SHK-1612UV
Instruction manual
User Manual

目录

一、Introduction

1.1 Welcome to use

First of all, thank you very much for your support of this product, but also to congratulate you on having a print media diversification, a wide range of industrial applications, personalized all-round printer. We sincerely hope that you can have a trouble-free universal printer, so before using the machine, please read this "User's Manual", and please pay special attention to the instructions appear on the "tips", "attention" and "important! "Note" and "Important Matters" labeled part of the manual. Please keep this manual in a safe place for your future convenience.

The user shall be responsible for all damages or personal injuries caused by the operator's violation of any of the following clauses.

1、Damages caused by the operator's failure to follow the "WARNING", "CAUTION" and "IMPORTANT" sections emphasized in the operating instructions.;

2、Damages and injuries caused by minors.;

3、Damages and injuries caused by improperly placed equipment falling off or on its side.;

4、Damage or injury caused by improper placement of consumables by the operator.;

5、All illegal power supply, circuit connection caused by fire and personal injury; this product is not guaranteed to be compatible with all types of computers and operating systems, due to this reason in the use of this equipment may cause damage;

7、Please use Shenghuangke original special accessories, special ink, if the use of non-Shenghuangke accessories and special ink caused by the printer failure is not covered by the warranty;

8、Please do not change the original parameters of the printer without authorization, otherwise the user will be responsible for all damages;

9、Do not add ink until the machine starts up properly。

1.2 Safety Information

Please read all of the following instructions carefully before using this equipment. Also, please always follow all warnings and tips labeled on the printer!

Safety Information: Please read this instruction manual carefully and operate it in strict accordance with the manual to avoid damage to the equipment or personal injury. If you do not follow the steps in the "User's Manual" to operate and cause damage to the equipment is not covered by our warranty。

【！】WARNING Ignoring these instructions may result in personal injury or equipment damage due to incorrect operation. For better use of the Universal Printer, be sure to heed these warnings。

【！】Ignoring these instructions may result in personal injury or equipment damage due to incorrect operation. For safe operation and use of the Universal Printer, be sure to heed these warnings。

🚫 IMPORTANT Ignoring these instructions may result in personal injury or equipment damage due to incorrect operation. For safe operation and use of the Universal Printer, please be sure to observe these important points.。

【!】Warning – selecting printer placement

1. Avoid placing it in areas where the temperature and humidity are prone to drastic changes. Similarly, the printer should be protected from direct sunlight, bright light, or heat sources. Strong direct sunlight may cause the printer sensor to lose its functionality。

2. Avoid places prone to dust contamination, electric shocks and vibrations. 。

3. Leave enough space around the printer to ensure adequate ventilation, and to ensure that the printing platform can be properly accessed, up and down。

4. Place the printer on a smooth workbench that extends beyond the base of the printer. 。

5. If the printer is placed tilted or at an angle, the printer will not work properly。

6. Place the printer close to an electrical outlet and make sure the power plug is easy to plug in and out。

7. Do not place the printer near magnets or devices that contain magnets。

8. It is best to be placed in an environment where the temperature is 10～25℃ and the humidity is best controlled at 55%～65%。

【!】Note – Selecting a Power Supply

1. Use only the type of power supply described in the relevant parameters of this manual. Incorrect supply voltage can cause fire or electric shock damage to the machine。

2. Use only the power cord that came with the printer. Using other power cords may cause fire or electric shock。

3. Do not use a broken power cord. Otherwise, damage to the machine or injury or death may occur。

4. Do not plug or unplug the power cord with wet hands。

5. The plug must be fully inserted into the electrical outlet。

6. Ensure that the printer is connected to an electrical outlet with a qualified grounding configuration, if the user's region does not have a qualified grounding configuration, please manually connect the grounding wire。

【!】About Ink

1. Keep ink bottles out of reach of children. 。

2. If ink gets on skin, wash thoroughly with soap and water. If the ink gets into your eyes, rinse immediately with water and seek medical attention。

3. Ink is recommended to be used up within 6 months for color and 2 months for white after opening, shake well before use. Ink stored in a dark place, the temperature is best controlled at 10 ~ 25 ℃, and humidity is best controlled at 55% ~ 65% of the clean place!

🚫 Important – When using the printer

1. Do not put your hands in the printer or touch other moving parts while the printer is in operation. 。

2. Do not attempt to repair the printer yourself without professional guidance。

3. Be careful not to spill liquid on the printer, especially on the circuitry and signal transmission accessories。

4. When using a cable (data cable) to connect the printer to the computer, make sure that the interface is connected correctly。

5. Do not perform any operations on the printer while it is powered on and performing self-tests。

6. Do not plug or unplug the printer cable (data cable) while the power is on。

二、Installation Introduction

1612 Small Ricoh loader

1.Fixed position Locking casters

2.Rear cover of unit open Connect Uv water tank Tank add water to tank

3.Connect the machine to the power supply Check that the cartridge alarm device is normal Ink is not refilled at this time

4.Open the head cover and prepare to install the printhead.

5. Installation of nozzles

   Cut 16 ink tubes of about 10cm.

      Cut 8 ink tubes of about 5cm

      Cut eight 10-15cm ink tubes.

      Filter mounted on both ends

As shown in the figure below, the appeal fittings will be connected and installed

6. Take out the nozzle, open the nozzle cover, install the nozzle line, line, through the nozzle cover, nozzle cover installation back to the nozzle, need to pay attention to, line installed to the nozzle, line insertion method for, blue face inward, metal face outward
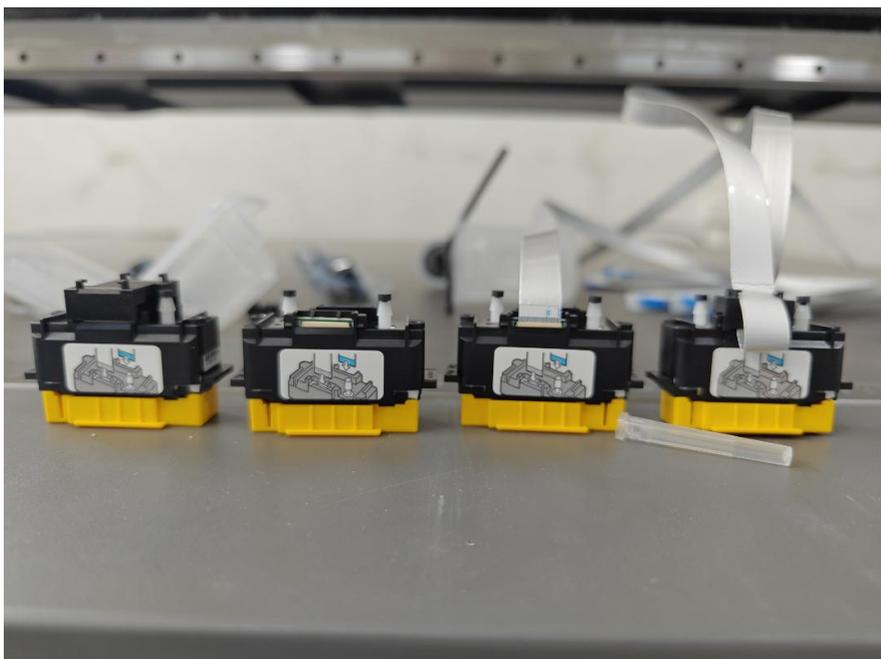
7. Remove nozzle base plate and install inlet nozzle

8. Linking the ink tube to the printhead

9. Installation of the printhead to the printhead base plate
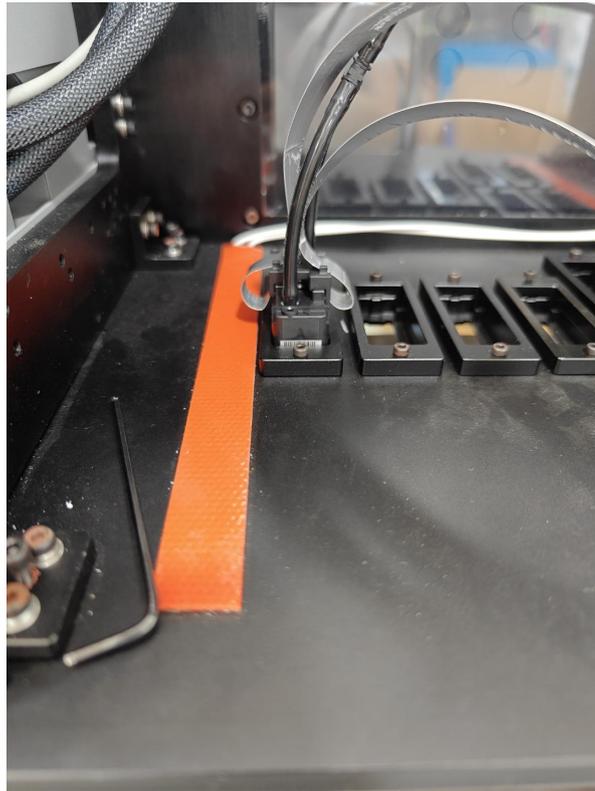
10. 10. Connect the wires to the header board, the left side of the nozzle plugs into the upper port and the right side plugs into the lower port.
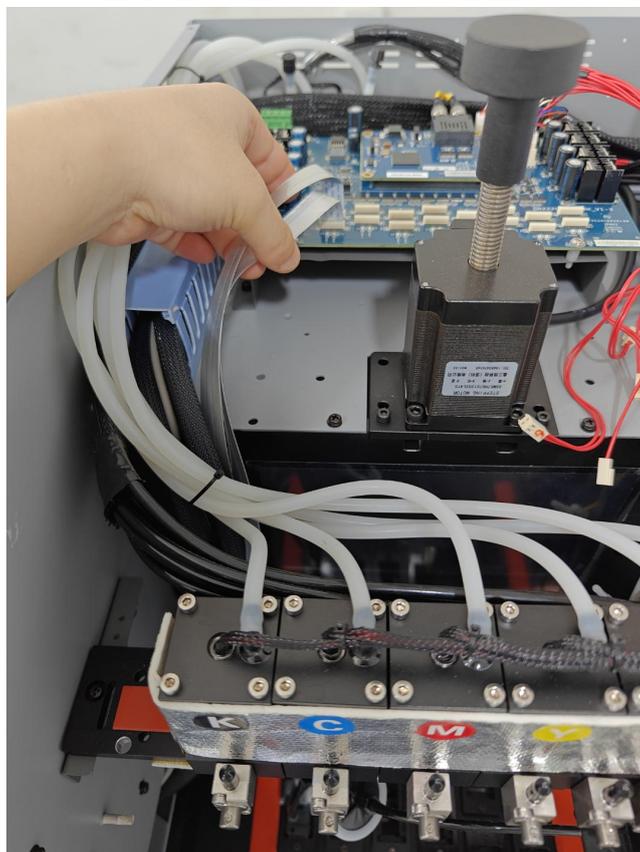
11. The printhead wiring corresponds to the installation order of the header board interface above.
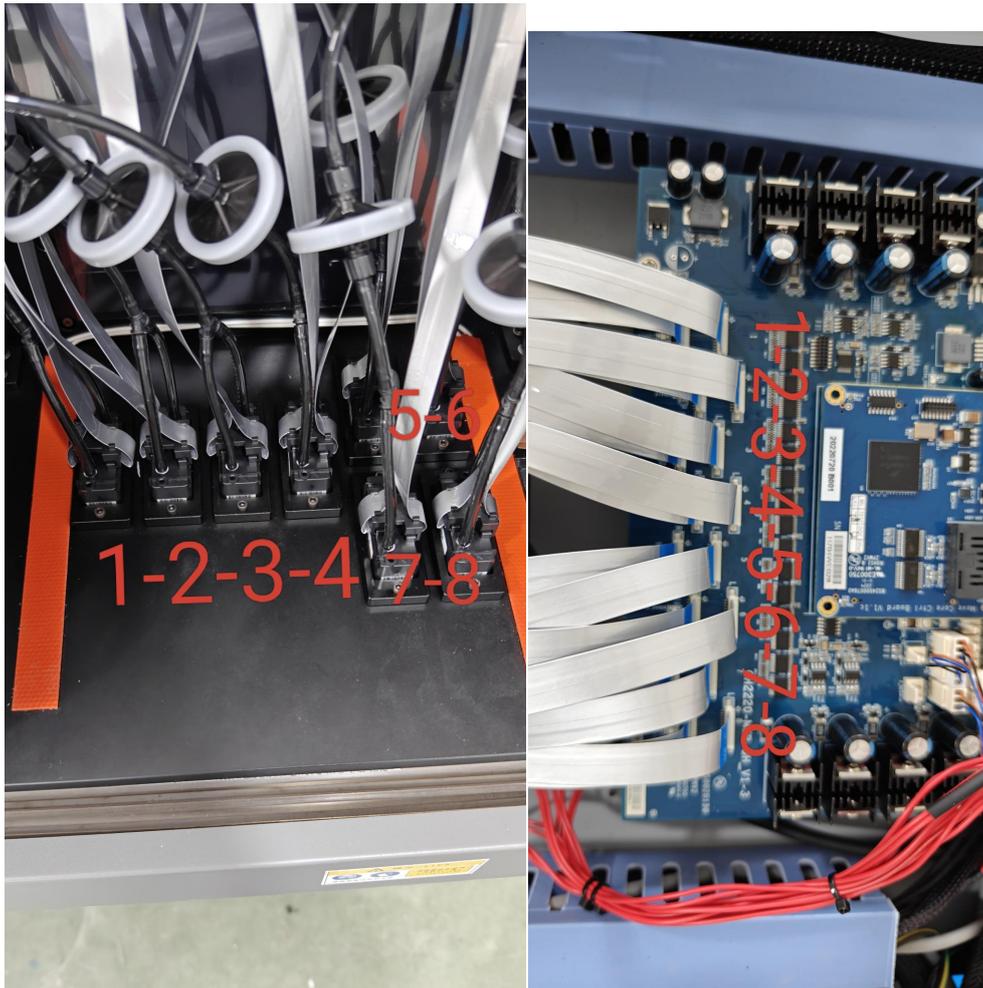
12. Add ink, the bottle needs to be shaken before the ink is added, corresponding to the cartridge color K C M Y W V

13. Plug in the ink supply lines on the header board in sequential order
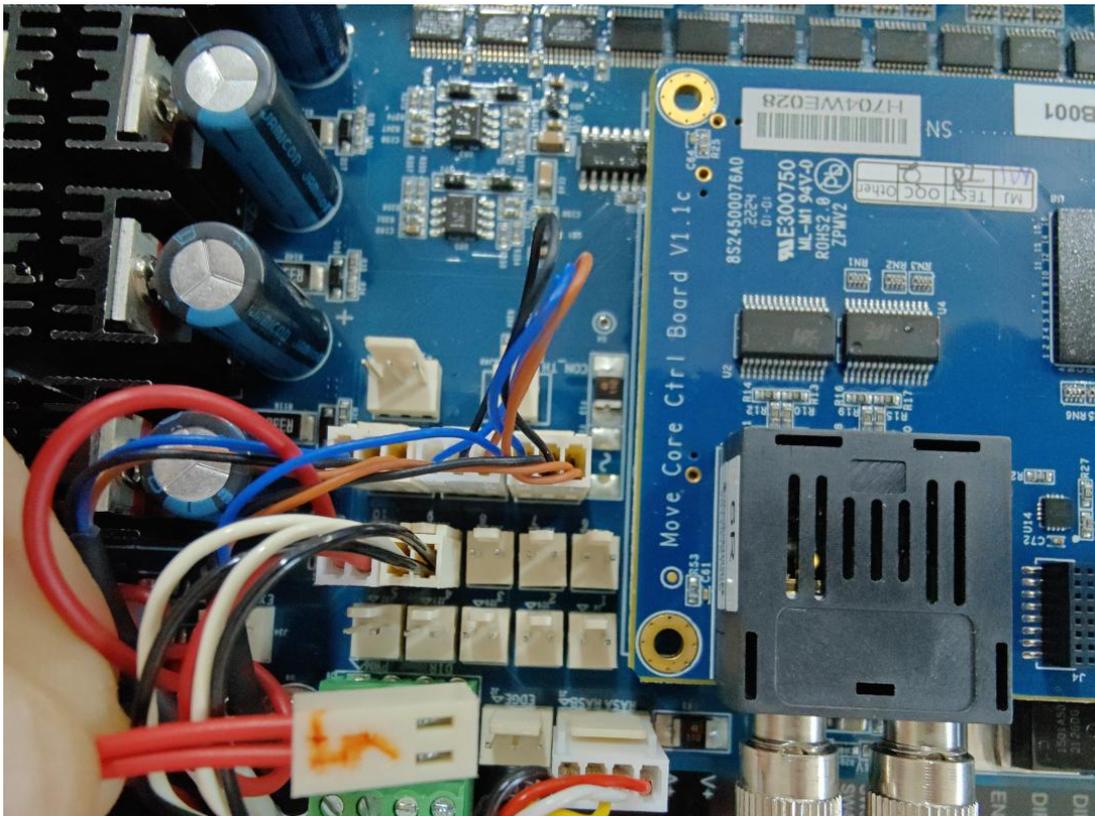
14. Installation of computer printing software

Check out the video for details

After the software installation is completed, the software will supply ink in advance, click OK to supply ink, the device primary cartridge will pump ink into the secondary cartridge
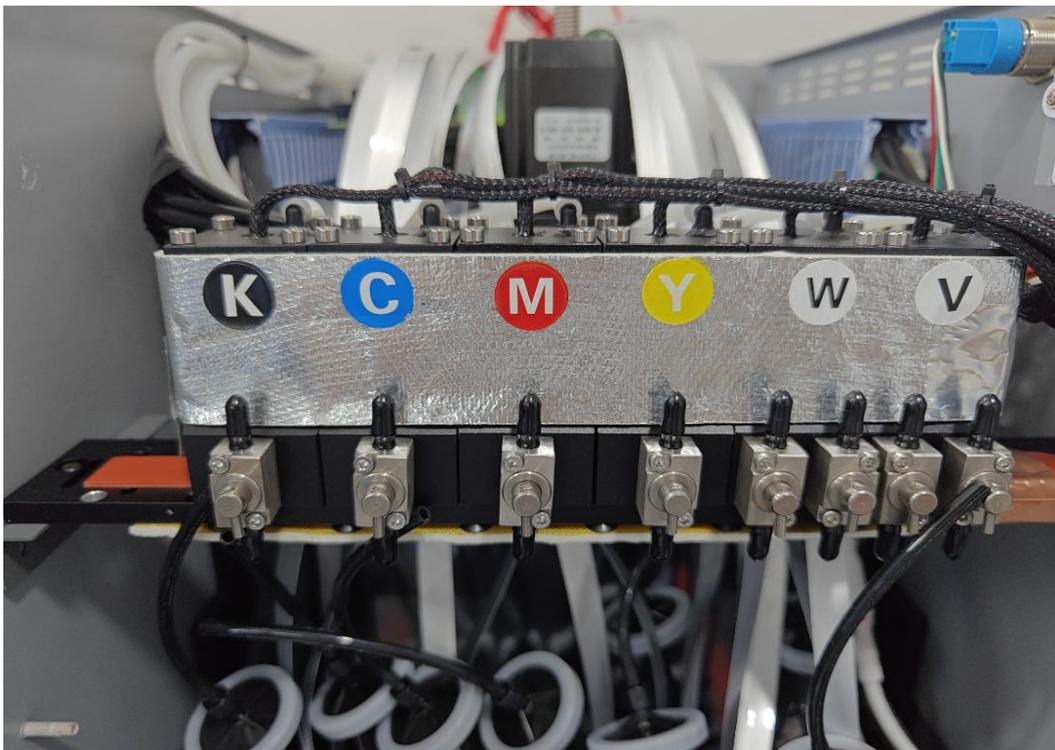
15. After the ink is pumped into the secondary cartridge, connect the power supply to the negative pressure tank at the back of the machine.


16. Get a bottle Open the secondary cartridge valve Aim the bottle at the ink outlet, then press the ink press switch to squeeze the ink out of the cartridge。
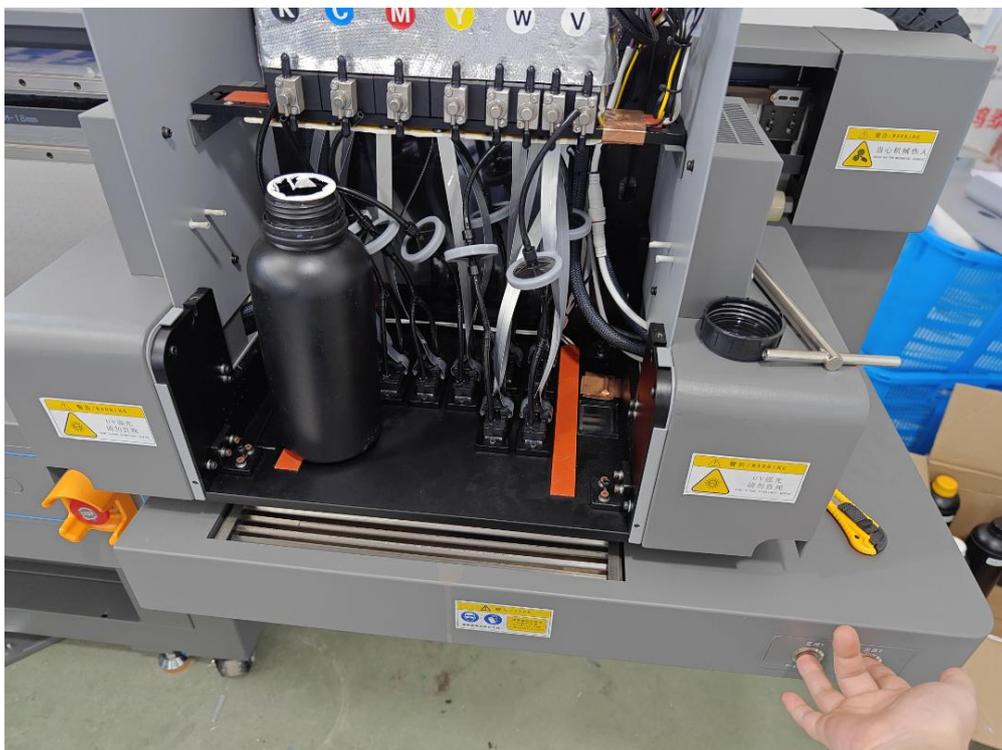
17. After ink compression is complete, connect the printheads and valve ports in the same order as the following printheads
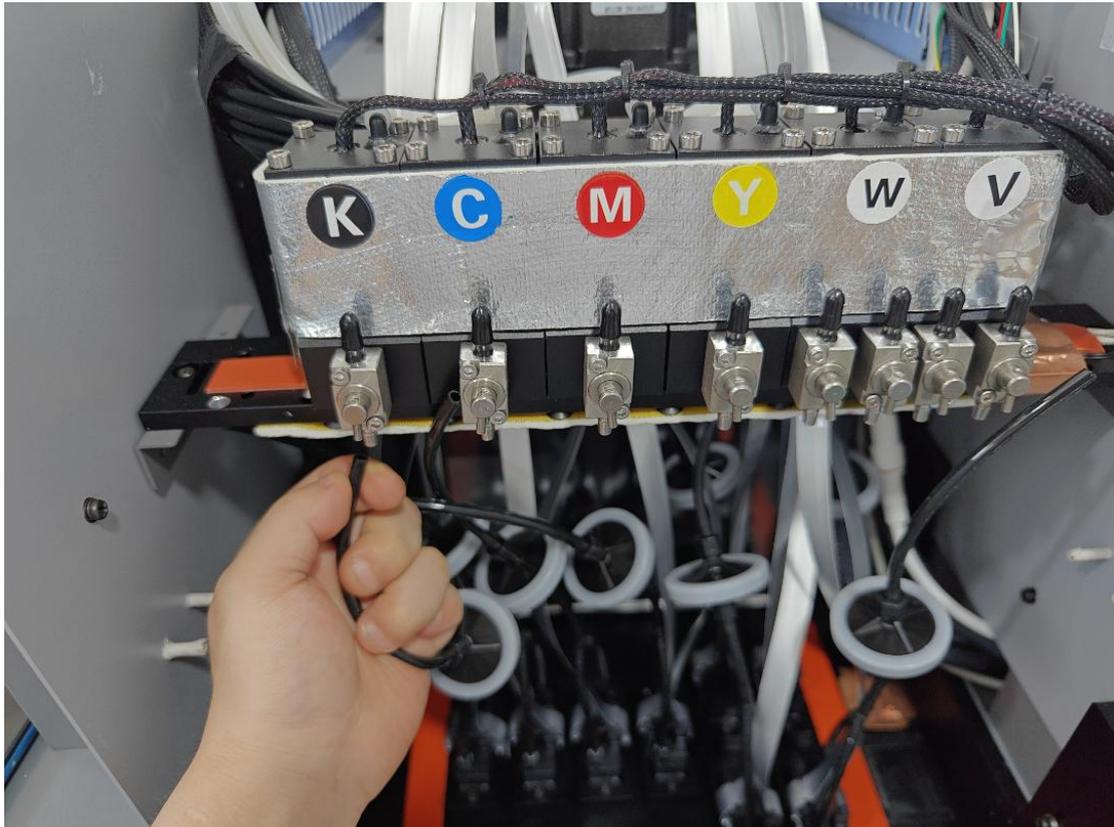
18. After the ink tube is connected to the secondary cartridge, open all the valves and press the ink button to squeeze the ink out of the printhead. (Valve to the right is open other position is closed, the figure below shows the direction of opening)
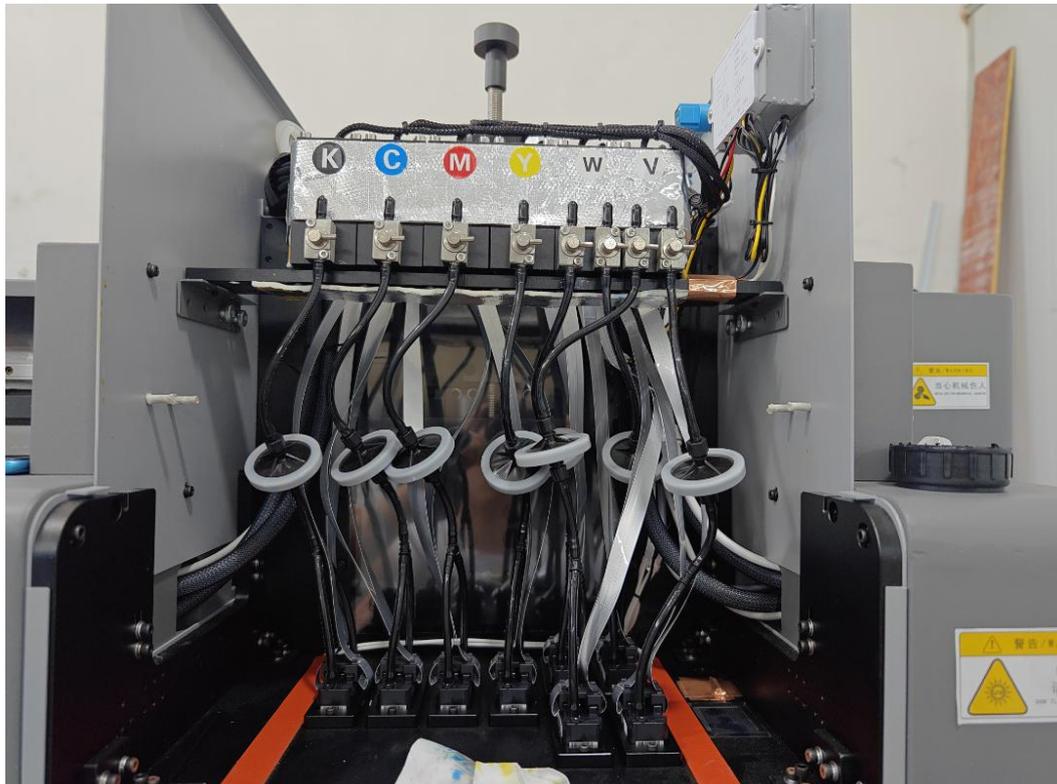
19. After the ink extrusion is completed, open the software and click on Deviation Correction in the System Settings, click on Calibration Wizard to view the calibration sequence.
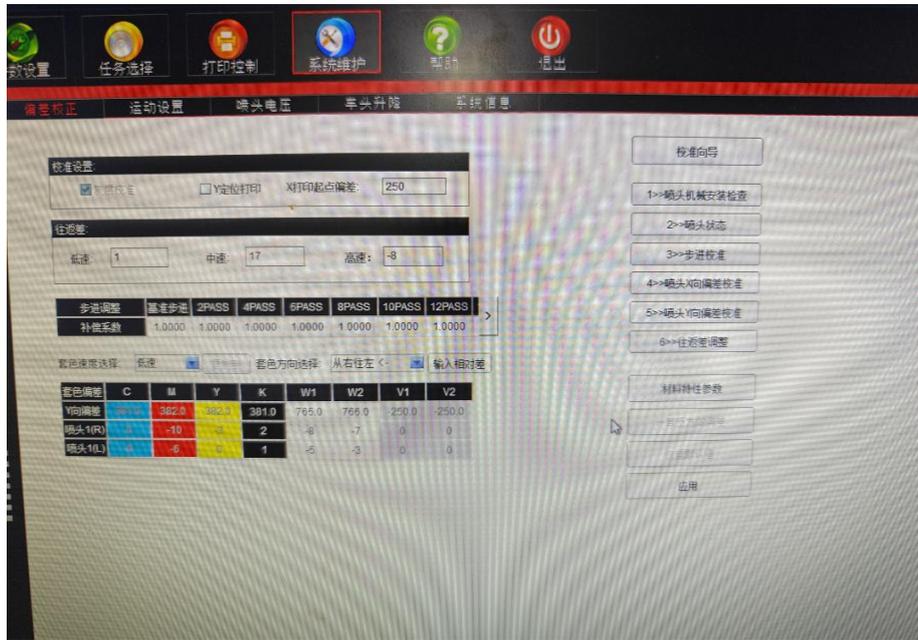
三、 Printing Software Procedure

1. Open the software: wait for the printer initialization action to complete

2. Load image: find the directory where the image is saved, left mouse button click on the directory will load automatically
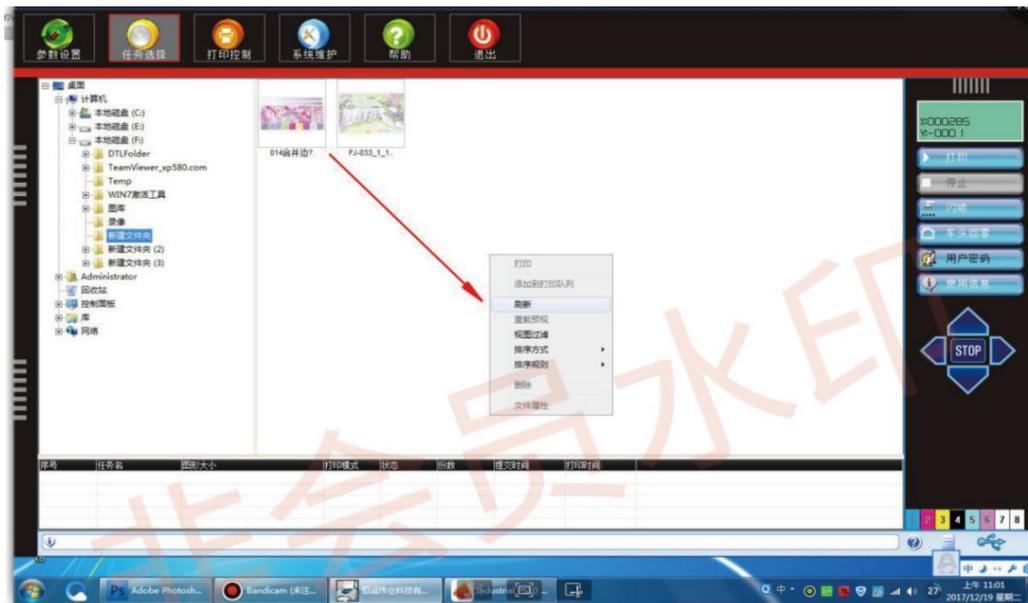
Picture to the right, such as Figure 1, such as not loaded can be right-click → Refresh

Figure 1 Load image

3.Determine the starting position of the print: in the print control interface, XY fill in the corresponding values to determine the starting position of the print, as shown in Figure 2. head speed for the printer print speed, there are three speeds to choose from, as shown in Figure 3. print direction, there are three directions to choose from, as shown in Figure 4 (unidirectional picture is clearer, bi-directional speed)。
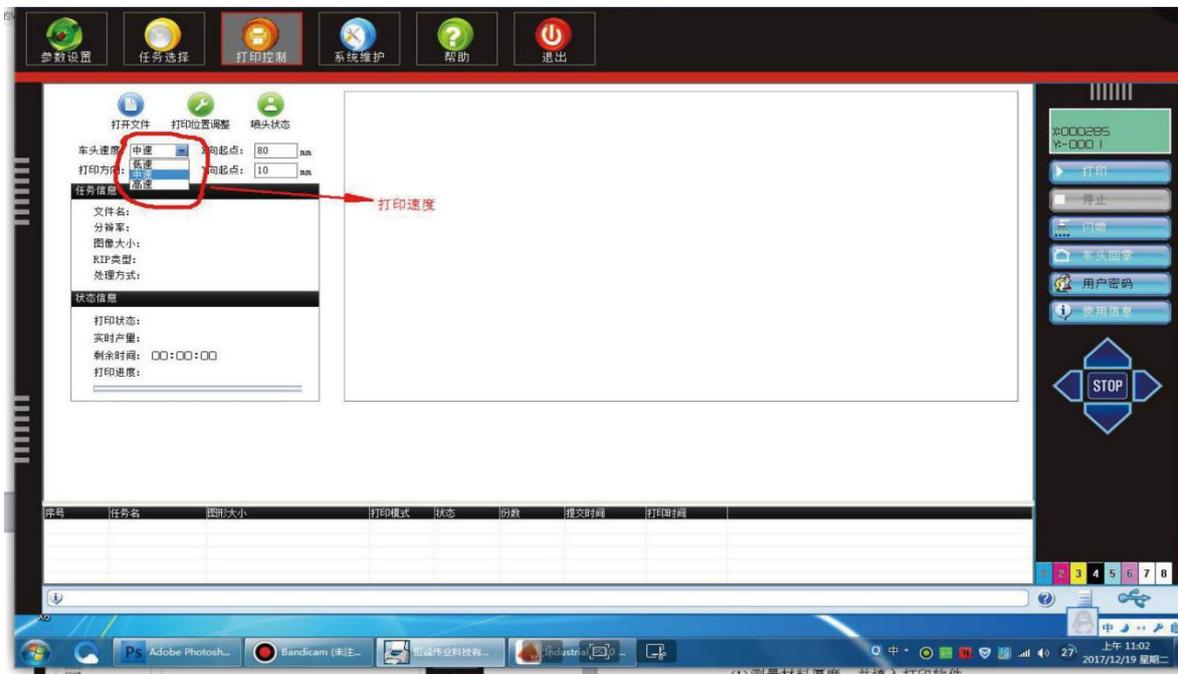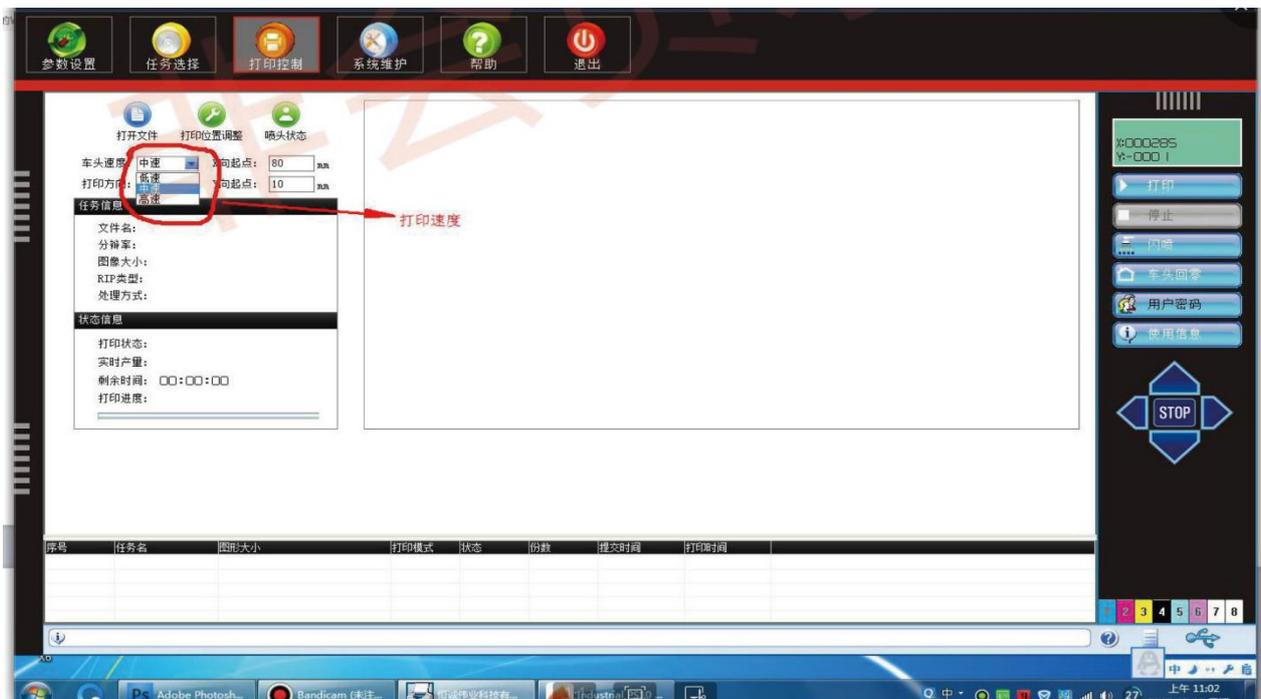

Figure 2 Starting position

Figure 3. Print Direction

Figure 4

4:Determine the print height: in the system maintenance interface, select the head lift, as shown in Figure 5 Printhead from the print media height: generally a coin (1.88mm) or so. Material thickness: the thickness of the print material, fill in the box directly behind the can be.

(1) Head height position: the actual height of the current head. Measure the material thickness and fill in the print software

(2) Click on the front of the car to move to the specified height, as shown in Figure 5, and wait for the end of the action.

(3) To detect whether the material will scratch the printhead during the printing process, there are four keys on the right side of the software interface: Up, Down, Left and Right, which correspond to the four moving directions of the carriage head: Backward, Forward, Left and Right, and the Stop key in the center is the moving stop button. By clicking these keys to move the head to the top of the material, observe whether the material will scratch the nozzle, if so, increase the thickness of the material, if too high away from the material, then reduce the thickness of the material, the nozzle away from the material of the thickness of a coin (1.88mm) or so is appropriate. Then click the head back to zero, such as the right-hand side of Figure 5, and wait for the head to return to the zero position. (After changing the material thickness, you need to return the carriage to zero, and then click the carriage to move to the specified height to prevent scratching the material and injuring the printhead.)
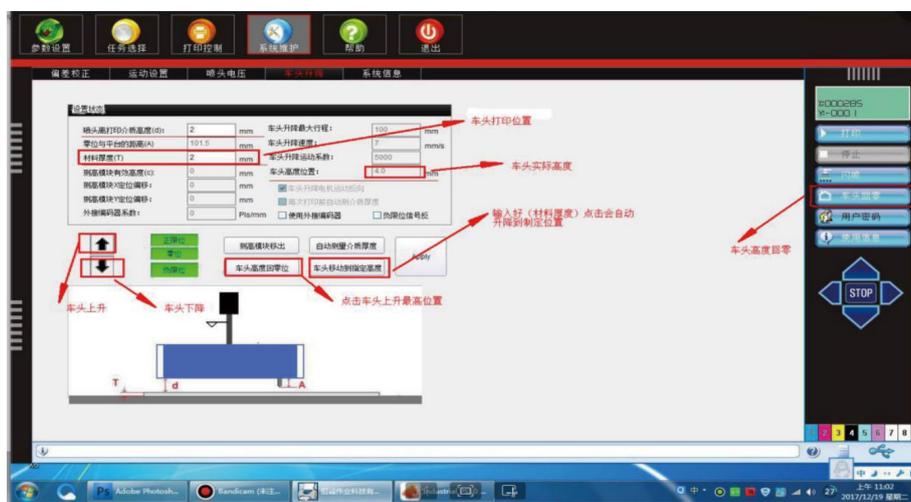

Figure 5

5. (1) Click on the parameter settings, in the spot-color processing, select the white ink and varnish printing methods and the thickness and amount of ink (do not print – no white, full white background – the whole picture white, RIP white – ps did spot-color channel of the local white). As Figure 6

(2) In the PASS feathering settings in the degree of feathering (no feathering – 0, custom – set your own values, uniform, and gradient – small to medium-large feathering) in Figure 7

Figure6

Figure 7

6. Print pictures: double-click the left mouse button needs to print the picture, the dialog box appears, such as Figure 8, to confirm the starting position, click Print, the dialog box appears as Figure 9, to determine the height of the promise, click Print Now!
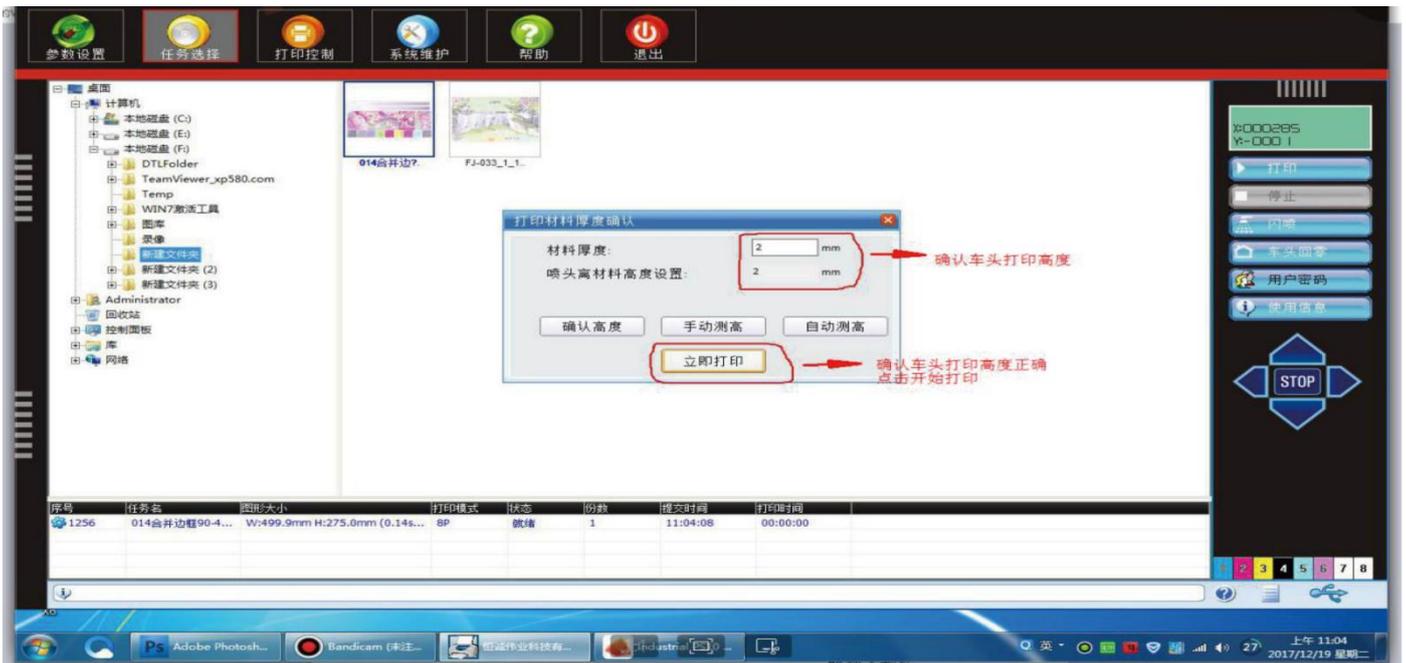
Figure 8

Figure 9

7.Parameter setting interface function introduction

8. Task Selection Interface Functionality

9. System Maintenance I Printhead Voltage Interface Functional Description

10. Print Control Interface Functions

四、 **Photoshop positioning frame creation, print pattern, white ink, varnish (for 3-head machine) spot color channel creation；**

1. First of all, open Photoshop, here to print a cell phone case as an example, create a new document, in accordance with the need to print the items for the parameter settings, as shown below:

A. Setting the print file name；

B. Set according to the actual size of the object to be printed；

C. Print document resolution settings, greater than or equal to 300+ DPI,

Color mode: must be CMYK, otherwise just even if the establishment of the white ink varnish spot-color channel, can not be identified；

2. To make the positioning box, CTRL + A select the entire canvas, right-click and select Stroke, as shown below：
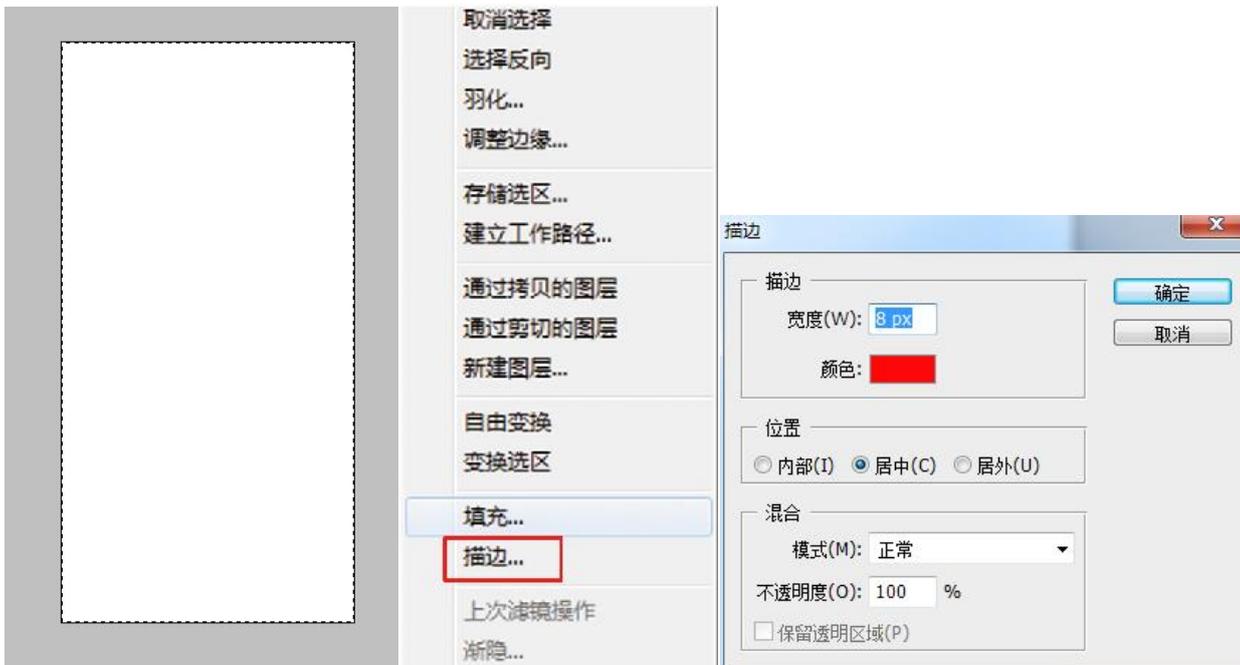
3. Toolbar click "Select", select the color range, use the pipette tool to suck just traced the green frame, and click the OK button, as shown below：

4. Select the channel window, set the white ink to the outer frame (because the working platform is black, so we need to make white ink channel when making the positioning frame, otherwise the positioning frame printed on the platform will not be obvious, it is difficult to see clearly, the）
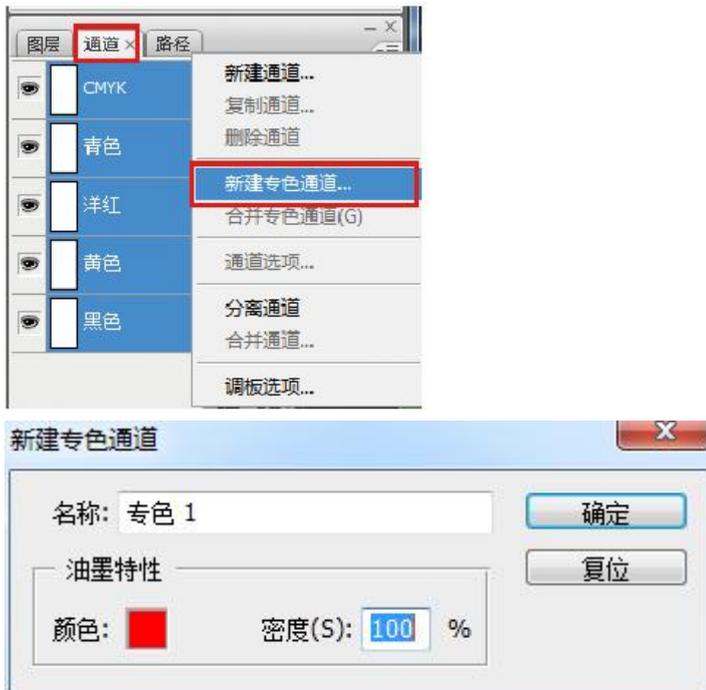
5. Save the positioning box in TIF format, as shown below:

6. Refer to step 1 to create a new canvas (here you can directly use the positioning frame file made above, but you must just establish the white ink channel deleted, because the dual-head machine only supports a spot-color channel, the 3-head machine only supports two spot-color channel, otherwise there will be a channel error in the print can not be printed properly), the pattern to be printed into the canvas and double-click the figure below:
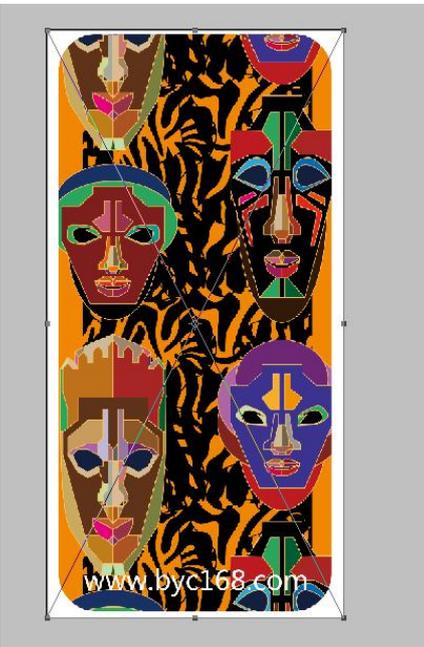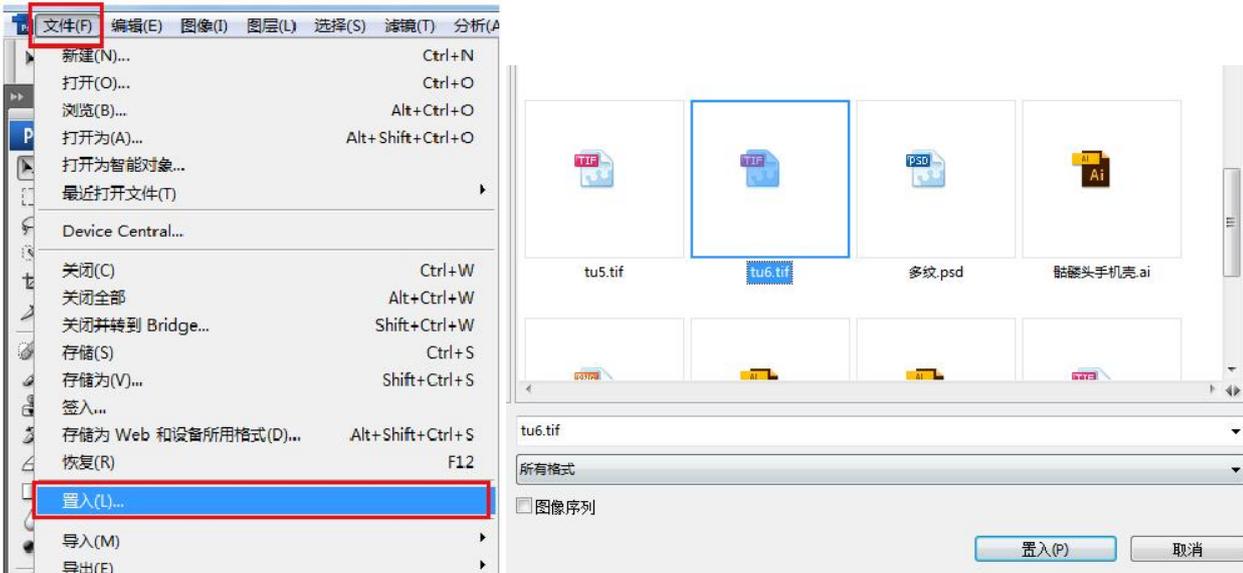
7. White ink and varnish channel establishment, we want to establish the printing of white ink and varnish spot-color channel, you must first determine to print in that area of the spot-color, will be the region to establish the spot-color channel to establish the region to establish a variety of ways to create a selection, such as the color range, ctrl + click on the color channel icon (this way to do the channel white ink or varnish thickness is based on the color depth of the changes and changes), Magic Wand, the selection tools, Pen Tool, as well as the ctrl + click on the layer icon (this way to do the channel white ink or varnish thickness is the same), the way is not the same, but the purpose is to create a selection；
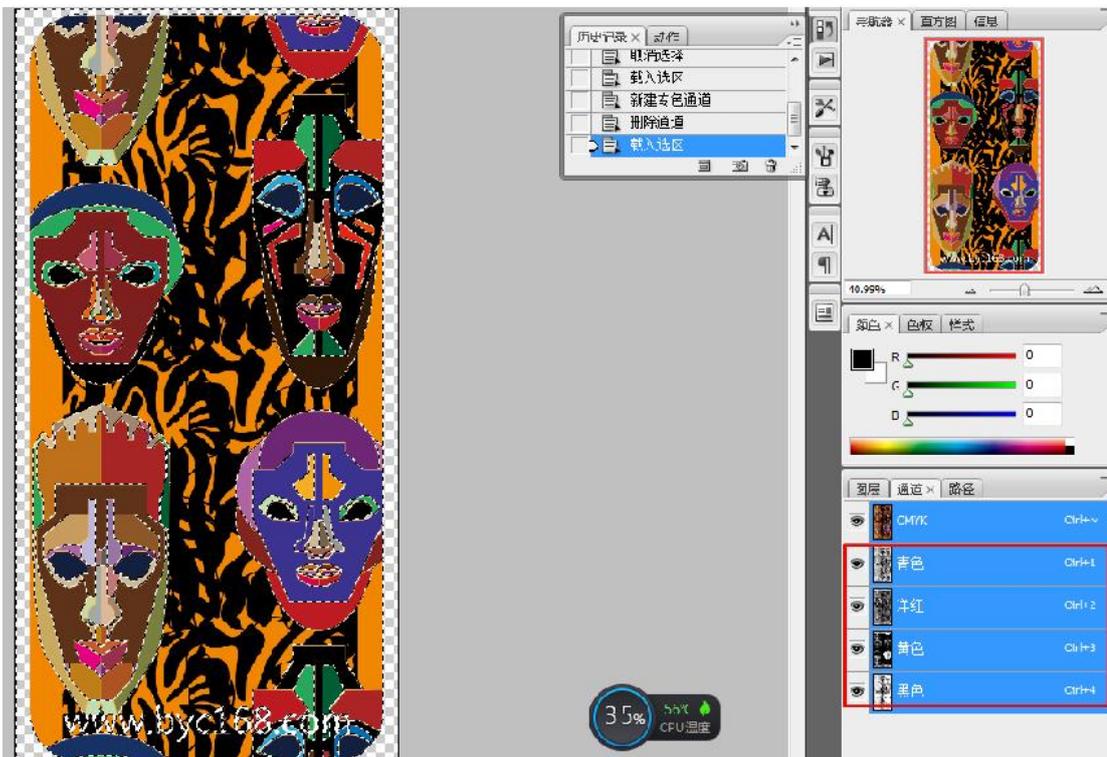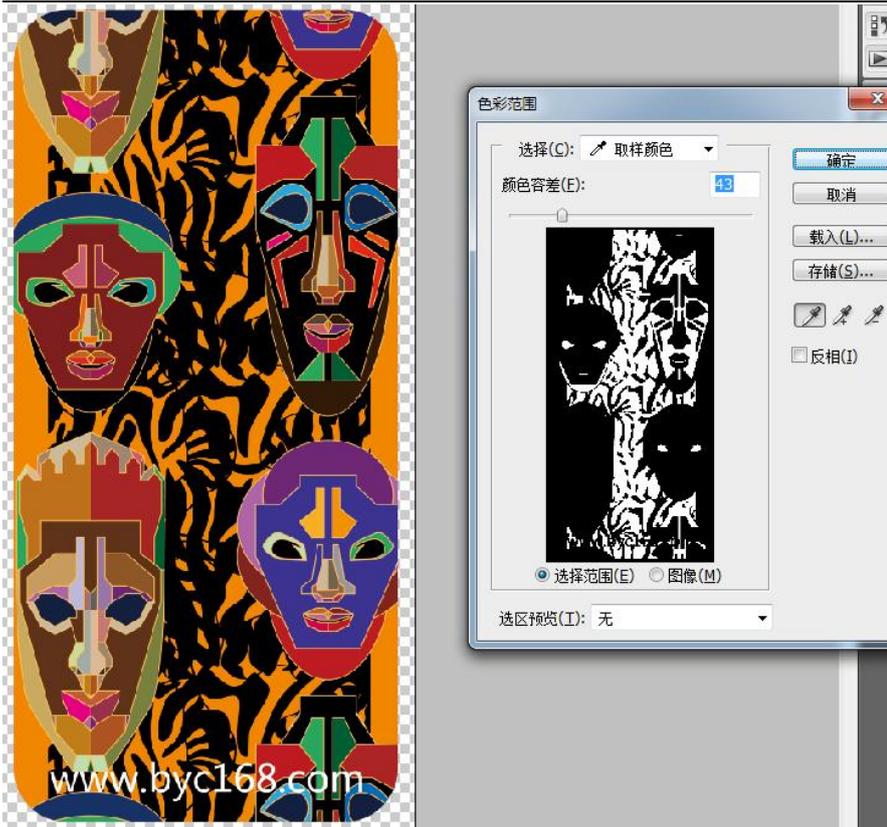
8.When determining the region to establish a spot-color channel, to print the area of the spot-color shrinkage, the general resolution of 300DPI file shrinkage of about 3 pixels, when the document has a relatively small fonts or lines part of the contraction of pixels too large out of the small part of the connection is gone, so the need to shrink the pixel value to reduce the specific according to the actual situation, if the contraction of the emergence of leakage of the white edges, theoretically speaking,

because each nozzle is independent of the software calibration set of color table location, it is not possible to achieve absolute accuracy, so the spot-color must be smaller than the color ink, as shown below：
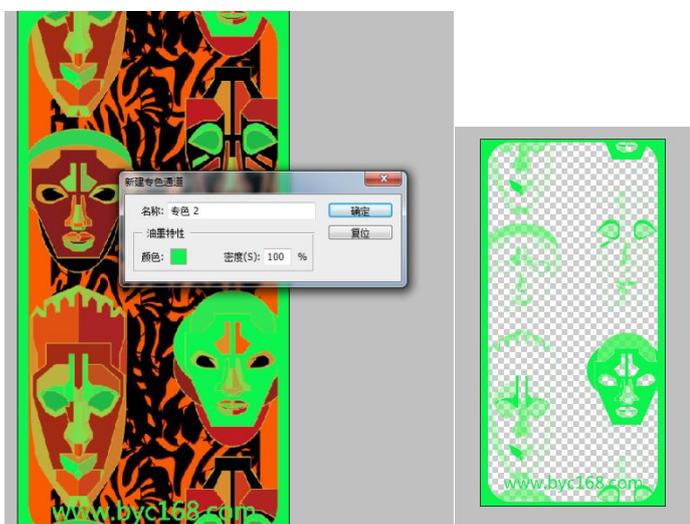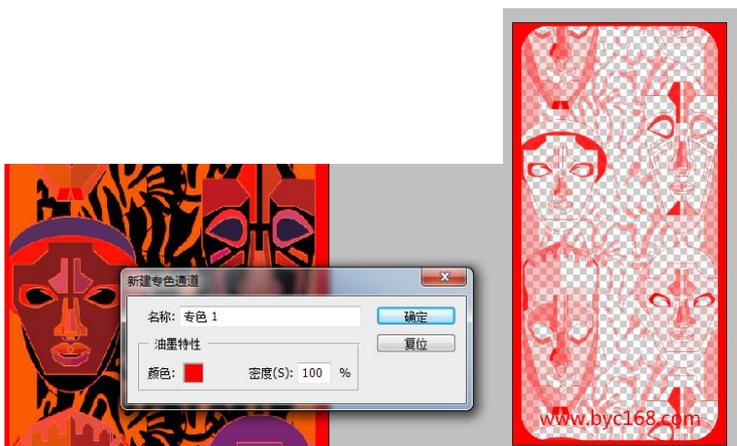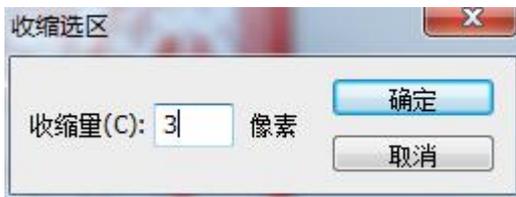
Spot color names are fine by default, (default spot color 1 is white ink, spot color 2 is varnish);

Color click to set the spot color area to what color to display, and will not print the color;

Density of this option for the theoretical thickness of the spot color, but the actual and can not control the concentration of spot colors, only in the control software to complete;

Description: the above chart in the spot color 1 to show the red area of the region to print white ink, spot color 2 to show the green area to print varnish, white ink and varnish area can be arbitrarily set up according to need, can be the same or different, if you need to adjust the amount of white ink and color inkjet ink you can select the channel to be modified, according to the Ctrl + L color gradient to adjust, the following chart shows:
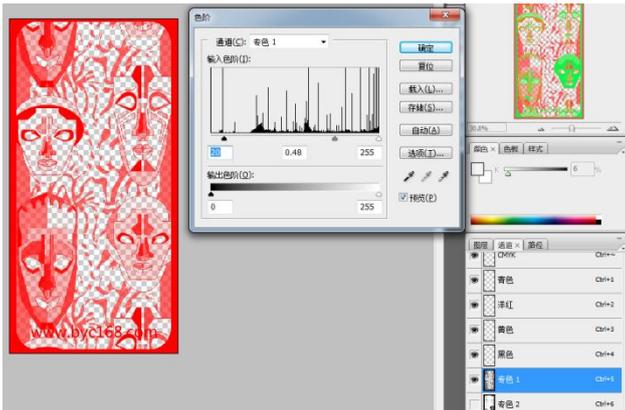
9. After the establishment of the spot color channel, save the file in TIF format, color mode CMYK, otherwise the establishment of the spot color channel is invalid.;
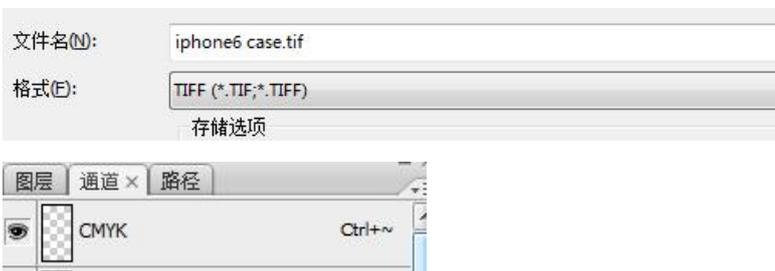
In order to realize the color ink and white ink varnish printing at the same time, the operation in Photoshop software has been completed, other details of the way to do the map still need to figure out their own way to print the operation see the follow-up instructions;

五、 Common Troubleshooting

1、Double-click Print exp control software does not respond to the error message;

In order to allow machine operators to use the machine faster, we are in the factory for each machine are debugged, so there is no need to install the software, directly unzip the file package can be used, but some computer systems are missing runtime library files, so there will be software can not run normally, so we need to manually install the runtime library software can be seen in the specific details of the software runtime library installation;

2、The printer cannot be connected to the printing software

Occasionally encountered customers reflect the computer can not be used to connect with the printer,

the computer plugged into the USB interface software does not respond to the discharge of hardware failures and may be the driver is not installed or the driver was mistakenly deleted by the antivirus software, reinstall the driver can be ruled out。

3、Turn on the machine and the software, move the cart, the software has been showing the position of the spray car for 0, turn on the machine and the software, move the cart, the cart moves to the left will be bumped to stop, or the position of the cart for 0 。

Generally this situation can be solved by the following methods：

A.Check if the scale is stuck in the middle of the scale decoder, or the scale decoder is too high resulting in no readings；

B.If you check the configuration is normal: check the grating decoder wiring is connected to the right (reverse may burn the decoder), grating decoder has been burned, you can replace the grating decoder and then test!；

C.If you change the grating decoder or not, you can now take the normal use of the machine on the grating decoder to test to see if you can read the grating value, if it can not be read, it is possible that the board's grating interface is bad, you can replace the board for the test, but there is almost no such thing, most of the line did not connect the right lead!。

4、Visible UV trails on UV machine prints

There are only 3 reasons why this problem usually occurs

(1)If the machine's stepper is not calibrated properly, or if the stepper has a large paper travel error, this problem can also lead to severe UV paths.；

(2)Software feathering is too low, it is recommended to print 8PASS feathering at a minimum of 80%, or select Fog Jet Enhanced A；

(3)Too small a droplet, too little ink, and aging UV lamps can also lead to visible UV paths.。

5、The print prompt read data mapping file error or read 1PASS data error

The main reasons are：①The file itself format problems, you can try to output to the file print prn format printing，

②Reboot Electricity and Software；

③Computer transmission data is not stable, can be installed on the computer PCI to USB3.0 adapter card。

6、The print prompt exceeds the number of printable channels and the machine does not act：

When you choose to print in white ink, only one spot color channel is allowed, if the file has more than one spot color channel will be an error, or sharp color in the white ink option to choose no, in general, we have chosen to spot color, PrintEXP in white ink printing hook, whether the white color at the same time printing or only print color ink, will not report errors!。

7、Printing stripes are obvious, the reasons are as follows.

A nozzle clogging lack of ink.

B Feathering fog spray set the value is too small, increase will improve.

C print the accuracy of the selection of too low, improve the printing accuracy can be.

8, print the edge of the pattern floating ink for the following reasons：

A nozzle oblique spray aging, replace the nozzle；

B print objects and printheads too far apart；

C print object surface static electricity is too large, do in addition to static electricity treatment；

D can try to replace the ink point, the larger the point of inkjet ink strength (when the choice of a large point of color will become darker and the picture quality will be rough, you can properly drop the amount of ink to complement).

9, the printing machine does not move, or out of the pattern on the sharp color water impact and color bars: mainly because the USB software lock is not inserted into the computer, software lock damage, the system does not lock the driver；

六、Routine maintenance instructions

UV flatbed printer belongs to the high-precision spray painting output equipment, some operators do not understand its performance and operating skills, it is easy to cause a variety of problems, resulting in a reduction in the service life of the instrument, to the production of enterprises to bring greater losses. Therefore, usually work, do a good job of routine maintenance of the printer is very important. So as an operator, UV flatbed printer should be how to go to the maintenance of it?

（一）、Environmental requirements

1. Indoor temperature requirements: UV printer to be placed in a cool, backlit corners, to avoid high temperatures and direct sunlight environment, the appropriate indoor temperature is 19 ℃ ~ 32 ℃, humidity is 25% ~ 70。

2. Stable and flat working platform: to ensure that the working platform used to place the printer is flat and stable (here stable refers to the machine in the normal working process of the working platform will not be because of the movement of the machine left and right shaking), UV flatbed printers machine is very heavy, if the Chen puts the machine on the working platform is not flat, it will cause the printing platform tilting the machine swinging and thus affecting the printing effect!。

3. Prohibit the placement of debris on the machine: especially drinks, cups, liquids are strictly prohibited, in order to prevent the liquid into the machine caused by the internal circuit short-circuit circuit burn circuit boards, resulting in irreparable losses, regularly wipe the surface of the machine with a rag to clean the dust, to prevent the accumulation of dust。

4. Avoid heavy pressure on the printing platform: it is prohibited to display heavy things on the platform, which will lead to deformation or even rupture of the printing platform, thus affecting normal use.。

（二）、Maintenance of printheads

Printhead is the core component of the UV flatbed printer, but also the most expensive components, the printhead maintenance and maintenance of good and bad directly related to the service life of the printhead and the quality of the drawing. The use of the process due to differences in the quality of ink and the use of maintenance is not in place will make the life of the printhead greatly shortened. Normal use of the machine in the process, please do not replace the ink, different manufacturers of ink composition is not the same, mixed together with the ink will be a chemical reaction and thus solidified agglomeration, resulting in the nozzle blockage, the loss is not worth it, so in the replacement of ink from different manufacturers you have to do a good job of the nozzle ready to scrap。

1. Printhead keep flash spray: when the machine standby, please click on the toolbar "reset icon", so that the word car stays in the flash spray position, through the ink flow flash spray to keep the printhead smooth; (after the completion of the machine, the printhead must be in the flash spray position will be flash sprayed in other positions will not spray ink)

2. Printhead back to seal: the normal shutdown sequence, the first off the control software, the ink car to the right to move back to the top of the suction pad, play a role in sealing the role of moisturizing the printhead, is strictly prohibited directly after the power failure will be exposed to the outside

of the printhead, which will lead to dry ink, resulting in ink solidification blocking the printhead!;

3.Nozzle moisturizing anti-clogging: when the machine to determine the machine in more than 7 days without use, it is recommended that you remove the nozzle, with cleaning fluid will be repeatedly cleaned nozzle ink, and then injected into the nozzle moisturizing fluid, and folded into the nozzle with a dust-free cloth the size of the metal surface of the square, in the cloth to the cloth to add a small amount of humidifier placed on the surface of the nozzle to further moisturize (cloth above the moisturizer should not be too much the best will be the cloth will not be wet next to the overflow of the best), and then sealed up with a cling film or ziplock bag to prevent the humidity from evaporation of the moisturizer every 15 days to the nozzle to flush and re-add the humidifier, the nozzle in the placing of the nozzle, metal holes must be faced downward, and prohibited inverted;

（三）、Machine maintenance

1.Weekly cleaning and maintenance of X- and Y-axis guide rails as well as gears and racks for lifting and lowering: clean the X-axis carriage guide rails and Y-axis working platform inlet and outlet guide rails with a cloth, and add liquid lubricant;（Do not add grease, as it is viscous, and will generate resistance, thus affecting the precision of the transmission.）, and lubricate the gears and racks for lifting and lowering the drive;

2.Check the UV lamp every day: see if there is ink or stains on the surface of the quartz glass, if there must be cleaned up even though, can be soaked in organic solvents and wiped to remove, and to keep the quartz glass surface of the UV lamp is clean and free of ink contamination;

3.Check the UV lamp water tank every day: check the water level of the water tank is up to standard: UV lamps in the work will heat up, slowly used to cool down the water will be reduced, once the water pipe is not enough to buy water to cool down will cause permanent damage to the UV lamp!;

4.Prevent liquid splashing into the machine: ink and cleaning fluids are highly corrosive, do not touch the electrical components and wires, if accidentally splashed with ink or cleaning fluids and other liquids, must be immediately disconnected and wiped clean, to ensure that the splashed liquid is dry before powering on the machine!;

5.Regularly clean up the accumulation of ink on the platform: in the production of some products in order to image full coverage, the picture will be larger than the product, over time the excess part of the ink slowly piled up too high, thus scraping the printhead to cause damage to the nozzle, so we must clean up the excess UV ink on the surface in a timely manner!;

6.Weekly cleaning of the lenticular bar: there are many scales on the lenticular, over time the ink and dust will cover the scales resulting in blurred prints and dimensional deviations, thus affecting the final print results.;

7.Have opened the ink must be used within the appropriate time: if not used must be sealed up, because this will cause the ink evaporation or contact with the air and deterioration, resulting in clogging of the printheads, but also may affect the print out of the picture in the product above the color fastness!。

SHENG HUANG KE
盛煌科

SHENG HUANG KE
盛煌科

东莞市盛煌科实业有限公司
DONGGUANSHI SHENG HUANG KE INDUSTRIAL CO.,LTD
地址：广东省东莞市寮步镇寮步松柏路 306 号光达寮步智慧谷 C 区 9 栋四楼 403 室
Address: Room 403, 4th Floor, Building 9, Zone C, Guangda Liao Bu Wisdom Valley, No. 306 Song Bai Road,
Liao Bu Town, Dongguan City, Guangdong Province, China.
TEL： 0769-88035082

node：http://www.shkdigitalprinter.com/
Website：http://www.shkdigitalprinter.com/

QQ:908902788
Service call：（+86）0769-88035082
microsoft/Wechat Phone/Whatsapp: +86 13650032096
zip code： 523410
Post code： 523410

Dongguan Shenghuangke Industry Co.