CALCA®
ADVANCED PRINTING SYSTEM

UVDTF-UL-A24H3-US

24in UV DTF Sticker Printer

User Manual

2 in 1 UV Crystal Label Printer with 3 I3200-U1 Printheads

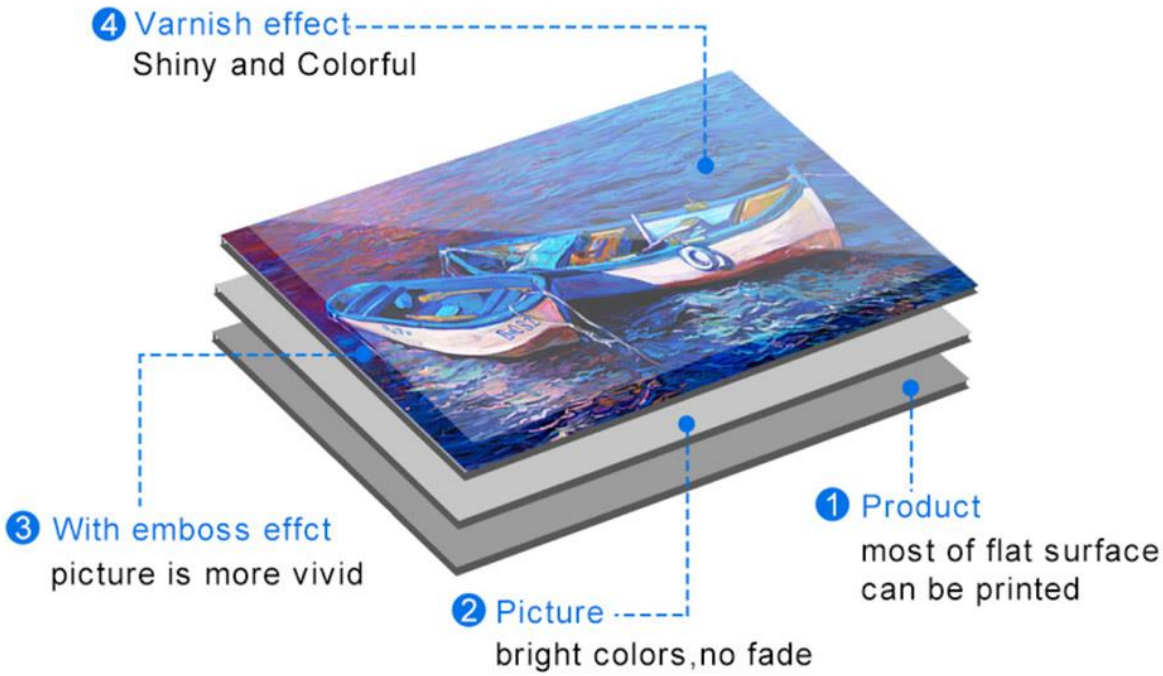
Thank you very much for choosing our CALCA brand series UVDTF printer, please read the manual carefully, including the operation and maintenance to ensure the best output and the lifetime of the machine.

CONTENT

CALCA Ultra SP600 24in UV DTF Printer breaks the limits of printing products height, shape and size for flatbed printer, almost can transfer to all material. UV DTF Film is using a new UV printing technology. We have improved the existing UV machine so that the pattern can be printed directly on the film. You can print out the design you want and easily transfer the crystal label to various surfaces, especially uneven hard surfaces.

Advantages of UV DTF:

√ UV DTF can save time and cost, don't need batch typeset printing, produce at any time, saving time.
√ No quantity requirement, even 1 piece also can be customized.
√ Save labor & materials, reduce manufacturing cost.
√ No need for batch typesetting and printing, production at any time, saving production time.
√ Waterproof, high temperature resistance, scratch resistance.
√ The fastness is many times higher than that of screen printing, no glue and no waste discharge.



UV DTF Printing Process Flow:

Step 1. Design Pattern

Use photoshop, illustrator or other software to design your pattern.

Step 2. Print pattern to A Film

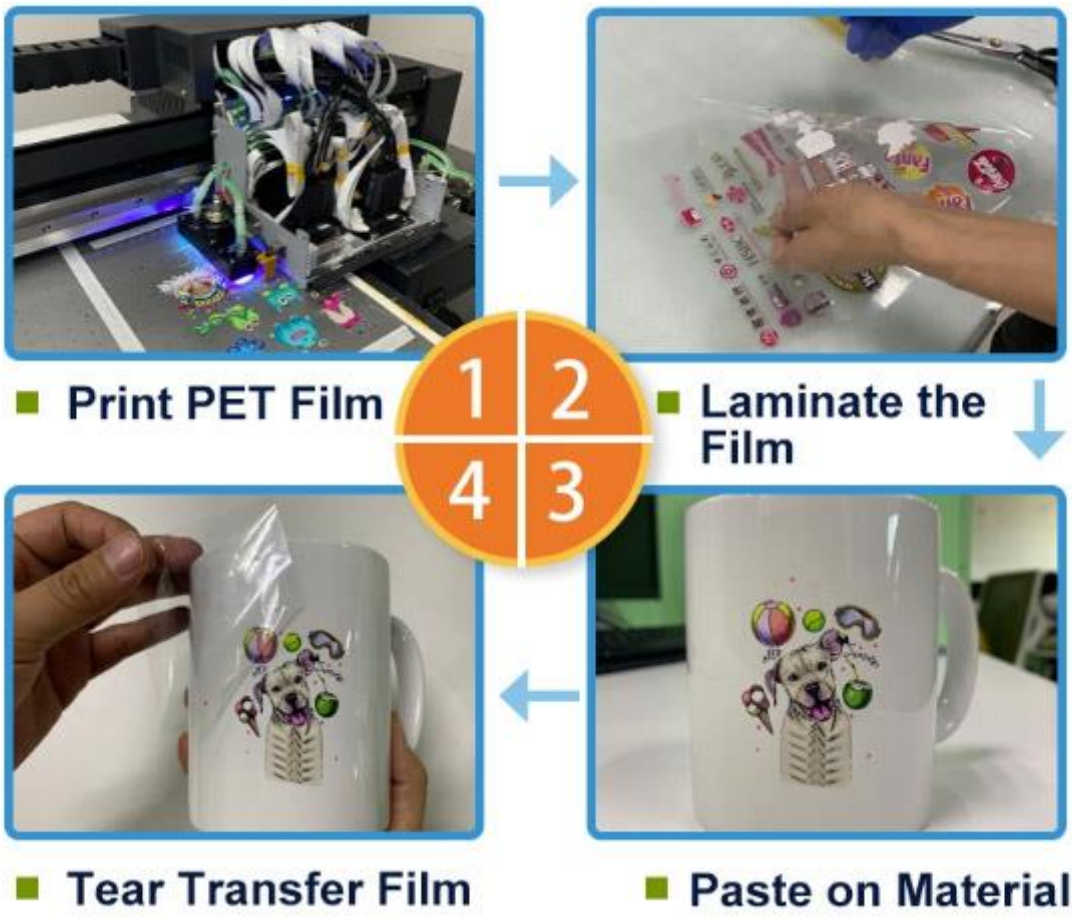
Print the pattern on the direct transfer film first, and print in the order of white ink, color ink and varnish (Add a layer of varnish print for best results).

Step 3. Laminate A film to B film

After printing, B film will be automatically laminated with transfer film.

Step 4. Peel and apply

Tear off the A film and stick it directly onto your product, remove the B film, and the pattern can be easily transferred to the product.



Equipment Features

√ **2 in 1 function:** Combine printing and automatic laminating together on one machine, higher productivity. Support common color printing and golden foil UV DTF printing.

√ **White ink circulation system:** Prevents sediment causing the nozzle to be blocked. Automatic warming when lack of ink, reduce losses for empty printing.

√ **Unlimited substrate:** You can print out the design you want and easily transfer the crystal label to various hard surfaces, such as plastic, glass, ceramics, paper, paperboard, metal, leather, pen, notebook, phone case, mouse, vase, bottle, can, mug, packing box, purse, pad, U-disk and so on.

√ **Unlimited size and shape:** You can print on especially uneven hard surfaces, such as flat, cylindrical, cambered, rhomboid and other irregular shape.

√ **No MOQ requirements:** Print magic UV DTF ink on magic film, get ready to design and you're your "Image" without the traditional molding process.

√ **4 Colors + white & varnish are more expressive**

√ It can finish exquisite shading with high precision. In addition, using white ink and clear varnish, it has rich expressive power and fulfills various needs.

√ **3D relief effects:** Can produce 3D relief and multi-layer transparent bump effect, including amazing varnish glossy & matte finish.

Specifications of This Equipment

Name: UV Roll Printer for AB film / UV crystal label printer

Brand: CALCA

Maximum Printing Width: 24in (600mm)

Printing Media: A PET Film (Max Roll Weight 20kgs)

Print Head: I3200-U1x3 (400 nozzles / rowx8xlinesx3)

Print Ink: White, Color (CMYK), Varnish

Print Accuracy: 1200/1800dpi

Print Speed: 12m²(161ft²)/h, 4Pass; 8m²(72ft²)/h, 6Pass; 5m²(45ft²)/h, 8Pass

Print Thickness: 1.5mm to 6mm (0.06in to 0.24in) adjustable

Printer Interface: USB 2.0

Print Technology: Three intelligent exclusion print function; VSD technology

Media Heater: Pre/Middle/Post Heater (Can be controlled separately)

RIP Software: Maintop6.0 (Photoprint and Print Factory are optional)

Machine Size: 70.5in x 31in x 63.8in (L 1785mm x W 790mm x H 1613mm)

Machine Weight: 441lbs (200kgs)

Packing Size: 83in x 38in x 29in (L 2100mm x W 970mm x H 730mm)

Gross Weight: 486lbs (220kgs)

Requirements:

- Operating System: Win7 / Win10
- Electrical Parameters: AC110V / 220V, 50HZ / 60HZ, 1 phase; 32A (110V), 16A (220V) –Please refer to the nameplate on the back of equipment.
- Rated Power: 3500W
- Temperature control set to 68˚F - 82˚F (20˚C - 28˚C) and 35% - 65% humidity.

I. Notice on Safety Using

1.1 General

Read the instructions carefully as they contain important information regarding proper, efficient and safe installation, use and maintenance of the unit.
The installation of this unit must be carried out in accordance with the manufacturer's instructions.
Switch off the unit in case of failure or malfunction and contact your distributor for service information.

1.2 Symbols

This symbol informs about a situation where a safety risk might be at hand. Given instructions are mandatory in order to prevent injury.

This symbol informs about the right way to perform in order to prevent bad results, appliance damages or hazardous situations.

This symbol informs about recommendations and hints that help to get the best performance out of the equipment.

1.3 Safety

1.3.1 Safe use of the appliance

For your safety. Do not store or use gasoline or other flammable vapors or liquids in the vicinity of this or any other appliance.

1.3.2 Other prohibitions

Using any parts other than genuine CALCA approved manufactured parts can void the warranty.

Improper installation, adjustment, alteration, service or maintenance can cause property damage or major injury. Read the installation and operating instructions thoroughly before installing or servicing this equipment.

1.3.3 Caution

Users must pay attention to content have this mark; it might be caused by misoperation.

1.4 Notice before starting it

This machine is a high voltage equipment, in order to use the machine better please be aware of following specification.

1.4.1 Placement instructions

Installation And Placement

① The equipment should be placed in a dry and ventilated environment

② The equipment must be placed horizontally

③ Keep your computer system away from potential sources of electromagnetic interference, such as a speaker or wireless telephone set.

1.4.2 Power connection instructions

Electricity Parameters

Rated voltage: AC110V / 220V, 1 phase, Rated current: 16A / 32A, 3500W

Please refer to the nameplate information on the back of equipment.

Rated power: 3500W

The access power must be consistent with the rated power of the equipment, and the diameter of the access power supply line must meet the rated requirements.

Please only use the power type identified on the printer's label.

Do not use a damaged or broken power cord. If you use an additional power cord, remember that the total amperes of the device inserted in the additional power cord should not exceed the rated ampere of the power supply. In addition, please remember that the total ampere of all devices inserted into the wall should not exceed the amp rating of the wall socket.

Ground Connection

Before getting the power-on, the ground wire must be connected properly to avoid accidents

Those who are sensitive to static electricity should take protective measures when operating the equipment.

Those who are allergic to static electricity should wear an anti-static wristband or anti-static gloves.

NOTE: The machine must be connected to the ground wire. In dry air conditions, static can be a dangerous issue, especially when using PET media (and moreso when the paper feeding speed is very fast).

Electrostatic charge can cause damage to the printer and the board.

The grounding wire is the best method to avoid this. During operation, ensure that the user's hands have been discharged (through contact with ground or electrostatic equipment). Otherwise, damage may occur to the plate card or nozzle.

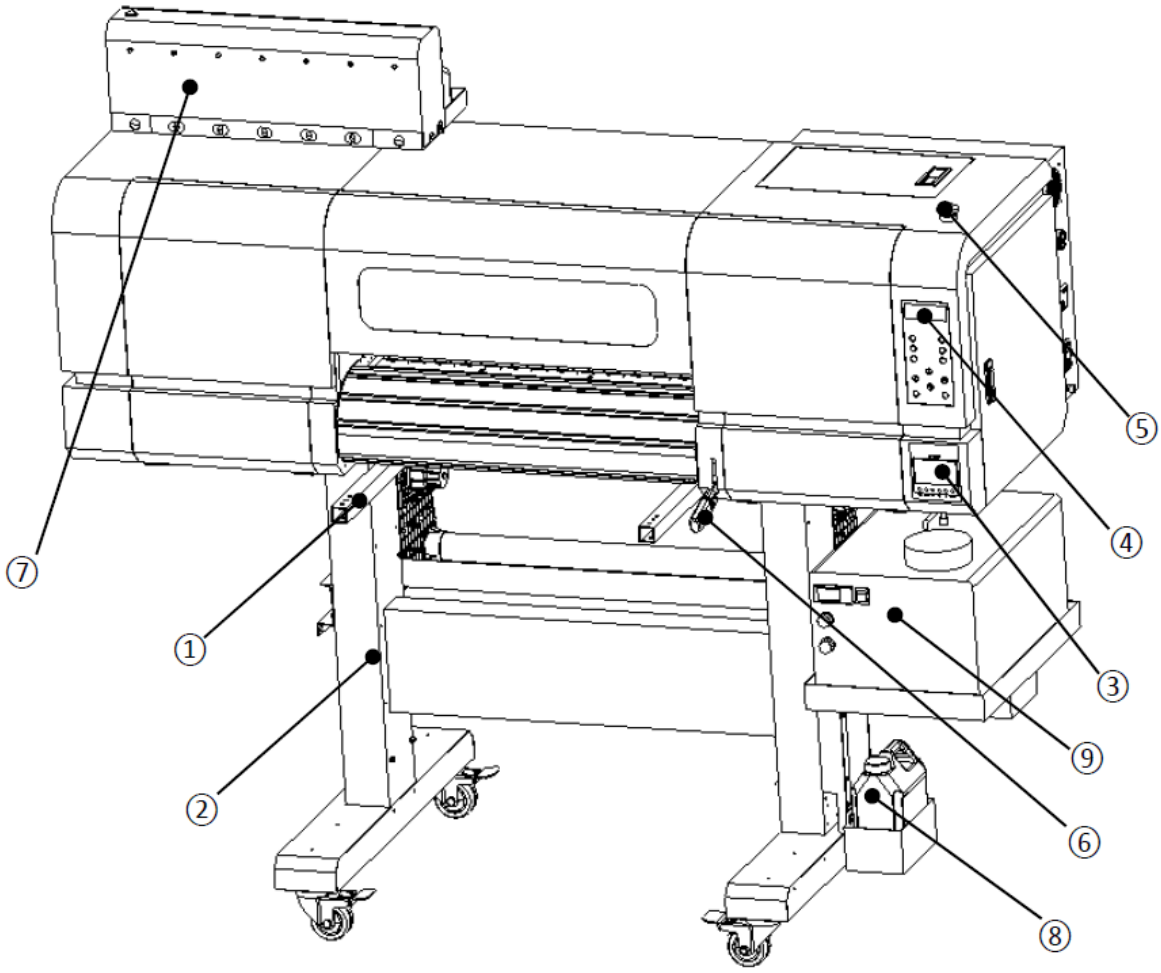
1.4.3 Precautions for operation

> The printer must be monitored during operation.
> Do not unplug the printer or other relevant data cables until the machine is switched off.
> Do not unplug the print cables or power cable while the machine is on or in operation, as it may cause damage to the main board.
> Please do not place tools or other items on the printing platform or cover plate of the machine, so as to avoid unnecessary losses caused by improper cleaning before the machine is running.
> Before handling your printer, make sure that your printing carriage is fixed in the primary position.
> Perform regular maintenance on the printer to reduce the impact of dust and ink on the printer.

II. Printer's Parts Identification

2.1 Machine body

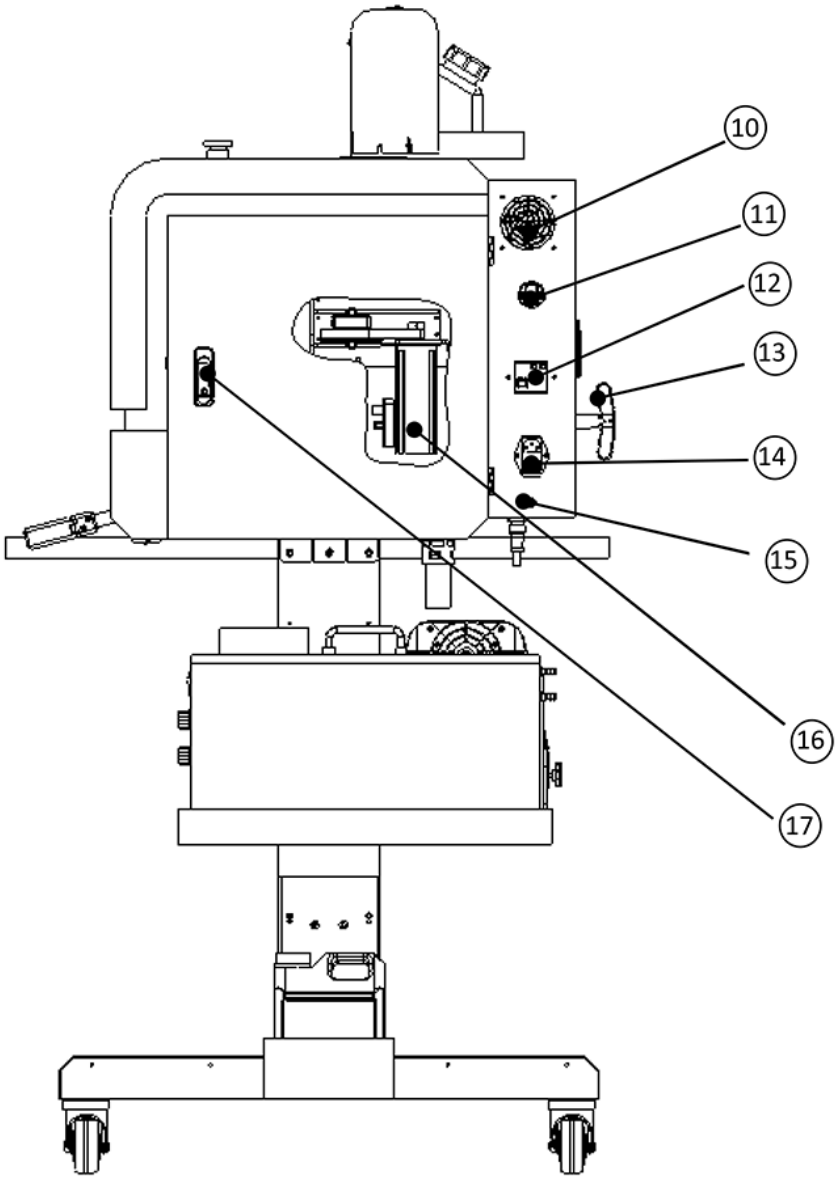
2.1.1 Front views



1. **Machine lifting rod:** To fix the wooden box floor during transportation to fix the machine and lift the machine when installing the machine for the first time, The lifting lever can be removed after the machine is installed.
2. **Machine stand floor:** The support frame of the machine. ("The Stand Floor Rack Assembly" in section 3.3)
3. **Platform heating air suction control board:** Set the front, middle and rear heating of the platform.
4. **Operation panel:** To adjust and set the operation and internal configurations of the machine. ("Operation panel diagram" On section 2.2)
5. **Emergency stop switch:** Pressing when stopped in an emergency.

6. **Media pressing handle:** Lift the wheel to install the printing materials.
7. **Bulk ink supply bottle:** A device for storing ink.
8. **Waste ink bottle:** A bottle for storing waste ink.
9. **UV curing lamp water tank:** control UV curing lamp and UV curing lamp cooling device.

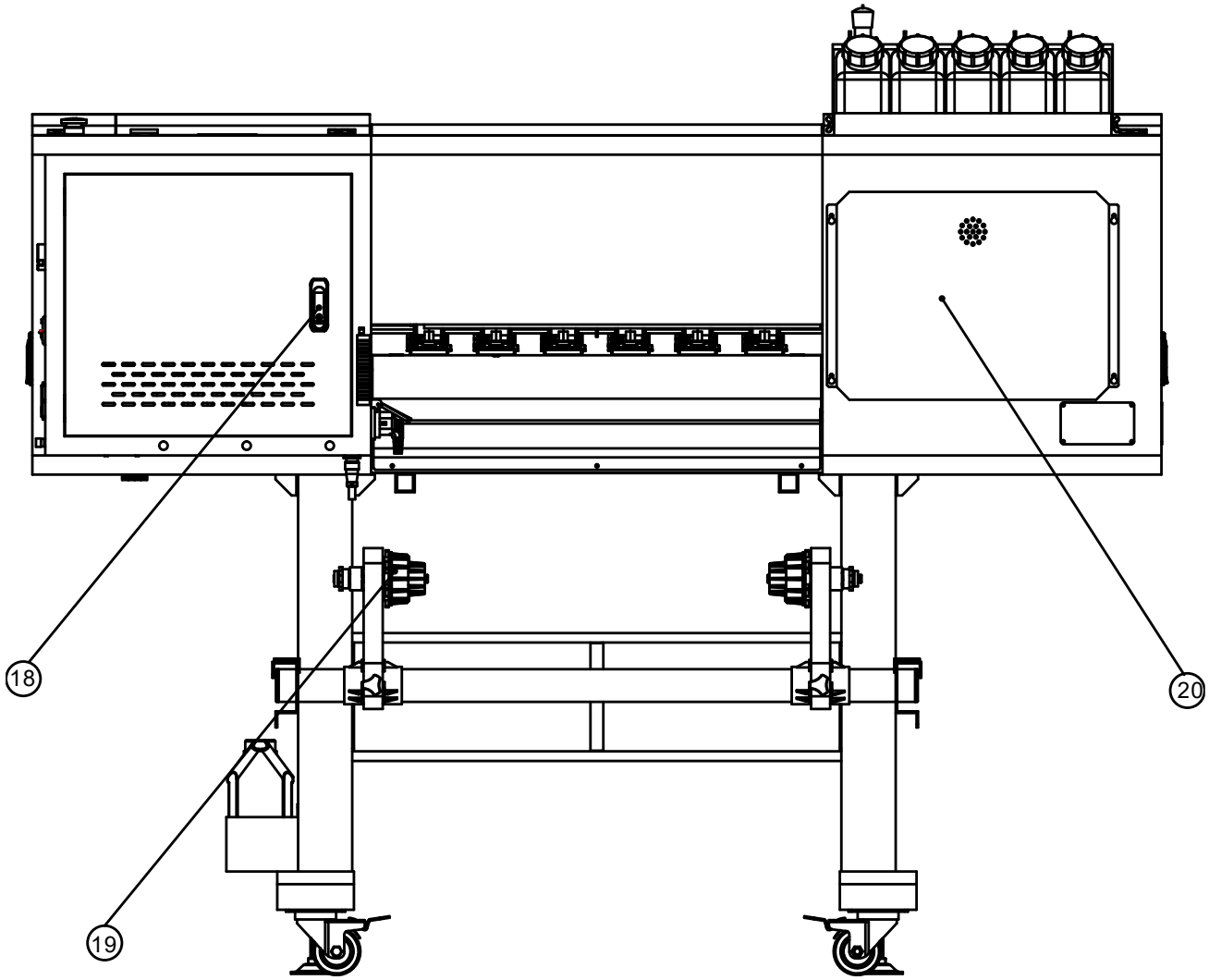
2.1.2 Right side views



10. **Heat dissipation fan:** Do not block the air outlet when the machine is working.
11. **USB Line buckle:** To fix data line.
12. **Protection switch:** Leakage protection device.

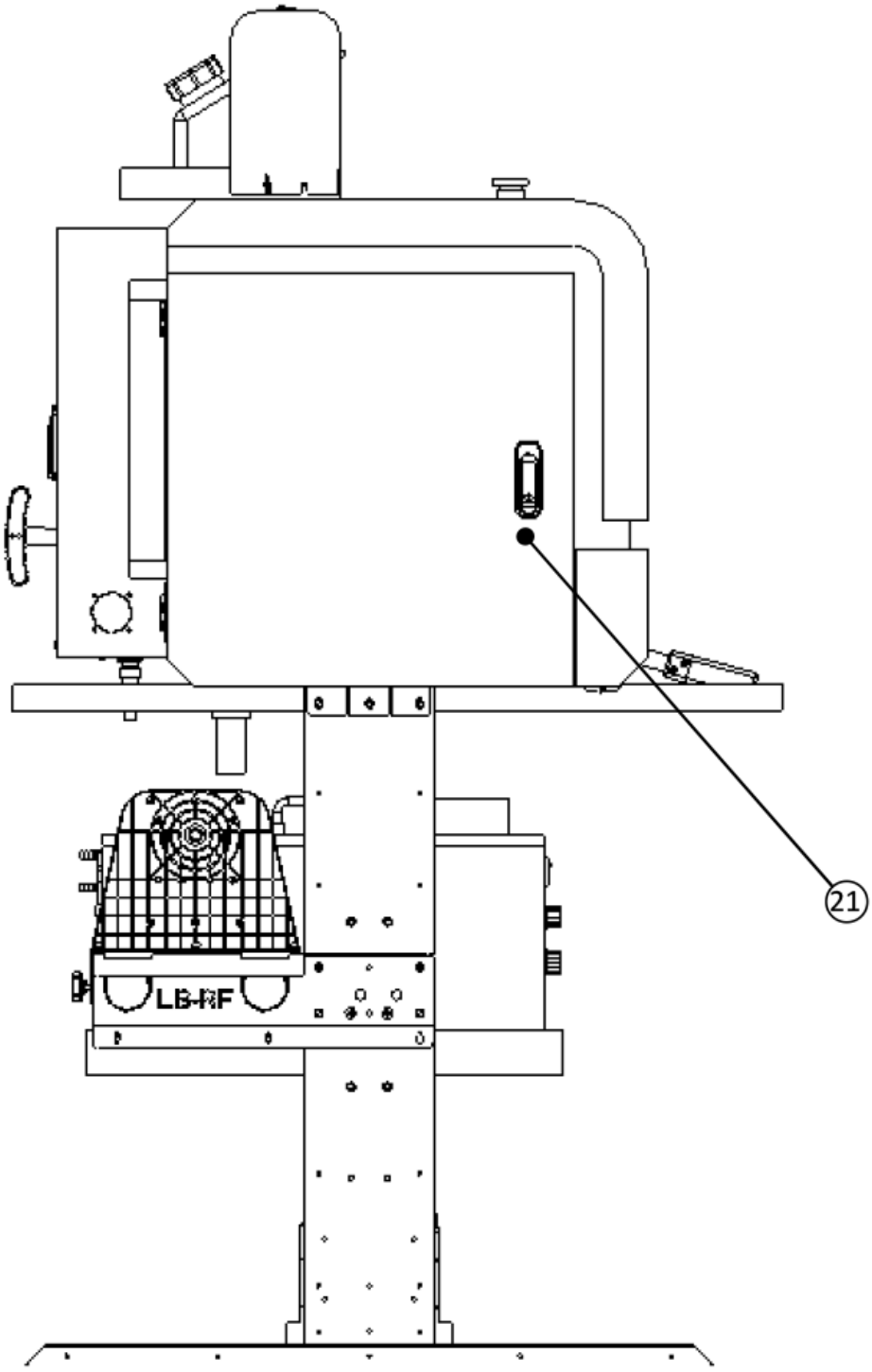
13. **Media pressing handle at rear:** Lift the wheel to install the printing materials.
14. **Main power supply: connect the power plug.**
15. **Ground wire terminal column:** External grounding wire to ensure that the machine is free. From static electricity or external electric field interference.
16. **X axis motor:** X axis driving electric unit.
17. **Right box door:** Integrating internal X axis electric unit, control panel and temperature control board and other circuit equipment, only accessible for professionals.

2.1.3 Rear views



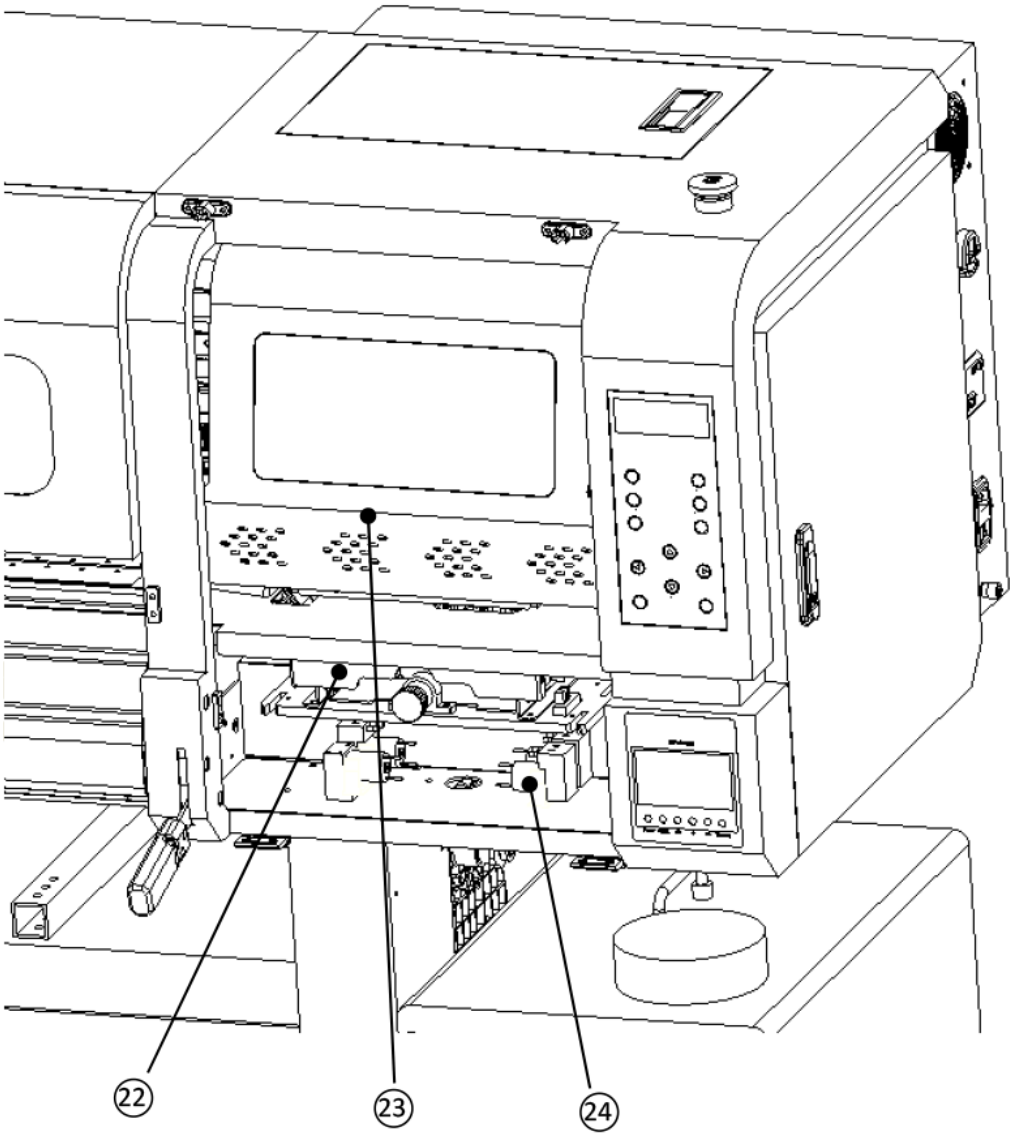
18. **Circuit box:** Power supply inside
19. **Damping dispenser:** A device for placing printing materials.
20. **Ink supply system inside:** Do not open it for a non-professional person.

2.1.4 Left side views



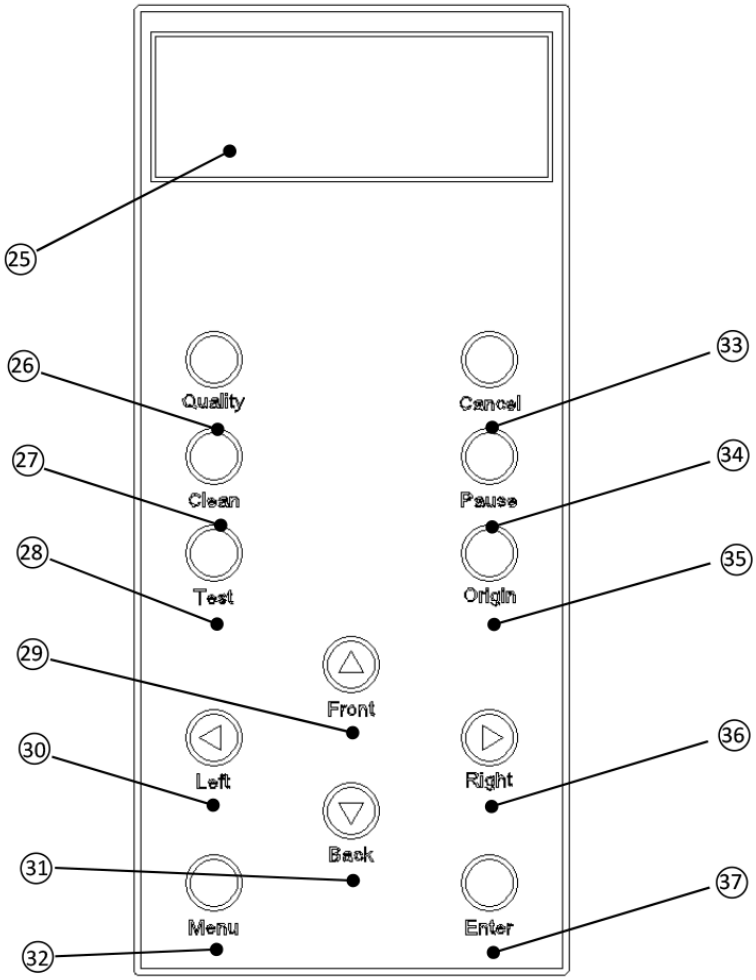
21. **Left Case Door:** Inside is y-axis Drive Group, do not open for non-professionals.

2.1.5 Right cover inside diagram



22. **Ink station:** The ink pumping and moisturizing device of the nozzle. When the machine is not working, the cap top must be used to seal the nozzle.
23. **Carriage unit:** Please refer to “Carriage Diagram” section 2.3
24. **Ink pumping system:** Elements for pumping ink at ink station.

2.2 Operation panel diagram



25. Display Screen: Machine Operation Information Display.

26. Quality: Set print quality.

27. Cleaning: Cleaning the shower head.

28. Test: Print the nozzle hole status diagram.

29. Move forward: The print material moves back.

30. Left shift: The Carriage moves left.

31. MOVE BACK: The print material moves forward.

32. Menu: Menu selection.

33. Cancel: Cancel or return to the previous level of a menu.

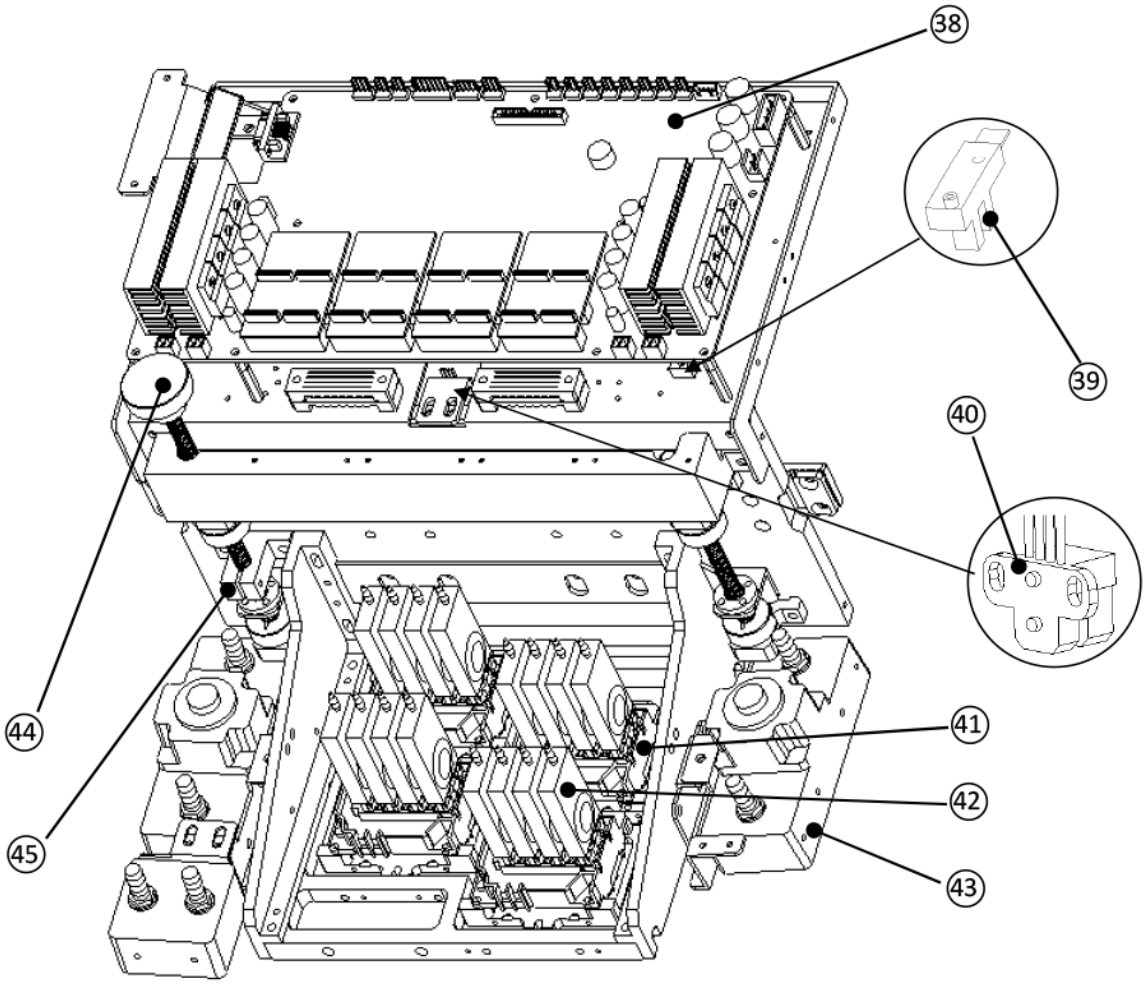
34. Pause: Pause printing.

35. Starting point: The Carriage returns to the starting position.

36. Move right: The car moves right.

37. Confirm: Confirm the option selected

2.3 Carriage diagram



38. **Print head board:** Board driving printer jet ink. Machine online, data transmission, inkjet system.
39. **X axis Origin sensor:** X axis original positioning sensor.
40. **Linear encoder:** X axis grating scale reading element.
41. **Print head:** Ink output, the nozzle status directly affects the printing effect.
42. **Ink damper:** Ensure the continuous supply of ink and filter impurities.
43. **UV curing lamp:** UV ink curing device.
44. **Lifting Knob:** Adjust the height of nozzle according to the thickness of printing material.
45. **Screw clamping parts:** usually lock to prevent the height of the nozzle adjustable, need to adjust the height of the nozzle need to loosen the clamp and the car on the left and right sides of the plate a total of five screws to adjust, adjust the height after the screw needs to re-tighten.

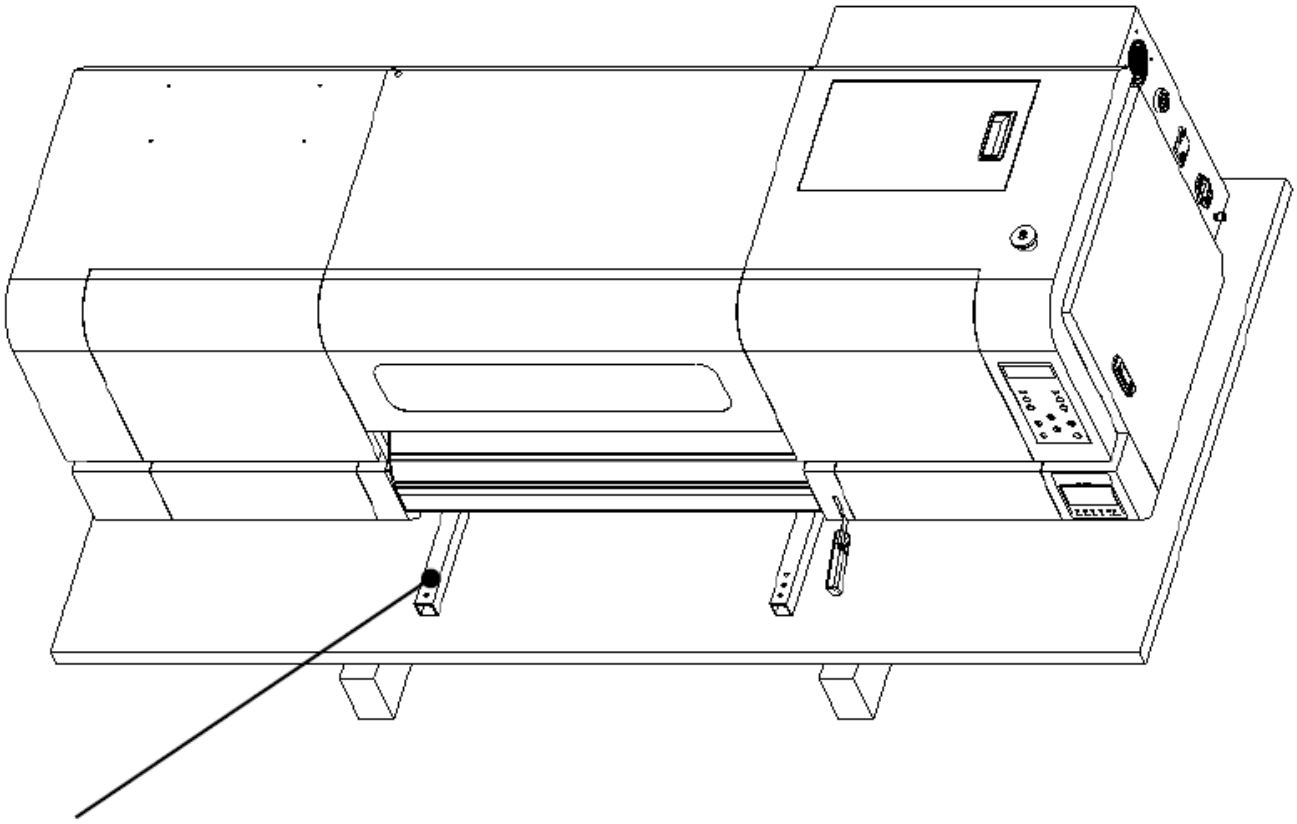
III. Printer Installation

3.1 Installation precautions

1. Before unpacking, check if there is damage on the packing and the machine during transportation.
2. After unpacking, check if the service parts are correct as the packing list.
3. The installing place should be provided enough space for operating and free of dust, no vapor, no corrosive gas, no combustible or explosive substance around. Keep the machine away from wind blowing place, otherwise will affect printing quality.
4. After installation, adjust each caster to reach level ground. The casters only be used on even ground for short distance movement.

Notice: Please move carefully since it is a heavy equipment.

3.2 Printer unpacking

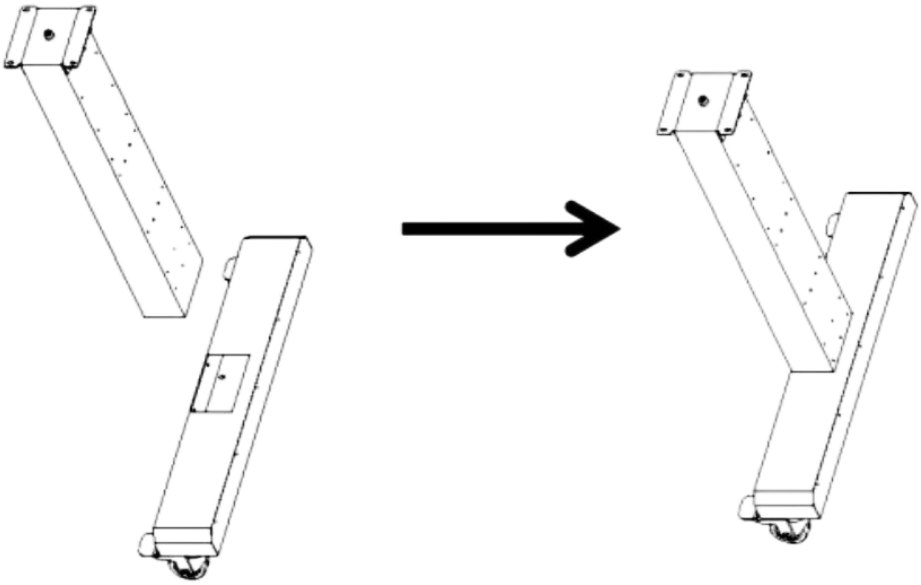


Open the wooden box and remove all the screws that fix the lifting rod of the machine on the bottom plate of the wooden box.

3.3 The stand floor rack assembly

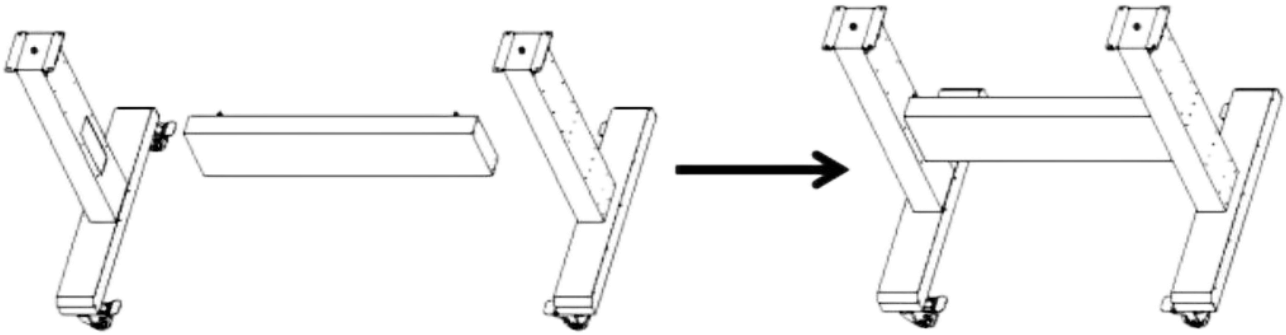
1. Take out the parts from the packing.
2. Assembling two legs and all shafts according to the picture.

3.3.1 Installation diagram



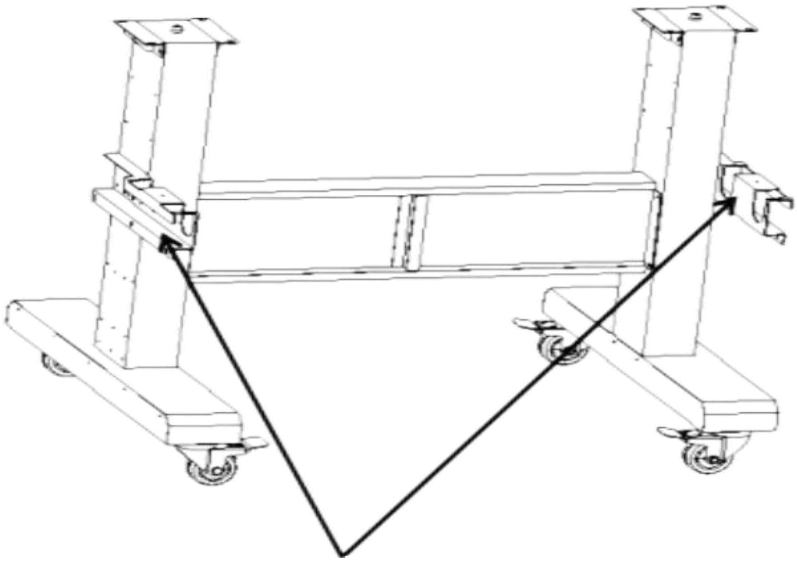
Fix the stand bars with six screws.

3.3.2 Installation of Cross Bar

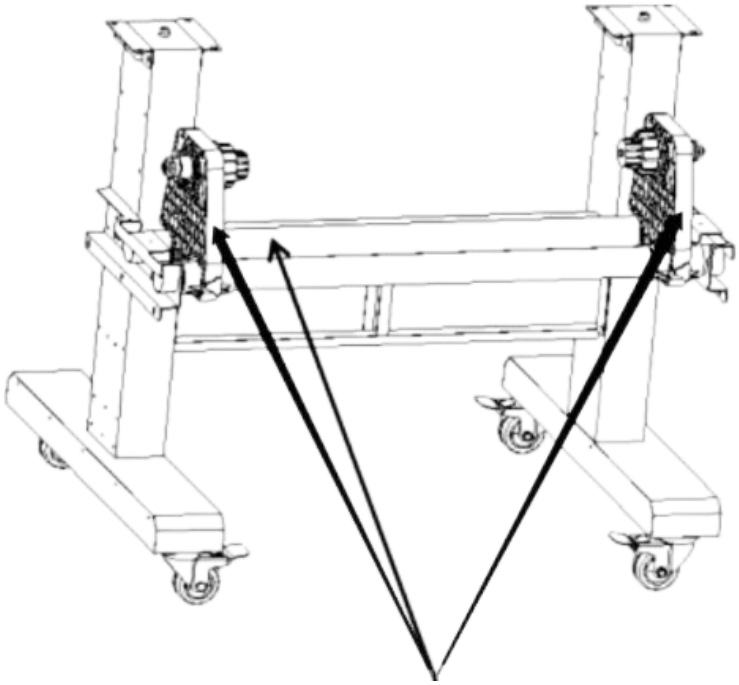


Fix the cross bars and the stand bars together with 12 screws.

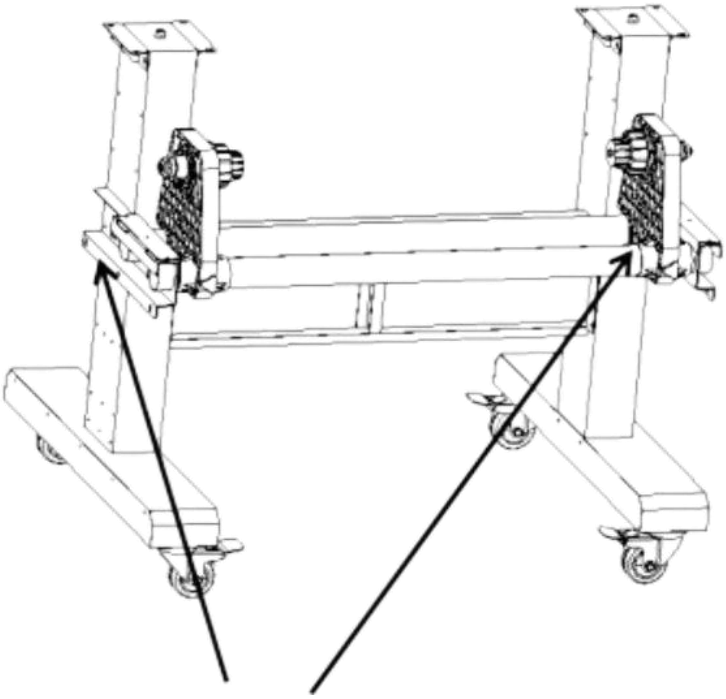
3.3.3 Roller installation



Install the both sides of the brackets

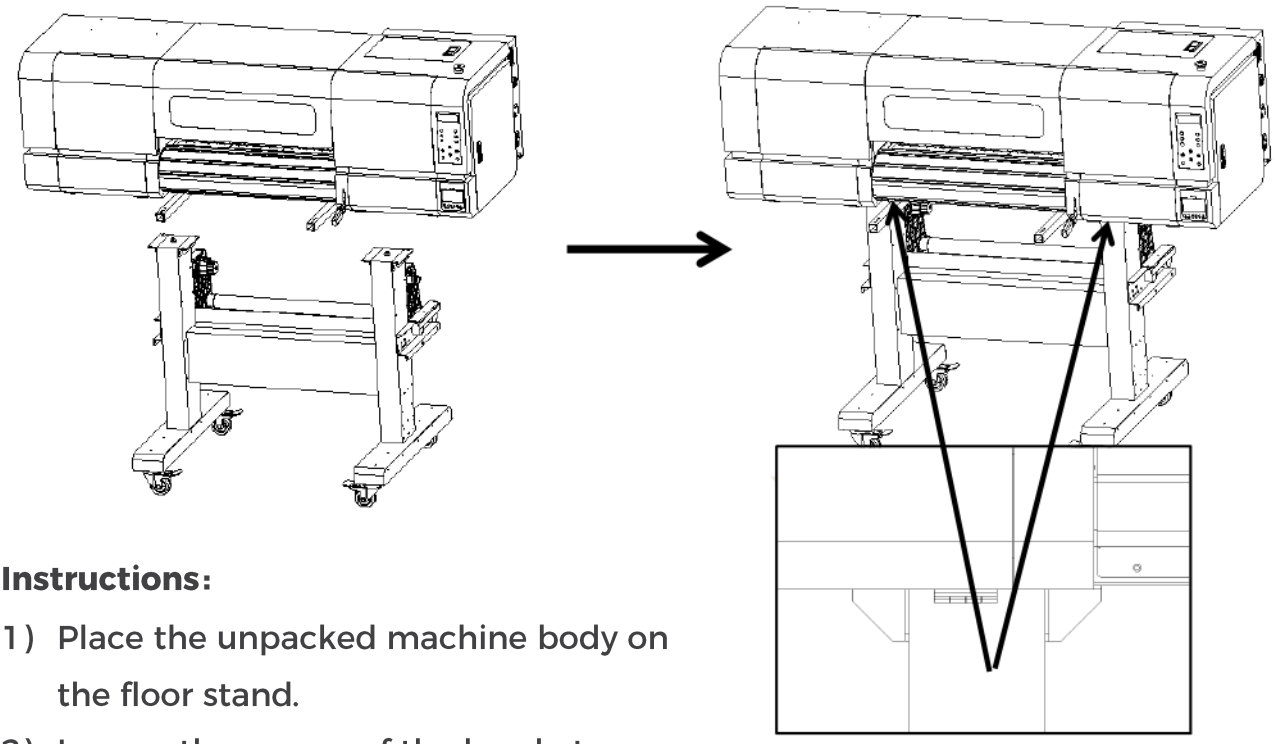


Place two steel pipes and flange plates on the pipe holders.



Fix the steel pipe pressing plate on the pipe frame.

3.4 Machine body assembly

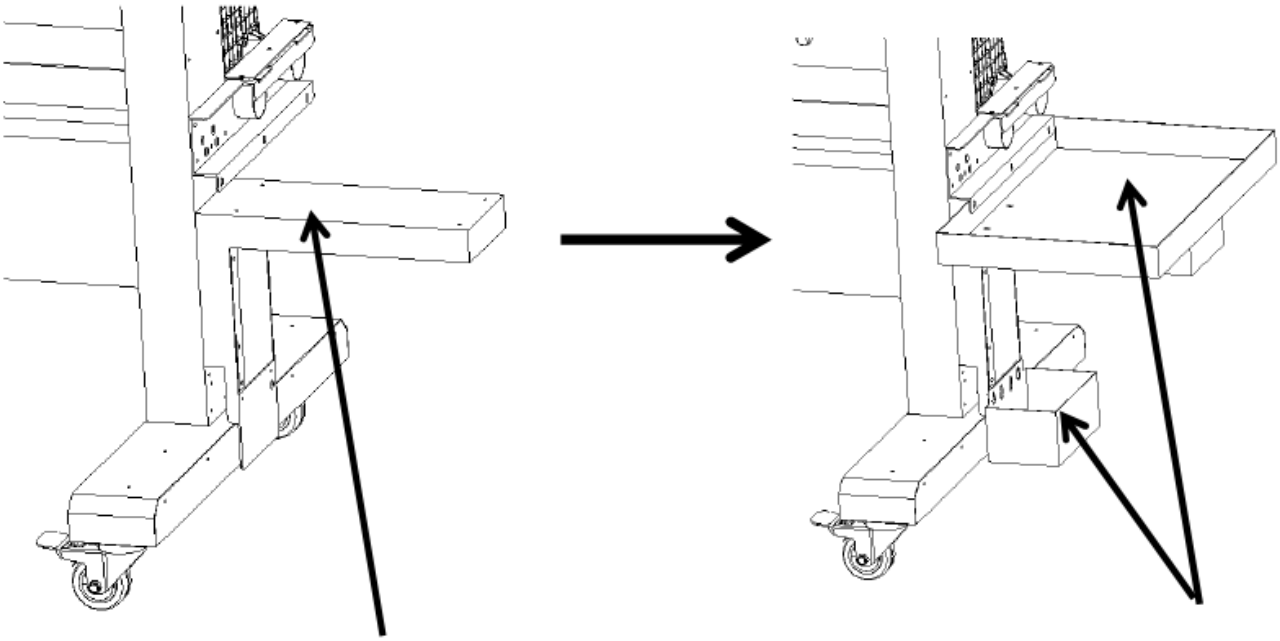


Instructions:

1) Place the unpacked machine body on the floor stand.
2) Loosen the screws of the bracket connecting plate, and then tightened with machine.

Stick to the bottom beam and stand bar.

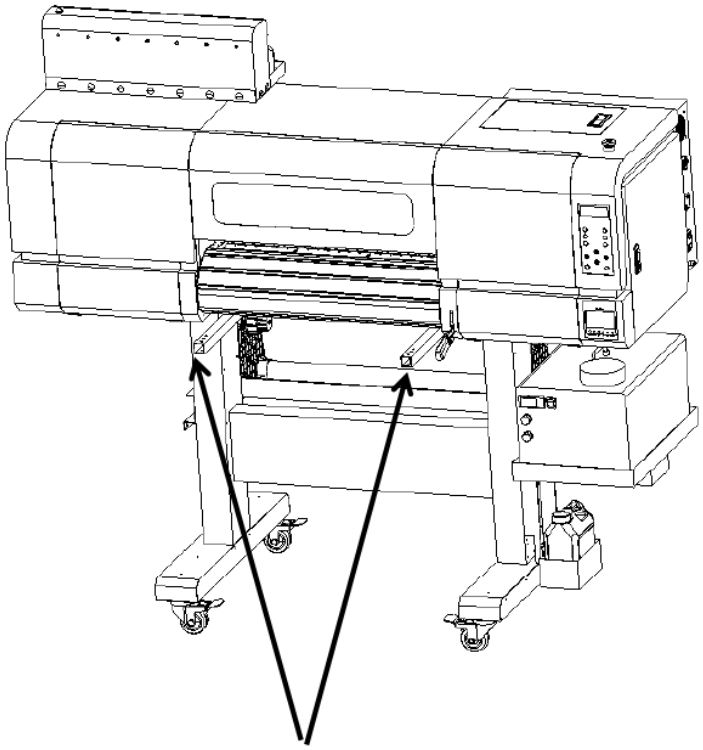
3.5 UV tank tray holder installation



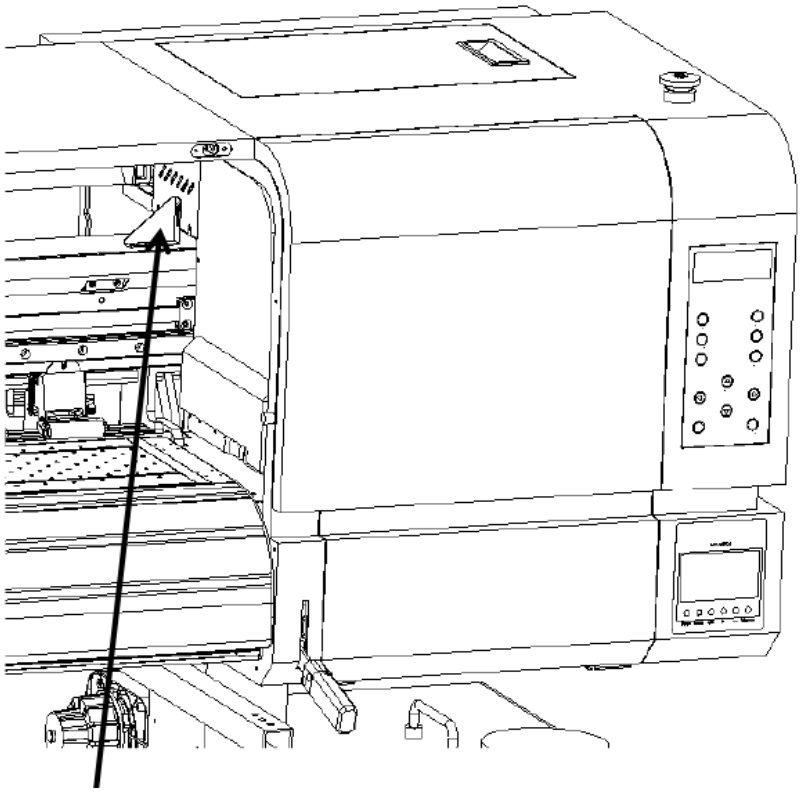
The water tank bracket is fixed on the machine bracket on the right side

A water tank tray and a waste ink Carriageridge are installed.

3.6 Remove the lifting rod and carriage fastener



Remove the two lifting rods .

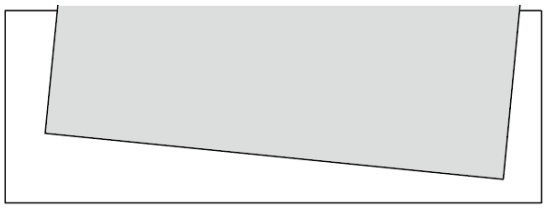


Remove the carriage fastener.

3.7 Media loading

Run the media through the print platform.

Available



Unavailable

Keep the media parallel to the platform

Please refer to the video, consult the sales representative for details.

Cautions when handling film:

> Please use recommended film. Contact CALCA sales for recommended film.

> Be cautious of expansion and contraction of media from temperature and humidity.

After opening an unopened media, leave the media for approximately 30 minutes to adjust to environments.

> Do not use media with folds, scratches, tears, curvatures, winding curl and weaving.

> Do not leave a roll media set in the product for a long time. The media can be curled becoming unsuitable for printing.

When not using for a long time, remove the roll media and store in its original package box.

Instruction for Crystal Label

I. Before UV printing, make sure the printer is turned on.

II. Printing film called A, remove the protective layer from A (Protective layer is the layer which without adhesive), lay A on the UV printer platform (Adhesive side is up), and stick the four corners with tape to prevent curling (If there is an air suction device, please open the air suction).

III. Print the designed logo or any artworks (In transparent PNG format) on A. The printing sequence is white, CMYK, varnish ink. Use rigid UV ink.

IV. Take off the printed A film from the UVDTF printer. Remove the protective

layer from B (transfer film called B), and laminated B with the printed A (Adhesive side stick with adhesive side). A3 and A4 size can be scraped gently with plastic scraper, if large format size needs to be laminated with cold laminating machine.)

If B film you buy is only one layer, then directly laminated the B on the printed A will be OK.

V. The best effect can be achieved after laminated half an hour. Do not expose the printing adhesive surface in the air, otherwise the sticking effect will be affected.

VI. Cut the logo or artworks from the laminated A&B, then remove A. At this time, the logo has been transferred on the B. Stick the logo or artworks on the surface of the object. Press the logo surface and make it stick tightly. Finally remove B, the whole logo is transferred on the object surface.

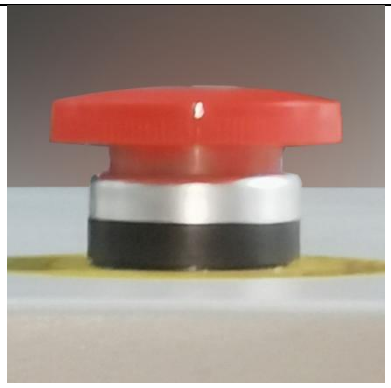
Application: Stick on glass, wood, metal, ceramics, packing boxes and other hard, oil-free and clean material surfaces.

3.8 Inject ink

Put the ink into the ink bottle according to the instructions on the label, note that the color of the ink needs to be the same as the color of the corresponding label on the main ink bottle.

3.9 Turn on the printer

	Ensure that the electricity leakage kept in ON. Rear power switch on the right side of the printer. Reset - Press Before Switching On. Test - Push Monthly.

	Keep the emergency switch standby.
	Open the main power Always use the power switch to turn the printer off (rear power switch on the right side of the printer). Do not unplug the printer or other relevant data cables until the machine is switched off.

3.10 Turn off the printer

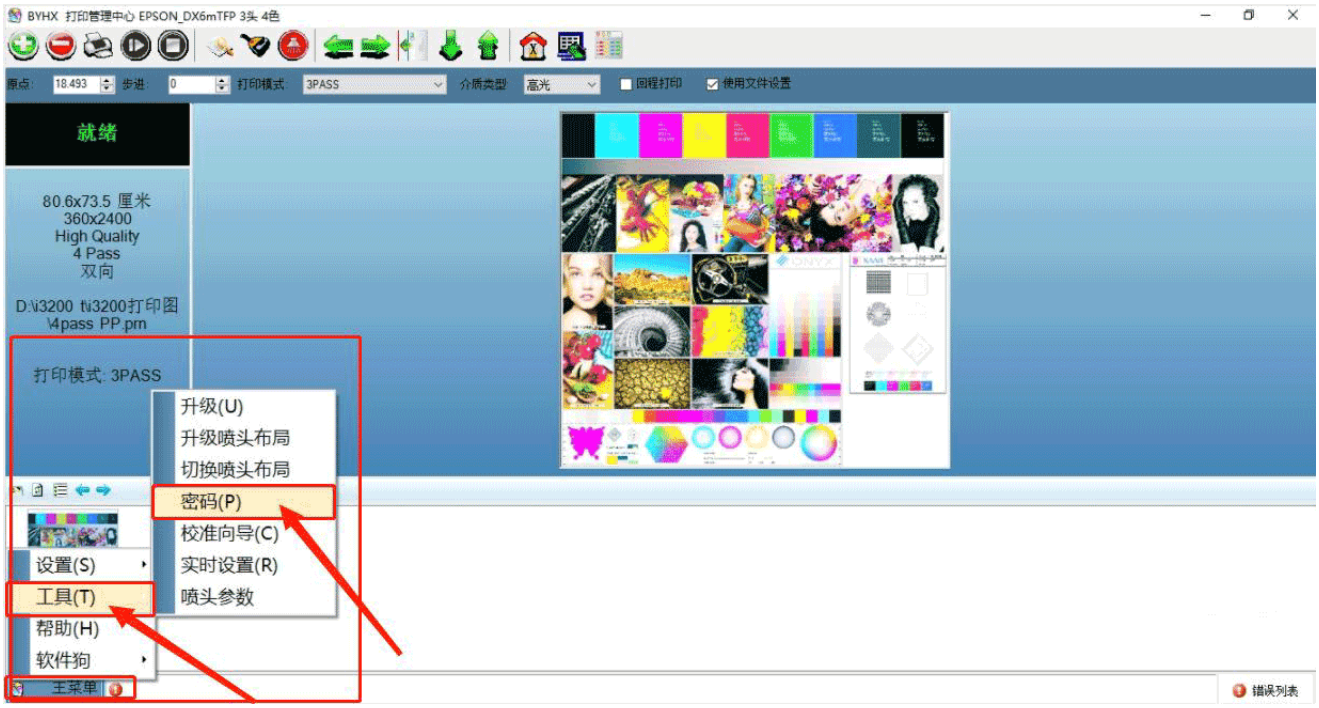
1. Click the origin  .

2. Shut down the main power supply.

IV. Introduction and operation of software interface

4.1 Power on the system, input language password first

1: “Main Menu” -> ”Tools(T)” -> ”Password(P)”

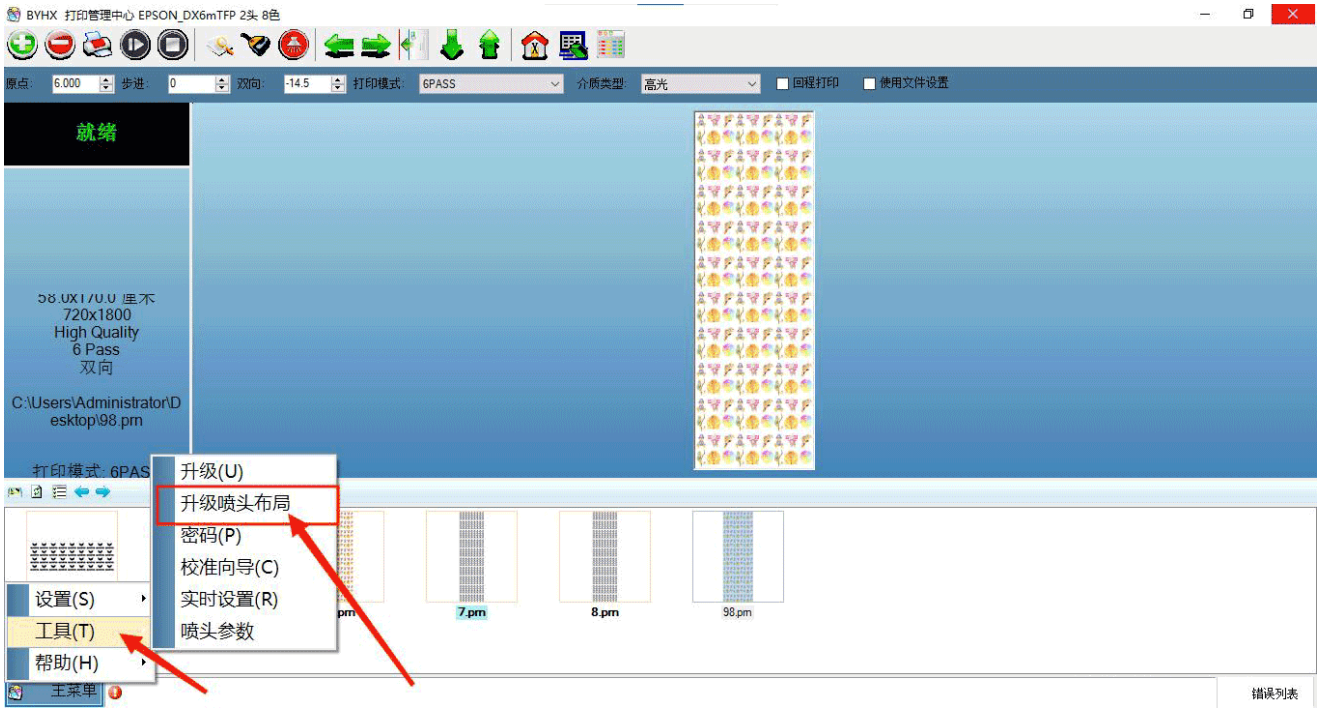


2: Input ”Language Password” -> click ”setting” -> click ”Close(X)”

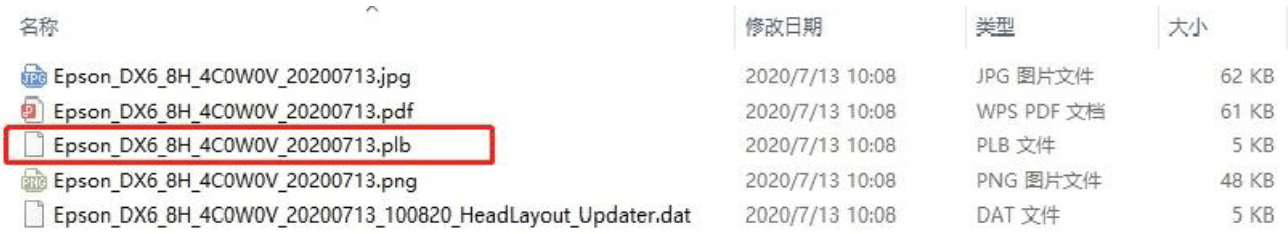
3: Restart the system (Printer) and control software.

4.2 Upgrade the layout and settings

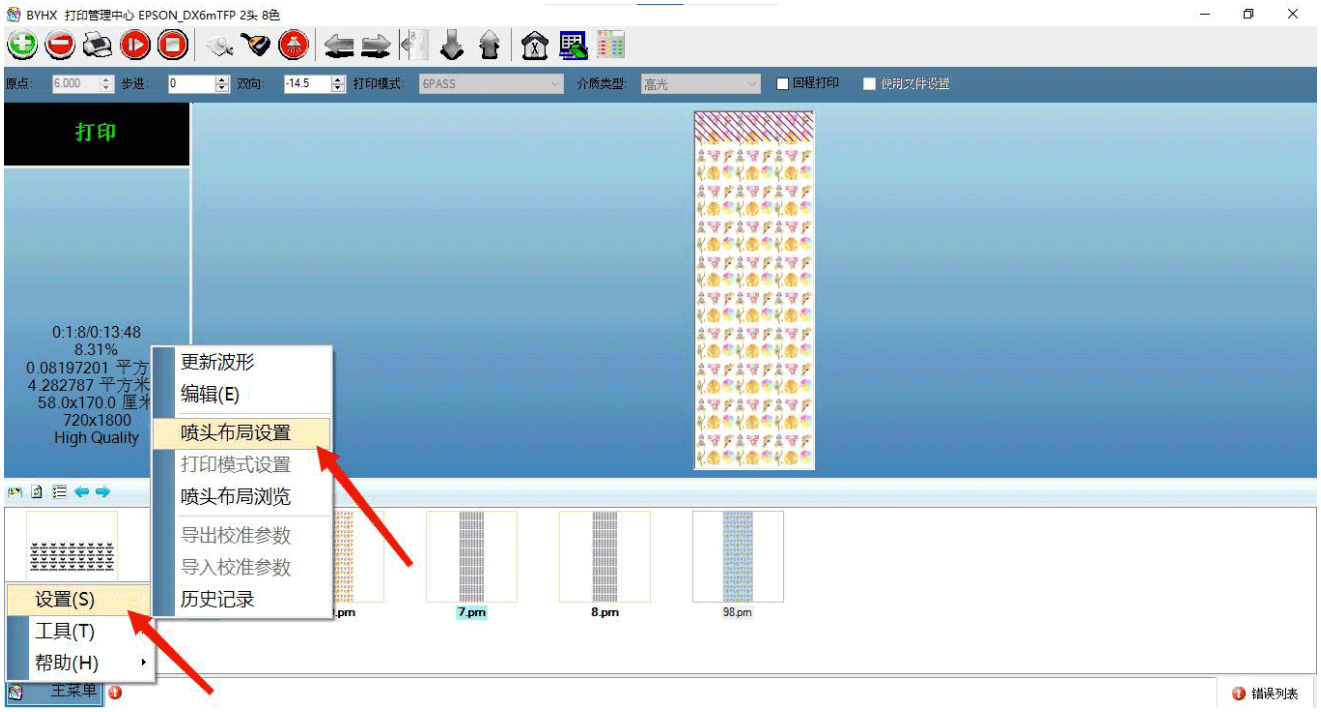
1: Upgrade Layout Package and setting: ‘Main Menu’ --> ’Tools’ --> ’Update Layout’



2: Update “.plb”file.

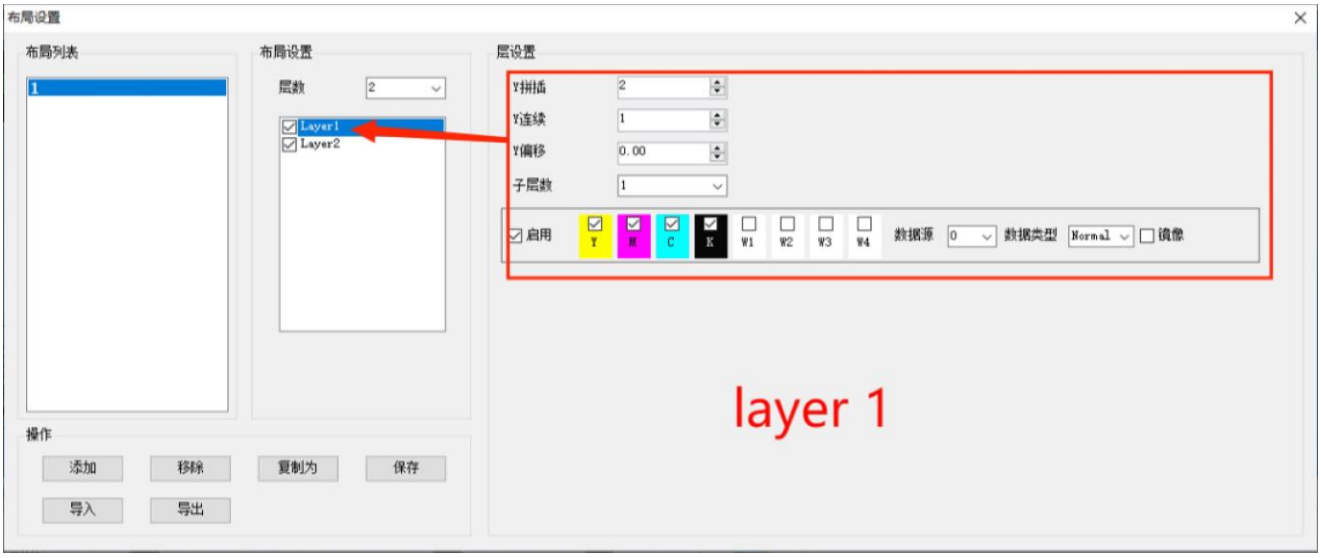


3: Restart software, layout setting: ‘Main Menu’-->’Setting’-->’LayoutSetting’



4: **Click 'Add'**

Create a new Layout with a new name



5: **Select appropriate 'LayerNum'.**

Eg: "White Color", Set 'LayerNum' as 2,

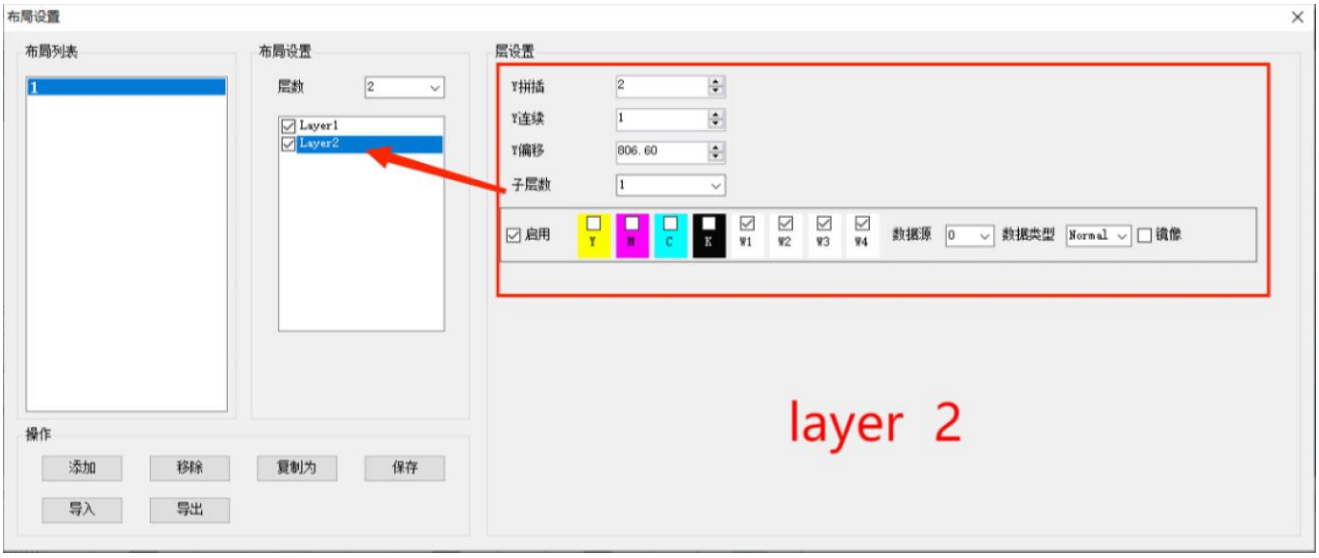
Layer1： 'Y interleave' as 2, 'Y Continue' as 1, 'Y Offset' as 0, 'SublayerNum' as default.

Check 'Enable', 'Y M C K' , 'Source' and 'DataType' as default;

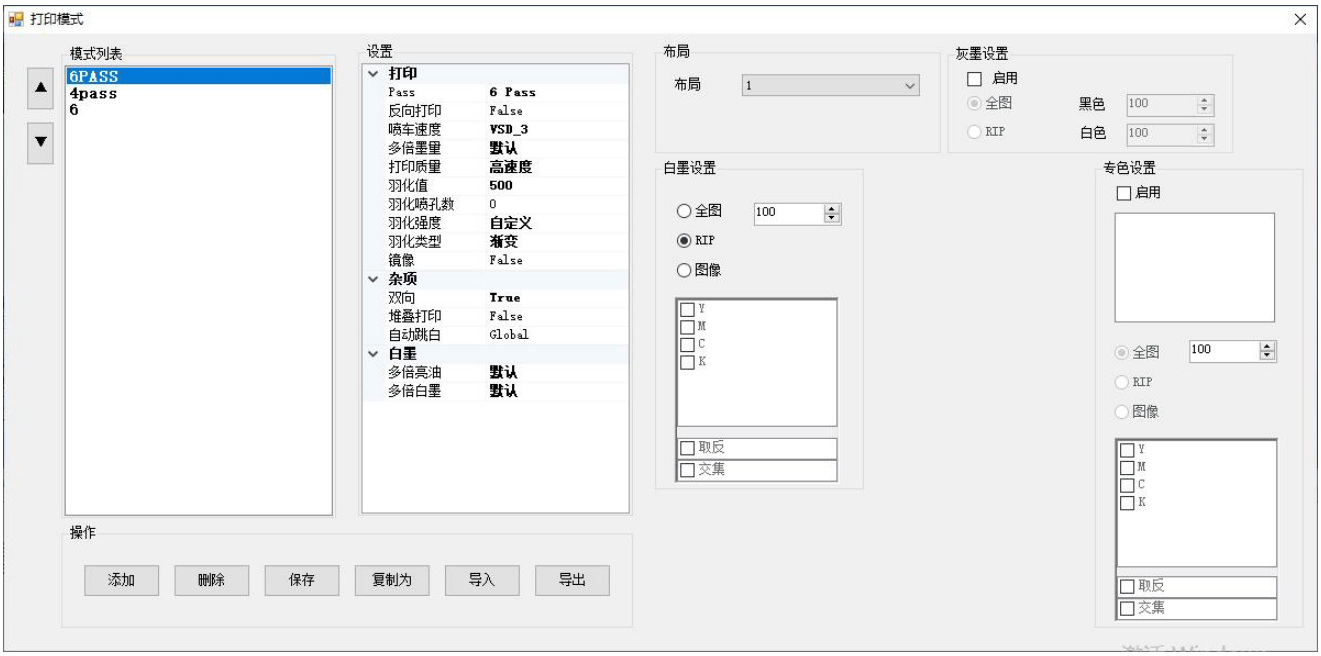
Layer2: 'Yinterleave' as 2, 'YContinue' as 1, 'YOffset' as 800, 'SublayerNum' as default.

Check 'Enable', 'W1W2W3W4', 'Source' and 'DataType' as default;

(Notice: For Multi Layers, the 'YOffset' for each layer is defined by the Yoffset of print head. Eg: EPSON I3200, initial DPI is 400, the distance of one print head staggered is 400.) click ' Save



4.3 Print Mode setting



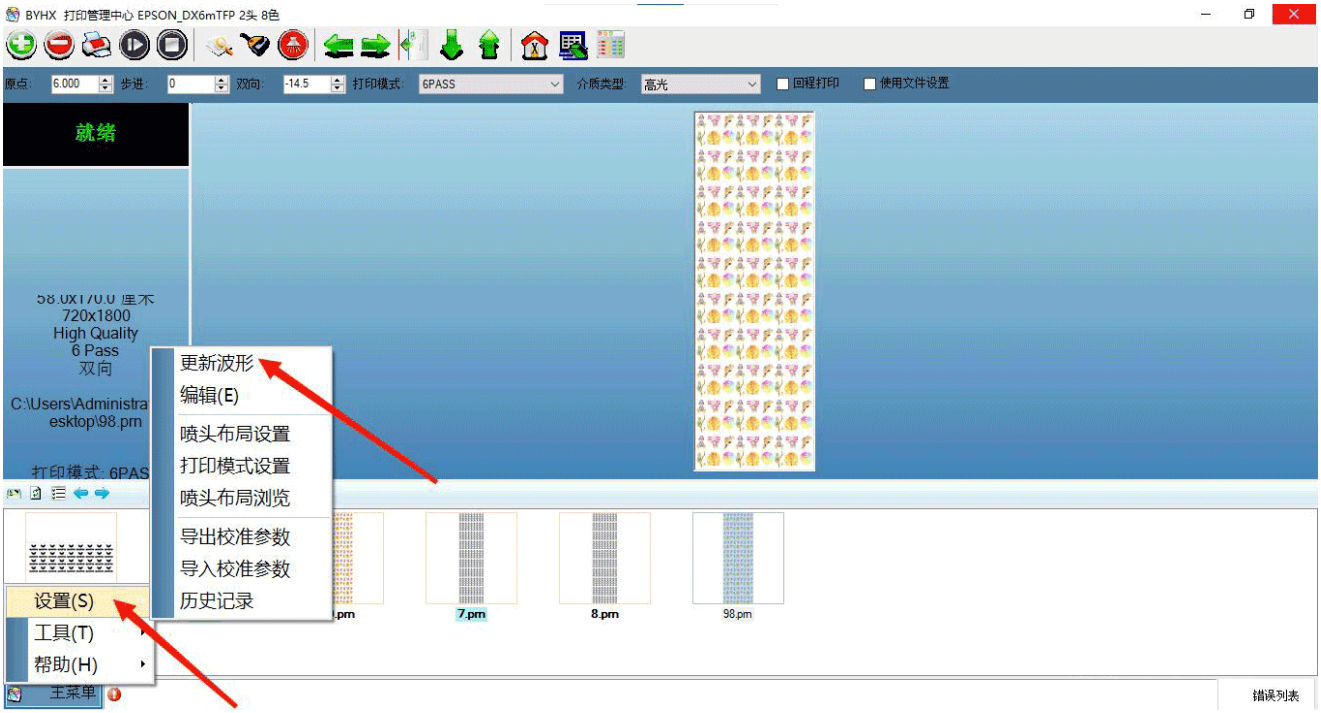
1: Click 'Add' to create a Print mode name (Print Condition is recommended for recognition) .

2: Set print conditions according to actual print requirements. Attention: there're 2 options for 'Print Quality': 'High Precision' and 'High Speed'.

Eg: '360*1800 3pass' should be selected along with 'Print Quality'

'720*900 3pass' should be selected along with 'High Speed'

4.4 Updatewaveform



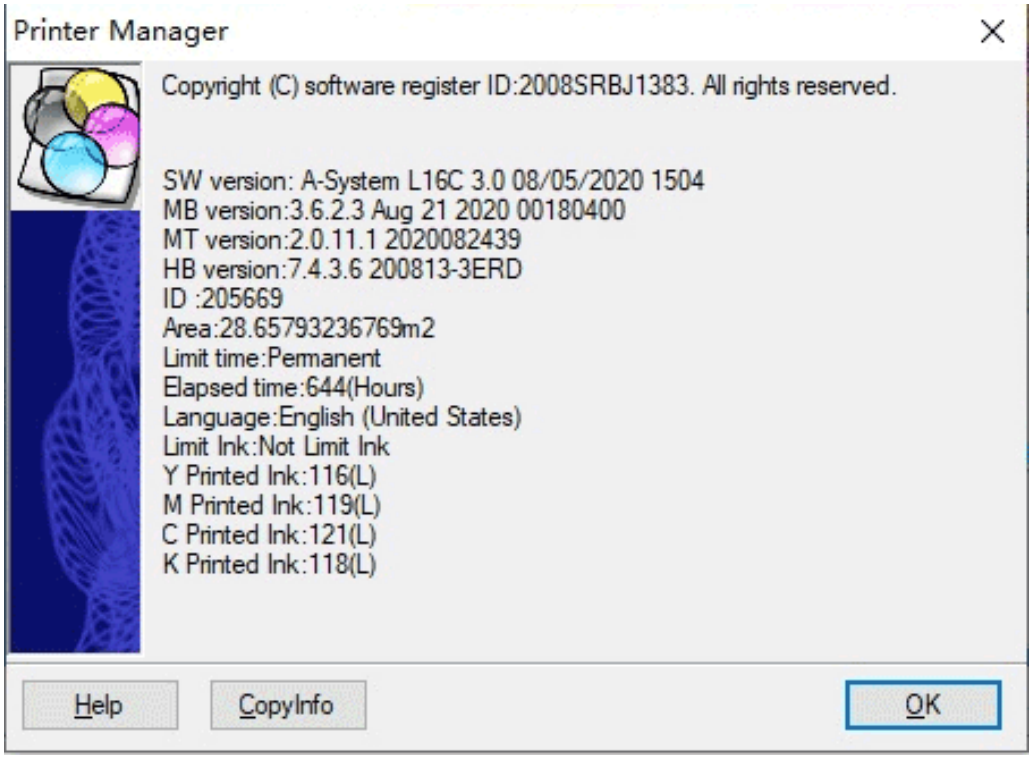
UpdateWaveForm,

Click 'Main Menu'-> 'Setting'-> 'UpdateWaveForm'to update waveform. '.

'wav'format file is accepted. There's no need to restart printer or software.

4.5 Check version information

'Main Menu'-- > 'Help'-- > 'About'



SW version: Software version

MB version: Main Board version

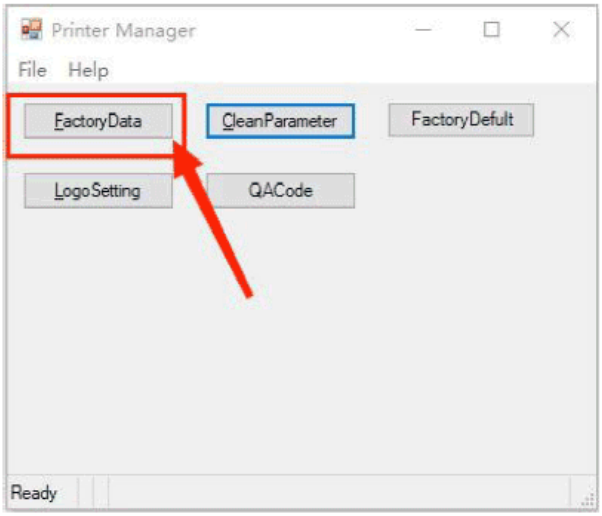
(00180400 is the password to 'FactoryData')

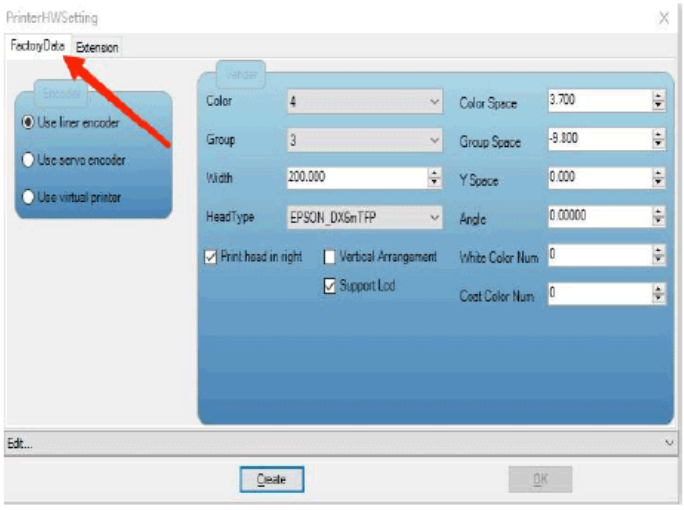
HB version: Head Board version

ID: The serial Number of Main Board

4.6 Factory data setting and Extension settings

1: FactoryData: Enter Factory Data Setting





Take an example for illustrating the main function of each parameters:

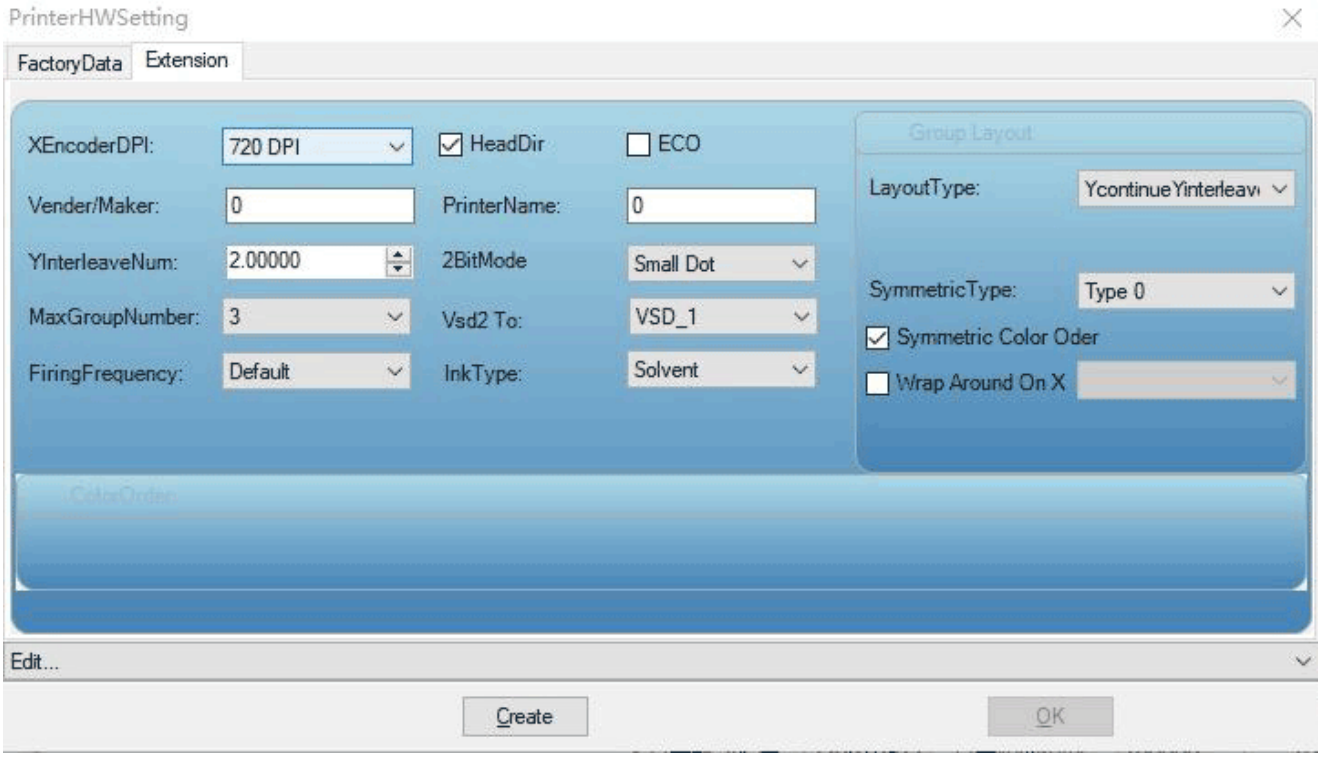
a) Normal I3200-2H-700: Color: 4, Gropu: 2, Width: 700. Set other parameters as default.

b) I3200-3H-UV-700: Color: 4, Group: 1, Width: 700, White Color Numb: 4, Coat Color Num: 4. Set other parameters as default.

c) Notice: If the carriage is on the right of the printer, 'Print head in right' should be checked.

d) Layout package is used to define the layout of print head, so any position related parameters are not needed to set here.

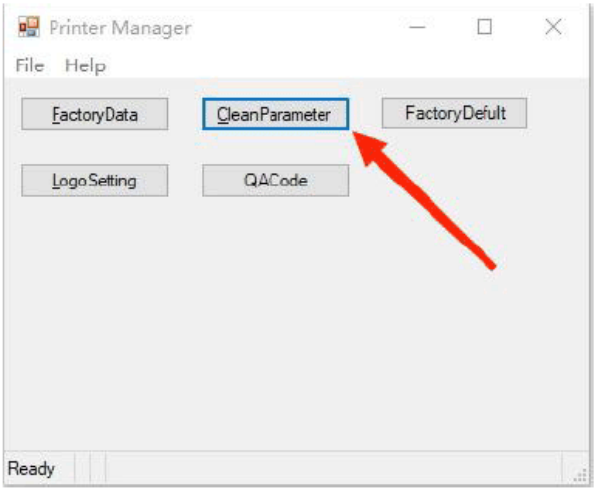
e) Click 'Create' once you finished modifying parameters, and click 'Edit', select the last row, click 'OK' to save. Restart printer.

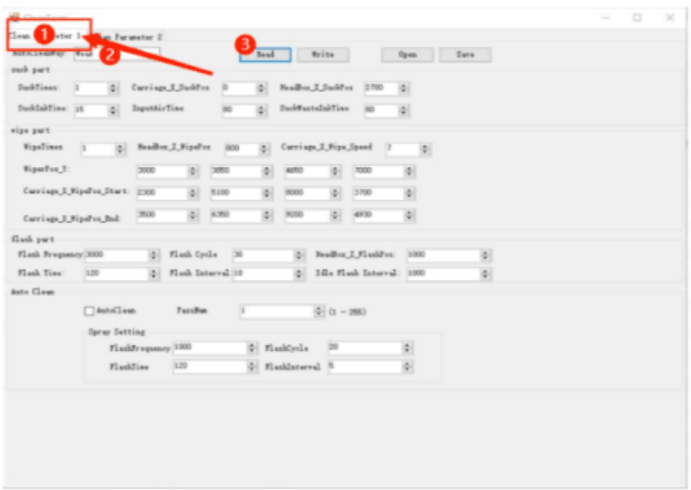


f) If UV boards are used, please select 'UV' for 'InkType', and save.

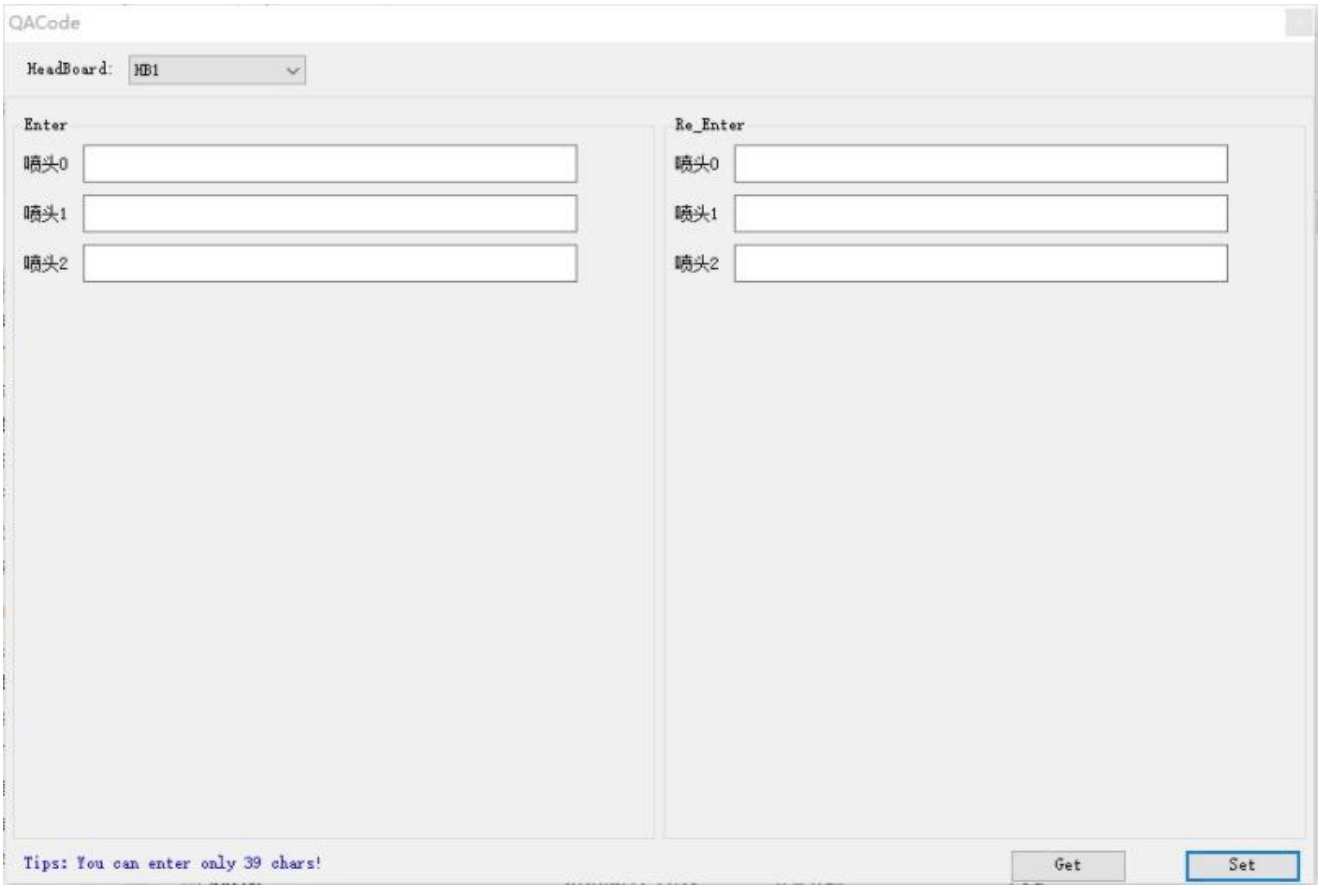
2: CleanParameter: Cleaning parameters.

Once the interface is open, all parameters are 0. DO NOT CLICK 'Write' . Select 'AutoCleanWay' first, click 'Read'.





3: QACode: QR code filled in

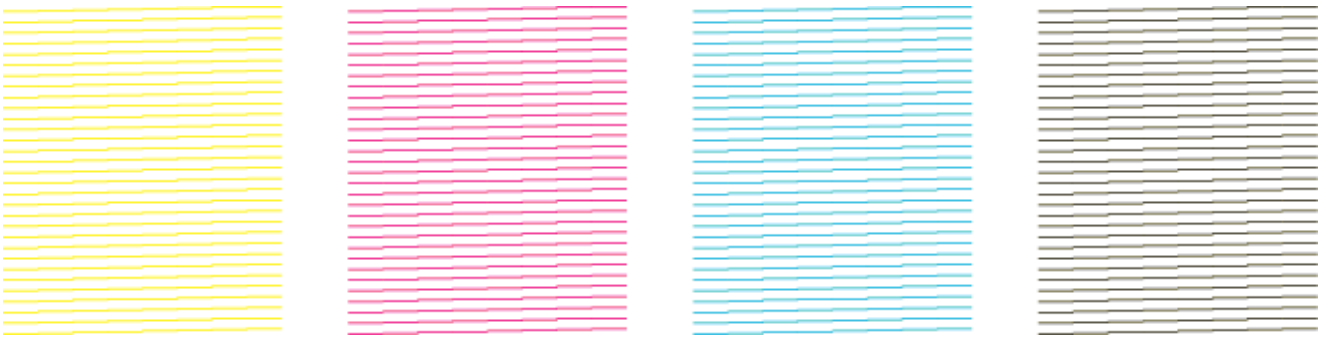


Input a series of codes obtained by scanning the QR code on the print head through WeChat into the corresponding print head channel (or directly fill in the code number marked on the print head), and then click 'Set' to complete the operation. Read the information just set through 'Get', and the tick mark appears to complete.

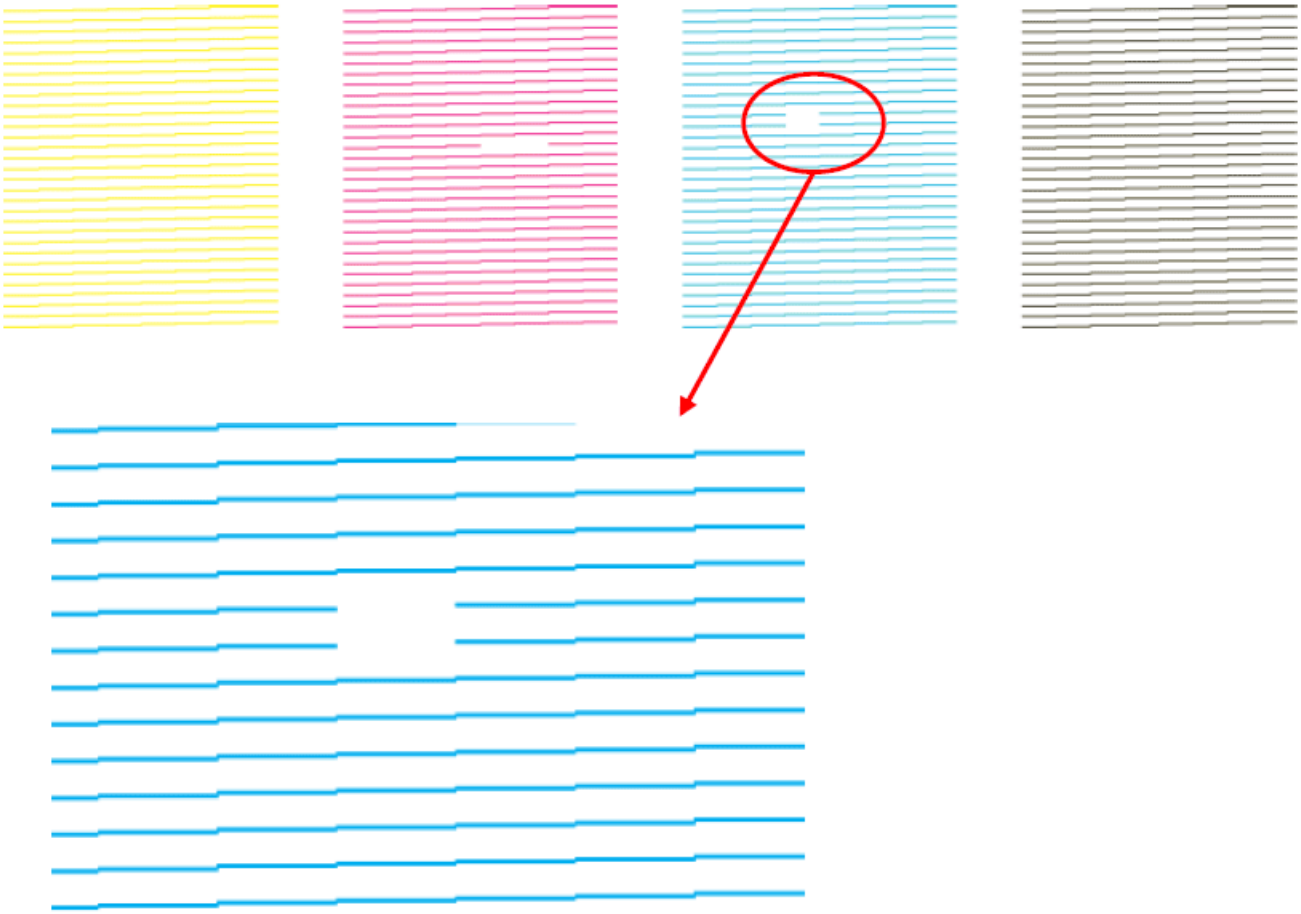
4.7. Calibration Manual

Nozzle check

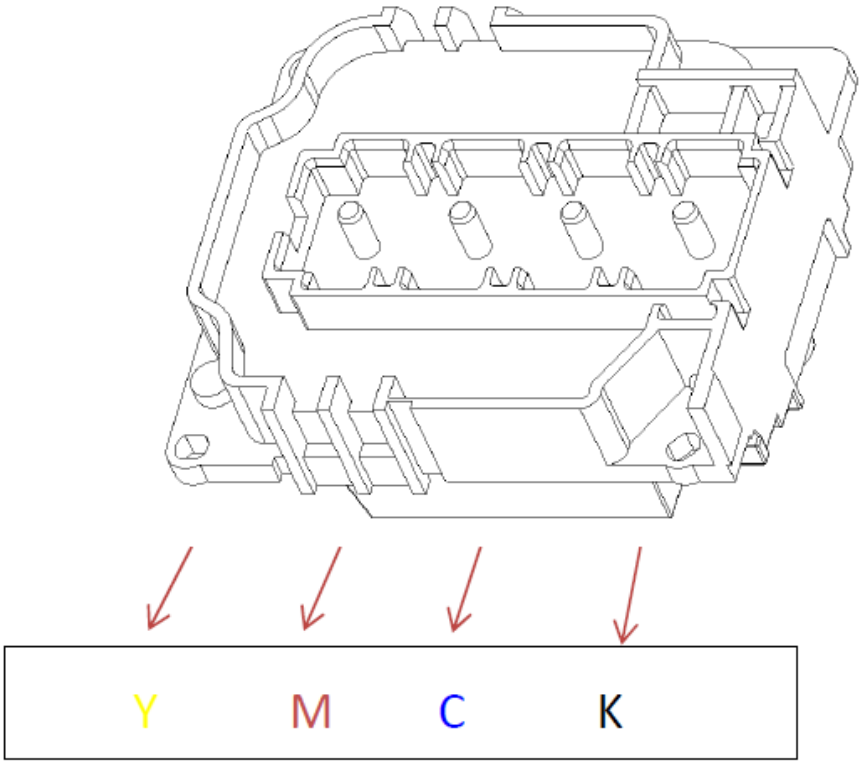
Before calibration, first print nozzle check, ensure that all nozzles in the best working condition before starting calibration



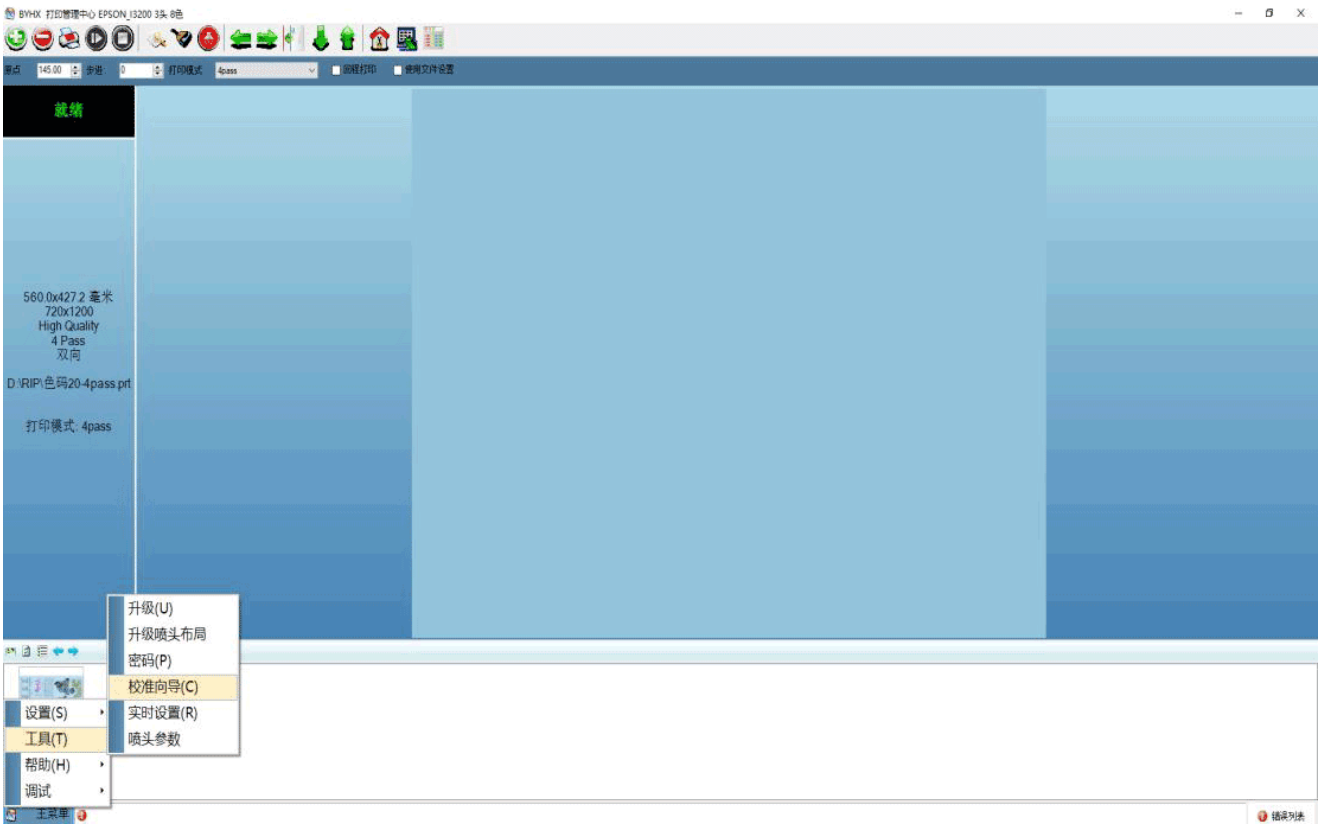
If the nozzle plug, missing situation (as shown below) , please wash until the complete nozzle state.

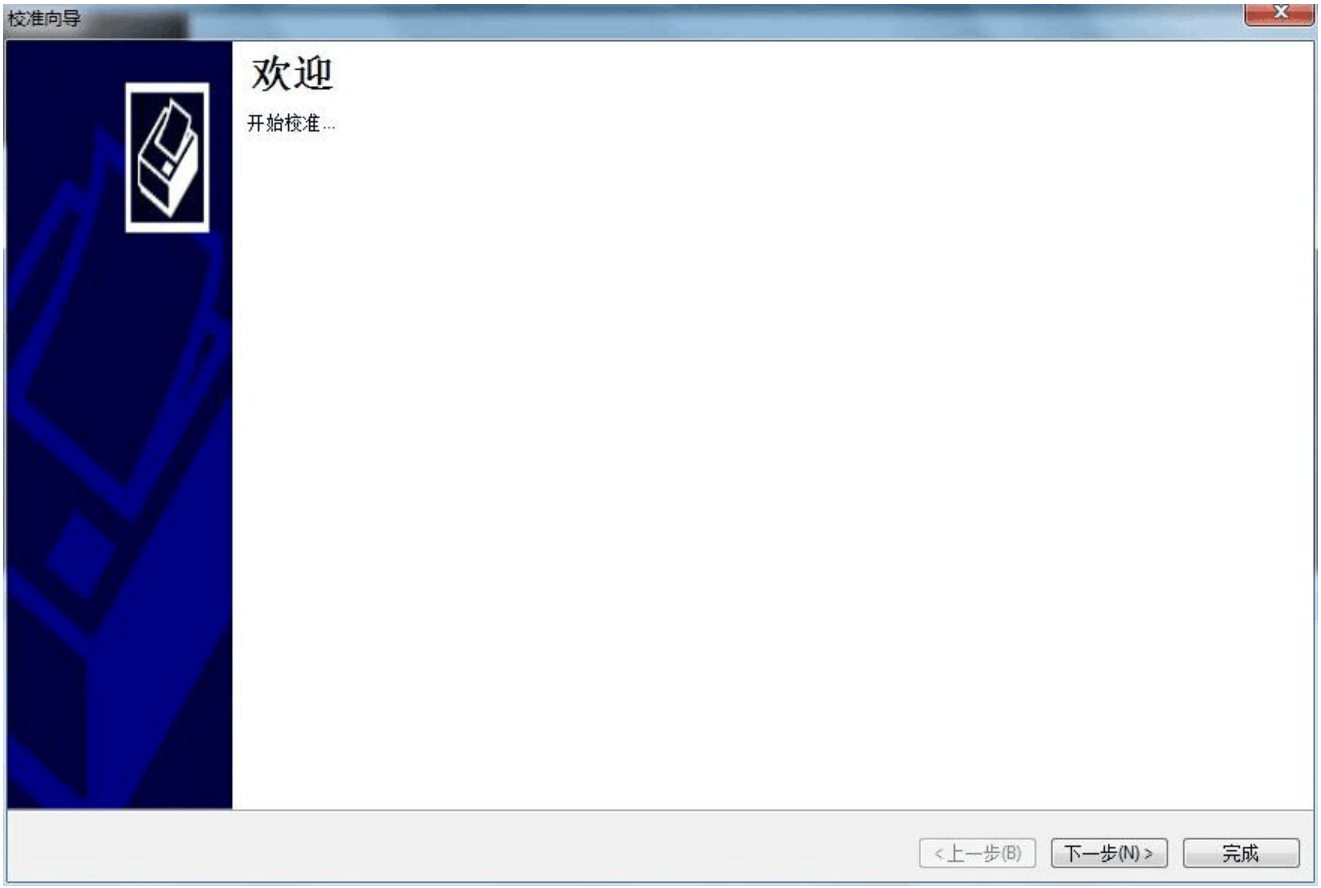


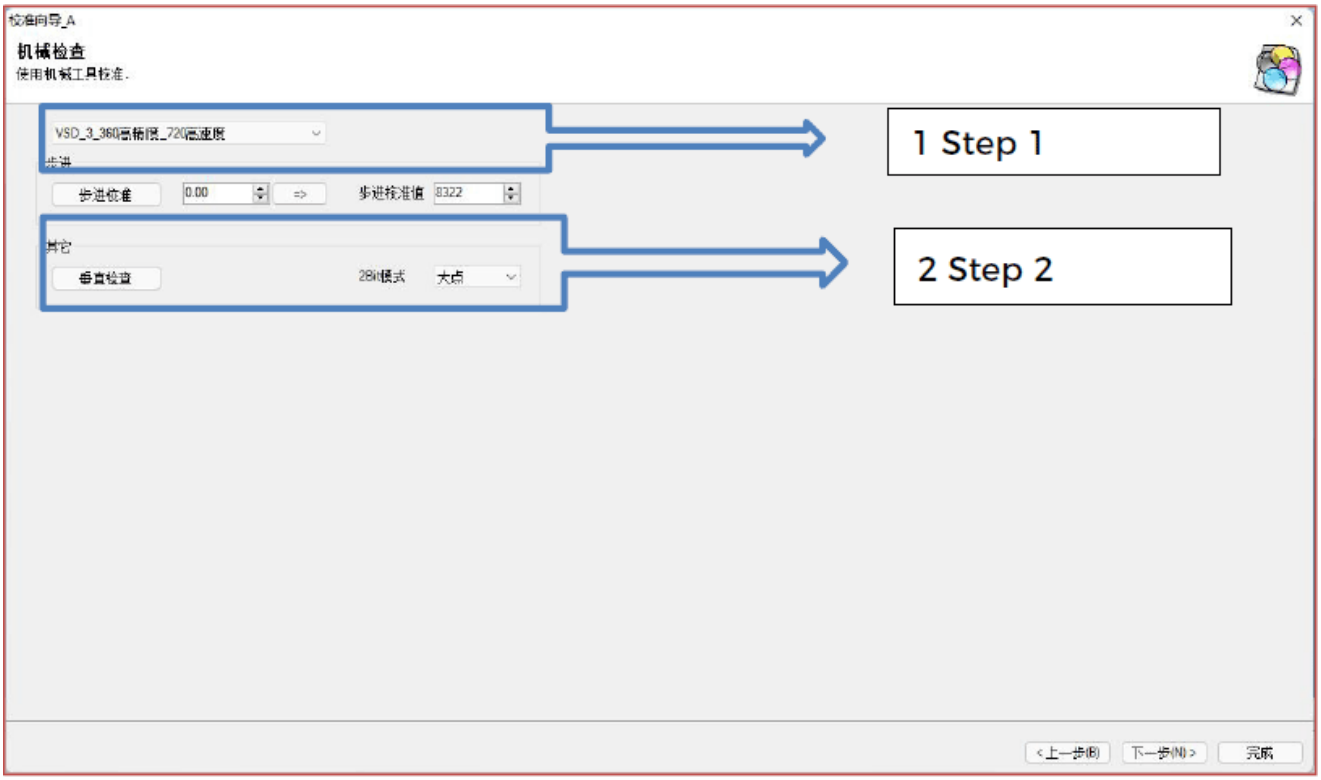
The ink capsules are arranged in the order shown



Click on the main menu-tools-calibration wizard to begin calibration, as shown below:




校准向导
欢迎
开始校准...
<上一步(B)
下一步(N)>
完成


校准向导_A
机械检查
使用机械工具校准.
VSD_3_360高精度_720高速度
步进
步进校准
0.00
步进校准值
8322
其它
垂直检查
2Bit模式
大点
1 Step 1
2 Step 2
<上一步(B)
下一步(N)>
完成

Vertical check

when installing the nozzle, we should pay attention to the installation angle (left and right inclination) and vertical (up and down inclination) of the nozzle. After installing the nozzle, the mechanical installation of the nozzle can be inspected through vertical check, the position of the nozzle is then corrected by mechanical adjustment.

Step 1: Print Mode selection

Vsd-3-360 precision-720 speed

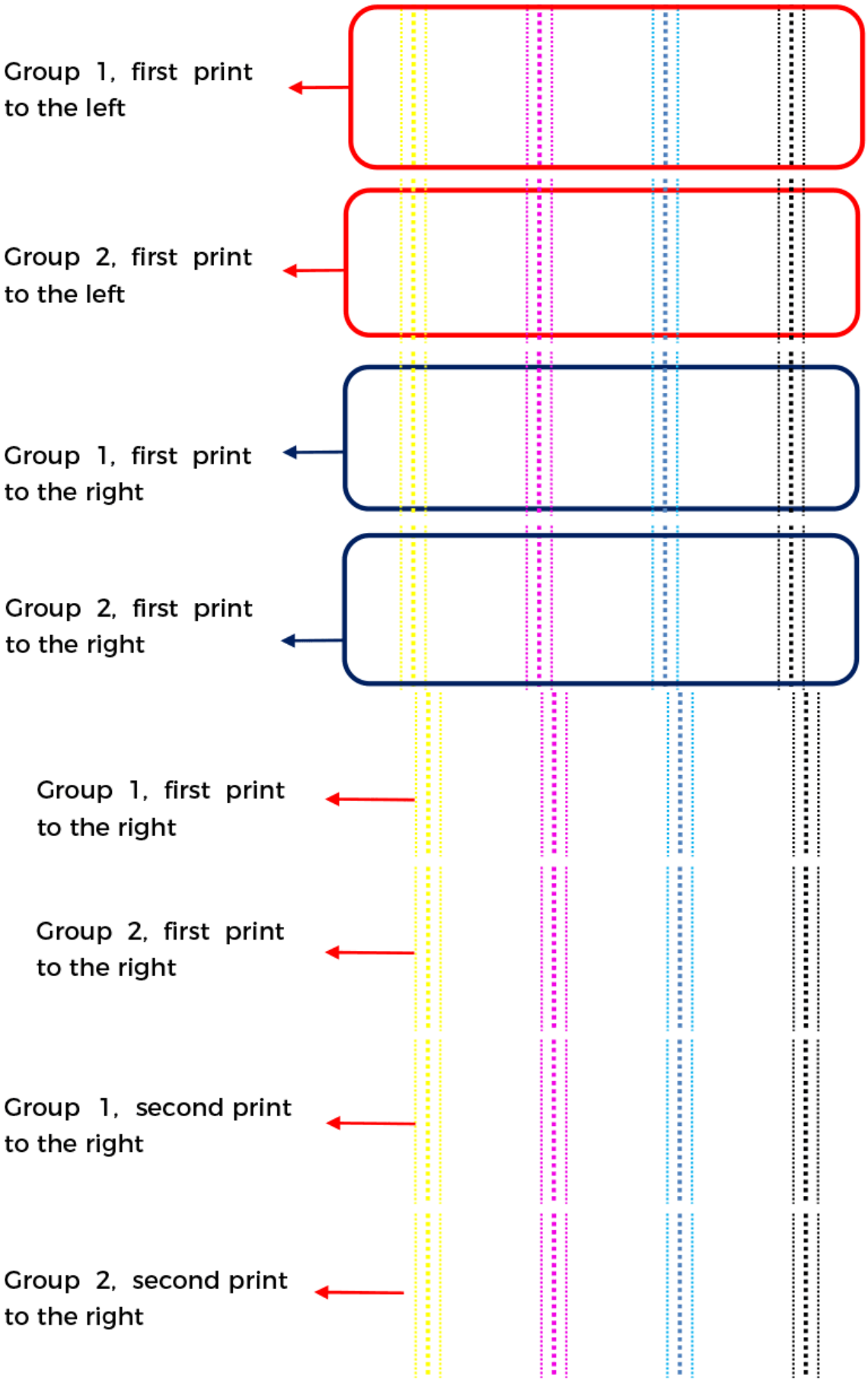
Step 2: other selections

Bigger

Step Axis: Click, Vertical Check, physical calibration

Angle check

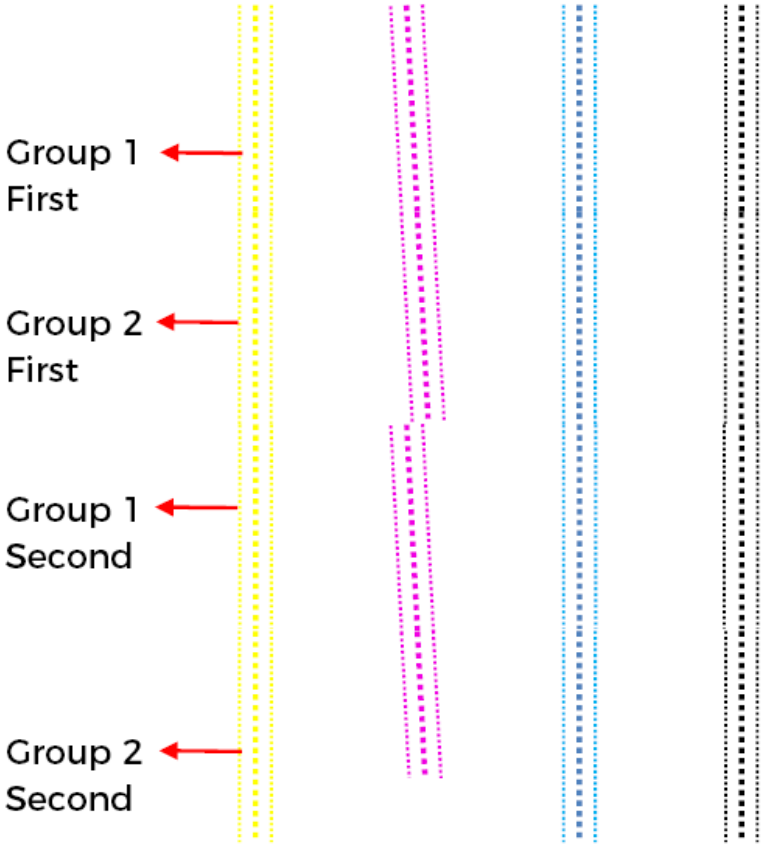
Click on the angle check, the software will print the calibration pattern as shown below (if 1 head is 4 colors, 4 colors are 1 set of 2 heads)


Group 1, first print to the left
Group 2, first print to the left
Group 1, first print to the right
Group 2, first print to the right
Group 1, first print to the right
Group 2, first print to the right
Group 1, second print to the right
Group 2, second print to the right

1: Check and calibrate between Group 1 and Group 2 (observe different group nozzle angle check in the same color)

As shown above, the black nozzles are angled and need to be mechanically adjusted to Group 1's black nozzles.

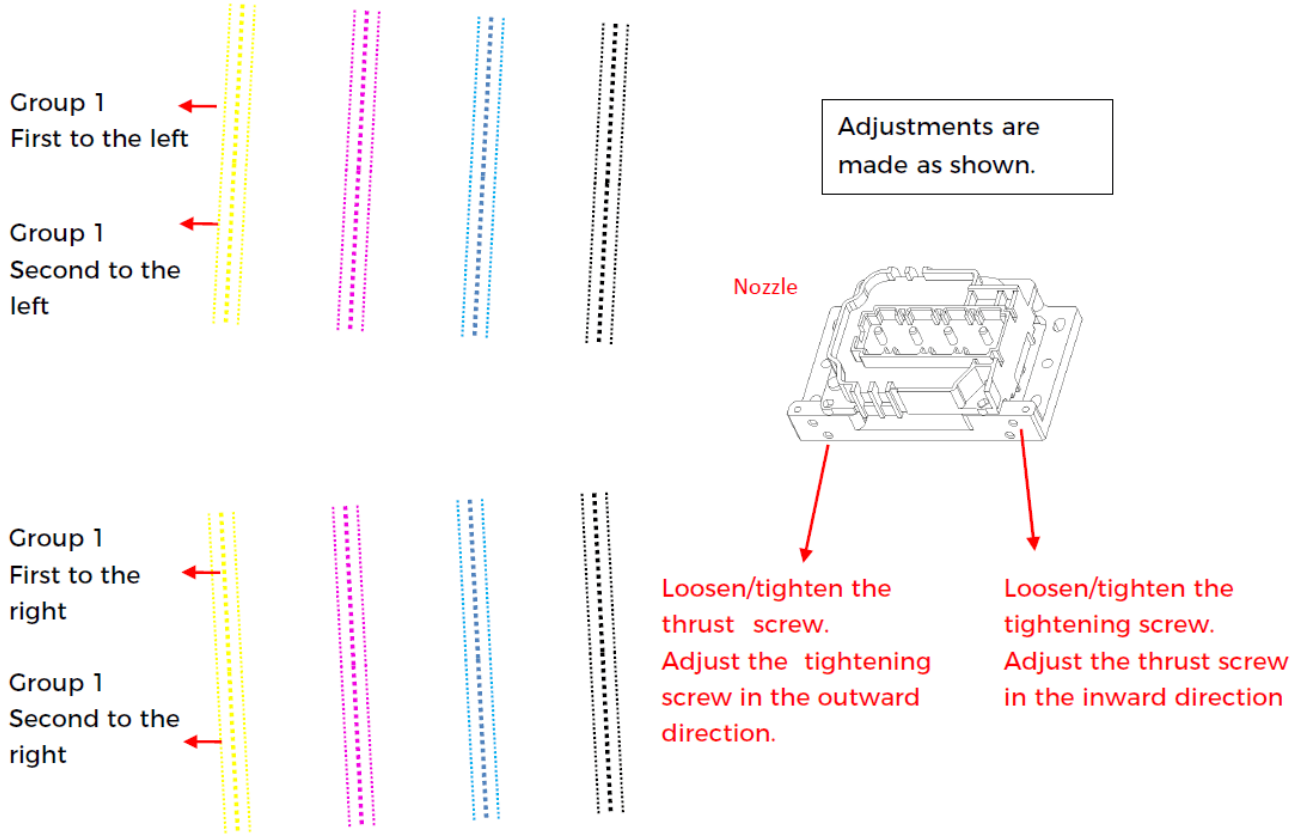
2: The first and second (look at the entire color angle check)



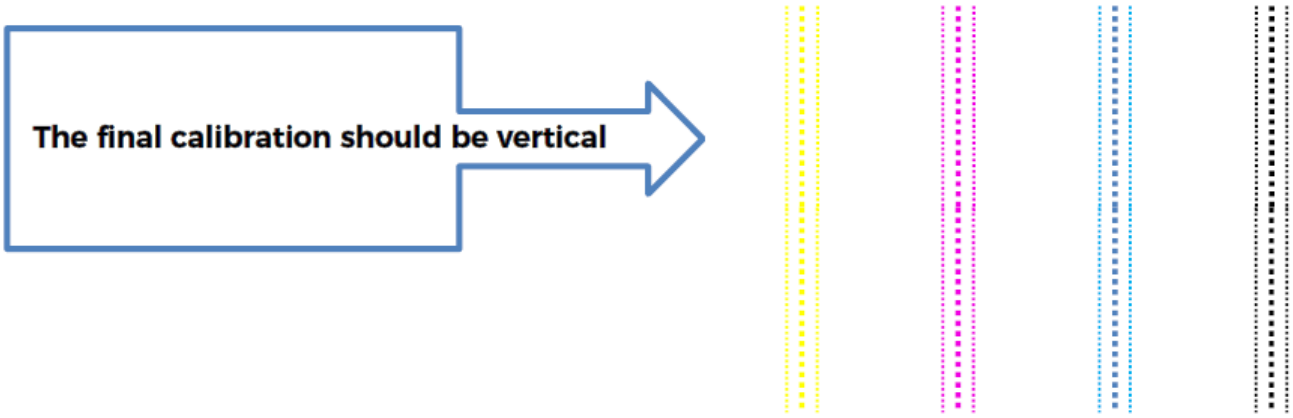
The whole product has the problem of angle and needs to be adjusted mechanically.

3: Check left to right angle (to see if the base plate of the nozzle installation is parallel to the printing platform)

Here we use a single nozzle set as an example to explain

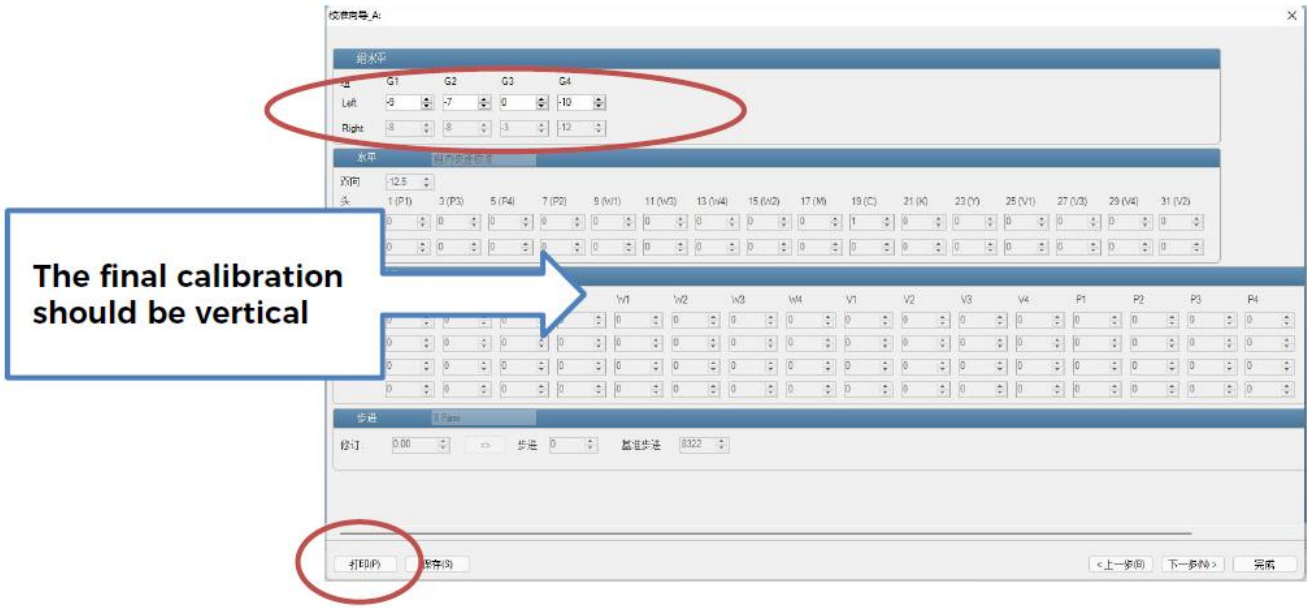


Print in both directions, as shown in the image above,



Group level (horizontal distance between nozzle and nozzle calibrated)

print calibration to the left, Print (p) and the software prints the corresponding calibration reference map



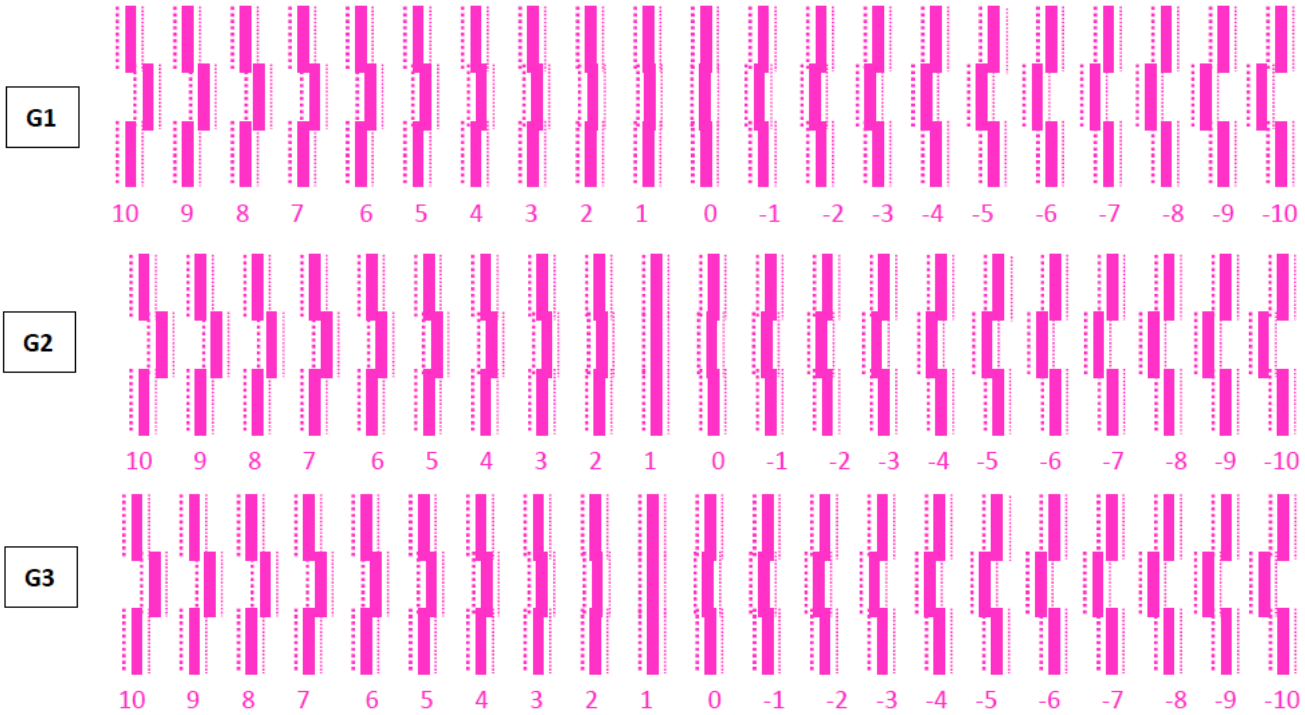
G1: Nozzle 1(Nozzle 1 # as the base, Nozzle 2 # 3 # 4 # as the base)

G2: Nozzle 2

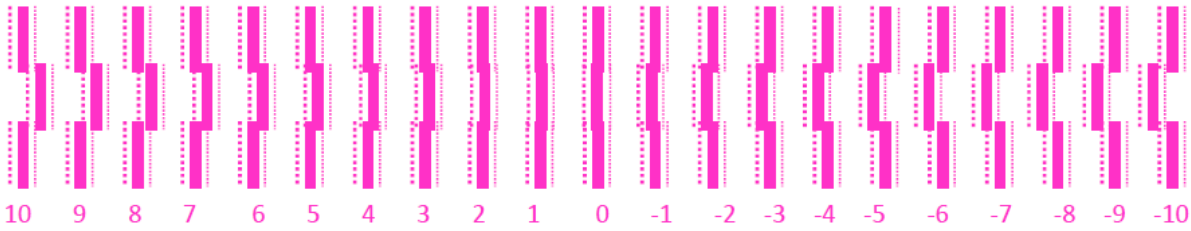
G3: Nozzle 3

G4: Sprinkler 4

The final calibration results for each nozzle are as follows:

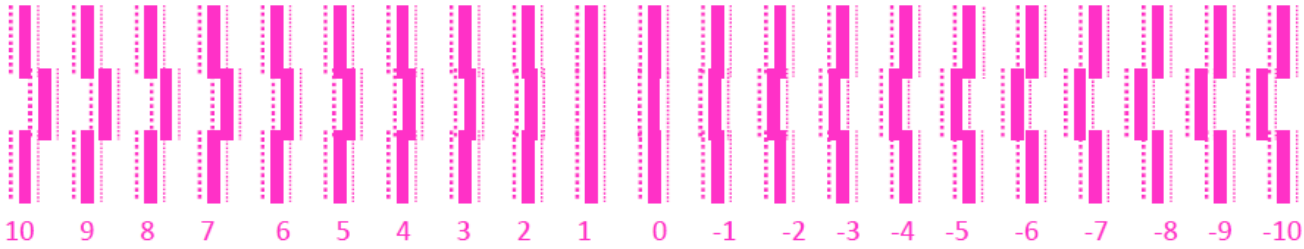


G4

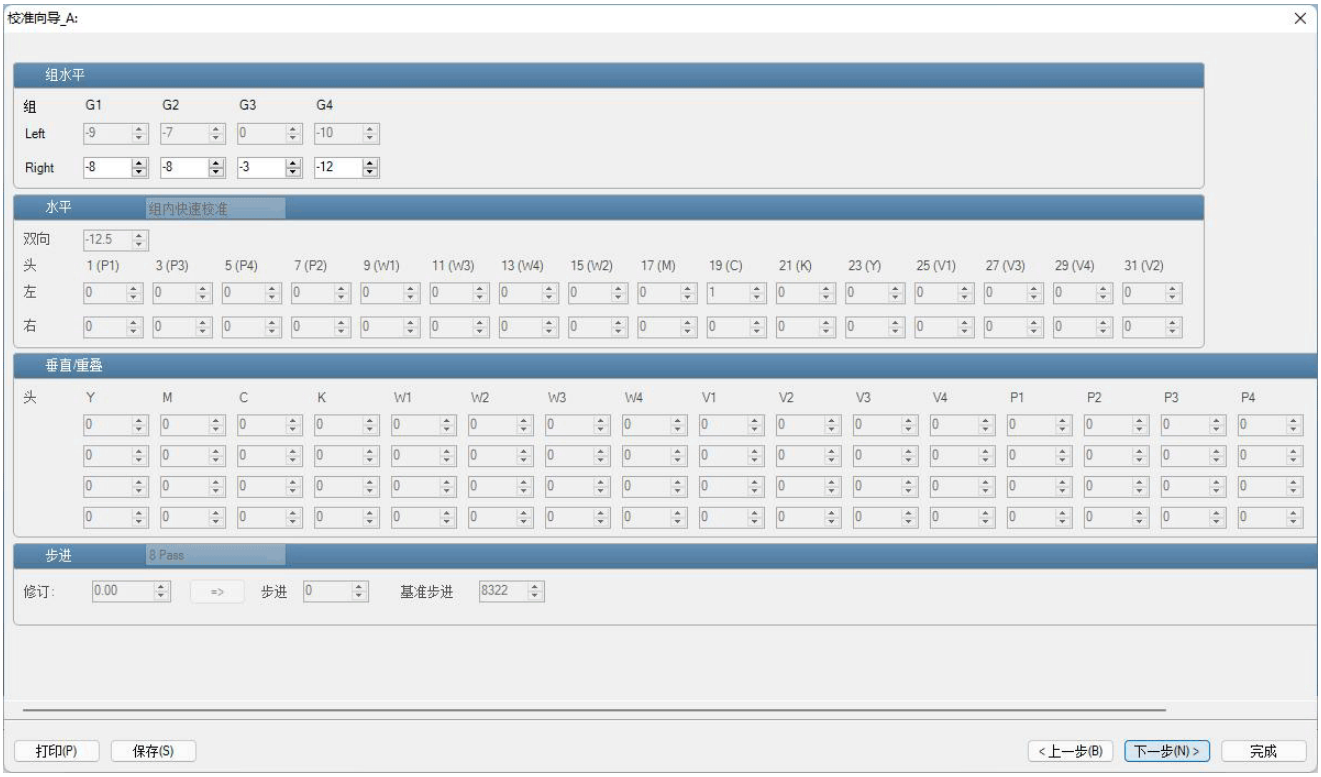


Corresponding value position selection, and input the corresponding number, the method adds on the original basis.

Repeat this step to make the most uneven alignment up to the position of 0.

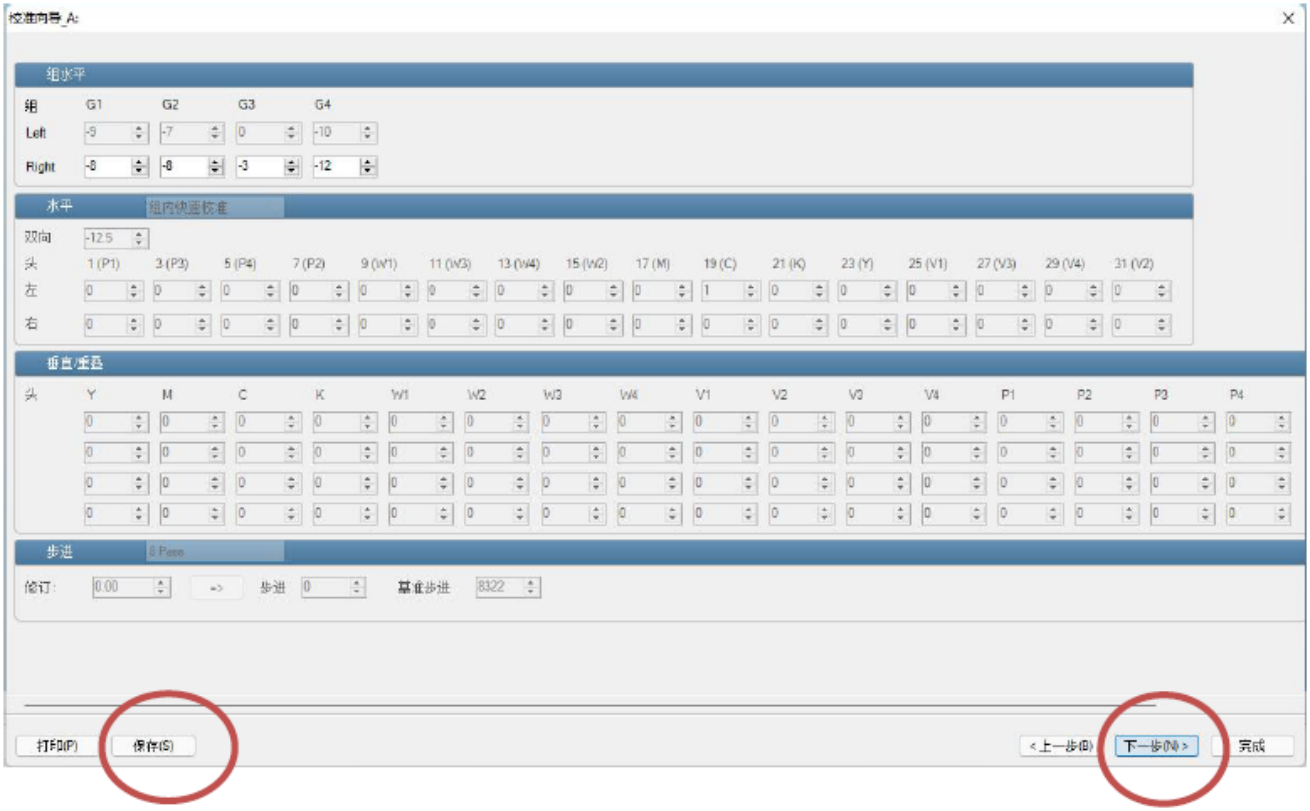


Print to the right:



The same goes for the method

Complete calibration click, save, next step, as shown below;



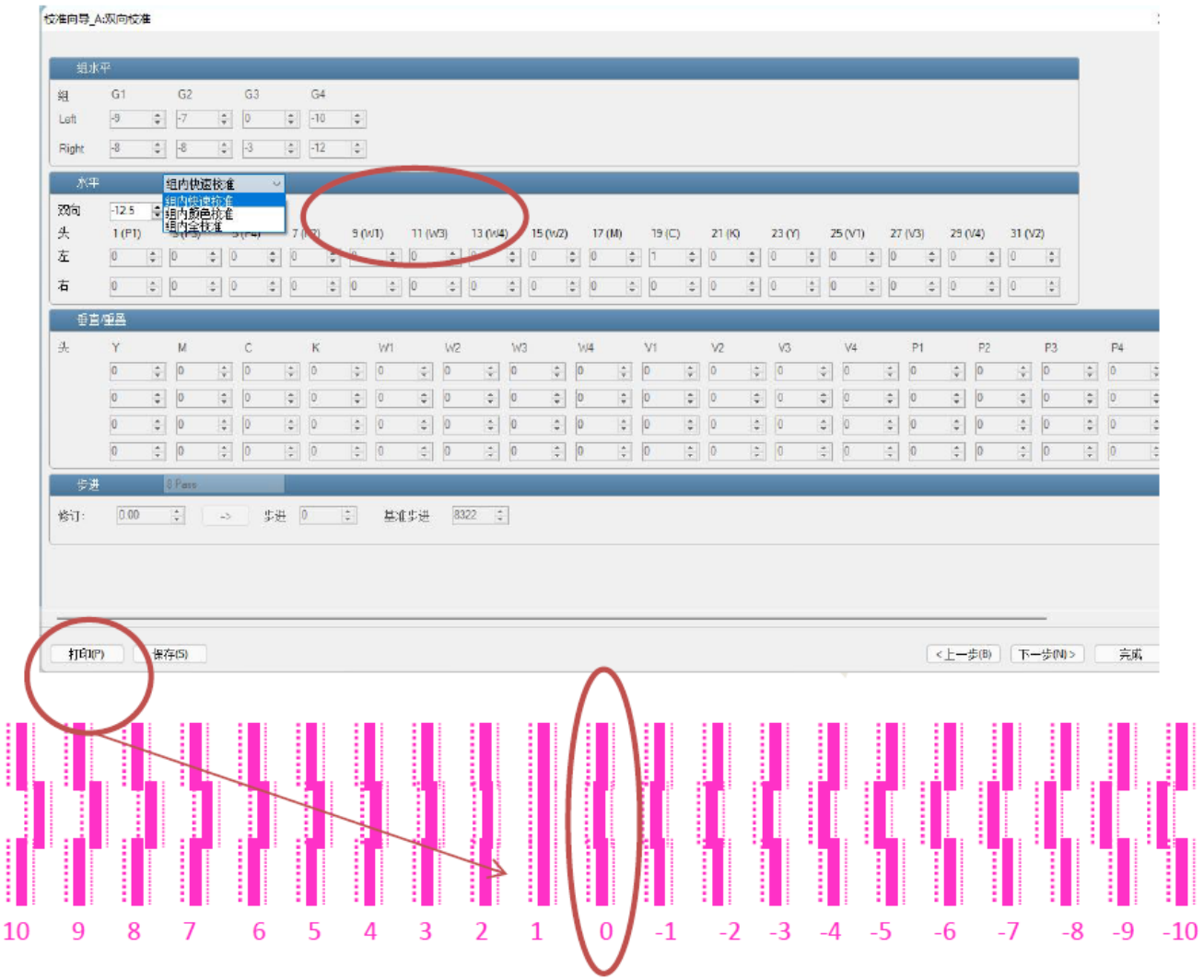
Horizontal alignment

Select the corresponding print content, Print (p) the software will print out the corresponding calibration reference map

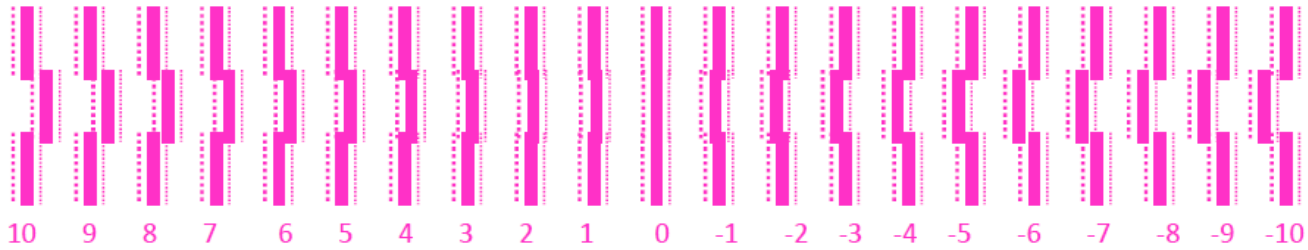
Quick calibration in group: Two-way calibration of Group 1 and Group 2 nozzles

Internal color calibration: Group 1 and Group 2 nozzle color registration

Group calibration: Above

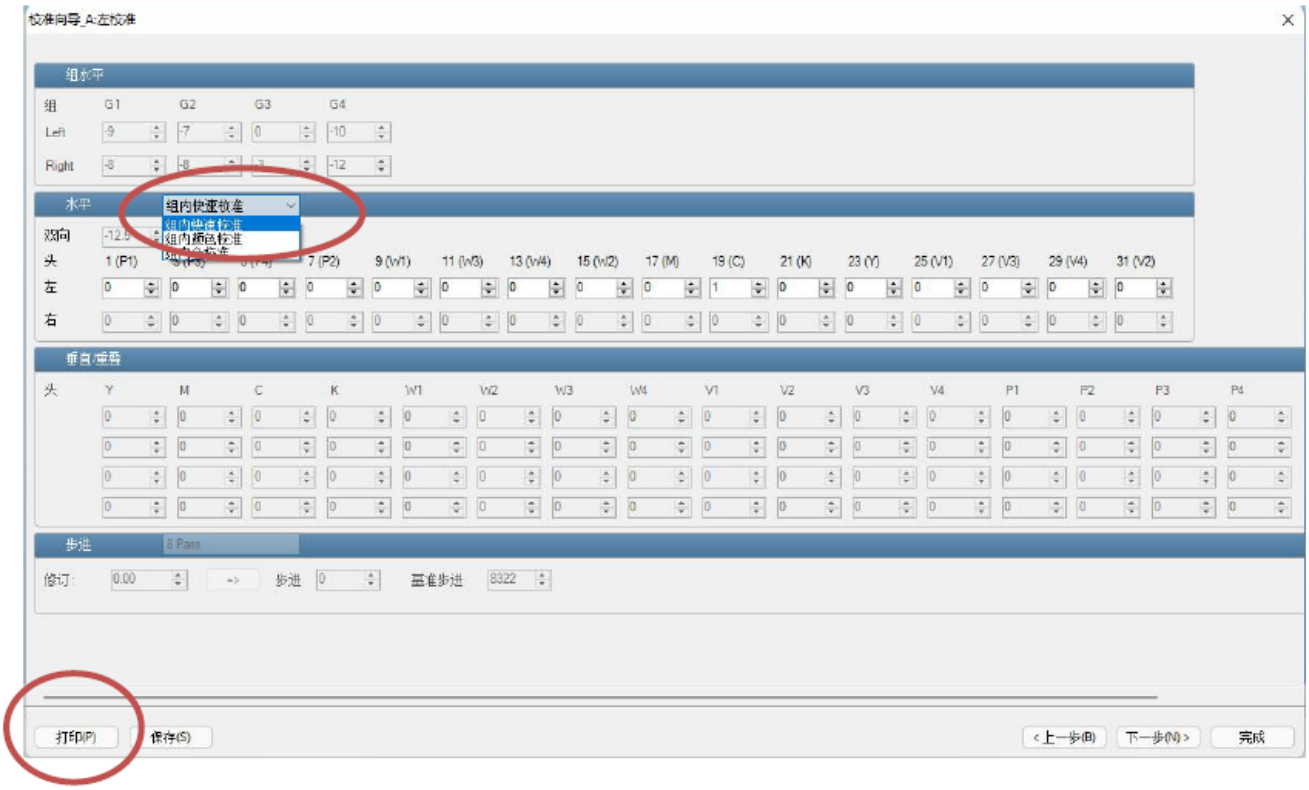


Corresponding value position selection, and input the corresponding number, the method adds on the original basis. Repeat this step to make the most uneven alignment up to the position of 0.

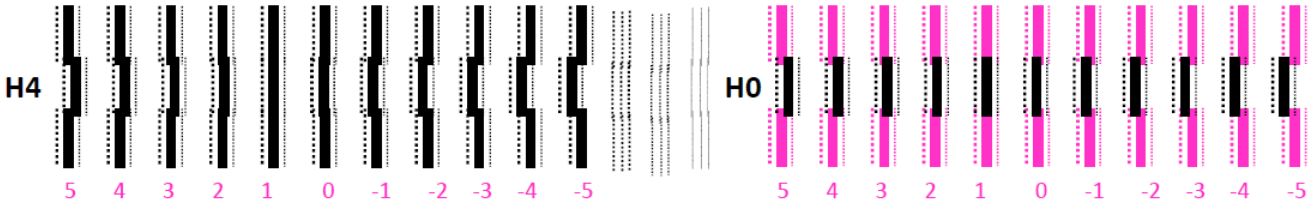


Color registration

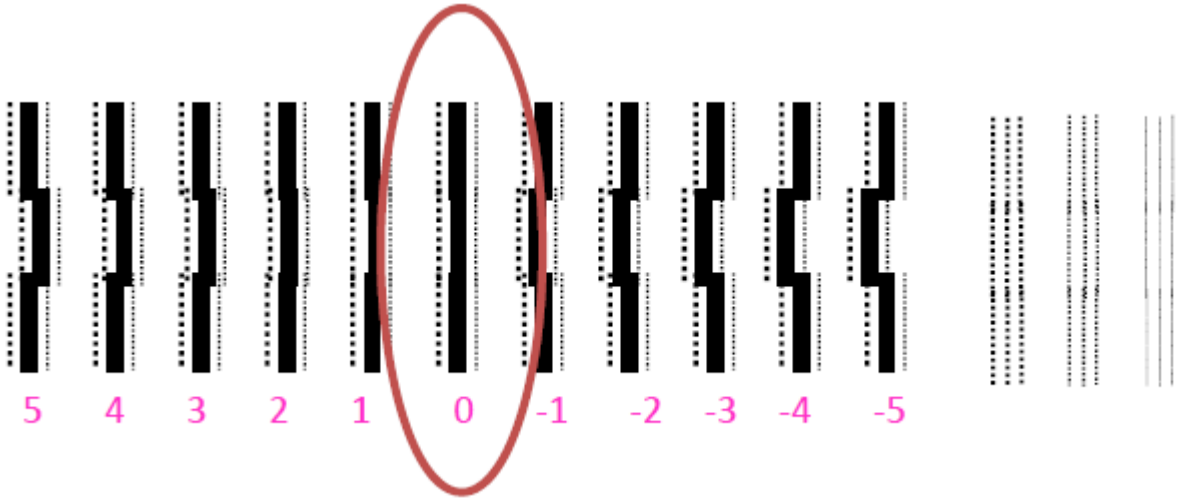
Print alignment to the left:



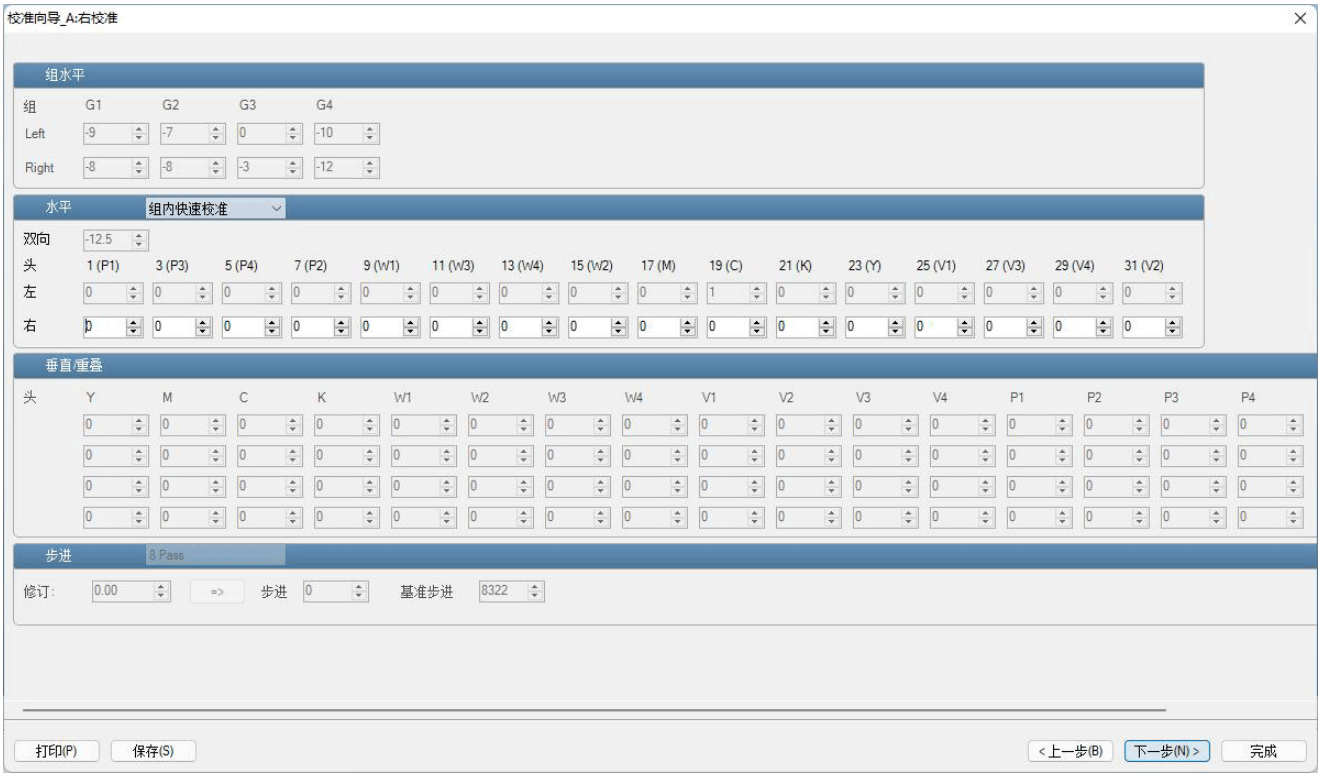
Left:



Corresponding value position selection, and input the corresponding number, the method adds on the original basis. Repeat this step to make the most uneven alignment up to the position of 0.



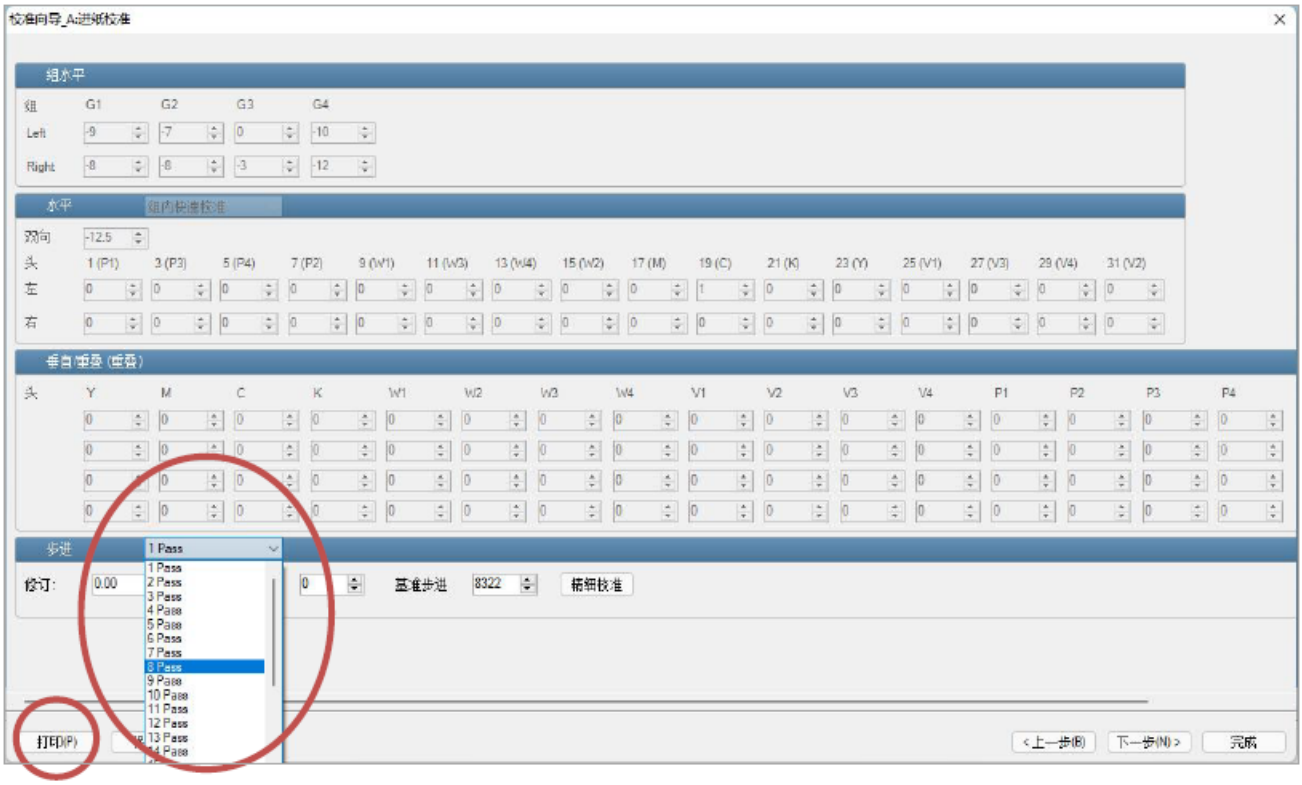
Print calibration to the right:



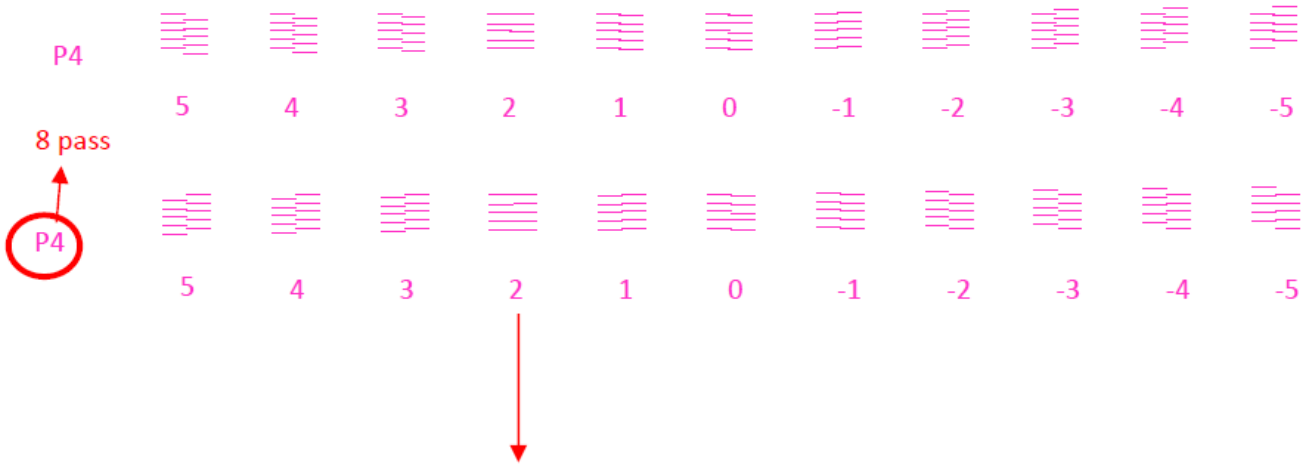
The same goes for the method

Step calibration:

Select the appropriate pass value to click Print (p) .

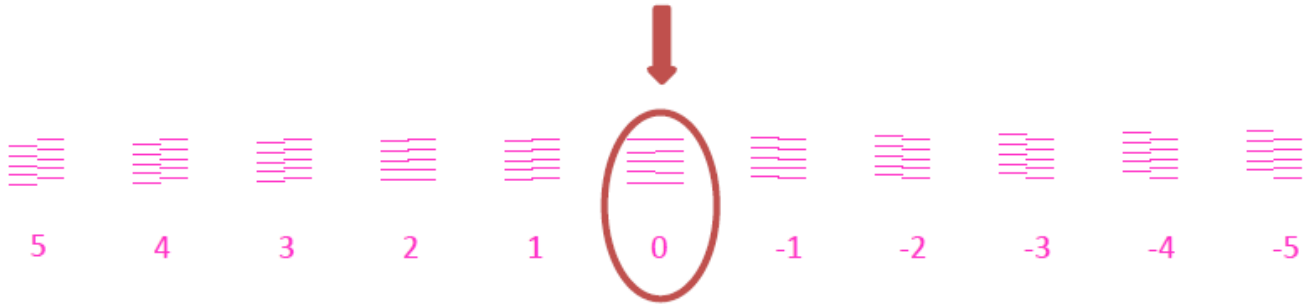


Check calibration pattern. Example: select 8pass to print a numeric value:



Select the corresponding uniform pattern, and enter the corresponding value, the method is to amend the box filled with the corresponding value,

Then click on the symbol ⇨ to calculate the modified benchmark step. Until the zeros line up evenly.



The calibration procedure is as follows:

First, 1pass is calibrated, and other pass accuracy is calibrated based on 1pass.

Calibration End Click, save, complete, exit calibration window

V. Troubleshooting

This chapter provides information on possible causes of machine errors/damage and recovery actions.

5.1 Error information & solution

Type	Code	Error Information	Error Analyze	Solution
Serious	1001	Ink channel not support		
Serious	1002	Grayscale level not support		
Serious	1003	X resolution mismatched		
Serious	1004	Y resolution mismatched		
Serious	1005	The print width exceeds the maximum.		
Serious	1011	Mainboard not connected.	1. The device is not powered on. 2. Errors in mainboard's running. 3. The printing software is disconnected from the device. 4. The computer IP is not set correctly. 5. The computer network drives wrong.	1. Check the status of the mainboard. 2. Check the connection between the computer and the device. 3. Confirm the computer IP. 4. Check the network driver.
Serious	1012	The mainboard register failed to read and write.	The mainboard is disconnected from the printing software.	Check the mainboard status.
Serious	1013	Timeout when waiting for the motor to stop.	1. Motor stop signal is not received in the defined time. 2. Printing software is disconnected from the mainboard.	1. Restart the device. 2. Check the mainboard status.
Serious	1014	The mainboard failed to transmit the data.	The mainboard is disconnected.	Check the mainboard status.

Serious	1015	Mainboard reset failed.	1. The device is powered off. 2. The printing software is disconnected from the device.	1. Check the status of the mainboard. 2. Check the connection between the computer and device.
Serious	1016	The execution of mainboard instruction failed.	1. Mainboard is powered off. 2. The printing software is disconnected from the device.	1. Check the status of the mainboard. 2. Check the connection between the computer and the device.
Serious	1017	The carriage acceleration distance is not enough.	1. The distance between the origin position and the start printing position is less than the carriage acceleration. 2. The actual acceleration distance of the carriage is less than the set one.	1. Add the base point in the print settings. 2. Increase the carriage acceleration distance.
Serious	1018	1.Check whether the printing width exceed the setting. 2. Check whether the maximum distance of the carriage matches the device in the motor setting.	1. The print picture is too wide and the print will exceed the set range of motion. 2. The maximum range of motion of the car is set too small, and the printing distance is not enough.	Match the range of motion setting to the actual maximum motion limit.
Serious	1041	The print head board is not connected.	1. The device is not powered on. 2. The print head board is abnormal. 3. The printing software is disconnected. 4. The computer IP is not set correctly. 5. The computer network is abnormal.	1. Check the status of the print head board. 2. Check the connection between the computer and the device. 3. Confirm the computer IP. 4. Check computer network.
Serious	1042	The print head board communication failed.	1. The print head board is powered off. 2. The print head board is abnormal.	Check the status of the print head board.
Serious	1043	The print head's power on is failed.	1. The print head board is abnormal. 2. Error in network connection.	Check the status of the print head board.
Serious	1044	The print head's power off is failed.	1. The print head board is abnormal. 2. Error in network connection.	Check the status of the print head board.
Serious	1061	Media sensor not triggered	1. Media not reach on the platform. 2. Error in media sensor.	1. Reset the media loading. 2. Check the media sensor.
Serious	1062	Manually cancel the printing		
Serious	1063	Carriage anti-collision sensor triggered	1. Uneven media scraping triggered the anti-collision sensor. 2. Carriage movement exceeds the limit to make a collision 3. Anti-collision false triggering.	1. Return to the origin after power cut off. 2. Check carriage motion imitation. 3. Check the anti-collision sensor.
Serious	4001	The print head type for the configuration parameter is not supported.		
Serious	4002	Customized print head type for the configuration		

		parameter is not supported		
Serious	4003	The physical accuracy of the customized print head is not recognized, not support mixing.		
Serious	4004	The customized virtual print head layout is not recognized, not support mixting.		
Serious	4005	The nozzle overlapping configuration parameter is incorrect.		

VI. Maintenance

6.1 Remarks

1. Power supply

Confirm the voltage stability of AC110V, 60Hz, it is recommended to use the voltage regulator, the ground wire must be installed.

3.Environment

Please keep the machine working environment meeting the requirements of equipment operation (temperature 18-32°C, humidity. 40-60%), there must be no strong magnetic field or the equipment causing a lot of dust, try to avoid strong light exposure affecting the sensitivity of the sensor.

3. Ink

Add the ink when the buzzer rings, check the remaining inks amount before running every day, and avoid adding the ink during printing.

The ink should be kept in the adequate environment, avoid strong light and ensure good ventilation.

Use the correct water-based cleaning solution.

Pour waste ink daily, empty the waste ink bottle in a long-term transportation. be careful to keep vertical and not shake when removing the waste ink bottle from the printer, please dispose it lawfully.

6.2 Maintenance overview

In terms of running, the surface of the platform must be cleared to avoid nozzle scratching. The dent on the surface of the nozzle is regarded as man-made damage, and the scratch is judged as man-made damage.

1. When cleaning the printer, please close the main power and unplug the power cable.
2. The machine should keep clean at any time during daily use to avoid dust deposition.
3. Do not wipe the surface of the nozzle without training and authorization, which may cause damage to the nozzle.
4. Do not touch the print head or make the print head touch any other substance. Clean the dust around the print head, and gently wipe with a special cloth and cleaning liquid.

6.3 Routine checking

1. Before daily operation, check the nozzle status to avoid quality problems such as broken lines, oblique spray and ink splashing. If the above problems occur, the nozzle should be cleaned in time to ensure the printing quality and avoid the physical damage caused by the ink outage for a long time.
2. Check the rubber ring on ink stack cap and the status of wiper every week, if irreversible deformation occurs, it must be replaced.
3. Clean the guide rail once a quarter (Do not use water to clean, wipe the dust with non-woven cloth) with special lubricating oil.
4. The machine will rest for 30 minutes for every 8 hours.
5. If the machine needs to stop working for more than 1 week (power off), the ink circulation needs to take measures to deal with blockage, please contact the engineer. Avoid Long-term absence of running, it poses the risk of blockage and cause the no recovery after the ink loading.

6.4 Day/weekly/monthly maintenance

6.4.1 Daily maintenance

DAILY (AM)	**> Shake leftover white ink**

	> Turn **printer on** > Increase **White Ink Circulation** motor > Execute **"Fill Ink"** > Execute "**Cleaning**" > Pull **media to the front** > Perform "**Nozzle Check**" **Add the ink** when the buzzer ring, check the remaining ink amount before running every day, and avoid adding the ink during printing.
DAILY (PM)	> **Retract media** > Clean the **vacuum bottom platen** > Move **printhead carriage to left side** > **Clean / wipe capping station rubber gaskets & wiper blades** w/ cleaning swab > **Clean around head** with cleaning solution > **Pour cleaning solution** into **capping station rubber gaskets** > **Engage printhead** back to capping station > **Turn printer off** > **Cover printer** **Pour waste ink daily:** Empty the waste ink bottle in a long-term transportation, be careful to keep vertical and not shake when removing the waste ink bottle from the printer, please dispose it lawfully.

6.4.2 Weekly maintenance

> **Check Ink Bottle** Check to see if there is any ink that needs refilling. Check to see if stirring device on the white ink bottle is functioning. > **Check Waste Bottle** – Empty the bottle

> **Clean Encoder Strip**
  Use a microfiber cloth / lint-free wipe & 90% or higher isopropyl alcohol, and wipe the strip gently to remove any dust, debris, ink build-up.
> **Clean Media Rollers**
  Use a microfiber cloth / lint-free wipe to wipe any dust/debris from the media / film. DO NOT USE ALCOHOL. You may use cleaning solution, but make sure that the rollers are fully dried before use.
> **Clean Tension Sensor**
  Use a microfiber cloth / lint-free wipe & 90% or higher isopropyl alcohol, and wipe the strip gently to remove any dust/debris.

6.4.3 Monthly maintenance

> Shake the Color Ink bottles for 30 seconds.

6.4.4 As needed

> **Media replacement:** Whenever you replace your film with a new film, take time to clean the media rollers. Disengage the roller and thoroughly clean the rubber. roller with a microfiber cloth or lint-free wipe to wipe any dust/debris from the media/film.
> **Keep all exterior surfaces clean:** Use a microfiber cloth to clean the outside surface. DO NOT spray any liquid, as it may damage the board inside.

6.4.5 Long-term storage (1-2 weeks)

> **Clip the ink tubes** from the ink bottle and before the damper
> **Wet Cap**

6.4.6 Long-term storage (2+ weeks)

> **Empty the Ink Bottle**
> **Pour all inks** back into the original ink bottles
> **Pour cleaning solution** into the ink bottles and fill until you see the cleaning solution in the dampers and through the ink waste bottle.

6.4.7 Routine maintenance form

	Weekly	Monthly	As Needed	Long Term Storage (1-2 weeks)	Long Term Storage (2+ weeks)
Check Waste Bottle					
Check Ink Bottle					
Clean Encoder Strip					
Clean Media Rollers					
Clean Tension Sensor					
Shake Color Ink Bottles					
Media Replacement					
Clean Exterior Surfaces					
Clip Ink Tubes					
Wet Cap					
Empty Ink Tank					
Pour Cleaning Solution					

6.5 Wearing parts maintenance

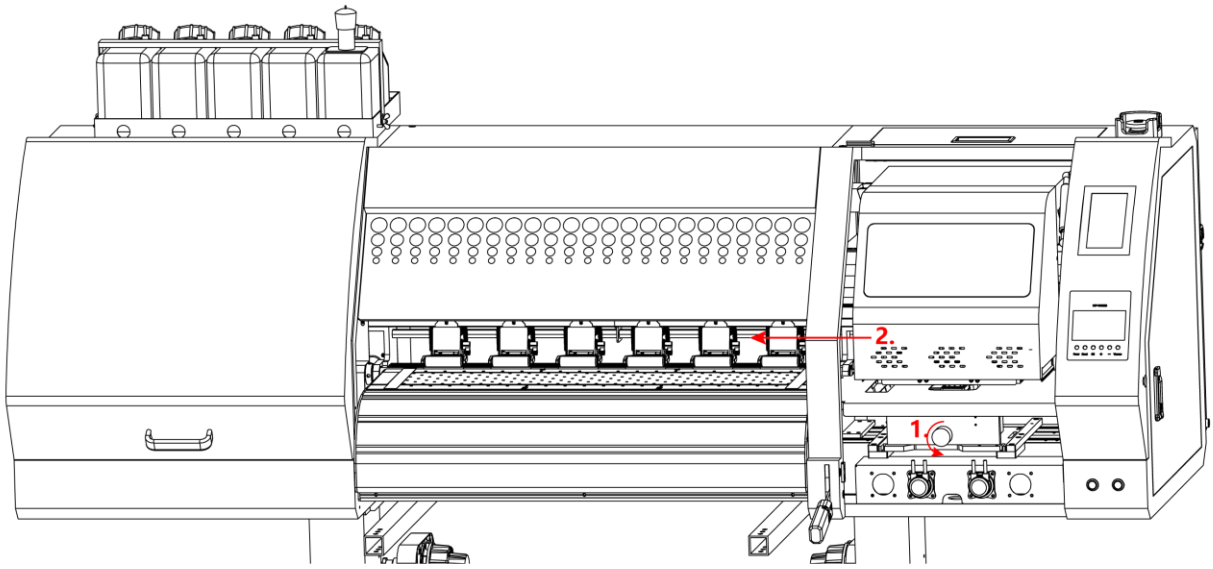
Daily maintenance on nozzle and ink station

Preliminary preparation

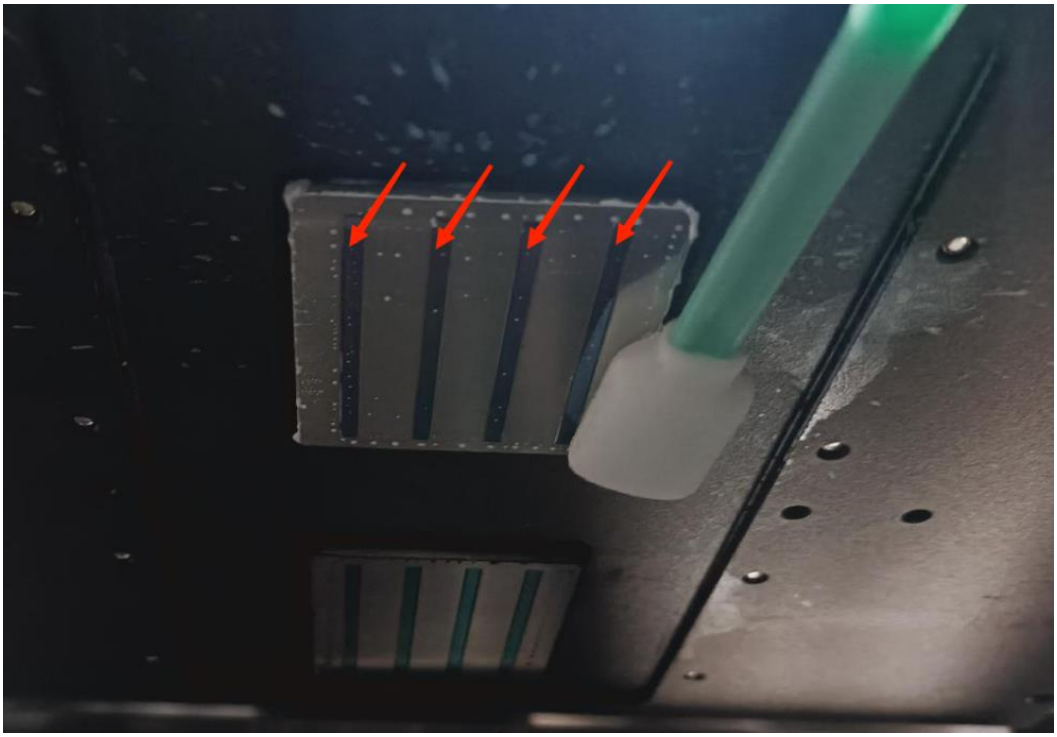
Cleaning liquid (or pure water), non-woven cloth, cotton swab

6.5.1 Nozzle maintenance

1. Unlock the ink station and move the carriage to the left end of the platform, as shown in the figure;

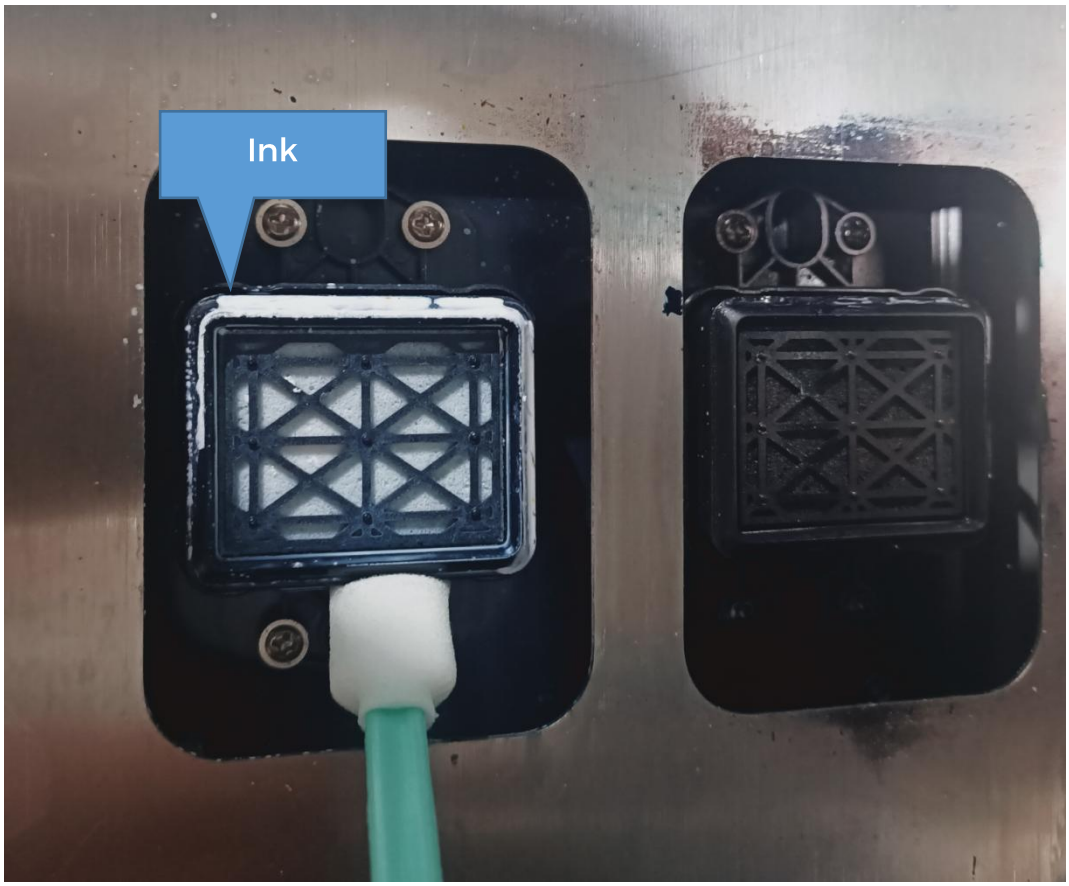


2. Wipe the nozzle side with cotton swab dipped with cleaning liquid or purified water, and wipe the ink block around the surface of the nozzle. Pay attention to the nozzle chip shown in the picture, it cannot be cleaned with swab.



6.5.2 Ink station maintenance

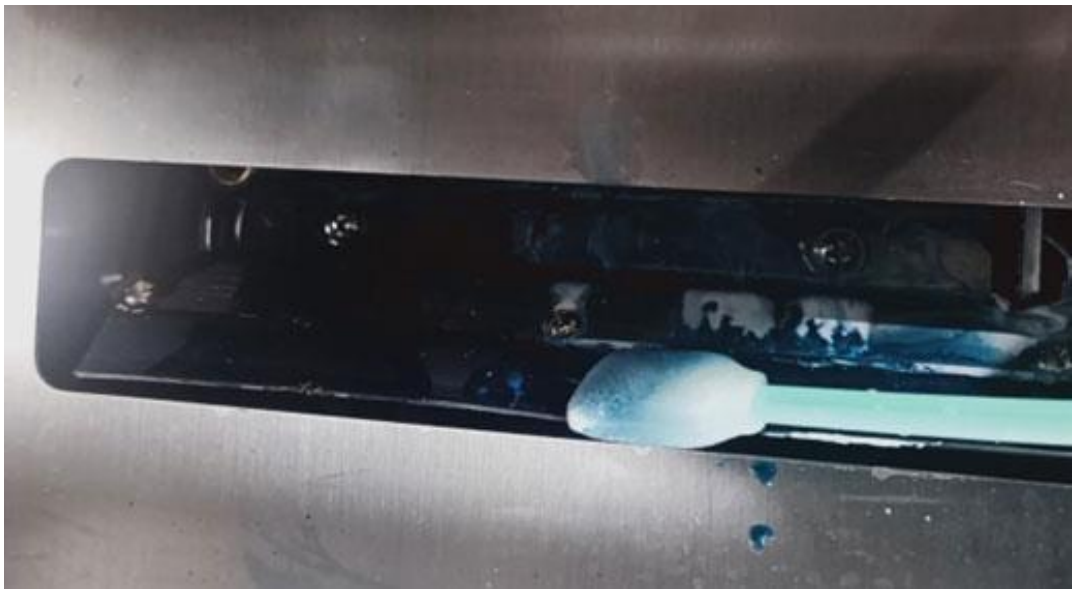
Wipe the ink station cushion with cotton swab dipped with cleaning liquid or purified water.



After wiping, use non-woven cloth to clean the excess cleaning fluid and ink, you can see the restoration shown in following figure:

6.5.3 Wiper maintenance

Clean the wiper with cotton swab dipped with cleaning liquid, and dry it with non-woven cloth.



You can see the restoration shown in following figure:

After maintenance, it is necessary to driver the carriage back to the origin, and make the nozzle and ink absorption cushion sealed.

VII. Warranty

- Lifetime **Technical Support**
- Limited to **2-year warranty** on **non-consumable parts**
- Warranty on parts only for printer(s) using CALCA UVDTF inks, films, and printer(s) under proper maintenance and usage.
- 1 year warranty on non-consumable parts if you don't use CALCA's ink, film products.

Company or person requesting warranty repair shall contact CALCA for pre-authorization and selection of a qualified repair technician to service the equipment prior to performing service on the equipment. Failure to request pre-authorization for service repair and selection will result in denial of a warranty claim.

CALCA will not be liable for labor or material costs associated with graphic production, graphic application, equipment downtime or any other consequential damages including loss of profits or potential business sales, arising out of a warranty claim. It is the user's responsibility to secure the equipment and surrounding area to prevent damage from damages arising from a warranty claim. CALCA is not responsible for damages from improper care, maintenance or repair of equipment associated with normal operation.