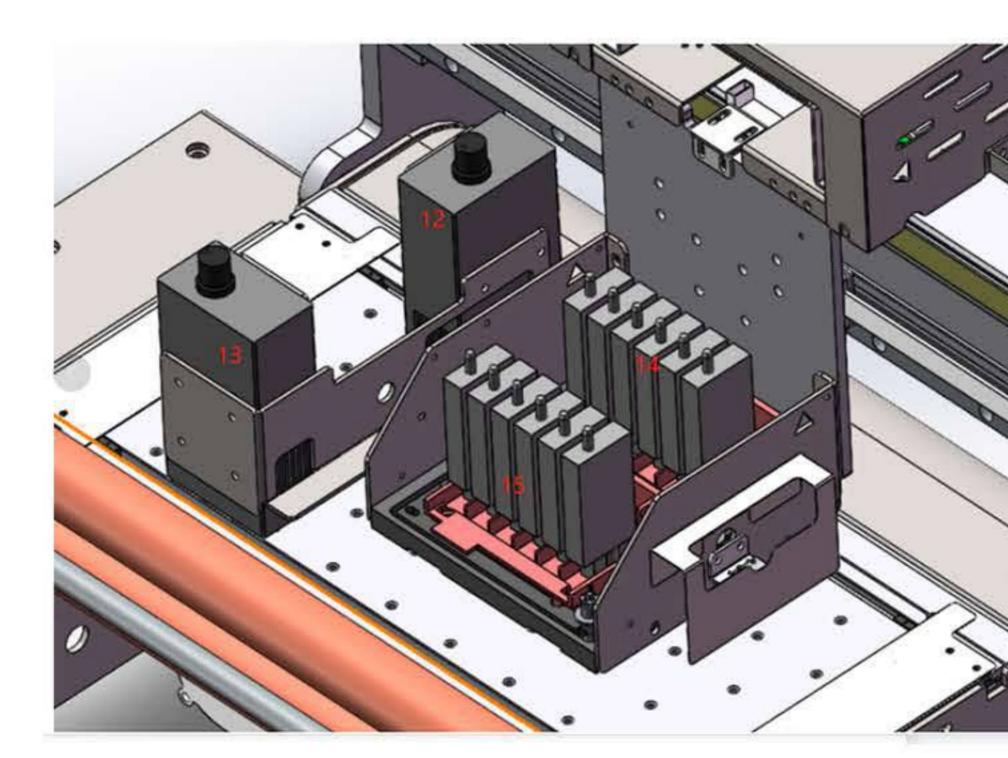
>2 Installation video

https://drive.google.com/file/d/1ZSQjBtkN3VLE_LwUYeh6WBDtL5S2uTdf/view?usp=sharing https://drive.google.com/file/d/1NYdsIzF6Xm0eqcUXkXMNzXB7aNwS8i63/view?usp=sharing

NO.2 Printer function description

>1 Component name and function





Product front

Product back

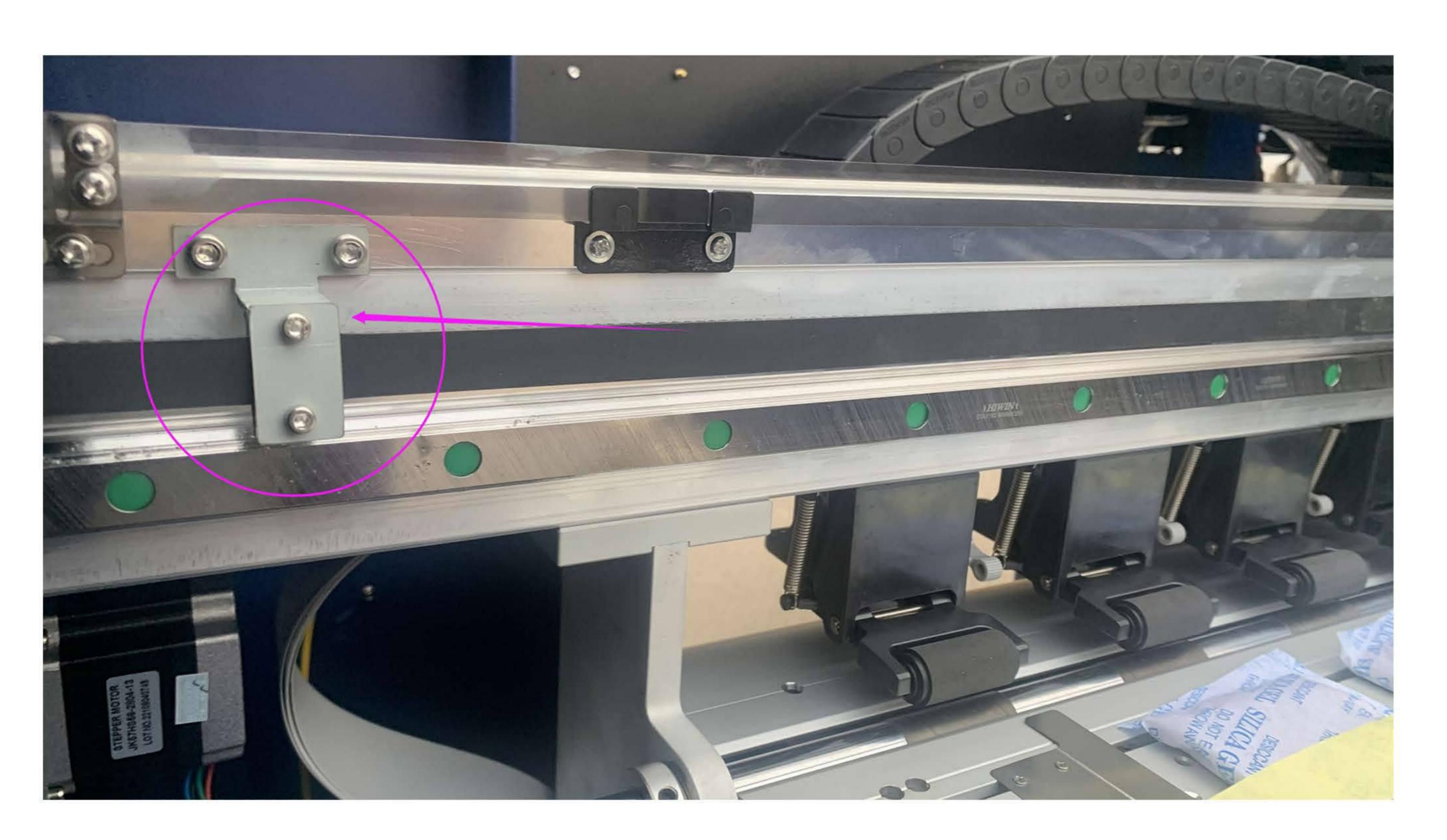
PRINTHEAD

	Components	8	Ink level alarm panel
1	Key panel	9	Feed paper device
2	Suction platform	10	A film bracket
3	Take-up device	11	Ink tank
4	Roller temperature controller	12	Color UV light
5	Suction switch	13	Vanish UV light
6	B film bracket	14	HEAD1
7	Emergency stop	15	HEAD2

>2 Precautions before using the machine

For the safety during transportation, we fixed carriage and the Y axis to prevent damage to the equipment.

Therefore, be sure to remove the fixings shown by the red square before turning on the power. (Note: The Phillips screwdriver hex wrench is shipped together with the printer)



>3 Key panel



Function
Standby, printing progress, cleaning progress and other actual status
Can clean heads if any nozzle missed(Long press 4 seconds enter strong cleaning)
Can stop printing, and resume printing(can be used as a menu button with standby interface)
Can cancel or exit the function being executed
Can move carriage leftward and rightward, move platform forward and backward

NO.3 Control software introduction

>1 Description of print software

PRINT EXP is Hoson control software to work with printer, with friendly interface, simple operation, and meet the needs of end users and manufacturers at different levels. Mainly used for printer control, printer calibration, program upgrades, import firmware configuration and firmware parameters, export firmware configuration and firmware parameters, and parameter modifications. In order to enable users to quickly and comprehensively understand the printing software, familiar with the various functional operations, precautions and possible problems, the following is an introduction to the classification of printing software.

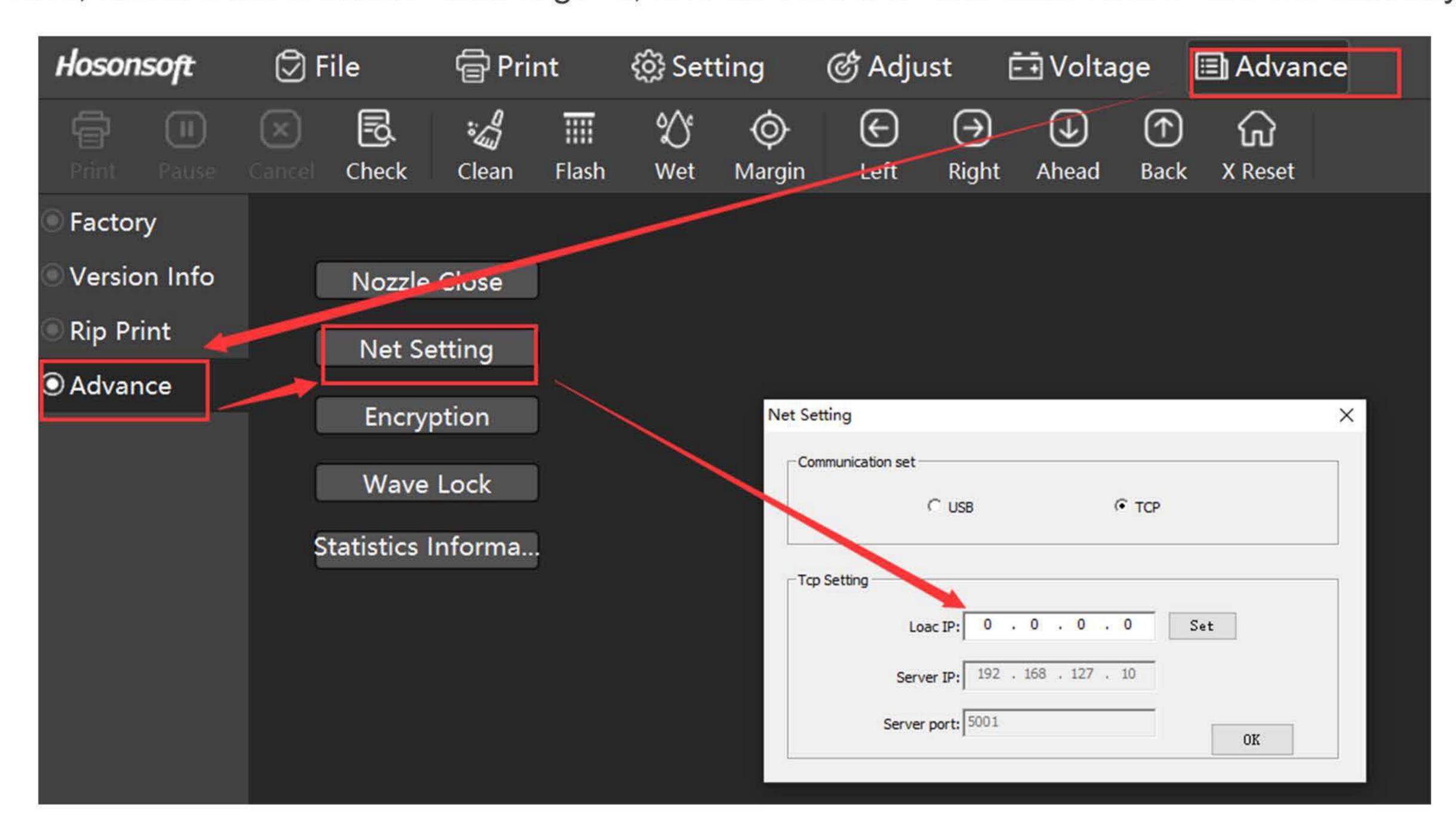
>2 Software startup and online

2.1 Start print control software

PrintEXP can be used directly. Locate the PrintExp software folder, open the folder, locate the PrintExp.exe application, and double-click the program to launch the PrintExp software

2.2 Software online

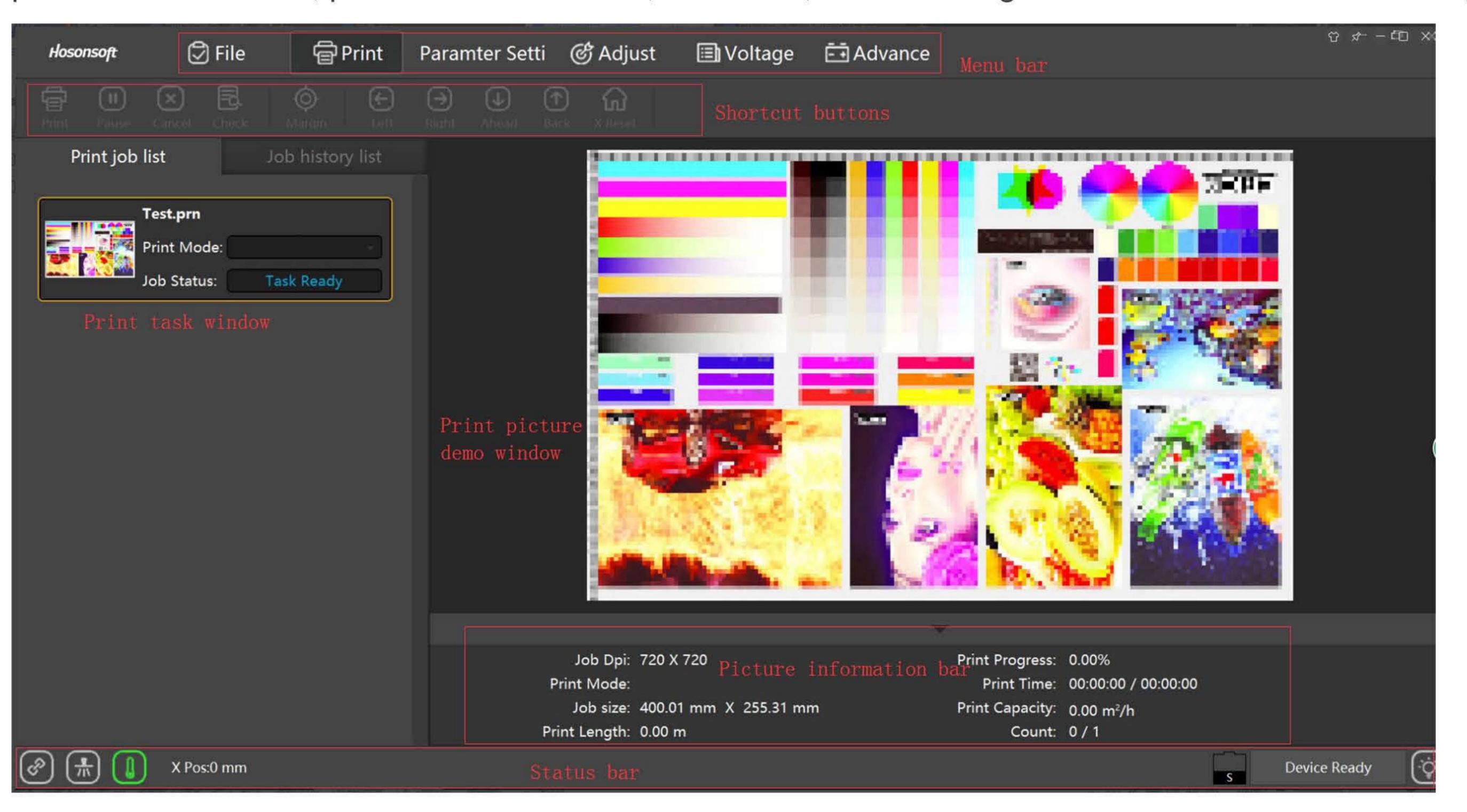
For the first time, you must set the network connection parameters to connect to the printer. Connect TCP/IP for network setup. Connection setting method: Advanced menu—Factory setting—Enter password—Enter factory mode—Network setting. At this time, you can see server port setting, server IP setting, local host IP setting; server port setting is usually fixed to 5001, server IP setting and host IP settings of the printer, according to the manufacturer's network settings, after setting, click Save to complete the network settings, and then return to the main interface window, you can see the first icon in the lower left corner is displayed in green to indicate that it has been connected. If it is still red, it means that it is not connected. You can unplug the network cable and try again to see if it is connected. If you still can't connect, check if the network cable is good, and the server IP and local host IP are set correctly.



>3 Introduction of software main interface

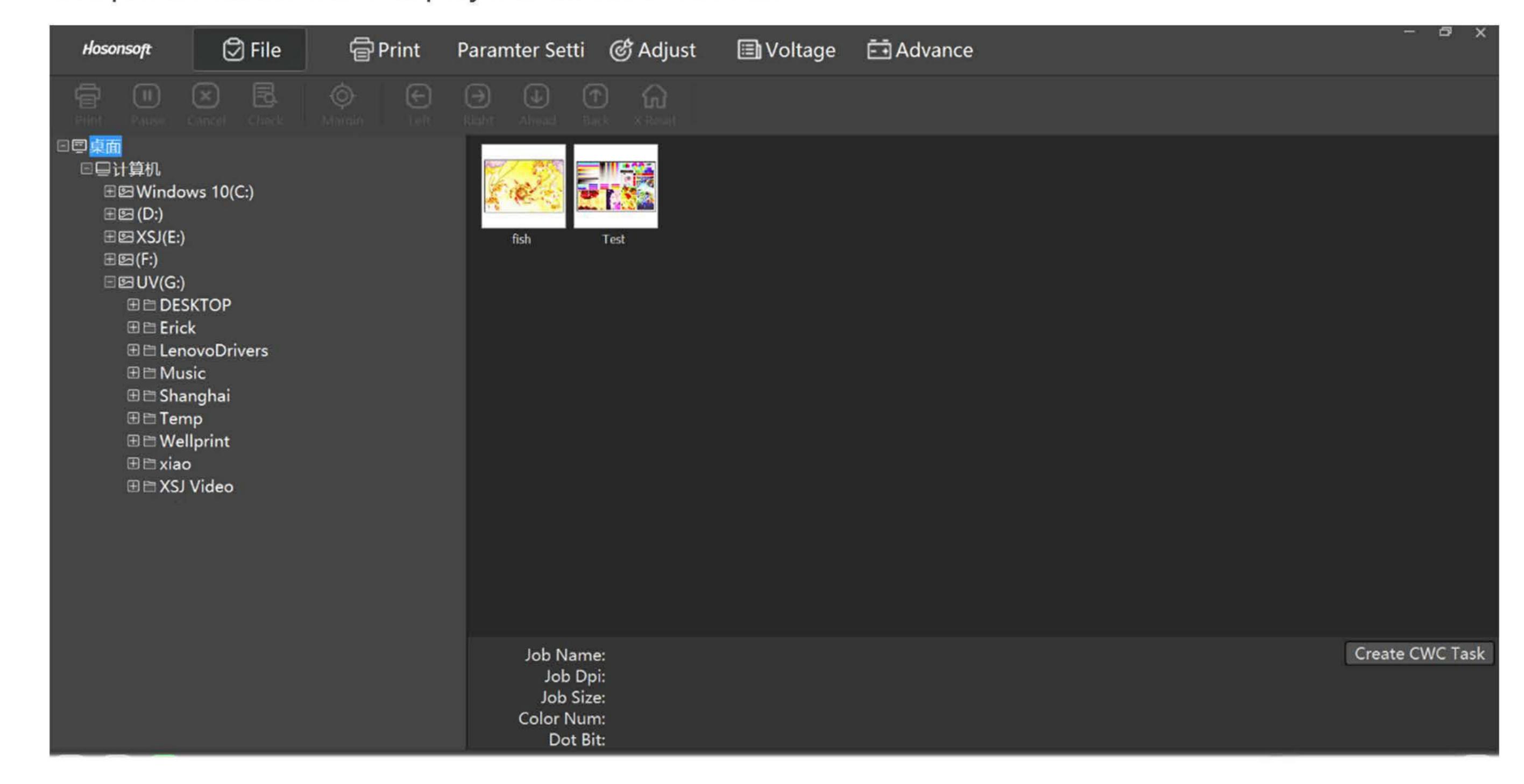
3.1 Menu

The main interface of the software mainly includes main menu, shortcut buttons, print task window, print picture demo window, picture information bar, status bar, etc. Following introduction are for these main parts



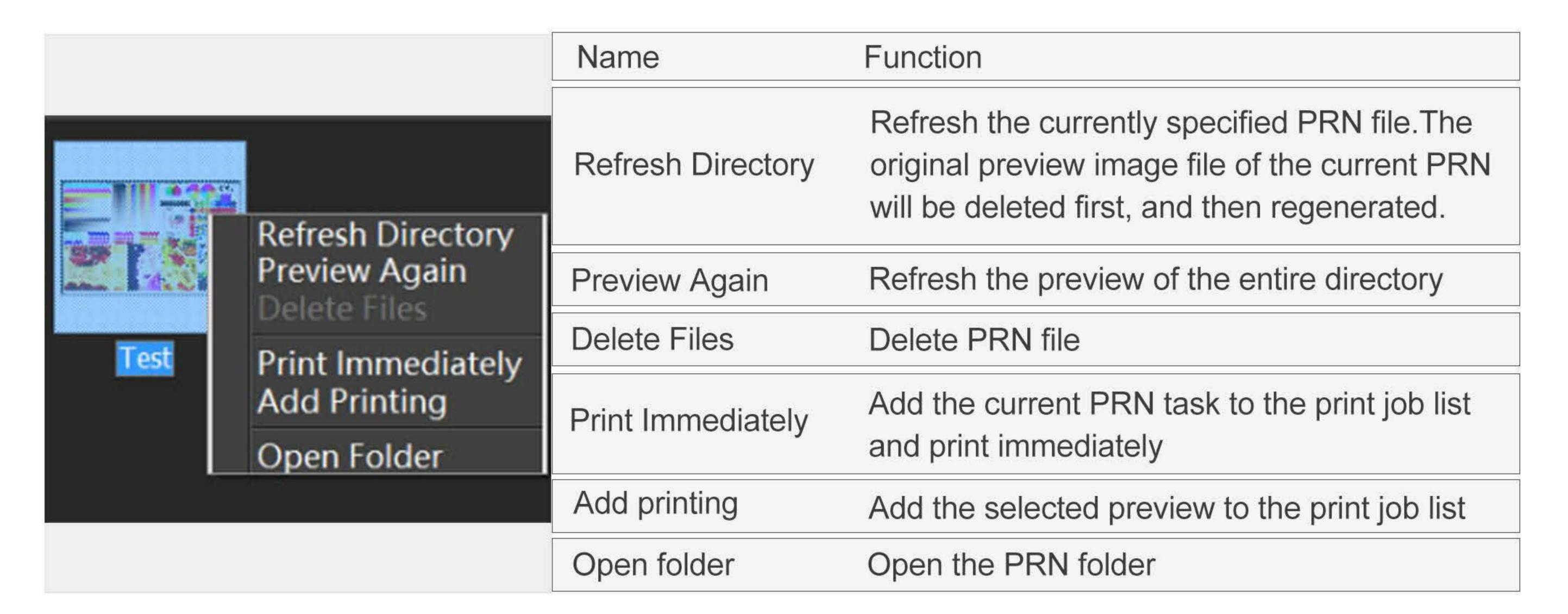
3.2 Files

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



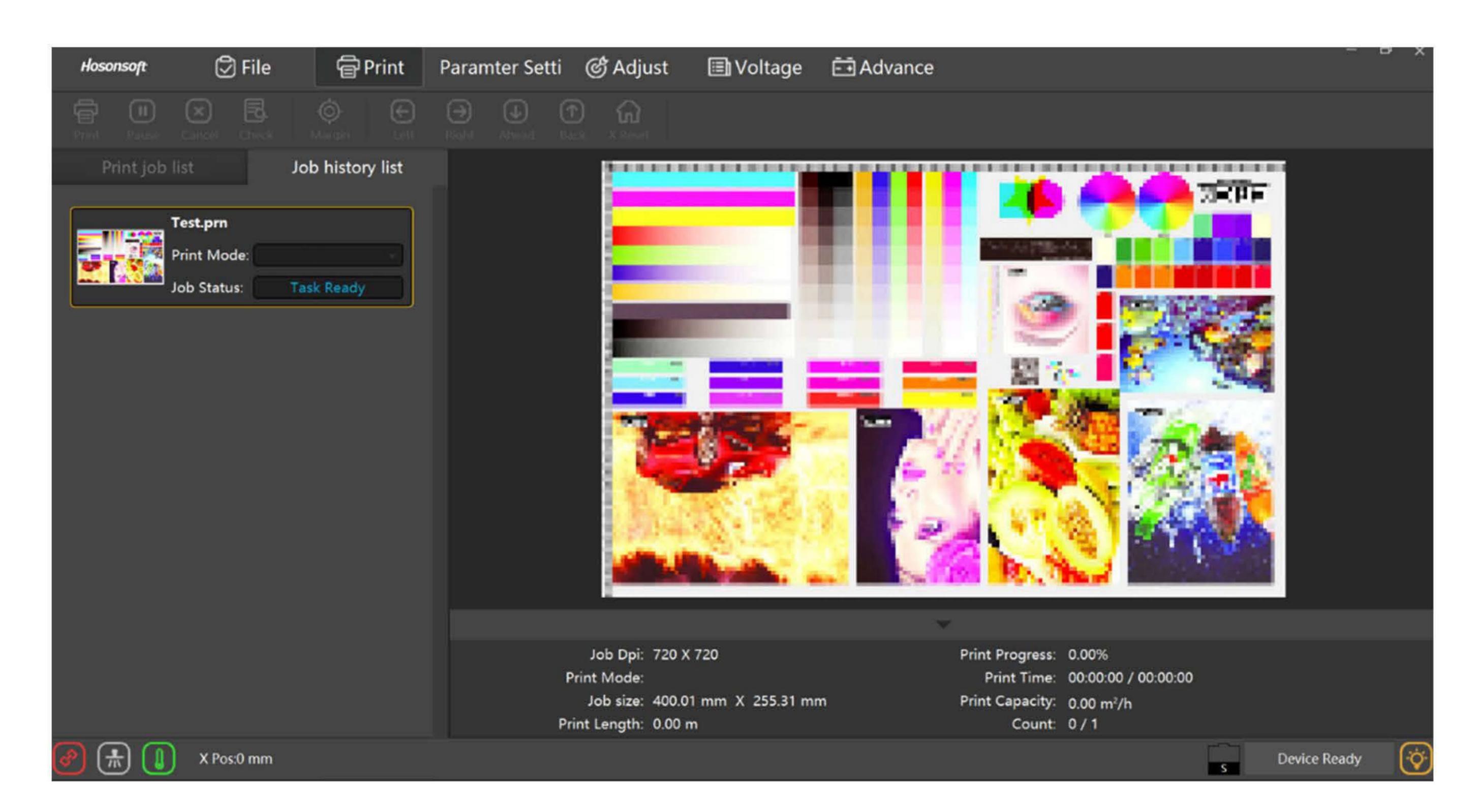
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If select the preview image and right click, the menu list will pop up as shown below:



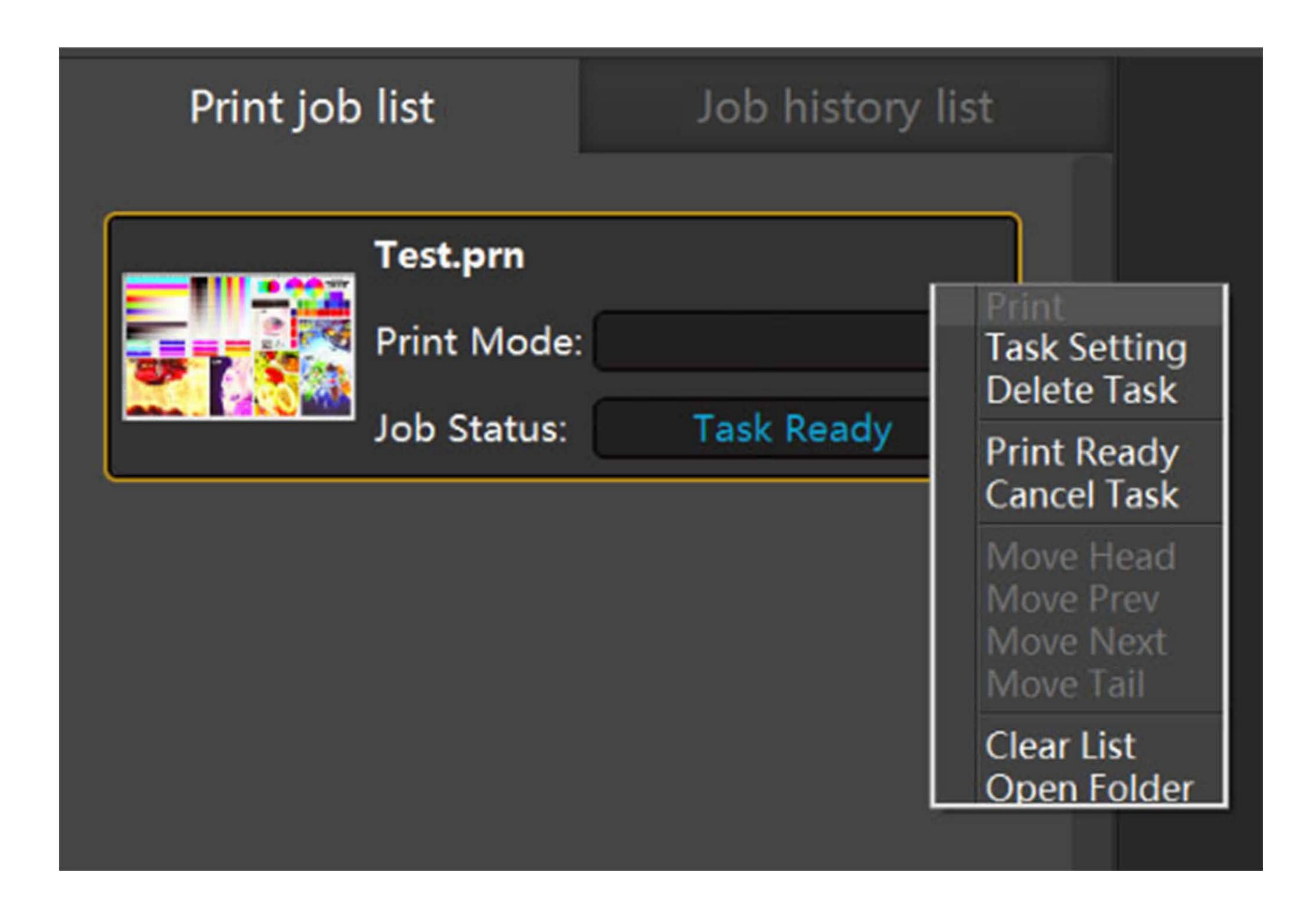
3.3 Print

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



The print interface includes print job list window, history job list window, print job preview window, and a print information window; Select a task in the print task list, right click will pop up the lower menu. As shown below:

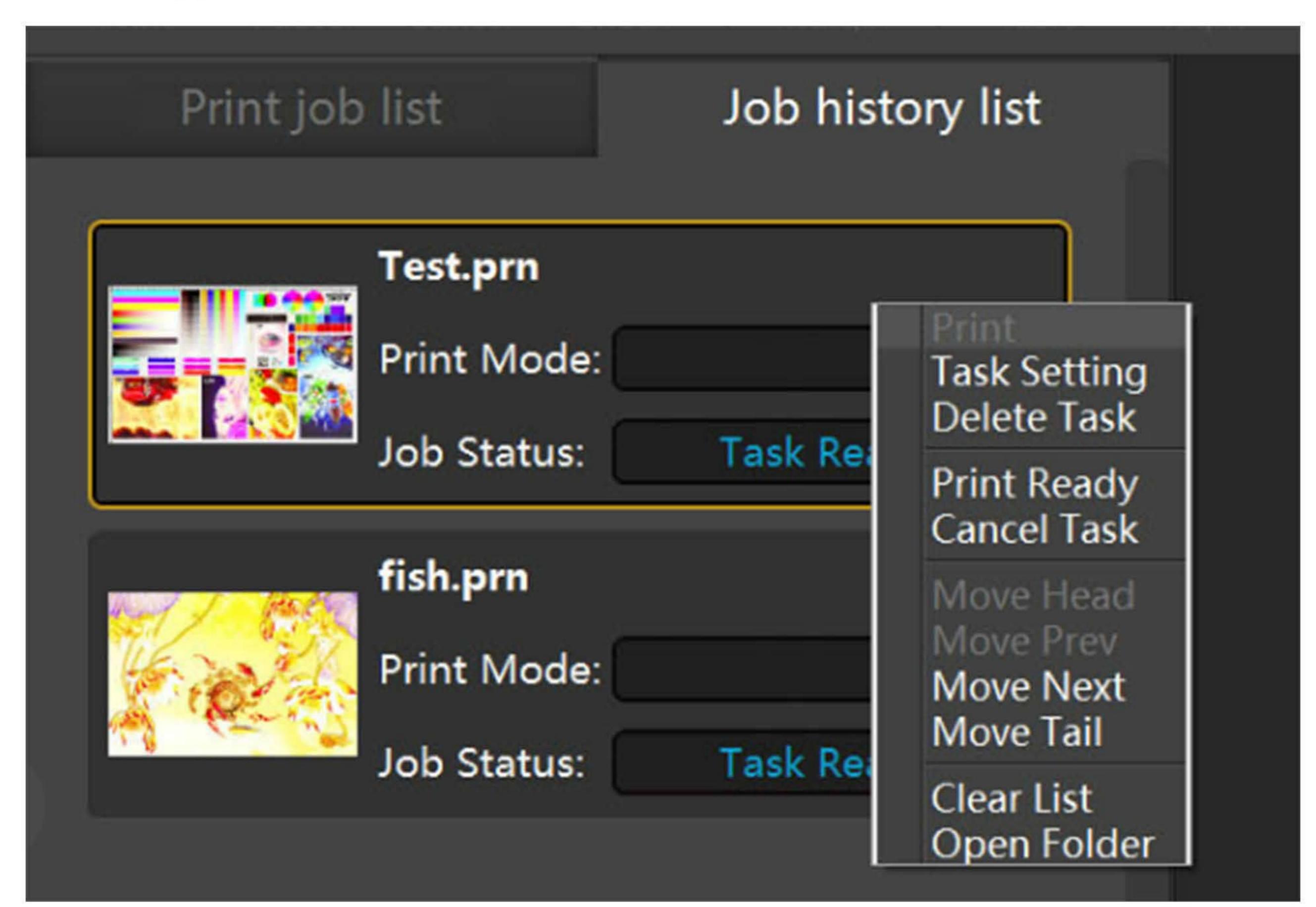
3.3.1 Print job list



Name	Function
Print	Proceed printing
Delete Task	Delete from print task list
Print Ready	Proceed printing after current task finished
Cancel Task	Cancel print ready
Move Head	Move selected task to top of the list
Move Prev	Move the print task ahead one bit
Move next	Move the print task backward one bit
Move Tail	Move the print task to the end one
Clear List	Clear print task list
Open Folder	Open the folder where the print file is located

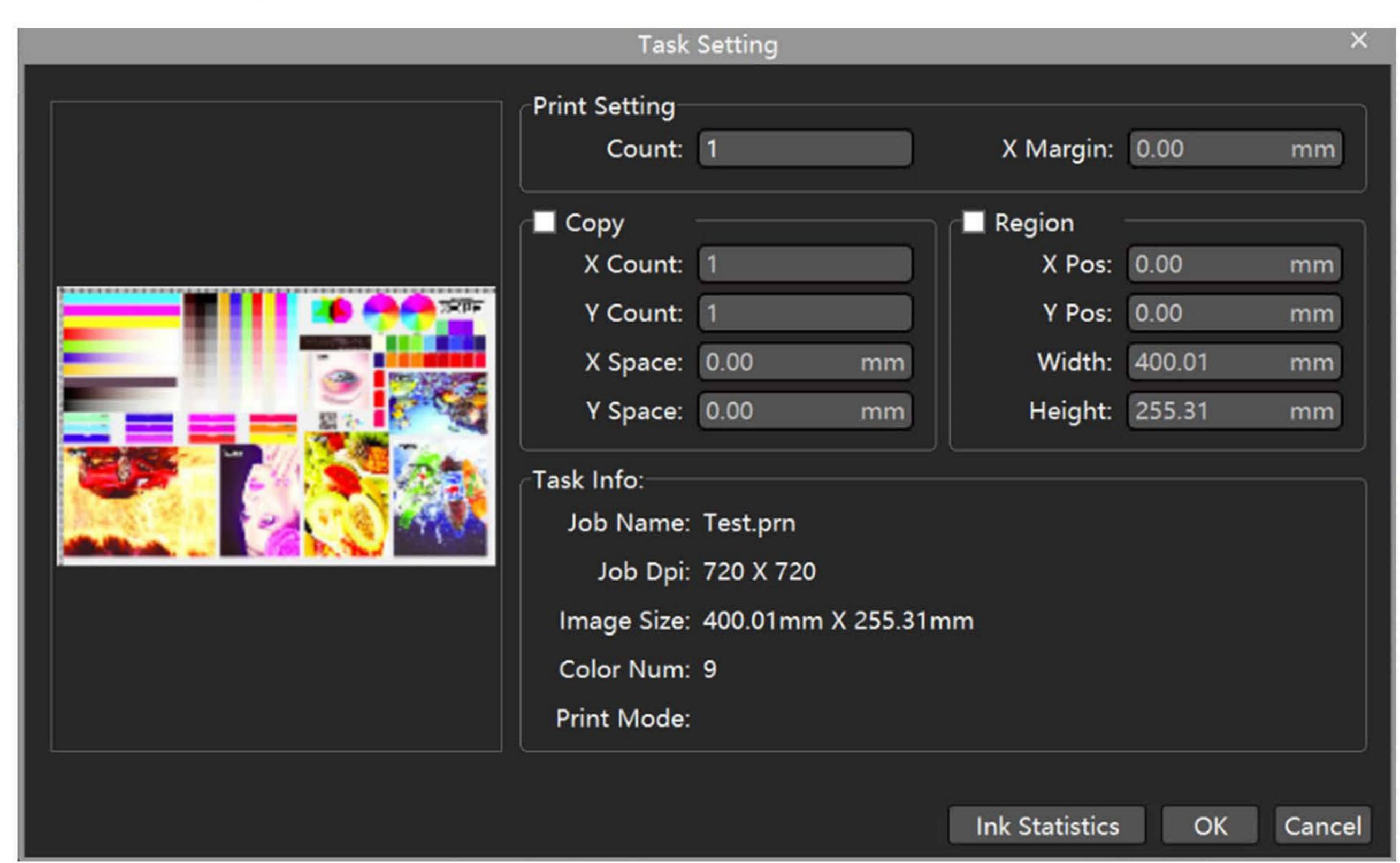
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3.3.2 History print Job list



Name	Function
Print	Proceed printing
Task Setting	Set Related Parameters of print task
Delete Task	Delete from print task list
Print Ready	Proceed printing after current task finished
Cancel Task	Cancel print ready
Move Head	Move selected task to top of the list
Move Prev	Move the print task ahead one bit
Move next	Move the print task backward one bit
Move Tail	Move the print task to the end one
Clear List	Clear print task list
Open Folder	Open the folder where the print file is located

3.3.3 Task setting

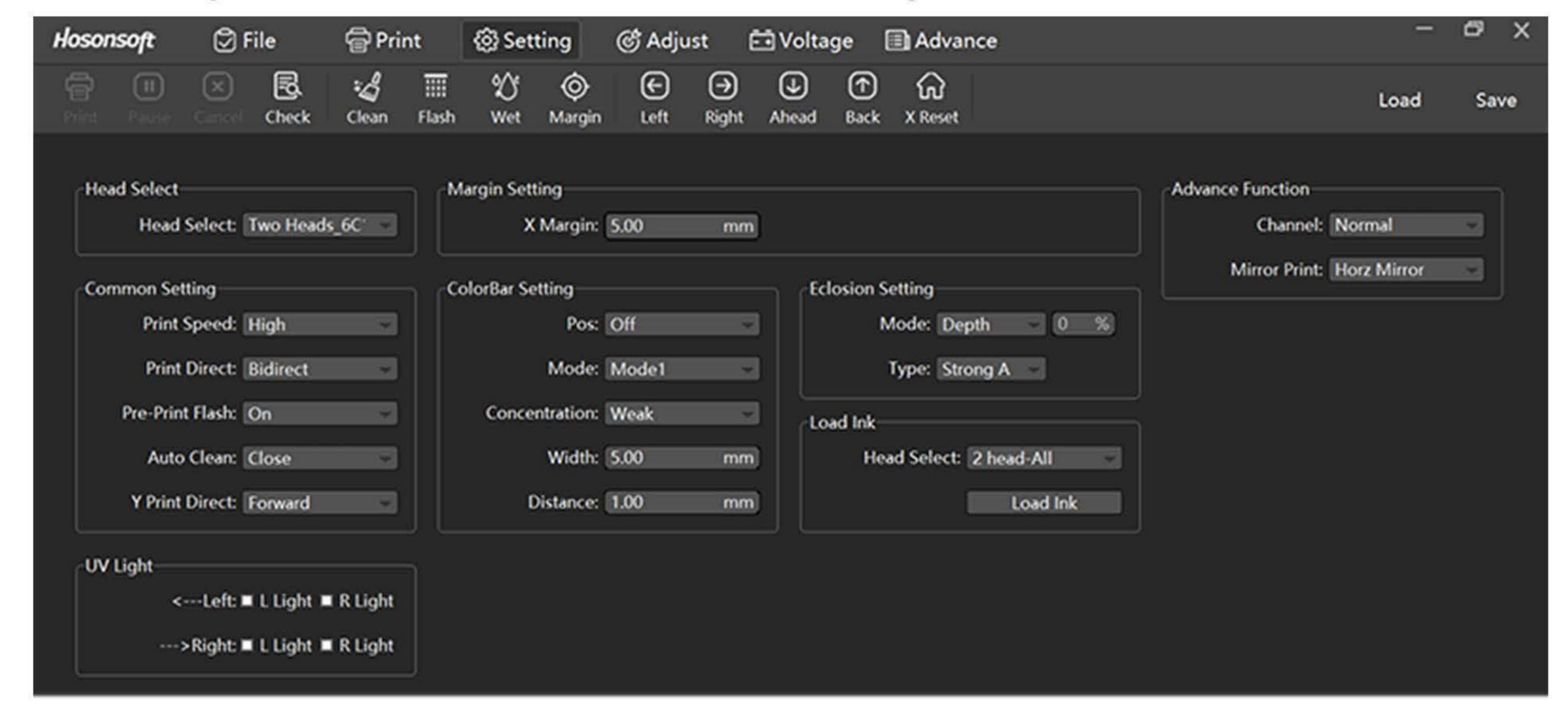


Name	Functions	
Print Setting	Count,set repeat printing counts	
X Margin	Set the starting position of the task print	
	X Count,Print same tasks in the horizontal direction	
Conv	Y Count,Print the same number of tasks in the vertical direction	
Сору	X Space,Interval between tasks in the horizontal direction	
	Y Space,Interval between tasks in the vertical direction	
	X Pos, Print job starting position in the X direction	
Region	Y Pos, Print job starting position in the Y direction	
rtegion	Width, Size in X direction	
	Height, Size in Y direction	
Task Info	Includes Job Name, Job Dpi, Image Size	
	Color Number, Print Mode	
Ink Statistics	Check CMYKLcLmVW ink consumption volume	

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3.4 Parameter Setting

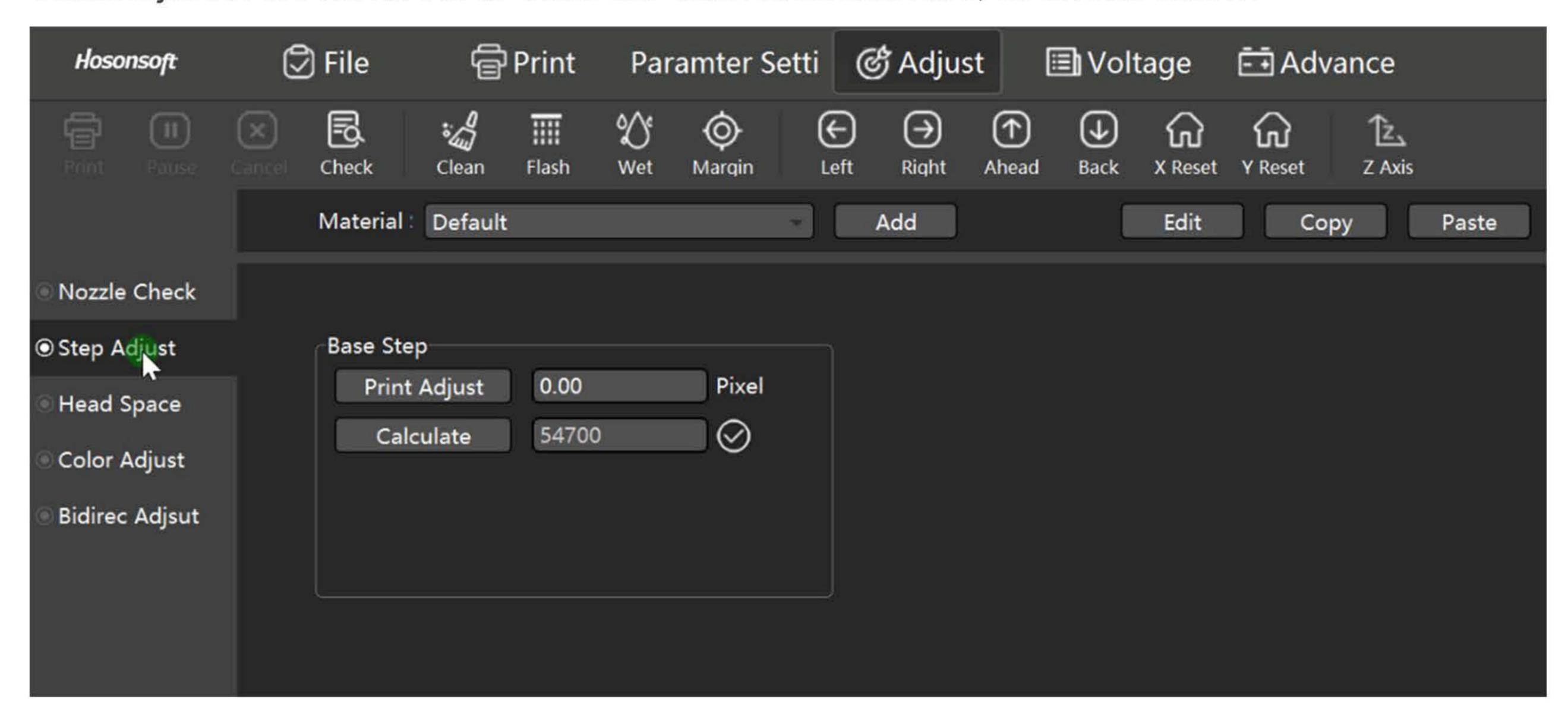
Click Settings in the menu bar to enter Parameter Setting, as shown below:



Name	Functions
Head Set	For multi-heads, Set any combination
X Margin	Set printing start position
X Margin	Print Speed, Set as low, middle, high Print Direction, Set as left, right, bi-direct Flash Before Print, set on/off Auto Clean, Set on/off
	ColorBar Pos, Set to print color bar from left side, right side, bi-direction, or off.
ColorBar Setting	ColorBar Mode, can set the color bar to mode 1 and mode 2,different modes have different colorbar styles
	ColorBar Concentration,Can set colorbar to Week, Normal, Strong ColorBar Width,can set colorbar width
	ColorBar Distance, Set distance from image to colorbar
Eclosion Setting	Eclosion Mode, Can set to Off, Light Normal, Depth, Different codes print with different quality and speeds.
	Eclosion Type, Can set to Fog Type, Strong A,Strong B, Fix Type, Rand Type, Asymmetry.
	Different type have different procedures for eclosion and waves compensation.
Load Ink	Select correct heads to load ink automatically
Auto Jump White	Step, Jump blank area according to print step together, Directly jump blank area or turn off jump, blank area is printed without ink.
UV Light	Left, Can turn on/off left or right uv light when printing leftwards Right, Can turn on/off left or right uv light when printing rightwards

3.5 Adjust

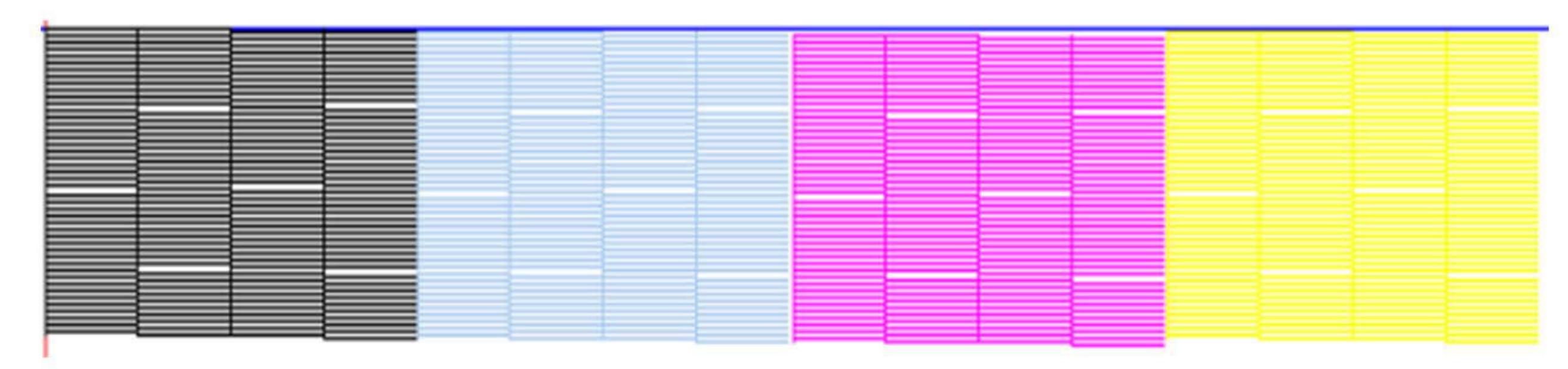
Click Adjust in the menu bar to enter the calibration interface, as shown below:



Name	Function
Nozzle Check	Nozzle Check, Check if each nozzle is working properly. Horz Check, Check if heads are skew in horizontal direction. Vert Check, check if nozzle surface is parallel to the horizontal plane.
Step Adjust	Calibrate reference step parameters and fine-tuning step parameters for different pass modes.
Head Space	Head Horz Distance Adjust, Check if the horizontal space between the nozzles matches the set space. Head Vert Distance Adjust, Check if the longitudinal space between the nozzles matches the set space.
Color Adjust	Calibrate each ink channel's color.
Bi-direc Adjust	Set bi-direction parameters with different speeds and different modes.

3.5.1 Nozzle Check Function

Click "Nozzle Check", system will print nozzle check images as shown below:

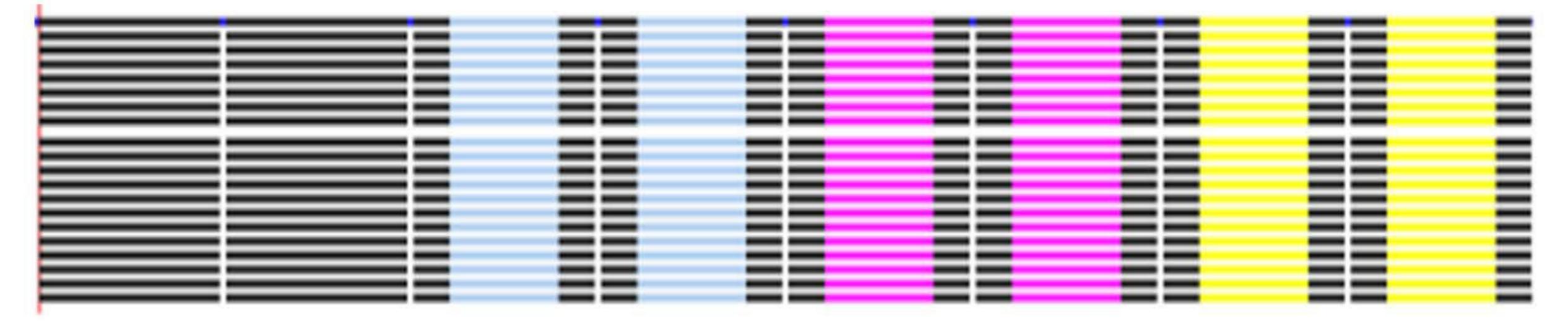


If there is a discontinuity or vacancy in the test strip, it indicates that there is a blockage and needs to be cleaned until the nozzle is properly inked.

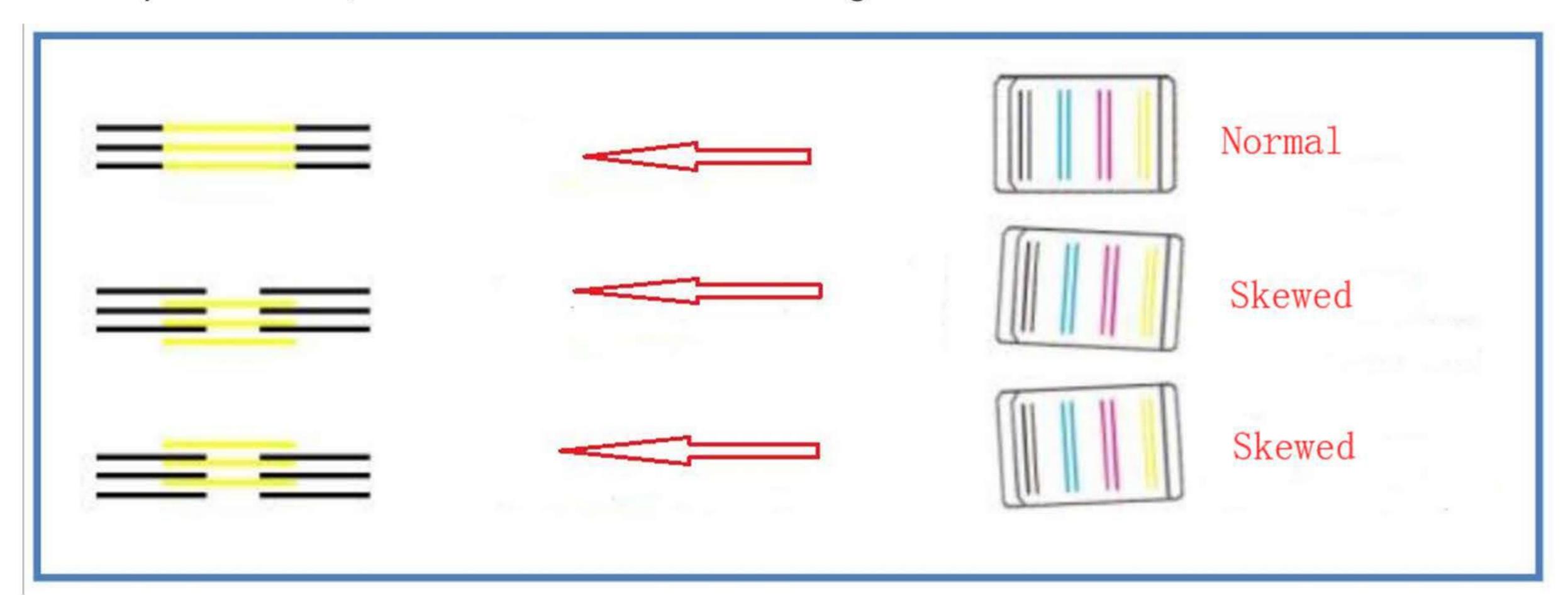
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3.5.2 Horz Check

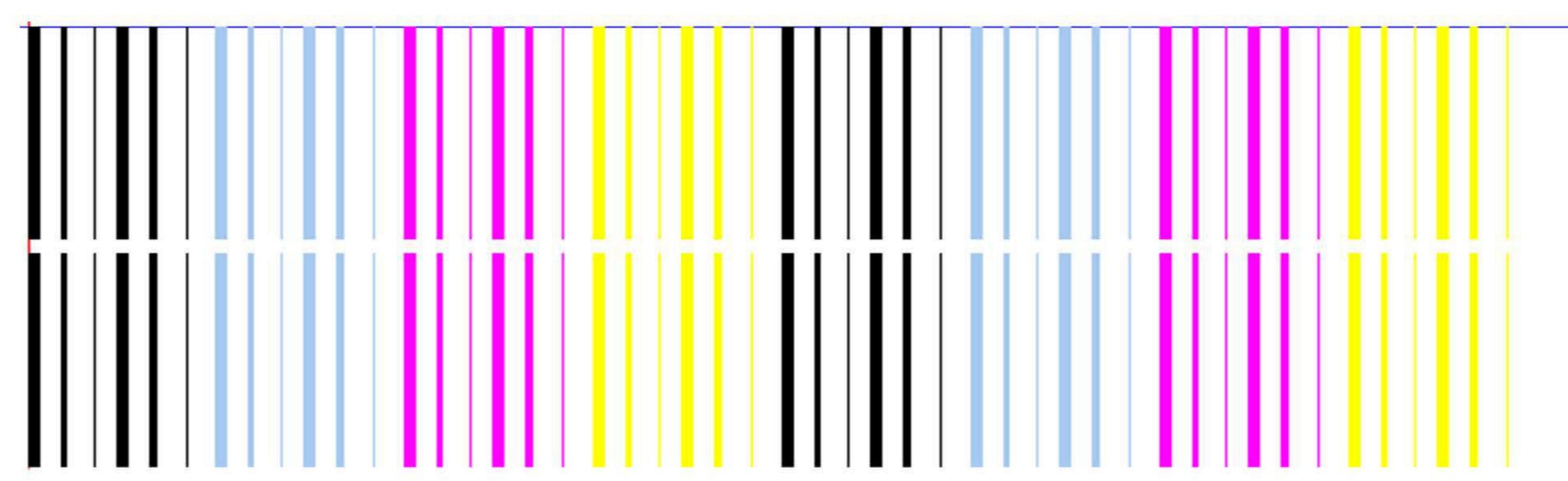
Click "Horz Check", system will print horizontal check image as shown below:



Take a partial zoom, normal and skewed state diagram as below:



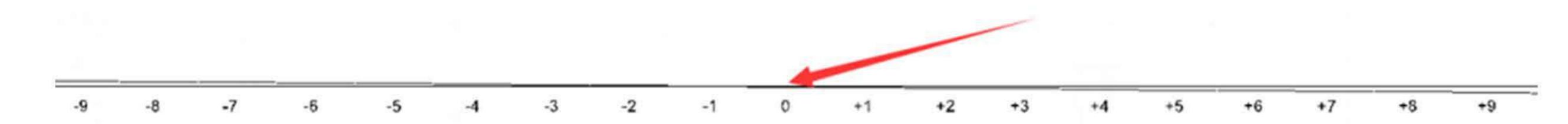
3.5.3 Vert Check
 Click "Vert Check", system will print vertical check image as shown below:



Above is normal head status. When heads are not in parallel with horizontal plane, if printed vertical lines skew leftwards or rightwards, it indicates print heads is inside lower outside higher, or inside higher outside lower.

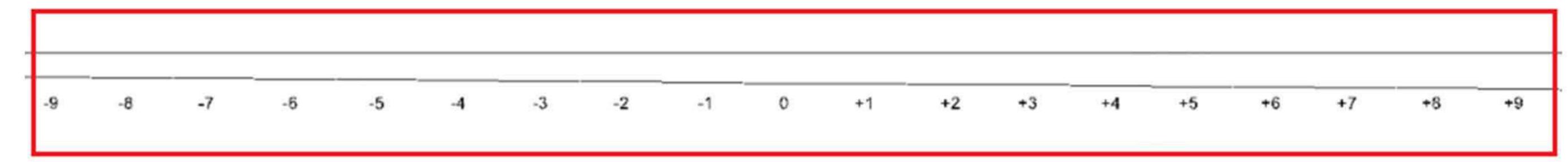
3.5.4 Step Adjust

Click "Print Adjust", system will print image like below:

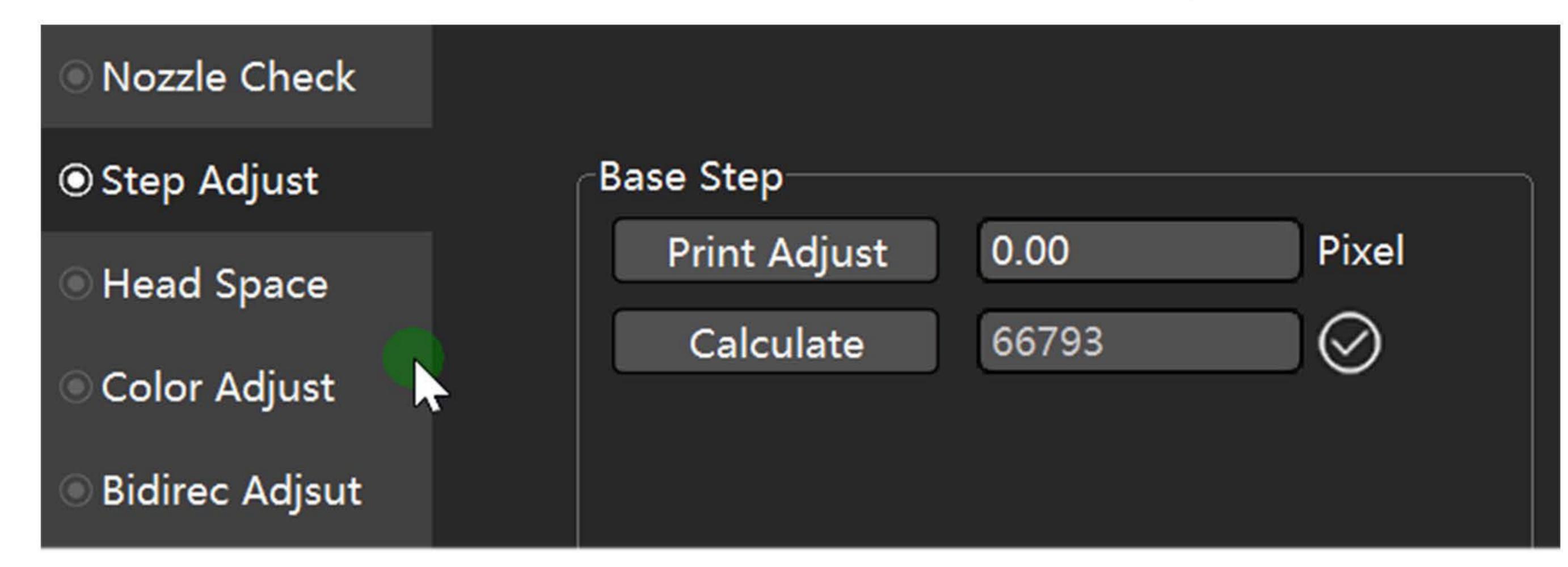


When step is adjusted, base line and print line will be in coincident completely at 0 point, like above image.

If step is not adjusted, image will be like below:

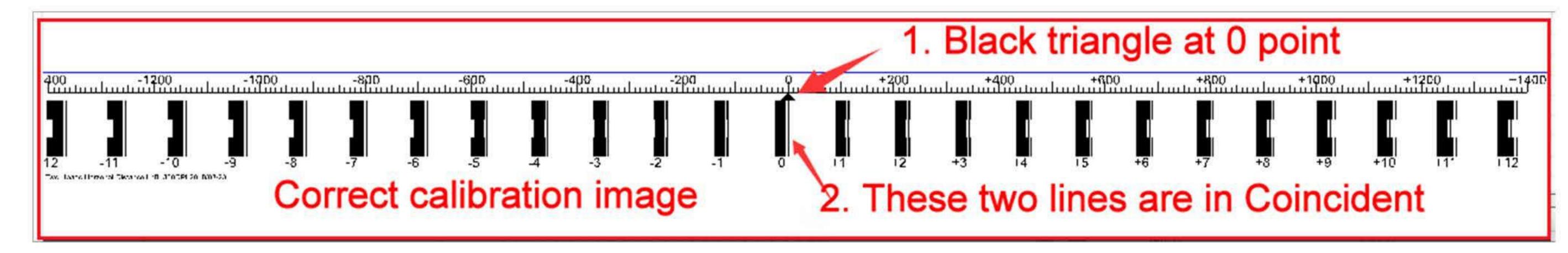


Above image needs to be adjusted, adjust window is like below picture. Input adjust adjustment value and re-calibrate until base line and print line are in coincident completely at 0 point.



3.5.5 Head Horz Distance Adjust

Click "Left Adjust/Right Adjust" in head horz adjust. System will print



Above image shows horizontal space between heads is nornal. If horz distance is not adjusted, will show image as below:

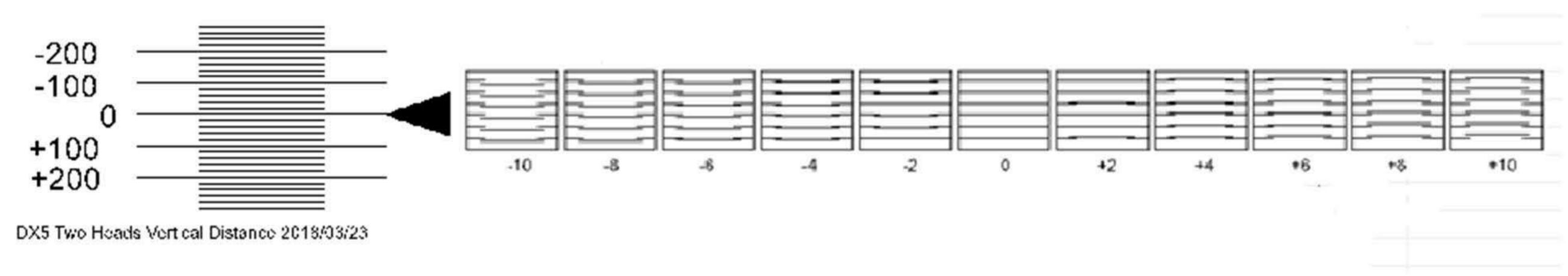
Triangle is not at	0 point. Two lines ar	re not in Coincident
 -200	+200 +400 +800	+800 +1000 +1200
	12 +3 14 15 +	6 +7 +8 +9 +10
Incorrect calibra	ation image	

Above image needs to be adjusted from below window. Impute adjustment value to H2 and re-adjust, until the triangle points to 0 point.

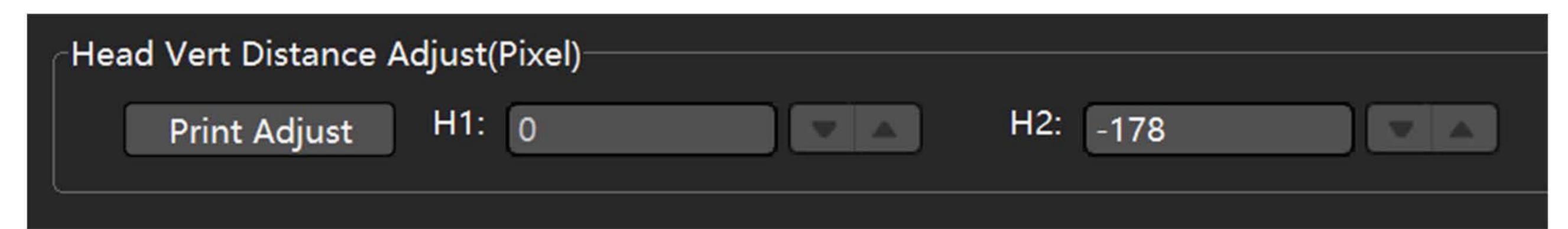


3.5.6 Head Vert Distance Adjust

Click "Print Adjust", system will print

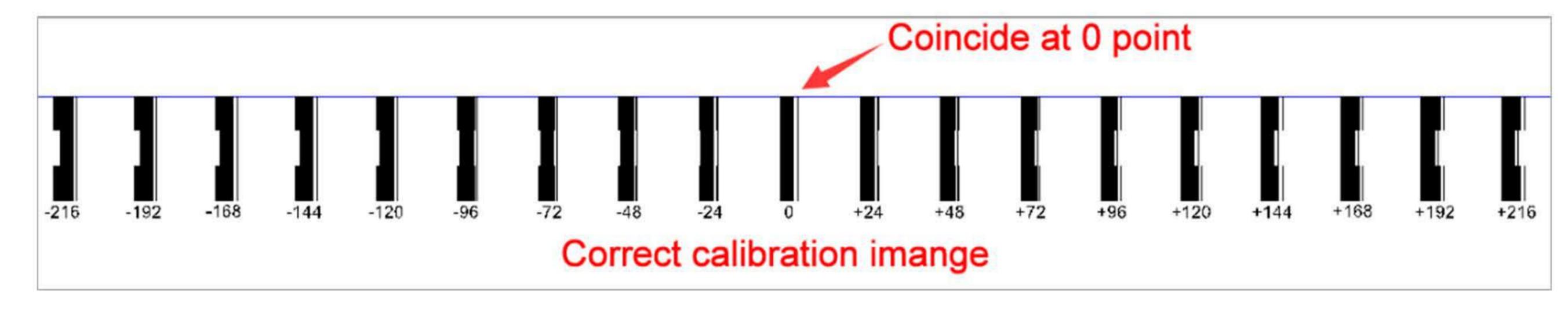


Above image shows vertical distance is normally. All lines in the 0 point scale box are parallel, and the left arrow points to the 0 point scale line. If the longitudinal distance is not calibrated, please input adjustment value to H2 to re-adjust.

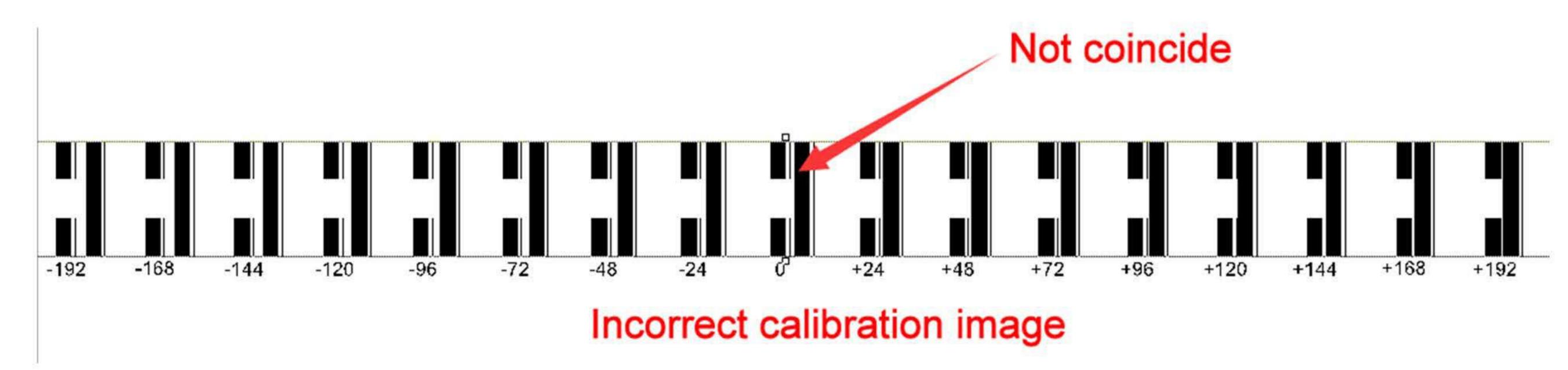


3.5.7 Bidirect Adjust

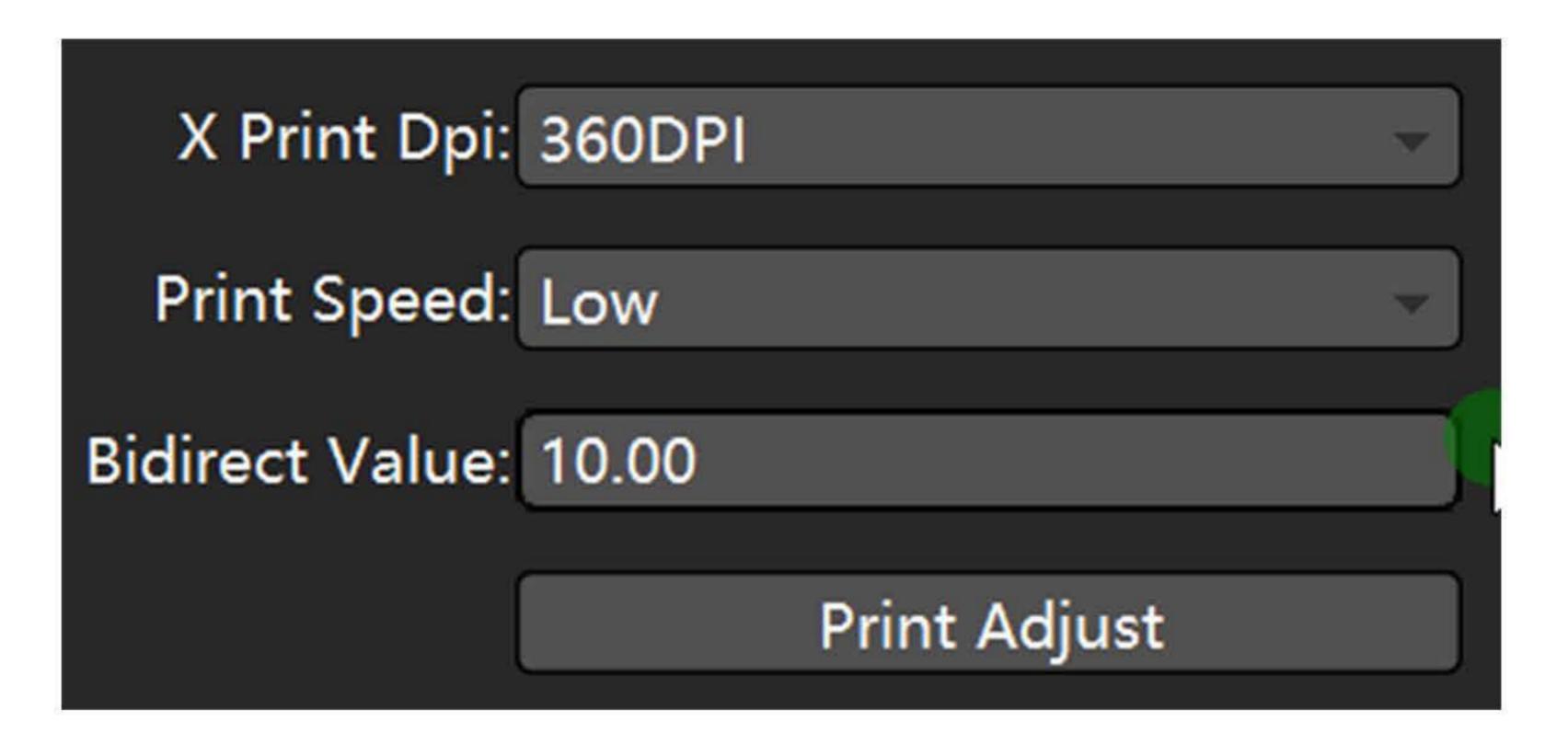
Click "Print Adjust" in Bidirect Ajust, system will print



Above image is correct adjustment. If incorrect as below:

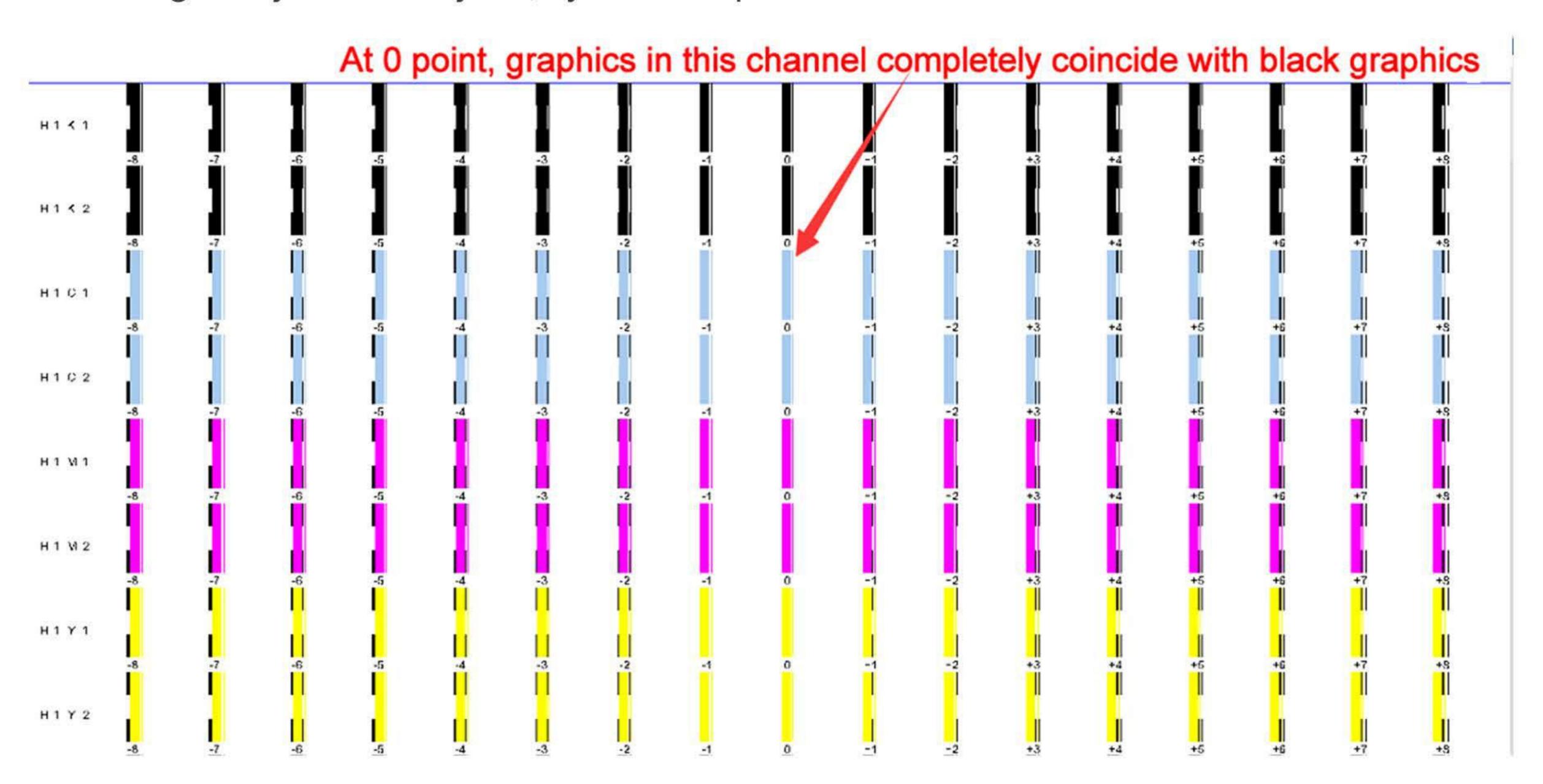


Input adjustment value to re-adjust as following image

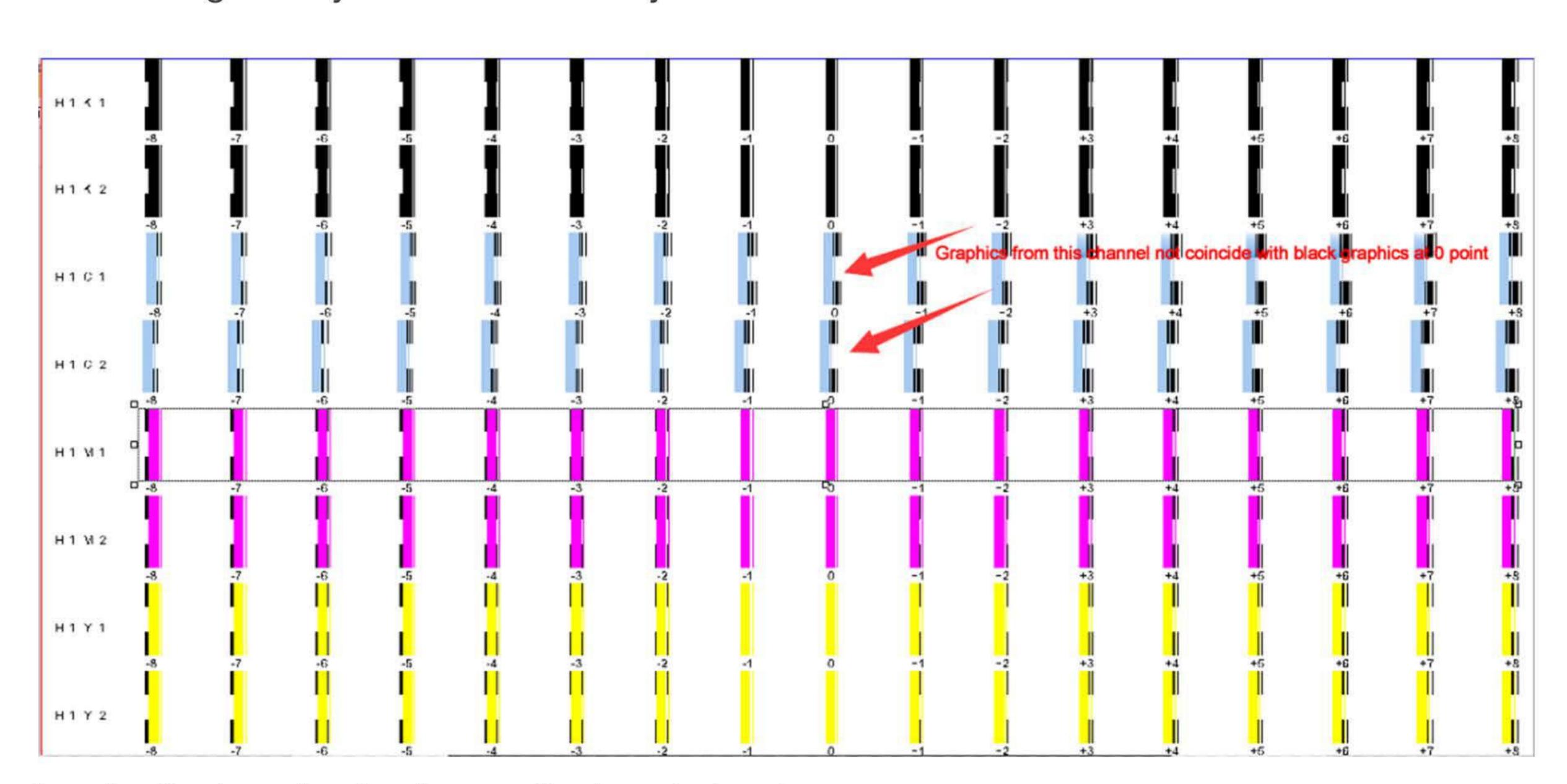


3.5.8 Color adjust

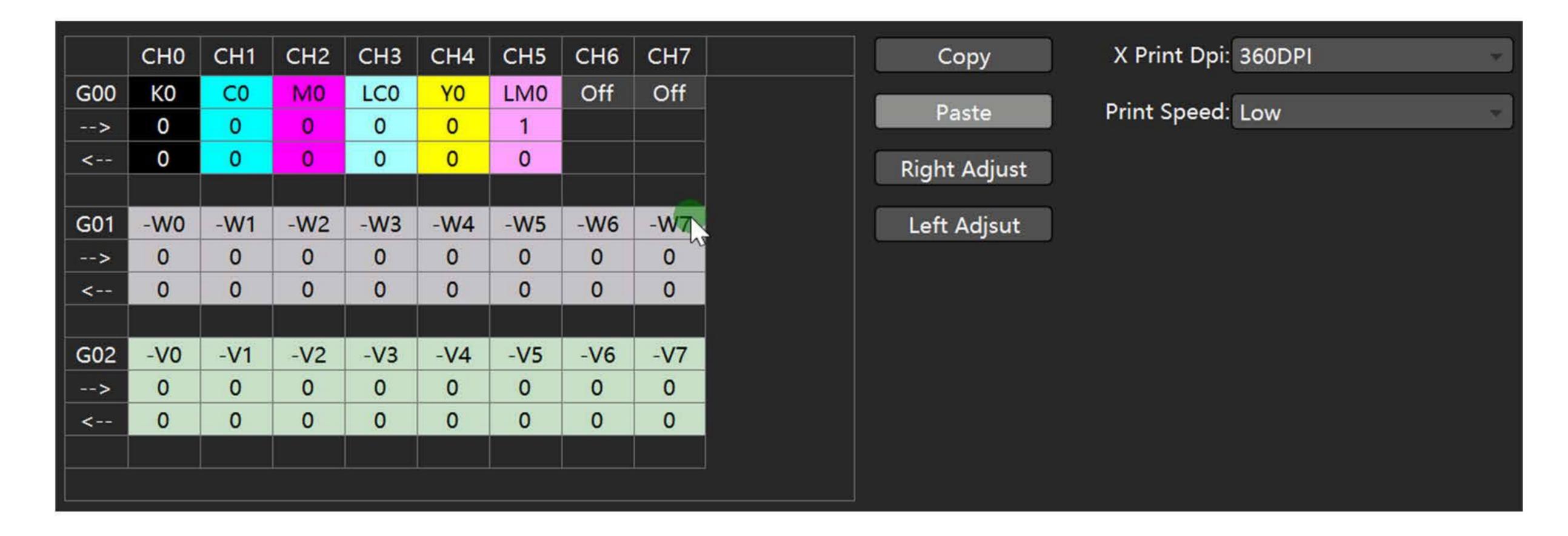
Click "Right Adjust/Left Adjust", system will print



Above image is adjusted status. Unadjusted status is like below:



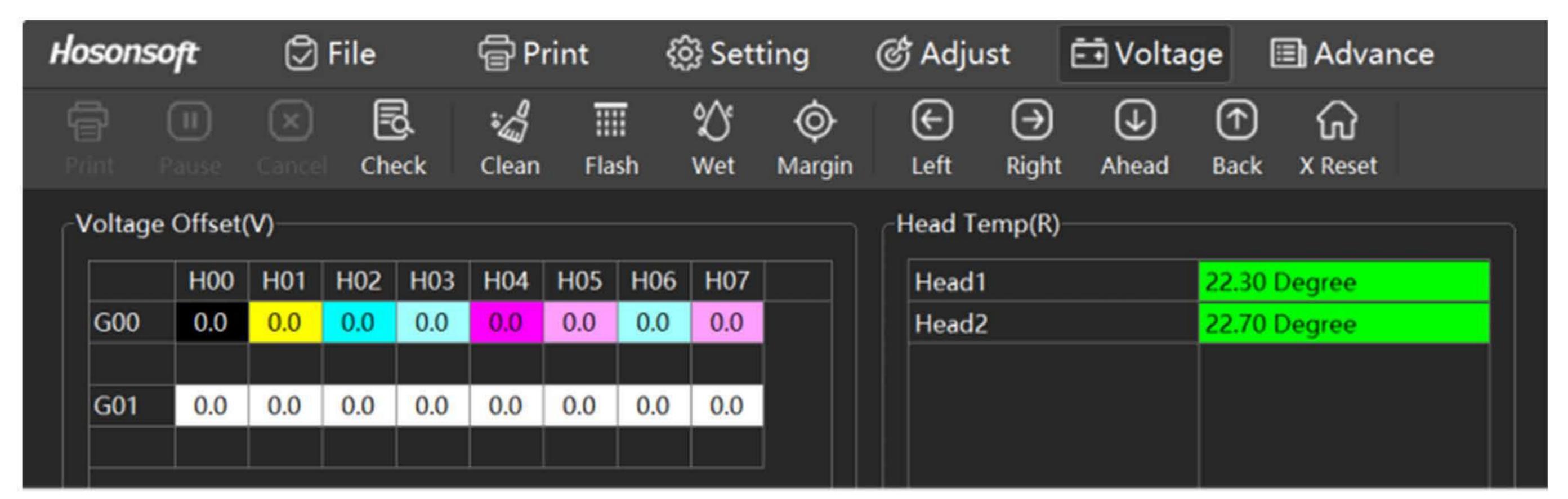
Input adjustment value to re-adjust, as below image:



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3.6 Voltage

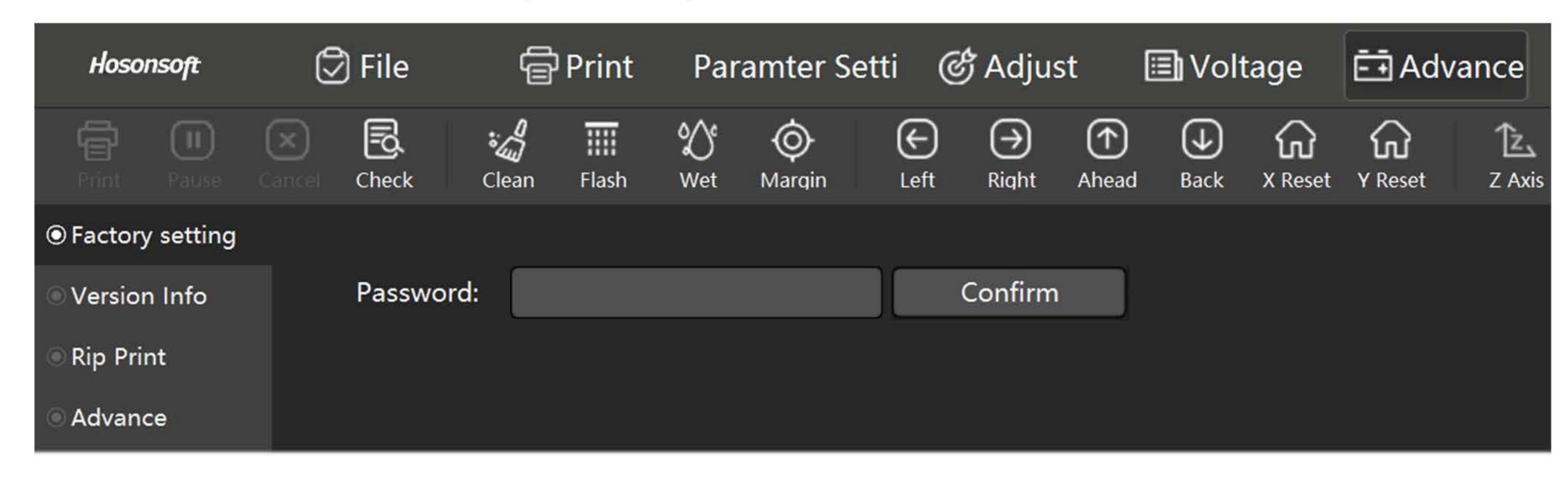
Click "Voltage" in main menu bar, as below image:



Name	Functions
Voltage offset	The nozzle voltage regulation is divided into software voltage regulation and hardware voltage regulation. The hardware voltage regulation refers to the head itself, and the head is regulated by adjusting the peripheral hardware. For those that do not support hardware voltage regulation, software voltage regulation is usually adopted. The nozzle voltage isdivided into basic voltage and reference voltage. When the base voltageis not equal to the reference voltage, the voltage offset is realized byvoltage regulation.
Refresh	Click refresh to update the voltage value in real time.
Set	Fill in the offset voltage value in the voltage-adjust voltage offset window, and then click the set to reach the voltage setting.
Head Temp(R)	The system reads the temperature value of the temperature sensor, displays it again, and refreshes it periodically.

3.7 Advance

Click "advance" in main menu bar, as below picture:



Name	Functions
Factory Setting	Enter the factory mode or the installation mode for parameter setting by entering different passwords.
Version Info	Mainboard, head board, print software version as well as serial numbers of mainboard and head board.
Refresh	Proceed ripping image and printing at same time
Advance	Nozzle Close, close missing nozzles. Net Setting, set internet port Encryption, switch English/Chinese.

3.7.1 Version Info

Click "Version Info" in Advance, enter interface as below:

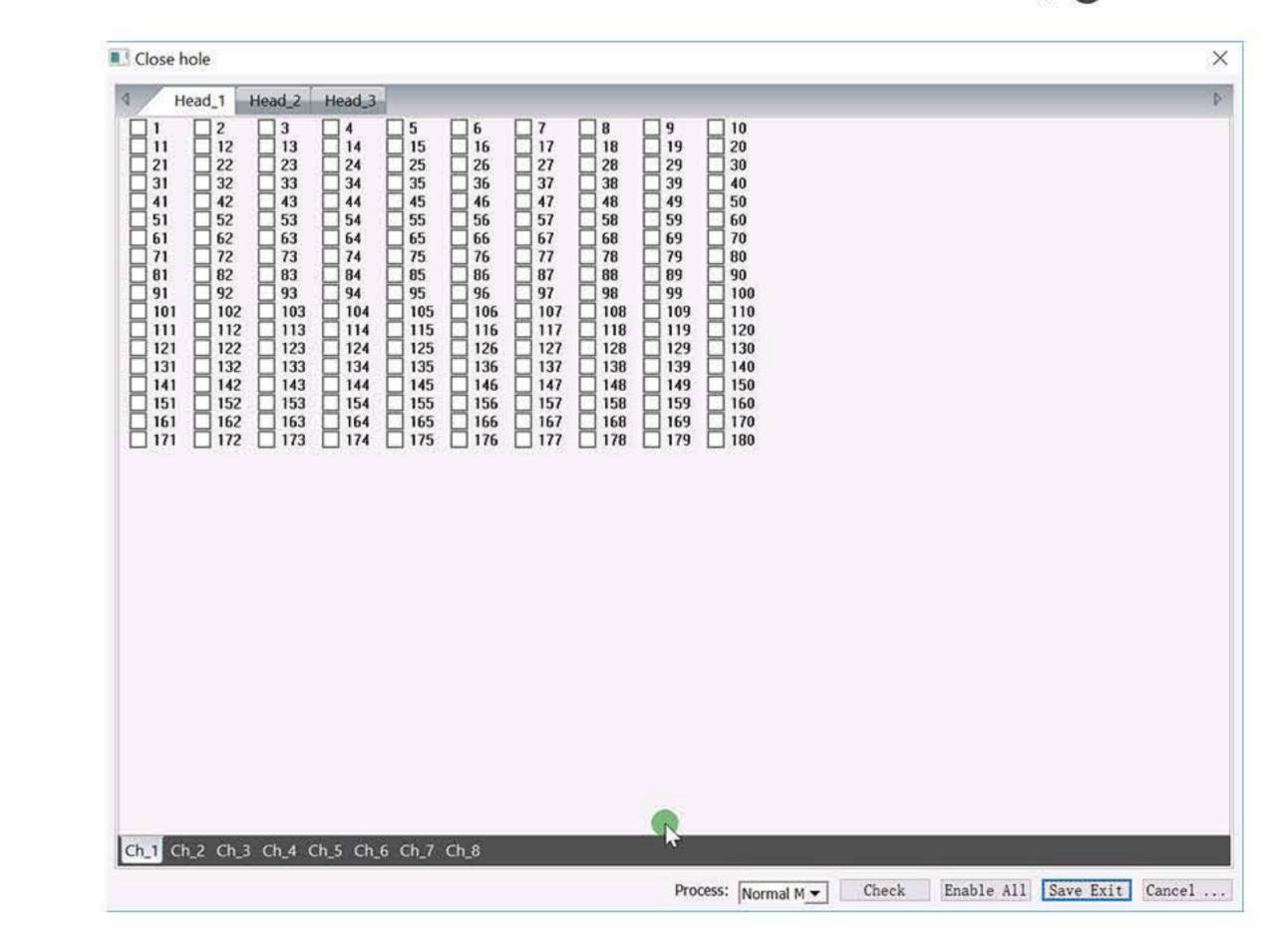
MB Serial Number	0033-2321010238 (1.93)
MB Program Version	5.7.6.0.R.BS
Software Version	5.7.6.0.R.BS
Firmware Configure Info	1.94_XP600_1C1W_5.7.6.0_211122
Firmware Parameter Info	1.94_XP600_1C1W_5.7.6.0_211122

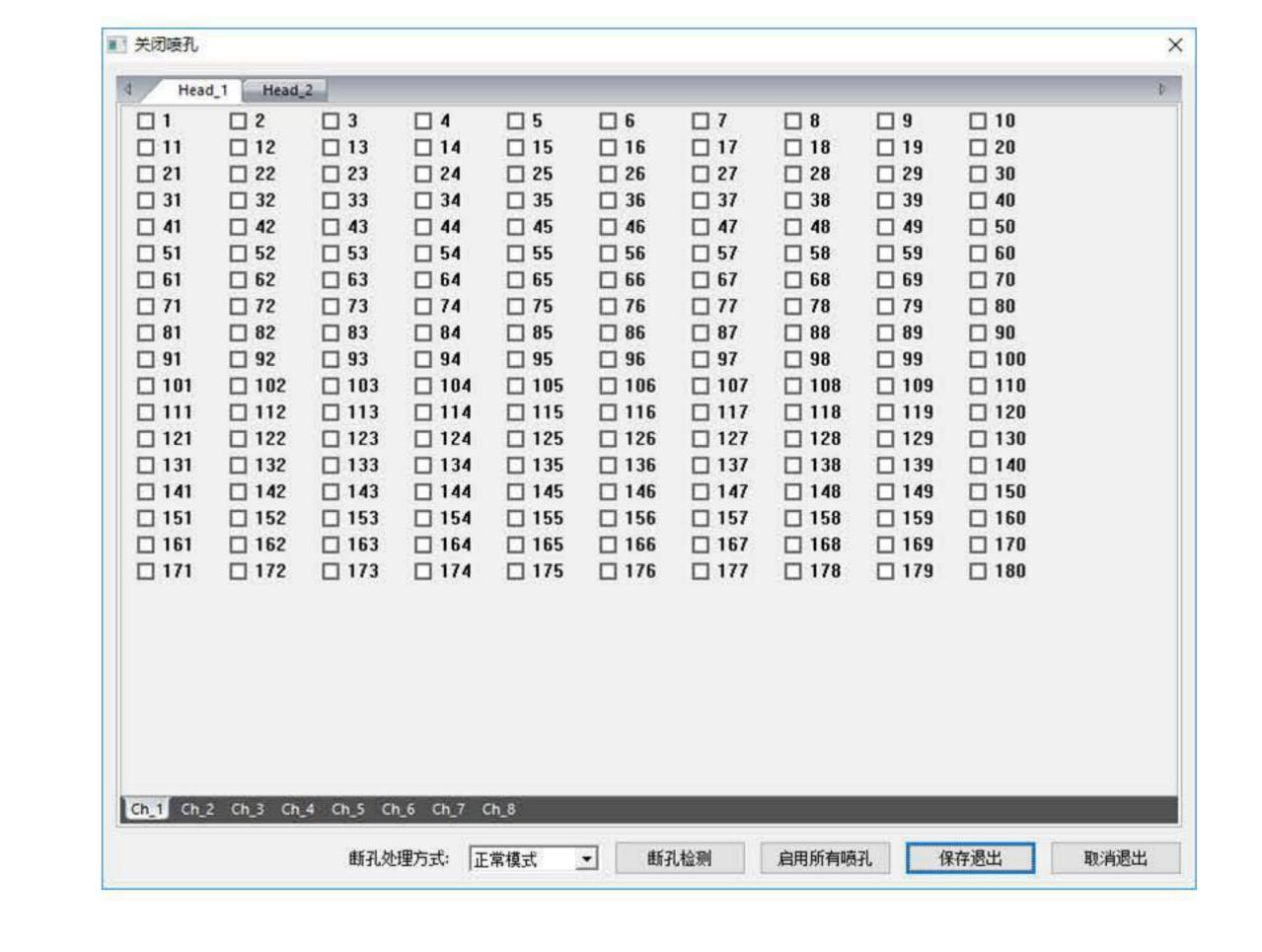
It shows current mainboard serial number, head board serial number, mainboard logic version, head board logic version, mainboard program version, software version, firmware info.Click "Upgrade", can upgrade mainboard logic, head board logic, mainboard program.

After upgrading, you must power off and then power on again. Click "Refresh" to see if the newly upgraded program has been updated.

3.7.2 Nozzle compensation

Click"Nozzle close" in Advance interface, get following interface:



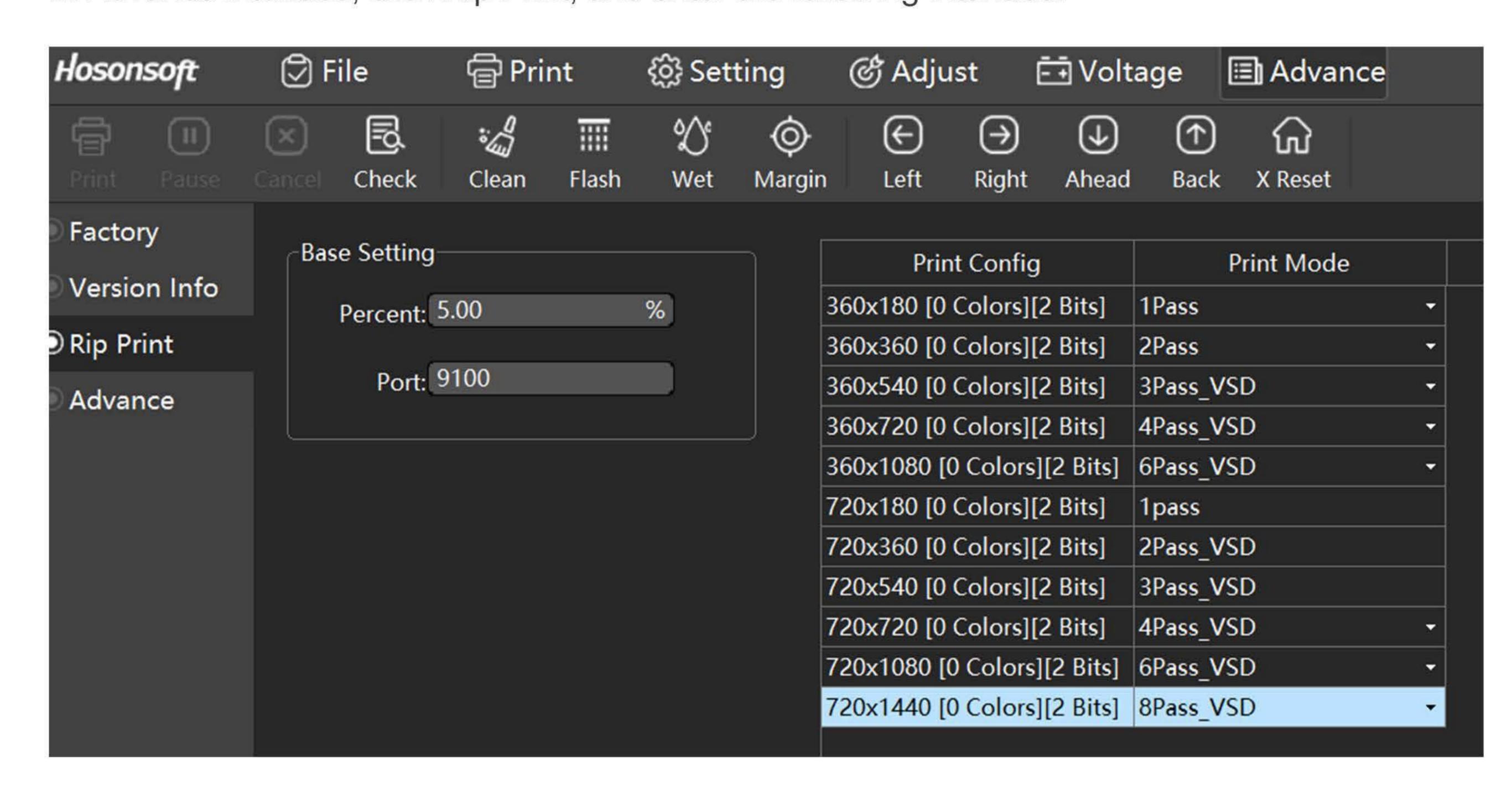


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Name	Functions
Process	Normal Mode, No close and no compensation Close Nozzle, Close without compensation, Close&Compensation, close nozzles and compensate.
Check	Can print missing nozzle checking image to check nozzle status.
Enable All	Enable all nozzles of all heads.
Save Exit	Save current settings and exit nozzle setting interface.
Cancel Exit	Not save current settings, exit interface directly.

3.7.3 Rip Print

In Advance interface, click Rip Print, and enter the following interface.



Name	Functions
Base Setting	Percent, According to the current print file size, flexibly adjust the buffer percent. Port, Default is 9100
Print Mode	Determined by RIP software Print accuracy and print mode are set by RIP software before printing. Determined by the printing software Select the printing accuracy and print mode by the box on the right side of the above figure.

3.8 Shortcut Buttons

Name	Functions
	Start the print button, execute the print command.
E	nozzle check button, click this button to print the nozzle status map, check whether the nozzle is normal or blocked.
	Pause/resume button, execute resume print command while pause or pause while printing.
\otimes	Cancel the print button, cancel the printing process.
:49	Clean button, click the button to select nozzles and cleaning mode to clean the nozzles
	Flash on/off button
\ODERITY	White margin positioning button, set the current position of the carriage as white margin position.
%	Turn off/on the moisturizing button
₩	Reset button
$ \Theta $	X motor moves to the left button, the speed and distance of the movement are proportional to the time the button is clicked.
Θ	X motor moves to the right button, the speed and distance of the movement are proportional to the time the button is clicked.
	Y motor moves to the front button, the speed and distance of the movement are proportional to the time the button is clicked.
	Y motor moves to the back button, the speed and distance of the movement are proportional to the time the button is clicked.
<u>=</u>	Step-by-step fine-tuning button, press this button during printing to reduce stepping.
<u>=</u> ↑	Step-by-step fine-tuning button, press this button during printing to increase stepping.
I	Bi-direction fine-turning button, press this button during bi-direction print to reduce bi-direction value.
1171	Bi-direction fine-turning button, press this button during bi-direction print to increase bi-direction value.
1z	Altimeter control panel button, only for flatbed.

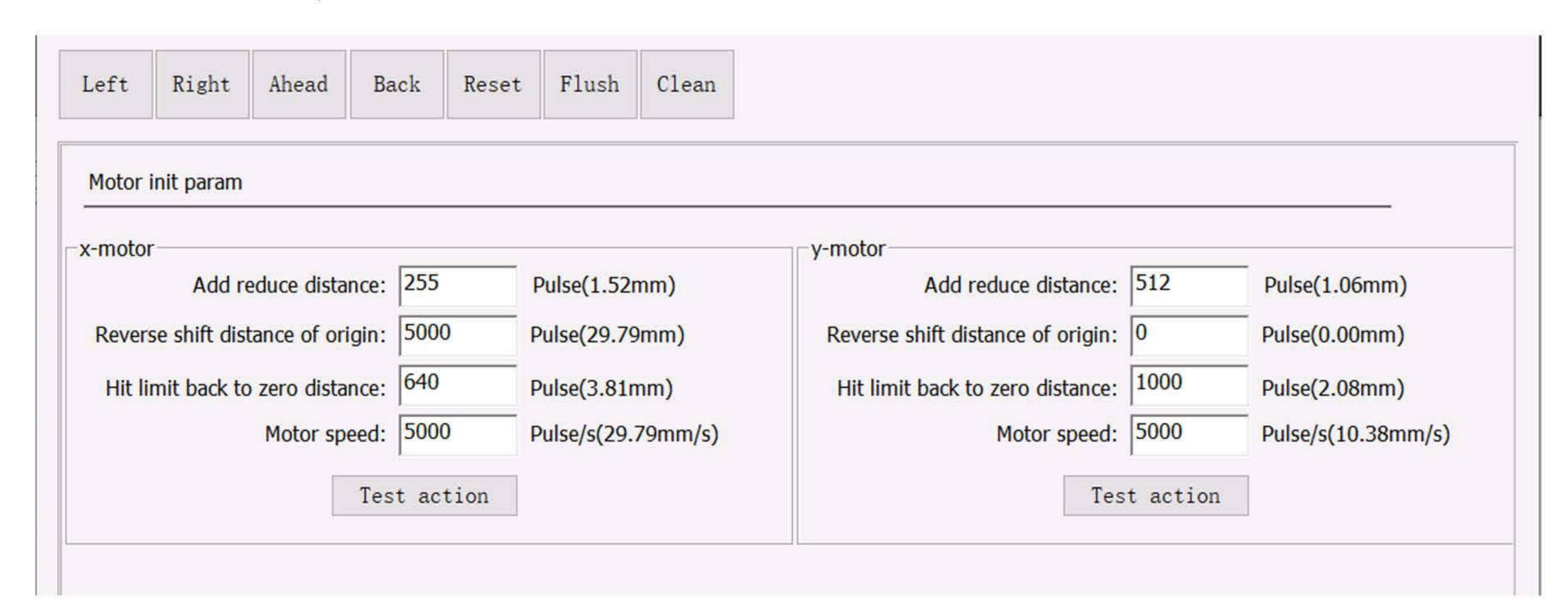
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3.9 Status Bar

Status bar icons	Introduction
	Network cable normal connection status.
	Network cable disconnection status.
	Offline status.
	Flashing on status.
	Flashing off status.
	System working normal.
	The system has an error status and will continue to flash.
	System warning.
(-\display)	Debug button in offline state.
(-\disp)	Head temperature is in the normal range.
	Head temperature is higher than the normal range.
	Head temperature is in the critical range, warning state.
	Offline state

>4 Factory mode

In Advanced interface, click factory settings, enter the password, and then enter the factory mode after confirmation, as shown below:



4.1 Main content of the Factory mode

The main content of the Factory model, see the menu below:

		Motor init param	X Motor initial parameters Y Motor initial parameters Scarp motor parameters Z motor parameters
Factory	motor	Cap station setting	Motor stroke setting Cap station parameter setting
		X Motor setting	Gear ratio calibration Stroke parameter setting Motion parameter setting Raster test Positioning method selection
		Blade motor setting	Motor stroke parameter Blade parameter setting Cleaning the wiper position
		Y Y Motor setting	Gear ratio calibration Stroke parameter setting Motion speed setting Positioning method selection
	Print mode	Configuration, Mode list	
		Feather setting	
9	Other settings	White edge offset setting	
		Color bar density setting	
		Raster setting	
		Waveform setting	
		Network cable disconnection continues to set	
		Ink detection setting	
		Sharp edge setting	
		Moisturizing enable switch	

		Print before and after paper feed mode
Paper se		Paper feed distance before and after printing
	Paper setting	Paper margin setting
		Paper detection setting
		Pass number paper feed mode
	Base color	Base color setting
Factory		Cleaning mode setting
model		Flash print settings before printing
		Print flashing settings
	Head combination	Head combination parameter
		UV lamp enable control
	UV lamp control parameter	UV lamp illumination mode
	paramotor	Compensation distance setting
	Running machine	Head combination parameter
	Automatic flashing	Automatic flashing
	parameters	Manual flashing

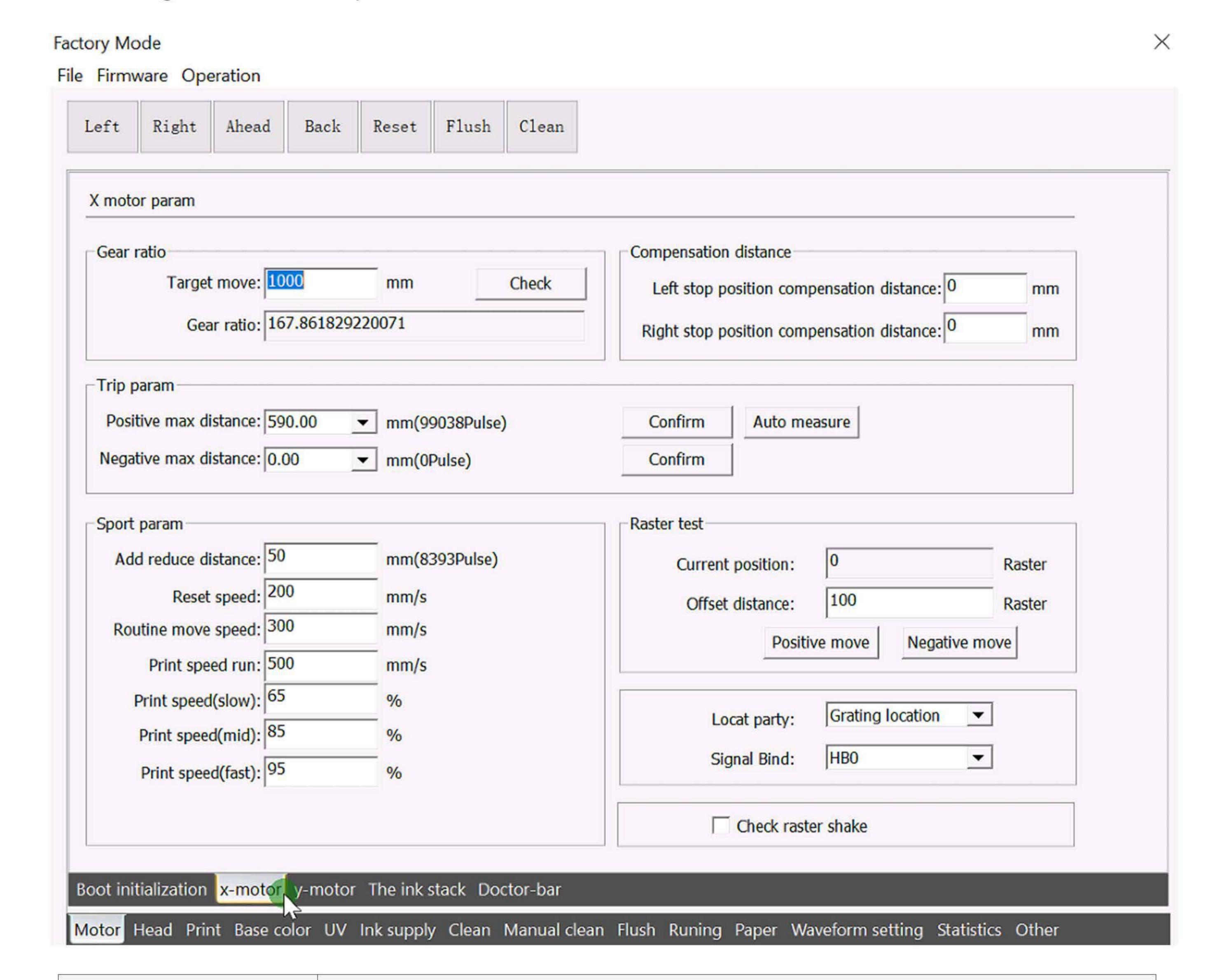
4.2 Initialization at startup

The setting parameters of the X motor, Y motor, and wiper motor are initialized at startup as shown in the figure below:

yle:	_	y-motor		
255	Pulse(1.52mm)	Add reduce distance:	512	Pulse(1.06mm)
5000	Pulse(29.79mm)	Reverse shift distance of origin:	0	Pulse(0.00mm)
640	Pulse(3.81mm)	Hit limit back to zero distance:	1000	Pulse(2.08mm)
5000	Pulse/s(29.79mm/s)	Motor speed:	5000	Pulse/s(10.38mm/s
taction		Tes	t action	
0	Pulse(0.00mm)			
0	Pulse(0.00mm)			
0	Pulse(0.00mm)			
0	Pulse/s(0.00mm/s)			
t action				
	5000 640 5000 t action 0 0	5000 Pulse(29.79mm) 640 Pulse(3.81mm) 5000 Pulse/s(29.79mm/s) t action Pulse(0.00mm) 0 Pulse(0.00mm) 0 Pulse(0.00mm) 0 Pulse(0.00mm) 0 Pulse(0.00mm) 0 Pulse(0.00mm)	Pulse(29.79mm) Pulse(29.79mm) Pulse(3.81mm) Pulse(3.81mm) Pulse/s(29.79mm/s) Pulse/s(29.79mm/s) Pulse/s(0.00mm) Pulse(0.00mm) Pulse(0.00mm) Pulse(0.00mm) Pulse(0.00mm) Pulse(0.00mm) Pulse(0.00mm) Pulse(0.00mm)	255 Pulse(1.52mm) Add reduce distance: 512 5000 Pulse(29.79mm) Reverse shift distance of origin: 0 640 Pulse(3.81mm) Hit limit back to zero distance: 1000 5000 Pulse/s(29.79mm/s) Motor speed: 5000 t action Test action 0

4.3 X motor

The settings of the X motor parameters are as follows:



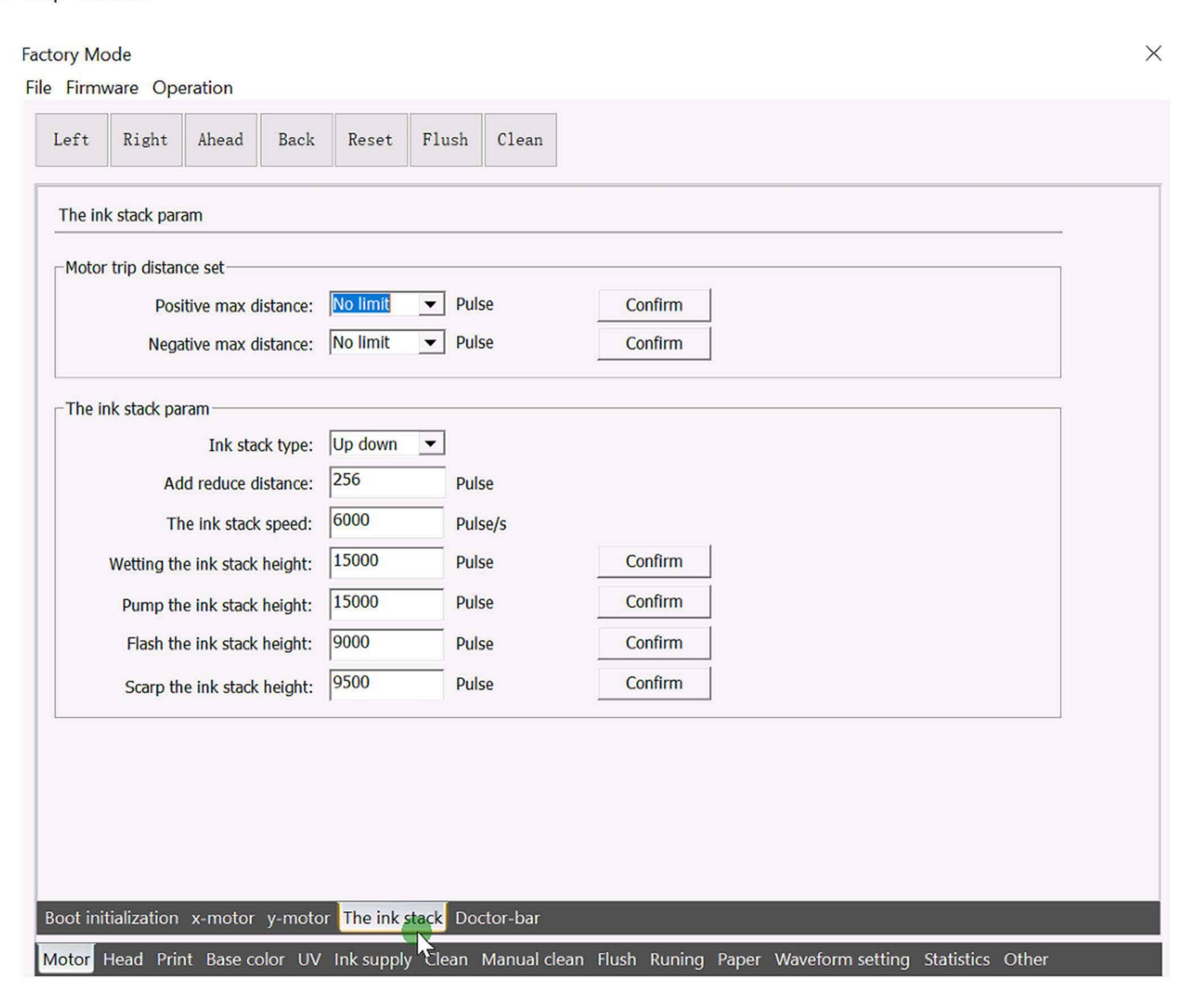
Name	Function
Gear ratio	Enter the target movement value and click on the calibration.
Stroke parameter	Set the positive maximum stroke or the negative maximum stroke according to the range of X motor motion.
Motion parameter	Set the acceleration and deceleration distance and the speed of various sports.
Raster test	Set the offset distance to compare with the actual moving distance of the car, Consistent or not.
Targeting	Pulse positioning or raster positioning can be set

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4.4 Y motor

Gear ratio Target move: 100 mm Move Fact move: 100 mm Calc Gear ratio: 481.832242645964	
Target move: 100 mm Move Fact move: 100 mm Calc Gear ratio: 481.832242645964	
Fact move: 100 mm Calc Gear ratio: 481.832242645964	
Gear ratio: 481.832242645964	
Trin naram	
Trin param	
Trip param	
Positive max distance: No limit ▼ Confirm Auto measure	
Negative max distance: No limit ▼ Confirm	
Sport param	
7.07056	
Reset speed: 60 mm/s Orientation direction of Y axis: Pulse position	
Double Y error max: 5 mm	
Time Special States	
0.1. 1/ . 10 00	
Print speed(mid): 80 mm/s Print speed(fast): 95 mm/s	

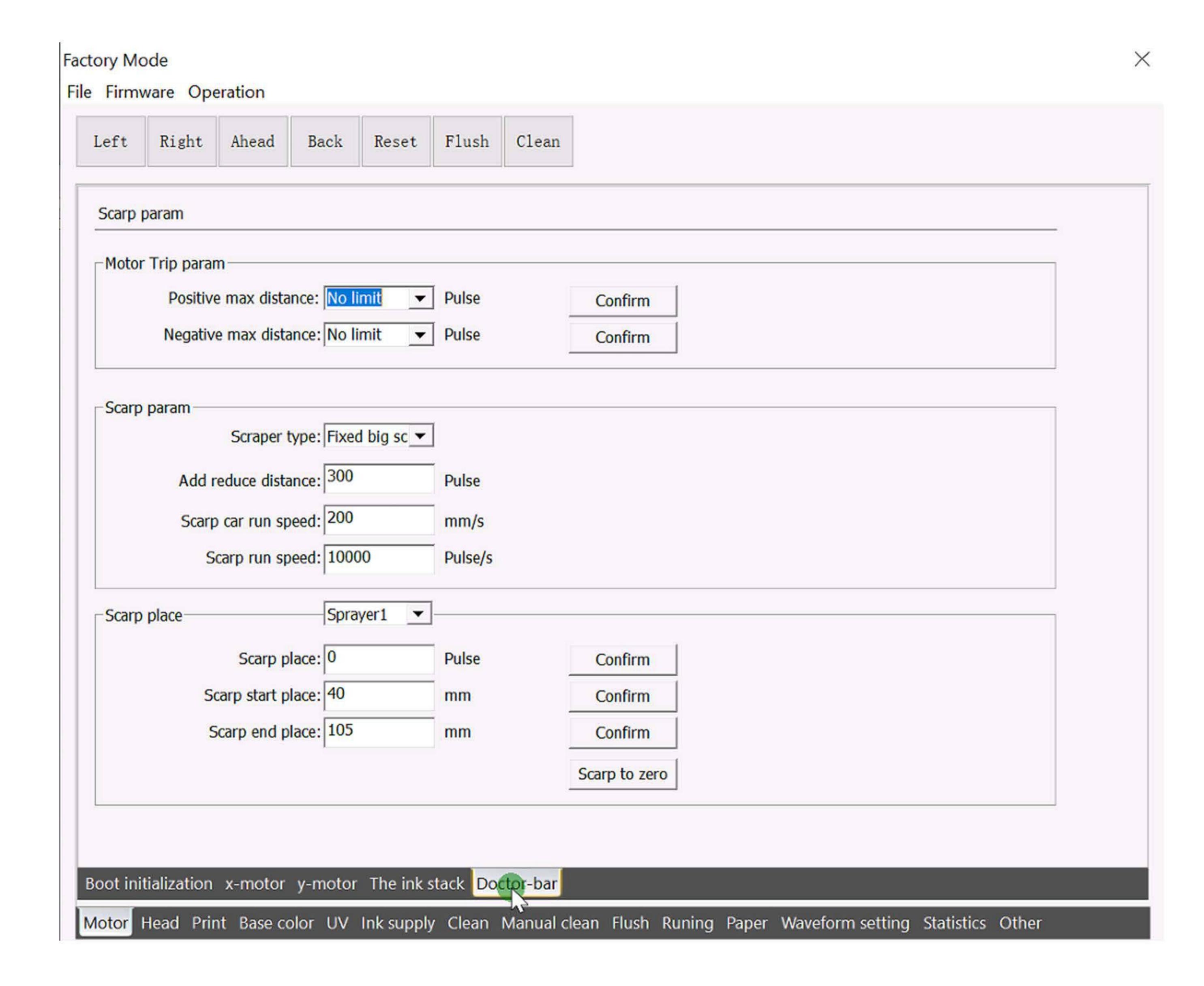
Name	Function
Gear ratio	Enter the target movement value to move, and input the actual movement value to calculate the gear ratio.
Stroke parameter	Set the forward maximum stroke or the negative maximum stroke according to the Y motor motion range.
Motion parameter	Set the acceleration and deceleration distance and the speed of various sports.
Orientation direction	Pulse positioning, code wheel positioning of Y axis and limit positioning can be set.



Name	Function
Motor stroke setting	Set the positive maximum stroke or the negative maximum stroke according to the ink stack motion range.
Ink stack parameter	Acceleration and deceleration distance, movement setting speed and various height settings.

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4.6 Scarp



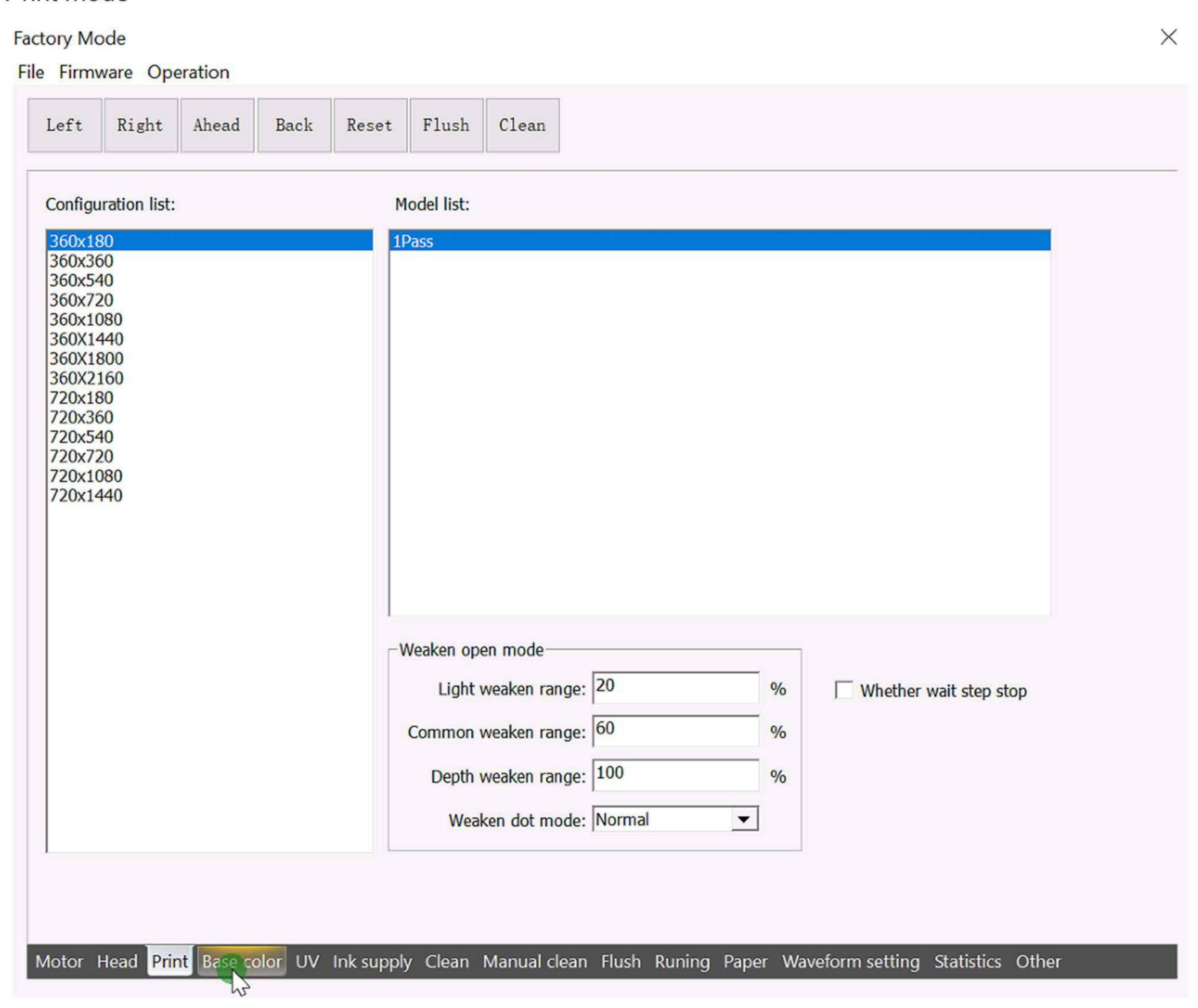
Name	Function
Motor stroke parameter setting	Set the forward maximum stroke or the negative maximum stroke according to the blade moving range.
Scarp parameter setting	Perform acceleration and deceleration distance, motion speed setting.
Scrape position	Set the start position and end position of the wiper when cleaning the nozzle.

4.7 Printhead combination



Set the printhead combination according to the physical location of the head.

4.8 Print mode



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Name

Function

Configuration list

The list lists all the precision supported by the current nozzle, and you can choose any type of printing.

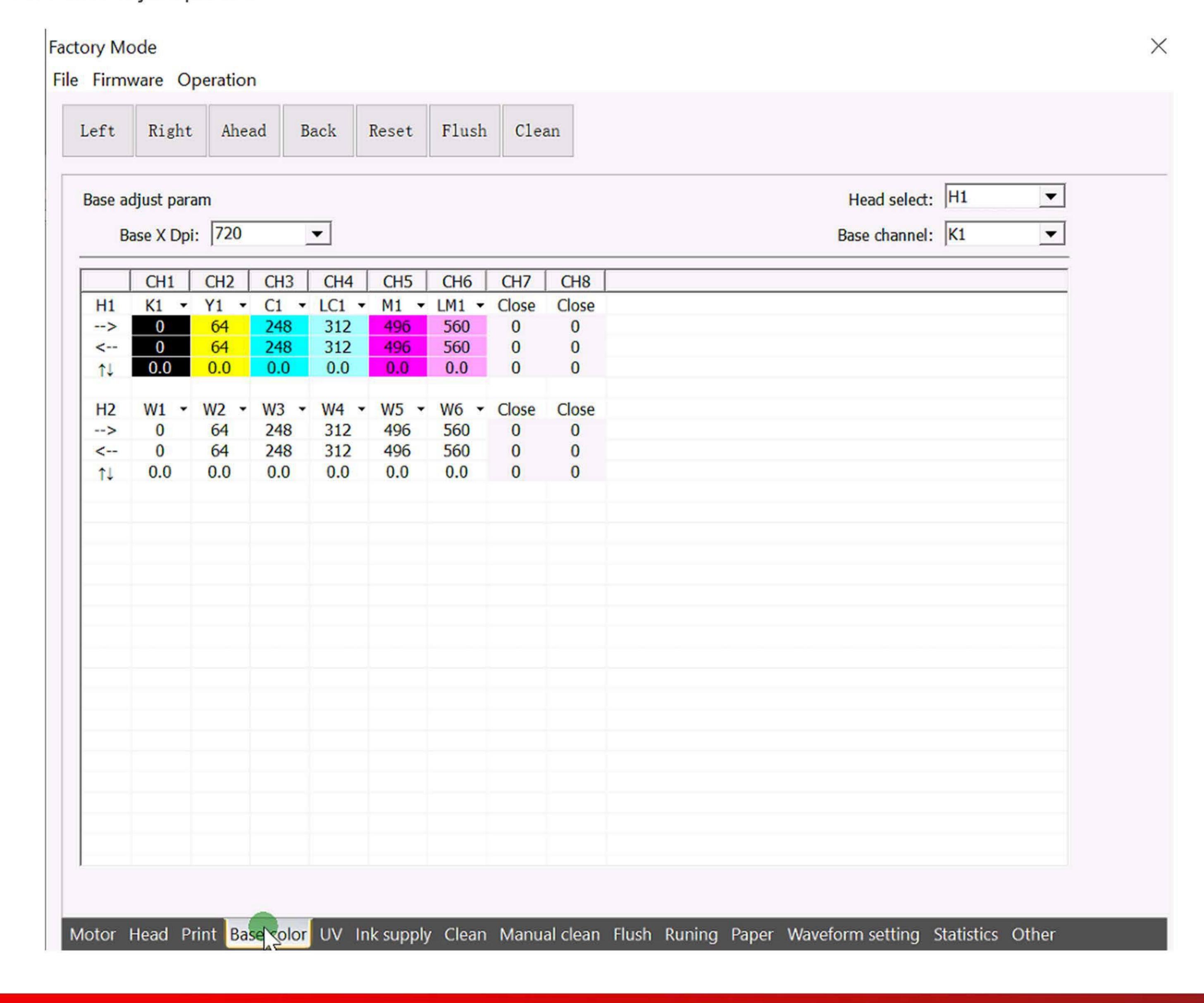
Mode list

This list lists all the print modes for each precision.

Weaken open mode

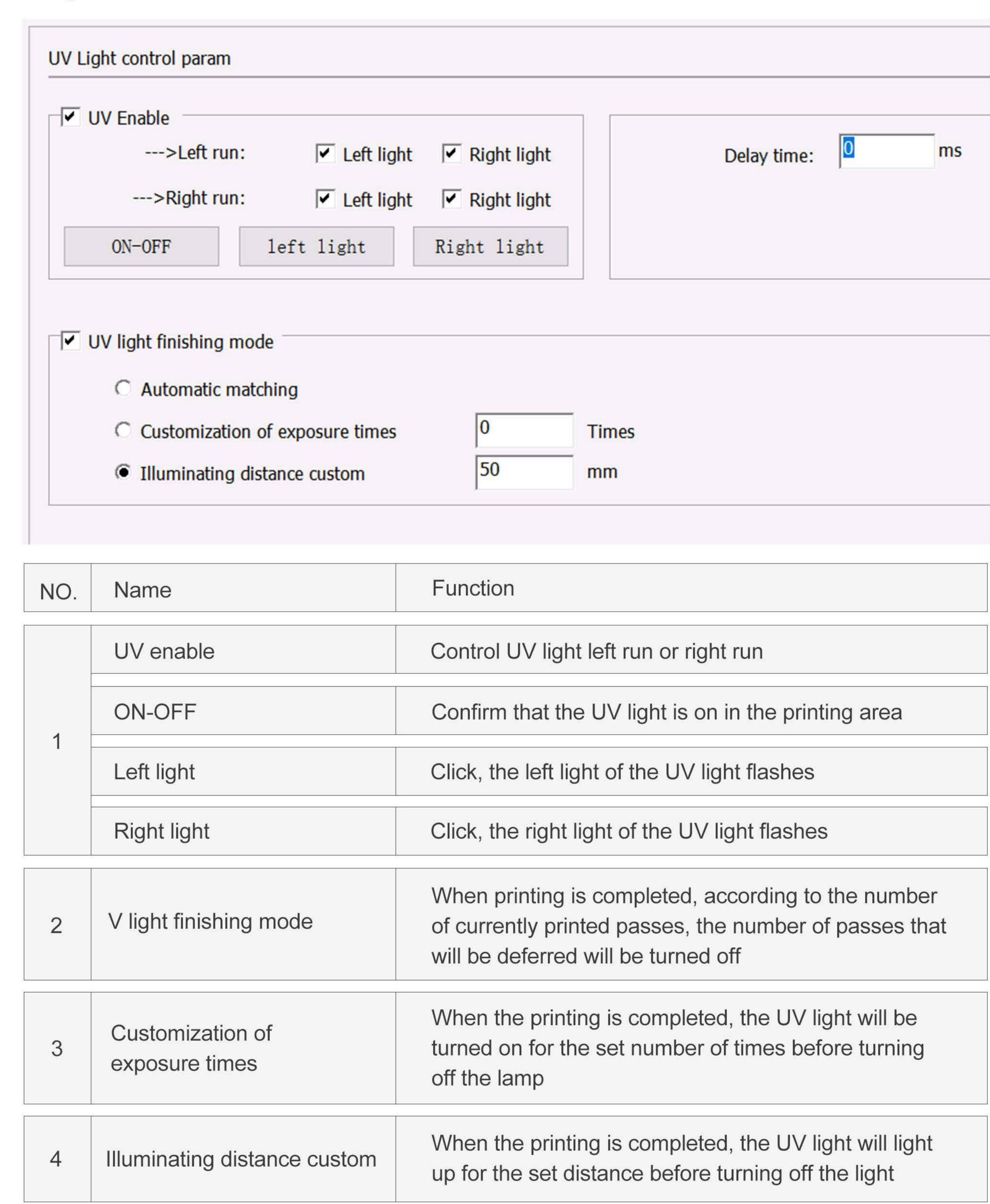
Set various eclosion amplitudes and various modes of eclosion points.

4.9 Base adjust param



When the color registration is not calibrated, you can confirm the calibration by modifying the corresponding parameters on the above interface and then printing the calibration chart.

4.10 UV light



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Press "switch debug", we will in the debug screen, as below:

rst step: print the test cha	art-			
Print test chart			Confirm	
Left Right	Ahead	Back	Left light	Right light
Left offset	5 mm		Right	offset
econd step: debug the bo				
econd step: debug the bo Left light left offset:	undary of the l	eft and right I		firm
	99		Con	firm
Left light left offset:	99	mm	Con	
Left light left offset: Left light right offset:	210	mm	Con	firm

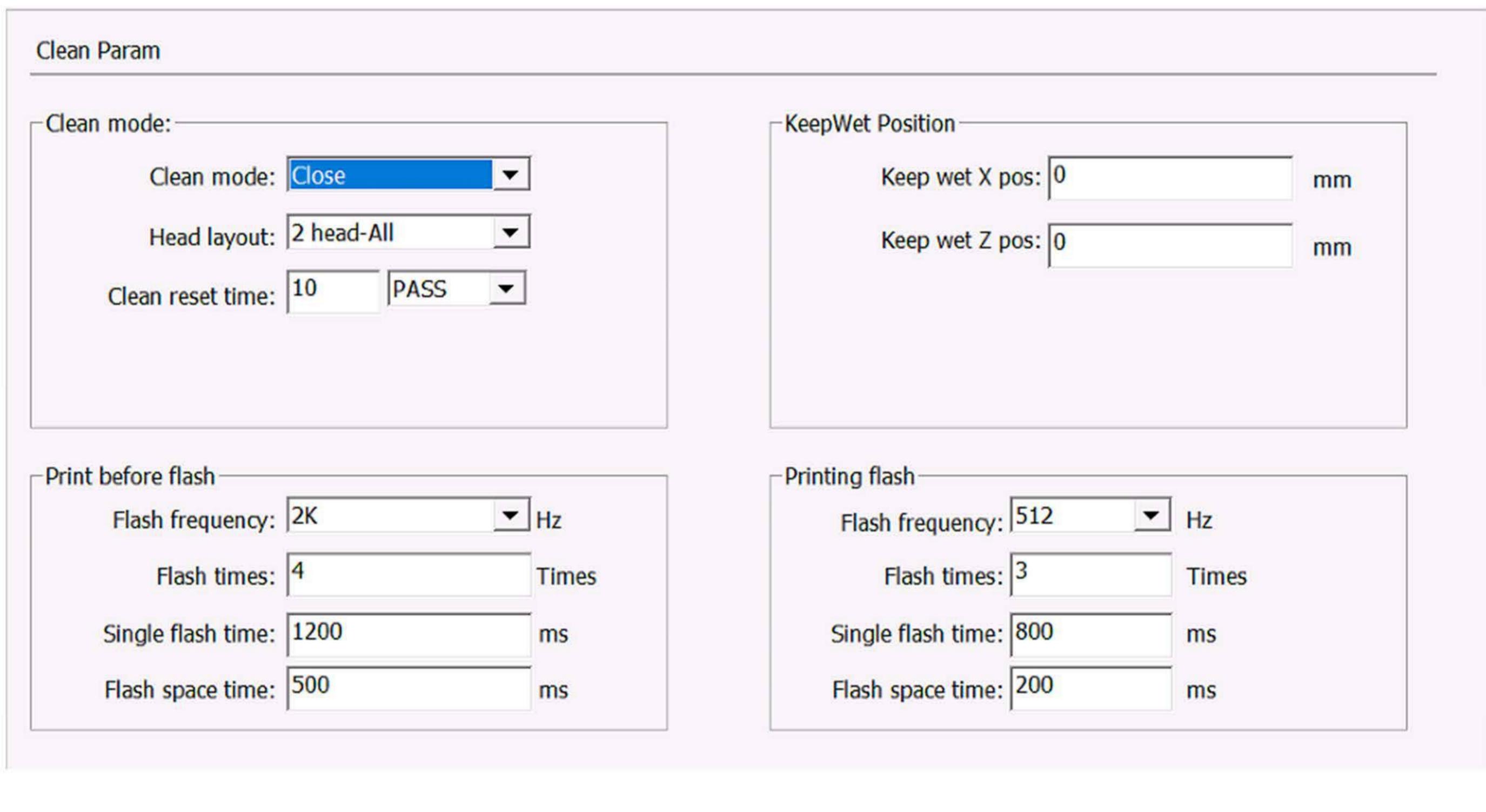
4.10.1 Print test chart

Click to print the test chart, the setting will print a test chart, and then click "Confirm Position" to enter the operation of debugging the boundary of the left and right lights.

4.10.2 Debug the boundary of the left and right lights

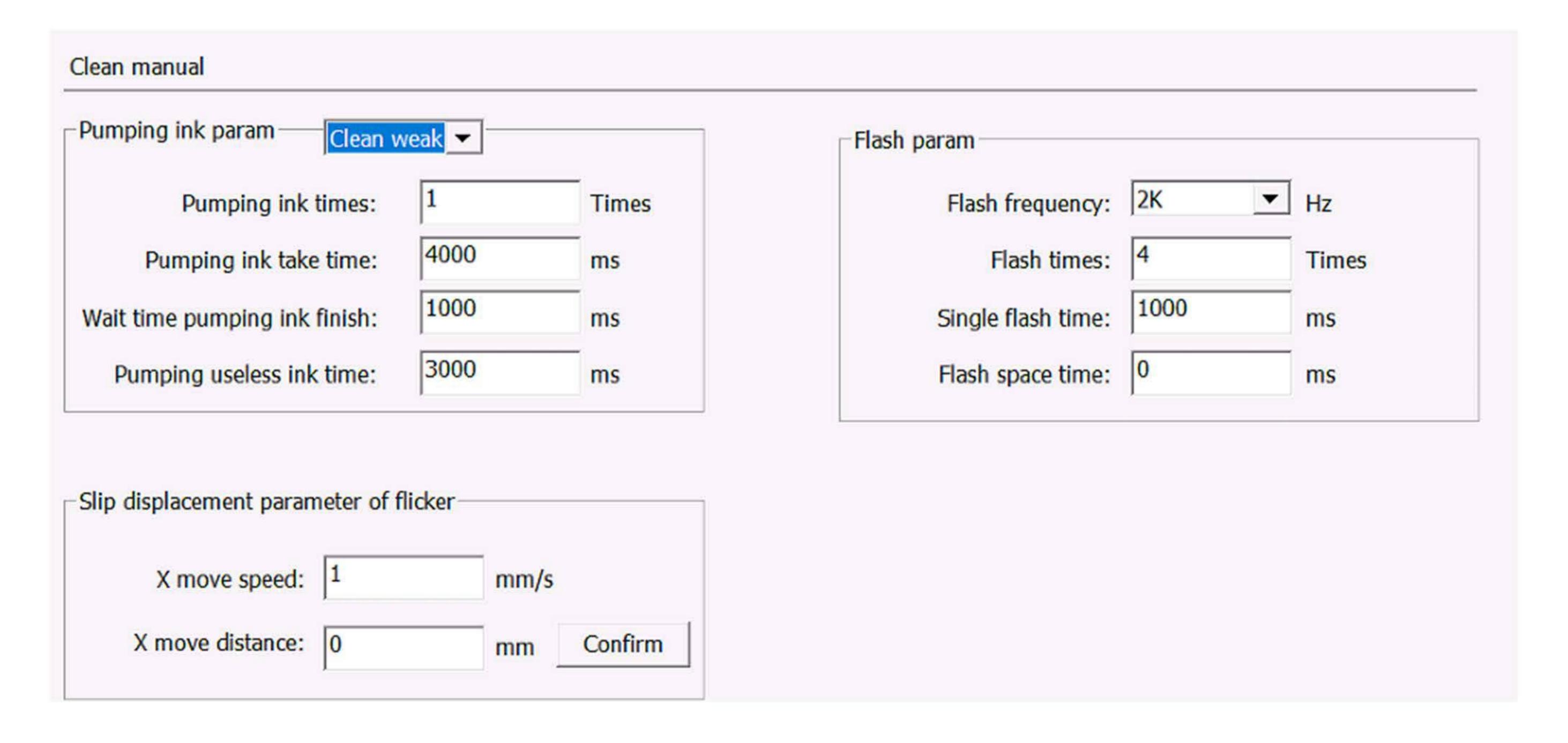
By moving left and right, the feed and return buttons are used to confirm the lighting position of the left UV light on the left side of the test chart and the off position on the right side of the test chart, the lighting position of the right UV light on the left side of the test chart and the position on the right side of the test chart. Turn off the position, move the corresponding position and click to confirm the position. After confirming the four positions, you can print the test chart to check whether the UV light is lit correctly.

4.11 Clean Param



Name	Function
Clean mode	Open/close automatically cleaning
Print before flash	Set flash parameters before printing
Printing flash	Set flash parameters during printing

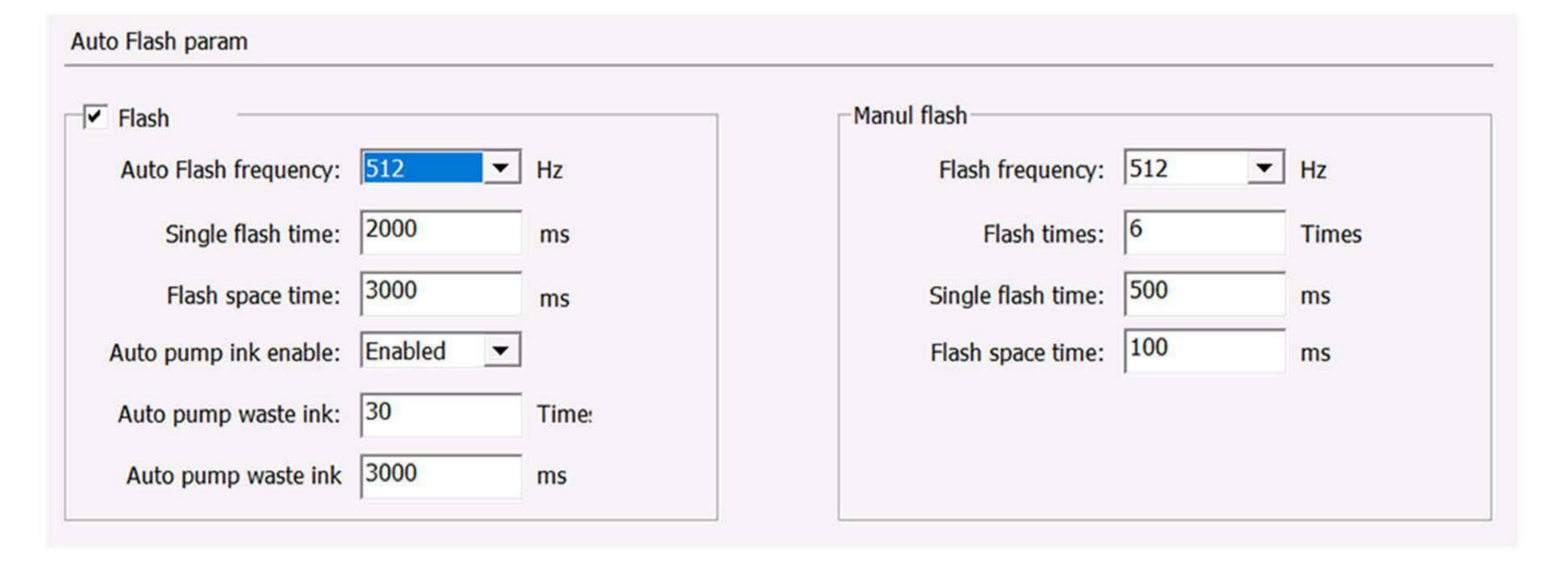
4.12 Clean manual



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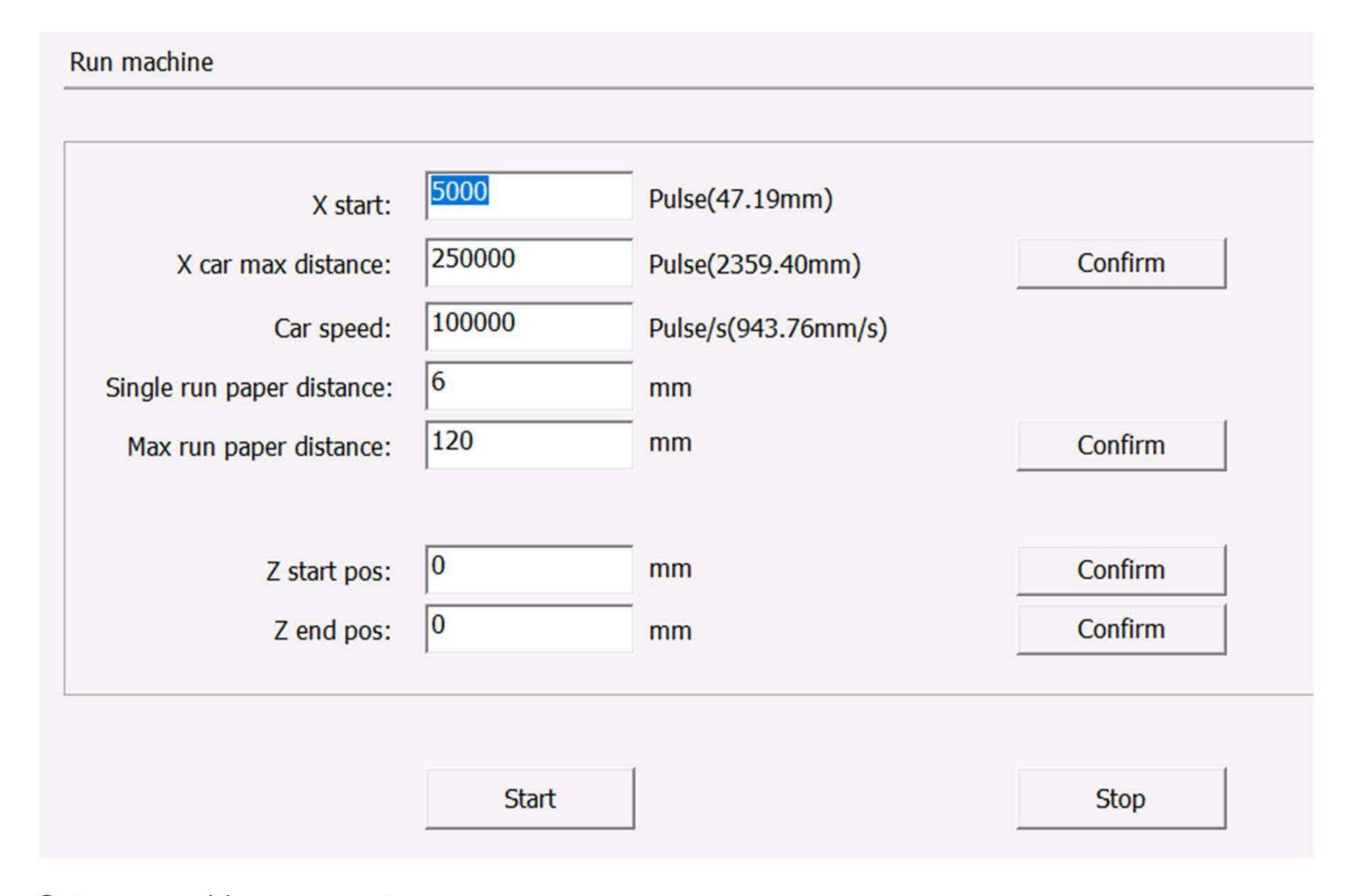
Name	Function
Pumping ink parameters	It can separately setting the pump ink power parameters during printing
Flash parameters	Flash parameters setting during cleaning manual flash
Slip displacement	Carriage move speed and distance setting during parameters of flicker slip displacement flash.

4.13 Auto flush



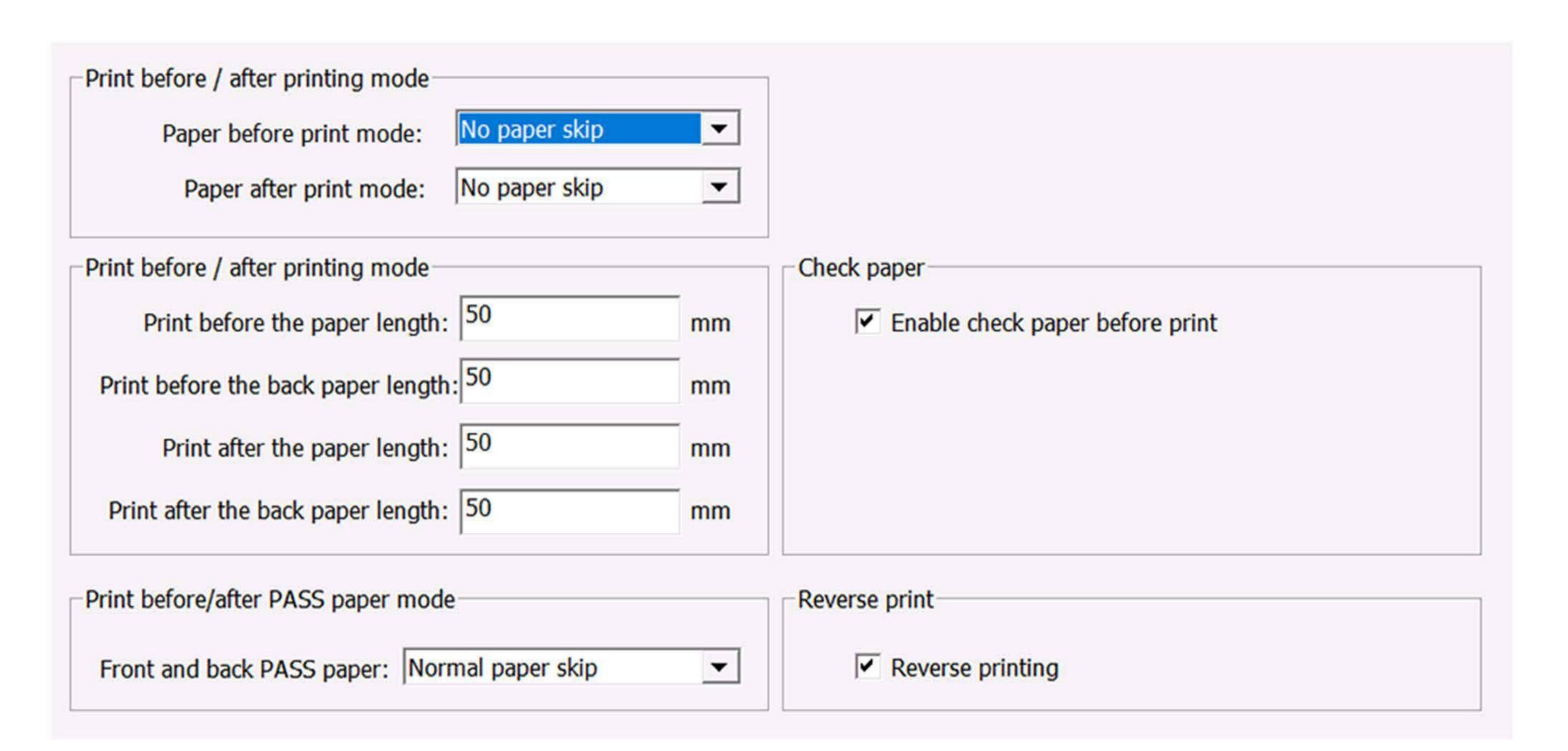
Setting auto flush parameters and manual flush parameters

4.14 Run machine



Set run machine parameters

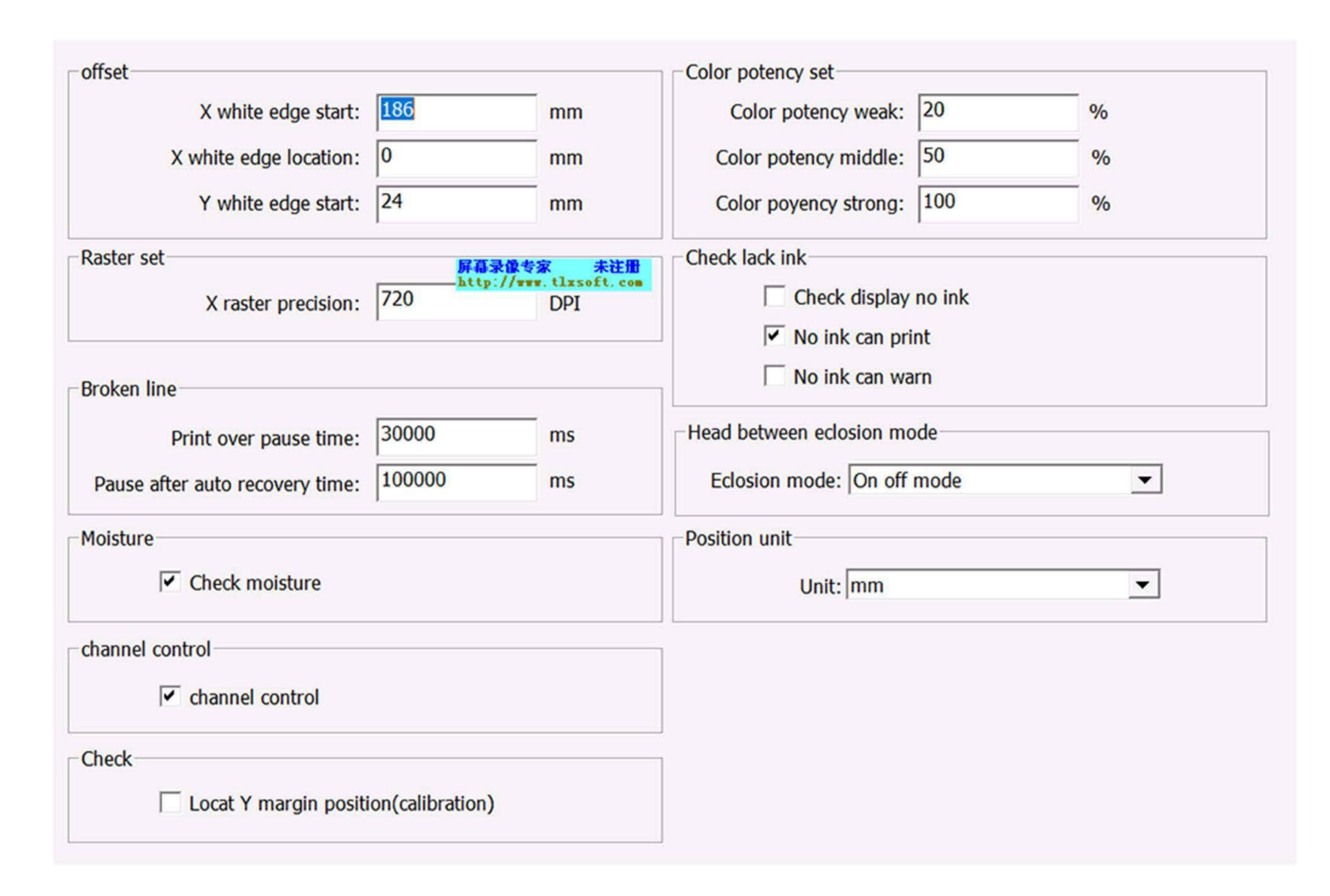
4.15 Paper skip



Name	Function
Paper before printing mode	Setting the mode of only paper/not paper/only back paper before printing
Paper after printing mode	Setting the mode of only paper/no paper/only back paper after printing
Print before/after the paper length	Setting paper length before/after printing
Print before/after the back paper length	Setting the back paper length before/after printing
Print before PASS paper mode	Print before PASS no paper, or normal paper skip
Print after PASS paper mode	Print after PASS no paper, or normal paper skip
Paper edge distance	Fine tuning the left and right of paper edge distance
Check paper	Open/close check paper

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4.16 Other functions

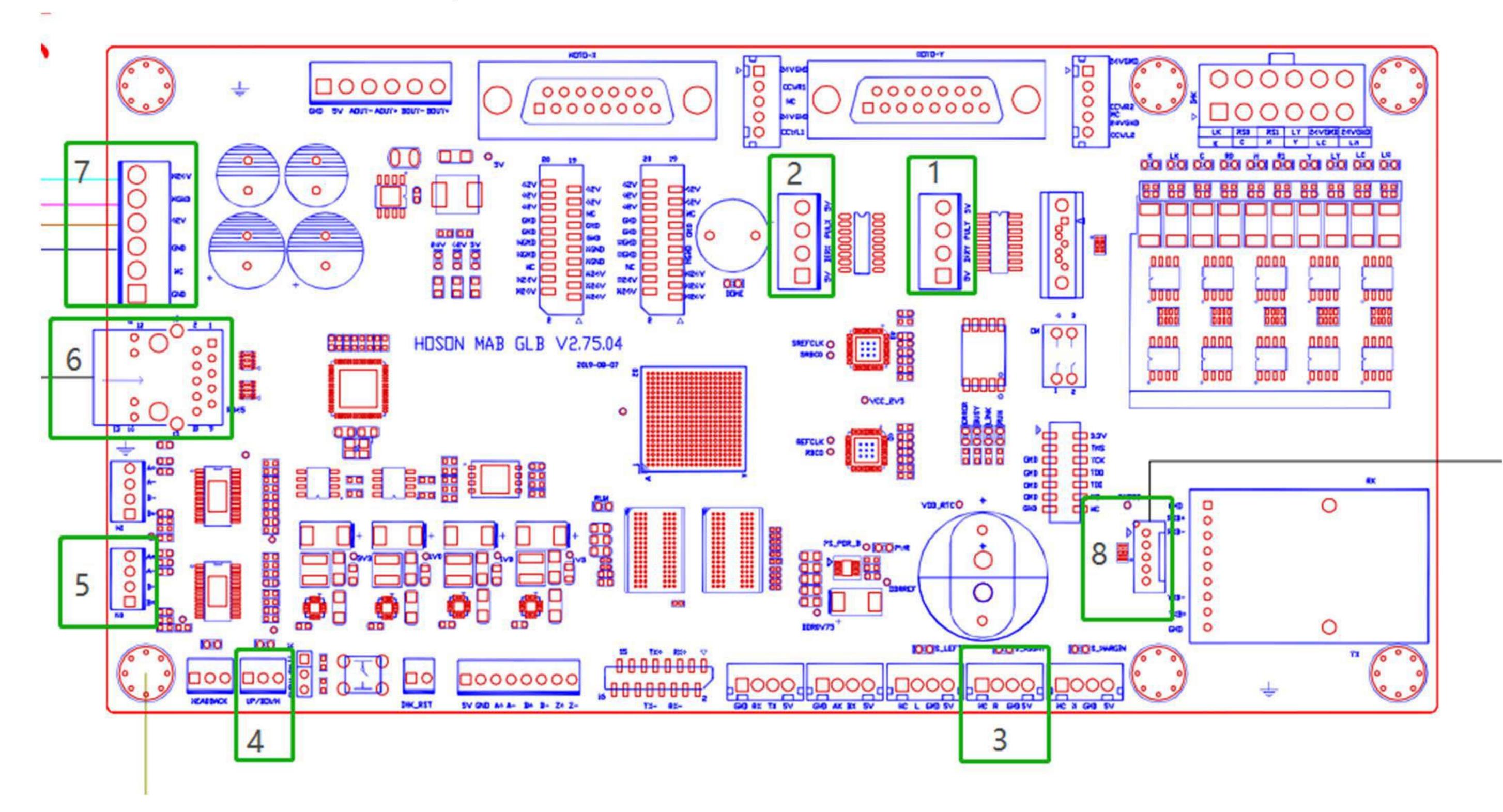


Name	Function
White edge	The distance from carriage to printing material, position mode and position deviation
Raster set	Raster precision
Color potency set	Color potency setting of different levels
Wave mode	Choose wave mode according to list
Broken line	How long can recovery after pause
Check lack ink	Choose solution when ink is lack
Rip and print are proceed at same time	Open the percentage when printing
Moisture	Open/close moisture function

NO.4 Boards and Maintenance

>1 Boards

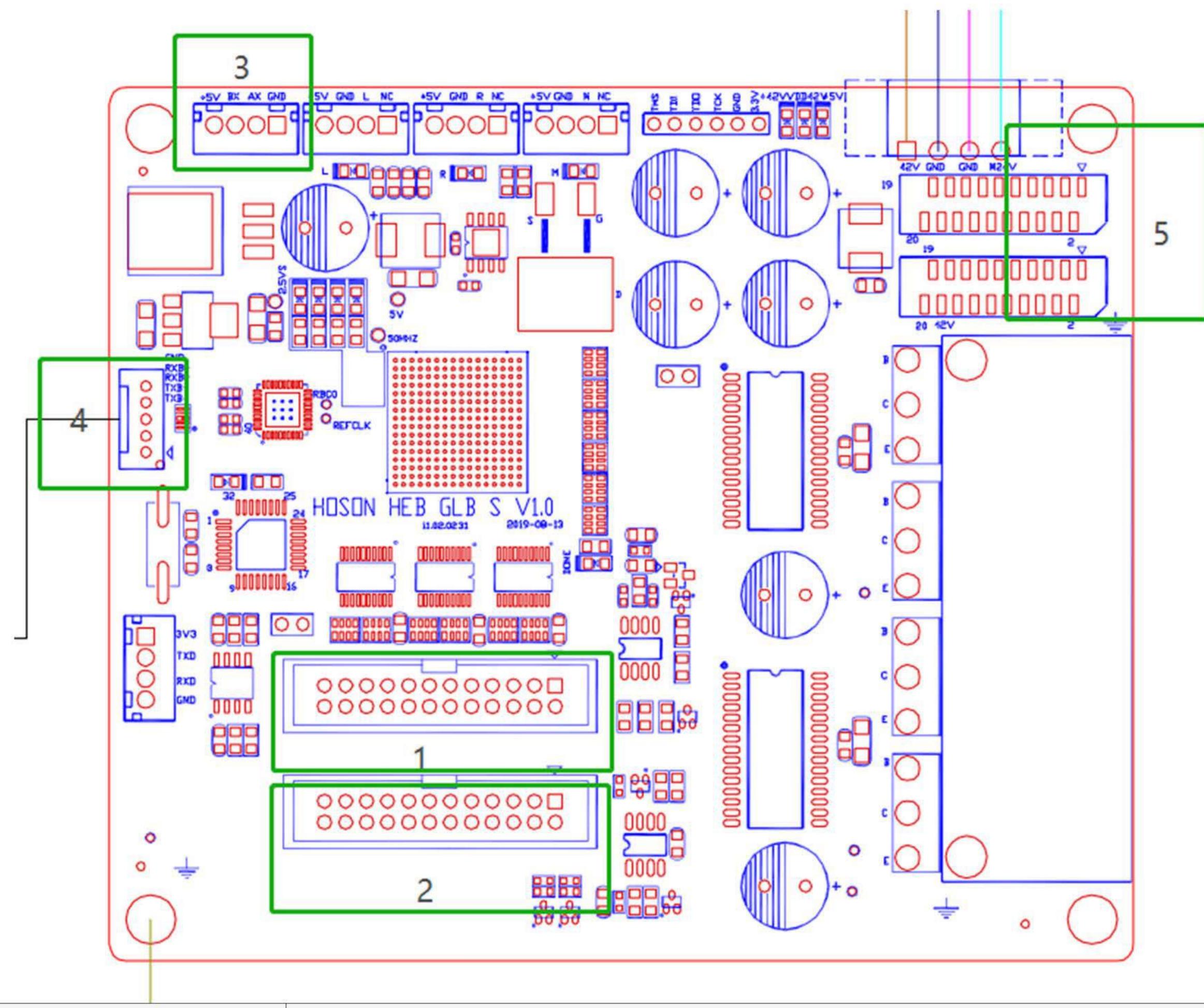
1.1 Main board interface description



1	X Motor signal port
2	Y Motor signal port
3	X origin switch
4	Ink station origin switch
5	Ink station motor interface
6	RJ45 network port
7	Power supply interface
8	Data transfer cable port

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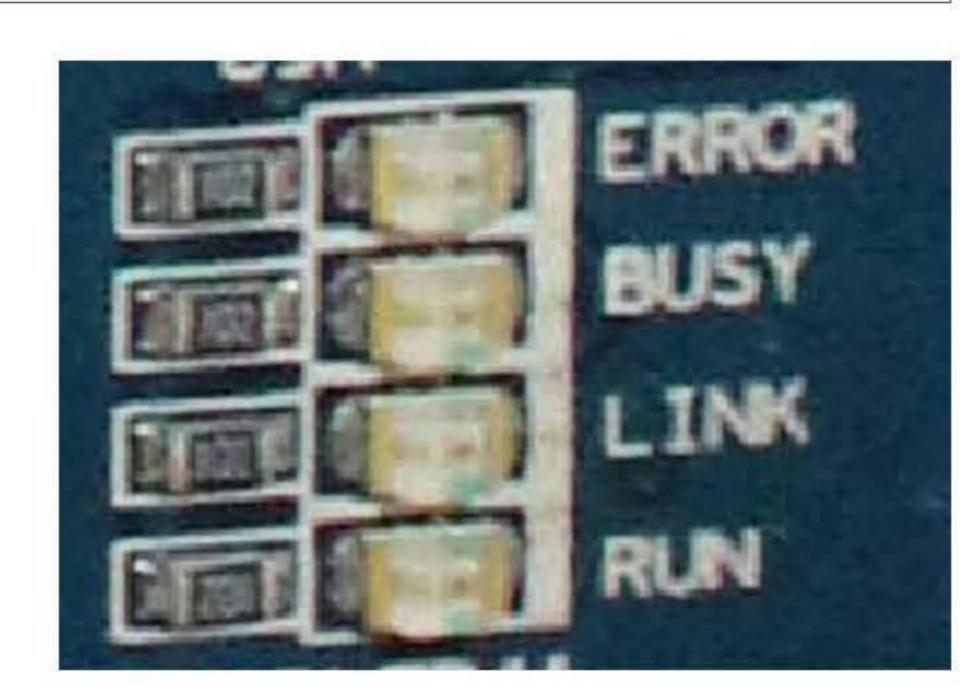
1.2 Description of head board interface



02	
1	HEAD1 connection port
2	HEAD2 connection port
3	Encoder port
4	Data transfer cable port
5	Power supply interface

1.3 Description of board running status indicator

System running status indicator (the main board is the same as the head board)



Name	Introduction
RUN	Running status light: This light flashes for a second to indicate that the system is in normal operation
LINK	Link status light: This light is on after the head board normally receives the communication signal from the main board
BUSY	Printing status light: This light is on when printing or flashing
ERROR	Abnormal status light: When printing is abnormal, this light is on

1.4 Running state digital tube

The digital tube is used to indicate the status of the system during operation, and the corresponding meanings of each displayed value are shown in the table below:

Value	Meaning
0	The initialization is complete and the system is running normally
1	Initialization state: the cleaning platform is initialized, and the platform descends back to the limit origin
3	Initialization state: the carriage moves a certain distance towards the end point
4	Initialization state: the carriage moves towards the origin
5	Initialization state: After the carriage returns to the origin, it moves out for a certain distance, and the platform rises
	The decimal point flashes for a second, indicating that the firmware is running normally. If it does not flash for a second, it is abnormal. Generally, the network cable communication is blocked. Restart or plug in the network cable interface.
E	Wait for the motor to stop, time 3-5s
U	There is an abnormality in the motor or limit of the lifting platform

2 Maintenance

2.1 Maintenance of printhead

- (1) The printhead is precision component. When disassembling the print head, it is strictly forbidden to touch the surface of the nozzle and the circuit part to prevent damage to the print head due to static electricity.
- (2) Head cables and head cables slot position, be sure to prevent ink leakage. Once there is liquid around the cable and the head, shut down and clean and blow dry, otherwise it may cause irreversible damage to the head and carriage board.
- (3) The head cable is closely connected with the slot in the process of use, and generally can not be easily unplugged, otherwise there will be contact oxidation, damage, dislocation or contact and line short circuit after a long time of use. Therefore, we must pay attention to avoid such problems when unplugging the head cables, otherwise it will cause damage to the head and carriage board.
- (4) When not using printer, we must do a good maintenance. Keep printer running per day and print nozzle check, if there's missing line, please do head cleaning to make the nozzle check is normal; We suggest printing a small picture every day; if the machine is not working for more than 3 days, it is recommended to drop the cleaning liquid in the ink capping. Then ensure that the head is combined with the ink capping to seal, these operations will play a certain protective role, to prevent the head from not working for a long time.
- (5) When filling ink to the ink tank, fill it in small amounts but multiple times. The shelf life of opened ink is 3 months, if over 3 months, which will affect the printing effect and cause nozzle blockage. Customers are advised to stir the ink regularly to and make sure that the white ink mixing function in the software is open during the printing.
- (6) Clean the flying ink of the ink station plate regularly to avoid affecting the service life of the head.
- (7) Avoid printing reflective materials to prevent the nozzle holes from being blocked due to the reflection of UV light.

2.2 Capping station maintenance

- (1) Clean up the waste ink on the capping station regularly, and keep it clean.
- (2) Drop the cleaning liquid into the ink capping regularly to prevent the use of waste ink from blocking the waste ink pipe for a long time.
- (3) Clean the rubber ring part on the top of the ink capping regularly with the cleaning liquid, to avoid the rubber hardening caused by the long use of waste ink curing, thus affecting the ink absorption effect.

2.3 Encoder strip maintenance

The strip is used together with the encoder sensor to position the X motor.

The encoder strip is fixed in the encoder sensor groove, we need to regularly check whether the encoder strip is scraped with the encoder sensor in the printing process, because the scratch of encoder strip will affect the carriage positioning and even make the carriage crashed; in addition, we must regularly check whether the encoder strip is in the middle of the encoder sensor groove, whether there is wear. When the working environment with more dust, please dip the dust-free cloth in medical alcohol to wipe the dust on the strip in time to prevent the wrong positioning error caused by dust, which will cause the picture dislocation.

2.4 Guide rail maintenance

The printer uses a silent straight guide rail. According to the daily workload, we need to regularly apply grease to the guide rail to avoid corrosion and astringent resulting from oil shortage in the guide rail. If there is black oil masonry on the guide rail, wipe the hands with alcohol before applying grease.

2.5 Platform maintenance

The printer uses an aluminum high-precision air suction platform. In the daily use process, it is necessary to keep the platform clean, to avoid the air suction hole blocking, and avoid the liquid being sucked into the air suction hole and then damaging the fan.

2.6 Ink damper replacement

It is recommended to replace the ink damper every three months.

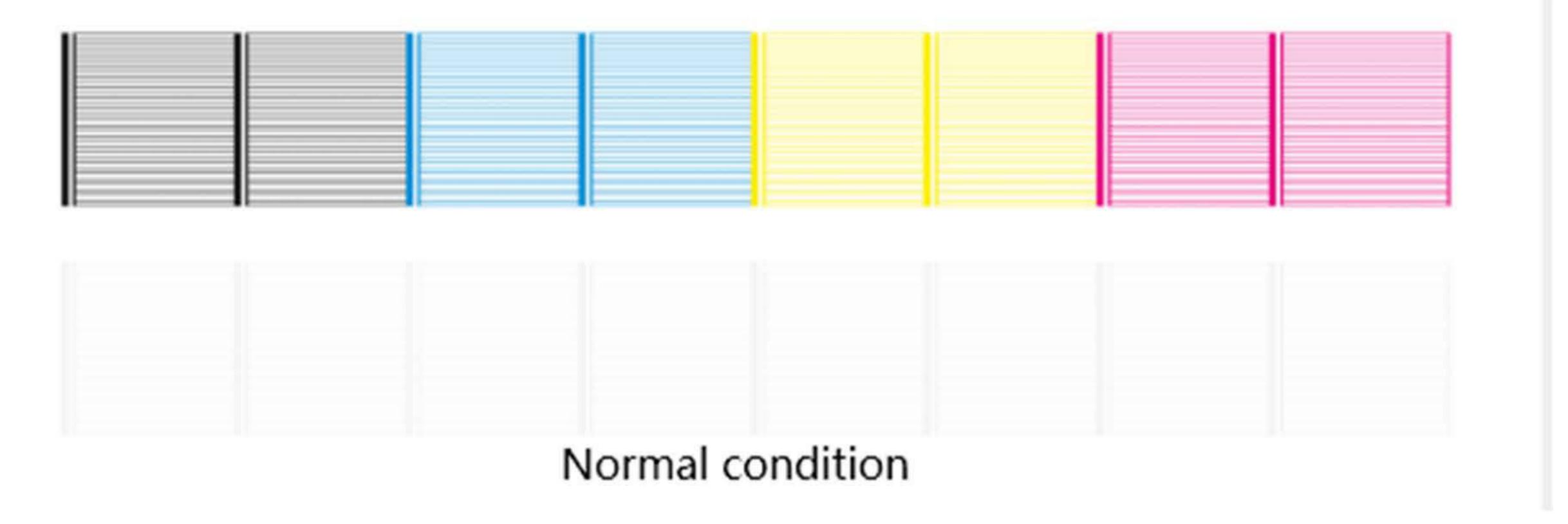
2.7 Replacement of ink capping

It is recommended to replace the ink capping every three months.

NO.5 Common fault handling

>1 Nozzle check

1.1 Normal condition



All nozzle output can ink normally, it means the printing effect is in good condition.

1.2 Nozzle missing



Some nozzle missing is due to is caused by ink corrosion or volatilization. Automatic cleaning can be solved at this time. If automatic cleaning can not be solved, it can be printed normally, which does not affect the printing effect.

1.3 Nozzle missing of one color

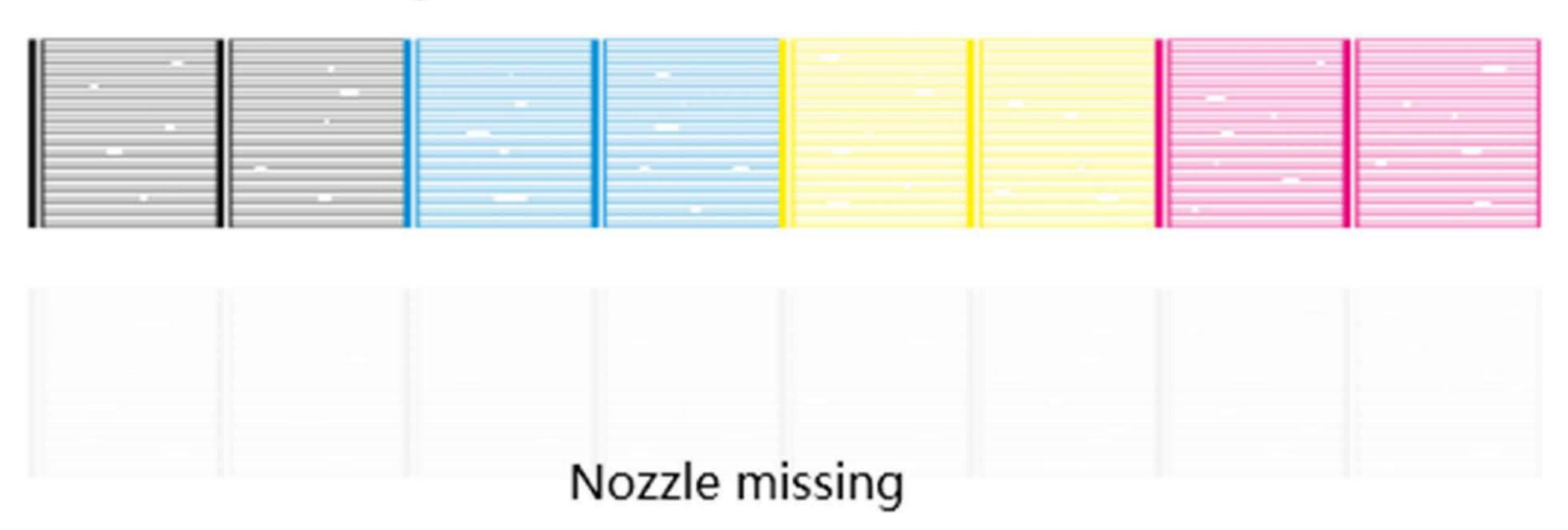


Nozzle missing of one color

Solution:

- 1. Use a syringe to draw the ink from the ink damper to determine whether the ink can flow out of the ink damper normally. The possibility of ink tube blockage and air leakage should be eliminated, and then the ink damper can be replaced for testing;
- 2. After changing ink damper, If the ink pumping and the ink supply is still not smooth, please check whether the ink tube and the ink damper connection are blocked and if there is the air leakage phenomenon.
- 3. Manually clean the head to ensure that the nozzle is smooth. Most of these problems are caused by the blockage of ink dampers and nozzles.

1.4 Multi-color nozzle missing



Solution:

- 1. Automatic cleaning, check whether the ink pumping is normal. If not, check whether the head and the ink capping seal are misplaced or if there is air leakage, resulting in abnormal ink pumping;
- 2. Check whether there is residual ink on the surface of the nozzle after cleaning. If any, please check the height and level of the wiper to ensure that the waste ink can be scraped normally;
- 3. Check whether the rubber ring of ink capping is too hard, which causes the sealing is not smooth in ink extraction; it is recommended to replace the new ink suction pad.

1.5 All nozzle missing of one color



All nozzle missing of one color

Solution:

- 1. Pull and plug the head cables to check whether there is poor contact caused by contact oxidation or contact tear. If yes please change new cable to test.
- 2. Check whether there are ink stains at the connection between the head cable and the slot. If so, please clean it up and test it again;
- 3. Use the syringe to draw ink from the ink damper to ensure that the ink can flow out normally and prevent ink breaking due to the lack of ink in the ink damper;
- 4. Check whether the carriage board or the head itself is damaged.

1.6 All no ink

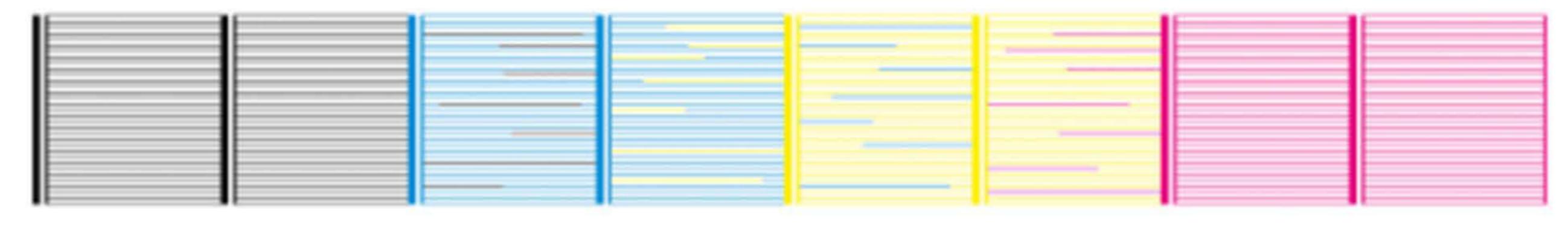


Solution:

Pull and plug the head cables to check whether there is poor contact caused by contact oxidation or contact tear. If yes please change new cable to test.;

- 2. Check whether there are ink stains at the connection between the head cable and the slot. If so, please clean it up and test it again;
- 3. Check whether the heads cables is plugged reversed;
- 4. Check whether the 42V (1LED1) lamp on the carriage board is always on during standby operation, if not it indicates that the carriage board does not have 42V voltage;
- 5. Check whether the + 42V (1LED3) lamp on the carriage board is often bright when printing, if not it indicates that the head is not in 42V voltage when printing.

1.7 Ink crossing



Ink crossing

Solution:

- 1. Clean the nozzle in strong mode first, and then print the nozzle to observe whether the channel color situation has improved. If no, please check if there is ink residue on the nozzle surface. If a single color ink swing, please check if this color ink damper leaks or replace the ink damper; if multiple color ink swing, check if the nozzle cannot be scraped normally due to the low height of wiper in the cleaning process;
- 2. Enter the PrintExp factory mode, select "Auto cleaning", and appropriately adjust the flash spray frequency and flash spray time before printing;
- 3. Enter the PrintExp factory mode, select "manual cleaning", adjust the single ink pump time and the nozzle pressure holding time appropriately, and prevent the ink flow caused by the backflow of the waste ink at the nozzle in the cleaning process;
- 4. Print a small picture to ensure that each color has ink out, and then print the nozzle check directly without cleaning operation. If there is still a color swing phenomenon, please replace the head.

1.8 Ink spraying



Ink spraying

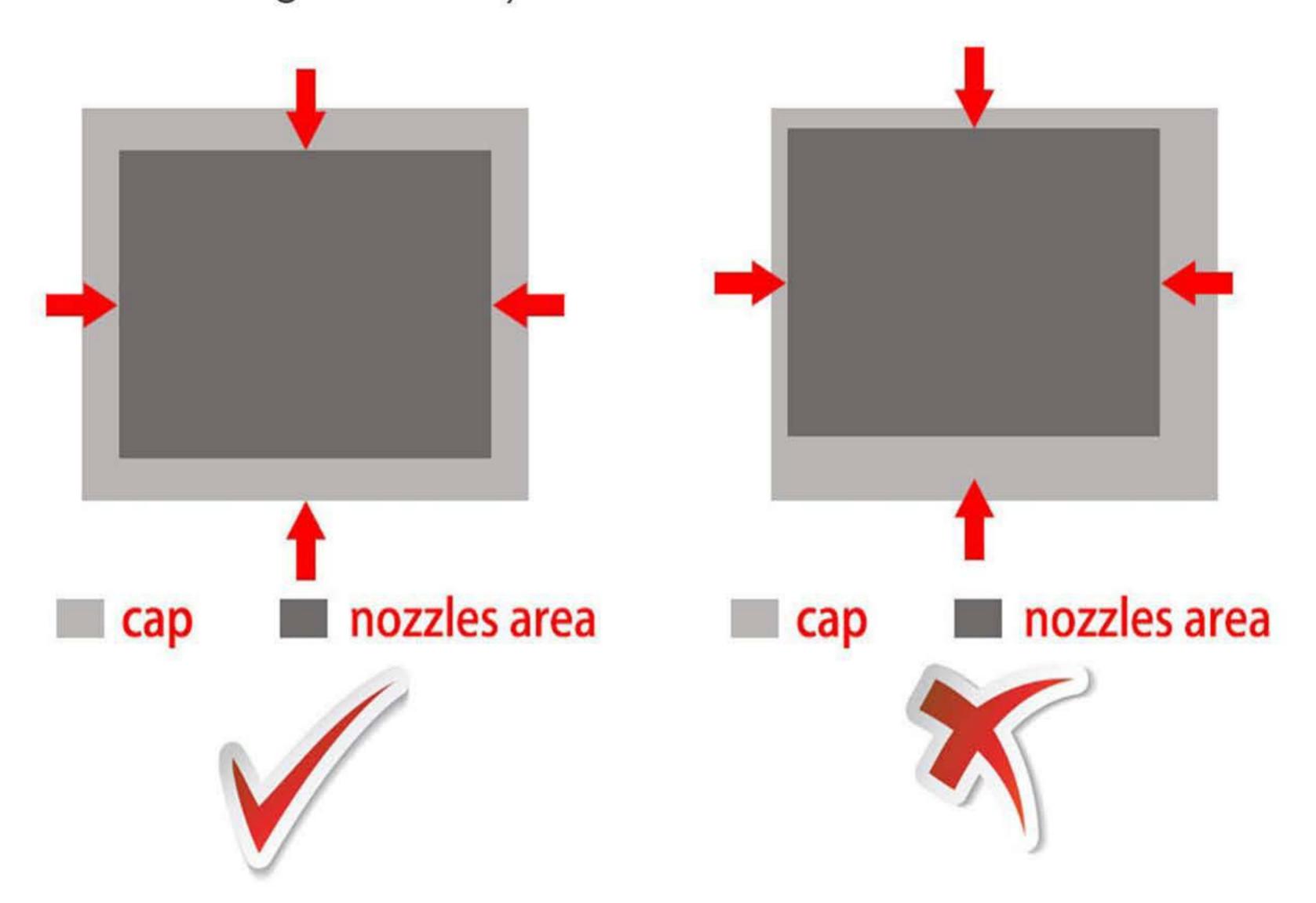
Mostly because of the printer idle for a long time, resulting in sediments in ink road then caused floating ink.

Solution:

- 1. Check whether the distance between the nozzle and the printed material is too high, and the normal distance is between 2-3mm;
- 2. Ensure that the operating environment temperature of the printer is 15-30°C. If the ambient temperature is too low, print the ink sac heating switch and be equipped with air conditioning;
- 3. Check and ink capping and wiper to confirm whether the cleaning and ink scraping operation are correct;
- 4. evenly stir the ink in the damper, pull out more than 10ml of ink from the ink damper outlet with the syringe, and then clean the print head. It is recommended to replace the ink if it cannot be solved.

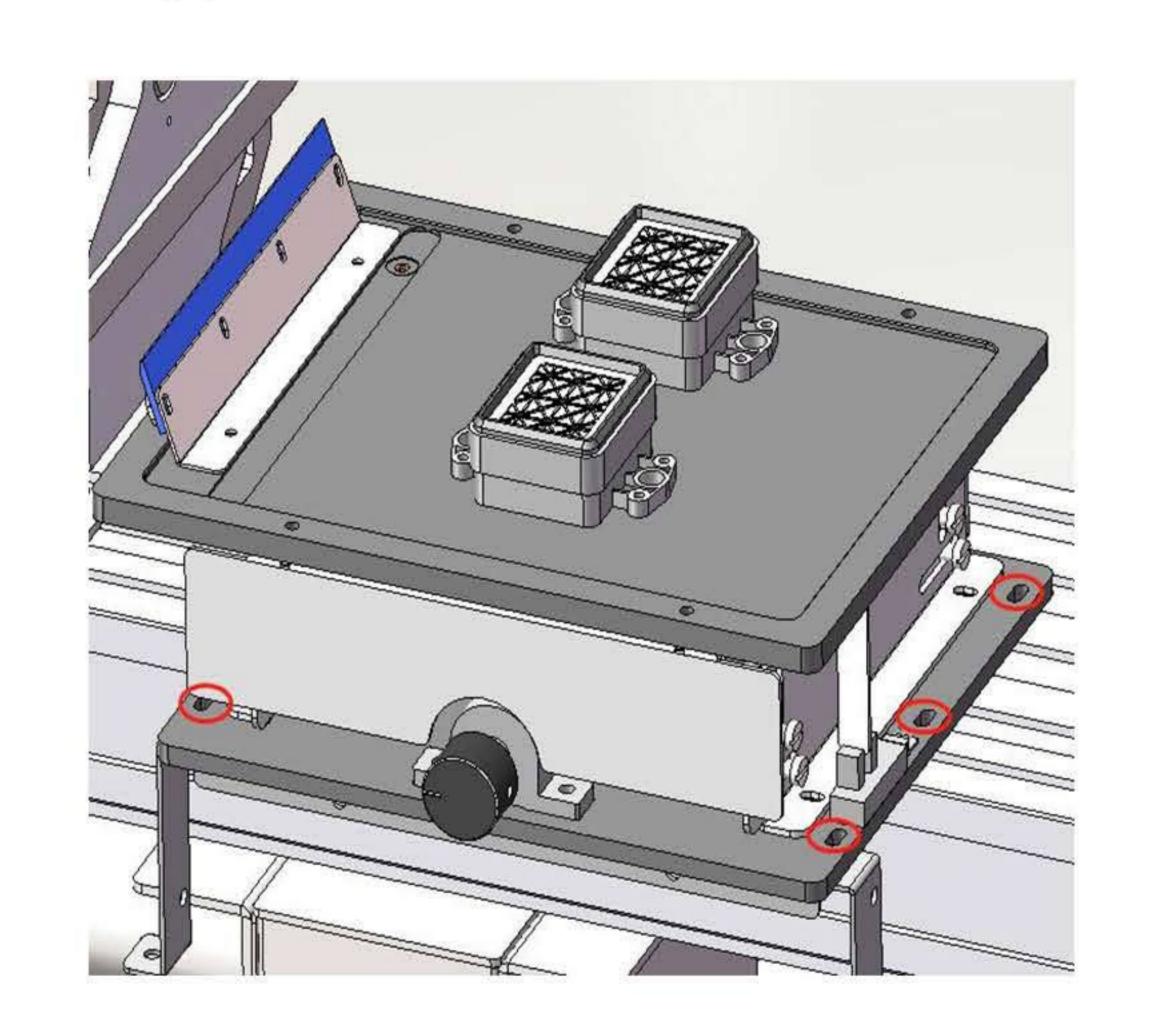
>2 No ink output during cleaning

- 1. Pour a little cleaning liquid into the ink capping, and observe whether the ink pump can pump the cleaning liquid into the waste ink bottle. If not, please check whether the ink pump works normally or replace the ink pump;
- 2. Check whether the ink tube under the capping falls off or blocks. If any, please reconnect or replace the ink pipe;
- 3. Check whether the ink capping is damaged or aging. When the ink capping and nozzle are not sealed well, causing air leakage;
- 4. Check the relative position of the ink capping and the nozzle to ensure that the nozzle area is completely in the center of the ink capping. No; as shown in the figure below: the nozzle on the left of the picture (as shown in the figure below):



Solution:

- 1.Observe the relative position of each head nozzle and the ink capping, if only there is a dislocation phenomenon, loosen the internal hexagonal screw of the fixed ink capping and then fine tune the position of the ink capping;
- 2.If all the head nozzles and the ink capping are misplaced, loosen the four black screws shown below and fine-tune the suction tray position.



>3 Power-on self-inspection

Normal open maneuver as: the ink station first lift for self-inspection ——> ink station down to the limit position ——> carriage left move about 5cm ——> carriage move right move until check to X limit ——> ink station rise, until the ink capping sealed the nozzle.

Troubleshooting 1:

Boot self-test is normal, but when pressing the left and right buttons, the carriage does not move, and when you press the height measuring key, the beam does not move, but the platform can move forward and backward.

Solution:

- 1. Check whether the 31P flat cable is connected normally, and whether the Link light on the main board is always on;
- 2.Check whether the 31P flat cable is damaged;
- 3. Whether the 31P flat cable is inserted backwards;

Troubleshooting 2:

Boot self-test is normal, but when pressing the left and right buttons, the carriage can only move left, not right.

Solution:

- 1. Check that the decoder and strip are installed in right place;
- 2. Check whether the decoder connection is in bad contact or damaged;
- 3. Check whether the polarity AX and BX of the decoder connection line are connected backwards;
- 4. The decoder is damaged, replace the decoder;
- 5. The strip is seriously worn, replace the strip.

Troubleshooting 3:

Boot self-test is normal, PrintExp can be connected normally, press the front and rear keys on the panel, the platform can move normally, press the up and down keys, the beam lifts normally, but when press the one-button height measurement button, the carriage hits the leftmost side of the beam;

Solution:

- 1. Check whether the 31P flat cable on the main board and the head board is connected properly;
- 2.Check whether the 31P flat cable is damaged;
- 3.Check whether the main board is damaged, if the RUN light of the head board is always off, please replace the head board;
- 4.Check whether the trolley board is damaged, if the RUN light of the trolley board is always off, please replace the trolley board;

Troubleshooting 4:

Boot self-test is normal, but when the "Down" button is pressed all the time, the beam cannot be lowered to the lowest position;

1.In the PrintExp software, reset the Z axis;

Troubleshooting 5:

Boot ink station reset abnormal, and PrintExp reported error code 004327.

Solution:

- 1. Check whether the coupling between the ink station lift motor and the lift wire rod is loose;
- 2. Check whether there are obstacles caused by the lifting process of the ink station;
- 3. Check whether the ink station limit switch is installed in place or the limit switch is damaged;
- 4. The ink station lift motor wire head is loose or the lift motor is damaged.

Troubleshooting 6:

A certain color often nozzle missing during printing

Solution:

- 1. Check the working temperature and humidity. When the temperature is too low, we could turn on the platform heating switch;
- 2. The lid of bulk ink tank should not be screwed too tight with a certain gap, so that we could ensure that the air enters the cartridge normally;
- 3. Check the ink tube and observe whether there is no ink supply caused by ink tube bending;
- 4. Replace the damper to prevent the problem of excessive impurities in the ink damper;
- 5. Replace the ink to prevent the ink supply due to the ink precipitation.

Troubleshooting 7:

Wrong color order

Solution:

- 1. Observe whether the nozzle check has swing ink phenomenon;
- 2. Print the picture with CMYK colors blocks and check whether the dampers are installed incorrectly;
- 3. Check whether the ink in the ink tank has the wrong color. The ink must correspond to the color marked by the ink tank.

Troubleshooting 8:

Color difference

Solution:

- 1. Check whether the printer selected in the RIP software is consistent with the model;
- 2. Check whether the ICC loaded in the RIP software matches the model;
- 3. Check whether the ink in the ink tank is incorrectly filled;
- 4. Check whether there is ink breakage during the printing process.