SinoColor

Software

USER'S Guide

非常感谢您购买此产品。

- 为确保正确和安全使用，并充分了解本产品的性能，请务必仔细阅读

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Important Notes on Handling and Use

This machine is a precision device. To ensure the full performance of this machine, be sure to observe the following important points. Failure to observe them may not only result in loss of performance, but may also cause malfunction or breakdown.

Machine

您可以从以下网站下载获取机器信息。
https://www.sinocolordg.com/

Installation Requirement（Please read carefully）

Install in a quiet, stable location offering good operating conditions. An unsuitable location can cause accident, fire, faulty operation, or breakdown.

Install the machine in a location that is level, stable, and able to bear the weight of the machine.
The total weight of the machine may reach 400kg or more(**1.8m:280kg 3.2m:480kg**). Installation in an unsuitable location may cause a major accident, including tip over, fall, or collapse.

Install in a clean, brightly lit location.
Conduct operations in a clean, brightly lit location. Working in a location that is dark or cluttered may lead to an accident, such as becoming caught in the machine as the result of an inadvertent stumble.

Position so that the power plug is within immediate reach at all times.
This is to enable quick disconnection of the power plug in the event of an emergency. Install the machine next to an electrical outlet. Also, provide enough empty space to allow immediate access to the electrical outlet.

Ensure adequate ventilation for the work area.
Failing to perform ventilation may result in a health hazard or danger of combustion due to ink fumes.

Temperature and Humidity
Keep the room temperature between 20-30C, hundity 40-60%. Air conditioner and humidifier may be required. Keep a distance from strong radiation field. **The floor must be level.**
Maintain the specified temperature and humidity even when the machine is not in use. If temperatures are too high or too low, it may cause malfunction.

Electrical requirement
Electrical requirement writes on a metal tag on the back of the printer. Find it to confirm if your printer supports 220V or 110V. A transformer is needed if your country standard is different. **The printer must be well grounded.**
UPS and voltage stabilizer is highly recommended.（**Not included in printer price. Need to buy separately**）

Computer

Computer requirement
Basic requirement: CPU: 2.5 GHz
or higher Memory: 2GB or higher
Hard Disk: 200GB or higher
Operating system: Microsoft Windows XP / Windows 7 Ultimate Edition / Windows 10

Recommendatory requirement:
CPU: 3.5 GHz or higher
Memory: 4GB or higher
Hard Disk: 500GB or higher (NTFS format)
Operating system: Microsoft Windows 7 Ultimate Edition

NOTICE: Suggest user format your hard disk into 2 partitions (NTFS). The first partition is used for installing OS and other software, the second partition is used to save pictures and work files.

Ink

Ink cartridges come in various types.
Use a type that is compatible with the machine.

Never subject to impact or attempt to disassemble.
Never drop or shake forcefully. The impact may rupture the internal pouch and cause the ink to leak.
Never attempt to disassemble.
Never attempt to refill the other ink.
If ink gets on your hands or clothing, wash it off as soon as possible. Removal may become difficult if allowed to stand.

Storage: Store unopened in a well-ventilated location at a temperature of 0 to 40°C (32 to 104°F)

目录 Directory

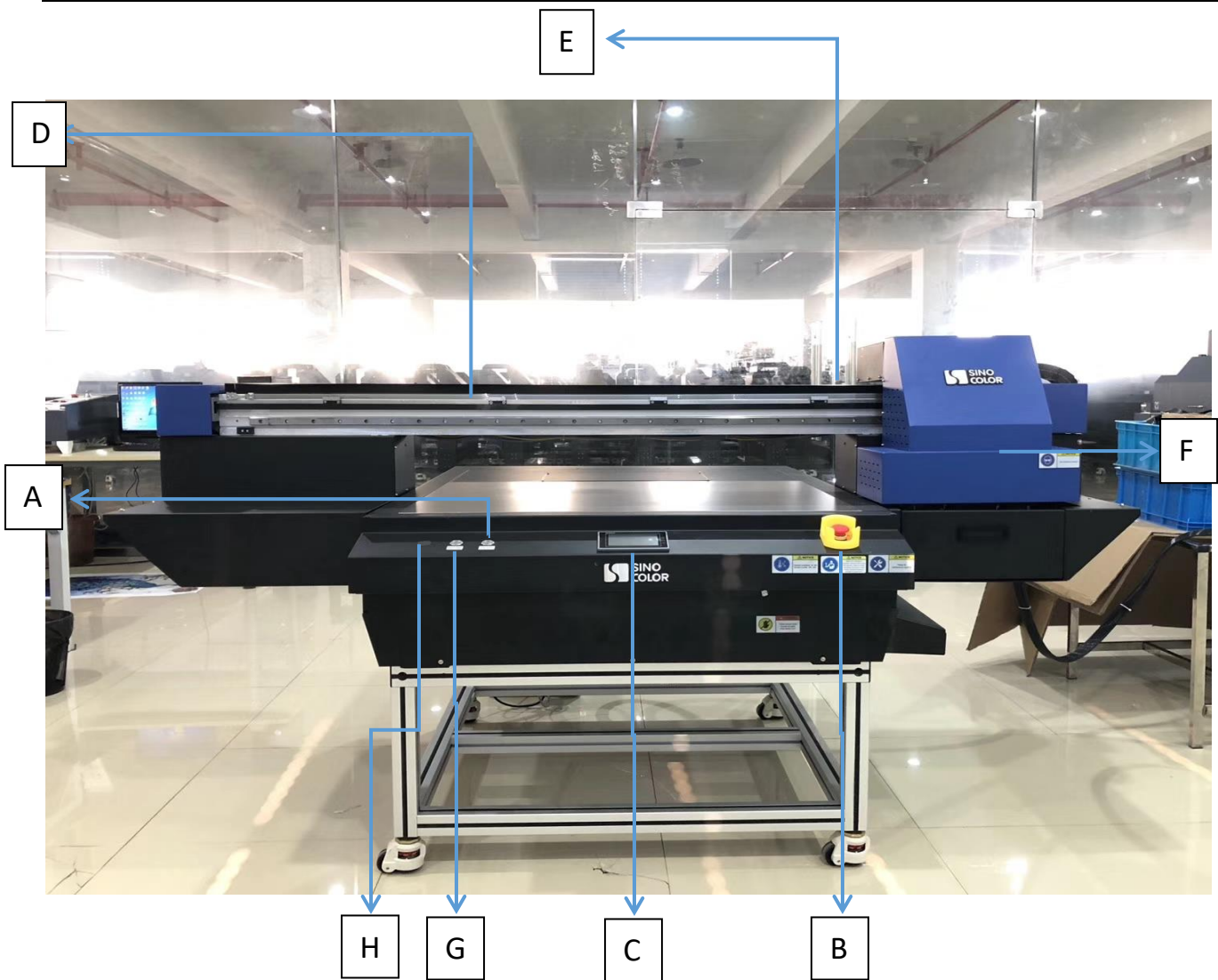# 七、系统菜单 System menu:

八、常见故障处理 Frequent Trouble-Shooting

一、机器部件说明Machine parts introduction：

Machine

安装完打印机后，我们现在需要进行对打印机的部分部件的了解。
After installation printer, we need to know each parts of printer now.

Front

A：电源开关Power switch
B：急停开关Emergency stop switch
C：触控屏Touch screen
D：光栅条Encoder strip
E：托链 Chain
F：小车Carridge
G:UV灯开关 Uv lamp Switch
H：LED灯 LED Lamp

I：墨盒安装位置Cartridge installation location

J：主电源连接口（注意电压值110V或者220V）Main power connection port (note the voltage is 110V or 220V)

K：吸风平台电机插座Suction platform motor socket
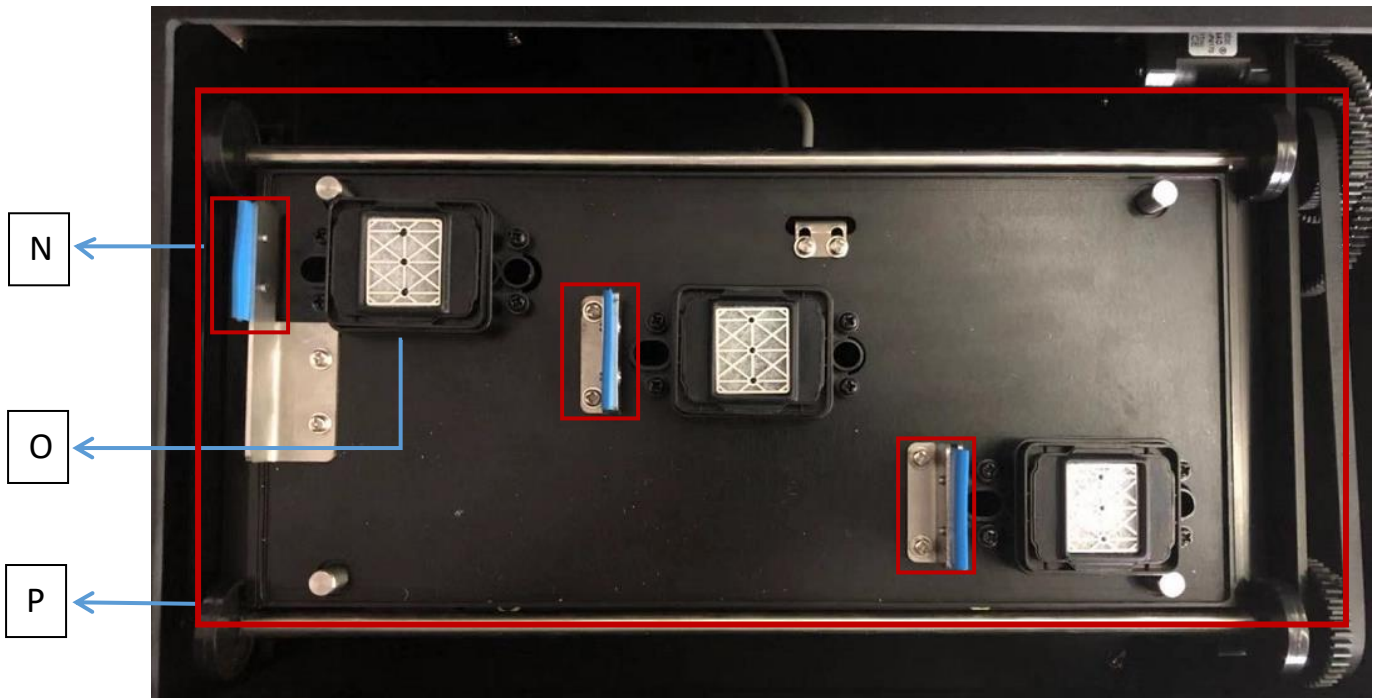
L：漏电保护器Leakage protector

M ink tank inside
K：Black
C：Cyan
M：Magenta
Y：Yellow
LC：Light Cyan
LM：Light Magenta
W：White ink
V：Varnish

墨栈:Capping Station

N

O

P

N：3个刮片 3 wipers
O：墨托安装位置 Place of capping unit
P：墨栈 capping station

二、电脑USB驱动的安装 USB Driver Installation

为什么要安装USB 驱动？Why need to install the USB Driver?

　　安装USB驱动是为了使电脑和机器能够连接并传输数据，如果没有安装USB驱动，我们在电脑里打开控制软件时，软件会不能和机器联机，不能使用。所以当我们准备使用电脑联机机器时，首先应该安装好USB驱动。

The USB Driver will help connect the computer and printer then transmit data. If USB Driver is not installed, the software will show "offline". And can not work.

So we need to install the USB Driver properly first.

安装步骤Steps：

2.1 启动机器（Note注意★）

2.1-1 打开电源Open Power

　　插上电源线并打开漏电保护器（图片对漏电保护器是打开对）然后打印机，请记住打开主电源开关和紧急开关（需要确保机器主电源插座有地线连接）。Plug power cable and turn on the leakage protector (as the picture, the leakage protector on) and turn on printer, remember to turn on the main power switch and emergency switch (need to ensure that the machine's main power outlet has a ground connection).

漏电保护器 Leakage protector

电源接头 Power Plug

主电源开关 Main power switch

急停开关 Emergency stop switch

2.1-2 检查机器开机运动：Check printer starting Action

插上电源→打开漏电保护器→打开主电源开关→顺时针旋转急停开关

Plug in the power → turn on the leakage protector → turn on the main power switch → turn the emergency stop switch clockwise

1、主板与小车板显示代码Mainboard and printhead board Display Code A→1→2→3→4→5→P

机器动作如下：Machine actions are as follows:

A ：检测主板与小车之间光纤传输信号，当A代码为光纤AX&BX错位Detect the fiber transmission signal between the mainboard and printhead board. When the A code is the fiber AX&BX misalignment
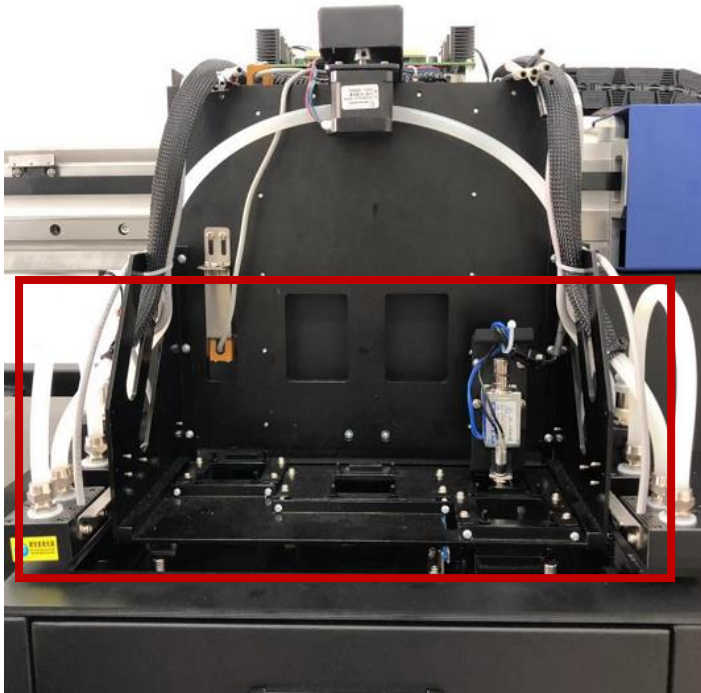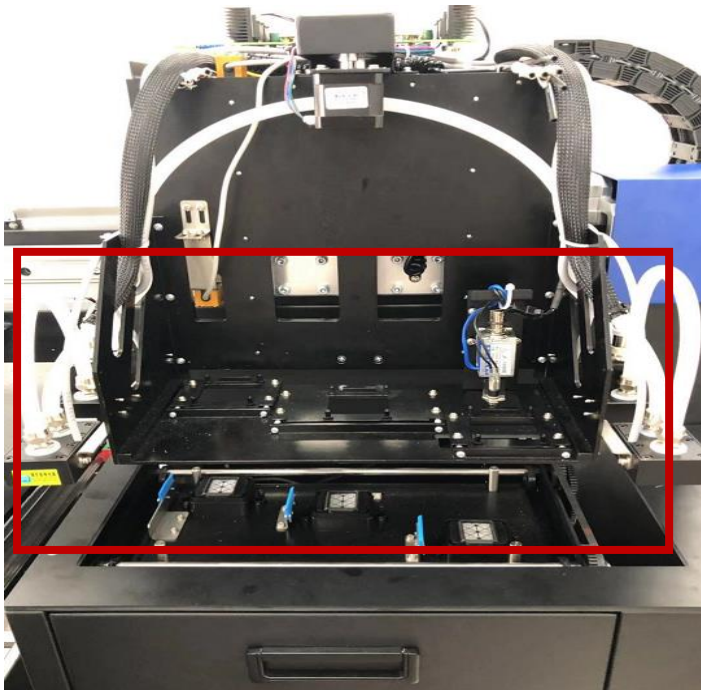
1 ：刮片复位Wiper reset

2 3：墨栈上下复位 Capping station up and down reset
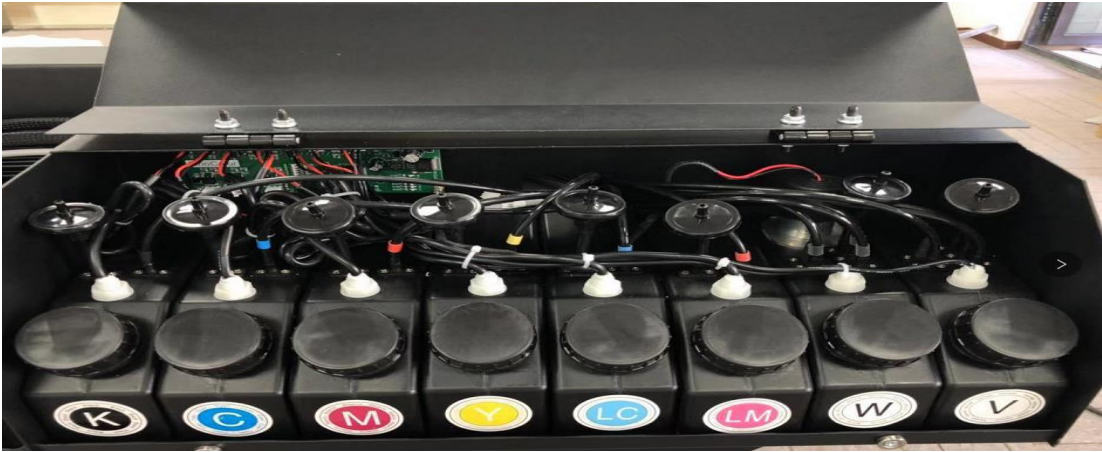
4 5：小车左右复位 Carriage left and right reset

P ：开机动作结束End stating action

首先墨栈下降，然后小车向上移动一段距离，接着小车向左移动，之后向右移动一点，碰到右边限位，小车下降，最后墨栈上升。（注意喷头电缆线不要连接，小车盖先不要安装，如遇动作问题请联系客服）First, capping station drops, then the carriage moves up a distance, then the carriage moves to the left, then moves to the right a little, hits the right limit sensor, the carriage descends, and finally the capping station rises. (Note that the printhead cable should not be connected, the carriage's cover should not be installed first. If there is any problems, please contact technician or salesman)

通电后检查：Checking after power on
墨栈capping station
墨托capping unit
小车复位Carriage reset

2、机器开机后，缺墨报警器会发出"滴滴滴…"的报警声音When the printer is on, the lack of ink alarm will give a alarm noise

Waste ink alarm light(when the bottle is full of ink, the alarm will alert)

Black	Cyan	Magent	Yellow	Light Cyan	Light Magenta	White	Varnish

2.2 电脑连接PC Connection

2.2-1电脑硬件与系统建议：Computer hardware and system recommendations

⚠️ 注意Note　推荐要求Suggestiib：CPU：3.5 GHz or More
　　　　　　　　　内存：4GB或更高
　　　　　　　　　硬盘：500GB或更高（NTFS格式）
　　　　　　　　　操作系统：Microsoft Windows 7/10 Ultimate Edition
　　　　　　　　　Memory: 4GB or higher
　　　　　　　　　Hard disk: 500GB or higher (NTFS format)
　　　　　　　　　Operating System: Microsoft Windows 7/10 Ultimate
Edition

⚠️ 注意　建议用户：将硬盘格式化为2个分区（NTFS）。第一个分区用于安装OS系统和其他必要安装在此盘的软件，第二个分区用于保存软件，图片和工作文件。
Note Suggestions: format the hard disk as 2 partitions (NTFS). The first partition is used to install the OS system and other nessary software ; And the second partition is used to save software, images and working file
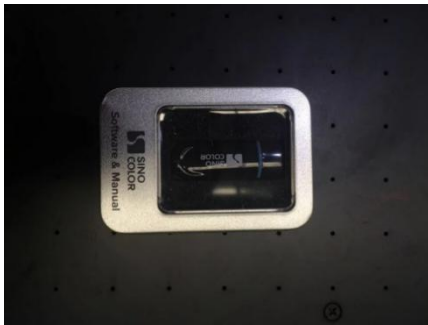
2.2-2安装USB驱动程序：Install the USB driver:

使用此USB数据线连接电脑和机器USB接口。（保持机器开机状态）
Use this USB cable to connect the computer to the machine's USB port. (Keep the machine powered on)

安装我们公司配发的U盘，同时拷贝所以文件在电脑硬盘中（请勿拷贝在系统盘，如果只有一个盘请忽略。）请妥善保存此U盘备用。（U盘内容会因不同机器内容有所不同）
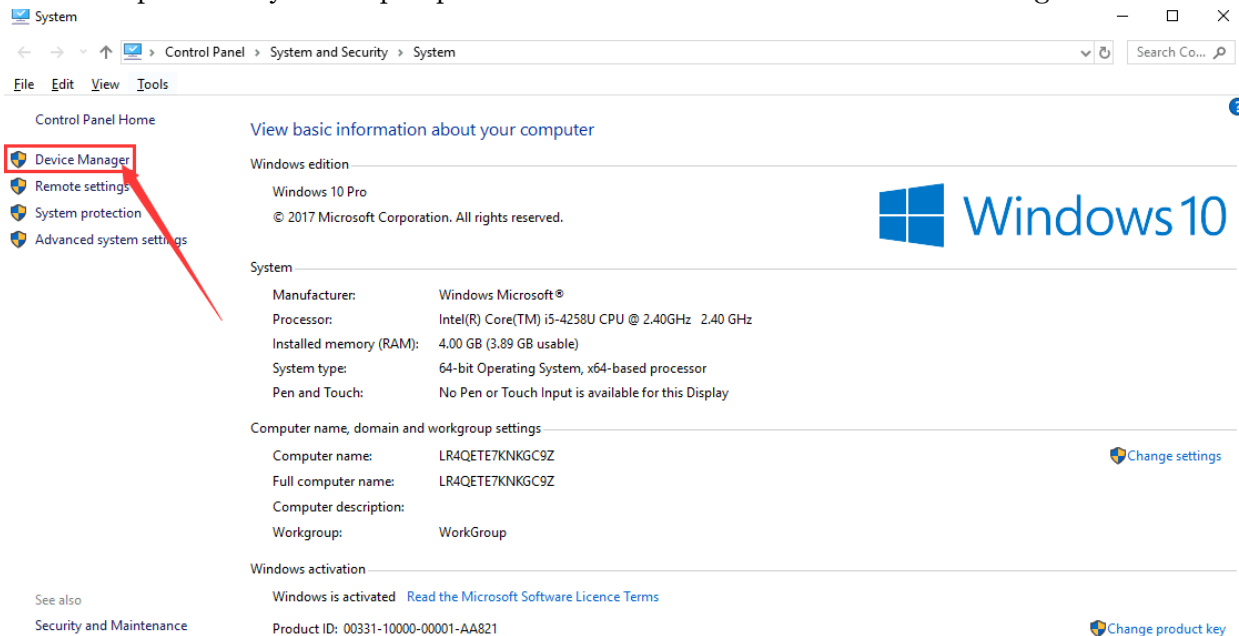
Install the U disk distributed by our company, and copy the file in the hard disk of the computer (do not copy it on the system disk, if there is only one disk, please ignore this note.) Please keep the U disk for future use.

(U disk content will vary depending on the machine content)

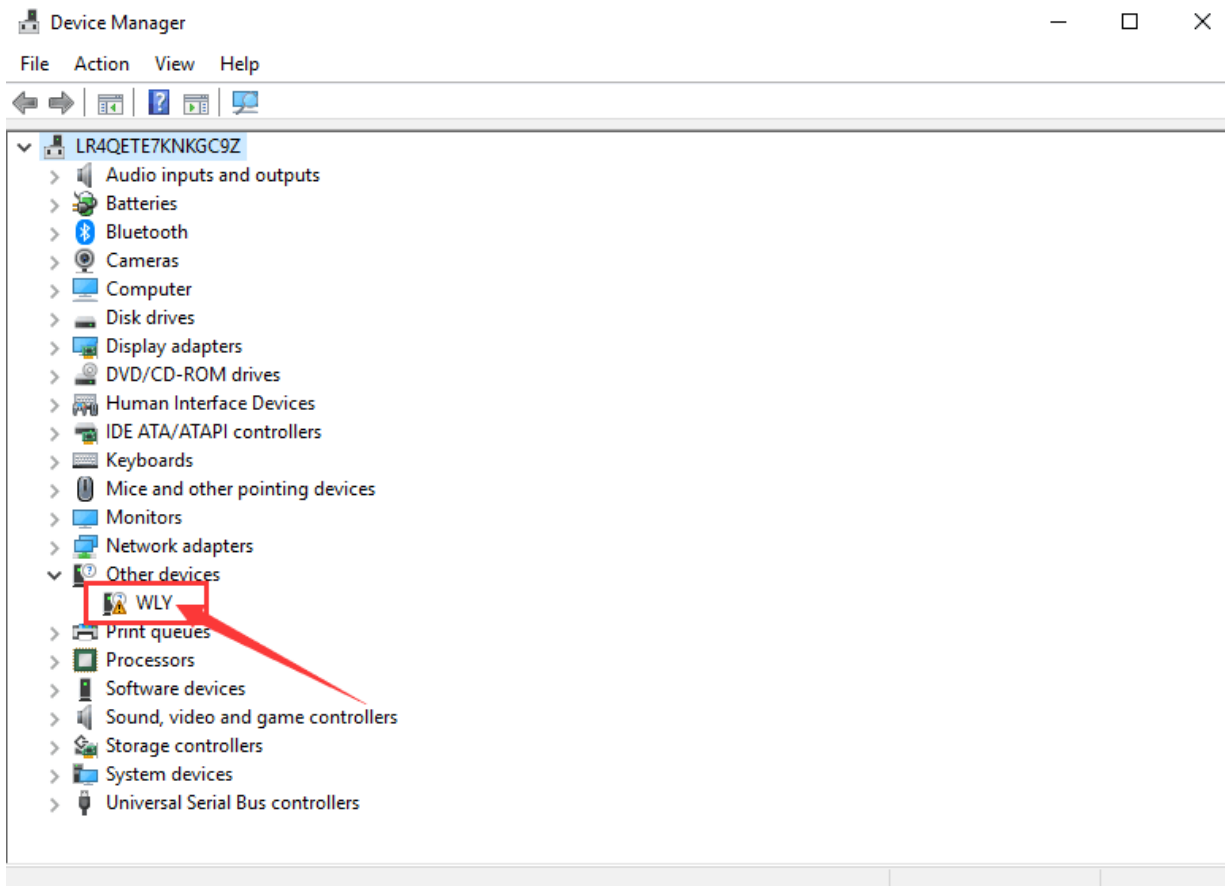|		
5.3c0	2019/7/29 15:48	文件夹
Customers Tool	2019/7/29 15:48	文件夹
SinoColor Printconsole of 4color for DX8	2019/7/29 15:48	文件夹
SinoColor-4 color maintop driver for NEW720	2019/7/29 15:48	文件夹
Software Installation Driver for 3.0	2019/5/8 11:29	文件夹
System Must Running Tool	2019/7/29 15:48	文件夹
5.3c0.zip	2019/5/8 11:30	压缩(zipped)文件...	197,881 KB
Customers Tool.zip	2019/5/8 11:31	压缩(zipped)文件...	118 KB
SinoColor Printconsole of 4color for DX8.zip	2019/5/8 11:32	压缩(zipped)文件...	32,974 KB
SinoColor-4 color maintop driver for NEW720.zip	2019/5/8 11:32	压缩(zipped)文件...	4,107 KB
Software Installation Driver for 3.0.zip	2019/5/8 11:32	压缩(zipped)文件...	19,463 KB
System Must Running Tool.zip	2019/5/8 11:33	压缩(zipped)文件...	8,328 KB

打开计算机的系统属性，选择"Device Manager"：

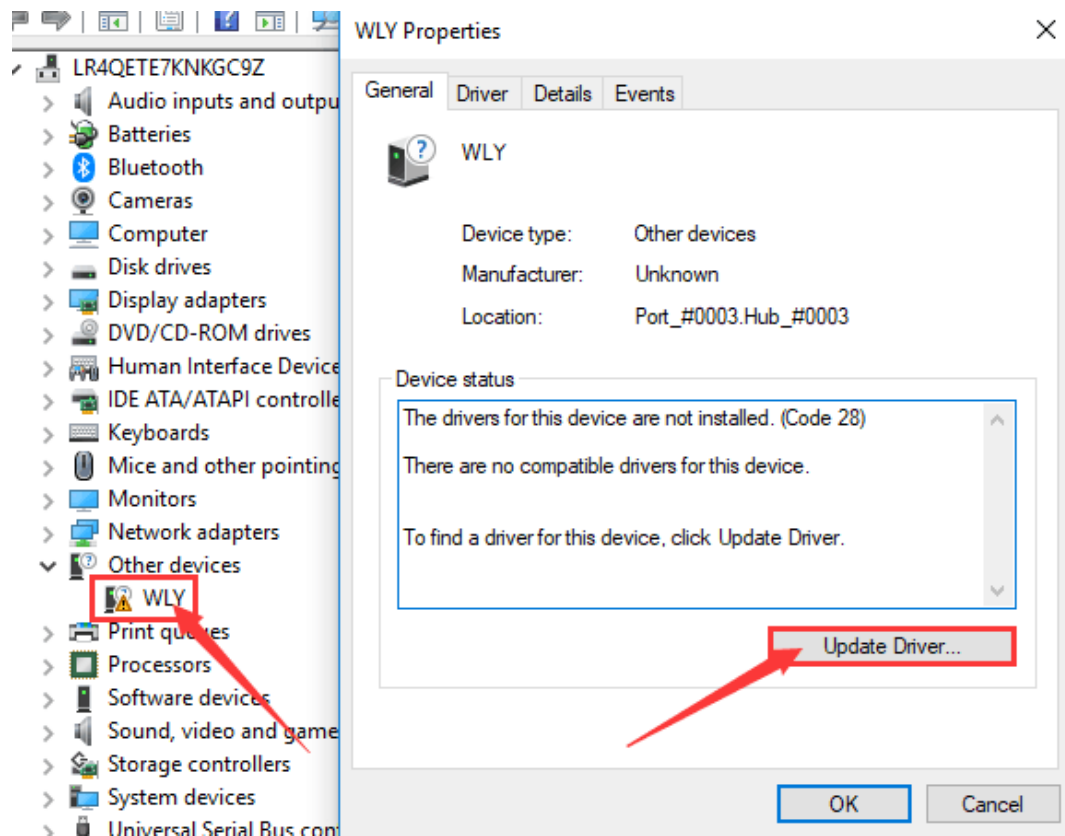Open the computer system properties and select "Device Manager"
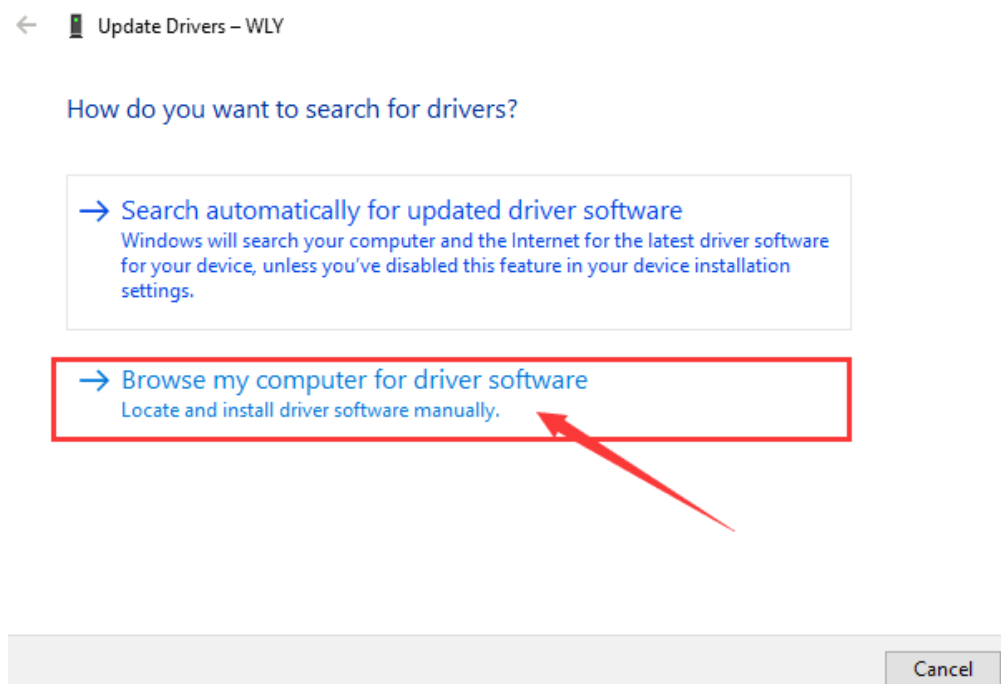

连接USB查看此名称"WLY"驱动：

Connect USB to view "WLY" driver:

双击"WLY"此驱动,显示详细信息点击"Update Drive":

Double click on "WLY" driver, display detailed information click "Update Drive"
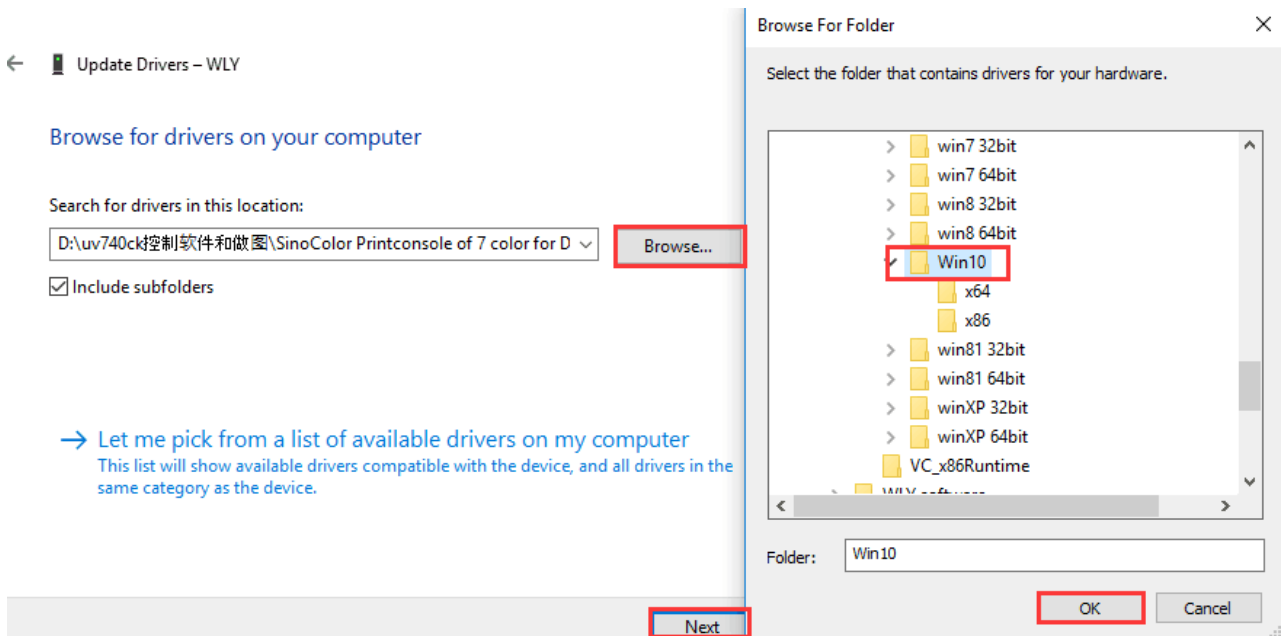
选择"Browse my computer for drive software":
Choose Browse my computer for drive software":

点击"Browse"，选择我司控制软件里面的"Drive3.0 WIN10"点击"OK"，然后再次点击"Next"（根据电脑系统的版本进行选择）：
Click "Browse", select "Drive3.0 WIN10" in our control software, click "OK", then click "Next" again (select according to the version of the computer system):

完成驱动安装：Finish drive installation，close

×

Update Drivers – Cypress FX3 USB StreamerExample Device

Windows has successfully updated your drivers

Windows has finished installing the drivers for this device:

Cypress FX3 USB StreamerExample Device

Close

三、墨囊及喷头安装 Damper and Printhead Installation
3.1墨水安装ink Installation

　　打开磨合瓶盖，加注墨水进入墨盒（添加2/3位置即可），注意颜色顺序，如下图所示，加入墨OK后拧紧瓶盖。

　　Open the ink tank and fill the ink cartridge (add 2/3 position), pay attention to the color sequence, as shown in the figure below, after adding the ink OK, tighten the cap.

墨盒加入墨后，墨盒背面缺墨报警器会停止报警，并红灯熄灭，如下图

After the ink cartridge is added to the ink, the ink shortage alarm on the back of the ink cartridge will stop the alarm and the red light will be extinguished, as shown below.

备注：当墨盒里墨水液位过低时，机器会发出报警声，并亮起红灯，此时应该添加墨水到墨盒里。液位报警灯位于机器上方，需对应安装墨水。

Note: When the ink level in the ink cartridge is too low, the machine will sound an alarm and light up in red. At this time, ink should be added to the ink cartridge. The liquid level warning light is located above the machine and needs to be installed with ink.

3.2 喷头安装墨囊的颜色顺序 Sequence of damper installation
3.2-1 4色模式 4 color mode

W	W	W	W
W		W	

左头 Left Printhead

K	C	Y	M
M		C	

中头 Middle Printhead

V	V	V	V
V		V	

右头 Right Printhead

3.2-2 6色模式 6 color mode

W	W	W	W
W		W	

左头 Left Printhead

K	C	Y	LM
M		LC	

中头 Middle Printhead

V	V	V	V
V		V	

右头 Right Printhead

备注：左边的喷头是白墨 中间喷头为彩色，右边对喷头安装的是光油
Remark: The left head is white ink. The middle head is colored, and the right head is varnish.

3.3 软件套色表墨序 Software color offset table ink sequence
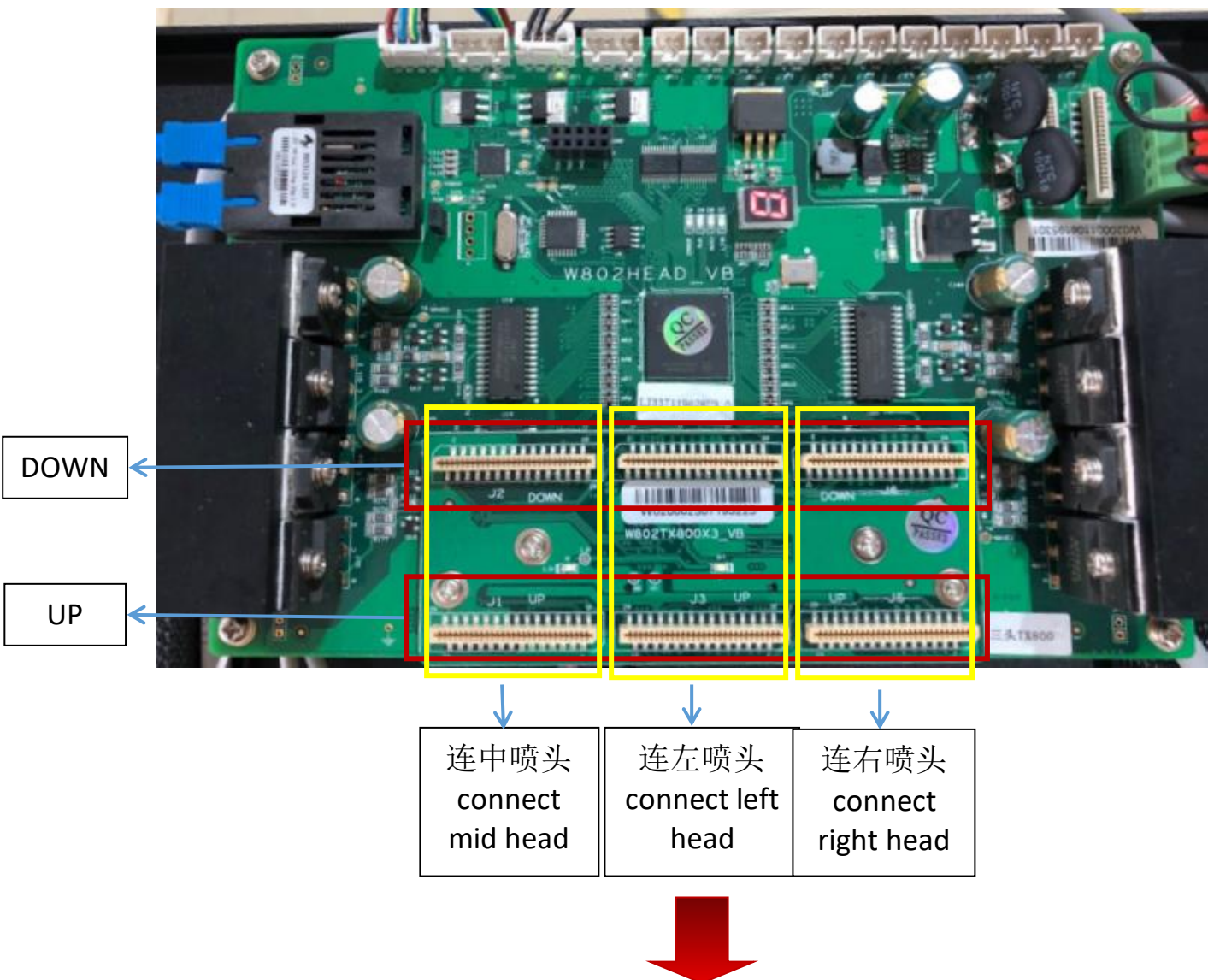Set it in "Maintenance" – "Basic_set" – Color Offest

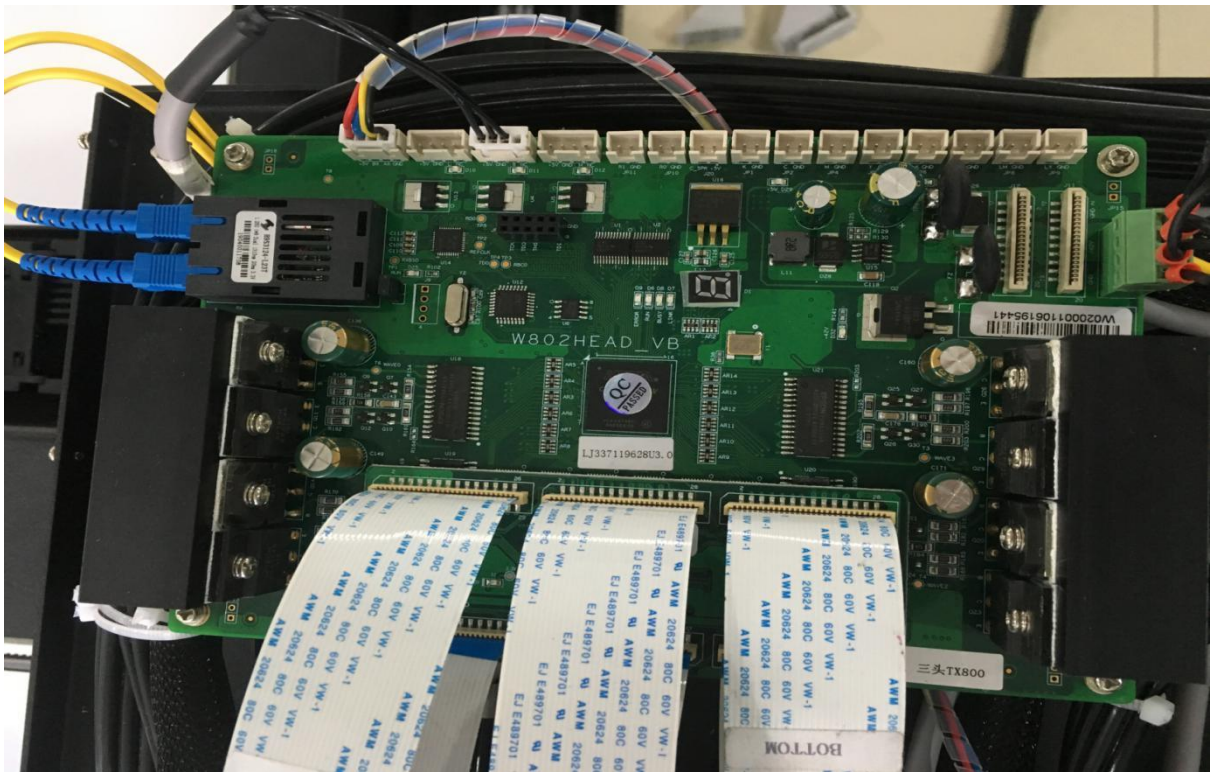| Color Offset		CH00	CH01	CH02	CH03	CH04	CH05	
	H00	K	C	M	Y	LC	LM	
	Ver...	187	187	187	187	187	187	
	Right	0	0	0	0	0	0	
	Left	0	0	0	0	0	0	
	H01	White	White	White	White	White	White	
	Ver...	0	0	0	0	0	0	
	Right	0	0	0	0	0	0	
	Left	0	0	0	0	0	0	
	H02	White	White	White	White	White	White	
	Ver...	494	494	494	494	494	494	
	Right	0	0	0	0	0	0	
	Left	0	0	0	0	0	0	
	H03	Close	Close	Close	Close	Close	Close	
	Ver...	0	0	0	0	0	0	
	Right	0	0	0	0	0	0	
	Left	0	0	0	0	0	0	

Print

Apply

3.4 喷头安装 Printhead Installation

安装喷头：（非常重要连接，如有疑问请联系客服）

Installation printhead: (very important connection, please contact technician if you have any questions)

3.4-1安装喷头线需要注意喷头底面连接"BOTTOM"，喷头正面连接"UP"；如下图示：

To install the printhead cable, you need to pay attention to the bottom of the head to connect "BOTTOM", and the front of the printhead to "UP"; as shown below:

注意：转接板 "UP" 对应连接喷头 "UP"线；"DOWN"对应连接喷头 "DOWN"线。UV机器的喷头线安装是左喷头与中喷头交叉安装的，左喷头的线插在小车板上的中插口，中喷头的线插在小车板上的左 插口，如下图。安装的时候要注意线的针脚和插口的针脚要接触良好。

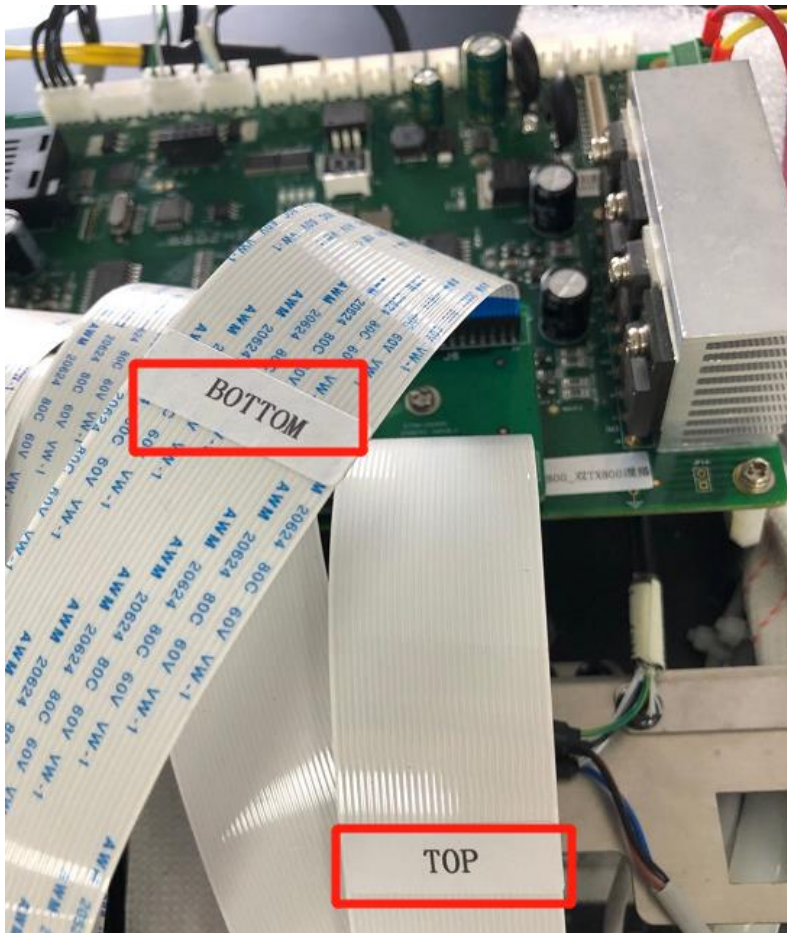Note: The adapter plate "UP" corresponds to the head cable "UP";

Adapter plate "DOWN" corresponds to the head cable "DOWN" .

The printhead `cable` of UV machine need to be cross installed. Insert the cables for left printhead into the right printhead convert card. Insert the cables for right printhead into the left printhead board convert card.

Check photo below.[SEP]Please note, the pins of the cable must connect properly with the pins of the socket.
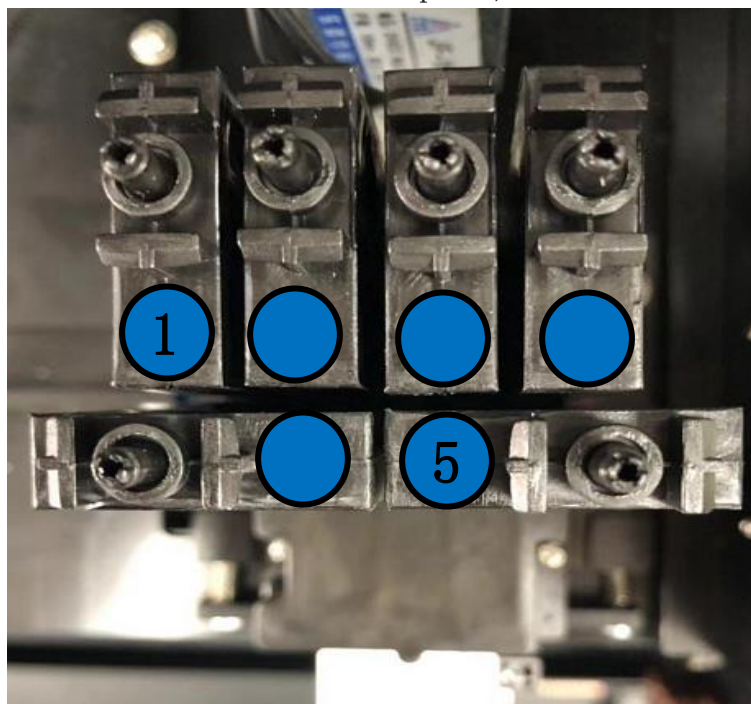
3.4-2 喷头正常安装完成如下示：（为了便于观察，图中以透明管道和墨囊代替黑色管道和墨囊作为说明）
The normal installation of the printhead is as follows: (For the sake of observation, the transparent pipe and dampers are used instead of the black pipe and ink bag as an illustration)
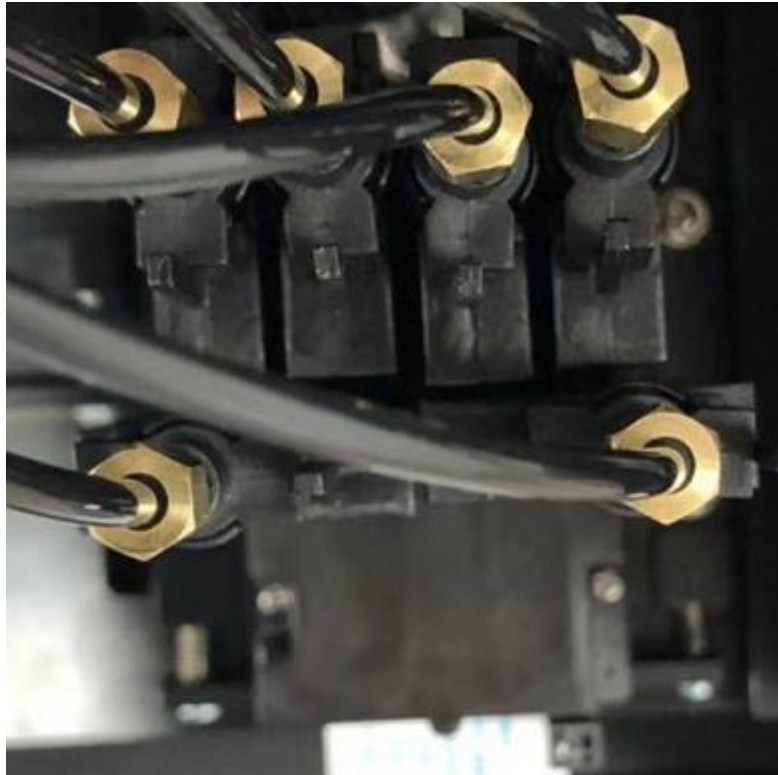
打开小车封盖，安装墨囊，连接墨囊转接头（注意墨囊方向与顺序）
Open the carriage cover, install the damper, and connect damper adapter
(note the direction and order of the dampers)

彩色色彩模式及排序Color mode and sorting

4C模式：4Ccolor model

1、黑　　2、蓝　　3、红　　4、黄　　5、蓝　　6、红
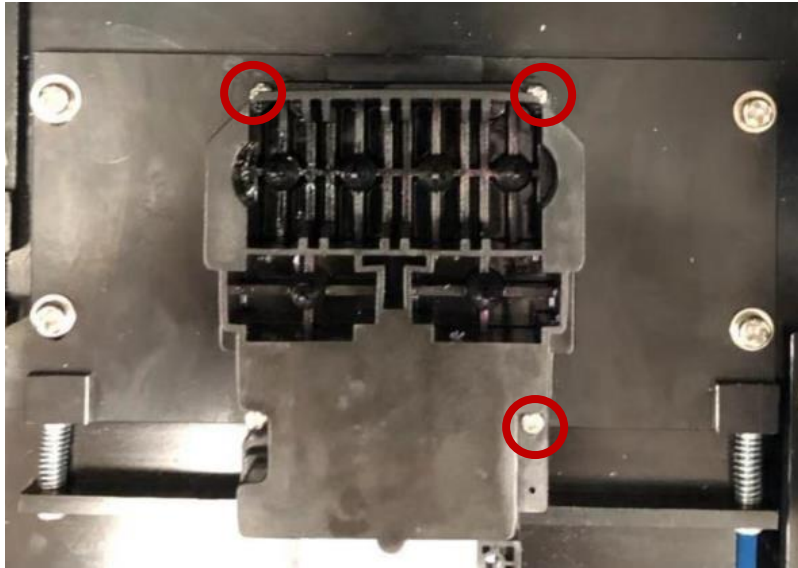
1, black 2, cyan 3, magenta4, yellow 5,cyan 6, magenta

K	C	Y	M
M		C	

6C模式：6Color model

1、黑　　2、蓝　　3、红　　4、黄　　5、浅蓝　　6、浅红

2、1.black 2.cyan 3.magenta 4. Yellow 5 light cyan 6. Light magenta

K	C	Y	LM
M		LC	

将打印头固定在托架上，通过4个固定柱+螺丝固定喷头。

Secure the printhead to the bracket and secure the nozzle with 4 mounting posts + screws.

完成所有步骤。再次打开机器，检查机器运动，然后保持机器通电状态下等待连接电脑软件。
Complete all the steps. Turn the machine on again, check the machine motion, and then wait until the computer software is powered on.

四、软件介绍 Software Intrduction

4.1 软件打开控制

每次打开软件需要连接此加密狗：

This dongle needs to be connected each time when open the software:

机器开启之后，通过 USB 数据线连接电脑，插上加密狗，打开软件之后左下角打印机状态会显示高，如下图所示：

After the machine is turned on, connect the computer through the USB cable and plug in the dongle. After opening the software, the printer status will show high in the lower left corner, as shown below:
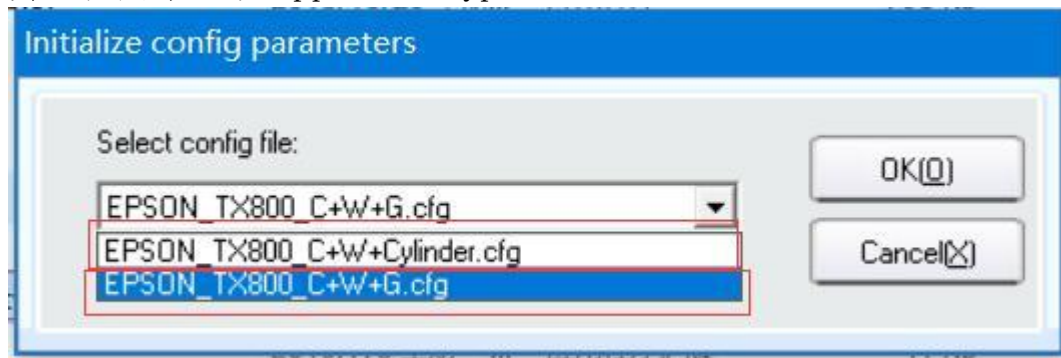
注意：这台机器支持平面打印和圆柱打印在选择配置文档对时候要根据你打印对材料（下图所示）

1，双击文件夹这个程序 Double click on the folder this program

TestPRN	2019/8/13 星期...	文件夹	
USB Device Driver2.0	2019/8/13 星期...	文件夹	
USB Device Driver3.0	2019/8/13 星期...	文件夹	
VC_x86Runtime	2019/8/13 星期...	文件夹	
Batman.dll	2017/12/21 星期...	应用程序扩展	10 KB
CleanHeadsTool	2016/5/27 星期...	应用程序	159 KB
CleanProcessSettings	2016/3/3 星期四 ...	应用程序	186 KB
CtrlPanelMagr.dll	2019/7/10 星期...	应用程序扩展	500 KB
eng.dll	2019/7/10 星期...	应用程序扩展	9,953 KB
facMenufat	2018/1/4 星期四 ...	文件	1 KB
MachConfigTool(32H)	2017/11/21 星期...	应用程序	799 KB
MachConfigTool(USB3.0)	2018/10/25 星期...	应用程序	798 KB
MachConfigTool-eng	2018/2/1 星期四 ...	应用程序	780 KB
PrintCoreModule.dll	2015/1/31 星期...	应用程序扩展	60 KB
PrinterCtrlMagr.dll	2019/7/10 星期...	应用程序扩展	1,081 KB
RocKyMD.dll	2017/12/21 星期...	应用程序扩展	41 KB
RocKySD.dll	2017/12/21 星期...	应用程序扩展	557 KB
Sinocolor contorl software	2019/7/10 星期...	应用程序	10,352 KB
USB2Ctrl.dll	2019/7/8 星期一 ...	应用程序扩展	41 KB
USB3Ctrl.dll	2019/7/8 星期一 ...	应用程序扩展	39 KB
USBMagr.dll	2019/7/8 星期一 ...	应用程序扩展	15 KB

会出现两个选项 Appear 2 types choices:

选项一是彩墨+白墨+圆柱体 是用来打印瓶子等一些圆柱体材料。

选项二是彩墨+白墨+光油 是用来打印板材等一些平面材料。

根据自己的材料选着。

The first option is color ink + white ink + cylinder is used to print some cylindrical materials such as bottles.

Option 2 is color ink + white ink + varnish is used to print some flat materials such as plates.

Choose according to your own materials.

选择好配置文件以后点击 OK 会出现下面的页面。
After selecting the configuration file and clicking OK, the following page will appear.

板卡初始化动作之后，通过 USB 数据线连接板卡跟电脑，插上加密狗，打开软件之后左下角打印机状态会显示高，如下图所示
After the board is initialized, connect the board to the computer via the USB cable and plug in the dongle. After opening the software, the printer status will show high in the lower left corner, as shown below.

<div align="center">图上所示 USB 线已经连接好了软件和机器</div>

检测机器动作运转，点击"Left"，Right"，"Feed"，"Back"，"Home"观察机器运动动作是否正常

Check the machine motion, click "Left", Right", "Feed", "Back", "Home" to observe whether the machine movement is normal.
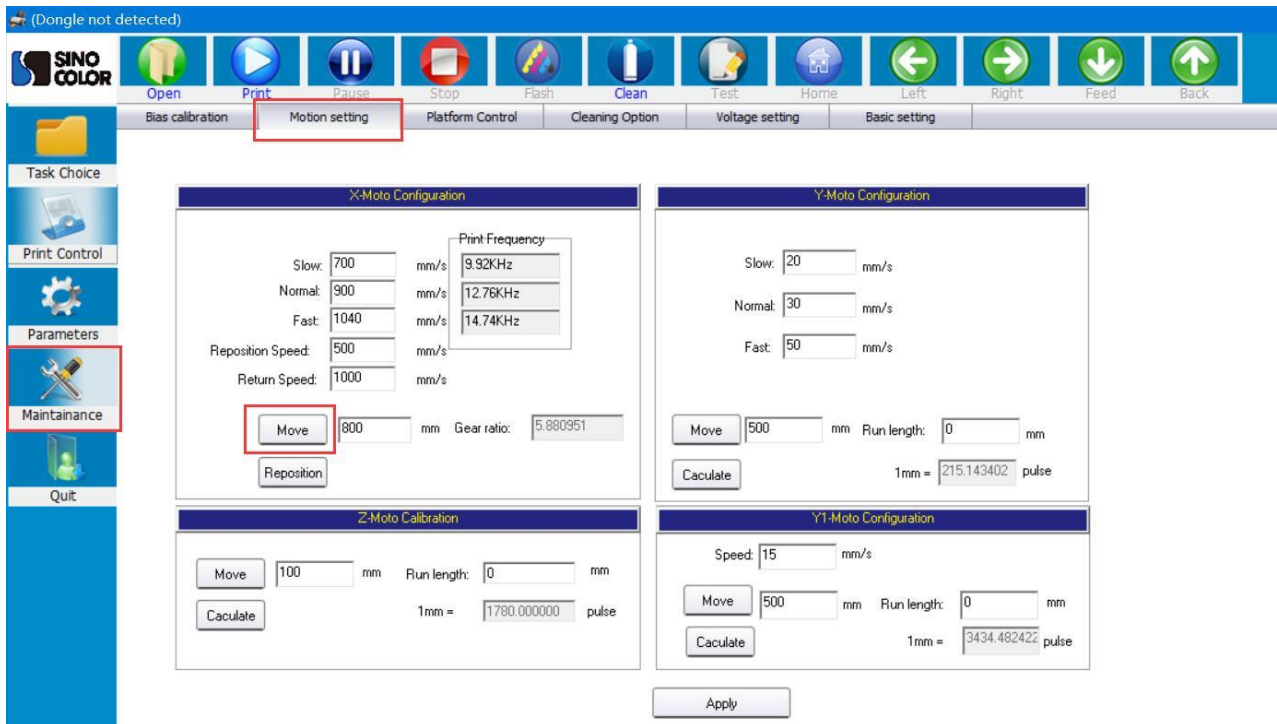
4.2 校准齿轮比（X,Y,Z）：Gear ratio calibration (XYZ)

点击系统维护，X 运动设置， 会看到如图所示界面，首先在移动后面填入一个较小值（100），点击移动，此时，小车移动停止后再点击复位,最后点击运用;再次重复设
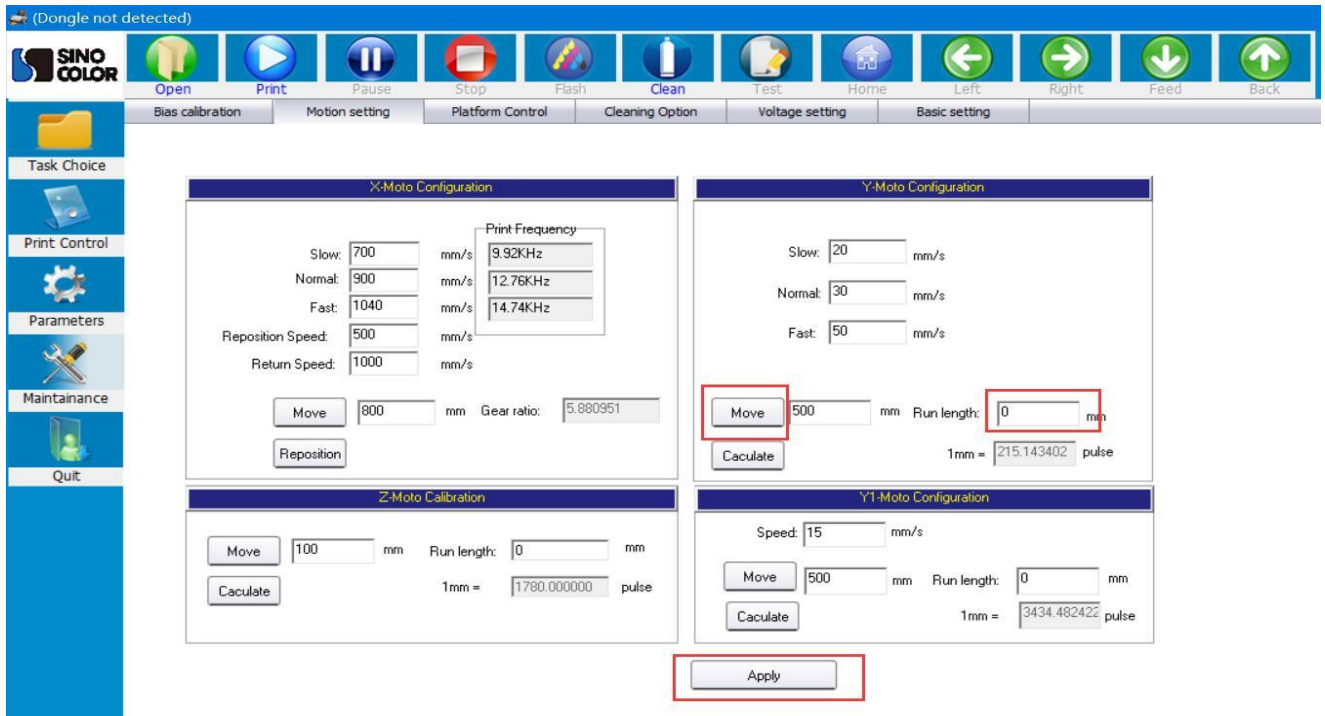
置数值（200）再次点击运动，复位，保存。

X-Gear ratio Calibration

Click ''Maintenance'', ''Motion Setting'', you will see the interface as shown, first fill in a small value (100) behind the ''Move'', click ''Move'', then click the '' Reposition'' after the printhead carriage stop moving ;repeat these steps again , value (200), click ''Move'', then click the '' Reposition'',click"Apply"

Y 齿轮比：首先在机器对平台上做好标记后再移动后面填入（100），点击移动，等小车横梁移动以后停止，用尺量出横梁实际移动距离，填入走布长度框中，点击计算（注意，每次只能点击一次计算），保存。

Y gear ratio: first mark the machine on the platform and then move it back to fill (100), click "move", wait for the beam to move and stop, use the ruler to measure the actual moving distance of the beam, and fill in the length of the feeding. Click Calculate (note that you can only click once to calculate) and save.

注意：校准完齿轮比之后需要点击界面下方应用按钮保存参

Note: After finished calibrating the gear ratio, must click the ''Apply'' button to save the data.
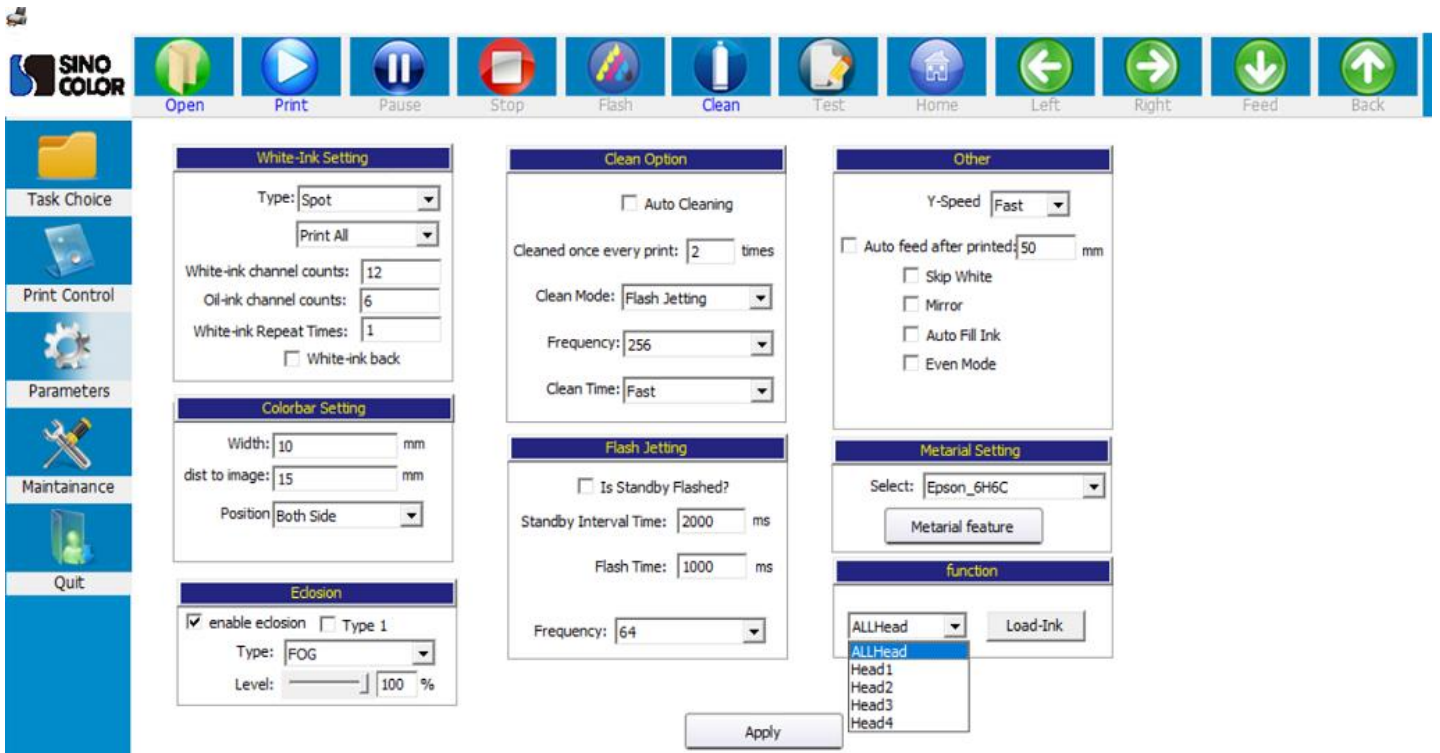
4.3 吸墨设置Pump ink setting

第一步选择吸墨时墨栈高度，注意：工厂出货前已经调试正常，无需再做调试

The first step is to select the height of the capping station when sucking ink. Note: The factory has been debugged normally before shipment, no need to debug.
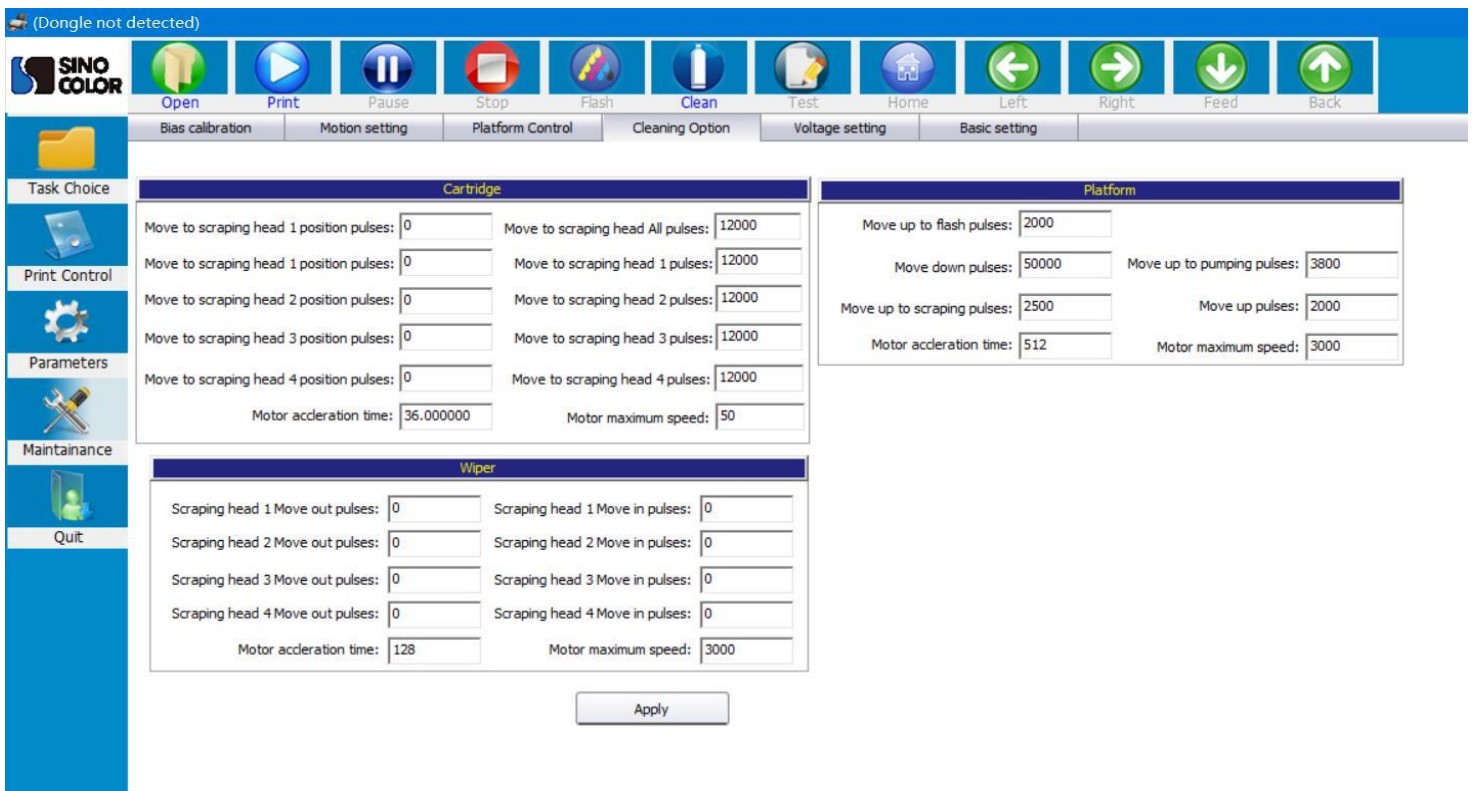

第二部选择吸墨喷头，喷头：全部/1/2/3

The second part selects the pumping ink head, the nozzle: all / 1/2 / 3

4.4 清洗设置Cleaning Option Introduction⸋SEP⸍

清洗步骤：（出厂已设置，如需更改请联系售后人员）

Cleaning steps: (Setting already done before delivery in factory. So no need to change any data inside. If need change, please contact the after-sale people.)

1、墨垫下降到下限位（平台下降的脉冲）The capping unit goes down.

2、墨垫上升到顶住喷头吸墨（平台吸墨的脉冲）The capping unit goes up to close the printhead surface .

3、墨泵开始抽墨（抽墨时间通过工具可以设置）The ink pump starts to pump ink (the pump time can be setted)

4、抽墨之后等待一定时间，待墨垫内气压均衡，防止墨回吸（工具设置，时间保证 3 秒以上）after pumping, then the air pressure in the capping unit will be balanced. This will prevent the ink from sucking back (By tool setting, time more than 3 seconds)[SEP]

5、墨垫下降到下限位（平台下降的脉冲控制）he capping unit goes down[SEP]

6、墨泵抽掉墨垫内废墨　　the ink pump draws the waste ink in the capping unit.

7、小车左移到起始刮墨位（小车去刮片 1 位脉冲）The carriage moves to the left to the scratch ink position (Move to the scraper head 1 position pulses)[SEP]

8、平台上升到刮墨高度（平台刮墨的脉冲）The platform rises to the scraping height (move up to scraping pulses)[SEP]

9、刮片移除至喷头位，准备刮墨（出刮片 1 时脉冲）The wiper is remove to the head position, ready to scrape the ink (scraping head 1 move out pulses)

10、小车移动刮墨（小车去刮墨 1 位脉冲）The carriage moves to scrape the ink (Move to scarping head 1 pulses)[SEP]

11.墨垫下降到下限位(平台下降的脉冲）The capping unit drops to the limit sensor (Move down pluses)

12、刮片复位(回刮片 1 时脉冲)The wiper goes back (scraping head 1 move in pulses)

13、小车复位carriage back

14、墨垫上升到闪喷位置(平台闪喷的脉冲)The capping unit rises to the flashing position (Move up to flush pulses)[SEP]

15、喷头开始闪喷 The head starts to flash

16、墨泵开始抽墨垫内废墨 The ink pump starts to draw the waste ink in the capping unit

17、墨垫下降到下限位（平台下降的脉冲）The capping unit drops to the limit sensor (Move down pluses)

18、墨垫上升到待机高度（平台上升的脉冲）The capping unit rises to the standby height (Move up pulses)

4.5 软件调试步骤 Start the calibration
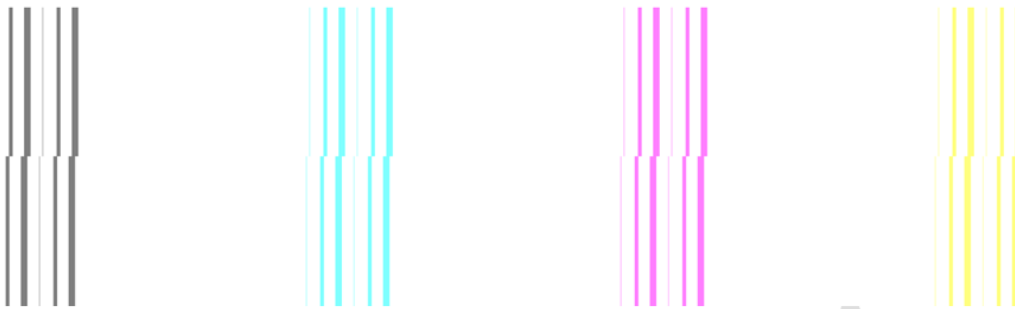
4.5-1 打印垂直校准图 Printing vertical calibration

在软件主界面，单击打印校准图，下拉菜单中，选择打印 垂直校准图

On software home page, left click"Test", choose ''Vertical Calibration'' from the drop-down list.
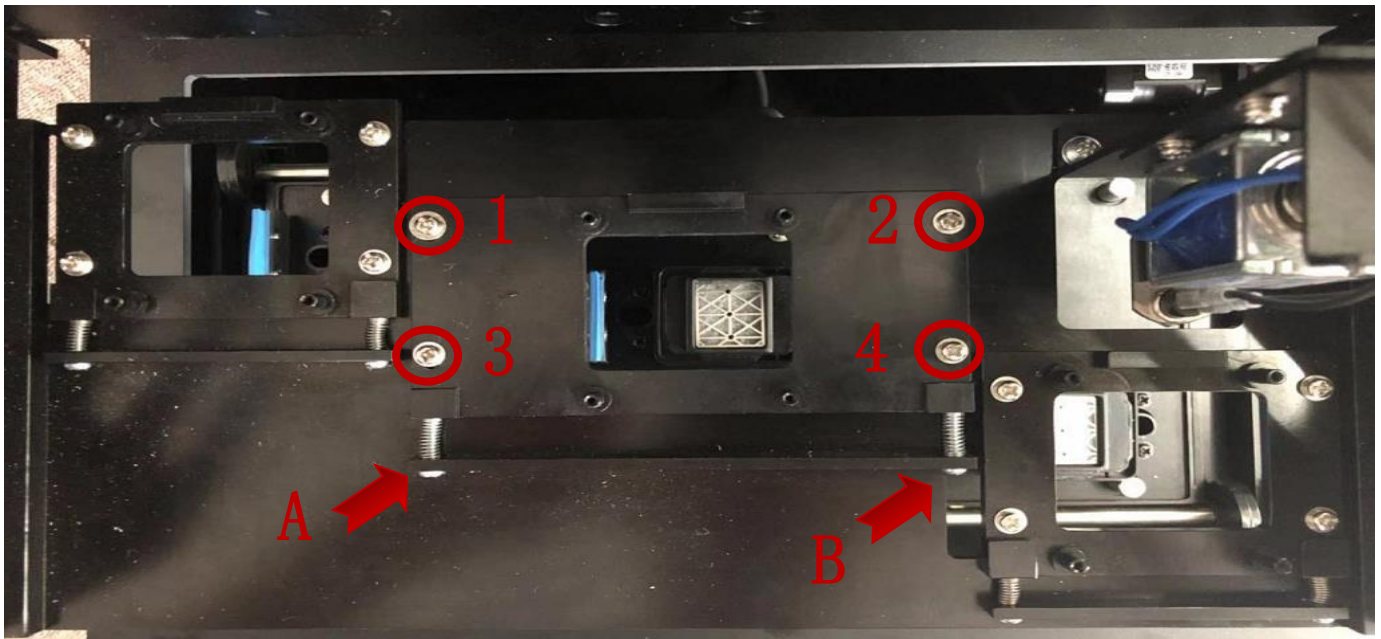

打印的喷头垂直状态图如下图所示时：

You will get two CMYK printing test like below picture. The left CMYK printing test is for left printhead. The right CMYK printing test is for the right printhead.

正确的垂直状态应该是上下两部分完全对齐，成一条直线。所以需要对喷头进行调整，如下图所示：

此时应该拧松喷头固定板的4个固定螺丝（不是喷头的3个固定螺丝），然后通过旋进或旋出螺丝B来调整喷头的垂直状态，直至垂直校准完成。例如把螺丝B旋出1 圈，然后固定好1，2，3，4螺丝，再次打印垂直校准图来检查是否上下对齐，如果没有则需继续进行上诉步骤直至垂直校准图上下部分对齐。
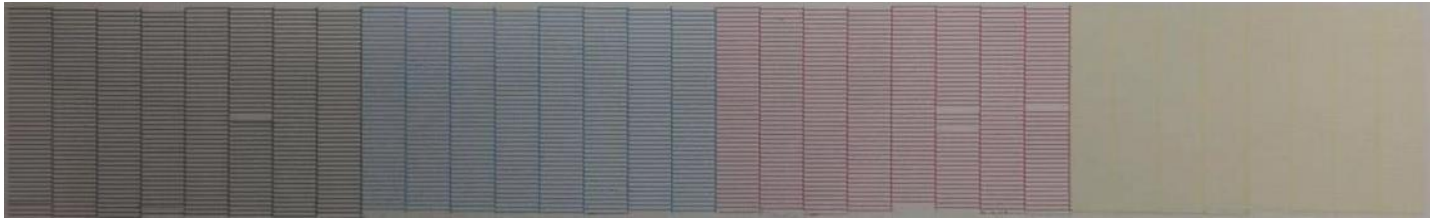
4.5-2 打印喷头状态图 Printhead Status test.

在软件主界面，单击打印校准图，下拉菜单中，选择打印 喷头状态图

On software home page, left click"Test", select "Head Status" From the drop-down menu

打印的喷头状态图如下所示：

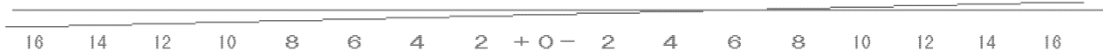Printhead status as below picture show:

备注：若打印喷头状态不清晰模糊，请检查是否正常抽墨，再次做清洗喷头

4.5-3 打印步进校准图 Step Calibration

在软件点击系统维护，选择偏差校准，步进调整，点击打印校准图，如下图所示：
Click "Maintenance" on software, choose "Bias Calibration"—"Step Calibration", choose "Base Step " on Step, then click" print", as below picture show:
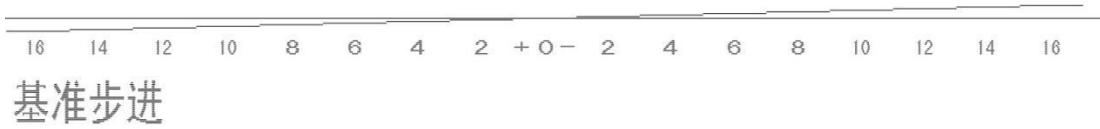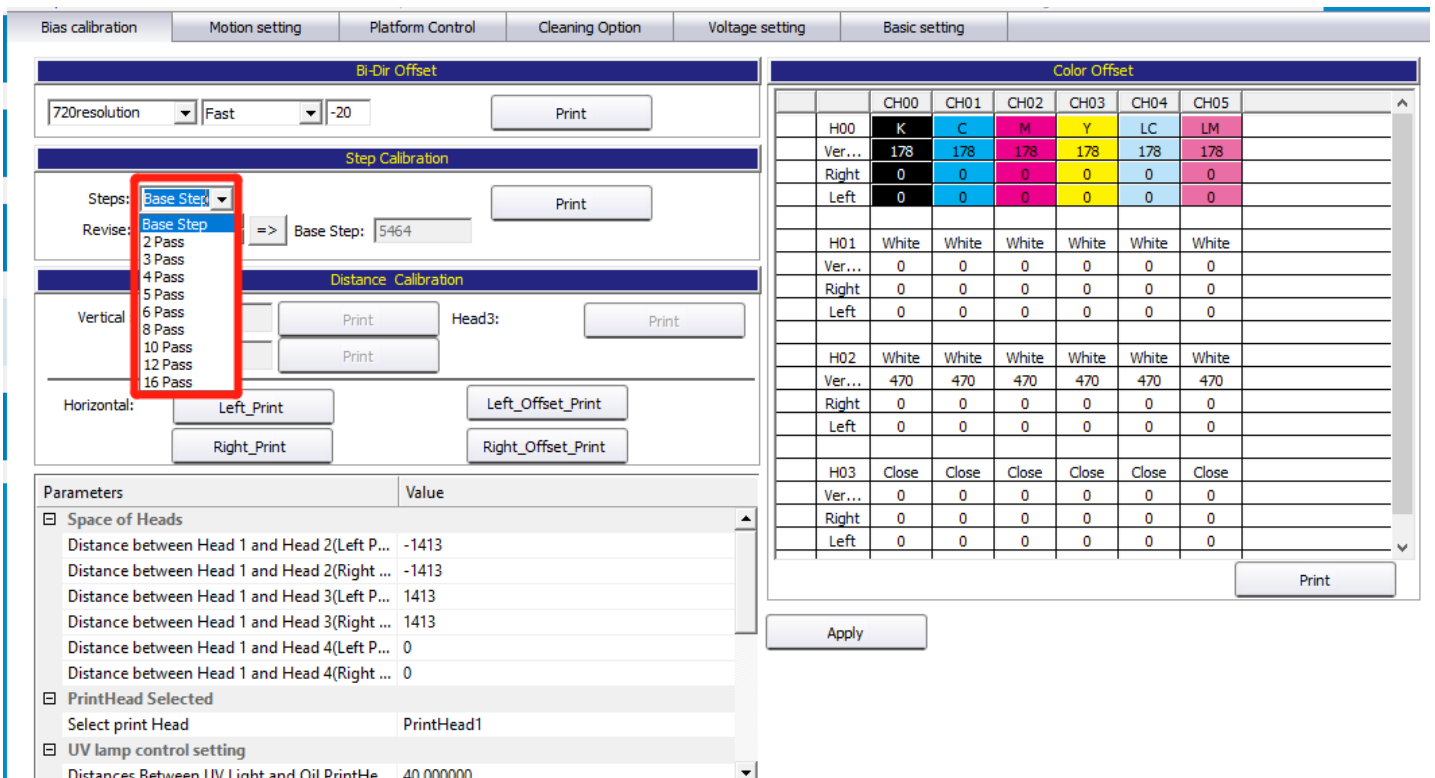

步进选择 Base Step，点击Print，打印校准图，小车开始打图：

基准步进

如上图所示，在 -6 的位置重叠，证明基础步进有- 6 的误差，此时需要将Revise栏中的数字加上- 6（以图中为例，此时应将3改为-3），点击界面下方Apply保存应用
As above picture show: on -6 place overlapped, It proves that the basic step has an error of -6, so need to add -6 to the figure in" Revise" (As picture show, need to change 3 into -3), then click "Apply"

再次点击打印校准图，如下图：Click "Print" again, printing effect as below show:

基准步进

在 0 位置上重叠，则基准步进调整完毕，如果还不在 0 点位置重叠，继续调整参数，继续打印，直至每次都能在 0 位置重叠。Overlapped on 0 place, so basic step calibration is finished; If it's overlapped at 0 place, please go on adjusting the parameter and printing, unit It's overlapped every time.
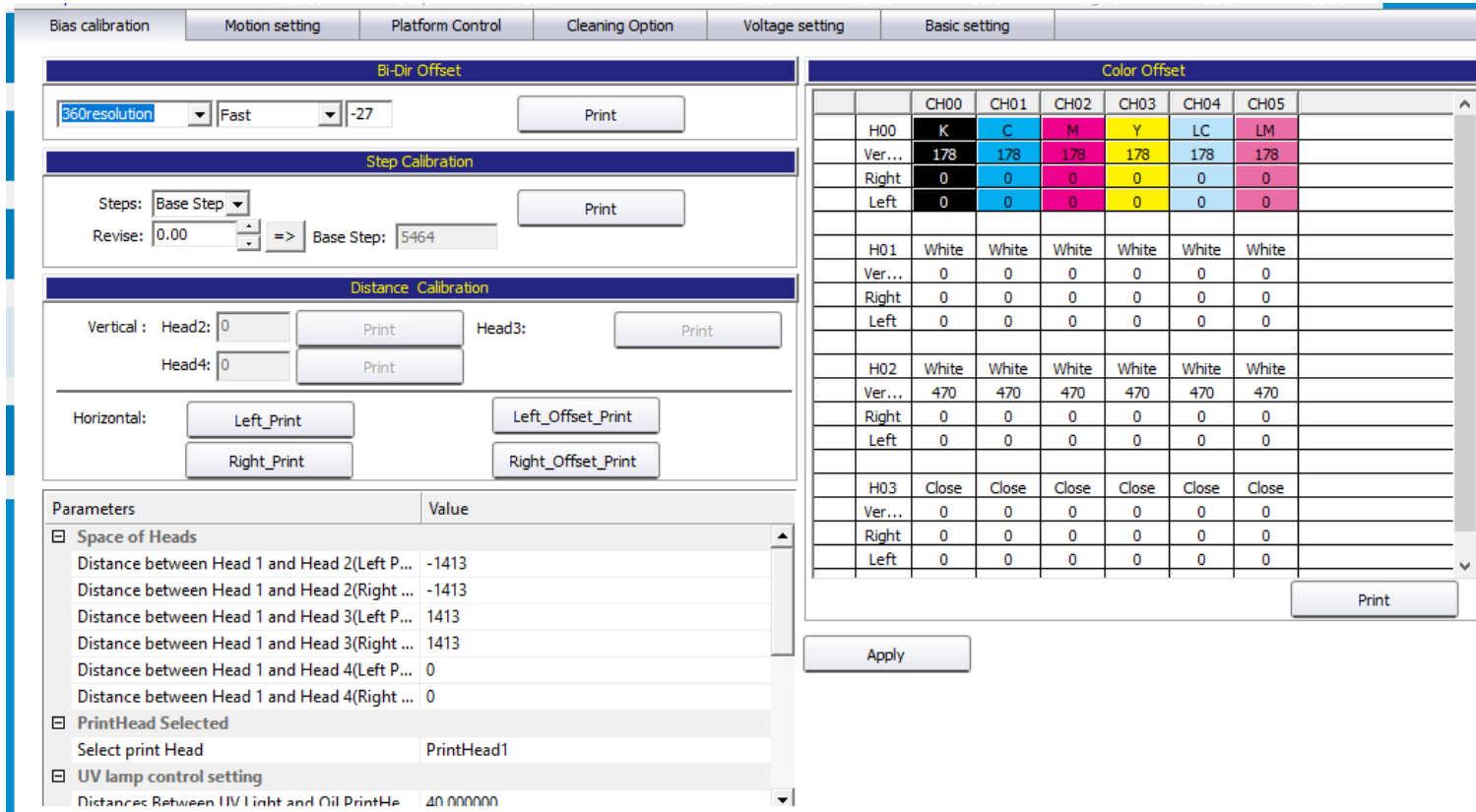

在步进选择中点开下拉菜单，可以对不同的Pass数进行步进校准，选择需要的Pass数后分别打印校准图进行校准，步骤与Base Step校准相同。"Step" down menu can be opened and chose calibration for different Pass Numbers. After selecting the needed passes number, then doing calibration separately. Method is same as Base Step calibration.

4.5-4 打印双向校准图 Bi-Dir Calibration
点击软件系统维护，偏差校准，如下图所示：

Click "Maintenance"—"Bias calibration"—"Bi-Dir Offset", as below picture show:

首先需要选择对应的精度，默认都是 360 精度，选择好相应的速度，低、中、高速的双向值都需要调整， 点击Print打印校准图：

上图在-6的位置上下是对齐的，说明快速下，双向偏差-6，需要在后面调整框中加上-6，点击界面下方Apply保存应用。

再次点击打印校准图：

当在0位置对齐时，双向校准完成。

First, selecting the corresponding resolution, the default is 360 resolution, select the corresponding speed: low, medium and high speed , both of resolution and speed need to be adjusted, click "Print "to print the calibration diagram:

Above figure is aligned above and below at -6 position, indicating that under fast speed, Bi-Dir is -6, need to add -6 in the adjustment box. Click "Apply " at the bottom of the screen to save the application.

Click" Print " again:

双向校准精度选择说明：720X1440 4PASS 对应的双向校准为 360 精度，选择打 8 PASS 时，对应的为 180 精度； 720X2160 6PASS 360 精度双向，12PASS ，180 双向； 720X2880 8PASS 360 精度， 16PASS 180 精度

Note:

Description of bidirectional calibration resolution selection:

Bidirectional calibration precision corresponding to 720X1440 4PASS is 360 resolution; The precision corresponding to 8 PASS is 180 resolution;

720X2160 6PASS is 360 resolution Bi-Dir,

12PASS is 180 bidirectional;

720X2880 8PASS is 360 resolution, 16PASS is 180 resolution

五、打印 Print
5.1 载入打印文件**Upload the printing file**

载入打印文件有三种选择，第一种，点击主菜单栏的打开文件界面，根据路径找到 RIP 好的 PRN 文件，选中之后双击或者点击下方打开。There are three options for loading the file. The first one is to click ''Open'' in the main interface and find PRN file(after RIP well). Double click on it or click to open.

第二种，主菜单栏点击任务选择，找到存放 RIP 文件路径，双击需要打印的文件 Second, click ''Task Choice'' in the main menu, find the path to store the RIP file, and double-click the file to print.

第三种， RIP 软件直接打印。

打开如下图示"MainTop Print Manager"设置端口"127.0.0.1"直接打印Third, Print directly from the Rip Software.

Open the "MainTop Print Manager" (If your printer is using Maintop Rip Software), setting port "127.0.0.1" as shown below to print directly

Add TCP/IP Port   ×

IP Address:

| 127 | . | 0 | . | 0 | . | 1 |

Port Name:

RAW_127.0.0.1

Port & Printer Type

○ RAW--Laser Printer Supported PJL

◉ RAW--Printer Unsupported PJL

○ LPR--Printer Unsupported PJL

RAW Port Number: 9100   Check

☐ Count With Byte   ○ Standard   ○ 512-1023   ○ Above 1024

OK   Cancel

5.2 打印属性

当双击要要打印任务时，会弹出任务属性框，如下图所示
When you double-click the task you want to print, will pop up task properties window like below:

可以选择

重复打印：当勾选重复打印之后，每次打印完成，车头都会复位，然后再同一白边起始位置开始打印同一个任务。

多幅设置：可以设置横向幅数和纵向幅数，中间可以设置间隔，间隔的单位是 mm 毫米

区域打印：可以手动选取文件的一部分进行打印，当区域打印时，重复打印，和多幅设置无效量统计：表示当前 PRN 文件所需的墨**Repeat Print:** When the ''Repeat print '' is chosen, each time when printing completed, the carriage will back to base point, and then start to print at the same starting point.

Multiple setting, you can set the X (X Direction) and Y (Y direction) data, the space of two design (X Space, and Y Space). The data for space is based on millimeter.

Regional printing, you can manually select to print part of the file. In this case, repeat print and multiple settings are invalid

点击任务属性下面墨量统计，会出现如下图所示界面：

点击任务属性下面墨量控制，会出现如下图所示界面：

勾上墨量控制，可以对当前 PRN 文件 各墨量进行调节
注：当墨量截取之后，输出的图像精度会降低，点会变粗，一般不建议在此处调

5.3 开始打印 Start Print

当任务导入完成，可以点击软件"Print Control"，同时软件界面会显示当前PRN 任务的文件信息，例如设置起点打印位置"Margin Width"，查看颜色数量，面积等，如下图：

白边设置： 设置 PRN 文件 X 方向起始打印位置。

彩条打印：勾选彩条，彩条详细设置在参数设置界面，可以设置彩条宽度， 彩条到打印图片的距离，彩条只在图片左侧，右侧，或者在两侧都出

队列打印： 当同时导入多个 PRN 任务时，勾上队列打印，会连着打印完所有任务

车头速度：可以选择高、中、低速，具体速度在系统维护，运动设置界面可调

打印方向： 可以选择单向左，单向右，双向，选择双向打印时，要先调试好双向值

再次点击"print"即可打印任务

六、软件功能
6.1 标题菜单栏

打开文件： 导入 RIP 好的 PRN 文件进行打印

打印：导入好 PRN 文件之后，选种文件，点击打印，开始打印当前任务

暂停：打印过程，暂停打印，小车复位，按钮此时变为 继续，点击继续，任务继续打印停

止：停止当前打印任务

闪喷：打开或关闭喷头待机闪喷

清洗：当喷头状态不佳时，对喷头进行清洗打印校准图：打印喷头状态图，垂直状态图

车头回零：当车头不在原点时，可以让小车直接复位回到原点

左移：小车向左移动

右移：下车向右移动

进料：材料向前移动

退料：材料向后移动

6.2 参数设置界面

（1）白墨设置：写真机应用里一般只用专色或者单独白墨，白墨通道数不要更改，已给出软件上默认值就行，当白墨需要加厚时，可以设置白墨重复次数。

（2）彩条设置：设置彩条的宽度，离图片距离，位置，左侧、右侧、或者两侧

（3）0边缘羽化：默认只需要勾上边缘羽化即可，类型一般选择雾喷，幅度根据实际调整，幅度越大，速度越慢，效果越好。 加强羽化在打印色块，或者喷头状态较差时开启使用，开启加强羽化，打印速度会降低， 但效果会提升很多，可以根据打印出来效果实际调试

（4）自动清洗： 勾选之后点击确定既开启自动清洗。

（5）装墨功能：可选：喷头 1、喷头 2 和 双头 。点击"装墨"按钮，系统控制墨盏上升到抽墨位置，墨泵开始工作对喷头进行抽墨，按钮显示变为"停止"，直至手动点击"停

止"按钮，墨泵停止抽墨

6.3 系统维护界面

SINO COLOR

| Open | Print | Pause | Stop | Flash | Clean | Test | Home | Left | Right | Feed | Back |

Bias calibration　　Motion setting　　Platform Control　　Cleaning Option　　Voltage setting　　Basic setting
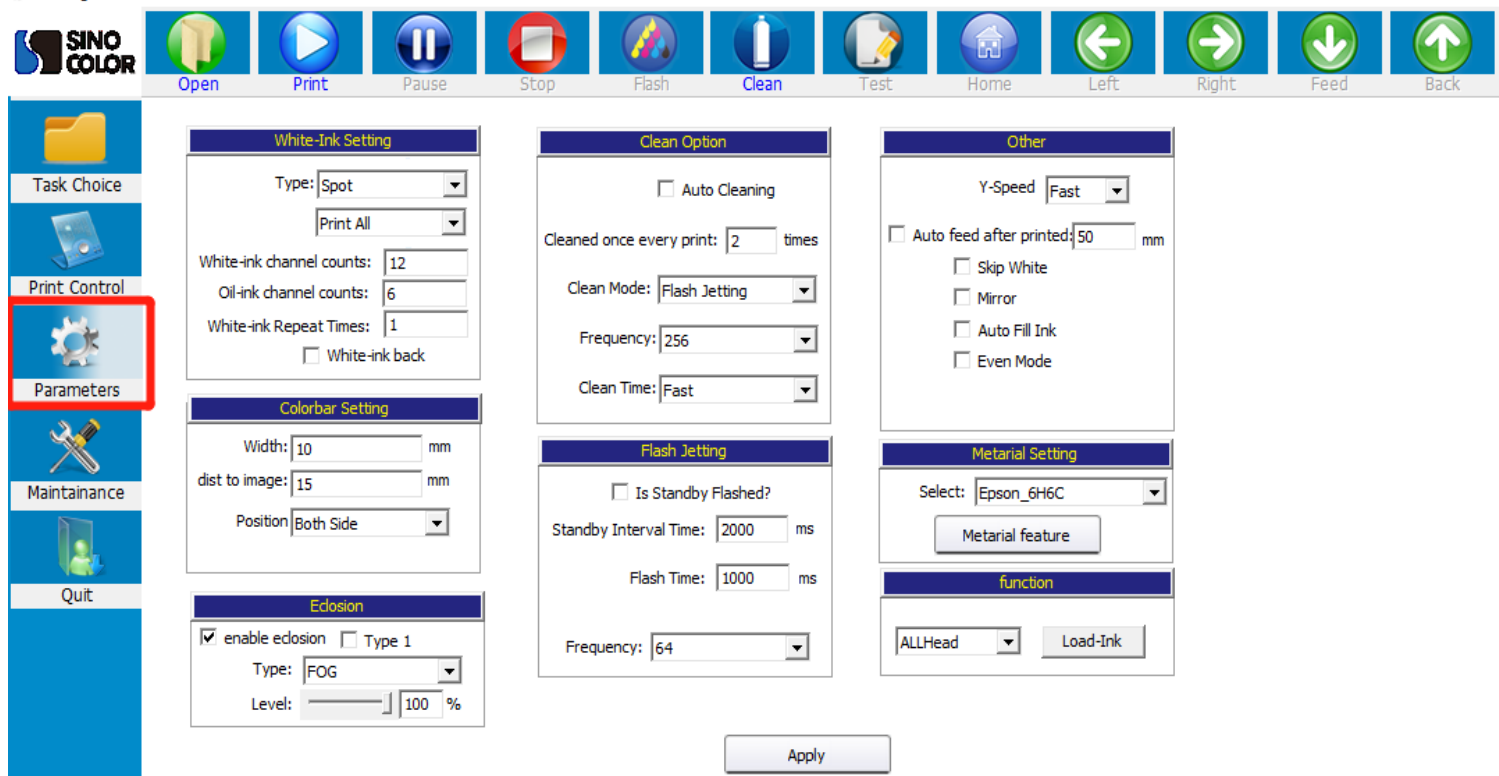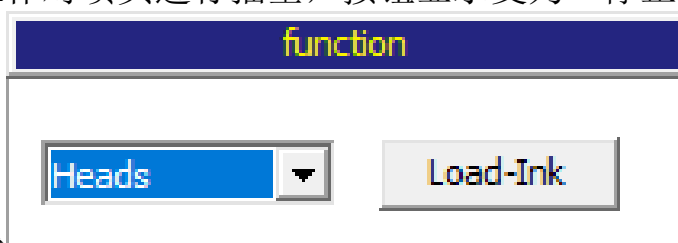
Task Choice
Print Control
Parameters
Maintainance
Quit

Bi-Dir Offset

720resolution ▾　Fast ▾　-20　　　　Print

Step Calibration

Steps: Base Step ▾　　　　Print
Revise: 0.00 　=> 　Base Step: 5464

Distance Calibration

Vertical : Head2: 0　　Print　　Head3:　　Print
Head4: 0　　Print

Horizontal:　Left_Print　　Left_Offset_Print
　　　　　　　Right_Print　　Right_Offset_Print

Parameters	Value
⊟ Space of Heads	
Distance between Head 1 and Head 2(Left P...	-1413
Distance between Head 1 and Head 2(Right ...	-1413
Distance between Head 1 and Head 3(Left ...	1413
Distance between Head 1 and Head 3(Right ...	1413
Distance between Head 1 and Head 4(Left P...	0
Distance between Head 1 and Head 4(Right ...	0
⊟ PrintHead Selected	
Select print Head	PrintHead1
⊟ UV lamp control setting	
Distances Between UV Light and Oil PrintHe	40.000000

Color Offset

	CH00	CH01	CH02	CH03	CH04	CH05
H00	K	C	M	Y	LC	LM
Ver...	178	178	178	178	178	178
Right	0	0	0	0	0	0
Left	0	0	0	0	0	0
H01	White	White	White	White	White	White
Ver...	0	0	0	0	0	0
Right	0	0	0	0	0	0
Left	0	0	0	0	0	0
H02	White	White	White	White	White	White
Ver...	470	470	470	470	470	470
Right	0	0	0	0	0	0
Left	0	0	0	0	0	0
H03	Close	Close	Close	Close	Close	Close
Ver...	0	0	0	0	0	0
Right	0	0	0	0	0	0
Left	0	0	0	0	0	0

Print

Apply

6.3-1偏差校准:

Bias calibration　　Motion setting　　Platform Control　　Cleaning Option　　Voltage setting　　Basic setting

Bi-Dir Offset

720resolution ▾　Fast ▾　-20　　　　Print

Step Calibration

Steps: Base Step ▾　　　　Print
Revise: 0.00 　=> 　Base Step: 5464

Distance Calibration

Vertical : Head2: 0　　Print　　Head3:　　Print
Head4: 0　　Print

Horizontal:　Left_Print　　Left_Offset_Print
　　　　　　　Right_Print　　Right_Offset_Print

Parameters	Value
⊟ Space of Heads	
Distance between Head 1 and Head 2(Left P...	-1413
Distance between Head 1 and Head 2(Right He...	-1413
Distance between Head 1 and Head 3(Left P...	1413
Distance between Head 1 and Head 3(Right ...	1413
Distance between Head 1 and Head 4(Left P...	0
Distance between Head 1 and Head 4(Right ...	0
⊟ PrintHead Selected	
Select print Head	PrintHead1
⊟ UV lamp control setting	
Distances Between UV Light and Oil PrintHe	40.000000

Color Offset

	CH00	CH01	CH02	CH03	CH04	CH05
H00	K	C	M	Y	LC	LM
Ver...	178	178	178	178	178	178
Right	0	0	0	0	0	0
Left	0	0	0	0	0	0
H01	White	White	White	White	White	White
Ver...	0	0	0	0	0	0
Right	0	0	0	0	0	0
Left	0	0	0	0	0	0
H02	White	White	White	White	White	White
Ver...	470	470	470	470	470	470
Right	0	0	0	0	0	0
Left	0	0	0	0	0	0
H03	Close	Close	Close	Close	Close	Close
Ver...	0	0	0	0	0	0
Right	0	0	0	0	0	0
Left	0	0	0	0	0	0

Print

Apply

双向校准：打印前需要对 180 精度，360 精度，低、中、高速分别打印校准图校准，在调试说明里对双向校准图有详细的说明。
步进校准：打印前需要对"基础"和需要打印的步进进行校准
距离校准：分为横向距离和纵向距离校准
颜色校准：对机器颜色进行配置和校准

6.3-2运动设置：**Motion Settings:**

X 电机设置（小车方向）：**X Motor configuration(carriage moving direction)**

打印控制界面的车头速度在此处设置，低、中速可以根据实际情况自己设置.
 高速有一定速度限制，不能超过喷头的喷打频率，建议出厂默认设置。
复位速度和单向会车速度，建议出厂默认设置。
移动、复位：校准 X 齿轮比。

The ''Print speed" in '' print control'' interface is set here. The low and normal speed can be set according to the actual situation.

There is a certain limit at high speed, which can't exceed the printing frequency of the nozzle. The factory default setting is recommended.

Reposition speed and return speed: Please keep factory settings. Don't edit it.
Move, reposition: Calibrate the X gear ratio.

Y 电机设置（走料方向）：**Y Motor configuration (feeding direction):**

Y 电机的速度，分低、中、高速。参数设置界面其它设置中的走料速度对应的值在此处设置，Y 速度越快，打印过程看着越流畅，但是在保证不电机不丢步前提下，具体速度需要实际调试确定值。移动、计算，校准 Y 方向齿轮比时使用，详细在调试步骤中有说明。

The speed of the Y ，please keep as factory settings and don't edit them. Move and Calculate Use them when calibrating the Y-direction gear ratio, the detail process has mentioned in test step.

注： 当前界面参数修改之后，都需要点击下方的应用按钮，否则修改参数无效(请保持出厂设置，如需更改请联系售后人员)

Note: After modifying the current interface parameters, you need to click Apply button below, otherwise the modification parameters are invalid
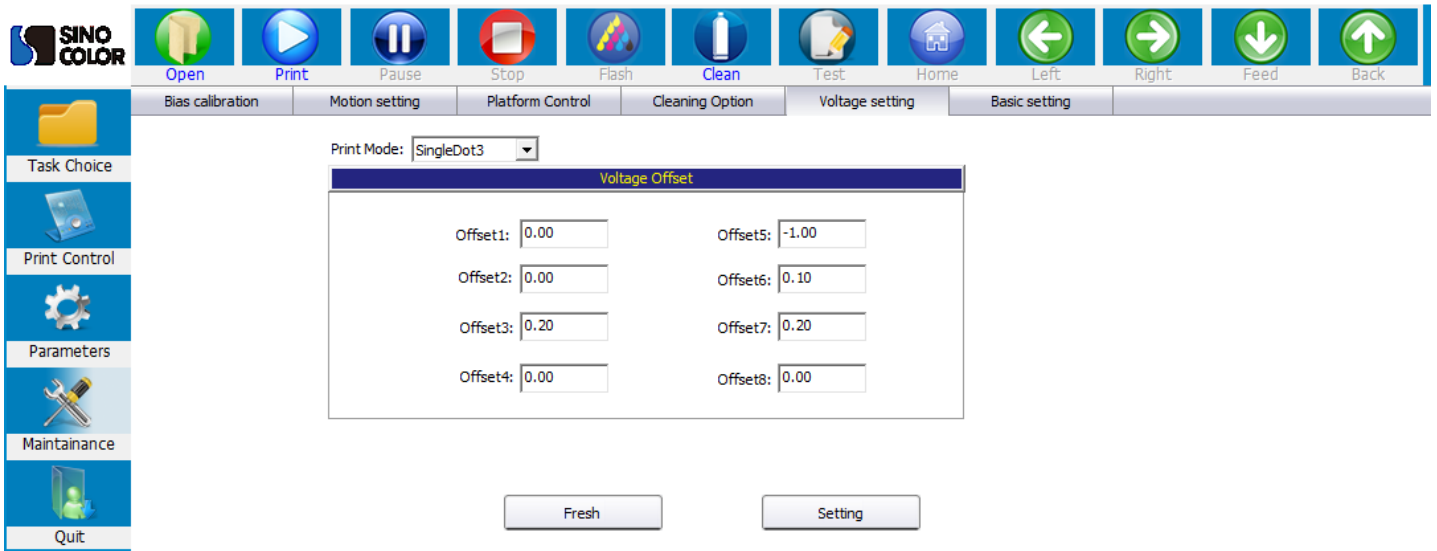
6.3-3 清洗设置：**Cleaning option**

分别对小车，刮片，墨栈位置进行设置

注： 当前界面参数修改之后，都需要点击下方的应用按钮，否则修改参数无效(请保持出厂设置，如需更改请联系售后人员)

Note: After modifying the current interface parameters, you need to click Apply button below, otherwise the modification parameters are invalid
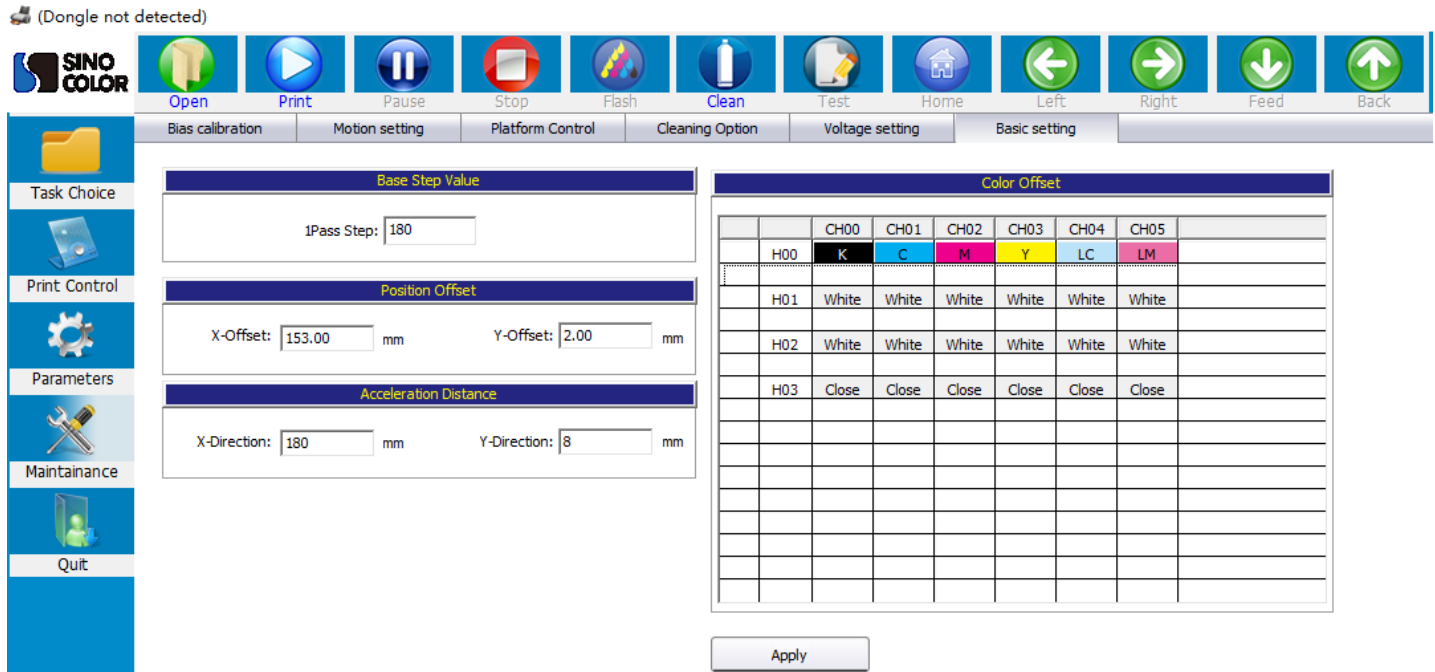
6.3-4 电压设置：**Voltage Setting:**

偏移电压： 可以一定幅度（-6 至+6）调节喷射力度，既通过改变波形电压，来使当前墨点增大或减小， 填入值后，需要点击设置，此时，软件可能会出现卡顿，是因为软件在往板卡写入偏移电压值，只需稍等片刻即可恢复，此时修改的偏移电压值生效。
Please keep as factory settings.

注： 当前界面参数修改之后，都需要点击下方的应用按钮，否则修改参数无效(请保持出厂设置，如需更改请联系售后人员)
Note: After modifying the current interface parameters, you need to click Apply button below, otherwise the modification parameters are invalid

6.3-5基础设置：**Basic Settings:**

步进校准基础值：默认值 360 。此处值一般不用修改，以软件给出为准。

起始打印偏移位置： X 方向偏移值，一般在此处填入一个值，设置打印界面白边值为 10，检查打印位置进行调整。Y 方向偏移值意义一样，但在写真机中一般不用。

加减速距离：从静止到打印速度小车加减速的距离，值越大，小车越平缓。值越小，电机反向越快， 整体速度越快，但是电机会抖动，需要实际调试出一个合适的值。 Y 方向因为步进每次走的距离短，所以加减速距离一般设置很小，一般设置 3-8 之间。

套色通道选择： 通道墨序对应喷头的闪喷墨序，当确实需要更改墨序时，必须保证一个颜色两个通道一起更换，例如 CCMMYYKK,MMYYCCKK 等，不能 KCMYMCK,相邻的两个通道需为一个颜色
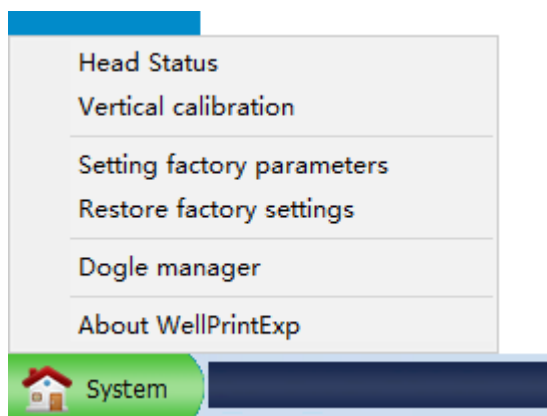
Please keep as factory settings.

注： 当前界面参数修改之后，都需要点击下方的应用按钮，否则修改参数无效（请保持出厂设置，如需更改请联系售后人员）

Note: After modifying the current interface parameters, you need to click Apply button below, otherwise the modification parameters are invalid

七、系统菜单: System menu:

系统菜单中，打印喷头状态图和垂直状态图跟软件标题菜单栏一样。

当软件参数全部调试好之后，可以进入系统菜单，点击设置出厂参数，此时软件会将当前参数保存一份，当后期软件参数异常时，点击恢复出厂参数即可。

加密狗管理，当使用分期加密狗时，到期需要写入密码才能继续使用

In the system menu, the printhead status and vertical status map are the same as the software title menu bar.

After the software parameters are all debugged, you can enter the system menu and click to set the factory parameters. At this time, the software will save the current parameters. When the software parameters are abnormal, click to restore the factory parameters.

Dongle management, when using the staging dongle, you need to write a password to continue using it.

八、常见故障处理：

1、 开机无动作
（1）、数据线连接有问题，检查光纤线顺序是否对应。（主板显示A）
（2）、检查电机信号线是否连接正确，线序是否正确，X,Y 电机信号线是否接反
（3）、检查电机驱动器是否正常
（4）、确认开机动作设置是否正确，重新导入参数或固件
（5）、检查板卡电源，观察 D71、D72、D74，D80 指示灯是否亮

(1) There is a problem with the cable connection. Check if the order of the fiber cables corresponds. (Main board display A) (2) Check if the motor signal line is connected correctly, whether the X, Y motor signal line are reversed. (3) Check if the motor driver is normal

(4) Confirm that the boot action settings are correct, re-import parameters or firmware (5) Check the power of the board，whether the D71, D72, D74, D80 light are on.

2、开机 X 电机只向一个方向移动**After booting, X motor only moves to the left and doesn't stop.**

（1）、电机信号线有问题，只接 3 根数据线、线路之间有短路， 信号线不通等
（2）、感应器坏掉，手动挡住感应器，确认限位感应器是否正常
（3）、板卡开机动作设置限位极性与实际使用极性不对应，（此时可以通过手动挡住感应器来判断， 如果挡住感应器动作正常，那肯定是设置极性反了）
（4）、电器驱动器故障，更换驱动器

(1) There is a problem with the motor signal line. Only 3 data cables are connected, there is a short circuit between the lines, and the signal lines are not connected. (2), The sensor is broken, manually block the sensor, confirm whether the limit sensor is normal (3), The board power-on action setting limit polarity does not correspond to the actual use polarity, (this can be judged by manually blocking the sensor, if the sensor is blocked, the polarity is reversed)

(4), Electrical drive failure, replace the drive

3、软件不联机The software is offline

（1）、确认开机动作是否完成。
（2）、检查电脑是否识别到板卡驱动，如没有，需重新安装驱动
（3）、电脑是否插了加密狗，软件左上角是否显示未检测到加密狗，重新插拔加密狗
（4）、软件版本不对应，软件 USB 类型设置不对应

(1) Confirm whether the booting action is completed.⸤SEP⸥(2) Check if the computer recognizes the board driver. If not, reinstall the driver.

(3) Whether the computer has a dongle inserted, whether the dongle is not detected in the upper left corner of the software, and the dongle is re-plugged.⸤SEP⸥(4), The software version does not correspond, the software USB type setting does not correspond

4、软件联机之后小车一直左移After the software is online, the carriage has been shifted to the left.⸤SEP⸥

（1）、软件读取不到光栅值，软件左下角小车位置一直显示 0，检查光栅解码器是否正常，线路连接是否有问题
（2）、软件读取光栅值反，左下角小车位置一直显示 负 数，更改光栅极性，或者调换光栅解码器的A、B 线序
（3）、机器原点方向设置错误

(1), The software cannot read the encoder value, the carriage position in the lower left corner of the software is always displayed 0, check whether the encoder reader is normal, there is a problem with the cable connection.

(2), The software reads the encoder value inverse, the carriage position in the lower left corner always shows a negative number, change the grating polarity, or change the A, B line sequence of encoder reader.⸤SEP⸥(3), Machine origin direction setting error

5、喷头无闪喷Flash is not working

（1）、板卡逻辑，软件版本，喷头类型不对应
（2）、检查喷头排线是否插好，16PI 数据排线是否插对
（3）、板卡损坏，换板卡测试，
（5）、软件闪喷区域设置不对

(1), Board logic, software version, nozzle type does not correspond⸤SEP⸥(2) Check whether the nozzle cable is plugged in, and whether the 16PI data cable is plugged in. (3), Board damage, board change test,⸤SEP⸥(5), The software flash spray area is set incorrectly

6、打印不了状态图**Can not print nozzle test**

（1）、打印状态图无动作，软件内 PRN 文件不对，联系儒彩技术支持解决
（2）、软件提示 1 PASS 数据异常，软件版本和板卡不对应
（3）、提示 Y DPI 太小，软件配置文件不对应，状态图与软件设置不对，一般是单双头，喷头类型不对应等
（4）、软件提示数据交织错误，软件设置白墨通道数不对；二次解密软件版本不对。

(1), The print test has no action, the PRN file in the software is incorrect, contact the SinoColor technical support to solve

(2), Software prompt 1 PASS data is abnormal, the software version and the board do not correspond

(3), Prompt Y DPI is too small, the software configuration file does not correspond, the state diagram and software settings are wrong, generally single and double head, nozzle type does not correspond, etc.

(4), The software prompts data interleaving error, the software sets the number of white ink channels is incorrect; the secondary decryption software version is wrong.

7、喷头状态图缺列**Some lines of nozzle test missing completely.**

（1）、检查喷头排线是否插好，重新插拔喷头数据线
（2）、软件系统维护，基础设置界面，通道是否关闭
（3）、检查软件墨序，是否按照本说明书说明装，特别是 七 代喷头，要保证闪喷出来的墨序， 相邻的两列是同一颜色
（4）、多抽下墨，是否喷头没抽出来墨，清洗液冲下喷头，确认喷头是否堵塞

(1) Check whether the nozzle cable is plugged in, re-plug the nozzle data cable

(2), Software system maintenance, base settings interface, whether the channel is closed

(3) Check the software ink sequence, according to the instructions in this manual, especially the DX7 head, ensure the ink sequence of the flash, the adjacent two columns are the same color.

(4), Draw more ink, whether the head does not draw ink, the cleaning liquid washes off the nozzle, confirm whether the nozzle is blocked

8、打印喷头状态图乱喷**Nozzle test error**

（1）、检查软件、板卡、喷头类型是否对应

（2）、重插喷头排线，检查下 29pi 长数据线，是否插好，是否有歪斜
（3）、更换一块喷头小板，更换喷头排线试试
（4）、更换喷头测试

(1) Check whether the software, board, and nozzle type correspond⸔

(2), Re-insert the nozzle cable, check the next 29pi long data cable, whether it is plugged in, whether there is skew

(3), Replace a head board, try to replace the nozzle cable⸔

(4), Replace head

9、打图拉丝？Nozzle test not good. Seems many nozzles are not printing

（1）、喷头缺针较多，清洗喷头，保证喷头最大可能的少缺针
（2）、打多 PASS，PASS 数越多，羽化越大，效果会有改善
（3）、开启加强羽化，会对拉丝现象有改善， 速度会有一定下降

(1), The head lacks more pins, cleaning the nozzle, to ensure that the head with max pins⸔

(2), Print high PASS, the more PASS number, the greater the eclosion, the effect will be improved

(3), Open the enhance eclosion, will improve the drawing phenomenon, the speed will be reduced

10、打图深浅道，露白Print with ligh or dark color lines. White out

（1）、检查喷头安装是否与平台水平，
（2）、步进，垂直、双向是否校准好
（3）、开启加强羽化，效果会有明显改善

1) Check whether the head installation is level with the platform.

(2), Step, vertical, Bi-Dir calibration is good⸔

(3), Open the enhance eclosion, the effect will be better

11、读取 1PASS 数据错误，写入数据量不相等，设置微喷状态错误**1PASS data error, the amount of written data is not equal, set the micro-injection status error**

（1）、USB 接口或数据线有问题，更换数据线或更换电脑接口尝试
（2）、16pi 长数据线有问题，重插，或者更换
（3）、小车打印速度超过喷头喷打频率，降低打印速度
（4）、更换板卡测试

(1) There is a problem with the USB interface or the data cable. Try replacing the data cable or replacing the computer interface.␊SEP␊

(2), 16pi long data cable has a problem, re-plug, or replace␊SEP␊

(3), The printing speed of the carriage exceeds the spraying frequency of the head, make the speed slower

(4), Replace the board

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