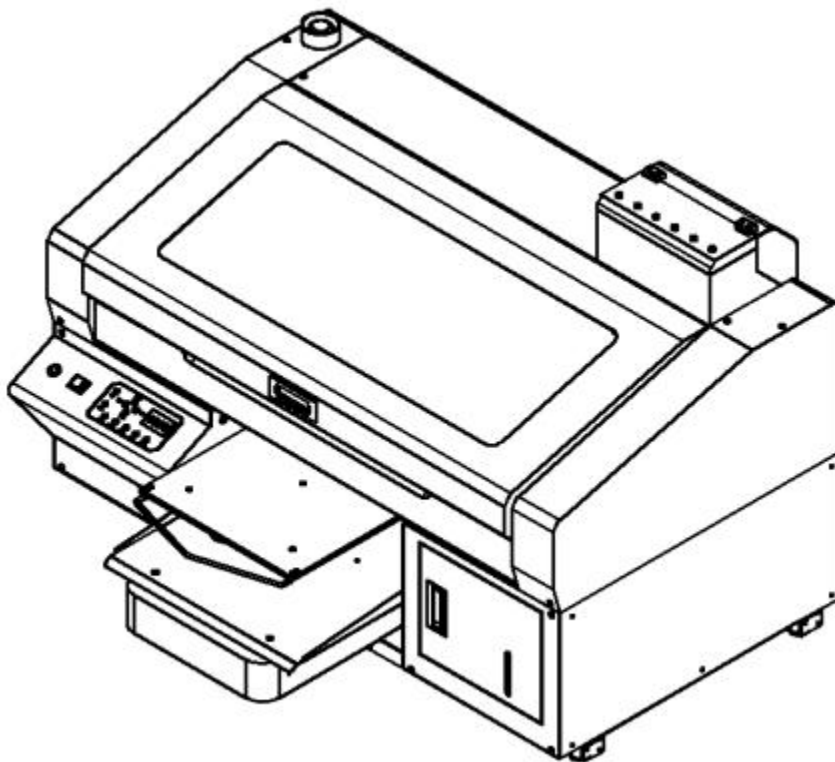


DTG-PRO

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.
 Prompt	Precautions and restrictions when using the machine.

Graphic symbols

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

Safety announcements

 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 PASS
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 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 pressing plate height to the appropriate height before using. The height can be adjusted with the pressing plate height adjustment lever. As a standard, adjust the height from the boundary height detected by the obstacle sensor to the height after descending 1 level, and confirm that the obstacle sensor does not detect it.
If the platen height drops too much, ink mist may be dispersed inside the printer, smudging the print surface, or causing the sensor or printer to malfunction. (Please refer to 6-4-2 for more information. Adjusting the lever height” .)
- 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 project or is dropped, it may break.

Pretreatment agent

- If only color inks are used to print on T-shirts coated with the pretreatment, use White T-shirt pretreatment.
- If the pretreatment agent is applied to a white or light-colored T-shirt, the applied surface will become discolored and may not return to its original color even if it is washed. After application, store the T-shirt in a place away from direct sunlight, and wash with water as soon as possible after printing.
- Wash off any traces of pretreatment agent with water. In addition, some T-shirts are discolored by the pretreatment agent, and the original color may not be restored even after washing. When printing for the first time, try at an inconspicuous spot.
- Please pay attention to the following.
 - Staining may be caused if the product is rubbed on white or light-colored PVC synthetic leather. In addition, staining can also be caused by rubbing hard against each other on a print surface printed with color ink only and a print surface printed with white ink only. When staining occurs, remove the stain with a soft cloth or toothbrush moistened with household detergent or alcohol.
 - Please remove traces of pretreatment agent residue by washing (rinsing).

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

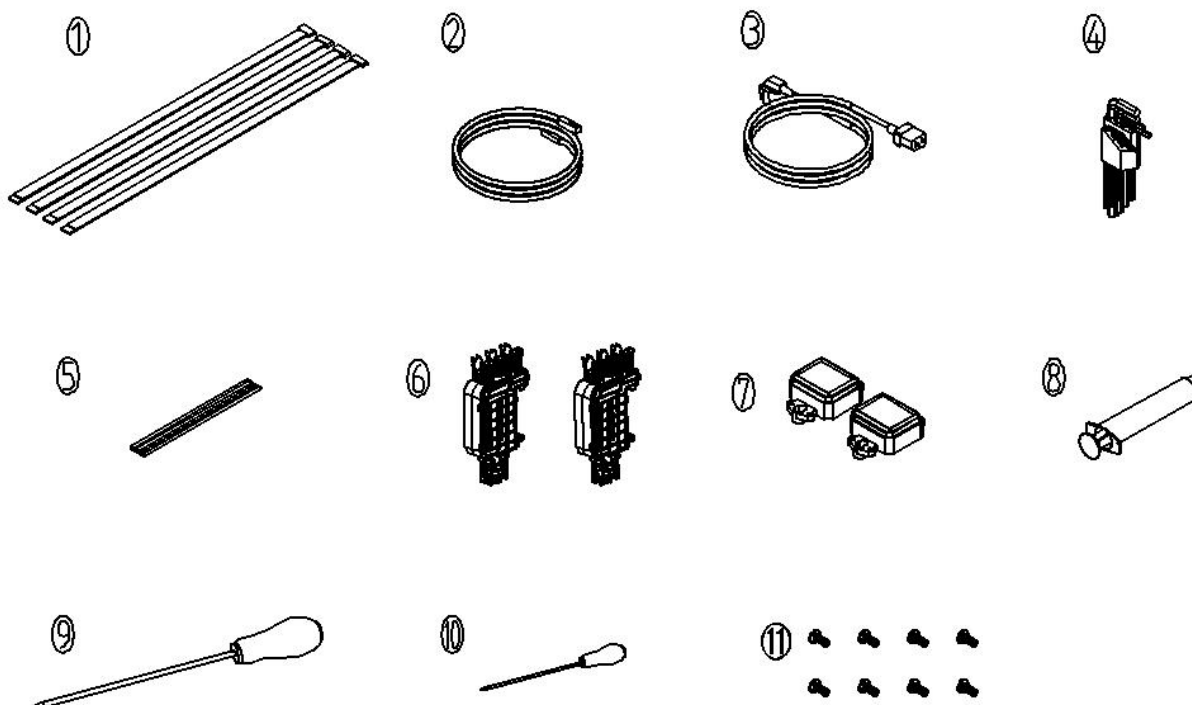
The Company may terminate this Agreement without prior notice if the Customer violates the conditions set forth herein.

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	Secondary cartridge	2	11	Screw	Many

1-3. Other items to be prepared

Items purchased from our dealerships

【Reference】

- Ink
- Secondary cartridge
- Cleaning fluid
- Pretreatment agent
- Cleaning scraper

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 the pretreatment, be sure to use a press machine, not oven.
- Peeling board
When fixing pretreatment agent or ink 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.

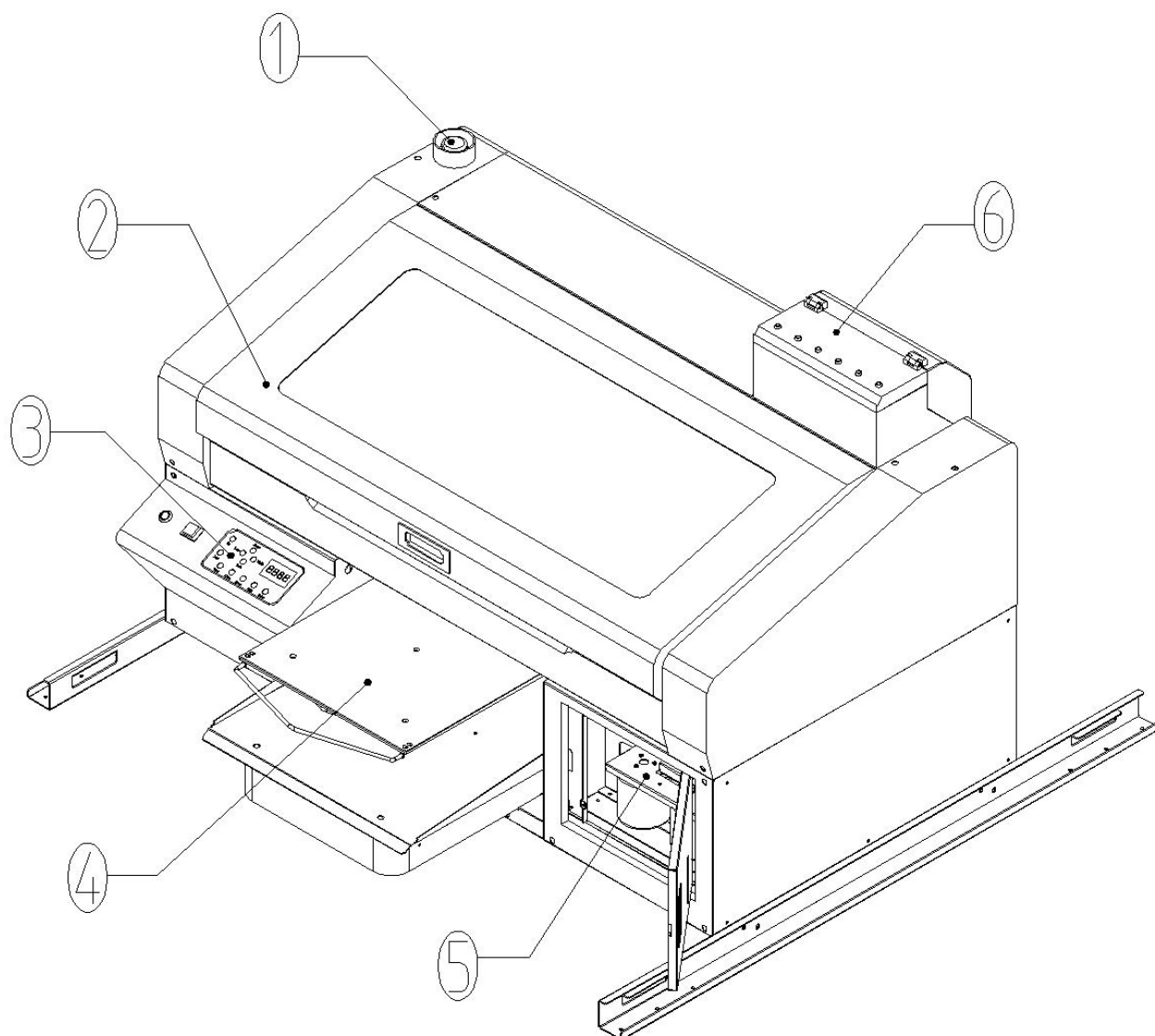
T-shirt (printing material)

- Cotton 100%
- Polyester mix

【Reference】

- Cotton 100% substrate is recommended, but unrelated to Cotton 100% and blends, there may be fabrics that may not ensure print quality. In particular, when using new materials, please conduct a print test beforehand.
- With some fabrics, traces of pretreatment agent may be evident after fixing. In this case, please wash with water.
- Please perform a print test beforehand. Otherwise, the following phenomena may occur.
 - Pretreatment agent changes the color of the cloth substrate, and even if it is cleaned, the original color may not be restored.
 - Strongly colored polyester blends melt out dyes that may bleed into white ink.
 - It may become yellow after fixing pretreatment.

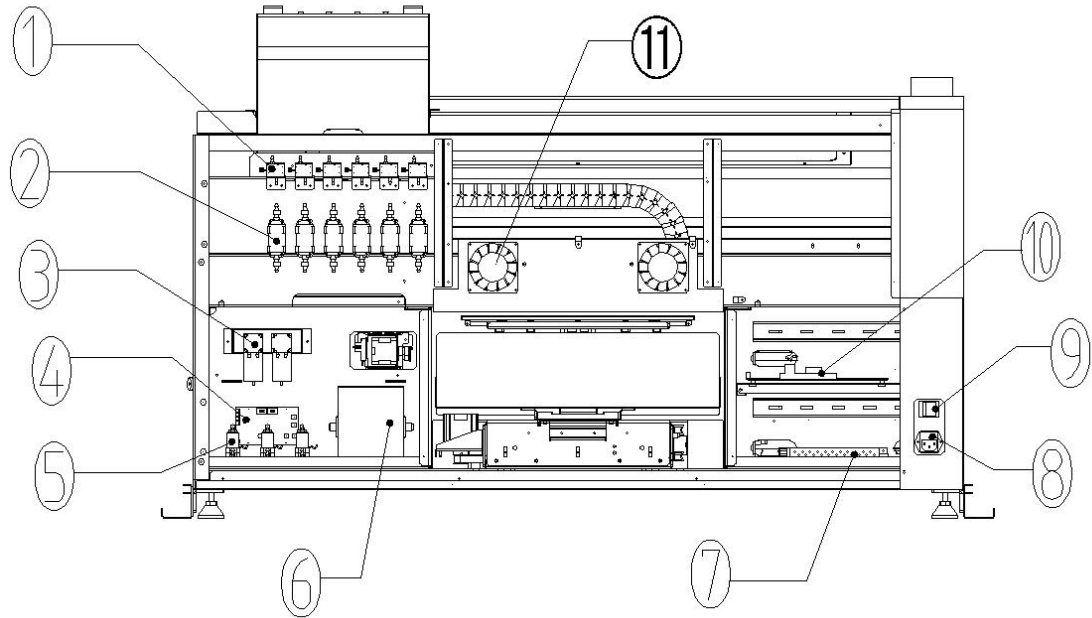
2-1. Front



X0031

No.	Name	Function
1	Abrupt stop	Use it in an emergency.
2	Front hood cover	Open it when sweeping the inside.
3	Operation panel	Operate the printer.
4	T-shirt tray	Sleeves and other sagging parts are placed in the T-shirt tray and transported.
5	Waste ink bottle	Recycle the waste ink.
6	Ink indicator	Ink level alarm indication

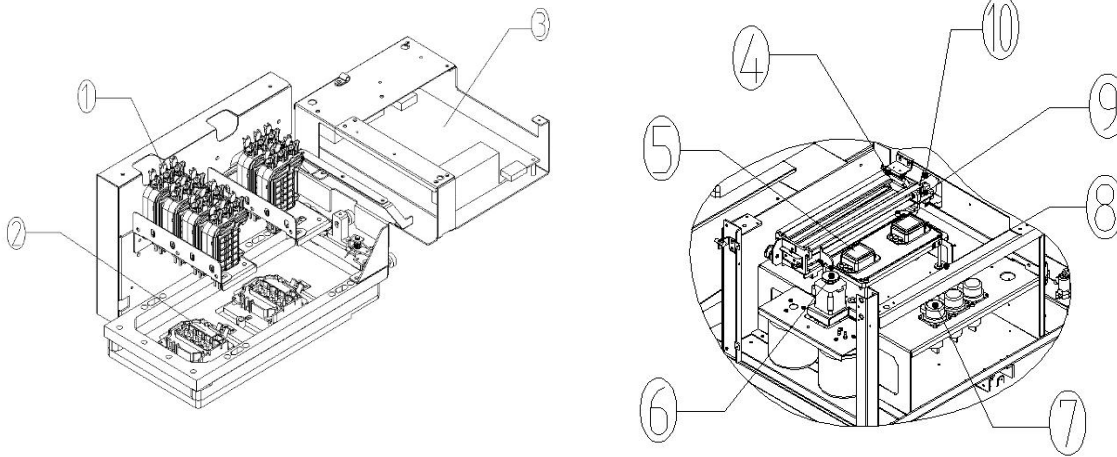
2-2. Back



X0033

No.	Name	Function
1	Solenoid valve	Solenoid valve for supplying ink.
2	Filter	Filter for filter the ink.
3	Pump	Positive/negative control pump
4	Positive/negative control panel	Positive/negative adjustment panel
5	Three-way solenoid valve	Positive/negative control valve
6	Negative storage pot	Negative storage pot
7	Power supply box	power supply box for controlling the timed standby switch
8	220V connector for power supply	Main power supply
9	Switch on/off	Power-on/off
10	Mainboard	Equipment Control System Integration Board
11	Fan	Remove residue ink

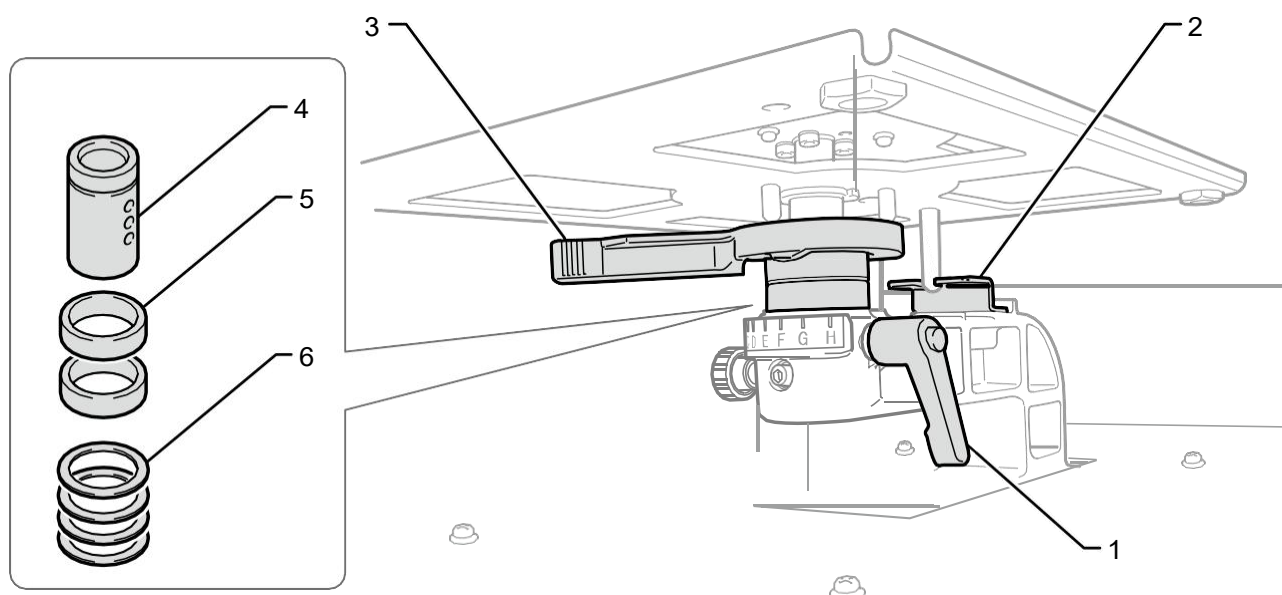
2-3. Inside of the front cover(character cartridge and ink station)



X0034

No.	Name	Function
1	Secondary cartridge	Ink supply system
2	Printhead	Please maintain the print head regularly in order to ensure printing quality!
3	Head board	Controls printhead inkjet and transfer print data.
4	Wiper	Clean the ink residue on the surface of the printhead, please clean it regularly in order to prolong the life of the printhead.
5	Cap top	Ink extraction of printhead, moisturize and maintenance. Please clean it regularly in order to prolong the life of the printhead.
6	Ink station motor	Control the lift and lower of ink station system
7	Peristaltic pump	Pump ink of the printhead and recycle the waste ink.
8	Ink station sensor	Ink stack position controller
9	Wiper sensor	Wiper position controller
10	Wiper motor	Control the removal of wiper

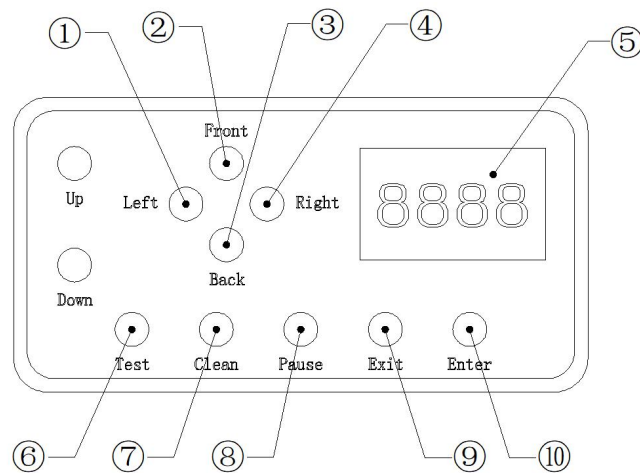
2-4. Lower part of the press plate



X0035

No.	Name	Function
1	Fixed link on press plate	Fix the press plate Please tighten up or loosen when install or remove the press plate and adjust the height.
2	Pressure plate positioning plate	Fix and keep the direction of press plate.
3	Adjustment lever of press plate	Adjust the height of press plate.
4	Bearings for press plate	Fix and maintain the press plate
5	Axle ring	Change the quantity when the height of the lever is reduced greatly. Refer to "6-4-2." for details.
6	Spacer	The height of the platen of each machine is fine-tuned by quantity. Do not change the quantity when adjust the height of press plate.

2-5. Operation panel

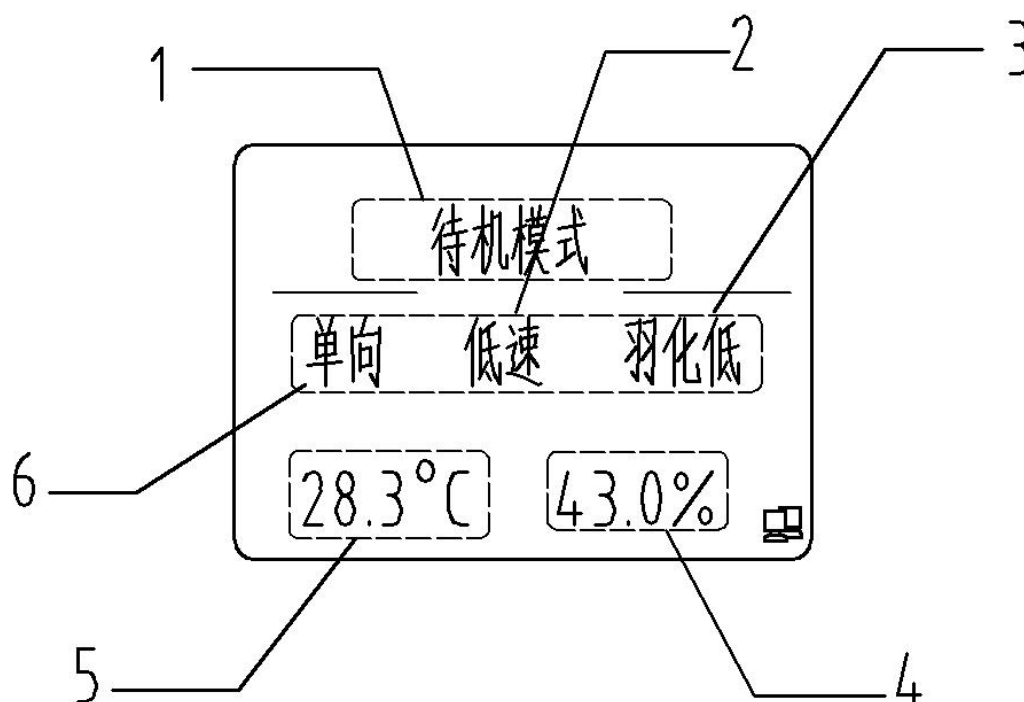


X0036

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

2-6 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.



X0037

No.	Signal	Function
1	Standby mode	The device is powered on and running normally.
2	Low speed	The printing device is low speed.
3	Low feather	Low printing setup feathering.
4	Humidity	The current humidity of the environment.
5	Temperature	The current environment of the environment.
6	One-way	The printing direction is one-way.

Operation of the display menu

Operation	Operation method
Enter	Click Enter under standby condition, change into the choice figure of function menu.
Choose/Enter	Click ▲ _ ▼ change the menu. Click ► change into the next. Click Enter, confirm the menu which is displaying.
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.

Menu:

Setup the menu	
Liquid crystal contrast ratio	Adjust the contrast ratio of liquid crystal
Automatic standby maintenance	Adjust the waiting time while standby, the number of times of flash spray.
Device address	Network address for the device(engineering mode)
Ink station settings	Adjust the ink station, wiper, flash spray and other position module(engineering mode)
Flash spray settings	The interval Pass number, achieve flash spray function(frequency, number of times)

Device maintenance	
Test the nozzle	Test the printing nozzle
Automatic cleaning	Conventional printhead cleaning mode,
Add ink manually	Ink-filled cleaning, (used when installing a new machine) is not recommended for daily use, the ink loss is very high
Wiper	The wiper can wipe surface ink of the printheadseperately.
Ink flushing	Flash spray(used when nozzles detect the ink mixing,this may improve)
Seal the head	Seal the printhead

Auxiliary function	
Stir the ink	ON Stirring time Off Waiting time LV Stirring vigor (Adjust on demand)
Start point of the carrier	Adjust the starting position of X axis, Y axis and mechanical parts
Air suction setting	Air suction during printing(excessive ink flies out during printing, which can improve the environment cleanliness of printing space)
Temperature and humidity	Environment Temperature Humidity Status display
Ink station counterpoints	Adjust the auxiliary function of printhead counterpoints cap top
White ink circulation	ON Circulation time Off Waiting time LV Stirring vigor (Adjust on demand)
Ink pump system	Ink extraction cleaning system

Factory data reset	
Factory data reset	Reset to the original status of the procedure(for engineers)
Device information	
Device information	Parameter comparison table

Language	
Language	Switch language

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 120 KG. Hold the machine in a correct manner when handling or setting it up. Otherwise it may result in injury or malfunction 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 an unstable location, such as on a wobbly table or on a high shelf. It may result in the dropping of the machine and injury to persons. In addition, the load capacity of the table on which the printer is placed should be 150 kg or more. The width should be 90cm or more × 60cm or more in depth.



Do not place it in a location subject to the mechanism vibrations. It may result in degradation of printing 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.

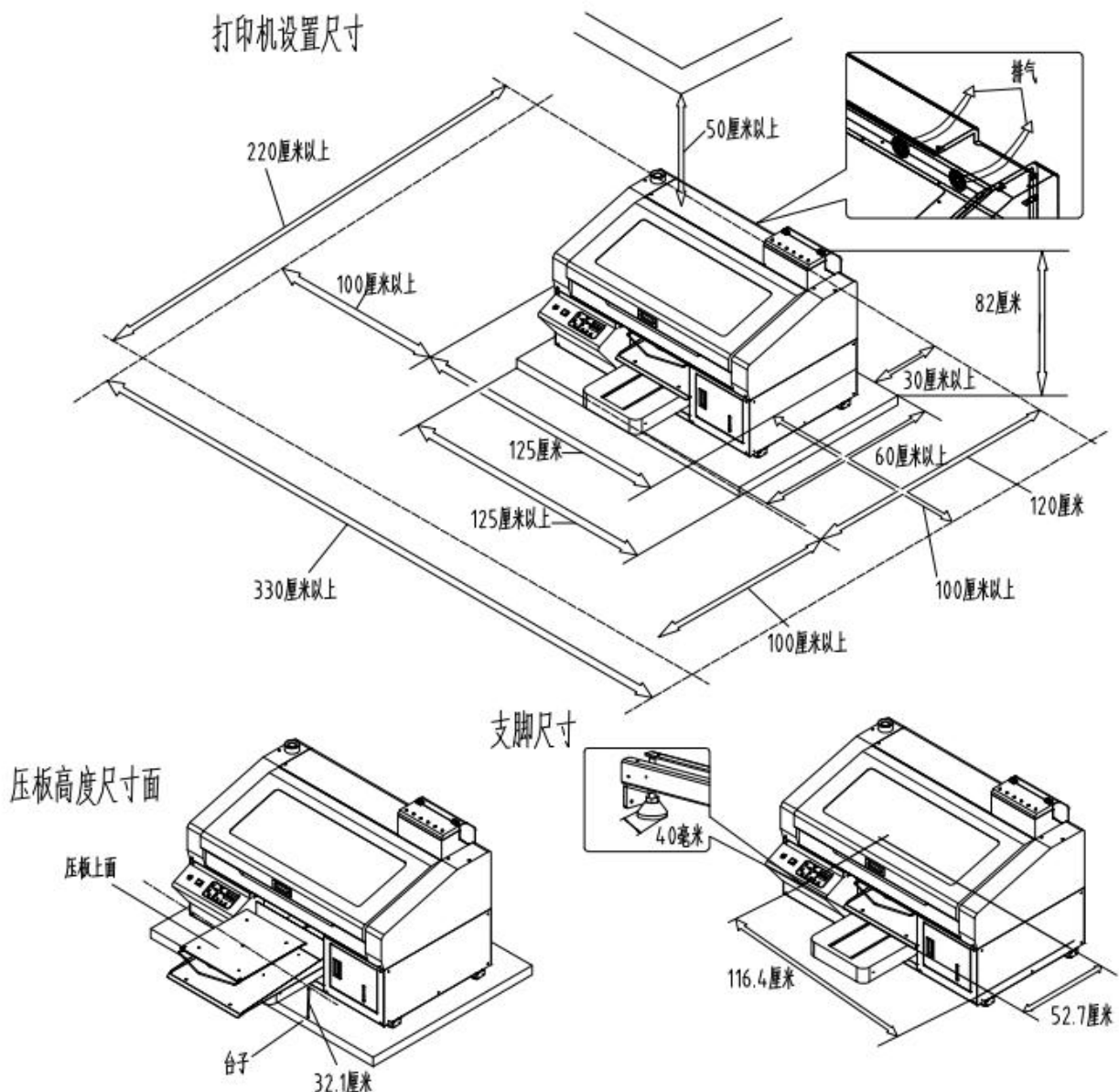
CAUTION Do not touch the claws on the upper side mounting area of the back cover. Otherwise it may result in injury.

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 125cm (width) × 120cm (depth) × 82cm (height). Weight is 145 KG. The left and right distance of stabilizer blade is 116.4cm. The front and back distance is 52.7cm. The diameter of stabilizer blade is 40mm.
- The height between the platform and the press plate is 31.8cm.
- 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 40 centimeters or more at the rear for back cover installation. Leave a space of 50cm or more in the direction of the roof. In addition, a space of 20cm or more in front of the exhaust port is required because gas is exhausted from the rear.
- Set the machine near the left front of the table so that the waste pipe does not become horizontal.
- The bearing capacity should be more than 150KG for placing the printer. Width should be more than 125cm × depth should be more than 60cm. Please use flat and stable roof plate during printing.
- 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. 打印机电源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 secondary 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)
- Ensure that the minimum space required to remove the platen from the front is approx. 30 cm and the minimum space for the fan exhaust outlet at the rear is 20 cm.

(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】

- 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 cleaning 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 cleaning 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 cleaning job after startup.

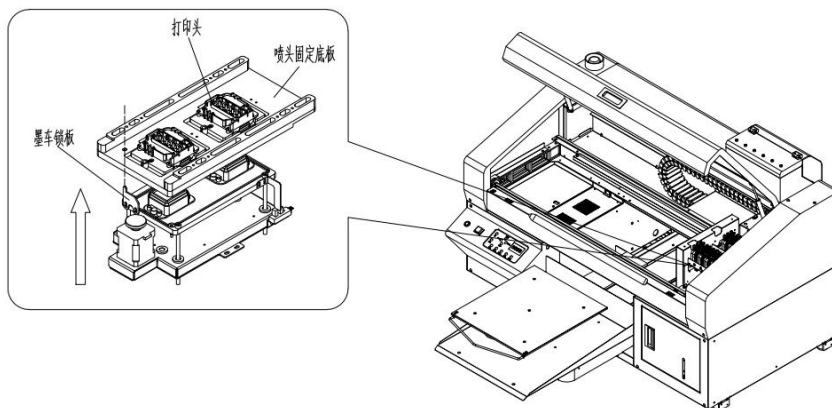
4-2-3. When it cannot be restored within a short period of time such as power outages

- #### (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 examples】

-



- (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.

0118

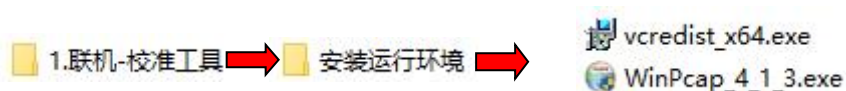
4-3. Connect printer and PC

This chapter explains how to install the DTG-PRO printer driver and how to connect the printer to the PC.

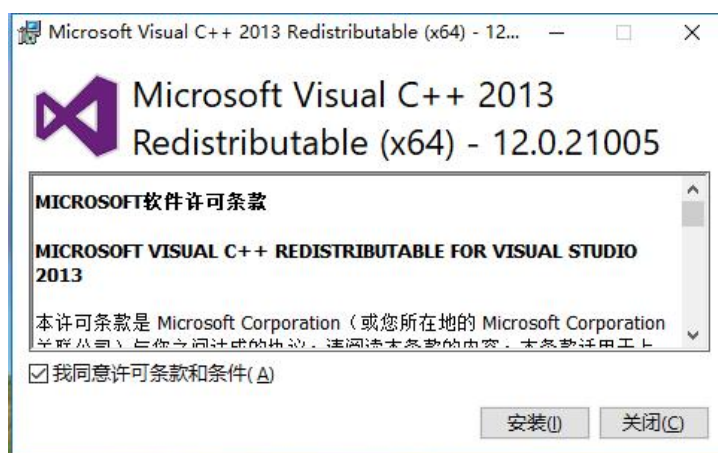
Windows 7 ,Windows 8.1 and Windows 10 support the driver. Please confirm the operation of each step at the same time.

The first step: Install the runtime environment

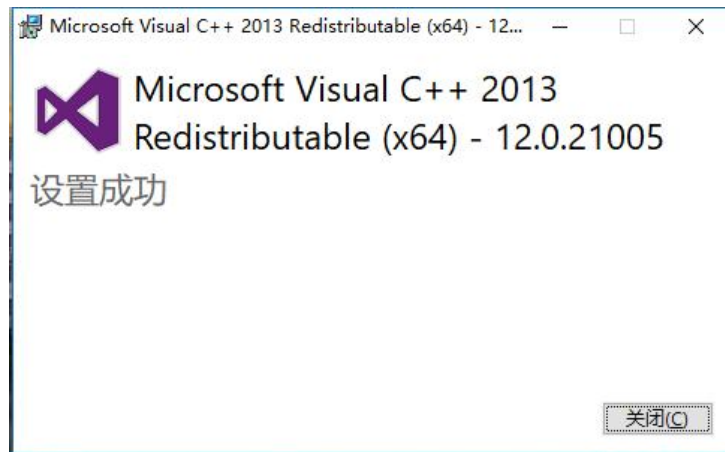
Find out DTG-PRO file package in the PC (download from the official website or ask the after-sales technician). Find vcredist_x64.exe and WinPcap_4_1_3.exe





Click “I agree with the license terms and conditions” and install it.



Click Close after installation.

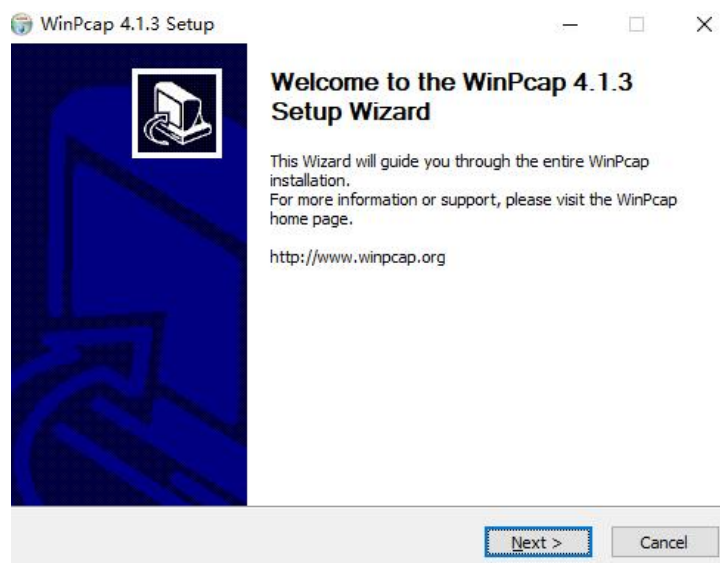


然后找到  WinPcap_4_1_3.exe 右键以管理员身份运行Find  WinPcap_4_1_3.exe and click right and operate as administrator.

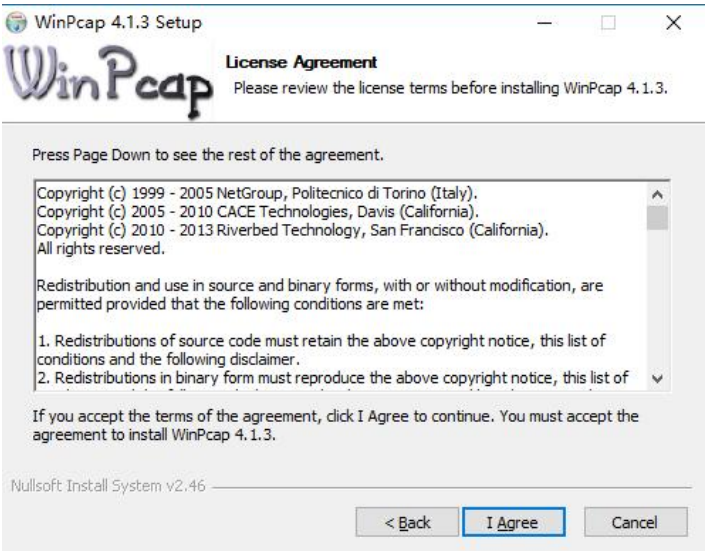
Click OK as the graphic below.



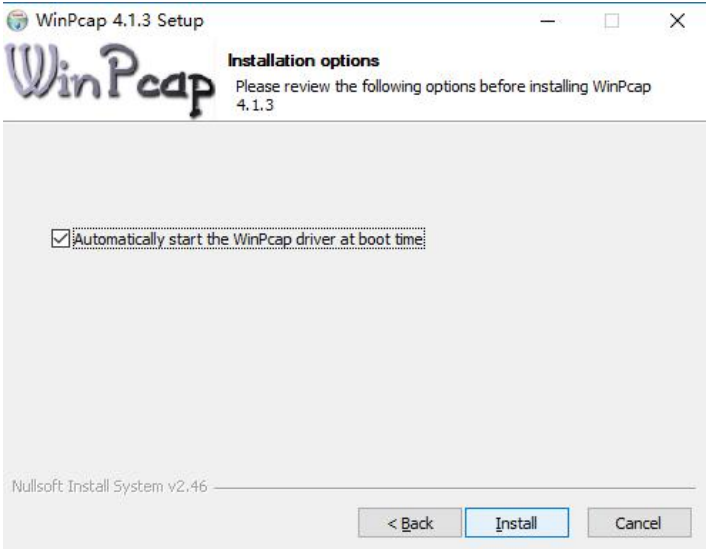
Click Next



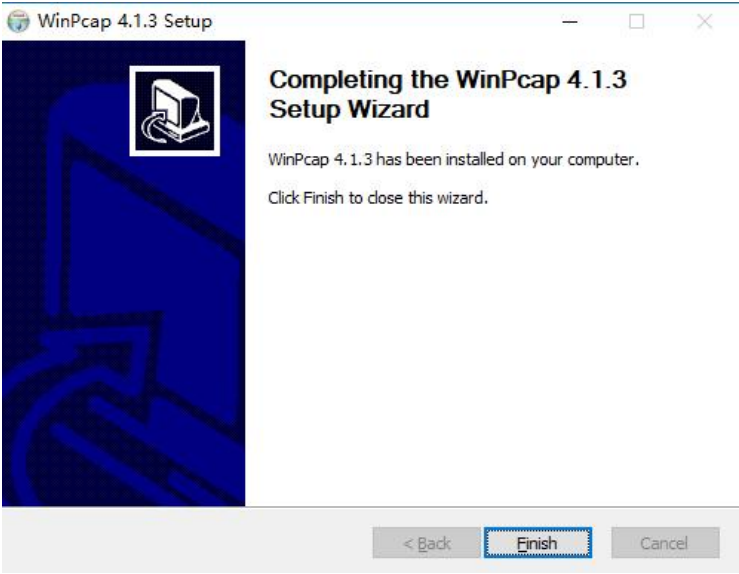
Click I Agree



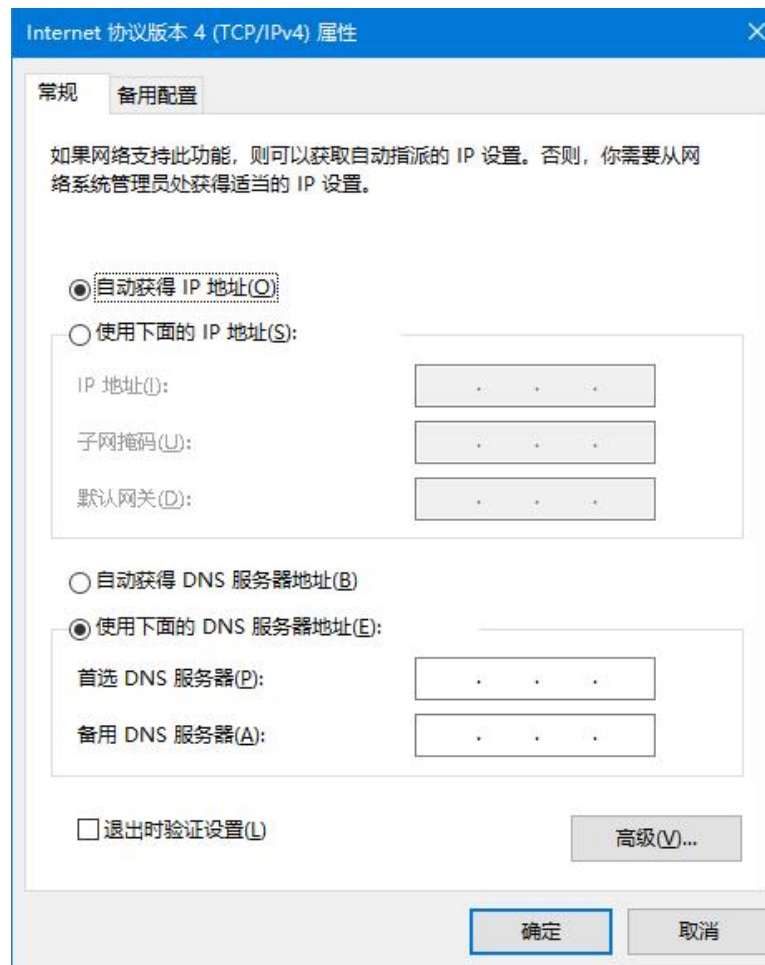
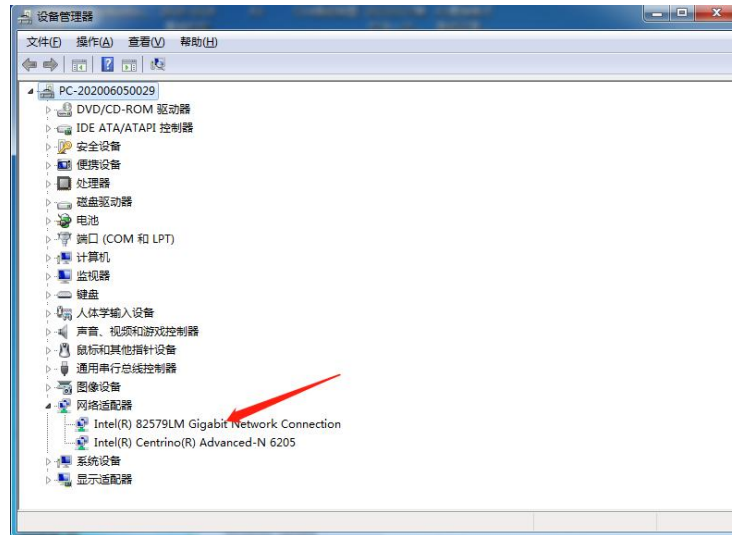
Click Install



Click Finish and the installation is over.



- (1) Set up the IP address when connect LAN
- (2) PC Configuration Gigabit NIC (“Gigabit、GBE、10/100/1000M、RTL8196” these are Gigabit NIC) graphic example
- (3) Obtain IPV4 address automatically (Graphic example)



PC driver link setup has ended here, please operate according to the instructions in order to ensure that the device is linked normally.

The second step

Connect the printer and PC normally by six kinds of cable

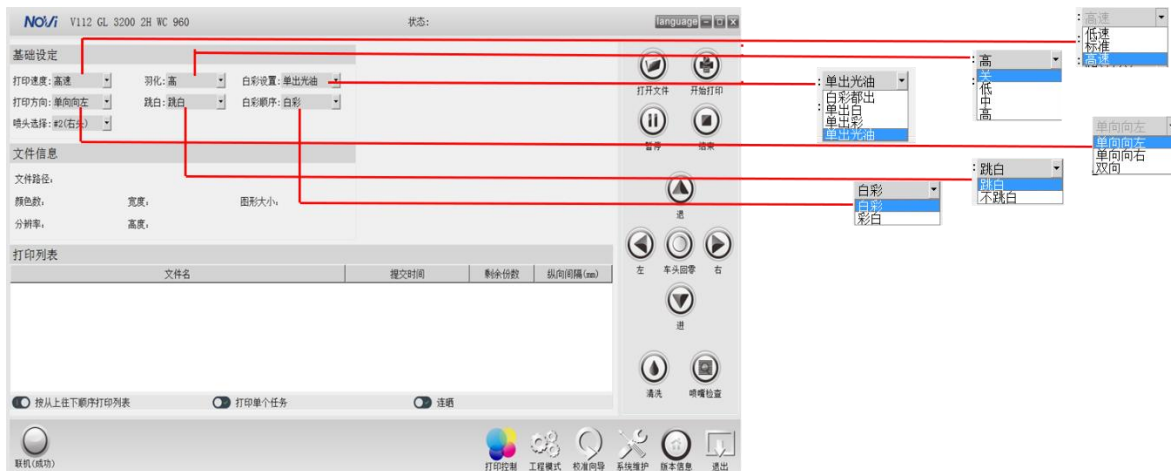
Open the driver software (Download it from the official website or ask the supplier service personal)

Double-click the driver software as shown in the figure, click the online button



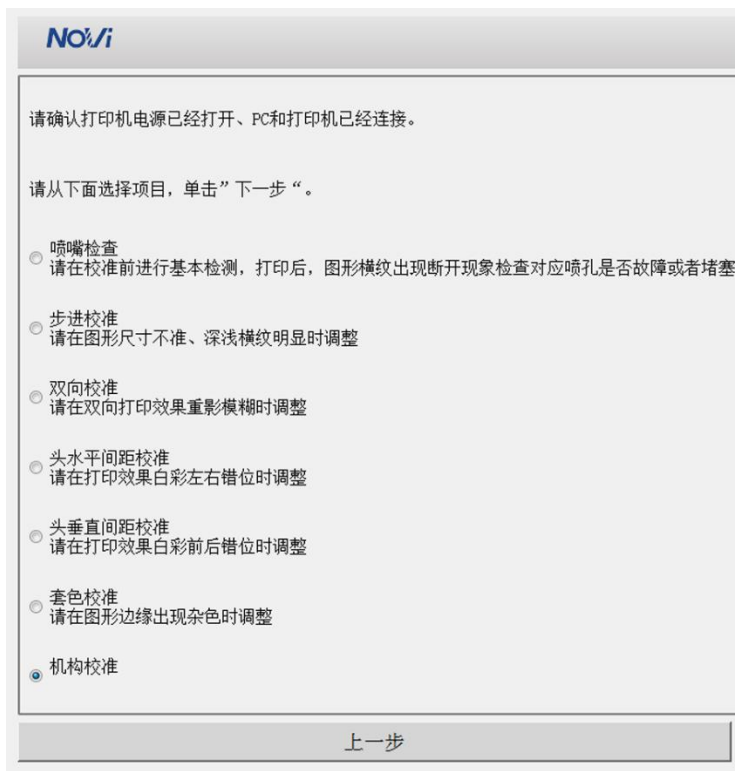
The screen displays online successfully, the driver has been installed normally

4.4. DTG-PRO driver Graphic analysis



如上图所示打印设置：

- 打印设置里的方向有单向和双向，双向打印速度较快(打印出来的效果偏差)，单向打印速度较慢(打印出来的效果效好)；
- 开羽化打印使打印的质量得到有效的提高，羽化开的越高打印出来的质量就越好，但羽化开的越高打印的速度就越慢；
- 速度是喷头打印的速度，速度可分为低速、标准、高速、高精，一般情况下选择高速打印即可；
- 喷头选择是由机型搭配的打印喷头设置；
- 白彩顺序是在打印颜色时候的前后顺序，打印不透明材质时可先白后彩，打印玻璃等镜像材质时是先彩色后白色；
- 白彩设置是在打印时所选打印的颜色，如果只选单出白，打印过程中就会只打印白色，选择单出彩只打印彩色，其它设置同上。



校准

校准设置模式一般在撞到喷头，或更换喷头时候才进行调试；

垂直校准

在打印测试条时候，出现如图现象就需要调整喷头。



双向校准

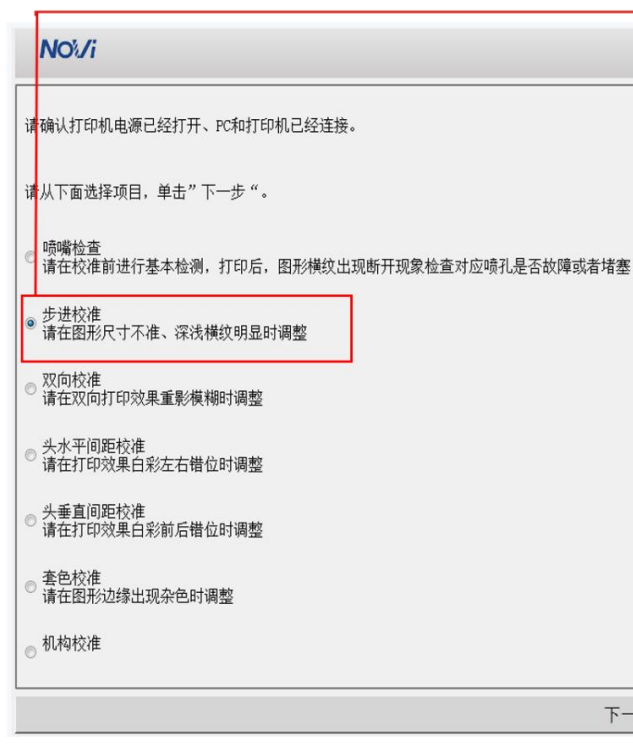
在进行双向打印时需要校准。

头水平间距校准

在打印产品时候，出现白色与彩色无法对齐，就需要进行此调试（与头垂直校准一起调试）。

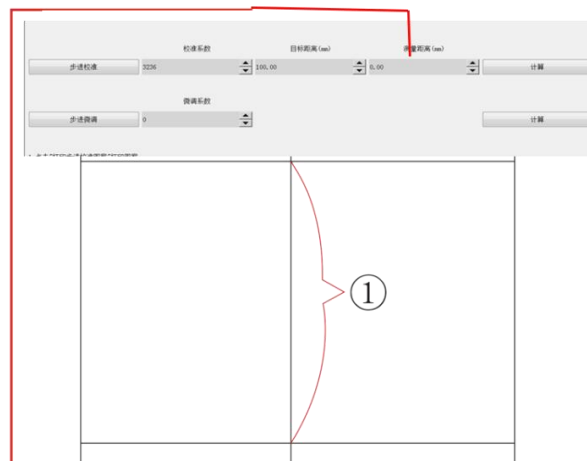
套色校准

在打印产品时候，出现彩色无法对齐，就需要进行此调试。



步进校准

在进行步进校准下，点击打印步进校准图案、如图：



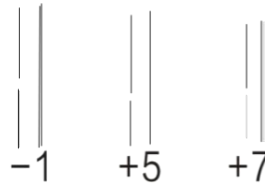
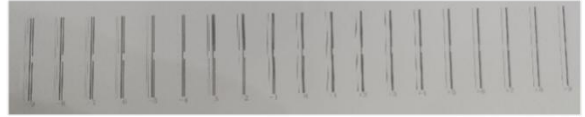
进行图1的位置测量长度，并把测量的长度(mm为单位)输入红线指示的框内，在点击右边的计算，校准系数以自动生成为准。

双向校准

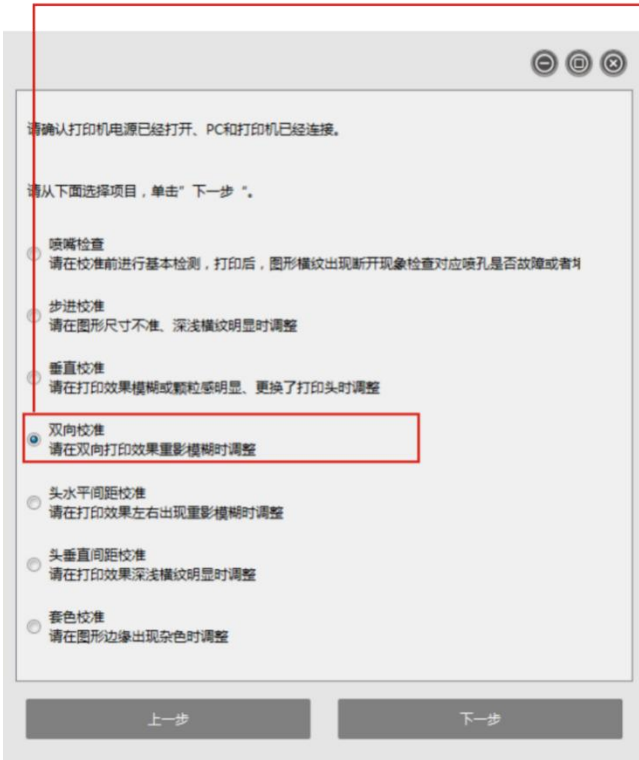
首先在平台上放一张A4纸，调试好打印喷头与A4纸的距离为（2-3MM）左右，点击打印双向校准图案会打印校准图：



打印校准图形后查看线条的重合度，比如“+5”最直，请在这个数值上增加5，如果图形显示的是“-3”最直，那就在原数值上减去3，调试完成并进行保存。

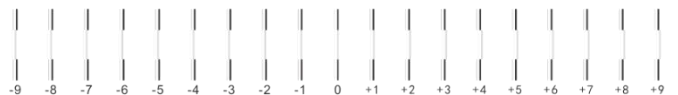


双向校准打印出来的图形是这样的

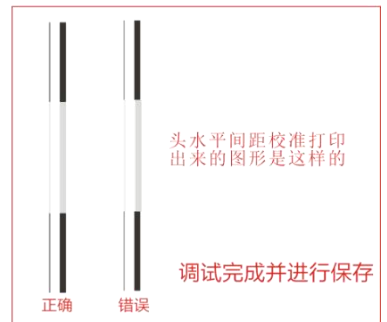


头水平间距校准

在选择头水平间距校准模式下，点击白彩水平间距，会打印校准如图：

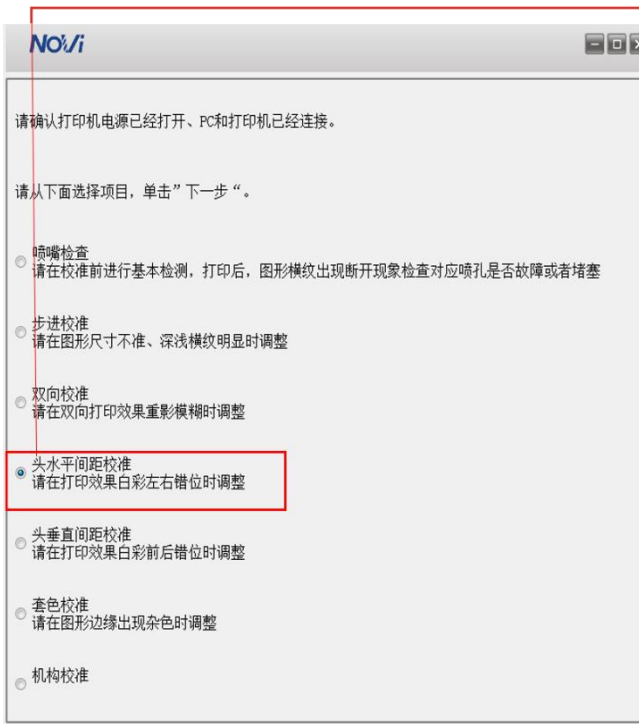


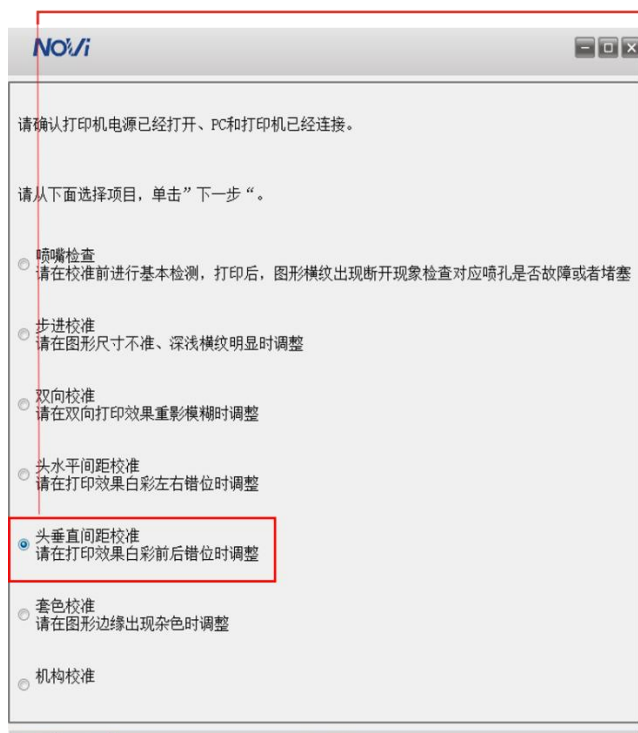
打印校准图形后查看线条的重合度，比如“+3”最直，请在这个数值上增加3，如果图形显示的是“-3”最直，那就在原数值上减去3，调试完成并进行保存。



头水平间距校准打印出来的图形是这样的

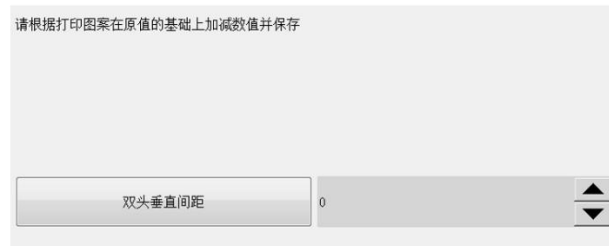
调试完成并进行保存



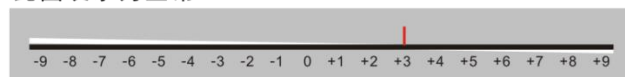


头垂直间距校准

在选择头垂直间距校准下, 点击白彩垂直间距, 会打印校准如图:



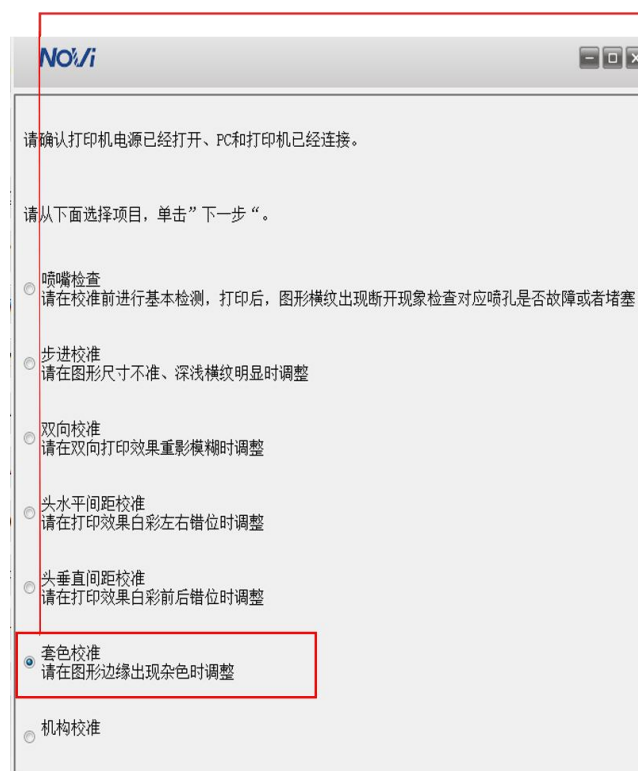
此图表示为正常



此图情况下请在原数值基础上+3, 添加到两线重合为准。

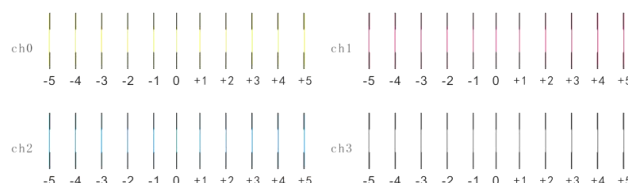
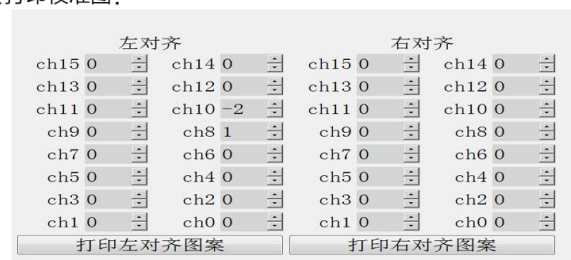


此图情况下请在原数值基础上-3, 减少到两线重合为准。

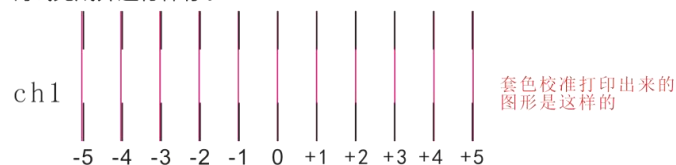


套色校准

首先在平台上放一张A4纸, 调试好打印喷头与A4纸的距离为 (2-3MM) 左右, 点击打印左对齐图案 (右对齐调试方法一致) 会打印校准图:



打印校准图形后查看线条的重合度, 比如 "+2" 最直, 请在原有数值上增加2, 如果图形显示的是 "-3" 最直, 那就在原数值上减去3, 调试完成并进行保存。



5-1. All the applications and common projects

It is recommended to use PowerPlotter7 when setup the printing data

PowerPlotter7 can build up data through direct operation

When using other applications, the DTG 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)

DTG-PRO 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 DTG 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.

【Reference】

- The use of PowerPlotter7, through the printer driver settings can present the image white data simply, Stander mode to support white fabric image output, Black support for black fabric image output, Bgap mode to support multi-color fabric image output and support for the processing of the image color adapted to the color of the fabric features to improve the printing feel and color effectively. Save ink usage, please refer to the detailed instructions for PowerPlotter7 software.
- Translated with DeepL.com (free version)

PRN/PRT file

It is possible to export printing file of PRN/PRT and achieve the printing through DTG-PRO software by setting PowerPlotter7 configuration port.

【Reference】

- PowerPlotter7 software supports the printing method of TCP/IP to send directly.
- PowerPlotter7 software supports to export PRN/PRT file and send it through DTG-PRO software

警告



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 malfunction.



Do not connect the machine with liquid. Otherwise it may lead to fire, electric shock or malfunction. Once there is liquid enters into the machine internal, please cut off the power supply and unplug it immediately. And then contact the dealership or the trained 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.



Make sure that there is enough place and do not place other objects. Otherwise the hands may be pinched between the platen and objects and you may be get injured.



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.



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 bag. 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, pretreatment agent, 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, pretreatment agent, 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.



Since the spray will be dispersed when applying the pretreatment agent through a sprayer or pretreatment agent applicator, please wear PVC gloves, a face mask, and goggles (or dust glasses) to protect against liquid droplets, and take care to ventilate the area adequately during operation.

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

6-1. Basic printing procedure

Describe the basic flow of the job before printing begins and after printing ends.

The work before printing	Confirm and prepare the printer before printing
预处理打印品 Pretreat the product	In order for the white ink to stay on the T-shirt substrate, a pre-treatment agent needs to be applied beforehand. When white ink is not used, there is no need to pre-treat prints. Please refer to 6-3 and pretreat the products >>P.6-8
Adjust the press plate	Replace the press plate according to the products. Adjust the height after replacing the press plate. Refer to "6-4. Adjusting platen >>P.6-20"
Install the product	Install the product to the press plate. Refer to "6-5. Install the product >>P.6-29"
Send/read the printing data	Send or read the printing data to printer Refer to "6-6. Send or read the printing data >>P.6-32"
打印Print	Start to print Refer to "6-7. Print >>P.6-43"
Remove from the press plate	Do not remove the mobile plate. Otherwise it may cause serious malfunction. Make sure that there is enough space and do not place objects. Otherwise it may lead to the plate get struck and broken.
Fix the ink	Remove the products from the press plate. Refer to "6-8. Remove from the plate >>P.6-45" Fix the ink into the products Refer to "6-9. Fix the ink >>P.6-46"

6-2. The work before the printing

6-2-1. Confirm 、dispose the waste ink

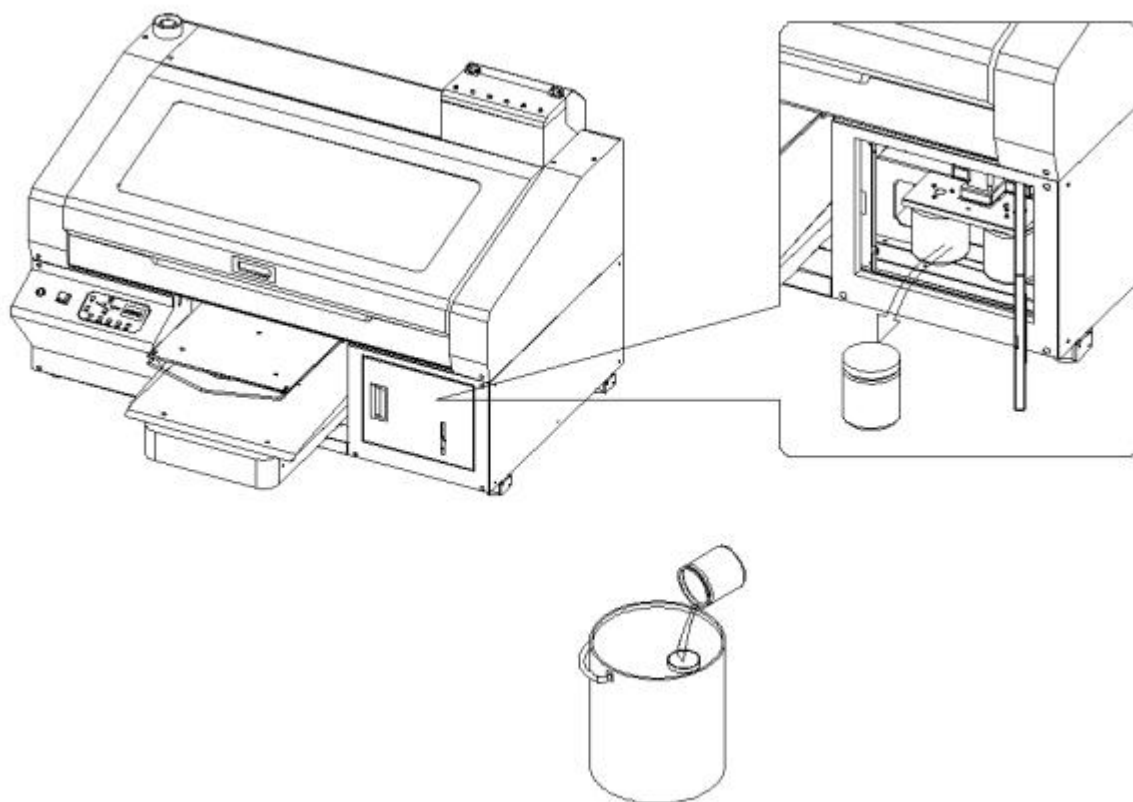
Confirm the amount of waste ink in the waste ink collector, and pour out the accumulated waste ink if it is more than 1/2.

(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.



Tray

X0046

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

【Reference】

- 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.

6-3.Pretreat the products

In order for the white ink to stay on the T-shirt substrate, a pre-treatment agent needs to be applied beforehand.

The pretreatment procedure

Step	Project	Details
1	Stir the pretreatment agent	Shake the pre-treatment agent up and down 20 times to ensure that the treatment agent is incorporated fully.
2	Smear the diluted pretreatment agent	Smear the diluted pretreatment agent by sprayer or roller.
3	Fixing pretreatment agent	Fixing is done by applying temperature and pressure through a press machine.

6-3-1. Prepare the pretreatment agent

Preparations

There are two methods to smear the pretreatment agent: roller and sprayer.

Prepare the required items beforehand by referring to the table below respectively.

○: Necessary objects
△: Necessary for having such an object.
—: Unnecessary objects.

Preparations	Roller	Sprayer
Pretreatment agent	○	○
Pure water	○	○
Pretreatment roller	○	—
Hand shank(handle of roller)	○	—
Tray	○	—
Platform for smearing	△	—
Scales	○	○
Sprayer	—	○
Heat transfer printing	○	○
Peeling board	△	△
Silicon foam(Silicon continuous bubble structure)	△	△
Roller	△	△

- Pretreatment agent

The pretreatment agent is required for pretreatment when printing white ink using white liquid. If the pretreatment agent is not applied beforehand, the white ink is not colored and does not show whiteness. In addition, the colors layered on top of the white ink will not be colored. Use a roller or sprayer to apply the pretreatment agent to the T-shirt, and use a press machine for fixing.

【Notice】

- Wear PVC gloves, face shield and goggles when working.
- Please check the product safety sheet issued by our company regarding the handling of pretreatment agents.

- Pretreatment roller(Optional parts)

Used to apply pre-treatments to T-shirts. It is recommended that the shank area of the roller be made of a rust-resistant material

【Note】

- Please prepare the tray (container for dilution), handle (handle of the roller), applicator table, and scale for application volume measurement separately.

- Sprayer (Available in the market.)

For applying pre-treatments to T-shirts. Prepare the item to spray a fine mist (motorized type recommended). Easier to apply evenly and less likely to produce uneven shades than a roller, but you need to ensure a dedicated space for using the sprayer.

In addition to sprayers, there are also pre-treatment agent applicators (commercially available) that automatically apply pre-treatment agent to T-shirts. Please prepare them separately according to your needs.

【Note】

- When spraying with a sprayer or other work that generates spray, ventilate the area sufficiently.
- Wear PVC gloves, a face shield, and goggles (or dust glasses) to protect against liquid droplets when working.
- Please check the product safety sheet issued by our company regarding the handling of pretreatment agents.

【Important】

- When spraying with a motorized sprayer, spray as far away from the printer body as possible. Failure to do so may result in print head malfunction.

- Press machine

It is necessary to be able to cover the platen print range and maintain performance at 180° C (356° F) for more than 35 seconds. For a smooth surface when setting the pretreatment agent, be sure to use a hot press, not an oven.

- Peeling board

When using a press, place it on a T-shirt in order to prevent the ink and pretreatment agent from adhering to the transfer surface of the press. Use silicone paper or fluorine resin sheets, etc. If silicone paper is used for fixing the ink, there is a tendency to achieve a frosted print effect. If fluorocarbon resin sheets are used, there is a tendency to achieve a glossy printing effect.

- Silicon Foam (Silicon Continuous Bubble Structure)

Heat-resistant silicon bubble pads. Silicon bubbles are used in order to facilitate the venting of vapors when printing fixing inks or pre-treatments via thermal transfer.

- Roller

Used to remove threads or surface dirt etc. from T-shirts.

- T-shirt(Printing material)

Cotton 100%, polyester blend (cotton 50%+)

【Reference】

- Cotton 100% substrate is recommended, but unrelated to Cotton 100% and blends. There may be fabrics that may not ensure print quality. Especially for new materials, please conduct a print test beforehand.
- With some fabrics, traces of residue may be evident after the pretreatment agent has been set. In this case, please wash with water.
- Please perform a print test beforehand. Otherwise, the following phenomena may occur.
 - Pretreatments change the color of the cloth substrate and may not restore the original color even when cleaned.
 - Strongly colored polyester blends melt out dyes that may bleed into white ink.
 - After the pretreatment agent is fixed, it may turn yellow.

6-3-2. Smear the pretreatment agent

In order to print on the pre-treated area, the pre-treatment agent is applied larger and more evenly than the print area.

【Notice】

- When spraying with a sprayer or other work that generates spray, ventilate the area sufficiently.
- Wear PVC gloves, a face shield, and goggles (or dust glasses) to protect against liquid droplets when working.

【Important】

- Residual traces of some T-shirt pretreatments may be visible. Please wash with water.
- In addition, some T-shirts may be discolored by the pretreatment agent and may not return to their original color even if washed.
- When printing for the first time, try printing in an inconspicuous spot before applying.
- When spraying with a motorized sprayer, spray as far away from the printer as possible. Failure to do so may result in print head malfunction.

Criteria for the amount of pretreatment agent to be applied

Determine the application area and the amount of application based on the platen size. When the table below and the area are different, please calculate the amount of application based on the area ratio.

【Important】

- Depending on the type of substrate, sometimes applying the following amount of pretreatment agent may not ensure print quality, so it is recommended to adjust the application amount by conducting sufficient print tests in advance.
- When the amount of pre-treatment agent applied is too small, the residual marks after fixing are not evident, but the color tinting on white ink or white ink deteriorates.
- When too much pretreatment agent is applied, it may result in visible traces of pretreatment agent, cracks on the print surface after washing, and may easily cause color loss.

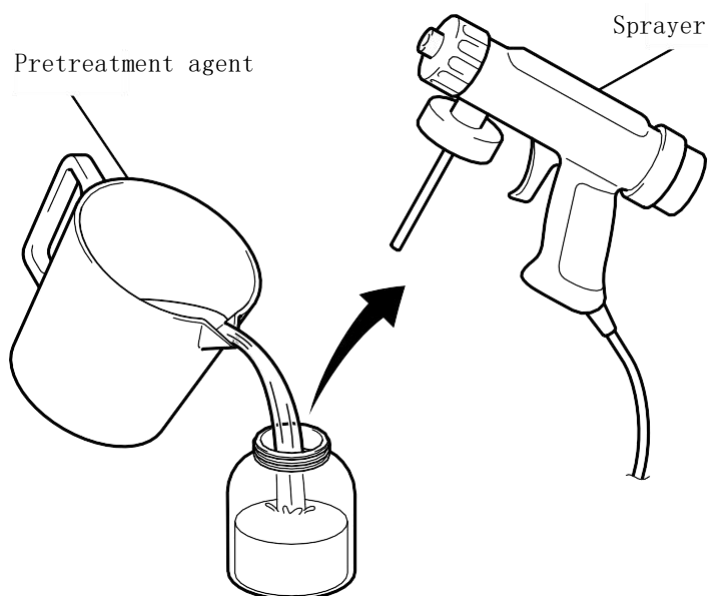
Size of press plate	The amount of pretreatment agent
16×21	45 g
16×18	39 g
14×16	30 g
10×12	16 g
7×8	8 g
Letter paper / A4	15 g
Compact type (10×10 cm)	3 g

When spraying with a sprayer (commercially available: electric type recommended)

- (1) Fill the sprayer with the diluted pretreatment agent.

【Reference】

- Use a sprayer that dispenses a fine mist (electric type recommended).



X0083

- (2) Place the T-shirt flat or upright and spray evenly with a sprayer.

【Notice】

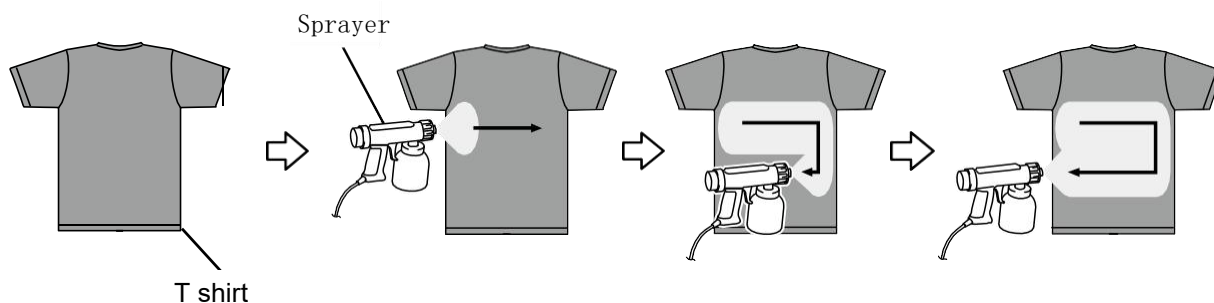
- When spraying with a sprayer or other work that generates spray, ventilate the area sufficiently.
- Wear PVC gloves, a face shield, and goggles (or dust glasses) to protect against liquid droplets when working.

【Important】

- When spraying with a motorized sprayer, spray as far away from the printer as possible. Failure to do so may result in print head malfunction.

【Reference】

- When an inner pad is placed inside a T-shirt, the inner side (back) will not be stained with the pretreatment agent. Remove the pads before transferring.
- When unfamiliar, use a scale to weigh the amount of spray while working.



X0084

6-3-3. Fixing the pretreatment agent

【Notice】

- Please ventilate adequately as spray will be generated.
- Wear PVC gloves, a face shield, and goggles (or dust glasses) to protect against liquid droplets when working.

【Reference】

- The effect of the pretreatment agent cannot be realized by using an oven or natural drying, so be sure to use a press machine. Since the lint does not fall down when using an oven, it is easy to get uneven shades on the white color.
- Keep the surface of the T-shirt flat when placing the T-shirt on the heat transfer, and place a peeler plate over the entire pressing area to press the T-shirt.
- If the area where the pretreatment agent has been fixed gets wet again, the effect of the pretreatment agent will be reduced and uneven shades will easily occur.
- After fixing the pretreatment agent, do not touch the fixed area with your hands.
- Do not touch the T-shirt or fold the substrate after fixing the pretreatment agent.
- After fixing the pretreatment agent, do not place it in a humid place.
- When leaving it for a long time, press or dry it before printing.

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 can not fix the pretreatment agent correctly. In this case, the T-shirt substrate is stained with white ink 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.
- If it is not dry sufficiently even after 35 seconds of collapse, extend the time while observing the drying of the preconditioner.
- The optimum fixing conditions vary depending on the amount of pretreatment agent applied, so use the following values as a standard.

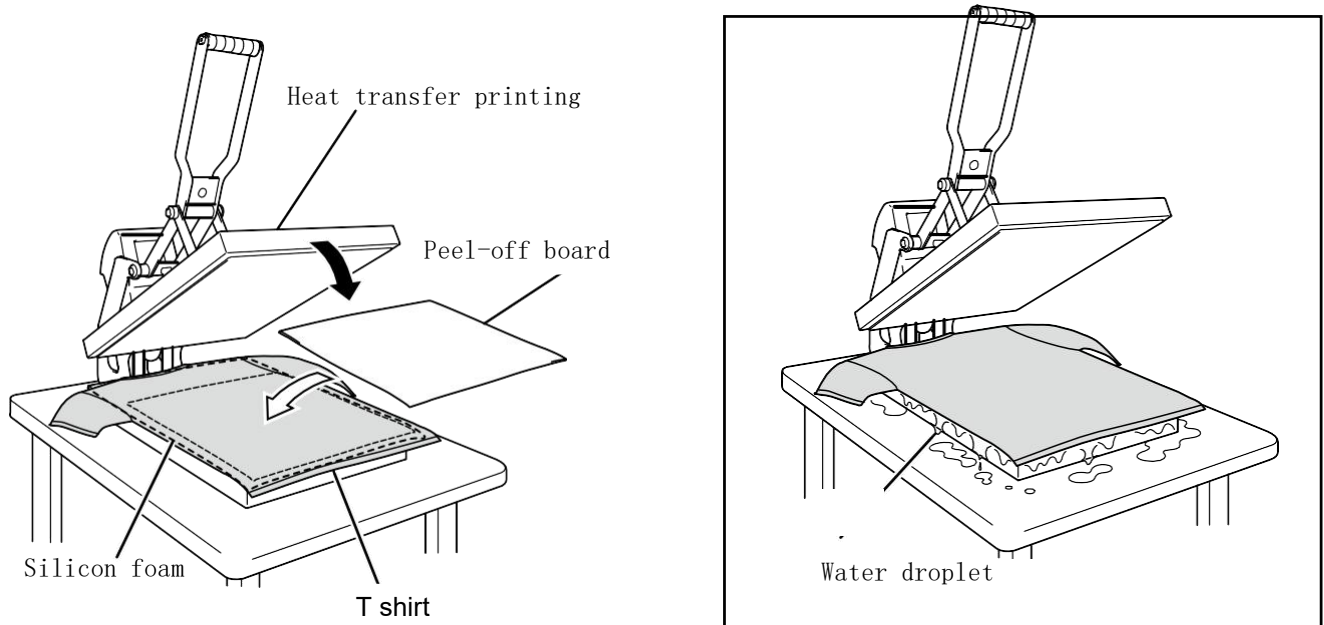
Temperature	Time
180°C (356°F)	35 seconds

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

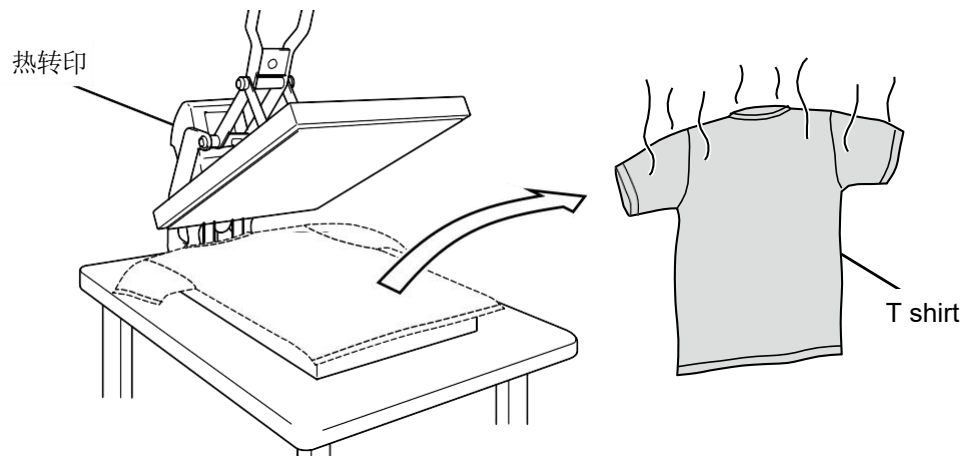
【Reference】

- Water droplets may appear around the press as the heat passing through the press evaporates the moisture in the pretreatment agent. Please keep the work space clean so that the application surface does not get wet.。
- Please use the stripper plate according to the press used and as needed.

X0096



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



X0097

6-4. Adjust the press plate

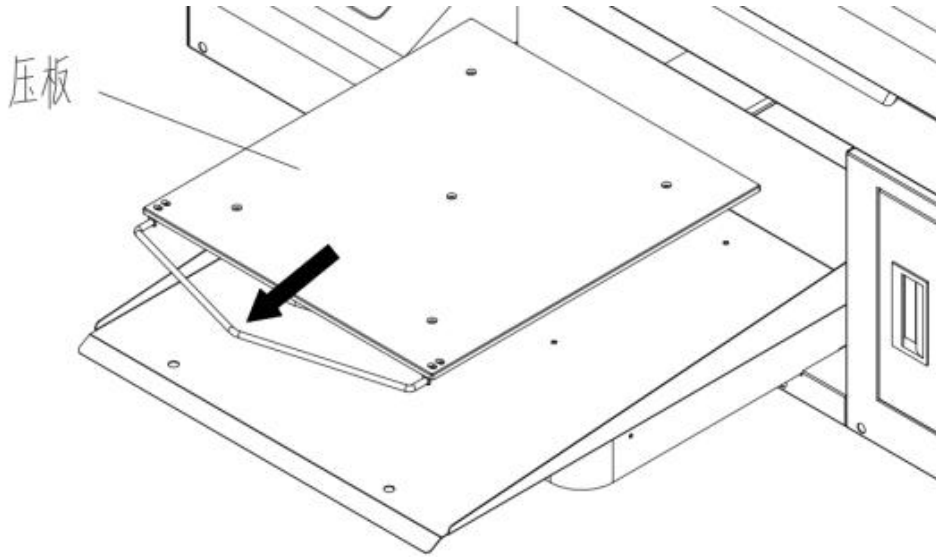
Replace the platen according to the print media.

【Reference】

- When using a platen with an option size such as a 10 x 12 platen, make sure that “Platen Size” is selected correctly from the Setup menu of the printer driver.
- When using a 16×21 platen, please refer to “6-4-3. Using a 16×21 Lever >> P.6-27”.

6-4-1. Replace the press plate

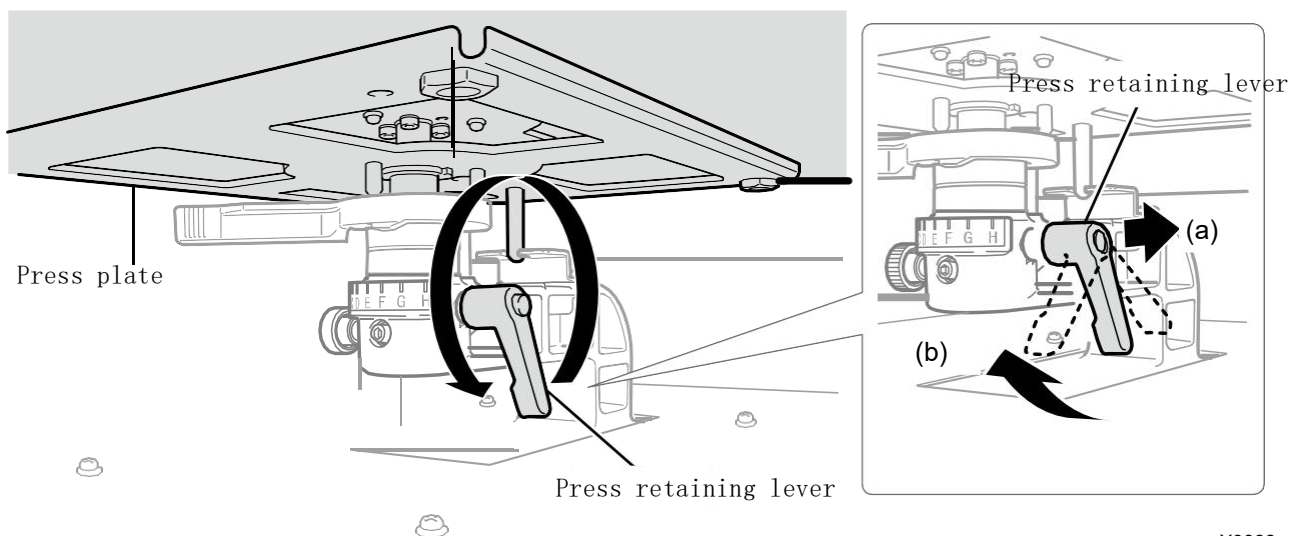
- (1) Press ☐ on the operation panel to move the lever toward the front side of the body.



- (2) Loosen the lever retaining bar 1 to 2 turns.

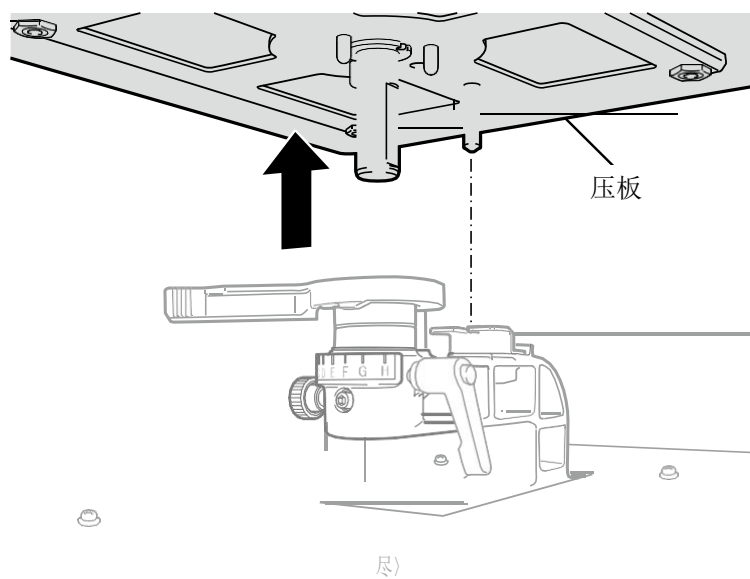
【Reference】

- Depending on the height of the lever, the press retaining lever may touch the lever or may not be able to rotate. In this case, move the lever retainer bar in the direction of (a), pull the end of the lever retainer bar forward as shown in (b), and then release it again.



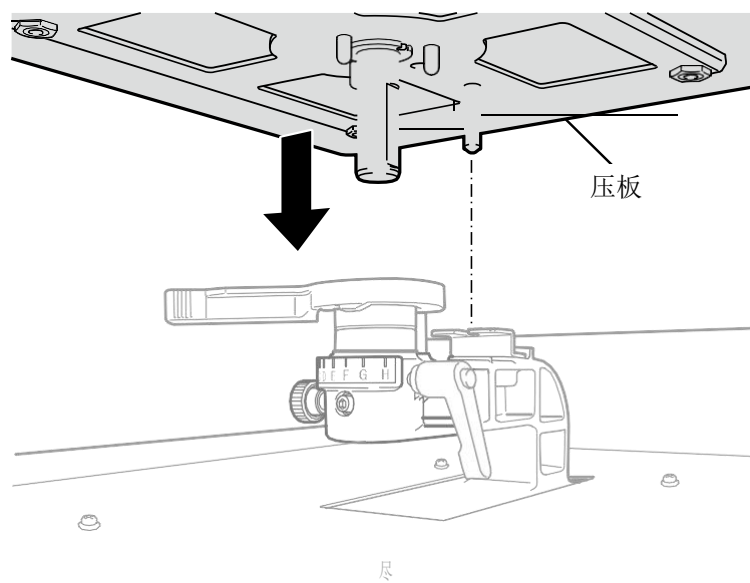
X0098

- (3) Remove the lever by lifting it toward the top.



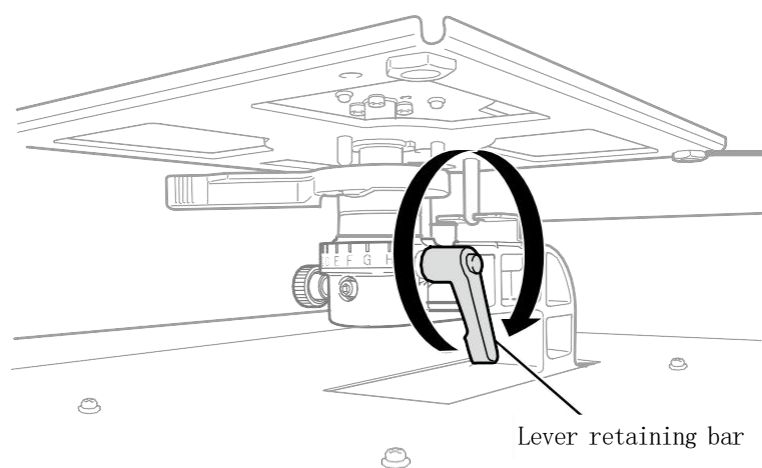
X0099

- (4) Insert the used platen from directly above.



X0100

- (5) Tighten the lever retaining bar.



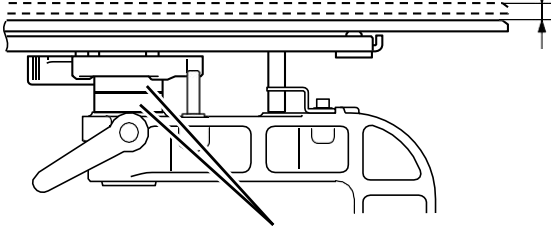
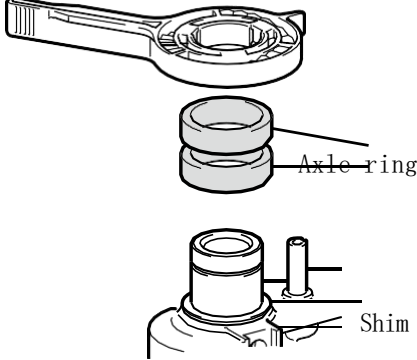
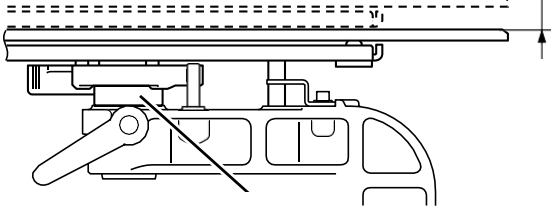
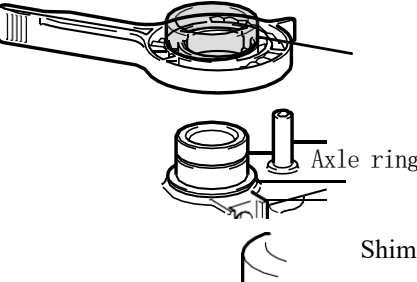
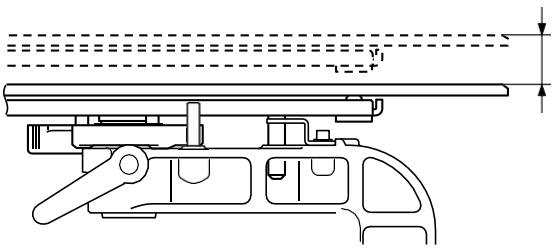
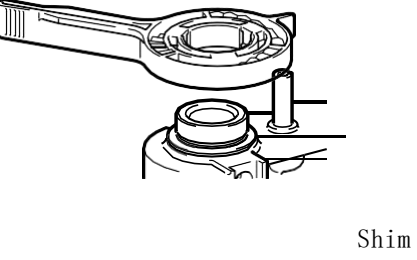
X0101

6-4-2. Adjust the height of press plate

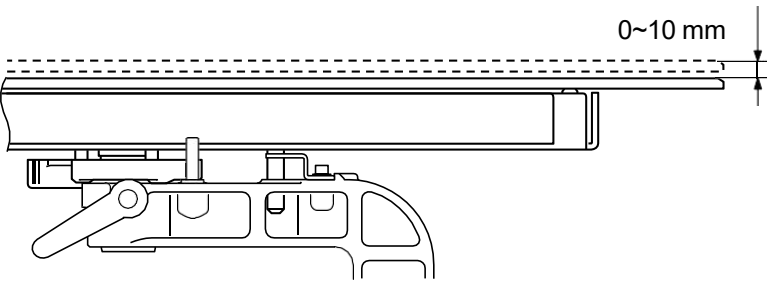
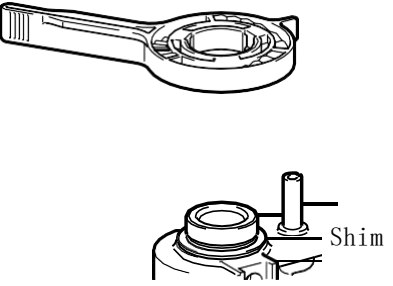
In general, the platen height can be lowered by up to 30 mm by adjusting the platen bearing and collar when printing on thick objects.

【Reference】

- Refer to the table below for the range of lever height adjustment (position A with height adjustment lever at 0 of press plate for standard parts).
- Shims are installed in each machine in order to bring the height to the reference value. Do not change the number of shims.
- When using a 16 x 21 platen, use the bottom layer. Install it with the collar removed. In addition, the height adjustment of the 16×21 lever is 10 mm maximum.

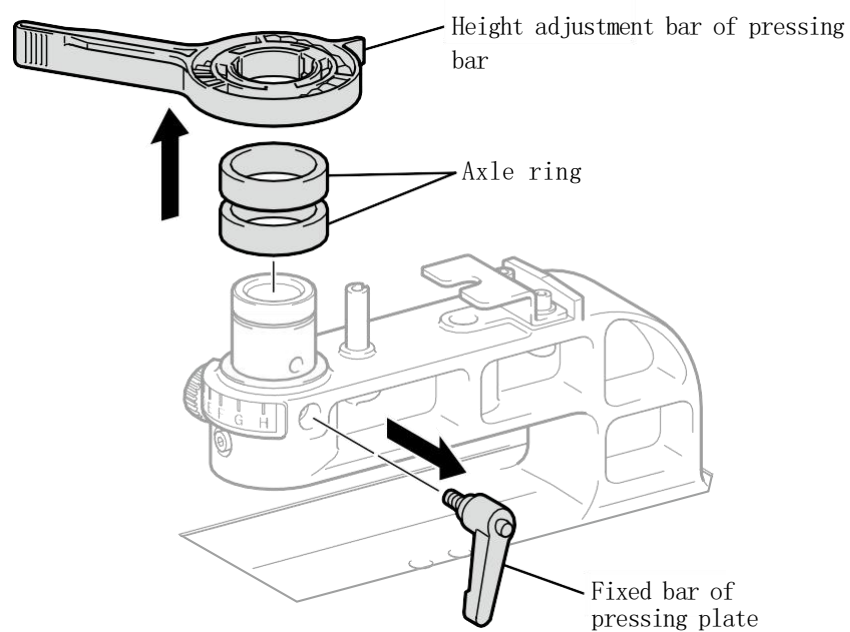
 <p>0~10 mm</p> <p>Axle ring</p>	 <p>Axle ring</p> <p>Shim</p>	X0102
 <p>10~20 mm</p> <p>轴环</p>	 <p>Axle ring</p> <p>Shim</p>	
 <p>20~30 mm</p>	 <p>Shim</p>	

16×21 press platen

 <p>0~10 mm</p>	 <p>Shim</p>
--	--

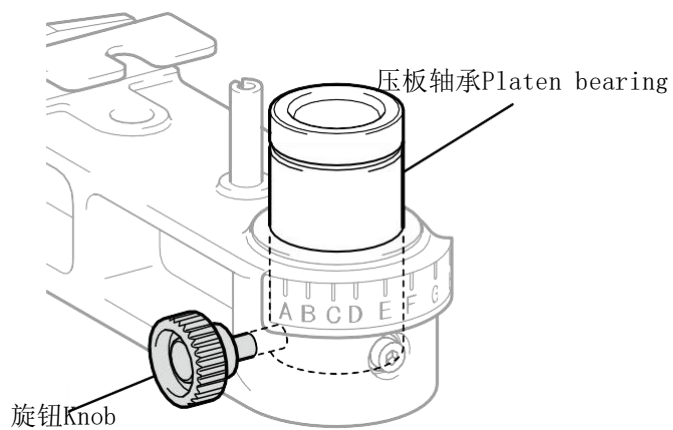
Adjustment to the lowest level as an example for illustration

- (1) Remove the press platen.
- (2) Remove the fixed bar of pressing plate, height adjustment bar of pressing bar and axle ring.



X0103

- (3) Loosen the knob that holds the platen bearing.



X0104

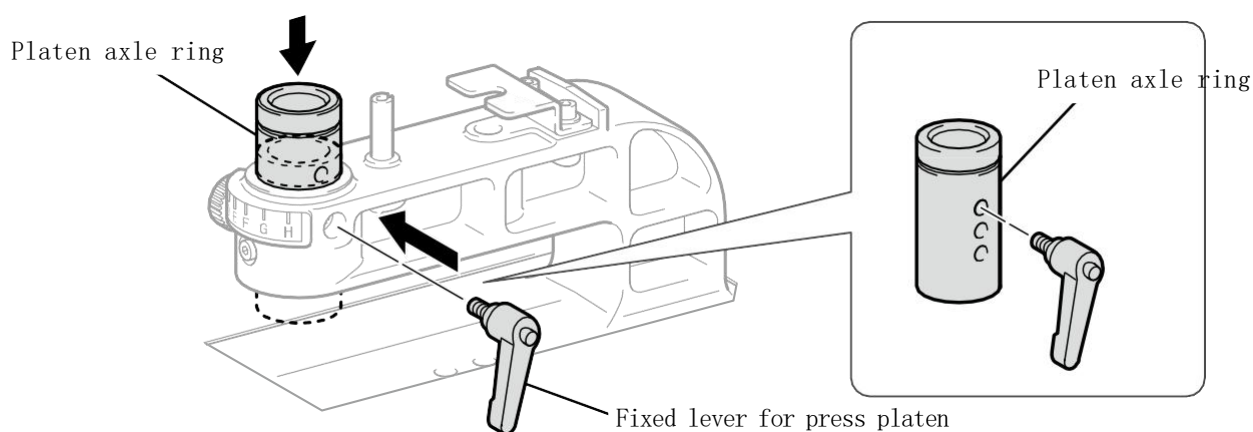
- (4) Move the platen bearing to the downward side and pre-tighten it using the platen retaining bar.

Depending on the adjusted platen height, the number of shaft rings and the position of the threaded holes in the platen bearings vary.

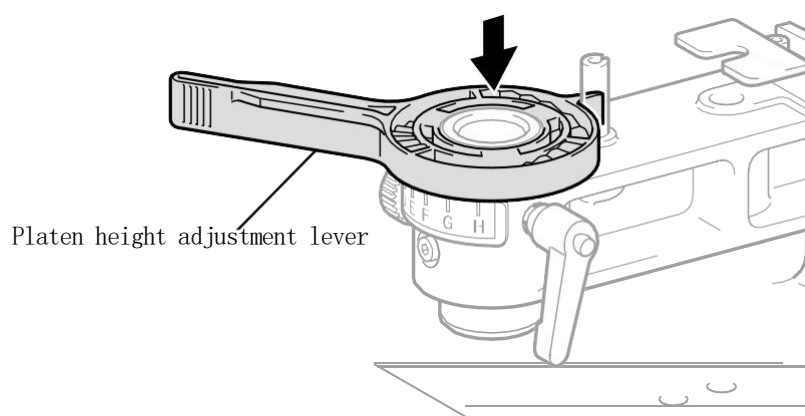
【Reference】

- When adjusted to the lowest level, remove all collars and pre-tighten into the threaded holes on the upper side of the platen bearing.
- When adjusted to middle level, install 1 axle ring, pre-tightened into the threaded hole in the center of the platen bearing.
- When adjusted to top level, install 2 axle ring, pre-tightened into the threaded hole under the platen bearing.
-

X0105



- (5) Install the platen height adjustment lever into the platen bearing.

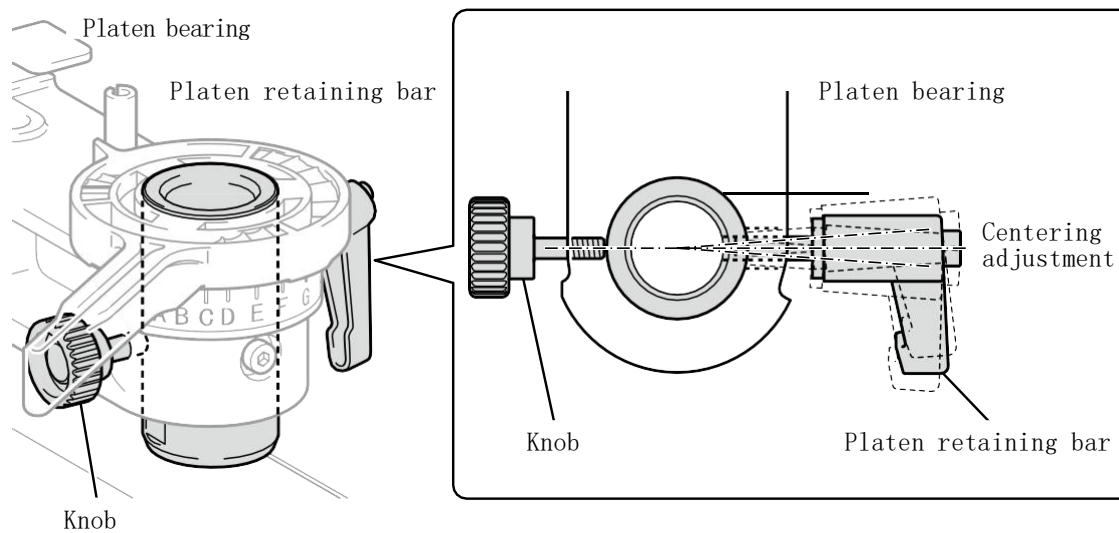


X0106

- (6) Loosen the knob, make the platen axle bearing fixed.

【Reference】

- Secure the platen bearing by centering the center of the platen retainer bar in the position shown.



X0107

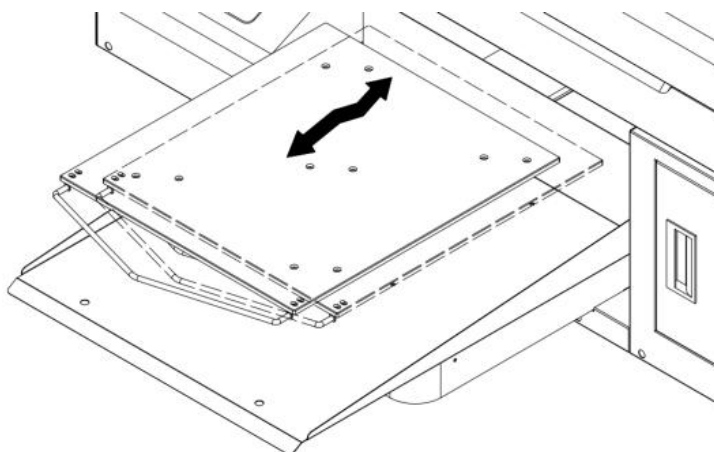
- (7) Insert the platen and tighten the platen retaining bar.

6-4-3. Make use of 16×21 platen

【Notice】

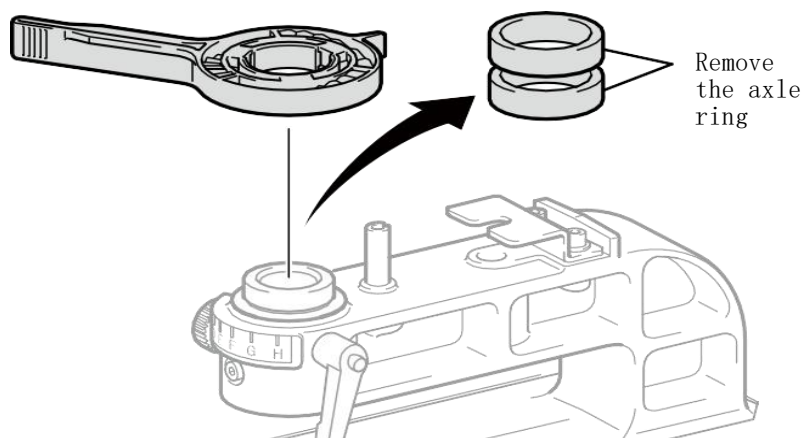
- When using the 16 x 21 platen, please be careful when handling it because it is heavy. In addition, be careful not to touch the movable parts of the lever. Otherwise it may result in injury.
- When sliding the 16 x 21 lever manually, please move slowly.

When placing or removing a T-shirt or replacing a platen, slide the platen in front of you manually and pull it completely. In this case, slide the platen while lifting it up slightly. In addition, slide the platen to the back side while printing and return it to the position it was in when printing.



【Reference】

- When using the 16 x 21 lever, use it with all the rings for height adjustment removed. Refer to “6-4-2. to adjust the Platen Height”.



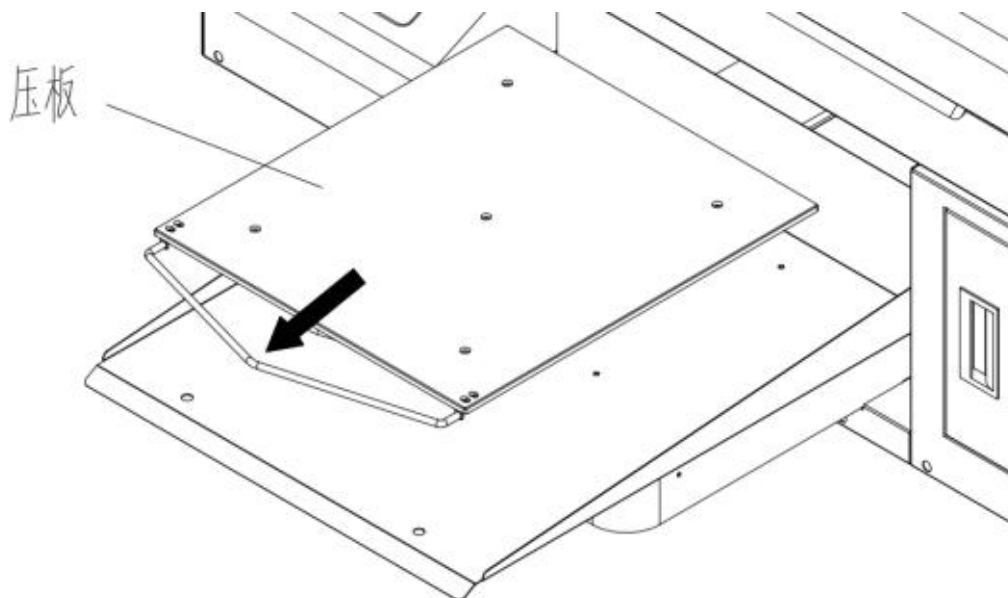
X0158

X0167

- (1) Press ■ on the operation panel to move the 16 x 21 lever toward the front side of the printer.
- (2) Slide the 16×21 lever while lifting it slightly upward and pull it out toward the front.
- (3) Place and remove the T-shirt and replace the platen in this condition.

【Reference】

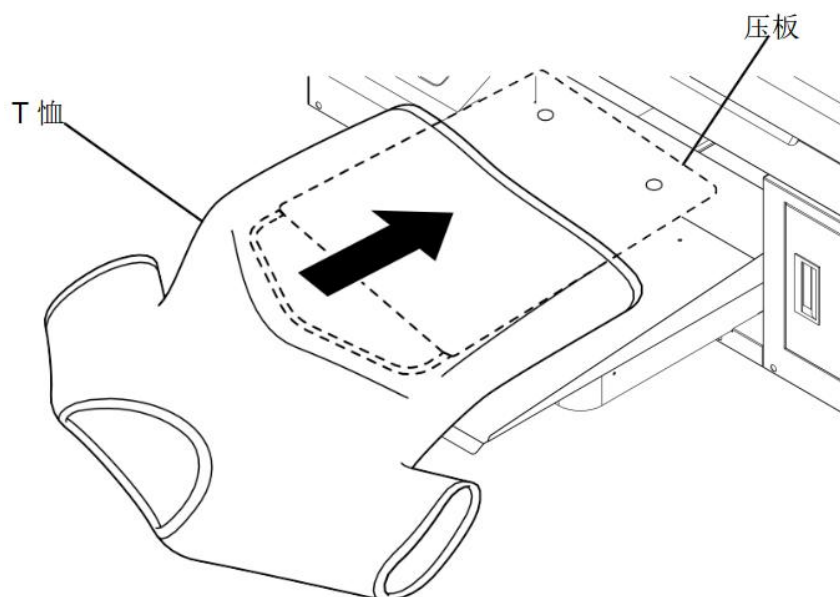
- Please refer to the 6-4-1 to replace the press platen.
- Please refer to 6-5 for placing and removing the T-shirt.



- (4) After the T-shirt placement, removal, and platen replacement operations, slide the platen to the back side to return to the platen position at the time of printing.

【Important】

- When the platen is slid to the position in front of you, the platen height is raised so that the obstacle sensor detects the platen and printing is impossible. However, since the obstacle sensor does not detect the platen when the platen height is lowered to the lowest position, printing may be possible outside the printing range of the platen.
Be sure to slide the platen to the position it will be in when printing before starting printing.



6-5. Install the printing product

When mounting prints, the platen height needs to be adjusted to the thickness of the other print media on the T-shirt in order to obtain the best print quality.

【Notice】

- Make sure there is enough space in front of the machine and do not place objects. Otherwise it may result in damage to the platen due to impact, or injury due to pinching between the platen and the object.
- Keep your hands away from the platen during work. Failure to do so could result in injury if hands are pinched between the platen, the T-shirt tray, and each hood cover.

【Important】

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

【Reference】

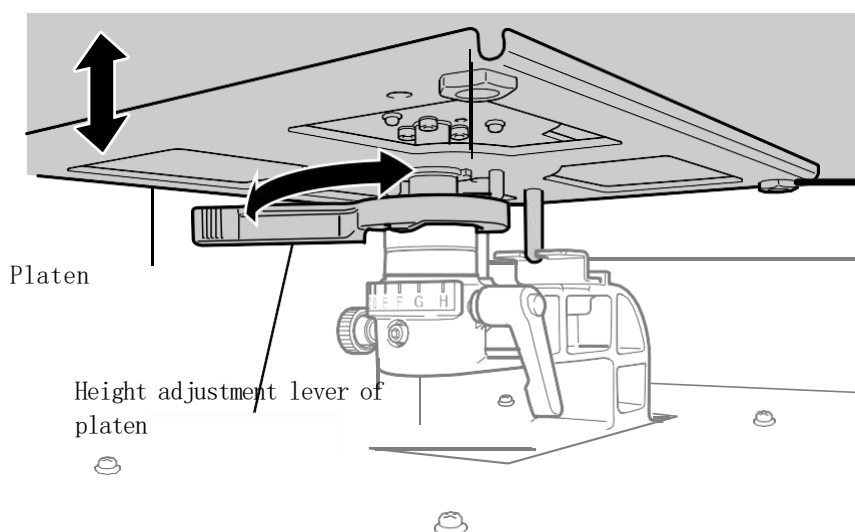
- Adjust the height of the platen to the appropriate height before use. The height can be adjusted with the platen height adjustment lever. As a standard, adjust the height from the limit height detected by the obstacle sensor to the height after dropping 1 layer and confirming that the obstacle sensor does not detect it.
If the platen height drops too much, ink mist may be dispersed inside the printer, smudging the print surface, printing poorly, or causing the sensor or printer to malfunction.
Use one-way printing when the platen must be set to the lowest setting in order to avoid folds (edges) or seams.
Unidirectional printing of print data units can also be specified with the printer driver.
In general, the platen height can be lowered by adjusting the platen bearing and collar when printing on thick objects.
- Please refer to 6-4-3 when using the 16×21 platen.

(1) Without moving the lever toward the front, press ■ on the operation panel.

(2) Adjust the height by height adjustment lever of platen.

【Reference】

- The platen height adjustment lever is A for T-shirt.C for the sport shirts.
- If the platen height drops too much, the print quality will deteriorate, and the subject will be dirty due to ink mist, etc.

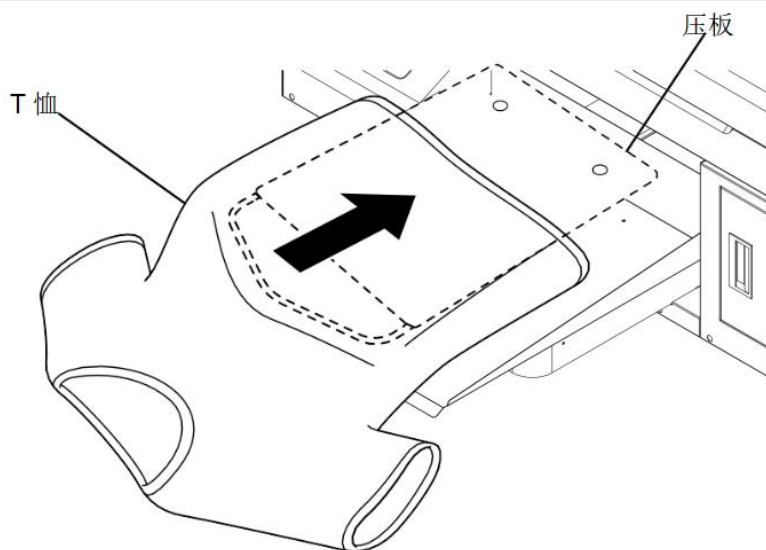


X0109

- (3) Place the T-shirt onto the platen with the printed side facing up.

【Important】

- When a 16 x 21 platen is installed, slide the platen in front of you before placing the T-shirt.

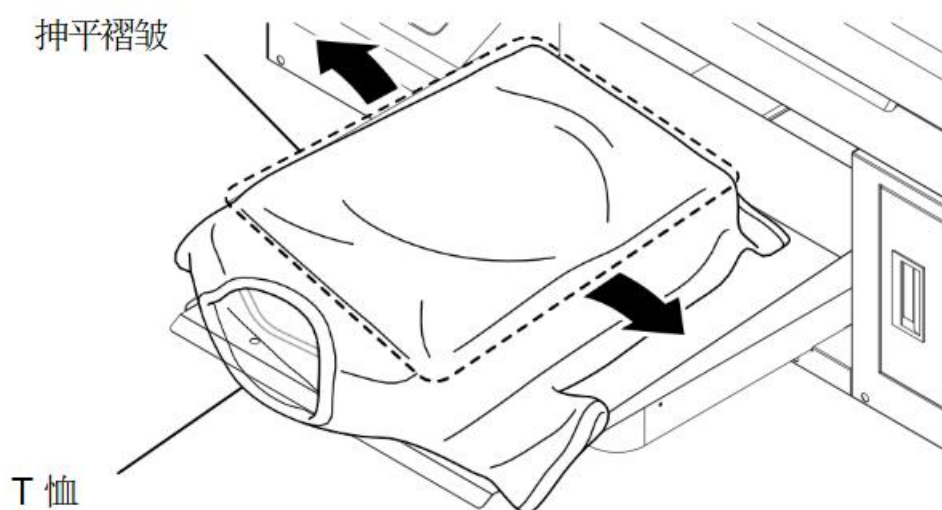


X0110

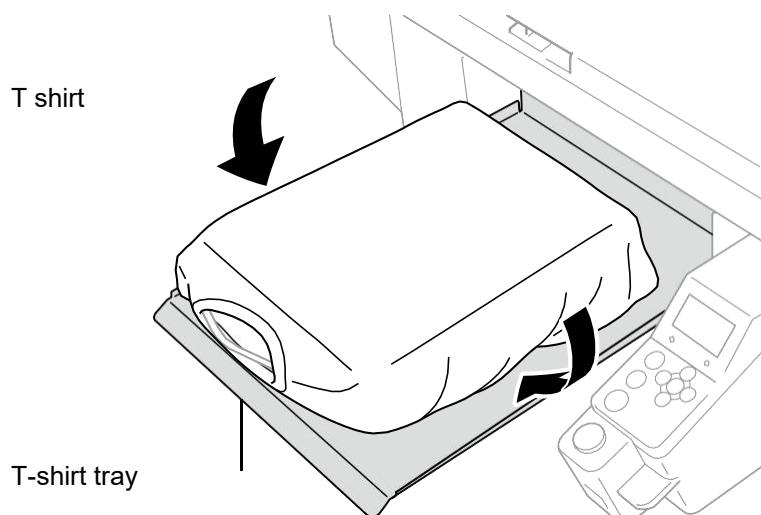
- (4) Stretch out folds and remove threads and dust.

【Reference】

- The obstacle sensor detects frayed hems (edges) or seams such as necks, sleeve holes, folded seams, and hems easily.
- If the two end parts are not stretched sufficiently, they tend to bulge during printing and are easily detected by the obstacle sensor.
- Do not touch the pre-treatment agent fixing surface during operation.
- Do not pull or tug on the pre-treated T-shirt; lay it flat so that it fits against the platen fabric evenly.
- The obstacle sensor can detect if the T-shirt is not flat.
- If you pull the T-shirt to place it, the white ink and color ink may be sprayed out of position, and the white ink may spill out. Be careful not to pull on the thin base material in particular.



- (5) Place the sleeve and hem overrun into the T-shirt tray so they don't get caught up.



X0112

- (6) Press ■ on the operation panel to move the lever toward the rear side of the printer.
Move the platen across the entire print surface to confirm the clearance between the T-shirt surface and the obstruction sensor.

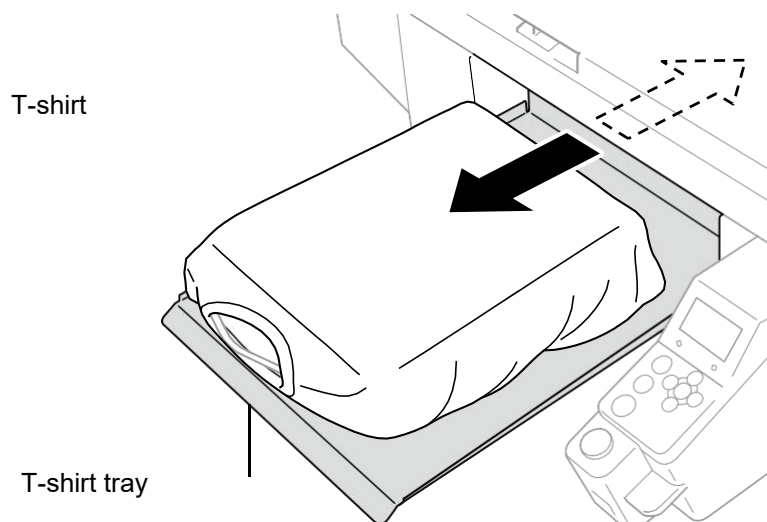
【Reference】

- If the gap is too large, adjust it with the platen height adjustment lever.
- Adjust the height from the boundary height detected by the obstacle sensor to the height after descending 1 level, and confirm that the obstacle sensor does not detect it.
- If the platen height is too high, it will touch the printhead during printing, which may result in soiling or malfunction.
- When a 16 x 21 platen is installed, slide the platen backward manually, return it to its original position, and then move the platen toward the rear side of the printer.

- (7) Press ■ on the operation panel to move the lever toward the front side of the printer.

【Reference】

- Repeat the height adjustment until the proper height is reached.
- Start to print when the height is confirmed.



X0113

6-6. Remove from the platen

- (1) Hold the print media by the shoulder and pull it out slightly toward the top.

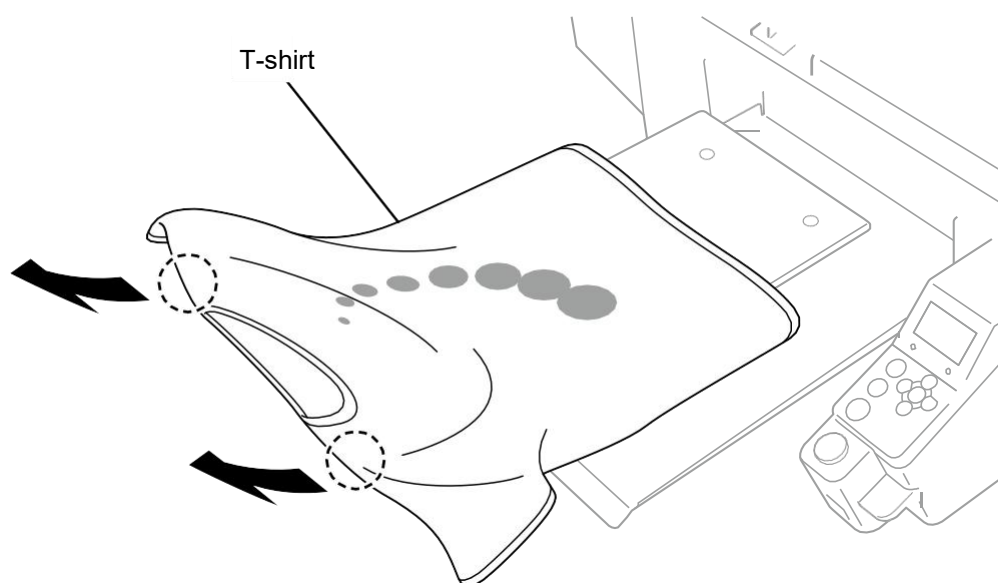
【Important】

- The print surface is wet with ink, so do not touch it.
- If you get ink on your hands, rub soap on them and wash them with water.
- Since it is impossible to clean the ink on the cloth, please be careful when operating it.

【Reference】

- Do not touch any part of the print surface when handling T-shirts because the ink is not fixed.

X0114



6-7. Fix the ink

Use a press and oven when fixing ink.

- Press machine
Easy to manage temperature and time.
- Oven
Improves operational efficiency when printing a large number of sheets.

【Notice】

- Use the ironing machine and oven in a well-ventilated environment. Wear a mask when ventilation is poor.

【Reference】

- When fixing is not sufficient, the color may be lost due to washing or rubbing.
- Pre-clean the fixing surfaces of the press and the peeling plate. Dirt on the side of the peeling plate may adhere to the print surface.
- Staining may be caused if the print is rubbed on white or light-colored polyvinyl chloride synthetic leather.
- Staining is also caused if you rub hard on the print surface printed with color ink and the surface printed with white ink.
- If there is stain, use a soft cloth or toothbrush dipped in household detergent or alcohol to remove the stain.
- The pretreatment agent will remain on the T-shirt after applying the pretreatment agent and fixing the ink. It is recommended to wash with water before wearing.

Criteria conditions for ink fixing

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

【Reference】

- The optimum conditions vary depending on the type of press and oven used, so please use the fixing conditions as a standard. Be sure to adjust the conditions while checking the temperature and ink fixing effect in advance.
- Depending on the print material, it may also be easy to burn, so check the condition of the surface carefully. Especially the material after applying the pretreatment agent is easy to burn.
- For thermal transfer, adjust the pressure while checking the ink fixation effect.
- **If the ink is not dry sufficiently even after the standard time, extend the time while observing the ink drying.**

Machine	Temperature	Time
Press machine	180°C (356°F)	35 seconds
Oven	Surface temperature 160°C (320°F) *1	3 minutes 30 seconds~5 minutes

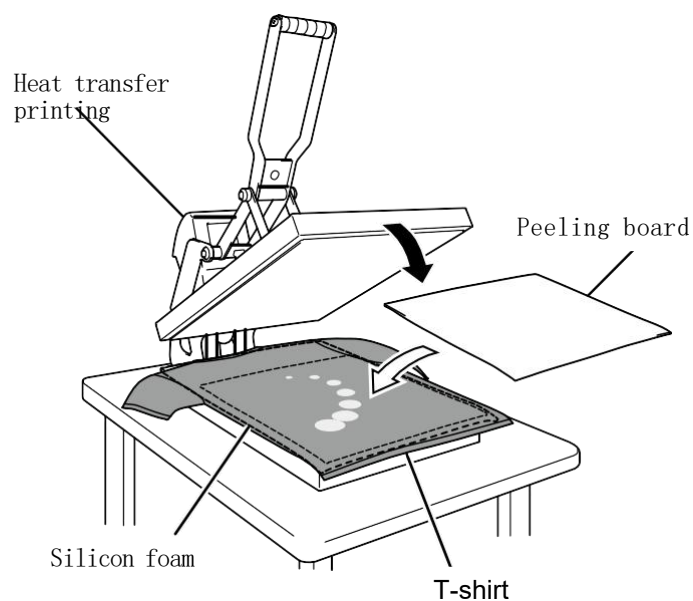
*1: T-shirts may become discolored if the temperature is too high, so pay attention to temperature management.

Fix ink through press machine

(1) Silicone foam, T-shirts, and peel-off panels are placed onto the heat transfer and fixed.

【Reference】

- Please refer to 6-7 about the criteria of conditions for ink fixing.
- Please refer to the user manual of press machine.
- If silicone paper is used as a stripping plate when fixing ink, there is a tendency to accomplish a frosted effect, and if fluorine resin sheets are used, there is a tendency to accomplish a glossy effect. Please differentiate the use according to the application.



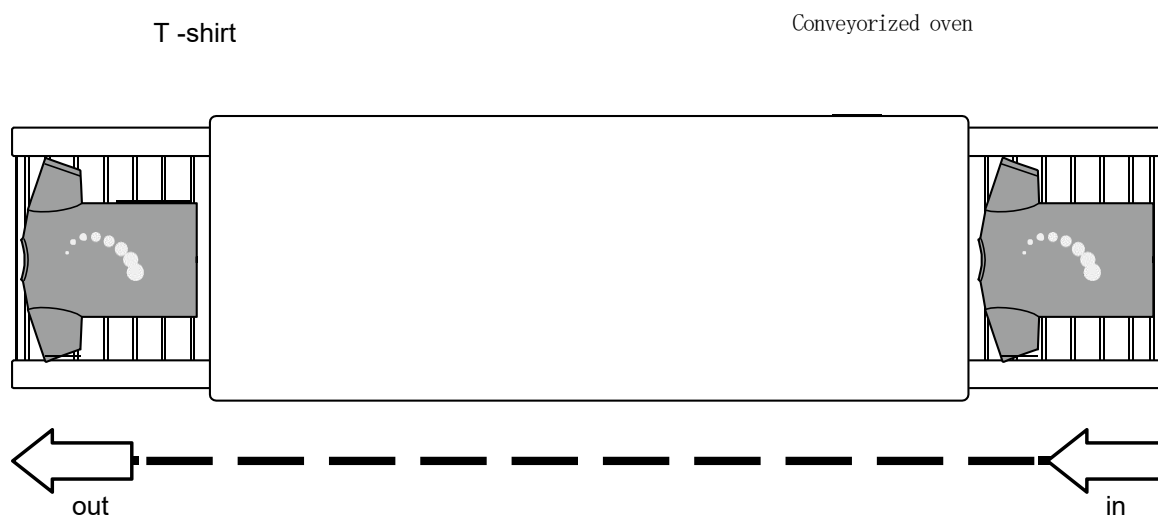
X0115

Ink fixing by means of a conveyORIZED oven

(1) T-shirts are fixed by means of a conveyORIZED oven.

【Reference】

- Please refer to 6-7 about the criteria of conditions for ink fixing.
- When using the conveyor oven, please check the temperature in the warehouse and the actual ink fixing effect.
- Please refer to the user manual of conveyORIZED oven.



X0116

! 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, The ink supply switch is on horizontally and off vertically.
- 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.



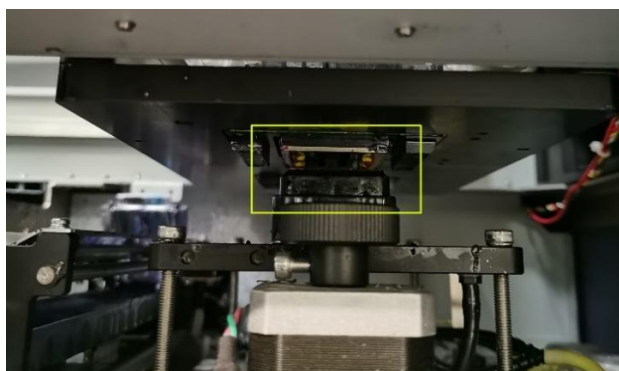
【Reference】

- Ink may pollute the bottom of the cartridge.

Add ink and open the valve and wait for 5 minutes. The ink will flow into the secondary cartridge automatically(take the graphic as example). The printer supply ink normally.



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.

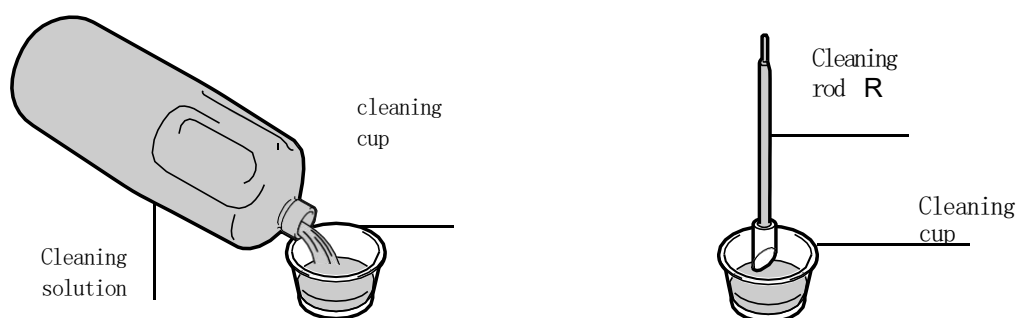
(2) Dip the cleaning solution with a new cleaning rod R.

【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.



X0051

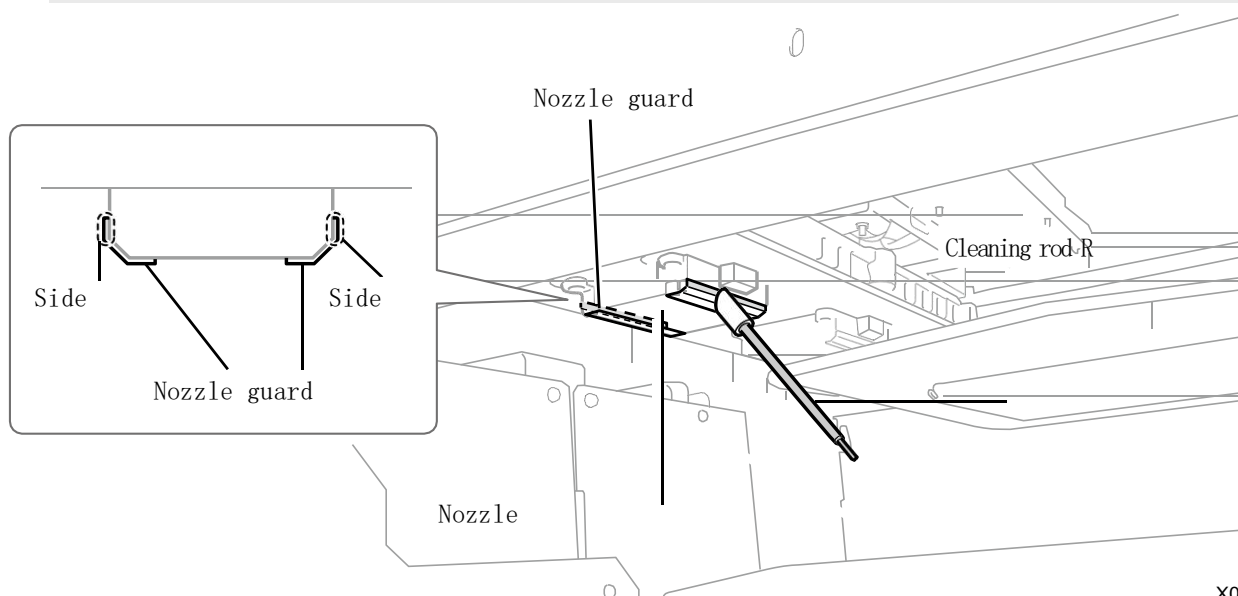
(3) Use a cleaning rod to wipe the sides of the nozzle guard.

【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.

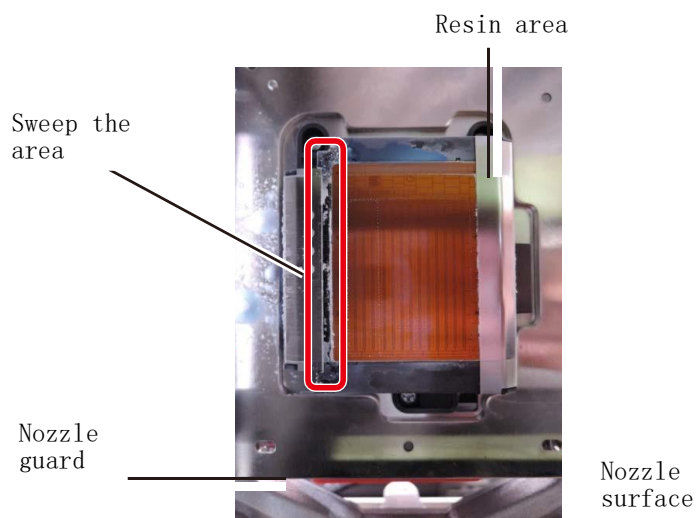


X0060

- (4) Wipe the resin area between the nozzle face of the print head and the nozzle guard.

【Important】

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



X0172

Sweeping atatus

Before sweeping		After sweeping	
<p>Resin area</p>		<p>Resin area</p>	

X0173

- (5) Rinse the cleaning rod with a cleaning cup and use it later when sweeping the scraper.

【Important】

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

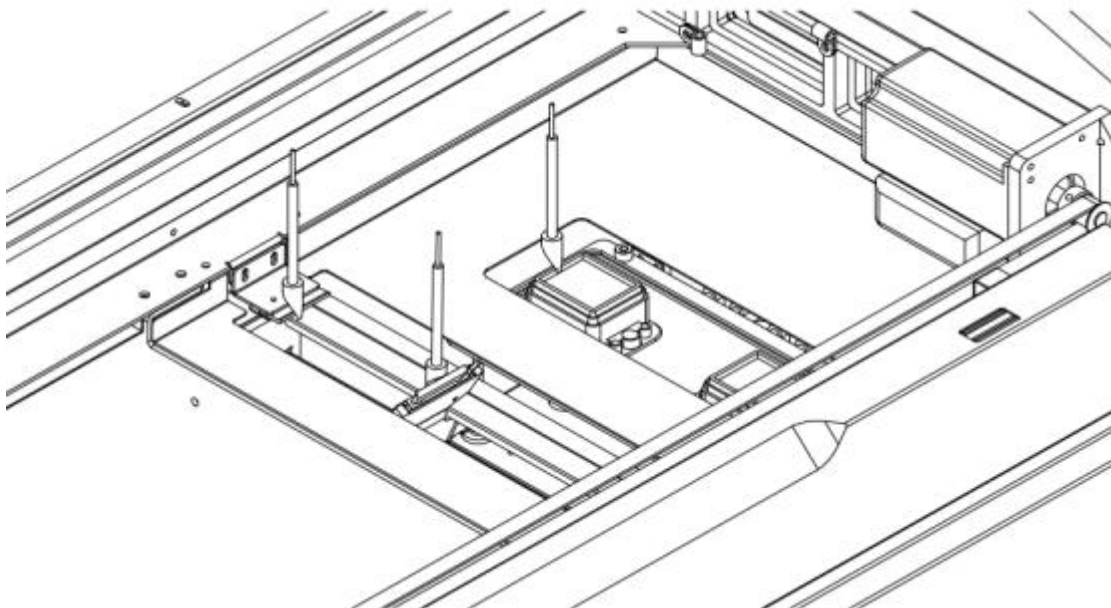
7-1-3 Replace the cleaning scraper

- (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.



X0052

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

【Important】

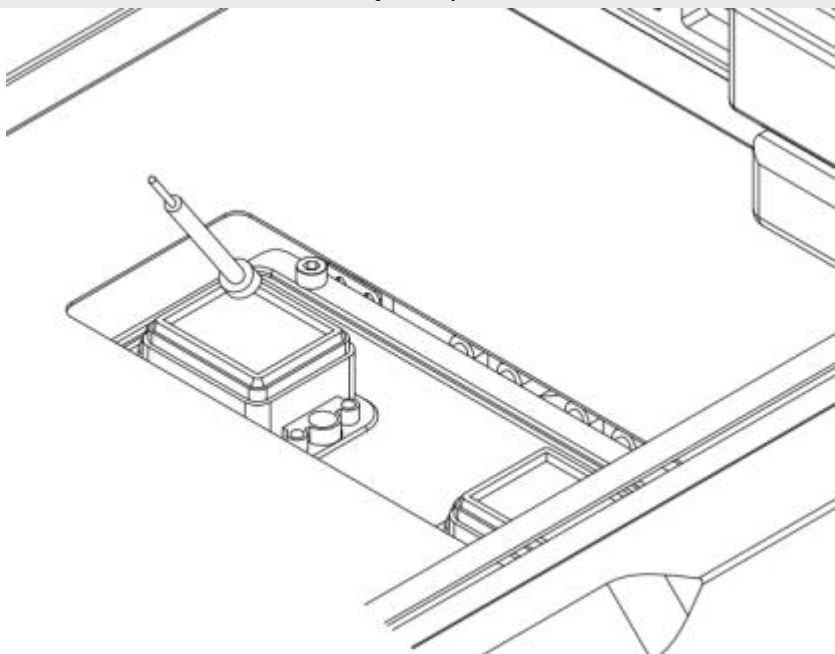
- Cleaning rods for white and colored inks must be used separately.

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 sweeping	After sweeping
 <p>Suction cap rubber area</p>	 <p>Suction cap rubber area</p>

X0162

7-1-4 Sweeping the suction caps

Cut off the power supply according to the information.

【Important】

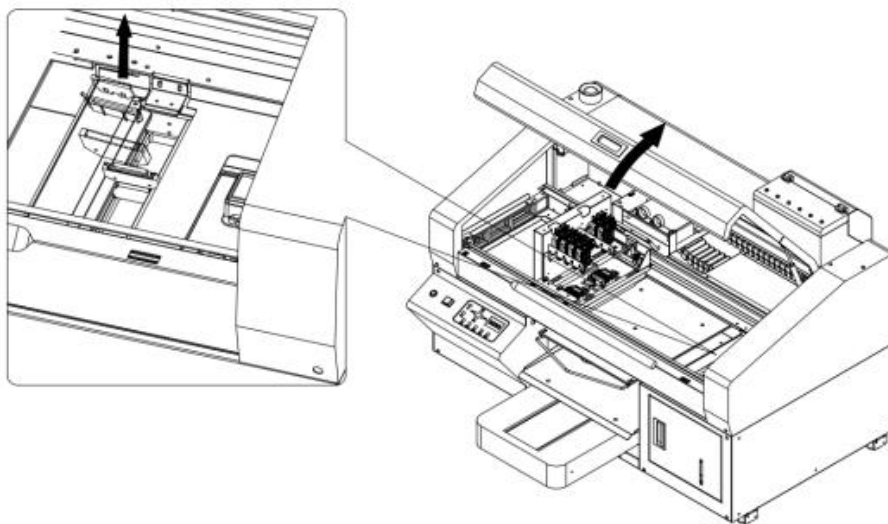
- Finish the job within 20 minutes in order to prevent the ink in the print head from drying out.

Open the front hood cover.

Pick up the cleaning wiper and remove it from the top.

【Note】

- Please wear the supplied gloves to work.



8

Insert new cleaning wiper at the top, tilt it to the left and install it.

【Note】

- Clean wiper blades are mounted flat, and the height of the wiper is the same as the height of the original wiper.

X0056

Close the front hood cover.

Switch on power supply.

【Note】

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

【Reference】

- Clean the printhead that prevents ink from drying out.

7-1-5 Replace 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.

Switch on power supply

【Note】

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

【Reference】

- Clean the printhead that prevents ink from drying out.
- Please rinse the cleaning cup with cleaning solution and store it because the cleaning cup will be used again.

Clean the printhead

【Note】

Please clean the printhead timely 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 press platen 14×16, setting the height to the right position.

【Reference】

- Please refer to 6-4-1 to replace press platen. 6-4-2 to adjust the height of press platen.

- (2) Place A4 or letter-size white paper aligned with the right front corner of the platen as shown.

If the paper is not flat, tape can be used to fix the edge. T-shirt is also possible.

【Reference】

- When printing the nozzle inspection pattern on the white side, print on pre-treated black or richly colored cotton cloth, or on black paper or a transparent sheet (OHP film, etc.).

- (3) Select [Test the nozzle] from the menu.

Start to print.

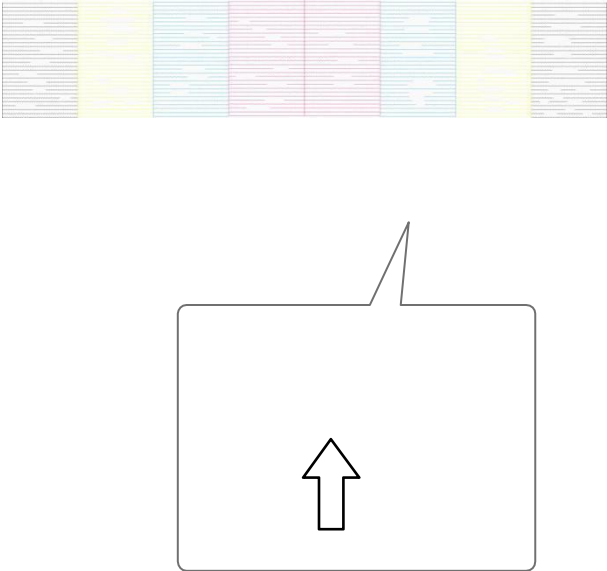
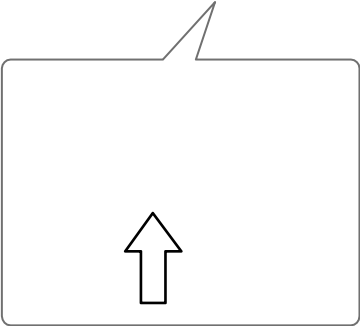
- (4) Judge the printing effect of the nozzles on both sides, and when there is a nozzle that does not spray ink, clean the corresponding print head.

【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 7-2-2 to 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>例For example:</p> 	<p>The following photographs show a non-ink-jet phenomenon in the part indicated by the arrow.</p> <p>例For example:</p>  <p>X0141</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

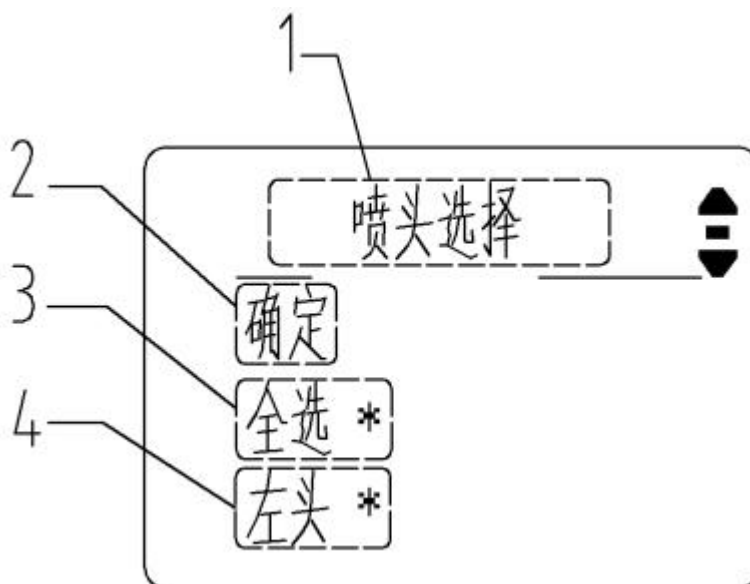
(1) Clean。 While the printer is in standby mode, press Clean on the operation panel.

(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

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.
- If it takes more than 20 minutes, close the front cover once, turn the power on, and then select [Clean Replacement Maintenance Parts] again to restart the operation. Perform print head cleaning that prevents the ink from drying out.

- (4) Open the front hood cover.

X0050

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

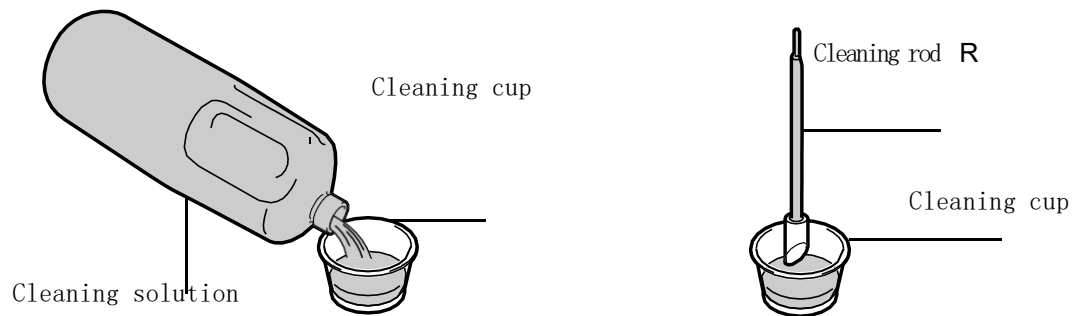
(6) Dip the cleaning solution with a cleaning rod.

【Important】

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

【Note】

- Please wear the supplied gloves when working.



X0051

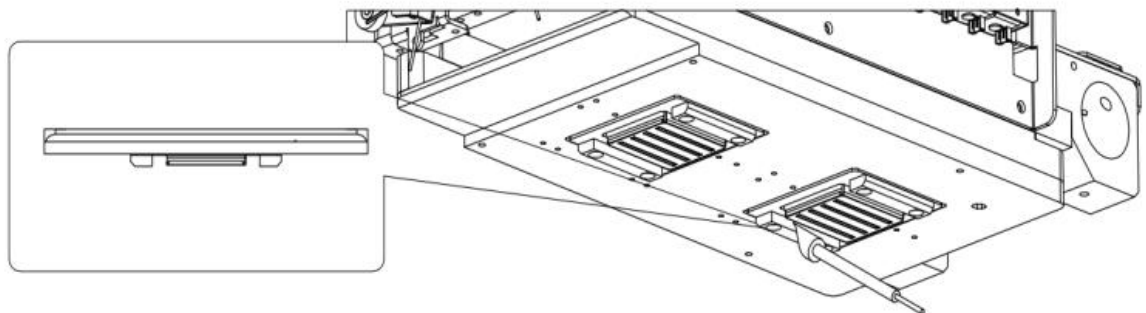
(7) Use a cleaning rod to wipe ink stains from the word carriage plate on the left side of the print head.

【Important】

- Do not touch the interface of nozzle.

【Reference】

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



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

【Important】

- Throw away the cleaning rod after use.

(9) Close the front hood cover.

(10) Switch on the power supply.

【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.

7-5. Do not use it for a long time

【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. Please refer to 7-1-2 for more details.
Clean the nozzle guard, scraper, and suction cover.

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

7-5-1. 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 when there is related information on operation panel.

【Reference】

- Stir the white ink.

- (3) Check the graphic according to the need

【Reference】

Check the graphic of nozzle.Please refer to 7-2-1.

7-5-2. Do not use it for a long time:more than 2 weeks

Perform the following maintenance every 2 weeks.

【Reference】

- Confirm and dispose of the waste ink timely

- (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.

- (2) Stir the white ink when there is related information on operation panel.

【Reference】

Stir the white ink.

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

【Reference】

- Please refer to 7-2-1. Check the graphic of nozzle(confirm the printhead)>>P.7-24"

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

【Reference】

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

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?	PC 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 printer 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.

Printers are 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 PowerPlotter7 software.
Are the printing conditions appropriate, or is the image data not saturated sufficiently?	Check whether the treatment fluid is sprayed evenly 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?	按下操作面板的  Clean ，或从菜单中执行[打印头清洁]。Click Clean on the printing panel, or click [clean the printhead] on the menu.
Does it print on high water absorption print media?	Set the print direction of the print head to unidirectional.
Is the height of press plate too low?	Adjust the height of the platen to a appropriate height according to the print before use. The height can be adjusted with the lever. As a standard, adjust the height from the limit height detected by the obstacle sensor to the height after descending one level and confirm that the obstacle sensor does not detect it.
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 Bleeding(Print through [color ink])

Reason	Solution
Is the amount of ink too much for the print media?	Confirm that the pre-treatment agent of cloth is too little.

8-2-4 Bleeding (Print through [color +white ink])

原因Reason	解决方法Solution
[White ink setting] Is the setting value for the white ink setting ratio too large?	Decrease the percentage of white ink. Confirm that whether the cotton content of the fabric is too low, and that the fabric is suitable or not Confirm that the pre-treatment agent of fabric is too little or not

8-2-5 Ink (Ink stains, horizontal lines, etc.) attached to location with no data

Reason	Solution
Has waste ink spilled from the cleaning scraper or printhead cap soiled the area around the printhead?	Sweeping the nozzle board, scraper, suction caps, the area around the printhead and suction caps. Replacing a new cleaning scraper.
Are there thread residue attached to the nozzle interface?	Sweeping the nozzle board, scraper, exhaust cap and suction cap. Sweeping the nozzle board.
Are the word cart dirty?	Sweeping the word cart.
Is the printhead rubbing against the T-shirt?	Stretch out the surface of T-shirt. Adjust the height of press platen.
Is the ink attached to the word cart on the fixed printhead dripping?	Sweeping the word cart and eliminate the attached ink.

8-2-6 Blurry image edges Ghosting of text or lines Serious graininess

Reason	Solution
Is the height of press plate too low?	Adjust the height of the platen to a appropriate height according to the print before use. The height can be adjusted with the lever. As a standard, adjust the height from the limit height detected by the obstacle sensor to the height after descending one level and confirm that the obstacle sensor does not detect it.
Is the dual-direction calibration appropriate?	Readjust the dual-direction calibration. The setting value may not be appropriate after replacing the printhead 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.

8-2-7 Progressive inability to print light color

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

8-2-8 Uneven white ink.

Reason	Solution
Was the pretreatment applied unevenly?	Apply the pretreatment evenly according to the recommended application amount.
Is there any change in hardness or deformation of the pretreatment roller due to the pretreatment agent? (when using pre-treatment rollers)	After using the pre-treatment roller, seal it in a plastic bag or the like to prevent it from drying out and store it vertically in a flat place. Alternatively, if not used for more than 2 weeks, wash it under running water and dry it in a cool place.
Are there moisture attached to the pretreatment agent after fixing?	Avoid attaching moisture after fixing pretreatment agent.
Are there fluff, thread residue and dirt attached on the surface of pre-treatment rollers(when using the pre-treatment roller)?	Clean the surface of pre-treatment roller.
Has the pretreatment agent been stirred after dilution?	Stir the pre-treatment agent completely.
Is the pretreatment not fixed sufficiently?	Confirm the actual temperature of press machine and pressure while fixing. Always pre-heat the lower table plate of the press (where the material is placed) via a heat source may also solve the problem.

8-2-9 Lack of whiteness

Reason	Solution
Is the amount of pretreatment agent applied insufficient?	Apply the pre-treatment agent according to the suitable volume.
Is the pre-treatment agent fixed insufficiently?	Confirm the actual temperature of press machine and pressure during fixing.
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.

8-2-10 Bright color

Reason	Solution
Is the peeling plate for ink fixing processed with Teflon?	Please use peeling plate with silicon processed while ink fixing in order to decrease the shine.

8-2-11 Evident fluff.

Reason	Solution
Did you touch the print media (T-shirt) before printing?	Flatten the print media (T-shirts) on the platen, etc. If you touch the media excessively before printing, fluff may become visible easily. Try not to touch the surface after pre-processing and fixing.
Is the time from preconditioner fixing to printing too long?	If the print media (T-shirt) is left unattended after pre-processor fixing, the media absorbs moisture and is susceptible to linting. Print as soon as possible after preconditioning.
Is the upper table plate of the collapser dirty when the pretreatment agent is fixed?	If the upper plate is dirty, the surface of the print media (T-shirts) may be damaged and linted when the press finishes. Clean the upper plate of the press with a cloth or the like. If this situation does not improve, using a stripper plate during pretreatment fixing may solve the problem.
油墨定影时是否干燥不均匀? Does the ink dry unevenly when fixing?	Putting silicon foam between the lower plate of the press (where the media is placed) and the print media (T-shirt) while the ink is fixing may solve the problem.

8-2-12 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.

<p>Does the substrate tend to stretch when wet?</p>	<p>The substrate wet with White Ink rises, and the printing position of White Ink and Color Ink may be misaligned. By increasing the [White Ink Cutting Range:], the white ink of the substrate is less likely to overflow.</p>
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9-1. Problem-solving

9-1-1. 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 of 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 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
NO	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 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.
YES	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 for the third time and perform the following steps.

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 position of non-ejection nozzles	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 nozzle's pattern and perform the following steps.

The non-ejection nozzle	Implementation matters
NO	End
YES	Please perform step 4.

Step 4:Sweeping the nozzle surface

- (1) Sweeping the surface of printhead

【Reference】

- Some sweeping methods of the printhead nozzle.

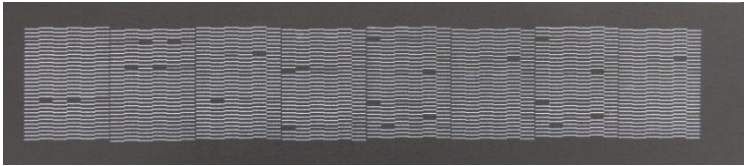

- (2) Check graphic of printhead nozzle.

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

The 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.

9-2-2. Replace the printhead.

【Reference】

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

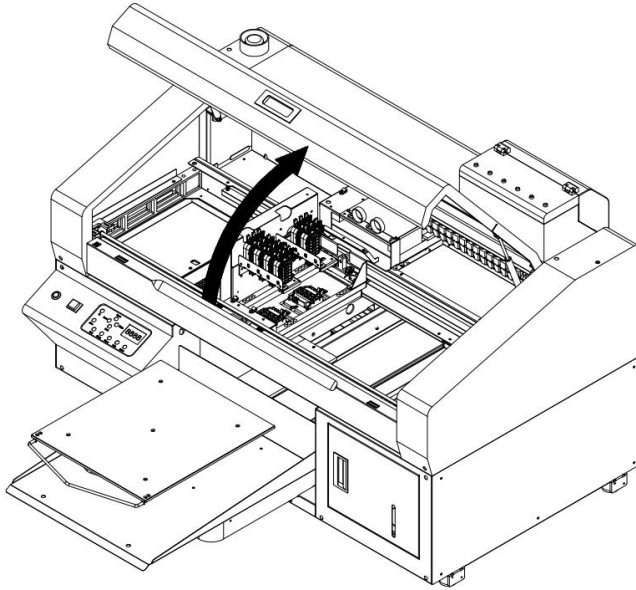
Replace the printhead if the lack of ink jetting does not improve even if the printhead nozzles are cleaned.

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

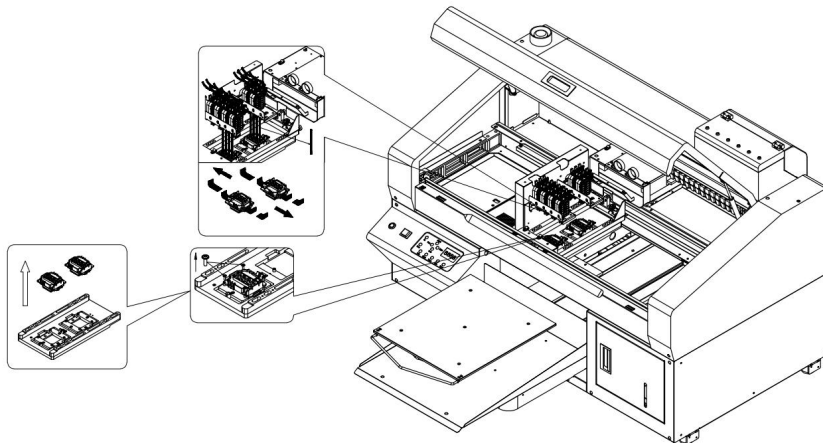
【Reference】

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

- (3) Open the front hood cover.



- (4) Remove the damper and from the connector 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.

9-2-4. Wrong information

Error message list of DTG-PRO. Error messages are displayed on the LCD panel. Take measures according to the solution.

Error code	Information	Illustration	Solution
1	Driver	Wrong PC driver version	Update corresponding PC driver version.
2	Print balance	Less than a certain number of squares	Contact after-sales service personnel to top up or upgrade
3	Balance :0	Square number:0	Contact after-sales service personnel to top up or upgrade
4	Sensor	Wrong right-limit position sensor	Replace right-limit position sensor
5	Initialization	Parameter initialization error	Hardware error or parameter upgrade
6	Character cart	Character cart strikes	Detect anticollision device
7	Parameter	Parameter ID mismatches.	Confirm whether the board and tools match .
8	Transmission ratio	Character cart transmission ratio is too small	Adjust the motor transmission ratio
9	Transmission ratio	Character cart transmission ratio is too large	Adjust the motor transmission ratio
10	Parameter	UI parameter error	Mainboard and cart board mismatch
11	Waveform	Can not print waveform	Factory data reset
12	Motor	Motor direction error	Adjust motor direction
13	Stop printing	Abnormal stop during printing	Abnormal encoder stripe, loose motor signal wire and motor axle sleeve
14	Position error	X axis error	Detect encoder decoder, motor signal and direction
15	Distance	Insufficient motor self-test distance	调Adjust motor gear ratio, upgrade parameter table
16	Protective firing	Printhead protective firing	Detect printhead wire and connector, chech board

If an error code other than the above is displayed, or if there is no improvement after following the solution, contact the dealer where you purchased the printer.

10-1. Installation

Size	1400 mm (width) ×1300 mm (depth) ×550 mm (height)	
Weight (including the platen)	145KG	
Maximum printing range	360 mm×457.2 mm	
Resolution of printer	960dpi×1800dpi	
Power supply	单相 240 V	
Power supply frequency	50 / 60 Hz	
Consumable electricity	0.8 ampere (effective value) (Reference: 0.3 ampere while circulation)	
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 Temperature(°C)</p> <p>Scope of printing assurance Scope of operation Keep it</p>	
	X0159	

10-2. Software

OS OS is available	Windows 7(32 bit / 64 bit)、Windows 8.1(32 bit / 64 bit)、Windows 10(32 bit / 64 bit)
Connector	PC configuration gigabit NIC (“Gigabit、GBE、10/100/1000M、RTL8196” These characters stand for gigabit NIC.)
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

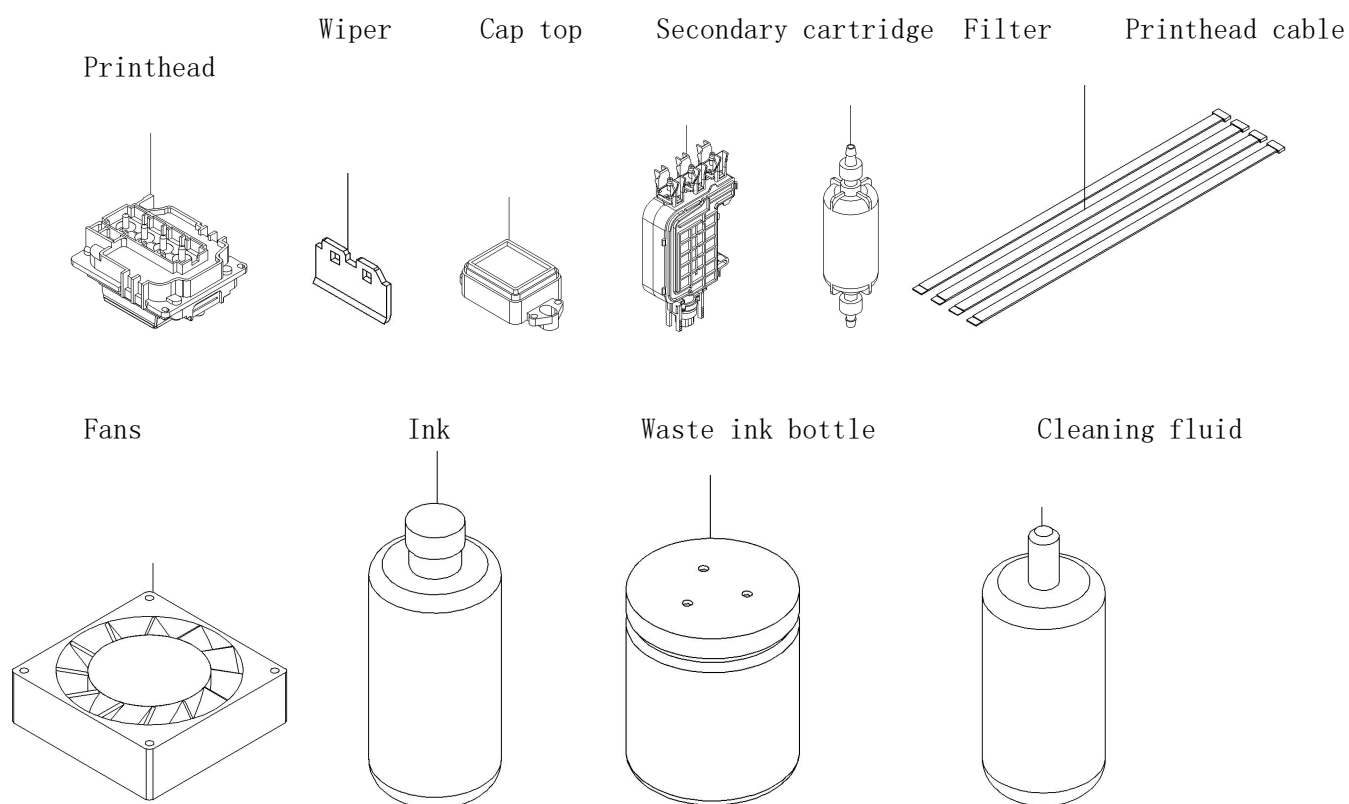
Name	Black/Magenta/Cyan/Yellow Ink
Expiry	Expiration date stated on the bag (when stored at room temperature)
Storage temperature	0~40°C
Precautions for storage	•Avoid direct sunlight. •Please keep it out of reach of children. •Keep away from fire, smoke, heat and oxidizing substances.
Capacity	1000 cc

Name	White ink
Expiry	Expiration date stated on the bag (when stored at room temperature)
Storage temperature	0~40°C
Precautions for storage	•Avoid direct sunlight. •Please keep it out of reach of children. •Keep away from fire, smoke, heat and oxidizing substances.
Capacity	1000cc

10-3-3. 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	•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	1KG

10-4. Consumables, Optional parts, Spare parts





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