

DTF-60 plus

User manual: Garment digital printing



Please read the manual before using.

Please keep the manual in a safe place so that you can access it whenever you need it.

Announcements for using safely




Thanks for choosing NOVI products.
Read the “Announcements for using safely” and instruction manual carefully.

Safety-related markings and their meanings

This instruction manual and the logos and graphic symbols used in the product can help to use the product safely and correctly and to prevent injury or damage to you and others.

The logo and signals are shown below.

Logo

 Danger	If the sign is ignored or used incorrectly, it can result in death or serious injury.
 Warning	If the sign is ignored or used incorrectly, it can result in death or serious injury.
 Notice	If the sign is ignored or used incorrectly, it can result in minor injury or moderate damage.

((!)) Important facts

If the sign is ignored or used incorrectly, it can result in property loss.

((!)) Promp

Precautions and restrictions when using the machine.

Graphic symbols



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△ The symbol means “Precautions to be taken”
The symbol in the graphic indicates what to watch out for. (The example on the left indicates that Be aware of injury.)



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⊘ The symbol means “Prohibitions”.



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● The symbol means “Necessity”.
The symbol in the graphic indicates the indicated content. (The example on the left indicates grounding.)



Danger



Touching high voltage areas can cause serious injury. Turn off the power and wait 5 minutes before removing the cover.

Warning

Basic matters



In order to prevent accidents and malfunction, do not modify the machine. We are not responsible for accidents or malfunctions caused by modifications.

Do not touch the power plug with wet hands. Otherwise it will result in electric shock.

Installation



Do not place in a dusty place. If dust accumulates inside the machine, it may cause fire, electric shock or malfunction.



Please make it grounding. Incomplete grounding may result in electric shock and malfunction.



When securing the cord, do not bend the cord or squeeze it with a U-shaped nail forcefully. Otherwise it will lead to fire or electric shock.

Print



Switch off the power supply and unplug it immediately when there is a foreign object enters the machine. Please contact the dealership or the professional technician. If you use it continuously, it will result in fire, electric shock or malfunction.



Do not allow the machine come into contact with liquid. Or It will lead to fire, electric shock and malfunction.



Switch off the power supply and unplug it immediately when there is liquid enters the machine. Please contact the dealership or the professional technician.



Do not use it when it is in an abnormal state such as smoking or having an peculiar smell. Otherwise it will cause fire, electric shock or malfunction. Please switch off the power supply and unplug it. Please contact the dealership or the professional technician.



Keep your fingers or body away from the rotating fan. Otherwise you may become involved and cause injury. Turn off the power before approaching.

Notice

Environment

Please use it in a well-ventilated area. A slight odor will be produced when printing material by thermal fixing.

Install



A trained technician should set up or remove the machine.



The weight is 150 KG. Hold the machine in a correct manner when handling or setting it up. Otherwise it may result in injury if it is dropped.



When this machine is dropped, unplug it and contact the dealership where you purchased it or a trained technician. If you use it continuously, it will lead to fire, electric shock or degradation of printing quality.



Do not place it in a location subject to other mechanical vibrations. It may result in degradation of print quality or dropping of the machine, injury to persons, or malfunction of the machine.



Do not connect the power plug until setup is completed. If the power is connected by mistake, it may result in injury.



Do not sit on the machine or place heavy objects on the machine. Otherwise, you may lose your balance and fall and get injured.



CAUTION Do not touch the claws on the upper side mounting area of the back cover. Otherwise it may result in injury.

Print




Use this machine only by personnel trained in safe operation.



Make sure there is enough space in front of the machine and do not place objects. Otherwise the hand may be pinched between the platen and the object, which may result in injury.



 During work, hands should be kept away from the trolley and pinching between the powdering rotating shaft and each hood cover, which may result in injury.



Do not put your hand inside each cover during power-on. Do not touch the movable parts as this may cause injury.



If there is a malfunction of this machine, contact the dealership where you purchased the machine or a trained technician.

Notice

Maintenance



Be careful not to pinch your fingers when closing the front hood cover. If fingers are pinched, it may get injured.



Do not pinch your hand or fingers when installing or replacing the print head. Failure to do so may result in injury.



If the ink comes into contact with the eyes or skin, it may cause inflammation. Do not rub if it gets inside the eyes and flush with water immediately.



Do not drink fluids such as inks, fillers, cleaning fluids, pre-treatment agents, waste fluids, and so on. Otherwise, it may cause diarrhea and vomiting.



Also, avoid eye and skin contact with liquids such as inks, fillers, cleaning fluids, pretreatment agents, and waste liquids. Otherwise, it may cause inflammation. Do not rub if it gets into the eyes and flush with water immediately.



Please keep it out of reach of the children. When applying grease, please wear goggles and protective gloves to avoid eye or skin contact with the grease. Otherwise, it may cause inflammation. Do not drink grease, or it may cause diarrhea and vomiting. Please keep it out of reach of the children.



When replacing or installing spare parts, please use our original parts. We are not responsible for accidents or malfunctions caused by the use of non-original parts. Please replace and install the spare parts according to the instruction. If you operate with wrong procedures, you may become injured or malfunction.

((!)) Important facts

Print



Do not move the platen by hand. Or it may result in serious malfunction of the machine.



Make sure there is enough space in front of the machine and do not place objects. Or it may cause the platen to be struck and broken.

((!)) Prompt



Use in an environment that is not affected by strong electrical noise such as power line noise or static noise. Strong electrical noise may cause the incorrect operation.



Use this machine in an environment where the power supply voltage fluctuates within $\pm 10\%$ of the rated voltage. Excessive voltage fluctuations may cause the machine to malfunction.



Use this machine in an environment where the power supply capacity is greater than the power consumption of the machine. Insufficient power supply capacity may cause the machine to malfunction.



When thunder strikes, cut off the power and unplug the power supply. Otherwise it may cause the machine to malfunction.

The following warning label is displayed in the printer.

Please operate according to the warning label.

Also, if the label comes off or is illegible, contact the dealer from whom you purchased the machine.

1. 

喷头颜色示意图
PRINT HEAD COLOR GUIDE

黑色 BLACK	青色 CYAN	红色 MAGENTA	白色 WHITE	黄色 YELLOW	白色 WHITE
-------------	------------	---------------	-------------	--------------	-------------
2. 
3. 
 - 打印过程中请勿在打印面板上放置杂物以及避免刮蹭到喷头！
 - Do not put the debris on printing plate during printing, to avoid damaging the printhead.
4. 
 - 横梁禁止抬压受力！
 - Do NOT Lift Up Or Press The Carriage Beam.
5. 
 - 打印前请拉开闪喷槽！
 - open the flash spray tank before printing
6. 

网线
NETWORK CABLE
7. 

总电源
MAIN POWER
8. 

CAUTION!
WATCH YOUR
HANDS.
PRECAUCION!
MIRAR SUS
MANOS
小心夹手
9. 

QUALITY CONTROL
检
10. 

总电源
MAIN POWER
220V
11. 

声明NOTICE

此为A级产品，在日常生活环境中，该产品可能会造成无线电干扰，可能需要客户对其干扰采取切实可行的措施。

This is an A-level product it may cause radio interference in daily use. Customer needs to take practical measures to avoid the radio interference.

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- 1-1. Necessary facts.....
- 1-2. Accessory parts.....
- 1-3. Other items to be prepared.....

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- 2-5. Liquid crystal panel.....

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 - 4-3-2. DTF-60plus driver Graphic analysis of calibration.....
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 - 7-1-1. Regular implementation matters.....
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7-3-2.	Do not use it for a long time: more than 2 weeks.....	

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1-1. Necessary matters

Please pay attention to the following steps before using the machine

Precautions for use

- Keep the printer's power on for 24 hours. In order to prevent white ink deposits, maintenance such as white ink circulation in the machine is also performed automatically during standby.
- Use the machine within the print guarantee range (temperature 18~30° C, humidity 35~85%). Otherwise it may result in clogging of the printhead with ink or ink splattering.
- Adjust the printhead height to the appropriate height according to the printed product. The height can be adjusted with the printhead height adjustment lever. As a standard, 2 mm from the printhead to the print material is considered to be the normal printing distance. If the printhead distance from the material is too far, it may lead to poor printing results and flying ink at the edges of the print pattern.
- Do not disconnect the power supply while the printer is operating. Otherwise it may result in printer malfunction or print failure.
- Be careful when handling printed T-shirts before the ink is fixed. Ink that has not been finalized may stain clothing and cannot be washed out.
- Please pour the ink into the correct position. Please make sure that the sticker color of the printer matches the color of the ink cartridge.
- When pouring white ink, the pigment settles downward. Shake well before using, once a day. (Stir about 100 times each.)
- Please store the consumables in a place away from direct sunlight. Please use up the ink, pre-treatment agent and filler within the indicated period of use. In addition, please use up the color ink within 6 months after opening.
- In order to prolong the life of the printer and utilize the performance of the printer fully, it is recommended to use the inks specified by our company.
- When the ink lamp alarm, you should add ink in time. Otherwise the needle may be blocked due to the ink drying or the printer may malfunction.
- Please handle the ink bottle carefully. If it touches a sharp object or is dropped, it may break.

Hot melt powder, hot stamping film

- The hot melt powder should be stored in a dry and sealed place, if the particles become large or agglomerate may cause the stamping effect to deteriorate.
- The melting temperature of the hot melt powder is recommended to be set at about 150° C. Due to the uncertainty of the printing speed and the raw material, fine adjustments should be made depending on the situation.
- There are two kinds of stamping film: cold tearing and hot tearing. After stamping with cold tearing film, it is recommended to wait until it cools down before tearing off the film for better results.
- Due to the diversity of stamping materials, it is recommended to test the fastness and effect fully before making goods in bulk to avoid major losses.
- Stamping film has a large impact on color brightness and effect, it is recommended to use the original printing material.

Maintenance

- Please maintain the printer regularly in order to confirm the printing quality/ prolong the life of products
- In order to maintain the original performance of the printer for a long period of time, it is recommended to use the original cleaning fluid specified by our company when cleaning around the print head, cap, and scraper. If commercial alcohol and cleaning fluid are used, it may cause the printhead to malfunction.
- The print head is a precision part, so do not remove it except for replacement. Otherwise it may cause the printhead to malfunction.

When not in use

- When the printer is not used for a long time, refer to "7-5.

Disposal of waste

- Regarding left waste and waste ink, please dispose of them appropriately as aqueous waste liquid in accordance with the law. If you have any doubt, please consult the store where you purchased the product before disposing of it.

Else

- When the printer is moved due to a change in layout. Please adjust the level by touching the top of the cover or the top of the platen so that the printer is level.



Software

Software

You need to agree to the Software License Agreement before using this machine.

Software License Agreement

The Customer agrees to use the Software by complying with the terms and conditions set forth in the Software License Agreement. If the customer does not agree, the software cannot be used.

1.Ownership

The rights relating to the Software and its reproductions belong to Novi Printing Equipment Co.Ltd. or the supplier. The Company does not transfer the copyrights relating to the Software to the Customer by this Agreement.

2.Licensing of the implementation rights

2.1 The Company grants the Customer a non-exclusive right to use the Software.

2.2 Customers may not engage in the following behaviors. (1)Change all or part of the Software (2)Reverse engineering, decompiling, disassembling (3)Rent or lease the Software (4)Place this software in a downloadable state in a public place.

3. No warranty

The Company makes no express or implied warranty to the Software, including warranties of defects, fitness for a particular purpose, whether use of the Software infringes the rights of third parties, and any other warranties.

4. The restriction of responsibility

The Company shall not be liable for any direct or indirect damages arising out of or in connection with the Software.

5. Termination of license

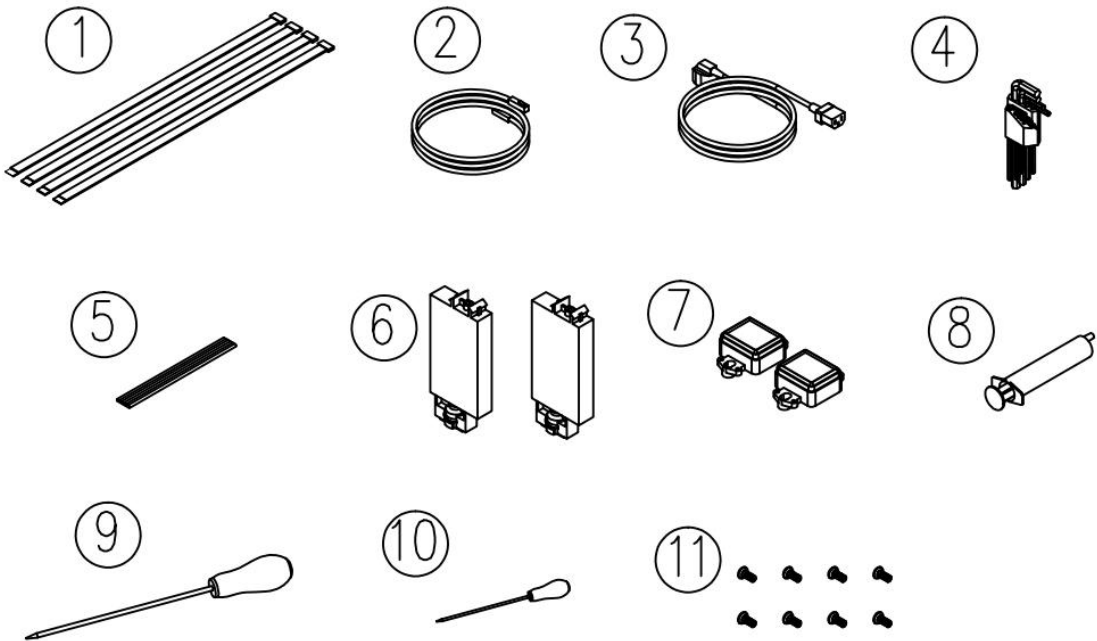
The Company may terminate this Agreement without prior notice if the Customer violates the conditions set forth herein.

6.Governing law

This Agreement shall be governed by and construed in accordance with the laws of China.

1-2. Accessory parts

The attached parts are shown below. If parts are missing, consult the dealership where you purchased the machine.



X0126

No	Name	Number	No.	NAME	Number
1	Head cable	4	7	Cap top	1
2	Six cable	1			
3	Power cord	1	8	Syringe	1
4	Hexagonal wrench	1	9	Phillips screwdriver (large)	1
5	Ink tube	1	10	Phillips screwdriver (small)	1
6	Damper	2	11	Screw	Many

1-3. Other items to be prepared

Items purchased from our dealerships

【Reference】

- Ink
- Damper
- Cleaning fluid
- Hot melt powder
- Hot stamping film

Else

- Ultra 6 Categories Gigabit Ethernet Cable

【Note】

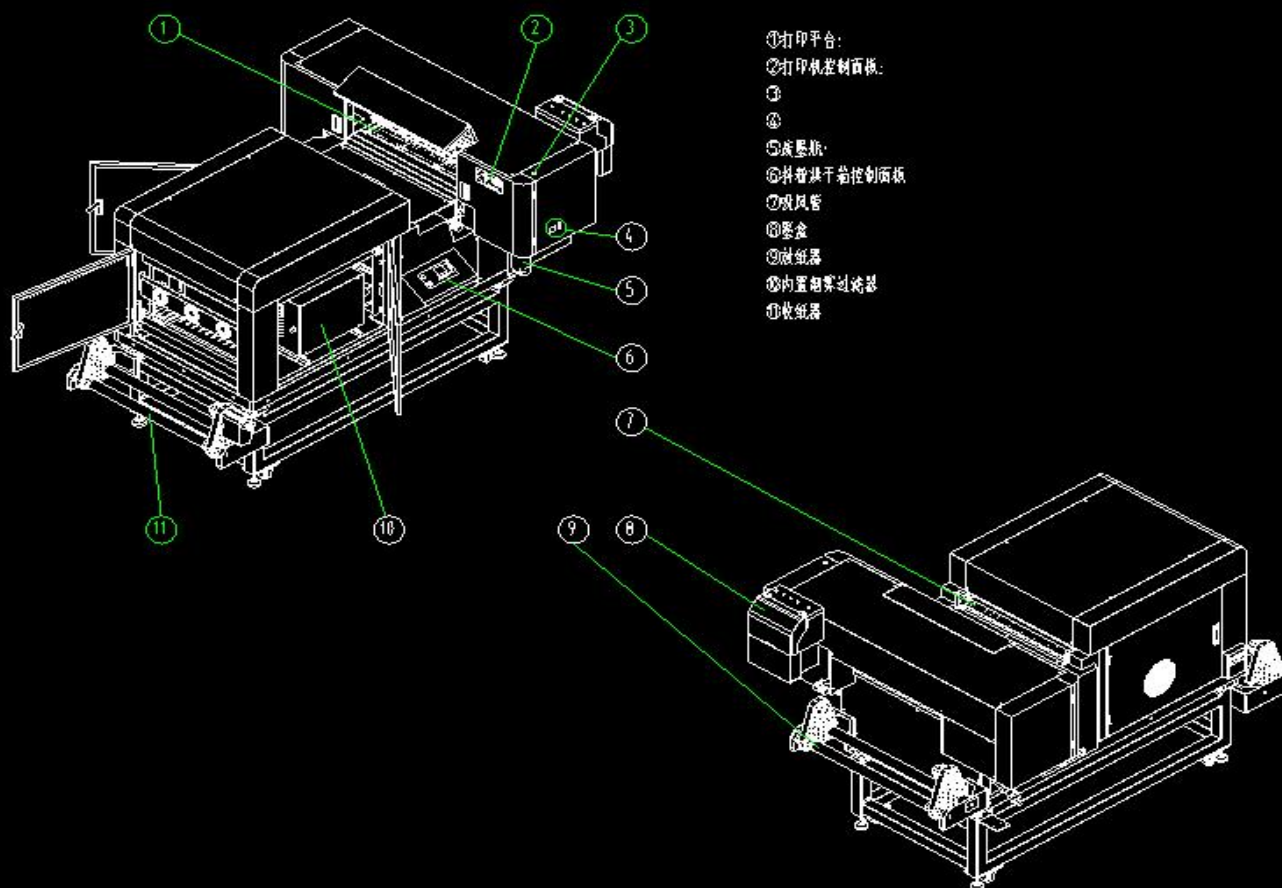
- If a cable other than the above is used, abnormal operation may appear. Do not use an extension cable.
- Press machine
It is necessary to be able to cover the printing range for using platen size and to be able to maintain performance at 180° C (356° F) for more than 35 seconds. When fixing hot melt powder, be sure to use a press machine.
- Peeling plate
When fixing hot melt powder with a press machine, it is necessary to use a peeling plate in order to flatten the fixing surface and improve the peelability.
- Silicon Foam (Silicon Continuous Bubble Construction)
Heat-resistant bubble pad. Use it when fixing with a pressurized iron.
- Rubber roller
Used to remove threads or dirt on the surface from T-shirts.

【Reference】

- For some fabrics, the fastness and effect of the hot stamping film after fixing need to be tested before making goods in bulk.
- Please perform a print test beforehand. Otherwise, the following phenomena may occur.
Stamping changes the color of the cloth substrate, and even if it is cleaned, the original color may not be restored.
The material may be deformed after the stamping film is fixed, so be careful.

2-1. External

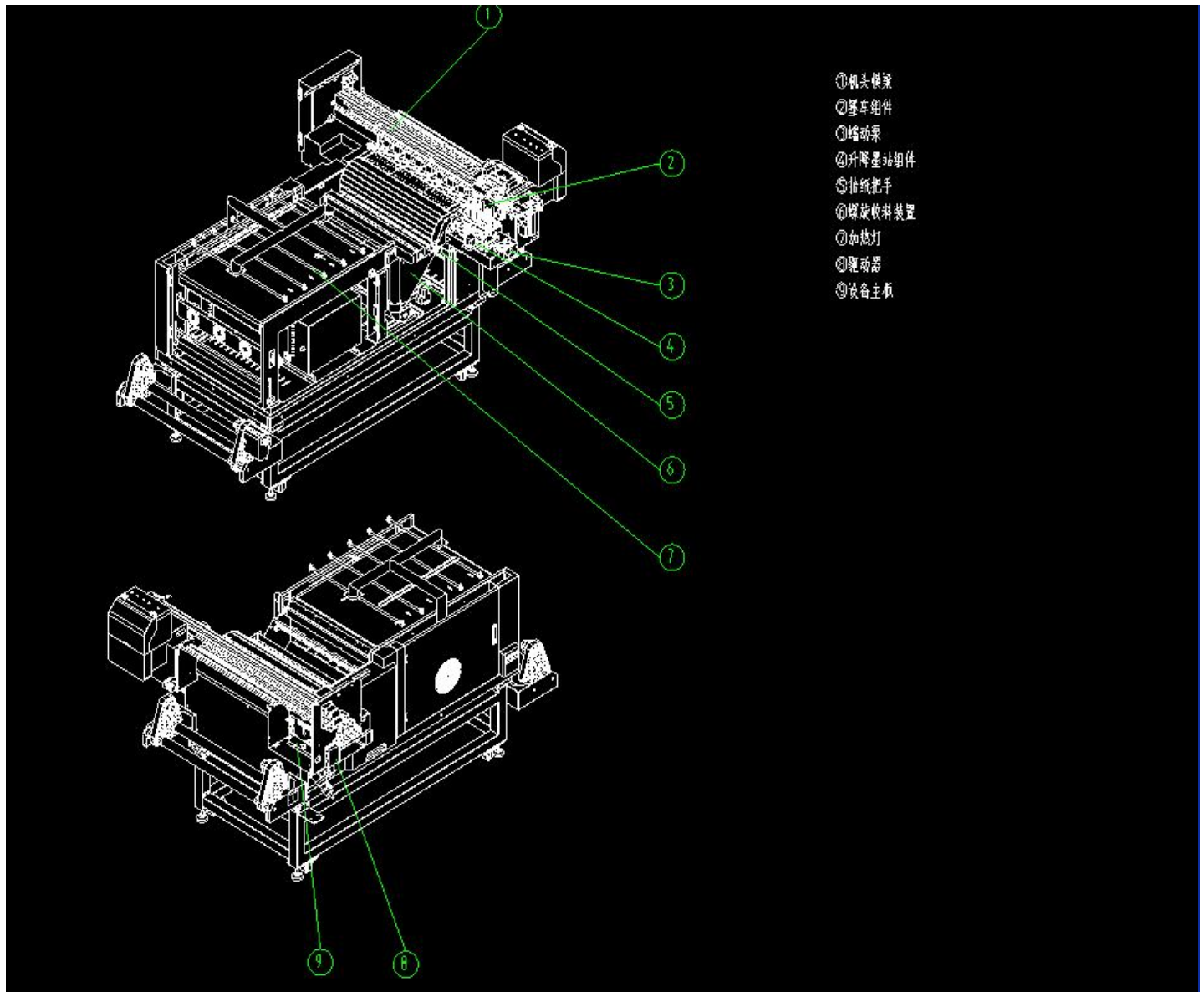
设备外部解析



x

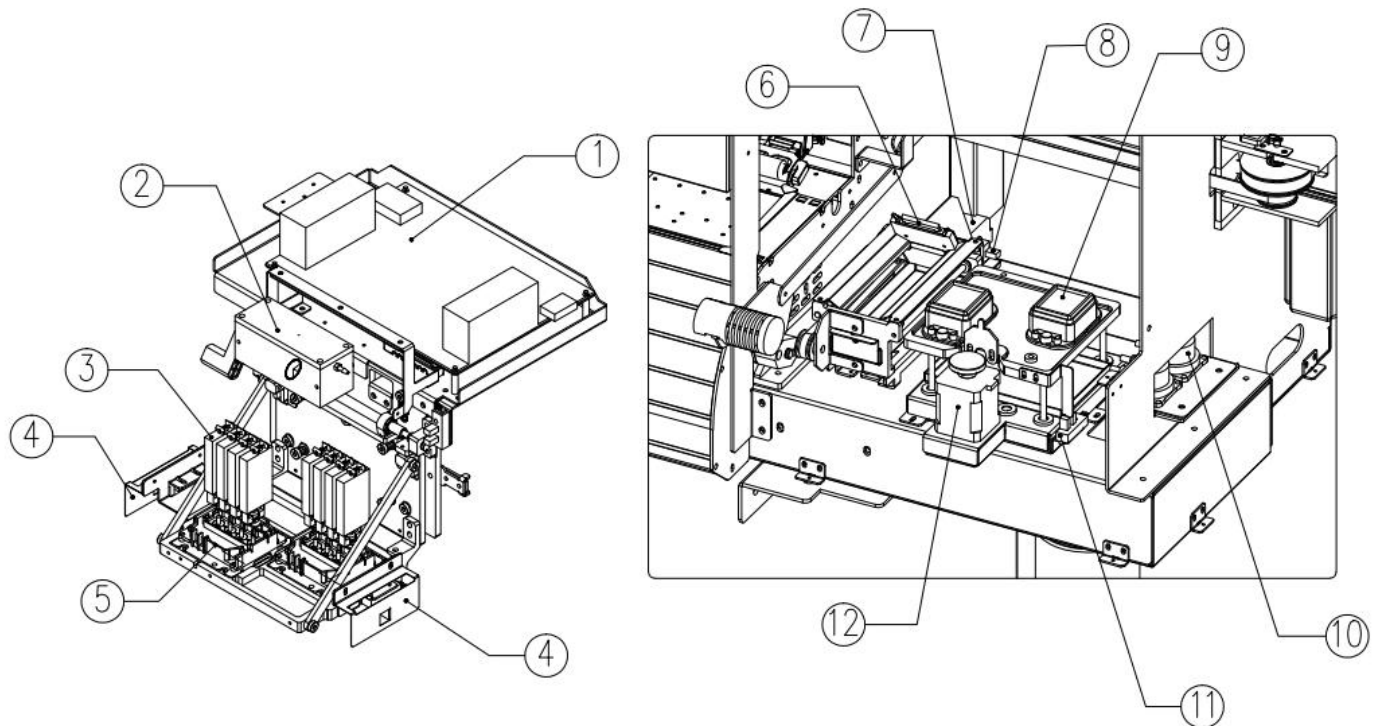
No.	Name	Function
1	Printing platform	
2	Printing control panel	Operation control
3	Switch button of power on	Switch on and off
4	Heated control panels at front, center and rear	Front, center and rear temperature settings of control platform
5	Waste ink bottle	Fill in the waste ink
6	Drying and control panel of DTF	Control the DTF spiral and temperature of oven
7	Suction shaft	For film application and suction
8	Ink cartridge	Fill in the ink
9	Feeder	Fill in the film
10	Internal smoke filter	Filter the smoke produced by oven
11	Stacker	Wind the printed film

2-2. Internal



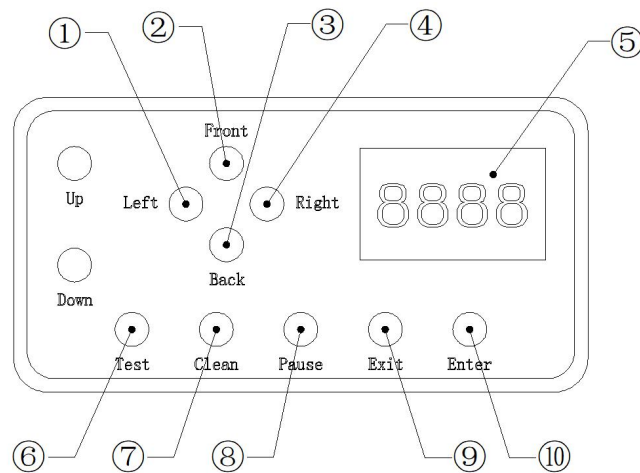
No.	Name
1	Beam of the machine head
2	Cart module
3	Peristaltic pump
4	Lifting and drop ink station module
5	Handle for picking up paper
6	Rotating receiving device
7	Heated lamp
8	Driver
9	Mainboard of equipment

2-3. Inside of the front cover(word cart and ink station)



No.	Name	Function
1	Cart board	Control the inkjet of printhead, transfer the printing data
2	Acrylic diverter	Diverter device for ink circulation
3	Damper	Provide ink and filter system
4	Anti-collision shrapnel	Anti-collision device for X axis
5	Printhead	Inkjet printhead
6	Wiper	Clean the ink residue on the surface of the printhead, please clean it regularly in order to prolong the life of the printhead.
7	Wiper motor	Mobile motor for controlling the wiper
8	Wiper sensor	Control device of wiper position
9	Cap top	Pump ink through printhead, moisturizer and maintenance. Please clean it regularly in order to prolong the life of the printhead
10	Peristaltic pump	Peristaltic pump, recycle the waste ink
11	Ink station sensor	Control device of ink station sensor
12	Ink station motor	Control the lifting and drop of ink station system

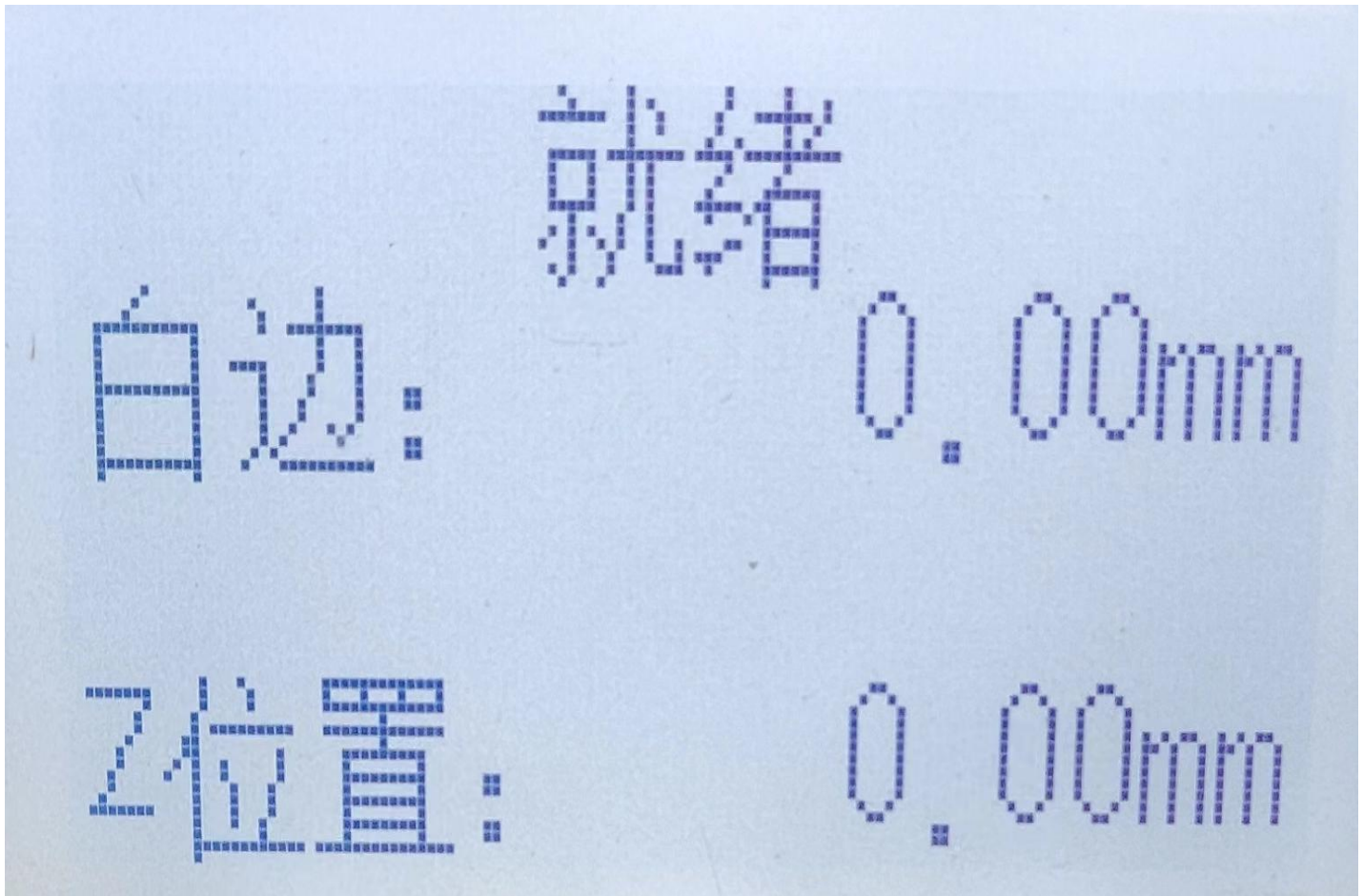
2-4. Operation panel



No.	Name	Function
1	Left	The word cart moves to the left
2	Front	The transfer film moves back
3	Black	The transfer film moves forward
4	Right	The word cart moves
5	Display screen	Display the status of the printer
6	Test	Test nozzle
7	Clean	Clean nozzle
8	Pause	Pause/Stop
9	Exit	Exit/Return
10	Enter	Enter

2-5. Liquid crystal panel

The following figure shows the status of the printer after receiving print data. The status of the printer and the information required for printing are displayed.



No.	Signal
1	Device status
2	Setting for the white edge
3	Position of Z axis

Operation of the display menu

Operation	Operation method
Enter	Enter , Click Enter under standby condition, change into the choice figure of function menu
/ Choose/Enter	<p>▲ — ▼ , change the menu.</p> <p>▶</p> <p>Click , change into the next menu.</p> <p>Click Enter, Confirm the menu which is displaying.</p>
Reset level	Click Exit, return to the last menu display.
End	Click Exit after displaying the last menu, the menu ends and returns to standby.

4

Settings and preparation

Please install and use it according to the instructions.

Warning



Do not place in a dusty place. If dust accumulates inside the machine, it may cause fire, electric shock or malfunction.

Please make it grounding. Incomplete grounding may result in electric shock and malfunction.



When securing the cord, do not bend the cord or squeeze it with a U-shaped nail forcefully. Otherwise it will lead to fire or electric shock.

Notice



A trained technician should set up or remove the machine.



The weight is 330 KG. Hold the machine in a correct manner when handling or setting it up. Otherwise it may result in injury if it is dropped.



When this machine is dropped, unplug it and contact the dealership where you purchased it or a trained technician. If you use it continuously, it will lead to fire, electric shock or degradation of printing quality.



Do not place it in a unstable location, such as on a wobbly table or on a high shelf. It may result in degradation of print quality or dropping of the machine, injury to persons, or malfunction of the machine. In addition, the load capacity of the table on which the printer is placed should be 330 kg or more.



Do not place it in a location subject to the mechanism vibrations. It may result in degradation of print quality or dropping of the machine, injury to persons, or malfunction of the machine. Do not connect the power supply before the setting is completed. If the power switch is turned on by mistake, operation of the machine may result in injury.



Do not sit on the machine or place heavy objects on the machine. Otherwise, you may lose your balance and fall and get injured.



CAUTION Do not touch the claws on the upper side mounting area of the back cover. Otherwise it may result in injury.

4-1. Set up the printer

For unpacking operations and installation of accessories, please refer to the installation manual supplied with the machine.

The following points should be considered for the place of printer.

- Avoid direct sunlight and dust.
- Size 2295 MM × 1574 MM × 972 MM (length, width and height). Weight 330 KG.
- Do not use an extension cable.
- Allow 100 centimeters or more of working space at the front, left and right sides of the printer. And 50 centimeters or more at the rear for back cover installation. Leave a space of 50 cm or more in the direction of the roof. In addition, a space of 100 cm or more in front of the exhaust port is required because paper is loaded from the rear.
- Set the machine near the left front of the table so that the waste pipe does not become horizontal.
- When setting up the printer, place a level on top of the cover or on top of the platen and make adjustments so that the machine is level.
- Secure the table and the printer with fixing straps so that the machine does not fall off the table in the event of a disaster such as a major earthquake.



4-2. Power supply of printer

The printer also performs maintenance automatically such as white ink circulation during standby. Keep the printer powered on 24 hours a day.

【Reference】

- Maintenance work to keep the print head in good condition is performed when the power of the machine is turned on and off.
Maintenance operations will increase ink consumption if the power is turned on and off frequently. It is recommended to keep the power on when using in order to decrease the ink consumption.

4-2-1. Switch on the power supply

Please refer to the Installation Manual for information on unpacking and operation after setup.

Please confirm the following steps before connect the cable.

- Whether the damper and printhead is installed correctly or not.
- Whether the ink tube is connected to the printhead correctly or not.
- Whether the waste tube inserted into the prepared waste ink collector properly or not.
- The power supply is 220V (The specific country is 110V)

(1) Connect the supplied power cord to the power cord plug of the machine.

(2) Please plug the power into the socket.

(3) Whether the printer is grounding or not.

(4) Turn on the printer with the body cover closed.

【Important facts】

- Do not disconnect the power supply while the printer is operating. Failure to do so may cause the printer to malfunction.
- Do not perform the startup operation without the ink tube connected to the print head properly. Otherwise it may cause the printer to malfunction.
- When the power is turned off for a long period of time, maintenance operations such as white ink circulation are performed for a maximum of about 5 minutes.

4-2-2. Switch off the power supply

Depending on how the power button is pressed, the power cutoff method is categorized into normal mode and emergency mode.

- Normal mode

Cut off the power after performing the pre-shutdown head sealing used to keep the print head in good condition.

- Emergency mode

Press the emergency stop button in emergency mode. In emergency mode, without performing the pre-shutdown cleaning used to keep the print head in good condition, turn off the power.

Cutting off power in normal mode

Cutting off the power in the normal mode includes the following cases.

- When the front cover needs to be opened for maintenance of the printer.
- Remove the printer
- When cutting off the power supply in anticipation of a planned power outage.

(1) Please press the power button

Disconnect the power when the cleaning operation is completed before shutting down the machine.

【Important】

- Cut off power in emergency mode and does not perform shutdown moisturizing operations used to keep the print head in good condition.

Cutting off power in emergency mode

Cut off the power

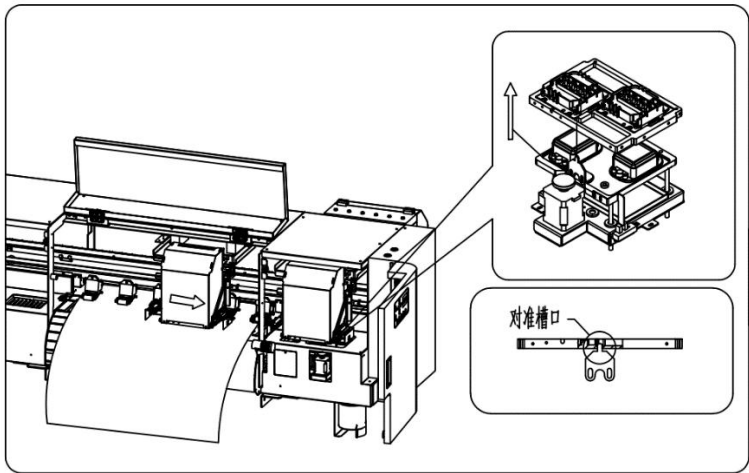
【Important】

- Do not perform shutdown cleaning operations used to keep the print head in good condition. Be sure to restart the printer and perform the print head moisturizing job after startup.

4-2-3. When it cannot be restored within a short period of time such as power outages

- (1) Open the front cover cap and move the word carriage to the right, stopping at the position where the right end of the carriage touches. The print head and the cover cap are in the same position.
- By rotating the ink stack lifting motor, the print head and the cap top overlap and seal to prevent the print head from drying out.

【Graphic example】



- (2) Open the front cover cap and move the word carriage to the right, stopping at the position where the right end of the carriage touches. The print head and the cover cap are in the same position.
- By rotating the ink stack lifting motor, the print head and the cap top overlap and seal to prevent the print head from drying out.



4-3. PC Connect printer and PC

4-3-1. Install the driver software of printer

This chapter explains how to install the DTF-60 plus printer driver and how to connect the printer to the PC. Windows 10 and Windows 11 support the driver. Please confirm the operation of each step at the same time.

First step to install the operation environment

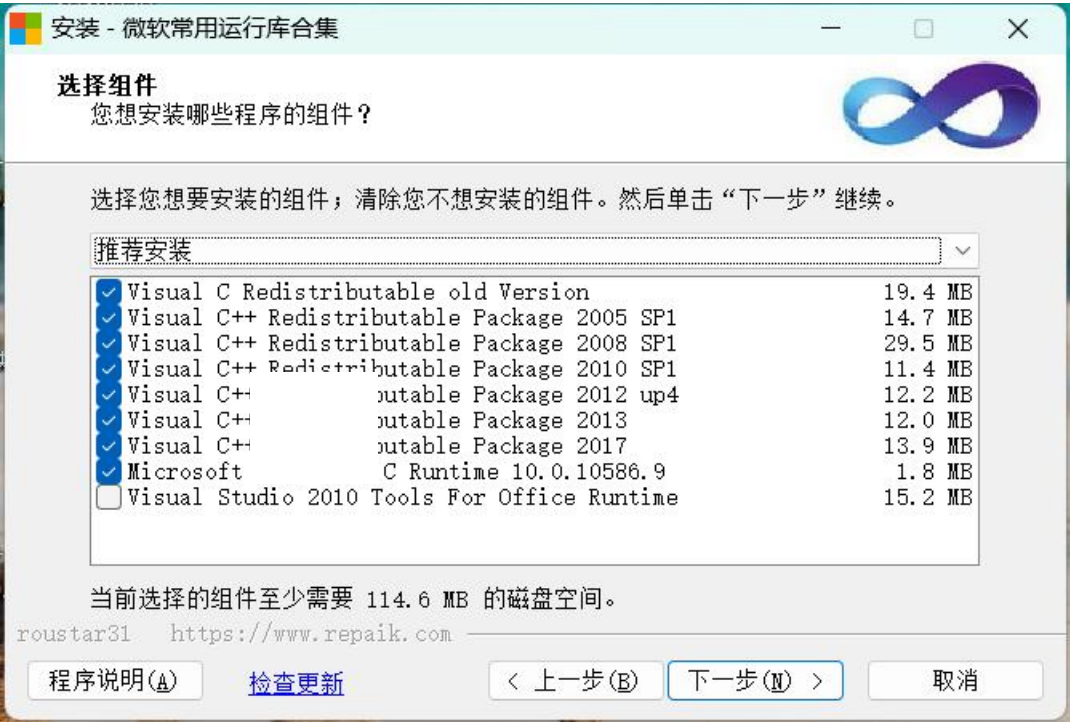
Open the DTF-60 plus file and find the below in PC



Click Next



Click Next

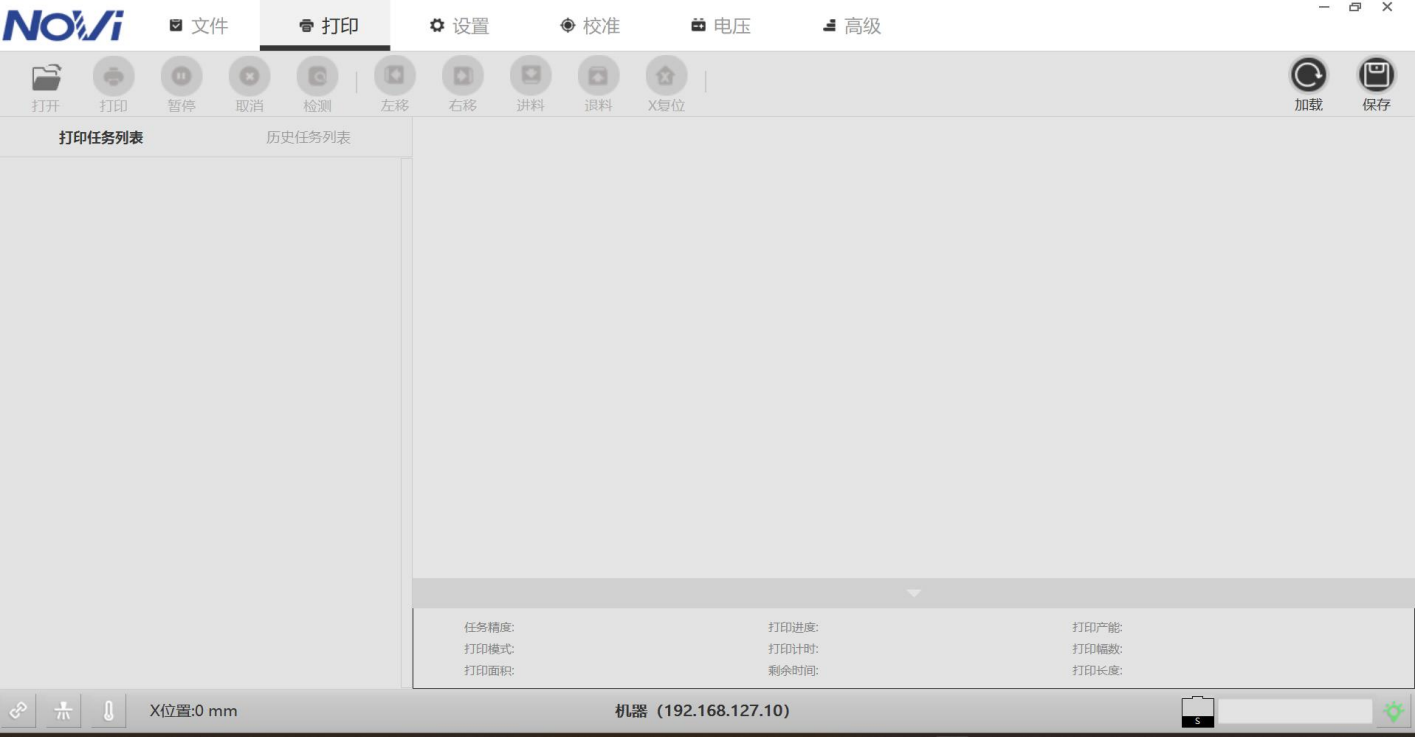


Wait for the installation

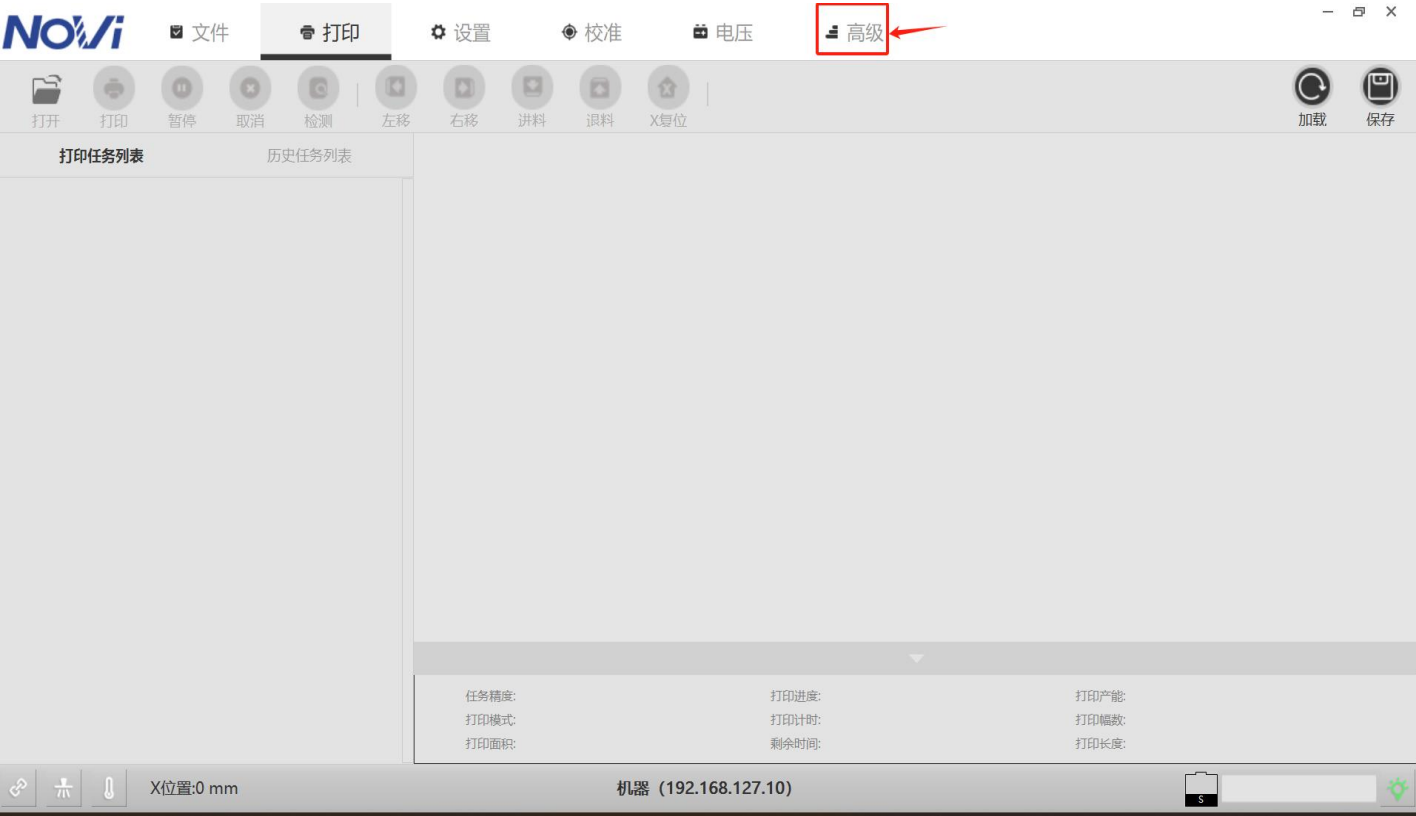


Find		Open it and find		2023/8/1 18:13	应用程序	2,024 KB
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Double-click to open the driver



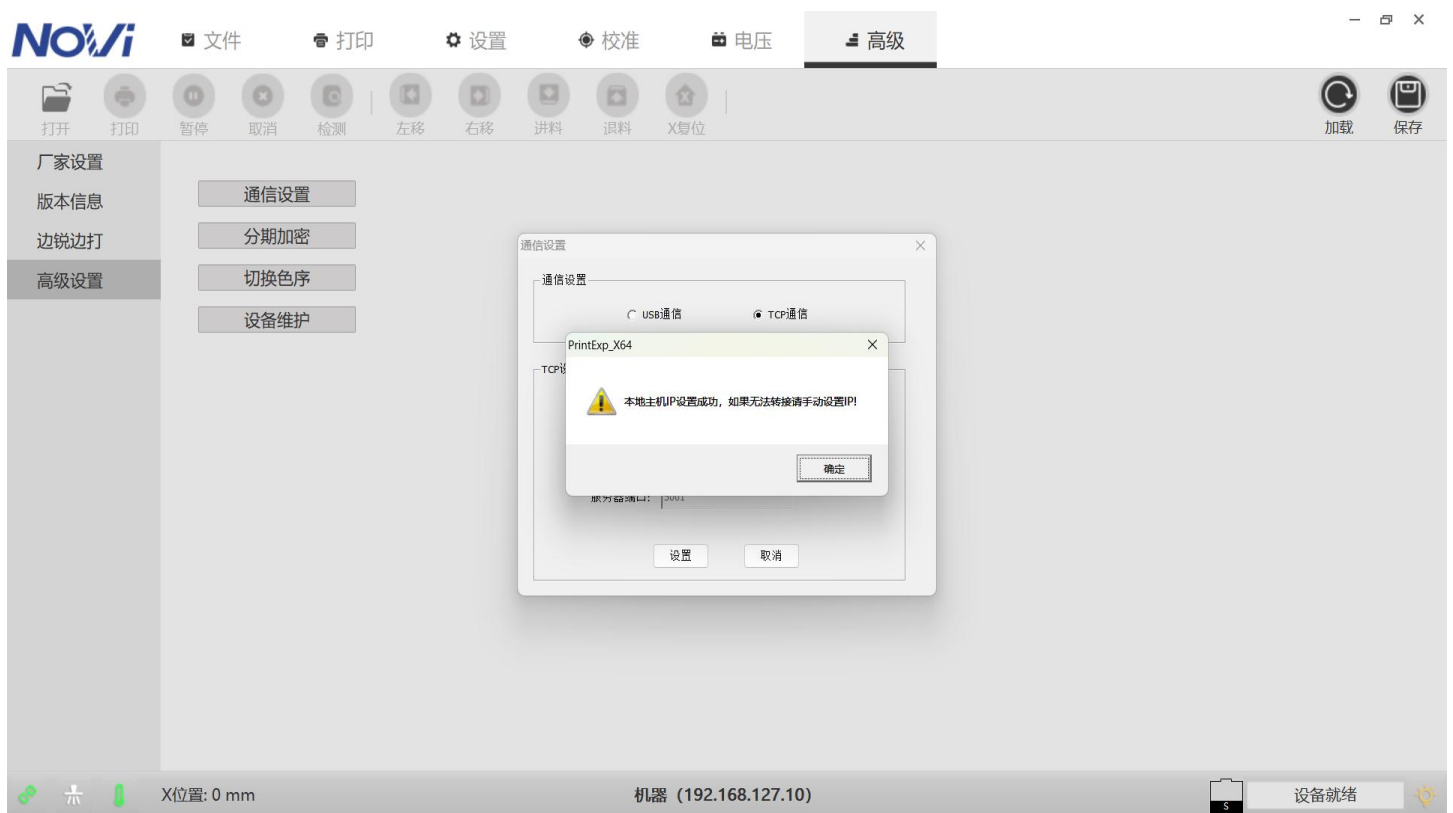
Click Senior



Click Senior setting to set the IP as 192.168.127.128



Wait for the connection icon on the bottom left to turn green to indicate a successful connection.



Open the software Futuer Rip and find

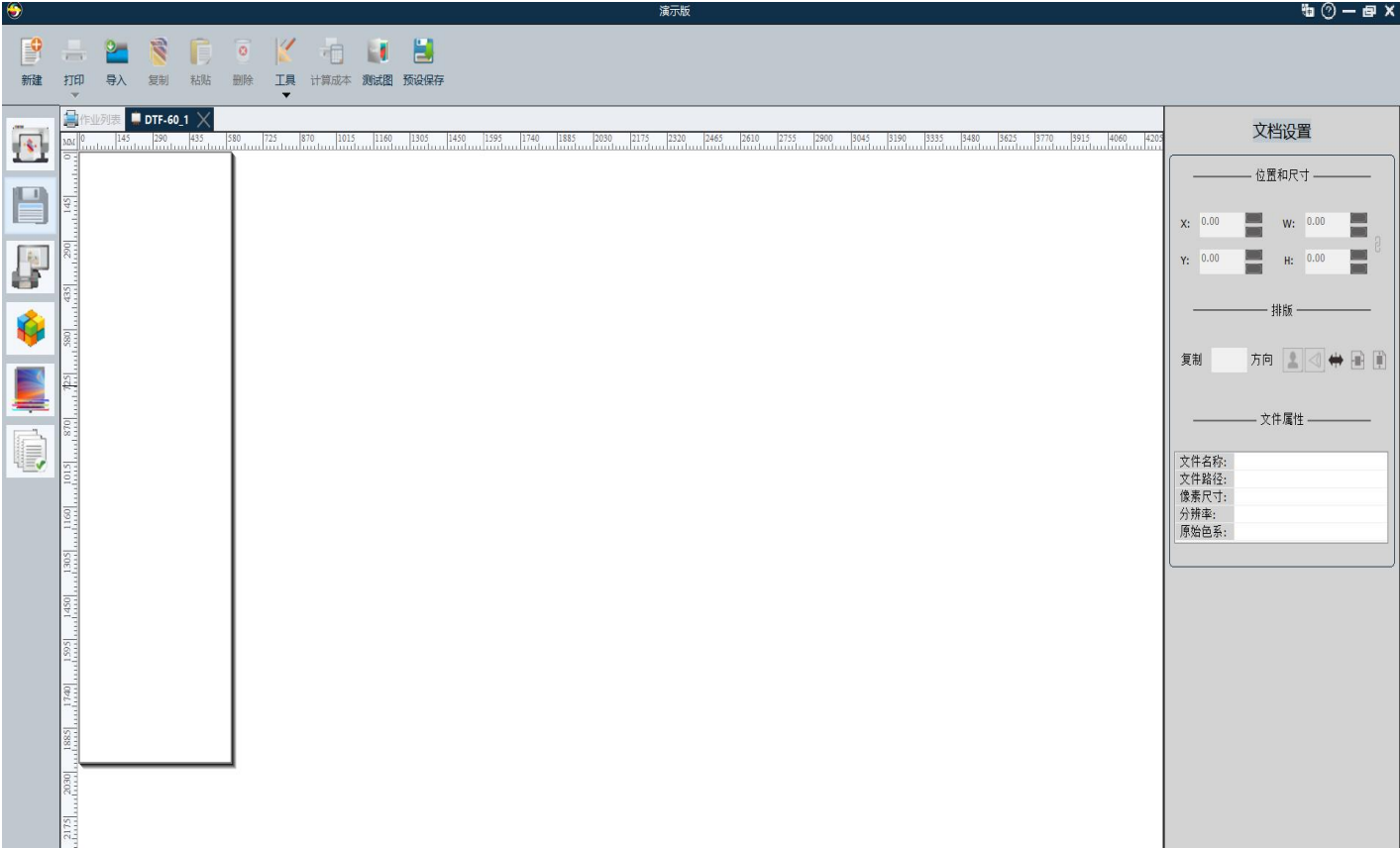
Novi_V5.21.1.1.60_TShirt(Novi)_2022...

Double-click to open



2023/7/28 12:03

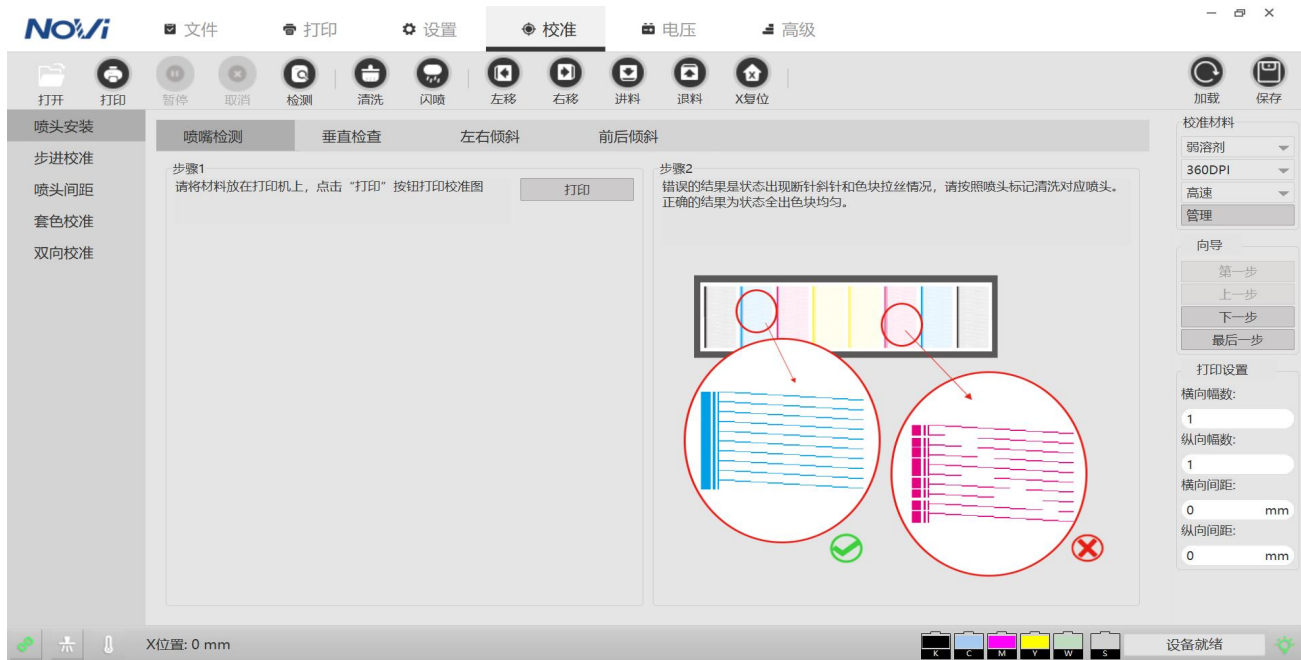
应用程序



4-3-2

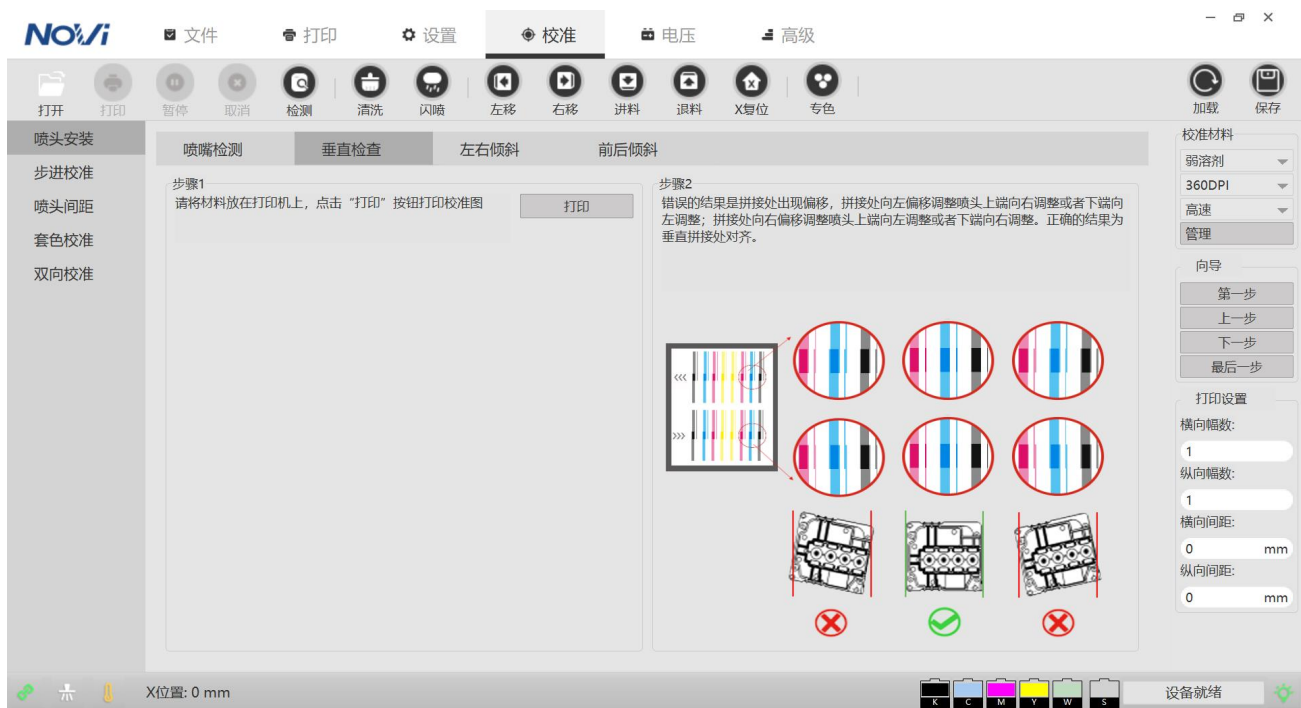
DTF-60 Plus II Graphic analysis of machine calibration and setting

一、Click calibration and enter the interface

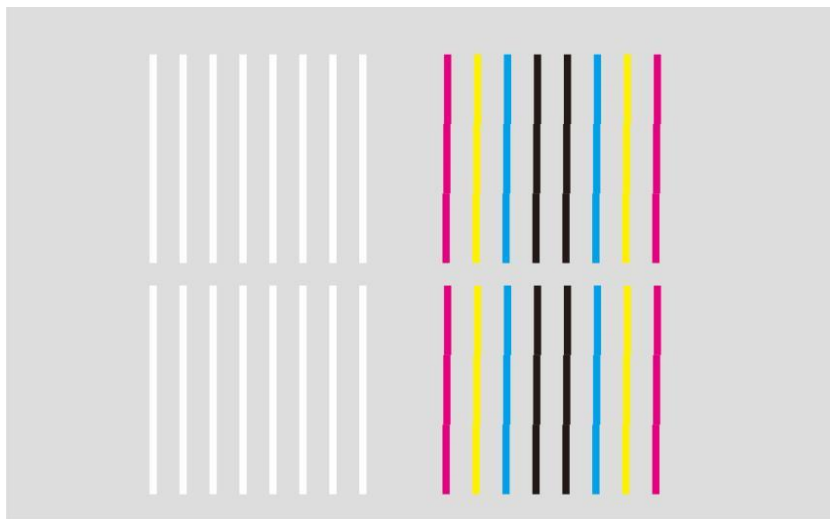


二、Install and calibrate the printhead (Adjusting the print fineness and calibrating the setting mode is generally debugged when hitting the printhead, or when replacing the printhead;)

1: Click the “Install the printhead” and choose the “Vertical check”, click Print



① Click "Print" to print the calibration pattern. (Fig 1)



图①

② Check the figure after printing



正常状态

喷头

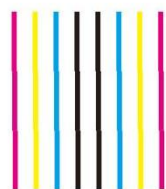
打印此效果
表示正常



调节喷头

喷头

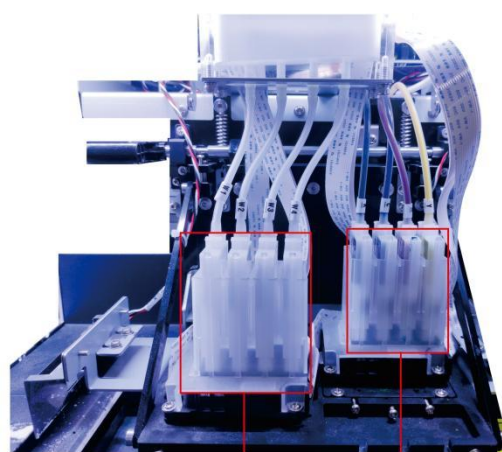
通过调整螺丝
使喷头平行



调节喷头

喷头

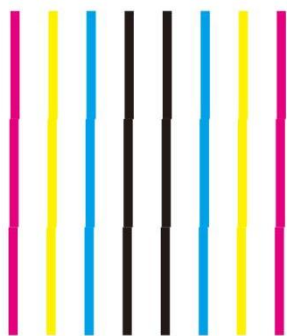
通过调整螺丝
使喷头平行



白墨喷头

彩墨喷头

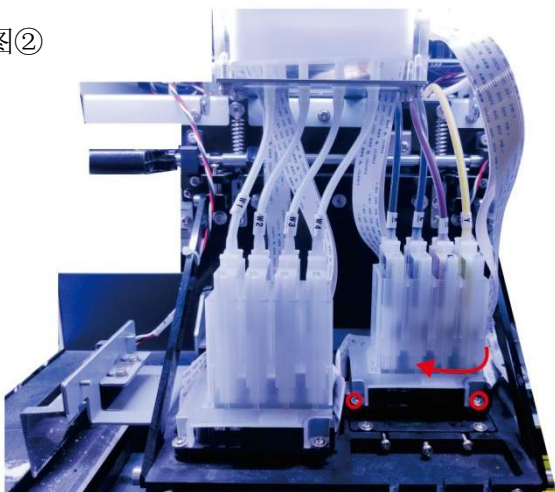
③ If the calibration pattern is printed as shown in (Fig. ②), loosen the printhead screws and adjust the printheads to the left slightly to make them parallel.



调节喷头

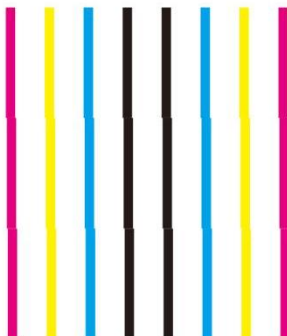
喷头

图②



松动喷头螺丝，往左轻微调节喷头，使其平行

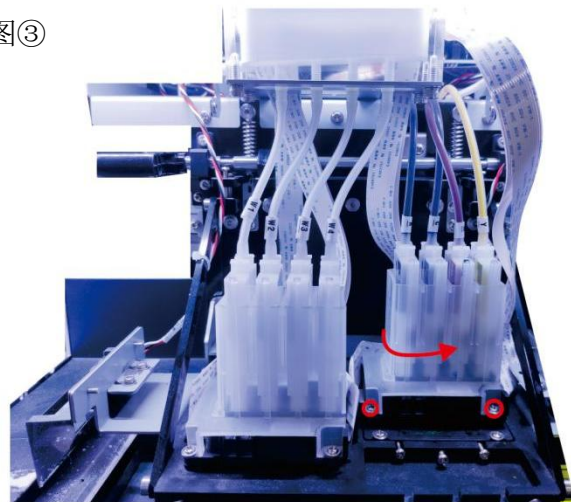
④ If the calibration pattern is printed as shown in (Fig. ③), loosen the printhead screws and adjust the printheads to the right slightly to make them parallel.



调节喷头

喷头

图③



松动喷头螺丝，往右轻微调节喷头，使其平行

三、Step calibration (Please adjust when the graphic size is inaccurate and the depth of the horizontal lines are obvious.)

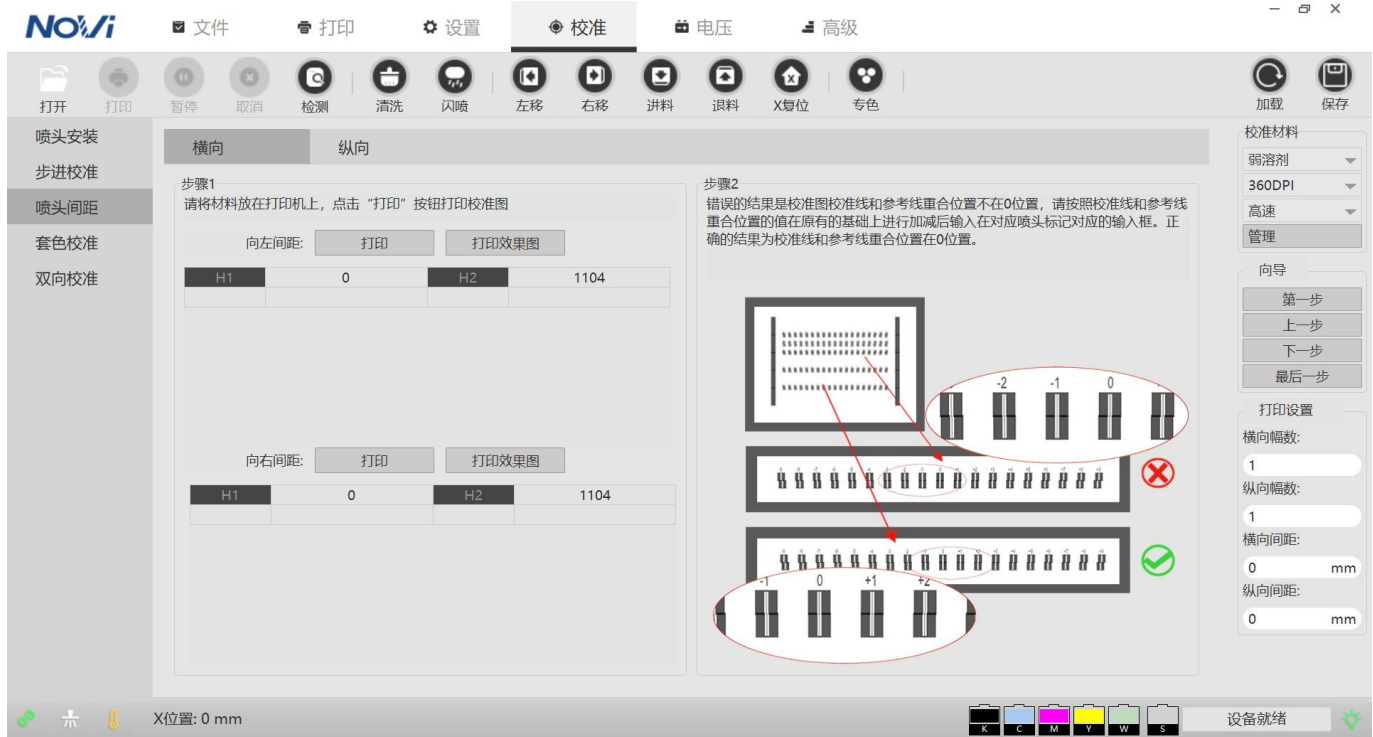
- ① Click “Step calibration”. Click “Print under step calibration”

Note:It is recommended that the number of vertical widths is "3", please observe whether the 0 of the front, middle and back widths is consistent. If it is not correct, please adjust the parameter in the pixel position and then click Calculate.

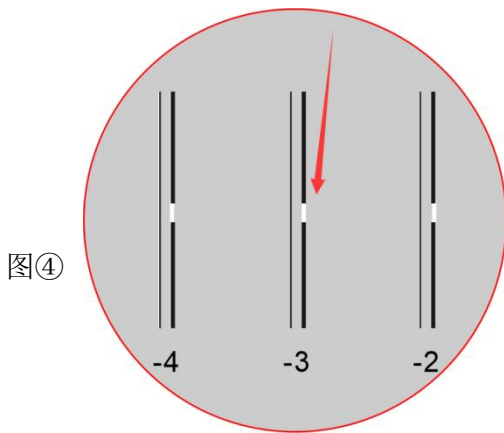


四、Printhead Interval Calibration - Horizontal (Please adjust when the printing effect of white color left and right misalignment)

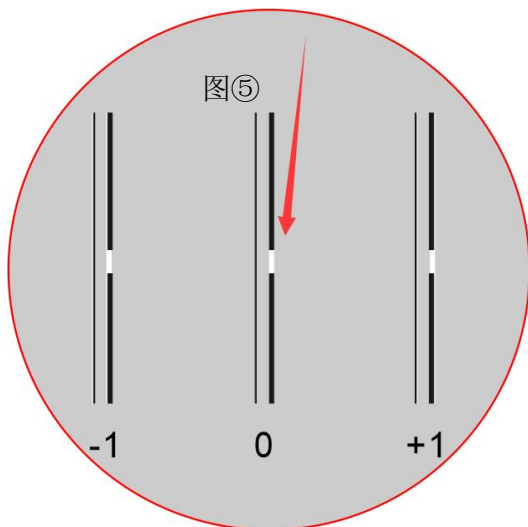
- ① Click “Printhead interval”, choose the horizontal and click “Print”
“Horizontal Right Distance” follows the same steps as Horizontal Left Distance.



② After printing the calibration graphic to check the overlap of the white color lines such as (Figure ④). For example "+3" line overlap is the highest, please increase 3 from the original value in the frame of "Horizontal Interval H2", if the graphic shows "-3" line overlap is the highest, then subtract 3 from the original value, and click "Save" finally.



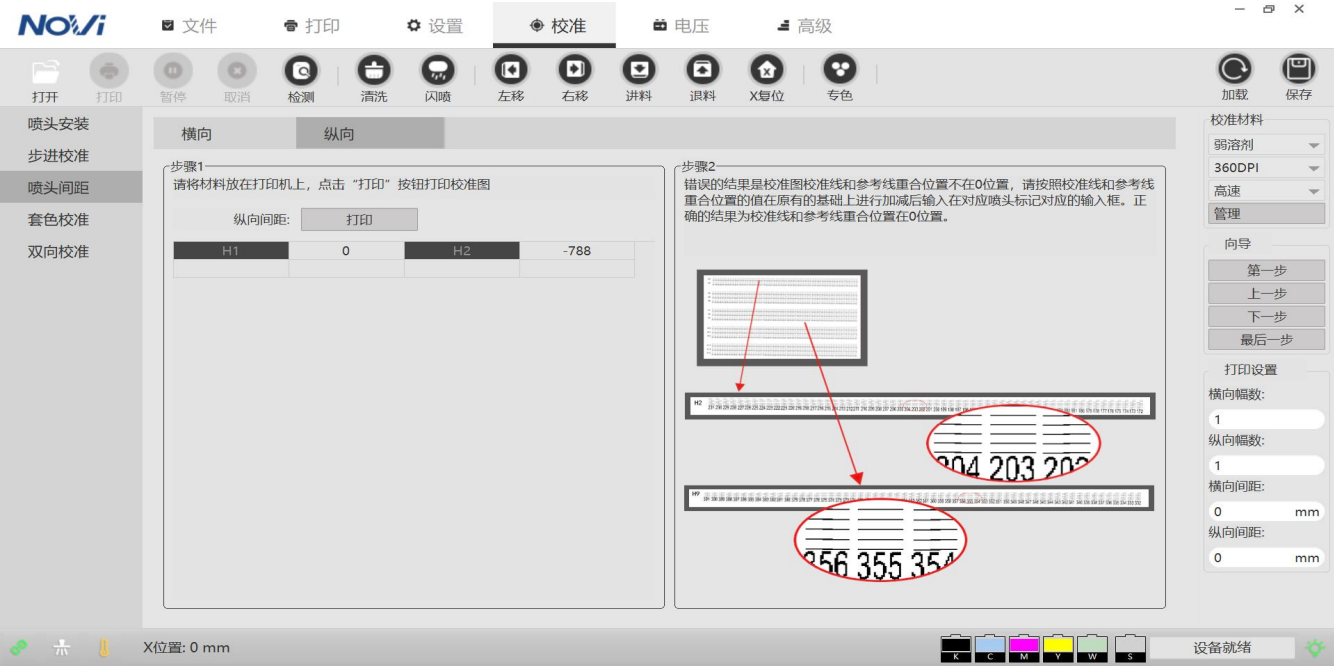
③ Click "Horizontal Interval" again to print the calibration pattern and confirm that it is aligned at the "0" position, as shown in (Fig. 5).



五、Printhead Spacing Calibration – Vertical (Please adjust the printing effect when the white color is misaligned in front and back.)

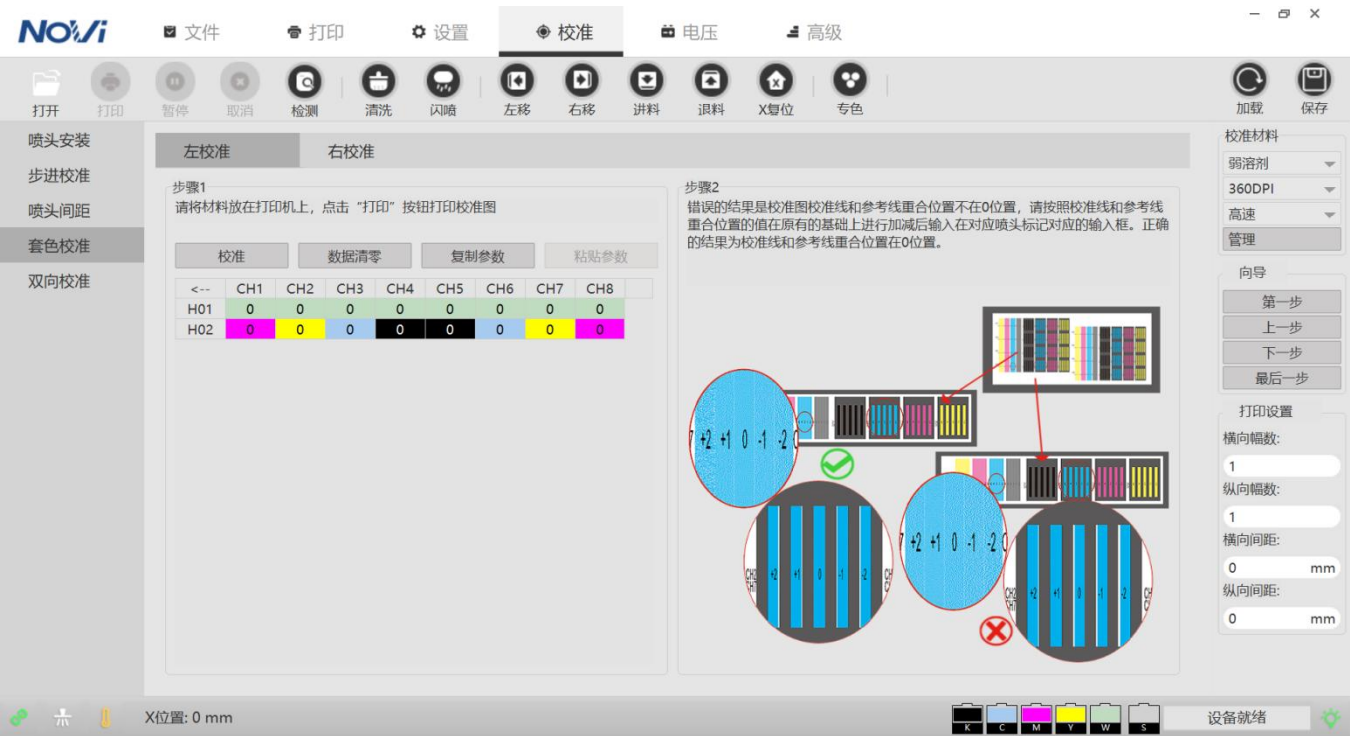
Click “Printhead Interval”, choose vertical and click “Print”

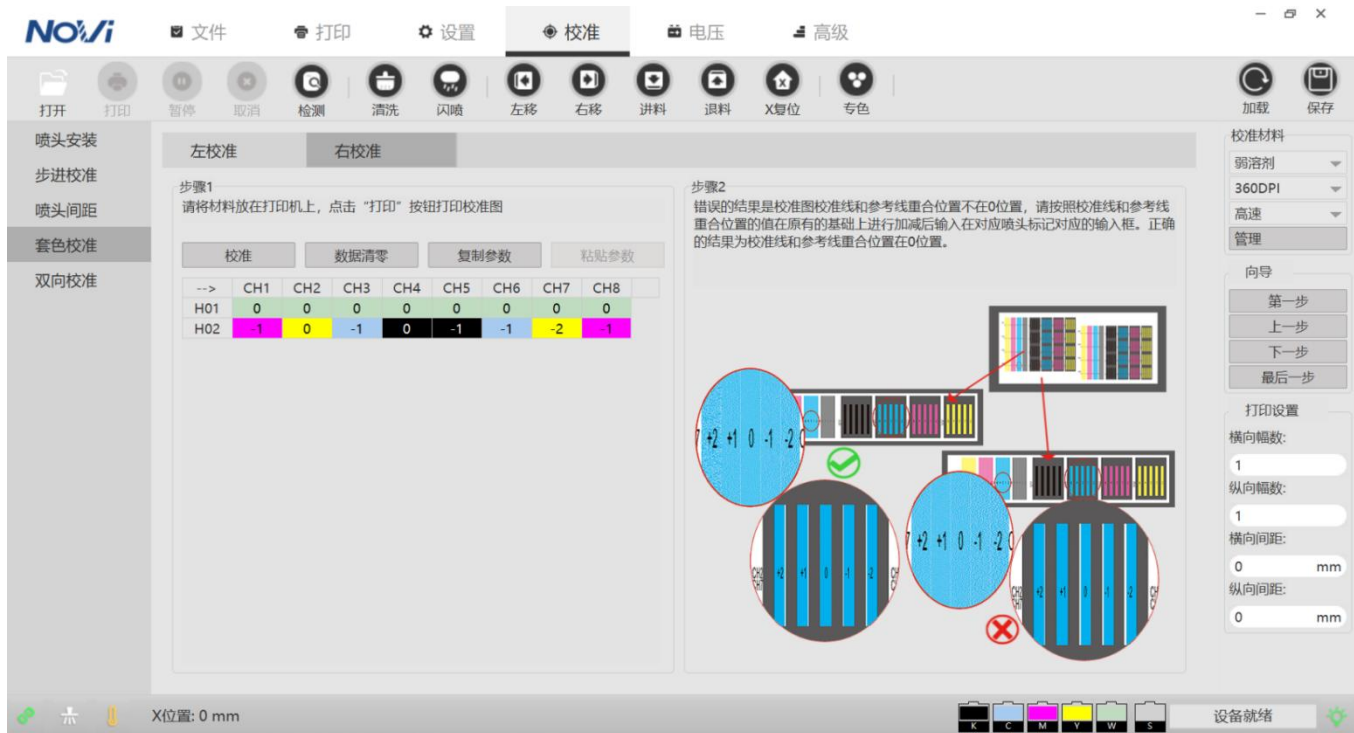
Note:After printing the calibration graphic to check the overlap of the white color lines, for example, “+3” line overlap is the highest, please increase 3 from the original value in the frame of “vertical internal H2” in the right. If the graphic shows “-3” lines overlap the highest, then subtract 3 from the original value, and finally click “Save”. If the graphic shows “-3” lines with the highest degree of overlap, then subtract 3 from the original value, and click “Save” finally.



六、Color set calibration (Adjustments should be made when the color of the print effect is inaccurate partly.)

Note:Left calibration followed by right calibration





七、Bi-directional calibration (Please adjust it when the bi-directional printing effect is blurred by ghosting.)

Click “Bi-directional calibration”, and click “Print”

Note: Click “Print bi-directional calibration graphic (Note that different print speeds correspond to different bi-directional parameters)”

If the graphic is aligned at “-3”, then you need to subtract 3 from the original value of the bi-directional calibration parameter, and if the graphic is aligned at “+3”, then you need to add 3 to the original value.

Finally, click “Save”.

Click “Print bi-directional calibration pattern (note that different print speeds correspond to different bi-directional parameters)” again to print the calibration pattern, and make sure that it is aligned at the “0” position).



喷头安装

步进校准

喷头间距

套色校准

双向校准

步骤1

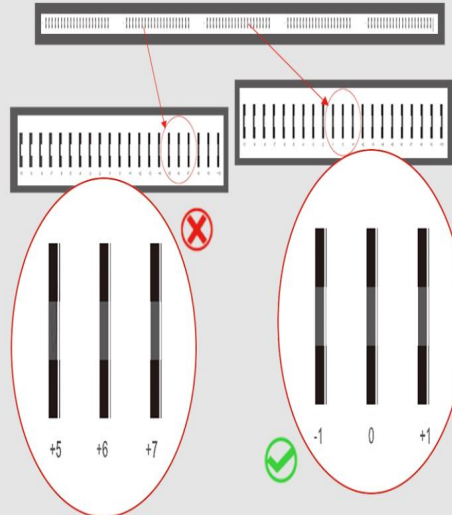
请将材料放在打印机上，点击“打印”按钮打印校准图

打印

双向偏移值: 7.50

步骤2

错误的结果是校准图校准线和参考线重合位置不在0位置。请按照校准线和参考线重合位置的值得在原有的基础上进行加减后输入在对应喷头标记对应的输入框。正确的结果为校准线和参考线重合位置在0位置。



校准材料

弱溶剂

360DPI

高速

管理

向导

第一步

上一步

下一步

最后一步

打印设置

横向幅数:

1

纵向幅数:

1

横向间距:

0 mm

纵向间距:

0 mm



X位置: 0 mm



设备就绪



4-3-2.DTF-60 plus driver Graphic analysis of calibration



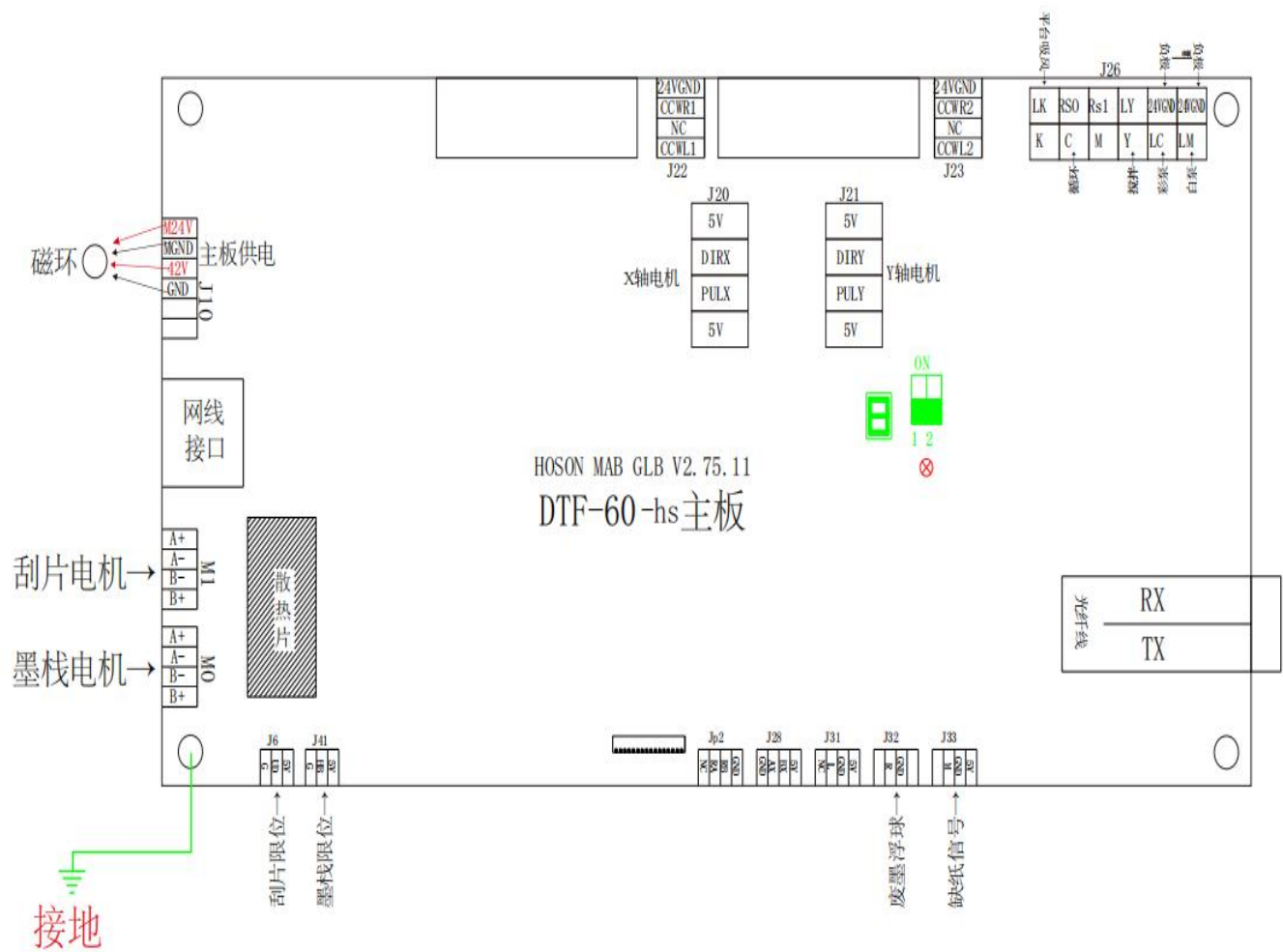
- | | | |
|----------------------------------------------------------------------------------|------------------------------------------------------|-----------------------------------------------------|
| 1:Check vthe nozzle | 12:Start point setting of X axis | 23:Default spray for type of feathuring |
| 2:Use the automatic cleaning function when the test strip does not come out well | 13:Printing speed(low,medium and high) | 24:Use inking when test strips do not come out well |
| 3: Flash spray of printhead | 14:Printing direction(Bi-direction,single direction) | 25:Default of Channel Settings |
| 4: The cart moves to the left | 15:Flash spray before printing | 26:Open and close of skipping blank area |
| 5: The cart moves to the right | 16:Automatical cleaning function | 27:Automatic maintenance time setting while standby |
| 6: Remove the paper forward before printing | 17:Open or close the color line mode | 28:Paper feeding after and |
| 7: Remove the paper forward | 18:Setting of the position of color line | 29:The ink liquid level of main cartridge |
| 8:Cart reset of X axis | 19:Density setting of color line | 30:Wrong information feedback |

9:Setting of specific color channel 20:Width setting of color line 31:Online(Green stands for success)

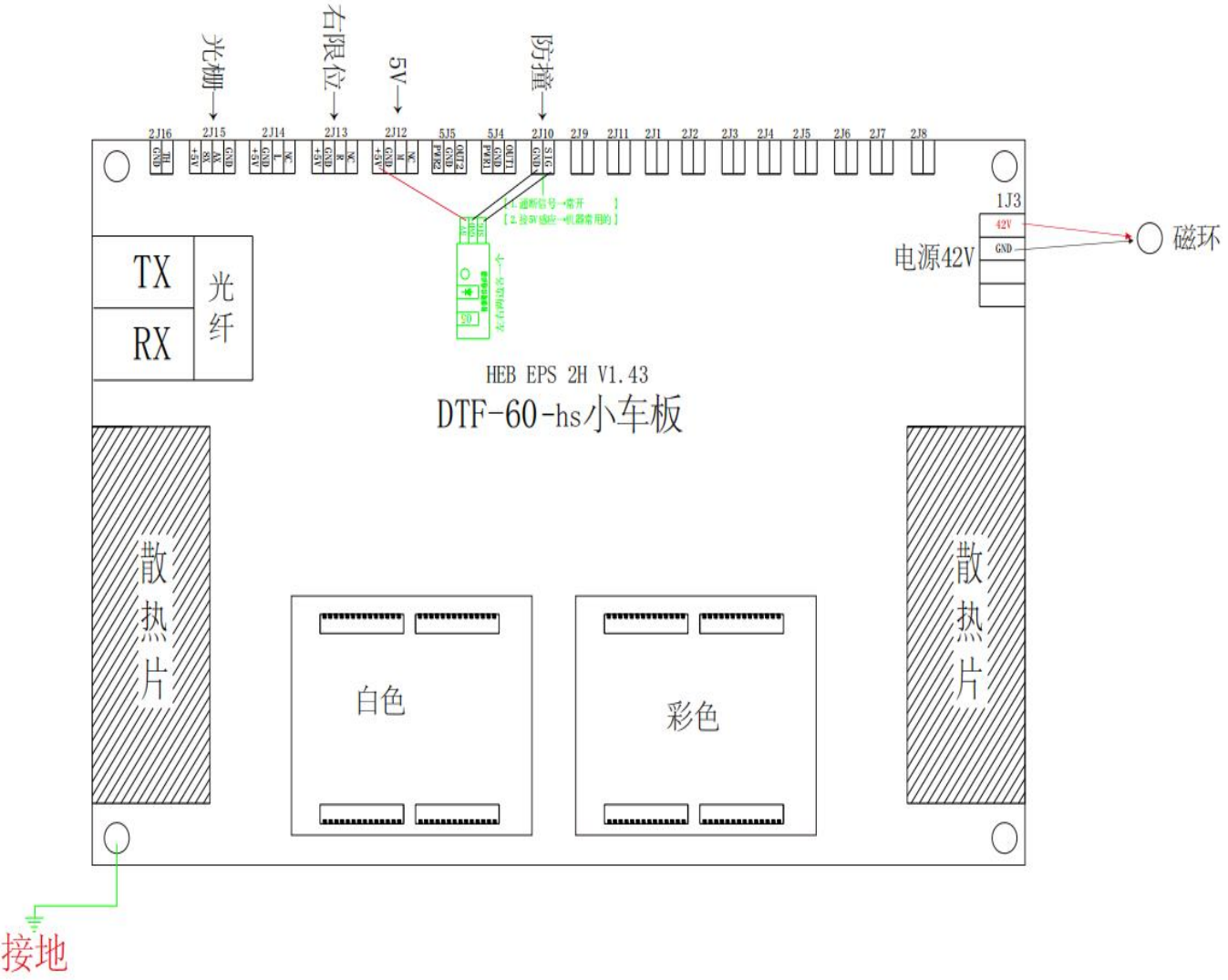
10: Open the print file 21:Interval distance setting of color line

11:Printhead choose default(color white) 22: Feathering settings The higher the feathering, the greater the effect

4-3-3 Definition of connect port of board



Definition of connect port of small cart board



4-3-4 Graphic analysis of DTF device and control



- 1: Suction shaft button (used for absorbing the upper film)
- 2: Eliminate the smoke device button
- 3: Control the powder delivery motor button
- 4: Control the powder beating motor button
- 5: Control the motor button for delivering and removing the powder
- 6: Heating button for control platform
- 7: Heating button for control the channel
- 8: Open all the device of hot melt powder shaking machine and adjust the motor speed

5-1. All the applications and common projects

It is recommended to use Future Rip when setup the printing data

Future Rip can build up data through direct operation

When using other applications, the DTF-60plus printer driver can print jobs from all applications. It is recommended to use the following image editing applications for high quality effect.

- CorelDRAW(X7 / X8)
- Adobe Photoshop(CS6 / CC)
- Adobe Illustrator(CS6 / CC)
- Adobe Photoshop Elements(14 / 15)

Color mode (Color gamut)

DTF-60plus belongs to RGB.

Setup the image data of RGB mode. The setting of color gamut is **sRGB(sRGB IEC61966-2.1)**.

【Reference】

- CMYK mode images may not reproduce colors as expected after using applications from Adobe or Corel.
- If a color gamut other than that specified, such as Adobe RGB, is used, reproduction color anomalies will also occur even in RGB mode,.

Printing and type setting

When using the Future Rip application, the setting is to confirm the print layout using the size of the paper specification in the Print menu.

【Reference】

- In general, it is recommended that the DTF-60 printer be set as the PC's [Set as Default Printer] in order to configure the print image correctly.

Method of creating white data

Please spray it by image editing procedure **Adobe Photoshop(CS6 / CC)** if you want to print pure white.

PRN/PRT file

【Reference】

- The creation of a white spot color channel can be performed by rendering the image white data simply through the settings of the printer driver when using the Future Rip.

It is possible to export printing file of PRN/PRT and achieve the printing through DTF-60plus software by setting Future Rip configuration port.

【Reference】

- **Future Rip** software supports the printing method of TCP/IP to send directly.
- **Future Rip** software supports to export PRN/PRT file and send it through DTF-60plus software

Warning



Once there is a foreign object enters into the machine internal, please cut off the power supply and unplug it. And then contact the dealership or the trained technician. If you use it continuously, it will lead to fire, electric shock or degradation of printing quality.



Do not connect the machine with liquid. Otherwise it may lead to fire, electric shock or malfunction.

—



Switch off the power supply and unplug it immediately when there is liquid enters the machine. Please contact the dealership or the professional technician.



Do not use it when it is in an abnormal state such as smoking or having an peculiar smell. Otherwise it will cause fire, electric shock or malfunction. Please switch off the power supply and unplug it. Please contact the dealership or the professional technician.



Keep your fingers or body away from the rotating fan.

Otherwise you may become involved and cause injury. Turn off the power before approaching.

Notice



Use this machine only by personnel trained in safe operation.



During work, hands should be kept away from the hood cover and do not touch the mobile parts, which may result in injury.



Do not disassemble the ink bottle. If the ink comes into contact with eyes or skin, it may cause inflammation.



Do not rub if it gets into your eyes, and flush it out with water immediately. Do not disassemble the ink cartridge.



Do not drink fluid such as ink, filler, cleaning fluid, hot melt powder, and waste fluid. Otherwise, it may cause diarrhea and vomiting.

In addition, please avoid eye and skin contact with liquids such as ink, filler, cleaning solution, hot melt powder, and waste liquid. Otherwise, it may cause inflammation. Do not rub if it gets into the eyes, and flush with water immediately.

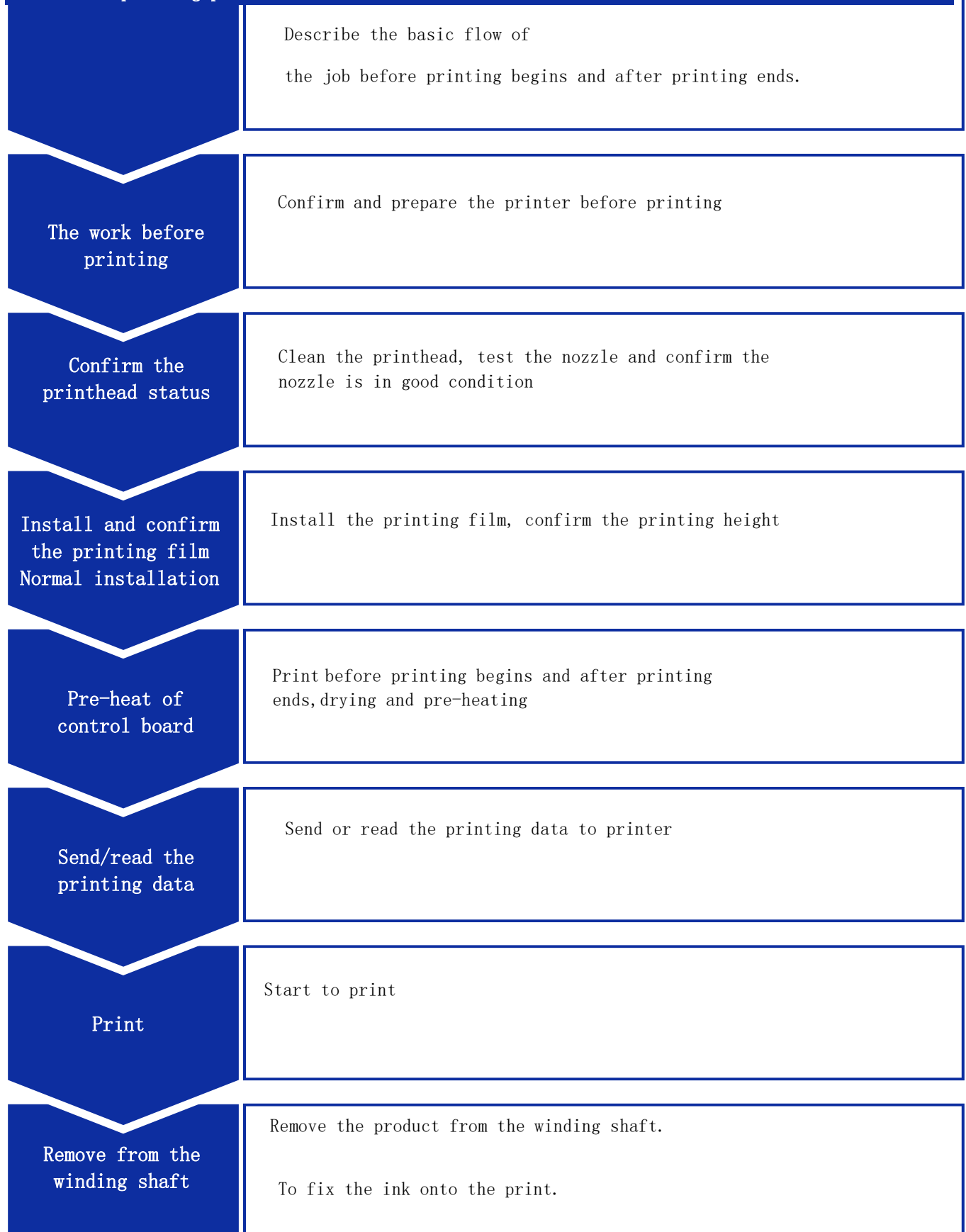


Please keep it out of reach of the children.

In the event of a malfunction of this machine, contact the dealership where you purchased the machine or a trained technician.

Make sure there is enough space in front of the machine and do not place objects. Otherwise it may result in impact and breakage of the platen.

6-1. Basic printing procedure



6-2. The work before the printing

6-2-1. Confirm 、dispose the waste ink

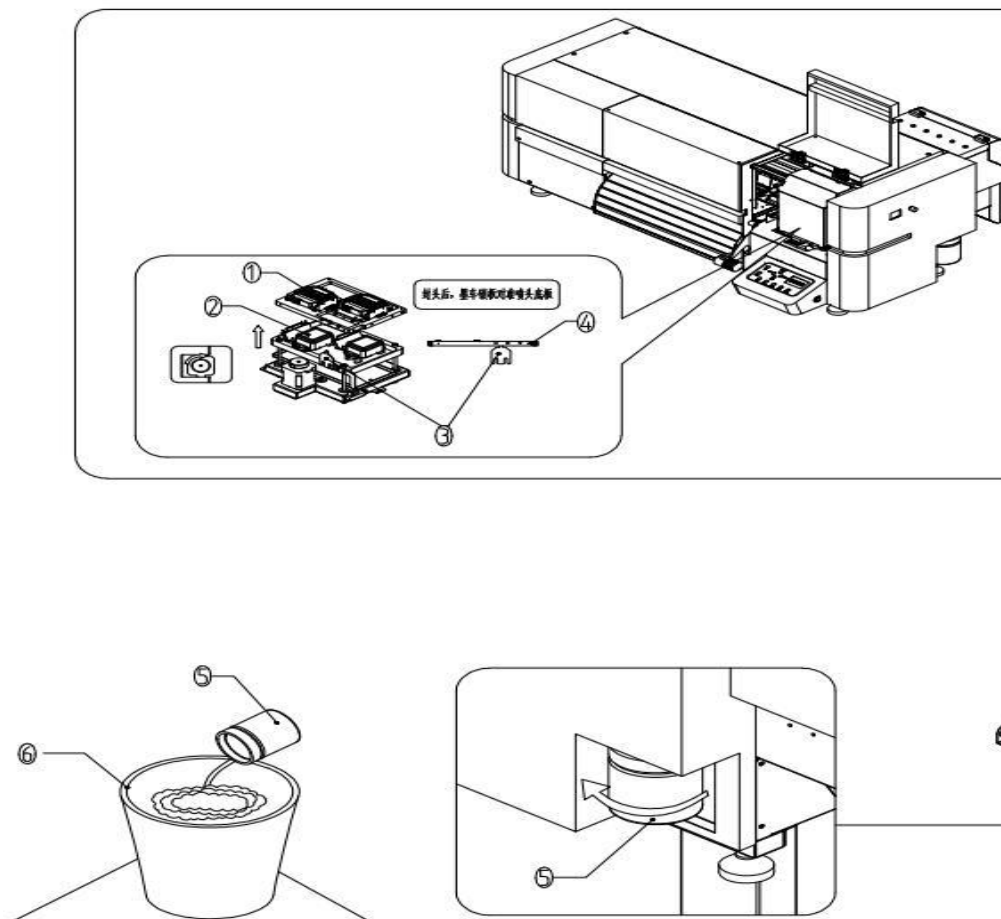
Confirm the amount of waste ink in the waste ink collector, and pour out the accumulated waste ink if it is more than 1/2.

(1) Confirm the waste ink collector and pour out waste ink.

Place a tray underneath the tube that is pulled out of the waste ink collector to prevent the waste ink in the tube from dripping onto the floor.

【Note】

- Please dispose of it in accordance with the Aqueous Waste Liquid Decree.



(2) Restore the waste ink collector to its original position and insert the tube.

【Note】

- Confirm that the flow path of the waste ink can be ensured and that the tube is not bent.
- Insert the waste tube about 4~5 cm into the waste ink collector.

Criteria for fixing conditions

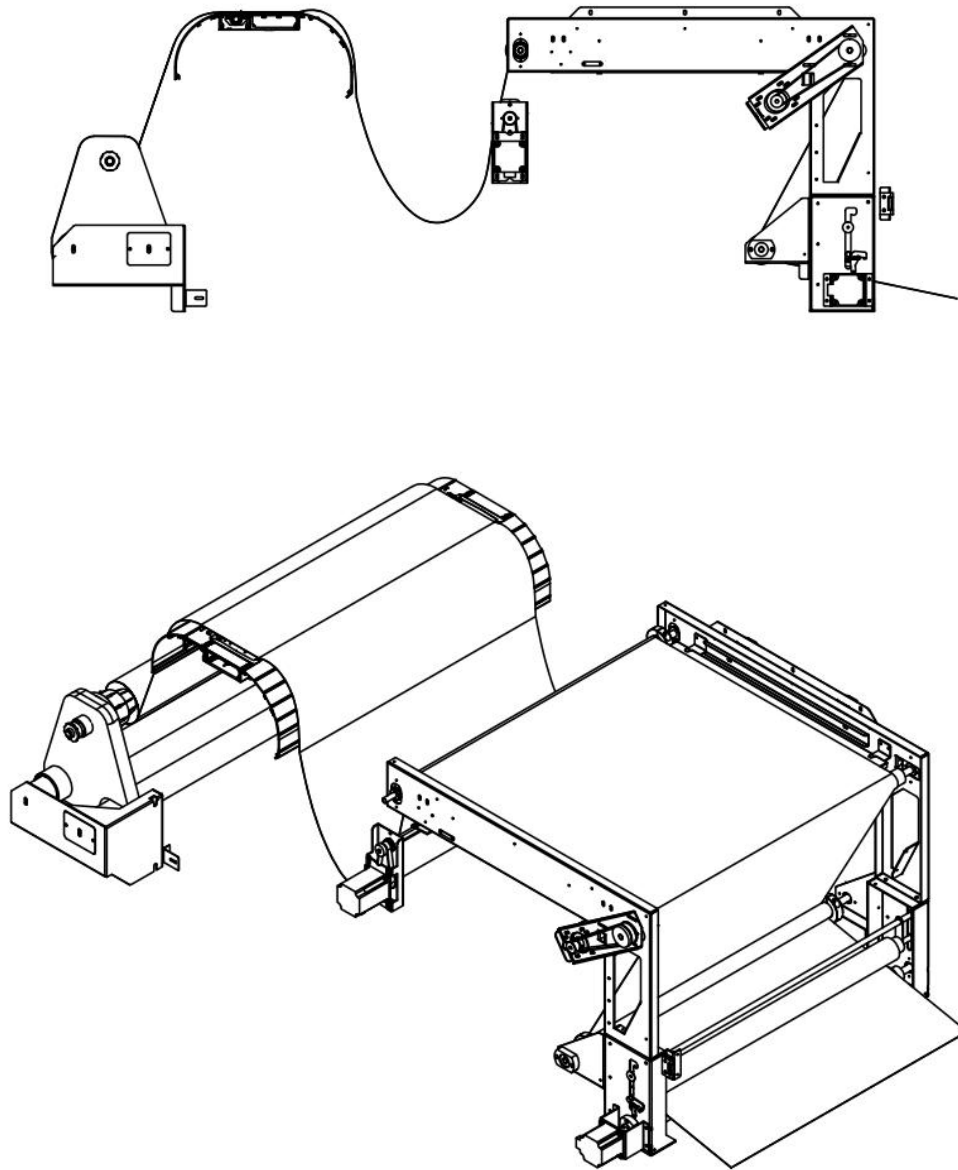
The following fixing temperature and time are standardized, and the appropriate conditions may vary depending on the press method used. Please check the temperature and fixing effect beforehand.

【Reference】

- Check the temperature of the press when fixing. After continuous fixing, the temperature will drop and the whiteness will not be reproduced.
- Pressure is required to smooth the surface. The fixing conditions vary depending on the press method used, so check the ink fixing effect and adjust the pressure beforehand.
- The optimum fixing conditions vary depending on the fabric material, so use the following values as a standard.

Temperature	Time
160°C (356°F)	10 seconds

6-2-2. Install the transfer film

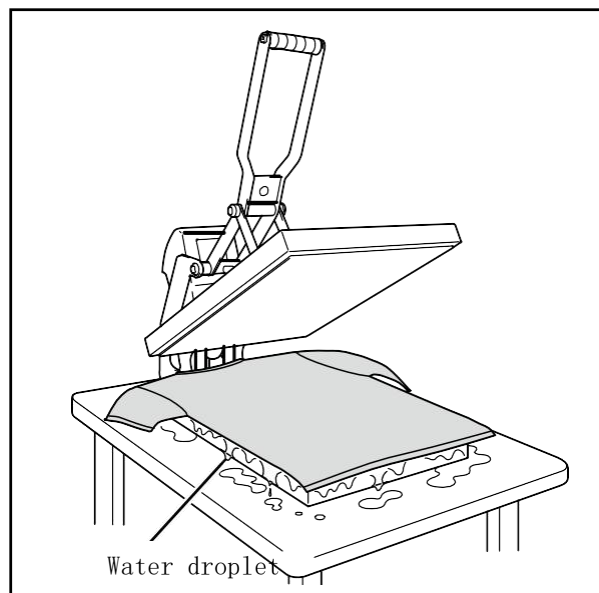
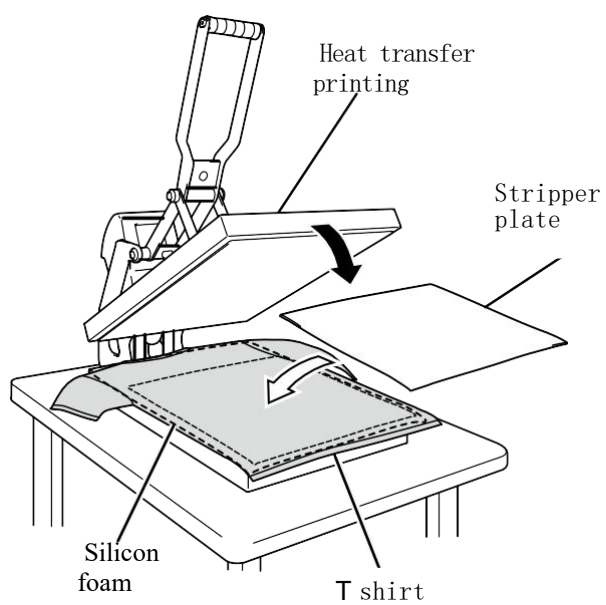


Install the transfer film according to the graphic

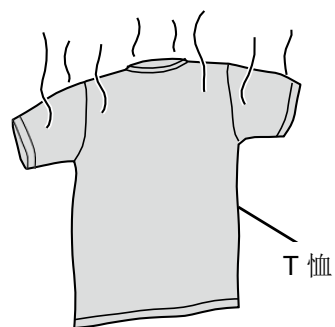
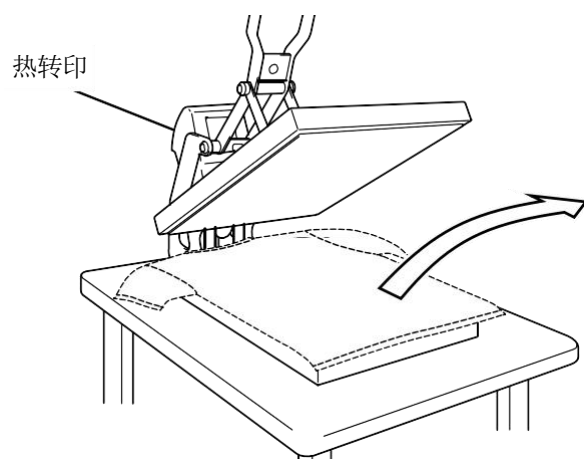
- (1) Place the silicone foam, T-shirt, and peel-off plate onto the press and set.

【Reference】

- Water droplets may appear around the press as the heat through the press melts the hot melt powder. Please keep the work space clean to avoid wetting the application surface.
- Please use the stripper plate according to the press used.



(2) Remove the T-shirt from the press machine and eliminate the waste heat.





Danger



Touching high voltage areas can cause serious injury. Turn off the power and wait 5 minutes before removing the cover.



Notice



Be careful not to pinch your fingers when closing the front hood cover. If fingers are pinched, it may get injured.



If the ink comes into contact with the eyes or skin, it may cause inflammation. Do not rub if it gets inside the eyes and flush with water immediately.



Do not drink fluids such as inks, fillers, cleaning fluids, pre-treatment agents, waste fluids, and so on. Otherwise, it may cause diarrhea and vomiting.

Also, avoid eye and skin contact with liquids such as inks, fillers, cleaning fluids, pretreatment agents, and waste liquids. Otherwise, it may cause inflammation. Do not rub if it gets into the eyes and flush with water immediately.

Please keep it out of reach of the children.

When applying grease, please wear goggles and protective gloves to avoid eye or skin contact with the grease. Otherwise, it may cause inflammation.

Do not drink grease, or it may cause diarrhea and vomiting. Please keep it out of reach of the children.



When replacing or installing spare parts, please use our original parts. We are not responsible for accidents or malfunctions caused by the use of non-original parts.



Please replace and install the spare parts according to the instruction. If you operate with wrong procedures, you may become injured or malfunction.

((!)) Important facts



Do not move the platen by hand. Or it may result in serious malfunction of the machine.



Make sure there is enough space in front of the machine and do not place objects. Or it may cause the platen to be struck and broken.

7-1. Regular implementation matters

7-1-1. Add ink

When the device indicator light is on, add ink promptly.

【Important】

- In order to prolong the life of the printer and to utilize the performance of the printer fully, it is recommended to use the ink specified by our company.
- Follow the color prompts to add ink
- A small amount of ink needs to be left in the cartridge in order to protect the printer as well as ensure print quality. Please pay attention.
- Pay attention to the protective measures when adding ink to avoid ink overflow and pollution of the machine sheet metal.



【Reference】

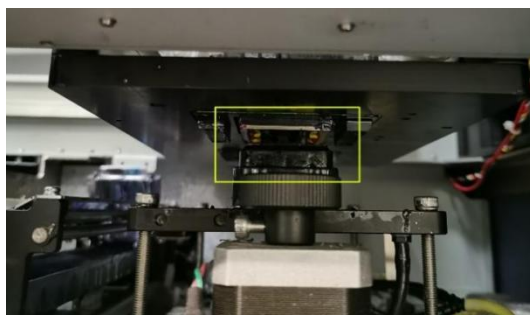
- Ink may pollute the bottom of the cartridge.

Add ink, wait about 5 minutes to inking manually, the machine ink supply is completed normally when the damper is filled with ink.



Automatic cleaning

The machine started to perform automatic cleaning and ink droplets appeared on the surface of the printhead as shown below



7-1-2. Clean the protective board for nozzle

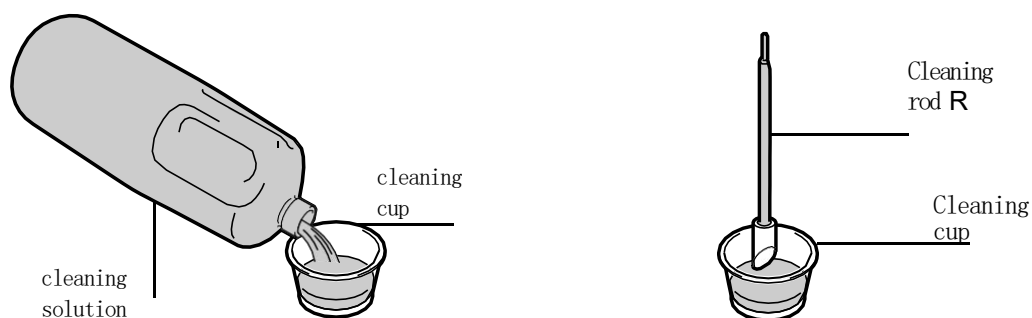
- (1) Fill the cleaning cup with an appropriate amount of cleaning solution.
- (2) Dip the cleaning solution with a new cleaning rod R.

【Important】

- Use a new cleaning rod when you start sweeping.
- Do not touch the top of the cleaning rod with your hands. Otherwise, sebum adheres to the scraper and may cause abnormalities.
- Other liquids (water, etc.) may damage the print head, so do not use it.
- Do not pour the cleaning solution from the cleaning cup back into the cleaning solution bottle.

【Note】

- Please wear the supplied gloves to do the job.



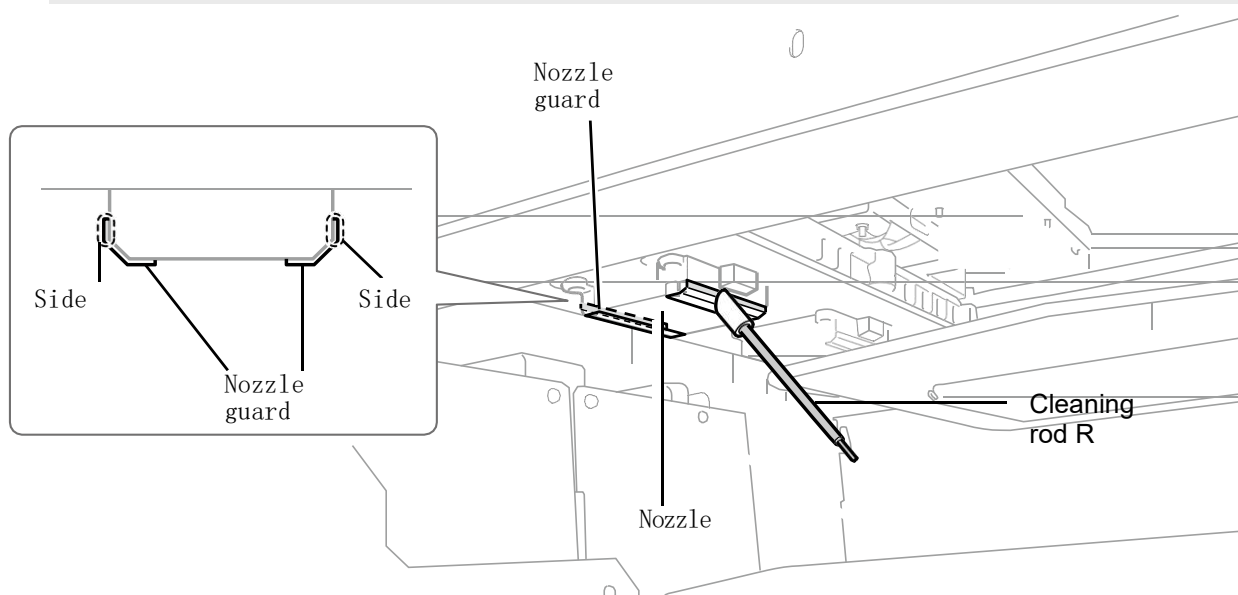
- (3) Use a cleaning rod to wipe the sides of the nozzle guard.

【Important】

- Do not touch the nozzle interface and the horizontal and beveled surfaces of the nozzle guard.

【Reference】

- Move the word cart by hand to a position where it can be easily swept.



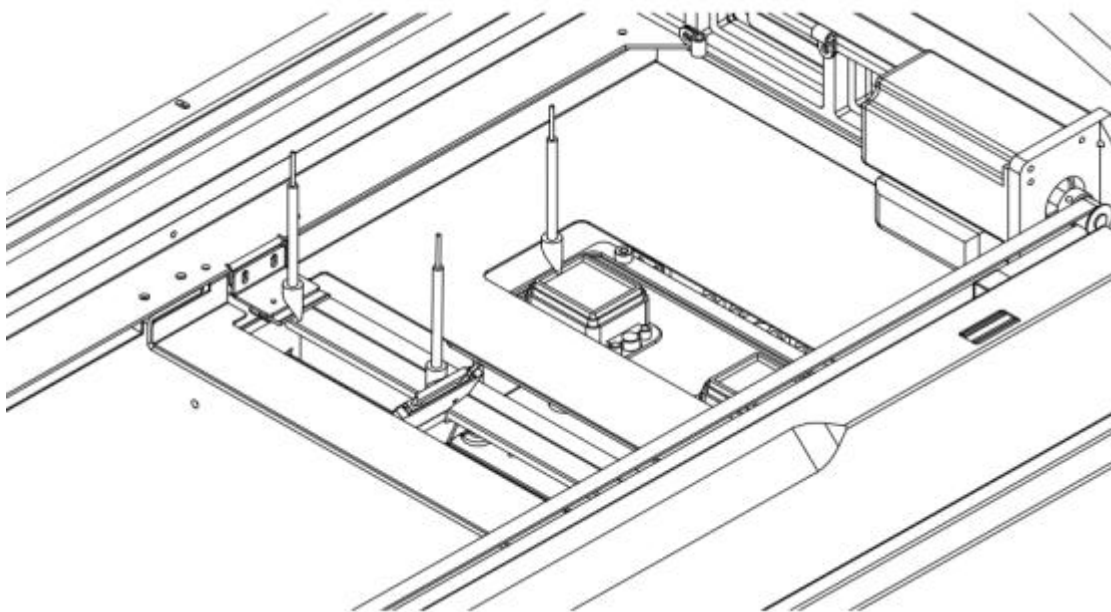
7-1-3. Change the cleaning scraper

- (1) Use a cleaning rod to wipe the surface of the scraper and the gap between the protruding part and the scraper.

【Important】

- Do not touch the top of the cleaning rod with your hands. Otherwise, sebum adheres to the scraper and may cause abnormalities.
- Please rinse the cleaning rod used to clean the nozzle guard with a cleaning cup before use. Color ink and white ink must be used separately.

- (2) Use the clean side of a cleaning rod to wipe the inside of the scraper.



- (3) Rinse the cleaning rod with a cleaning cup and use it later when cleaning the exhaust cap.

【Important】

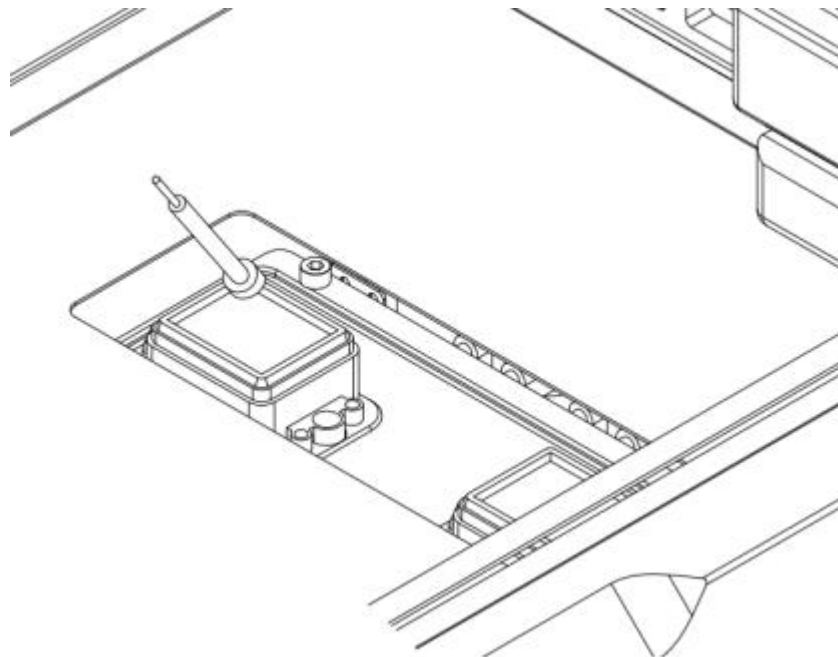
- Cleaning rods for white and colored inks must be used separately.

7-1-4. Sweeping suction caps

- (1) Wipe the rubber part of the suction cap in parallel with the side part of the end of the cleaning rod.

【Important】

- Do not touch the sponge of the white side suction cap. Otherwise it may cause the sponge to fall off.
- Do not touch the top of the cleaning rod with your hands. Otherwise, sebum adheres to the scraper and may cause abnormalities.
- Rinse the cleaning rod used for nozzle guard, scraper cleaning, and exhaust cap cleaning with a cleaning cup before use. Color ink and white ink must be used separately.



- (2) When the ink block floats up, please pick it up with tweezers to remove it.

【Important】



- Do not clamp the rubber part. Otherwise damage may result in a loss of airtightness and the print head does not eject ink.


(3) Replace the cleaning rod , rinse the cleaning cup, and clean the nozzle guard of the color side print head.

【Important】

- The cleaning rod R for white ink and the cleaning rod R for colored ink must be used separately.
- Throw away the cleaning rod after using.

Sweeping status

Before sweepi ng	After sweepi ng
	
Suction cap rubber part	Suction cap rubber part



7-1-5 Change the cleaning wiper

Replace the cleaning scraper, check the dirty condition inside the printer. If the inside of the printer (guide shaft of word cart, roller guide, carriage roller) is dirty, clean it.

Prepare cleaning rods, cups, gloves, cleaning solution and grease.

【Important】

- Do not touch the top of the cleaning rod with your hands. Otherwise, sebum adheres to the nozzle and may cause abnormalities.

Cut off the power supply according to the information

【Important】

- Finish the job within 20 minutes in order to prevent the ink in the print head from drying out.

Power on

【Note】

- Please dispose of the waste generated by cleaning in accordance with the ordinance.

【Reference】

- Performs print head cleaning that prevents ink from drying out.

Clean the printhead

【Note】

Please clean the printhead in order to prevent the ink from drying out.

Check the graphic of nozzle

【Reference】

- Check the graphic of printing nozzle (confirm the printhead)

7-2. Implementation matters when necessary

7-2-1. Print the graphic of nozzle(confirm the printhead)

If the print nozzle checks the pattern, the print quality can be confirmed.

It is recommended that this operation must be performed to confirm printing effect before starting printing.

- (1) Install the printing film, setting the height to the right position.

【Reference】

- If you need to observe the status of white ink, it is recommended that the transparent and black PVC film are used.

- (2) Choose [Nozzle test] in the menu.

The printing starts


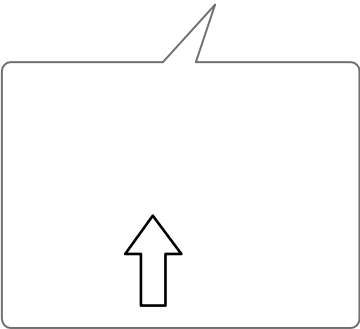
- (3) Judge the printing effect of the nozzles on both sides, and when there is a nozzle that does not spray ink, clean the corresponding print head.

【Important】

- When the lines of the print effect are interrupted, there may be a problem of no ink jet. Clean the corresponding print head.
- Even the lines of the white side printing effect are thin, the quality is not affected because multiple nozzles spray white ink at the same position.

【Reference】

- Please refer to the 7-2-2. Clean the printhead.

Color side	White side
<p>Ink breakage has occurred in the portion indicated by the arrow in the photograph below.</p> <p>For example:</p> 	<p>The following photographs show a non-ink-jet phenomenon in the part indicated by the arrow.</p> <p>For example:</p> 

7-2-2. Cleaning the printhead

When there are flying white ink or missed prints on the prints, it may be resolved by cleaning print head.

Press the button of cleaning

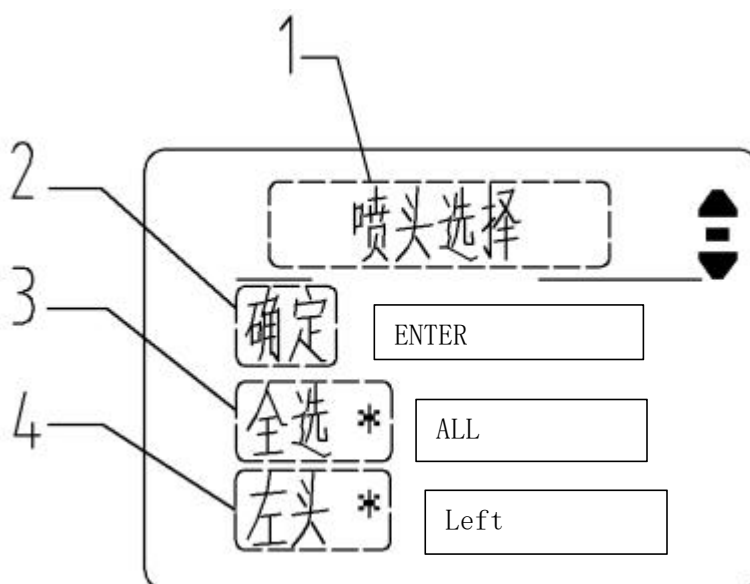
(1) While the printer is in standby mode, press Clean on the operation panel.

(2) Through ▼ Choose the printhead need to be cleaned, click Enter.

Performs a general cleaning of the selected print head.

【Reference】

- Cleaning operations cannot be canceled in the middle of the process.
- Click Exit to return to the standby interface.



7-2-3. Cleaning the word carriage board

Perform sweeping operation when ink is dirty on the character plate.

【Reference】

- You can use a cleaning rod that has already been used once

(1) Prepare the included parts cleaning rod cleaning cup, gloves, and cleaning solution.

【Important】

- Do not touch the top of the cleaning rod with your hands. Otherwise, sebum adheres to the nozzle and may cause abnormalities.

(3) Click Left and the word cart moves to the left

【Important】

- If other errors or messages are displayed on the operation panel or warning screen, follow the messages to solve the problem and then clean.

(3) Cut off power supply according to the information

【Important】

- Please finish the work within 20 minutes in order to prevent the ink from drying.

(4) Fill the cleaning cup with an appropriate amount of cleaning solution.

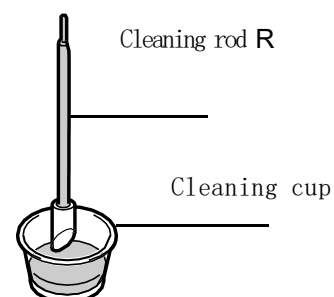
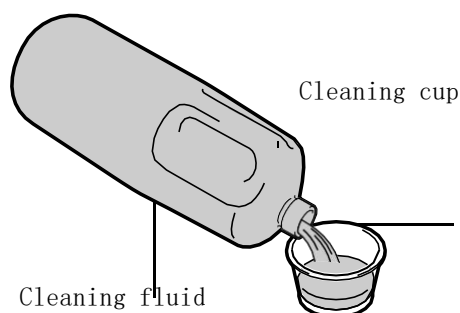
(5) Dip the cleaning solution with a cleaning rod.

【Important】

- When using a cleaning rod that has already been used once, it should only be used to clean the letter carriage plate.
- Other liquids (water, etc.) may damage the print head, so do not use it.
- Do not pour the cleaning solution from the cleaning cup back into the cleaning solution bottle.

【Note】

- Please wear the supplied gloves when working.



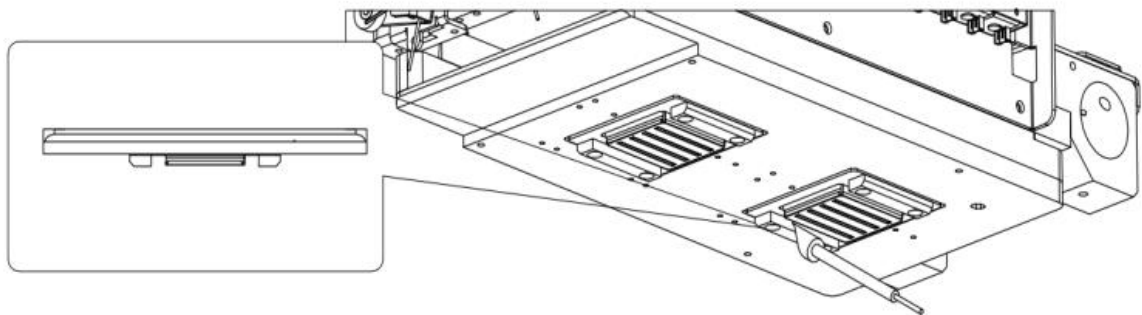
- (6) Use a cleaning rod to wipe ink stains from the word carriage plate on the left side of the print head.

【Important】

- Do not touch the interface of nozzle

【Reference】

- Remove the word cart to a easy sweeping position by hand.



【Important】

- Throw away the cleaning rod after use.

- (7) Clean the word carriage plate on the left side of the print head on the other side in the same way

- (8) Power on

【Note】

- Please dispose of the waste generated by cleaning in accordance with the ordinance.

【Reference】

- Cleaning the printhead that prevents ink from drying out.
- Since the cleaning cup will be used again, please rinse it with a clean cleaning solution and store it.

7-3. Do not use it for a long time

When the printer is not used for a long period of time, respond according to the period of non-use and the condition.

【Important】

- Do not cut off the power supply, otherwise it may cause malfunction.
- If you are unable to maintain energization, contact the dealership in advance.

【Note】

- When an error occurs on , follow the instructions on the screen.
- Clean the nozzle guard and scraper when not in use for more than 2 weeks. Clean the nozzle guard, scraper, and suction cover.

7-3-1. Do not use it for a long time:within 2 weeks

It can be used normally by performing the following maintenance.

- (1) Confirm the amount of waste ink in the waste ink collector, and if the accumulated amount is more than 1/2, pour out the accumulated waste ink.

【Reference】

- Confirm and dispose of the waste ink timely

- (2) Stir the white ink.

【Reference】

- Stir the white ink

- (3) Check the graphic according to the need

【Reference】

Check the graphic of nozzle.

7-3-2. Do not use it for a long time:more than 2 weeks

Perform the following maintenance every 2 weeks.

- (1) Confirm the amount of waste ink in the waste ink collector, and if the accumulated amount is more than 1/2, pour out the accumulated waste ink.

【Reference】

- Confirm and dispose of the waste ink timely

- (2) Stir the white ink.

【Reference】

Stir the white ink.

- (3) Check the graphic of nozzle and confirm the printing effect

【Reference】

- Check the graphic of nozzle(confirm the printhead)

- (4) When ink is not injected, clean the print head, print the nozzle again to check the pattern and confirm the effect.

【Reference】

- Please refer to 7-2-2. Clean the printhead.

Notice



Make sure there is enough space in front of the machine and do not place objects. Otherwise the hand can get caught between the platen and the item, which may result in injury.



Keep your hands away from the platen during work. Otherwise it could result in injury if hands are pinched between the platen, T-shirt tray, and each cover.



Do not put your hand inside each cover during power-on.



Do not touch the movable parts as this may cause injury.

Be careful not to pinch your fingers when closing the front hood cover. If fingers are pinched, it may get injured.



Do not pinch your hand or fingers when installing or replacing the print head. Failure to do so may result in injury.



Do not drink fluids such as inks, fillers, cleaning fluids, pre-treatment agents, waste fluids, and so on. Otherwise, it may cause diarrhea and vomiting.

If the ink comes into contact with the eyes or skin, it may cause inflammation. Do not rub if it gets inside the eyes and flush with water immediately.

Please keep it out of reach of the children.

When applying grease, please wear goggles and protective gloves to avoid eye or skin contact with the grease. Otherwise, it may cause inflammation. Do not drink grease, or it may cause diarrhea and vomiting. Please keep it out of reach of the children.



When replacing or installing spare parts, please use our original parts. We are not responsible for accidents or malfunctions caused by the use of non-original parts.

Please replace and install the spare parts according to the instruction. If you operate with wrong procedures, you may become injured or malfunction.

Important facts



Do not move the platen by hand. Or it may result in serious malfunction of the machine.

8-1. In the event of a malfunction

Please solve the malfunction referring to the following.

The printing data can not be sent from PC

Reason	Solution
Was a different printer selected?	Confirm the name of printer from the printing menu.
Was the LAN connected?	Confirm the connection of LAN cable.
Is it an out-of-specification PC or OS being used?	Confirm the working environment of PC.
Is it an out-of-specification network or cable being used?	Other objects that should be prepared, please use network cables that meet specifications
Is noise occurring between the printer and the PC?	Unplug the LAN cable and connect it after 5 seconds. If the problem is not solved , cut off the power supply temporarily and restart it after 5 seconds.
Is the PC functioning normally?	Please restart the PC.
Is there another USB device connected to the PC?	Confirm the operation of the printer after removing the other USB devices and restarting the PC.
Is the LAN cable not working well?	Please adopt other cables.
Whether the driver is online	Whether the driver is connect.

Printing does not start even if the print button is pressed

Reason	Solution
Is an error message displayed?	Eliminate the wrong reason and print again.
Have you entered the menu screen or are you performing a maintenance operation from the menu?	Please exit the menu. Or please wait until the maintenance operation is finished.
Is it during automatic print head cleaning?	Please wait for the end of printhead cleaning.
Is it during the white ink circulation?	Please wait for the end of white ink circulation.
Does the room temperature qualify?	operating environment, adjust room temperature or clicks ignored on button screen
Whether the printer has not received data, or is receiving data	Please send print data to the printer. Or wait until the print data reception is completed.

Error after printing startup.

Reason	Solution
Is an error message displayed?	Confirm the wrong content and restart the printer. If the error is not eliminated, contact the dealership where you purchased the machine.

未接通打印机电源Printer not powered on

Reason	Solution
Is the power cord connected?	Make sure the power cord is connected.
Test 220V plug board and power cord	Confirm whether it is normal power supply

8-2. Solve the problem of printing quality

Solve the malfunction according to the following.

8-2-1 Light printing color

Reason	Solution
Are the settings of the image editing application appropriate, or is the image in CMYK mode?	Check the ICC setting of Future Rip software.
Are the printing conditions appropriate, or is the image data not saturated sufficiently?	Replace the print film and check if the image data is normal
Is there ink in the cartridge?	Add ink timely.
Does the nozzle spray ink?	Check the nozzle and confirm the status of nozzle, clean the printhead.

8-2-2 Stripe on the product

Reason	Solution
Does the nozzle spray ink?	Click Clean on the printing panel, or click [clean the printhead] on the menu.
Is the spray out time appropriate?	Readjust the vertical calibration. The setting value may not be appropriate after replacing the print head and the platen, or changing the platen height.
Is the platen feed appropriate?	Adjust the platen step calibration and adjust the platen feed. After replacing the print head and the platen, the setting value may not be appropriate.

8-2-3 Blurry image edges Ghosting of text or lines Serious graininess

Reason	Solution
Is the print height of printhead too high?	Adjust the carriage height adjustment lever to lower the print height
Is the dual-direction calibration appropriate?	Readjust the dual-direction calibration. The setting value may not be appropriate after replacing the print head and the platen, or changing the platen height.
Is the image enlarged on the printer setup screen?	If an image with low resolution is enlarged on the printer setup screen, printing may occur with blurred and angular images. Confirm the resolution of the image by enlarging the pattern data on the image editing application.

8-2-4 Gradual printing ink-breakage

Reason	Solution
The temperatures are warm and very dry, does the nozzle surface dry out easily?	Increase the frequency of flushing, or increase the humidity of the environment

8-2-5 Lack of whiteness

Reason	Solution
Does the nozzle spray ink?	Click Clean on the printing panel, or click [clean the printhead] on the menu.
Is the white ink circulation insufficient?	Wait for the white ink circulation.
Has the white ink been replaced?	Stir the white ink and change the white ink.
Is the white ink not being stirred sufficiently?	Stir the white ink sufficiently.
Is the setting value for the white ink setting ratio too small?	Increase the percentage of white ink.

8-2-6 When printing through (color+white ink), the bottom white ink overflows.

Reason	Solution
Is the bi-directional vertical spacing misaligned?	When the thickness of the substrate changes and the height of the print changes, the print position of the White Ink and Color Ink may be misaligned. After adjusting the height according to the actual printing, recalibrate the bi-directional vertical interval distance.
Bi-direction calibration	When the thickness of the substrate changes and the height of the print changes, the print position of the White Ink and Color Ink may be misaligned. After adjusting the height according to the actual printing and recalibrate the bi-directional vertical interval distance, recalibrate the dual-calibration.

9 Problem solving

9-1. How to restore the nozzles that do not ink

If the nozzle does not emit ink, confirm the following.

Confirmation	Illustration	Measures	Reference
Is the ink cap top dirty?	If the cap top is dirty, it will not fit to the print head tightly and may prevent suction.	Sweeping the cap top.	Sweeping the nozzle board, scraper and suction cap
Is there ink accumulation around the nozzle?	If the area around the nozzle is dirty, the nozzle cannot be wiped clean, which may result in non-injection of ink. In addition, the sealing of the nozzle and cap may deteriorate and suction may not be possible.	Sweeping the area around the nozzle.	"Sweeping the area the nozzle.
Is the scraper dirty?	If the front of the scraper is dirty, the nozzle surface cannot be wiped clean, which may result in non-ejection of ink.	Sweeping the scraper	Sweeping the nozzle board, scraper and suction cap
Is the scraper damaged or deformed?	If the scraper is damaged or deformed, the nozzle surface can not be wiped clean, which may result in non-ejection of ink.	Replace the scraper	Replace the scraper
Is the cleaning scraper dry?	If the cleaning scraper is dry, the scraper can not work sufficiently and it can not be wiped clean.	Replace the cleaning scraper	Replace the cleaning scraper
Is the waste tube bent down from the center?	If the waste tube is bent, the ink cannot be pumped when the printhead is cleaned because the waste liquid cannot flow out.	Confirm the waste tube	Confirm and dispose of waste ink
Does one end of the waste tube reach the bottom of the waste collector?	If the waste liquid is connected at one end of the waste liquid tube, the waste liquid does not flow smoothly, which may result in the ink not being pumped when the print head is cleaned.	Confirm the waste tube	Confirm and dispose of the waste ink
Is the print head connected to the tube properly ?	If the combining site between printhead and tube is loose, air will be mixed in the print head when the print head is cleaned, which may result in non-injection of ink.	Confirm the combining site between the printhead and tube	Replace the connecting pipe or the printhead
Is the tube filled with ink?	If a large amount of air enters the tube, air will be mixed in the printhead, which may result in non-injection of ink.	Reimport the ink	Reimport the ink

After taking measures for the corresponding items above, clean the printhead and confirm that the non-inkjet nozzles resume inkjet.

Step 1: Check the graphic of nozzle

(1) Check the graphic of nozzle(the first time)

【Reference】

- As for the corresponding method for checking the nozzle, please refer to 7-2-1.Check the graphic of nozzle(Confirm the printhead)

(2) Confirm the effect of nozzle' s graphic, please perform the following steps.

【Reference】

- As for the corresponding method for printing effect, please refer to 7-2-1.Check the graphic of nozzle(Confirm the printhead)
- Even when the white side printing effect has light lines, the adverse effect of not spraying ink from each nozzle is not significant because there are multiple nozzles spraying white ink at the same position, so the amount of ink is large. It is possible to print normally in the state with light lines.

Non-ejection nozzles	Implementation matters
Yes	here is no non-ejection of ink when the pattern is checked by the print nozzles, but if non-ejection of ink occurs in multiple white print heads after printing, please contact the dealership. There is no non-ejection of ink when the pattern is checked by the print nozzles, but if non-ejection of ink occurs in multiple color print heads after printing, please confirm whether the ink is pressed out when cleaning and then contact the dealership.
No	Please perform step 2.

Step 2: Clean the printhead

- (1) Perform the common cleaning.

【Reference】

- The related method of cleaning the printhead.

- (2) Check the graphic of nozzle(the second time)

- (3) Confirm the effect of nozzle' s pattern and perform the following steps.

Non-ejection nozzles	Implementation matters
No	End
Less than 10 non-ejection nozzles	Perform the cleaning again.
More than 10 non-ejection nozzles	Perform the cleaning and then perform (4)
When the non-ejection nozzles of color printhead exceeds half	Put them into the specific cleaning fluid for an hour and clean it.
When the non-ejection nozzles of white printhead exceeds half	Put them into the specific cleaning fluid for an hour and clean it.

【Reference】

Prolonged non-opening may lead to the printhead surface dry, you can take the use of a dust-free cloth moistened with cleaning fluid, wipe the surface of the printhead gently, and clean it again.

- (4) Check the graphic of nozzles. (the third time)

- (5) Confirm the effect of nozzle' s pattern

Non-ejection nozzles	Implementation matters
No	End
Yes	Please perform step 3.

Step 3: Confirm that the nozzles do not spray ink

- (1) Compare the position of the non-inkjet nozzles for the print nozzle check pattern (1st to 3rd time) and perform the following operations.

Compare the nozzle' s position of non-ejection	Implementation matters
Always the same nozzles do not spray ink	Perform Super Clean for 3 times→ Print the nozzle check pattern 3 times in succession.
Different nozzles do not spray ink	Leave for 30 minutes and perform 3 consecutive general cleaning with the cleaning solution → Print the nozzle check pattern.

- (2) Confirm the effect of the printing nozzle check pattern and perform the following tasks.

The non-ejection nozzle	执行事项
No	
Yes	Please perform step 4.

步骤 4: Sweeping the nozzle surface

- (1) Sweeping the surface of printhead

【Reference】

- Some sweeping methods of the printhead nozzle.

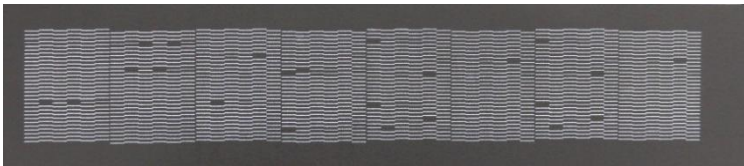

- (2) Check graphic of printhead nozzle.

- (3) Confirm the graphic effect of printhead nozzle. Perform the following steps.

Non-ejection nozzle.	Implementation matters
No	End
Yes	Please perform step 5.

【Important】

- Even when the white side printing nozzle has non-ejection nozzles, the adverse effect of not spraying ink from each nozzle is not significant because there are multiple nozzles spraying white ink at the same position, so the amount of ink is large. Even there is the following question (a) The status of non-ejection (b) Normal printing
-

(a)	(b)
	

Step 5: Replace the printhead

- (1) Replace the printhead

【Reference】

- The method of replacing the printhead. Please refer to 9-2-2 to replace the printhead.

9-2. Replace the printhead

- (1) Replace the printhead if the lack of ink jetting does not improve even if the printhead nozzles are cleaned.

【Reference】

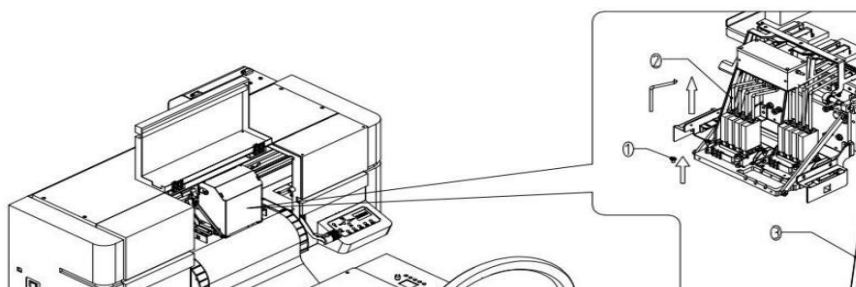
- Ink must be imported after replacing the printhead. If the ink volume is low, please prepare new ink.

- (2) Cut off the power supply according to the information.

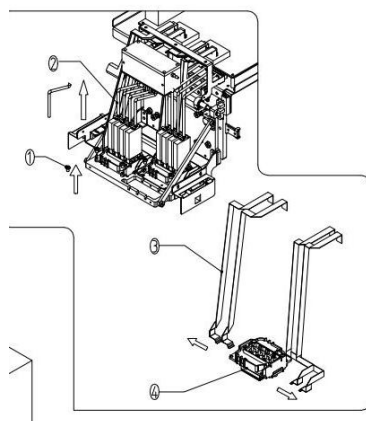
【Important】

- Stop the replacement operation within 20 minutes in order to prevent the ink in the print head from drying out

- (3) Open the hood cover



- (4) Remove the damper and the screws(4) of printhead,unplug the printhead cable and remove the printhead



- (5) Install new printhead

【Important】

- Please note the ink dripping from the tube.
- Pay attention to the ink in the tube do not fall to the nozzle line and circuit links, otherwise it is easy to lead to nozzle damage
- When replacing the print head, move the word carriage by hand to the platen position in the center of the printer before working. The printer or the printhead may be damaged when working with the word carriage positioned over the maintenance module.

【Note】

- Please wear the supplied gloves for the job.

10-1. Installation

Size	2295 MM ×1574 MM ×972 MM(length, width and height)	
Weight of machine (including the platen)	330KG	
Maximum printing range	600 mm×100000 mm	
Resolution of printer	720dpi x 1800dpi	
Power supply	monophase 240 V	
Supply frequency	50 / 60 Hz	
Consumable electricity	2.5 ampere (effective value)	
Using environment	Scope of Operational Assurance: (Printer-operable environmental areas)	Temperature: 10~35°C Humidity: 20~85% (No condensation)
	Scope of Printing Assurance: (Environmental areas that ensure optimal print quality)	Temperature: 18~30°C Humidity: 35~85% (No condensation)
	Keep it:	Temperature: 0~40°C Humidity: 20~85% (No condensation)
	<p>Humidity (%)</p> <p>85 80 70 60 50 40 35 30 20</p> <p>10 15 18 20 25 30 35 40 温度(°C)</p> <p>Scope of Printing Assurance</p> <p>Scope of operation</p> <p>Keep it</p>	

10-2. Software

OS is available	Windows 10(32 bit / 64 bit)、Windows 11(32 bit / 64 bit)
Connector	PC (“Gigabit、GBE、10/100/1000M、RTL8196”)
Minimum Operating Environment	No less than 4 GHz CPU No less than 8 GB RAM
Resolution of display screen	No less than XGA(1024×768)
Recommended applications for editing high-quality images	CorelDRAW X7 / X8、Adobe Photoshop CS6 / CC、 Adobe Illustrator CS6 / CC、Adobe Photoshop Elements 14 / 15

10-3. Ink Filler Cleaning fluid Pretreating agent

10-3-1. Ink

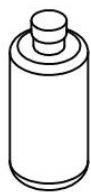
Name	Black/Magenta/Cyan/Yellow Ink
Expiry	Expiration date stated on the bag (when stored at room temperature)
Storage temperature	0~40°C
Precautions for storage	<ul style="list-style-type: none">• Avoid direct sunlight• Please keep it out of reach of children.• Keep away from fire, smoke, heat and oxidizing substances.
Capacity	1000 cc

Name	White ink
Expiry	Expiration date stated on the bag (when stored at room temperature)
Storage temperature	0~40°C
Precautions for storage	<ul style="list-style-type: none">• Avoid direct sunlight• Please keep it out of reach of children.• Keep away from fire, smoke, heat and oxidizing substances.
Capacity	1000cc

10-3-2. Cleaning fluid

Name	Cleaning fluid
Expiry	Expiration date stated on the container (when stored at room temperature)
Storage temperature	0~40°C
Precautions for storage	<ul style="list-style-type: none">• Avoid direct sunlight• Please keep it out of reach of children.• Keep away from fire, smoke, heat and oxidizing substances.• Seal the container and store it in a well-ventilated, cool place.
Capacity	1000cc

10-4. Consumables, Optional parts, Spare parts



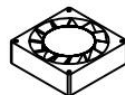
① 墨水



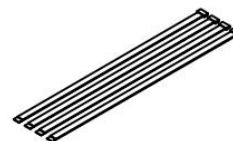
② 清洗液



③ 废墨瓶



④ 风扇



⑤ 喷头线



⑥ 打印头



⑦ 吸墨垫



⑧ 刮片



⑨ 墨囊



⑩ 过滤器

1、Ink	2、Cleaning liquid	3、Waste ink bottle	4、Electric fan	5、head line
6、print nozzle	7、Ink-absorbing pad	8、Scraping film	9、Ink bag	10、Filter



*Please understand that due to improved products, some parts of this manual may differ from the product you purchased.