# MT-FP4060/6090
USER MANUAL

CONTENT

1.Warning

1. The machine can not be used by children or handicapped people. If must use it, please use it under supervision.

2. Please try to fix the problems when operate this machine.

3. Please follow the instructions to use the machine. Use the accessories and inks from the original manufacturer.

4. Ensure the power voltage matches the power cord and the machine nameplate voltage.

5. Only indoor using, recommended setting an air conditioning in the room, in order to get a steady working temperature and humidity.

6. Make sure the red fixture member for transportation has been removed before using the machine.

7. Never to use the machine under flames, friable material and dust environment.

8. No sundries around this printer.

9. Never use this printer in wet environment.

10. Never use the machine under extremely hot (above 40 ℃) or cold (below 10 ℃) environment.

11. If the cables are damaged, please stop using this printer and contact APEX for support.

12. Never using any damaged cables.

13. Please power off before cleaning or maintaining.

14. Use this machine under local law policy.

15. Before sending printing task, make sure printer head not touch any objects. The automatic height detection is not suitable for transparant materials.

16. When the printer is printing, please close the machine cover or equipped with anti-UV glasses.

17. To move the machine only with handle by at least four people, and never move it with other machine part.

18. When adjust the ink dampers, nozzles, ink tubes, ink bottles, cap top and other components may come into contact with the ink, please wear the protective gloves.

19. The machine should be placed on good table which is with 2cm or more thickness.

20. Do not recommend to use this UV LED all the time with high load printing. And it is recommended to use 30%-40% for hard material printing, while 20-30% for soft material. Please follow the maintenance form to use this machine.

21. If your ink is not from Apex, no warranty for the printer any more.

22. If the printer is not in using, you can turn off the power on front switch, but do not power off the rear switch. Leave the rear switch on to make the stirring system working all the time.

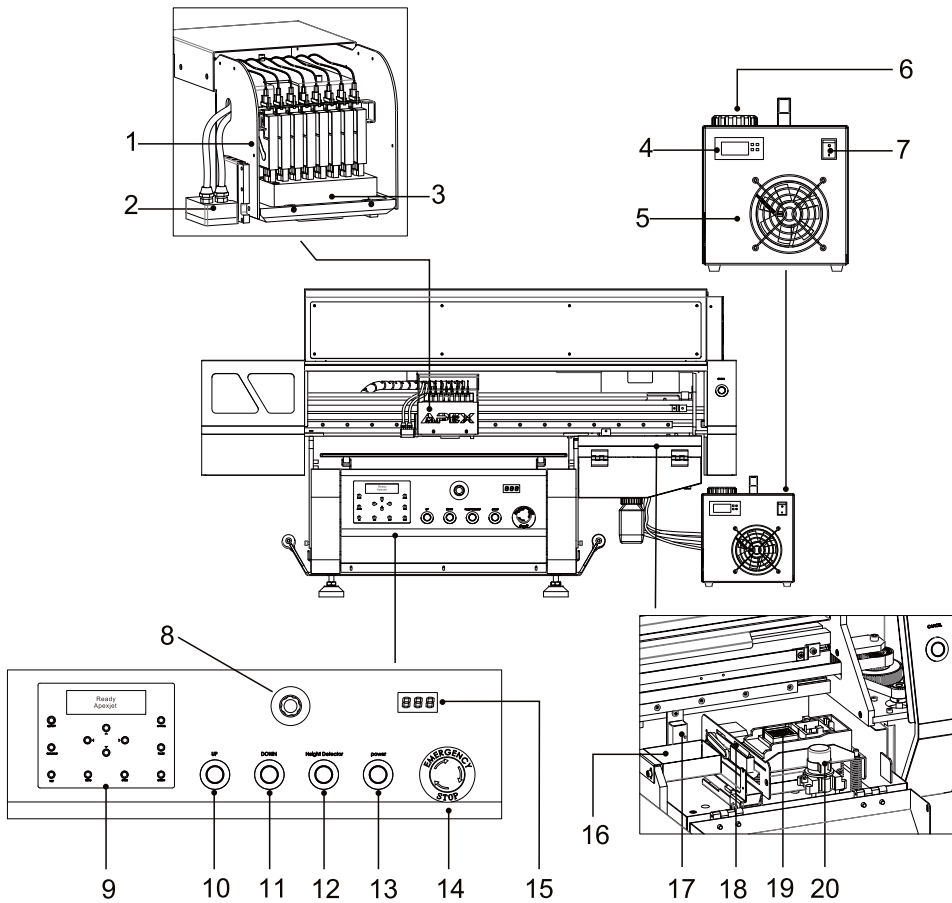*Please read the user manual carefully before using, and always keep the user manual.

2.Instruction

2.1 Structure and Function
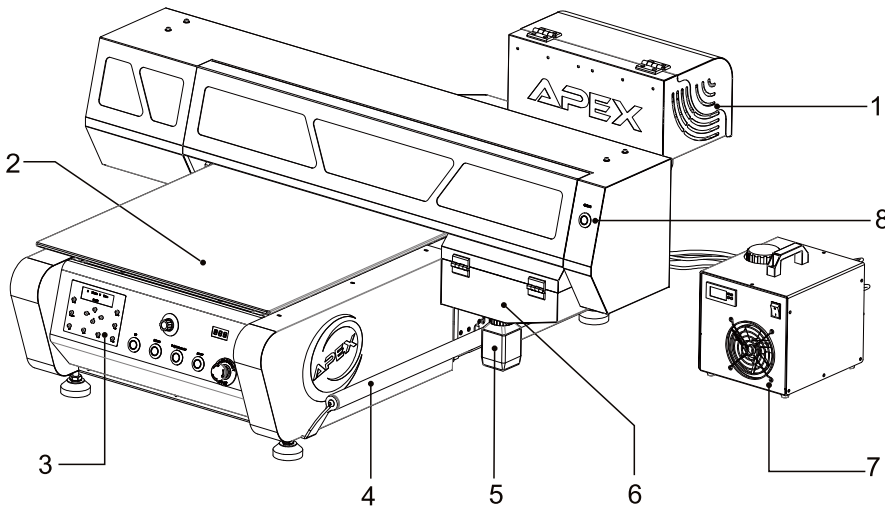
1.Ink Tank
2.Glass Platform
3.Control panel
4.Handle
5.Waste Ink Bottle
6.Printer Head Cleaning System
7.Control Box for UV LED
8.Manual Cleaning Button

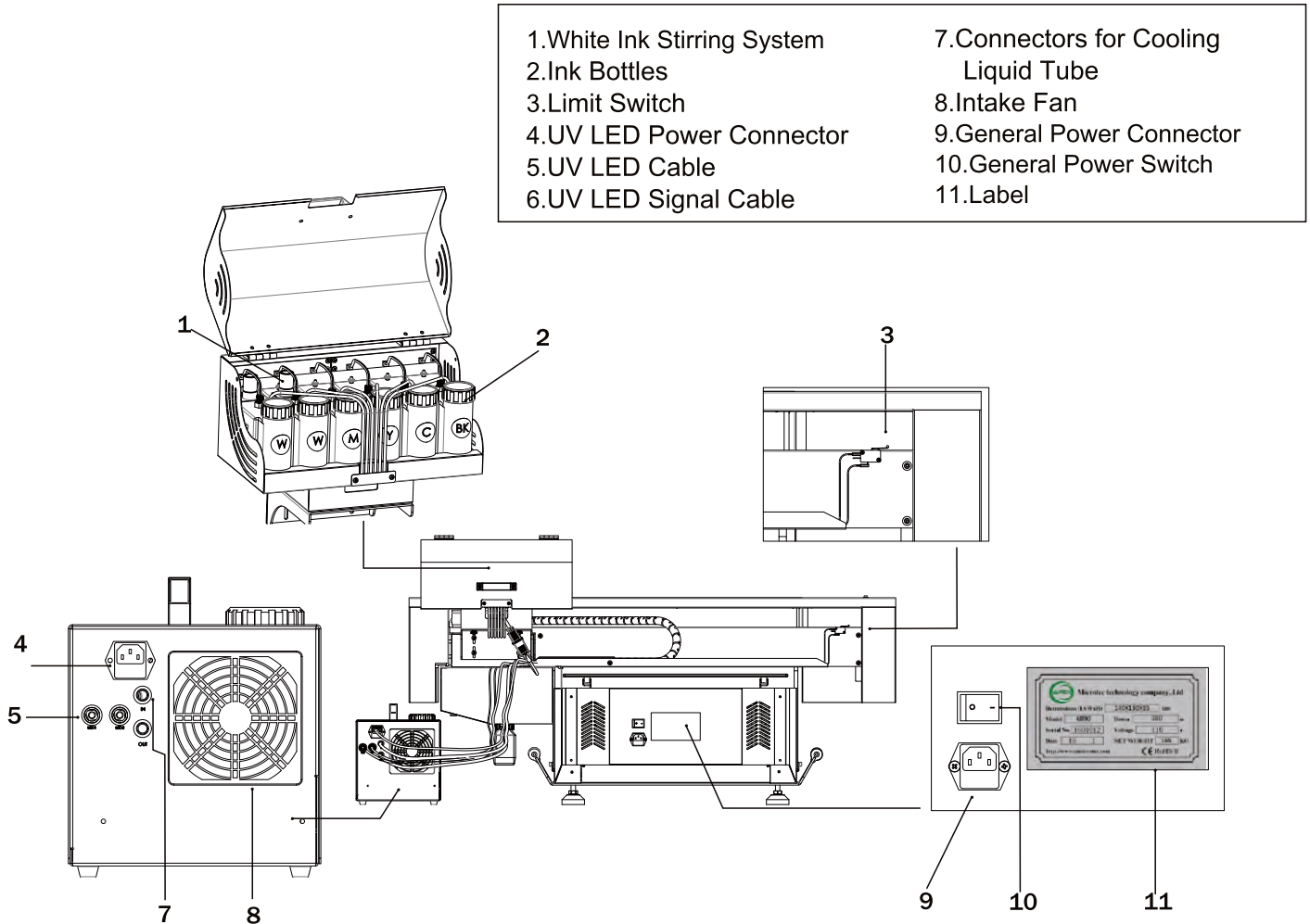## 2.2 Front Structure Figure

1.Dampers
2.UV Led
3.Printer Head
4.Temperature Display
5.Exhausting Fan
6.Inlet for Water Case
7.Power Switch
8.UV LED Adjusting Knob
9.Control Panel
10.Up
11.Down
12.Height Detector
13.Power
14.Emergency Stop
15.Height Display
16.Waste ink Box
17.Height Sensor
18.Wiper
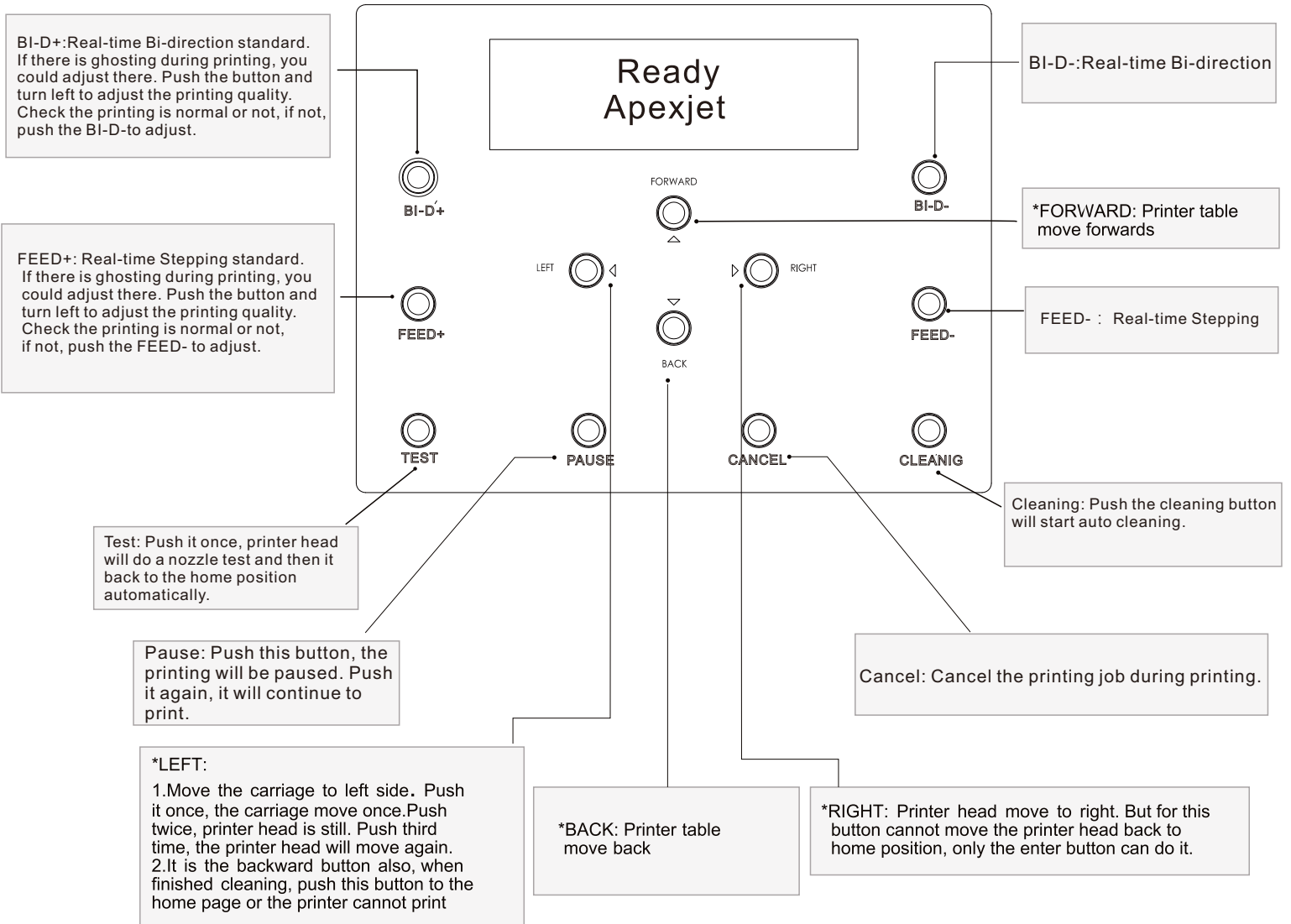19.Cap Top
20.Ink Pump

2.Instruction

2.3 Back Structure

1.White Ink Stirring System	7.Connectors for Cooling Liquid Tube
2.Ink Bottles	8.Intake Fan
3.Limit Switch	9.General Power Connector
4.UV LED Power Connector	10.General Power Switch
5.UV LED Cable	11.Label
6.UV LED Signal Cable	

2.4 Technical Data

| Model	MT-FP4060/6090UV
Printing Size:	23.6"x15.7"(60x40cm) / 23.6"x35.4"(60x90cm)
Curing System:	UV LED Water cooling system
Max. Height:	5.5" (14cm)
Power:	50/60HZ 220V(±10%)<2A 110V(±10%)<4A
Environment Requirement:	20-28℃ (68- 82℉）HR40-60%
Printer Head:	Epson DX5 (Nozzles 180x8)
X/Y/Z-Axix Motor:	X/Y/Z-Stepping motor
RIP:	Photo Print RIP
Computer Sys.:	Only for 64Bit
Ink Color:	K C M Y W W W W W / K C M Y K C M Y / K C M Y W W V V
Joint:	USB3.0
N.W:	233.7lb / 321.93lb
Machine Size:	51.2"x31.4"x21.7"(60x40cm) /55.1" x 51.2" x21.7"(140x130x55cm)

2.Instruction

2.5 Use the Control Panel

BI-D+:Real-time Bi-direction standard. If there is ghosting during printing, you could adjust there. Push the button and turn left to adjust the printing quality. Check the printing is normal or not, if not, push the BI-D-to adjust.

FEED+: Real-time Stepping standard. If there is ghosting during printing, you could adjust there. Push the button and turn left to adjust the printing quality. Check the printing is normal or not, if not, push the FEED- to adjust.

Ready
Apexjet

FORWARD

BI-D'+

BI-D-

LEFT

RIGHT

FEED+

FEED-

BACK

TEST

PAUSE

CANCEL

CLEANIG

BI-D-:Real-time Bi-direction

*FORWARD: Printer table move forwards

FEED- : Real-time Stepping

Cleaning: Push the cleaning button will start auto cleaning.

Test: Push it once, printer head will do a nozzle test and then it back to the home position automatically.

Pause: Push this button, the printing will be paused. Push it again, it will continue to print.

Cancel: Cancel the printing job during printing.

*LEFT:
1.Move the carriage to left side. Push it once, the carriage move once.Push twice, printer head is still. Push third time, the printer head will move again.
2.It is the backward button also, when finished cleaning, push this button to the home page or the printer cannot print

*BACK: Printer table move back

*RIGHT: Printer head move to right. But for this button cannot move the printer head back to home position, only the enter button can do it.

*Control panel is working when printer is online.
*Above are the basic operation, and more information please contact with Apex.

3.INSTALLATION AND OPERATION

3.1 Before Installation

1 Remove White Foam
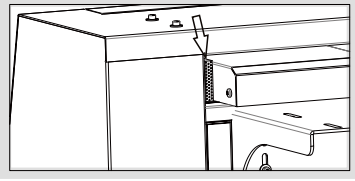
2 Remove the Red Metal Fixture
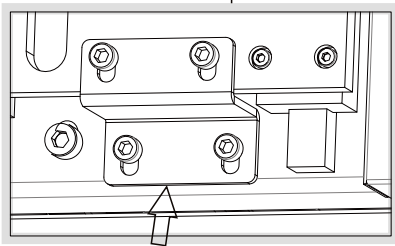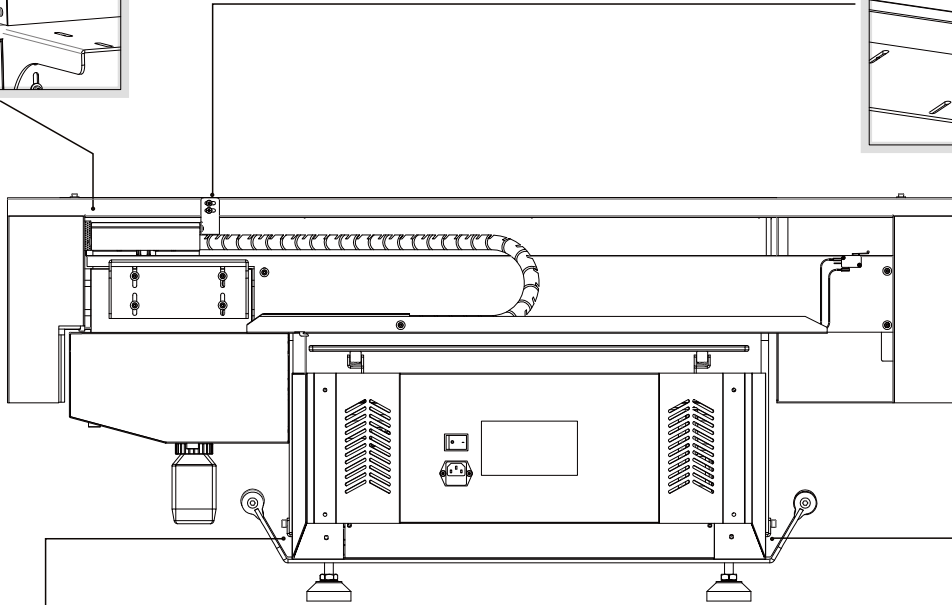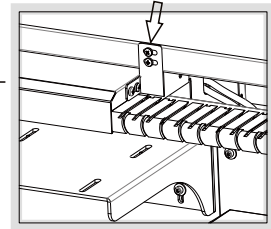
3 Remove the Left Metal Fixture
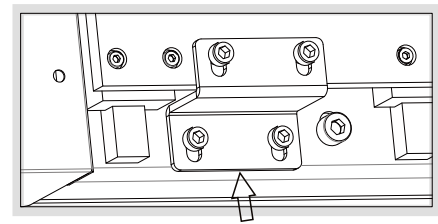
4 Remove the Right Metal Fixture

*Put the machine on the table which is at least 2cm thickness and good stability.
 (Desktop instability will cause poor print quality.
*Clean up the platform to make the surface clean.
*Remove the corresponding fixed component following the diagram.
*Printer shall be removed with Handles by 4-5 people.

3.INSTALLATION AND OPERATION

3.2 Install the Ink System

1 Install the Ink Case
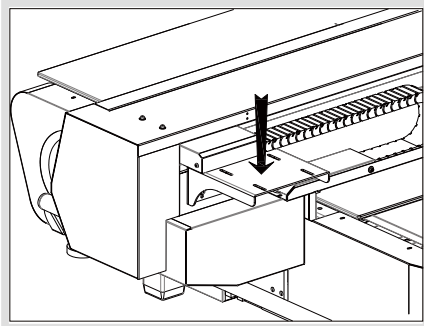
A. Unwrap the cables,and get the screws
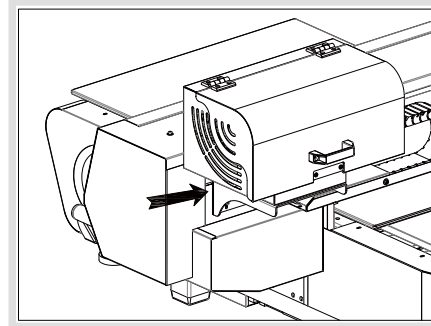
B. Place the ink case here
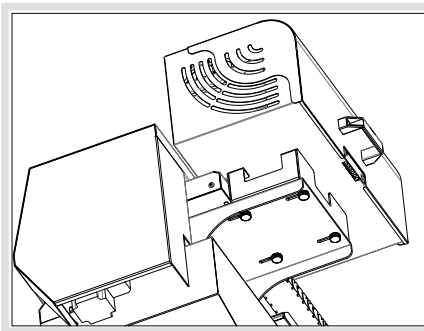
C. Fix the screws of the ink case, please move the case as far as possible from the carriage
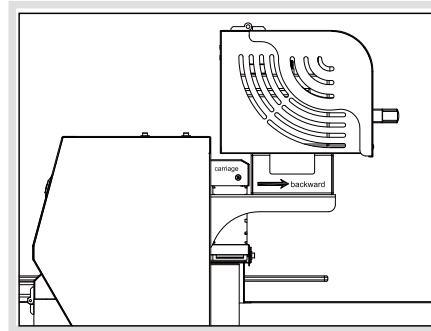
D. Check from side panel, and make sure the case will not block the carriage

2 Connect the Power Cable
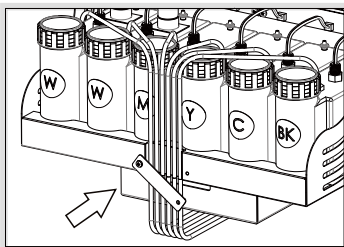
A Fix the cables here
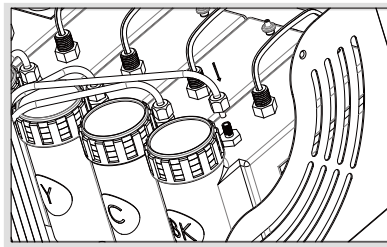
B. Screw up the tube to the ink bottle
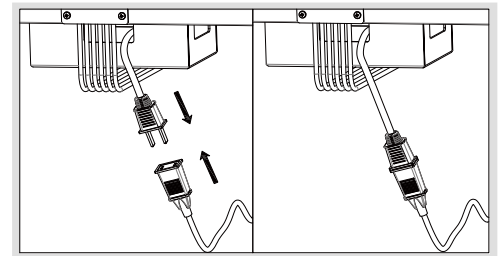
C. Connect the power cable of white ink stirring system

3 Refill the Ink to the Ink Bottle, and Lead it to Dampers:
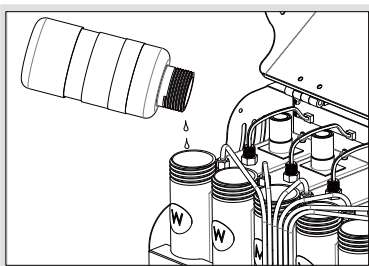
A. Refill the ink
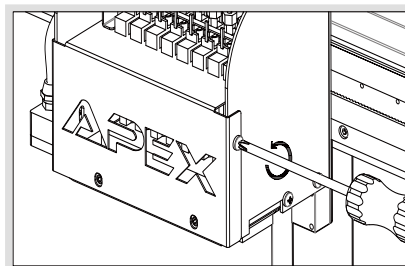
B. Take off the damper cover
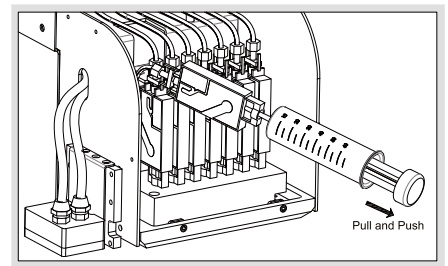
C. Use the syringe to vacuum the ink out from the dampers

Pull and Push

7

3.INSTALLATION AND OPERATION

3.3 Install the Water Cooling System

1 Unwrap the
Cables
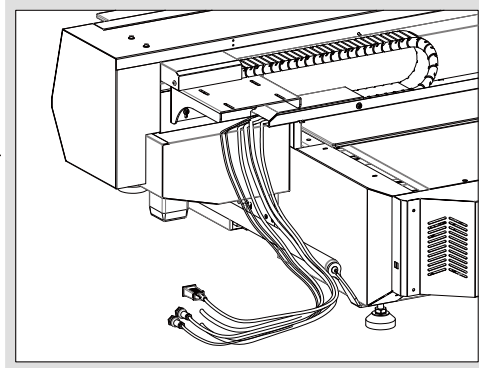
2 Prepare All
the Tubes
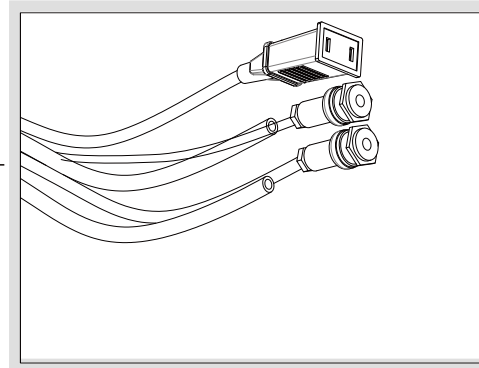
3 Connect the tubes
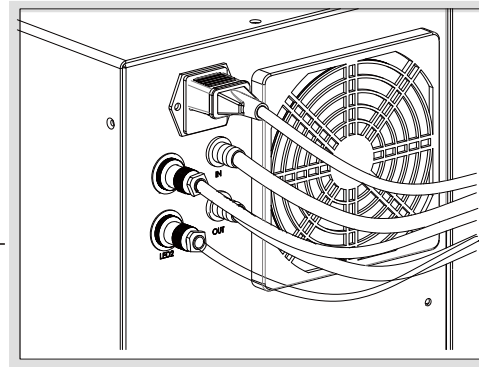
4 Open the Cover,
and Refill with Water
or Cooling Liquid 900ml
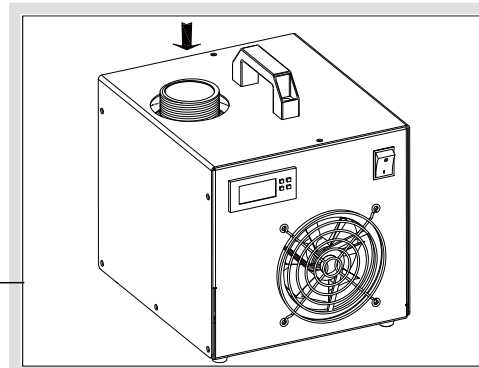
3.INSTALLATION AND OPERATION

## 3.4 Install and Description the Driver

*Before Installation
Notes: Please closed or shut down all the anti-virus software and firewall.
Before installation of the driver, copy UV-4060 or UV-6090udisk files to computer.

Plug the USB cable and general power cable
power on printer, connect the USB cable, please kindly follow the below steps:
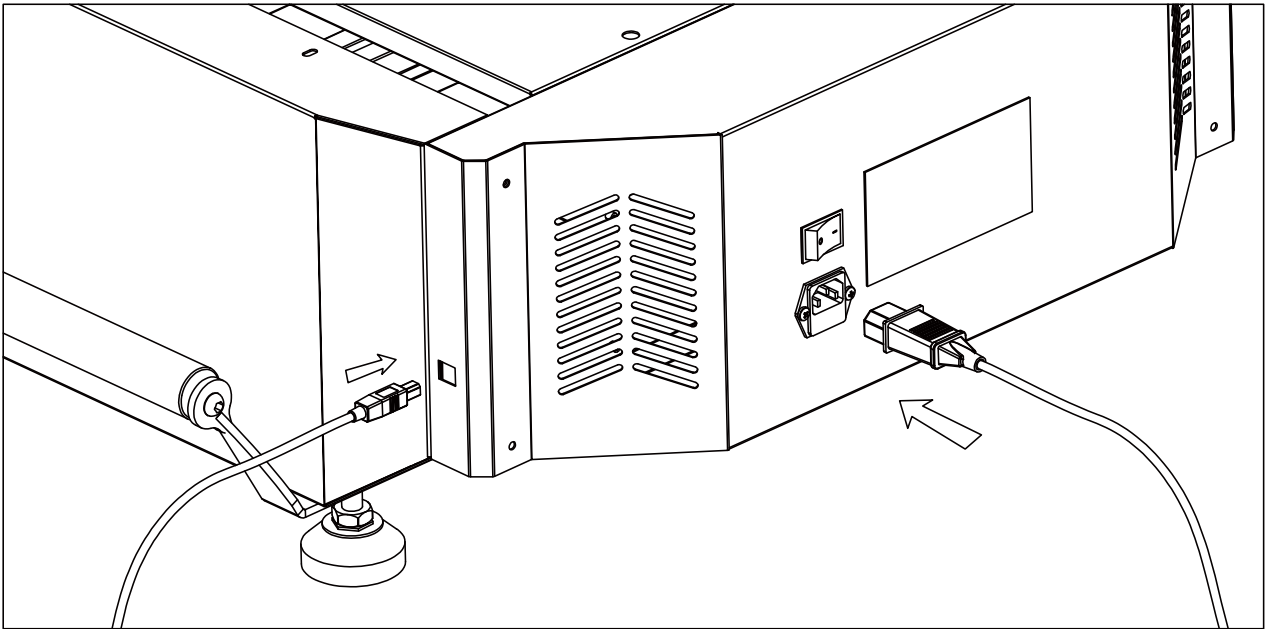
General power cable and USB cable
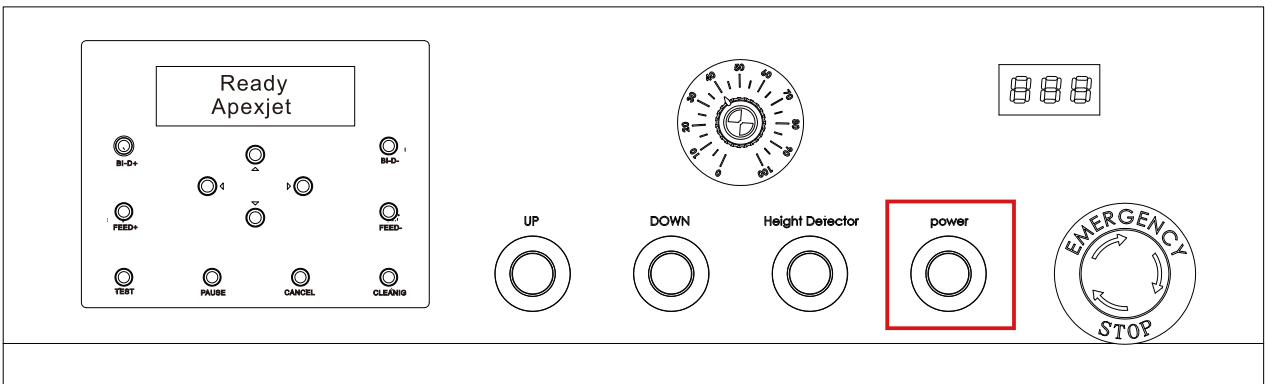
Power on the machine

3.INSTALLATION AND OPERATION

3.4 Install and Description the Driver

Before Installation
Notes: Please closed or shut down all the anti-virus software.
Before installation of the driver. Then copy UV-4060 or UV-6090udisk files to computer.
Power on printer, connect the USB cable, please kindly follow the below steps:

1 **How to Install it**

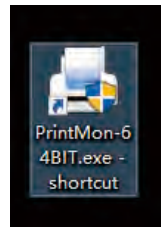This driver is only applied to 64Bit computer system.

printcontrol
64BIT

USB3.0-WI
N7-64bit.e
xe

PrintMon-
64BIT.exe
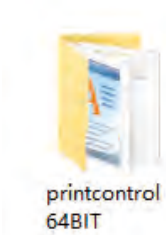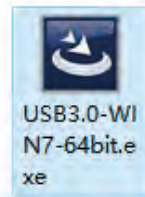
Open   Double Click to Install   Double Click
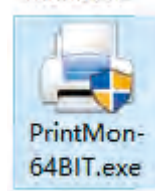
2 Finished Installation

* When finished installation, there will be a driver icon in the right bottom of PC. Right click on the icon, it will pop up a window to show the status: online or offline. When shows online, the printer is connected with computer, and ready for printing. When the icon is gone, please find the installation file, and right click to send the icon shortcut to desktop.

MFCO42D. Microsoft. Microsoft. MinCSmtp msvc
DLL   VC90.CRT. VC90.MFC. .dll   dll
         manifest manifest

Printed.da PrintFile.ini PrintMon- printmonr Rece
t   64BIT.exe es-64BIT.d s.ini
                              ll

▶   PrintMon-6
      4BIT.exe -
      shortcut
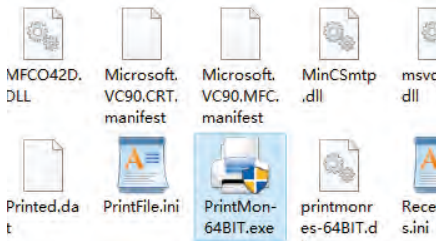
Right Click, Send   Short Cut

10

3.INSTALLATION AND OPERATION

3.4 Install and Description the Driver

3.4.1 Menu column description

**1 File**

(1). Open: PrintMon supports. prn or. prt formats, or Photoprint software Send task directly.

(2). Config Manager: supports export and import of files. Used for configuration backup and recovery.

(3).Quit :Exit from software during software not used.
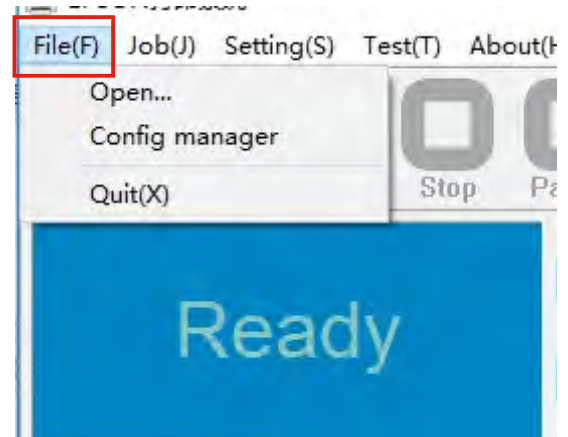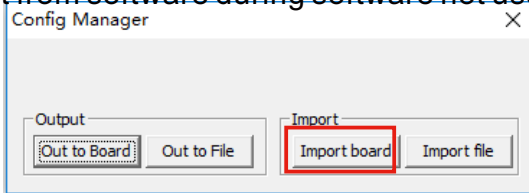
2 Job

(1). Motor Reset: To reset cartridge. The cartridge is automatically return to standby status.
(same function with Enter on the control panel)

(2). Clean PrintHeads : clean head during printing standby or finished.
(same function with Enter on the control panel)

(3). Print:Start printing.

(4). Stop : Stop the printing task and the cartridge will be returned to origin.
(same function with Enter on the control panel)

(5). Pause:Pause printing and recover unfinished task by Resume.
(same function with Enter on the control panel)

(6). Resume : after press Pause, recover the printing task.
(same function with Enter on the control panel)

(7). Delete : Delete the printing task.

(8). Fedd+:Add the steps during printing. (Unit: DPI)

(9). Fedd-:Reduce the steps during printing.(Unit: DPI)
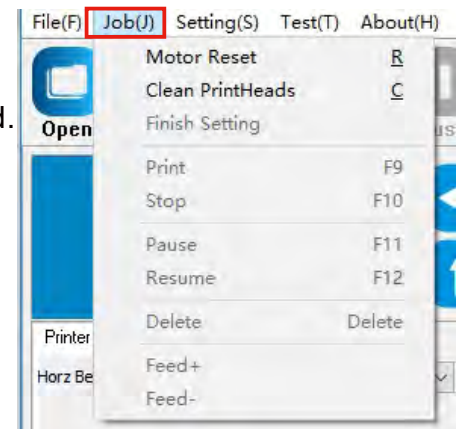
3 Setting

(1). Setting: Configure for network printing parameters. Used to set port, buffer path, inks amount. If choose "Adjust ink am out and printing area before printing", the dialog box from PrintMon task to choose inks amount.
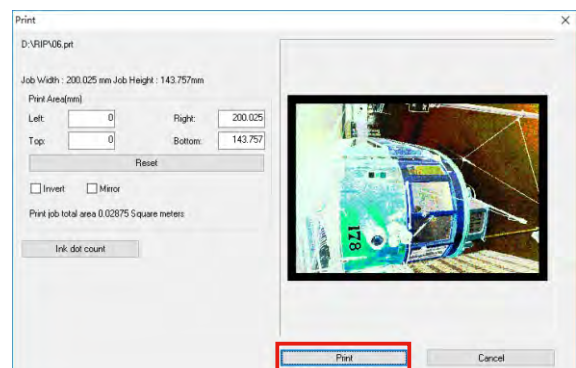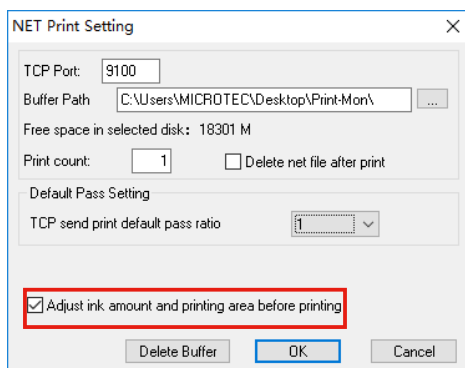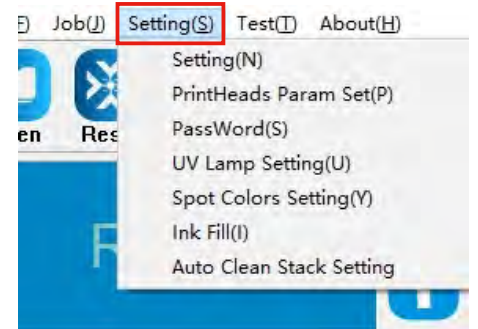
3.INSTALLATION AND OPERATION

3.4 Install and Description the Driver

(2).UV lamp setting : Used to set the UV lighting position.
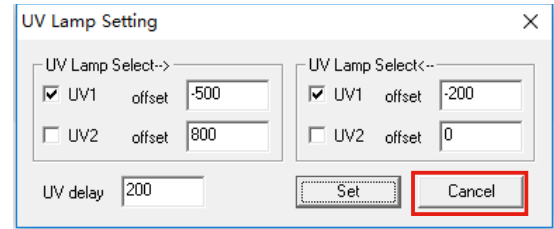
(3).Spot Colors Setting: Used to set the white ink spraying position, white ink printing model, white ink channels and amount.

  1> Spot mode: White in-line,choose spot mode and un der colors;

  2> White ink channel: choose 5,6,7and8;

  3> Channel ink volume:

  ① print only white : no color;

  ② print only color : no white;

  ③ Chnl:if choose close to print ,this channel is close down, if choose is 200% to print, this channel is taking double ink(chnl 5678 is printing times of the white ink).
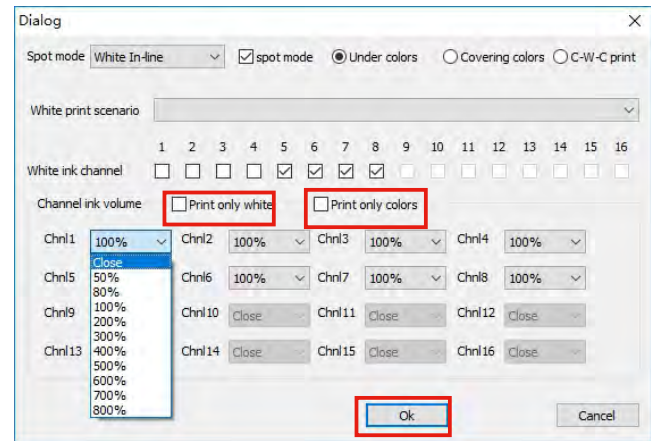
(4).Ink Fill: Suck ink (same function with manual clean button)

  Start: Start suck;

  Finish: Finish suck;

  Close: Close this window.
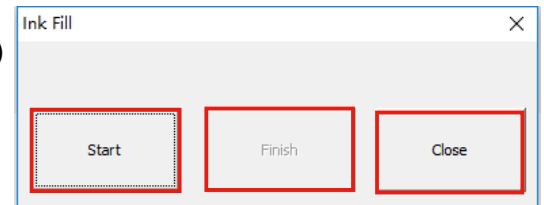
(5).Auto Clean Stack Setting:

  1> Clean: choose clean mode, the clean model of each machine is corresponded to the type of cleaning structure, it cannot be modified.
  This machine choose auto scraping piece& push-and-pull stack;

  2> Cleaner: Clean Movement settings are default please do not change them.

12
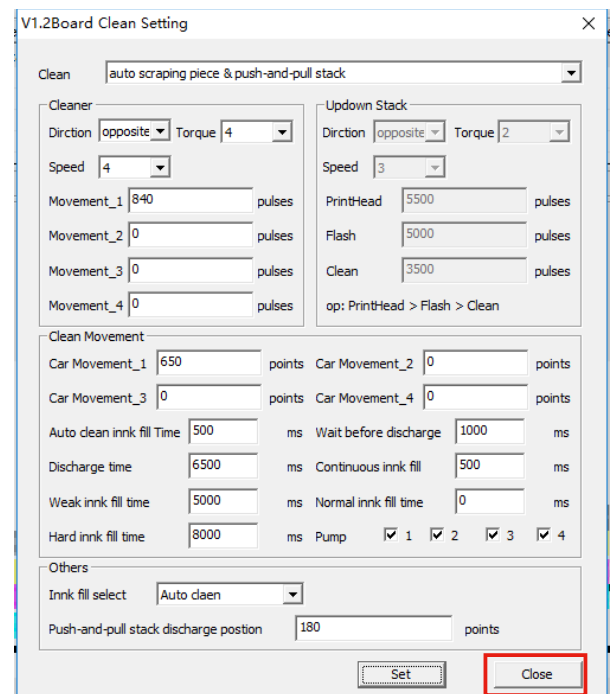
3.INSTALLATION AND OPERATION

3.4 Install and Description the Driver

4 Test:

(1). Scan Motor Test: The cartridge will automatically execute test when test starts. If the machine jumps is strictly and the head will hit the origin, the test will be automatically stopped and the cartridge will automatically return to origin.
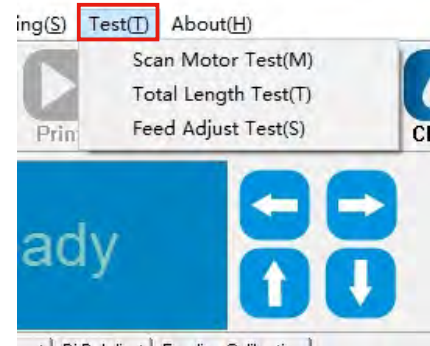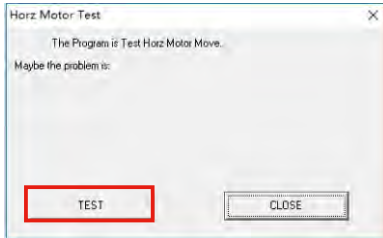
(2). Total Length Test: Used to test the machine length to avoid the head hit and also measure the wheels contrast.

(3). Feed Adjust Test: The right figure is the steps tests configuration page:
Rough Adjustment: Click to do test of vertical motor movement 100mm to check the actual position is correct. If incorrect, change Move Distance and recalculate the wheels contrast.
Fine Adjustment: click Print vert adjust Picture, if 0 position is not aligned, change Vert adjust value and recalculate the wheels contrast.
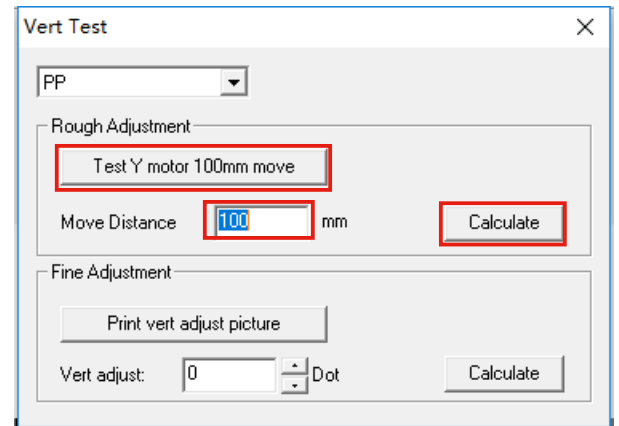
3.4.2 Tools menu description

See previous description about the menu column.

Test: do printing test. If there is break lines, do adjustment;

H. Align; Print horizontal calibration figure. If the line is not straight and aligned, readjust the head horizontal position.
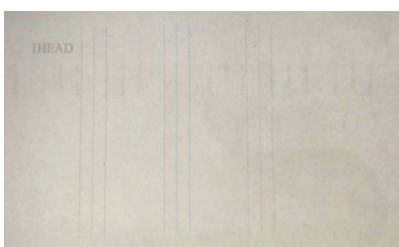
3.INSTALLATION AND OPERATION

3.4 Install and Description the Driver

SamClr, DiffClr: No need for adjustment;
Bi-D:Print bi-direction calibration figure to calibrate the alignment distance.
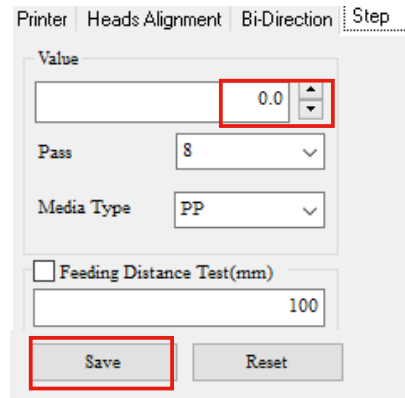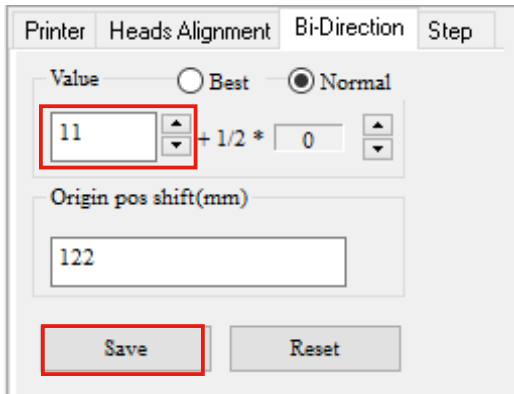
Feed: Print the vertical steps figure to calibrate the vertical steps alignment.

Feed+、Feed-：Execute real-time steps calibration. Do not change this value randomly.

Bi-D+、Bi-D-: Real-time bi-direction calibration.

3.4.3 Set the printing parameters

(1) Horz Begin :The horizon start printing position;
(2) Vert begin :The forward movement distance before printing;
(3)X Speed Y speed: fast by default;
(4)You can choose uni-direcotion and bi-direction option, eclosion model;(The printing speed of Bi mode is one time faster than uni mode, but the quality of uni printing will be better)
(5)Set whether the platform moves forward or backward and movement distance after printing.
(6)Color Bar Setting :Whether add the color bars;
(7)Flash jet settings：off by default;
(8)Color: Used to choose the channel start, close and orderparameters.
    please set white channel as LC*4,if a color channel does not work, close the channel and select a good white channel to replace it.
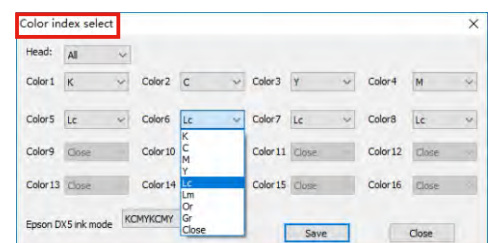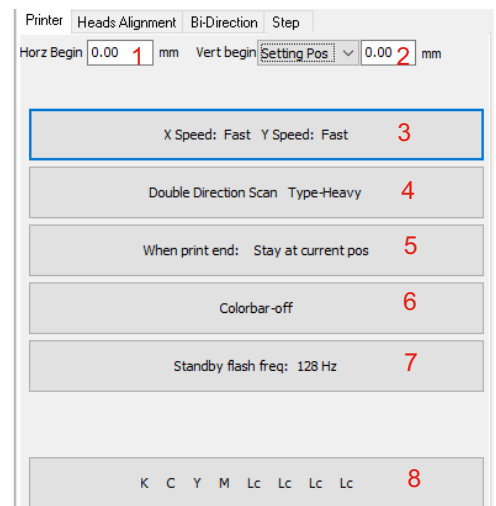
3.INSTALLATION AND OPERATION

3.4 Install and Description the Driver

3.4.4 Software display

(1). Status column: in the below of main window to display the board working time limits, send pulse amount, feedback pulse amount ,flash status, scan speed, inkjet frequency, USB types (USB3.0 for this machine)

Authorize to2037year1mon1day1hour1min0sec	Send Pulse: 0 Feedback Pulse: 0 Flash Stop
Scan speed:0.00 m/s	Jet freq:0.00 KHz	USB 3.0

(2). Job column: including files name, status, printing speed(size),copies,Pass number and remaining time.

File Name	Status	Print(Area)	Copies	Pass	Remai...	Delete after finish
D:\RIP file\1600_100 8pass.prt	Ready			13	00:00:00	Keep the task after printing

Finish File Name	Print Time	Finish Time	Number	Print Total Time
D:\spool\20161122194705\201...	20161122, 19:47:...	20161122,19:47:59	1	0:0:53
D:\spool\20161122195000\201...	20161122, 19:50:...	20161122,19:51:44	2	0:1:44

(3). Preview

Print task display, preview figure, printing task size and printing precision and task preview.

FileName:KCMY-0.prt

File Size:48.02 MB

Job Width:300 mm

Job Height:240 mm

Area:0.1

Color Num:5

FileCode:#2.5.0.10.300

YDPI:1200

DotMode:Variable Dot

3.INSTALLATION AND OPERATION
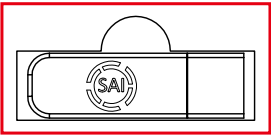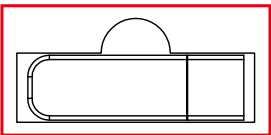
3.5 Install and Operate the Software

1 Get the Software Package and Activate the Software
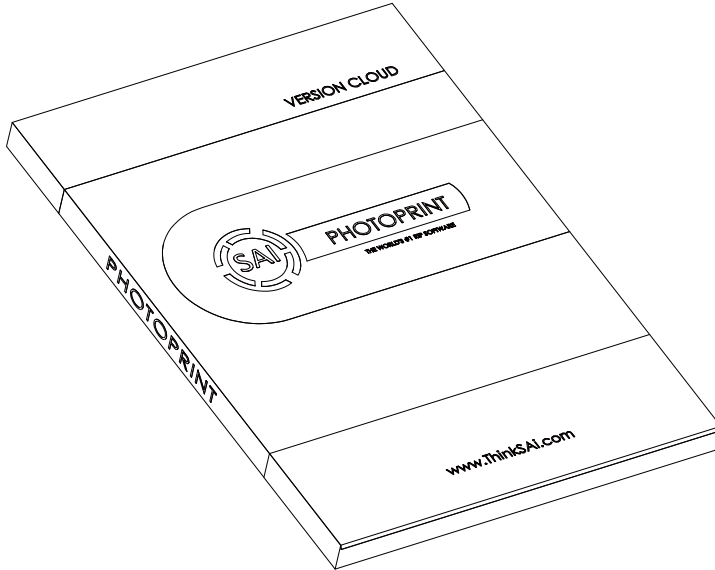
A.Get the software package
from the accessory bag

Software Disk

Code

Your new product order has been processed

Following password have been generated for User

ID#: 123456 Key ID: 234567

Product: PhotoPRINT DX Plus 11 ApexJet Cloud Edition
Language: English,Portuguese,French,Italian,German,
Spanish,Simplified Chinese,Polish,HebrewTraditional,
Chinese,Japanese,Korean,Dutch,Danish,Finnish,Russian

Password: JS154E54R1WE5R4W55ER

Instructions:

Activating Your Product

1, Go to www.saicloud.com in your web browser
2, Copy the Activation Code
3, Paste the code in the Activation Code field in the
SAi Cloud web site and click Activate.
4, In the login section，choose whether you are new or
returning to the SAi Cloud and follow the instructions.

Note: For more information,please check installer DVD

www.ThinkSAi.com

Dongle

Steps

B. Before installation, follow these steps to
activate the license of the software.

*Do not plug the dongle in before finishing installing the Photoprint software.
*In the precess of activation, PC need to connect to the Internet.

3.INSTALLATION AND OPERATION

3.5 Install and Operate the Software

❷ Installation

After activate the software, please install the software. Insert installation disk. Open the disk.
Then install software step by step by following the wizard.

Installation instructions

1).Install photoprint software, open choose language
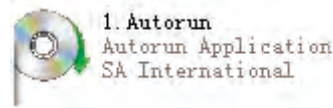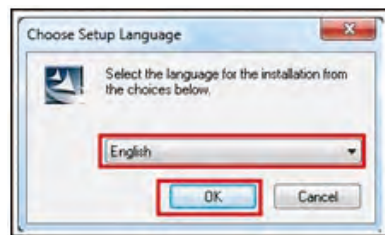
Click OK to choose language

2).Then, choose next:
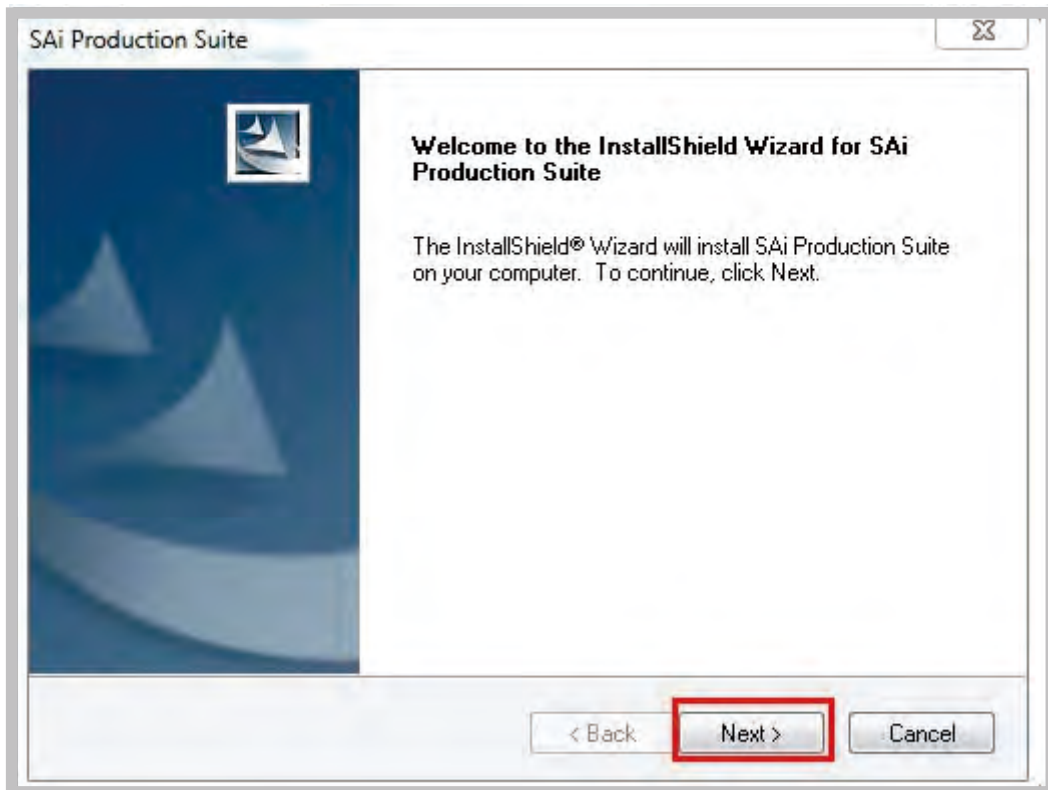
3.INSTALLATION AND OPERATION

3.5 Install and Operate the Software

3).Choose "I accept the terms of the license agreement" and then choose "Next"
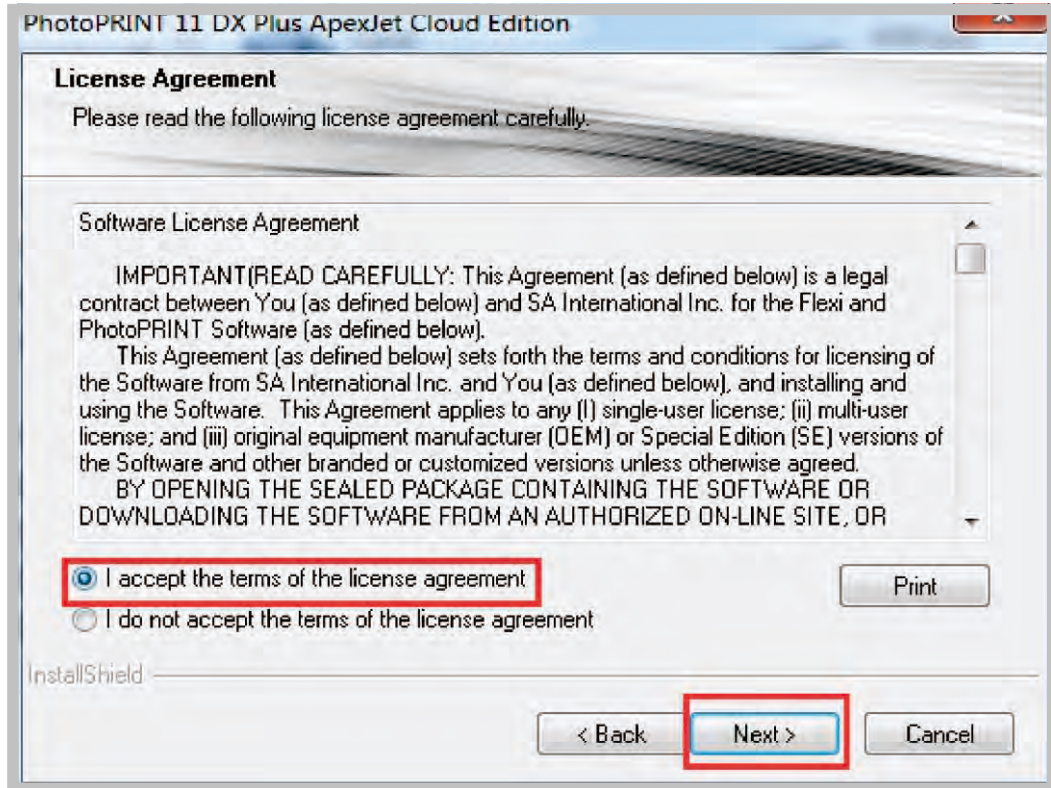
4).Find "Choose Destination Location" dialog box, and choose Destination Folder, then click "Next"

18
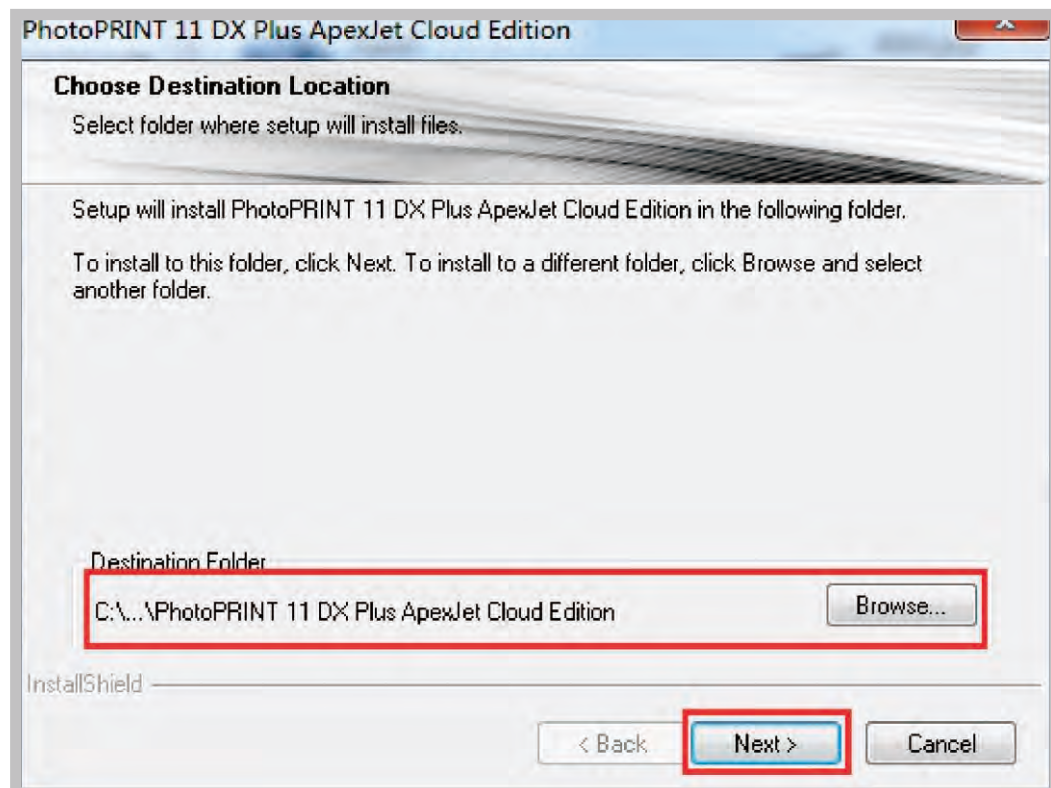
3.INSTALLATION AND OPERATION

3.5 Install and Operate the Software

5). All following options are required. Other options should be chosen also under different requirement. And then click "Next"
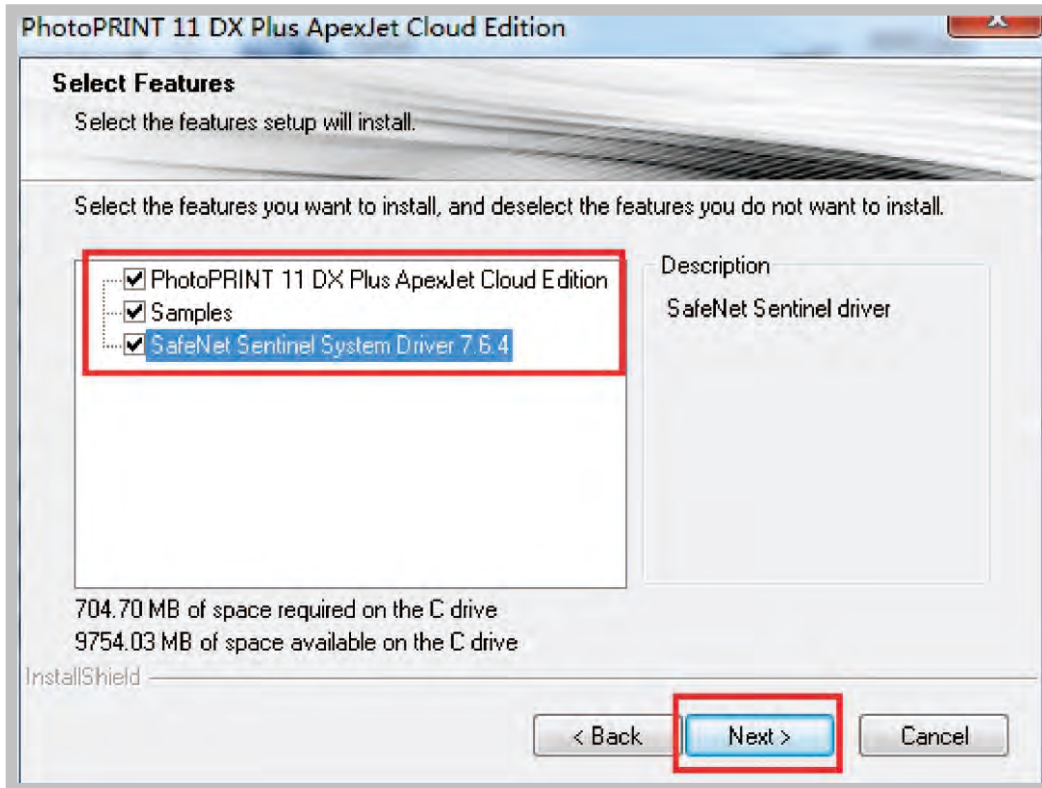
6).Type a new folder name,or select one from the existing folders list.For example,you can type any words like"Microtec",or select anyone in the list.Then press "Next".
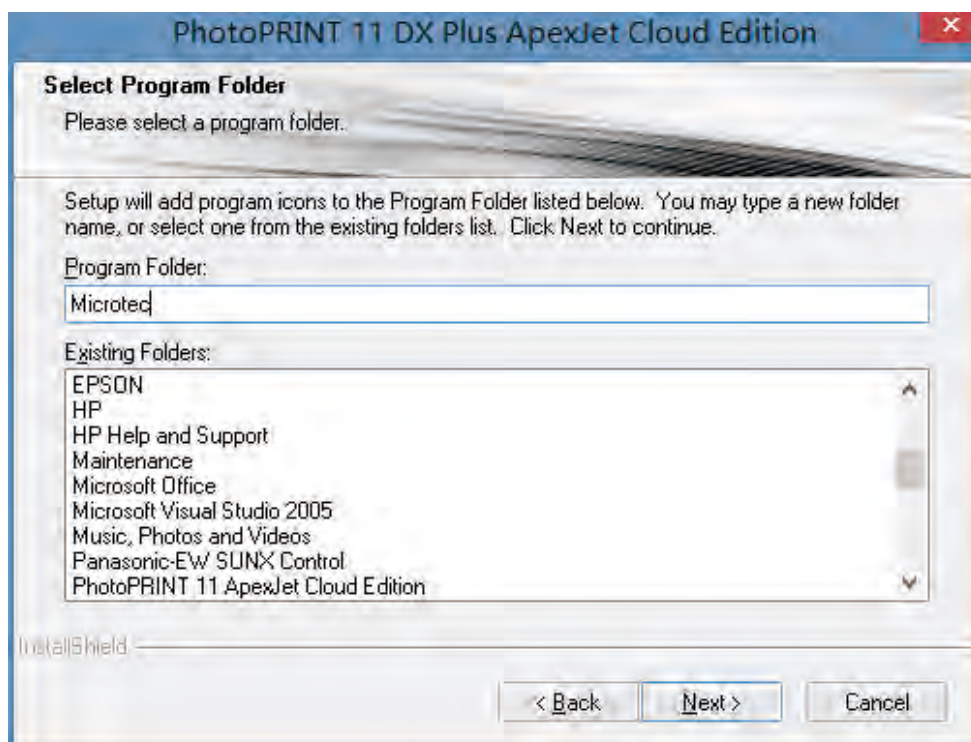
3.INSTALLATION AND OPERATION

3.5 Install and Operate the Software

7).When the program installation is finished, following progress is shown as below
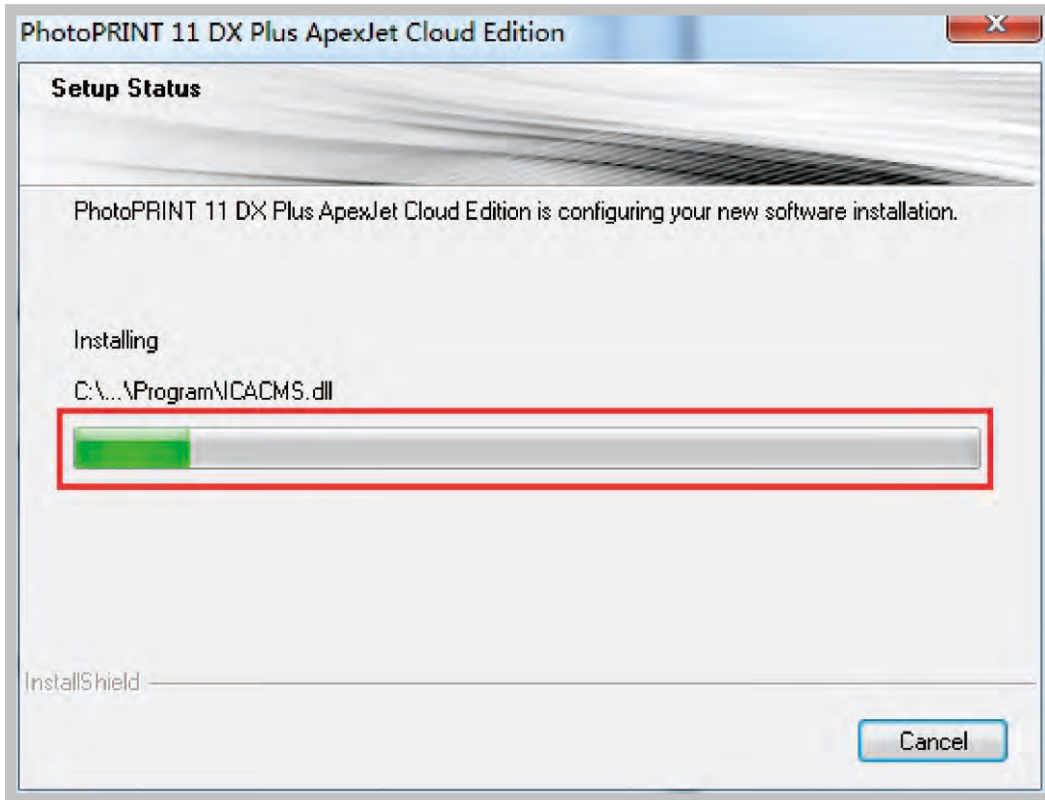
8).In the installation process, confirm that the dongle is not connected and click OK.
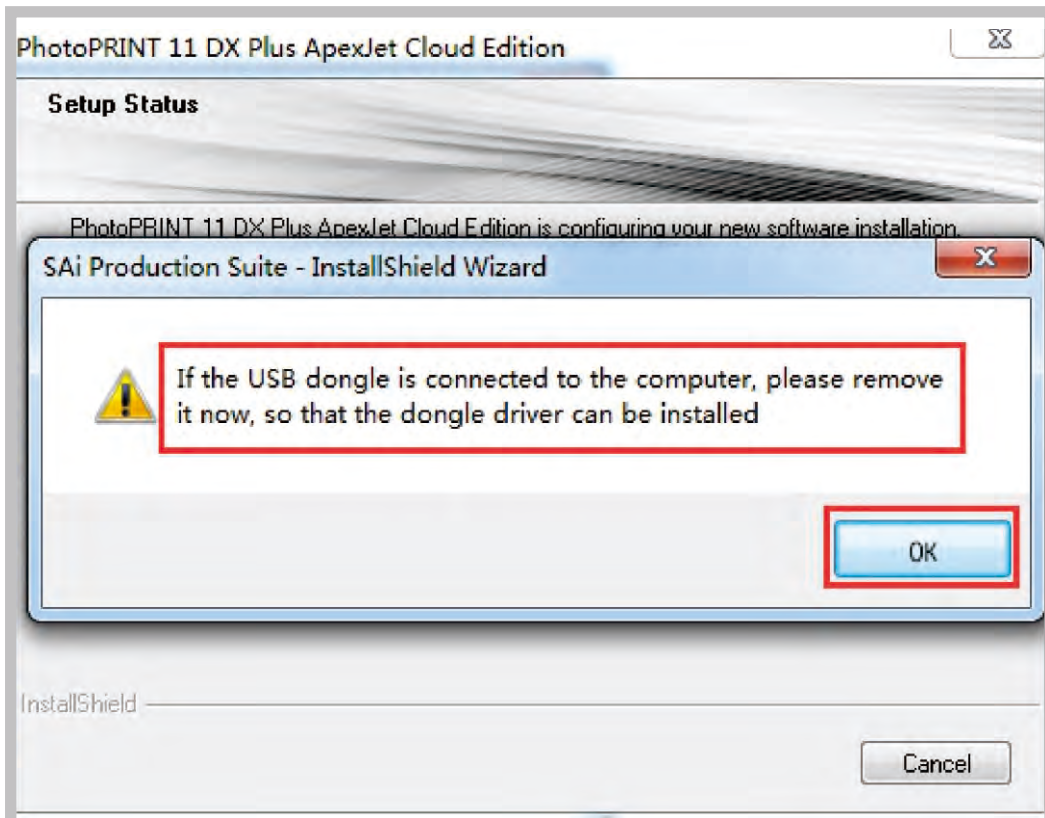
3.INSTALLATION AND OPERATION

3.5 Install and Operate the Software

9). Click "Finish" as shown in the next dialog box:
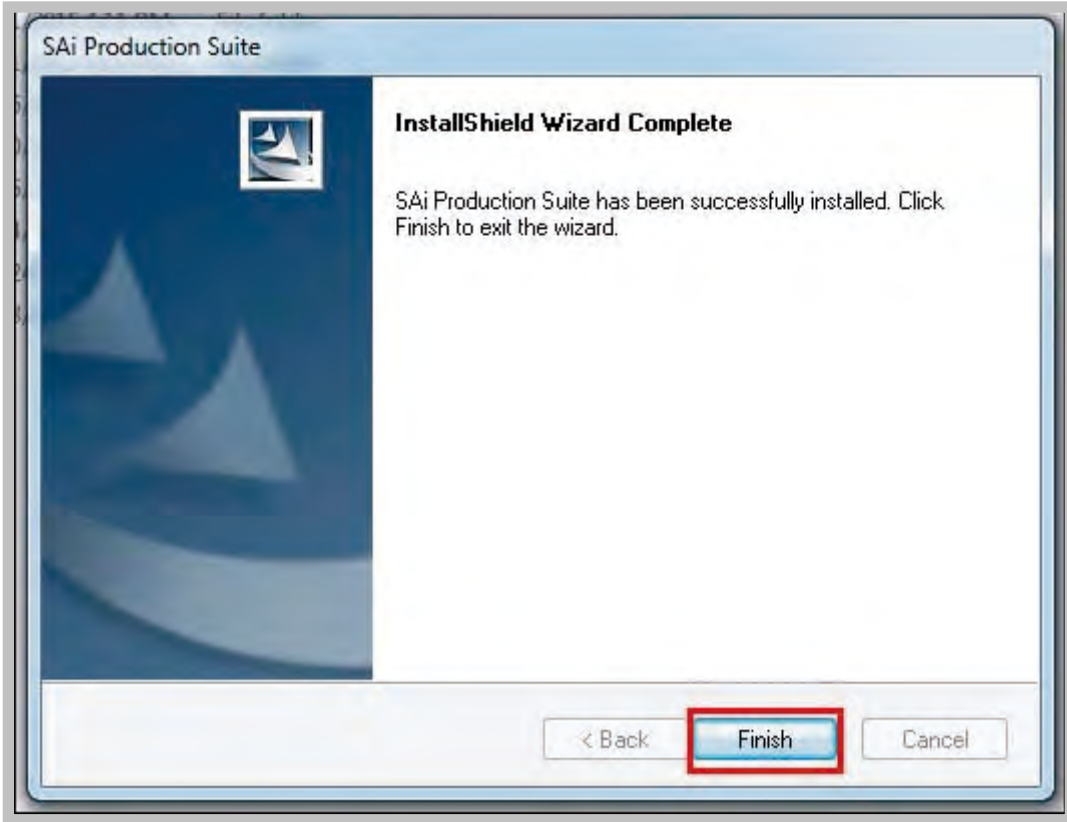
10). After Finish, it will pop up as the picture below shows.
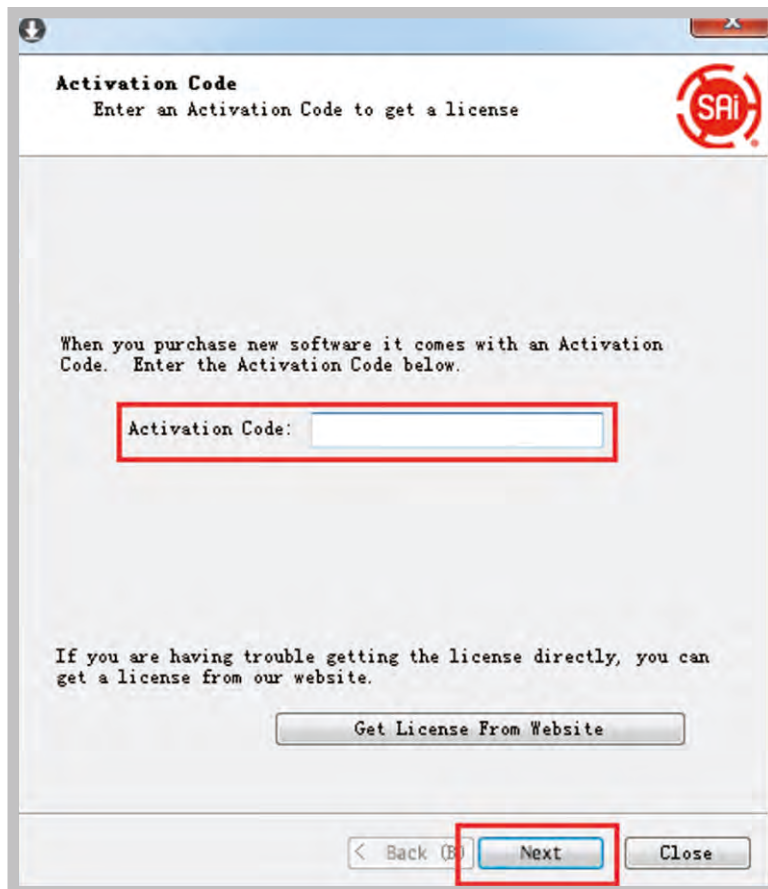
3.INSTALLATION AND OPERATION

3.5 Install and Operate the Software

11). Type in the password, then click Next.

Activation Code
is the password
on the package.

**(Please follow
the web page
to register)**
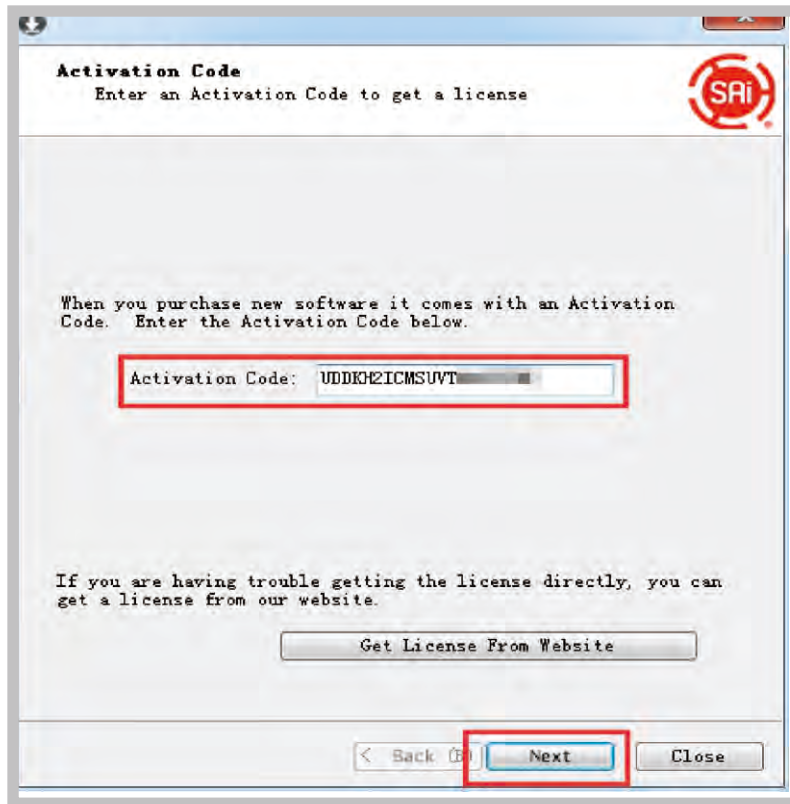
Please follow the file *Installation_Activation Guide* to activate the code. You can find the file in the software Disk.

22
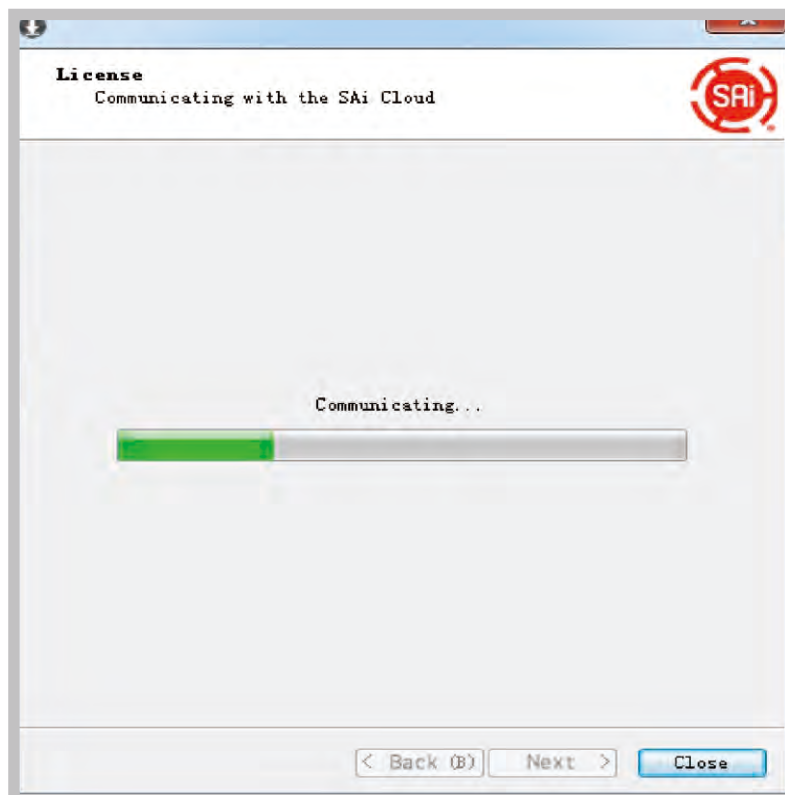
3.INSTALLATION AND OPERATION

3.5 Install and Operate the Software

12).When licensing successful is shown, click next
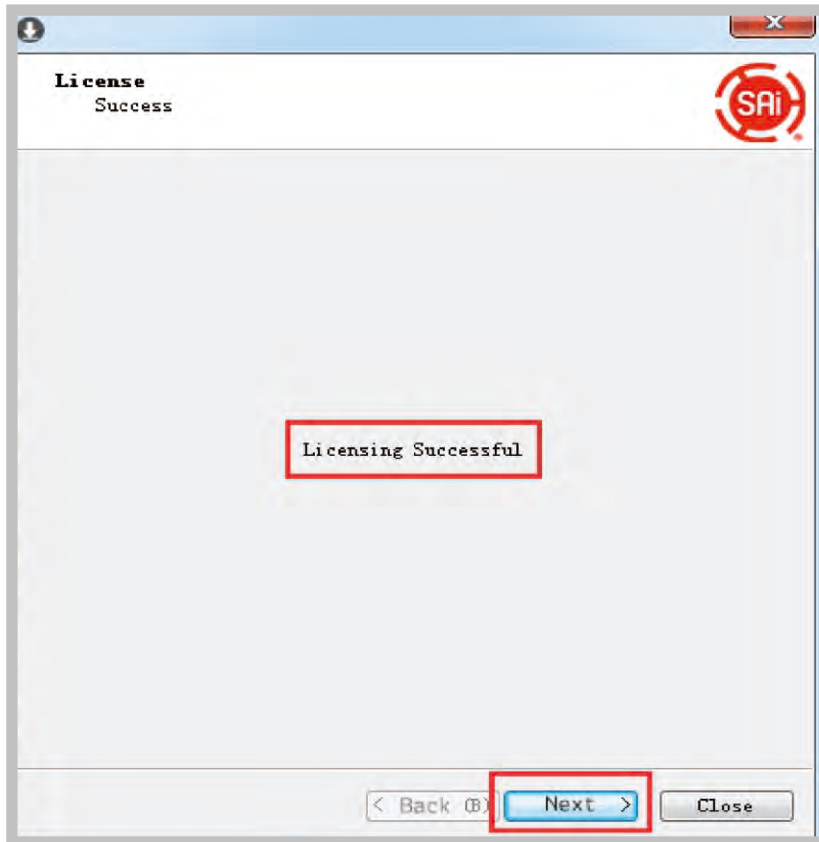
13).Software is activated, click finish
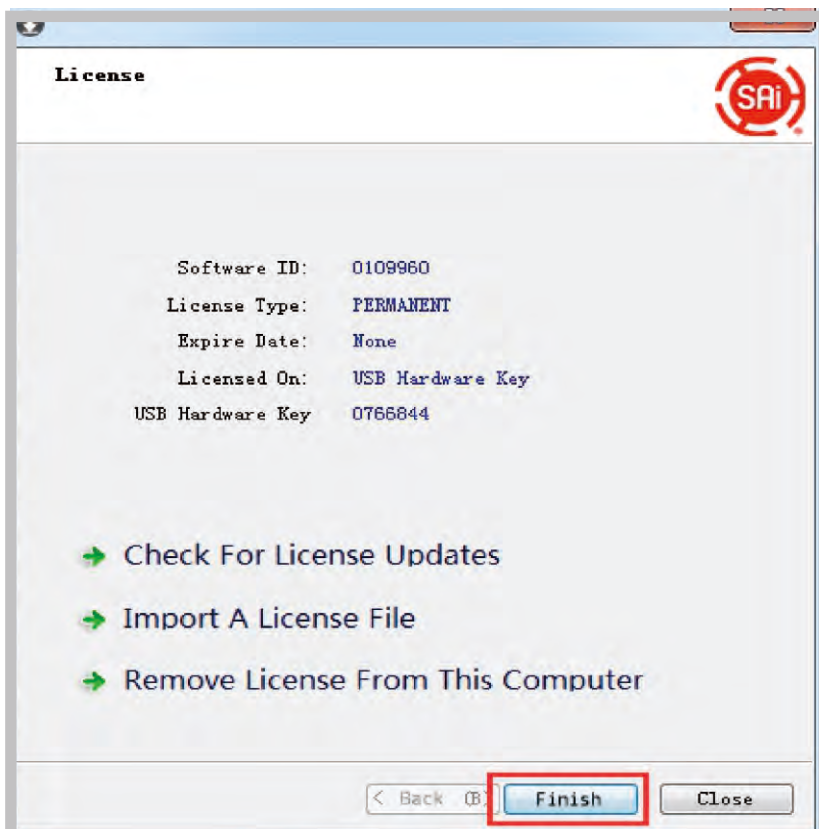
3.INSTALLATION AND OPERATION

3.5 Install and Operate the Software

❸ Printer and port setting

After installation, a shortcut will be generated onto desktop.
Double-click photoprint to do some default settings.
During usage, keep dongle plugged into computer.
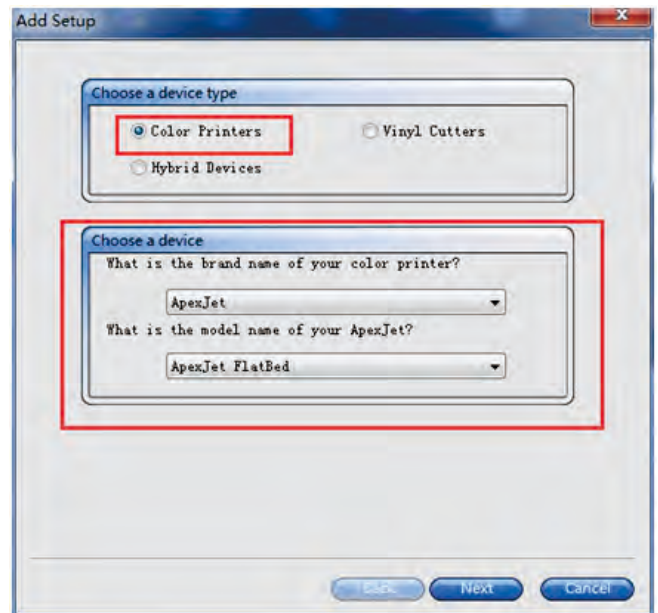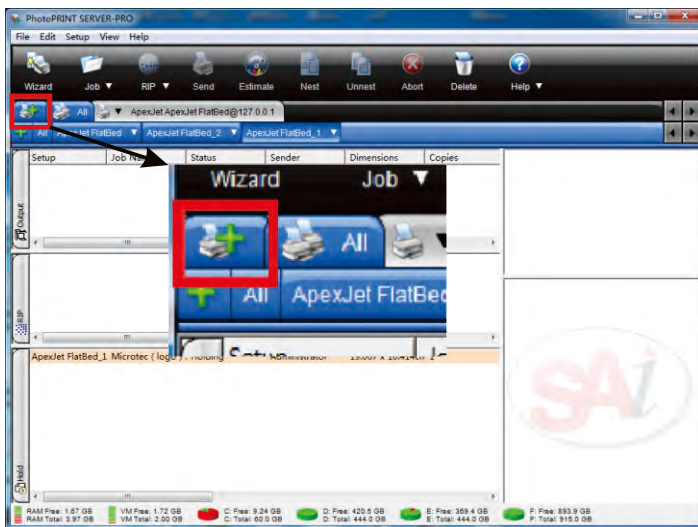
A. If the banner does not pop up, please click the icon
   as the above picture, then follow all fellow steps .

B. Choose the same option as above pic.

C.Select FILE

24
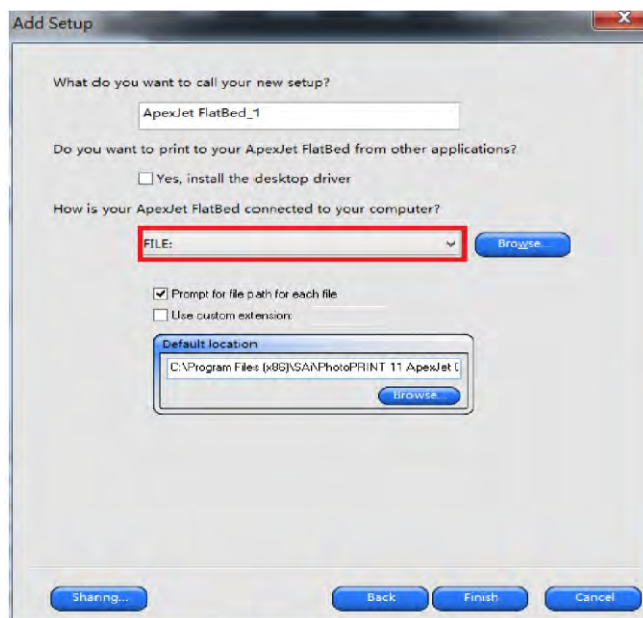
3.INSTALLATION AND OPERATION

3.5 Install and Operate the Software

Install ICC profiles

1.In the card U disk drive that contains the software and instructions to copy the folder on your
   computer where to find the ICCfolder shown:
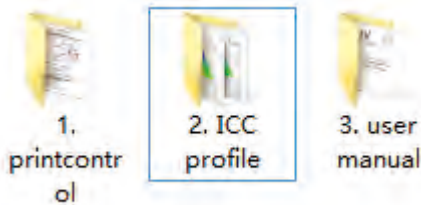
2.Double-click to open the ICC folder shown:
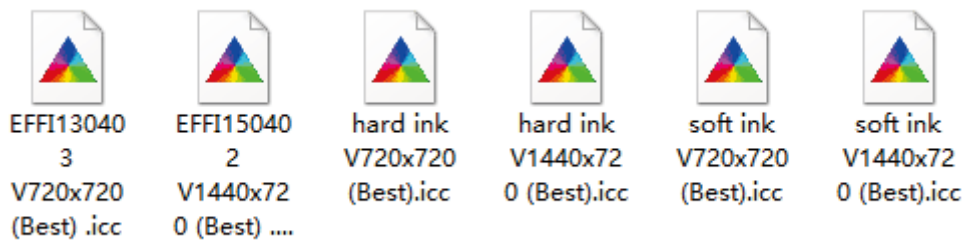
3.Finally copy the necessary ICC profiles into the folder"Apexjet".

3.INSTALLATION AND OPERATION

3.5 Install and Operate the Software

❹ Initial and Default Setting

Click Edit,then Preferences
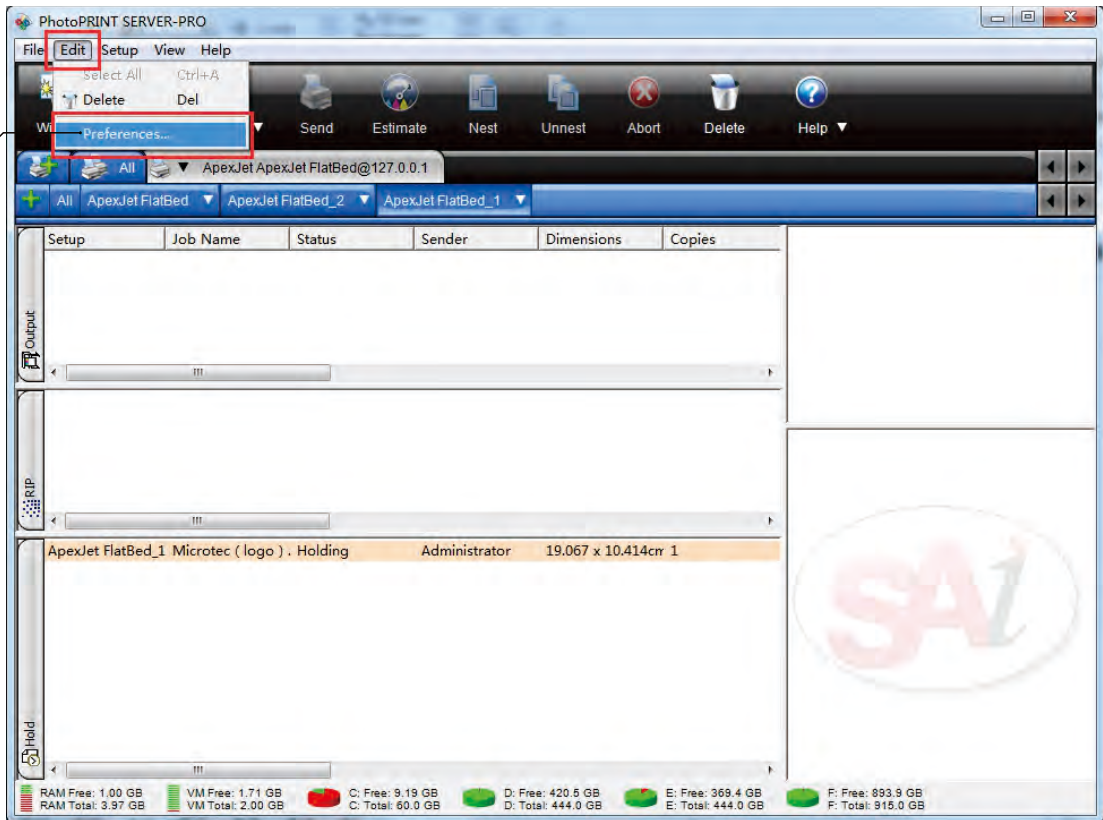
Change unit that user preffers in this option
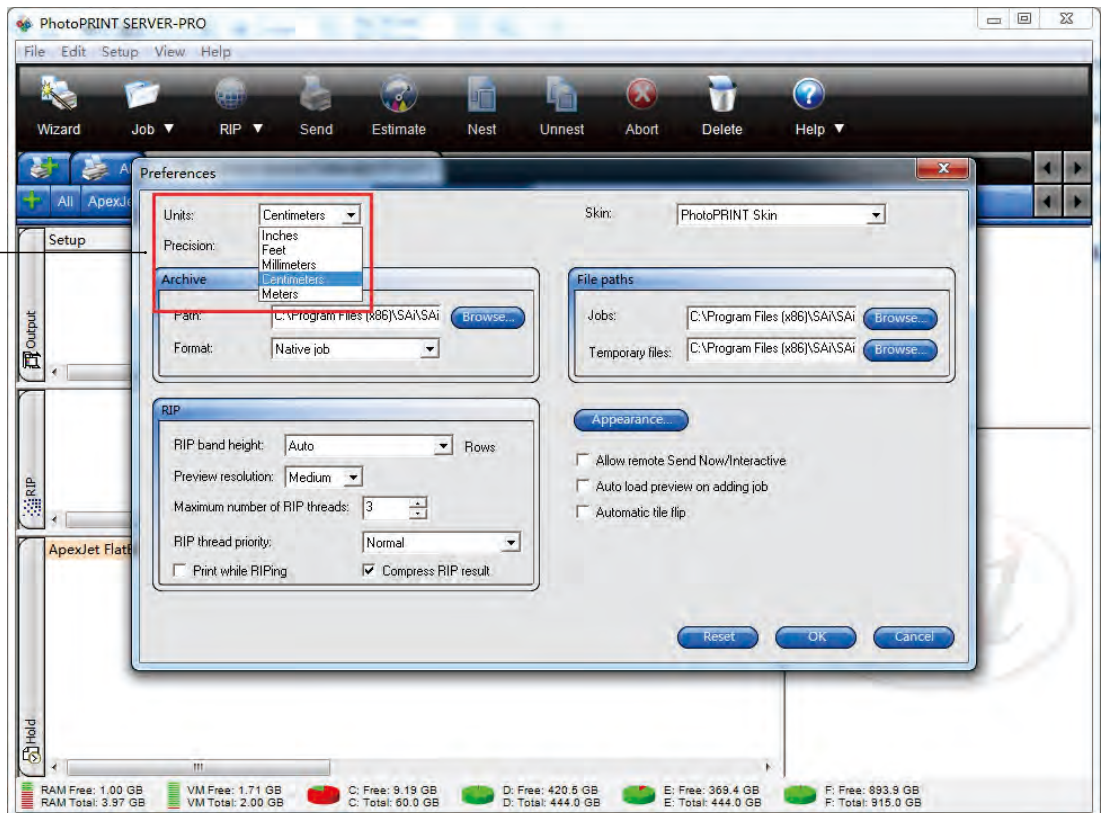
3.INSTALLATION AND OPERATION

3.5 Install and Operate the Software

Click to enter
default settings
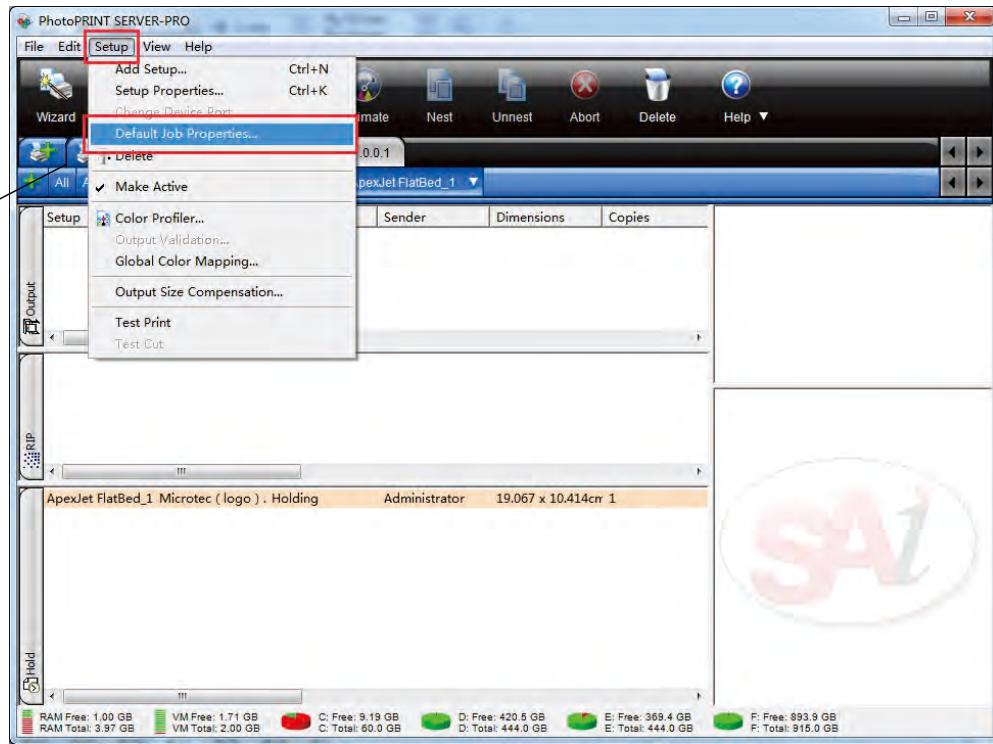
Size of platform

For MT-FP-6090

If user prefers
inch,type in
23.622" 35.433"

If user prefers cm,
type in 60 cm 90 cm

Position
Please keep the position
be (0,0) in photoprint,we
set the start position in
the Print-Mon.
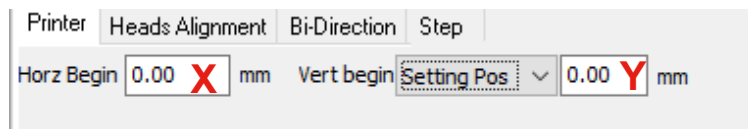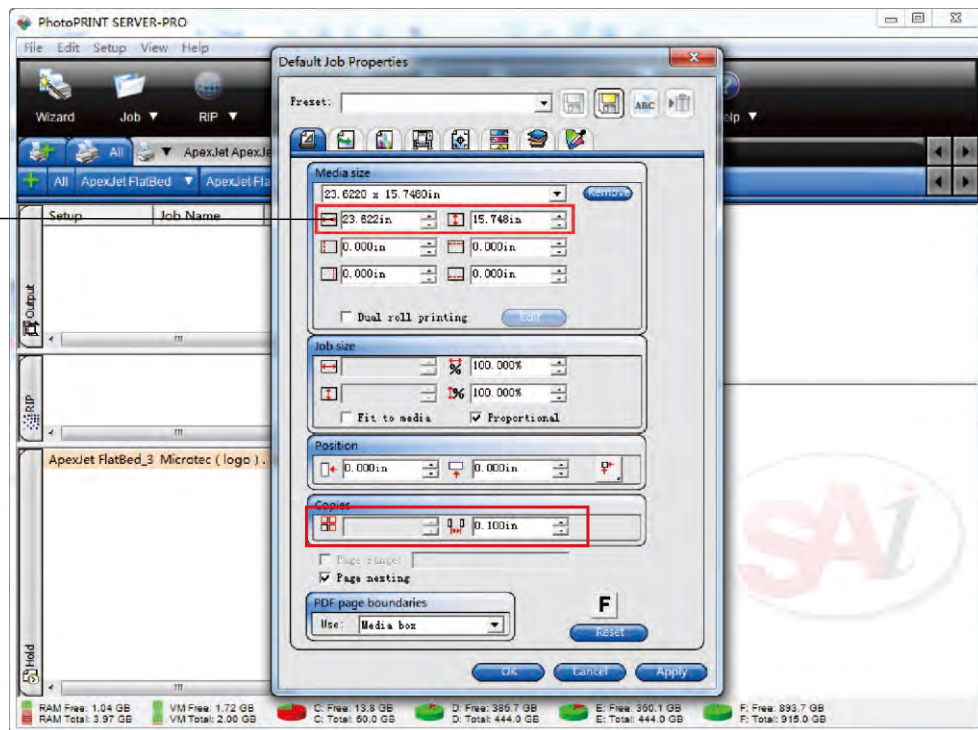
3.INSTALLATION AND OPERATION

3.5 Install and Operate the Software

Normally choose hold. After printing, job settings will stay in job list.

Repeated printing If necessary, select this function.
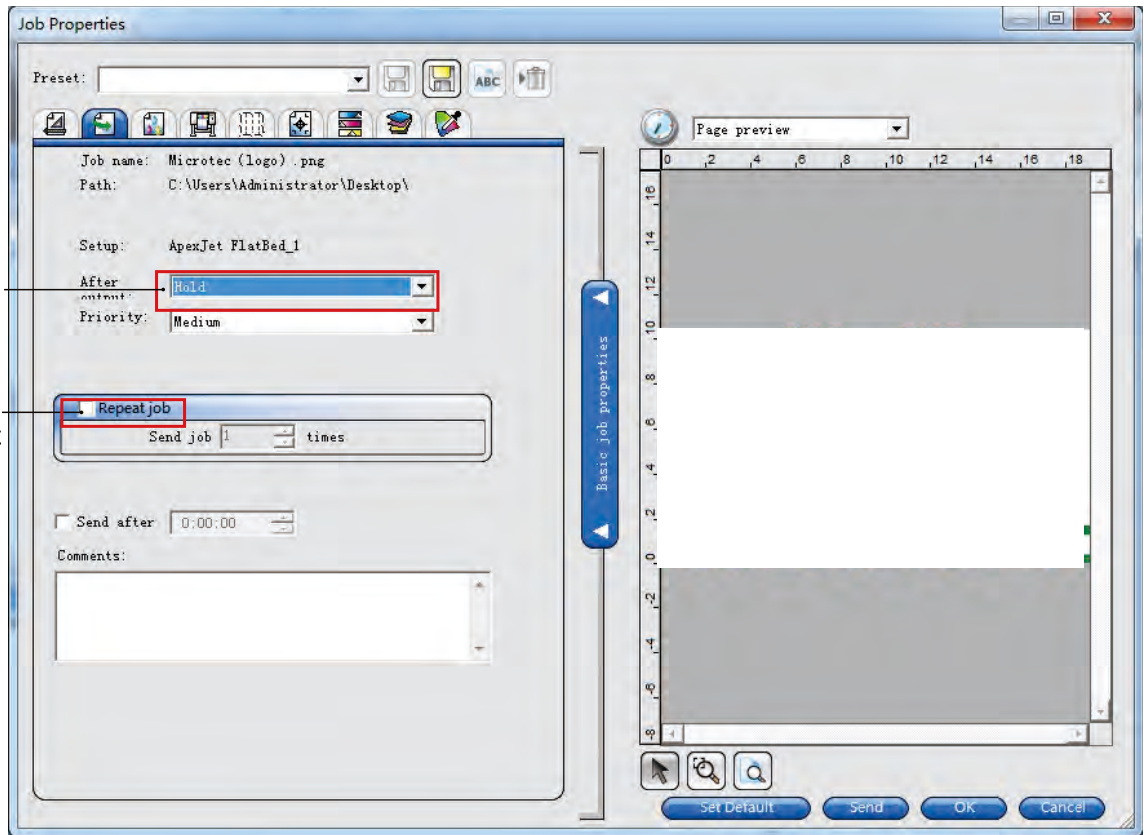
Use color correction

Select resolution. 720x720 is recommended

Choke: Set inner shrink to allow white to shrink the inner wall of the picture.
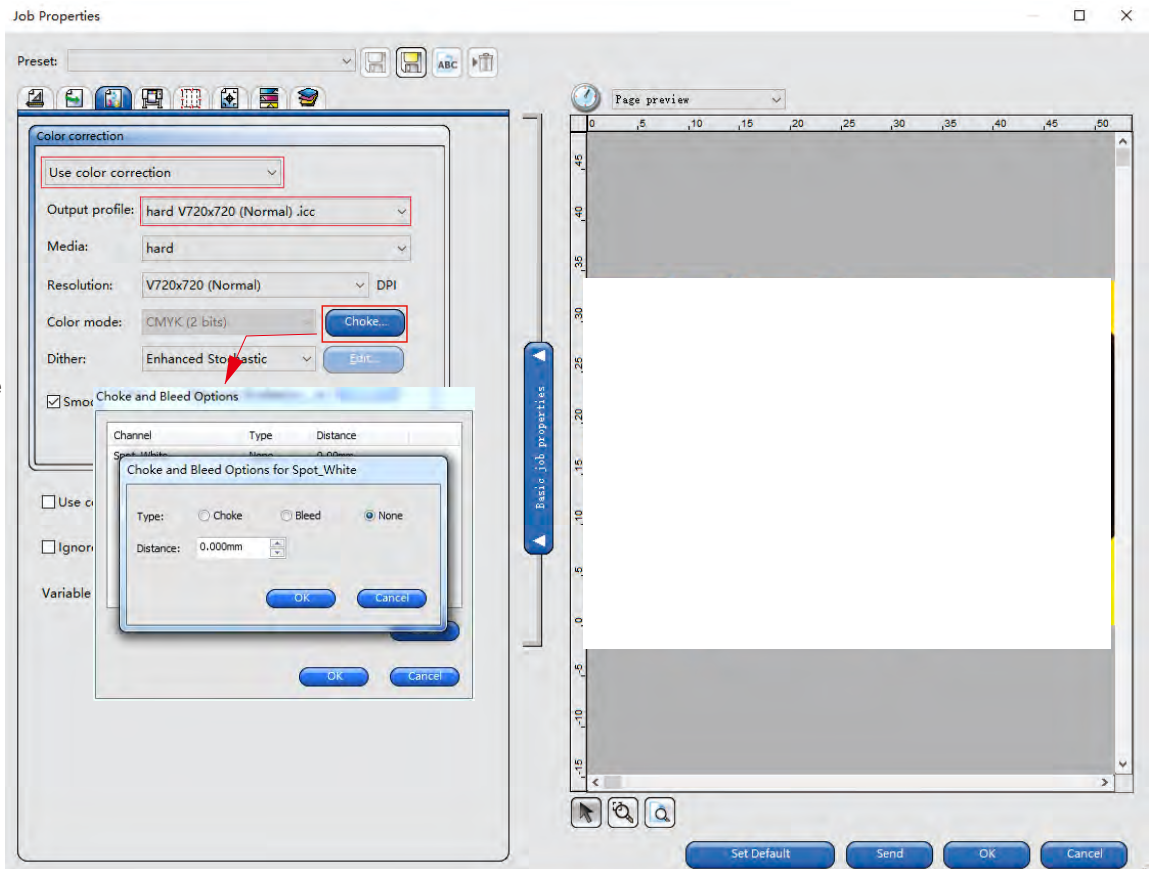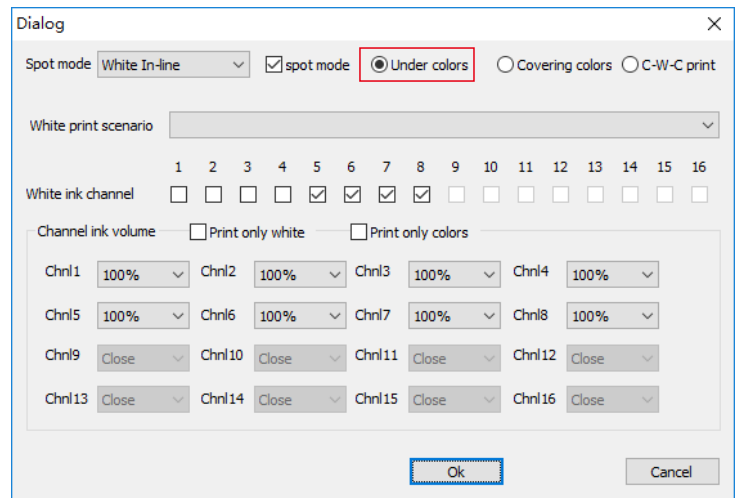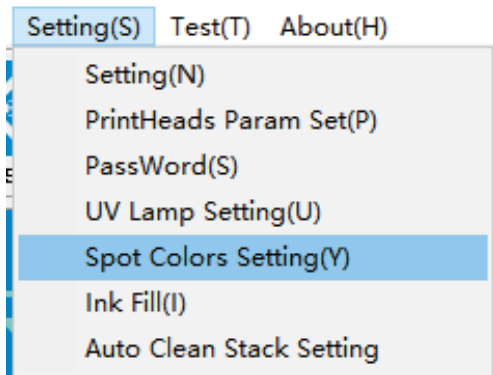
3.INSTALLATION AND OPERATION

3.5 Install and Operate the Software

We select the white ink options in the Photoprint, but control the white channels in Print-Mon. So before the printing, We need confirm the options.
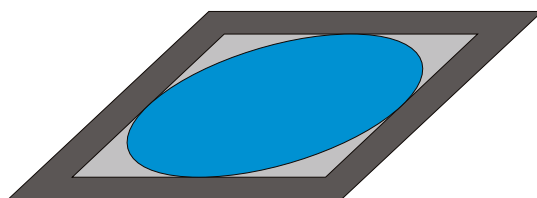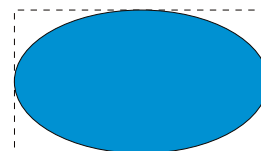
A: Substrate and Underneath
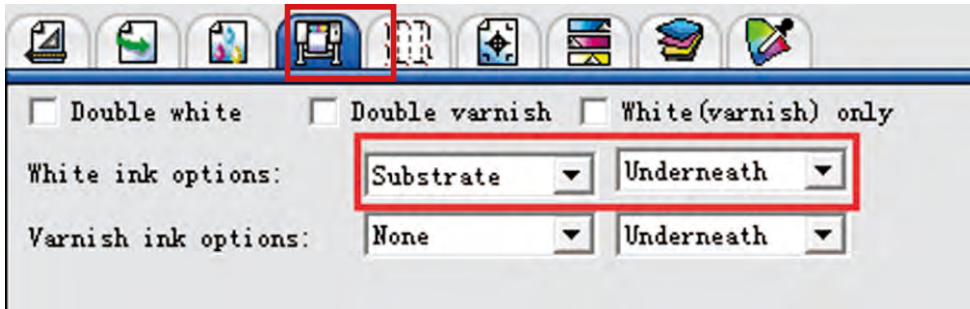
For items that users want to cover the surface by the printing with full job size white base.

Choose Substrate and Underneath as the picture above shows.
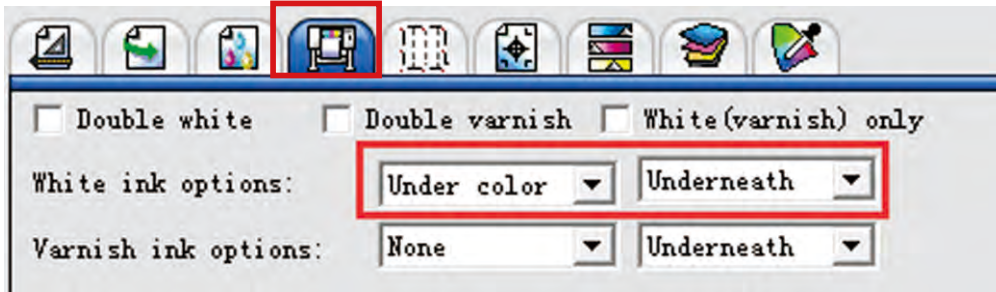Then in the Print-Mon,please select Under color in the Spot Color Select.

color

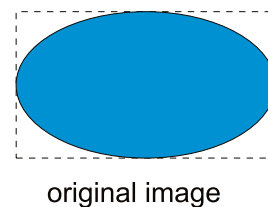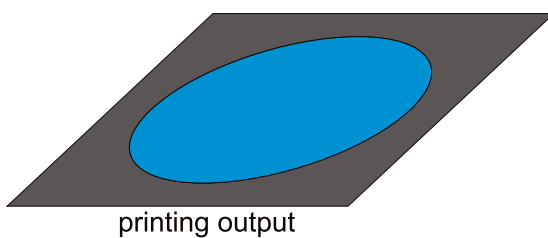white

item

rendering

printing output
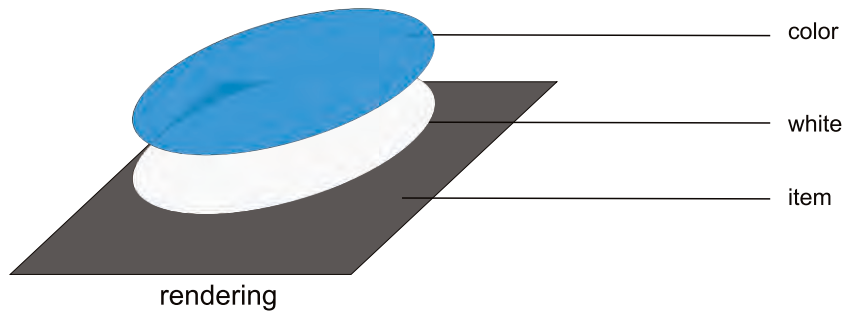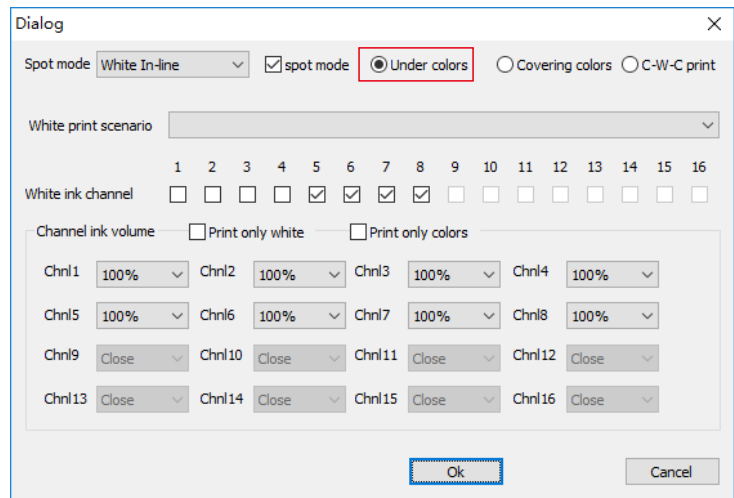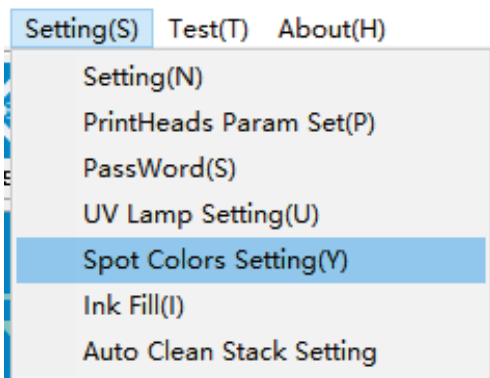
original image

29
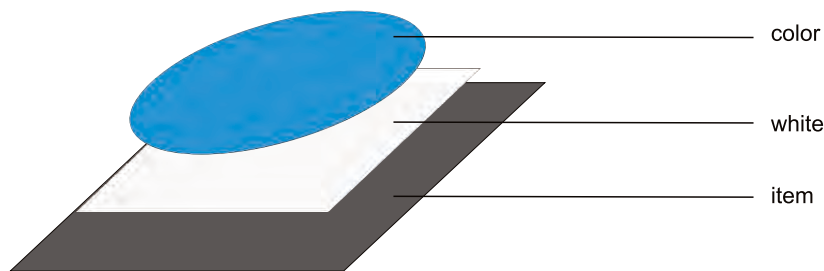
3.INSTALLATION AND OPERATION

3.5 Install and Operate the Software

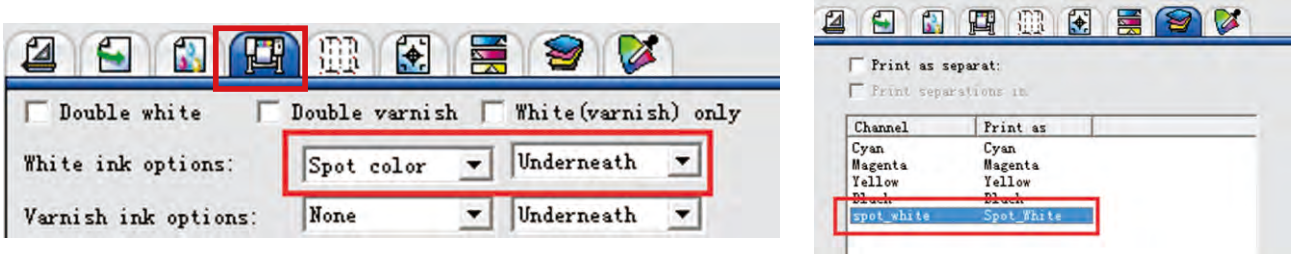### B: Under color and Underneath

For items that users want to print white base only under CMYK area.

Choose Under color and Underneath as the picture above shows.
Then in the Print-Mon,please select Under color in the Spot Color Select.

color

white

item

rendering

printing output

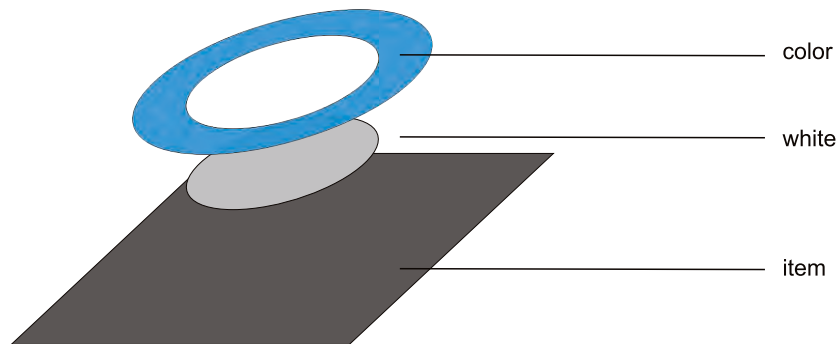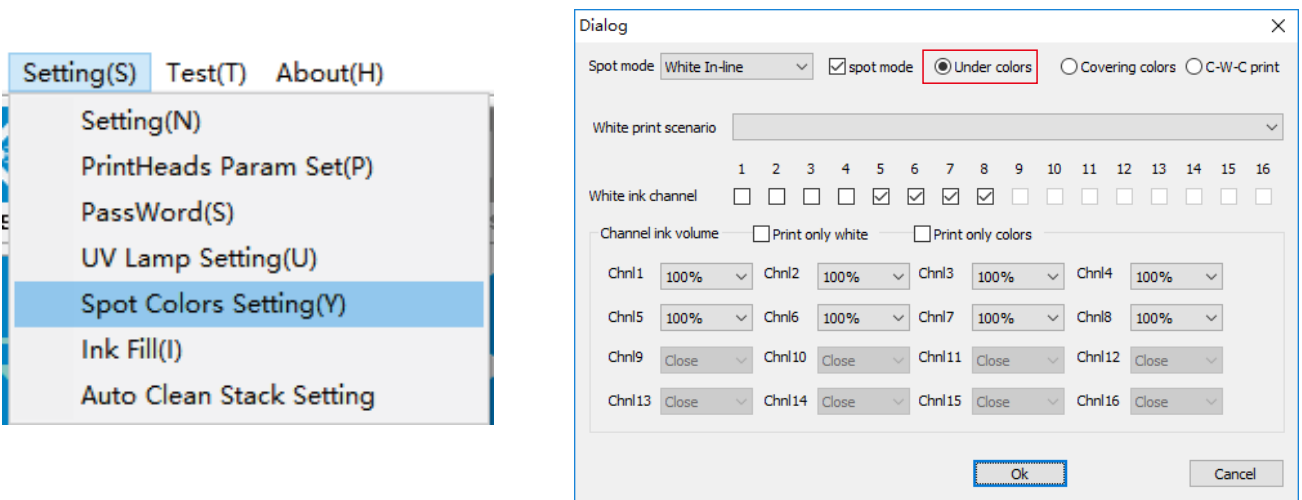original image

3.INSTALLATION AND OPERATION

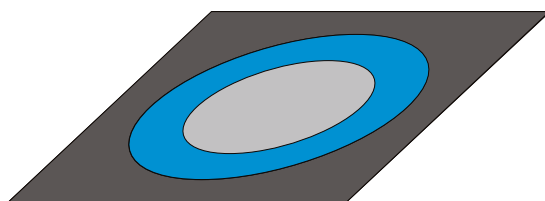## 3.5 Install and Operate the Software

C: Spot color and Underneath

For items that users want to print white only in specific area.
(Theat specific area should be create as spot_white channel previously in Photoshop.)
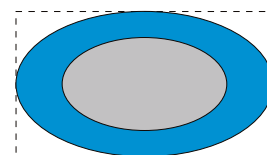Choose Spot color and Underneath as the picture above shows.
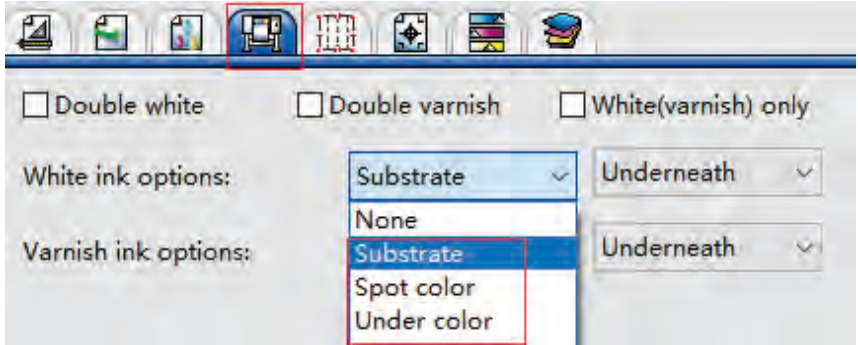Then in the Print-Mon,please select Under color in the Spot Color Select.

color

white

item

rendering

printing output

original image

3.INSTALLATION AND OPERATION

3.5 Install and Operate the Software

D: None

For items that users want to print white only .(For example items with white base)
Please don't choose None in Photoprint, Choose Substrate or Under color in Photoprint,
then select none in Print-Mon.

color

item

rendering

printing output

original image

3.5 Install and Operate the Software

E: White only

For items that users want to print white only

Choose Substrate, Spot color or Under color in Photoprint(If you choose Spot color, please also select spot color in Print-Mon),Then select Under color and white only in Print-Mon.

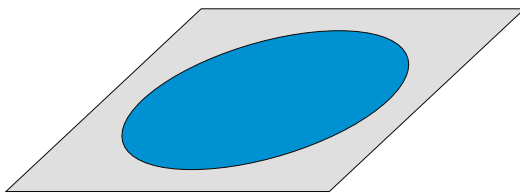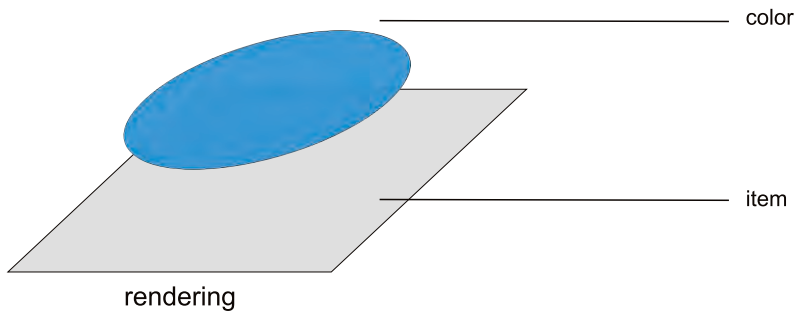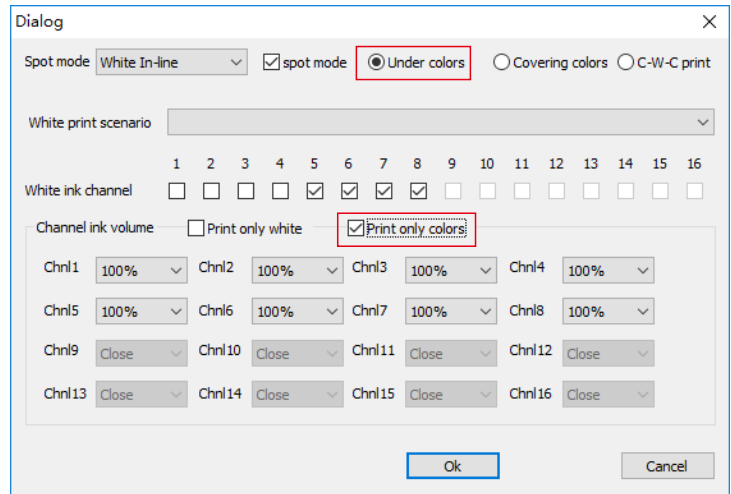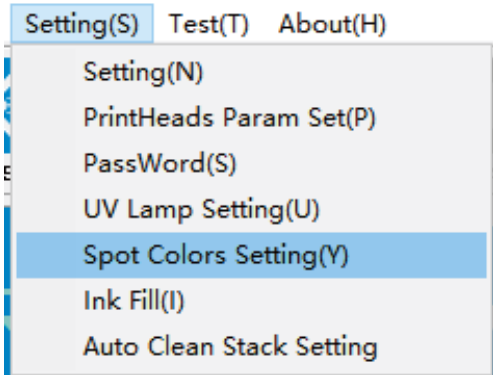

white

item

rendering

printing output

original image

33
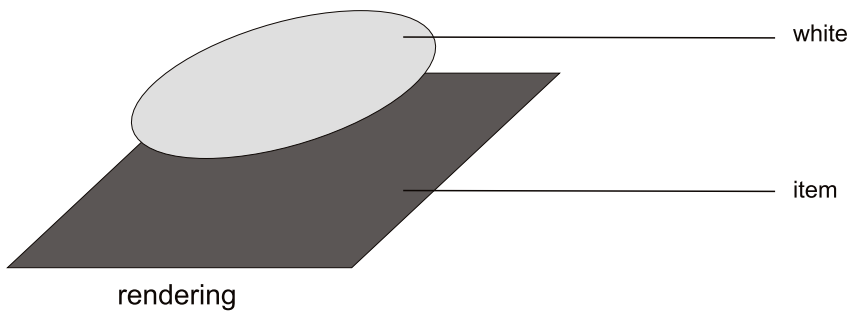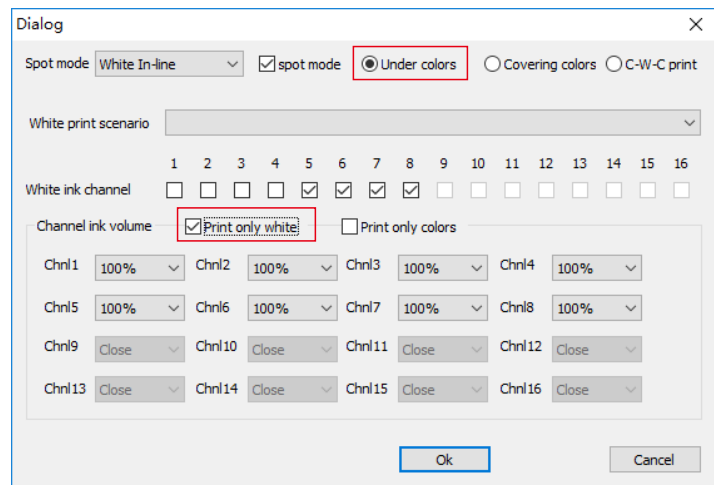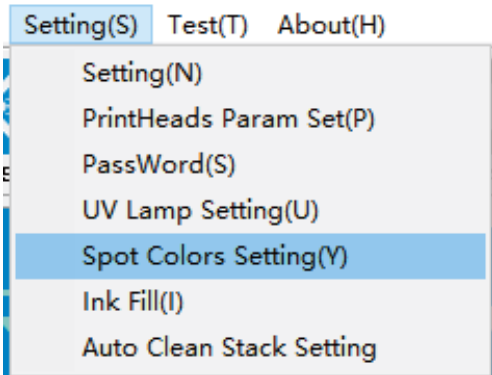
3.INSTALLATION AND OPERATION
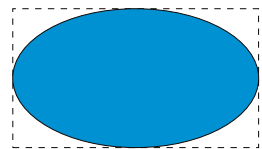
3.5 Install and Operate the Software

F: Mirror mode

For items like glass, crystal and transparent acrylic, if user wants to print on the backside and see from the front side, we need use mirror mode. For better quality, we need to print it two times:1>Only color:2>Only white

1.If you send the job by Photoprint.
   you can click here to use mirror Mode.
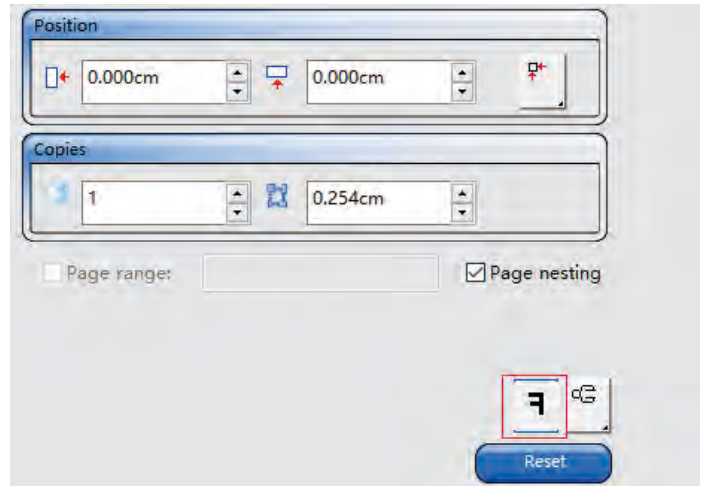
If you send the job by Print-Mon.
you can choose Mirror before the printing.
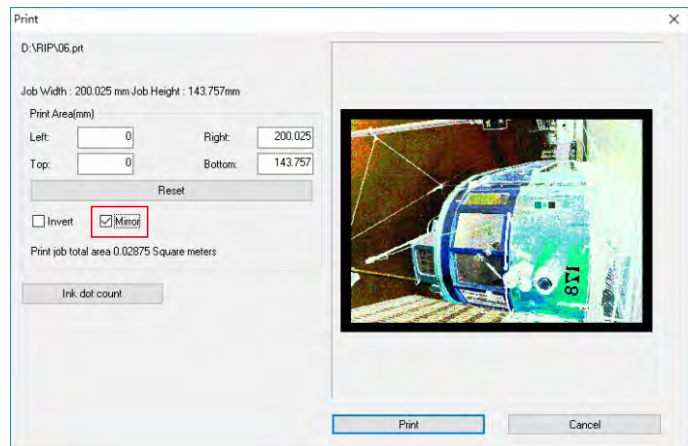
2.Select Under colors in Print-Mon.
then send the job, it will print mirror image.
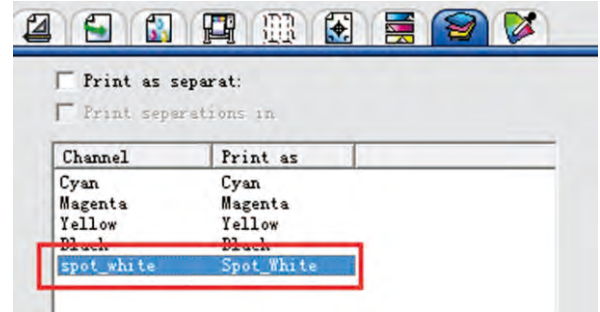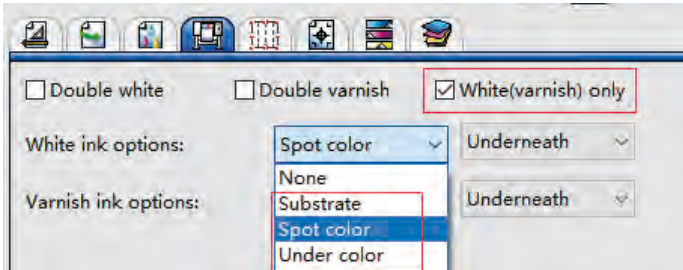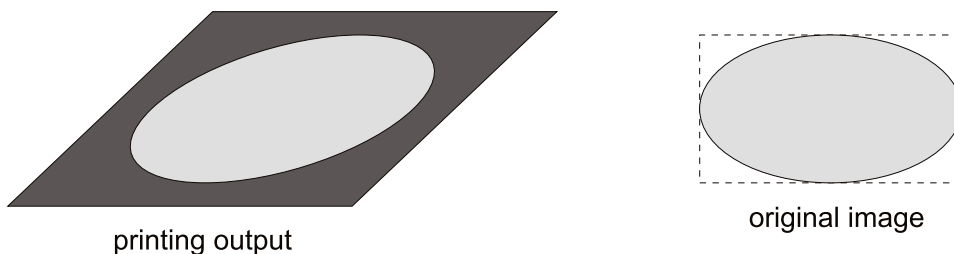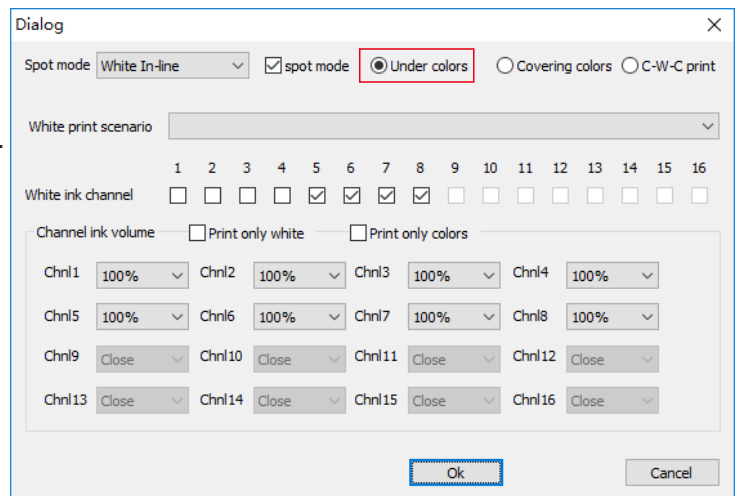
3.INSTALLATION AND OPERATION

3.5 Install and Operate the Software

white

color

item(back side)

rendering

printing output(back side)

original image

printing output front side
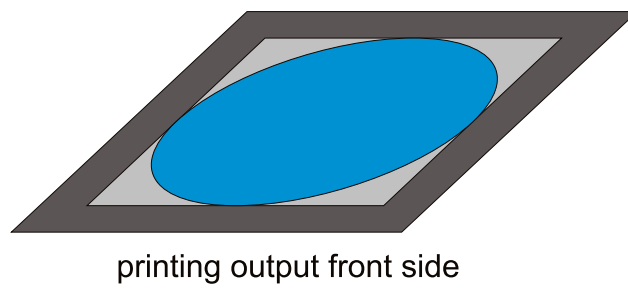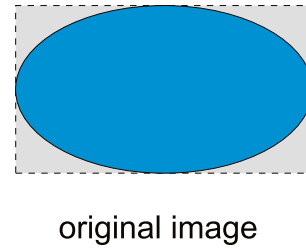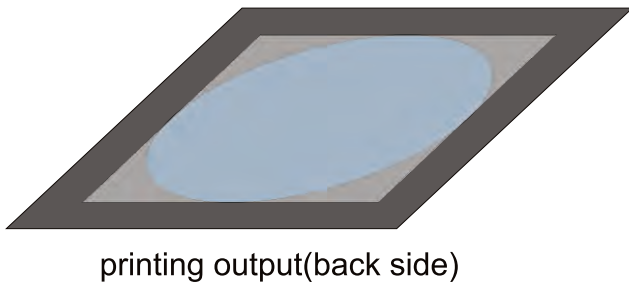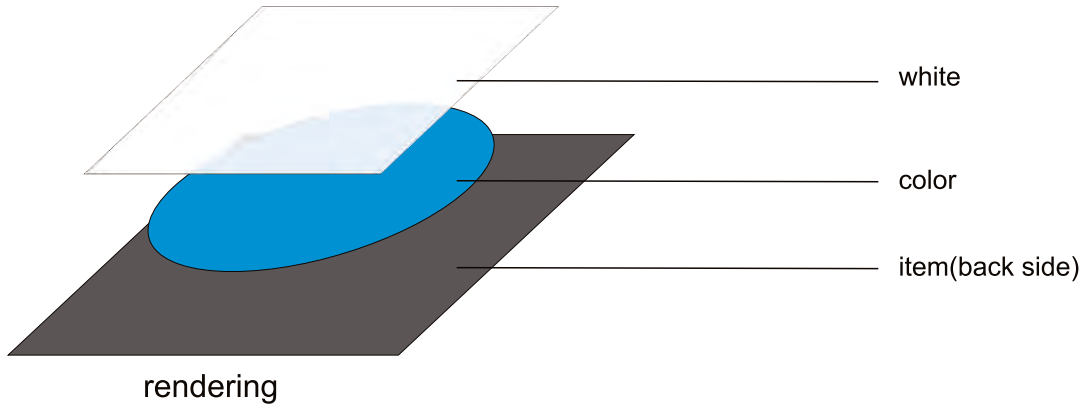
3.INSTALLATION AND OPERATION

3.5 Install and Operate the Software

5 Instruction for Setting

For example, image path is in *E:\usb-disk,* you can open the folder and directly drag the image to this area.

Open Photoprint, pop up this page drag an image into this area, double click the job to proceed further setting.
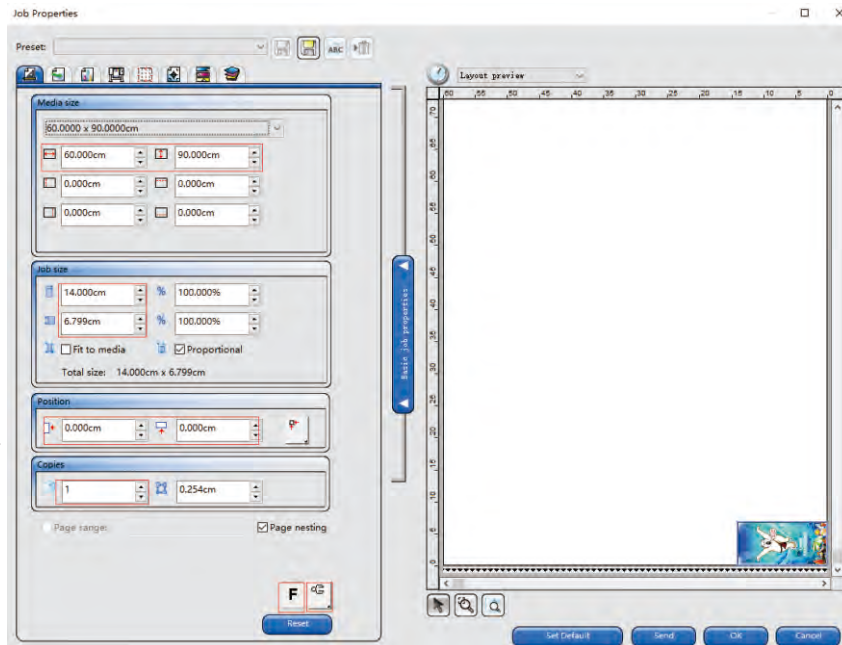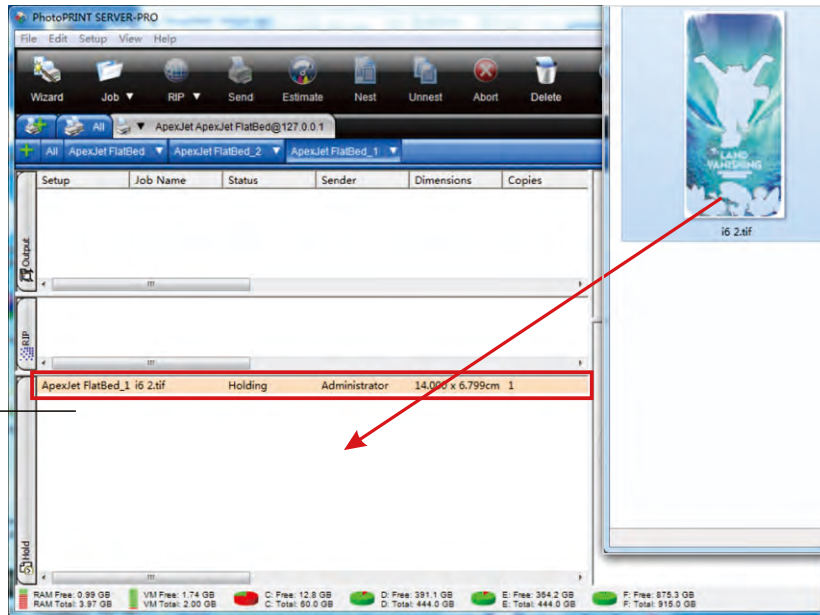
Platform size setting

Image size setting

The starting position setting :it should be (0,0).

Copy image number and interval setting

Mirror setting   Image rotary

Set the start position in Print-Mon
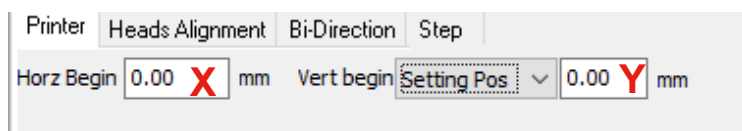
3.INSTALLATION AND OPERATION

3.5 Install and Operate the Software

Select hold to save image and settings; Select delete to delete image automatically.
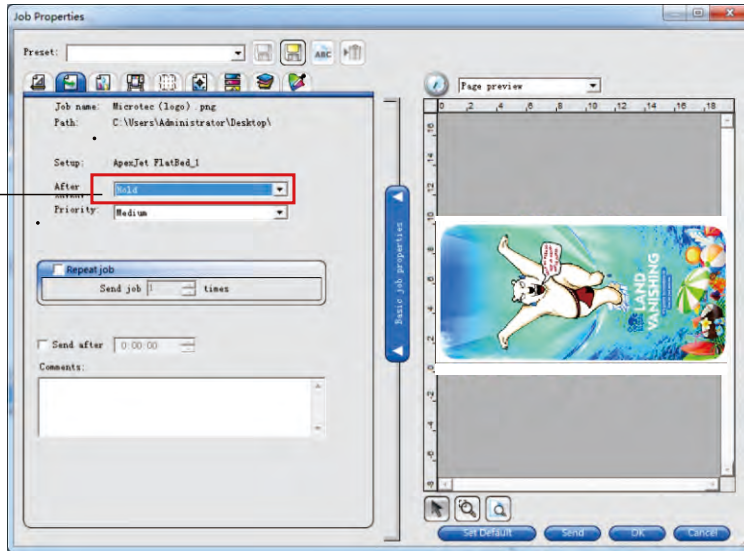
Use color correction

Select resolution. Higher resolution with slower speed 720x720 is recommended.
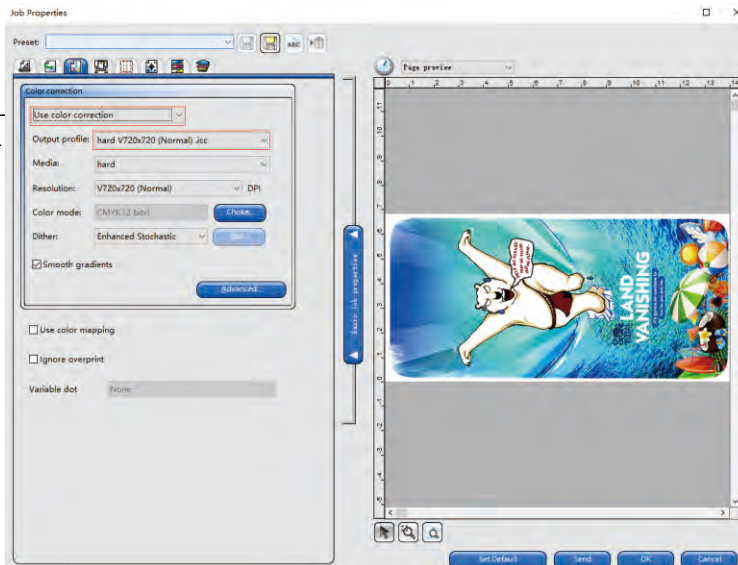
White ink option:
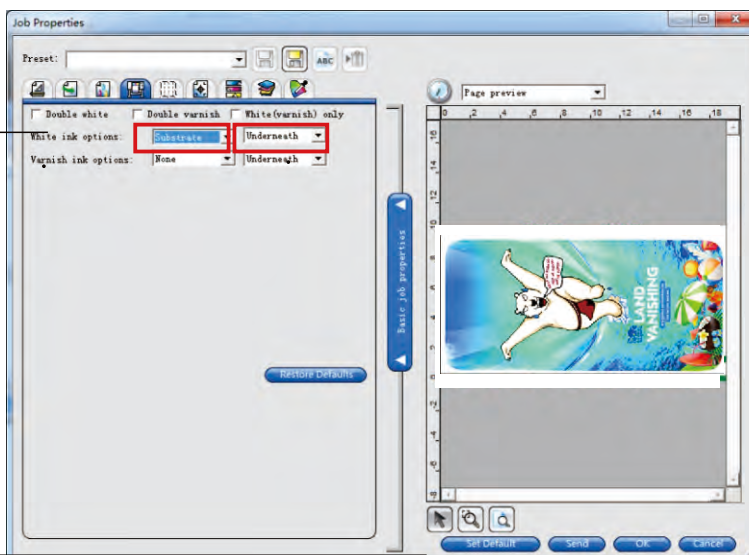
Click to Save default setting to make settings automatically used.

Printing start

Save settings

37

3.INSTALLATION AND OPERATION

3.5 Install and Operate the Software

In this page, you can simply cut the image.
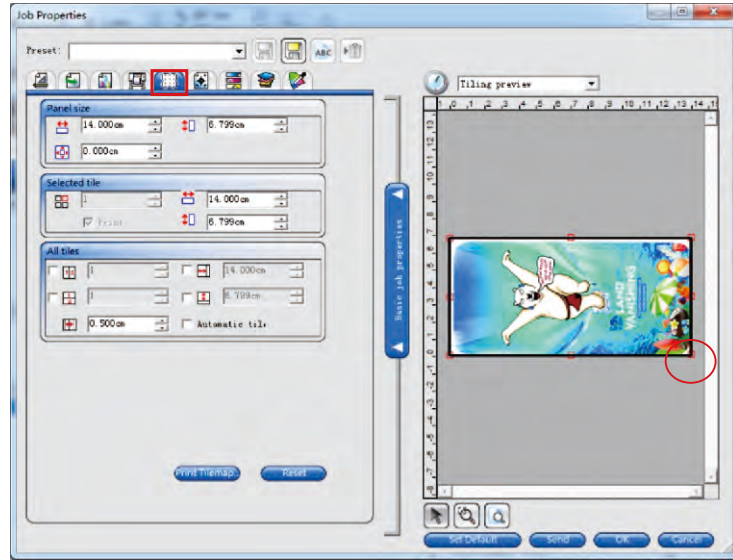
In this page, you can print marks of the job if needed.
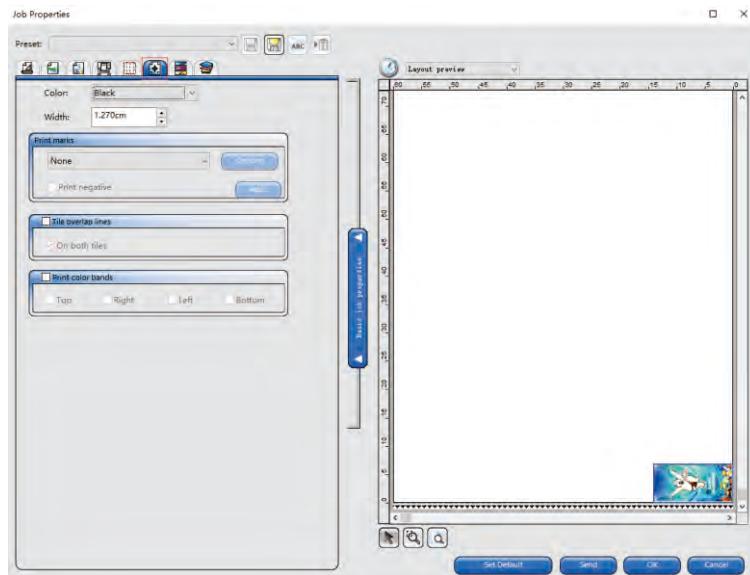
In this page, you can adjust the contrast, vividness or color if needed.
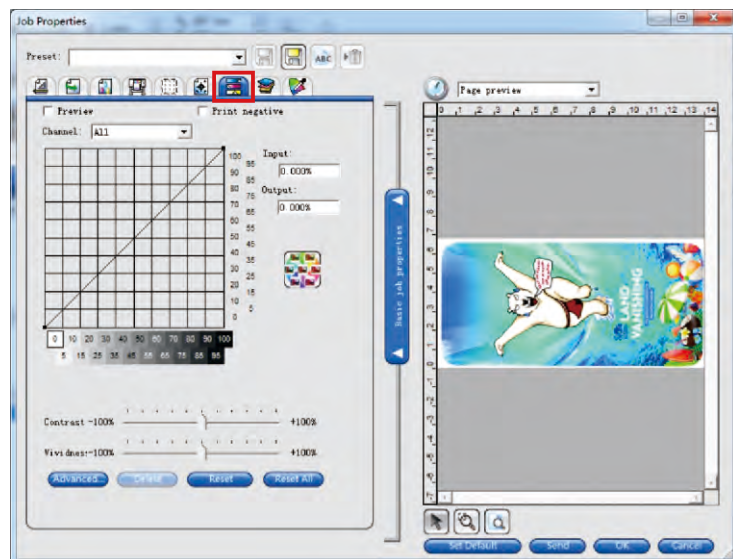
4.SAMPLE PRINTING

4.1 Pre-requisite

The printer is installed as previous description,
press test button to print the completed nozzel checking picture.
You can also do this in the Print-Mon by the button Test.

As shown on left
it's a perfect test.
If there is little
tiny missing
of the test
it's acceptable.

4.2 Printing process (For example: Print on cellphone case)

All software and driver installed. Open software and the machine is in online status.
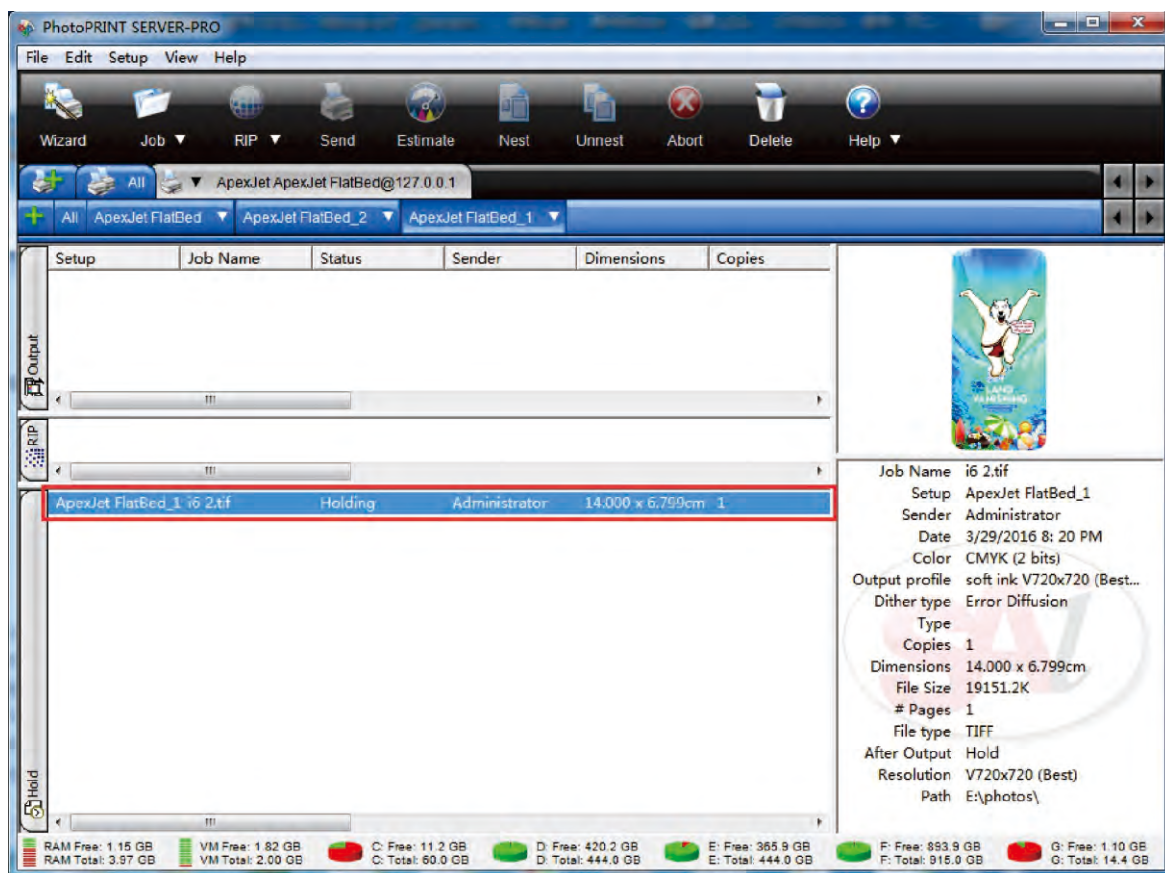
Copy the image *I6 2.tif* to your pc from the usb-disk,
drag it directly to the job list of the software.

4.SAMPLE PRINTING

4.2 Printing process (For example: Print on cellphone case)
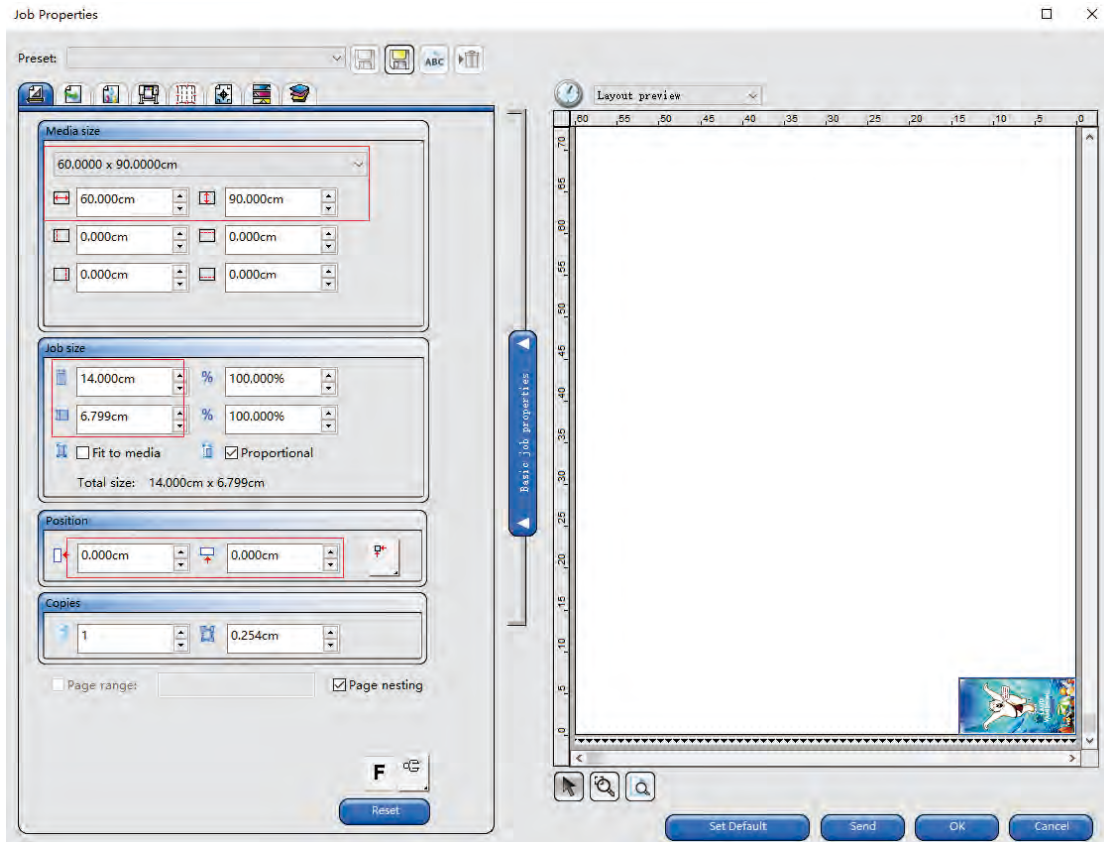
Media size, job size and position settings are shown as above.
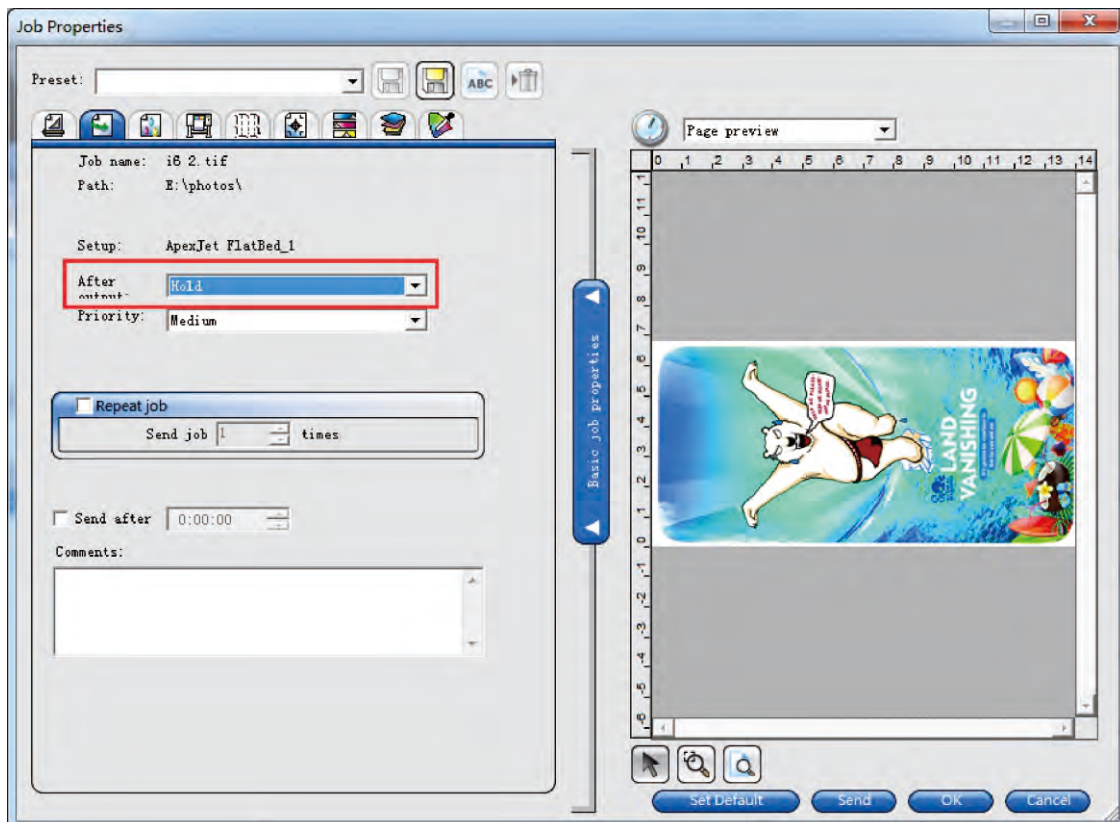
Choose whether to hold the job and settings after printing

4.SAMPLE PRINTING

4.2 Printing process (For example: Print on cellphone case)
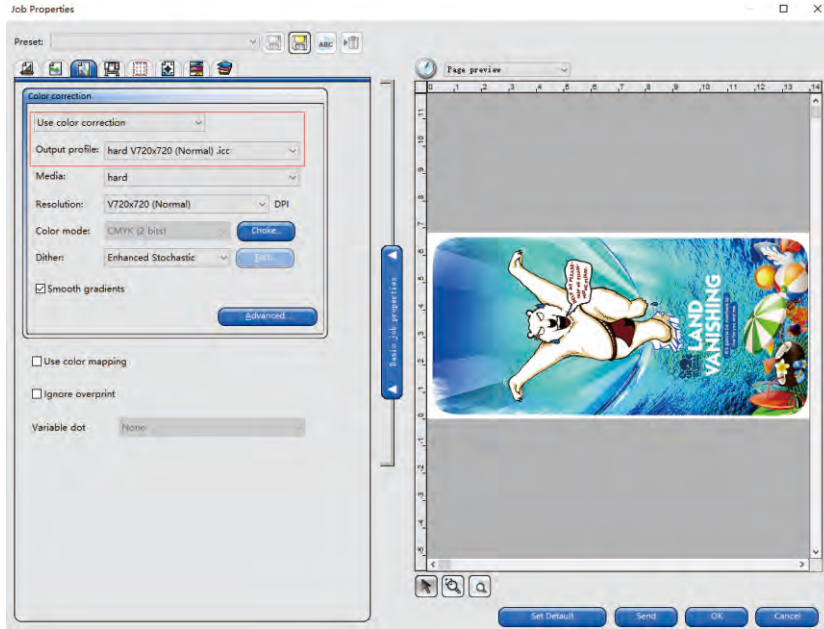
Icc settings are shown as above.
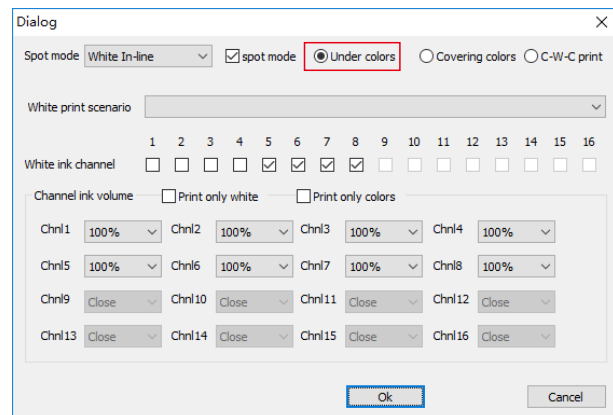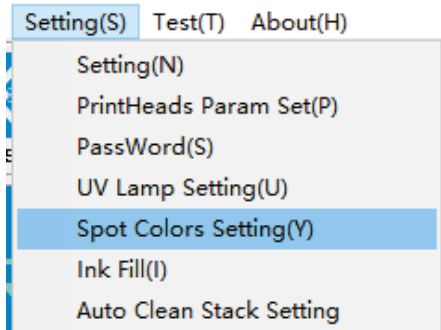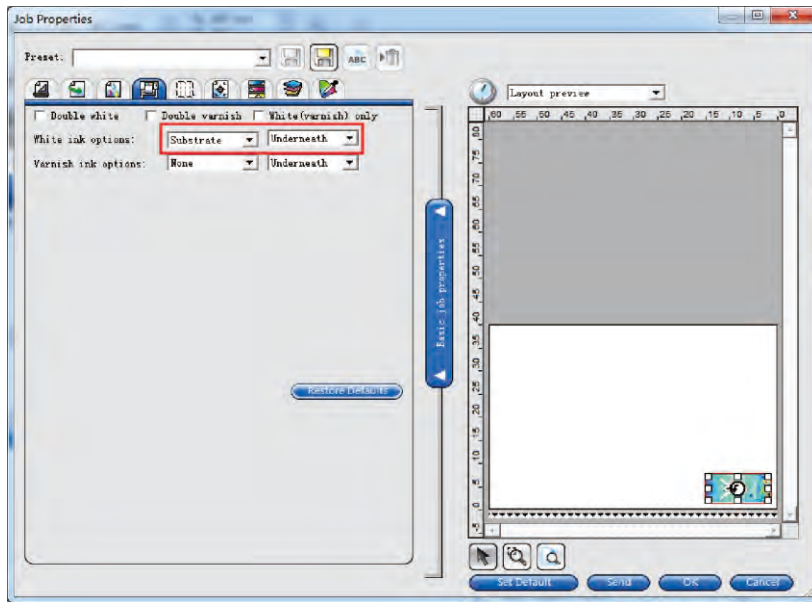
White ink option settings

41

4.SAMPLE PRINTING

4.2 Printing process (For example: Print on cellphone case)

Ready

BI-D+   BI-D-

FEED+   FEED-

TEST   PAUSE   CANCEL   CLEANIG

UP   DOWN   Height Detector   power

EMERGENCY STOP
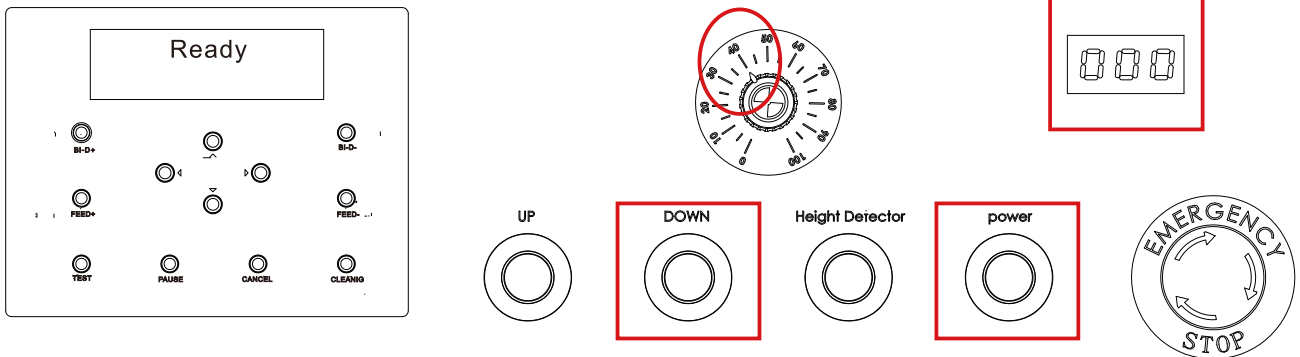
Power on the machine
press down to adjust the height to 000
and adjust the UV brightness to 40%

27.7
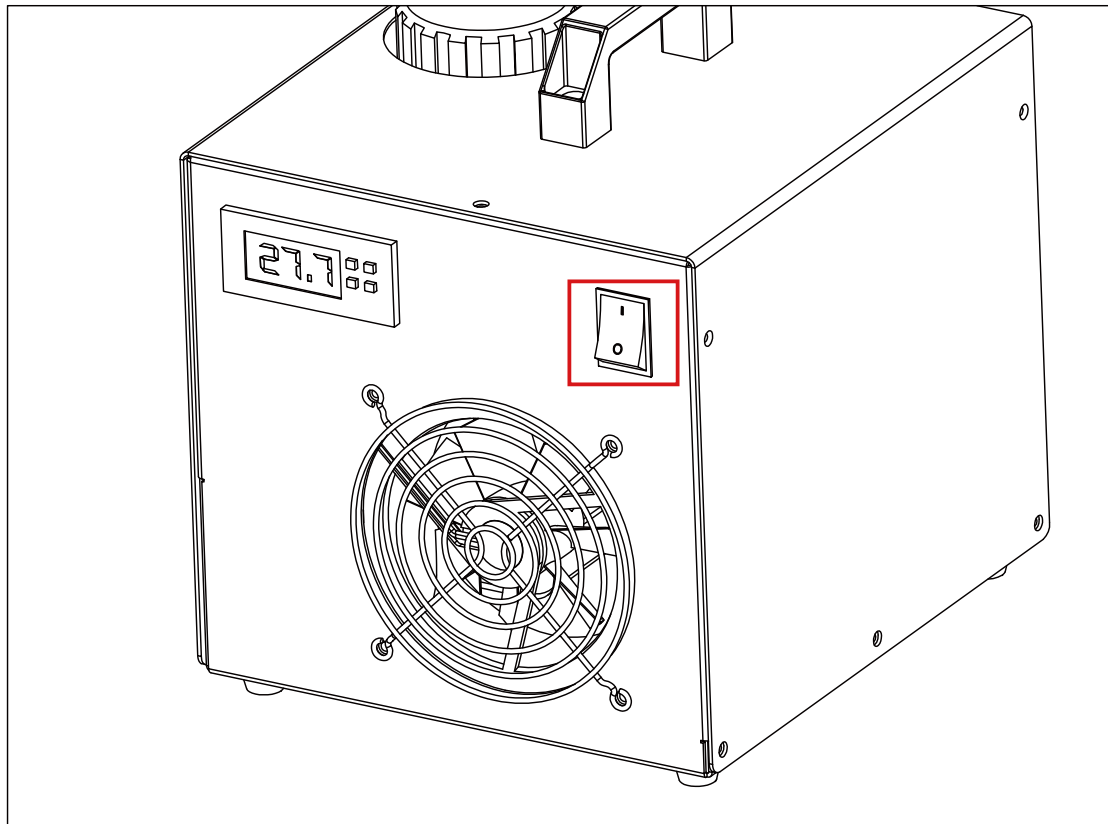
Turn on the uv power switch

4.SAMPLE PRINTING

4.2 Printing process (For example: Print on cellphone case)
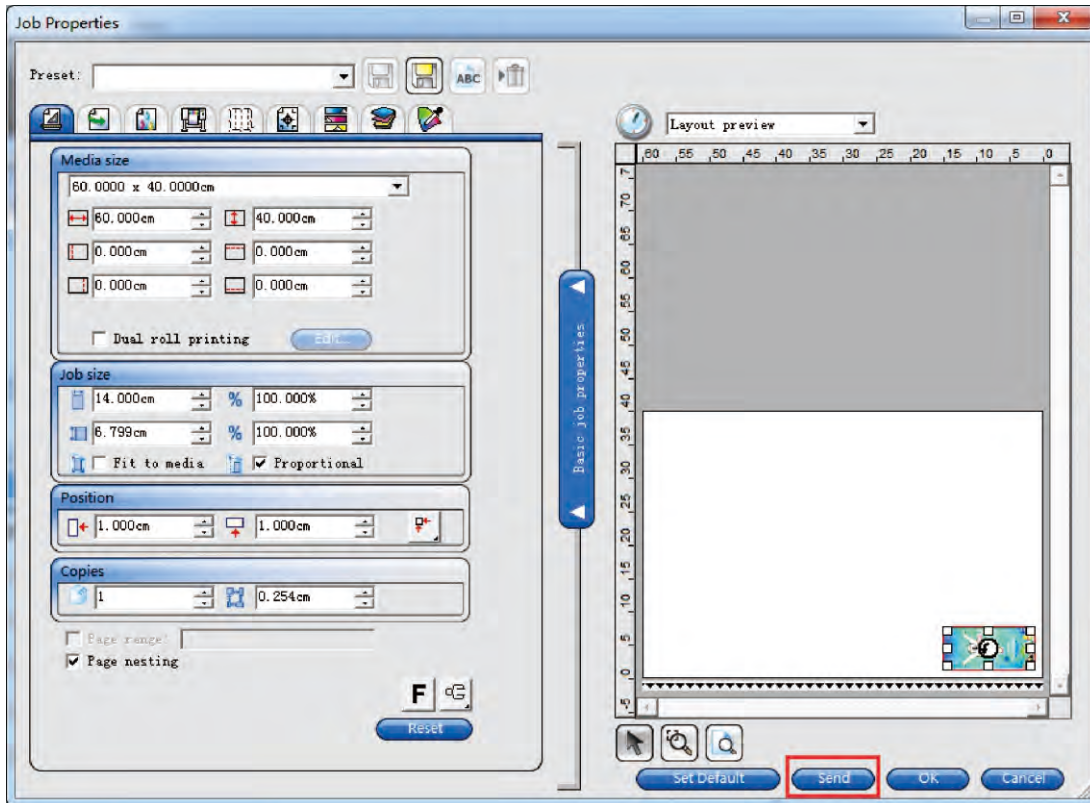
click Send and the job will be printed
OK button is to save the settings.

finish printing on the platform

h

4.SAMPLE PRINTING

4.2 Printing process (For example: Print on cellphone case)
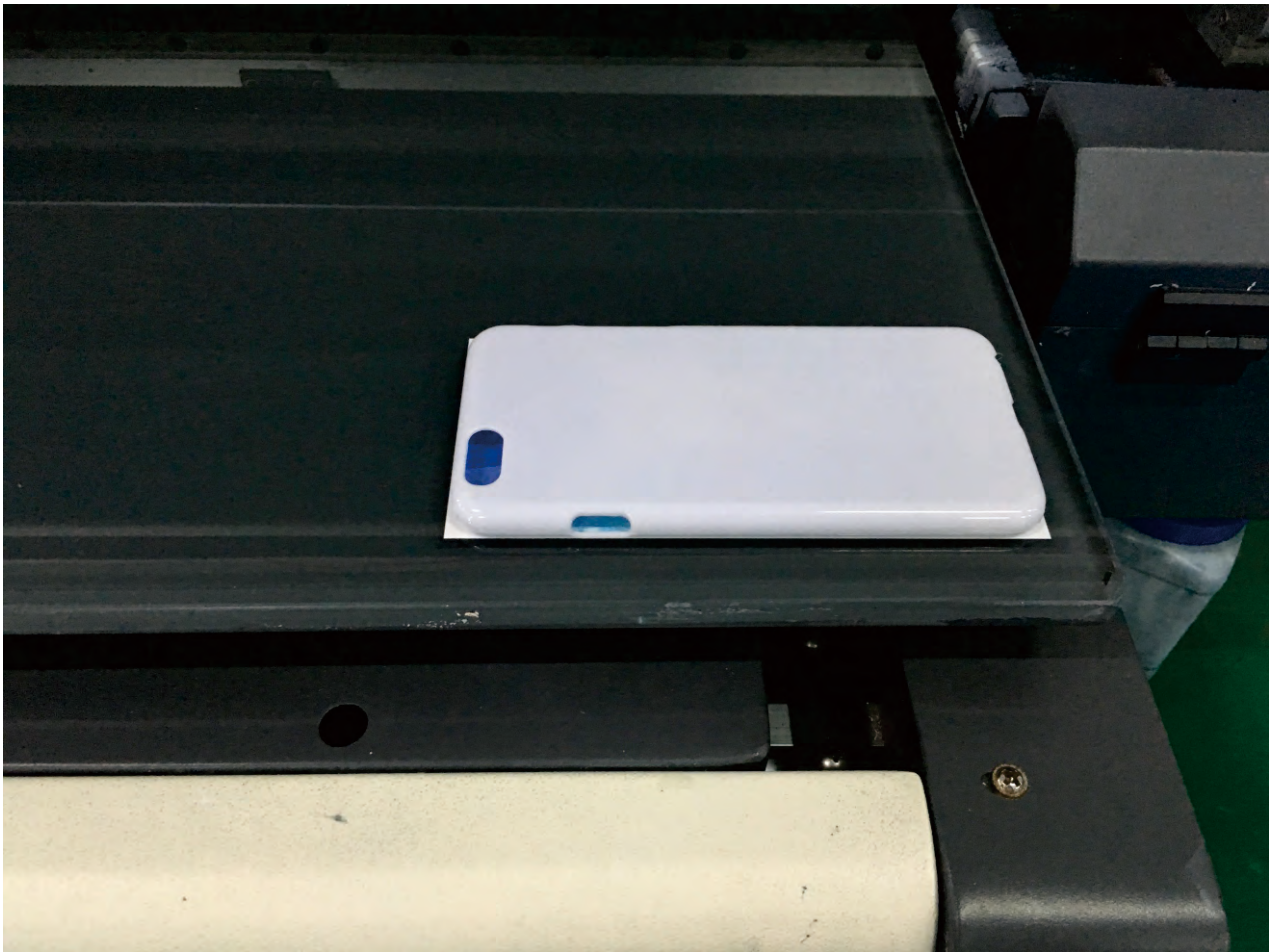
take out the phone case from the package,
then place it on the position of printing
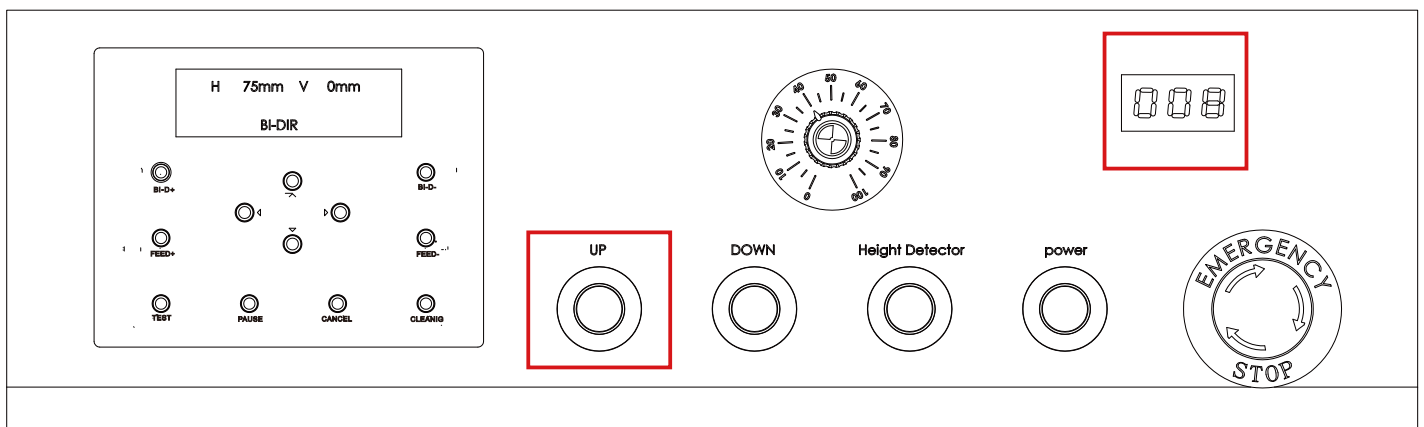
press up till the height is adjusted to **"008"**

4.SAMPLE PRINTING

4.2 Printing process (For example: Print on cellphone case)

*If your software is DX PLUS version, follow the steps in this page.
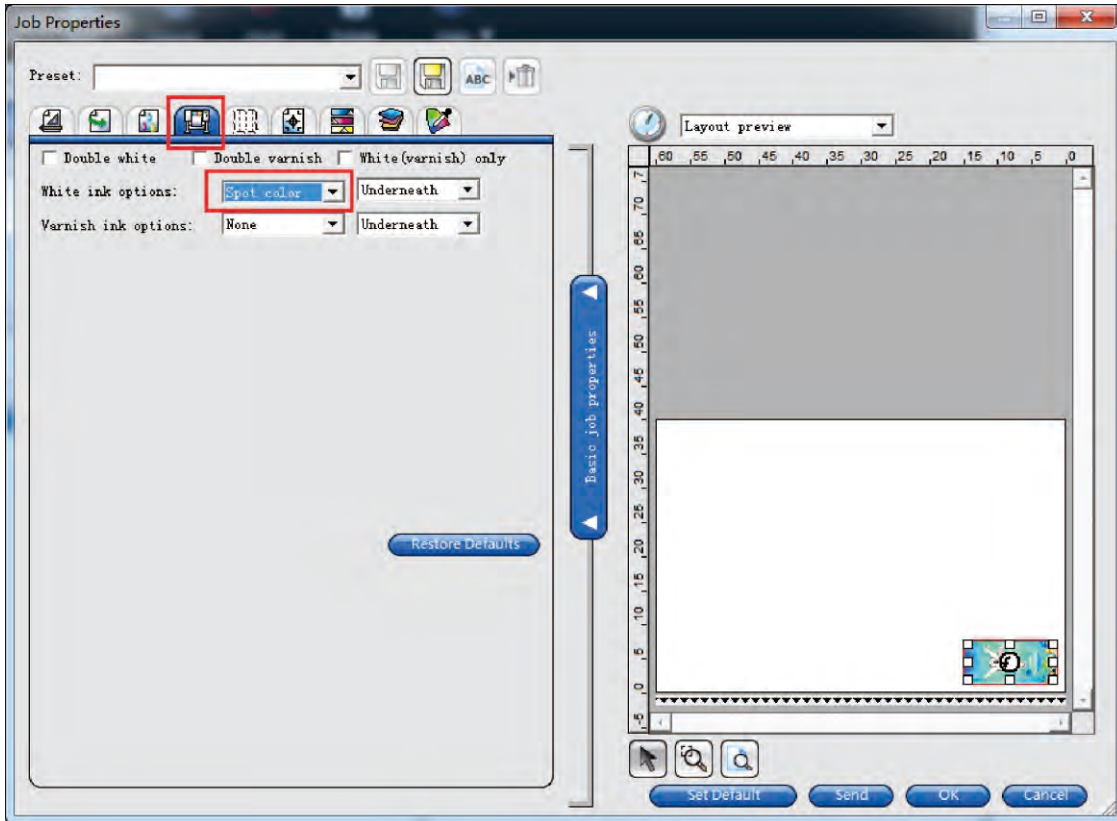
choose spot color in Printers Options

choose spot_white in Separation then click Send to print the job

4.SAMPLE PRINTING

4.2 Printing process (For example: Print on cellphone case)
If your software is DX version, follow the steps in this page.
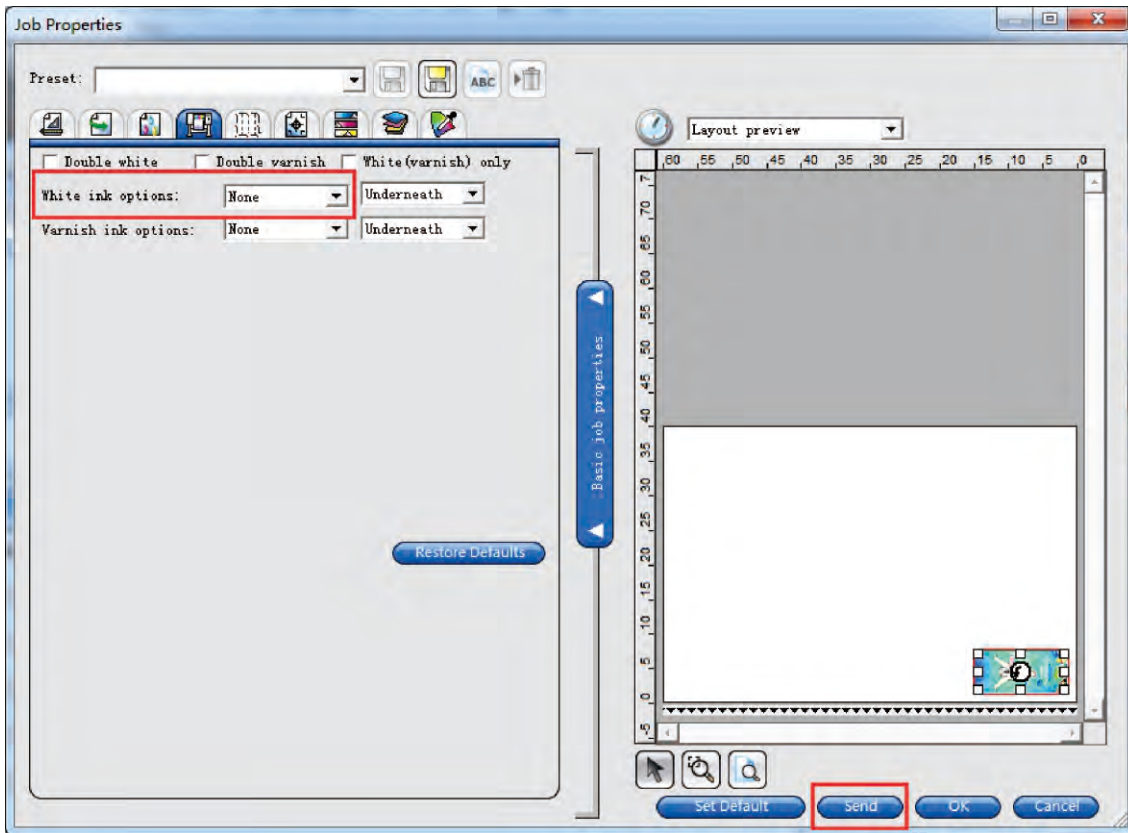
choose none in Printer Options then click Send to print the job
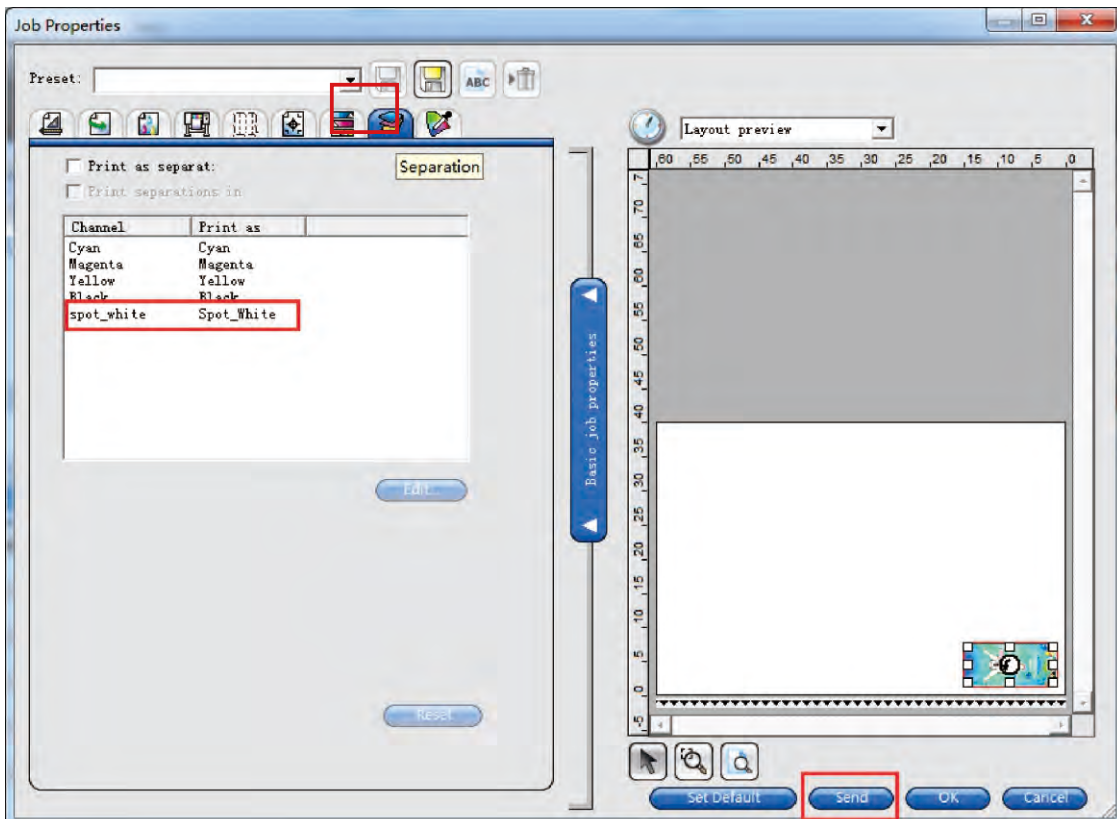

phone case printing finished

4.SAMPLE PRINTING

4.3 Precautions

Pre-cautious Preparing	Pre-cautious Image Choosing
1. The sample surface should be cleaned 2. Use pre-treatment solution oil on glass or some metals before printing. 3. Use bi-direction printing for flat surface Use uni-direction for curved surface 4. Flat bottom sample can be directly placed on the platform and easily moveable should be fixed by tape or moulds. The leather or plastic film should use vacuum table. 5. Check UV brightness according to sample distortion. Generally set at 30-40. Easily heated and distorted set at 20-30. In the real operation, use the lowest brightness at curing. Low brightness can prolong the UV Lamp lifetime.	1. HD image can improve the printing quality. 2. Adjust the image size and share to fit the sample 3. Add image brightness and contrast ratio in Photoshop for better quality. 4. If print spot color, build spot color channel in Photoshop in advance.
Cautions Software Settings	**Cautions of Machine Parts**
Cautions Software Settings 1. The pic size and position setting, and direction. 2. Select whether to use Mirror Printing. 3. Select whether to save after printing. 4. Select ICC file and resolution, generally choose 720*720 resolution. 5. Select the use of white ink; 6. Select the Underneath or Overlay .	Machine Parts: 1. Adjust the distance between the printhead and the printing surface: general is 1-2mm, when printing plane thermal deformation, should elevate moderately in advance. Generally printing height can be adjusted by the height switch, transparent & hollow samples should be adjusted manually. 2. Select the Uni-direction or Bi-direction according to the sample flatness. 3. Adjust the brightness of UV light according to the samples degree of deformation and ink amount.

Reference video: https://www.youtube.com/watch?v=YS2b98zFB_E

4.SAMPLE PRINTING

4.4 To Print Spot White

When you want to print white ink at the area where you design them, you need this spot white function. You can design the area in a picture where you want to print white in PhotoShop first. Then output the picture and print it with PhotoPrint DX Plus version RIP.

4.4.1 How to design spot white in PhotoShop.

(1) Add a picture into PhotoShop and change it into CMYK mode.
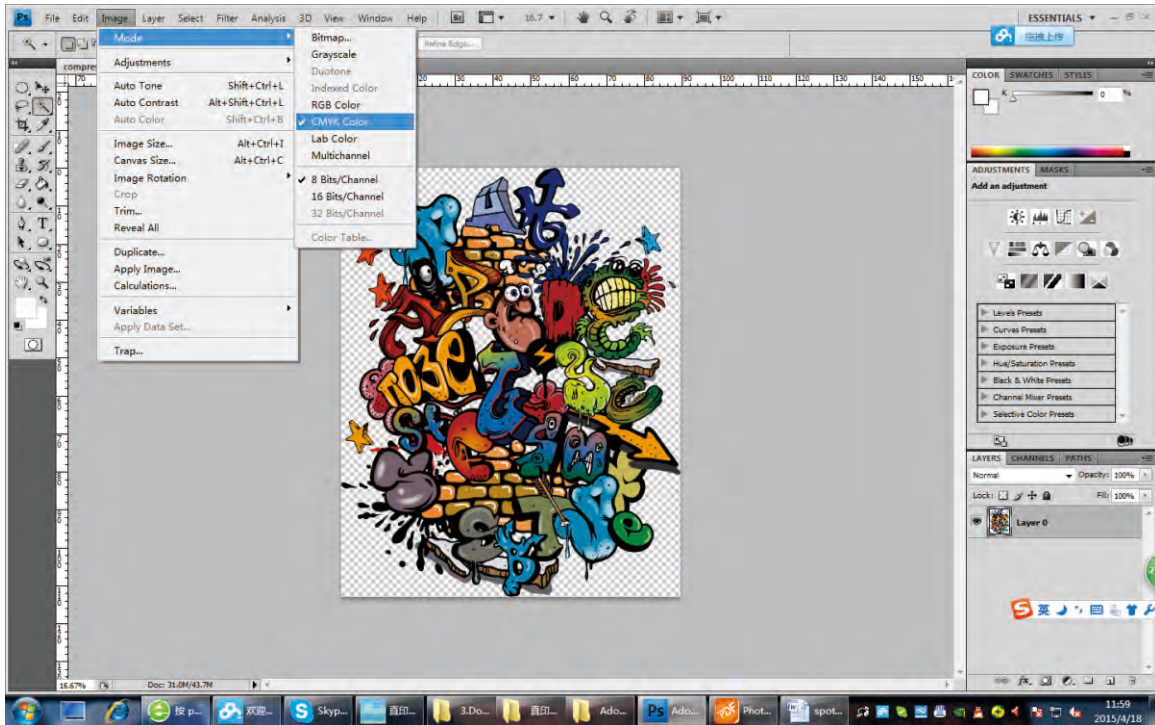
(2)Select an area you want to print white.Magic Wand Tool or Pen Tool may usually be needed in this step.

(3)Contract the area you selected,sometimes it just need contract 2-3 pixels.Then press"OK".
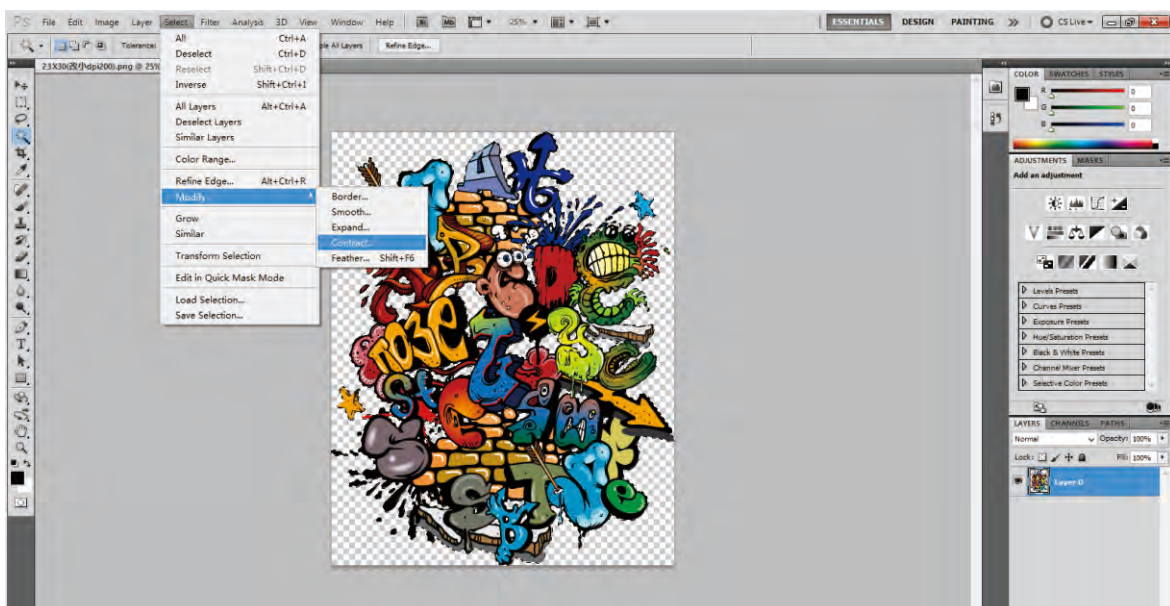
4.SAMPLE PRINTING

4.4 To Print Spot White
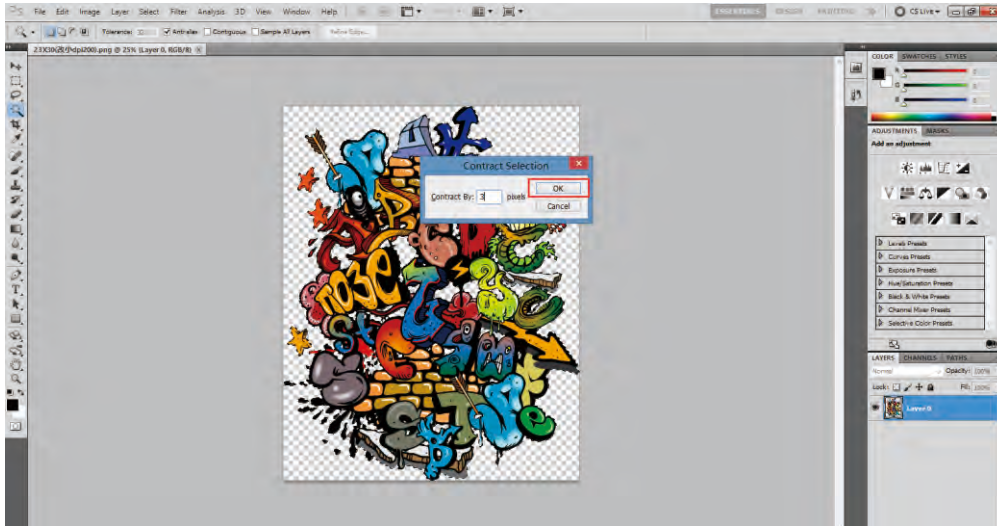
(4)Make new spot channel.The name should be "spot_white".The ink characterictics should white.The solidity should be 0%.
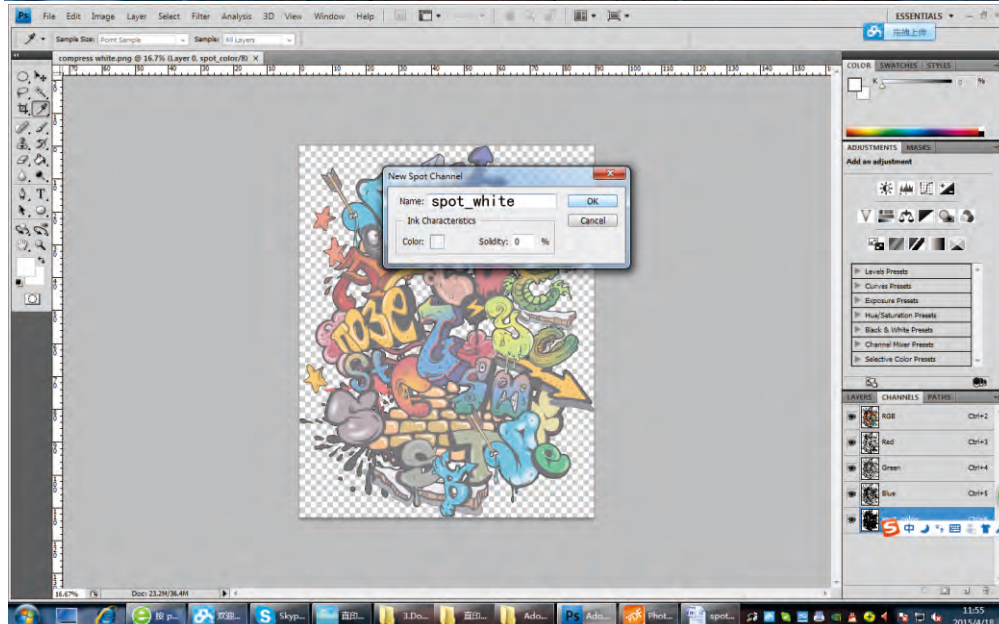
4.SAMPLE PRINTING

4.4 To Print Spot White

(4)Save as TIFF format.Image compression is LZW.
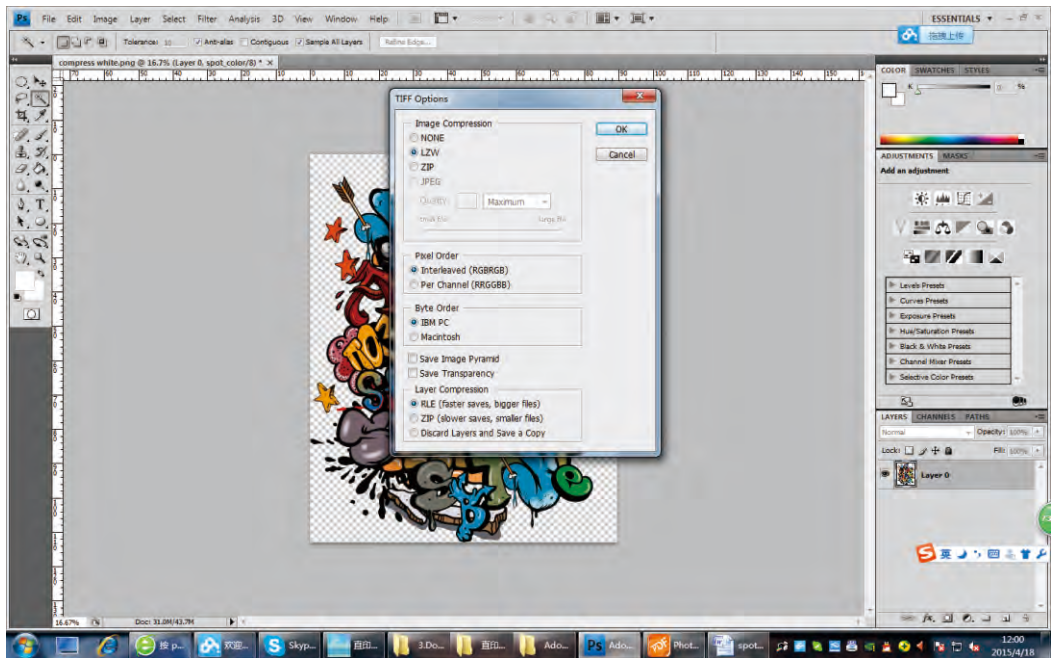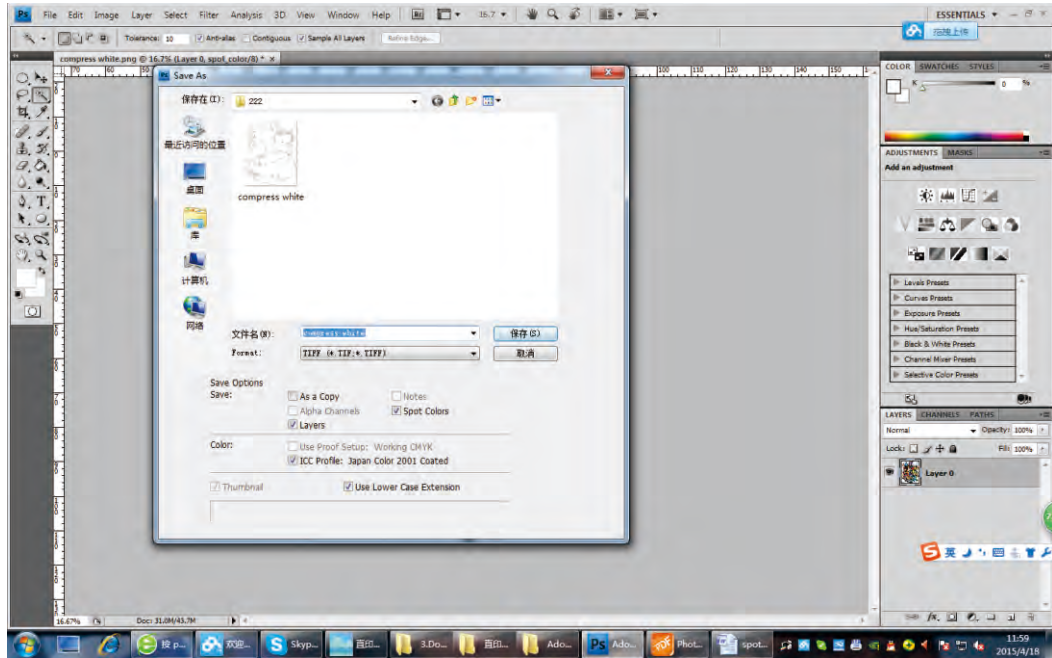
4.SAMPLE PRINTING

4.4 To Print Spot White

4.4.2 How to print spot white with Photoprint.

(1) Choose " spot color" in " white ink options".
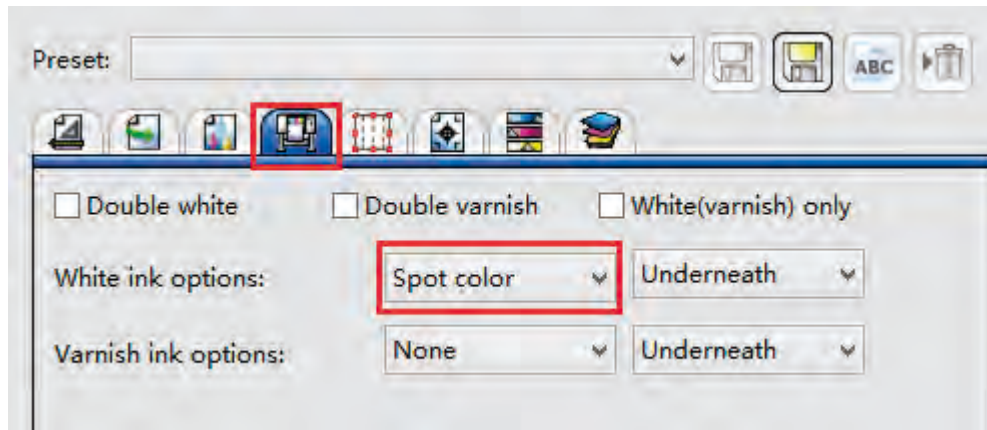
(2) If channel name is"spot_white"," Print as "will be " Spot_White "automatically.Or"Print as"
is" process", then you need to double-click or press" Edit" to choose " Spot_white".
Please also choose sopt colorin Print-Mon
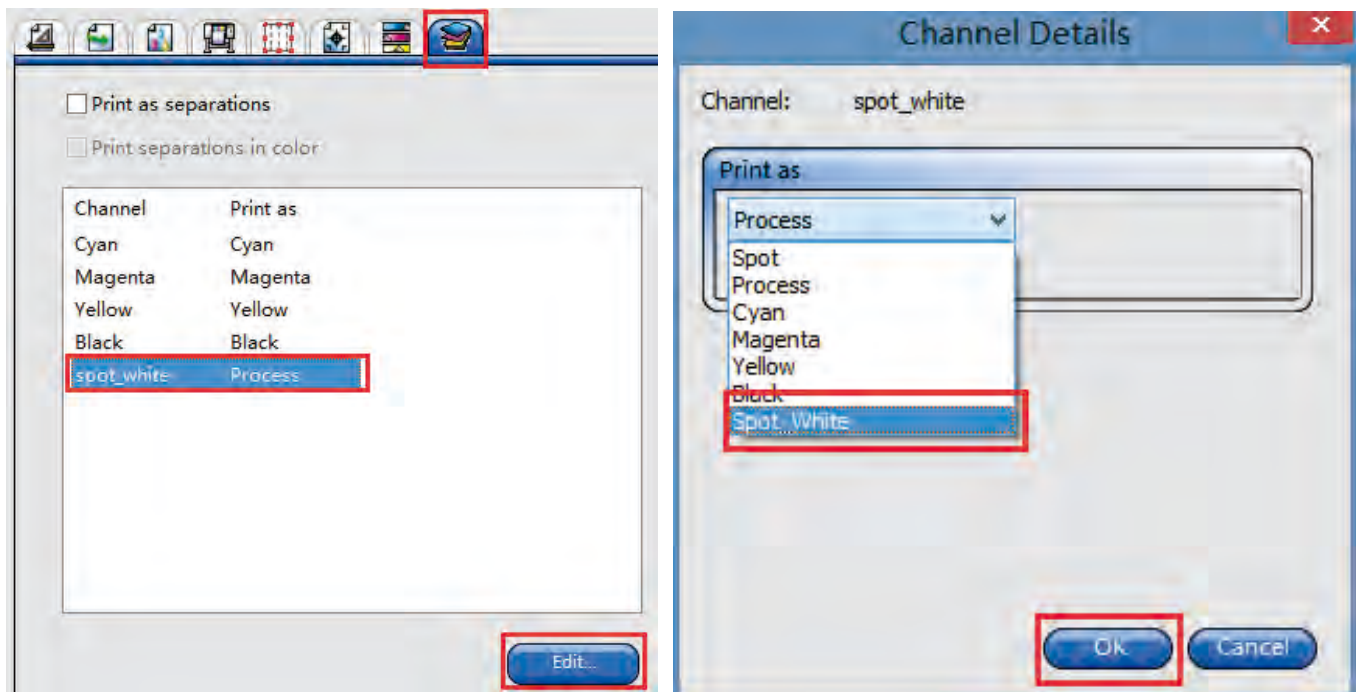
4.SAMPLE PRINTING

4.4 To Print Spot White
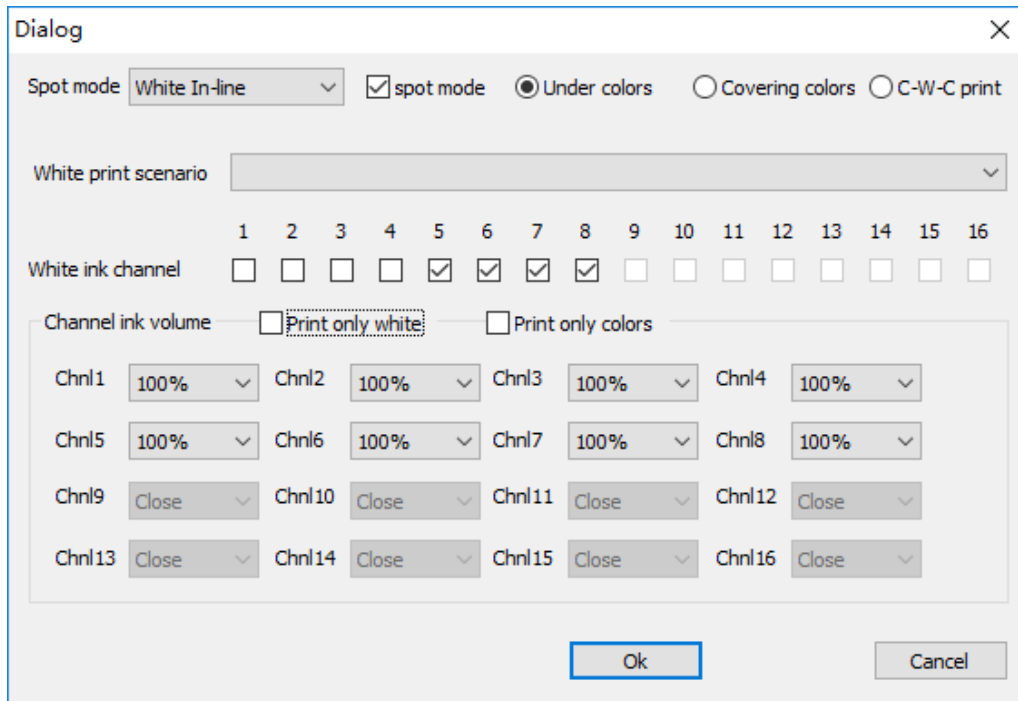
(3)Then you can hit "send"to print with spot white.After printing ,if you need more embossment, you can only print white 2-3 times,then print color.
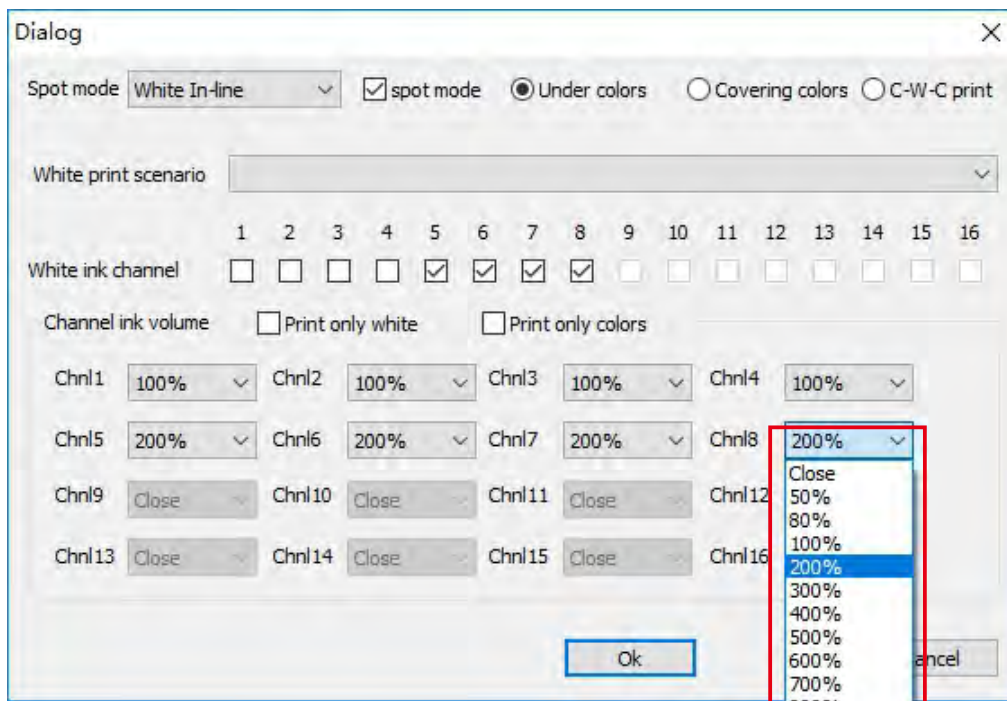
5.MAINTENANCE AND TROUBLE SHOOTING

5.1 Maintenance

1 **Continuous use and maintenance requirements**

Daily Task	1.Do a cleaning, check the nozzles. 2 Clean up wiper and rubber parts of Cap Top.	https://www.youtube.com/watch?v=59vLBEtVMLY https://www.youtube.com/watch?v=AVzehgadhKI
Weekly Task	1.Clean encoder strip. 2.Clean the surface of UV light.	https://www.youtube.com/watch?v=O7yFdrJotFo
Monthly Task	1.Add lubricating oil to rails and wheel(X/Y/Z).	https://www.youtube.com/watch?v=21nWwTcqgCY
Seasonly Task	1.Replace the Cap Top. 2.Replace the wiper. 3.Replace the damper. 4.Clean the UV light.	https://www.youtube.com/watch?v=_wGiUOp5g2s https://www.youtube.com/watch?v=nc6BBUzSQFA https://www.youtube.com/watch?v=VaEOob7rPSo https://www.youtube.com/watch?v=OBaa5rW209c
Year Task	1.Replace the carraige	https://www.youtube.com/watch?v=p3rMhb8lQuI

2 Discontinuous use and maintenance requirements

| Without use in three days	1.Please do cleaning three times every three days and make nozzles test	https://www.youtube.com/watch?v=59vLBEtVMLY
Without use in a week	1. Spray anti-rust oil to rails and wheel(X/Y/Z).	https://www.youtube.com/watch?v=sjSlPT1raqc
Without use in two weeks	1.Clean up ink tubes. 2.Remove prinprinthead wipe it with clean cloth and keep in dark place.	https://www.youtube.com/watch?v=OBaa5rW209c https://www.youtube.com/watch?v=URml5hua-34
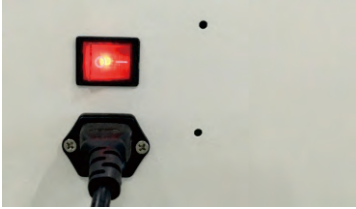
3 Consumble parts checking period

NO.	Parts	SN.on sale	When	Checking Period
1	Damper	30160026	Broken	3 months
2	Cap Top	80030065	Broken	3 months
3	Wiper	30160023	Too Much Dirty	3 months
4	Waste Ink Pump	10080011	Not Working	6 months

5.MAINTENANCE AND TROUBLE SHOOTING
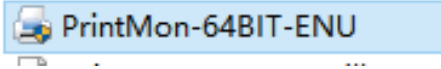
5.2 Trouble shooting

Q1: Printer can not be power on

Step1: Check whether the switch in the back of machine is on and the indicator is lighted	
Step 2: Check whether the red scram button on the front board is open. If there is any problem, please contact us	
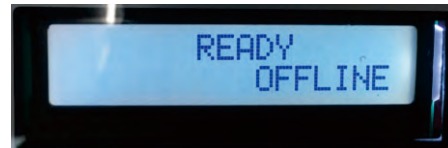
Q2: Printer is offline

Step 1: When the carriage is on the right side, check whether the right side lamp is on. If not, please contact us.	
Step 2: Restart the computer, pull off and insert in the USB, change the USB port, restart the driver.	
Step 3: After step 2, if the statu of the printer is still offline, please reinstall the driver or contact us.	**Extract the original driver files,then run the PrintMon**

54

5.MAINTENANCE AND TROUBLE SHOOTING

5.2 Trouble shooting

Q3: The checklist for nozzles when test strip not complete

Step 1: Do a small cleaning, press TEST to check the nozzles. If there is more than 10% break line of a certain color, follow Step 2.	https://www.youtube.com/watch?v=59vLBEtVMLY
Step 2: Replace the corresponding damper of the break line color. Do small cleaning, press TEST to print a test strip. If still exist the problem, follow Step 3.	https://www.youtube.com/watch?v=VaEOob7rPSo https://www.youtube.com/watch?v=59vLBEtVMLY
Step 3: Replace Cap Top. Do small cleaning and press TEST to check nozzles. If still exist a problem, contact us.	https://www.youtube.com/watch?v=_wGiUOp5g2s https://www.youtube.com/watch?v=59vLBEtVMLY

Q4: Bad printing quality caused by bad test strip

(All videos on out website: http://www.apexprinter.com/help/online-support_h0036.html)

When your printing quality is bad, make a cleaning and print a test strip by pressing test button on control panel.
(Video: How to clean print head and print test strip)A complete test strip should be like this.

5.MAINTENANCE AND TROUBLE SHOOTING

5.2 Trouble shooting

if some lines are missing (less than 10% are acceptable), we need to fix the problem. The problem can come from dampers, print head or cap top.

Bad test strip type	Most possible problem parts	Possibility
one color bad	bad damper	50%
several colors bad	cap top need adjusting	90%
one color missing	print head is clogged	50%
no ink at all	cap top need adjusting	70%

Dampers: 1.1 Video:How to make sure whether dampers are good or not.

　　　　　1.2 Video: How to change dampers.

Print head: 2.1 Video: How to make sure whether print head is clogged or not
　　　　　　　and how to clean print head.

Cap top: 3.1 Video: How to make sure whether cap top is good or not.

　　　　　3.2 Video: How to Change cap top.

　　　　　3.3 Video: How to adjust the position of cap top to fully cover the print head.

You can figure out the problem comes from dampers, print head or cap top by following videos.

5.MAINTENANCE AND TROUBLE SHOOTING

5.2 Trouble shooting

Q6: Bad bi-direction printing quality

1. How to make sure that it is a Bi-direction problem.

When your printing happen to be with a double shadow like this:

You can change the mode to Uni-direction. If the problem is gone and the printing is like the following picture, then we are sure it is a bi-direction problem.

5.MAINTENANCE AND TROUBLE SHOOTING

5.2 Trouble shooting

Print bl-direction calibration diagram. Choose calibration precision and change its value until the bi-direction calibration diagram is aligned at 0.
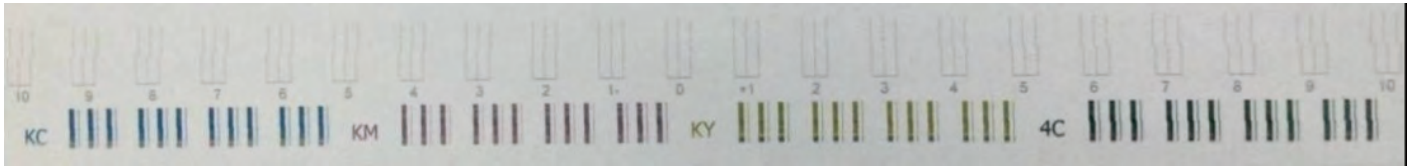
The way to change into Uni-direction is like this:

5.MAINTENANCE AND TROUBLE SHOOTING
5.3 Exploded View
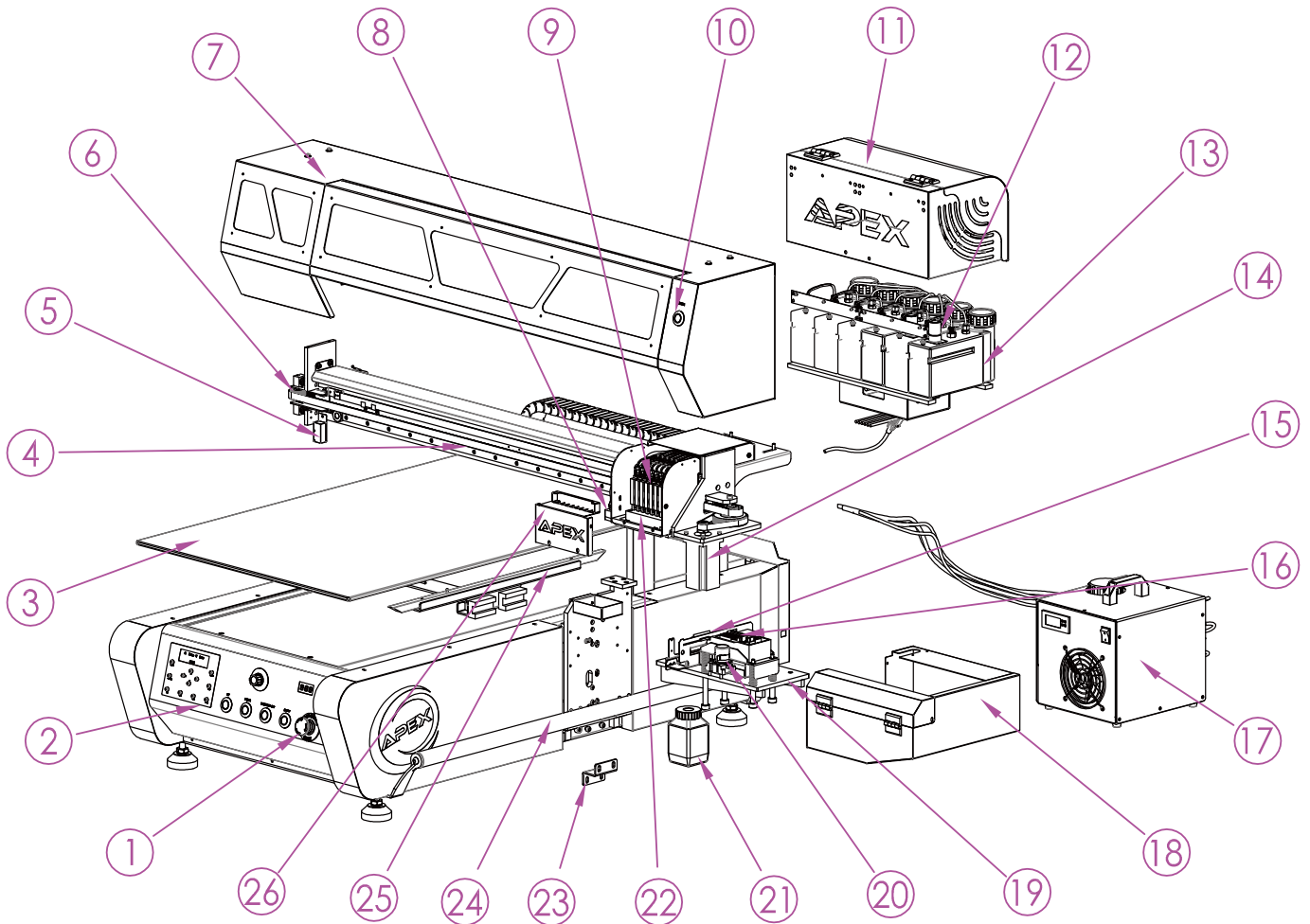
NO.	Part	SN. on sale
1	Emergency Stop	10020242
2	Control Panel	10060007
3	Printing Table	—
4	Carriage Rail	—
5	Height Sensor	10020233
6	Belt Fastening	—
7	Printer Cover	—
8	UV LED	10310039
9	Damper	30160026
10	Manual Cleaning	10020231
11	Ink Bottle Case	—
12	White Ink Stirrer	10080009
13	Ink Bottle	80060006

NO.	Part	SN. on sale
14	Step Motor	10080013
15	Wiper	30160023
16	Cap Top	80030065
17	Water Cooling Case	10310039
18	Capping System Case	—
19	Capping Station	—
20	Waste Ink Pump	10080018
21	Waste Ink Bottle	30150002
22	Printer Head	10310043
23	Fixture	—
24	Handle	—
25	Adjustment For Even	—
26	Cover for Dampers	—