

CIP Training

L5160/L5130

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5 Maintenance



Maintenance

Daily Care and Maintenance

This chapter describes how to care and maintain the machine.

About the Frequency of Maintenance

⚠ WARNING

- Some parts of this machine must be replaced with a new one periodically by service personnel. Be sure to make a contract with your distributor or dealer for after sale service to ensure a long life of your machine.

⚠ CAUTION

- If the machine's interior is not cleaned regularly, dust will accumulate. Fire and breakdown can result from heavy accumulation of dust inside this machine. Contact your sales or service representative for details about and charges for cleaning the machine's interior.

- When cleaning the ink-station or the heads, or replacing the cleaning cartridge, make sure to wear the attached goggles.

- When performing maintenance on the machine, make sure to wear the attached gloves.

- Please use protective equipment in order to avoid exposure to liquid.

- The supplied gloves are consumables. If they are damaged or lost, use polythene gloves instead.

Perform maintenance regularly in order to use the machine at its best possible condition. Make sure to keep the nozzle parts of the print heads that discharge ink in good condition as they may affect the printing results due to the adherence of particles or dust.

Maintenance frequency		Maintenance item	Reference
Regular Maintenance	Before the start of daily work	Maintenance of white ink	
		Cleaning the media guides	
	Once every 1.5 months	Cleaning the waste ink line	
	When replacing the cleaning cartridge	Cleaning the caps	
Once a year	Cleaning the area around the print heads		

Maintenance

Maintenance frequency		Maintenance item	Reference
Maintenance When Needed	When printed media becomes dirty	Cleaning the exterior	
		Cleaning the pre-heater	
		Cleaning the platen	
		Cleaning the pinch rollers	
	When media cannot be detected	Cleaning the media sensors	
	When nozzle clogging cannot be resolved	Cleaning the nozzle surface of the print heads	
	When replacing consumables	Replacing an ink cartridge	
		Replacing a cleaning cartridge	
		Replacing a flushing cartridge	
		Replacing a waste ink bottle	

Tools required for maintenance

Be sure to wear the included protective glasses and protective gloves, or the equivalent tools.

The following items are disposable: waste cloth (paper towel), non-woven fabric, protective gloves, and cleaning stick. Be sure to use new ones instead of reusing them.

When cleaning the caps and the area around the print heads, use a cleaning stick. If you use a regular cotton swab, fluff may be left on the said areas and cause a secondary malfunction.

- Waste cloth (paper towel)/Non-woven fabric
Used to clean the exterior of the machine and the nozzle faces of the print heads. Do not use it to clean the caps or the area around the print heads.
- Cleaning stick
Used to clean the caps and the area around the print heads. Be sure to use it for cleaning confined areas such as gaps or uneven surfaces.
- Cleaning liquid bottle
Use when removing dirt that is hard to remove or cured ink.
- Dropper
Use when filling the caps of the print heads with cleaning liquid. Suck up the cleaning liquid from the cleaning liquid bottle before using.
- Protective gloves

Maintenance

Daily Maintenance

This section describes how to shake the white ink cartridge and clean the media guide. Perform maintenance before daily work so the machine may be used safely for an extended period.

Shaking a White Ink Cartridge

As the components of white ink deposit easily, pull out the white ink cartridge, and then shake it before daily work.

Shake the white ink cartridge when the following message appears on the display:

"White ink has settled. Please shake the white ink cartridge."

WARNING

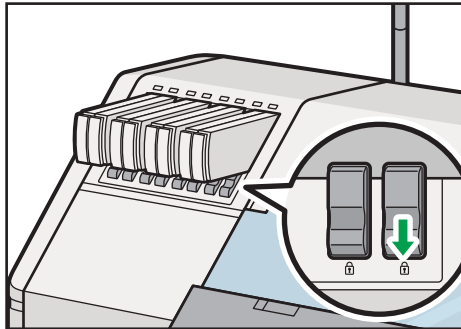
- Do not touch or stain the contacts of the ink cartridges, flushing cartridges, displacement liquid cartridges, and cleaning cartridge, as doing so may cause damage to the print circuit board.

CAUTION

- If ink, flushing liquid, and displacement liquid get into contact with eyes, wash eyes immediately with running water. Consult a doctor if necessary.
- If ink, flushing liquid, or displacement liquid are ingested, consult a doctor immediately with Safety Data Sheet (SDS).
- Please use protective equipment in order to avoid exposure to liquid.
- When performing maintenance on the machine, make sure to wear the attached gloves.
- When removing jammed media or performing maintenance on the machine, avoid getting ink, flushing liquid, and displacement liquid on your clothing. If ink, flushing liquid, and displacement liquid come into contact with your clothing, wash the stained area with water.
- When removing jammed media, replacing media, or performing maintenance on the machine, avoid getting ink, flushing liquid, and displacement liquid on your skin. If ink, flushing liquid, and displacement liquid come into contact with your skin, wash the affected area thoroughly with soap and water.
- The supplied gloves are consumables. If they are damaged or lost, use polythene gloves instead.

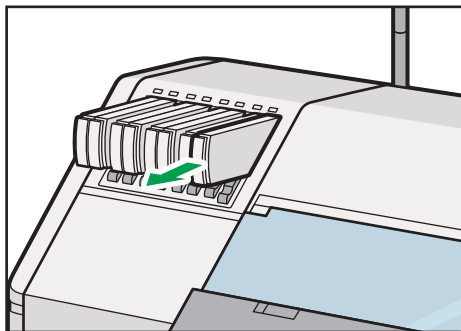
Maintenance

1. Slide down the lock lever to unlock the white ink cartridge.



DWT172

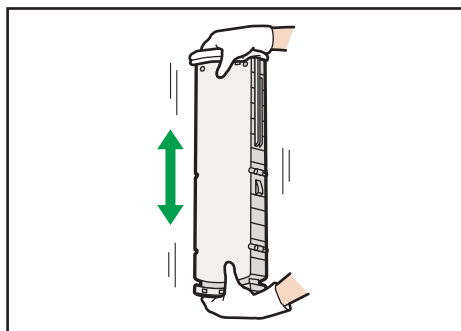
2. Pull out the white ink cartridge.



DWT173

3. With the connecting parts of the white ink cartridge facing upwards, hold a dry cloth on the ink supply port and lightly shake the cartridge up and down.

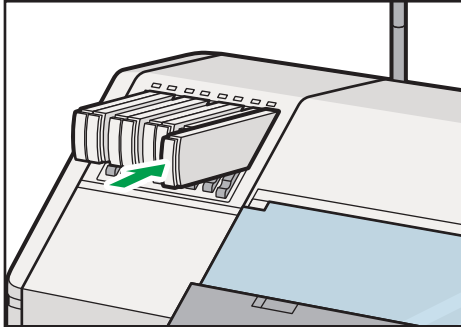
- Do not shake the ink cartridge strongly. Doing so might cause the white ink to leak.
- Do not touch the IC chip on of the ink cartridge.



DWT317

Maintenance

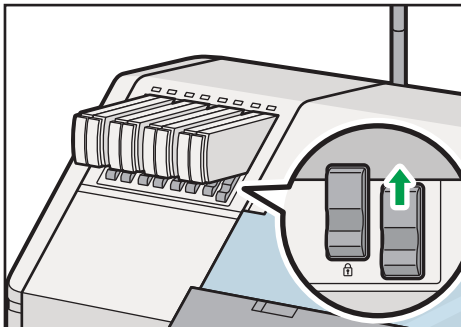
4. Fully insert the white ink cartridge into the holder until it stops.



DWT174

5. Slide up the lock lever to lock the white ink cartridge.

Wait until the ink indicator turns off and the message disappears.

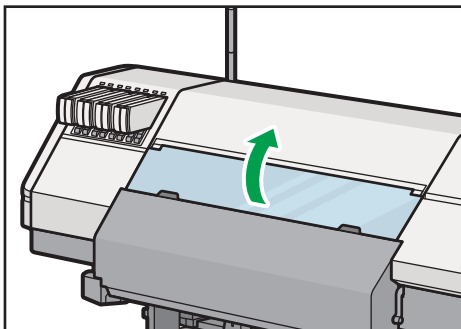


DWT175

Cleaning the Media Guides

If dust or ink is present on the media guides, problems such as ink drip, nozzle clogging, media jamming, media misfeeding or printing defects due to the dust on the nozzle may occur. Check the media guides before use and clean them if stained.

1. Open the center cover.

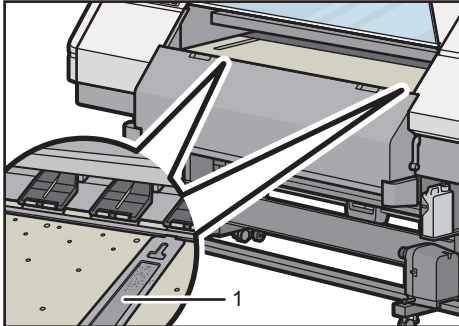


DWT134

Maintenance

2. Wipe off dirt on the media guides.

Wipe the media guides with a soft, dry cloth. If this does not remove the dirt, wipe the media guides with a damp and tightly wrung cloth. If a damp cloth still does not remove the dirt, try using a mild detergent. Wipe the media guides with a dry cloth to remove the moisture, after using a damp cloth.



1. Media guide

DWT311

3. Close the center cover.

Maintenance

Performing Maintenance Once Every 1.5 Months

This section describes how to clean the waste ink line.

Perform regular maintenance once every 1.5 months in order to use the machine safely for a long time.

Cleaning the Waste Ink Line

Use flushing liquid to clean inside the waste ink line.

Clean the waste ink line regularly once every 1.5 months.

Be sure to clean the waste ink line after replacing the cleaning cartridge or when the following message appears on the display:

"The waste ink line maintenance is required. Execute the waste ink line maintenance."

CAUTION

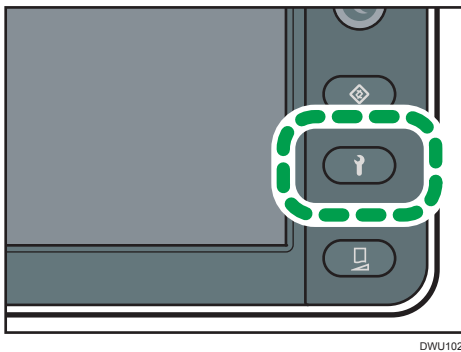
- When cleaning the ink-station or the heads, or replacing the cleaning cartridge, make sure to wear the attached goggles.
- When performing maintenance on the machine, make sure to wear the attached gloves.
- If ink, flushing liquid, and displacement liquid get into contact with eyes, wash eyes immediately with running water. Consult a doctor if necessary.
- If ink, flushing liquid, or displacement liquid are ingested, consult a doctor immediately with Safety Data Sheet (SDS).
- When removing jammed media or performing maintenance on the machine, avoid getting ink, flushing liquid, and displacement liquid on your clothing. If ink, flushing liquid, and displacement liquid come into contact with your clothing, wash the stained area with water.
- When removing jammed media, replacing media, or performing maintenance on the machine, avoid getting ink, flushing liquid, and displacement liquid on your skin. If ink, flushing liquid, and displacement liquid come into contact with your skin, wash the affected area thoroughly with soap and water.
- The supplied gloves are consumables. If they are damaged or lost, use polythene gloves instead.

Maintenance

★ Important

- Do not place any object on the platen as the carriage moves there.
- When the carriage moves, it may make contact with media. Check that the media is not deformed or that there is no floating media.
- Make sure there is enough space in the waste ink bottle before cleaning the waste ink line.
- When 10 minutes or more have passed after the carriage moves, the machine will make a buzzer sound. As nozzle dryness may cause a nozzle defect, perform nozzle maintenance promptly.

1. Press the [Maintenance] key.



2. Press [▼].

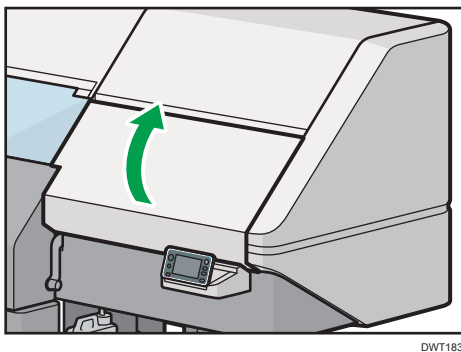
3. Press [Special Maintenance].

4. Press [Waste Ink Line Maintenance].

5. Press [Execute].

The carriage moves to the left side edge position and a completion of movement message is displayed.

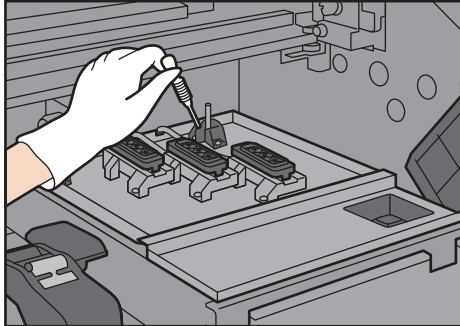
6. Check the message on the control panel, and then open the right cover.



7. Fill all caps with the dedicated cleaning liquid.

Suck up the cleaning liquid with the dropper, and then fill up the caps with cleaning liquid.

Maintenance



DWT184

8. Raise the lock lever located inside of the right cover on the left, and then close the right cover.
9. Press [Confirm].
The carriage moves to the home position, and then perform waste ink line maintenance.
10. Press [Confirm].

Cleaning Each Time You Replace the Nozzle Cleaning Cartridge

This section describes how to clean the caps.

Perform regular maintenance each time you replace the nozzle cleaning cartridge so the machine may be used safely for an extended period.

Cleaning the Caps

Clean the caps and the area around the print heads each time you replace the nozzle cleaning cartridge or if nozzle defects are not resolved by head cleaning or air purging. Ink clogging defects may be caused by dirt on the caps.

⚠ CAUTION

- When cleaning the ink-station or the heads, or replacing the cleaning cartridge, make sure to wear the attached goggles.
- When performing maintenance on the machine, make sure to wear the attached gloves.
- If ink, flushing liquid, and displacement liquid get into contact with eyes, wash eyes immediately with running water. Consult a doctor if necessary.
- If ink, flushing liquid, or displacement liquid are ingested, consult a doctor immediately with Safety Data Sheet (SDS).

Maintenance

- When removing jammed media or performing maintenance on the machine, avoid getting ink, flushing liquid, and displacement liquid on your clothing. If ink, flushing liquid, and displacement liquid come into contact with your clothing, wash the stained area with water.

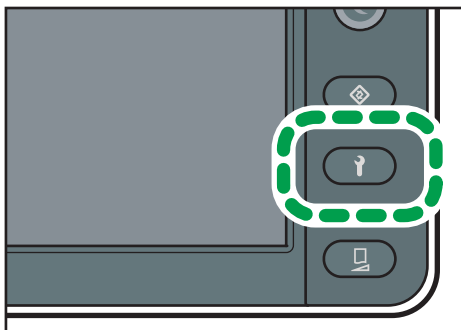
- When removing jammed media, replacing media, or performing maintenance on the machine, avoid getting ink, flushing liquid, and displacement liquid on your skin. If ink, flushing liquid, and displacement liquid come into contact with your skin, wash the affected area thoroughly with soap and water.

- The supplied gloves are consumables. If they are damaged or lost, use polythene gloves instead.

★ Important

- **When 10 minutes or more have passed after the carriage moves, the machine will make a buzzer sound. As nozzle dryness may cause a nozzle defect, perform nozzle maintenance promptly.**
- For cleaning liquid, use only the manufacturer-recommended cleaning liquid bottle. For details, see "List of Consumables".

1. Press the [Maintenance] key.



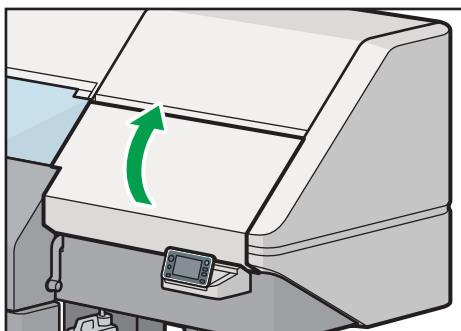
2. Press [Head Cleaning Maintenance].

3. Press [Wiping Position].

4. Press [Execute].

The carriage moves to the left side edge position and a completion of movement message is displayed.

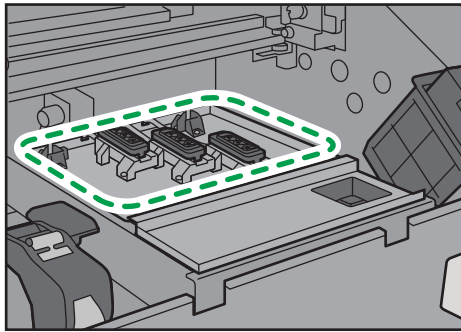
5. Check the message on the control panel, and then open the right cover.



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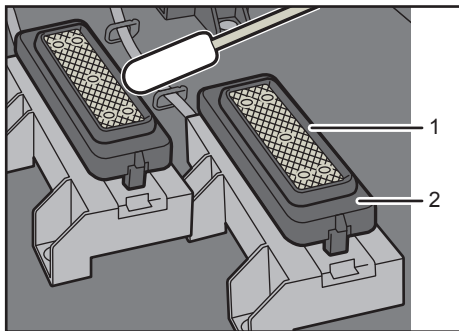
Maintenance

6. Apply cleaning liquid to a cleaning stick, and then use it to wipe off any dirt on the caps and their surrounding areas.



DWT300

- If ink adheres strongly to the edge of the cap, make sure to remove it. Do not wipe off ink using excessive force. Otherwise the edge of the cap might deform.
- If there is any ink dirt around the caps, wipe the dirt off.
- Wipe off completely so that no cleaning liquid remains.

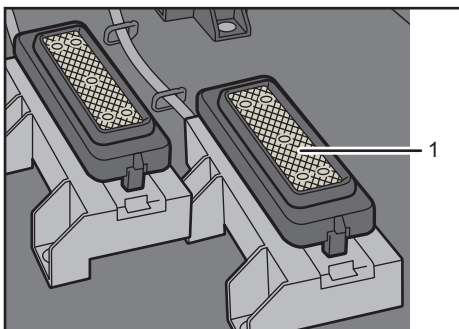


DWT301

1. Edge of the cap
2. Around the cap

7. After cleaning, confirm that the mesh on the cap has not come off.

If the mesh comes off, push in the cap.



DWT302

1. Mesh

8. Raise the lock lever located inside of the right cover on the left, and then close the right cover.

The carriage moves to the home position.

9. After the "Has head cleaning been performed?" message is displayed, press [Cancel].

Maintenance

Performing Maintenance Once a Year

This section describes how to clean the area around the print heads.

To use the machine safely over its lifetime, clean the caps each time you replace the nozzle cleaning cartridge and clean the area around the print heads annually.

Cleaning the Area around the Print Heads

Clean the caps each time you replace the nozzle cleaning cartridge and clean the area around the print heads once a year or if nozzle defects are not resolved by head cleaning or air purging. Ink clogging defects may be caused by dirt on the caps or the area around the print heads.

Be sure to clean the caps and the area around the print heads when the following message appears on the display:

"The area of the print head needs cleaning. Clean the area of the print head."

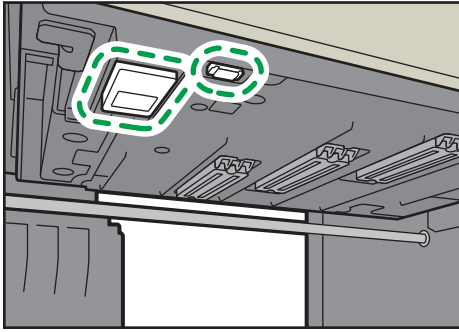
CAUTION

- When cleaning the ink-station or the heads, or replacing the cleaning cartridge, make sure to wear the attached goggles.
- When performing maintenance on the machine, make sure to wear the attached gloves.
- If ink, flushing liquid, and displacement liquid get into contact with eyes, wash eyes immediately with running water. Consult a doctor if necessary.
- If ink, flushing liquid, or displacement liquid are ingested, consult a doctor immediately with Safety Data Sheet (SDS).
- When removing jammed media or performing maintenance on the machine, avoid getting ink, flushing liquid, and displacement liquid on your clothing. If ink, flushing liquid, and displacement liquid come into contact with your clothing, wash the stained area with water.
- When removing jammed media, replacing media, or performing maintenance on the machine, avoid getting ink, flushing liquid, and displacement liquid on your skin. If ink, flushing liquid, and displacement liquid come into contact with your skin, wash the affected area thoroughly with soap and water.
- The supplied gloves are consumables. If they are damaged or lost, use polythene gloves instead.

Maintenance

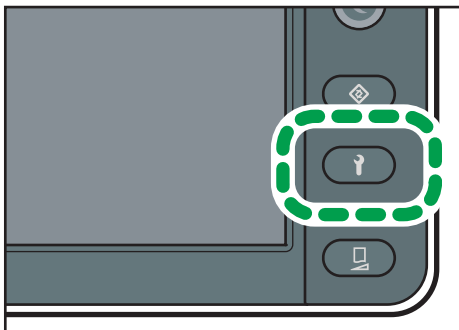
★ Important

- When cleaning the media sensor on the underside of the carriage, do not touch the sensors with your hand. Touching the sensors may cause malfunctions.



- Do not place any object on the platen as the carriage moves there.
- When the carriage moves, it may make contact with media. Check that the media is not deformed or that there is no floating media.
- When 10 minutes or more have passed after the carriage moves, the machine will make a buzzer sound. As nozzle dryness may cause a nozzle defect, perform nozzle maintenance promptly.
- For cleaning liquid, use only the manufacturer-recommended cleaning liquid bottle. For details, see "List of Consumables".

1. Press the [Maintenance] key.

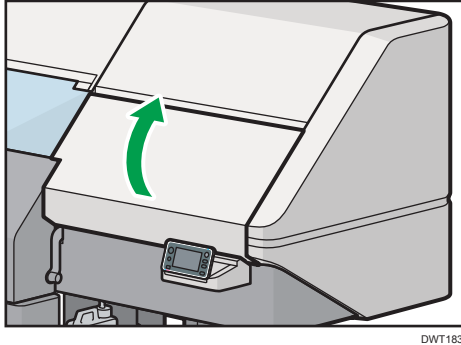


2. Press [Head Cleaning Maintenance].
3. Press [Left Side Edge Position].
4. Press [Execute].

The carriage moves to the left side edge position and a completion of movement message is displayed.

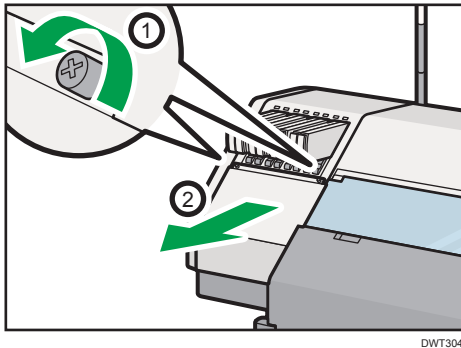
Maintenance

5. Check the message on the control panel, and then open the right cover.

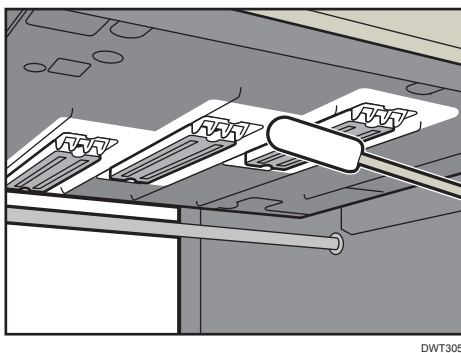


6. Remove the two fixed screws, and then remove the left cover.

The removed screws will be used when refixing the cover.

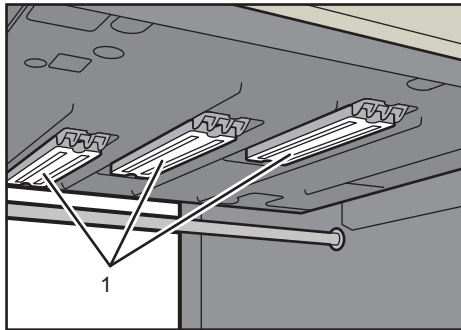


7. Apply cleaning liquid to a cleaning stick, and then use it to wipe off any dust and dirt on the area around the print heads.



- Wipe off completely so that no cleaning liquid remains.
- Do not touch the nozzle faces when cleaning the area around the print heads. If a cap mark or dirt is left on the nozzle faces of the print heads, see "Cleaning the Nozzle Faces of the Print Heads".

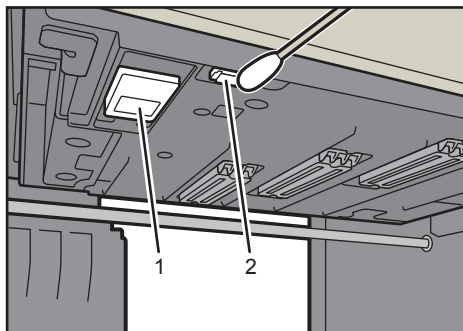
Maintenance



DWT306

1. Nozzle faces

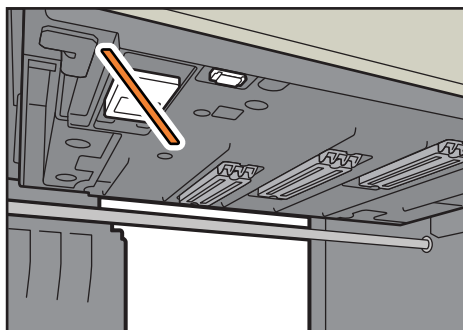
8. When dust is built up in the surface of the media sensor on the underside of the carriage, wipe off the dirt with a cotton swab, etc.



DWT307

1. Colorimetric sensor
2. Media sensor

Do not touch the colorimetric sensor as cleaning may cause the sensor to become misaligned.



DWT073

9. Use the two screws removed in Step 6 to fix the left cover.
10. Raise the lock lever located inside of the right cover on the left, and then close the right cover.
The carriage moves to the home position.
11. After the "Has head cleaning been performed?" message is displayed, press [Execute].

Maintenance

Maintenance When Needed

This section describes how to deal with ink affixed to the nozzle surfaces of the print heads, and how to clean the exterior, pre-heater, platen, pinch rollers, media guides, and media sensors.

Perform maintenance when needed to ensure the safe and long-term use for the machine.

Cleaning the Exterior

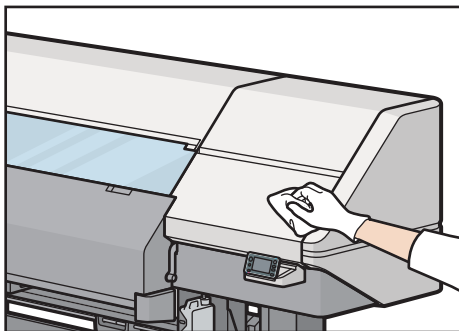
Depending on the operating environment, particles, or dust may adhere to the exterior of the machine. Clean the exterior if they are dirty.

★ Important

- **Keep the warning labels on this machine legible. If any of the warning labels become smeared, be sure to wipe off any dirt.**

Maintenance procedure

Wipe the machine with a soft, dry cloth. If this does not remove the dirt, wipe the machine with a damp and tightly wrung cloth. If a damp cloth still does not remove the dirt, try using a mild detergent. Wipe the machine with a dry cloth to remove the moisture, after using a damp cloth.



DWT308

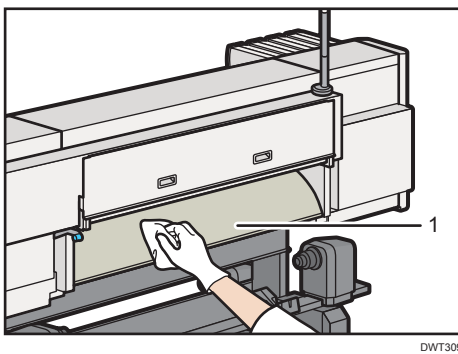
Maintenance

Cleaning the Pre-heater

The pre-heater is susceptible to becoming dirty with bits of media. Clean the pre-heater regularly.

1. **Lift and secure the pre-heater cover on the back of the machine.**
2. **Wipe off dirt on the pre-heater.**

Wipe the pre-heater with a soft, dry cloth. If this does not remove the dirt, wipe the pre-heater with a damp and tightly wrung cloth. If a damp cloth still does not remove the dirt, try using a mild detergent. Wipe the pre-heater with a dry cloth to remove the moisture, after using a damp cloth.

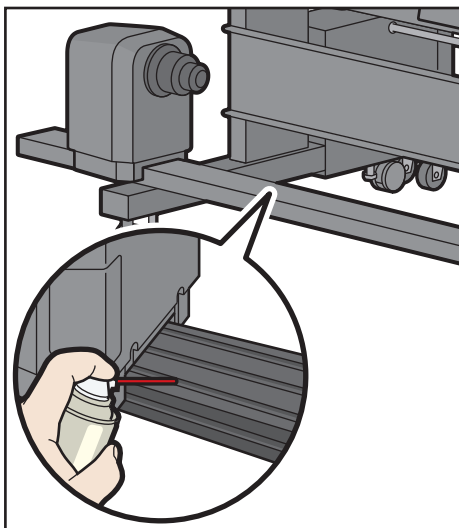


1. Pre-heater

3. **Return the pre-heater cover to its original position.**

Cleaning the Roll Holder and Guide Groove

Remove dust in the roll holder/spool holder rail groove using an item such as an air duster.



Maintenance

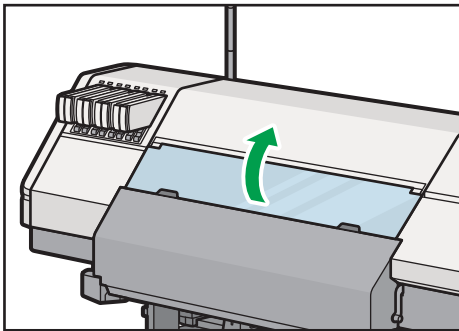
Cleaning the Platen

The platen is susceptible to becoming dirty with bits of media. Also, if ink is affixed to the platen, it may not be possible to successfully feed media when printing. If the platen is dirty, clean it.

★ Important

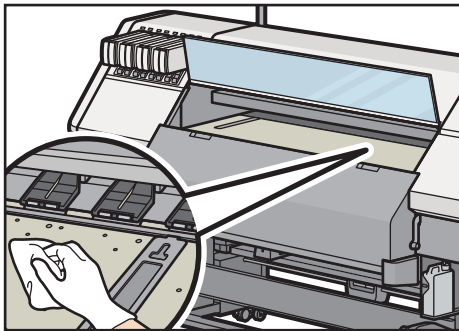
- Allow the temperature of the platen to cool sufficiently before cleaning it.
- The grooves of the media guides are a particularly susceptible location for dirt to build up. Clean the grooves sufficiently.

1. Open the center cover.



DWT134

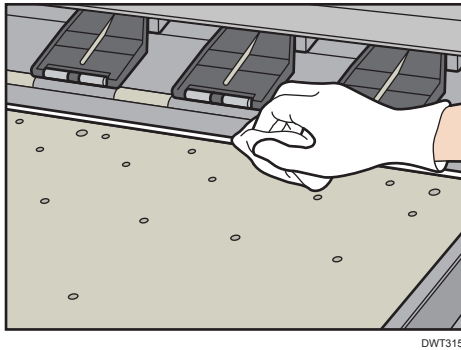
2. Wipe off dirt on the platen by using a soft paint brush, dry cloth, or paper towel, etc.



DWT310

- When ink is affixed, wipe it off with a paper towel soaked in cleaning liquid.
- Clean the grooves of the media guides by inserting items including paper towels into them.

Maintenance



- The smoothness of the platen may be affected depending on the fed media. Before feeding limp media, wipe the platen with a paper towel soaked with flushing liquid or water, and then wipe it with a dry cloth.

3. Close the center cover.

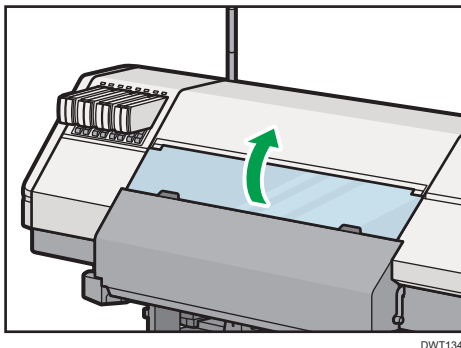
↓ Note

- After cleaning, check that the platen is dry before setting media.

Cleaning the Pinch Rollers

If bits of media or ink are affixed to the pinch rollers, it may not be possible to successfully feed media when printing. Clean the pinch rollers regularly.

1. Open the center cover.

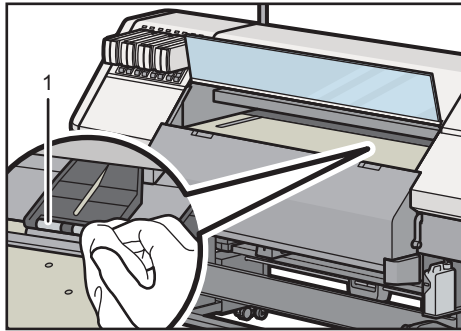


2. If the media holding lever (front) is lowered, raise the lever.

3. Wipe off dirt on the pinch rollers by using a dry cloth, or paper towel, etc.

If necessary, wipe it off with a damp and tightly wrung cloth, and then wipe it with a dry cloth.

Maintenance



1. Pinch roller

4. Close the center cover.

↓ Note

- After cleaning, check that the pinch rollers are dry before setting media.

Cleaning the Media Sensors

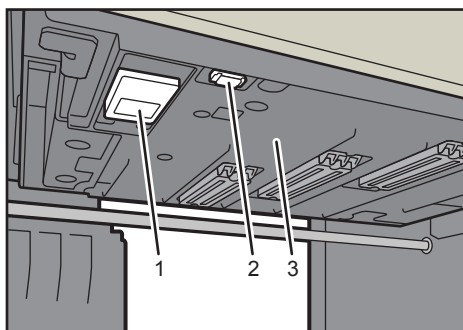
Media sensors are located above the media feeding surface at the rear of the machine and on the underside of the carriage. If dust builds up on the sensors on the underside of the carriage, it may not be possible to correctly detect media. When dust builds up on the surface of the sensors, remove the dust with a cotton swab.

Cleaning the media sensor on the underside of the carriage

When cleaning the media sensor on the underside of the carriage, see "Cleaning the Area around the Print Heads".

★ Important

- When cleaning the media sensor on the underside of the carriage, do not touch the sensors with your hand. Touching the sensors may cause malfunctions.
- Do not touch the colorimetric sensor as cleaning may cause the sensor to become misaligned.



1. Colorimetric sensor
2. Media sensor
3. Underside of the carriage

Maintenance

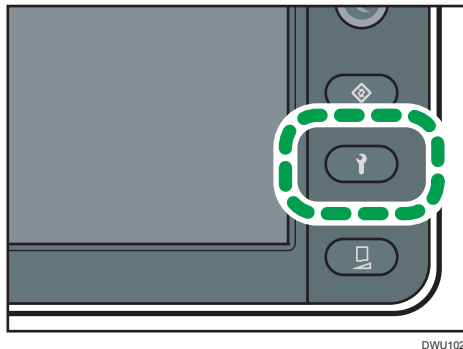
Cleaning the Nozzle Faces of the Print Heads

When nozzle clogging defects cannot be resolved even when performing head cleaning or air purging, clean the nozzle faces of the print heads.

★ Important

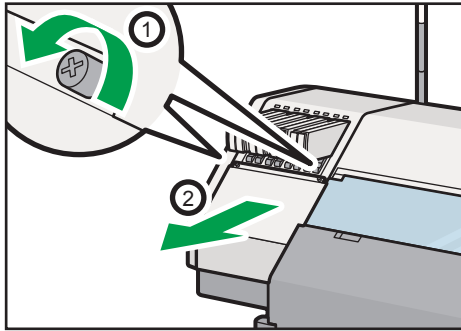
- Do not place any object on the platen as the carriage moves there.
- When the carriage moves, it may make contact with media. Check that the media is not deformed or that there is no floating media.
- When 10 minutes or more have passed after the carriage moves, the machine will make a buzzer sound. As nozzle dryness may cause a nozzle defect, perform nozzle maintenance promptly.
- For cleaning liquid, use only the manufacturer-recommended cleaning liquid bottle. For details, see "List of Consumables".

1. Press the [Maintenance] key.



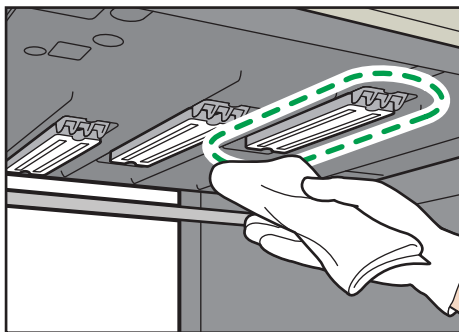
2. Press [Head Cleaning Maintenance].
3. Press [Left Side Edge Position].
4. Press [Execute].
The carriage moves to the left side edge position and a completion of movement message is displayed.
5. After the message is displayed, remove the two fixed screws, and then remove the left cover.
The removed screws will be used when refixing the cover.

Maintenance



6. Soak a paper towel or non-woven fabric with cleaning liquid, and then gently wipe the nozzle faces of the print heads.

The nozzle faces should only be wiped gently so that they are soaked in cleaning liquid. Do not strongly rub the nozzles faces.



7. Fix the left cover with the two screws removed in step 5.
The carriage moves to its home position.
8. After the "Has head cleaning been performed?" message is displayed, press [Execute].

RICOH
imagine. change.