

**UNINET® DTF™**

# **DTF XPRESS**

## **USER MANUAL**

**REV 1.7**



**2025**

For safe and correct use, be sure to read the Safety Information in Safety Information and Quick Installation Guide before using the machine.

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# How to Read the Manuals

## Before You Begin...

Only appropriately trained users should operate the machine.

## Disclaimer

Contents of this manual are subject to change without prior notice.

To the maximum extent permitted by applicable laws, in no event will the manufacturer be liable for any damages whatsoever arising out of failures of this machine, losses of the registered data, or the use or non-use of this machine and operation manuals provided with it.

Make sure that you always copy or have backups of the data registered in this machine. Documents or data might be erased due to your operational errors or malfunctions of the machine.

In no event will the manufacturer be responsible for any documents created by you using this machine or any results from the data executed by you.

## Notes

Read this manual carefully before you use the machine and keep it handy for future reference.

For safe and correct use, be sure to read Safety Information before using the machine.

The manufacturer will not be responsible for any damage or expense that might result from the use of parts other than genuine parts from the manufacturer with your products.

For good output quality, the manufacturer recommends that you use genuine ink from the manufacturer.

Some illustrations in this manual may be slightly different from the machine.

Certain options may not be available in some countries. For details, please contact your local dealer. Depending on which country you are in, certain units may be optional. For details, please contact your local dealer.

# The Meanings of the Safety Symbols Used with This Machine

The meanings of the safety symbols for this machine are as follows:

	Prohibition
	Caution
	Warning; Pinch Point
	Caution, risk of electric shock
	Caution, risk of having hands or arms caught
	Keep out of reach of children
	Prohibition of disassembly
	See operating instructions. For details about the precautions in each location with this graphic symbol, see "Safety Labels of This Machine" in Safety Information and Quick Installation Guide.
	Do not touch
	Caution, hot surface
	Wear eye protection
	Wear protective gloves

# Notes for Using This Machine Safely

To use this machine, it is recommended you take the following measures, which include:

- Installing this machine in a network protected by a firewall.
- Specifying your private IP address.

## Using a Private IP Address

An IP address is a numerical label assigned to devices connected to the network. An IP address that is used for Internet connection is a "global IP address", and an IP address that is used for network connection in a local environment such as a company is a "private IP address". If an IP address that is specified for a machine is a global IP address, unspecified numbers of Internet users can access this machine, so that there is higher risks of information leakage through illegal access outside from the environment where this machine is located. If a private IP address is specified for a machine, however, only users within a local network such as a company LAN can access the machine. Unless there is any specific reason, specify a private IP address for a machine. A private IP address can be selected from the following address ranges:

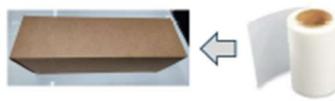
Private IP address ranges

- 10.0.0.0-10.255.255.255
- 172.16.0.0-172.31.255.255
- 192.168.0.0-192.168.255.255

If you are concerned about the network environment, you can use the machine without a network connection by printing from a USB memory containing print data.

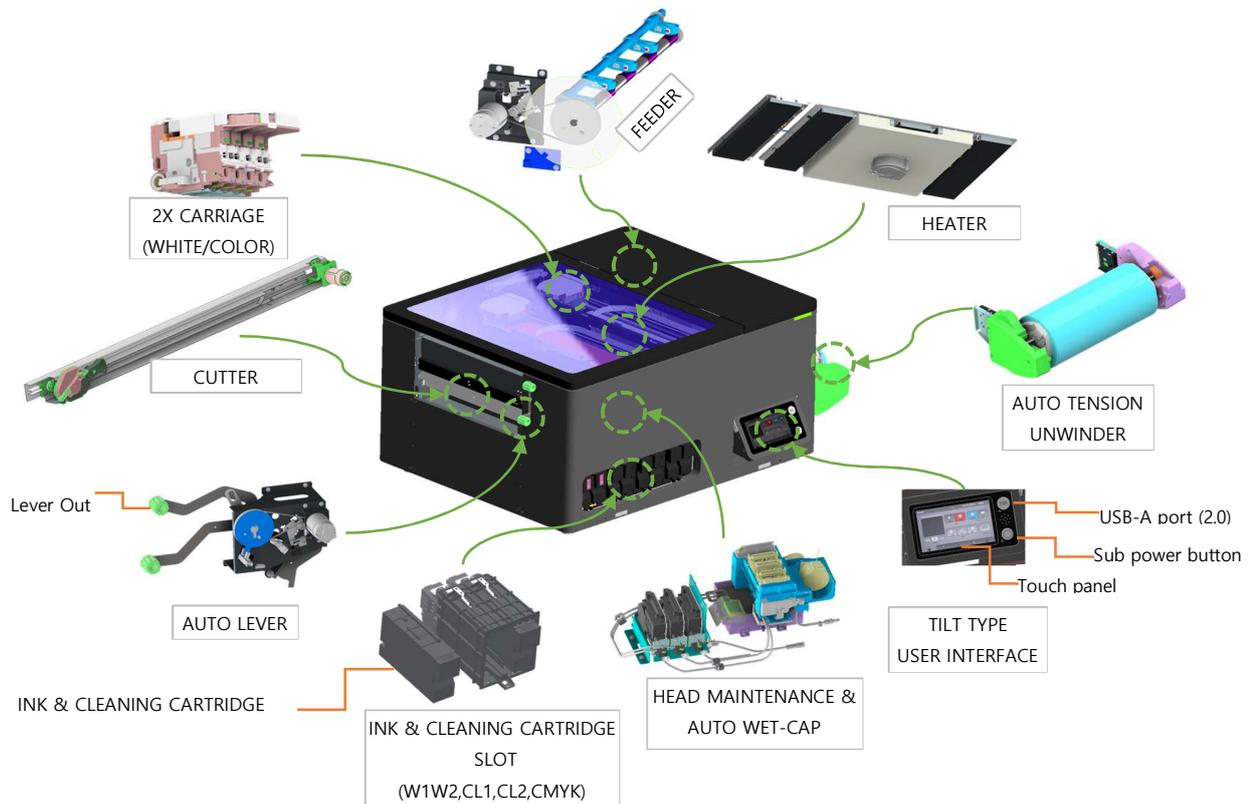
# 1. Before You Begin

## 1.1. Checking the Contents of the Product

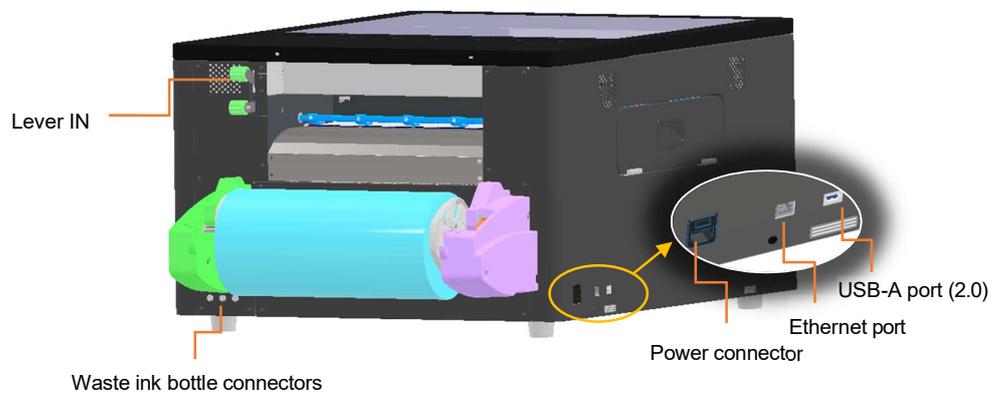
Item	Image	Q.ty	Remark	
1. Regular Maintenance kit & Bundled items (BOX-C1)	Cleaning Liquid and Pipette		1set	
	Cleaning Applicators		1set	small:25, large:25
	Lint Free Wipes		1set	30sheets
	gloves		5set	
	Grease		1	
	Power cord set 100V		1	
	Power cord set 200V		1	
	Waste tube		1set	
	Safety & Quick Installation Guide		1	A5 Size
	User Maintenance Precautions		1	A5 Size
	Pack these Bundled items in one box. (BOX-C1)			
2. Bundled Film	ROLL_FILM BOX		1 roll	
	Pack these Bundled items in one box.			
3. Bundled item	Waste Bottle		1	
	Waste Bottle			
4. Empty BOX	PACKING BOX COMPONENT (260x290x200)		1	
	Empty BOX			

## 1.2. Guide to Components

### Front and Right View



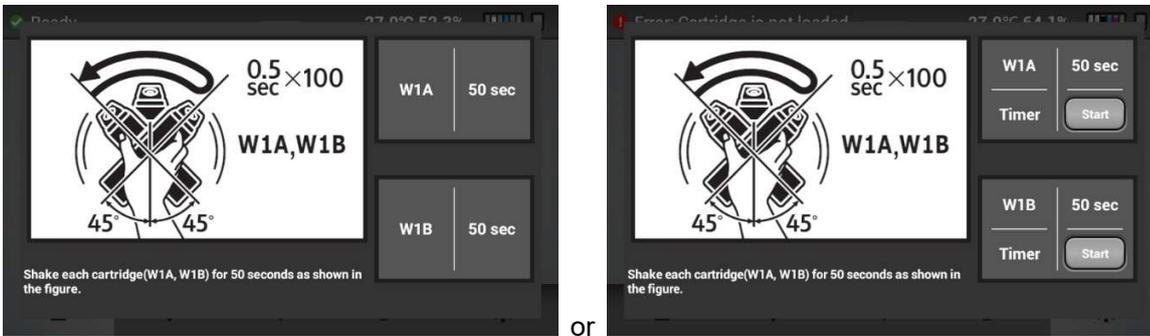
### Rear View



### 1.3. Important

#### Prevent Print Heads from Clogging

- Shake the ink cartridge when either of these pop-ups shows up.



- Replace a used ink cartridge with new one immediately to prevent print heads from clogging.



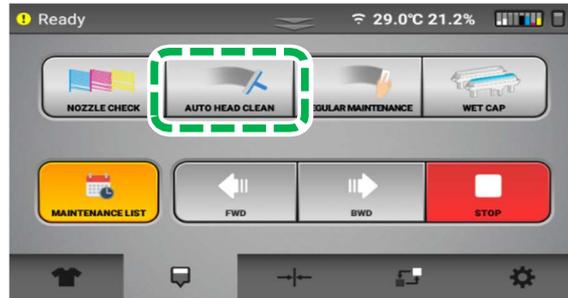
#### Basic Maintenance Items for Comfortable Printing

- Perform maintenance as outlined in the maintenance schedule

The printer will perform automatic maintenance periodically. But if you do not perform maintenance periodically, the ink in the cartridge may settle and/or coagulate, causing poor image quality or printer failure.



- Clean print heads to prevent them from clogging.  
For details, see "NOZZLE CHECK". For details, see "AUTO HEAD CLEAN".



- Clean the path of carriages with grease so that they can move smoothly and print precisely.  
For details, see "How to Clean the Guide Rod".



**Other Cautions**

- Do not turn off the power of the printer.

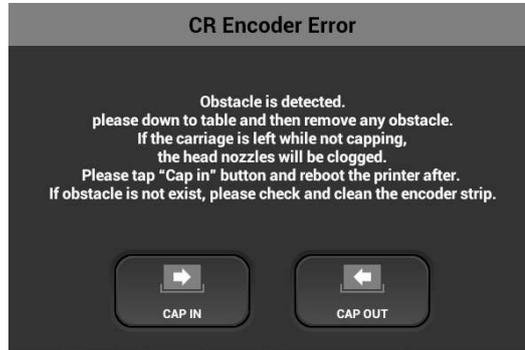
This printer periodically circulates ink internally and automatically performs head cleaning. If the printer is turned off, it does not perform automatic maintenance and wet-cap functions, which can cause head clogging.



- Do not leave an error.

This might cause some kind of problem.

Please resolve an error shortly after the pop-up shows up.



- Some parts require periodical replacement.

This printer includes parts that require replacement due to usage.

Parts must be replaced by a service representative.

**NOTE** - If a part has reached the end of its service life, as outlined in section, it will not be replaced under warranty as it is considered a consumable. Although the machine might still operate even if you use a part with expired service life, doing so could cause quality deterioration and malfunction. Therefore, we strongly recommend that you replace the part as soon as it reaches the end of its service life.

- If the printer encounters an error message, be sure to resolve the issue before continuing use as the self-maintenance functions will not work if there is a current error being experienced by the printer.

**Need to know – Follow these steps to keep your printer in optimum working condition**

**WARNING!** Failure to follow these steps may cause printer damage and possibly void the warranty



As part of our commitment to your success, we want to make sure that you are getting optimal performance from your machine while also minimizing any issues that can easily be prevented by following a few simple tips:

**1. Always leave your printer on to allow the machine's automated maintenance sequences to run.**

This is necessary to keep the printer in optimal condition and avoid potential damage that can be easily prevented.

For long-term storage (powered off for 2 weeks or longer) or shipping, replace the ink with cleaning solution. For more information, see "Preparing Your Printer for Storage/Shipping".

**2. Always shake new white ink cartridges thoroughly before installing them in your printer.**

Adequately shaking your new white ink cartridges can ensure that your prints will come out bright and vibrant. For details, see, "Machine Installation". Also, shake the white ink cartridges each day as prompted by the printer.

- 3. Make sure your ink is not low when you are done printing for the day or plan on leaving your printer idle for a few hours.**

While you can continue to print using cartridges with low remaining ink, the machine's vital automated maintenance sequences require at least 5% or more in order to complete. If you do not have replacement ink available, you can fill your printer with cleaning fluid. For details, see, "Preparing Your Printer for Storage/Shipping".

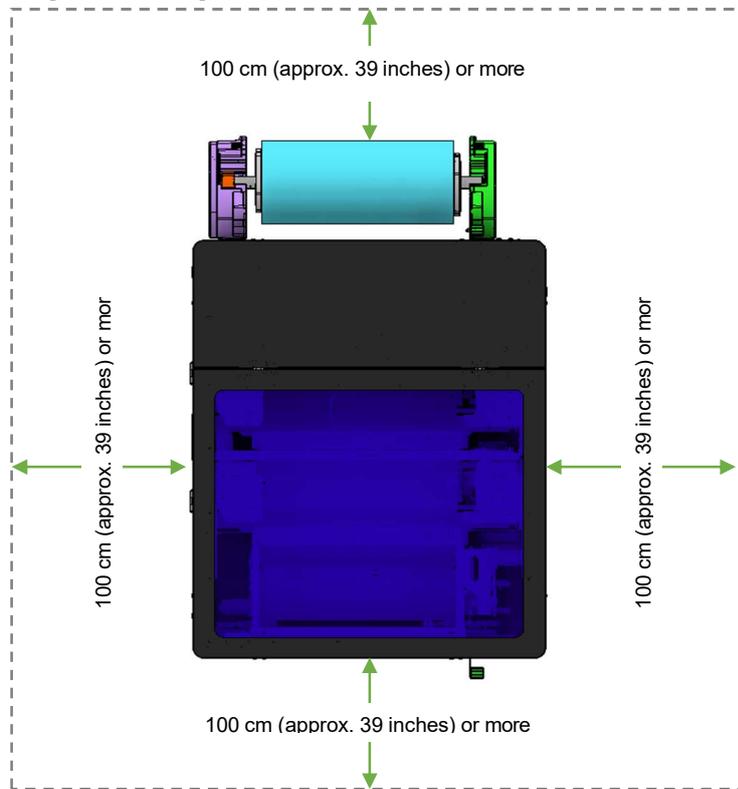
- 4. Perform a nozzle check daily, so you can spot and quickly address potential issues with the printer.**

- 5. Do not leave the machine in the error status.**

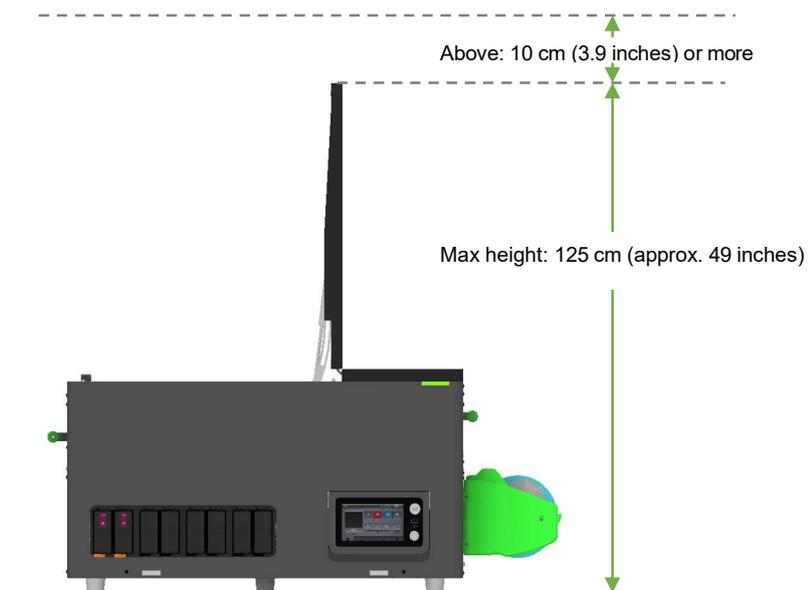
If an error is displayed on the screen, try to resolve it immediately. Also, if the error is not resolved, contact your service representative.

## 1.4. Machine Installation

### ◆ Installation Space: Top View



### ◆ Installation Space: Side View

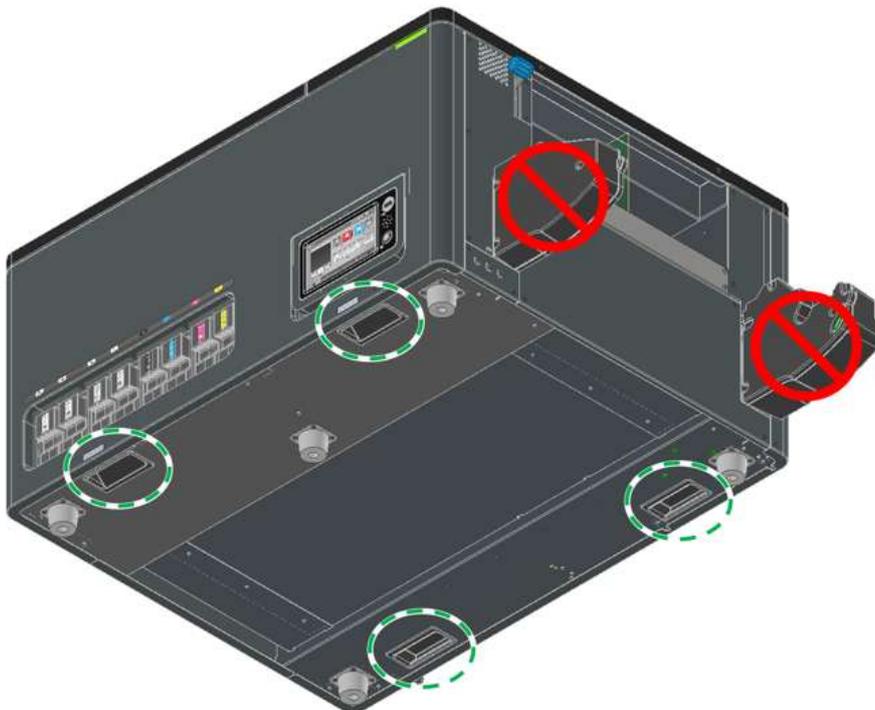


## ◆ Beginning of Installation

### ⚠ CAUTION

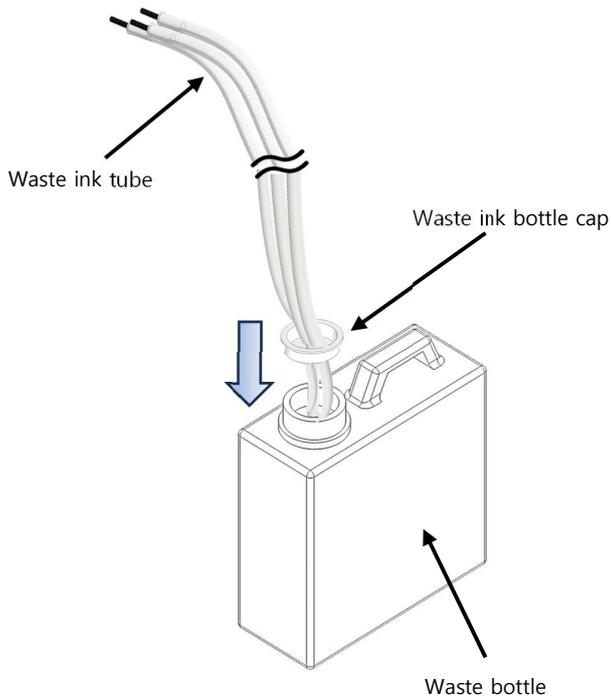
When placing the machine on top of the option 'STAND' or table, make sure to hold only 4 points of the handle and raise it.

- Keep the shipping box in the proper orientation
- Remove the poly wrap and strapping.
- Remove the top lid, upper foam, and separator sleeve.
- Place the printer on your table.
  - **IMPORTANT!** lift the machine from box with 4 peoples.
    - Grip the indentations for lifting at the base of the machine's sides with four people or more, as shown. Lift and place the machine slowly and carefully.
    - Be careful not to hold the unwinder when moving the object.

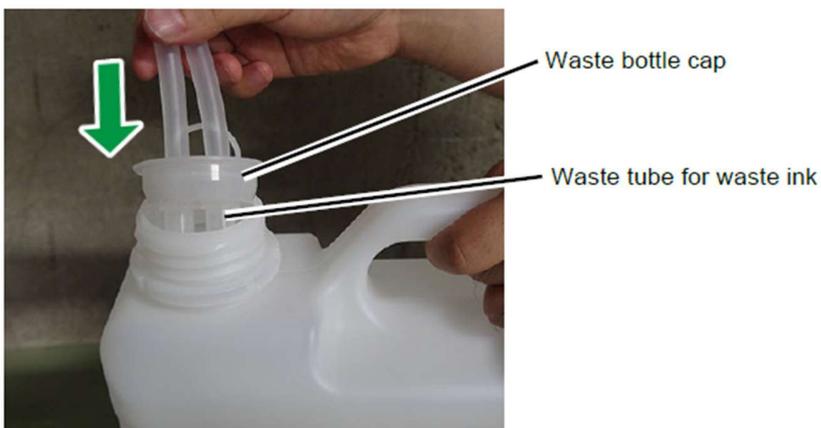


**IMPORTANT!** The printer cannot determine if the waste ink bottle is connected. Make sure the waste ink bottle is connected properly.

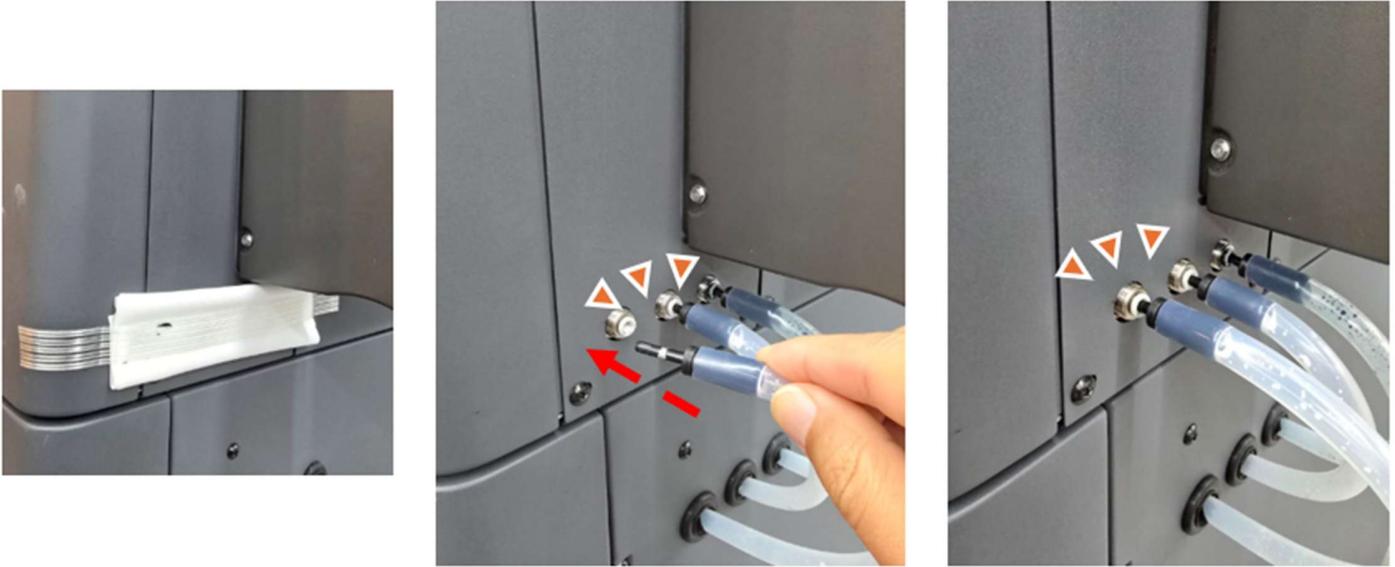
1.4.1. Open the waste bottle cap. Insert the waste tube for waste ink into the waste bottle.



Close the waste ink bottle cap tightly and make sure that there is no gap between the waste ink bottle cap and the waste ink bottle.



1.4.2. Remove the tape and protector from the waste ink bottle connector, and then connect the waste ink tube to the waste ink bottle connectors on the right back side of the printer.



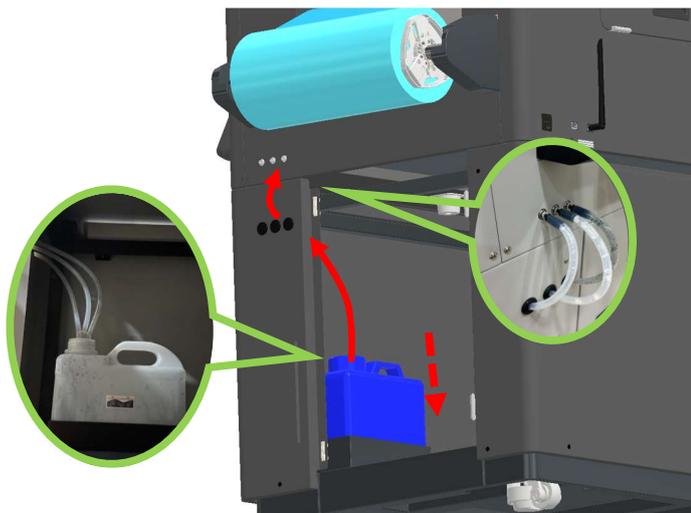
**IMPORTANT!** There is a marking on the waste ink tube. Insert the waste ink tube until the marking disappears into the waste ink bottle connector

1.4.3. If you do not have a Stand (dedicated table), tape the waste ink bottle straight. If you have a Stand (dedicated table), plug the waste ink bottle into the holder to secure it.

If you don't have a stand(dedicated table)



If you have a stand(dedicated table)



**IMPORTANT!** Install the waste ink bottle vertically. If installed horizontally, the waste ink inside could leak out.



**IMPORTANT!** Connect the waste ink tube straight to the waste ink bottle. If the waste ink tube is bent or twisted, ink could become clogged inside the tube and thus could cause a malfunction.

Attach the waste ink tube in a way that the ink flows vertically from the printer on top to the waste ink bottle at the bottom. If the top-to-bottom orientation is reversed at any point along the way, the waste ink may not flow smoothly and cause a malfunction.

(There is no problem when using a dedicated table.)



#### 1.4.4. Agitate the new white cartridges.

For details about agitating a new white cartridge, see, “Agitating New White Cartridge”.



#### 1.4.5. Insert the ink cartridges.

**IMPORTANT! When installing the ink cartridges, do not touch the inside of the machine.**

**Carefully install a cartridge in the correct position.**

**During the initial ink charging, do not lift the Top cover. Also, do not pull out the ink cartridge.**

**During the initial ink charging, if you lift the cover, the procedure will pause. To resume, hold the power button down to reboot the printer.**

**Agitate all the white cartridges before inserting them into the printer, and then begin the fill process.**



For white ink and cleaning fluid, insert two white ink cartridges and two cleaning fluid cartridges.

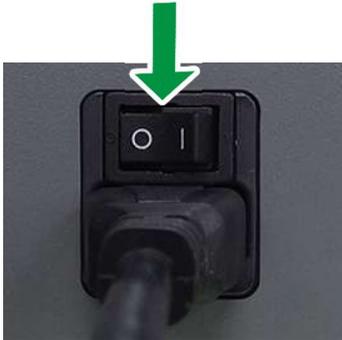
You can insert each ink cartridge into either of the designated slots.

Printer will start ink supply

1.4.6. Connect the power cord to the power connector.



1.4.7. Turn ON the main power switch.



1.4.8. Hold down the sub power button for more than 2 seconds.



- After booting, the printer will perform initial ink charging if the ink is not charged. Initial ink charging takes about 20 minutes.

NOTE – During the initial ink charging, do not lift the top cover. Also, do not pull out the ink cartridge. During initial ink charging, if it is paused by lifting the Top cover, hold down the sub power button to reboot printer.



Once the initial ink charge is completed, the printer shows "Ready" in the upper left-hand corner of the touch screen.



After completing the initial ink charging, proceed to the next step.

Note. If ink charging is failed, see 06. Ink Path Control

## ◆ Handling the ink Cartridge

### **WARNING**

- The following explains the warning messages on the plastic bag used in this product's packaging:
- Do not leave the polythene materials (bags, etc.) supplied with this machine close to babies and small children. Suffocation can result if polythene materials are brought into contact with the mouth or nose.

### **CAUTION**

- When handling ink, cleaning solution, or pretreatment liquid, follow the instructions in the manual for the correct usage.
- If ink or cleaning solution is swallowed, inhaled, or gets in the eyes, follow the guidance in the appropriate safety data sheet (SDS). Request SDS to ink supplier.
- To prevent being stained by ink or cleaning solution, wear protective gear (protective gloves, protective glasses/goggles, protective clothing). Also take care not to stain your surroundings while agitating the ink.
- Place ink, cleaning solution, and pretreatment liquid in a cool, well-ventilated place out of the reach of children.
- Keep waste ink, containers for ink, cleaning solution, and pretreatment liquid, and components that have been in contact with ink out of the reach of children.
- When handling ink or cleaning solution, avoid getting anything on your clothing. If you do, wash the stained area with cold water.
- When replacing a cartridge containing ink, cleaning solution, or pretreatment liquid, avoid getting anything on your clothing. If you do, wash the stained area with cold water.
- When replacing a cartridge containing ink or cleaning solution, avoid getting anything on your skin. If you do, wash the affected area thoroughly with soap and water.
- When removing a cartridge containing ink or cleaning solution, avoid putting your hand near the location in which the cartridge is installed (such as the ink supply nozzle and its surrounding areas). If you get anything on your hands, wash them thoroughly with soap and water.
- The ink cartridge surface may have ink on it, so be careful to avoid ink stains.
- Do not remove the cartridge while operating the machine. Doing so may cause the ink to spray, staining clothes and surroundings. If you get anything on your hands, wash them thoroughly with soap and water.
- Do not disassemble a cartridge containing ink or cleaning solution. Doing so may leave ink stains or cleaning solution on your hands and fingers.
- When shaking a cartridge containing ink or cleaning solution, be careful about safety of your surroundings and ink stains. Otherwise, injury or stains on household items may result.
- Do not hit or drop it when agitating. It may cause injury, cartridge damage, or ink leakage.
- Do not excessively agitate/shake. It may cause ink leakage.
- Agitate/shake as instructed. Other methods may cause ink leakage.
- Be sure to wear commercially available protective glasses, gloves, and clothing when replacing or handling cartridges.

**IMPORTANT!** If the ink cartridge has been empty for a long time, you will not be able to perform the maintenance for the print head. This may cause a printer malfunction. Make sure you always have a new ink cartridge. Install it soon after the message about replacement appears.

### About ink cartridges

- Ink cartridges comply with the manufacturer's safety specifications. To ensure safety and reliability, use genuine ink cartridges.
- Do not reuse the ink cartridges.

### Using ink cartridges

- Do not open the package of an ink cartridge until the cartridge will be installed in the machine.
- Do not touch the ink cartridges' ink inlets or chip contacts.
- Do not take apart ink cartridges.
- Always confirm the color of an ink cartridge before installing it.
- Do not remove an ink cartridge once it has been installed unless necessary.
- Do not remove an ink cartridge while printing is being performed. Printing will stop
- The warranty period after opening the ink cartridge is described on ink cartridge label as “Best before”. It is recommended to use the genuine ink cartridges.

## ◆ Agitating New White Cartridge

Please agitate the white ink before attaching a new white cartridge to the printer.

Be sure to agitate the white ink daily. A message prompting you to agitate the white ink appears every 12 hours. When this message appears, immediately shake the white ink cartridge according to the instructions.

White ink is prone to ink precipitation (the tendency for the ink to accumulate at the bottom of the ink solution). Ink precipitation may decrease the print density or cause nozzle clogging. Be sure to agitate the white ink when you unpack the ink cartridge and once a day after it has been unpacked.

**IMPORTANT!** Failure to follow these procedures may cause print head nozzle issues.

Do not shake the cartridge too quickly or too hard.

The agitating method should be as follows:

- To prevent being stained by ink or cleaning solution, wear protective gear (protective gloves, protective glasses/goggles, protective clothing). Also take care not to stain your surroundings while agitating the ink.

### 1. Prepare

Use a lint free wipe to wipe off any dirt on the white ink cartridge and cartridge slot. For details on how to clean the cartridge and cartridge slot, see, "Cleaning the Cartridges and Cartridge Slots". Make sure there are no tears or cracks on the white ink cartridge.

### 2. Agitate the ink

- Hold the cartridge as shown in Figure 1.
- Hold the white ink cartridge with the ink supply port face up.
- Shake the ink cartridge by tilting it side to side at 45° degree angles, as shown below.
- Shake the cartridge for 50 seconds at a speed of 2 back-and-forth shakes per second.

Figure 1



### 3. After agitating the ink, wipe off any ink stains on the ink supply port.

### ◆ Disposing a Depleted Ink Cartridge

Dispose of a Depleted Ink Cartridge and Cleaning cartridge in accordance with applicable laws and ordinances.

If you are uncertain about disposal, consult with your local dealer.

### About waste ink bottle

- Do not open a waste ink bottle unless necessary.

### CAUTION

- Install the waste ink bottle vertically. If installed horizontally, the waste ink inside could leak outward.
- Be sure to secure the waste ink bottle.

### ◆ Disposing of the Waste Ink and Waste Ink Bottle

Dispose of the waste ink and waste ink bottle in accordance with applicable laws and ordinances.

If you are uncertain about how to dispose of these items, consult with your local dealer.

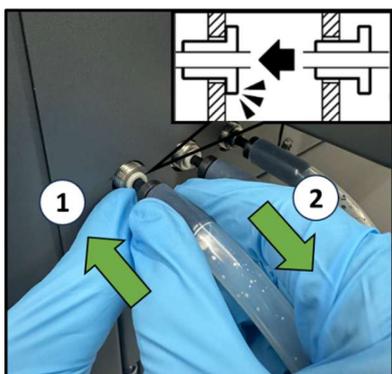
### ◆ Removing the Waste Ink tube

It is recommended to keep the waste ink tube installed unless absolutely necessary.

If it is necessary to remove the waste ink tube, use the below instructions.

**IMPORTANT!** The waste ink tube should not be removed unless doing so is required for the movement of the equipment or for replacement.

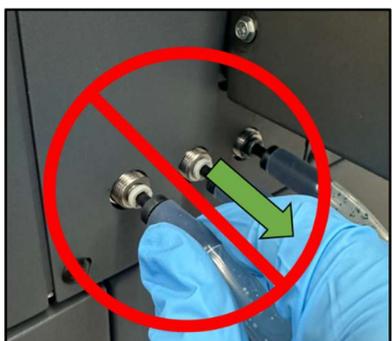
1. Gently push the plastic ring using either your fingers or a small flathead screwdriver.



- Gently pull the waste ink tube away from the plastic ring.

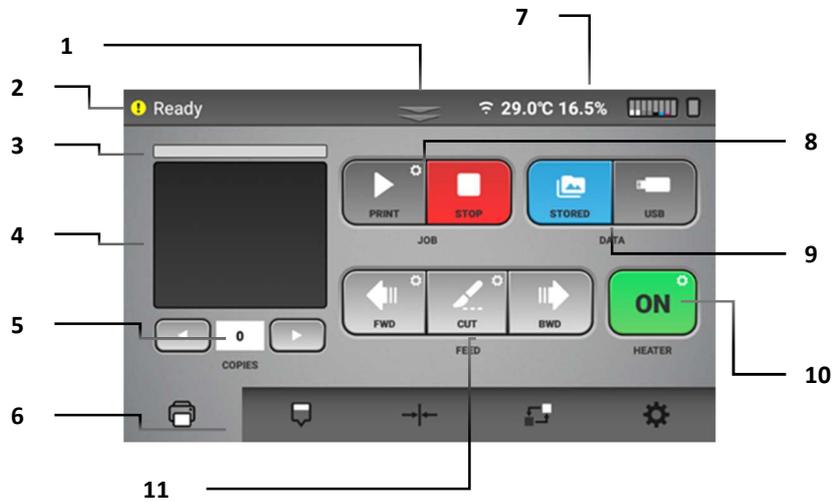


**IMPORTANT!** Do not pull the waste ink tube without pushing the plastic ring.



**NOTE:** The waste ink tube should come out with minimal force.

## 1.5. Control Panel Functions



1. Status bar  
Press/Drag down the status bar to open the “Status” window.
2. Machine status

Icon Status (Panel)	LED Status (Exterior)	Contents
	Green 	Printer is fully functional.
	Purple 	Printer is fully functional, but there is some warning condition. Check on status window.
	Red 	Printer is in error state where printing and auto maintenance are not functional, which may lead to damage of the printer.
	Blue 	The printer is busy with some functions such as printing or maintenance and display progress

3. Displays the print progress during printing.
4. Preview of printing image.
5. Number of prints  
When printing the same image multiple times, specify the number of prints. Displays the number of prints if it has been specified on RIP SW.
6. Tabs  
Select tabs for other functions.

**7. Machine information**

Displays the printer temperature and humidity, the amount of ink in ink cartridges, the waste ink bottle capacity level, and display network connection.

	No network connection state
	Ethernet connection state by LAN cable
	WiFi connection state

**Note.**

If Wi-Fi and wired Ethernet are connected at the same time, Ethernet will be connected but Wi-Fi will not be available.

In this case, online SW update will not be available if wired Ethernet use local network.

Therefore, any network connection require to use external network (WAN) for online SW updates.

**8. Job**

[PRINT] Start printing, job data should be ready before start printing.

[STOP] Stop (or pause) the printing, Stop media moving, Delete loaded job data.

**9. Data**

[STORED] Load job data from internal storage, (Recent 20 job can be stored.)

[USB] Select a print job from a USB device. Supported file type: Files with the extension “.prn”

**10. Heater**

Turn on or off the bed heater to dry printed ink on media.

Heater should be on before start printing.

If temperature reach to target value, button color is changed to green.

OFF: Gray

ON (Heating): Orange, Black text blinking

Reach to target temperature: Green

**11. Feed**

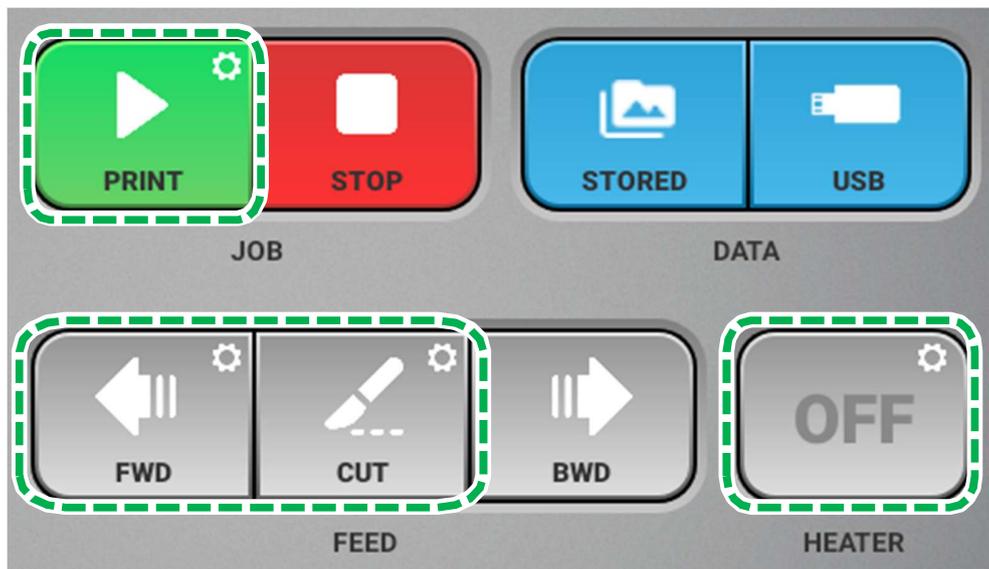
Control loaded media.

[FWD] Move forward the loaded media.

[BWD] Move backward the loaded media.

[CUT] Cut the media.

## 12. Quick Setting



On some buttons, there is setting icon 

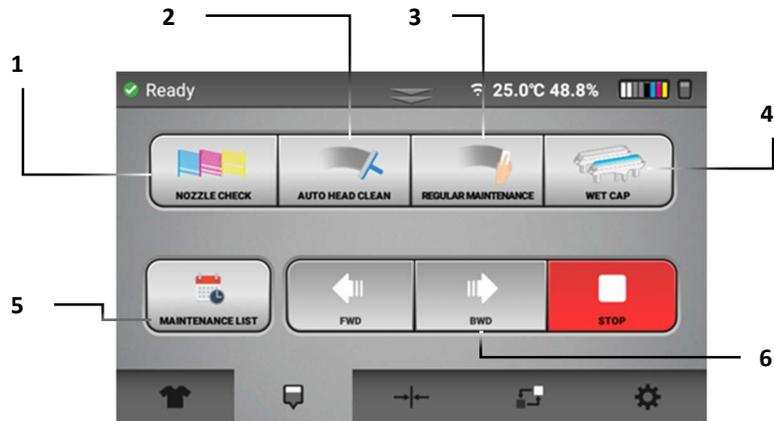
"On the screen, a specific button includes a Gear-shaped icon.   
For this button, if you long-press it, a detailed settings window for the related function will appear, allowing you to quickly change the related function.  
These settings windows are also included in the Options."  
for detail, find Option chapter.

## STATUS Window



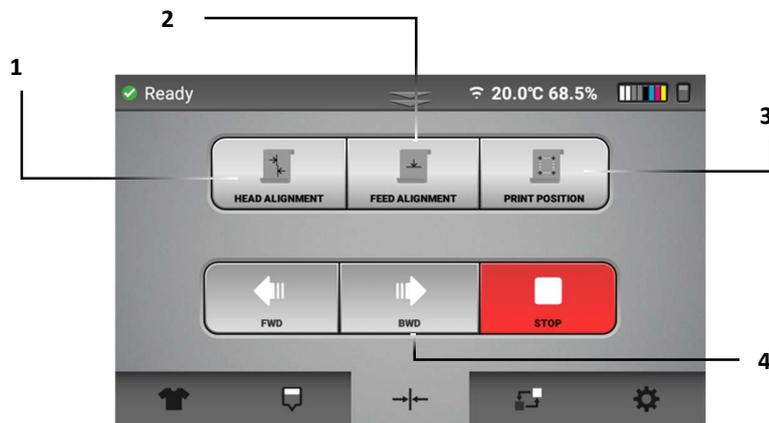
1. **Status**  
Displays printer status in detail with any warnings and/or errors message.
2. **Ink status**  
Displays the current remain ink level by percentage in each installed cartridge. Each ink appears as their respective colors. Cleaner cartridges are displayed as clear. If no cartridge is installed, X and NC appear.
3. **[WASTE INK RESET]**  
Displays the status and fill percentage of the waste ink bottle.  
Reset the counts of the waste ink bottle. Press [WASTE INK RESET] to reset the percentage back to 0% after the waste ink bottle is manually drained/emptied.  
  
**IMPORTANT!** Resetting the waste ink without actually emptying the waste ink bottle can result in the ink overflowing from the waste ink bottle. Also, if the waste ink bottle is full (100%), the machine will be in an error state, and auto maintenance will not be performed. This could cause damage to the machine.
4. **[MEDIA SET UP]**  
Perform the [media setting up](#). for the detail.  
Before starts the printing, it should be performed.  
and show the estimated remaining media level.

## MAINTENANCE Tab



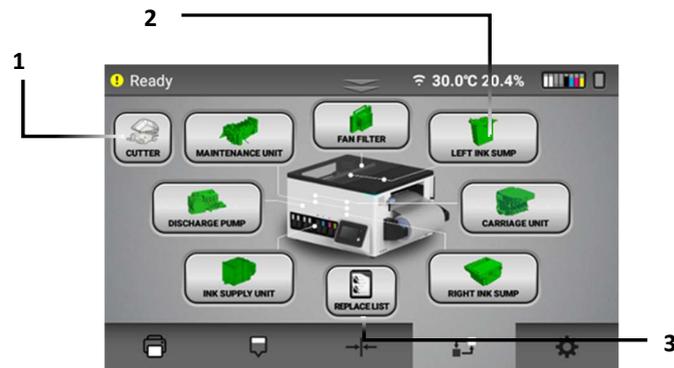
1. [NOZZLE CHECK]  
Prints a nozzle check pattern.  
It is recommended to check daily based for monitoring status of the printer.
2. [AUTO HEAD CLEAN]  
Performs head cleaning automatically using systems components.
3. [REGULAR MAINTENANCE]  
Allows the carriage to be released. The Top cover can be opened in order to manually clean the print heads (during maintenance or troubleshooting) and the maintenance station.
4. [WET CAP]  
Perform the start or finish the "Wet cap"
5. [MAINTENANCE LIST]  
Display maintenance list. To maintain the printer without problem it should be handled.
6. Control loaded media.  
[FWD] Move forward the loaded media.  
[BWD] Move backward the loaded media.  
[STOP] Stop (or pause) the printing, Stop media moving, Delete loaded job data.

## ALIGNMENT Tab



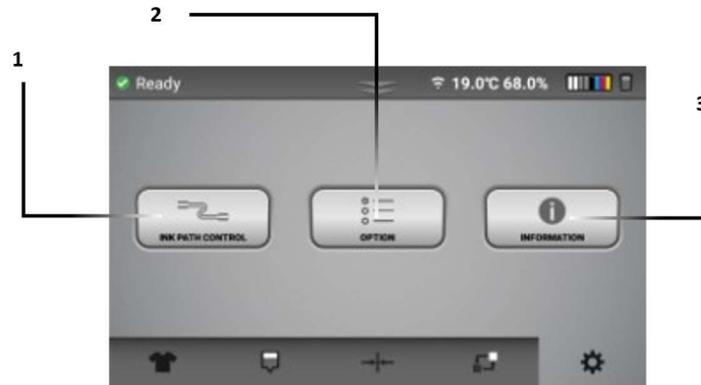
1. [HEAD ALIGNMENT]  
Prints an adjustment pattern for the print head alignment so that print heads can be aligned to each other.
2. [FEED ALIGNMENT]  
Prints an adjustment pattern to the platen to check and tune the print quality.
3. [PRINT POSITION]  
Prints an adjustment pattern to determine the print start position.

## Part History Tab



1. Move the media cutter to center position for replacement.
2. Displays the current usage or status of each service part.  
For details, see, "Service parts".
3. [REPLACE LIST]  
Allows you to check the part replacement history.

Setting Tab



1. [INK PATH CONTROL]  
Runs the ink path control. Press this button, when flush the printer or install ink. For details, see,6. Ink Path Control.
2. [OPTION]  
Select and use the following settings via the Option screen.

Setting	Description
[HEATER]	Set temperature for Main/Post heater Set Auto Sleep Enable/Disable, Time Set Auto Off Enable/Disable, Time
[CUTTER]	Set start cut Enable/Disable Set copy cut Enable/Disable Set end cut Enable/Disable Set Precutting notification option.
[VOLUME]	Set volume of buzzer Job Added, After Printing, Agitate Popup, Agitate Finish, Media Set, Media Not set, Precutting notification, Cutting
[SCHEDULE SET]	See , 7.4. Schedule Set
[STEP FEED]	Set Step feed.
[TIME ZONE]	Configure the time zone applied to the time displayed on the machine in units of one hour within the range of "-24" to "+24". As the default, this is set to the UTC time zone.
[PRINT OPTION]	Set network Auto Print start Enable/Disable Set Auto Media Set Enable/Disable Set Auto Back Feed Enable/Disable Set Auto Step Enable/Disable

[ETHERNET IP ADDRESS]	Set print IP address.
[WIFI SET]	Set about Wi-Fi.
[PRIVACY POLICY]	"This section allows you to manage settings for the Application Improvement Program. Participate to help us enhance the app's performance and user experience by sending anonymous usage data."
[SOFTWARE UPDATE]	Update firmware via server. See , 9.1. Update the firmware
[UPDATE VIA USB]	Update firmware using USB drive. If run it, you need to save latest firmware to USB drive in advance. For details, see , 9.1. Update the firmware.
[TEMPERATURE]	Can display temperature in Celsius or Fahrenheit.
[HIGH SPEED MODE]	Switch ON/OFF the high speed mode. If it is on, productivity can be increased, but printing quality can be reduced.
[STORED JOB]	Save Job Enable/Disable: Save job in internal storage in printer Pop-up dialog to save job Enable/Disable Automatic job deletion: Delete job after setting day(s) Period to delete job: Set value for save job period
[AGITATE SETTING]	Select display format when agitating white cartridges.
[FACTORY RESET]	Set Head. Feed print alignment and several option to original settings.

### 3. [INFORMATION]

Displays the general information of the printer such as Serial #, Control panel firmware version, Engine (CTL) firmware version, and Sub control board firmware version.

## 1.6. Printer Setup

### ◆ How to connect network

The IP address setting for this machine are three cases.

Case1: For connecting directly to the printer from a PC that is not parts of a network.

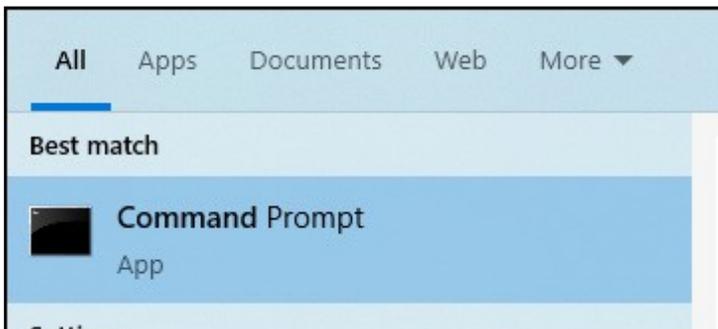
Case2: For DHCP setup

Case3: For Wi-Fi antenna

**Case1: For connecting directly to the printer from a PC that is not parts of a network.**

**[Confirming IP address of your PC]**

1. Open the command prompt dialogue box on your PC.

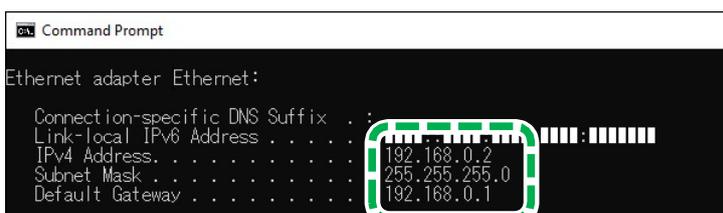


2. Type “ipconfig” in the first line in the command prompt.



3. In the “Ethernet adapter Ethernet” section, check the address of “IPv4 Address”, “Subnet Mask”, and “Default Gateway”. For the IP address, use the “IPv4 Address” but change the last three digits to a number that will be unique to the printer. For subnet mask and default gateway, use them for the printer.

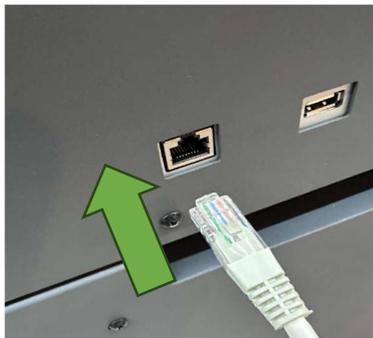
Example: The procedure for changing the IP address of the printer from 192.168.0.2 to 192.168.0.3 is shown below.



4. Proceed to Step 1 in [Configuring the IP address of the machine].

**[Configuring the IP address of the machine]**

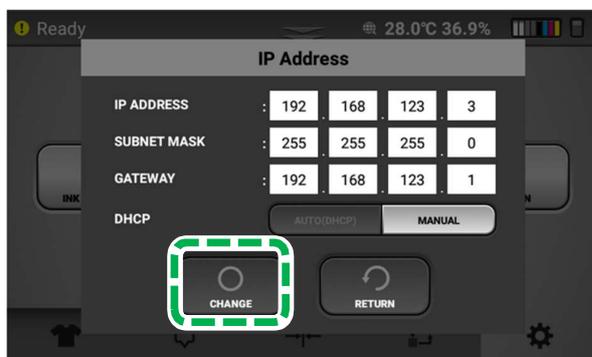
1. Insert the ethernet cable into the Ethernet port.



2. Press the Setting tab on the touch panel of this machine.

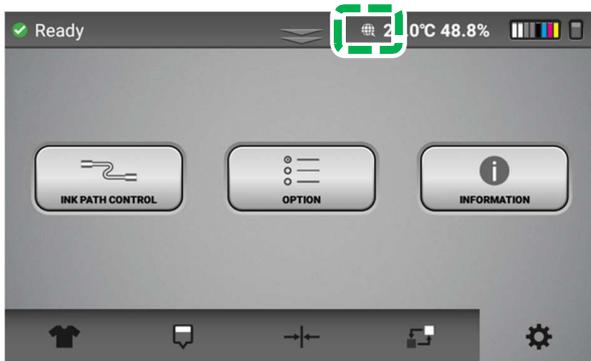


3. Press [OPTION].
4. Press [ETHERNET IP ADDRESS].
5. Press “MANUAL” button of [AUTO / MANUAL].
6. Enter the new IP address, subnet mask, and default gateway. (Figure is Example IP)



7. Press [CHANGE].

8. When the Ethernet IP Address is set, the icon shown on the screen changes as follows.



Note

 Show Ethernet Connect connected status

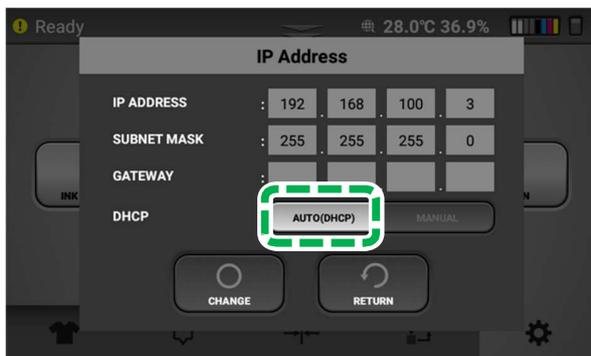
 Show Wi-Fi Antenna and Ethernet Connect are not connected status

## Case2: For DHCP setup

1. Press the Setting tab on the touch panel of this machine.



2. Press [OPTION].
3. Press [ETHERNET IP ADDRESS].
4. Press “AUTO(DHCP)” button of [AUTO / MANUAL] to add the printer to an existing network. Press “Save” and Exit Menu. To check assigned DHCP IP, enter this menu again. When the Ethernet IP Address is set, the icon shown on the screen changes as follows.



**Note**



Show Ethernet Connect connected status



Show Wi-Fi Antenna and Ethernet Connect are not connected status

Case3: For Wi-Fi Antenna

**[IMPORTANT]**

The Wi-Fi Antenna must use the product below. Other products are not compatible.

-Manufacturer: TP-LINK

-Model Name: Archer T3U Plus

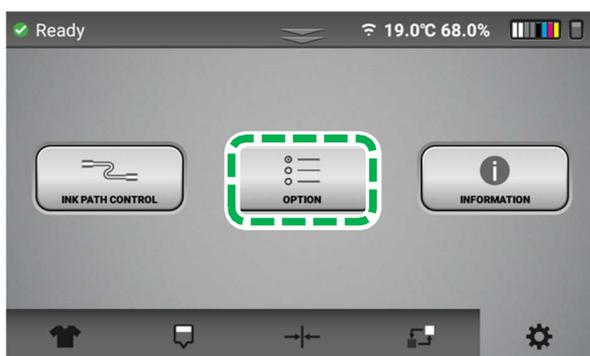
1. Install the Wi-Fi Antenna into the USB port on the rear of the machine.



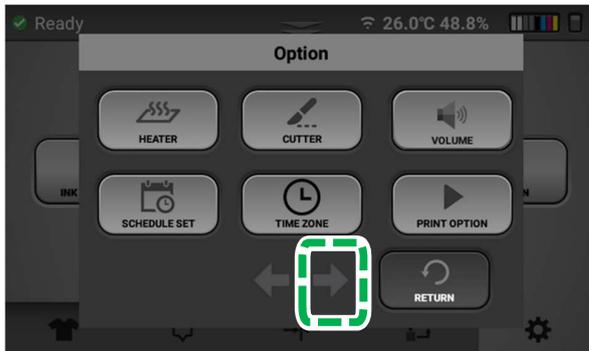
2. Press the Set tab at the bottom right.



3. Press the OPTION button.

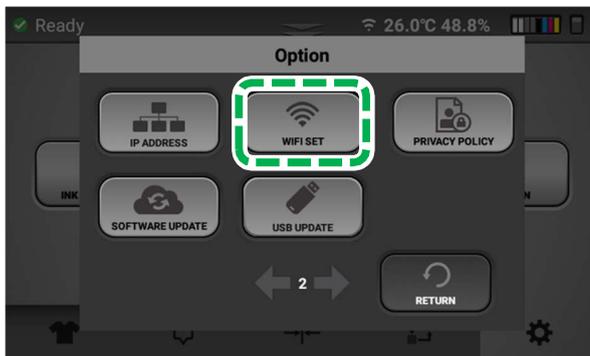


- 4. Use the right arrow to go at 2.

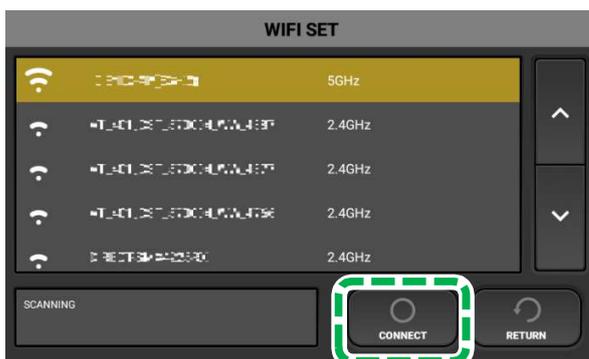


- 5. Select the WIFI SET button.

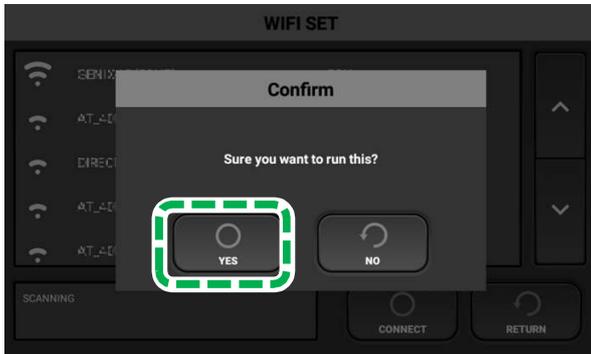
(Caution: If the Wi-Fi Antenna is not installed, button is not visible)



- 6. Select the wanted AP and press the CONNECT button.



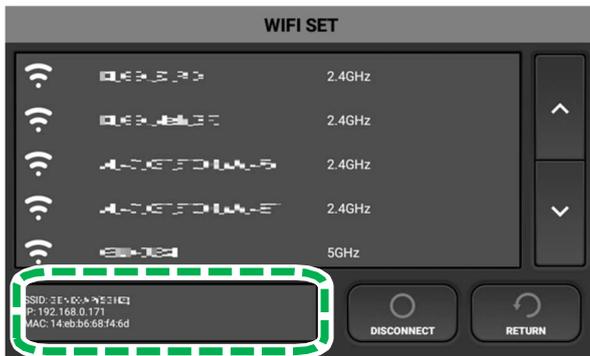
7. Press Yes.



8. After entering the password, press CONNECT button.  
(Set a password only when connecting for the first time)



9. Can check the link information.



10. WI-FI activation icon has been created at the top of the main screen.



Note



Show Wi-Fi Antenna connected status



Show Wi-Fi Antenna and Ethernet Connect are not connected status

◆ How to open the Top cover

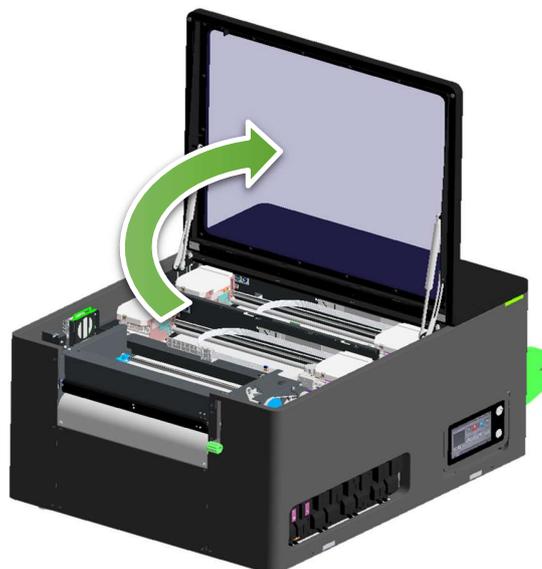
**⚠ CAUTION**

- When lifting and lowering the top cover, be sure to hold it by the part shown below. Be careful to ensure that your hand or any other part of your body does not get caught in the top cover.

1. Hold the center of the Top cover as shown below.



2. Open the Top cover until it stops.



◆ How to close the Top cover

1. Close the Top cover.

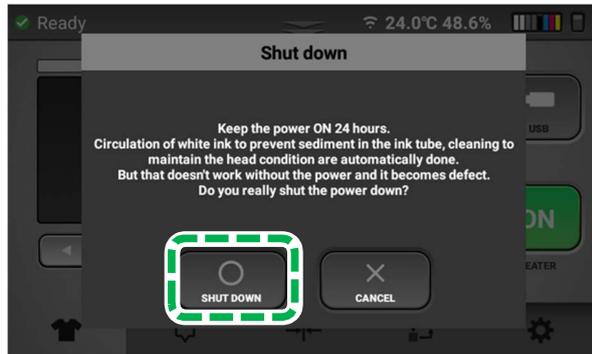


**NOTE** – Printer will not function if the Top cover is open.

## ◆ How to turn Off the Power

1. To turn off the power, hold down the sub power button for more than 3 seconds, which is located at the front near the touch panel.

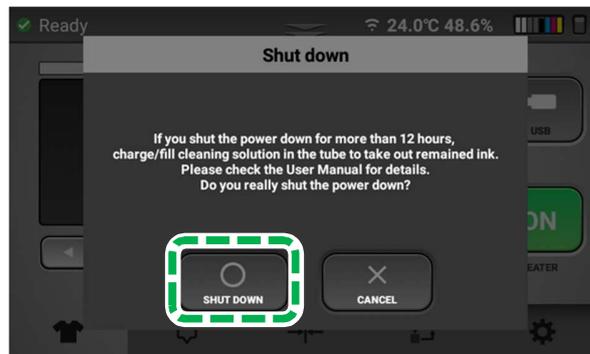
**IMPORTANT!** When you press the sub power button, the following screen warning appears.



Turning off the power for 12 hours or more may clog the heads because the auto maintenance routines are not being performed. So, if turning off the power is required for more than 12 hours, then the printer must be flushed with storage fluid.

2. Press [Shut Down].

**IMPORTANT!** After pressing [Shut Down], the following additional warning appears.



3. Press [Shut Down].

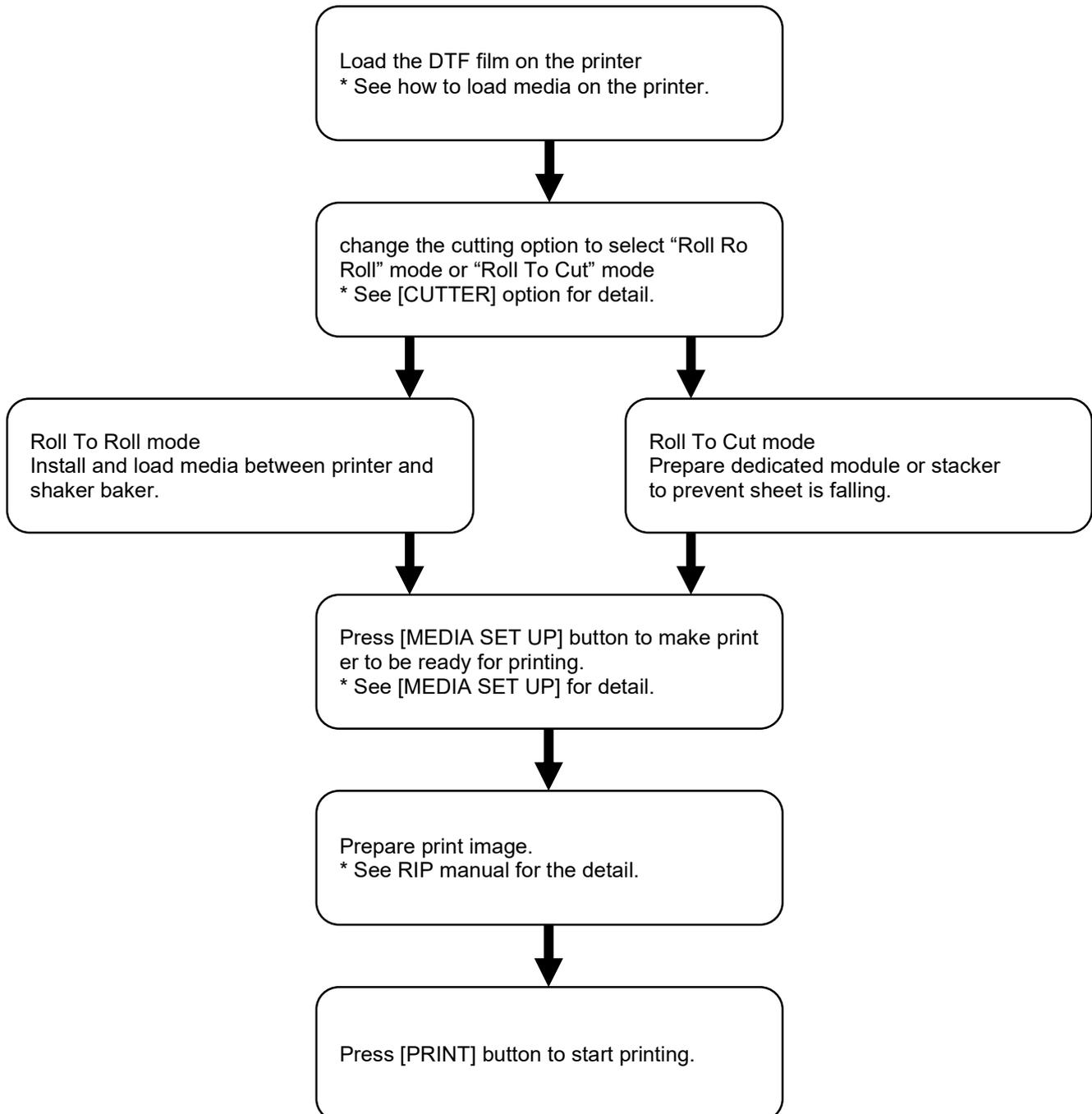
4. Press the main power switch to Off.

## 2. Printing

### 2.1. Printing Flow

The basic printing flow is as follows.

Adjust the image or printer settings as necessary.



## 2.2. Before Printing

### ◆ Things to prepare for printing

Purpose	Items
To wear	Polyethylene gloves
	Protective glasses or goggles (commercially available)
For use	Genuine DTF media
	Genuine DTF powder
	Shaker baker
	Heat press

## ◆ Handle DTF media

### DTF media storage

Store the DTF media with cool and dry environment. Ideal condition include temperature between 50-77°F (10-30°C) and humidity levels between 35~65%.

Keep the media in dark and dry storage. Away from direct sunlight which can lead printing quality issues.

Keep away from moisture, dust and other contaminants which can degrade adhesive properties.

Do NOT stack the media as it may damage the coated surface.

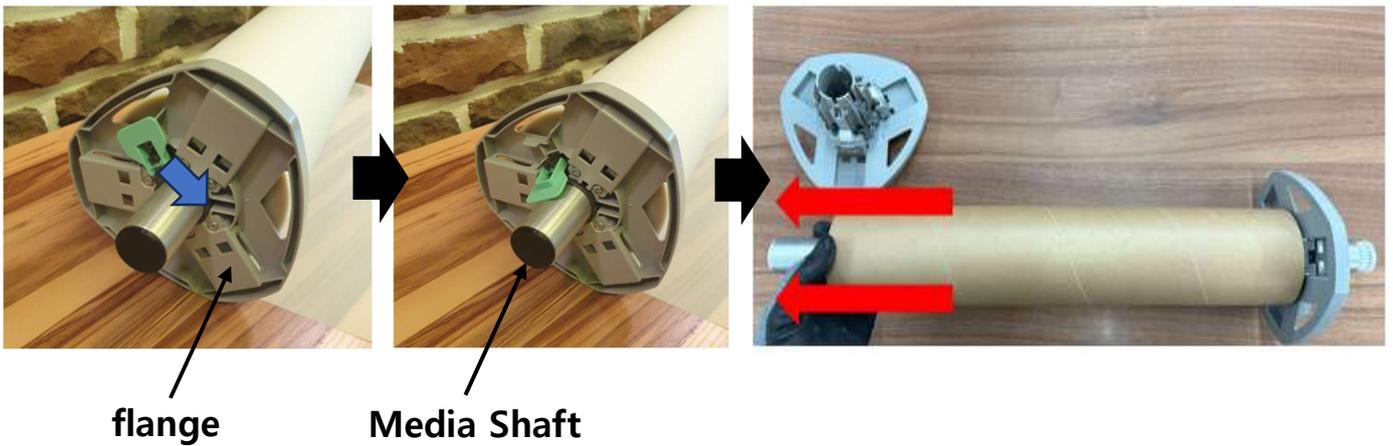
## 2.3. Loading Media

### Loading Media Roll on 'Media Shaft'

#### 2.3.1. Release 'Media Shaft' from printer.



#### 2.3.2. Release 'flange' from 'Media Shaft'.



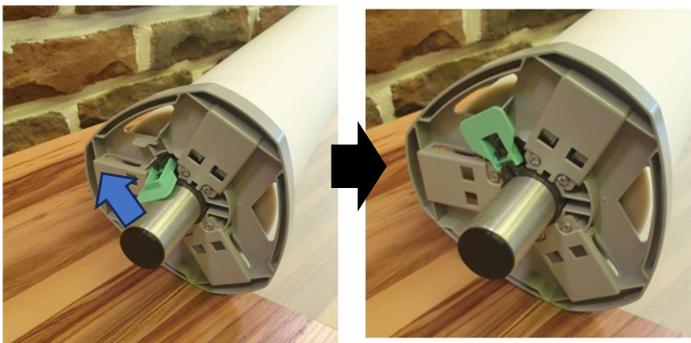
2.3.3. Replace with New Media Roll.



2.3.4. Keep the media close to the flanges.



2.3.5. Tighten both flanges and lock the lever.



## ◆ Loading media on unwinder

### CAUTION

- When replacing media or removing jammed media, make sure not to trap or injure your fingers.
- There is a cutter inside the machine. Do not touch areas other than those specified in this manual when replacing or replenishing the roll media, removing misfed media. Touching these areas can result in injury.
- When opening or closing the top cover, do not put your fingers over the folding parts of the covers. Doing so may result in your fingers becoming trapped or injured.
- A media roll may be as heavy as 6 kg (13.2 lb.). Hold the paper roll horizontally with both hands or with two or more people together. If you hold the paper roll vertically or with one hand, the media roll may fall and cause an injury.
- When replacing media rolls, do not touch the spool near the gear. Doing so may cause your hands to get dirty. If your hands get dirty, wash the affected area thoroughly with soap and water.

### Note.

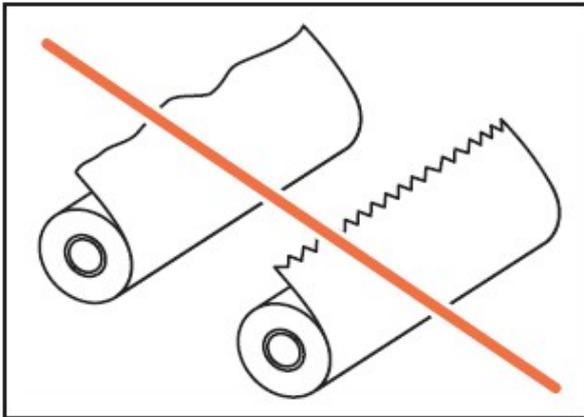
- You cannot load paper in the following situations:
  - When printing
  - During maintenance or other operations
  - When covers are open
  - If media is jammed
  - If a service call message is displayed

**⚠ CAUTION**

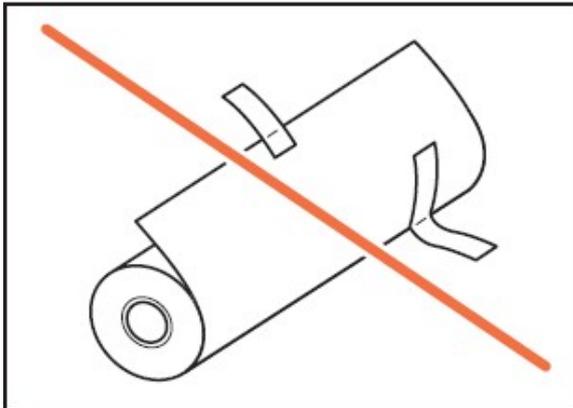
This section explains how to load a paper roll into the paper input location.

- Bring the paper holder flush against the paper edge to fasten the paper.
- Insert the paper holder flange securely.
- Make sure not to load a paper roll in the opposite direction. If you feed a media roll in the opposite direction, the media roll may come loose or be damaged.
- Before loading the media roll into the unwinder, remove any media that is in the media bypass location.
- When the media roll is in one of the following conditions, you cannot use it. Cut off the edge of the media with scissors before loading it.

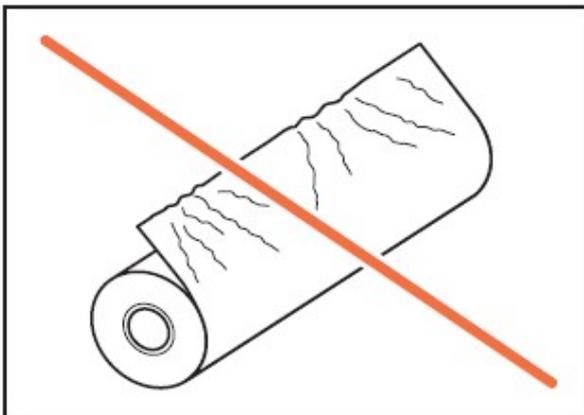
- The leading edge is damaged



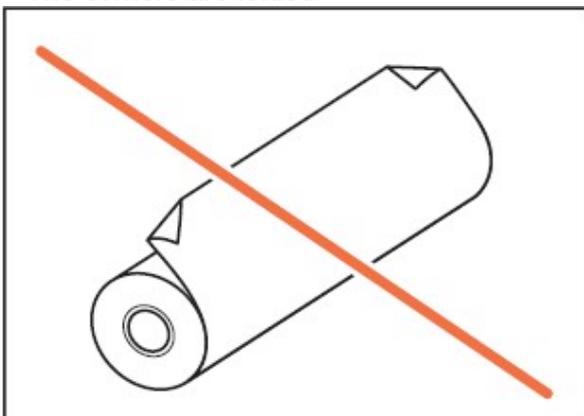
- Adhesive tape, glue or paste is sticking to it



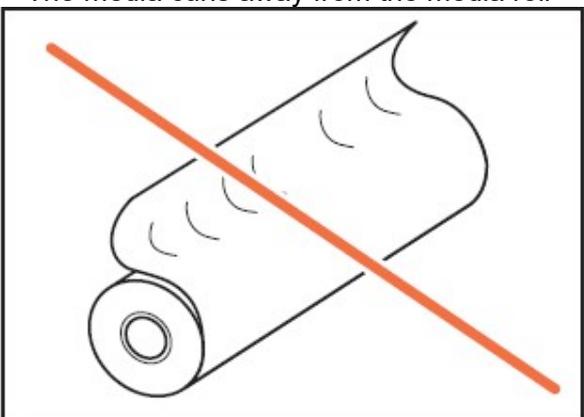
- The media is wrinkled



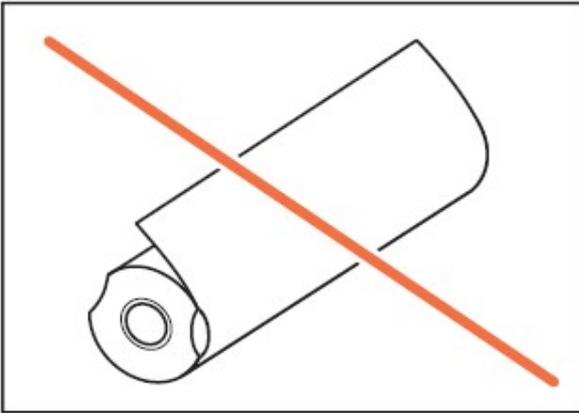
- The corners are folded



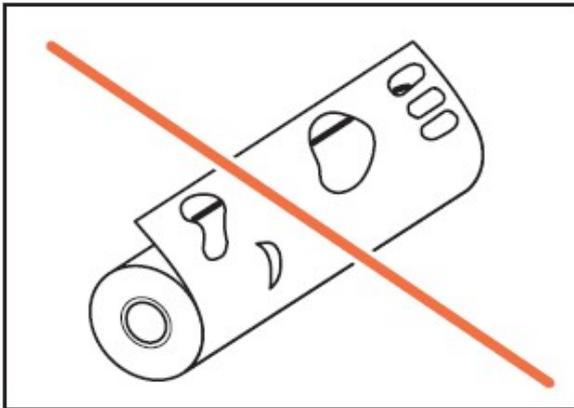
- The media curls away from the media roll



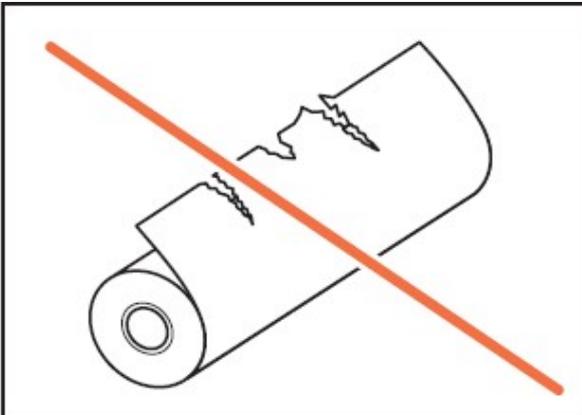
- The edge is dented



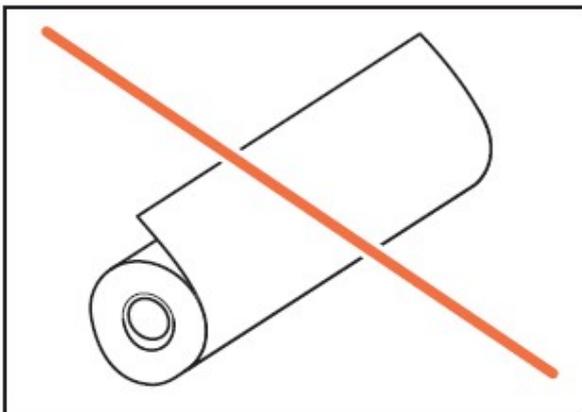
- The media has holes in it



- The media is torn



- The media is loose



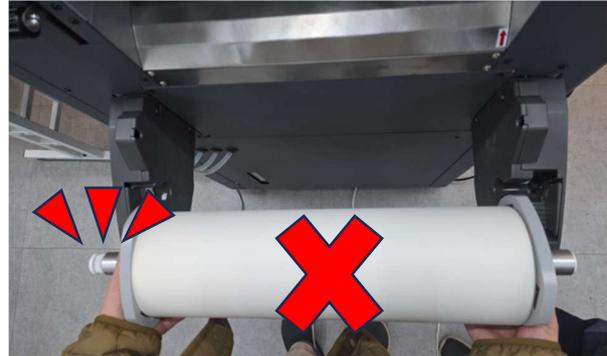
Loading 'New Media' on Printer

2.3.6. Load 'New Media' on Printer.

-Be sure to place the spool so that its right edge is covered by the black shutter.



**⚠ WARNING**



2.3.7. Release both 'Pinch Roller Lever'.



2.3.8. Place over the film media on print.  
Put it to the "Print Out Position".

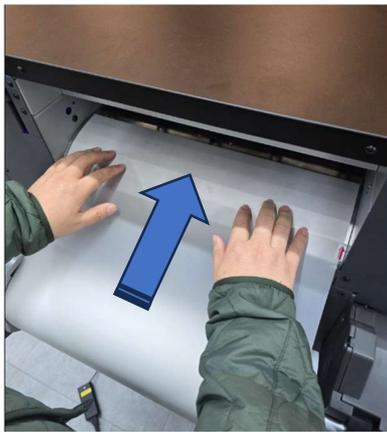


Place the Film Media on the **exact / correct / designated** Position.

2.3.9. Check the direction of the media winding.



2.3.10 Slide the media into the print in position until it reach to print out position.



2.3.11 Find a position where print-in and print-out balanced and without the media sagging.

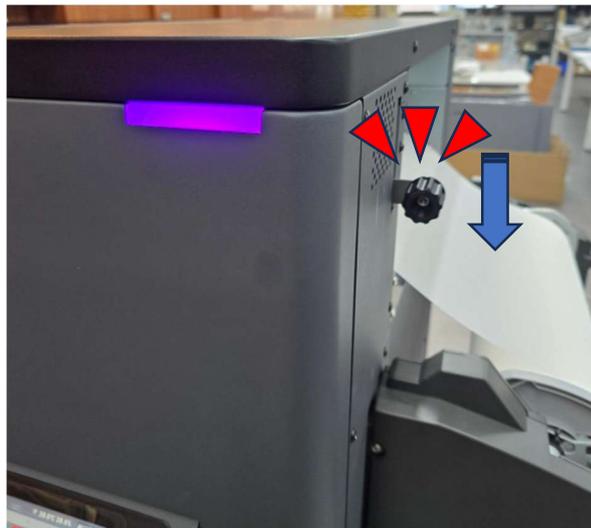
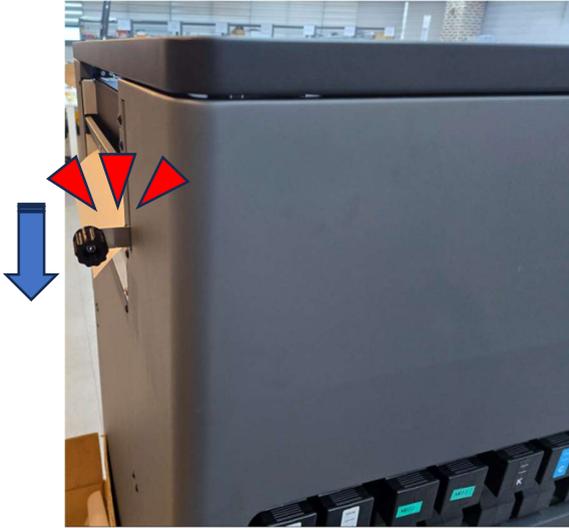


<Print in position>



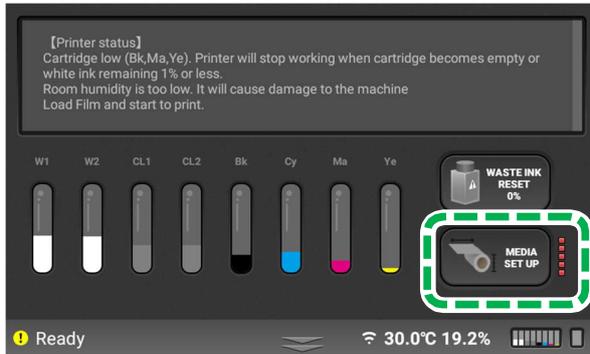
<Print out position>

2.3.12 Put both levers down and fix the film media.



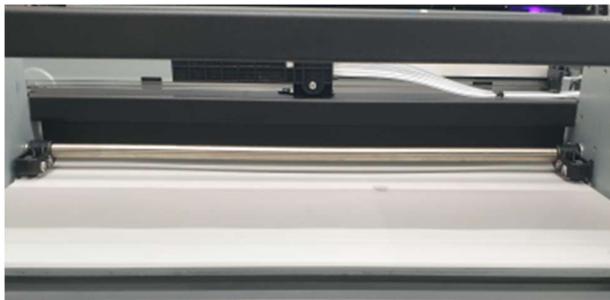
## 2.4. Run 'Media Set Up' and Check Media Flatness

1. Press "MEDIA SET UP" button to execute "MEDIA SET" action.



**NOTE** - Depending on the settings in the Options Menu, the Media Set Action can also be automatically executed before the print starts.

2. Check again if the film is flat.



### **⚠ WARNING**

Flat film condition is important to prevent skew and print head damage.  
Do NOT start to print when film is NOT flat on printing area.

## 2.5. Check printer conditions

You can start printing after setting the media and selecting the print image.

"We have now completed all preparations for printing with the printer.  
Before you print, please refer to chapter 3.2. NOZZLE CHECK or (if needed) chapter 4. Adjustments,  
to make the necessary printer adjustments."



**Note** - If it is possible to print, the message "Ready" (or "Warning") appears at the upper left corner of the touch panel. If the touch panel shows anything else such as maintenance or ink error etc., you are not able to print.

## 2.6. Sending Print Job and Printing

The following methods are to be employed to send the image file to be printed via the machine.

- Send the job from RIP via network.
- Save the job on a USB flash drive and read it using the machine for printing.

The printed job can be selected from "STORED JOB" and can be used for repeated printing.



**Note** - After sending print data, if print job is ready to print, printer will notify with sound.

The items displayed in print image preview are following.

- Job file name
- Print mode

Each item is displayed in print image preview, scrolling from right to left.

### ◆ Copy count

Change the copy count for selected job.

- Copy count: Increase / Decrease copy count by arrow button.



- Copy count is automatically increased while you are pressing the copy arrow button.

### ◆ Printing from USB flash drive

About how convert the image file into print data and save it to USB drive, see the RIP manual.

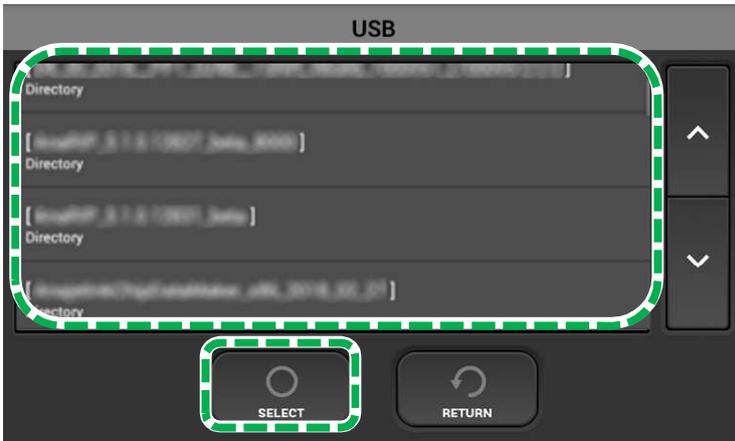
1. Save the image to a USB flash drive.
2. Insert the USB drive into the front USB port.



3. Press [USB].



4. Select a file to be printed from list, and then press [SELECT].



5. Press [YES].

The job ready to print is shown in the printing image preview.



Select [PRINT] icon to start printing.

## ◆ Reprint

Jobs previously sent from RIP are stored in internal memory.

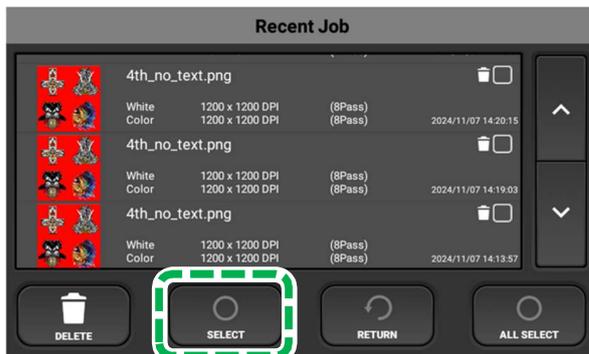
### 1. Press [STORED JOB].



### 2. Select a file to be printed, and then press [SELECT].

You can also delete jobs in the internal memory by selecting the file or files so that there is a checkmark in the box to the right, and then by pressing [DELETE].

Pressing [ALL SELECT] selects all jobs in the memory.



### 3. Press [YES].

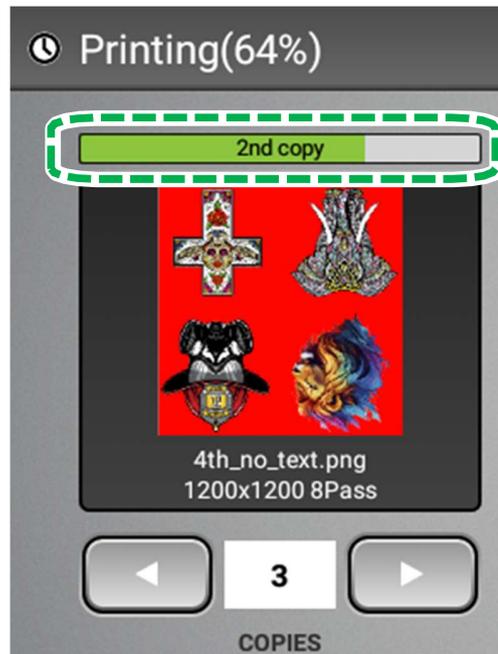
The job ready to print is shown in the printing image preview.



Select [PRINT] icon to start printing.

### ◆ Printing Progress

Check the total print progress on the touch panel.



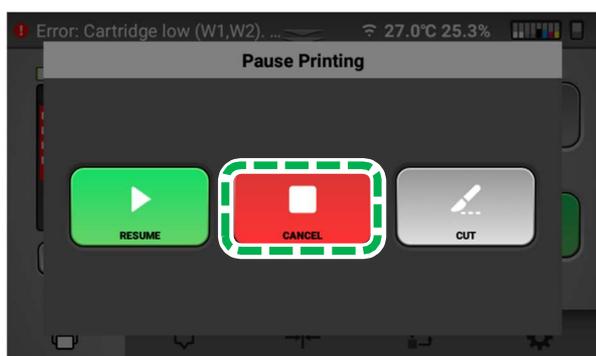
Check the print progress of current copy on the touch panel.

### ◆ To cancel a print job

1. Press [STOP] during printing.



2. Press [CANCEL] to stop the current print job.



## 2.7. Post-processing after print

### ◆ Things to prepare

Purpose	Items
To wear	Polyethylene gloves
	Protective glasses or goggles (commercially available)
	Protective mask (commercially available)

### **WARNING**

- The following explains the warning messages on the plastic bag used in this product's packaging:
- Do not leave the polythene materials (bags, etc.) supplied with this machine close to babies and small children. Suffocation can result if polythene materials are brought into contact with the mouth or nose.

### **CAUTION**

- When handling powder, follow the instructions in the manual for the correct usage.
- If powder is swallowed, inhaled, or gets in the eyes, follow the guidance in the appropriate safety data sheet (SDS). Request SDS to supplier.
- To prevent being stained by powder, wear protective gear (protective gloves, protective glasses/goggles, protective clothing and protective mask). Also take care not to stain your surroundings while using the powder.
- Place powder in a cool, well-ventilated place out of the reach of children.
- Keep waste powder, containers for powder and components that have been in contact with powder out of the reach of children.
- When handling powder, avoid getting anything on your clothing. If you do, wash the stained area with cold water.
- When replacing powder, avoid getting anything on your clothing. If you do, wash the stained area with cold water.
- When replacing powder, avoid getting anything on your skin. If you do, wash the affected area thoroughly with soap and water.
- When removing powder, avoid putting your hand near the location in which the powder is installed. If you get anything on your hands, wash them thoroughly with soap and water.
- Be sure to wear commercially available protective glasses, gloves, clothing, and mask when using or handling powder.

**NOTE** - For information about how to use the Shaker baker and heat press device, see the heat press manual. In order to fix the print layer so that your images can be color-fast when washing, it is necessary to heat treat the printed image media so that the image layer bonds with the garment.

### 1. Applying powder and melt by heat

After print on DTF media and before the ink dries, apply powder and heat the film.

Follow DTF shaker baker manual when using it.

Set to the settings found below as a guide.

Oven	Temperature	Time
Conveyor belt	266°F or 130°C	120 seconds

\* Note: Temperature and Time can be varied depend on shaker baker machine.

### 2. Heat Transfer for film

Position the printed film on garment

Place the printed film on the garment with the printed side down and center it.

And then place silicon paper or similar material on the top of the film.

Apply heat using a heat press with medium pressure

Set to the settings found below as a guide.

Garment	Temperature	Time
Cotton	330°F or 165°C	10 seconds
Polyester	266°F or 130°C	15 seconds

\* Note: Temperature and Time can be varied depend on press machine.

### 3. Peel the transfer film

Peel the printed film from garment after cooling down and temperature drops.

### 4. Improving texture and transfer strength

Place the garment on heat press

Place silicon paper or similar material on the top of the garment.

Apply heat using the heat press with medium pressure

Set to the settings found below as a guide.

<b>Garment</b>	<b>Temperature</b>	<b>Time</b>
Cotton	330°F or 165°C	5 seconds
Polyester	266°F or 130°C	15 seconds

\* Note: Temperature and Time can be varied depending on press machine.

## 3. Maintenance

Your printer performs automatic maintenance routines based on time and use. Because of this, your machine is almost always ready to print when you need it. However, it is also a best practice to perform a nozzle check prior to printing.

It is also possible to specify the maintenance schedule (AUTO HEAD CLEAN only). For details, see, "Specifying the Maintenance Schedule".

Below is a list of maintenance procedures and frequency for those that are time based.

Every 1 hour	White ink circulation
Every 3 hours	White channel cleaning
Every 12 hours	All channel cleaning Alarm agitating white cartridge
After 6 hour from use	White wet cap Wet cap is finished with following condition. - After 12hour. - Arrive reserved time on schedule set. - finish wet cap by panel operation manually.
Weekly	Cleaning the maintenance unit  Cleaning the left ink sump  Cleaning the media guide  Cleaning the Cover of Head Nozzle Plate (the Nozzle Cover)
Monthly	Cleaning the guide rod

**IMPORTANT!** Auto maintenance fails to be performed if the following conditions occur. Failure to perform Auto maintenance can result in a clogged print head. These conditions need to be cleared ASAP before auto maintenance is performed.

- Printer is powered off (always keep the printer powered on).
- Ink cartridge is missing or reading 0%.
- Waste ink tank is full.
- Encoder error and other errors.
- Any Service call message (see, "Troubleshooting Guide")
- Top cover is open.

- The ink bay is opened for maintenance.

If the auto maintenance is not being performed, then the print heads can be clogged. If Auto maintenance is prevented from happening for any reason, the messages appear. When you acknowledge by pressing [YES], the message appears again in 5 minutes if the condition that prevented auto maintenance is not cleared (empty cartridge, full waste tank etc.).

**IMPORTANT!** Failure to address the underlying condition that is preventing auto maintenance in a timely manner can result in head clogging. If you do not know how to clear the condition, contact technical support immediately for assistance.

There are several warning messages that pop up to alert you of conditions that need to be addressed or need to be addressed soon.

Message	Solutions
Low ink	<p><b>IMPORTANT!</b> If the remaining amount of white ink cartridge is less than 1%, printing will not be possible. Replace the relevant cartridge and perform a nozzle check to make sure the head is not clogged.</p> <p>Pressing [OK] removes the message. It reappears in 12 hours if the condition is the same.</p>
Ink empty	<p><b>IMPORTANT!</b> Once an ink cartridge is empty, auto maintenance does not occur, and head clogging may occur.</p> <p>Pressing [OK] clears the message. It reappears in 12 hours if the cartridge is not replaced.</p>
Waste ink bottle almost full	<p><b>IMPORTANT!</b> Once the waste ink bottle is full, auto maintenance does not occur, and head clogging may occur.</p> <p>Pressing [OK] clears the message. It reappears in 12 hours if the waste ink bottle is not emptied and reset on the control panel.</p>
Waste ink bottle full	

#### Parts with service life warnings:

Similar messages can appear for the parts listed in the parts replacement screen. "Warning" when the life of the part is near its end and "Attention" when the part has reached its end.

**IMPORTANT!** Only the left ink sump and right ink sump can stop printer operation and auto maintenance when the service life count is reached. Not the other parts such as the fan filters, maintenance station, carriage unit, and ink supply units. Printer operation and auto maintenance continues when the service life is reached for these parts. A part that reaches its service life count is considered to be out of warranty.

## 3.1. Maintenance Schedule

### Daily

The machine will prompt you to agitate white cartridges every 12 hours.

When the message appears, the white cartridges should be agitated.

For details, see, "Agitating a White Cartridge".

### Weekly

The machine will prompt you with the message every 7 days.

When prompted, you should perform the following:

- Clean the maintenance, the Left ink sump and the media guide.  
For details, see "3.6. How to Clean the Maintenance Unit, the Left Ink Sump and the media guide "
- Clean the cover of head nozzle plate.  
For details, see, "How to Clean the Cover of Head Nozzle Plate (the Nozzle Cover)".

### Monthly

Frequency depends on use - clean weekly if printing 30 hours or more per week

- Grease the guide rod.  
Depending on use, once a month is OK unless using 5 days a week, 7 to 8 hours a day.  
For details, see, "How to Clean the Guide Rod".

## 3.2. NOZZLE CHECK

### ◆ Things to prepare

Purpose	Items
For use	Genuine DTF film

**IMPORTANT!** Make sure to perform a nozzle check before printing. If a nozzle is clogged, perform head cleaning until the clog is removed and reflected on the nozzle check. You should also perform a nozzle check daily as this is a good indicator of the printing conditions and can allow any clogging issues to be address while they are minor and easily resolved.

## 1. Press the Maintenance tab.

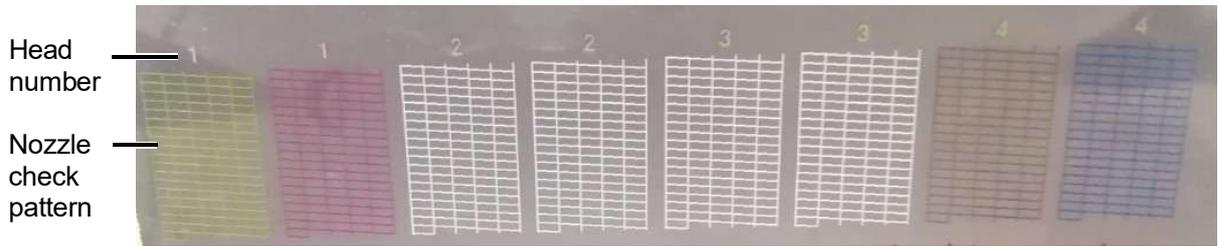


## 2. Press [NOZZLE CHECK].

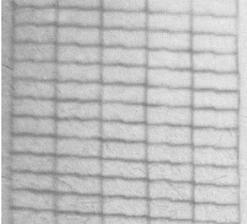
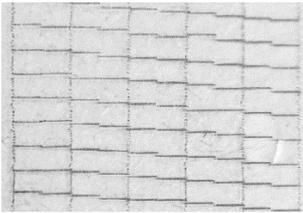


## 3. Press [YES].

4. Check the results of the printed nozzle check pattern.



In your nozzle check please check for the following and take the appropriate steps:

Nozzle Check Pattern	Description
	Perfect Nozzle Check
	Nozzle Deflection: When horizontal lines are uneven
	Clogged Nozzle: When the horizontal lines have small or minor gaps

As a general rule: A missing nozzle in the CMYK channels may show in some prints while a few missing nozzles in the white channels does not affect the prints.

5. If there is a problem with the nozzle check pattern, check the head number for that nozzle check pattern. Then, perform **AUTO HEAD CLEAN** for the head of that number.

For details about the **AUTO HEAD CLEAN**, see, “**AUTO HEAD CLEAN**”.

### 3.3. AUTO HEAD CLEAN

#### **⚠ WARNING**

"STRONG" head cleaning will use more ink than the "NORMAL" head cleaning. Use only as needed.

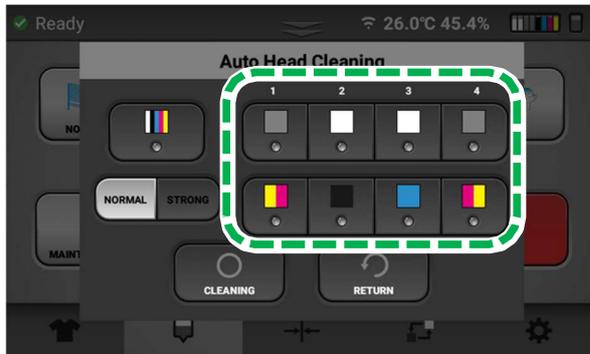
1. Press the Maintenance tab.



2. Press [AUTO HEAD CLEAN].

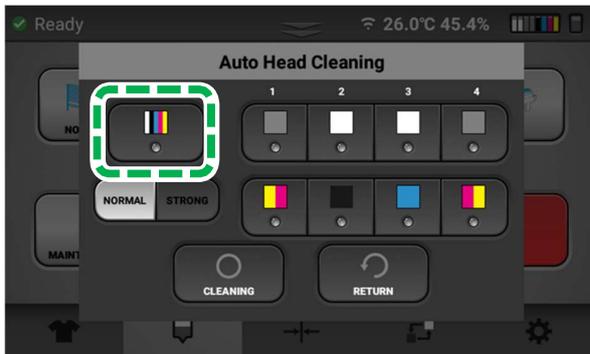


3. Press the head number to clean.

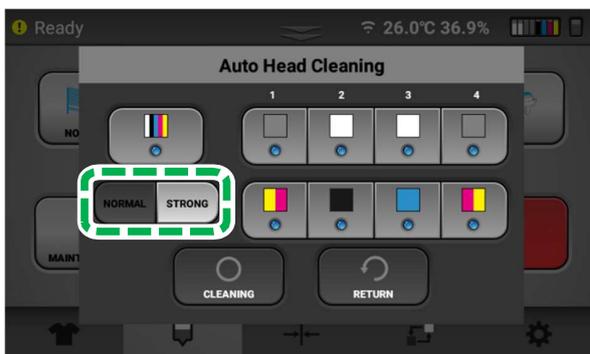


You can select multiple heads.

To clean all heads, press the button for all heads.



4 . Press [NORMAL] or [STRONG].



NORMAL: For small or minor missing nozzles in the nozzle check.

STRONG: For large missing nozzles in the nozzle check.

**NOTE** - After performing the normal cleaning, if the nozzle condition is not recovered, proceed to using the "STRONG" head cleaning option.

"STRONG" head cleaning is the best to resolve deflection.

**5. Press [CLEANING].**

**6. Perform a nozzle check.**

If you perform a nozzle check and discover nozzle clogging persisting in any print head, check the number of that print head.

**7. In accordance with Steps 1 to 5, select the head still affected by nozzle clogging and perform the cleaning again.**

If the problem persists even by using [NORMAL], execute [STRONG] cleaning.

If nozzle clogging persists even after executing [STRONG] cleaning multiple times (3 to 5 times), wait for 6 hours or longer and then retry the [STRONG] cleaning.

**NOTE -**

- As a rule, most missing nozzle issues can be resolved by "NORMAL" head cleaning.
- Nozzles tend to drop out more in dryer environments. It is best to keep the humidity levels at least 45% or more.

### ◆ Cleaning schedule setting

Specify the schedule to execute automatic maintenance.

Although the printer periodically executes automatic maintenance, you can specify the schedule to execute it when not using the printer in order to reduce loss of time caused by automatic maintenance executed during printer operation and it also make wet cap to be finished.

You can specify up to 3 sets of schedules.

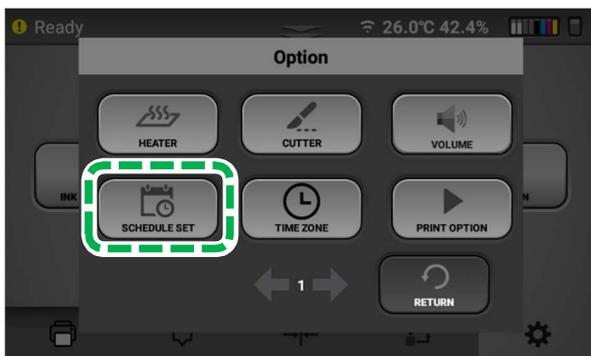
#### 1. Press the Settings tab.



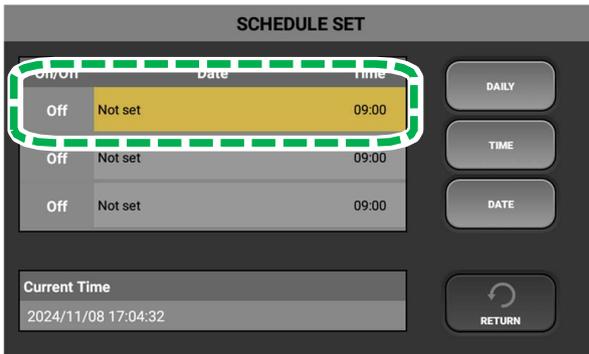
#### 2. Press [OPTION].



#### 3. Press [CLEANING SCHEDULE SET].

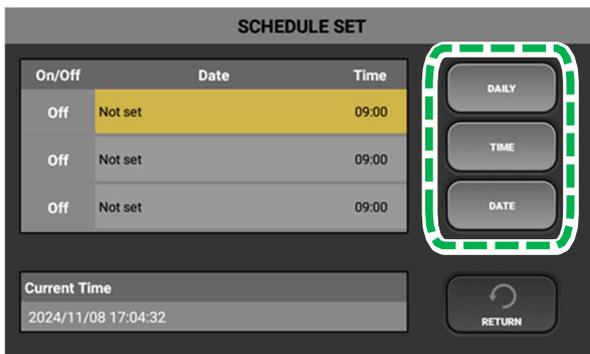


4. Select the list on which to register the schedule.



5. Press [DAILY] or [DATE].

If you have selected [DAILY], proceed to Step 7

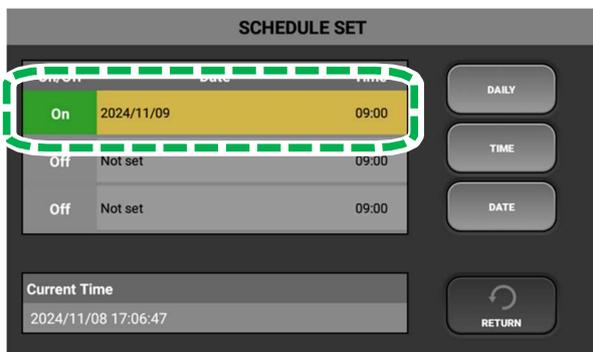


6. Specify the date, and then press [OK].

7. Press [TIME].

8. Specify the time, and then press [OK].

9. Set [ON/OFF] for the specified schedule to [ON] to enable it.



**10. Press [RETURN].**

Keep pressing [RETURN] to reach the page you want to return to.

**NOTE** - In case of executing maintenance according to a specified schedule between the regular auto maintenance cycle, the machine starts counting the time until the next scheduled auto maintenance after the maintenance is completed.

## 3.4. REGULAR MAINTENANCE

Regular maintenance includes cleaning of the following parts:

- Cleaning the guide rod

For details see , “How to Clean the Guide Rod”.

- Cleaning the maintenance unit and the Left ink sump

For details see, “How to Clean the Maintenance Unit and the Left Ink Sump”.

### 3.5. How to Clean the Guide Rod

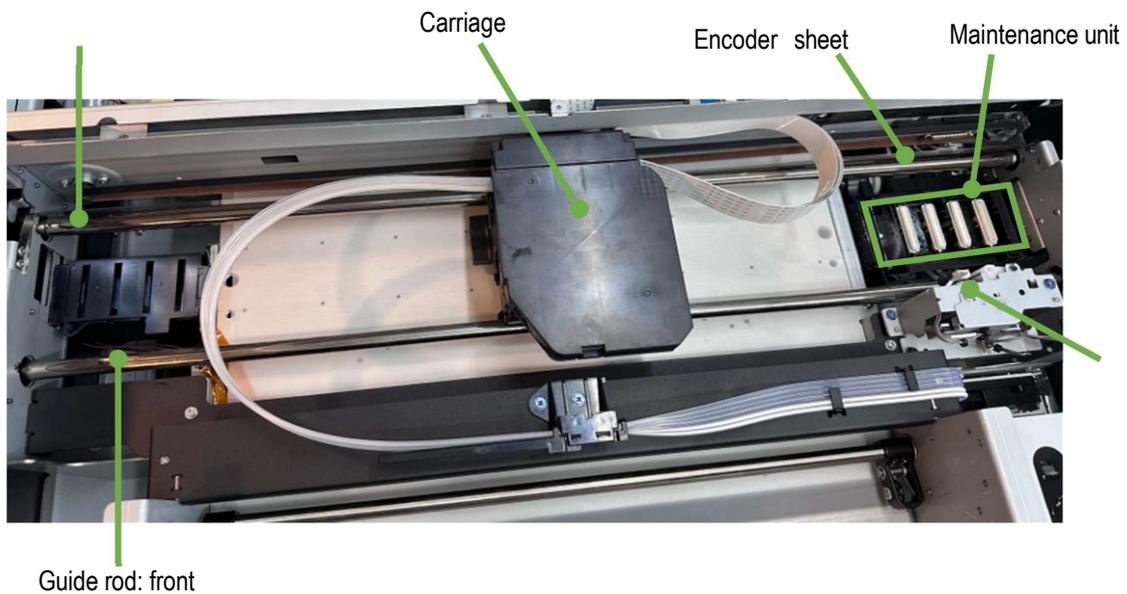
#### ◆ Things to prepare

Purpose	Items
To wear	Polyethylene gloves
	Protective glasses or goggles (commercially available)
For use	Cleaning Applicator (Only for cleaning the Guide Rod)
	Cleaning Liquid
	Dropper
	Grease (Only for cleaning the Guide Rod)
	Lint Free Wipes

#### ◆ Cleaning times

About 30 minutes

#### ◆ Guide to parts



## 3.5.1. Press the Maintenance tab.



## 3.5.2. Press [REGULAR MAINTENANCE].

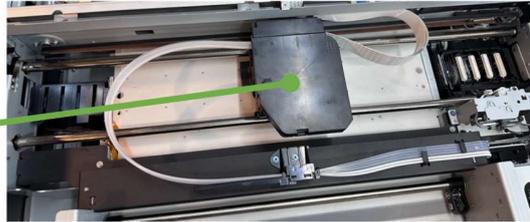
The carriage moves to the center position.



**⚠ CAUTION**

- Be careful not to touch the nozzle with the Cleaning Applicator. Also, be careful not to adhere the wiped solid ink or lint to the nozzle. Also, be careful to keep the nozzle area dry (no cleaning fluid) while cleaning the side of the print head. All of these can cause the nozzle out.

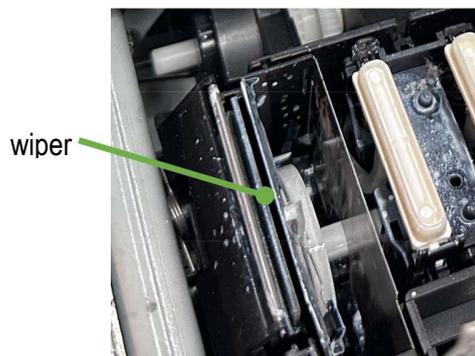
Nozzle (bottom side of carriage)



- When cleaning the guide rods, try to avoid touching the encoder or the carriage belt. This may cause the printer to not operate properly.



- Do not move the carriage to the prohibited range, which is outside the designated sliding range. Since the wiper of the Maintenance Unit is raised to the Wiper cleaning position and the carriage is moved above the Maintenance Unit, and the Wiper interferes with the Head. This may damage the Head.



3.5.3. Open the Top cover.

3.5.4. Wipe off any old grease and lint that are stuck on both guide rods with a cleaning applicator.



3.5.5. Move the carriage to the left, and then wipe off any old grease and lint on the guide rods where the carriage had stopped.



3.5.6. Return the carriage to the center.

**3.5.7. Apply the dedicated grease to the Guide Rod. Use a new Cleaning Applicator for application.**

As shown in the following picture, add the grease.

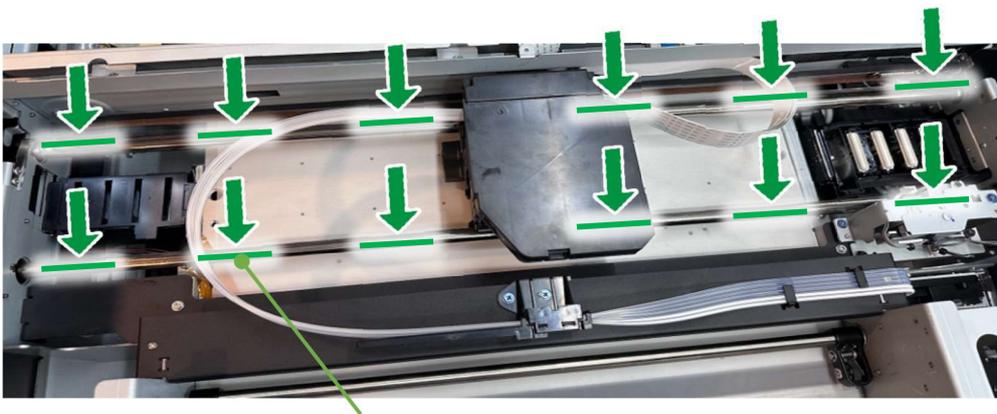
- The Guide Rod: main

Apply approximately 0.01 ml of grease to each of the six peripheral parts of the arrow.

- The Guide Rod: front

The six peripheral parts of the arrow.

**◆ Grease coverage**

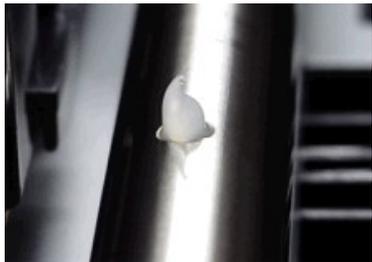
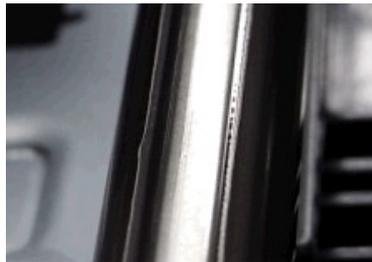


Grease application range

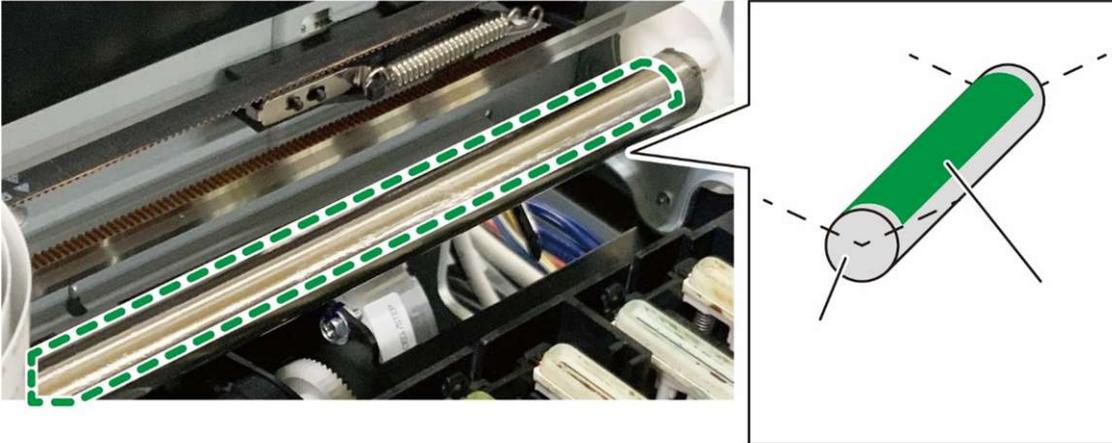
The outer grease should be applied 60 to 80 mm from the end of the rod.

Apply the inner grease 30 to 50 mm from the carriage.

**◆ Sample of the amount of grease to be applied to six places on each rod**

	After adding	After applying
0.01 ~ 0.02 ml (height: 2 mm)		

- 3.5.8. Use a dedicated Cleaning Applicator to spread the grease smoothly on the top portion of the rod (cover about the top third of the circumference of the rod).



- 3.5.9. Move the carriage to the left and right by hand in order to smooth the grease. Then move the carriage slowly over 2 seconds within the carriage designated sliding range.

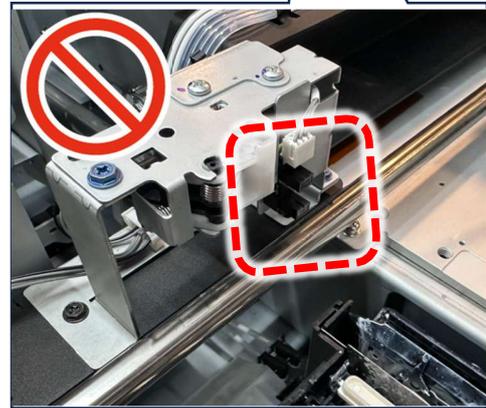
Do this for more than two round trips.



**IMPORTANT!** When moving the carriage, do not enter the area of the maintenance unit.

3.5.10. Wipe away grease that protrudes far beyond the coverage described in 3.5.7~3.5.8

**IMPORTANT!** Check that grease is not attached to the Filler Sensor.



3.5.11. After cleaning the guide rods, move the carriage to the left end by hand. The Wiper may damage the Head if it makes it stand by on the right end Maintenance Unit.

**IMPORTANT!** Encoder strip cannot be cleaned.

3.5.12. After cleaning the guide rods, move the carriage to the left end by hand.

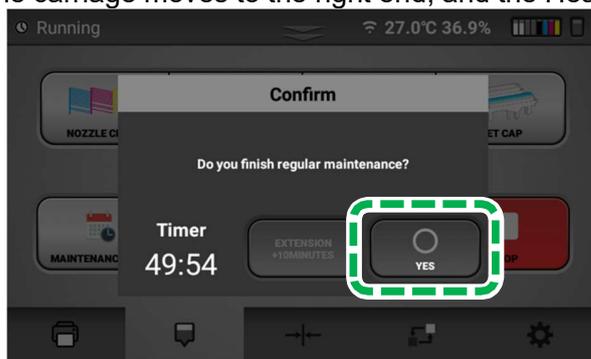
The Wiper may damage the Head if it makes it stand by on the right end Maintenance Unit.



3.5.13. Close the Top cover.

3.5.14. Press [YES].

The carriage moves to the right end, and the Head is capped.



**IMPORTANT!** If encoder errors are frequent and require cleaning often, the encoder may need more thorough cleaning. Contact technical support for guidance on how to clean the encoder more thoroughly.

- ◆ After completion of cleaning, perform **AUTO HEAD CLEANING** (recommended).

This prevents the ink from drying out and clogging the nozzles.

For details about AUTO HEAD CLEAN, see, "AUTO HEAD CLEAN".

After completion, it is recommended to print the Nozzle Check and check that the ink discharge is normal.

## 3.6. How to Clean the Maintenance Unit, the Left Ink Sump and the media guide

### ◆ Things to prepare

Purpose	Items
To wear	Polyethylene gloves
	Protective glasses or goggles (commercially available)
For use	Cleaning Applicator
	Cleaning Liquid
	Dropper

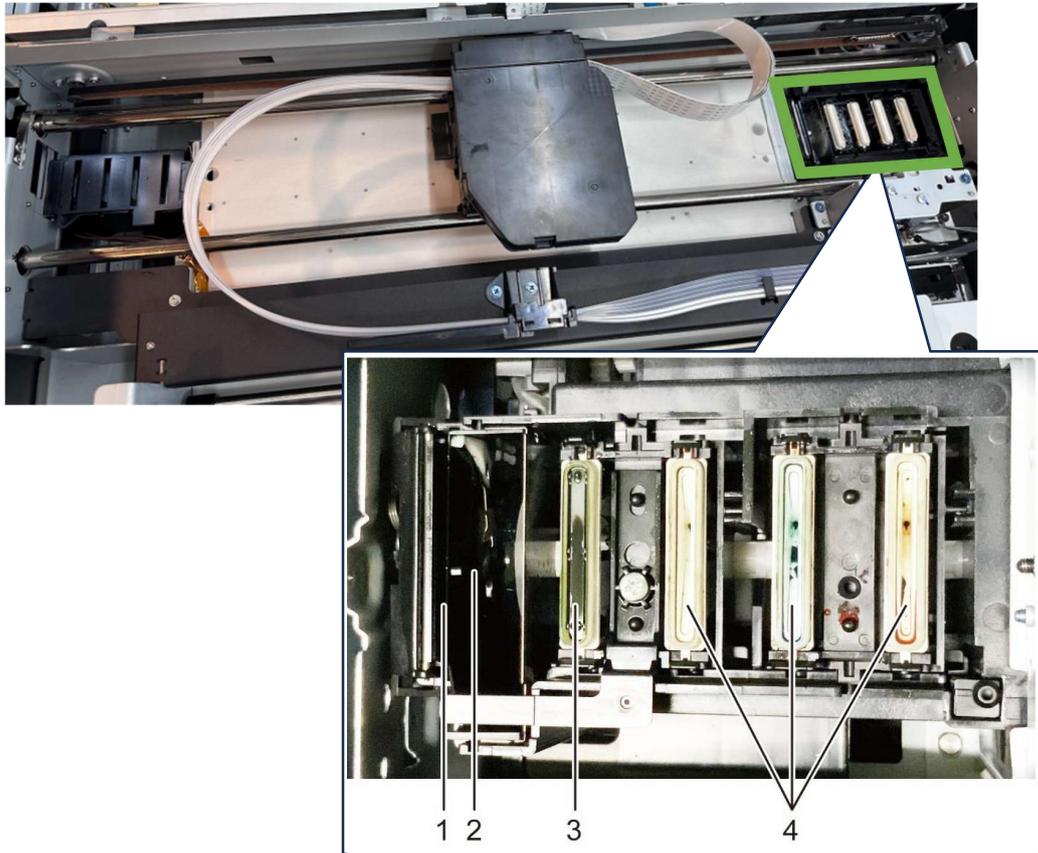
### ◆ Cleaning times

About 10 minutes

### ◆ Guide to parts



◆ Guide to Maintenance unit



1. Wiper
2. Wiper cleaner
3. Suction Cap
4. Moisturizing cap

◆ Regular maintenance

3.6.1. Press the Maintenance tab.



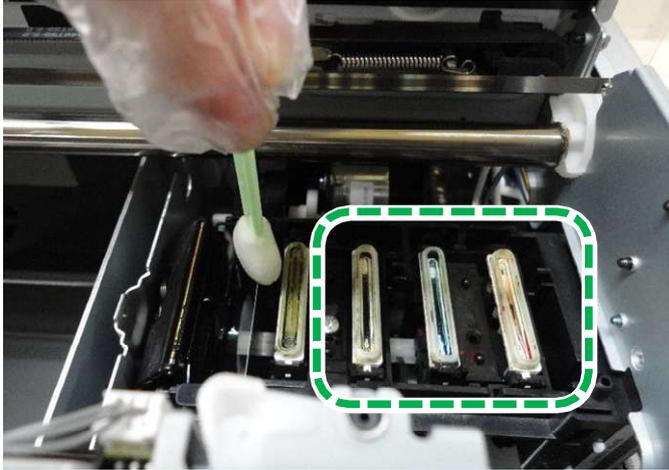
3.6.2. Press [REGULAR MAINTENANCE].

The carriage moves to the center position.

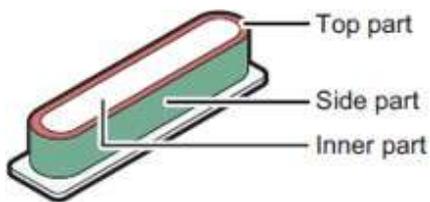


3.6.3. Open the Top cover.

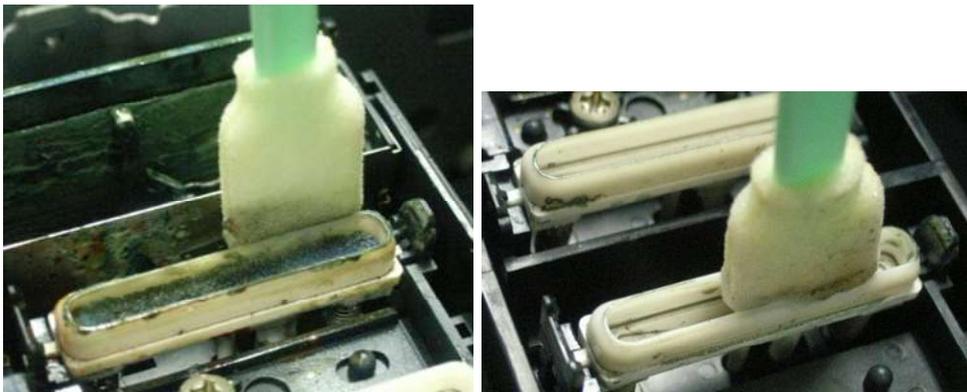
3.6.4. Clean the Moisturizing Caps.



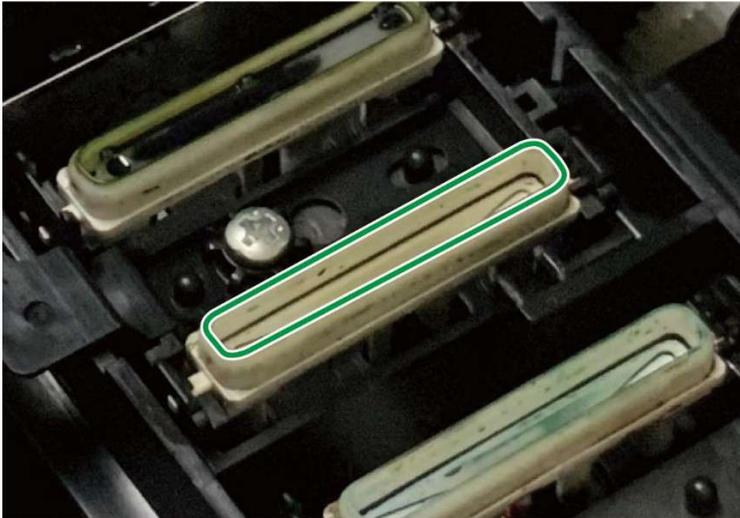
**IMPORTANT!** Do not deform or scratch the caps. Deformation and scratches may cause troubles.  
Especially, wipe the top part gently and carefully.



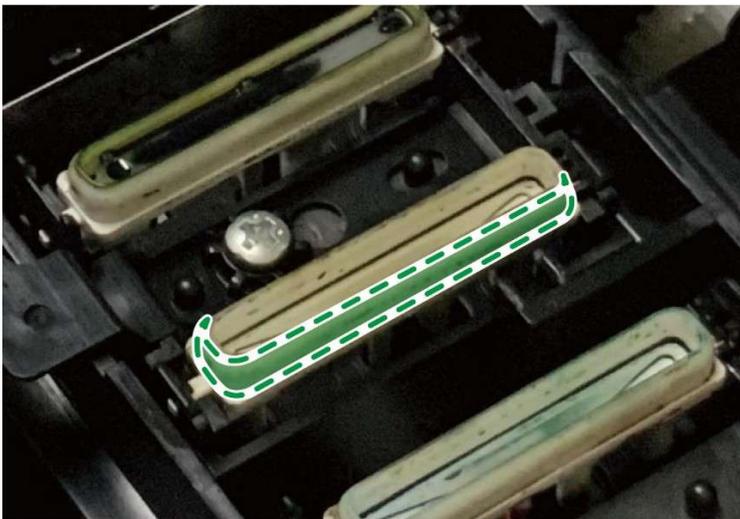
Example of how to apply the Cleaning Applicator:



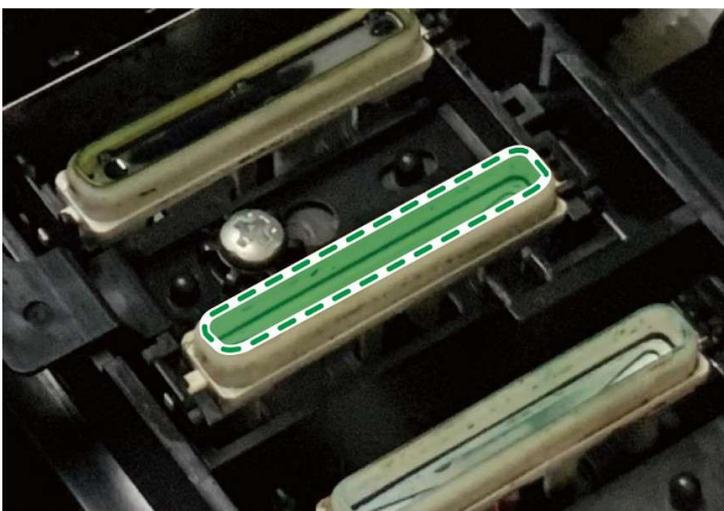
3.6.4.1. Gently wipe off the top part.



3.6.4.2. Gently wipe off the side part.

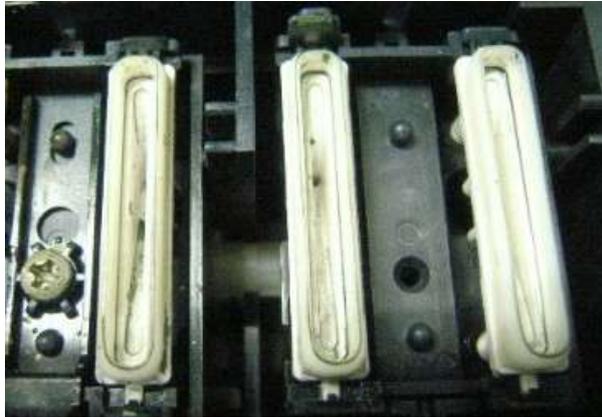


3.6.4.3. Gently wipe off the inner part.

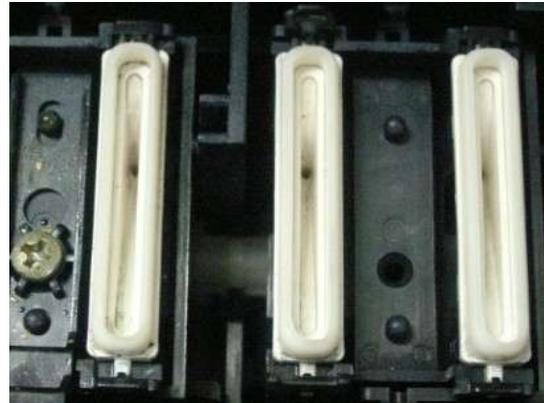


Example photo before and after cleaning

Before

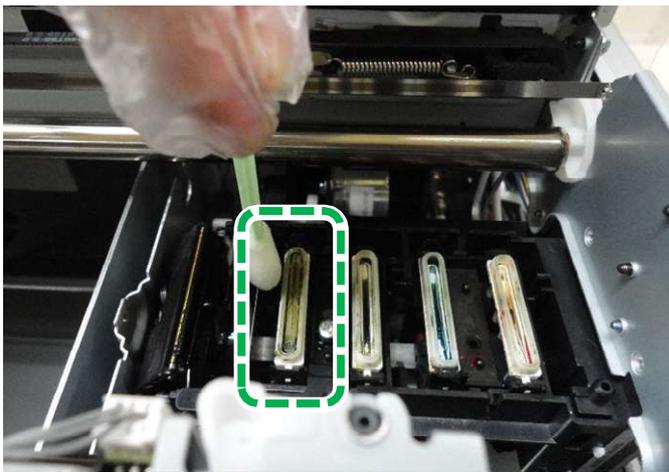


After



Make sure that the solidified ink has not accumulated at the rim of the cap.

3.6.5. Clean the Suction Cap.

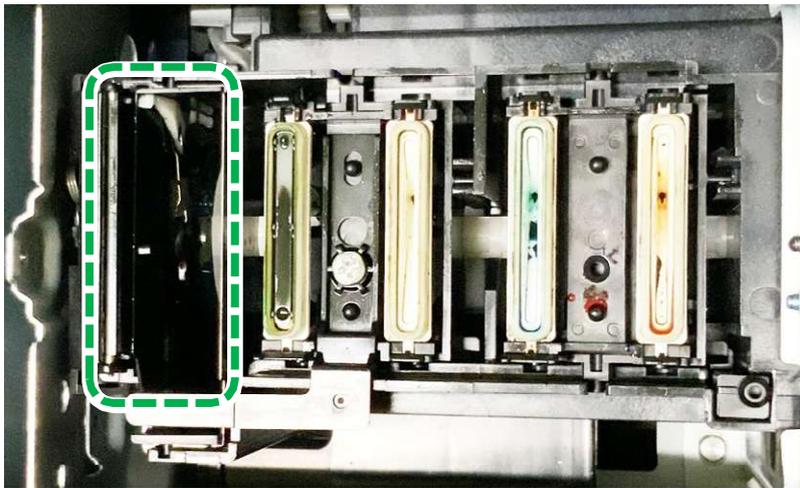


- 3.6.5.1. The method of cleaning the Suction Cap is the same as the cleaning method for the Moisturizing Caps.

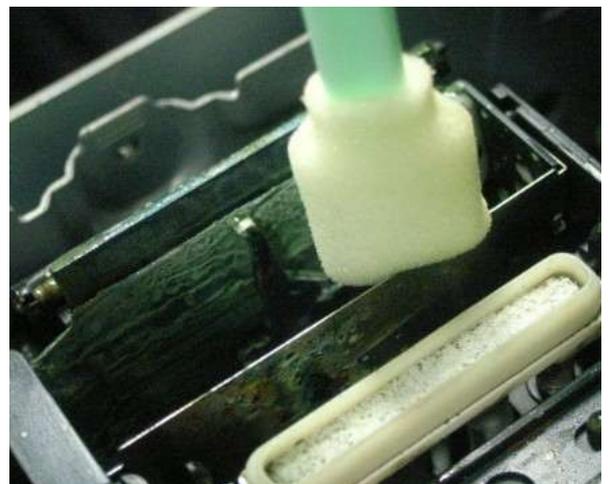
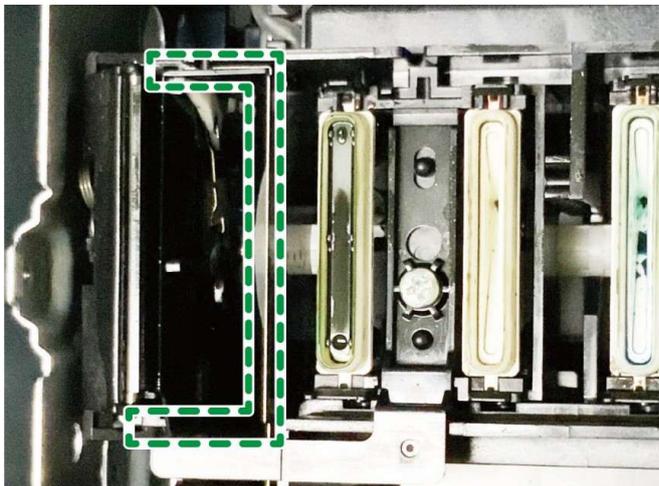
However, there is a vacuum cap inset inside the cap. Clean it carefully so as not to shift or detach this part. Be sure to return the parts when the parts inside the cap are displaced or removed. Press down until the spring bottoms out. If parts are not returned properly, nozzle clogging could occur.

- 3.6.5.2. Wipe off any excess cleaning liquid with a dry applicator if necessary.  
For parts inside the Suction Cap, it is necessary that the solid ink or the stuck ink is removed.

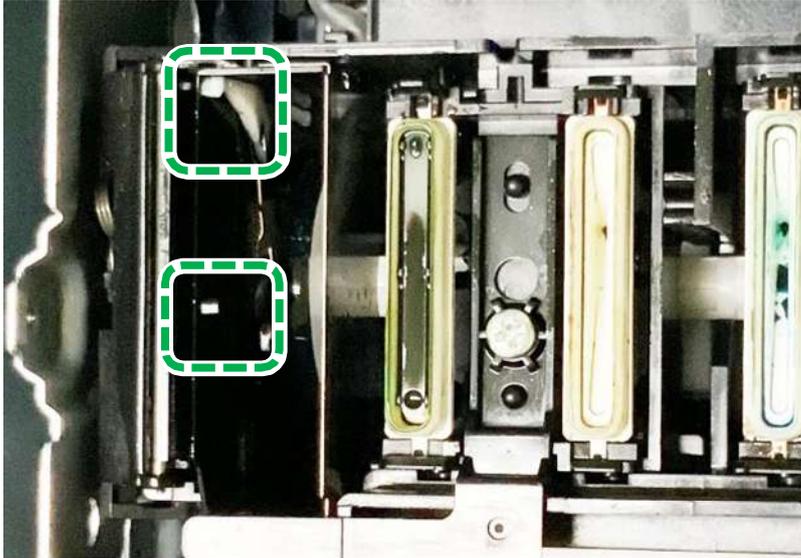
### 3.6.6. Clean the Wiper and Wiper Cleaner.



- 3.6.6.1. Clean the top of the frame of the Wiper Cleaner.

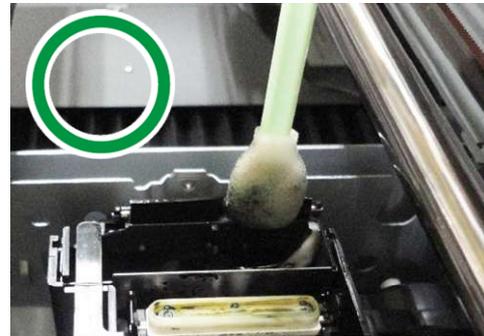


3.6.6.2. Clean the surface and the inside parts of the Wiper Cleaner.



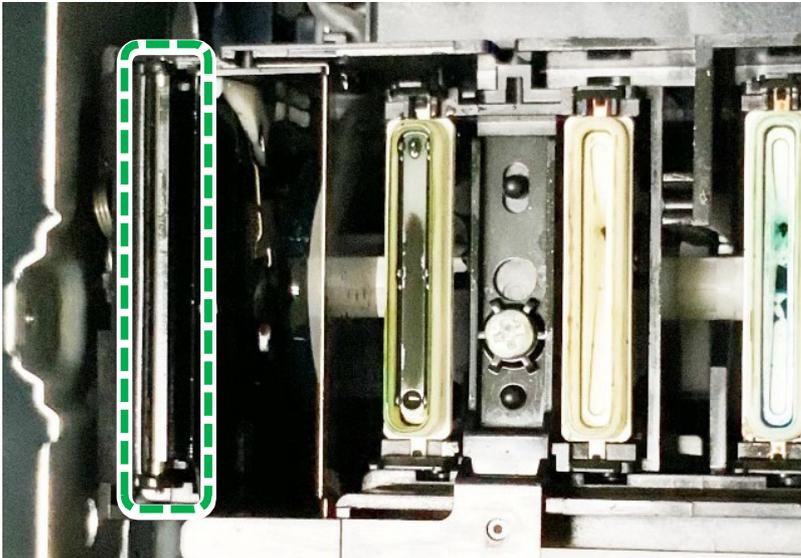
**⚠ WARNING**

- Be careful as the lever is thin. It can easily deform, break, and detach.
- Clean the lever to the surface indicated in the green frame and wipe it gently.
- Do not insert the cleaning applicator too deeply.



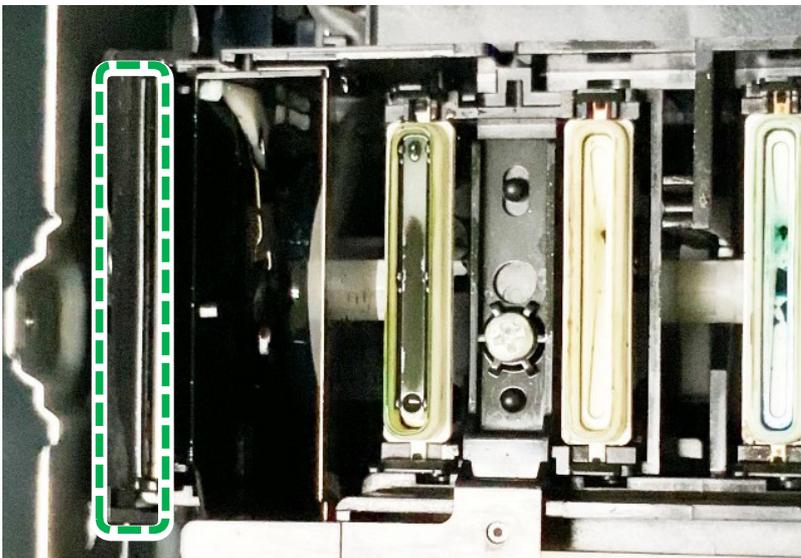
## 3.6.7. Clean the Wiper.

Clean the front and back surfaces and the upper surface of the Wiper (rubber plate part surrounded).



## 3.6.8. Clean up the Roller.

Rotate the roller, move the Cleaning Applicator back and forth, and then wipe the entire circumference.

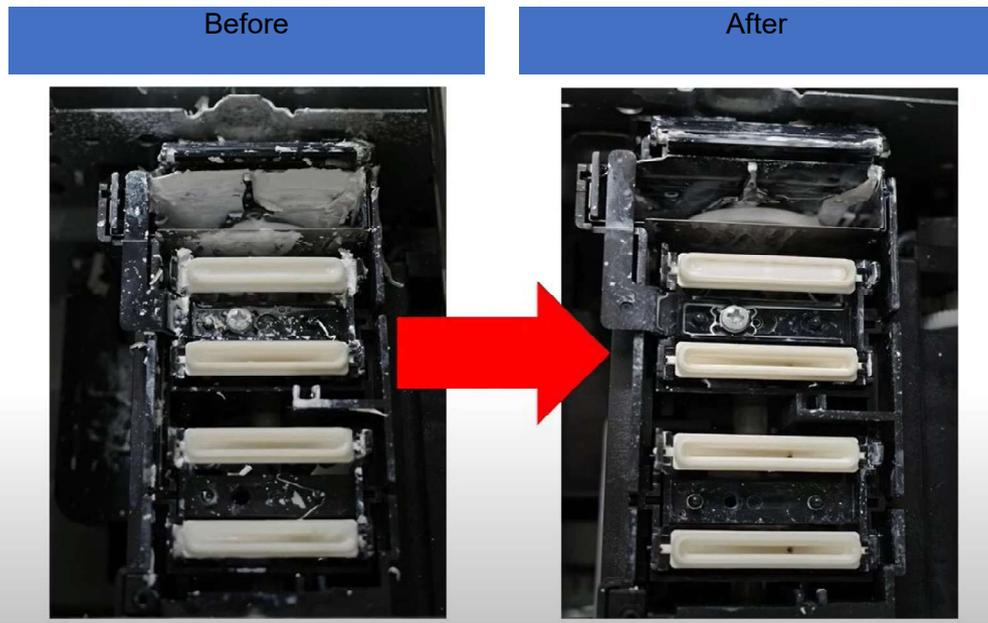


- ◆ Following picture shows the removal of dirt at this level after cleaning of the Wiper and the Wiper Cleaner as described above.



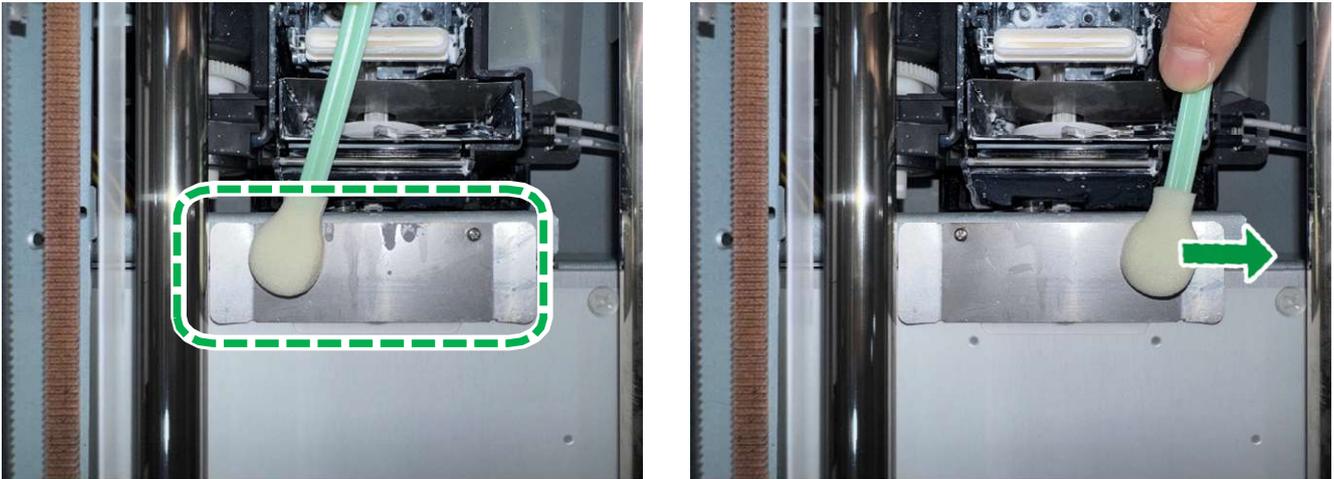
3.6.8.1. Perform cleaning until the surface of the roller, wiper and bottom part of the wiper cleaner are completely visible.

Following pictures shows an example before and after cleaning.



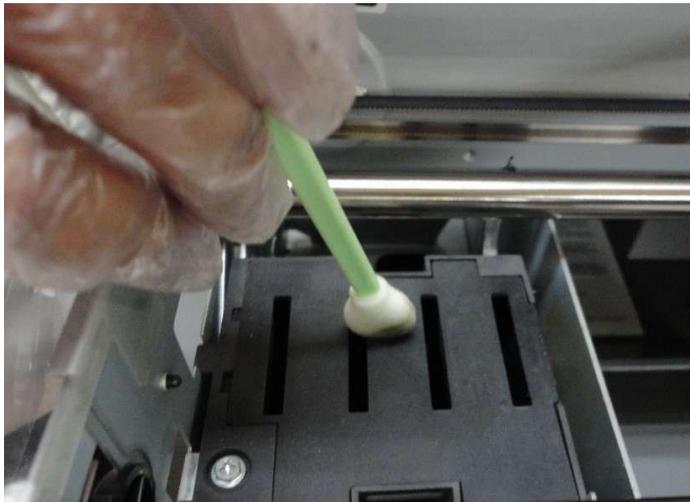
3.6.8.2. Make sure that the solidified ink has not accumulated at the rim of the cap.

3.6.8.3. Perform cleaning until the surface of the roller wiper and bottom part of the wiper cleaner are completely visible.

**3.6.9. Clean the Media Guide.**

Mixture of white ink and cleaning liquid can be accumulated on the media guide. Clean the ink stain on media guide weekly by cleaning applicator with cleaning liquid.

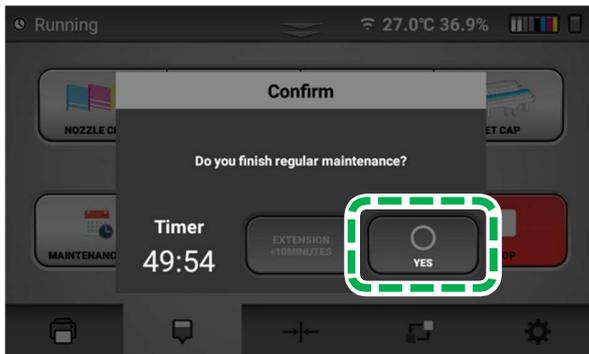
**IMPORTANT!** Clean the media guide surface gently not to push hard.

**3.6.10. Clean the Left ink sump.**

If the top of the left ink sump or left ink sump is dirty with ink, clean it with a cleaning applicator. After wiping off, do not leave ink on the top of the Left ink sump.

3.6.11. Close the Top cover.

3.6.12. Press [YES].



The carriage moves to the right end, and the Head is capped.

**IMPORTANT!** If encoder errors are frequent and require cleaning often, the encoder may need more thorough cleaning. Contact technical support for guidance on how to clean the encoder more thoroughly.

◆ After completion of cleaning, perform **AUTO HEAD CLEANING (recommended)**.

This prevents the ink from drying out and clogging the nozzles.

For details about AUTO HEAD CLEAN, see, "AUTO HEAD CLEAN".

After completion, it is recommended to print the Nozzle Check and check that the ink discharge is normal.

### 3.7. How to Clean the Head Nozzle Plate

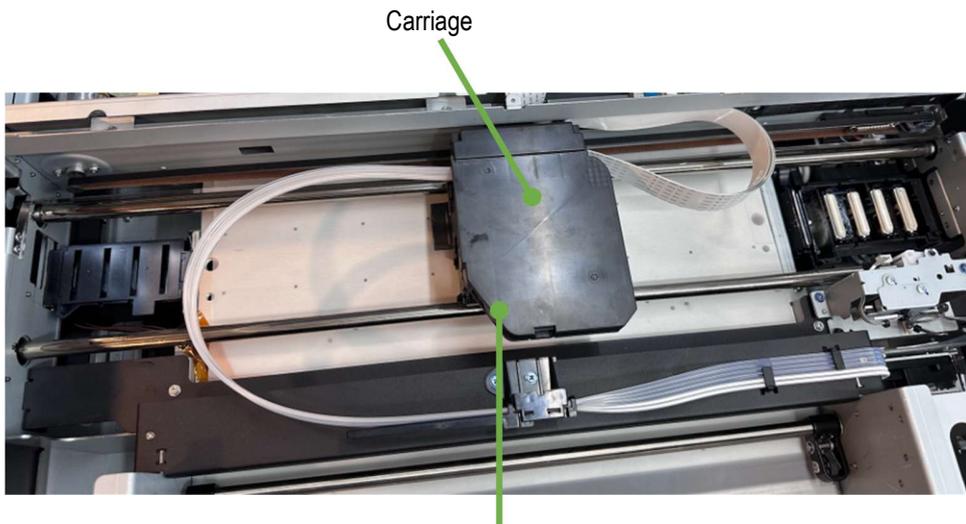
◆ Things to prepare

Purpose	Items
To wear	Polyethylene gloves
	Protective glasses or goggles (commercially available)
For use	Cleaning Applicator
	Cleaning Liquid

◆ Cleaning time

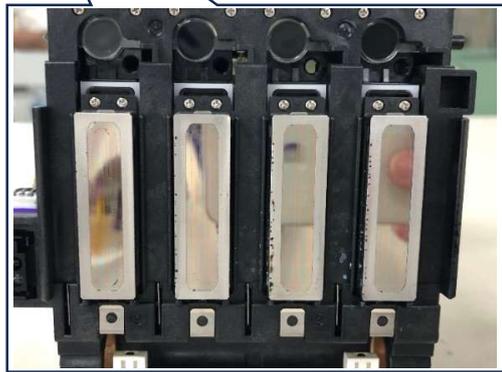
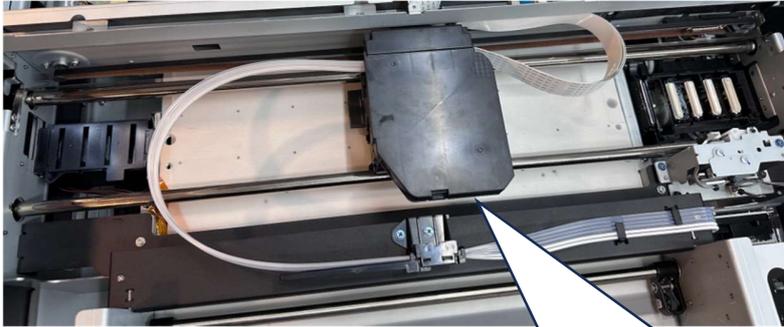
About 15 minutes

◆ Guide to parts



Head (Located behind the carriage)

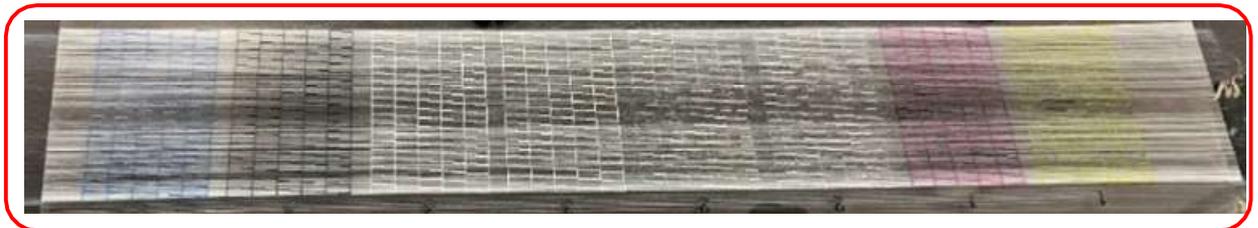
◆ Guide to Head Nozzle Plate



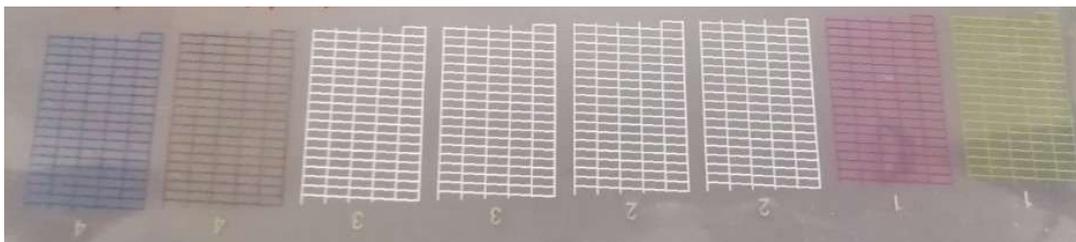
**IMPORTANT!** Clean it the right way. If you clean it the wrong way, the print head will break down.  
Some liquid enters the head of the carriage unit and short-circuits the electric parts. Due to the short circuit, the electric parts break down and Ink droplets cannot be ejected to the target location.

- Sample of White continuous ink jetting

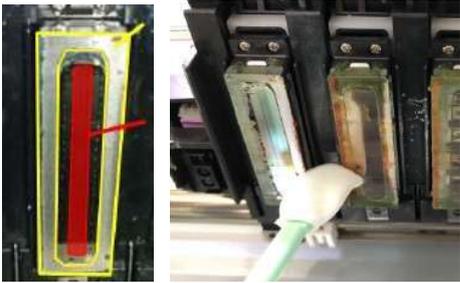
There are White lines at each color nozzle check pattern.



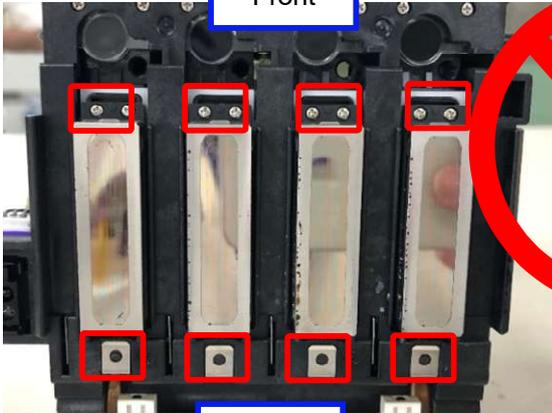
Nozzle check pattern printed in normal nozzle condition.



◆ The correct and incorrect ways of cleaning are as follows.

Incorrect	Correct
 <p>Dampening the cleaning applicator with the cleaning liquid, and cleaning each side of the head (part shown in red).</p> <p>Note Due to the structure of the head, the cleaning liquid may enter the head from the sides and cause a short circuit.</p>	<p>Wear gloves. Dampen the cleaning applicator with an appropriate amount of cleaning liquid, and pinch the tip to squeeze out excess cleaning liquid. Carefully wipe the yellow area shown in the picture with the cleaning applicator without touching the red area.</p> 

Incorrect	Correct
 <p>Do not clean the nozzle side cover with a wet cleaning applicator.</p>	<p>The sides of the head (red area shown in the picture below) do not need to be cleaned. Keep this area as it is. If the sides have become dirty and appear to require cleaning, be sure to use a dry cleaning applicator.</p>  <p>Use only a dry cleaning applicator.</p>

Incorrect	Correct
<div style="text-align: center; margin-bottom: 10px;"> <span style="border: 1px solid blue; padding: 2px;">Front</span> </div>  <div style="text-align: center; margin-bottom: 10px;"> <span style="border: 1px solid blue; padding: 2px;">Back</span> </div> <div style="text-align: center; margin-bottom: 10px;"> <span style="border: 1px solid blue; padding: 2px;">Front</span> </div>  <div style="text-align: center;"> <span style="border: 1px solid blue; padding: 2px;">Back</span> </div> <p style="margin-top: 20px;">Note</p> <p>Using a wet cleaning applicator may cause the liquid to seep in through the gaps in the parts and result in short circuits in the electrical parts and damage to the printer. Be careful not to make the indicated parts wet.</p>	<p style="text-align: center; color: red; font-size: 2em; opacity: 0.5;">⊘</p> <p>Wetting the indicated areas with a wet cleaning applicator.</p> <p>Front side: Screw hole and its vicinity</p> <p>Back side: Leaf spring and its vicinity</p> <p>These areas do not need to be cleaned. Keep them as they are. If these areas have become dirty and appear to require cleaning, be sure to use a dry-cleaning applicator.</p>

- Press the Maintenance tab.



- Press [REGULAR MAINTENANCE].

The carriage moves to the center position.

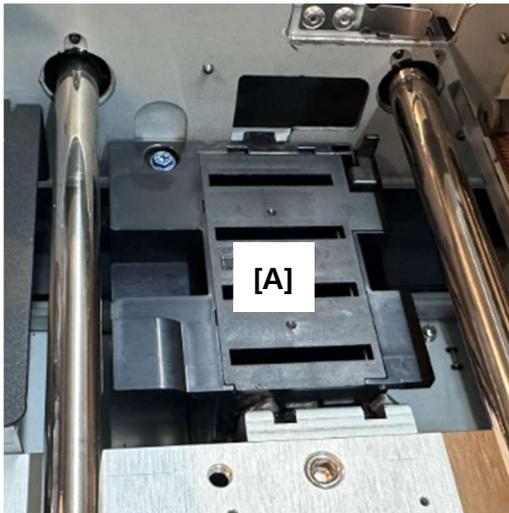


- Open the Top cover.

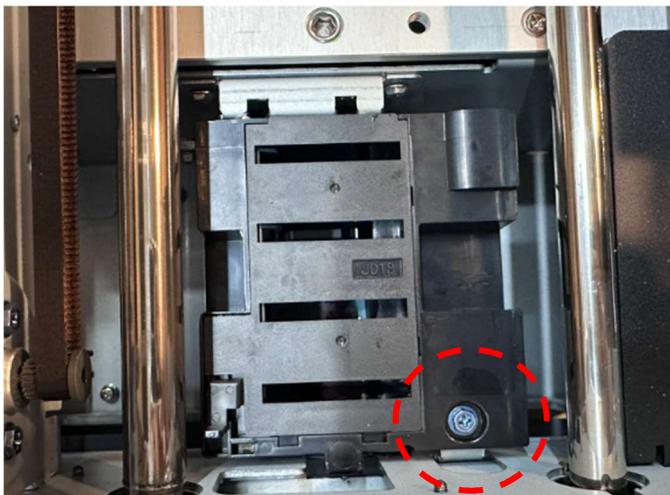


**IMPORTANT!** Do not move the head by hand. It may cause the printer failure.

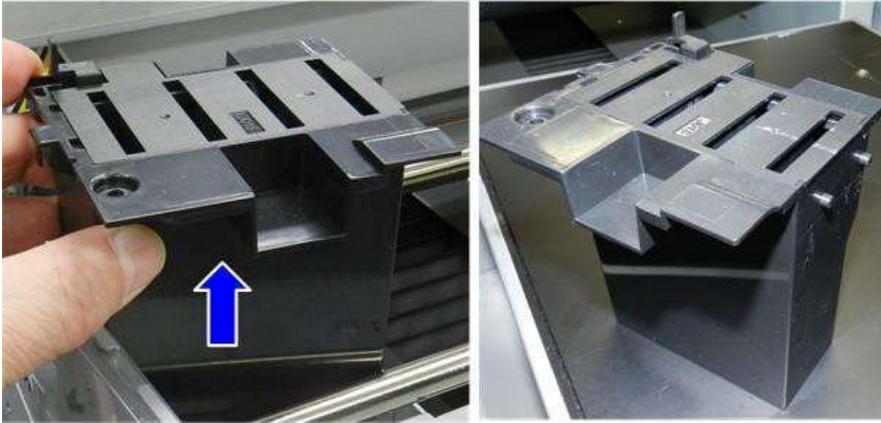
- The left ink sump [A] is on the left side of the machine.



- Remove the left sump screw.



- Lift the sump out of the machine.



**IMPORTANT!** Before cleaning, be sure to read p.152 "What Not to Do for Cleaning".

- Prepare a brand-new Cleaning Applicator and the Cleaning Liquid.

Immerse the Cleaning Liquid into the Cleaning Applicator.

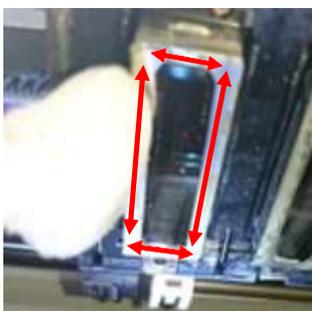
For cleaning, use the Cleaning Applicator containing the Cleaning Liquid and the Cleaning Applicator not containing the Cleaning Liquid.



**IMPORTANT!** Be sure to use Cleaning Applicator and Cleaning Liquid dedicated to the printer. Otherwise, it may cause a failure.

- Clean the nozzle cover surface.

As shown in the figure below, clean along the arrow direction.

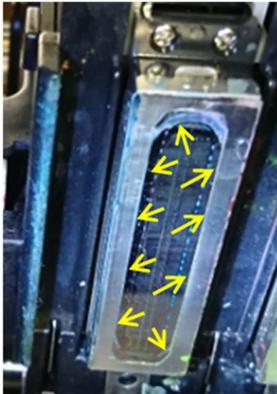


**IMPORTANT!** Be careful not to touch the nozzle with the cleaning applicator.

Also, be careful not to let the wiped solid ink or lint adhere to the nozzle. It may clog the nozzle.

- Clean the stepped portion of the Nozzle surface and the Nozzle Cover.

Wipe off any dirt adhering to the stepped portion of the Nozzle surface and the Nozzle Cover.



After cleaning, if washing the Cleaning Liquid and foam etc. attached to surplus have adhered to the Head, wipe it off with the dry, Cleaning Applicator that does not contain the Cleaning Liquid. (It is important not to leave wet cleaning fluid on any part of the head after this manual clean)

- Clean the print heads and sides.

Normally, the side surface of the nozzle cover does not need to be cleaned.

If there is ink or dust on the side of the nozzle cover, clean the side of the Nozzle Cover with the dry, cleaning Applicator that does not contain the Cleaning Liquid.

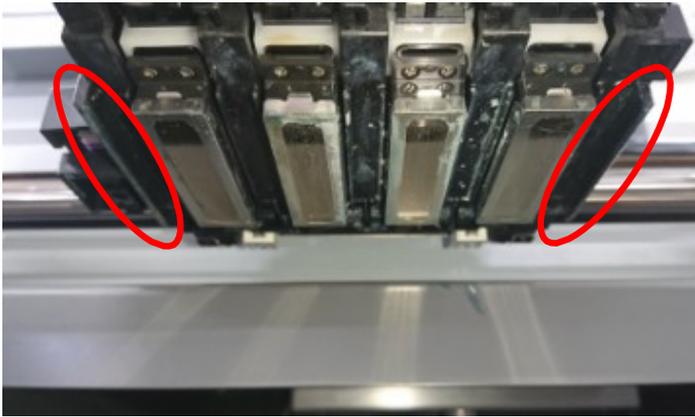
When cleaning the side of the Nozzle Cover, scrape the dirt along the direction of the arrow in the figure below and clean it.



**IMPORTANT!** Do not wipe the protrusion of the Nozzle Cover downward as shown below. The Nozzle Cover may come off causing failure.

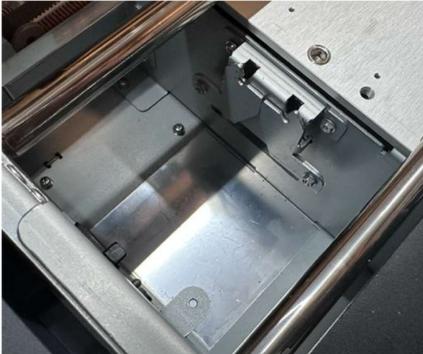


- Clean the left and right ribs on both ends of the carriage.

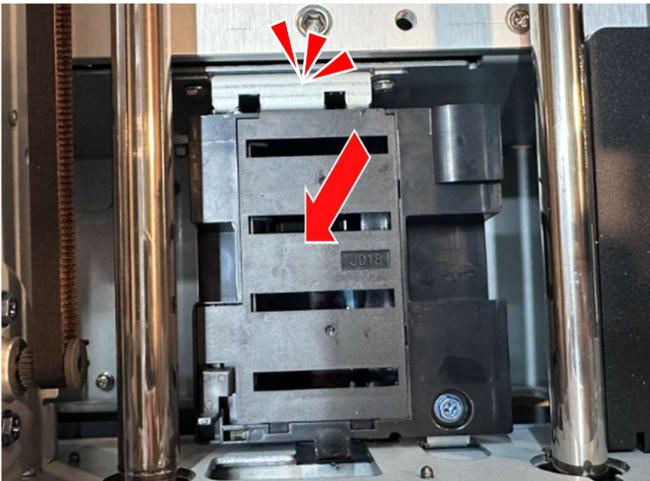


**After cleaning, put the sump back together.**

- A tab on the right side of the sump fits into a latch hole in the frame on the right.



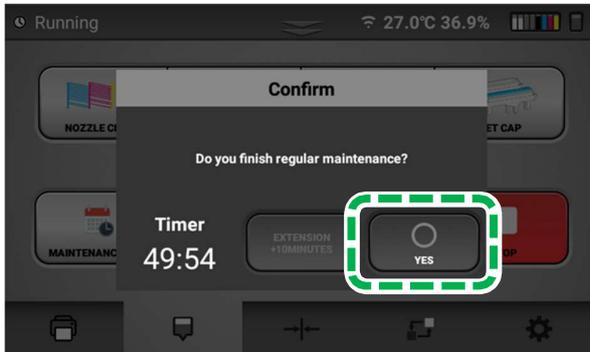
- Set the sump and then verify that the latches are engaged properly.



- **Close the Top cover.**

- Press [YES].

The carriage moves to the right end, and the Head is capped.



**IMPORTANT!** If encoder errors are frequent and require cleaning often, the encoder may need more thorough cleaning. Contact technical support for guidance on how to clean the encoder more thoroughly.

- ◆ After completion of cleaning, perform **AUTO HEAD CLEANING** (recommended).

This prevents the ink from drying out and clogging the nozzles.

For details about AUTO HEAD CLEAN, see, "AUTO HEAD CLEAN".

After completion, it is recommended to print the Nozzle Check and check that the ink discharge is normal.

### 3.8. White Wet Cap

Wet Cap is automatically and periodically working, start or finish the Wet cap when it needs.

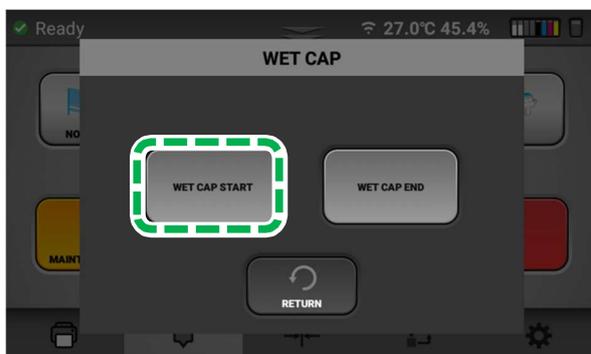
#### 3.8.1. Press the Settings tab.



#### 3.8.2. Press [WET CAP]



#### 3.8.3. Press [WET CAP START]

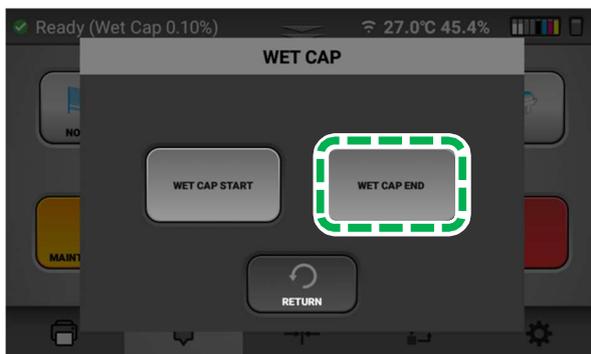


3.8.4. Now the printer is under WET CAP.



3.8.5. When Wet Cap require to finish.

Select wet cap end



## 3.9. Agitating a White Cartridge

### **WARNING**

- Do not shake the cartridge too quickly or too hard.

### **CAUTION**

- Do not hit or drop it when agitating. It may cause injury, cartridge damage, or ink leakage.
- Do not excessively agitate/shake. It may cause ink leakage.
- Agitate/Swing as instructed. Other methods may cause ink leakage.
- Be sure to wear commercially available protective glasses, gloves, and clothing when replacing or handling cartridges.

The printer will prompt you every 12 hours.

White ink is prone to ink precipitation (the tendency for the ink to accumulate at the bottom of the ink solution). Ink precipitation may decrease the print density or cause nozzle clogging. Be sure to agitate the white ink when you unpack the ink cartridge and once a day after it has been unpacked.

After the first displayed, it will notify you by the buzzer every hour (selectable ON/OFF).

There are two types of display formats (Count Manually / Count Automatically) and you can select which one to use.

When the message appears, pull out all white cartridges and agitate/shake it as follows.

- To prevent being stained by ink or cleaning solution, wear protective gear (protective gloves, protective glasses/goggles, protective clothing). Also take care not to stain your surroundings while agitating the ink.

### 1. Prepare

Use a lint free wipes to wipe off any dirt on the white ink cartridge and cartridge slot. For details on how to clean the cartridge and cartridge slot, see, "Cleaning the Cartridges and Cartridge Slots". Make sure there are no tears or cracks on the white ink cartridge.

## 2. Agitate the ink

- Hold the cartridge as shown in Figure 1.
- Hold the white ink cartridge with the ink supply port face up.
- Shake the ink cartridge by tilting it side to side at 45° degree angles, as shown below.
- Shake the cartridge for 50 seconds at a speed of 2 back-and-forth shakes per second.

**IMPORTANT!** Shaking ink cartridges in other ways may cause nozzle clogging or affect the print quality when the ink cartridge is low on ink.

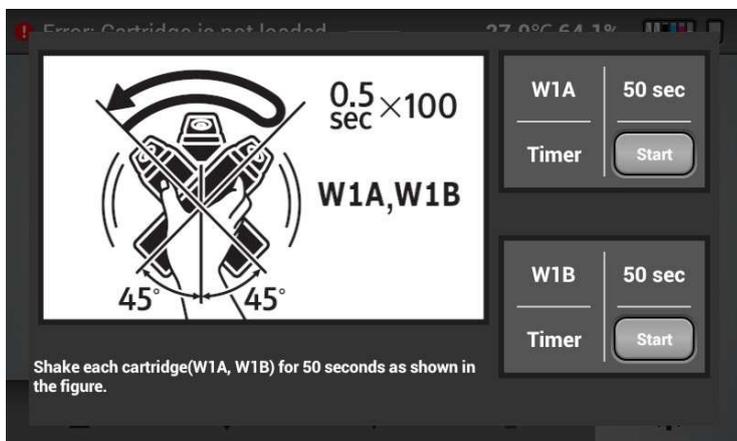
**Figure 1**



## 3. After agitating the ink, wipe off any ink stains on the ink supply port.

### ◆ Count Manually (at a button)

The printer will prompt you every 12 hours with the following message:



- Pull out each white cartridge, then “Start” button is displayed for each target cartridge.
- Press “Start”, button changes to “Counting” and counter will start to decrease.
- When you insert the cartridge before counter reaches 0, the counter will pause, button will change to “Resume”.
- If you remove the cartridge again and press “Resume”, timer will restart, and button will return to “Counting”.
- All the counters reach 0, then the printer will display the following message:



- After agitating cartridges, insert the cartridges.

### ◆ Count Automatically

The printer will prompt you every 12 hours with the following message:



- Pull out each white cartridge, then each counter will start to decrease.
- When you insert the cartridge before counter reaches 0, the counter will pause.
- If you remove the cartridge again, timer will restart.
- All the counters reach 0, then the printer will display the following message:



- After agitating cartridges, insert the cartridges.

### ◆ Select display format

You can select two types of display format (Count Manually / Count Automatically).

1. Press the Setting tab on the touch panel of this machine.

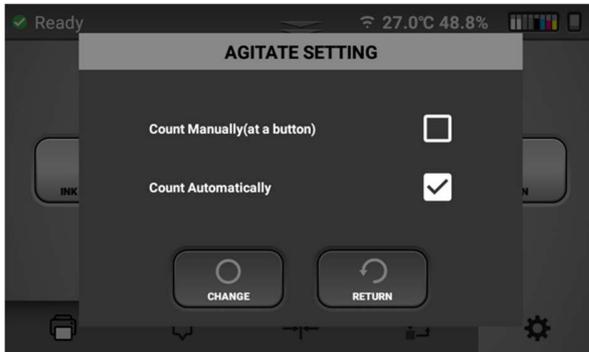


2. Press [OPTION].

3. Press [OPTION].

4. Press [WHITE AGITATE ALARM]

5. Select the display format to use from following:



### ◆ Setting buzzer notification

You can set the buzzer notification.

1. Press the Setting tab on the touch panel of this machine.

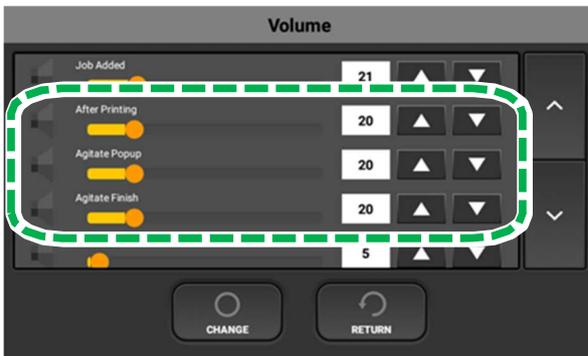


2. Press [OPTION].

3. Press [▶].

4. Press [VOLUME].

5. Set the buzzer parameter from following. (Volume 0 equals “OFF”)



## 3.10. Circulation

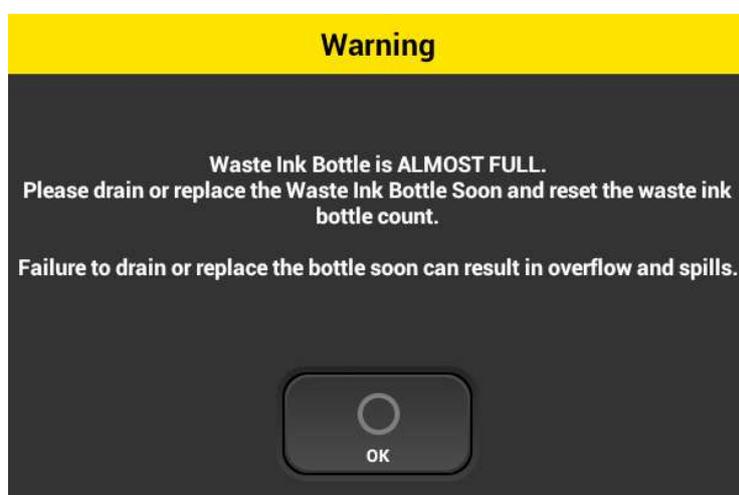
This printer has the function of white ink circulation that moves the white ink in the system from the ink bay to the printhead and back. This is used to avoid the white ink settling within the lines and provides quality white ink prints.

## 3.11. Emptying the Waste Ink Bottle

### ⚠ CAUTION

- If the waste ink bottle is full, auto maintenance will not occur, and head clogging may occur.
- Do not press [WASTE INK RESET] to reset the waste ink bottle warning without emptying the waste ink tank. This will avoid any spilling or other potential hazards.
- When disposing the waste ink, clean the waste ink tube if there is dirt such as lumps of ink on the tip of the tube. Otherwise, clogging the waste ink tube and defective discharging of waste ink could result.

Once a certain amount of ink is used, the following message is displayed on the touch panel.



- Put the waste ink from the waste ink bottle into a container to discharge it.
- You can check the amount of waste ink on the Status screen and reset the waste ink bottle.
- To reset the waste ink bottle, press [WASTE INK RESET] after the waste ink bottle is emptied.



## 3.12. Cleaning the Cartridges and Cartridge Slots

### ⚠ CAUTION

- Be sure to wear commercially available protective glasses, gloves, and clothing for this work.

The (ink and cleaning) cartridges and cartridge slots may become stained by ink or cleaning solution. Be sure to perform cleaning each time after removing the cartridge for cases such as by replacing a cartridge or agitating the white ink.

- To prevent being stained by ink or cleaning solution during the work, wear protective gear (protective gloves, protective glasses/goggles, protective clothing). Also take care not to smudge the surroundings during the work.
- Wipe off any stains by ink or cleaning solution on the cartridge and cartridge slot (where the print cartridge is attached to the printer) with lint free wipes. Be sure to perform cleaning each time after removing the cartridge.
- **Do not use cleaning solution for cleaning (because the circuit board is nearby).**

### Cleaning the Cartridges

Do not use cleaning solution for cleaning.

Take care not to touch or stain the circuit board.

The main part to clean on the cartridge is the ink supply port.

Wipe off any stains on other parts of the cartridge as well.



Cleaning the Cartridge Slots

Do not use cleaning solution for cleaning.

Take care not to touch or stain the circuit board.

The needle part in the cartridge slot (the cylindrical part circled in yellow on the photo) has a needle inside the cylinder, so clean only its surface with the cleaning applicators. The white resin part can be pushed in, but do not push it in during cleaning. Do not perform cleaning if the white resin part circled in yellow is further in the recess than shown on the photo.

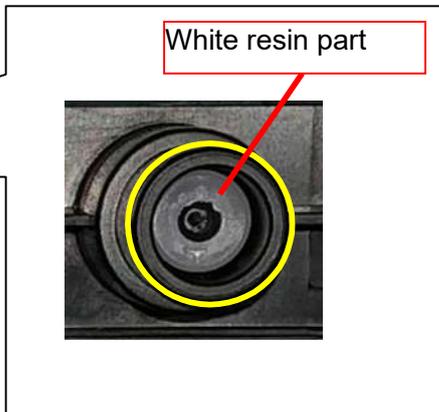
Wipe off the stains on any other areas of the cartridge slot.

It is not necessary to wipe off the ink that has dried and stuck to the surface.

Circuit board



White resin part



For the needle part, clean only its surface.

What to check after Cleaning

After cleaning, insert the cartridges, and check that they are correctly identified.



# 4. Adjustments

This section describes how to adjust the image quality of this printer from the touch panel.

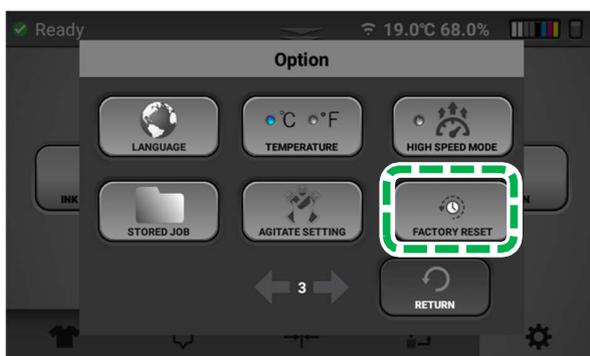
Although the printer head nozzle status is good, if the printer quality is not good, you need to perform the following process.



- These functions can be performed on the Alignment tab.
- You can print the basic adjustment pattern. Also, pattern is printed on the center of printing area.

**NOTE** - You can reset adjustment value (Head Alignment / Table Alignment / Print Position) to the original settings by pressing [FACTORY RESET] by going to the Settings tab and pressing [OPTION].

For details, see, "Settings Tab".



## 4.1. Adjusting the Head

Typically, this adjustment is only necessary after a part replacement such as a carriage or CTL replacement.

This function adjusts the print head alignment position. When the print result is not clear (for example, vertical lines are misaligned, color is not clear, or print is fuzzy) this adjustment may improve the result.

**NOTE** - Always check the table height first. If the printing surface is too far away from the head, the prints may be fuzzy, and the lines may not appear straight.

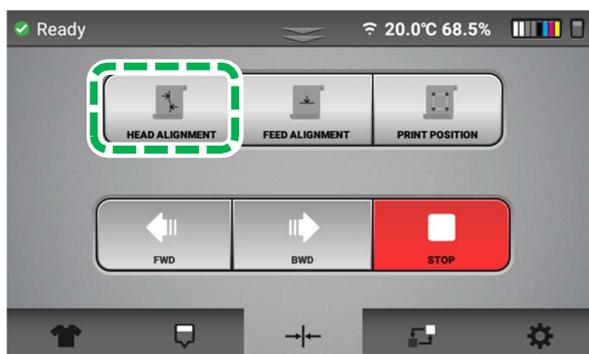
### ◆ Things to prepare

Purpose	Items
For use	Genuine DTF media

#### 1. Press the Alignment tab.

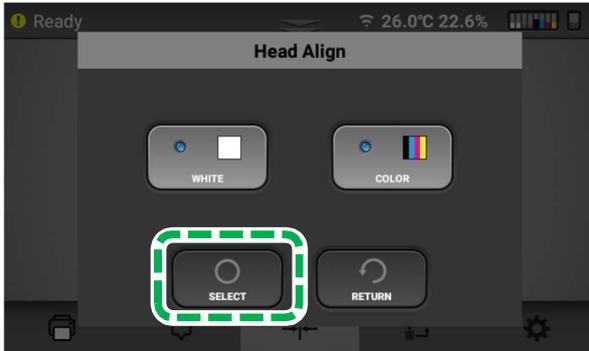


#### 2. Press [HEAD ALIGNMENT].

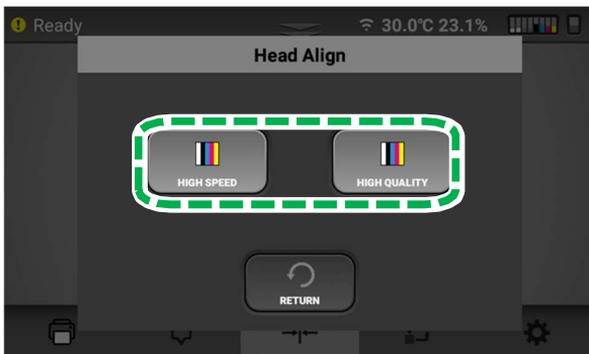


### 3. Select head and press [SELECT].

The adjustment pattern is printed.

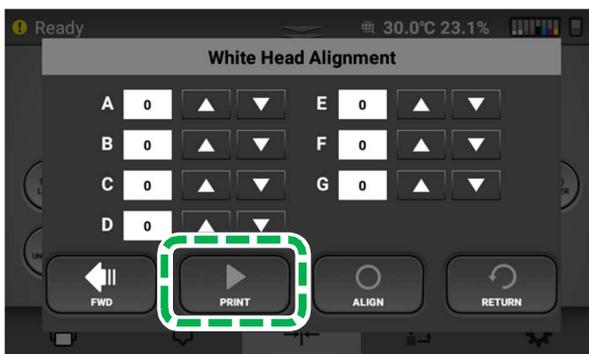


### 4. Select print mode for head align

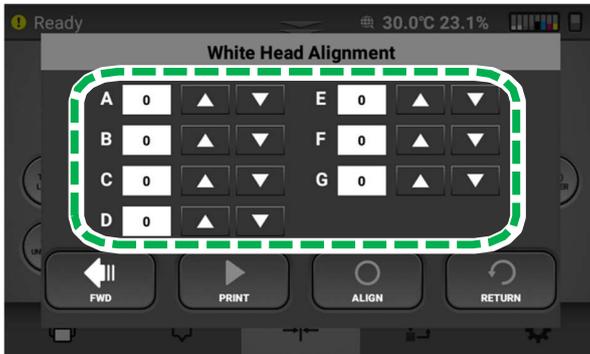


Note. you must perform head align for both of print mode.

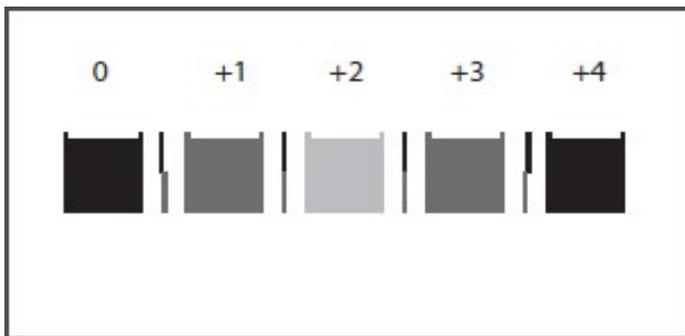
### 5. Press [PRINT]



- 6 . After finding an appropriate adjustment value, form the print result of the adjustment pattern.

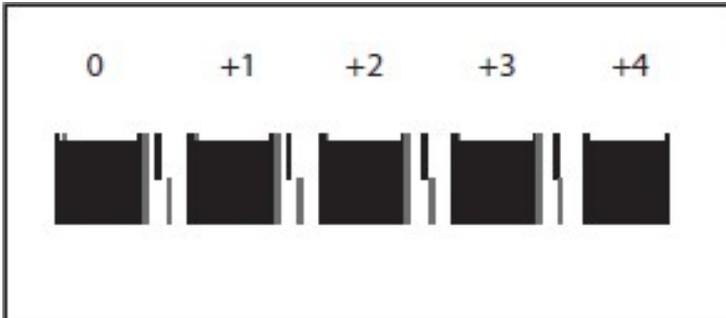


- 6.1 Find a pattern with a square in the lightest color and vertical lines on both sides that are the straightest (or closest to this condition) aligned in row A. Note that the value indicated over the pattern indicates an appropriate adjustment value. An appropriate adjustment value is “+2” in this example.



6.2 Enter this value in the box for ROW A (the up arrows make the value go up and down arrows make the value go down).

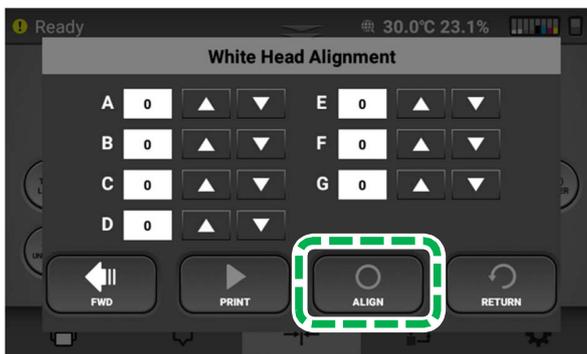
6.3 Repeat this for the other rows in the test pattern (B, C, etc.).



6.4 When there are no straight vertical side lines, as shown in the upper illustration, check the last square out of the sequence of squares with the smallest gap in the side lines and then find a corresponding value.

In the upper illustration, the value is “+4”.

7. After you enter a value for all the rows, press [ALIGN] that sets the new values



8. Print the pattern again and repeat the above process.

9. Repeat the process until all rows (A, B, C, etc.) show the 0 column or close to the 0 column as the best value.

## 4.2. Adjusting the Feed

The printing indexing of the feed can be adjusted. Typically, you do not need to do this unless a component is replaced such as the sub control board or the CTL board.

### ◆ Things to prepare

Purpose	Items
For use	Genuine DTF media

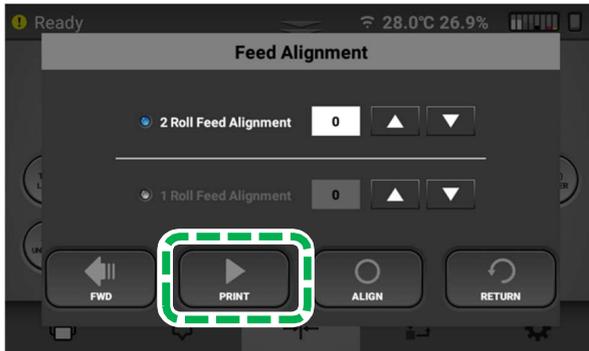
1. Press the Alignment tab.



2. Press [FEED ALIGNMENT].



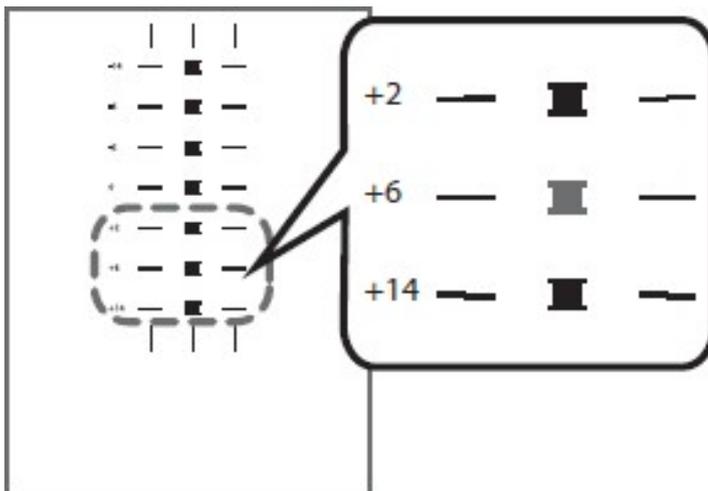
## 3. Press [PRINT].



The adjustment pattern is printed.

## 4. Find an appropriate adjustment value from the print result of adjustment patterns.

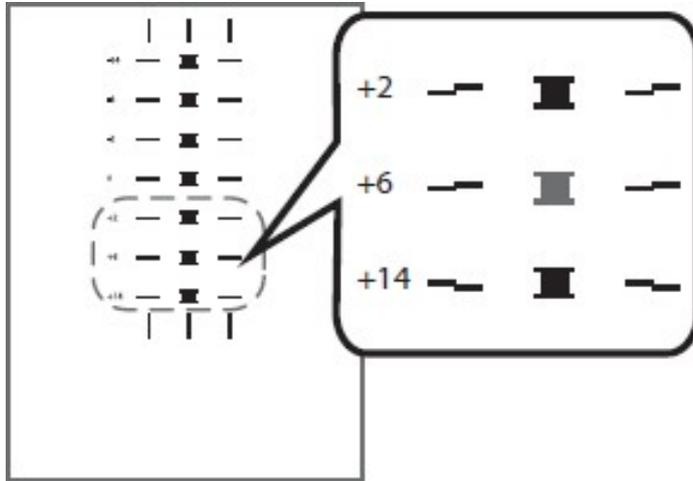
1. Find a pattern with a square in the lightest color and horizontal lines on both sides aligned.



- A value on the upper of the pattern indicates an appropriate adjustment value.
- An appropriate adjustment value is "+6".

**NOTE** - In some cases, an adjustment value is an in-between value of patterns.

When a square is in the lightest color, but horizontal lines on both sides are misaligned.



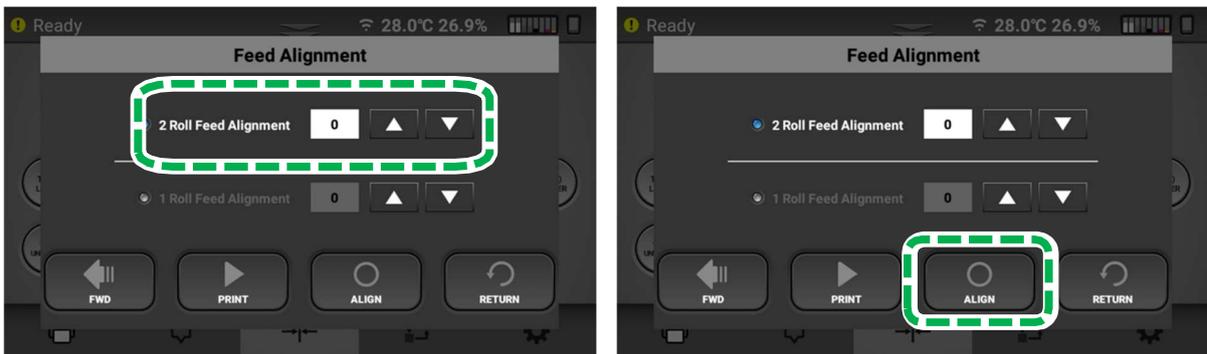
In the upper illustration, a square in the lightest color is for “+6”, but horizontal lines on both sides are misaligned. In this case, check horizontal lines for one pattern above and one pattern below of the square.

The horizontal lines for “+2” and “+6” are misaligned in the same direction, but the horizontal lines for “+14” are misaligned in the opposite direction.

In this case, a value that horizontal lines align exists somewhere in between “+6” and “+14”. After passing the value, the horizontal lines begin to be misaligned in the opposite direction as getting closer to “+14”.

By referring to the alignment of the lines, decide a value between “+6” and “+14” as an appropriate adjustment value.

5. After entering the value, press [ALIGN] and reprint the pattern.



6. Repeat the process until the pattern print shows 0 or close to 0 as the best result as described above.

### 4.3. Adjusting the print position

The printing start position can be adjusted accurately within  $\pm 5.0$  mm in the Head Direction.

#### ◆ Things to prepare

Purpose	Items
For use	Genuine DTF media

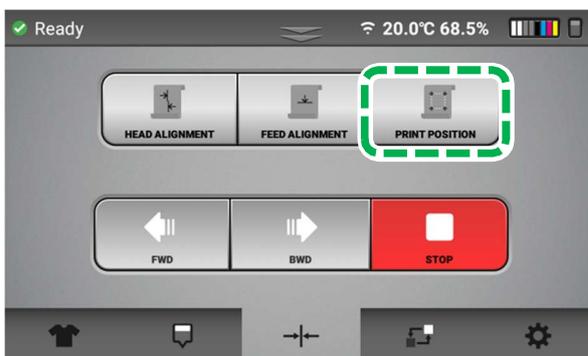
#### 1. Press the Alignment tab.



#### 2. Set the media align by center, and press [MEDIA SET] if media is not set.

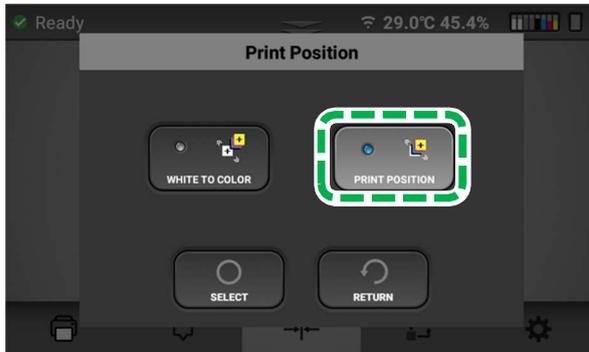
**NOTE** – Alignment is performed based on media that is placed on the center.

#### 3. Press [PRINT POSITION].

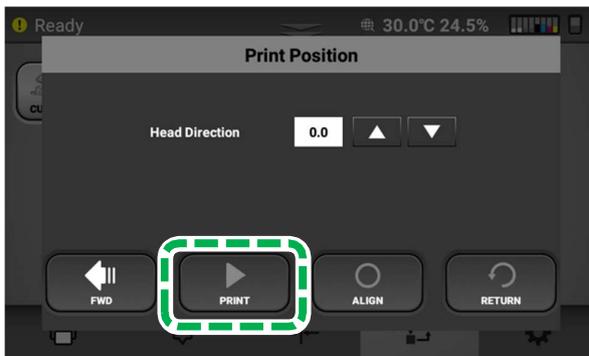


4. Select [PRINT POSITION] and Press [SELECT].

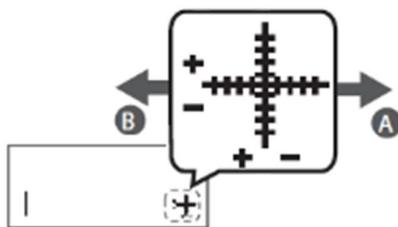
The print position pattern is printed.



5. Press [PRINT].

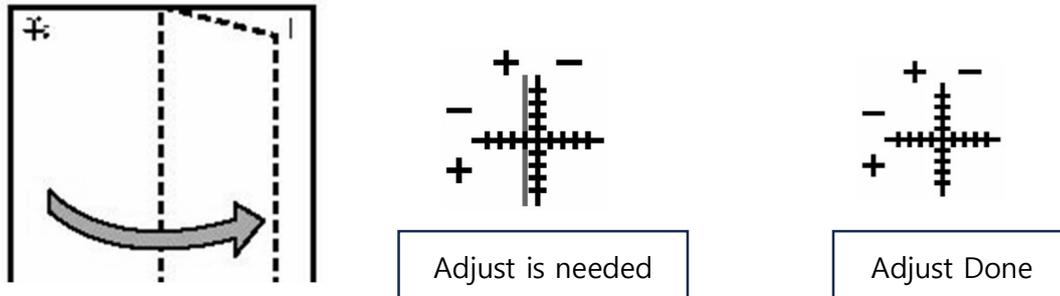


6. After printing the pattern for the print position adjustment, you need to find an appropriate value based on the alignment files to the 4 arrows on the media.

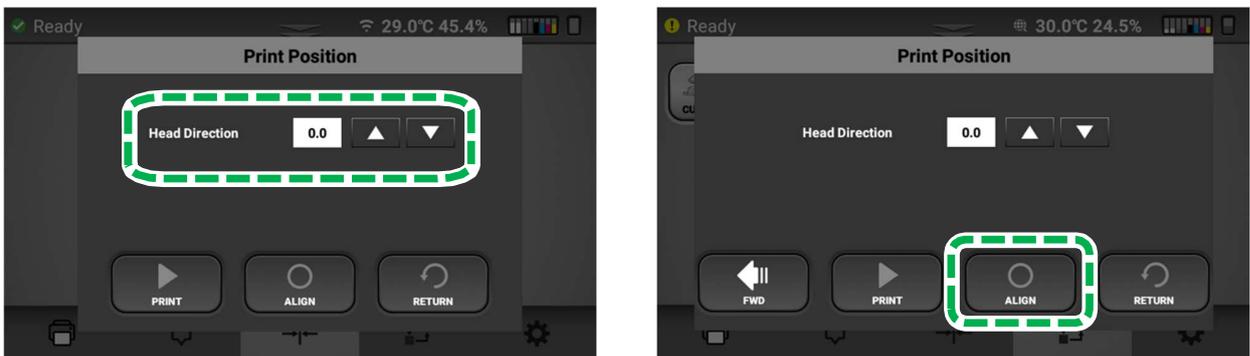


- To move the print position to the “A” direction, enter a value between “-0.1” and “-5.0” in the head direction input area.
- To move the print position to the “B” direction enter a value between “+0.1” and “+5.0” in the head direction input area.

- Fold the printed sheet in half lengthwise as shown, hold the corner of the folded paper in front of a light and look at the cross-pattern overlapping the single vertical line below and can determine the adjustment.



7. After entering the values, press [ALIGN] to set the values.



8. Repeat the process until the print crosshair is overlapped with vertical line.

## 4.4. Adjusting white print position

The printing start position can be adjusted accurately within  $\pm 5.0$  mm in the Head Direction.

### ◆ Things to prepare

Purpose	Items
For use	Genuine DTF Film

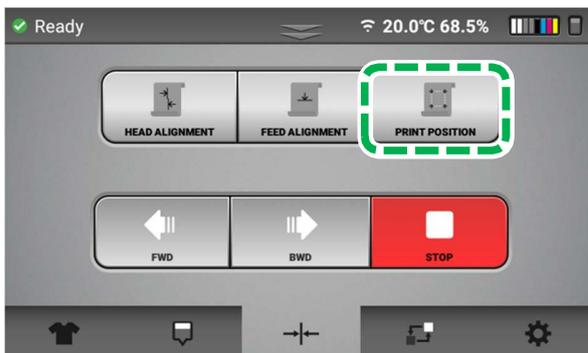
#### 1. Press the Alignment tab.



#### 2. Set the media align by center, and press [MEDIA SET] if media is not set.

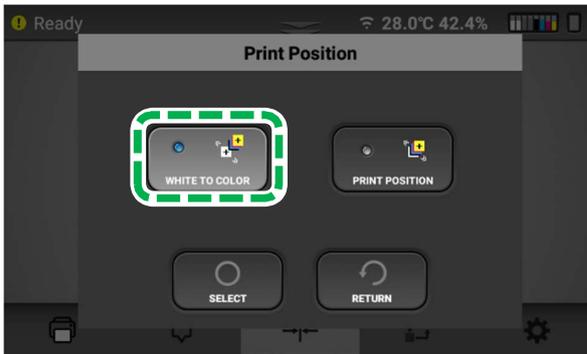
**NOTE** – Alignment is performed based on media that is placed on the center.

#### 3. Press [PRINT POSITION].

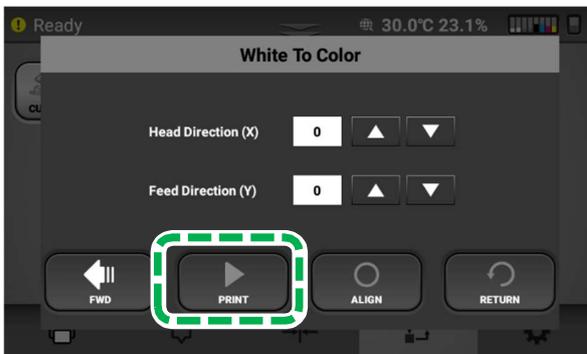


4. Select [WHITE TO COLOR] and Press [SELECT].

The print position pattern is printed.

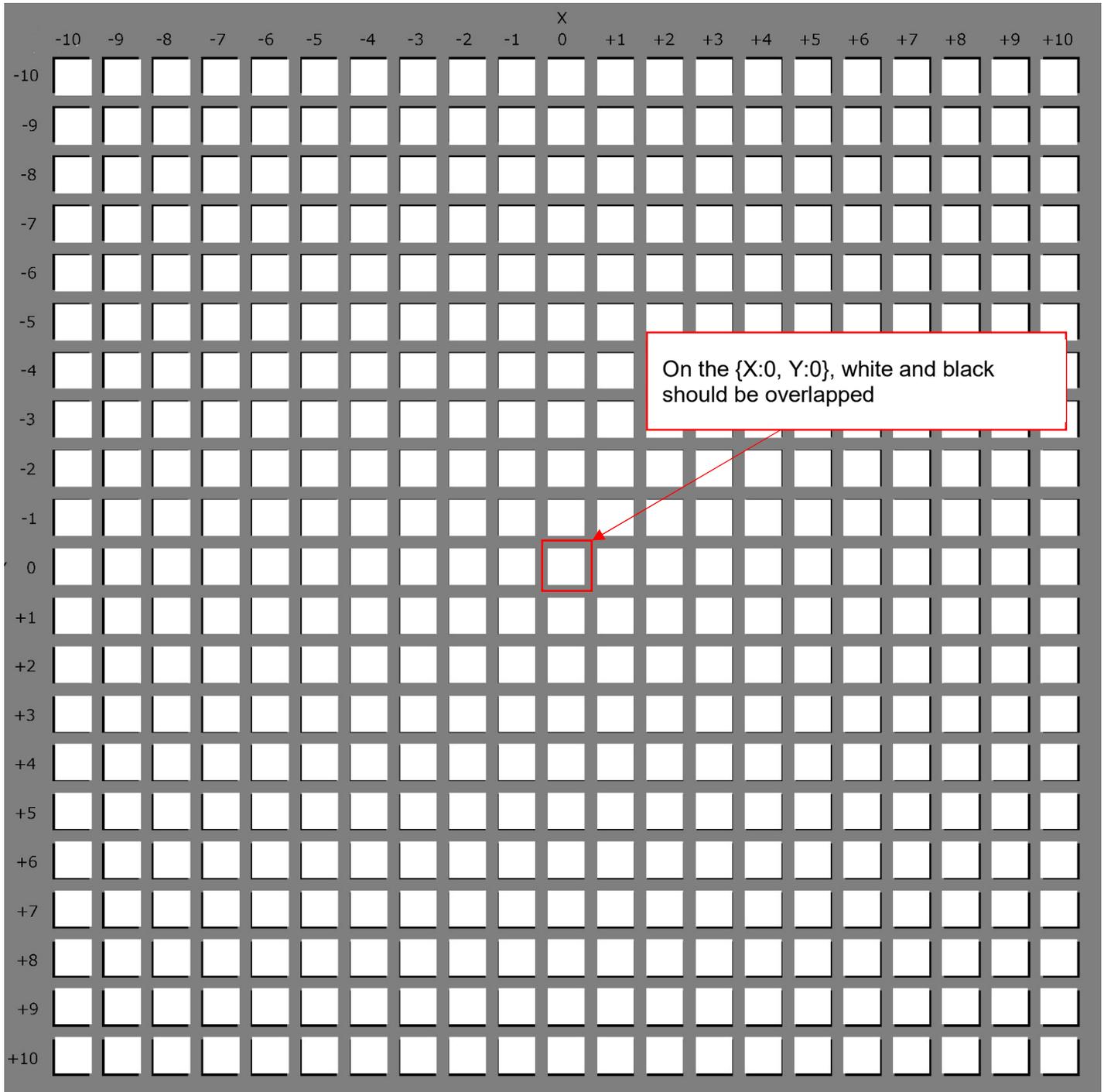


5. Press [PRINT].

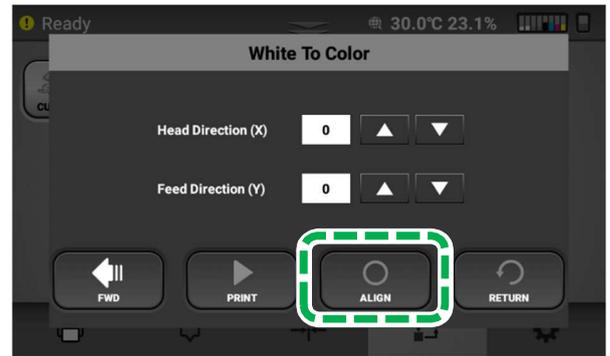
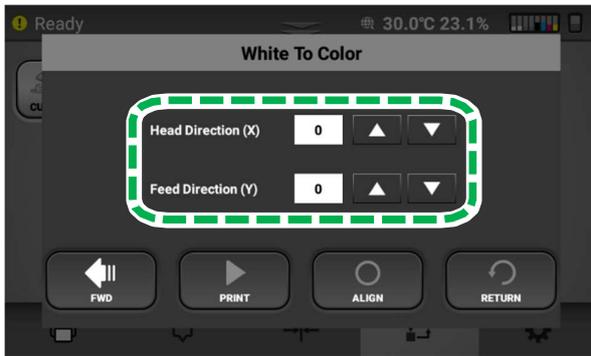


## 6. Find &amp; input the point that white and black completely overlapped.

- The following is an ideal result.



7. After entering the values, press [ALIGN] to set the values.



8. Repeat the process until the print crosshair is overlapped with vertical line.

**Note** - If needed, please perform a nozzle check after completing the adjustments.  
please refer to chapter 3.2. NOZZLE CHECK

# 5. Replacing Service Parts

## 5.1. Service parts

This printer has some replaceable service parts and sumps that are monitored for service life.



- Each icon provides the status of each service part.

The color of each component icon	Description
Green 	Normal
Yellow 	Replace soon
Red 	Replace now

**NOTE** - This is a suggested service life end based on averages. Printing and maintenance operation will not be interrupted when the service life end is reached for all components except for the left and right sumps. These sumps must be drained or replaced when the service life end is reached. Contact technical support. Components such as the maintenance unit cannot be replaced under warranty when the service life is reached (typically this is several thousand prints depending on use).

- When a component is selected, the [Parts Replacement] dialog box is displayed. It shows the count and the date of the last replacement.



- After replacing each part, press [REPLACE] to reset the count.

## 5.2. How to replace the Mist Fan Filter

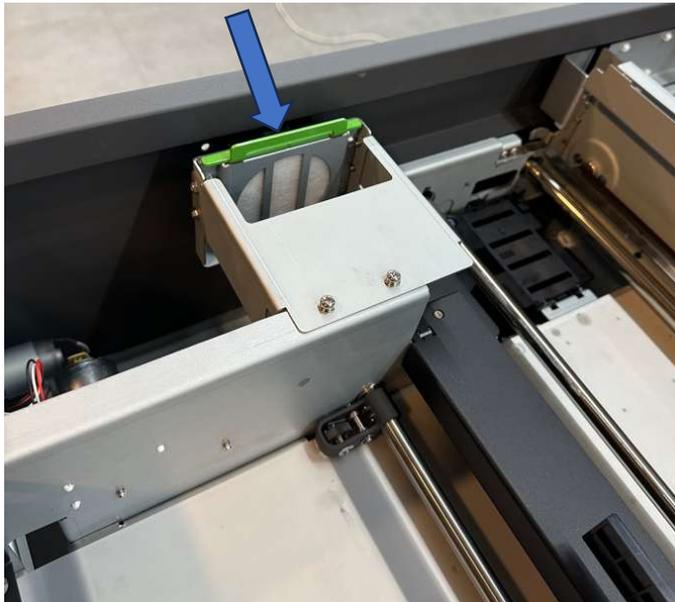
If the mist fan filter needs to be replaced, a message will be displayed on the touch panel.

### ◆ Things to prepare

Purpose	Items
To wear	Polyethylene gloves
	Protective glasses or goggles (commercially available)
For use	New mist fan filter

### ◆ Guide to parts

#### Mist fan filter with fixing frames



#### 3.2.1. Open the Top cover.



**3.2.2. Remove the mist fan filter fixing frame.****3.2.3. Remove the mist fan filter from the fixing frame.****3.2.4. Set the new mist fan filter into the fixing frame.****3.2.5. Insert the mist fan filter fixing frame into its original position until it clicks.**

### 5.3. How to replace the Cutter

If the mist fan filter needs to be replaced, a message will be displayed on the touch panel.

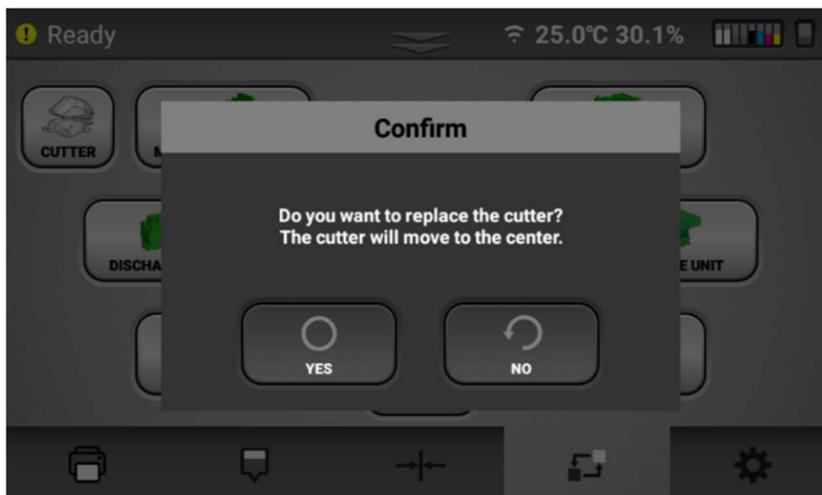
#### ◆ Things to prepare

Purpose	Items
To wear	(+) Screw Driver
For use	New Cutter module.

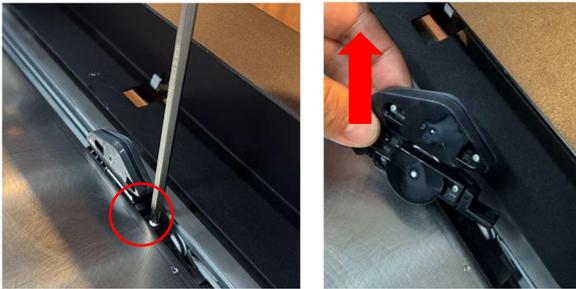
#### ◆ Guide to parts



5.3.1. From UI menu, Select [cutter].



5.3.2. Select [yes], then the cutter module will move to the center of cutting path.



5.3.3. Disconnect the cutter and remove it (⚙️ x1)



5.3.4. After replacing the NEW CUTTER, assembly is done in reverse order of disassembly.

5.3.5. After replacing the CUTTER, press the OK button on the UI to finish.

## 5.4. How to replace the Maintenance unit

If the maintenance unit needs to be replaced, a message will be displayed on the touch panel.

### ◆ Things to prepare

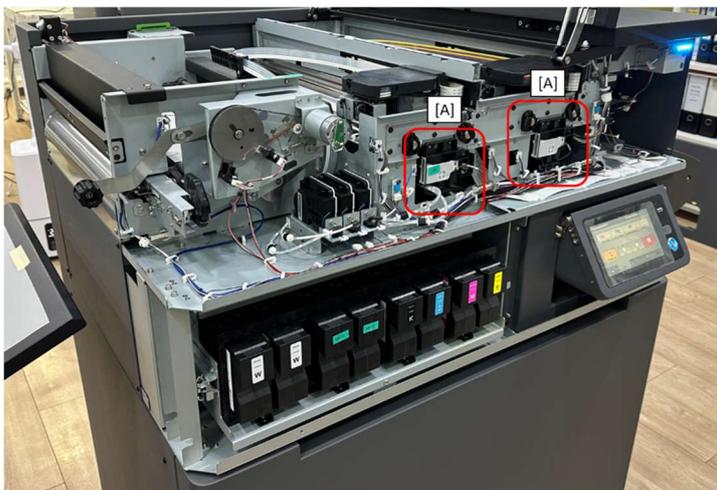
Purpose	Items
To wear	Polyethylene gloves
	Protective glasses or goggles (commercially available)
For use	New maintenance unit

### ◆ Guide to parts

#### 5.4.1. Remove right cover



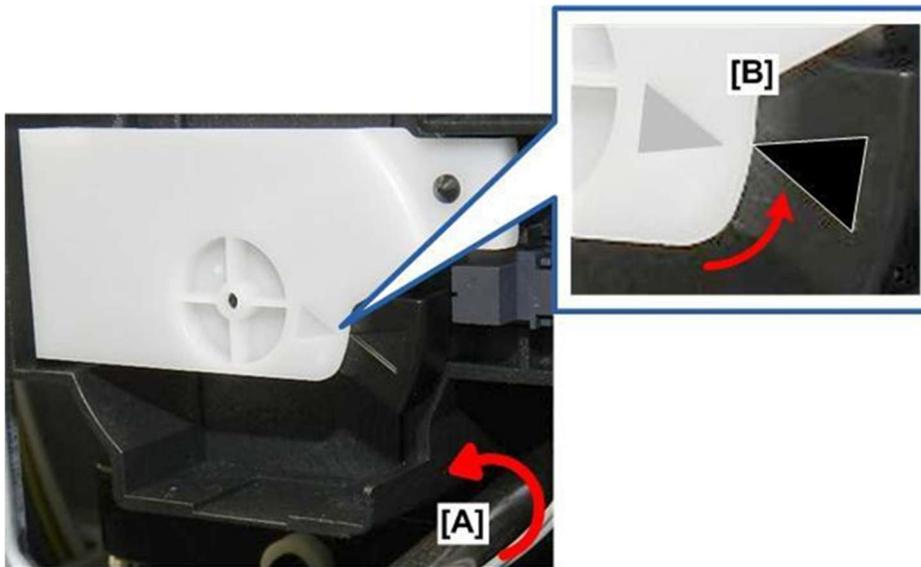
5.4.2. The maintenance unit [A] (and right ink sump below it) are located on the right side of the machine below the carriage unit.



5.4.3. Insert a long (+) screwdriver into the side of the maintenance unit [A].

5.4.4. Locate the two separated triangle marks [B]. This indicates that the maintenance unit and carriage are locked together.

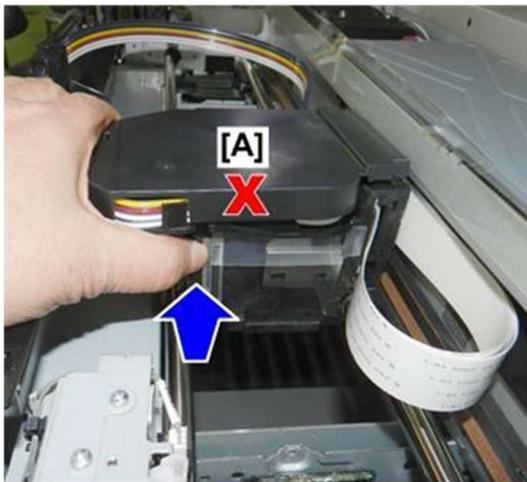
- 5.4.5. Rotate the screwdriver [A] counterclockwise until you see the tips of the triangles [B] aligned. This unlocks the maintenance unit and carriage.



- 5.4.6. Push the carriage [A] to the center of the machine.

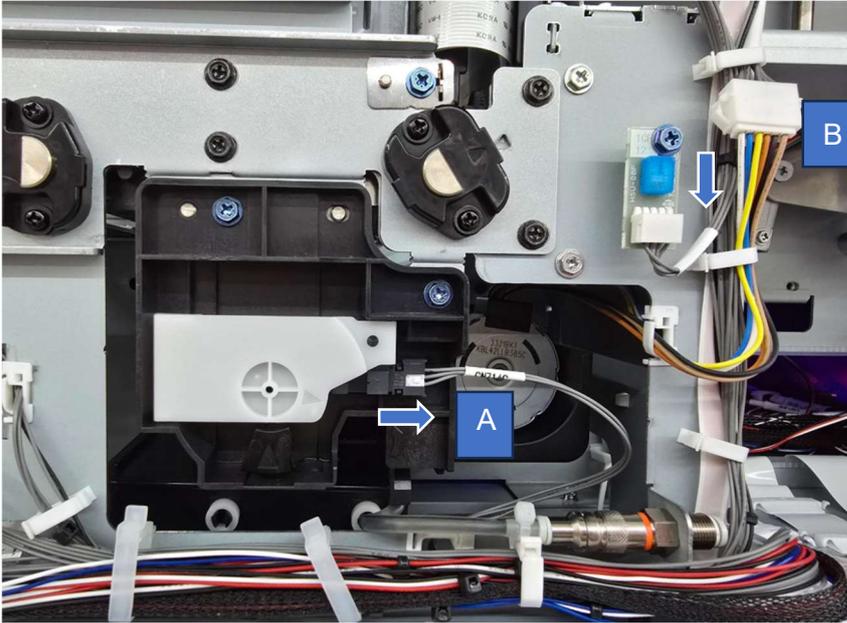
★ Important

Do not push on the top cover of the carriage.

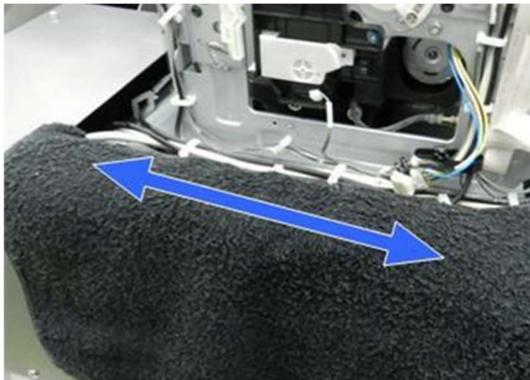


5.4.7. Disconnect the harnesses at [A] and [B]

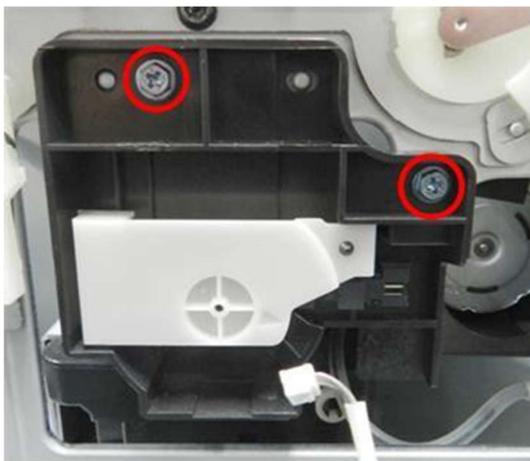
5.4.8. Use a long-nose pliers to depress the lever-lock on the head of the ratchet binder [C], and then push the tail of the binder into the head until the loop is large enough for the head of the connector to pass through



5.4.9. Place a towel on the frame where you can set the bottom of the maintenance unit temporarily.



5.4.10. Remove the maintenance unit screws.



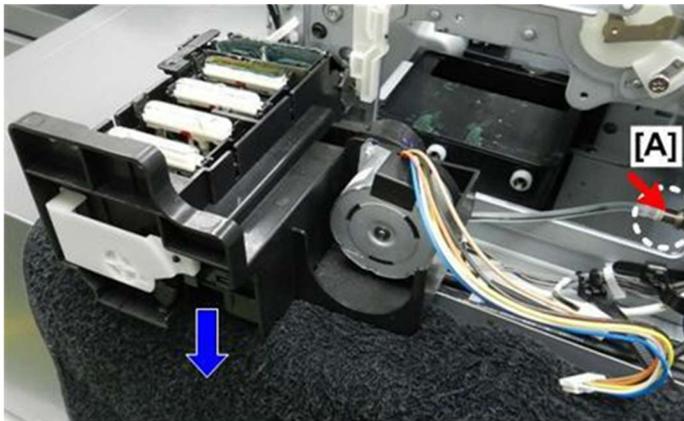
 x2

j102b3712

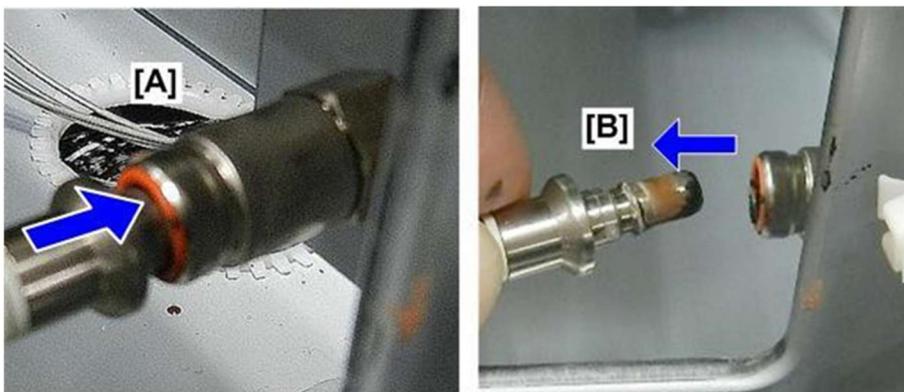
## 5.4.11. Pull the maintenance unit out.



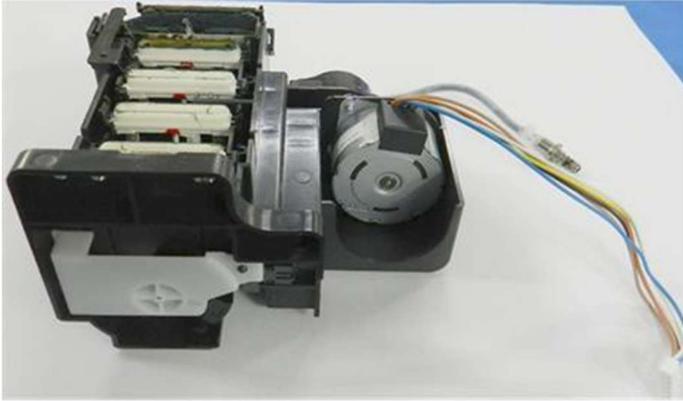
## 5.4.12. Set the maintenance unit on the frame covered with the towel. The maintenance unit is still connected by the waste ink tube [A].



## 5.4.13. Press the coupling release [A] toward the rear, and then disconnect the tube [B].



5.4.14. Place the maintenance unit on the surface covered with waste paper prepared earlier.



5.4.15. Turn on the printer, and go to the parts consumables tab.

Select **MAINTENANCE UNIT** and touch **[Replace]** to confirm that you replaced the unit.  
(Service Parts Screen)

## 5.5. How to replace the Discharge Pump

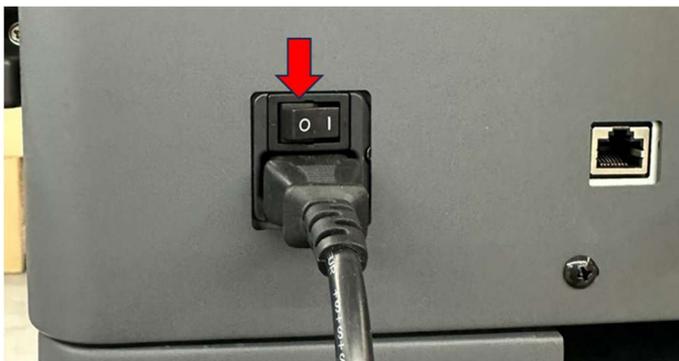
If the mist fan filter needs to be replaced, a message will be displayed on the touch panel.

### ◆ Things to prepare

Purpose	Items
To wear	Polyethylene gloves
	Protective glasses or goggles (commercially available)
For use	New discharge pump

5.5.1. Turn off the machine at the operation panel.

5.5.2. The rear left corner of the machine, press **O** to turn off the main power switch, and then disconnect the power supply cord.

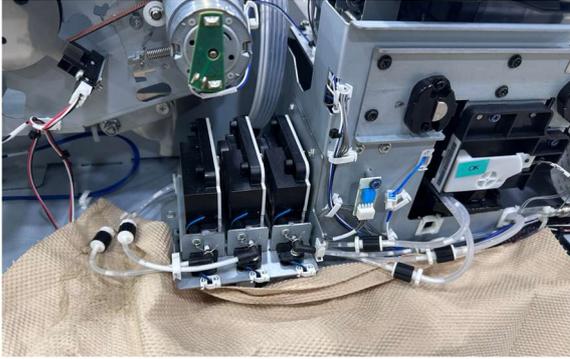


5.5.3. Remove right cover

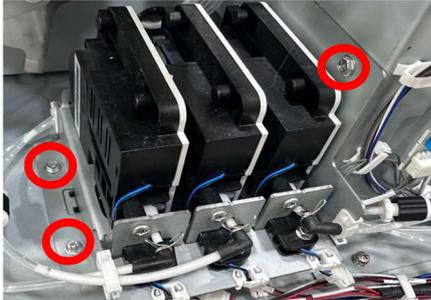


 X 8

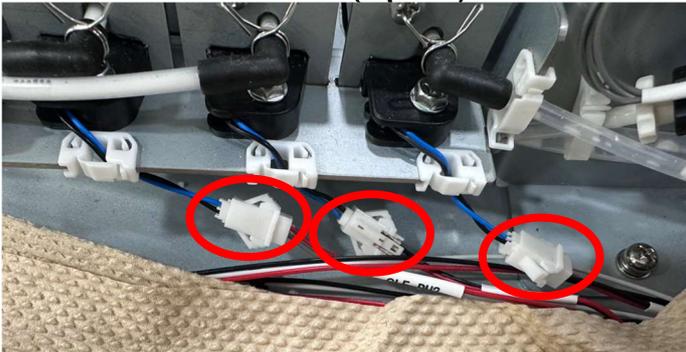
5.5.4. Place a towel on the frame where you can set the bottom of the maintenance unit temporarily.



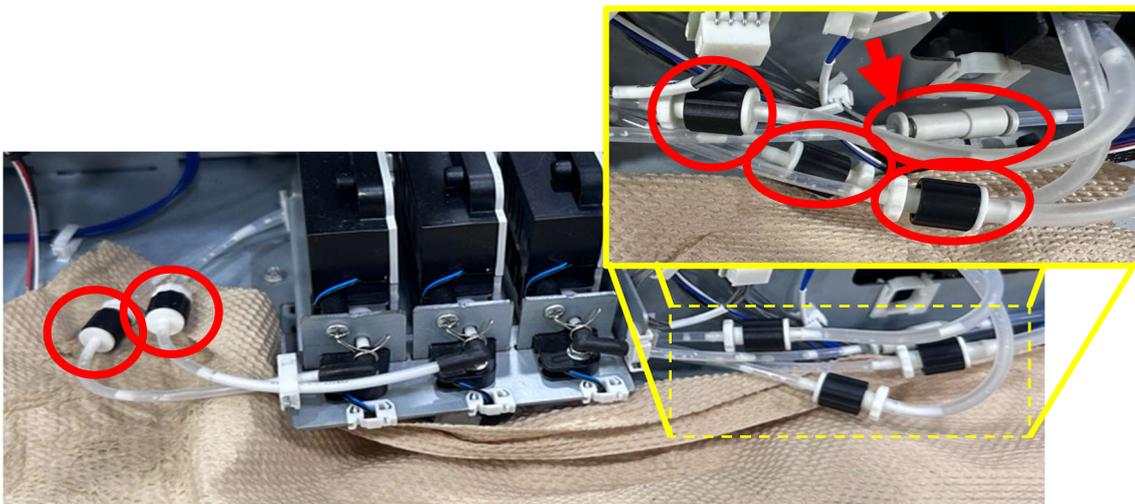
5.5.5. Remove the screw



5.5.6. Disconnect the connector (3 point)



5.5.7. Release the tube joint. (5 point)



- 5.5.8. Assemble the separated joints into male and female to prevent leakage of residual liquid. If there is no male and female, put them on the towel.**



- 5.5.9. Replace with a new pump and insert the disconnected tube joints and connections.**

- 5.5.10. Secure with a separate bolt and assemble the cover.**

## 5.6. How to replace the Ink Supply Unit

If the ink supply unit needs to be replaced, a message will be displayed on the touch panel.

### ◆ Things to prepare

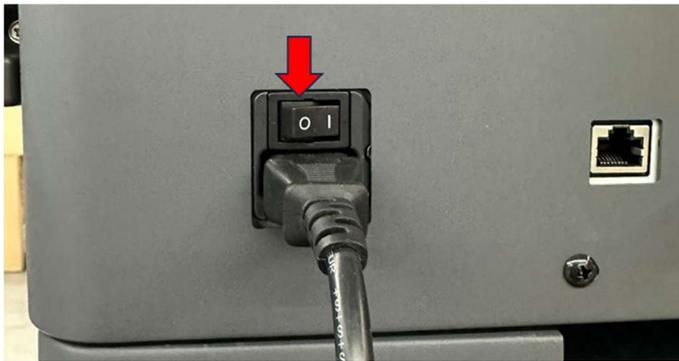
Purpose	Items
To wear	Polyethylene gloves
	Protective glasses or goggles (commercially available)
For use	New ink supply unit

#### ★ Important

There are four ink supply units, and each one is different. The ink supply units are not interchangeable.

5.6.1. Turn off the machine at the operation panel.

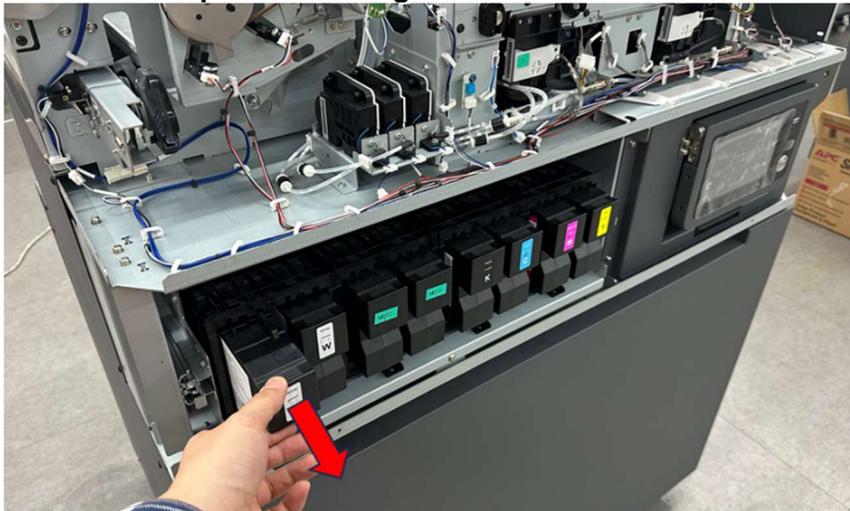
5.6.2. The rear left corner of the machine, press O to turn off the main power switch, and then disconnect the power supply cord.



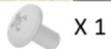
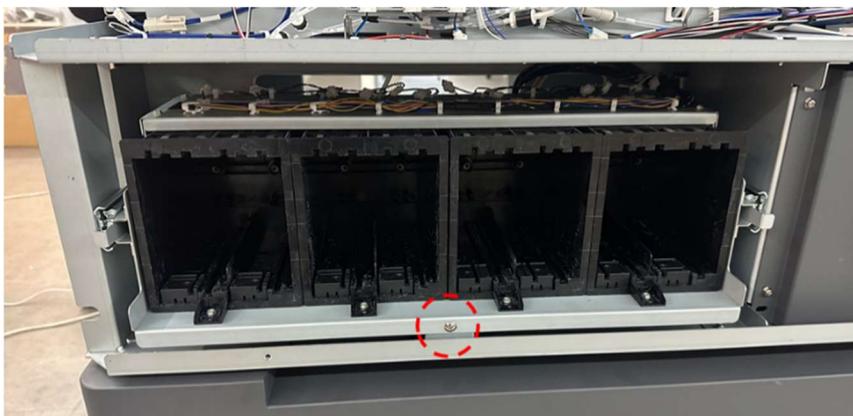
5.6.3. Remove right cover



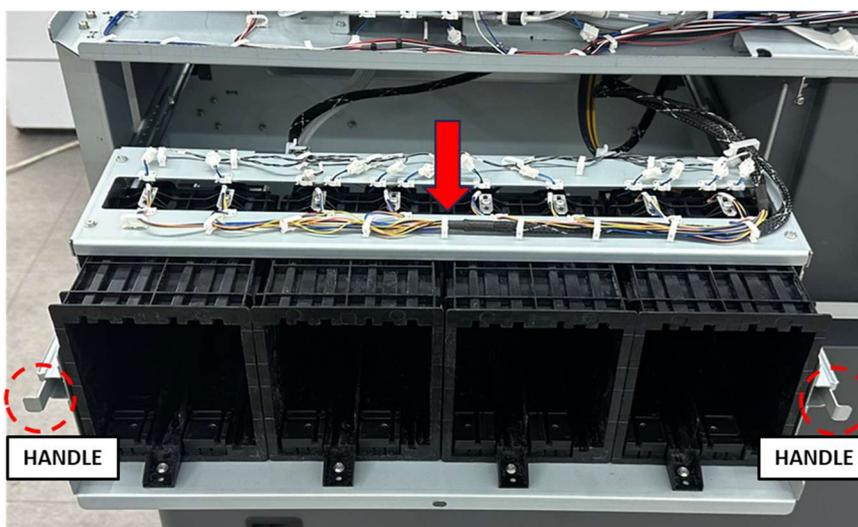
5.6.4. Remove all the printer cartridges.



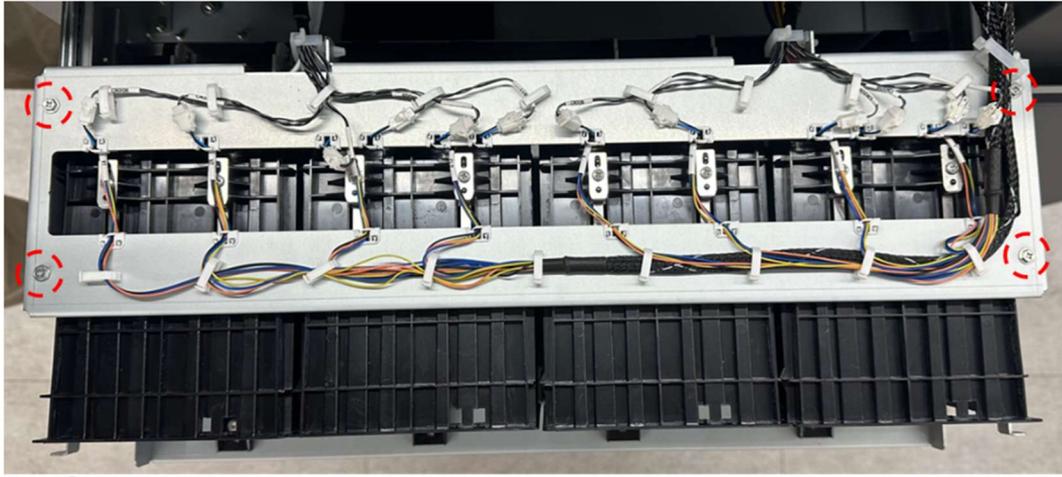
5.6.5. Remove the screw



5.6.6. Pull out the ink bay

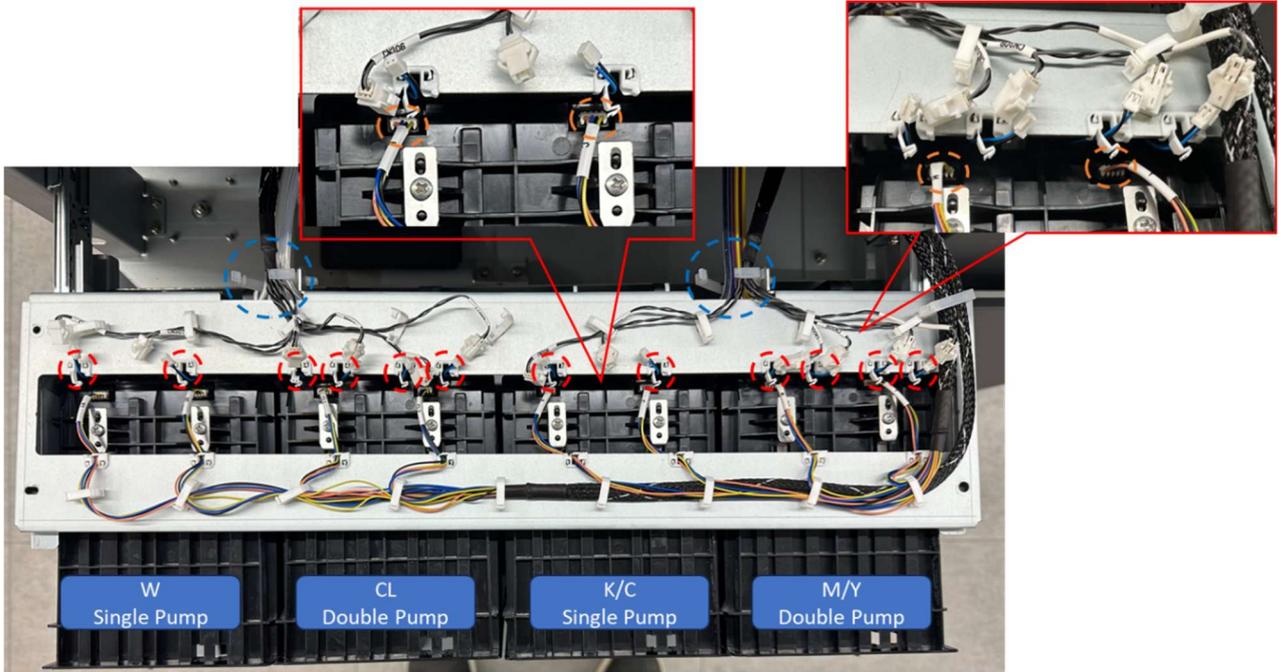


5.6.7. Remove the screws.



 X 4

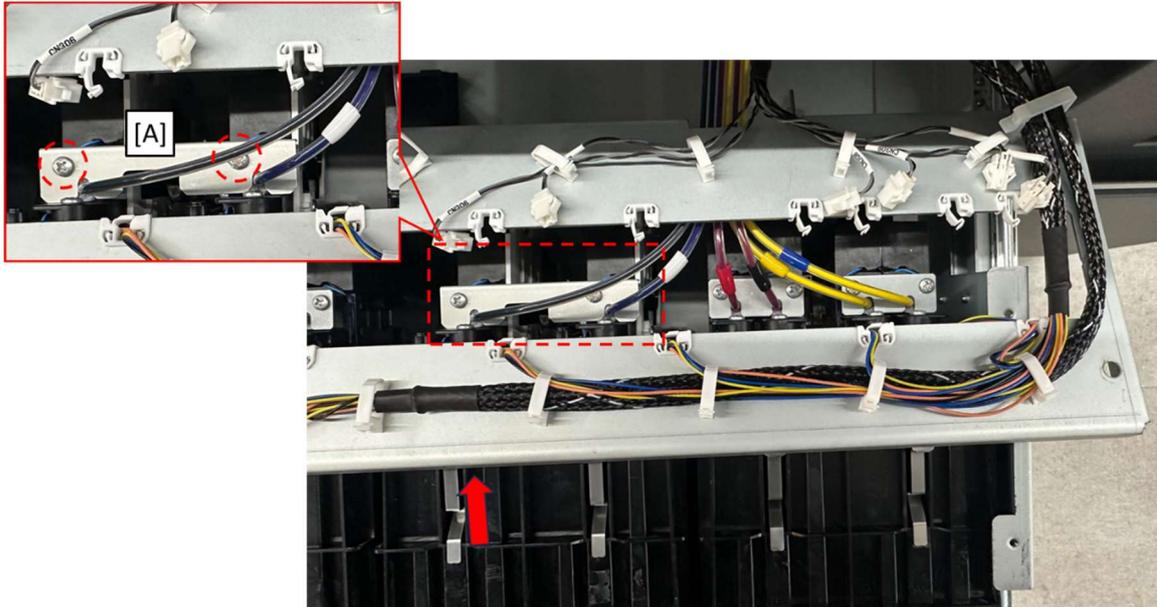
5.6.8. Unlock clamp and remove harness.



## Single pump Unit

5.6.9. Single pumps units are 1st and 3<sup>rd</sup>

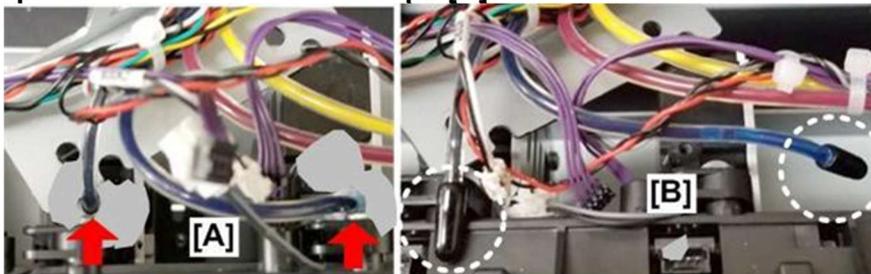
5.6.10. Move the cover and loosen the A screw slightly



5.6.11. Prepare two caps in the service parts and some absorbent pads like the supplied Lint Free Wipes

5.6.12. Carefully, disconnect the ink tubes [A]. Use the pads to catch ink when removing the tube.

5.6.13. Cap both ink tubes with the caps [B].



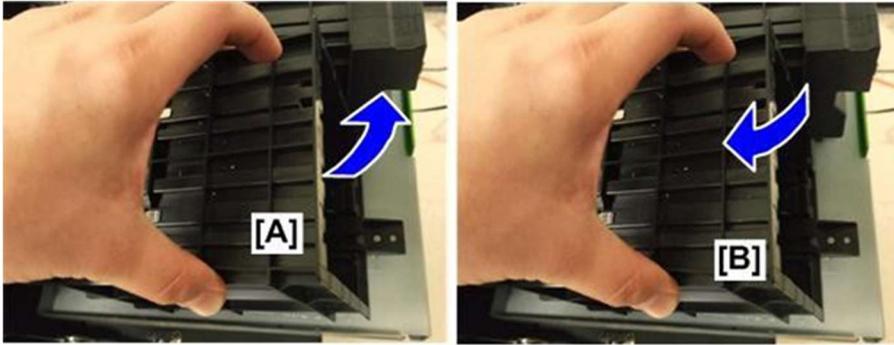
5.6.14. Disconnect the front [A] of the unit.

5.6.15. Disconnect the back [B] of the unit.



5.6.16. Remove the old Single pump unit [A].

5.6.17. Set the new Single pump unit [A].

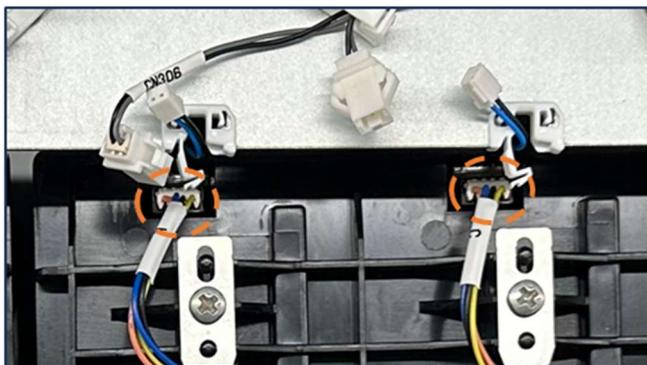
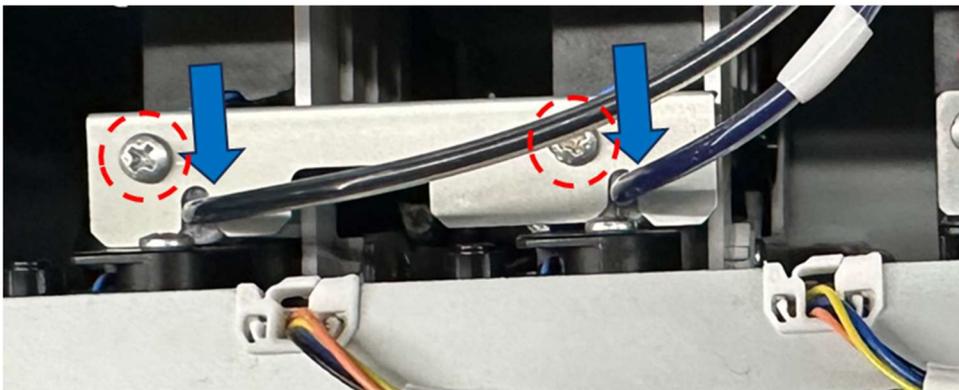


5.6.18. Fasten the front [A] of the unit.

5.6.19. Make sure the metal tab laps over the foot of the supply unit, and then fasten the screw [B].

5.6.20. Remove the ink tube caps and connect the tubes.

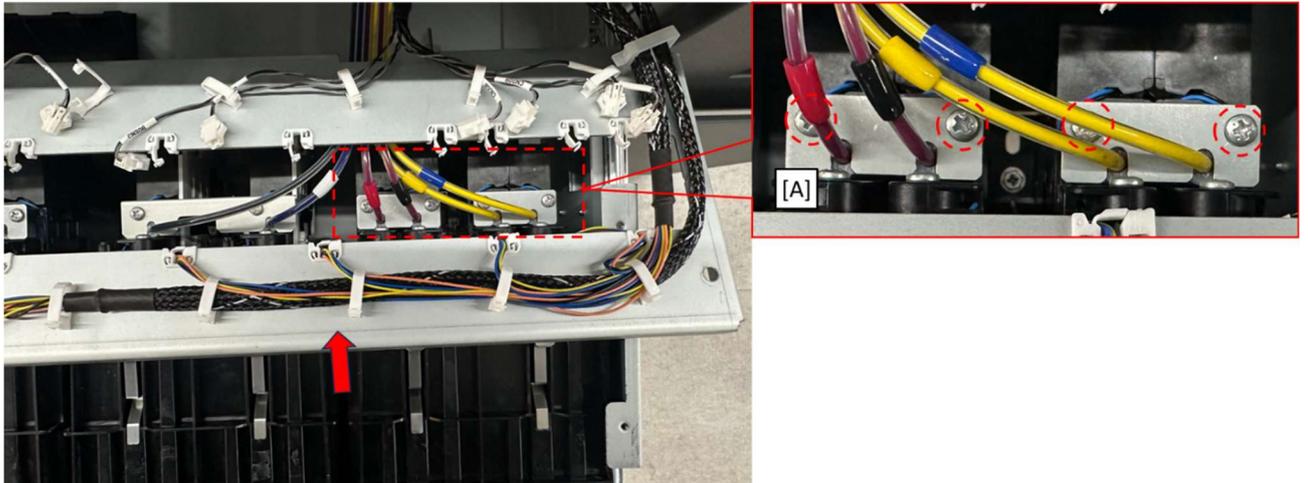
5.6.21. Fasten the bracket, and then connect the unit.



## Double pump Unit

5.6.22. Double pumps units are the 2nd and 4<sup>th</sup>

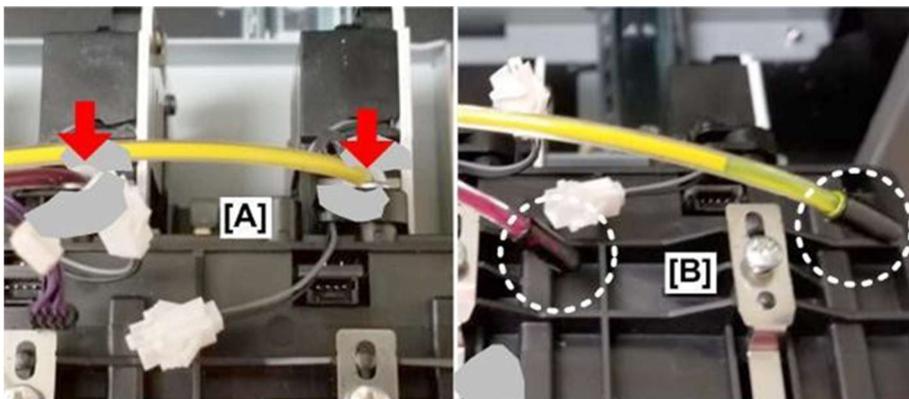
5.6.23. Move the cover and loosen the A screw slightly



5.6.24. Prepare Four caps in the service parts and some absorbent pads like the supplied Lint Free Wipes

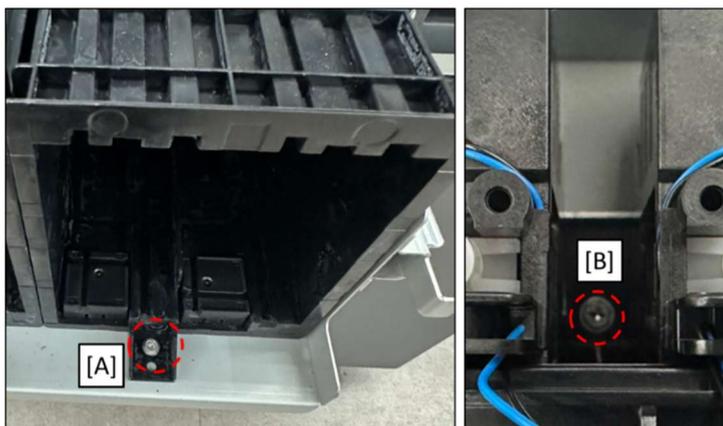
5.6.25 Carefully, disconnect the ink tubes [A]. Use the pads to catch ink when removing the tube.

5.6.26. Cap both ink tubes with the caps [B].



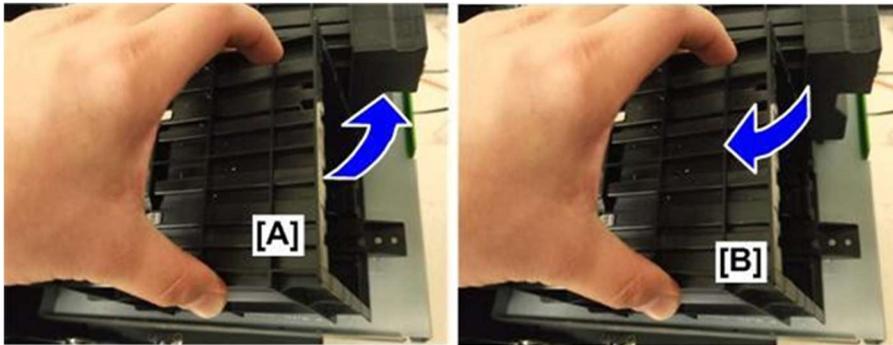
5.6.27. Disconnect the front [A] of the unit.

5.6.28. Disconnect the back [B] of the unit.



5.6.29. Remove the old Double pump unit [A].

5.6.30. Set the new Double pump unit [B].

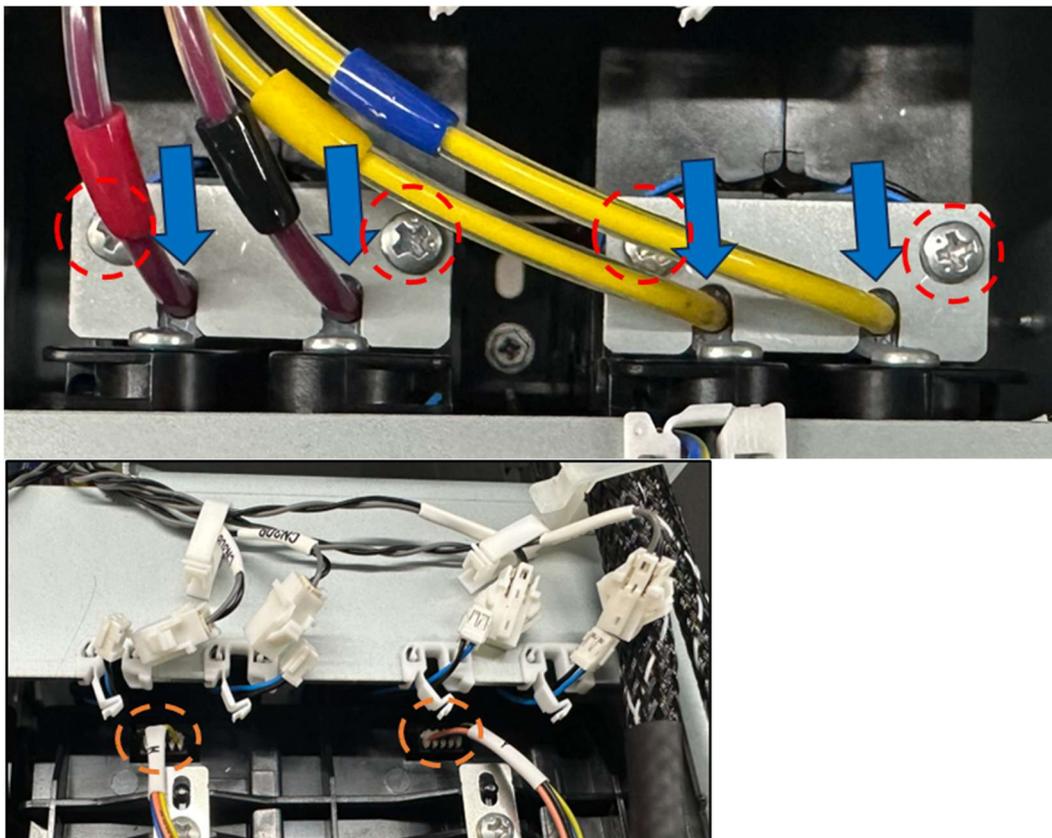


5.6.31. Fasten the front [A] of the unit.

5.6.32. Make sure the metal tab laps over the foot of the supply unit, and then fasten the screw [B].

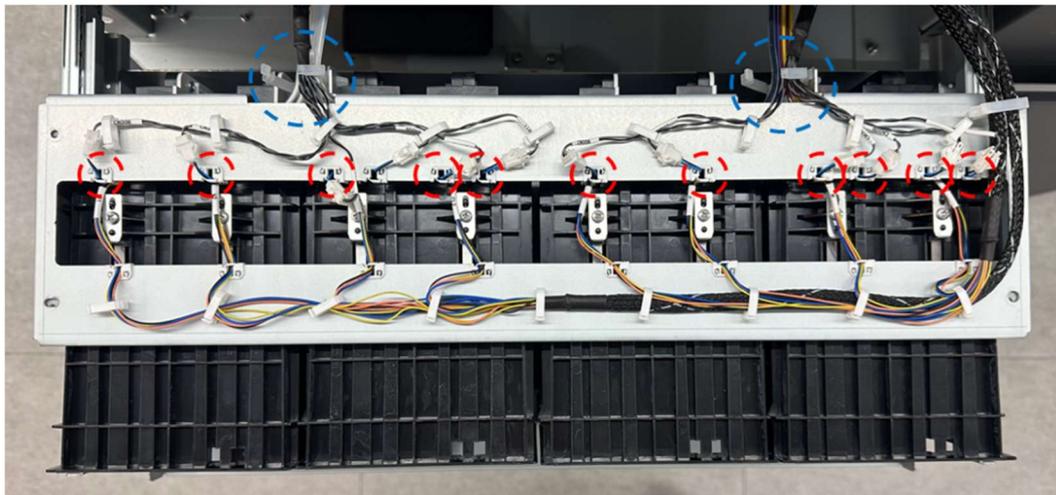
5.6.33. Remove the ink tube caps and connect the tubes.

5.6.34. Fasten the bracket, and then connect the unit.

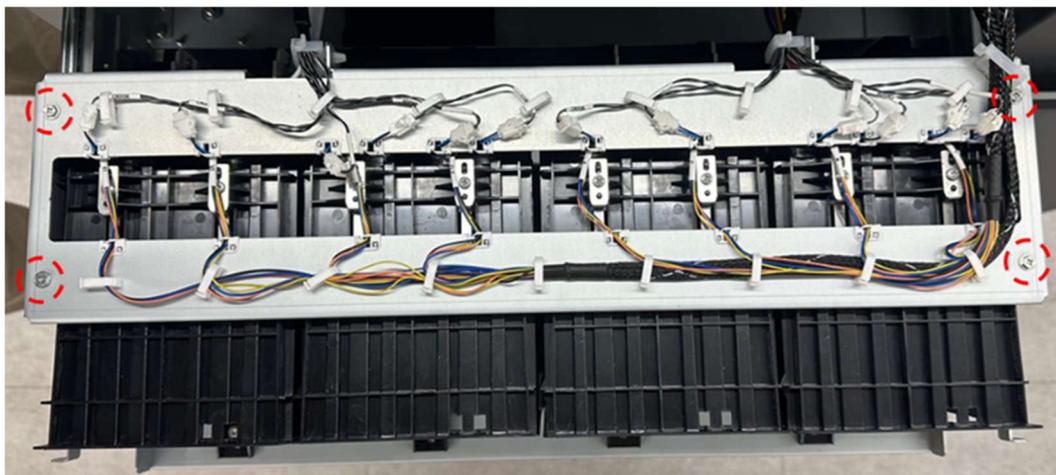


Finishing the Replacement Procedure

5.6.35. Connect harness and clamp

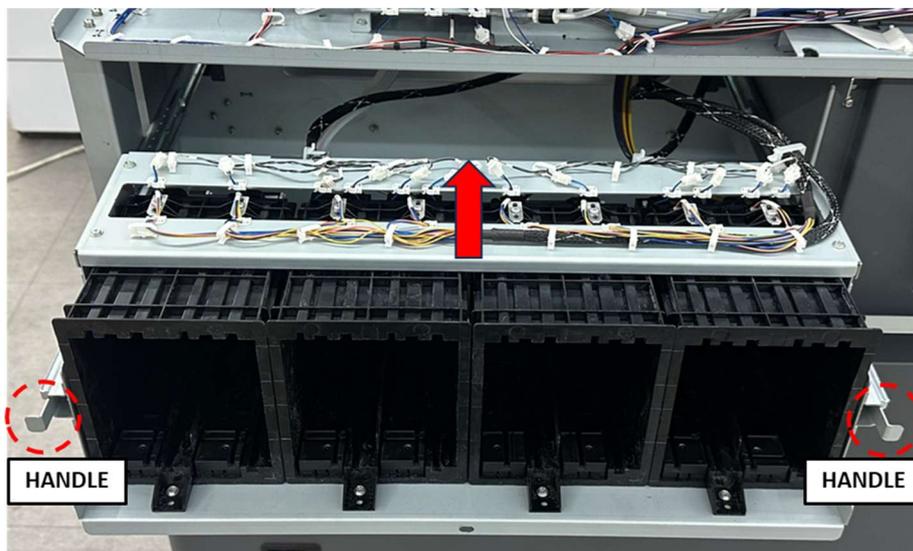


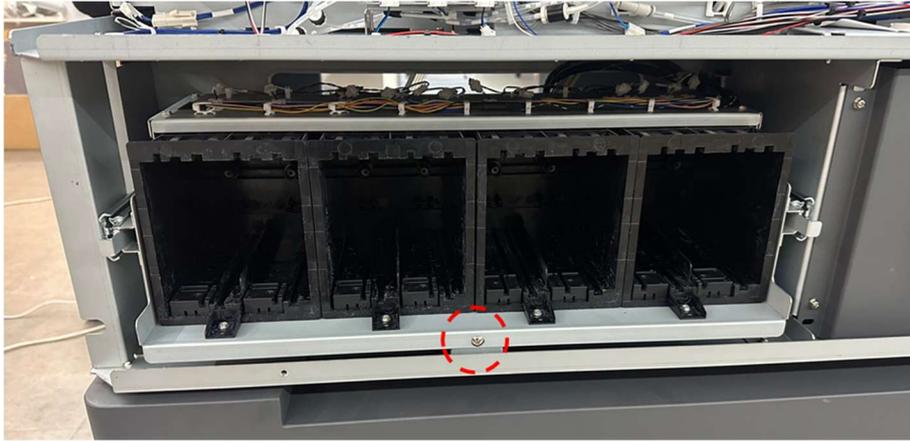
5.6.37. Fasten the cover by re-attaching screws



 X 4

5.6.38. Push the ink supply bay into the side of the machine, and then fasten it with the screws.



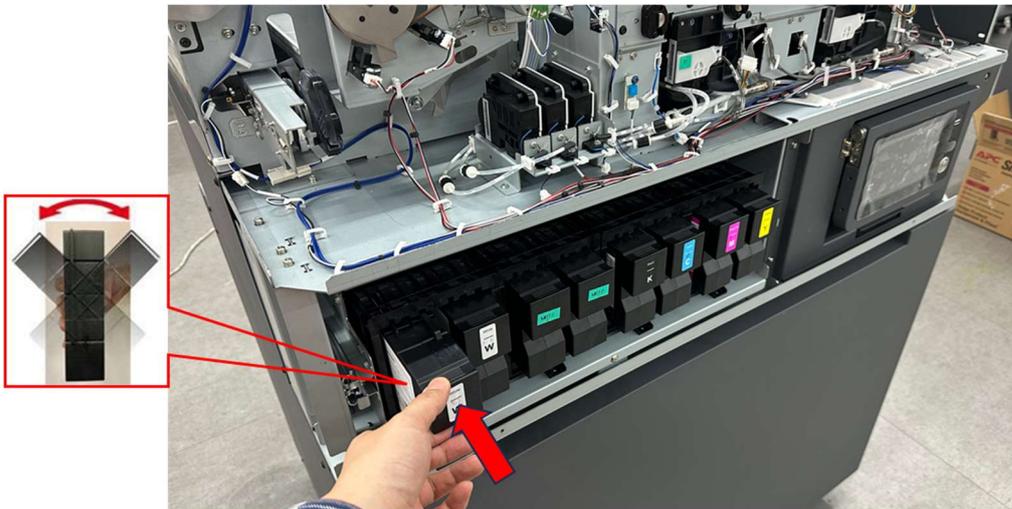


X 1

### 5.6.39. Insert the ink cartridges.

**★ Important**

- Before you replace cartridges W stir the white ink slightly by rotating each cartridge as shown for about 2 min.



**★ Important**

You must install the same cartridges that were removed. If you replace a cartridge, or swap ink/cleaning cartridges at this step, this will cause a serious error when you switch the machine on.

### 5.6.40. Reattach the power supply cord, and then turn the machine on.

### 5.6.41. Touch the consumables icon.



5.6.42. Touch the image of the ink supply unit that was replaced (W, CL, KC, MY).



5.6.43. Touch REPLACE.



5.6.44. If you replaced more than one unit, repeat Step 5, 6, and 7 for each replaced unit, and then continue to the step below.

5.6.45. Touch the Nozzle Check icon, and then do the NOZZLE CHECK procedure.



## 5.7. How to replace the Left Ink Sump

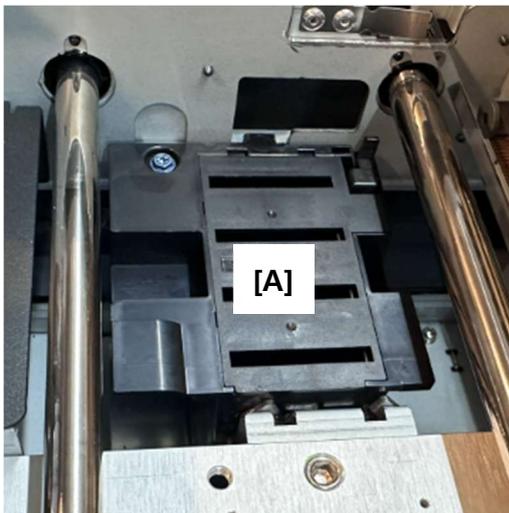
If the mist fan filter needs to be replaced, a message will be displayed on the touch panel.

### ◆ Things to prepare

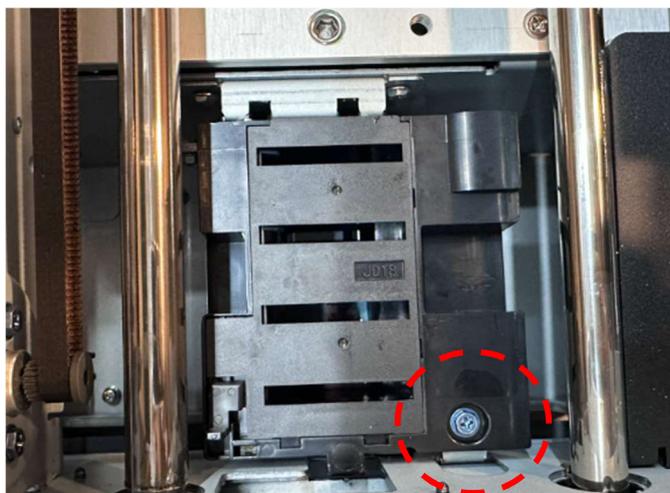
Purpose	Items
To wear	Polyethylene gloves
	Protective glasses or goggles (commercially available)
For use	Left ink sump

5.7.1 Open the top cover. ([Open Top Cover](#))

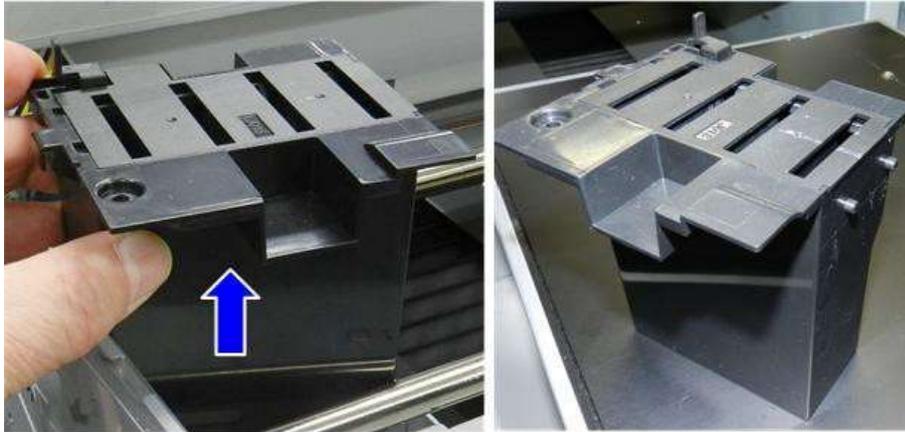
5.7.2. The left ink sump [A] is on the left side of the machine.



5.7.3. Remove the left sump screw.

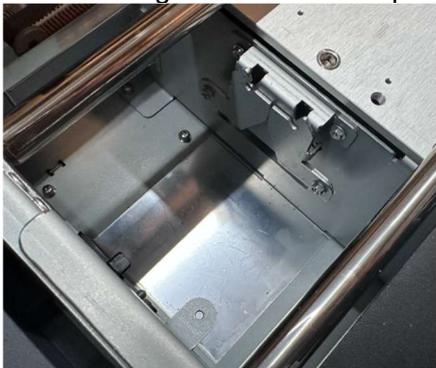


5.7.4. Lift the sump out of the machine.

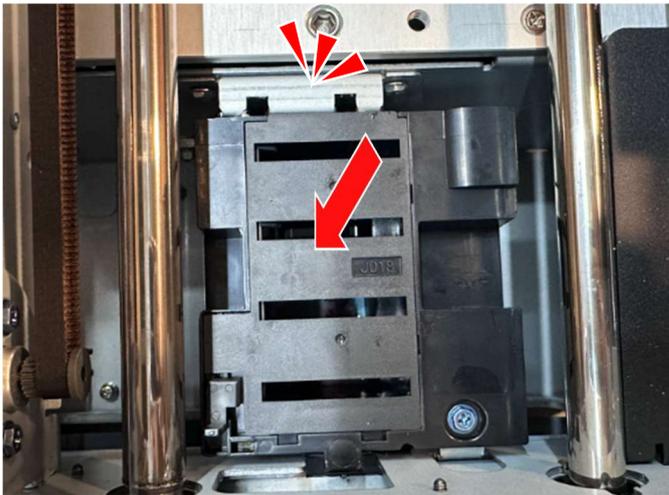


### Re-installation

5.7.5. A tab on the right side of the sump fits into a latch hole in the frame on the right.



5.7.6. Set the sump and then verify that the latches are engaged properly.



5.7.7. Turn on the printer, and go to the parts consumables tab.

Select LEFT INK SUMP and touch [Replace] to confirm that you replaced the unit. ([Service Parts Screen](#))

## 5.8. How to replace the Right ink sump

If the mist fan filter needs to be replaced, a message will be displayed on the touch panel.

### ◆ Things to prepare

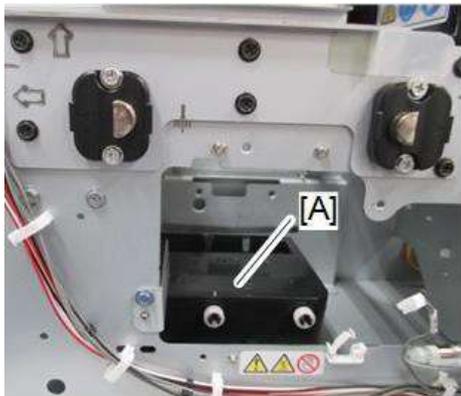
Purpose	Items
To wear	Polyethylene gloves
	Protective glasses or goggles (commercially available)
For use	Right ink sump

5.8.1. Open the top cover. ([Open Top Cover](#))

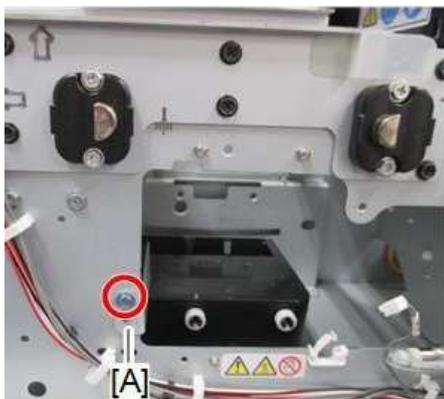
5.8.2. Remove the right cover. ([Operation Panel, Right Cover](#))

5.8.3. Remove the maintenance unit. ([Maintenance Unit](#))

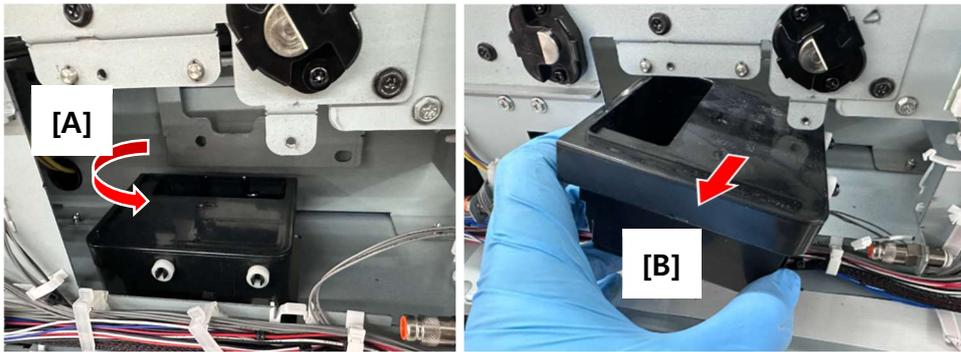
5.8.4. The right ink sump [A] is directly below the maintenance unit.



5.8.5. Remove bracket [A].



5.8.6. Turn the sump 90 degrees to the right (cw) [A], and then pull it out the side of the [B] printer while taking care not to tilt it and spill ink.



5.8.7. Place the right ink sump with the maintenance unit on the surface covered with waste paper.



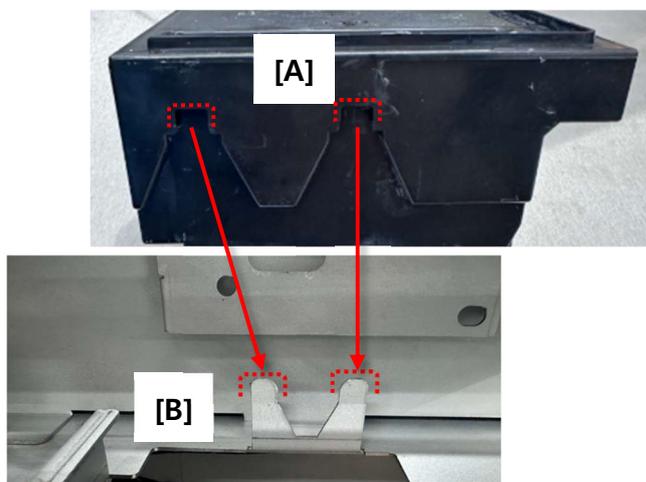
5.8.8. Install the new right ink sump.

5.8.9. Turn on the printer, and go to the parts consumables tab.

Select RIGHT INK SUMP and touch [Replace] to confirm that you replaced the unit. ([Service Parts Screen](#))

## Re-installation

5.8.10. When you re-install the right ink sump, make sure the two grooves on the left side [A] of the sump, fit over the two tabs [B] on the right face of the frame on the left.



## 5.9. How to replace the Carriage Unit

If the carriage unit needs to be replaced, a message will be displayed on the touch panel.

### ◆ Things to prepare

Purpose	Items
To wear	Polyethylene gloves
	Protective glasses or goggles (commercially available)
For use	New carriage unit

### ◆ Guide to parts

- **Unpacking the Carriage Kit**
- **Make sure you have the following items.**
- **Carriage replacement kit accessories**



1

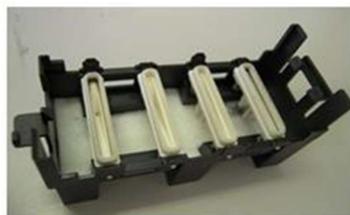


2

3



4

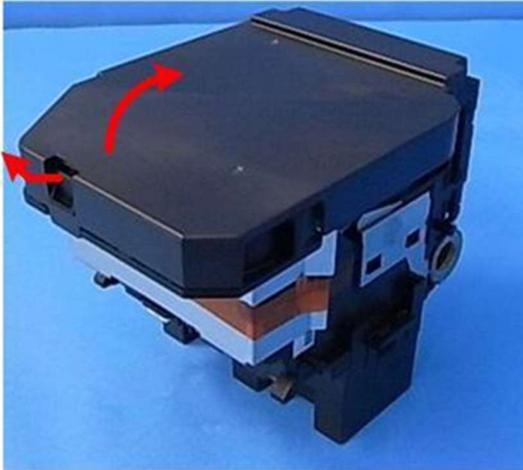


5

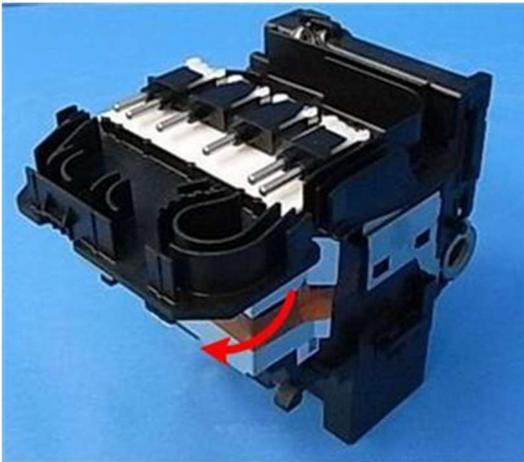
j102b3606a

Item	Qty
1. Carriage unit	1
2. Jigs	2
3. Key holder	1
4. Caps	6
5. Bottom cover	1

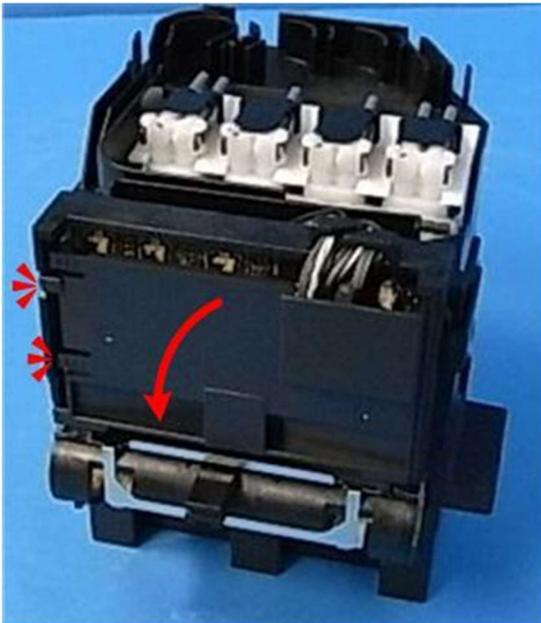
5.9.1. Release the cover latch at the front edge of the cover, and then remove the cover.



5.9.2. At the front, remove the tape and protective cover.



5.9.3. Remove the back cover of the new carriage.



---

**Preparation**

---

5.9.4. Turn the machine off, and disconnect power cord.

5.9.5. Remove the ink cartridge

5.9.6. Open the top cover.

5.9.7. Remove the Right cover.

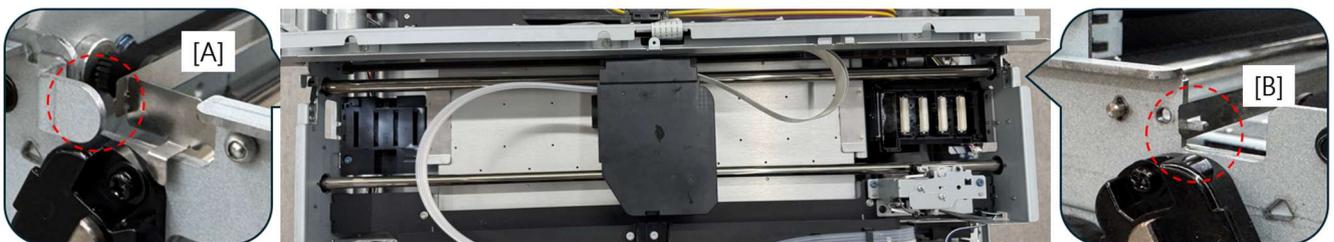
5.9.8. To remove the encoder, remove the screw [A].



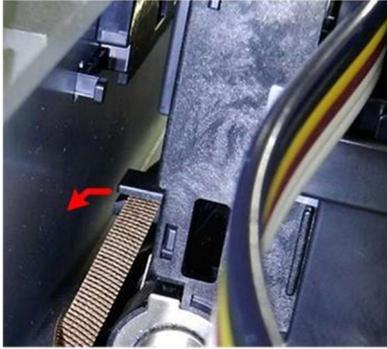
5.9.9. Remove the PLATE holding the ENCODER.



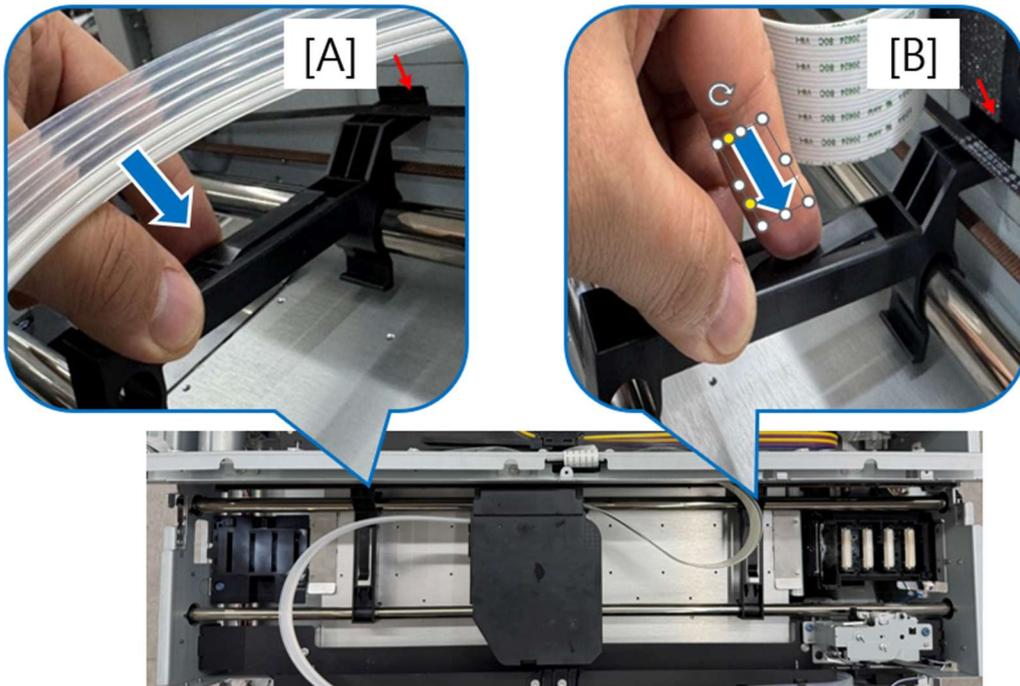
5.9.10. Remove the [A] and [B] items from the ENCODER and carefully remove them.



5.9.11. Behind the carriage, disconnect the timing belt.

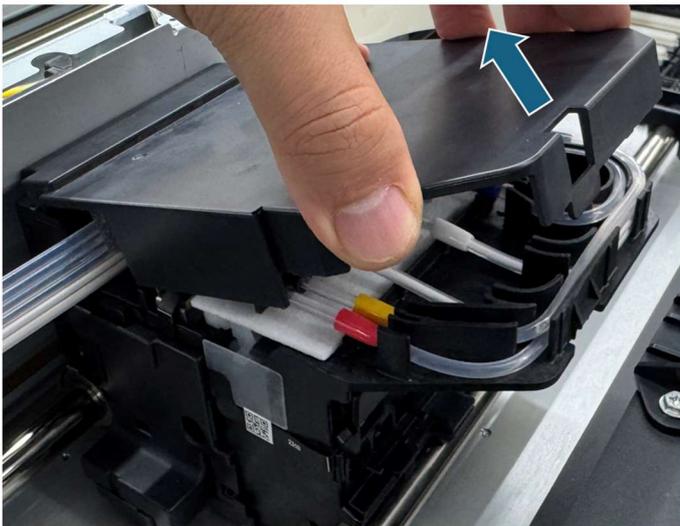


5.9.12. With the carriage in the center, insert the jigs into the holes, and then clamp them onto the guide rods.



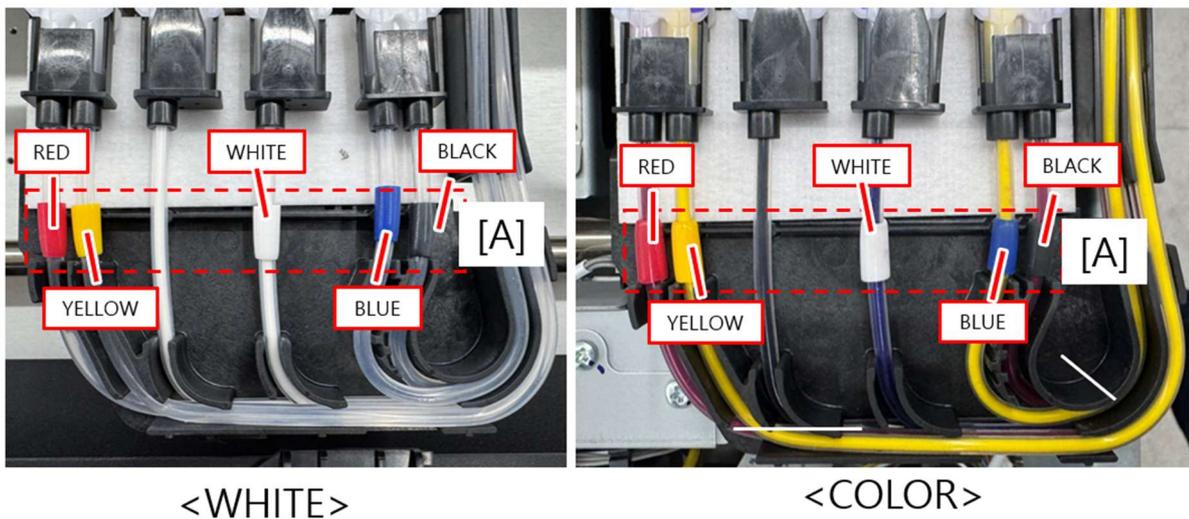
Disconnect the Ink Tubes

5.9.13. Remove the carriage cap.

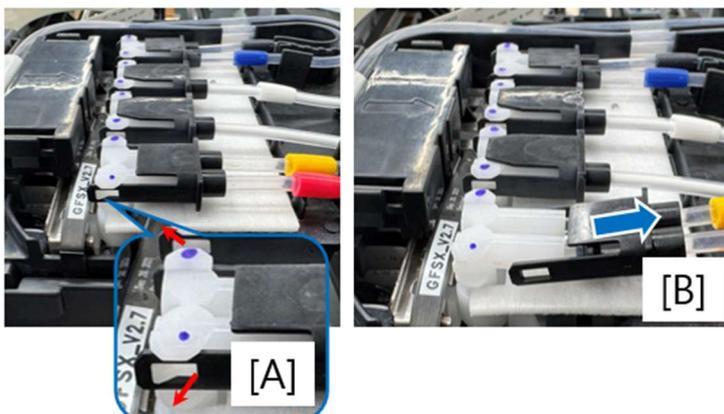


5.9.14. Before disconnecting the tubes, note the routing and connection of the tubes to the carriage.

- When disassembling and assembling the tube, refer to method [A] of FRONT and REAR in the figure below.



5.9.15. To disconnect a tube, release the clips on both sides of the cap [A], and then pull away the cap and tube [B].



**5.9.16. As you disconnect each tube, cap the open end with an accessory cap [A], and then plug the ink port with accessory plug [B].**

**Note**

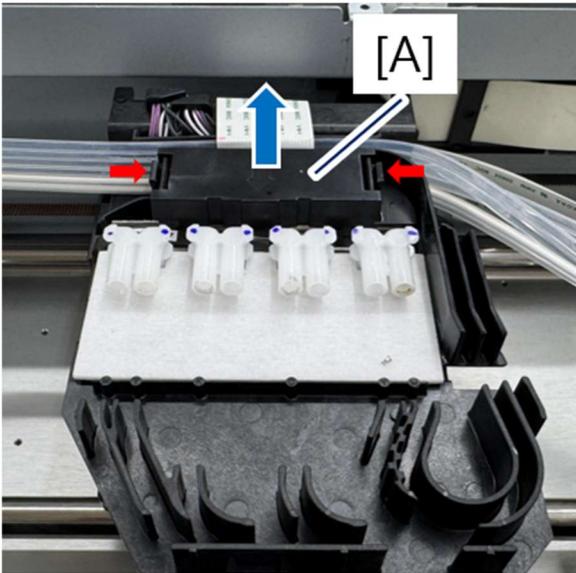
There are four plugs, two types: two for dual ports, and two for single port. These are provided with the new carriage unit.



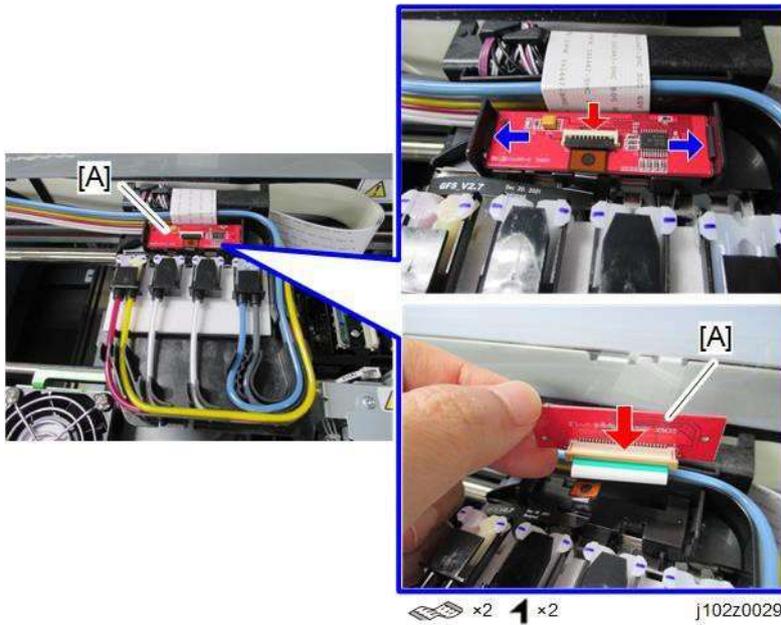
**5.9.23 After you have disconnected all the tubes and plugged the ink ports, you are ready to remove the carriage.**

Remove the Carriage

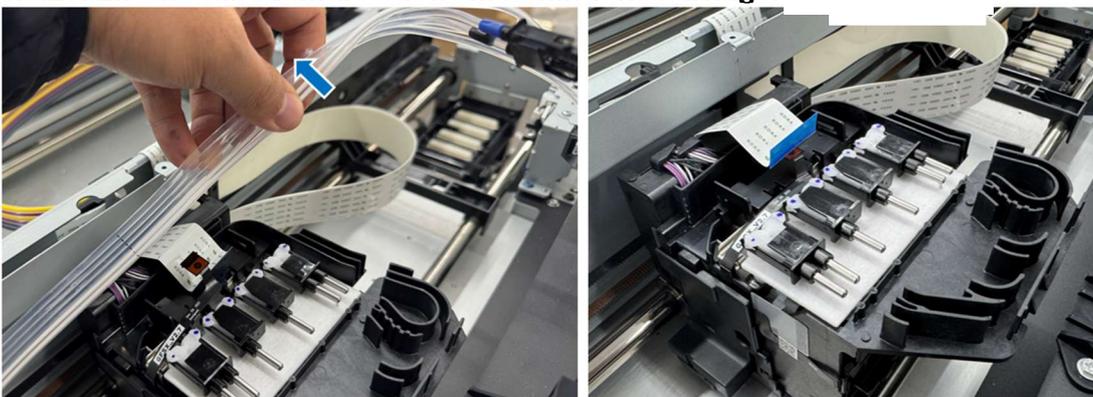
5.9.24 Remove the relay board cover [A].

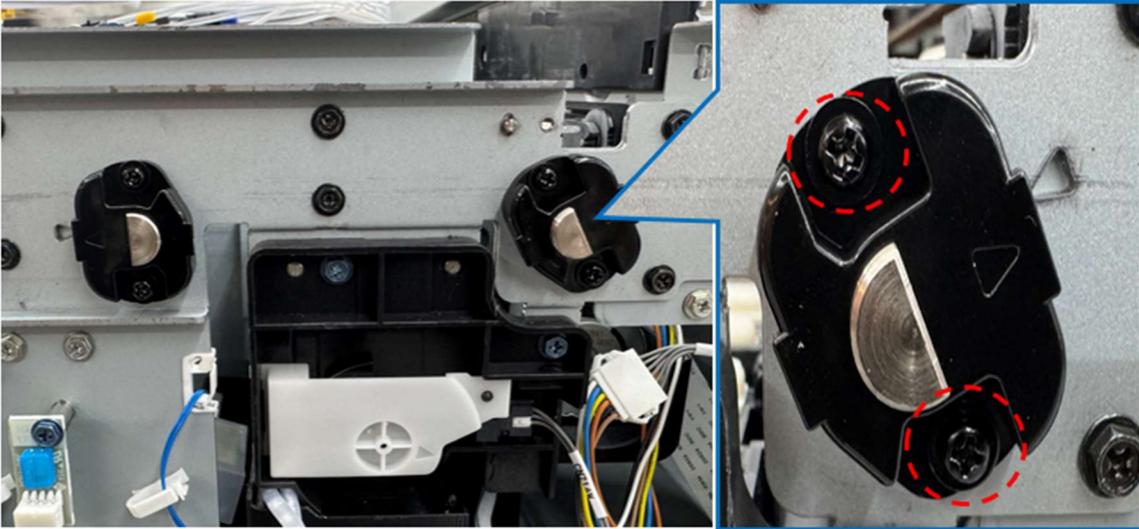
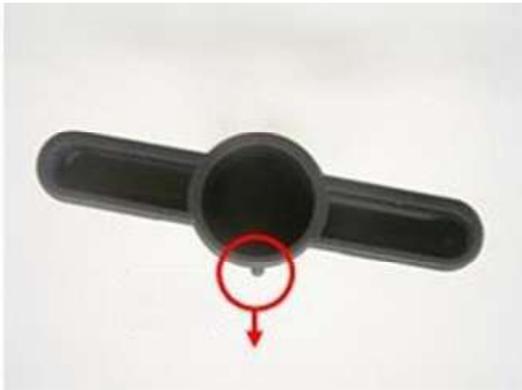


5.9.25 Remove relay board [A].

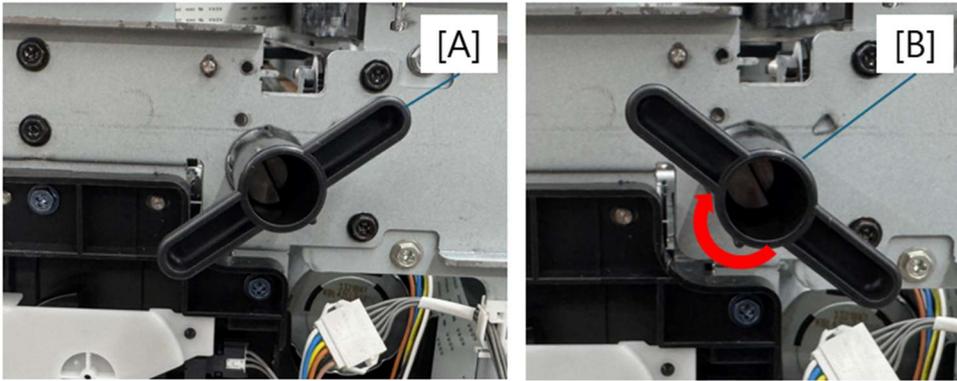


5.9.25. Lift the tube bundle out from behind the carriage.

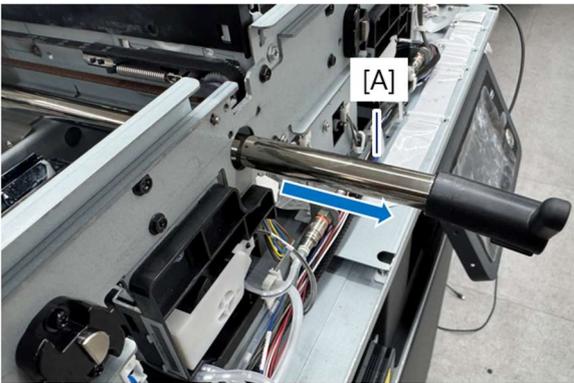


**5.9.26. Remove right bushing [A].****5.9.27. Locate the ridge on the side of the key holder (kit accessory).****5.9.28. Set the key holder on the end of the main guide rod with the ridge on the holder [A] pointing straight up.**

5.9.29. Rotate the holder key [A] counterclockwise 90 degrees to lock it onto the end of the guide rod [B].



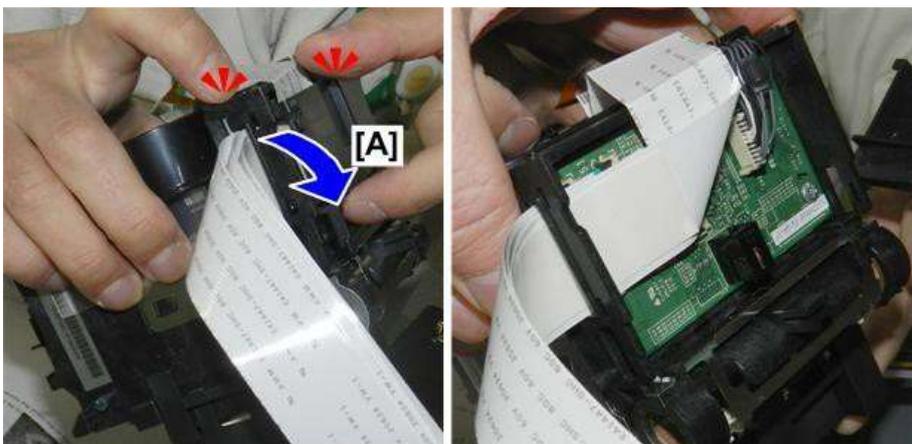
5.9.30. While holding the carriage in place with your left hand, pull the main guide rod [A] out and place it down on a flat, clean surface.



5.9.31. Wipe your hands with a clean rag to make sure they are free of grease from the guide rod.

5.9.32. Grease on your hands could contaminate the FFC connectors and HRB of the new carriage.

5.9.33. With the main guide rod out of the machine, lift the carriage partially out, and then remove back cover [A].



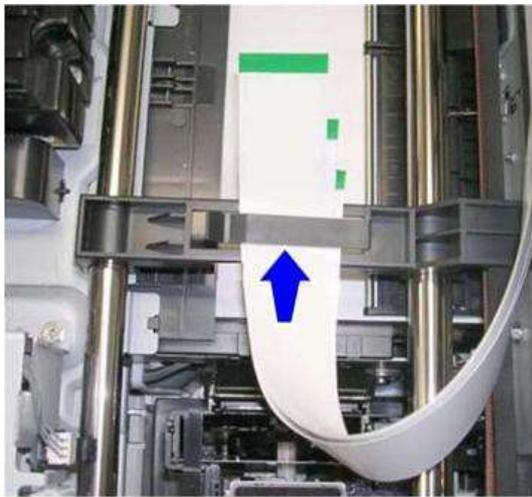
## 5. Replacing Service Parts

## 5.9.34. Disconnect the HRB FFC's.



 x3

5.9.35. Pull the disconnected FFCs out, and then insert them into the slot on top of the jig to prevent them from interfering with other procedures.



5.9.36. Remove the old carriage and set it aside.



5.9.37. You must connect the FFCs before you can set the carriage in the machine.

5.9.38. Connect the three FFCs by working in this order:

- 1 Longest FFC > right slot
- 2 Middle length FFC > middle slot
- 3 Shortest FFC > left slot



5.9.39. Reattach the back cover to the carriage.



5.9.40. Insert the guide rod into the right side of the machine.

 Note

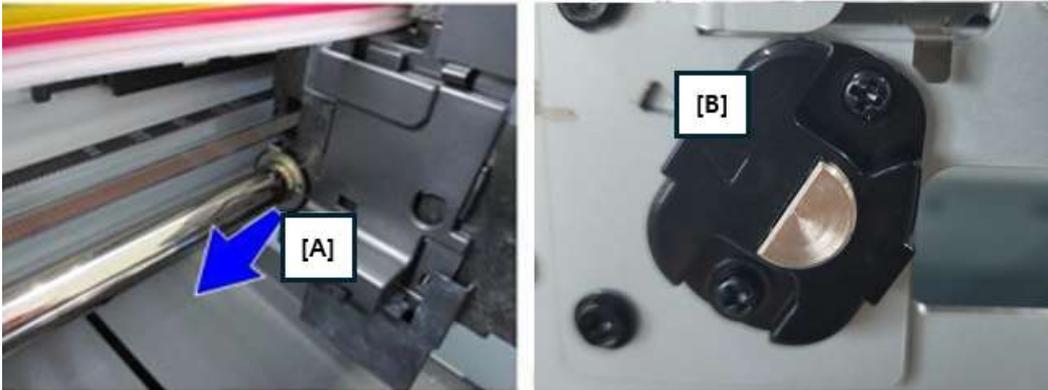
Be careful not to scratch the guide rod.

## 5.9.41. Set the carriage in the machine.



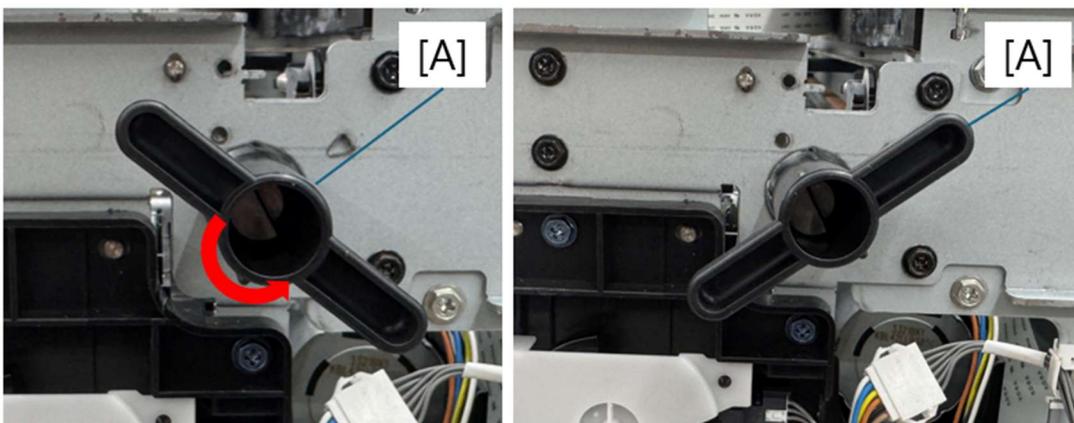
5.9.42. Insert the main guide rod through the bottom of the carriage unit [A], and then into the bushing on the left frame [B].

5.9.43. Make sure that the end of the guide rod is seated correctly in the "D" bushing in the frame.

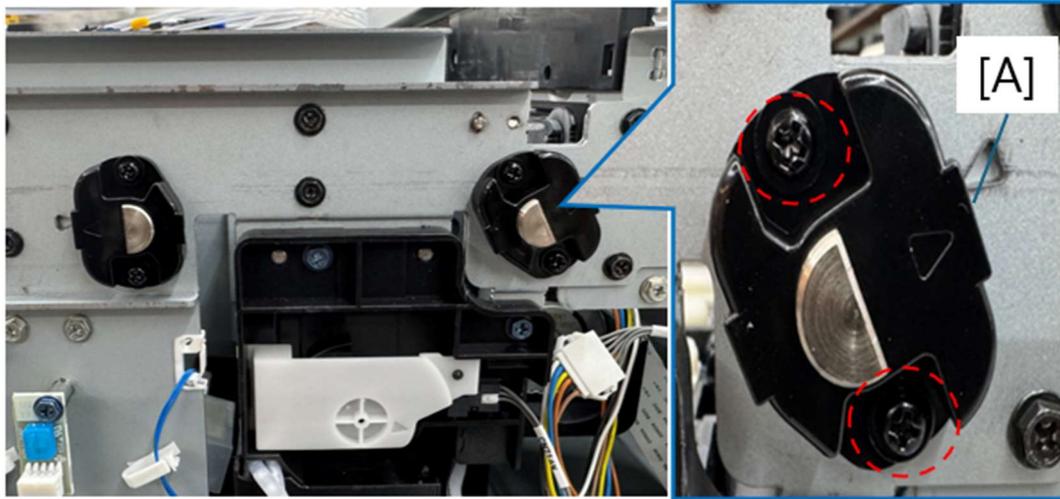


5.9.44. Rotate the attached holder [A] 90 degrees counterclockwise until the holder unlocks from the end.

of the guide rod, and then detach the holder [A] from the end of the rod.



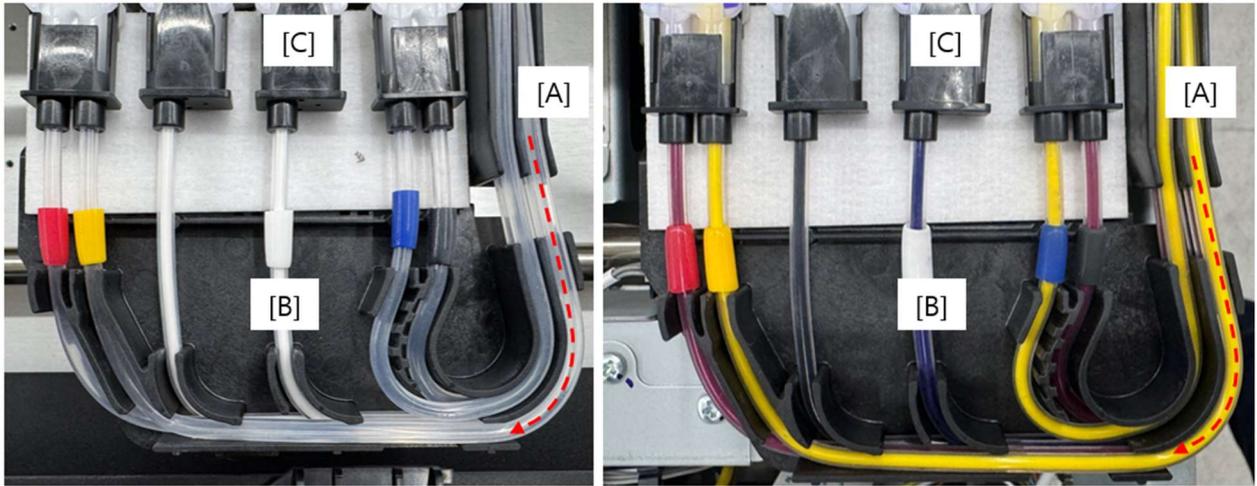
5.9.45. Install jig plate [A].



## Reconnect the Ink Tubes

5.9.46. Set both W tubes in the channel guide on the far right [A], connect the caps at the center [B], and

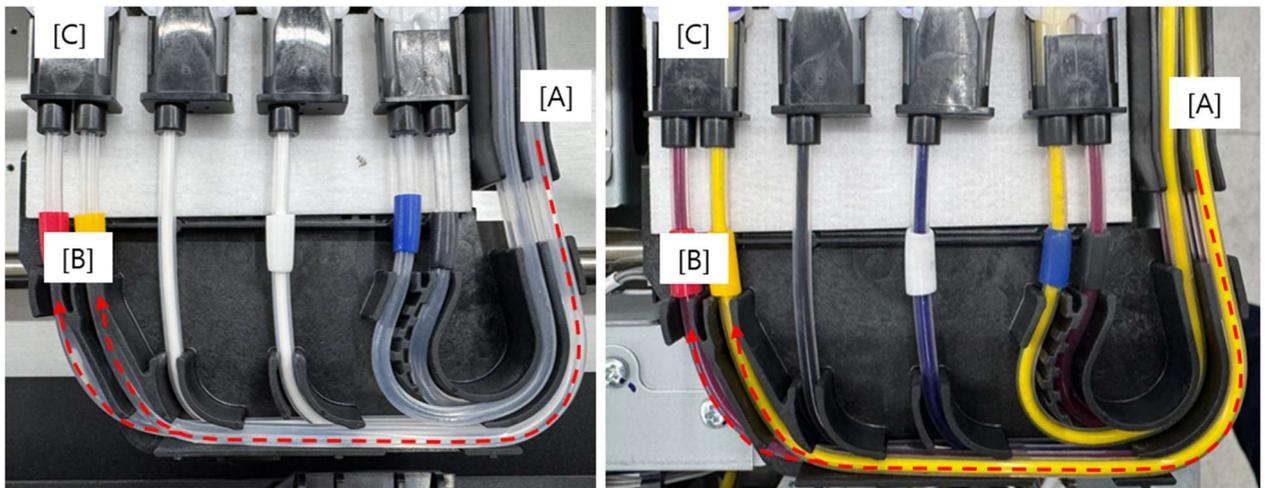
5.9.47. then fasten the clips [C] on both sides of the cap.



&lt;WHITE&gt;

&lt;COLOR&gt;

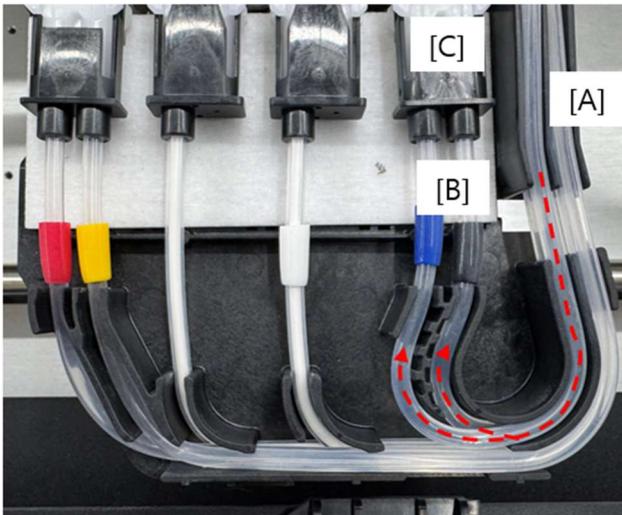
5.9.48. Next, set the YM tubes in the channel guide on the far right on top of the white tubes [A], connect the caps at the center [B], and then fasten the clips [C] on both sides of the cap.



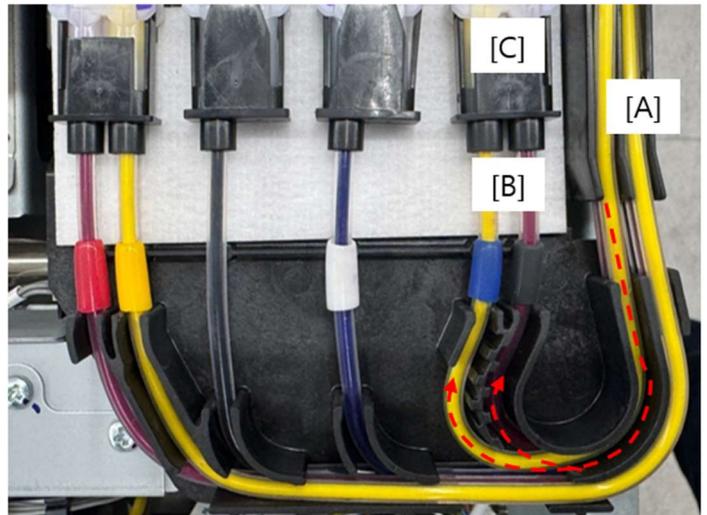
&lt;WHITE&gt;

&lt;COLOR&gt;

5.9.49. Finally, set the KC tubes (K over C) in the guide channel to the left of outer channel guide [A], connect the caps at the center [B], and then fasten the clips [C] on both side of the cap.



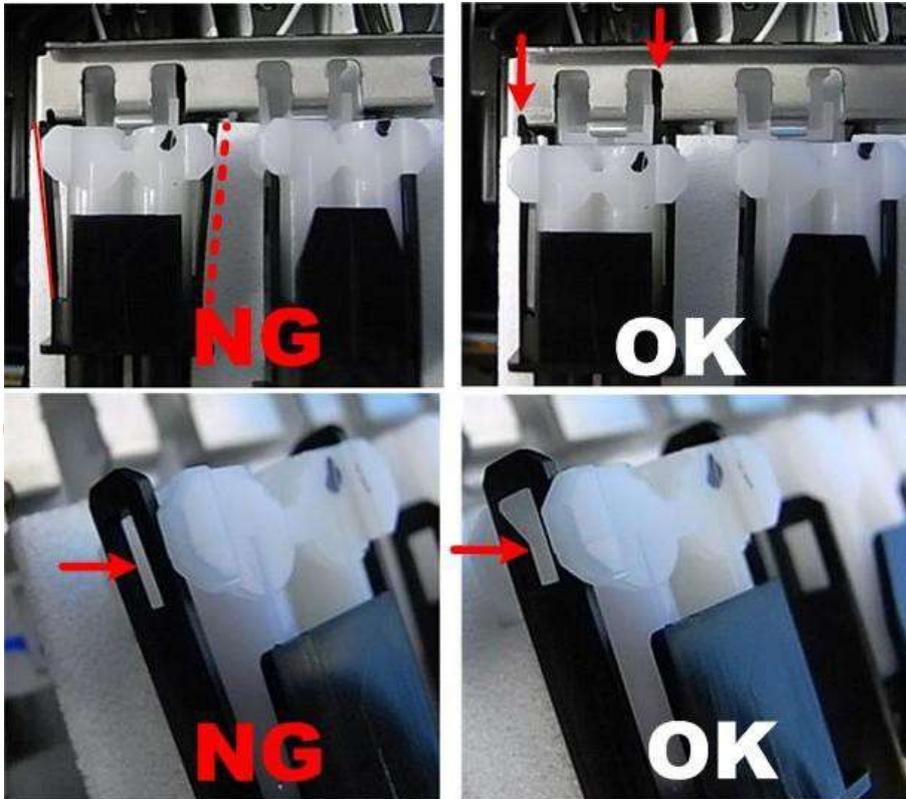
&lt;WHITE&gt;



&lt;COLOR&gt;

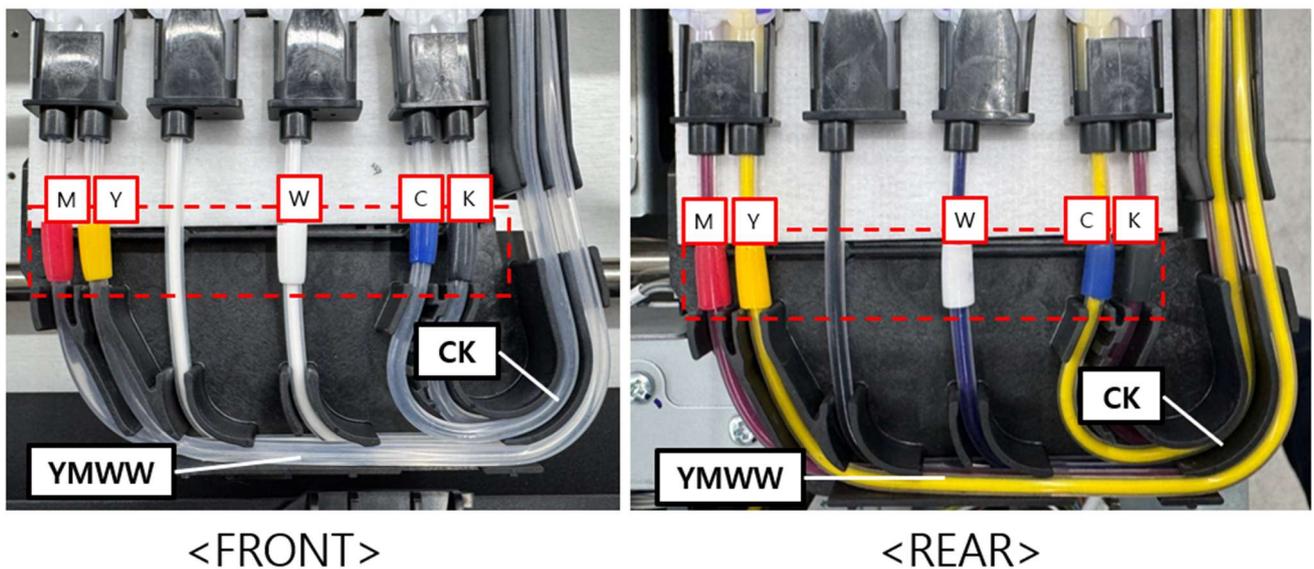
★ Important

- Examine each connection and make sure that each snap clip is perfectly flat against the cap and locked.
- If one or more snaps are loose this will cause air to leak, and the machine will issue SC991.



#### 5.9.50. Double-check the tube routing

- From left to right the tubes should be connected to the carriage in this order: MY, WW, CK.
- In the outer channel guide the tubes should be stacked, top to bottom: YMWW.
- The tubes should be stacked C over K at the inner channel guide.



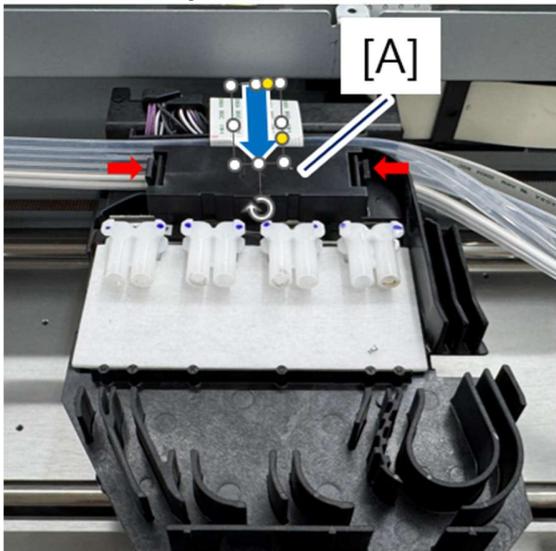
Finish the Installation

5.9.51. Connect the wide FFC to the junction relay [A], and then snap the relay onto the carriage.

5.9.52. Slide the brown FFC [B] into the slot.



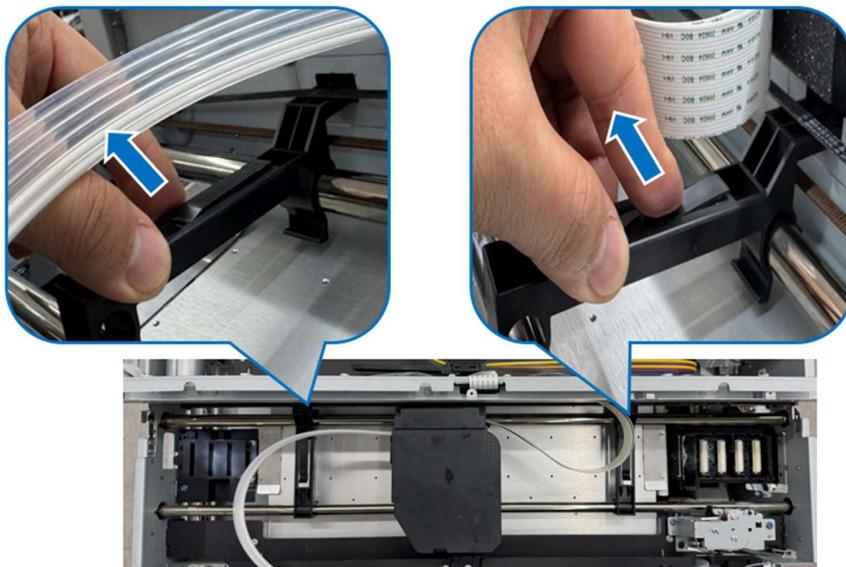
5.9.53. Close the relay cover.



5.9.54. Set the cover on top of the carriage.



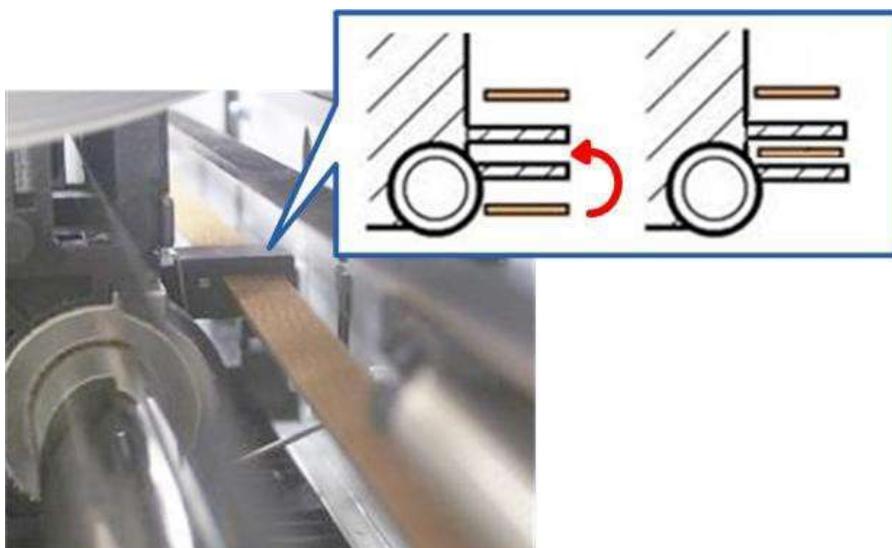
## 5.9.55. Remove the two jigs.



## 5.9.56. Attach the bottom half of the timing belt to the clamp on the back of the carriage.

## ★ Important

Make sure that the belt is completely in the notch. If the belt is only partially inserted it will generate spurious noise during operation.



## 5.9.57. Install encoder strip. (Main Scan Encoder Strip)

## 5.9.58. Insert the ink cartridges.

## ★ Important

To prevent a serious error, always insert the original ink cartridges that were removed after the power was switched off. For example, if the cleaning cartridges were in the W1, W2 slots (white ink are not being used), you must return the cleaning cartridges to the same slots. Never swap cartridges at this step.

5.9.59. Touch the consumables icon.



5.9.60. Touch CARRIAGE UNIT.



5.9.61. Touch REPLACE.



5.9.62. Execute HEAD ALIGNMENT. (HEAD ALIGNMENT)

# 6. Ink Path Control

## 6.1 Preparing Your Printer for Storage/Shipping

**Note** - Please have cleaning cartridges available for all channels

### 6.1.1. Clean the Maintenance Unit.

For details about how to clean, see, "How to Clean the Maintenance Unit and the Left Ink Sump".

### 6.1.2. Remove ink cartridges.

### 6.1.3. Insert cleaning cartridges.

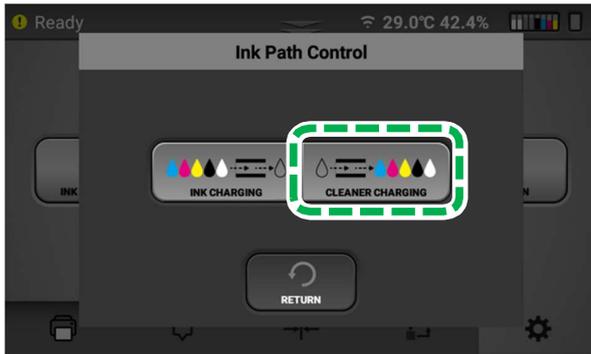
### 6.1.4. Press the Settings tab.



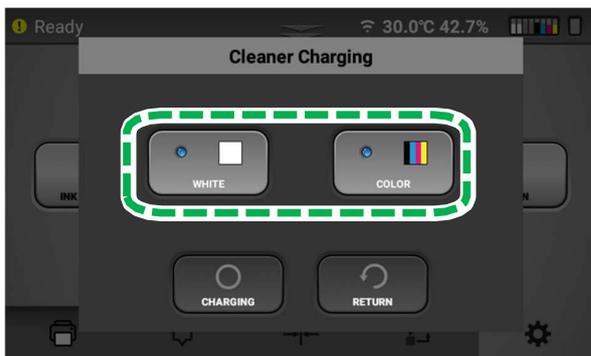
### 6.1.5. Press [INK PATH CONTROL].



## 6.1.6. Press [CLEANER CHARGING].



## 6.1.7. Press [ALL COLOR].



## 6.1.8. Confirm by pressing [YES] to charge the system with cleaning solution.

**Note** – Wet Cap is performed after cleaner charging if white is selected. It is for long-term storage. so After cleaner charging is done, don't uncap the print head.

**IMPORTANT!** If the moving or shipping the printer, the right of color print head and left sumps of both of print head must be emptied prior to moving or ink may spill out of the sumps and damage the printer. Contact technical support for guidance.

## 6.2 Ink Charging

**Note** - Please have ink cartridges available for all channels,

1. Insert ink cartridges.
2. Press the Settings tab.



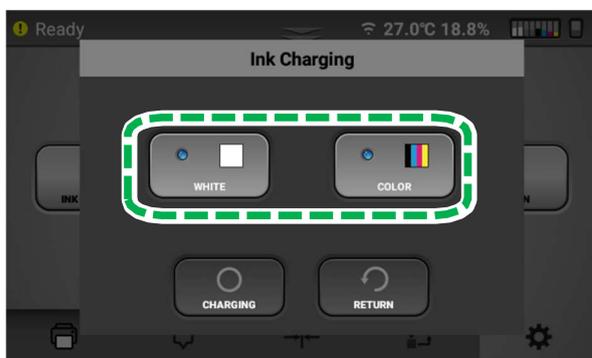
3. Press [INK PATH CONTROL].



4. Press [INK CHARGING].



5. Press [ALL COLOR].

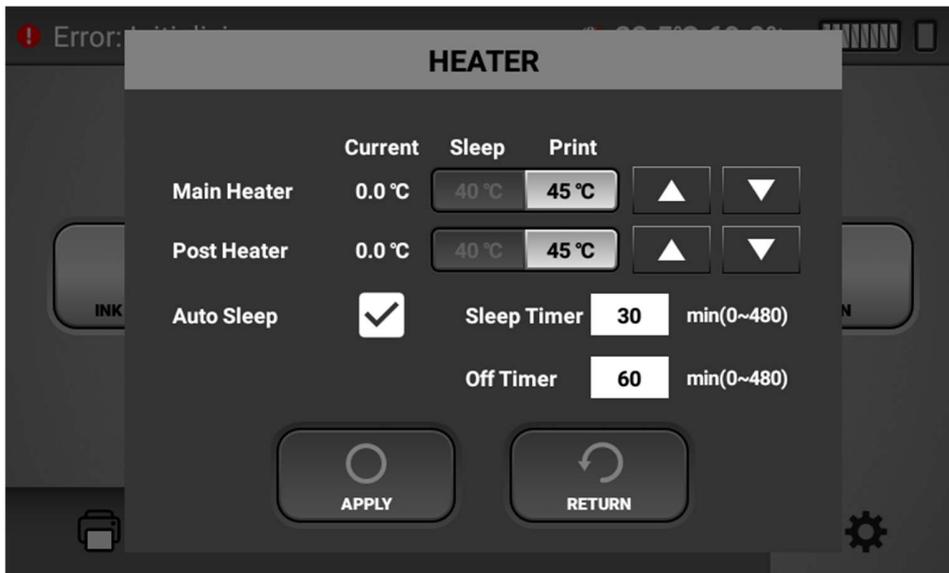


6. Confirm by pressing [YES] to charge the system with ink

# 7. Option

## 7.1. Heater

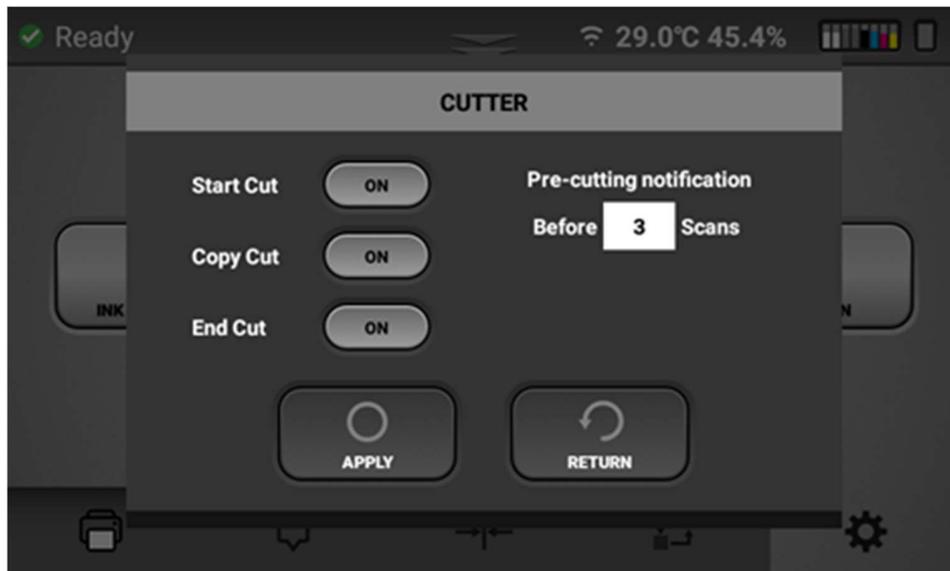
Set several option for heater.



- Main Heater / Post Heater
  - Display current bed temperature
  - Set target temperature for bed heater.
  - There is two kind of target temperature. Sleep & Print.
- Sleep / Print
  - Print is for target temperature during printing, normally it is higher than sleep mode.
  - Sleep is for target temperature when printer move on sleep mode, normally it is lower than print mode.
- Auto Sleep
  - If it is checked, heater is set sleep mode after specified sleep timer.

## 7.2. Cutter

Set several options for cutter.



- Start Cut
  - ◆ If it is on, printer cuts the media where printing image start
- Copy Cut
  - ◆ If it is on, printer cuts the borderline between copies.
- End Cut
  - ◆ If it is on, printer cuts the end of copy (image).
- Pre-cutting notification
  - ◆ Set the notification alarm sound.
  - ◆ Ex) If 3 is set, alarm sound is on from 3 scan before cutting.

## 7.3. Volume

Set several options for volume of each function.



- Job Added
  - ◆ Set the volume when job is ready.
- After Printing
  - ◆ Set the volume of alarm for end of printing.
- Agitating Popup
  - ◆ Set the volume when white agitating time is reached.
- Agitating Finish
  - ◆ Set the volume when white agitating count is reached.
- Media Set
  - ◆ Set the volume when media is set.
- Media Not Set
  - ◆ Set the volume when media is not set.
- Cutting Forecast
  - ◆ Set the volume of countdown for cutting
- Cutting
  - ◆ Set the volume of cutting.

## 7.4. Schedule Set

Specify the schedule to execute automatic maintenance.

Although the printer periodically executes automatic maintenance, you can specify the schedule to execute it when not using the printer in order to reduce loss of time caused by automatic maintenance executed during printer operation and it also make wet cap to be finished.

You can specify up to 3 sets of schedules.

The screenshot shows a menu titled "SCHEDULE SET". It contains a table with three rows and three columns: "On/Off", "Date", and "Time". All "On/Off" values are "Off" and all "Date" values are "Not set". All "Time" values are "09:00". To the right of the table are four buttons: "DAILY", "TIME", "DATE", and "RETURN". Below the table is a "Current Time" section showing "2024/11/12 17:19:24".

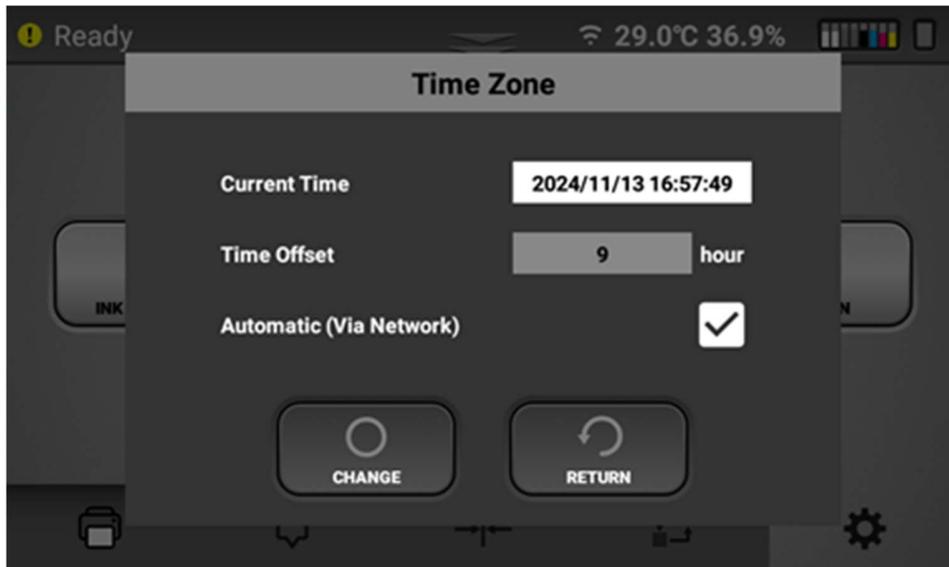
On/Off	Date	Time
Off	Not set	09:00
Off	Not set	09:00
Off	Not set	09:00

Buttons: DAILY, TIME, DATE, RETURN

Current Time: 2024/11/12 17:19:24

## 7.5. Time zone

Set about time zone.



- Current Time
  - ◆ Show current time applied with time offset.
- Time Offset
- Automatic
  - ◆ If it is checked, time offset is set automatically.
  - ◆ For this feature, network connection is required.

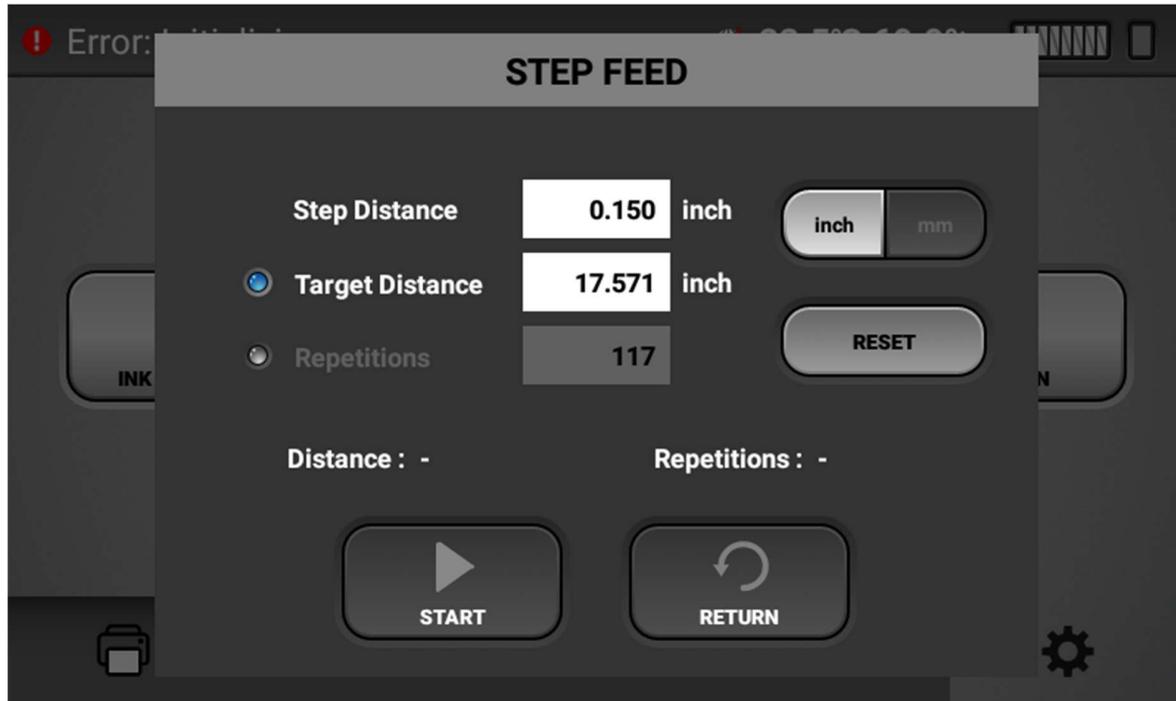
## 7.6. Step Feed

Set values or operate step feed.

“Step Feed” is almost the same with moving forward for media.

difference with moving forward is that media will move forward gradually for several time.

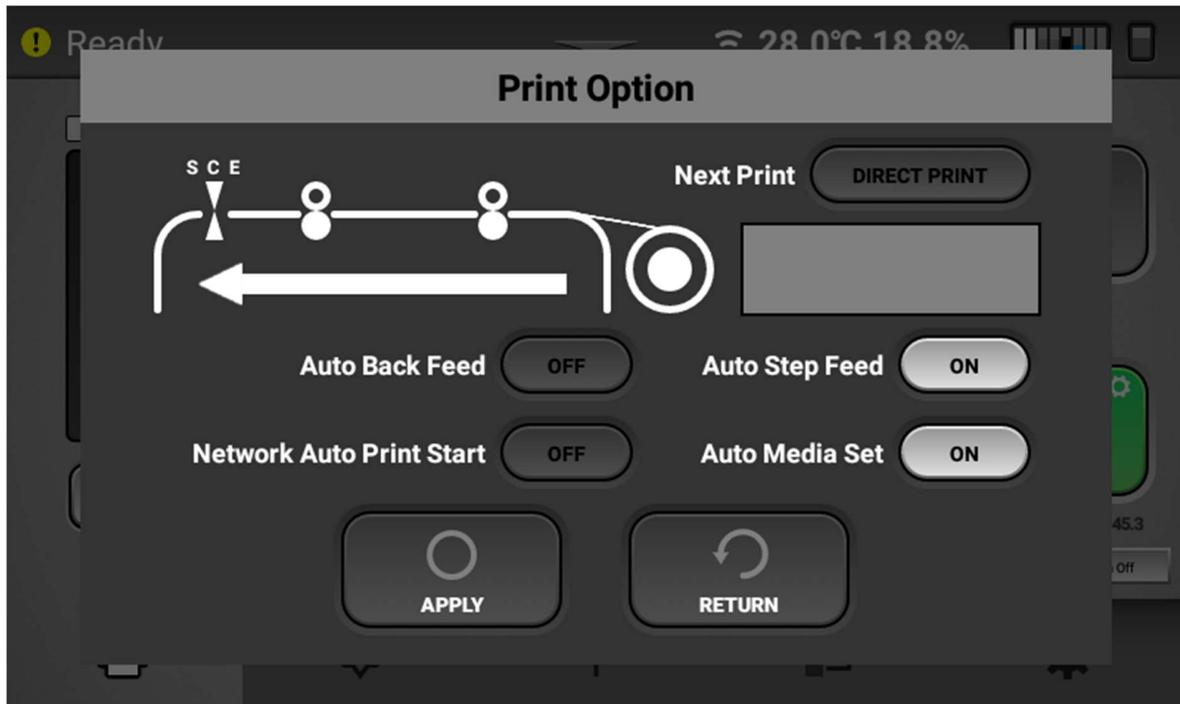
This feature can be usually used for powder shaker after printing is done. to transfer the media in powder shaker for curing.



- Step Distance
  - 1 time distance
- Target Distance
  - Repeat the movement for "Step Distance" until the "Target Distance" is reached.
- Repetitions
  - Repeat the "Step Distance" for the "Repetitions" number of times.
- Inch/mm
  - Distance Unit Conversion
- Reset Button
  - Step Distance: Reset to the distance of one movement of the last print
  - Target Distance: Reset to the distance from the color printing completion position to the cutter position
  - Repetitions: Target Distance / Step Distance
- Start Button
  - Step Feed operation starts/cancel

## 7.7. Print Option

Set several options for printing.



- Auto Step Feed
  - If it is on, the film is moved to the cutter position after printing. It is moved gradually several times to maintain the same drying condition as the other prints.
- Auto Back Feed
  - If it is on, media moves backward with some case to remove waste of the media, if you want to use Roll to roll printing mode, it need to be off.
- Network Auto Print Start
  - If it is on, printing will be started automatically when job is received via network.
  - Generally, it is related with RIP software. and also, copy count of the printing can be set on RIP software.
- Auto Media Set
  - If it is on, media set is started automatically when printing is requested if media set is not performed yet.

- Next Print

- If it is on, the film moves back and starts when the next print starts.  
If the next print data includes color, it moves 446 mm, and if it prints only white, it moves 216 mm.  
Be careful as it may overlap with the previous print.



If the next print goes backwards

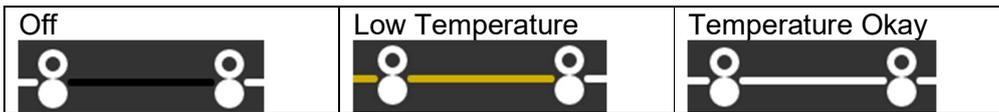
If the next print does not go backwards

- Printer State

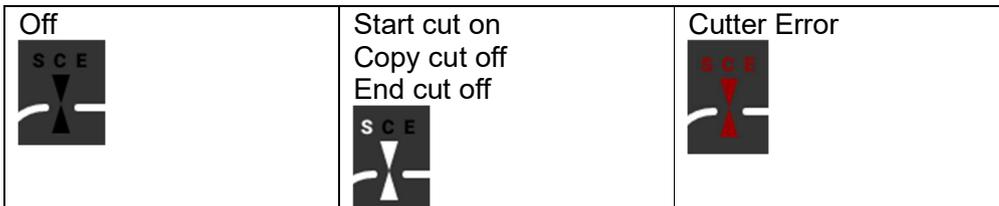
- Media(film)



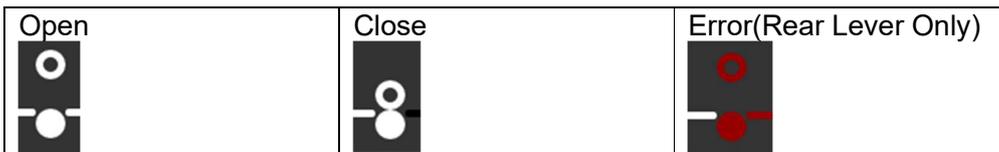
- Heater



- Cutter



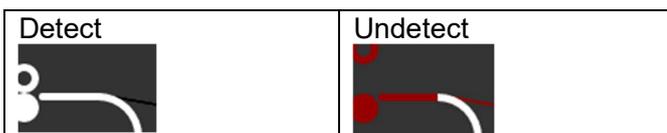
- Lever



- Front Media (Film) Sensor



- Rear Media (Film) Sensor



## 7.8. Privacy Policy



This is about “App Usage Data” and “Privacy Protection Settings”

"Printer application may periodically collect anonymous usage information to enhance user satisfaction and improve functionality. This is done solely with the user's consent, and the collected data is utilized for product and service improvements, as well as marketing/research activities.

Initial Setup and Consent:

Upon the first power-on of the printer, a consent screen for the App Improvement Program will appear. This screen allows you to decide whether to send anonymous usage information. You can make your selection at this point.

How to Participate in/Withdraw from the App Improvement Program Later:

Navigate to the [Options] menu within the app.

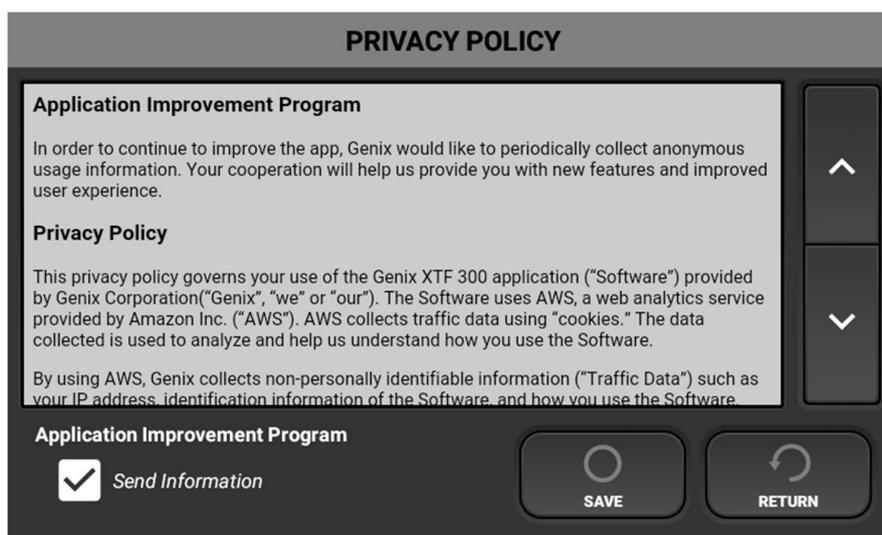
Select the [Privacy Policy] item.

You can set your consent for data transmission via the 'Send Information' checkbox.

Checking the box enables the transmission of anonymous usage information.

Unchecking the box disables data transmission, and all app functionalities will still be fully available.

We highly value user privacy, and you can find more detailed information in the full 'Privacy Policy' within the app."



## 7.9. Temperature

change temperature unit between Celsius and Fahrenheit.



## 7.10. High speed mode

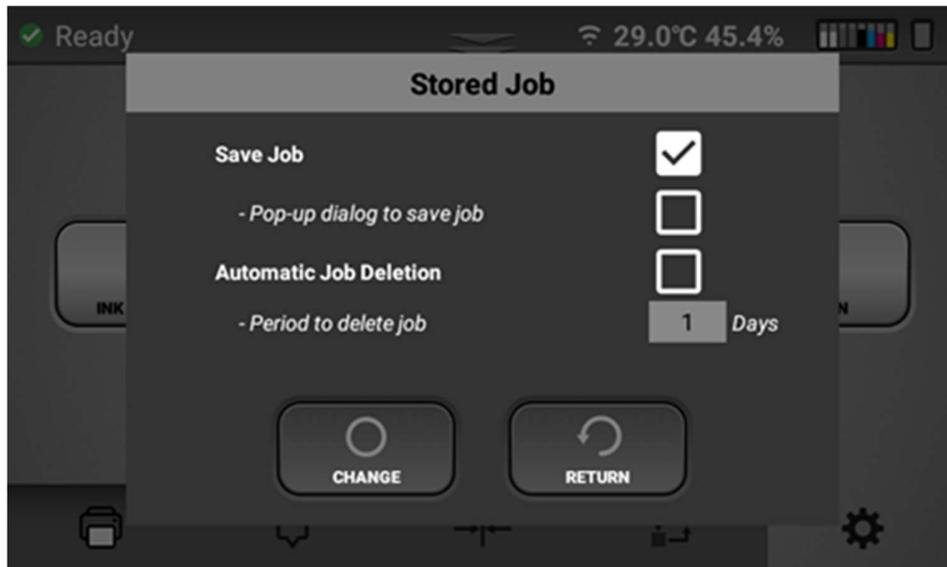
Select high speed mode or standard mode.

in case of high-speed mode, productivity can be higher, quality can be lower.



## 7.11. Stored Job

Set several options for stored job.



- Save Job
  - ◆ If it is checked, job data is saved after printing.
- Pop-up dialog to save job
  - ◆ If it is checked, printer ask if you want to save the job after printing.
- Automatic Job Deletion
  - ◆ If it is checked, stored job data is deleted automatically with specified period.
- Period to delete job
  - ◆ It is period job data to be deleted.
  - ◆ Ex) if it is set 7days, job data is deleted after 7days since job is saved

# 8. Troubleshooting Guide

Issue/ Error	Causes	Solutions
Carriage move edge to edge even if image width is short.	High speed mode is not selected.	In the options menu, turn high- speed mode on (indicator turns blue). This will have effect on print quality.
Fuzzy blurry prints	Too much ink (oversaturated) causing bleeding	Check the settings in RIP. Especially rendering intent (perceptual is default and should be used in most cases). Make sure you have not changed profiles selection.
	Nozzle check shows all nozzles, but some areas show deflection. (See , “NOZZLE CHECK”.	Perform normal nozzle cleaning or strong nozzle cleaning, and then recheck the nozzles to see if the deflection is gone.
	Head alignment is off.	Perform the head alignment procedure (see , “Adjusting the Head”). Make sure to rule out the above reasons before this adjustment.
Horizontal banding and thin horizontal lines across the entire shirt	Nozzles are missing. A nozzle check may show some nozzles are missing.	Perform head cleans until the CMYK nozzles are 100%.
	Nozzles are all accounted for, but some are showing minor deflection.	Perform head cleans until the deflection is reduced.
	Nozzles are 100% and little to no deflection.	Perform the Head alignment procedure

Issue/ Error	Causes	Solutions
Horizontal banding and thick horizontal lines across the entire media	Nozzles are 100% and appears in solid colors of dark or gray. Bi-directional banding has to do with the colors laying down in different sequence depending on which direction the carriage is traveling.	Select the uni-directional printing
	Nozzles are 100%. It appears in solid colors and the colors are inconsistent in the scanning direction of the carriage. This is caused by the different drops of CMYK that are not combining consistently.	This can show in the Speed mode for CMYK. Print in Higher resolution and/or pass mode for CMYK.
Several nozzles out – does not improve not at all or just a little with head normal and strong head cleans	During an initial ink fill, air is introduced to the head or after a head clean cleaning fluid or air was inadvertently pushed into the head by the cleaning applicator.	Let the printer sit overnight. This will give the air a chance to settle. The nozzle should be good after this.

Issue/ Error	Causes	Solutions
White prints look dull	White nozzles are 100% or near 100%, but it looks dull. White ink has settled.	If the white cartridges are not agitated per instructions, agitate the white ink cartridges for 2 minutes. Then perform 3 to 4 strong head cleans. This will replace most of the settled ink.
	Missing many nozzles on one or both white heads.	Perform head cleans to recover the nozzle to 100% or near 100%.
Color print appear to be shift from white Underbase print.	Head alignment is off.	Perform the head alignment procedure (see , "Adjusting the Head").
	The print positions of white and color are misaligned	Adjust the print position for white and color (see , "Adjusting the print position").
Color looks too dull	Nozzle is 100%. Wrong output profile is selected.	If printing in 600 X 600 Dpi and using a profile meant for 1200 X 1200 DPI, the shirt will look dull. Change the profile.
Cartridge reads 0% but it was just at a high percentage (for example 65%) from a previous operation (before printing or before cleaning).	Temporary loss of Comm caused the cartridge reading error.	Pull out the cartridge that reads 0%. The status should change to NC and the cartridges not loaded message will appear in the status bar. Put the cartridge back in and the percentage reading should go back to normal. If the percentage still reads 0% after inserting the cartridge again, turn the printer off and then turn it back on. The cartridge should read correctly.

## 8.1. If an SC (Service Call) error is displayed

If a problem occurs with the machine and if "SC-\*\*\*" (\*\* is a number) is displayed on the touch panel, contact your sales or service representative as soon as possible.

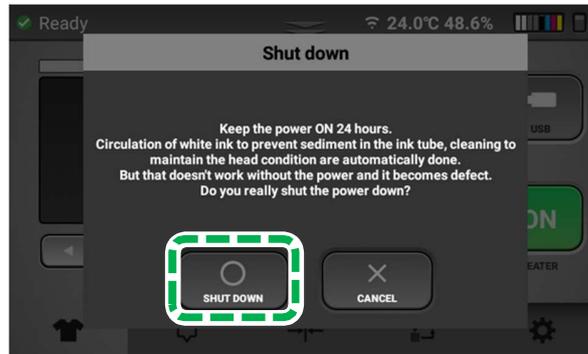
### ◆ Things to prepare

Purpose	Items
To wear	Polyethylene gloves
	Protective glasses or goggles (commercially available)
For use	Cleaning liquid
	Dropper

## ◆ Turning Off the Power

1. To turn off the power, hold down the sub power button for more than 3 seconds, which is located at the front near the touch panel.

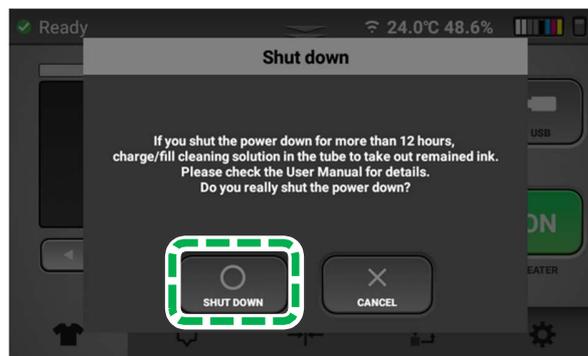
**IMPORTANT!** When you press the sub power button, the following screen warning appears.



Turning off the power for 12 hours or more may clog the heads because the auto maintenance routines are not being performed. So, if turning off the power is required for more than 12 hours, then the printer must be flushed with cleaning fluid per section.

5. Press [Shut Down].

**IMPORTANT!** After pressing [Shut Down], the following additional warning appears.



6. Press [Shut Down].
7. Press the main power switch to Off.

# 9. Appendix

## 9.1. Update the firmware

Printer has 2 manual firmware update methods.

Follow the procedure described in this manual to update.

For details, see below chapter.

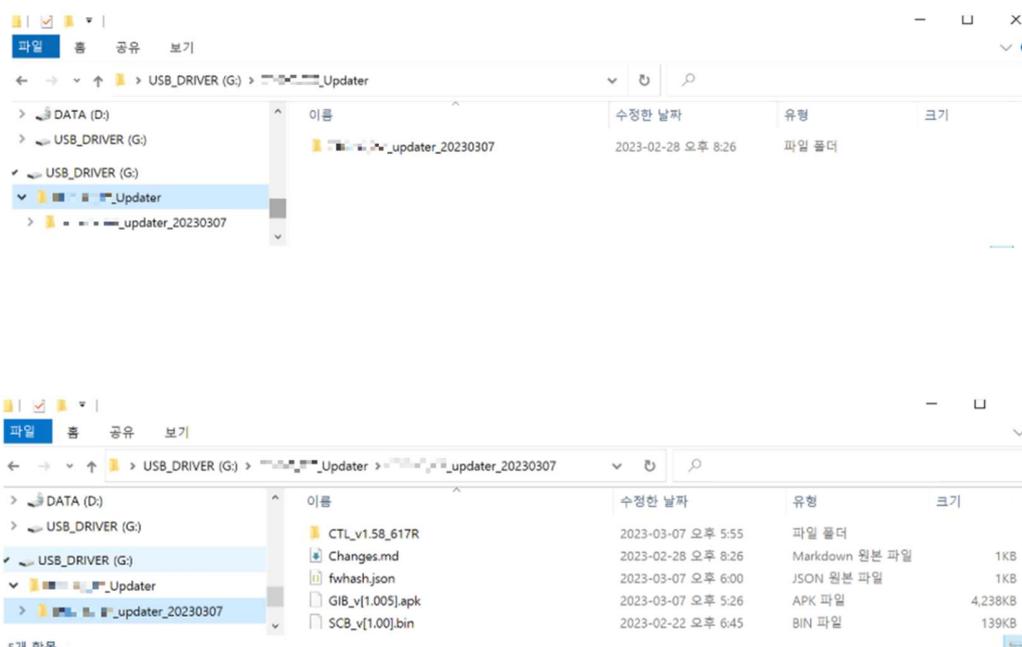
- Update by using USB drive
- Update by connecting your PC and Printer with Ethernet cable

Below are the steps to update manually.

### Update by using USB drive

#### 1. Insert USB drive into PC and save updater files.

Save the folder " \*\*\*\_Updater" to USB drive with the directory shown below.



**Note** - Use a USB drive with the following specification.

Format: FAT32

Capacity: 32GB or less recommended.

Be sure to save files in the above directory. If files are saved in different directory, firmware cannot update normally.

USB drive is not included in this product, please prepare USB drive yourself.

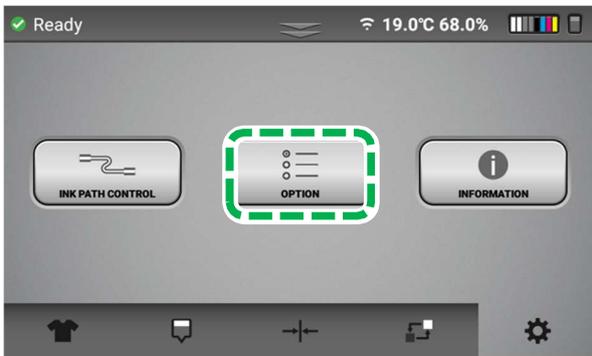
- 2. Remove the USB drive, insert into the front USB port.



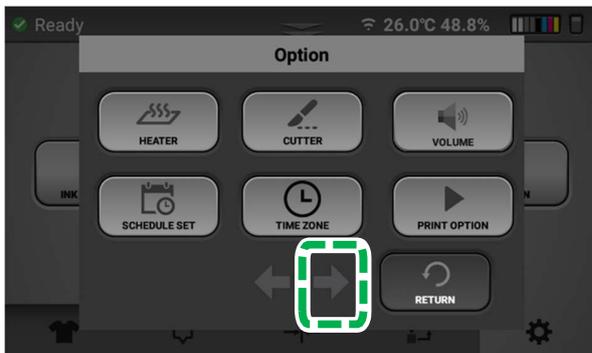
- 3. Press the Settings tab.



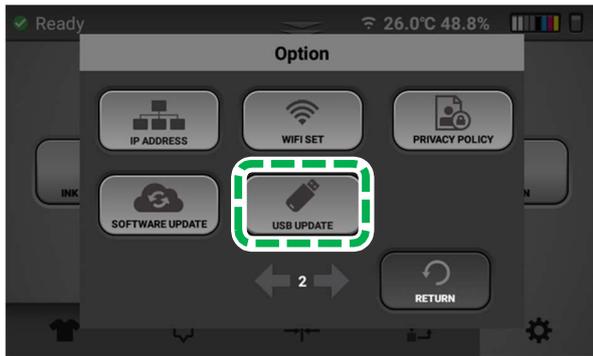
- 4. Press [OPTION].



- 5. Press [↔].



6. Press [UPDATE VIA USB].



7. Press [YES].

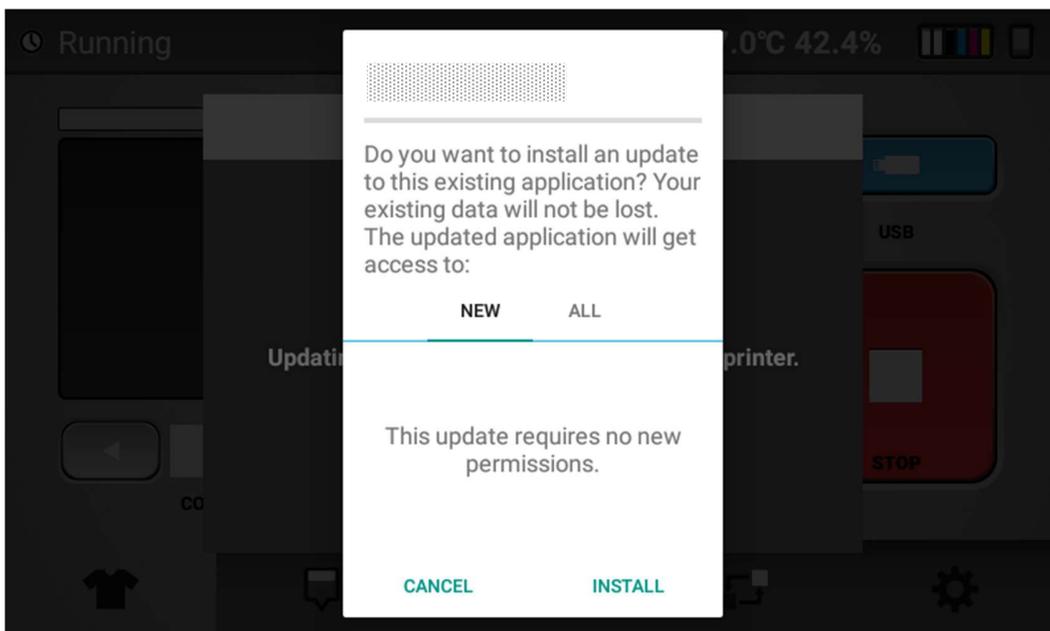
8. Update automatically in order of Panel (GIB), Sub Control (SCB), Unwinder (UCB) and Engine (CTL).

Follow the steps below to update each firmware.

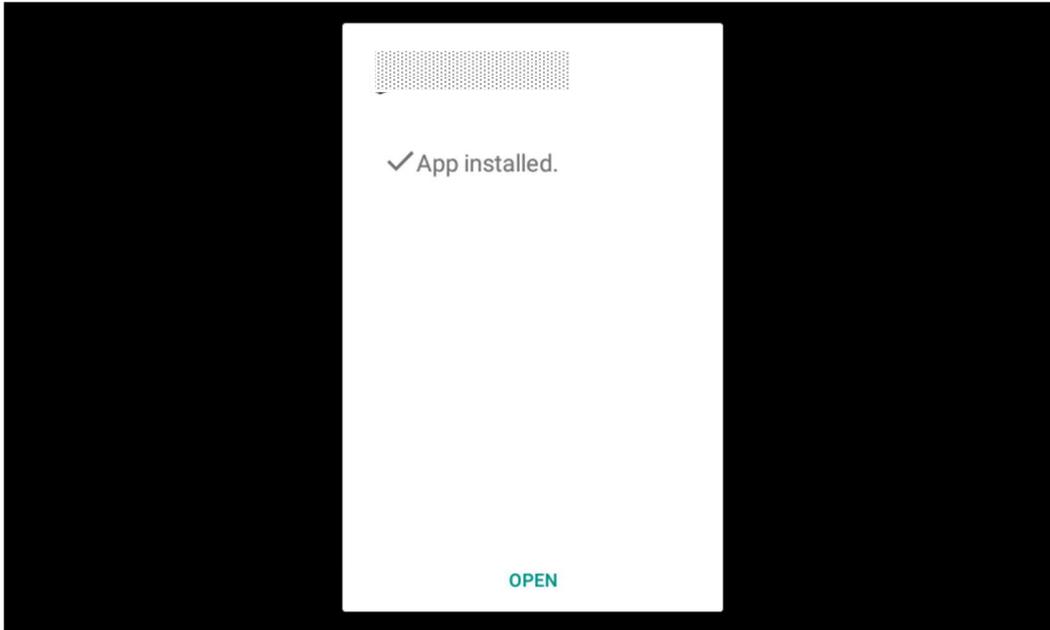
**IMPORTANT!** Do not turn off the printer or remove the USB drive during updating. It may cause the printer failure.

Firmware update (Panel (GIB))

1. After sending the updater, press [INSTALL] when the screen below is displayed.



2. After install completed, press [OPEN] when the screen below is displayed.



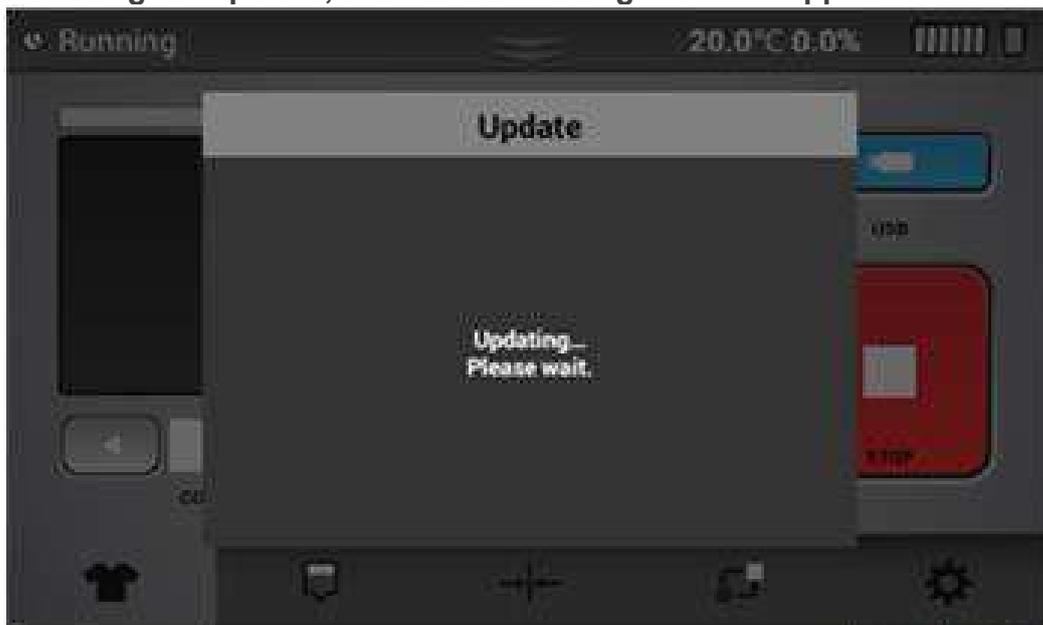
Panel (GIB) reboot automatically after press [OPEN].

Afterwards, Sub Control (SCB) and engine (CTL) start to update automatically.

**IMPORTANT!** You must not follow the steps different from the above.  
The printer may become unrecoverable by user.

#### Firmware update (Sub Control (SCB) / Engine (CTL))

1. After sending the updater, wait until the dialog below disappears.



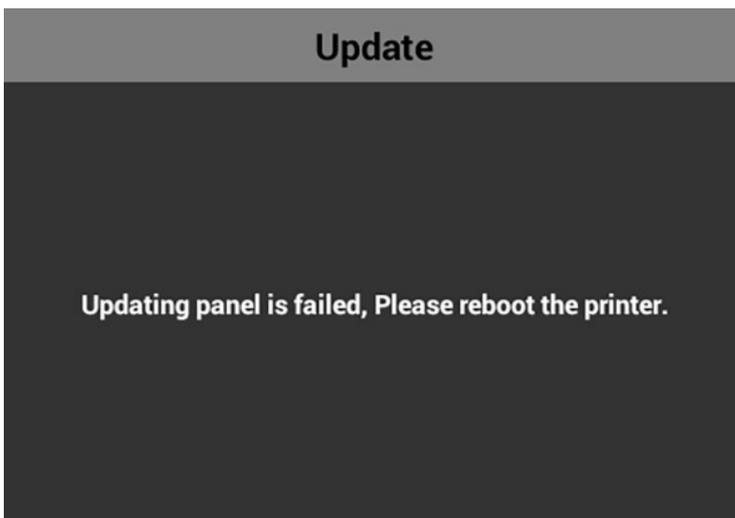
2. After dialog disappears, wait until the panel display “Ready”.



These completes all updates.

#### When update is failed

If the following is displayed or if you have started to update but there is nothing displayed about the firmware update, the update may have failed.



If update is failed, please reboot the printer.

Afterwards, update once again in order from Panel (GIB).

### Update by connecting your PC and Printer with Ethernet cable

**IMPORTANT!** Do not disconnect any cable (Communication, Power, and so on) during updating.

Make sure that update firmware is the latest one published on the web.

Do not downgrade, downgrade is not granted.

When update by this method, it is necessary to disable DHCP setting of the IP address.

For details see, "The setting of IP address for the machine".

1. Double-click "\*\*\*\*\_Updater.exe".

2. Key-in the printer IP address to update.

Printer IP Address: 192 . 168 . 0 . 3

3. Select Firmware Set.

DTF Updater

Printer IP Address: 0 . 0 . 0 . 0

Firmware Set: dater\_20241213

Panel: GIB\_v1.05.apk [Update]

Sub Control: SCB\_v0.38.bin [Update]

Engine: GelSprinterGXe5550\_2.04\_417\_encrypted [Update]

Unwinder: UCB\_v0.03.ucb [Update]

4. Click [Update] to send new firmware.

Please update in order of Panel (GIB), Sub Control (SCB) Unwinder (UCB) and Engine (CTL).

**Note** - You should always update Panel (GIB) first.

Make sure that "Ready" is displayed in panel each update, then update next firmware.

5. Sending firmware done and then start to update.

The following steps are as same as steps of "Update by using USB drive".

**Note** - Sub Control (SCB) Unwinder (UCB) and Engine (CTL) do not start update automatically by this method.

You should update in order of Panel (GIB), Sub Control (SCB) and Engine (CTL) manually.

Therefore, Click [Update] in the above order.

These completes all updates.

Update by cloud server

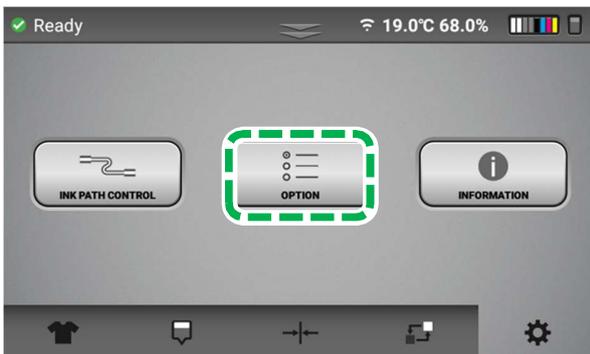
**IMPORTANT!**

This update is method accesses the update server and downloads the update file.  
 So, the printer must be connected to the network via Ethernet or Wi-Fi to use this function.

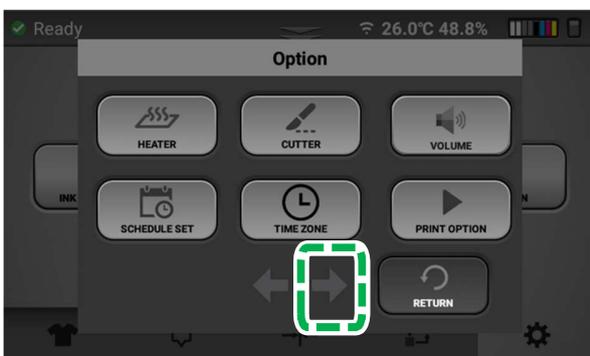
1. Press the Settings tab.



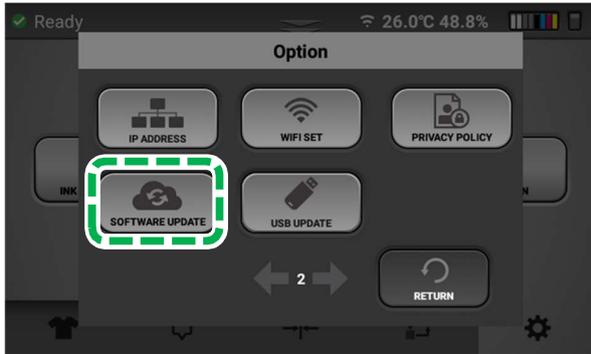
2. Press [OPTION]



3. Press [ ] twice



- Press [SOFTWARE UPDATE]



- press [CHECK UPDATE] button



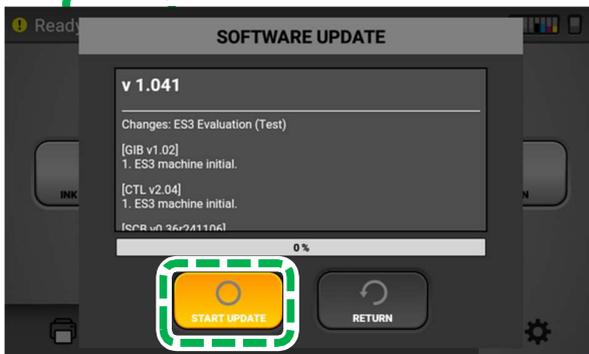
**Note.**

If Wi-Fi and wired Ethernet are connected at the same time, Ethernet will be connected but Wi-Fi will not be available.

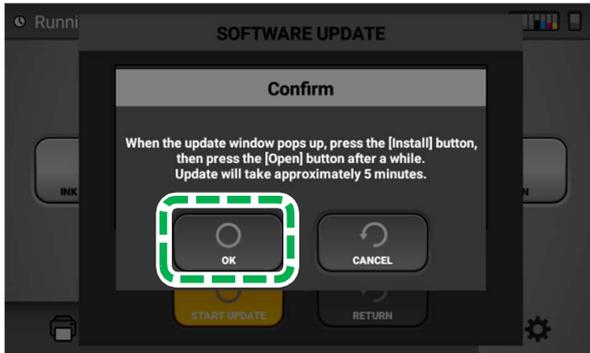
In this case, online SW update will not be available if wired Ethernet use local network.

Therefore, any network connection require to use external network (WAN) for online SW updates.

- After a few seconds of scanning, if a new firmware is available, a message indicating that a new firmware can be downloaded is displayed as shown below. Press [START UPDATE].

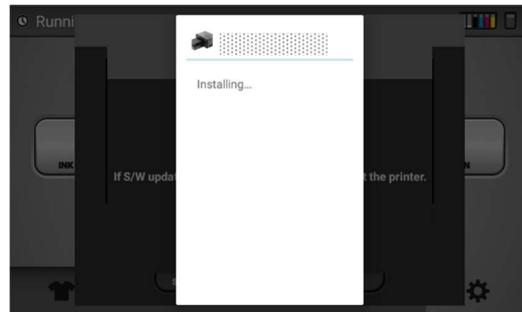
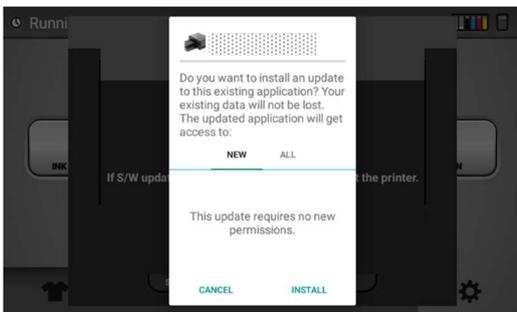


7. Press [OK] . Update file will be downloaded.

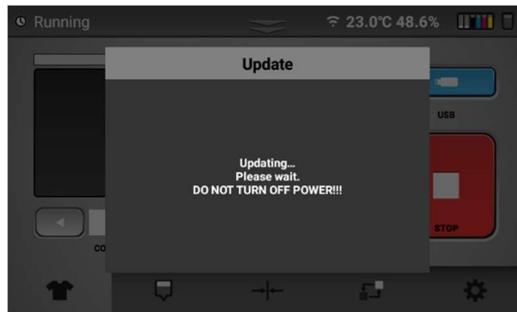
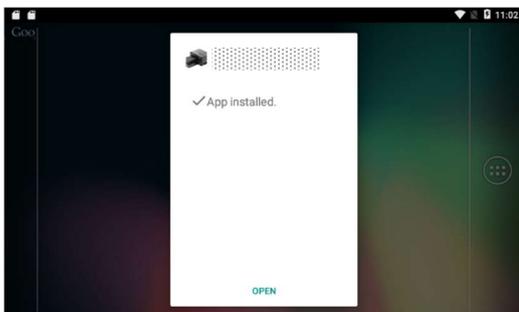


8. After downloading data for a while, update will be started.

9. Press [INSTALL]. Don't Press [CANCEL].



10. Press [OPEN]. The application program runs and proceeds with the remaining updates.



## 9.2. Specifications

### General

Printer Type:	DTF RtR printer
Technology:	Inkjet systems
Head Type:	Piezo-electric drop on demand Print head
Number of Print Heads:	Color - 4 channels, white - 2 channels
Resolution:	1,200 x 1,200 dpi(Maximum)
Media Width:	423mm(17")
Printable width:	Maximum 407.2 mm(16.03")
Media:	Genuine DTF media
Thickness:	Up to 0.09 mm
Maintenance Features:	Temperature and humidity measuring, maintenance alerts, auto print head cleaning, precise ink monitoring,  Automatic Wet Cap, Automatic Head Wiper Cleaning
Operating Conditions:	Temperature: 15–32°C Relative humidity: 45–80% RH
Noise Emission:	67 dB(A) or less (reference value)
Dimensions (W x D x H):	1,294.5 x 798 x 537.8 mm (LCD CLOSE) 1,294.5mm x 923mm x 537.8mm (LCD OPEN)
Weight:	110 kg (242.5 lb.) (NET, Printer only)
Power Source:	100~240VAC, 50–60 Hz, 4 A or more
Power Consumption:	Active 400 W(Maximum), Standby 90 W
Host Interface:	Ethernet 10/100 BASE-T, USB Type-A (2.0)

### Ink Set

Ink Type:	Water-based pigment ink
Ink Colors:	CMYK and white
Ink Delivery System:	Cartridge type and pump system, white ink circulation system

### 9.3. Where to Inquire

For inquiries, contact your sales or service representative.

### 9.4. Revision history

Revision	Date issued	Description
1.0	Jan. 1 2025	Initial Document
1.1	Feb. 5 2025	Power Source and Consumption (P.224) Media thickness, Printable width (P.224) Remove page (P.11~P.20) <ul style="list-style-type: none"><li>- Safety Information for This Machine</li><li>- Laws and Regulations</li></ul> Model name (P1)
1.2	Feb. 24 2025	Changes to the contents of the enclosed product (P.9) Pictures update (P.0,10,14,16,17,20,23,38,35,62)
1.3	Mar. 14 2025	Add comment ethernet connection is higher priority than Wi-Fi. (P.41, P.222)
1.4	May. 21 2025	Add LED status (P.40) Add Long press (P.42) Add Wet Cap description. (P.78) Add Cleaning media guide(P.78, P.80,P.109)
1.5	June. 20 2025	Modify description [Privacy Policy] (P.48) Add contents [Privacy Policy] (P.209)
1.6	July, 04,2025	Correct type "ink low" -> "not ink low" (P.15) Remove "Nozzle check step" in machine installation (P.23)
1.7	July, 22,2025	Changing the Unwinder Mounting Description Order (P.51~P.62) "Turning Off the Power" Change The Layout (P.32)