NC-UV0609PEIII-II

User Manual

Please read this manual carefully before you use this machine
and keep it handy for future reference.

CONTENT

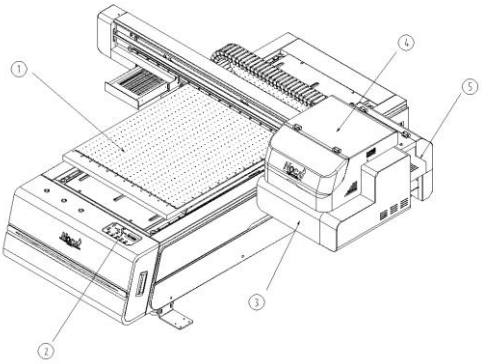
Common Troubleshooting Methods(Attachment)

NOTICE

Please read this instruction carefully before using the machine

1) Machine should not be used by children or the disabled.If needed,please under the supervision;
2) Please use original supplier's spare parts and ink under instruction;
3) Make sure the power voltage is same as power cable and machine which shown on the Nameplate;
4) Only suitable to be used indoors and better suggest to have air conditioning inside the room to keep stable working temperature and humidity;
5) Dismantle the wooden case and the foot cup fixed frame and put it on a stable table before using;
6) Do not use the machine in a environment which has fire,dust and wetness;
7) Do not use the machine in a humid house;
8) Do not put sundries on the machine itself,machine printing table and surroundings;
9) Please keep a stable temperature in the working room,not suggest to use machine where environment over 30 degrees or below 15 degrees;
10) Do not use any broken cable to provide electricity;
11) If power supply is broken,please stop to using the machine;
12) Power off machine when u clean or fix machine;
13) Please use the machine according to local legal policy;
14) Make sure the head not touch anything before sending picture printing.Height sensor do not work when meets transparent materials;
15) When machine is working,eyes will feel sick if staring at the UV lamp for a long time,better suggest to wear ultraviolet-proof glasses;
16) When needed to move the machine,at least require 4 people to lift.Do not move the machine together with other machine parts.And remember to take take off the power charger when move the machine;
17) When add ink,may touch ink tube,ink bottle and ink cap and some parts,please protect in advance;
18) The table which used to put the machine should be make sure it's stability to place the machine and protect machine from shaking during working;
19) Not recommended to use UV LED lamp high load printing for a long working time;
20) Make sure machine is normally grounded;
21) Do not use the machine in thunderstorm day,avoid lightning strikes; If your ink is not come from Nocai,after sale service will not be provide.

MACHINE INTRODUCTION



2.1 Analysis of the front view of the machine

①Printing platform: place materials when printing

②Key panel: machine running display panel

③ Ink Station: Cleaning Unit

④Printing cart: used for machine printing, LED curing

⑤ Cartridge: For machine

2.2 Analysis of the rear view of the machine

①Machine switch: used to energize the machine

②Power socket: power cord connection

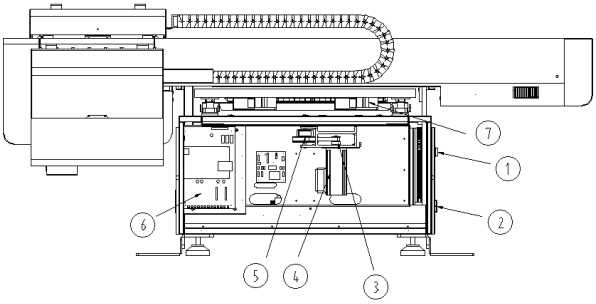
③Platform motor driving wheel: Y-axis motor power wheel

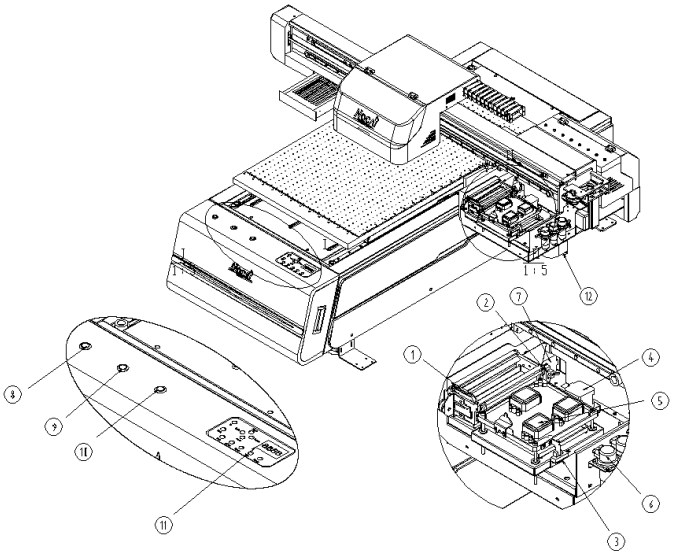
④Platform motor: Y-axis motor

⑤Platform motor driven wheel: Y-axis motor power wheel

⑥Machine main board: power supply for print head board, XY axis motor signal control

⑦Platform suction fan: fixed material





2.3 Diagram of ink station of machine operation panel

①Scraper: Clean the residual ink on the surface of the nozzle after cleaning

②Scraper sensor: The origin of the scraper is positioned

③Ink station sensor: Ink station lift limit

④Ink station motor: the power source of ink station lift

⑤Ink pad: used to clean the print head

⑥Peristaltic pump: The cleaning power of the cap top is used to clean the nozzle, and the speed can be adjusted after the pump

⑦Scraper motor: the power source of the scraper

⑧Platform suction button: used to open and close the suction

⑨UV lamp button: turn on and off the LED curing light

⑩Power button: turn on and off the machine

⑪Keyboard: used to operate the machine

⑫Waste ink cartridge: Stores waste ink

2.4 Analysis of machine key board diagram

① Beam up key: Beam up

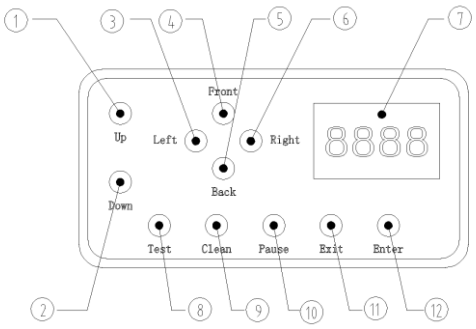
② Beam down key: Beam down

③ Cart left key: The printing cart moves to the left

④Platform forward key: The printing platform moves forward

⑤Platform backward key: The printing platform moves backward

⑥ Cart right shift key: The print cart moves to the right and is the shortcut key of "equipment maintenance"



⑦Machine display board: data display

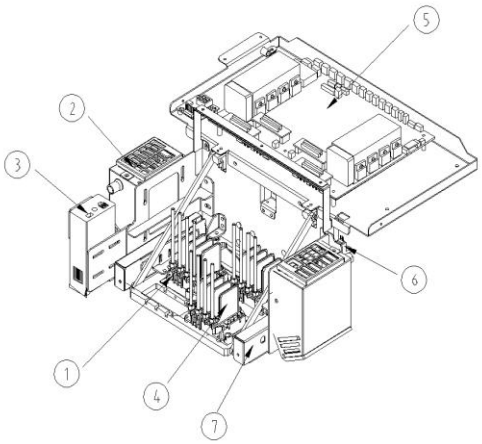
⑧ Test shortcut key: Nozzle detection shortcut key

⑨Cleaning shortcut keys: automatic cleaning shortcuts

⑩Print pause key: print job pause key

⑪ Set the exit key: menu exit key!@

⑫ Setting confirmation key: menu setting confirmation key



2.5 Analysis of machine-printed ink cart diagram

①Printing nozzle: used for machine printing, ink output

②Large UV lamp: white color ink curing

③Small UV lamp: light ink water curing

④damper: to ensure the continuous supply of ink and filter impurities

⑤Cart head board: inkjet program, control printing

⑥Cart origin sensor: the initial position limit of the cart

⑦ Nozzle anti-collision device: protect the nozzle

2.6 Machine Gantry diagram

① Gantry motor driven wheel: X-axis motor power wheel

②Gantry motor driving wheel: X-axis motor power wheel

③ Gantry motor: drive the ink cart to run left and right

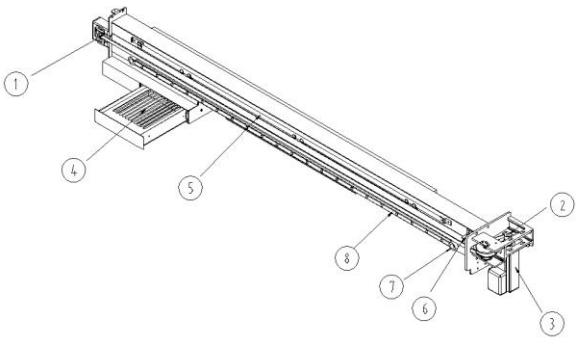
④Flash tank: used to store flash waste ink

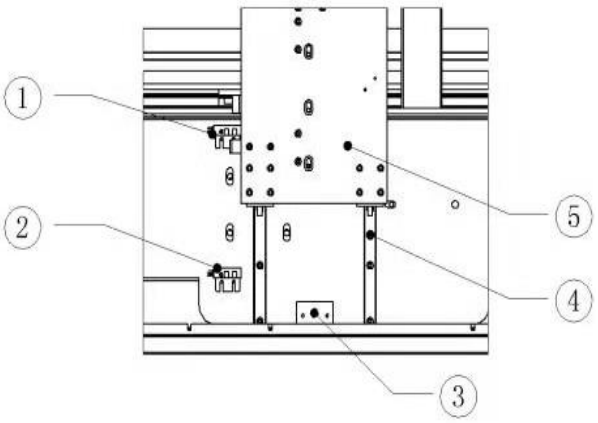
⑤ Encoder Strip: X-axis precision size control

⑥Origin sensor sheet metal: X-axis initial position limit

⑦Limiting glue: ink cart limit

⑧ Cart slide rail: left and right motion track





2.7 Analysis of the picture on the right side of the machine

①Rising limit sensor: machine rising limit

②Descent limit sensor: machine down limit

③ Lifting the side plate and top plate: the lowering is fixed to prevent the machine head from falling off

④ Lifting rails: up and down lifting rails

⑤Lifting side plate: head lifting support

2.8 Analysis of Machine Cartridge Diagram

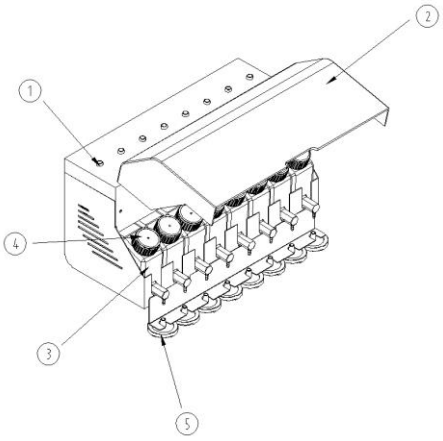
①Ink alarm indicator; prompts the remaining amount of ink

②Ink cartridge cover: Ink cartridge guard

③storage ink cartridges; storage ink

④ Cartridge storage cover: storage cartridge

⑤ Filter: filter the impurities in the ink



NEW MACHINE INSTALLATION

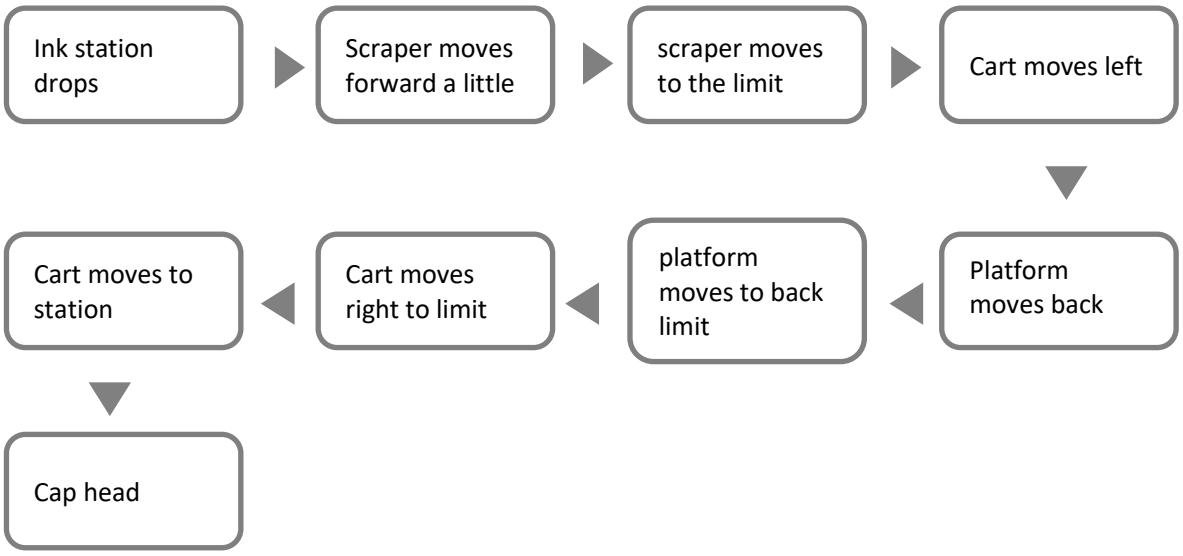
3.1 Check before starting

1. Preparation

Confirm that the appearance of the machine is normal, the placement is stable, and the local power supply voltage (220V or 110V) matches.

2. Confirm that the startup initialization action process is normal

Power on the machine, turn on the main power switch at the rear of the machine, click the power button on the front panel, the machine starts, and performs initialization.



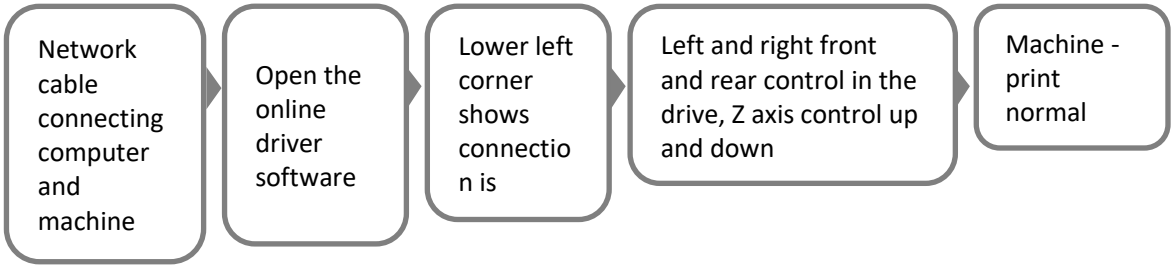
The complete initialization process of the machine is as follows:

[The ink station descends to its lower limit → the wiper moves forward for a short distance, then turns and moves back to the rear limit → the cart moves to the left for a short distance → the platform moves forward for a short distance, then turns and moves back to the rear limit → the cart moves to the right Limit, then turn left and move to the top of the ink station (head position) → ink station head → OK

3. Test the machine movement is normal

[Connect the computer and the machine with a network cable → open the driver software → the lower left corner shows that the connection is normal → control the left and right front and rear in the driver, and the Z axis controls the up and down → the machine can feedback normally]

(For more operating instructions of the online driver software, please refer to the content of 4.1)

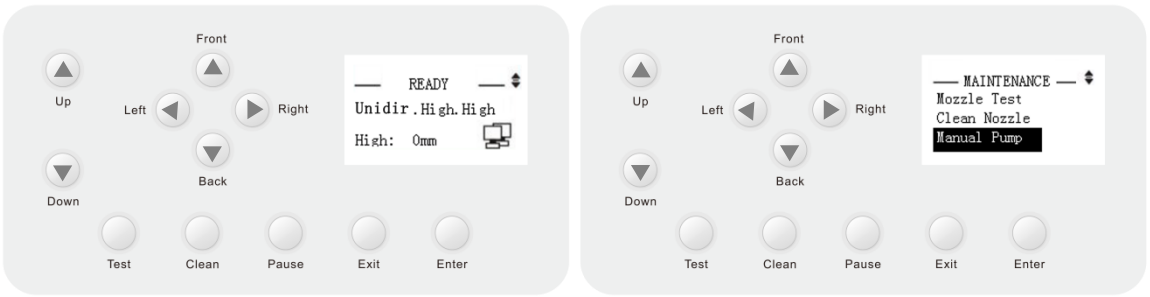


3.2 Add ink to the new machine

1.Add the corresponding ink according to the color prompts as shown in the picture below.

2.When adding ink, in order to prevent the ink from leaking and contaminating the sheet metal of the shell, protective measures are required, and the bottle mouth can be wrapped with a tissue. After adding ink, properly tighten the ink bottle.

3.Then do manual pump, refer to the picture below：



In the standby state, right-click Right, enter the device maintenance, find "Manual pump", and click the Enter key to ink

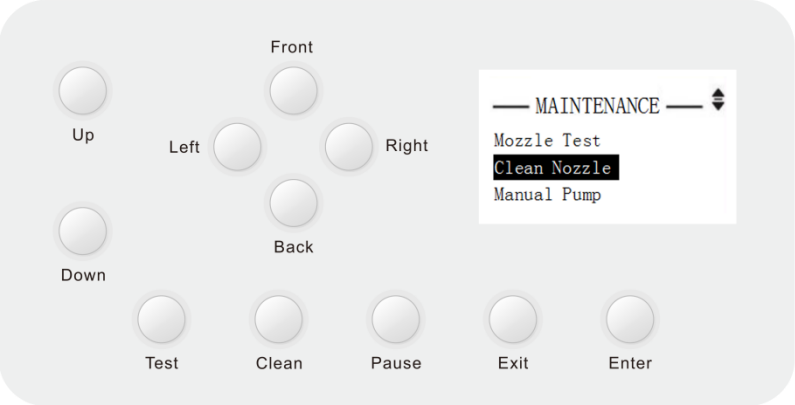
4.After clicking the Enter button, the machine starts to draw ink, observe the waste ink bottle until the ink is drawn out and confirm that the ink path is smooth and the ink storage is completed, as shown in the following figure:

Check whether the inks flows into the waste ink tank from two black ink tubes, if yes, then click“Exit”to cancel “manual pump”process.

5.Pay attention to observe that the ink in the waste ink bottle is discharged from the two ink tubes.

After the smooth flow appears in the shape of a water column, click "Exit" to exit the ink extraction

6. Then select "Auto Clean", click "Enter", select the corresponding nozzle, the machine will automatically clean the nozzle.



7.Refer to the sample proofing procedure below, place a transparent plastic sheet (or other suitable observation material, such as glass, etc.) on the platform, and click the online driver "Nozzle Test" to print a test strip. If there is a lack of color or ink, please continue Clean the print head until the test strips are all out, and the ink installation is complete.

The test strip reference is as follows:

The test strip is broken and needs to continue to "automatic cleaning"

Test strip is normal

The machine enters the standby state, waiting for the software to be installed

DRIVER INSTALLATION AND SETUP EXPLANATION

4.1 Driver Installation

1.Computer hardware requirements

①The system version must be win7, win8 or win10 of 64-bit system. Memory: more than 4GB; hard disk: more than 250GB.

②The computer is equipped with a gigabit network card and a gigabit network cable, so that the software can be connected normally.

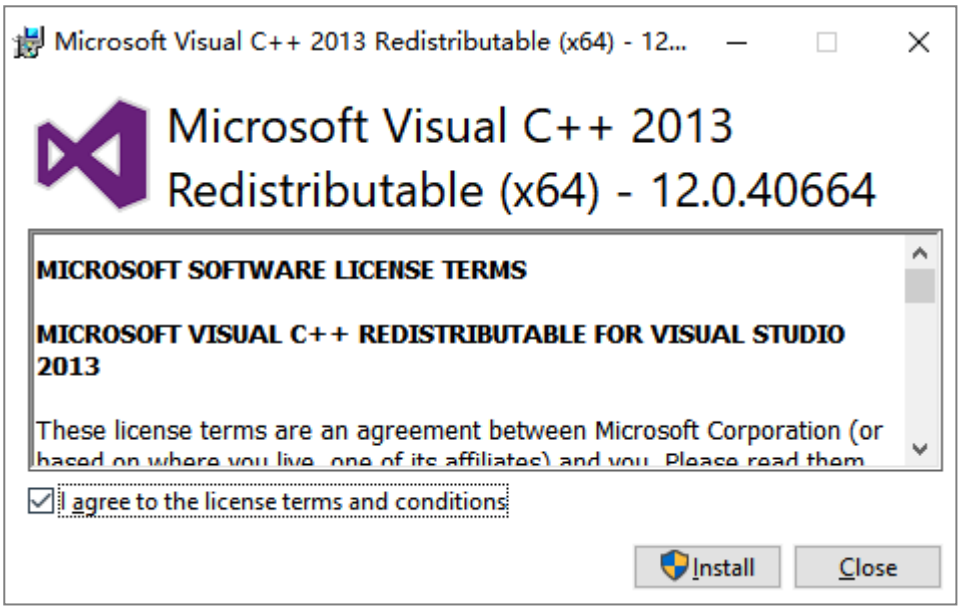
③The computer IPv4 address is set to obtain automatically.

2.Install the operating environment software

Open the NC-UV0609PEIII-II device file package (downloaded from the official website or sent by after-sales technicians) on the computer to find vcredist_x64.exe and WinPcap_4_1_3.exe.

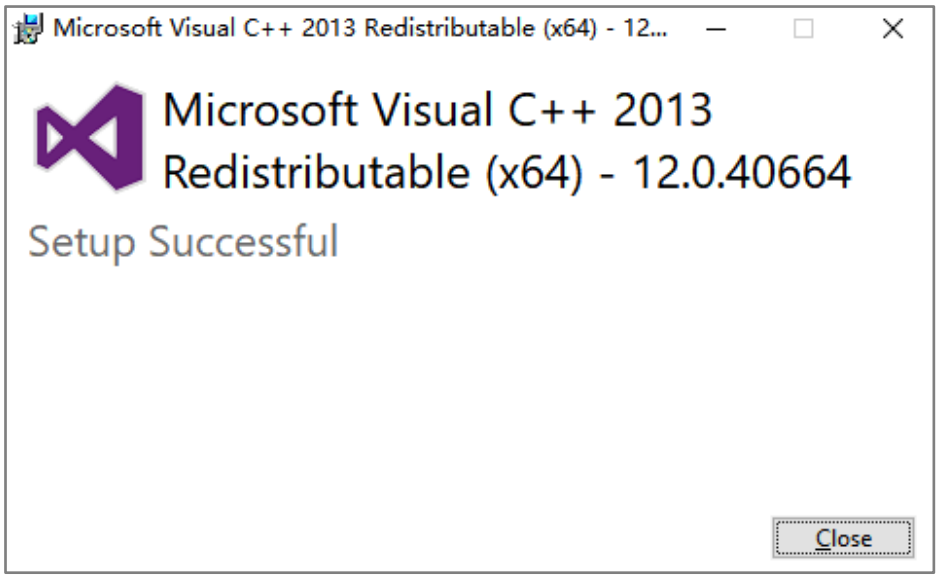
2.1 Install vcredist_x64.exe

Find vcredist_x64.exe , Right-click to run as administrator, check Agree and click Install to complete, as follows:



Check "I agree to the license terms and conditions" and click Install

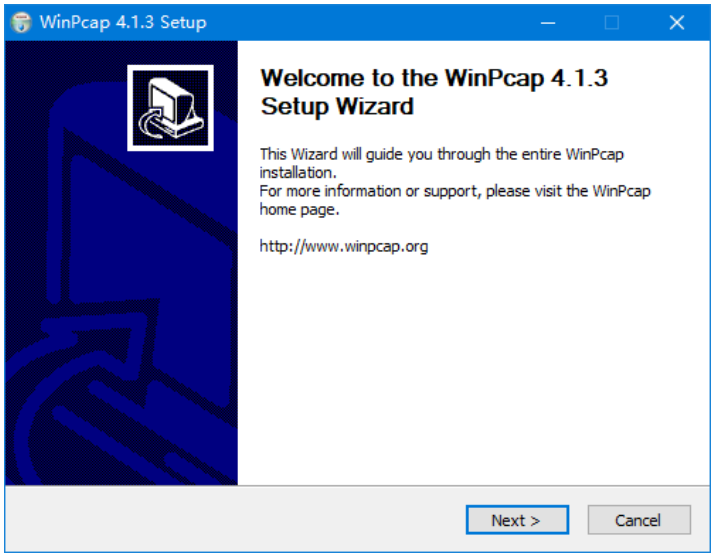
A pop-up window prompts that the setting is successful, click Close to complete



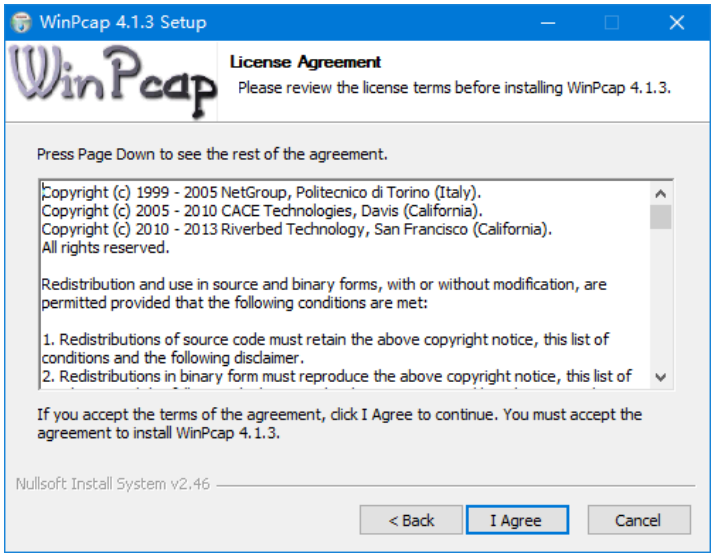
2.2 Install WinPcap_4_1_3.exe

Find it WinPcap_4_1_3.exe right-click to run as administrator, and the specific operations are as follows:：

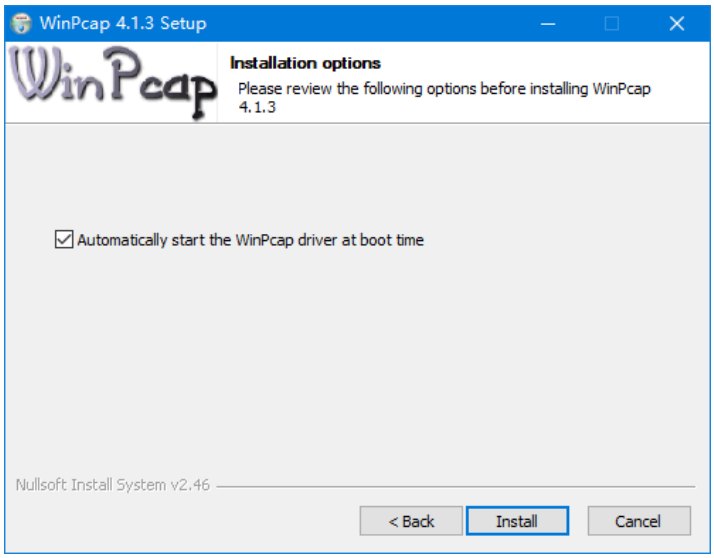
As shown in the figure, click Next，



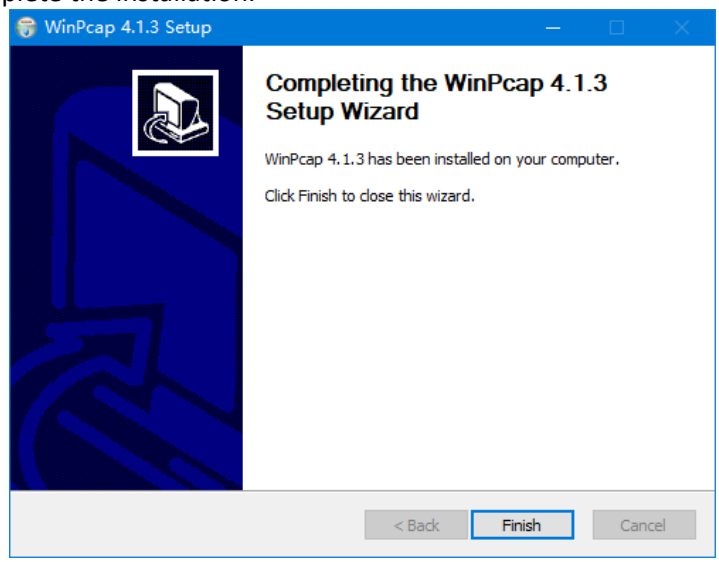
click I Agree，



click Install,



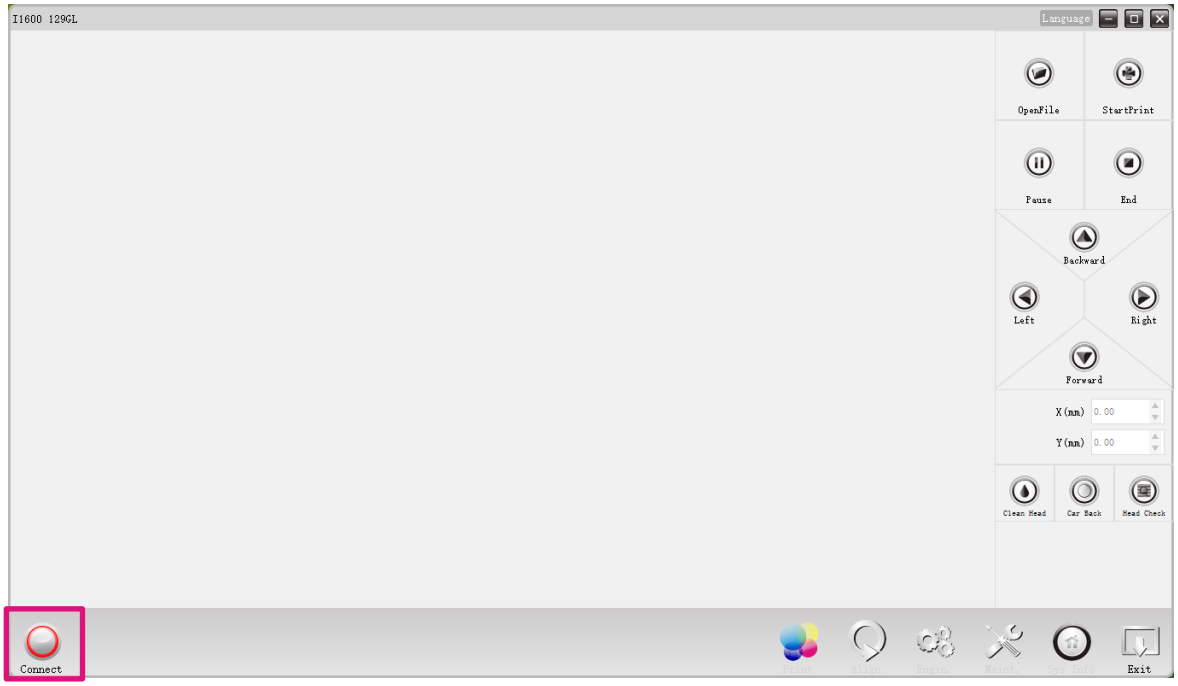
Click Finish to complete the installation.



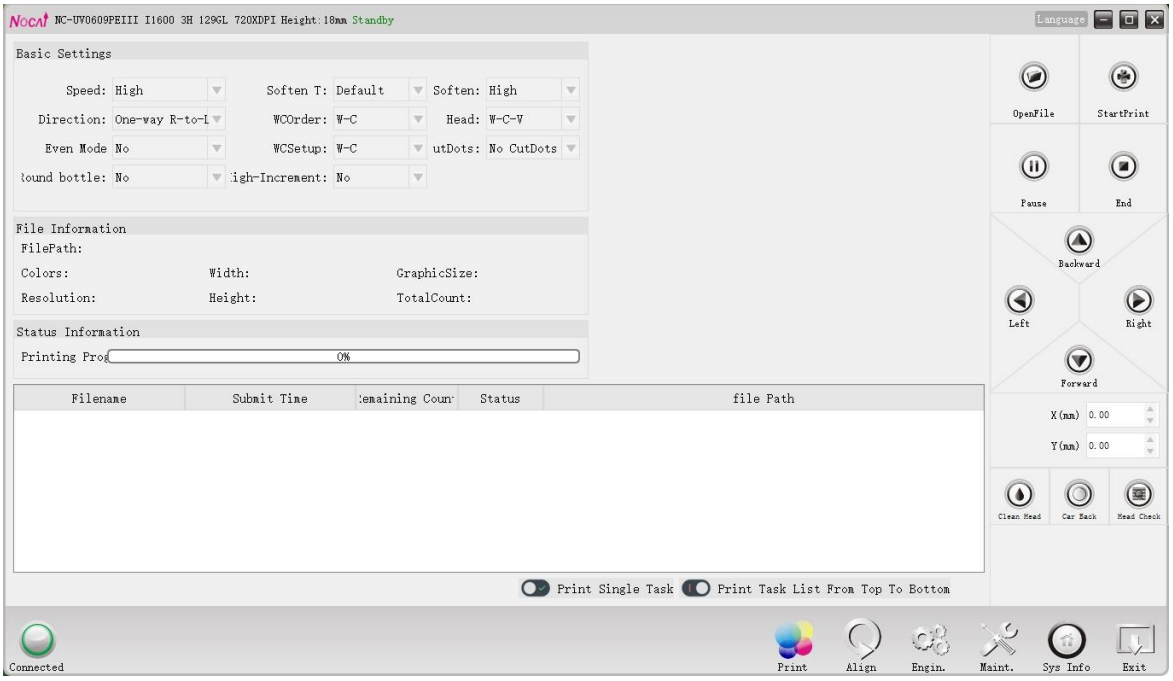
3.Install driver

Connect the printer to the computer with the network cable delivered in the standard package, and find the NoCai driver software [PES_1600_3H_ATools_V125GLexe] (download from the official website or sent by after-sales technicians)

Double-click [PES_1600_3H_ATools_V125GLexe] as shown in the figure below, and then click the "Connect" button in the lower left corner.



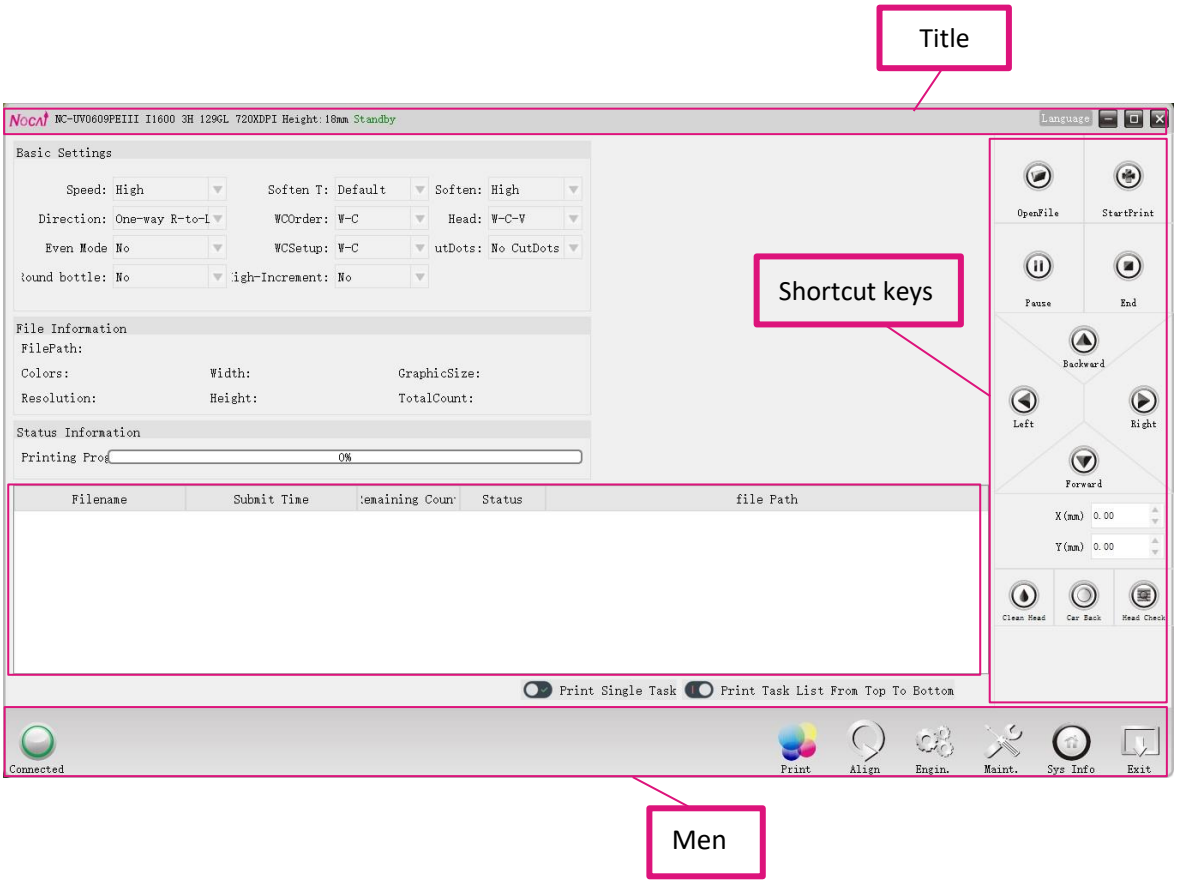
If "Connect(Success)" is displayed, the relevant parameter settings will be displayed, as shown in the figure below:



4.2 Introduction of driver function settings

The details are described below, as shown in the figure below;;

1. **The software display interface is divided into four parts: title bar, function shortcut keys, menu bar and menu display area.**



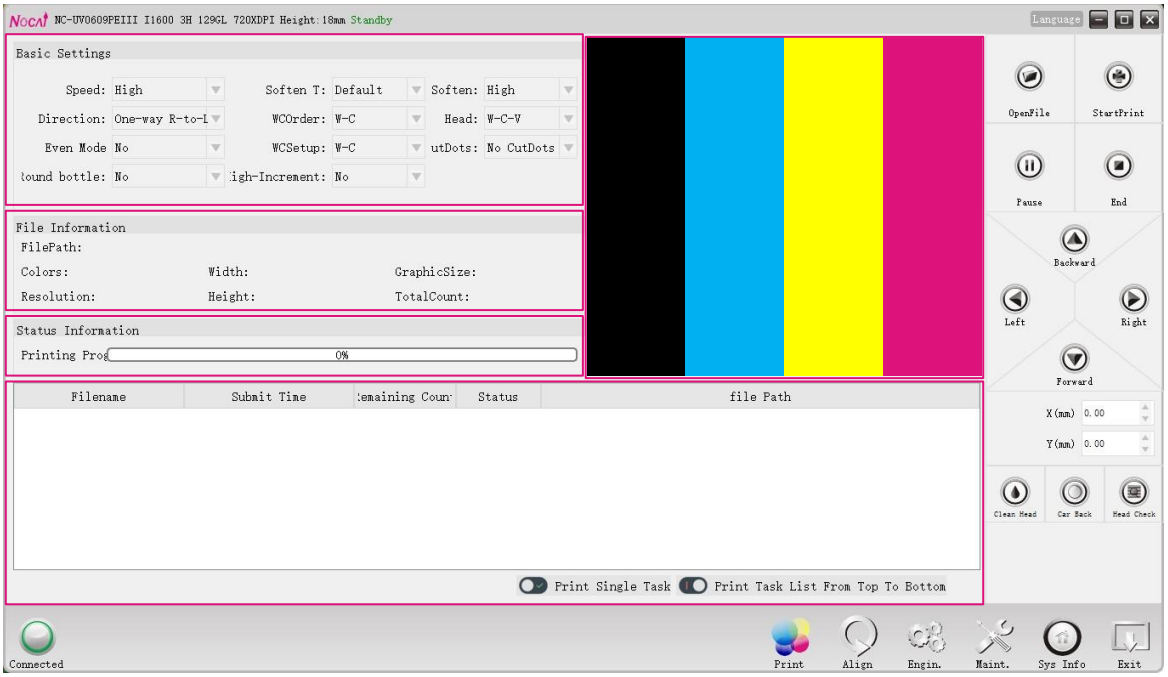
Title bar: The displayed contents from left to right are: Nuo Cai Logo, driver name (including nozzle model, number, version number and printing accuracy), Chinese and English switching interface [Laguage], hide, zoom, and exit shortcut icons, etc.

Function shortcut keys: On the right side of the driver, the commonly used function area is fixedly displayed. Including open file, start printing; move button front, back, left, right; X, Y move white border setting; cleaning, nozzle return to zero, nozzle detection and other common functional areas.

Menu bar: including Connect button and exit button, print control, calibration wizard, project mode, system maintenance, version information and other function buttons

Menu display area: including basic settings, file information, status information and other three parts. The basic settings include printing speed, Soften type, Soften, printing direction, white color order, nozzle, uniform mode, white color setting, interception, and round bottle mode.

2.Print control



Basic settings:

Printing speed: divided into high-precision, low-speed, standard, high-speed; the printing speed becomes faster in turn. Under normal circumstances, choose standard printing;

Printing direction: divided into two-way, one-way from right to left, one-way from left to right;

Soften Type: Default.
Soften: divided into low, medium and high. The degree of Soften is proportional to the effect and inversely proportional to the speed;

White color order: divided into white color, color white.

White color setting: It is the color selected for printing when printing. If only single output is selected, only white will be printed during the printing process. If single output is selected, only color will be printed, and other settings are the same as above.

Nozzle: set by the print nozzle matched with the model; the default is double-head, which cannot be selected.

Uniform mode: divided into yes, no.

Interception: divided into no interception, 1/2 reserved and 1/4 reserved. Choose not to intercept in flat mode; choose to retain 1/4 in round bottle mode, and choose to retain 1/2 in case of low precision requirements.

Round bottle mode: divided into yes and no.

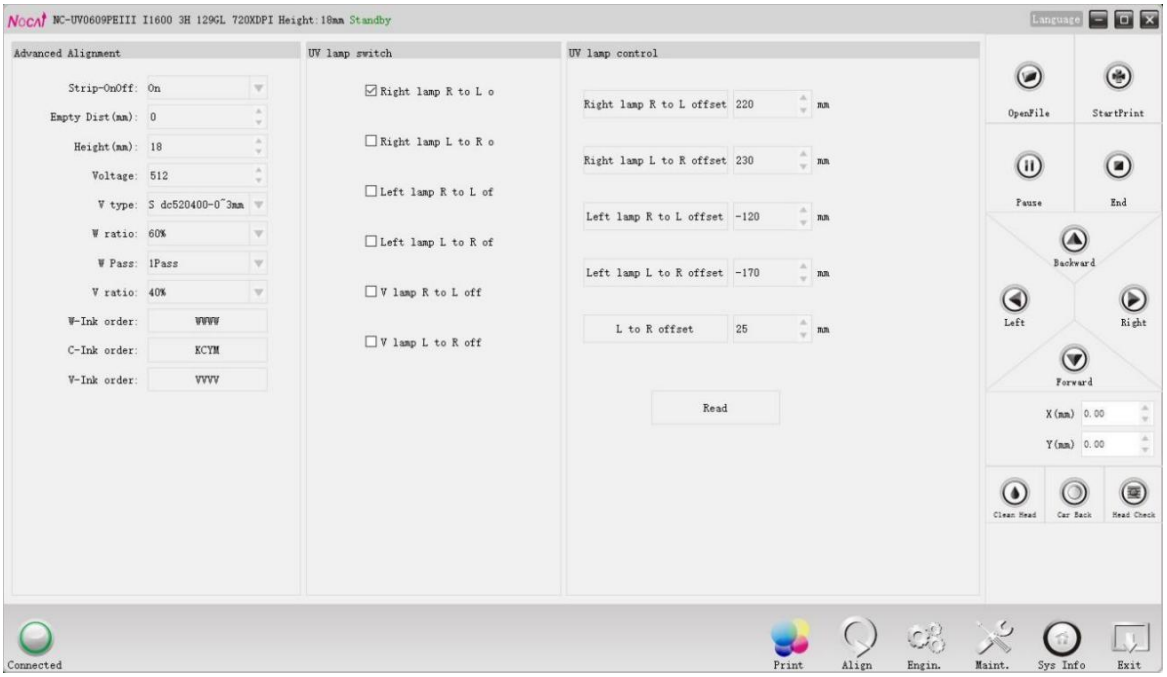
File information: prn\prt file information such as file path, number of colors, resolution, width, height, graphic size, total score, etc.

Status Information: Displays the real-time progress percentage of the current printing task.

Print task window: including file name, submission time, remaining copies, status, file path and other file information. Among them, you can check to print a single task at the bottom, or print the class table in order from top to bottom.

Prn/prt preview window: Displays a preview of the effect of the currently selected task.

2. Engineer Mode



Advanced settings

Whether to jump white: divided into on and off. Turn it on to skip printing for blank areas in the image.

Idling distance: the distance that the cart travels backward after printing, in mm.

Voltage adjustment: default 512. According to the actual printing situation, the value can be added or subtracted under the guidance of the after-sales technician.

Voltage Type: Default S. Suitable for standard printing height 2-3mm.

White ink ratio: divided into 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 100%. The white ink output can be proportionally reduced.

White ink times: divided into 1Pass, 2Pass, 3Pass, 4Pass, 5Pass, 6Pass, 7Pass, 8Pass, 9Pass, 10Pass.

White ink ink sequence: default WWW. Where W is changed to N, that is, the corresponding channel is closed.

Color ink sequence: KCMY by default. The channel cannot be closed.

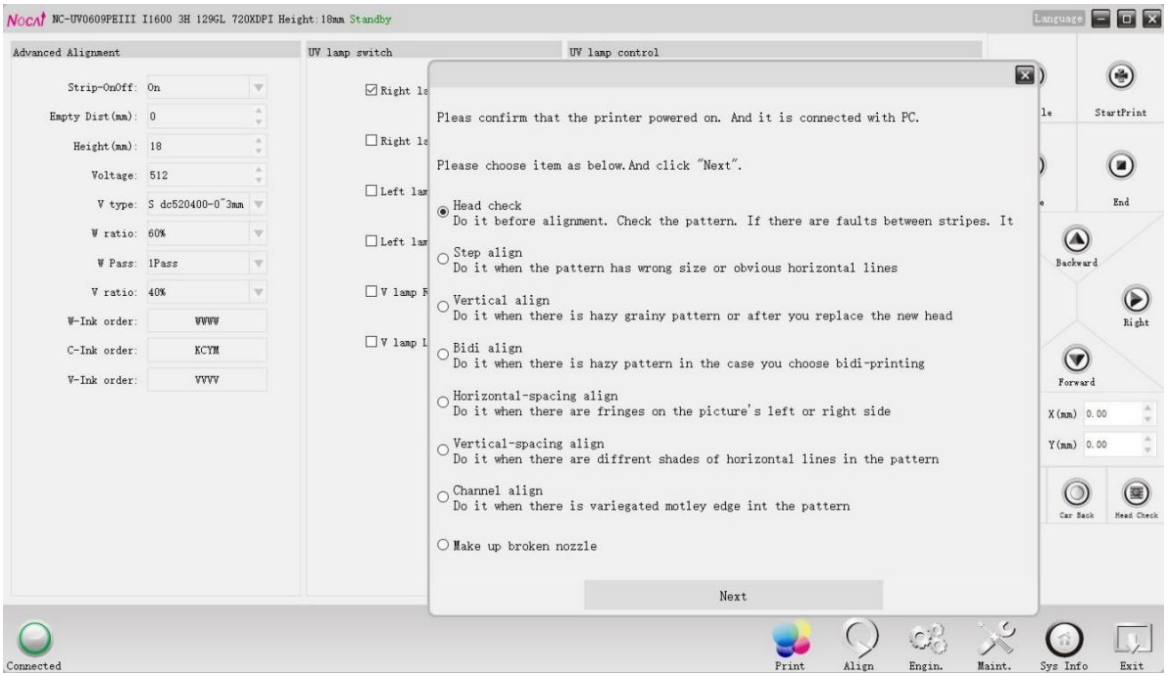
UV Lamp Control

See UV Lamp Calibration Instructions for details.

4.3 Calibration Wizard

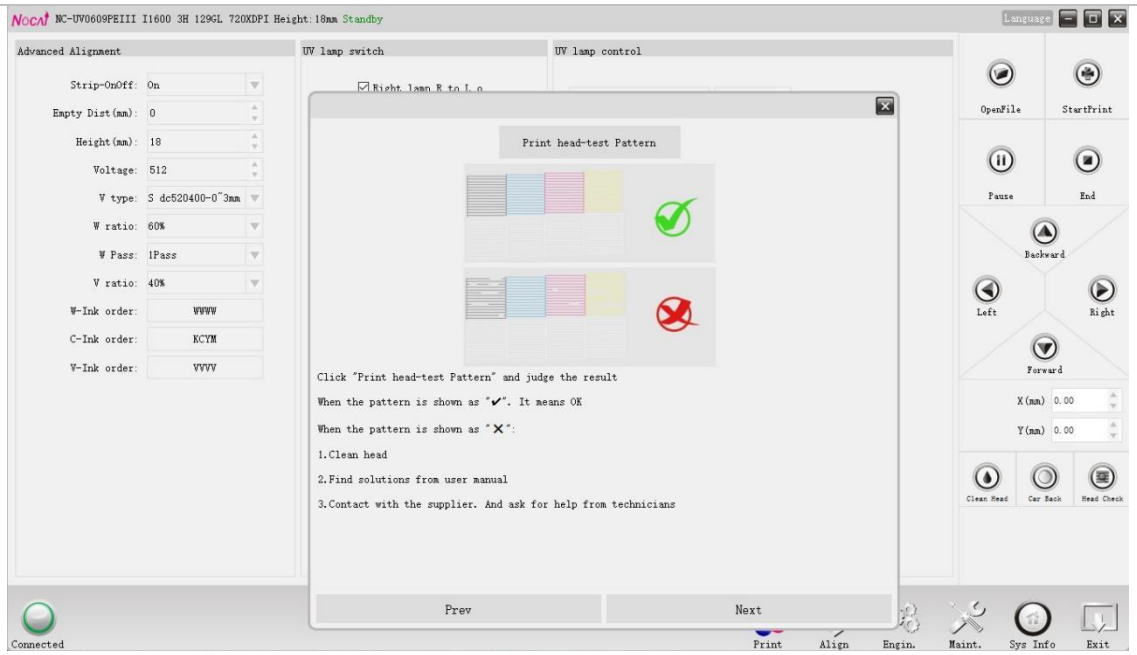
Click Calibration Wizard, 

the software pops up the following calibration process interface. When the new machine is installed, replaced or hits the nozzle, the calibration can be completed from top to bottom.



① **Nozzle inspection**

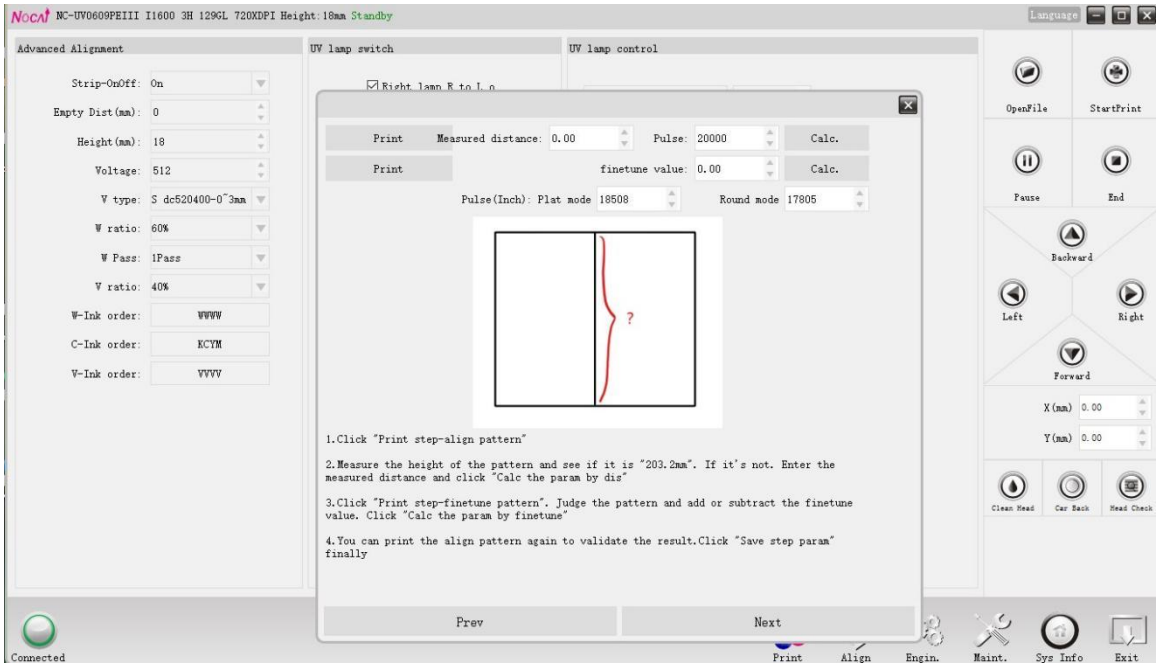
Click Next to enter the nozzle detection details page, and follow the prompts.



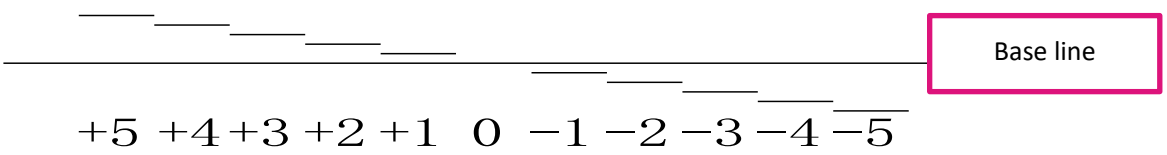
After confirming that the print head status is OK, click Next. The software enters the calibration main interface and automatically selects step calibration.

② step calibration

Click Next, the software enters the step calibration details interface. Click to print the step-by-step calibration chart to perform rough calibration; then click to print the step-by-step fine-tuning pattern to perform fine-tuning.



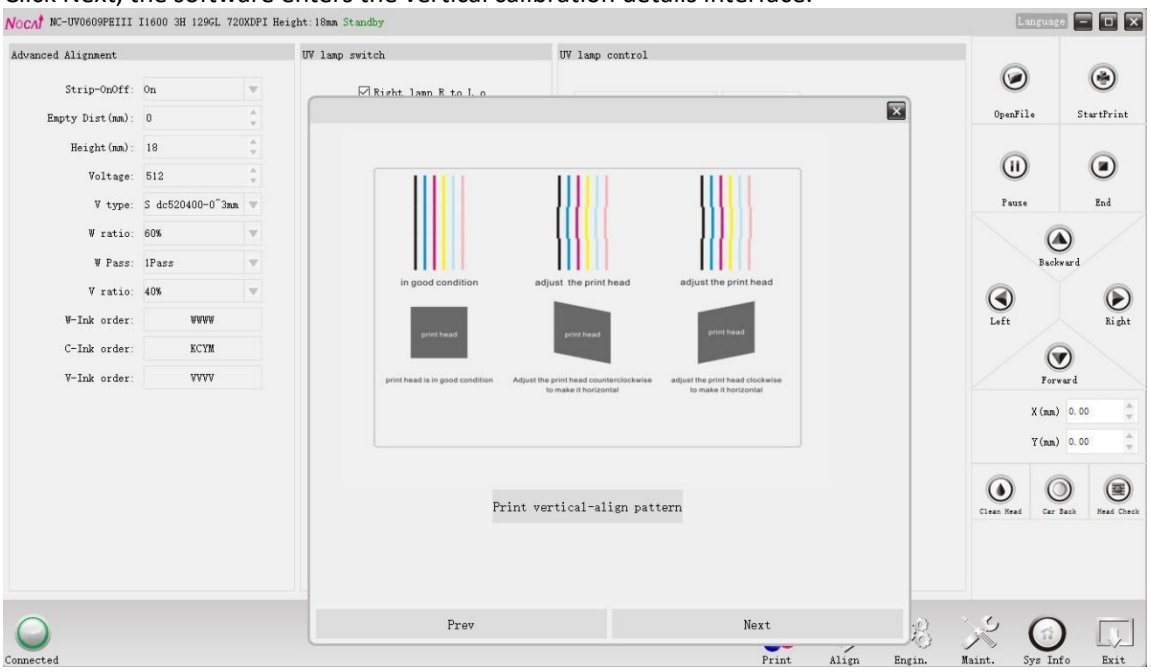
The step fine-tuning pattern is as follows:



The ultimate goal: to make the corresponding line of 0 coincide with the reference line best. After the calibration is completed, click Next, the software enters the calibration main interface, and automatically selects the vertical calibration.

③ vertical calibration

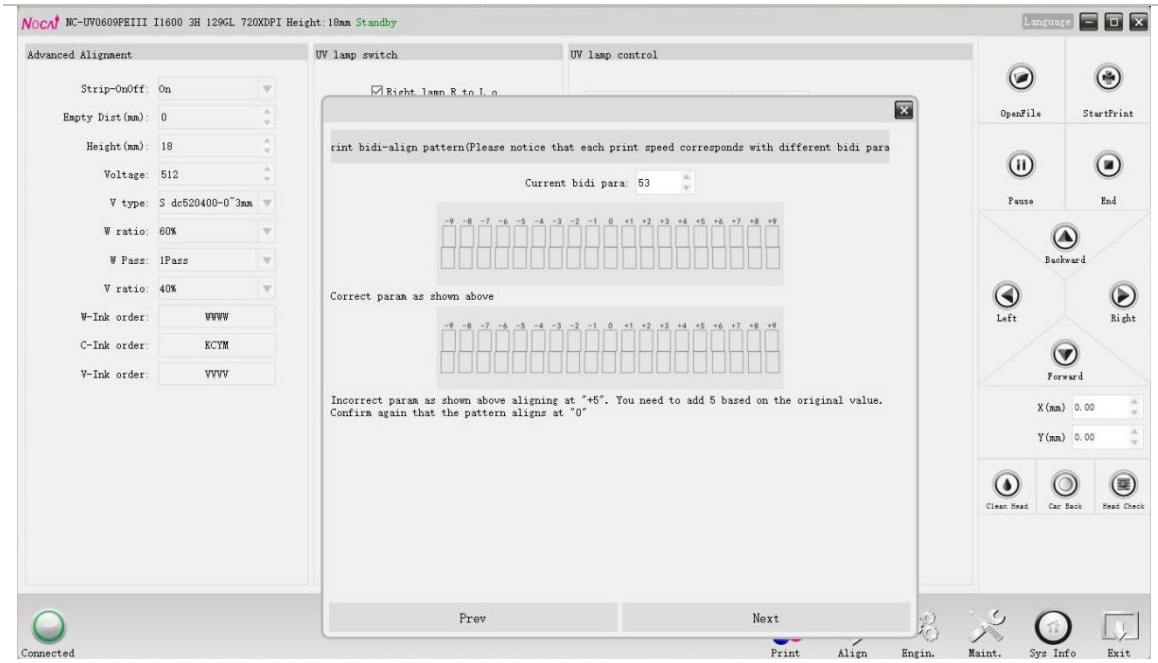
Click Next, the software enters the vertical calibration details interface.



Click "Print Vertical Calibration Pattern", adjust the white and color nozzles to the "normal state" according to the method shown in the figure above, click Next, the software enters the calibration main interface, and automatically selects two-way calibration.

④ Bidirectional calibration

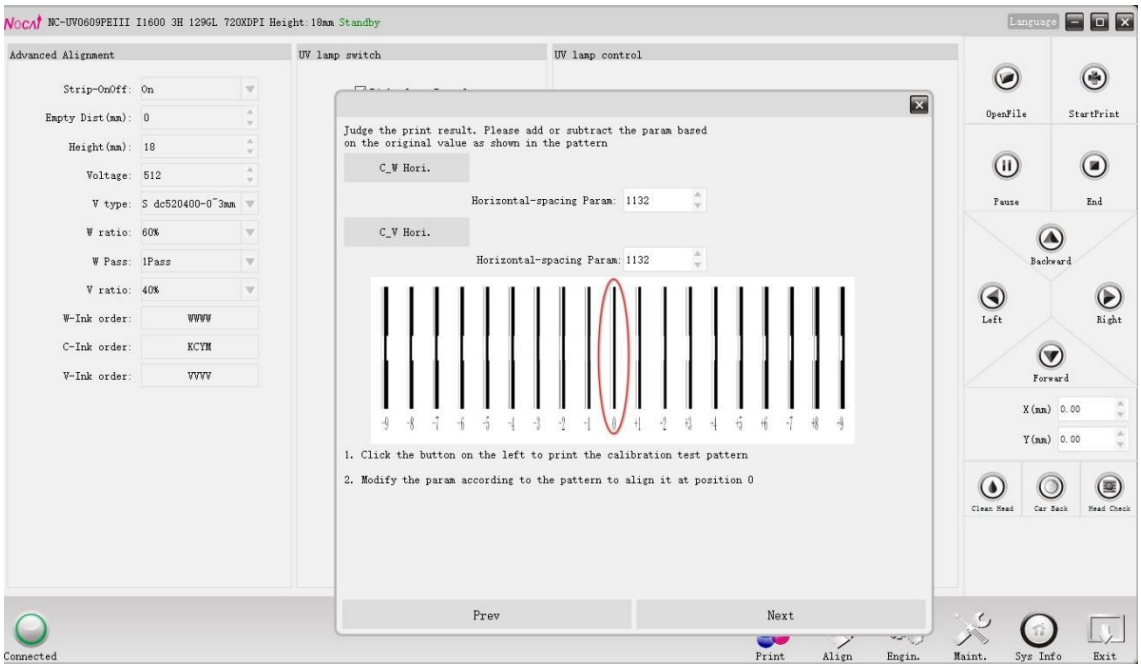
Click Next, the software enters the bidirectional calibration details interface.



Click "Print Bidirectional Calibration Pattern", adjust to the position where the two boxes with the best overlap are at 0 according to the method shown in the figure above, click Next, the software enters the calibration main interface, and automatically selects the head horizontal spacing calibration.

⑤ Head Horizontal Spacing Calibration

Click Next, the software will enter the head horizontal spacing calibration details interface.



The calibration is mentioned as follows:

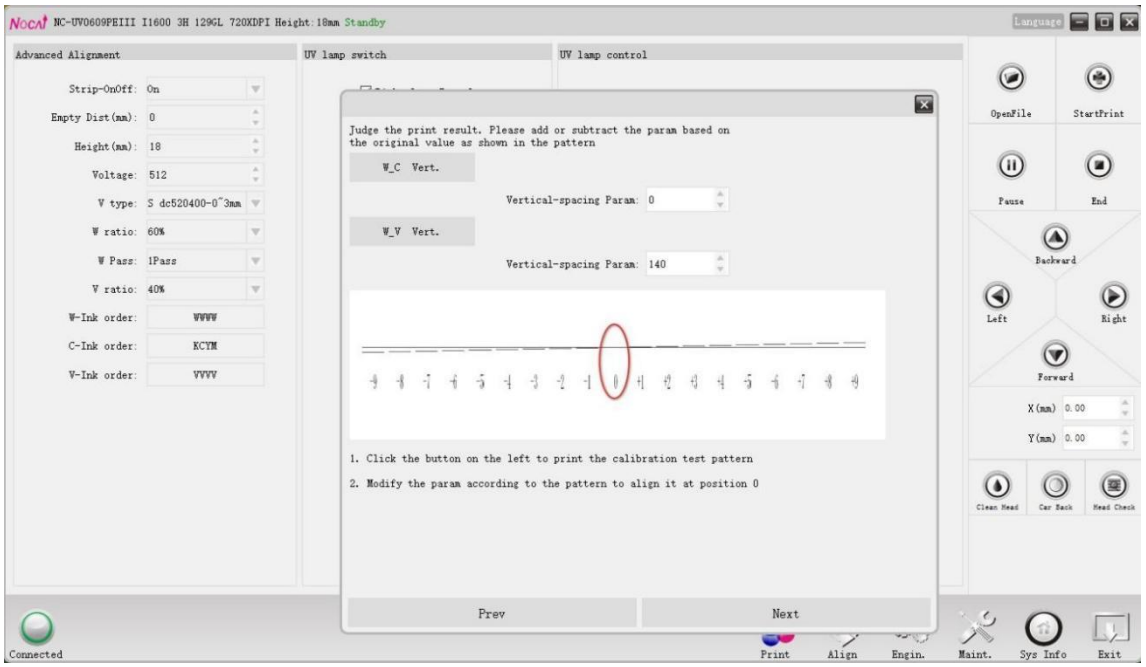
Observe the printed calibration chart to check the coincidence of the black and white lines. For example, the “+3” black and white line tone is the best, and the current horizontal spacing factor is increased by 3; if the “-3” black and white line tone is the best, the current horizontal spacing factor is reduced by 3. Debug several times until the black and white lines corresponding to the number "0" have the best coincidence, which is a straight line.

Click Save when debugging is complete.

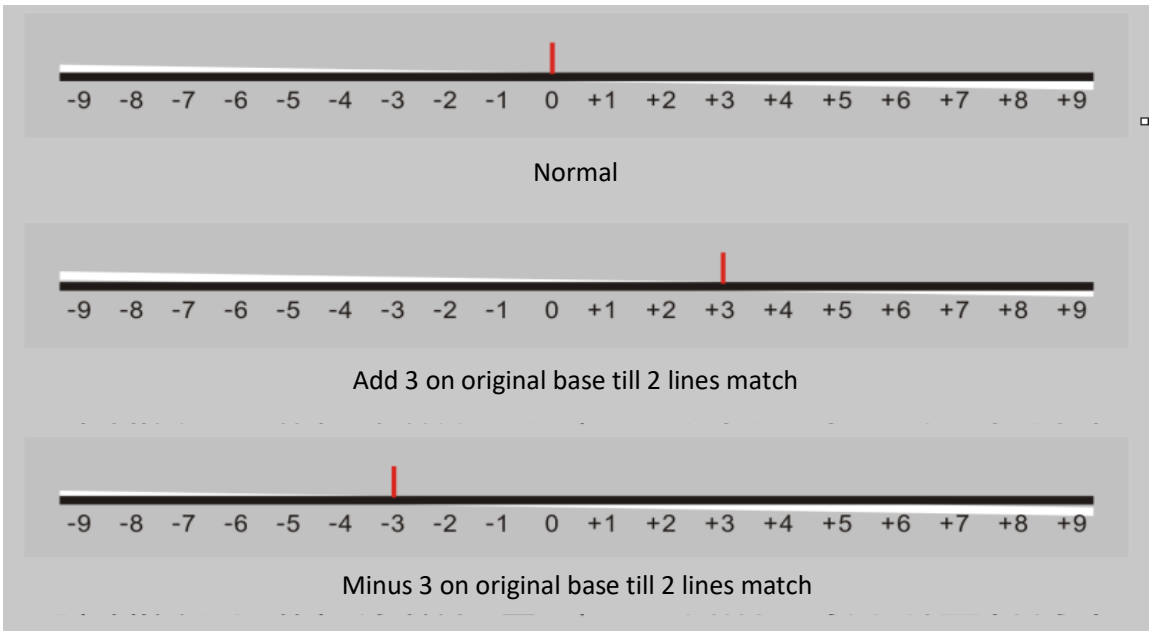
Click Next, the software enters the calibration main interface, and automatically selects the head horizontal spacing calibration.

⑥ **Head Vertical Spacing Calibration**

Click Next, and the software will enter the head vertical spacing calibration details interface.



The calibration diagram and debugging method are as follows:

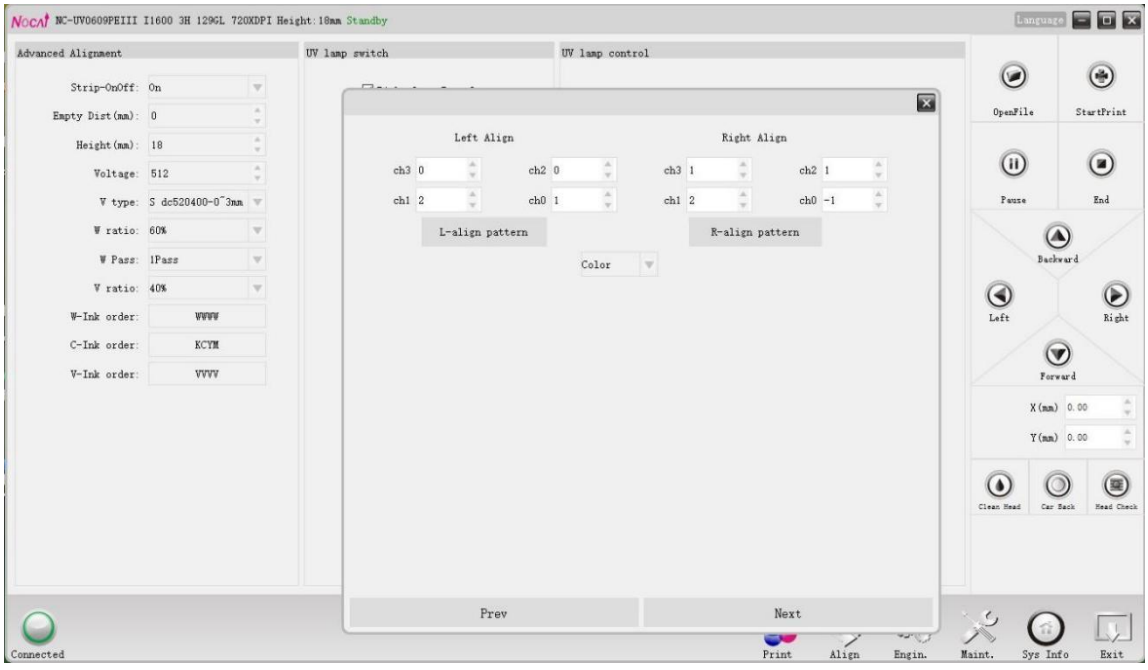


Click Save when debugging is complete.

Click Next, the software enters the calibration main interface, and automatically selects the color registration calibration.

⑦ Color calibration

Click Next, the software will enter the registration details interface.



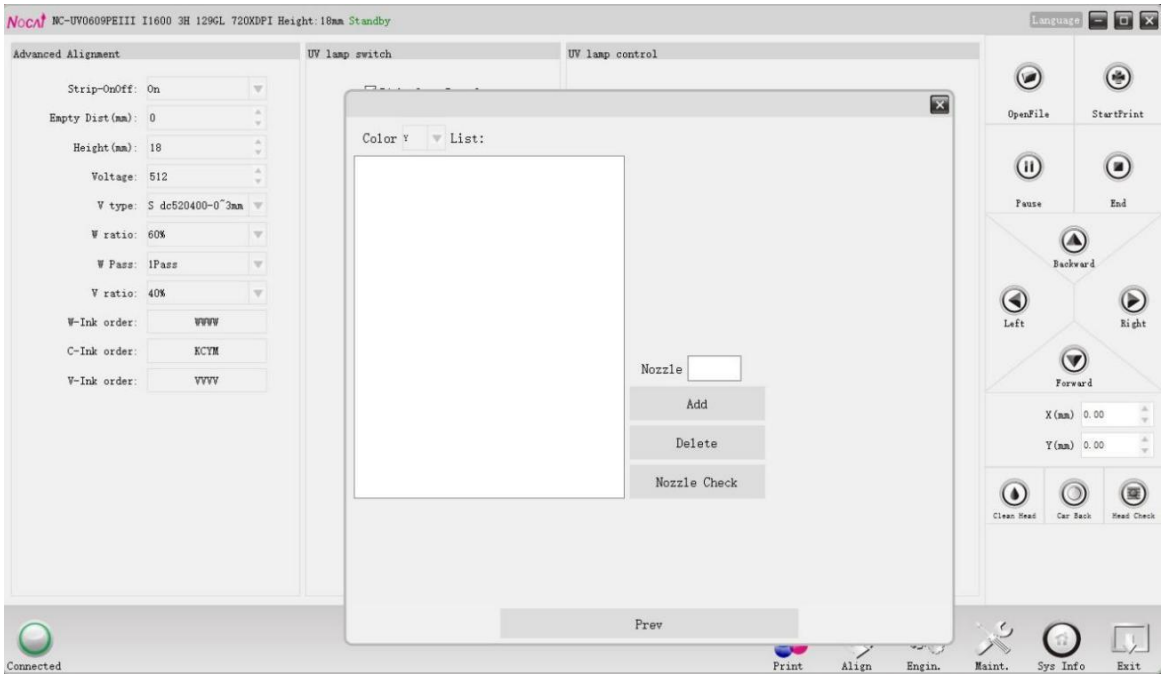
The calibration diagram is as follows:

Observe the printed calibration chart and check the coincidence of each color line with the black line. Take the CH1 red and black color pattern as an example: if the “+3” red and black line tones are the best, the current horizontal spacing factor is increased by 3; if the “-3” red and black lines are the best, the current horizontal spacing factor is reduced by 3. Debug several times until the red and black lines corresponding to the number "0" have the best coincidence, which is a straight line.

Click Save when debugging is complete. Click Next, the software enters the calibration main interface, and automatically selects needle break compensation.

⑧ Needle break compensation

Click Next, the software will enter the broken needle compensation details interface.



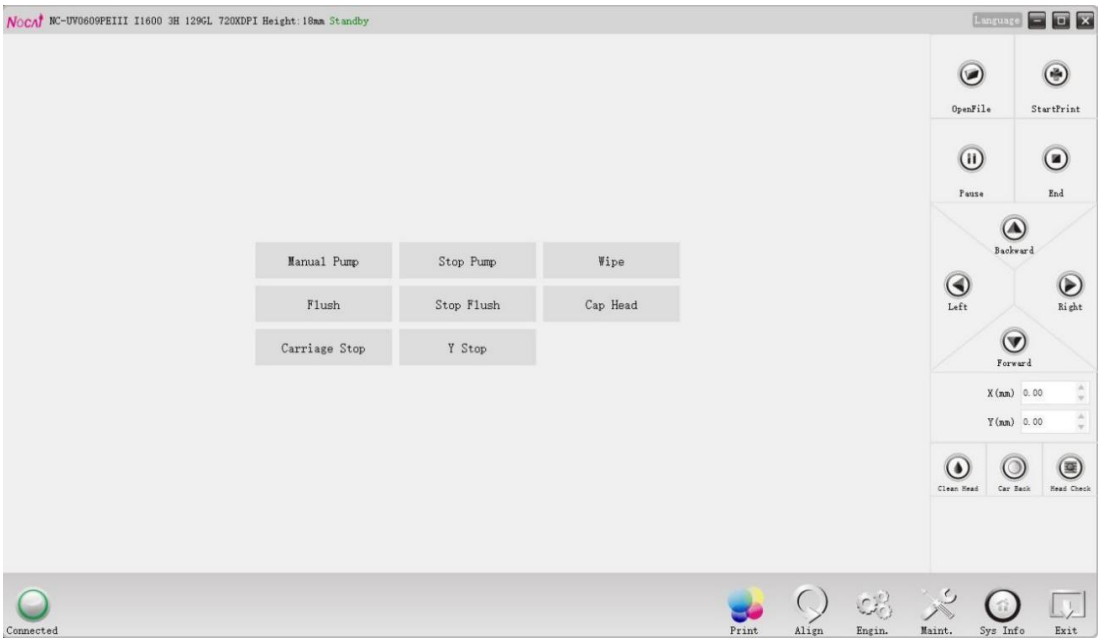
Color: K, C, M, Y can be selected.

Click Nozzle Detection, print the calibration chart of the corresponding color, observe and record the value corresponding to the broken needle, and then fill in the check box of the nozzle hole and add it.

The calibration process is now complete, just close the calibration window.

4.4 system maintenance

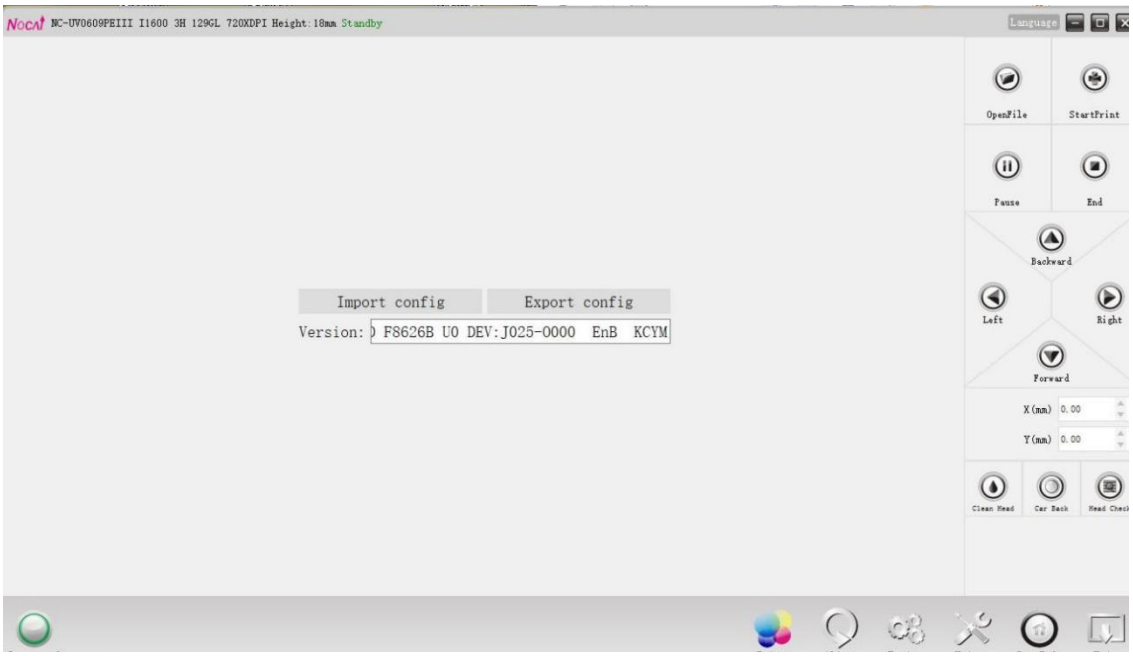
Click System Maintenance in the menu bar of the home page, and the software will enter the system maintenance details page.



This page is a common function for system maintenance. Such as: manual pump, stop manual pump, scraping nozzle, flash jet, stop flash jet, head, stop cart, stop paper feeding lights, etc.

4.5 Version Information

Click the version information in the menu bar of the home page, and the software jumps to the version information details page.



Export configuration file: export the parameter settings in the online software as a file with the suffix of pfg format for backup.

Import configuration file: Import the parameter file from the previous export backup to restore the parameters.

Version Information: The specific information of the system version.

4.6 Exit

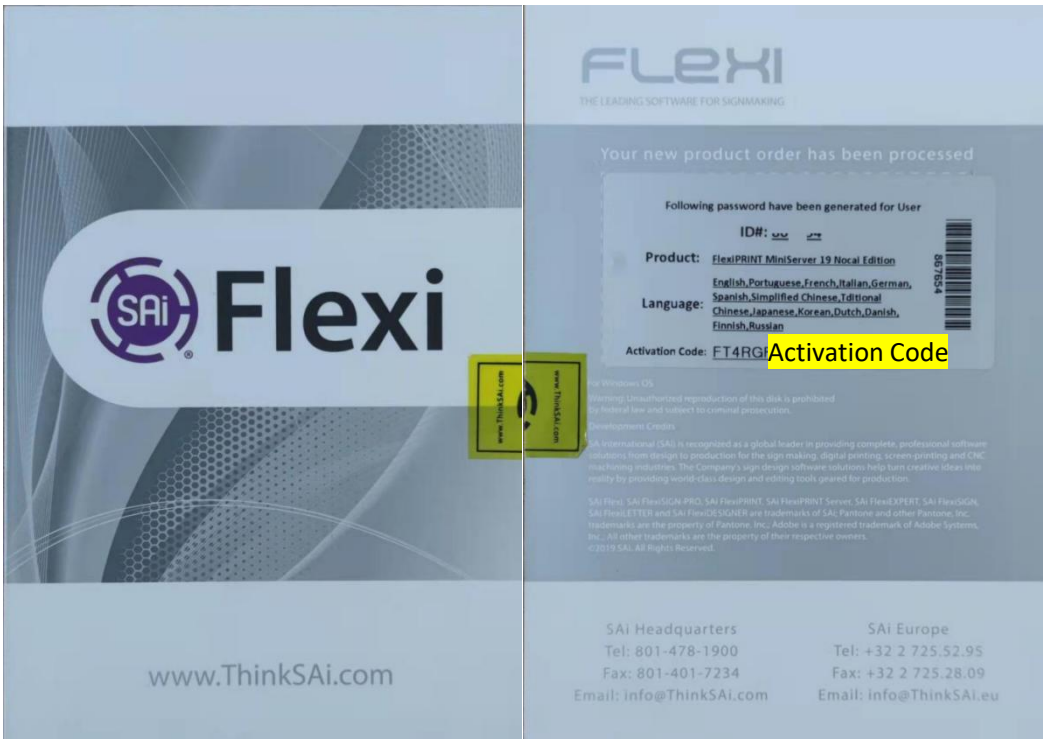
Click on the home menu bar to exit, the software will automatically close.

FLEXIPRINT MINISERVER 19 NOCAI EDITION SOFTWARE INSTALLATION

5.1 FlexiPRINT Introduction

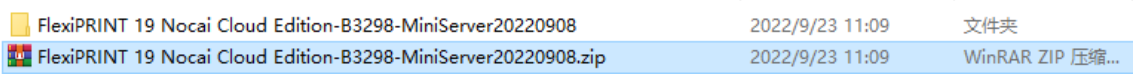
1.The front, back are as shown below:

Front Back

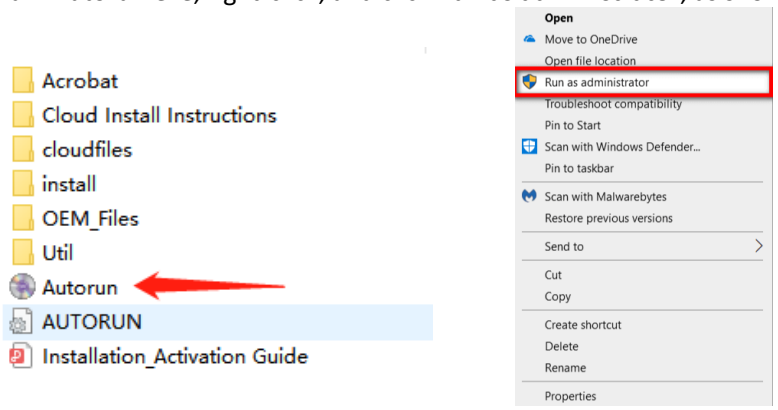


5.2 FlexiPRINT 19 software installation steps

1.Release the RAR file sent by our Sales engineer,

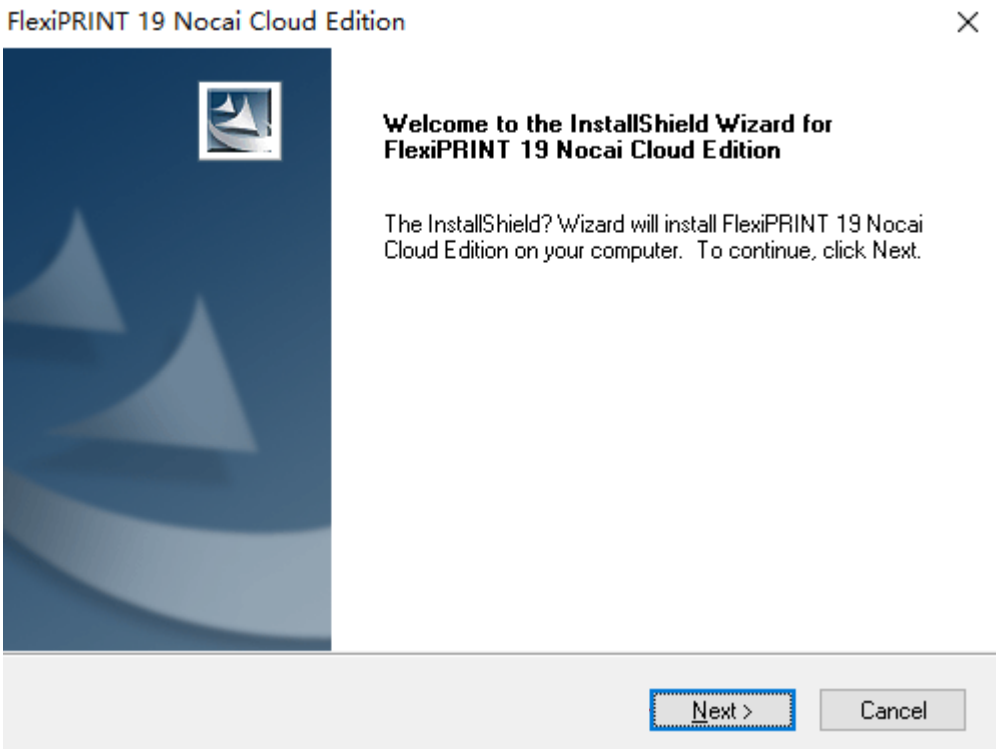


Find the program Autorun.exe, right-click, and click **Run as administrator**, as shown below:

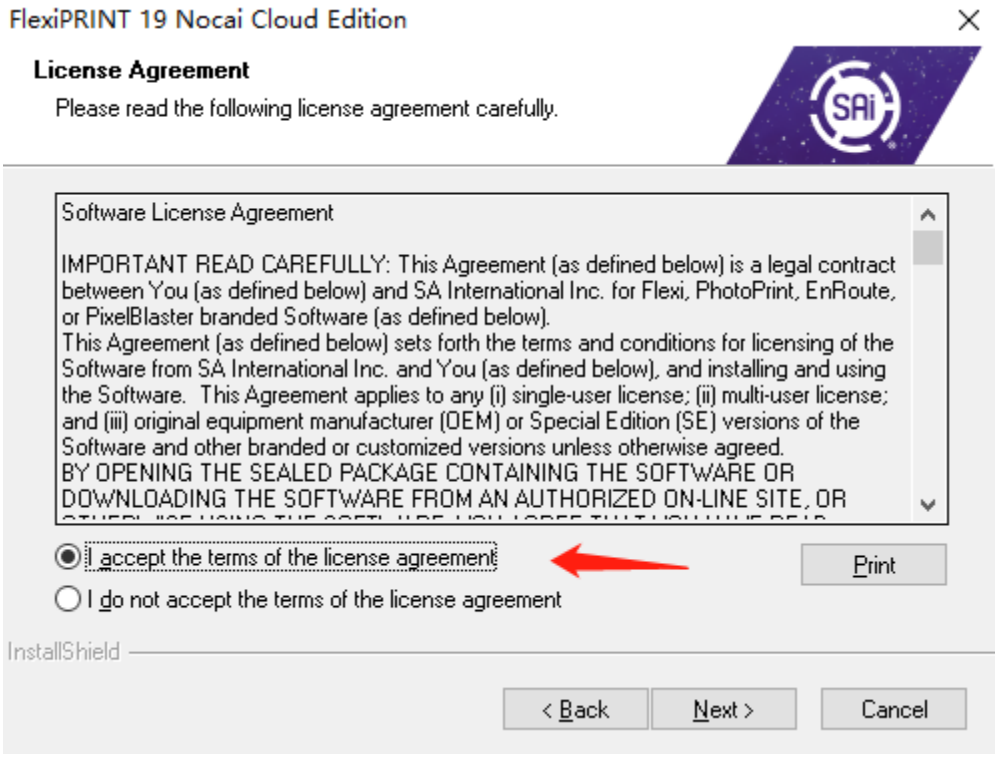


2.A dialog box pops up, select the language required to install the software (default as your PC SYSTEM), and then click OK:

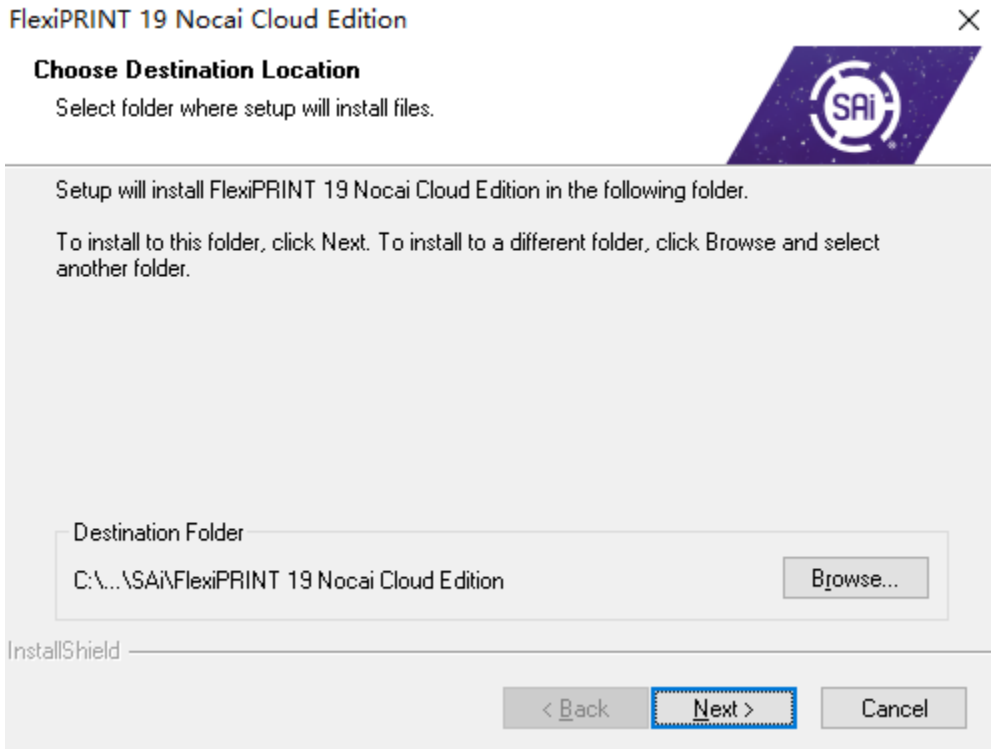
3. Click Next to continue the installation：



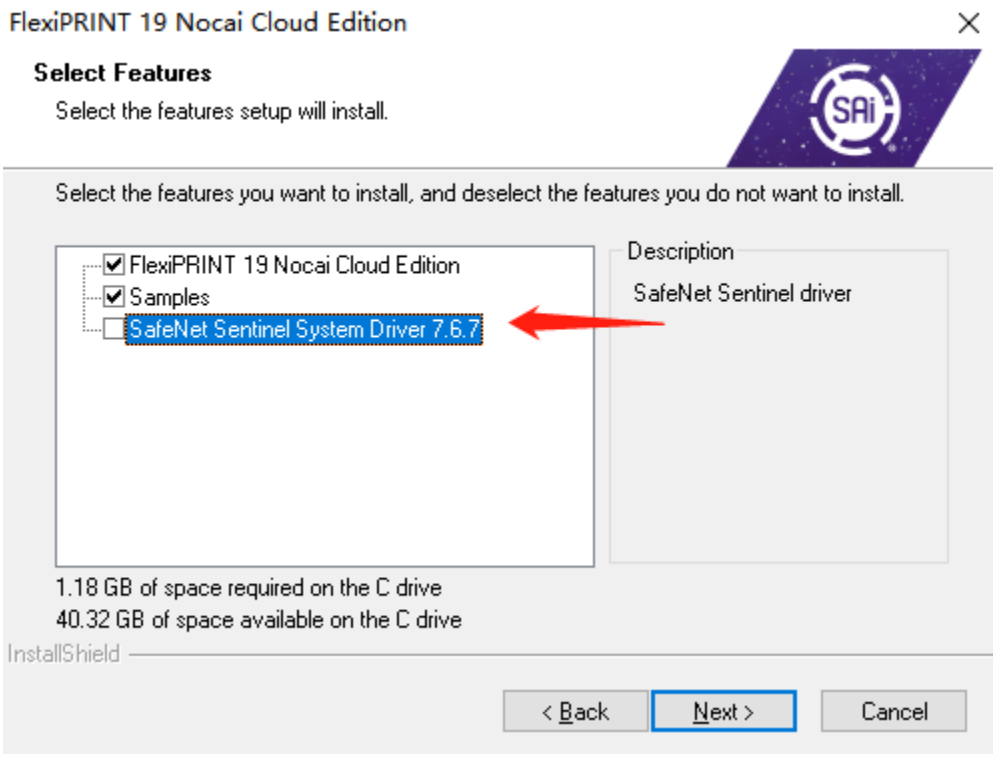
4. Accept the terms and click Next:



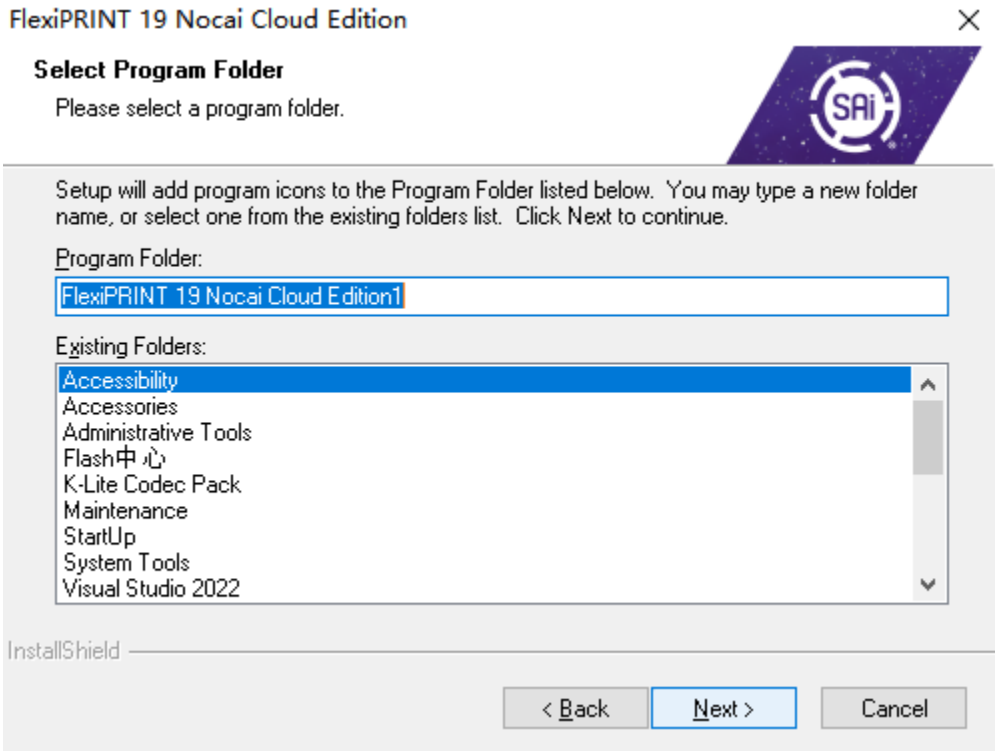
5. Click Browse to set the installation path of the software, which is installed in the C drive by default, click Next:

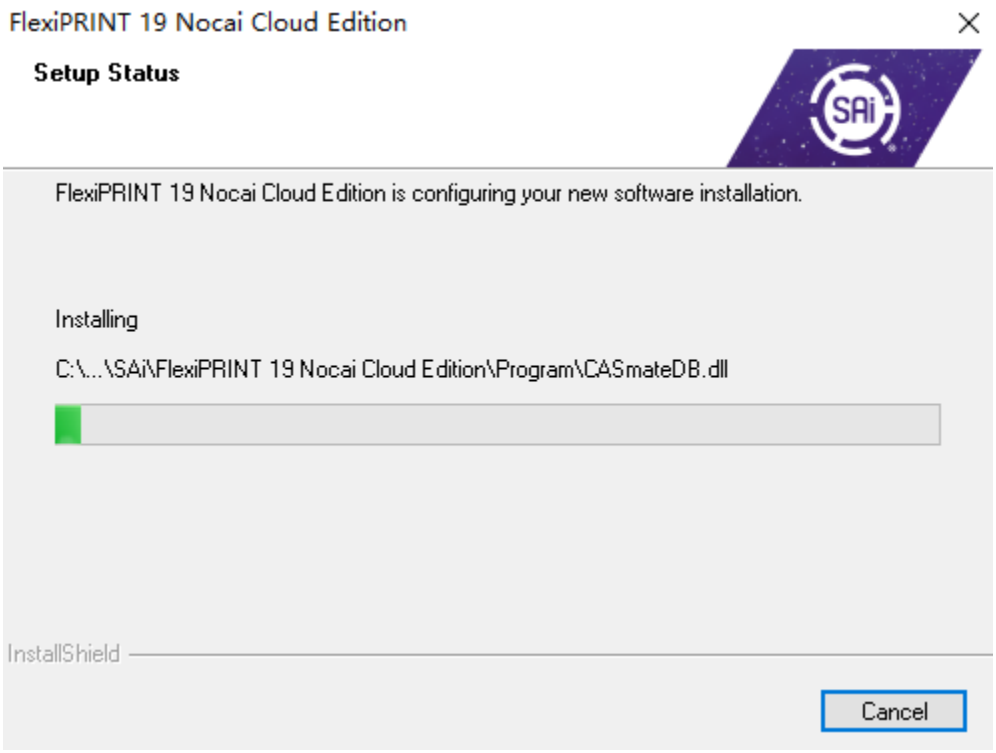


6. Make sure to check the main programs that need to be installed as shown in the figure (not to check: SafeNet Sentienel System Driver program), and click Next：

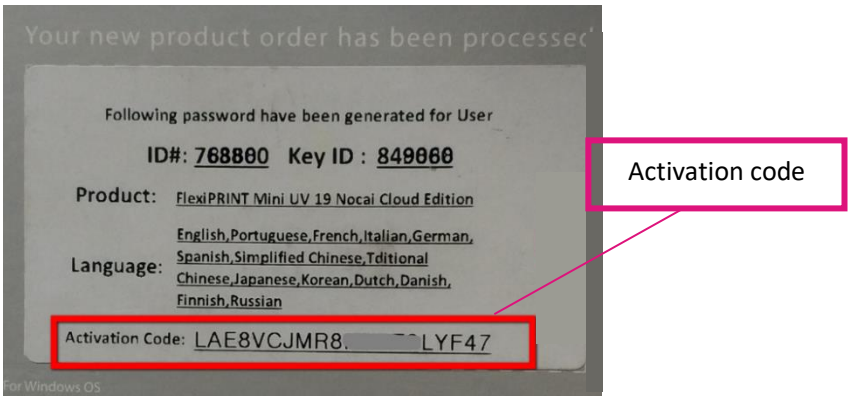


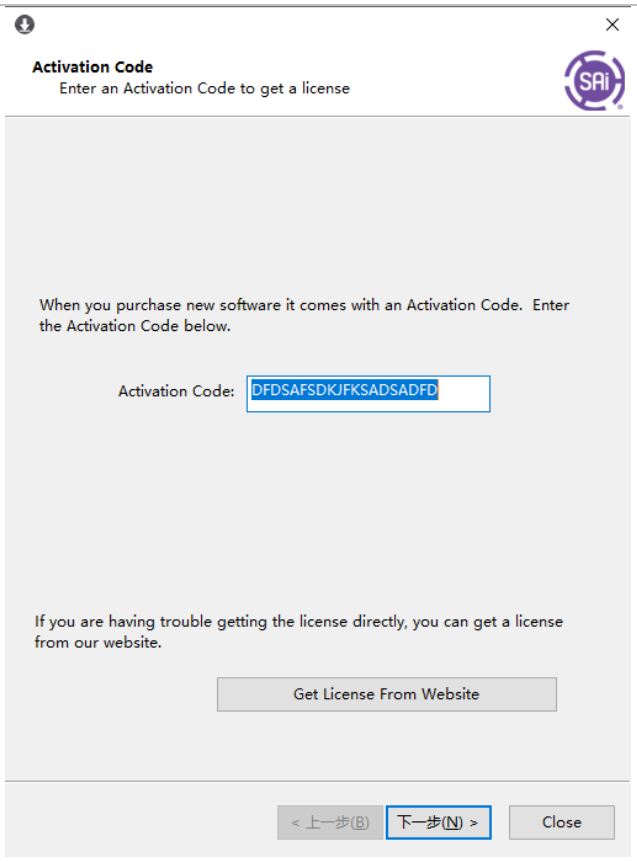
7.A dialog box pops up, click Next:



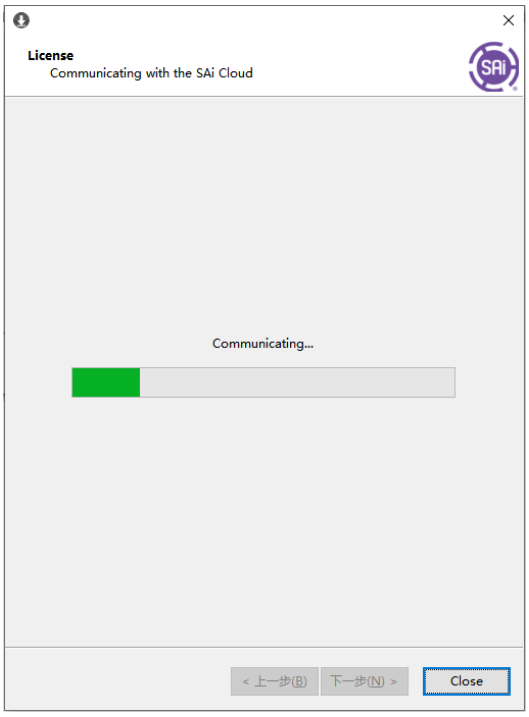


8.During the installation process, a dialog box will pop up, enter the activation code. **Make sure your PC is connected to internet.** Find the **Activation Code** on the back of the CD box: XXXXXXXXXXXXXXX, enter the following dialog box, and then click Next：

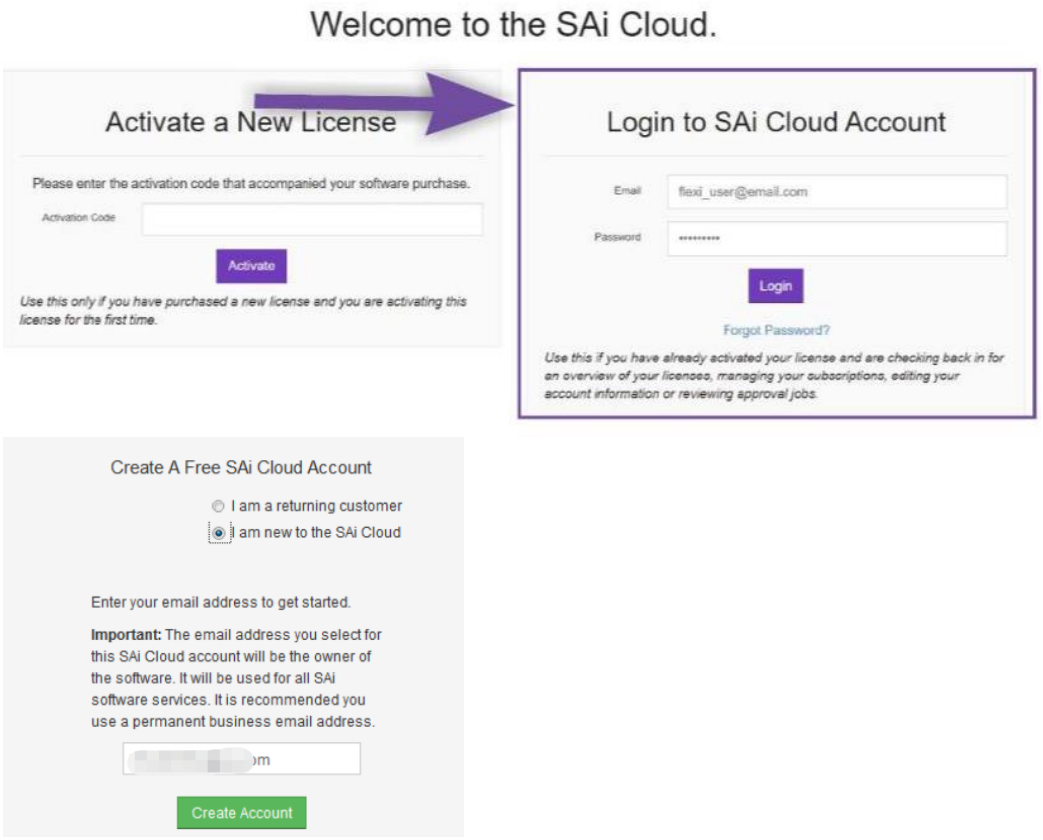




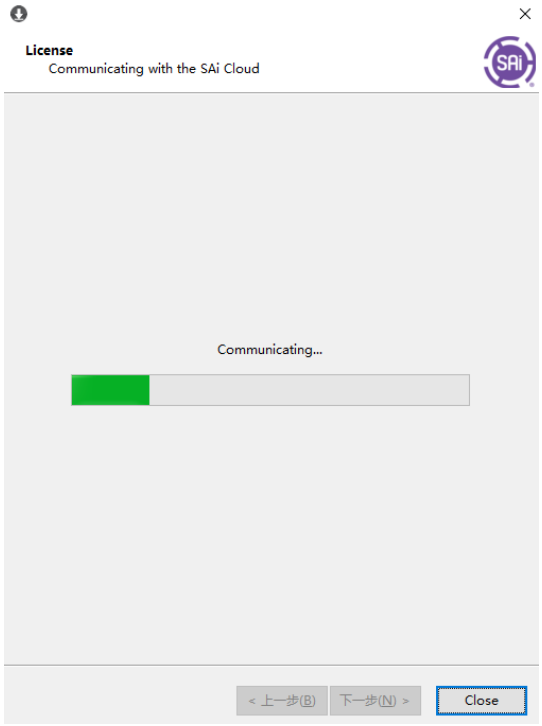
9.When you activate for the first time, the following prompt will pop up for the website activation steps. When you are prompted to this step, please enter the prompt website to activate.

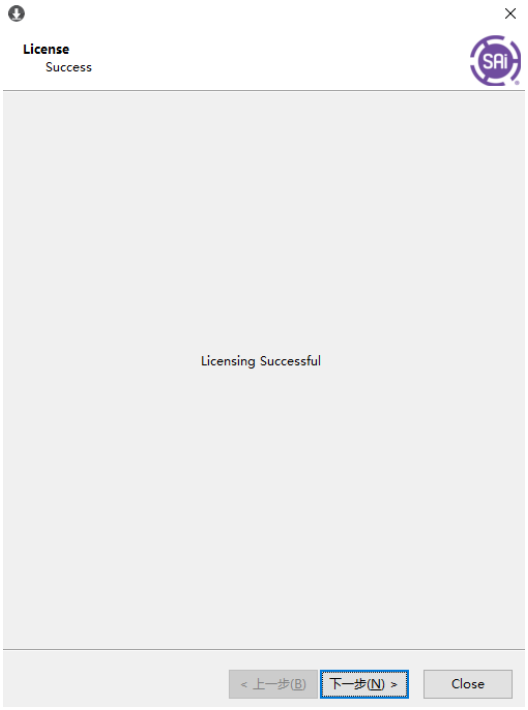


10.Enter the link: https://www.saicloud.com/ as shown below, apply for a registered email address, log in and activate. After succeeded, close the web page, follow the prompts to proceed to the next step:

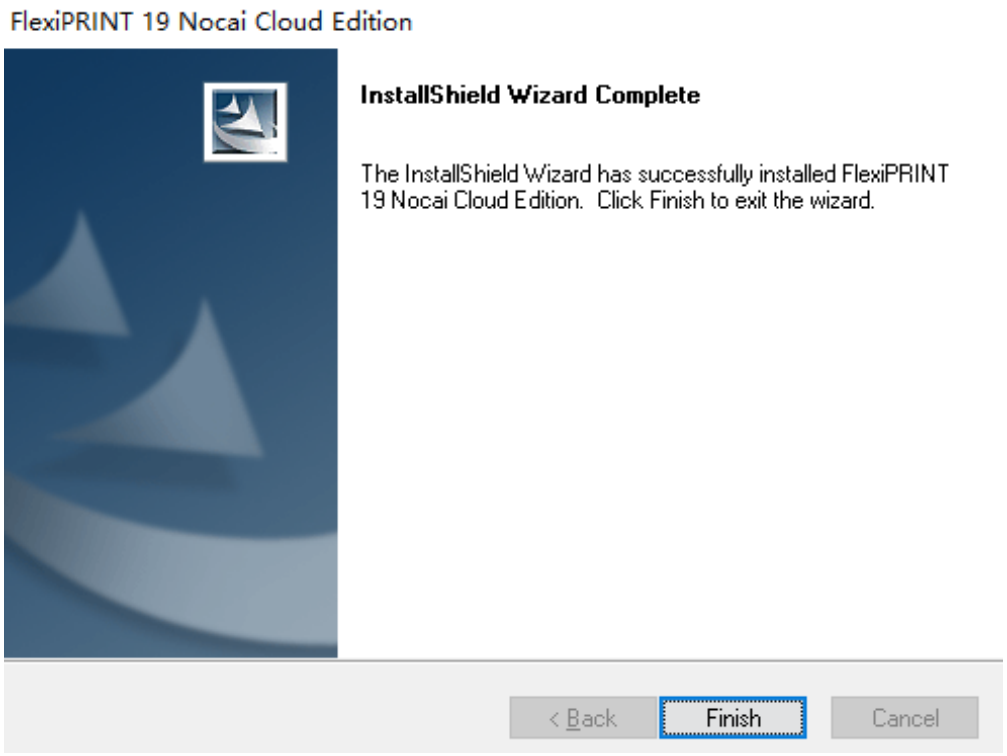


11.If there is no prompt to activate the web page, skip steps 9 and 10, click Next, and you will directly enter the authorization success section.





12. After a few minutes, a dialog pops up and click Finish.



Two icons will appear on the desktop， 

indicating that the software installation is complete.

5.3 FlexiPRINT software settings

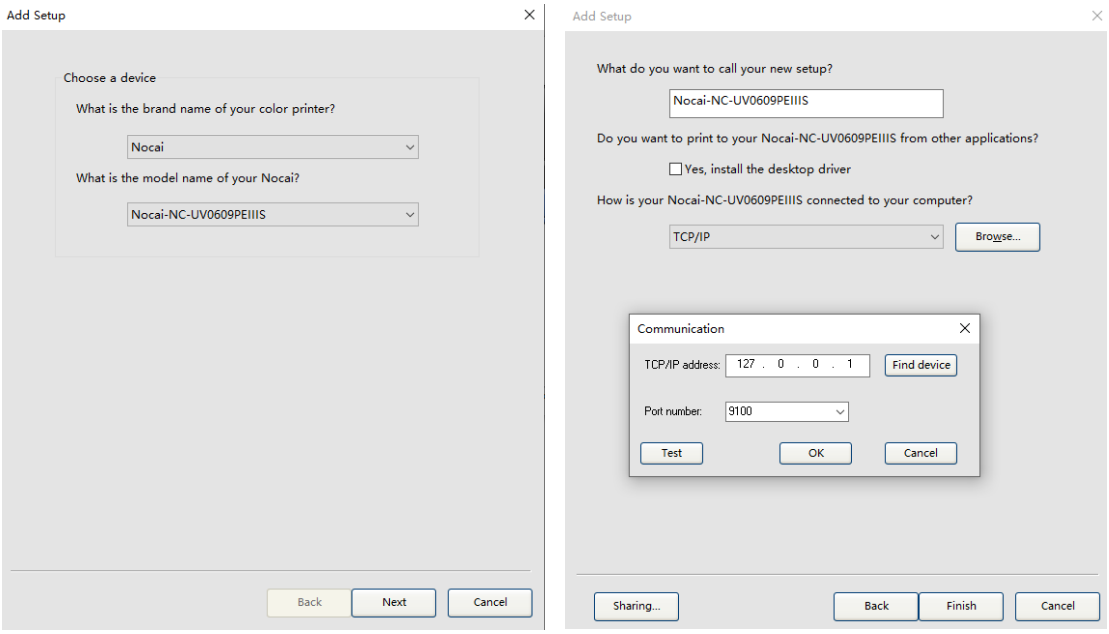
5.3.1 Model Port Settings

Right-click the software icon, 

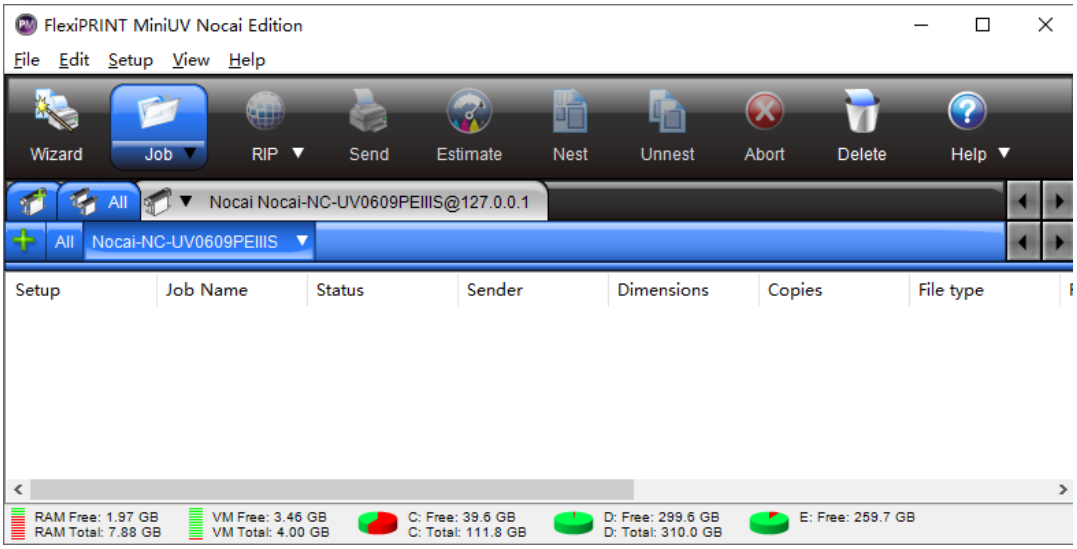
run as administrator, and the software can be opened. The desktop will pop up to add a device port, as shown in the figure below: the brand name is "Nocai", the model is "Nocai-NC-UV0609PEIIIS",

After selecting, click Next:

Select TCP/IP for the connection method, enter 127.0.0.1 for the TCP/IP URL, click OK, and click Finish. As shown below：

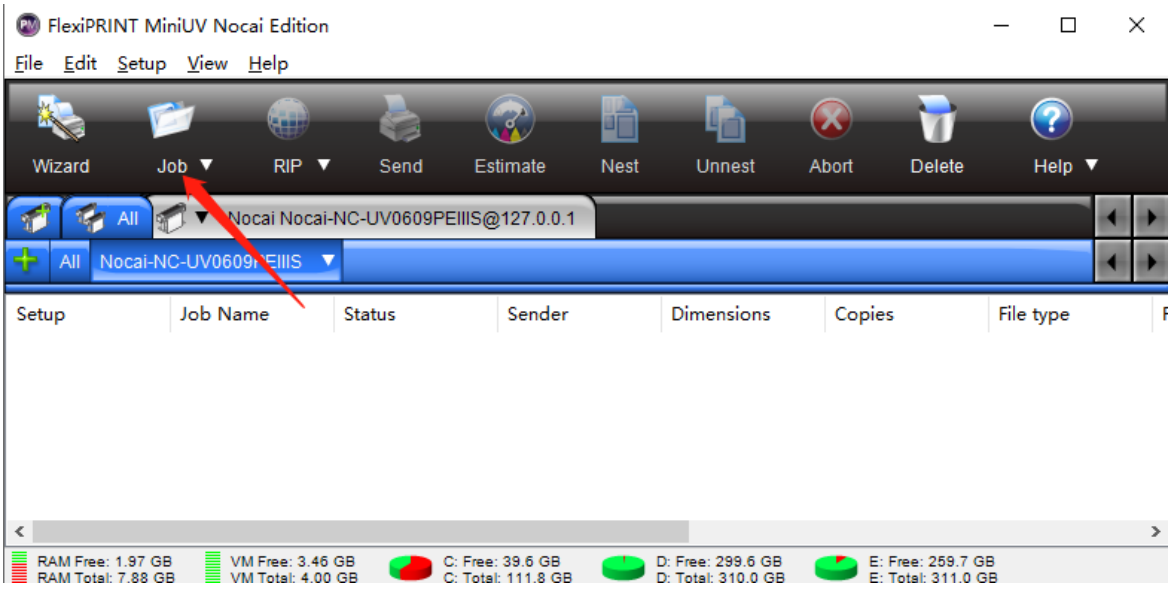


After the model port setting is completed, as shown in the following figure：



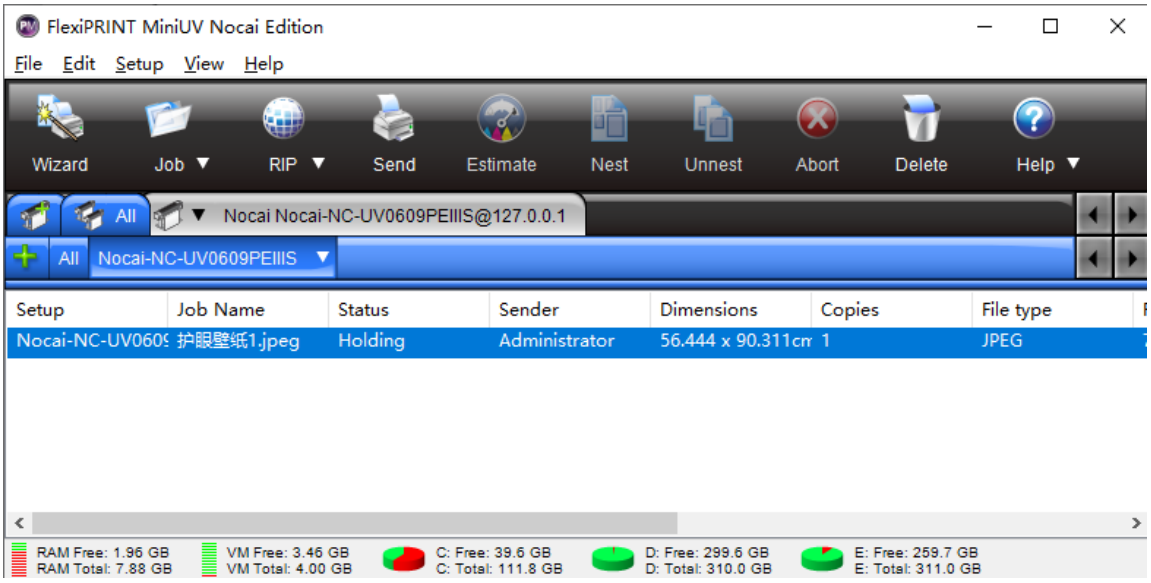
5.4 FlexiPRINT software proofing operation diagram

5.4.1 Add job picture



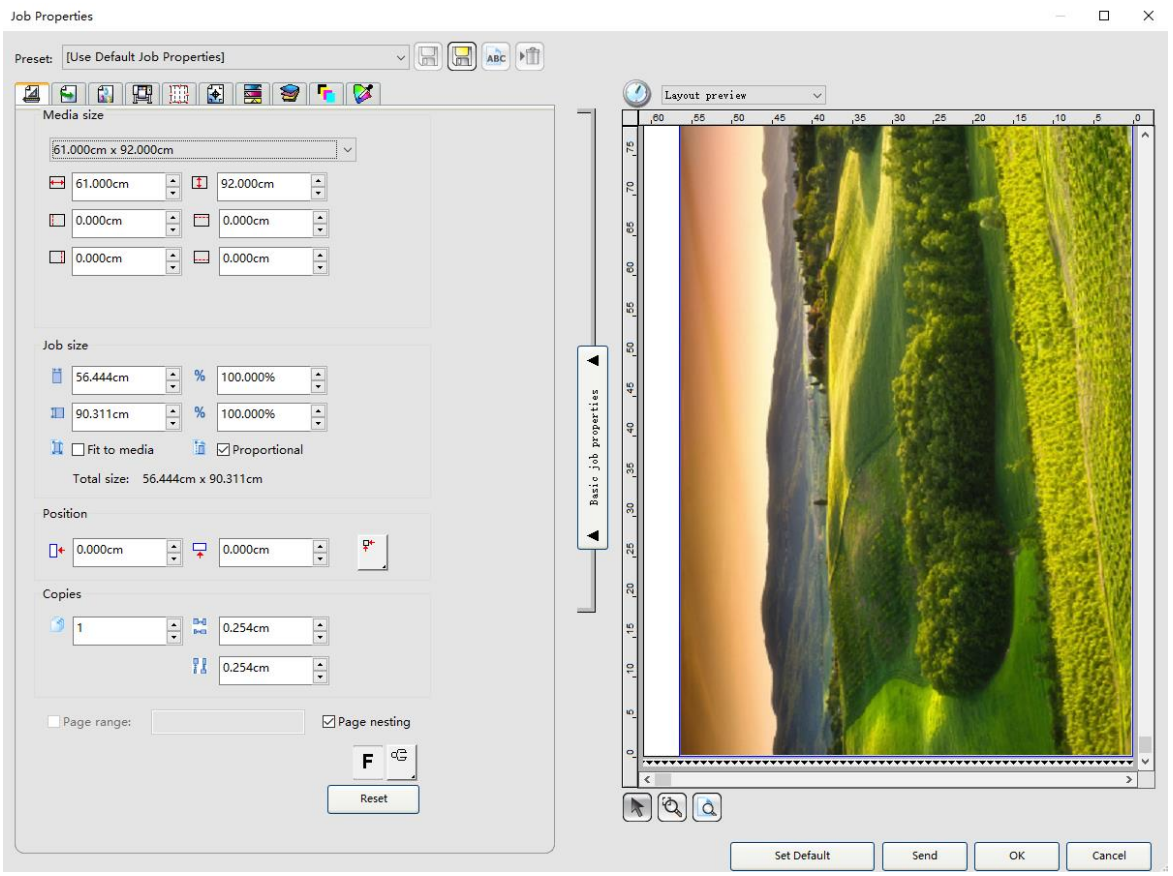
1. "Job" select the file path to add the file of the job;
2. The "raster image processor" preprocesses the files to be printed in advance;
3. "Send" is to send the edited job for printing;
4. "Abort the job" is to interrupt the job being printed;
5. "Delete" is to delete the job file inside;

Click "Job" to add the job file, (you can also directly pull the picture into the box) as shown below:



5.4.2 File parameter settings

1. Double-click the imported file to enter the arrangement of the job properties interface, as shown in the figure below：



1. **Media size**: machine printable size;

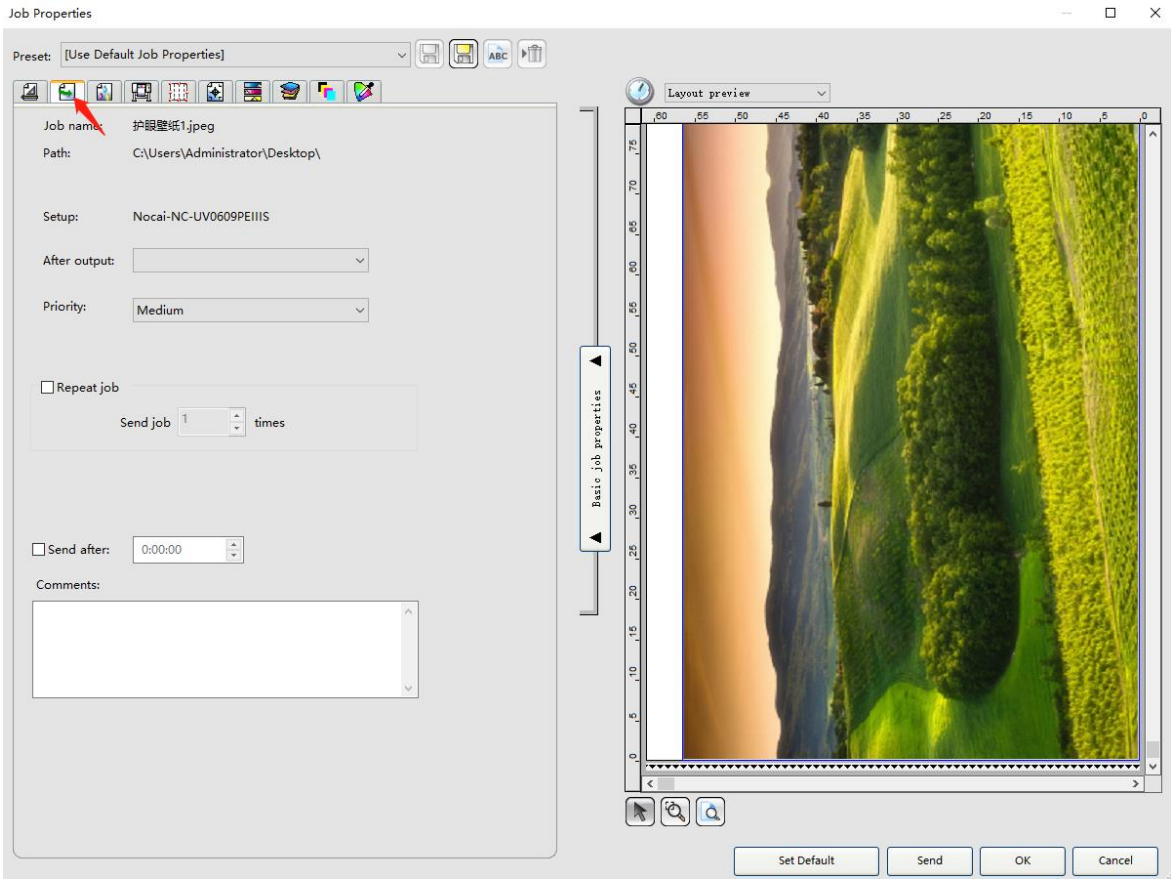
2. **Job size**: refers to the size setting of the picture to be printed, and it can be checked according to the ratio;

3. **Position**: refers to adjusting the printing position of the picture on the printing platform, which can be selected according to the arrow;

4. **Copy**: refers to the setting of the number of copies to be printed at one time, and the right side is the spacing setting;

5. **Regional setting**: The "F" on the right is the mirror setting, and the "Human" button is the adjustment of the pattern direction.

2.Workflow panel

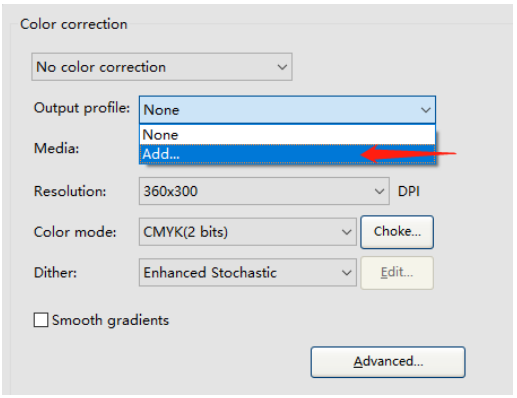


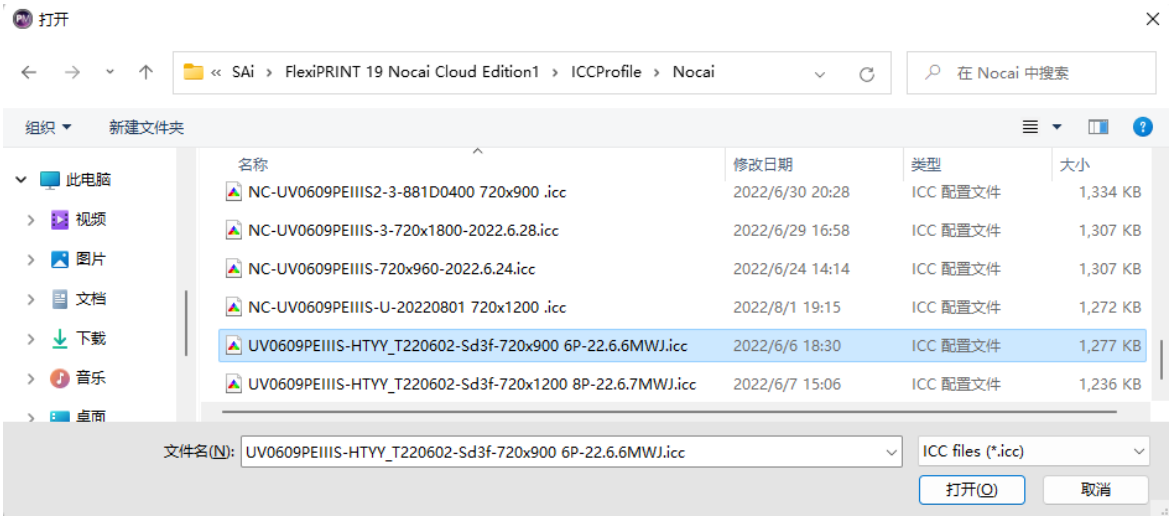
After output: The following options are the processing of the image after printing, the retention means the image is saved after printing, and the deletion means that the image is not retained after printing;

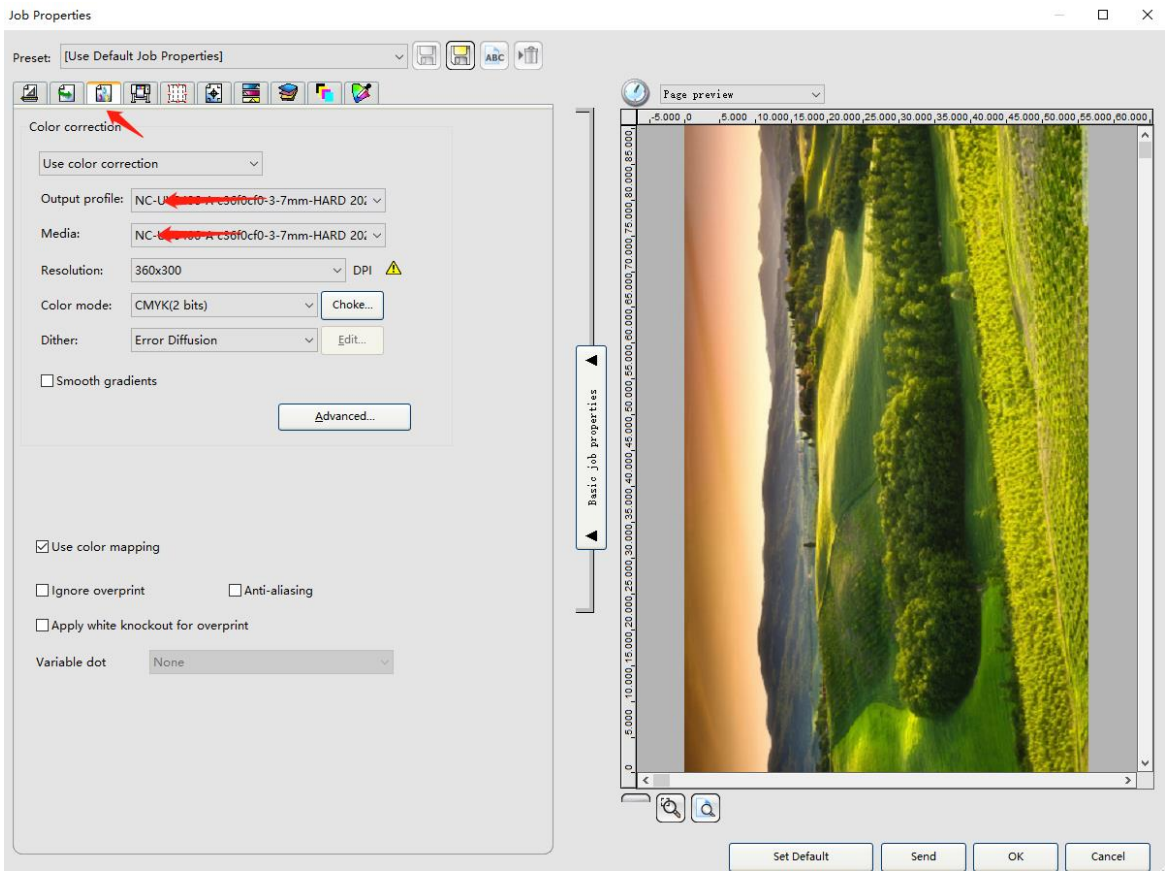
Repeat job: Repeat refers to the number of times the job is sent and printed. Check the repeat job. For example, if you set the send job to be 2 times, the machine will print it twice in a row. Set the number, that is, the number of times of printing.

3.color management

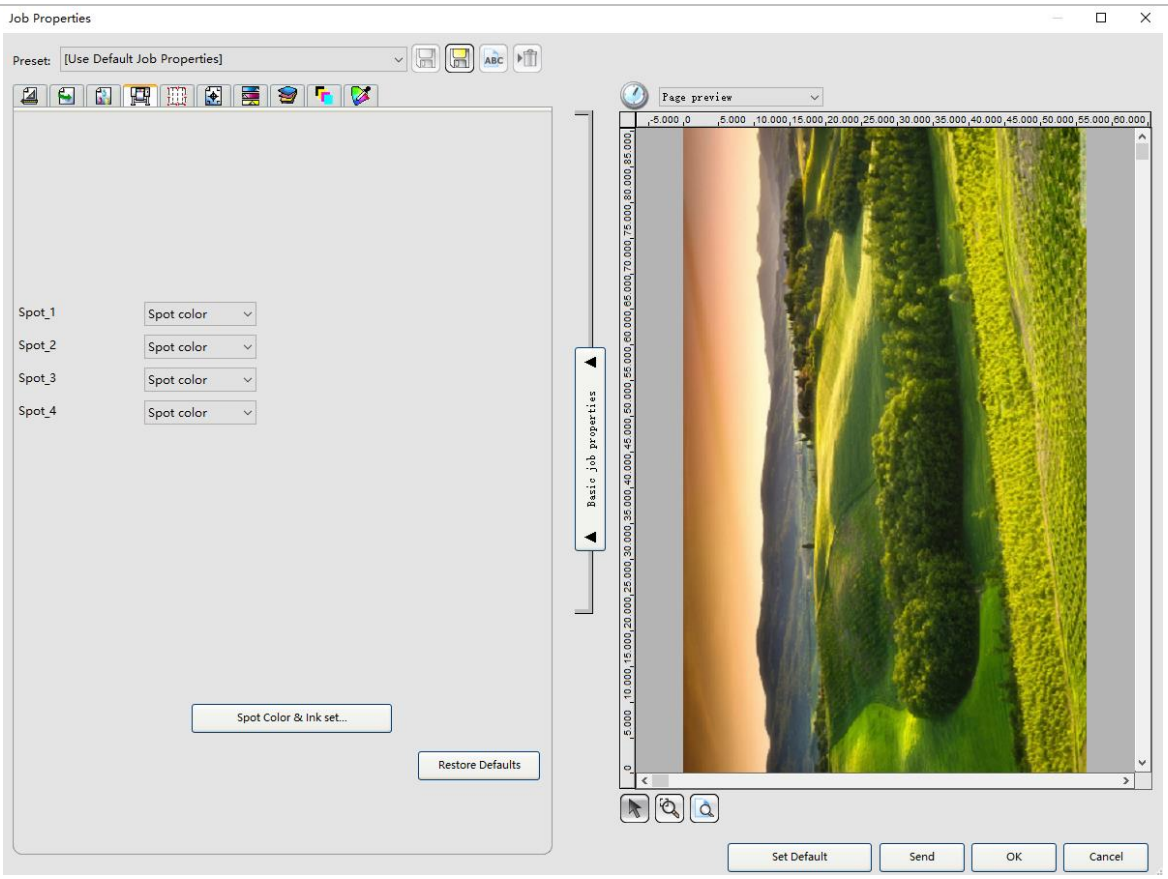
Click the drop-down button of "Output Profile" in the color management, click Add, find the inside of the icc folder (curve file) and add it, and the following profile will be automatically generated;







4.Printer Options



Spot color 1 and spot color 2 in the printer options panel, the drop-down options are introduced:

None-None means no white, only color;

Spot color - Spot color is a spot color printing (please check the spot color video tutorial for the application of spot color)

Background color - Under color software prints the amount of white ink according to the color of the picture, the darker the color, the thicker the amount of white ink, the lighter the color, the thinner the amount of white ink;

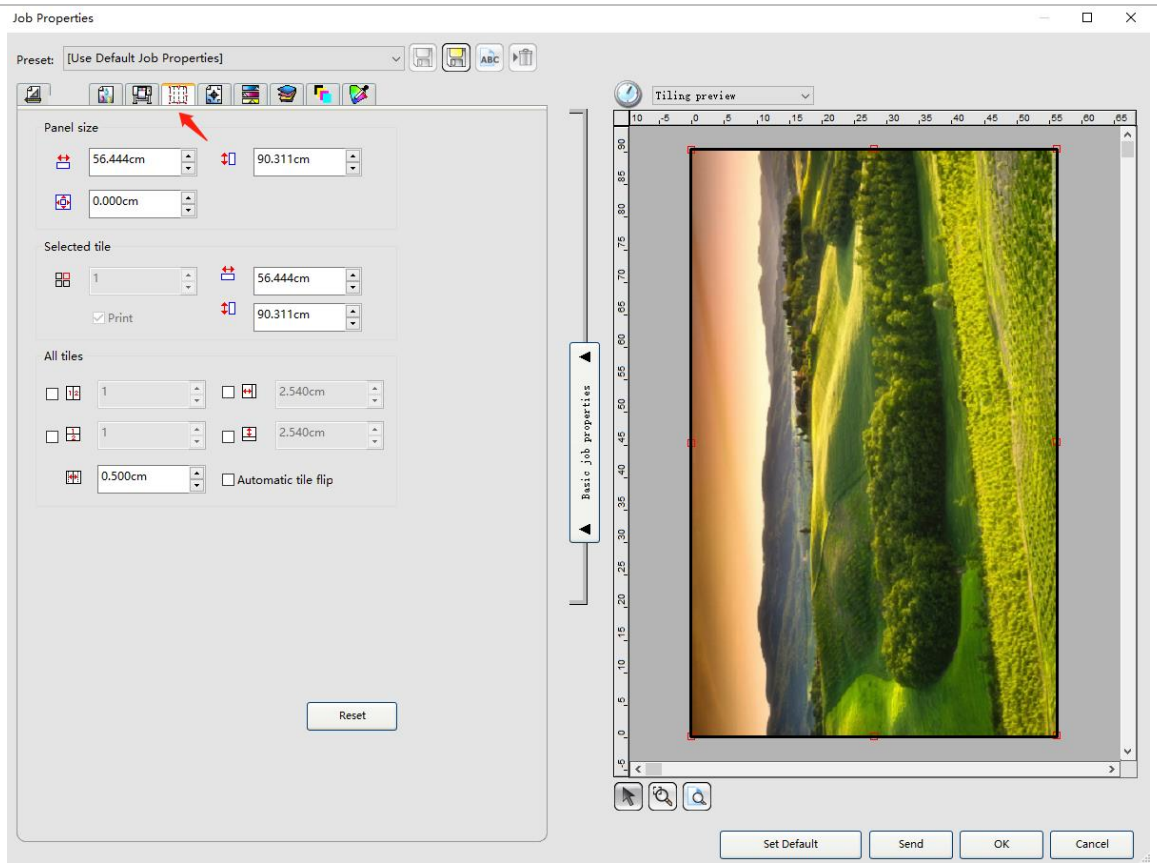
Fill background color - Fill color software prints the amount of white ink according to the color of the picture, the darker the color, the thinner the amount of white ink, the lighter the color, the thicker the amount of white ink;

Background - Substrate underlay print white

Customers choose options based on actual usage

5.Collage Crop Options

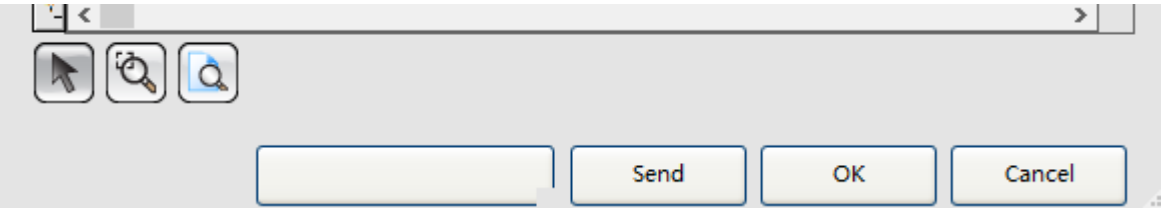
Adjust the size in the collage and print custom screenshots, and the right side can directly increase or decrease the cropping frame with the mouse.



6.Set default value and print

Click to set the default value, the above settings will be saved as the default settings, when re-adding a picture job file, the parameters will be the same as this time.

After the settings are complete, click Set Defaults to save, and then click OK. As shown below：



Then enter the online driver to set the printing color, set the white color according to your own drawing and printing requirements, and click Save after the setting is completed. After the setting is completed, place the items to be printed on the printing platform, and adjust the upper and lower distance between the ink cart nozzle and the material to be printed (usually about 2-3mm), and then click send to print the picture.

\

MACHINE MAINTENANCE METHODS AND PRECAUTIONS

6.1 Maintenance method of Print head

①There is a board chip inside the print head, which is directly inserted into the print head cable. Pay attention to the contact part between the print head cable and the print head. Be sure to prevent ink dripping. Shut down for a while, and then remove it for drying, and then try to install it again to test whether it is burnt. Remember not to use it with water, otherwise the nozzle and cart board will be burned.

② Since the nozzle cable is closely combined with the nozzle socket in use, it is generally not easy to pull out and insert, so after a long time, the contacts will be oxidized, damaged, dislocated or other contacts are paralleled. It is necessary to carefully observe whether these problems occur, and eliminate or replace the nozzle wiring, otherwise the nozzle or cart board will be burned.

③Be sure to do maintenance work without using the machine, insist on turning on the machine once a day and print the test strip. The test strip should be automatically cleaned if the ink is broken to ensure that the test strip is normal. You can print a small picture. If the holiday is more than 3 days When left unattended, 3-5 drops of cleaning solution should be used in the cap top, and then the nozzle and the cap top should be combined and sealed, which will play a certain protective role.

④After adding the machine ink to the ink cartridge, use the method of less time and more time. The shelf life of the ink after opening is 3 months. If it exceeds 3 months, it will deteriorate, which will affect the printing effect and cause the nozzle to be blocked. It is recommended that customers regularly uniformize the ink. Stir and turn on the white ink stirring switch at the ink cartridge when using the machine.

⑤ It is best to keep the height of the print head at 2-3mm from the printing material, and confirm the printing height in time to avoid scratching and damage to the print head.

⑥ The sheet metal of the cart nozzle must be cleaned regularly to avoid affecting the nozzle.

⑦ Avoid printing reflective materials, which will cause the nozzle to be blocked.

6.2 Ink station maintenance

Due to the combination of the nozzle and the cap top for ink extraction or cleaning, there will be ink dripping inside the ink station or on the sheet metal. It must be scrubbed with alcohol regularly or in time to keep the ink station clean.

6.3 Encoder maintenance：

The encoder strip is a component installed in the encoder slot to control the printing

accuracy. When the encoder comes out of the slot, it will be scratched by the encoder sensor during operation. If there is direct scratching, the accuracy will be reduced or the data cannot be read in the future, causing the car to crash. Therefore, be sure to check the position of the encoder when using the machine, whether it is in the middle position of the encoder sensor, and whether it is rubbed. Clean and wipe (use alcohol) in time to keep the encoder clean and undamaged. If there are scratches that cause misplacement, please replace it in time.

6.4 Rail maintenance

The machine guide rail includes the cart guide rail. The contact between the guide rail and the slider is based on lubricating oil. Please add lubricating oil to the guide rail within a certain period of time to prevent the guide rail from being rusted and jerky due to lack of oil. It needs to be wiped clean with alcohol before adding lubricating oil.

6.5 Maintenance of suction platform

The platform of this model has a suction function. There are many dense holes on the platform to generate suction for the printing materials on the platform. Therefore, please keep the platform clean to avoid blocking the suction holes and cause poor suction. , or water is sucked into the air hole to damage the fan.

6.6 Damper replacement

It is recommended to replace it every 3 months.

6.7 Cap top replacement

It is recommended to replace it every 3 months

6.8 Shell sheet metal maintenance

Keep the shell clean, and if there is any ink leakage, please scrub it to avoid the corrosion of the ink on the outer paint surface of the sheet metal.

COMMON TROUBLESHOOTING METHODS(ATTACHMENT)

6.1 Nozzle detection solution for ink breakage and lack of color

Examples of common ink breakage problems are as follows：

Figure 1 The test strips are all out

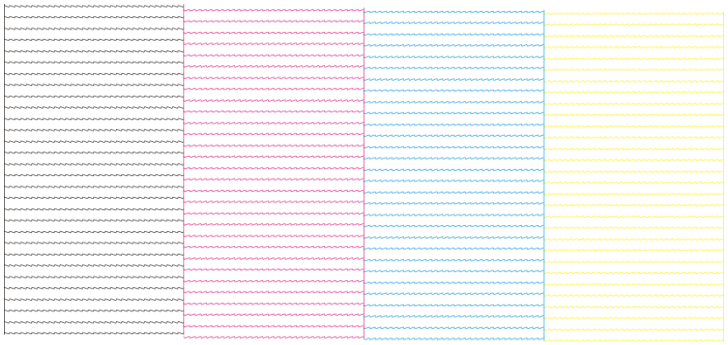
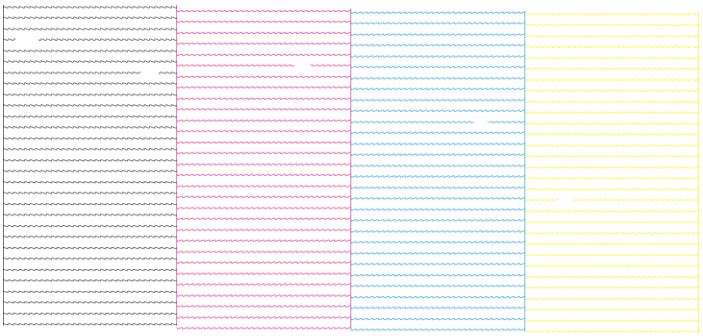


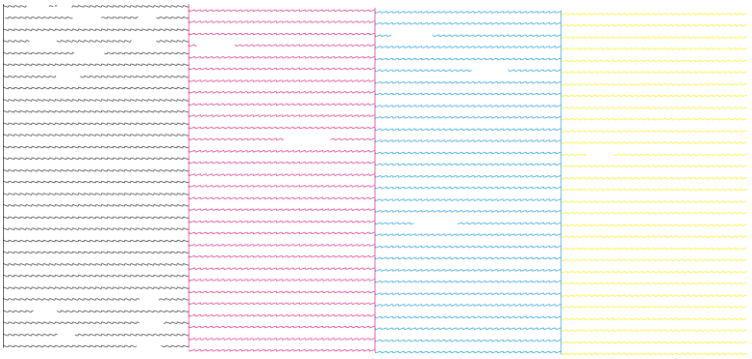
Figure 2 Partial ink break of the test strip



Note: The partial ink failure of the test strip is caused by the corrosion damage of the ink to the print head. You can choose automatic cleaning. If the automatic cleaning cannot solve the problem, you can continue to use it without affecting the effect.

Figure 3 Severe ink breakage in the test strip

Solution:



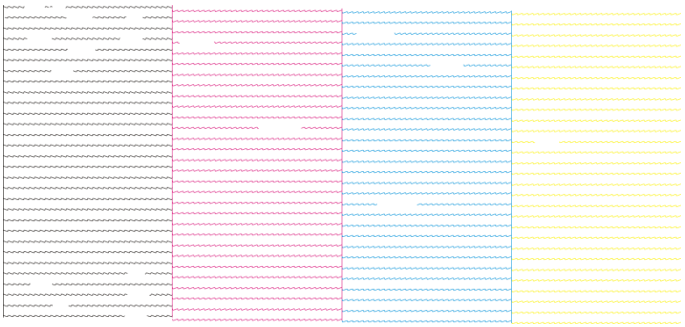
1. Use a syringe to extract the damper, check whether the ink can flow out normally, and eliminate the possibility of blockage and air leakage. If there is any problem, please replace the damper

2. After replacing the damper, if the ink of the damper is still blocked, please check whether the ink tube and the cartridge head of the damper are blocked.

3. Manually clean the print head to ensure that the print head is not blocked.

Problem overview: The above problems are usually caused by dampers and clogging of the nozzles. Please check them first.

Figure 4 The test strip is almost completely broken



Solution:

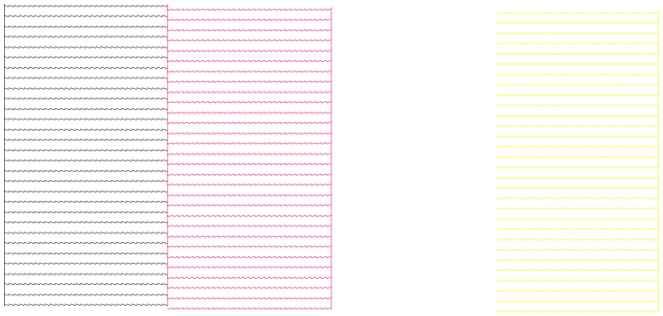
1. Automatic cleaning, check whether the ink can be pumped, if the ink cannot be pumped normally, please replace the new cap top or re-adjust the position.

2. Check whether there is any ink residue on the surface of the nozzle. If there is a single color ink droplet, please replace the corresponding ink bag. If there is a multi-color ink droplet, please check whether the scraper can scrape the nozzle mirror normally during the automatic cleaning process.

3. Manual cleaning, use a syringe to flush the nozzle, and check whether the nozzle is blocked.

Summary of the problem: The above-mentioned multi-color ink breakage problem is generally less likely to be blocked by the nozzle. Check in detail whether the ink suction and scraping of the cap top and the nozzle are normal.

Figure 5 The test strip lacks color blocks



Solution:

1. Unplug and plug the nozzle wire to check whether the contacts of the nozzle wire are oxidized or damaged. If so, please replace the nozzle wire and plug it in again.

2. Check whether there are ink stains on the nozzle line connection interface of the nozzle. If there is, please clean it up and re-test or replace the nozzle.

3. Replace the cart board.

4. Use a syringe to extract the ink from the damper to ensure that the ink can flow out normally, and manually clean the nozzle to ensure that the nozzle is not blocked (The above problem is that one color is missing alone. Generally speaking, the voltage of the print head is not transmitted normally. The common problems are: the print head plate, the print head line, and the print head, but it cannot be ruled out that there is no normal ink supply for a single ink, and the print head is blocked. The possibility.

Figure 6 The test strips are all out

Solution:

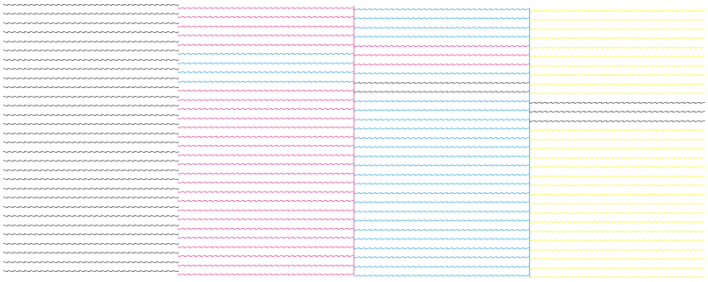
1. Unplug and plug the nozzle wire to check whether the contact point of the nozzle wire is oxidized or damaged. If so, please replace the nozzle wire and plug it in again.

2. Check whether there are ink stains on the nozzle line connection interface of the nozzle. If there is, please clean it up and re-test or replace the nozzle.

3. Replace the cart board.

Summary of the problem: The above problems are usually caused by the ink entering the nozzle outlet or the wrong operation after the customer replaces the print head, resulting in a short circuit of the nozzle, burning the cart board or the nozzle, because the nozzle will damage the cart board, but the cart board will not damage the nozzle, It is recommended to give priority to the replacement of the nozzle and the replacement of a new nozzle line.

Figure 7 Color mixing: large area color mixing



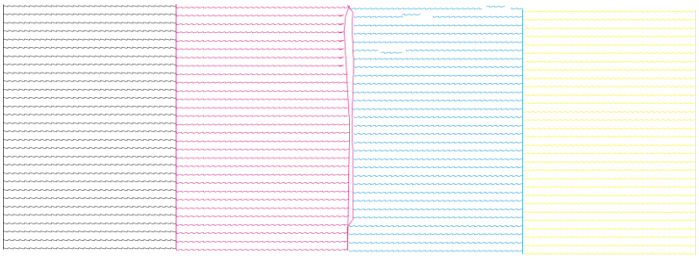
Solution:

1. Please flush the ink first, then print a test strip to observe whether the color mixing situation improves. If not, please check whether there is ink residue on the surface of the nozzle. If there is a single color ink droplet, please replace the corresponding damper. If there is a multi-color ink droplet Please check whether the scraper can scrape the nozzle mirror normally during the automatic cleaning process.

2. Replace the nozzle.

Problem overview: When the above problem occurs, firstly detect whether there is ink residue on the surface of the nozzle

Figure 8 Test strip floating ink



Solution:

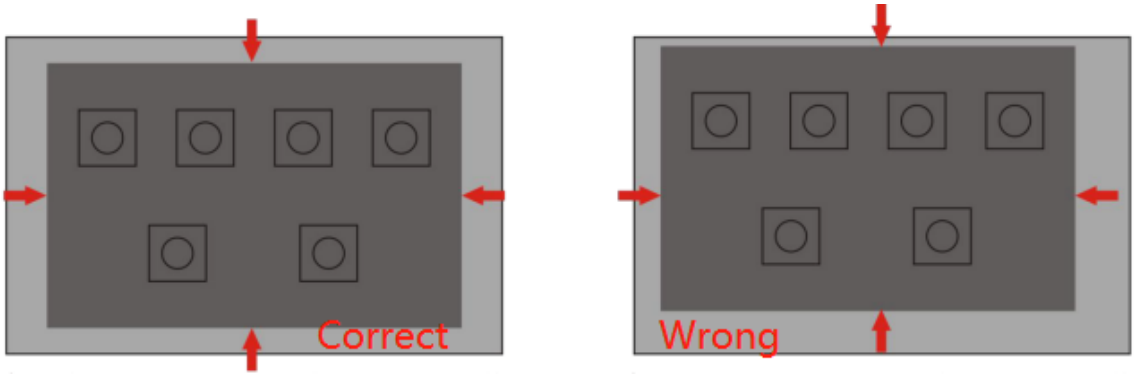
1. Check whether the height of the nozzle is within 2-3mm from the printing medium.
2. The printing environment is within the range of 15℃~30℃.
3. Test whether the cap top can pump ink normally.
4. Stir the floating ink evenly, and pump more than 10ml of the damper ink from the syringe, and then clean the print head. If the problem cannot be solved, it is recommended to replace the ink.

Problem overview: If the above problems occur, if there is no special change in the surrounding environment, it is generally caused by the ink precipitation caused by the machine being put on hold for a long time.

7.2 Cleaning without ink extraction

Solution:

1. Pour the cleaning solution into the cap top, and check whether the cleaning solution can be pumped out. If the ink pump cannot be replaced.
2. Check whether the connecting tube of the cap top is detached or blocked, please reconnect or replace it.
3. The cap top is damaged or aged, please replace it (priority).
4. Check that the cap top and the print head are in the correct position, and the cap top cannot seal the print head (priority) as shown below:



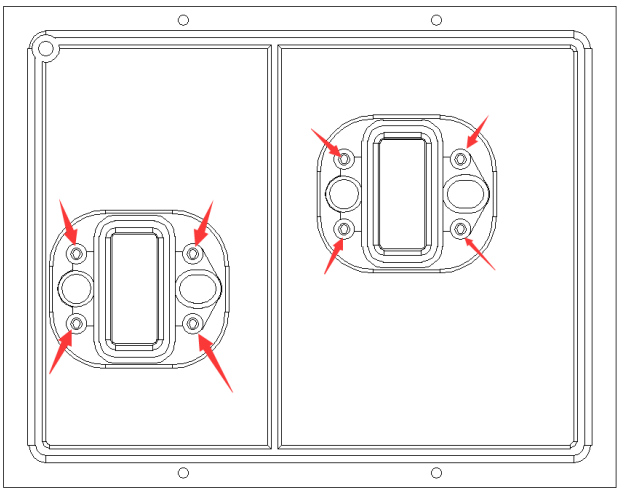
Adjusting the combination position of the cap top and the nozzle mirror requires patience. The square edge of the cap top is generally located within the iron sheet on the edge of the nozzle mirror; The ink pad is leaking, the ink cannot be drawn, and the test strip cannot be adjusted normally.

Refer to the legend for the adjustment method.

5. The fine-tuning method

the left and right front and rear of the cap top is shown in the following figure

Figure 9



As shown in the figure above, adjusting the position of the cap top is suitable for inaccurate micro-adjustment of the nozzle. The adjustment of the cap top can be carried out in a large range, which is convenient to complete. Loosen the fixing screw of the cap top to adjust.

6.Micro-adjustment of the front and rear of the nozzle

Summary of the problem: The above problem occurs. After the machine has been used for a long time, the nozzle has been re-installed and a new cap top has been installed, resulting in deviation of the position of the nozzle. It is necessary to adjust the front, rear, left and right positions of the nozzle and the cap top. The gap between the ink pads is automatically cleaned after debugging. During the automatic cleaning process, there will be ink beads on the nozzle mirror before the ink scraping action, which means that the ink is drawn normally.

7.3 Cart Error

1) The print head cart moves to the middle of the machine to start, and the print head cart does not move and reports an error

① In the power-on state, move the Print head cart by hand to see if it can be pushed. If it can be pushed easily, please check whether the indicator light of the X-axis drive motor is on or flashing red to report an error, and whether the Kimi screw of the motor pulley is tightened.

② Check whether the light on the cart board is on, if not, replace the data cable on the cart board.

③ Replace the head board.

④ Check that the X-axis motor pulse signal line has loose, broken or aging interfaces.

⑤ Replace the motherboard.

Problem overview: When the above problems occur, the first consideration is the structure of the machine hardware.

2) Move the printhead cart to the middle of the machine to start the machine, and move the printhead cart to the left to report an error

① Replace the cart board data cable.
② Replace the head board.
③ Replace the printer main board (very unlikely).

Problem overview: When the above problem occurs, the head board cannot normally receive the instructions from the main board.

3) The Print head cart moves to the middle of the machine to start, and the cart moves to the right to report an error

① Check whether the encoder sensor is on, if not, it is recommended to replace the encoder sensor.
② Whether the encoder strip has obvious scratches, if it is suggested to replace it.
③ Check whether the encoder strip has ink, oil stains and dust, if so, please wipe it with alcohol.
④ Whether the encoder strip is stuck in the middle of the encoder sensor, the left and right are centered up and down, and it is not scratched when moving back and forth.
⑤ Whether the encoder sensor is stuck in the encoder slot.
⑥ Replace the cart board.

Problem overview: The above problem occurs, the cart has received the command from the main board, but the encoder sensor cannot correctly read the encoder movement data.

4) During the printing process, the machine reports an error from time to time

① Whether the encoder strip has obvious scratches, if any, it is recommended to replace it.
② Whether there is ink, oil stains or dust on the encoder strip, use alcohol to wipe it clean.
③ Check whether the encoder bar is stuck in the middle of the encoder sensor, centered left and right, up and down, and moves back and forth without scratching.
④ Whether the belt of the X-axis motor is loose.
⑤ Whether the Kimi screw of the motor pulley is tightened.
⑥ Replace the mainboard cable.
⑦ Check whether the temperature of the X-axis drive motor is above 50 degrees, if so, reconnect the X-axis drive signal cable or check whether the X-axis drive motor and the transverse belt are installed parallel (note that below 50 degrees is a normal range).

Problem overview: When the above problem occurs, the raster sensor can read the raster data, but there will be error data feedback.

5) Move the cart to the middle, turn it on, move the ink cart to the left, then move to the right, hit the ink stack quickly to the left, and return to the middle to report an error

① Detect whether the origin sensor sheet is installed offset.
② Replace the origin sensor of the cart.
③ Replace the data connection cable of the cart origin sensor.
④ Replace the cart board.

7.4 Front and rear limit sensor error

① Re-plug the front and rear limit sensor cables.
② Replace the front and rear limit sensors.
③ Check whether the connecting wire of the limit sensor is loose, broken, aged or not.
④ Replace the motherboard.

7.5 Error message

Error message 104: The resistance of the cart is large, the encoder signal is abnormal, and the motor or motor signal is abnormal.

Error message 105: The cart is reversed, the phase of the encoder AB is reversed, and the motor direction is reversed

Error message 106: Width exceeded, check the width of the image at the starting point of printing.

Error message 107: The car zero sensor is wrong, the signal of the car origin sensor is abnormal

Error message 108: raster detection error, raster signal abnormal

Error message 109: SDR detection error, return to factory for repair

Error message 110: PC driver error, wrong use of PC printing tool

Error message 111: Not enough squares, not enough registered squares

Error message 112: The sensor of the lifting ink station is wrong, and the sensor of the lifting ink station is abnormal

Error message 113: Communication error on the main board and cart board, optical fiber wiring or program problem

Error message 114: The print square number is 0, the registered square number is exhausted

Error message 115: The optical fiber cannot communicate, the optical fiber connection is abnormal

Error message 116: Empty paper alarm, material used up

Error message 117: The parameter table ID does not match the registry ID, and the parameter is abnormally wrong.

Error message 118: Invalid parameter table, parameter exception error

Error message 119: The main program is not written on the cart board, and the program is abnormal

Error message 120: The head lift motor is wrong, the head lift motor sensor is abnormal

Error message 121: Paper feed limit, platen limit sensor is abnormal

Error message 122: Paper feed initialization error, platen limit sensor is abnormal

Error message 123: Anti-collision, anti-collision triggered or missed

Error message 124: Anti-collision during initialization, anti-collision triggered or not connected

Error message 125: Ink spill, check safety bottle

Error message 126: The transmission ratio of the cart is too small, and the gear ratio of the motor is too small

Error message 127: The transmission ratio of the cart is too large, and the gear ratio of the motor is too large

Error message 128: Wrong type of Print head head on the cart board The motherboard parameter table does not match the cart board "FPGA"

Error message 129: The beam sensor suspends printing during printing, and the infrared sensor detects a foreign object

Error message 130: External ram error, board error rework

Error message 131: The position is out of tolerance error when the cart stops, the 200mm motor or encoder is abnormal, the motor or encoder is abnormal, the motor power supply is abnormal

Error message 132: The position of the cart is wrong when moving, "5000mm motor or encoder is abnormal, motor power is abnormal

Error message 133: The startup of the multi-machine system is abnormal, the startup of the multi-machine system is abnormal, and it cannot be detected

Error message 134: SDR startup detection abnormality can not be detected, SDR detection abnormality and restart, please return for repair if it fails for many times

Error message 135: The ink station diffuser is not connected, check whether the ink station diffuser is properly connected

Error message 136: Temperature alarm

Error message 137: Humidity alarm

Error message 138: FPGA reset timed out, restart the machine several times, please return for repair

Error message 139: Failed to request external SRAM for 485 initialization

Error message 140: 485 communication failure in multi-machine system

Error message 142: Main ink bottle is empty

Error message 143: Waste ink bottle full

Error message 199: CPU abnormal error (the program runs away and prohibits access to the address) The program is abnormal and contact the after-sales service

7.6 UV light does not light up

1.Measure the on-off of the UV lamp power cord, 1-1, 2-2, 3-3, 4-4, correspondingly not short-circuit. As shown in the figure:

big light

small light

2.Check whether the UV lamp power supply is powered on and whether there is voltage output. Replace the UV lamp power supply.

3.Measure whether there is 24V voltage output during the printing process of the main board J26, if there is no output, replace the main board.

4.Replace the UV lamp.

7.7 The ink does not dry

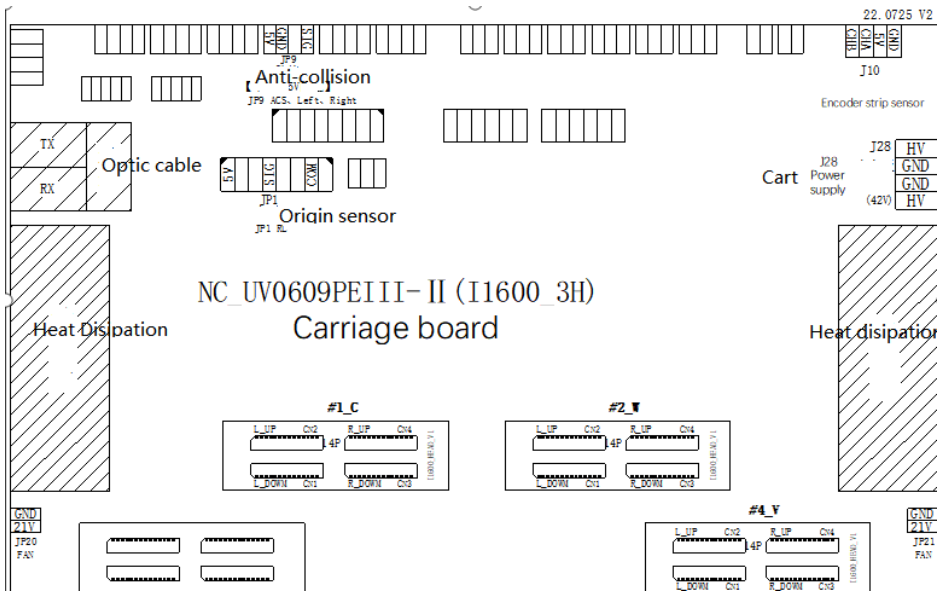
All products are not dry：

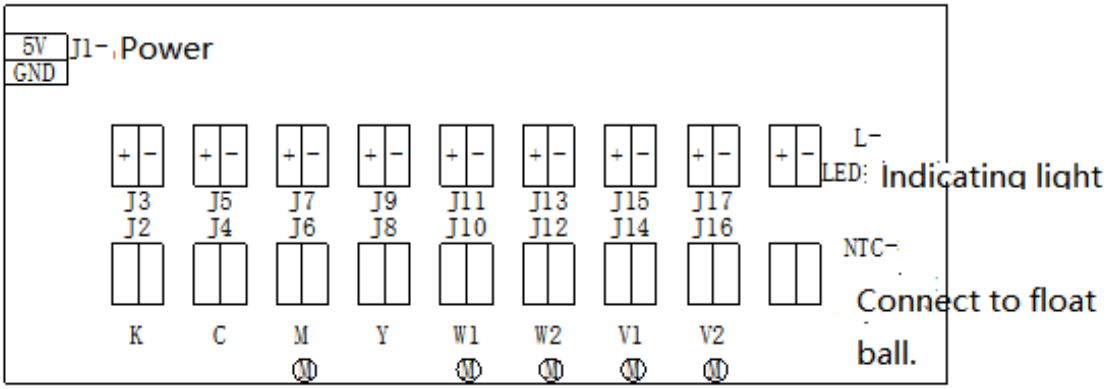
1.Check whether the UV lamp is on during printing, if not, please solve it (refer to the solution of UV lamp not on)

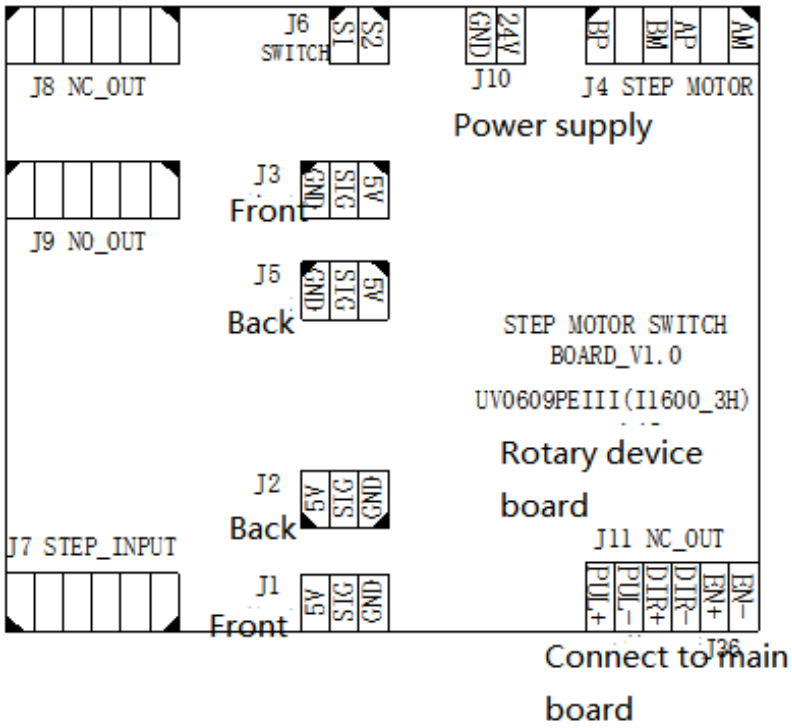
The left and right edges of the product are not dry：

1. Confirm the version number of the device information (pull down the machine settings menu to find the device information).
2. The manufacturer confirms the version number and upgrades the machine version.
3. Adjust the UV lamp irradiation distance in the advanced settings of the driver panel.

7.8 Introduction of board circuit




5V
GND
J1
Power
J3
J2
J5
J4
J7
J6
J9
J8
J11
J10
J13
J12
J15
J14
J17
J16
L-
LED:
Indicating light
NTC-
Connect to float ball.
K
C
M
Y
W1
W2
V1
V2


J8 NC_OUT
J6
SWITCH
S1
S2
J10
24V
GND
Power supply
BP
BM
AP
AM
J4 STEP MOTOR
J9 NO_OUT
J3
Front
GND
SIG
5V
J5
Back
STEP MOTOR SWITCH
BOARD_V1.0
UV0609PEIII(I1600_3H)
Rotary device board
J2
Back
J7 STEP_INPUT
J1
Front
J11 NC_OUT
PUL+
PUL-
DIR+
DIR-
EN+
EN-
J36
Connect to main board

8.1 Maintenance services

From the invoice date, one-year maintenance warranty (print head, cap top, ink pump, ink tube, ink tank and damper, all the spare parts which connect to the ink are not included). When on-site maintenance is required by buyer, the cost of travel and accommodation of our technician will be borne by buyer;

8.2 Ask for help

If you meet any problem when using the machine, ask for help as below step:

8.2.1 Check the user manual first

8.2.2 Visit the Nocai website for more product information.(http://www.gznuocai.com)

8.2.3Contact the local distributor for help.

8.3 submit the information to the local distributor if you need help

User information	
Name	
Model	
Series code	
Address	
Telephone NO.	

8.4 Non-warranty items

8.4.1 Product failures and damages are due to the use of not Nocai inks

8.4.2 Product failure and damage are due to the user's do noy use the machine in the working environment specified by Nocai (such as power supply, temperature, humidity)

8.4.3 Failure and damage caused by improper storage by the user (such as rodent damage, insect damage, liquid infiltration, entry of foreign objects, etc.), or loss of components

8.4.4 Failure and damage caused by human factors

8.4.5 Failure and damage caused by failure to follow the usage methods and main items remarked in the product instruction manual

8.4.6 Failure and damage caused by user handling

8.4.7 Failure, damage due to force majeure

8.5 Warranty Policy

8.5.1 Nocai do not guarantee the loss or damage of random accessories (instructions, software).

8.5.2 Nocai do not assume any responsibility for indirect losses and future profits of users caused by product failures

8.6 Notice

8.6.1 Carry:

8.6.1.1 Do not force ink carriage beam ad print table when you move the printer

8.6.1.2 Need 4 people to grip foot cups pf the printer and move smoothly.

8. 6.2 Working environment

Working environment	Temperature	25℃-28℃
	Humidity	35%-65%