

VersaUV

LEC2-640

LEC2-330

Regular Maintenance Guide



-
- Thank you very much for purchasing this product.
 - To ensure correct and safe usage with a full understanding of this product's performance, please be sure to read through this manual completely and store it in a safe location.
 - Unauthorized copying or transferal, in whole or in part, of this manual is prohibited.
 - The specifications of this product and the contents of this operation manual are subject to change without notice.
 - The operation manual and the product have been prepared and tested as much as possible. If you find any misprints or errors, please inform us.
 - Roland DG Corporation assumes no responsibility for any direct or indirect loss or damage that may occur through use of this product, regardless of any failure to perform on the part of this product.
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This document is the instruction manual for both the LEC2-640 and the LEC2-330. This document uses the following notations to distinguish between the models where necessary.

- LEC2-640: 64-inch model
- LEC2-330: 30-inch model

Also, most of the figures in this document depict the LEC2-640.

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1. Introduction

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Important Notes on Handling and Use

Printer

- **This machine is a precision device.**
 - Never subject the machine to impacts or excessive force.
 - Never needlessly put your hand or fingers inside the cover, the ink-cartridge ports, or other internal areas of the machine.
- **Install in a suitable location.**
 - Install the machine in a location having the specified temperature and humidity.
 - Install the machine in a quiet, stable location offering good operating conditions.
- **The print heads and the UV-LED device are delicate devices.**
 - Never needlessly touch or allow the object to be printed on to scrape them. Failure to handle these items with care may cause damage.
 - The print heads may be damaged if allowed to dry out. The machine prevents desiccation automatically, but improper operation may render this feature inoperative. Operate the machine properly, as specified in this manual.
 - Never leave the machine with an ink cartridge removed. Remaining ink in the printer may harden and clog the print heads.
 - Daily maintenance as well as various types of maintenance depending on the status must be performed. Read this manual thoroughly and perform the appropriate maintenance at the appropriate times.
 - The print heads are components that wear out. Periodic replacement is required, with the frequency of replacement depending on use.

Ink Cartridges

- **Ink cartridges come in various types.**
 - Use a type that is compatible with the printer. Also, be sure to use only genuine items from Roland DG Corporation.
- **Never subject to impact or attempt to disassemble.**
 - Never drop the ink cartridges or shake them forcefully. The impact may rupture the internal pouch and cause the ink to leak.
 - Never attempt to disassemble the ink pouches.
 - Never attempt to refill the ink.
 - If ink gets on your hands or clothing, wash it off as soon as possible. Removal may become difficult if you leave such adhered ink untreated.
- **Storage**
 - Use up the ink before the expiration date printed on the ink cartridge.
 - Store the ink cartridges in a location that is not subject to direct sunlight or strong illumination.
 - Store the ink cartridges unopened in a well-ventilated location at a temperature of 5°C (41°F) or higher and less than 35°C (95°F) and a relative humidity of 20 to 80%RH.

Basic Maintenance Knowledge

Types and Timing of Maintenance

To use this machine under its optimal conditions, it is important to perform the appropriate maintenance at the appropriate times.

Regular Maintenance

These are the maintenance items that are required on a daily basis.

Timing	Category	Item
Before daily operations	Maintenance of ink cartridges	☞ P. 12 "Maintenance of Ink Cartridges"
	Cleaning of the print heads	☞ P. 13 "Printing Tests and Normal Cleaning"
During and after daily operations	Cleaning of the print heads	☞ P. 28 "Manual Cleaning Method"
	Cleaning the machine	☞ P. 8 "Cleaning the Machine"
	Replacing ink cartridges	☞ P. 12 "Out-of-ink Warnings"
When the discharged fluid is ready to overflow	Disposing of discharged fluid	☞ P. 10 "If the Discharged Fluid Disposal Message Appears"
When dot drop-out or dot displacement occurs	Cleaning of the print heads	☞ P. 13 "Printing Tests and Normal Cleaning"
		☞ P. 23 "Medium Cleaning Method"
		☞ P. 25 "Powerful Cleaning Method"
		☞ P. 28 "Manual Cleaning Method"
Once a month	Cleaning the UV-LED device	☞ P. 39 "How to Clean the UV-LED Device"

Advanced maintenance

These maintenance methods consume a large amount of ink. Thoroughly read the explanation in the User's Manual, and then perform the operation at the appropriate point in time.

☞ User's Manual (<https://downloadcenter.rolanddg.com/LEC2-640>)

Timing	Category	Item
When the white ink concentration drops	Eliminating drops in ink concentration	Light choke cleaning
When manual cleaning is not effective	Eliminating uneven colors, dot drop-out, and dot displacement	* Handling Severe Dot Drop-out, Dot Displacement, and Uneven Colors

Replacing consumable parts

These items are for replacement of consumable parts. Thoroughly read the explanation in the User's Manual, and then perform the operation at the appropriate point in time.

☞ User's Manual (<https://downloadcenter.rolanddg.com/LEC2-640>)

Timing	Category	Item
When a replacement message appears	Replacing consumable parts <ul style="list-style-type: none">• Wiper• Felt wipers• Blade• Separating knife	Replacing the wiper
		Replacing the felt wipers
		Replacing the blade
When a cutting edge becomes dull		Replacing the separating knife

Automatic Maintenance Feature and Notes

This machine has a feature that automatically performs maintenance periodically.

This function performs operations for preventing the print heads from drying out, so:

- Always keep the main power switched on.
- Do not leave the front cover open for a long time.
- Return to the top menu after specifying settings in the menus.

Measures When the Printer Is Not in Use for a Prolonged Period

Be sure to follow the instructions shown below when the printer is not in use for a prolonged period.

- **Empty the drain bottle.**

If you know that you will not use the machine for a prolonged period, empty the drain bottle. When the main power is on, the machine periodically performs automatic maintenance in which fluid is discharged.

The drain bottle is filled when the following periods elapse. Leaving the drain bottle as-is will lead to the discharged fluid overflowing.

➤ Approximately 2 weeks after the message "EMPTY DRAIN BOTTLE" is displayed

☞ P. 10 "If the Discharged Fluid Disposal Message Appears"

➤ Approximately 80 days after the drain bottle is emptied

- **Switch the sub power on once every two weeks.**

Switch the sub power on once every two weeks. When you turn on the power, the machine automatically performs operations such as those to keep the print heads from drying out. Leaving the machine unused for a prolonged period may damage the print heads, so be sure to switch on the power to perform these automatic operations.

- **Keep the machine at a constant temperature and relative humidity.**

Even when the machine is not in use, keep it at a temperature of 5 to 40°C (41 to 104°F) and a relative humidity of 20 to 80%RH (with no condensation). Failure to do so may result in malfunction.

2. Regular Maintenance

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Cleaning the Machine

Cleaning the Media Path

Wipe away any ink or grime on the media path and other areas as part of the daily cleaning procedure. It is easy for ink or grime to affix to the media path, and, if left unattended, this will contaminate new media and have a negative effect on the transport of media when it is output. Pinch rollers, grit rollers, and the platen are particularly prone to the buildup of grime.

⚠️WARNING

Never use a solvent such as gasoline, alcohol, or thinner to perform cleaning.

Doing so may cause fire.

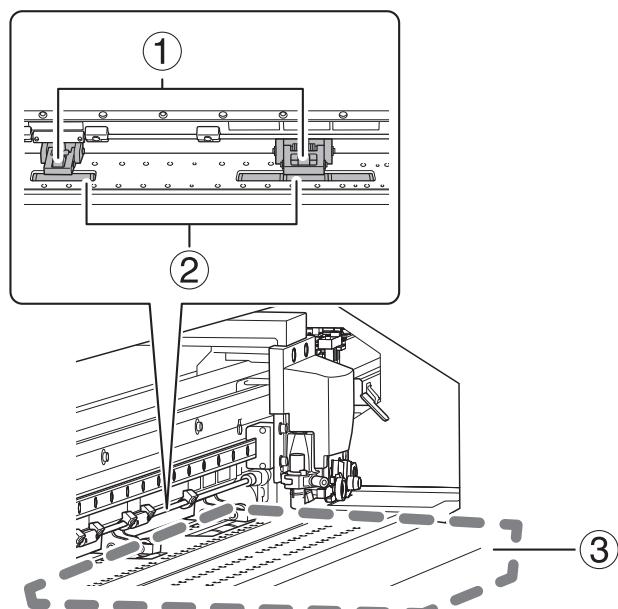
⚠️CAUTION

Before attempting cleaning, switch off the sub power and wait until the UV-LED device cools (approximately 15 minutes).

Sudden movement of the machine may cause injury, or hot components may cause burns.

IMPORTANT

- This machine is a precision device and is sensitive to dust and dirt. Perform cleaning on a daily basis.
- Never attempt to oil or lubricate the machine.



Clean by wiping with a cloth moistened by neutral detergent diluted with water then wrung dry.

①	Pinch roller	These are the positions where the media is fixed in place or transported, so it is easy for ink and grime to affix to these positions. Failure to clean this part properly may result in the transfer of grime to the surface of media.
②	Grit roller	These are the positions where the media is fixed in place or transported, so it is easy for grime to affix to these positions. Remove buildup of media scraps and other material using a brush. Never use a metal brush.
③	Platen	Wipe away any buildup of ink, grime, or cut media on the media path and in the grooves.

Cleaning the Cutting Carriage Roller

Paper dust affixes to the separating knife carriage roller during media separation. Periodically wipe the area clean.

⚠WARNING

Never use a solvent such as gasoline, alcohol, or thinner to perform cleaning.

Doing so may cause fire.

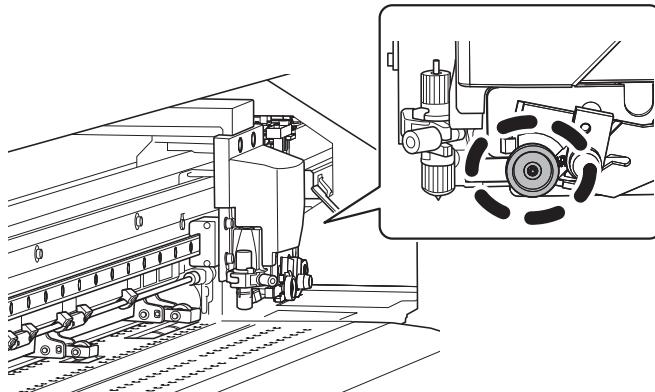
⚠CAUTION

Before attempting cleaning, switch off the sub power and wait until the UV-LED device cools (approximately 15 minutes).

Sudden movement of the machine may cause injury, or hot components may cause burns.

IMPORTANT

- This machine is a precision device and is sensitive to dust and dirt. Perform cleaning on a daily basis.
- Never attempt to oil or lubricate the machine.



Clean by wiping with a cloth moistened by neutral detergent diluted with water then wrung dry.

Disposing of Discharged Fluid

Precautions for Disposing of Discharged Fluid

⚠WARNING

Never place discharged fluid or ink near an open flame.

Doing so may cause fire.

⚠CAUTION

To store discharged fluid temporarily, place it in the included drain bottle or in a durable sealed container such as a metal can or polyethylene tank, and cap the container tightly.

Any spillage or vapor leakage may cause fire, odor, or physical distress.

IMPORTANT

Dispose of discharged fluid properly, in accordance with the laws in effect in your locale.

Discharged fluid is flammable and contains toxic ingredients. Never attempt to incinerate discharged fluid or discard it with ordinary trash. Also, do not dispose of it in sewer systems, rivers, or streams. Doing so may have an adverse impact on the environment.

If the Discharged Fluid Disposal Message Appears

The message shown below appears when a certain amount of discharged fluid has collected in the bottle and the sub power is turned on. If this message appears, dispose of the discharged fluid.

EMPTY
DRAIN BOTTLE ↵

If you continue to use the drain bottle without discarding the discharged fluid even though the message above has been displayed, the drain bottle will become full, and the message shown below will be displayed. No more discharged fluid can be stored in the drain bottle, so be sure to discard the discharged fluid immediately. If this message appears during printing, printing is stopped.

LIMIT OVER EMPTY
DRAIN BOTTLE ↵

IMPORTANT

When the message [LIMIT OVER EMPTY DRAIN BOTTLE] is displayed on the screen, be sure to discard the discharged fluid. If you do not discard the discharged fluid, you will not be able to clear this message.

Procedure

- 1** Remove the drain bottle and discard the discharged fluid.

**IMPORTANT**

When you remove the drain bottle, a few drops of discharged fluid may come out of the machine. Exercise caution to prevent this fluid from soiling your hands or the floor.

⚠️WARNING

Never place discharged fluid or ink near an open flame.
Doing so may cause fire.

⚠️CAUTION

To store discharged fluid temporarily, place it in the included drain bottle or in a durable sealed container such as a metal can or polyethylene tank, and cap the container tightly.

Any spillage or vapor leakage may cause fire, odor, or physical distress.

IMPORTANT

Dispose of discharged fluid properly, in accordance with the laws in effect in your locale.

Discharged fluid is flammable and contains toxic ingredients. Never attempt to incinerate discharged fluid or discard it with ordinary trash. Also, do not dispose of it in sewer systems, rivers, or streams. Doing so may have an adverse impact on the environment.

- 2** Quickly attach the emptied drain bottle to the machine once more.

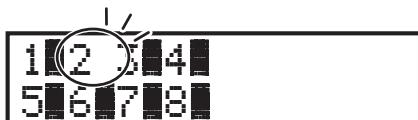
- 3** Press [ENTER].

The display returns to the original screen.

Maintenance That Must Be Performed Daily

Out-of-ink Warnings

When an ink pouch runs out, printing pauses and a warning beep sounds. Pull out the empty cartridge and insert a new one. Printing resumes.



If an ink runs out, the numbers of the color that has run out flash.

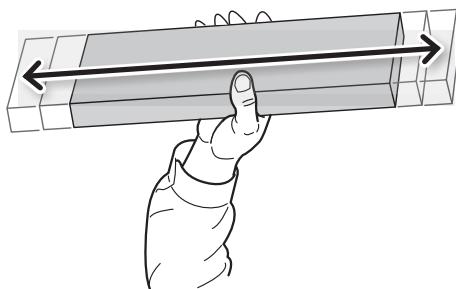
Lit	Indicates that ink still remains
Flashing	Indicates that ink has run out

Maintenance of Ink Cartridges

The precipitation of the ingredients in the ink disables printing in normal color. So that the ink mixes well, shake the ink cartridge horizontally with a stroke length of around 5 cm (2 in.) from each end of the ink cartridge.

- Remove the white ink cartridge, shake it 50 times (about 20 seconds), and then reinsert this cartridge.
- The ink cartridges for colors other than white do not need to be shaken before every operation, but be sure to shake them when installing new ones.

The ingredients in white ink tend to settle. Each day, before starting the day's operations, be sure to shake this cartridge. Allowing the ink to stand without carrying out these steps can cause the settled material to harden, resulting in malfunction or other problems.



IMPORTANT

- Before shaking the ink cartridge, wipe off any ink from around its mouth. If you do not wipe off the ink, it may splatter when you shake the ink cartridge.
- When you have finished mixing the ink, reattach the ink cartridge immediately. Taking time to reattach the ink cartridge will adversely affect the ink path.
- Even if you are not using the printer, shake the white ink cartridge 50 times (about 20 seconds) once a week.

Printing Tests and Normal Cleaning

1. Perform a printing test.

Before you carry out actual printing, perform a printing test to ensure no dot drop-out or dot displacement occurs. If dot drop-out or dot displacement occurs, perform cleaning of the print heads (normal cleaning).

MEMO

- This operation is unnecessary if you will only perform cutting.
- When performing printing tests successively, you can select "FEED" (vertical printing) or "SCAN" (horizontal printing) as the print position for the 2nd and later tests in comparison to the 1st test.

☞ User's Manual (<https://downloadcenter RolandDG.com/LEC2-640>)

Procedure

1 Load the media.

☞ User's Manual (<https://downloadcenter RolandDG.com/LEC2-640>)

2 Press [FUNCTION].

3 Press [▼], then [▶] to display the screen shown below.

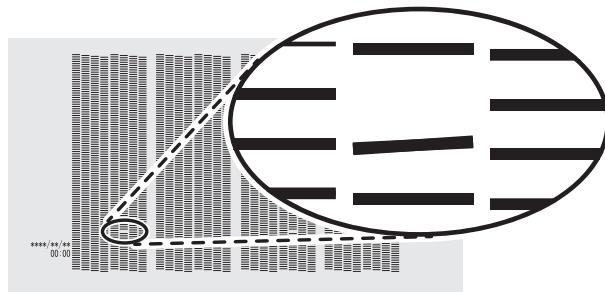


4 Press [ENTER].

Printing of the test pattern starts.

5 Check whether there is dot drop-out or dot displacement in the test pattern.

Missing blocks indicate dot drop-out. Collapsed or inclined blocks indicate dot displacement.



6 If you have opened the front cover, close it.

If no dot drop-out or dot displacement occurs, this operation is finished. Press [FUNCTION] to go back to the original screen.

2. Performing Normal Cleaning

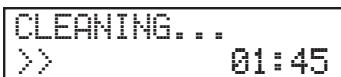
Procedure

- 1 Press [▼] to display the screen shown below.



- 2 Press [ENTER].

The screen shown below appears, and then cleaning starts. The (approximate) remaining time for the procedure is displayed on the screen. (The display shown below is an example. "01:45" = "1 minute and 45 seconds")



When finished, the screen shown below appears again.



- 3 Press [Δ].



- 4 Press [ENTER].

Perform a printing test again to check whether the dot drop-out and dot displacement have been corrected.

- 5 Check to make sure the dot drop-out or dot displacement has been corrected.

If the problem persists, try performing normal cleaning again. If the printer has been used for a long period, dot drop-outs may not be fixed even after performing normal cleaning two or three times. If this is the case, clean using a different method.

☞ P. 23 "When Normal Cleaning Is Not Effective"

Manual Cleaning

Be sure to perform manual cleaning after daily operations are finished.

1. Clean the print heads.

Procedure

- 1** Remove any media.
- 2** Remove the media clamps.
- 3** Press [FUNCTION].
- 4** Press [\blacktriangleright].
- 5** Press [∇] several times to display the screen shown below.



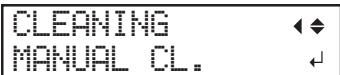
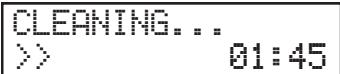
- 6** Press [ENTER].

When the media clamp removal message is displayed, press [ENTER] again. After "NOW PROCESSING.." is displayed, the screen shown below appears.
Also, the print head moves to the left end of the platen.



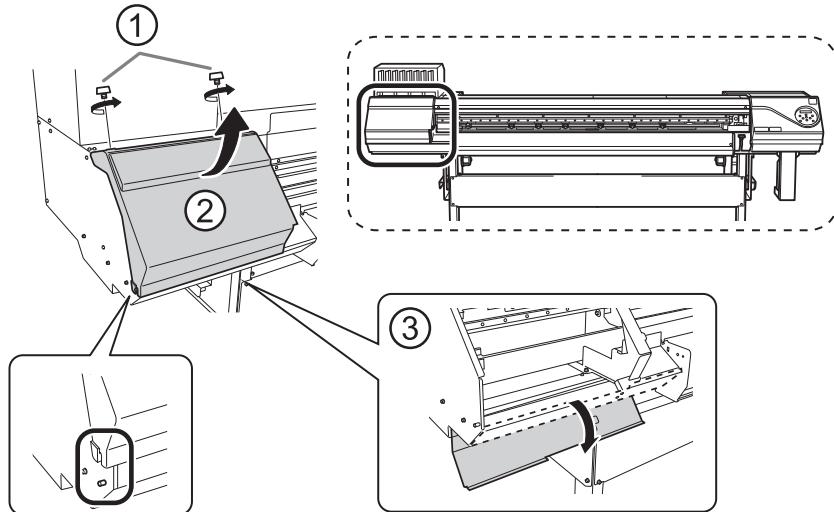
IMPORTANT

Do not press [ENTER] at this stage. Press [ENTER] after cleaning is complete. If you press [ENTER] at this stage, wait for the screen to change as shown in the following figure, and then press [ENTER] again.

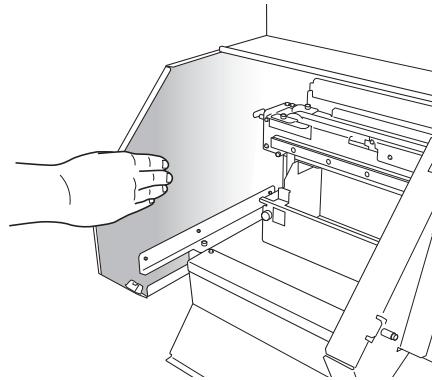


- 7** Open the front cover.

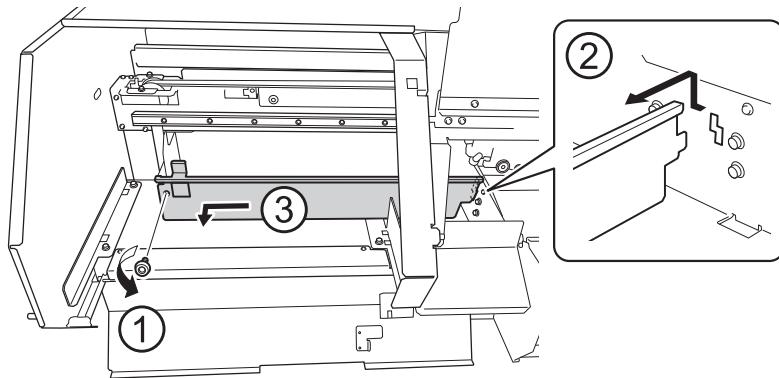
8 Open the left covers (top and bottom).



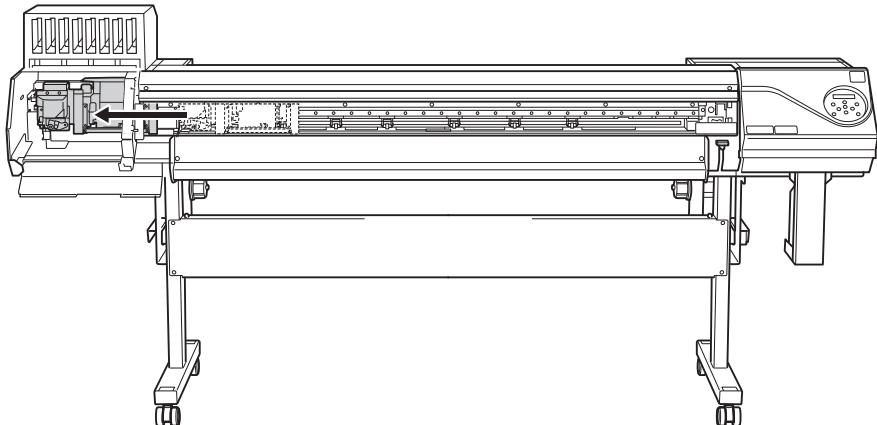
9 Touch the location shown in the figure to discharge any static electricity.



10 Remove the cut rail.



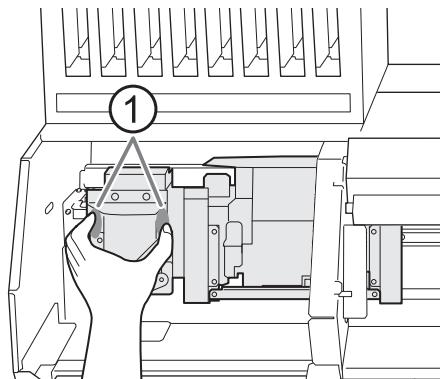
11 Move the print-head carriage to the left end.



Move the print-head carriage by hand.

⚠ CAUTION When moving the print-head carriage by hand, be sure to hold the specified position.

Moving it by holding positions other than those specified may deform and damage the cover.

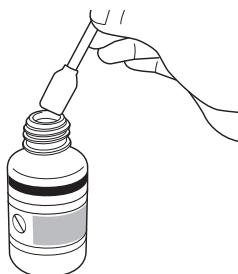


①: Position to hold with your hand

12 Apply a large amount of cleaning liquid to the cleaning stick.

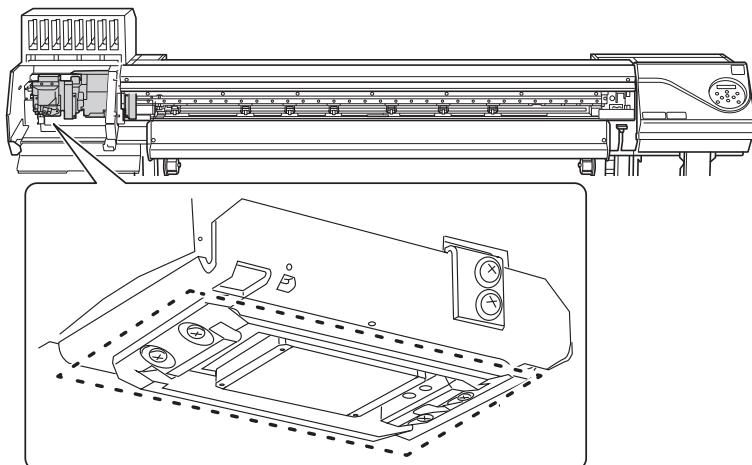
IMPORTANT

Be sure to use one of the included cleaning sticks.

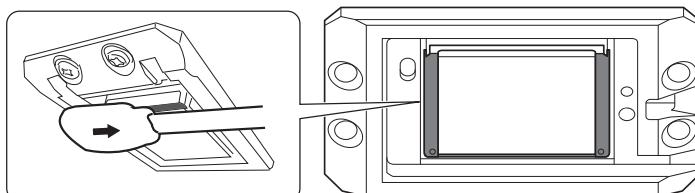


13 Clean the locations shown in the following figure.

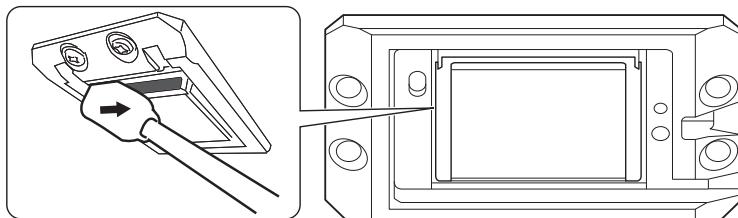
Be especially careful to clean away any fibrous dust (lint).



- ①** Use the wide surface of the cleaning stick to wipe off the left side. Then, use the opposite surface (which is not dirty) to wipe off the right side.

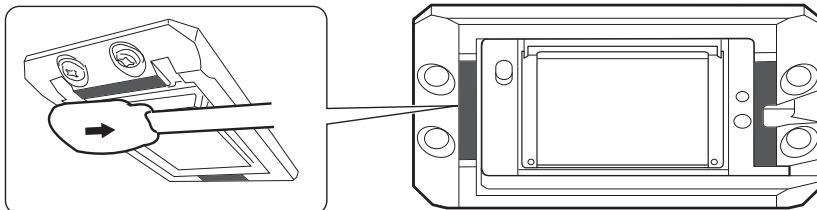


- ②** Stand the cleaning stick upright and wipe off the left side. Then, use the opposite surface to wipe off the right side.

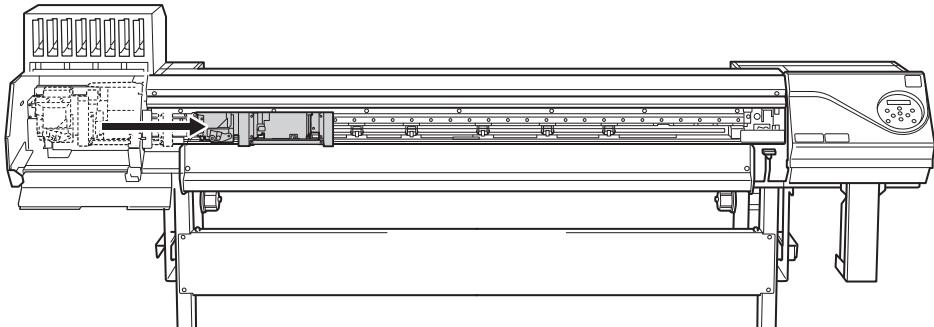


- ③** Use the wide surface of the cleaning stick to wipe away any dirt from the area shown in the figure.

If this area has any ink or cleaning liquid that appears likely to drip, use a dry cloth that is not fluffy to gently wipe away the ink or cleaning liquid.



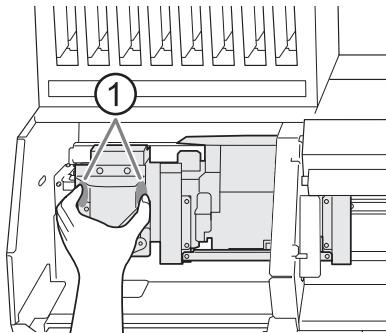
- 14** When you have finished cleaning, move the print-head carriage to above the platen.



Move the print-head carriage by hand.

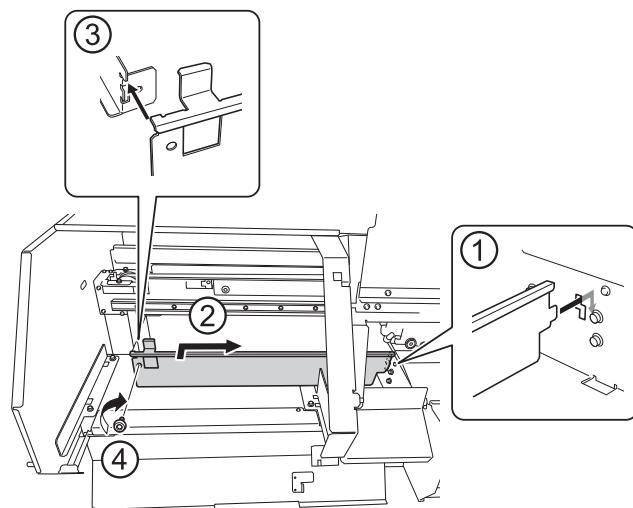
⚠CAUTION When moving the print-head carriage by hand, be sure to hold the specified position.

Moving it by holding positions other than those specified may deform and damage the cover.



①: Position to hold with your hand

- 15** Attach the cut rail.

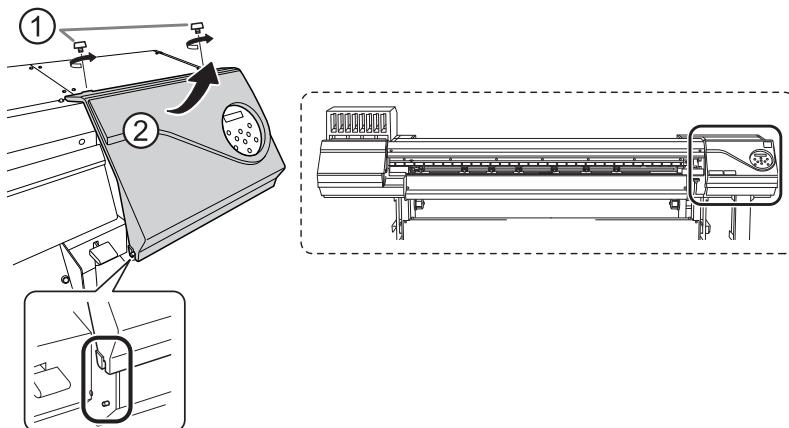


- 16** When you have finished cleaning, close the left covers (top and bottom).

2. Clean the print head caps.

Procedure

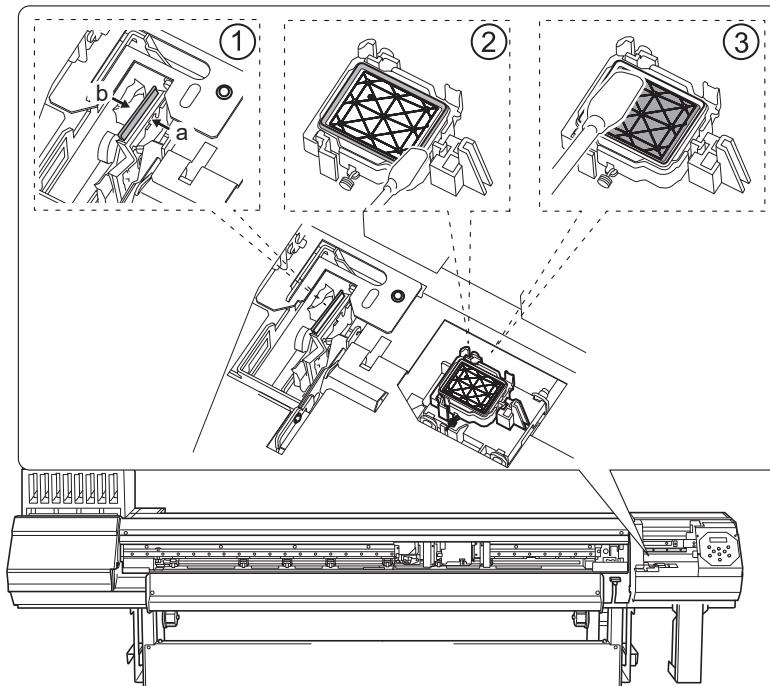
① Open the right cover.



② Clean the locations shown in the following figure.

Be especially careful to clean away any fibrous dust (lint).

- ① After wiping off the hooked side of the wiper (a) with a cleaning stick, wipe off the opposite side (b).
- ② Wipe off the area in the figure with a cleaning stick.
- ③ Use the wide surface of the cleaning stick, and then shift it to a different location, pressing the cleaning stick against the location to absorb the dirt there.

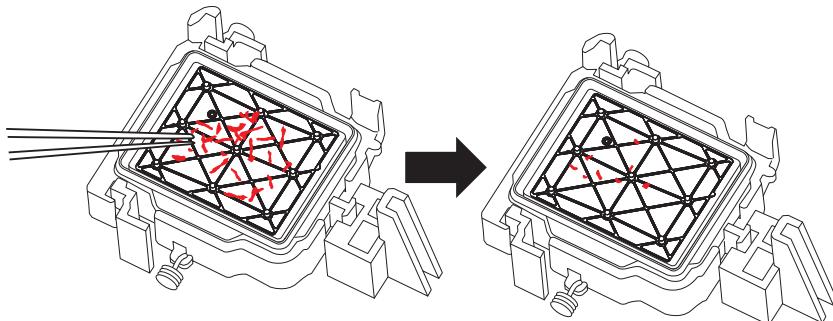


3 Remove any hardened ink on top of the print head caps.

Use a pair of tweezers to remove the pieces of hardened ink that are 3 mm (0.12 in.) or more in length.

IMPORTANT

Do not use excessive force when pulling on pieces of hardened ink that are difficult to remove. Doing so may damage the print head caps.



4 Close the right cover.

5 Close the front cover.

6 Press [ENTER].

FINISHED?
↔

The screen shown below appears, and then cleaning starts. The (approximate) remaining time for the procedure is displayed on the screen. (The display shown below is an example. "01:45" = "1 minute and 45 seconds")

CLEANING...	↔
>>	01:45

When finished, the screen shown below appears again.

CLEANING	↔
MANUAL CL.	↔

7 Press [FUNCTION] to go back to the original screen.

3. Perform a printing test to check the results.

Procedure

1 Load the media.

☞ User's Manual (<https://downloadcenter.rolanddg.com/LEC2-640>)

2 Press [FUNCTION].

3 Press [▼], then [▶] to display the screen shown below.

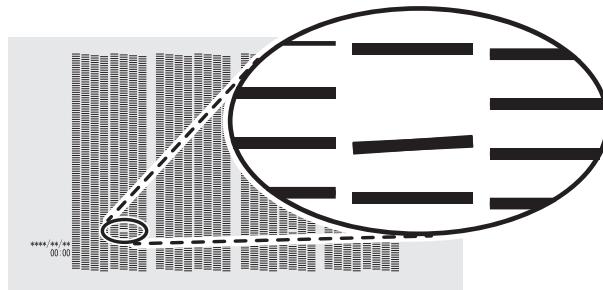


4 Press [ENTER].

Printing of the test pattern starts.

5 Check whether there is dot drop-out or dot displacement in the test pattern.

Missing blocks indicate dot drop-out. Collapsed or inclined blocks indicate dot displacement.



6 If you have opened the front cover, close it.

If no dot drop-out or dot displacement occurs, this operation is finished. Press [FUNCTION] to go back to the original screen.

If dot drop-out or dot displacement is present, perform cleaning such as normal cleaning.

☞ P. 13 "Printing Tests and Normal Cleaning"

☞ P. 23 "Medium Cleaning Method"

☞ P. 25 "Powerful Cleaning Method"

When Normal Cleaning Is Not Effective

Medium Cleaning Method

The print heads are important components that discharge ink. They require periodic and appropriate maintenance. When problems such as dot drop-out are not resolved by normal cleaning (P. 13 "Printing Tests and Normal Cleaning"), perform the more forceful "medium cleaning" to remove clogging from the print heads.

IMPORTANT

Medium cleaning consumes more ink than normal cleaning, and overly frequent use may damage the print heads themselves. Avoid performing this operation more than necessary.

Procedure

- 1 Load the media.

☞ User's Manual (<https://downloadcenter RolandDG.com/LEC2-640>)

- 2 Press [FUNCTION].

- 3 Press [**V**], then [**▶**] to display the screen shown below.



- 4 Press [ENTER].

A test pattern is printed.

- 5 Press [**V**] several times to display the screen shown below.



- 6 Press [ENTER] to confirm your entry.

The screen shown below appears, and then cleaning starts. The (approximate) remaining time for the procedure is displayed on the screen. (The display shown below is an example. "01:45" = "1 minute and 45 seconds")



When finished, the screen shown below appears again.



- 7 Press [**V**] several times to display the screen shown below.



⑧ Press [ENTER].

Perform a printing test again to check whether the dot drop-out and dot displacement have been corrected.

MEMO

- If the problem persists, try performing medium cleaning again.
- If problems such as dot drop-out and dot displacement persist even after you have performed medium cleaning several times, perform "powerful cleaning."

☞ P. 25 "Powerful Cleaning Method"

Powerful Cleaning Method

The print heads are important components that discharge ink. They require periodic and appropriate maintenance. When problems such as dot drop-out are not resolved by medium cleaning (P. 23 "Medium Cleaning Method"), perform the more forceful "powerful cleaning" to remove clogging from the print heads.

IMPORTANT

Powerful cleaning consumes more ink than medium cleaning, and overly frequent use may damage the print heads themselves. Avoid performing this operation more than necessary.

Procedure

- 1 Load the media.**

☞ User's Manual (<https://downloadcenter Roland.com/LEC2-640>)

- 2 Press [FUNCTION].**

- 3 Press [**V**], then [**>**] to display the screen shown below.**



- 4 Press [ENTER].**

A test pattern is printed.

- 5 Press [**V**] several times to display the screen shown below.**



- 6 Press [ENTER] to confirm your entry.**

The screen shown below appears, and then cleaning starts. The (approximate) remaining time for the procedure is displayed on the screen. (The display shown below is an example. "01:45" = "1 minute and 45 seconds")



When finished, the screen shown below appears again.



- 7 Press [**V**] several times to display the screen shown below.**



⑧ Press [ENTER].

Perform a printing test again to check whether the dot drop-out and dot displacement have been corrected.

MEMO

- If the problem persists, try performing powerful cleaning again.
- If problems such as dot drop-out and dot displacement persist even after you have performed powerful cleaning several times, perform "manual cleaning."
☞ P. 28 "Manual Cleaning Method"

Manual Cleaning

When Manual Cleaning Is Necessary

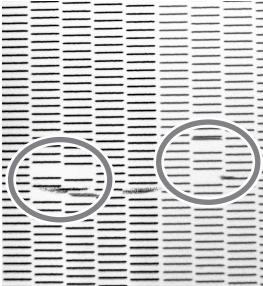
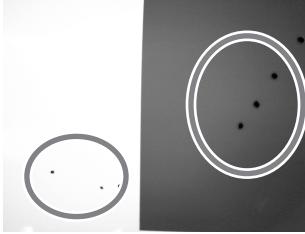
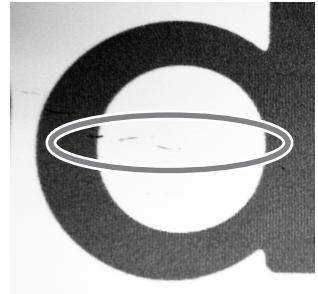
The print heads are important components that discharge ink. They require periodic and appropriate maintenance. It is important to perform manual cleaning with the appropriate timing.

After daily operations are finished

Be sure to perform manual cleaning after daily operations are finished.

When symptoms that cannot be improved with powerful cleaning occur

When any of the symptoms given below occur and powerful cleaning is not effective, perform manual cleaning.

Dot drop-out/Dot displacement	Ink drips	Dragging dirt
		
Dust or other foreign matter adheres to the print heads and impedes correct ink discharge.	Ink pools in dust or dirt adhered to the print heads, and drips onto the media.	The phenomenon where dirt or dust accumulates on the print heads.

MEMO

- Wiper replacement may also be effective in improving these symptoms.
☞ User's Manual (<https://downloadcenter Roland.com/LEC2-640>)
- The print heads are components that wear out. Periodic replacement is required, with the frequency of replacement depending on use.

Manual Cleaning Method

Be sure to perform manual cleaning after daily operations are finished. If you want to perform unmanned printing at night, perform manual cleaning before sending the print data.

⚠ CAUTION

Do not perform cleaning immediately after printing has finished (wait approximately 15 minutes).

The area around the UV-LED device is hot and may cause burns.

⚠ CAUTION

Be sure to perform operations as specified by the instructions above, and never touch any area not specified in the instructions.

Sudden movement of the machine may cause injury.

IMPORTANT

Important notes on this procedure

- Before attempting this operation, remove any media.
- To prevent the print heads from drying out, finish this procedure in 10 minutes or less. A warning beep sounds after 10 minutes.
- Never use any implements other than the included cleaning sticks. Cotton swabs or other lint-producing items may damage the print heads.
- Use only the included cleaning liquid.
- Use one cleaning stick per cleaning session, and then discard the stick after use. Reusing cleaning sticks will adversely affect the printing results.
- Do not put a cleaning stick that has been used for cleaning into the cleaning liquid. Doing so will deteriorate the cleaning liquid.
- Never rub the print head surface (nozzle surface).
- Stroke the sponges very gently, applying as little pressure as possible. Never rub, scrape, or crush them.
- If you use up the cleaning sticks or cleaning liquid, contact your authorized Roland DG Corporation dealer or visit our website (<http://www.rolanddg.com/>).

If a warning beep sounds during cleaning

A warning beep sounds 10 minutes after operation starts. Stop work, close all the covers, and then press [ENTER] to end the manual cleaning mode. After that, restart the procedure from the beginning.

Required items	
	
Cleaning sticks	
Cleaning liquid	

1. Clean the print heads.

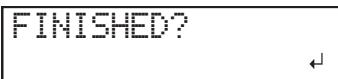
Procedure

- 1** Remove any media.
- 2** Remove the media clamps.
- 3** Press [FUNCTION].
- 4** Press [**▶**].
- 5** Press [**▼**] several times to display the screen shown below.



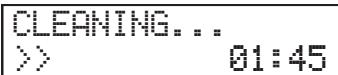
- 6** Press [ENTER].

When the media clamp removal message is displayed, press [ENTER] again. After "NOW PROCESSING.." is displayed, the screen shown below appears.
Also, the print head moves to the left end of the platen.



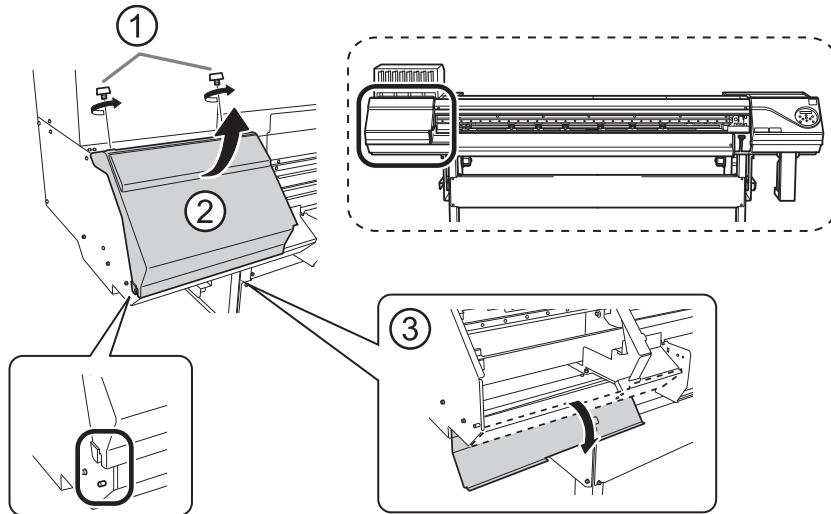
IMPORTANT

Do not press [ENTER] at this stage. Press [ENTER] after cleaning is complete. If you press [ENTER] at this stage, wait for the screen to change as shown in the following figure, and then press [ENTER] again.

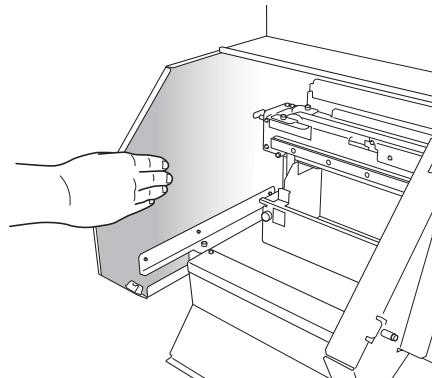


- 7** Open the front cover.

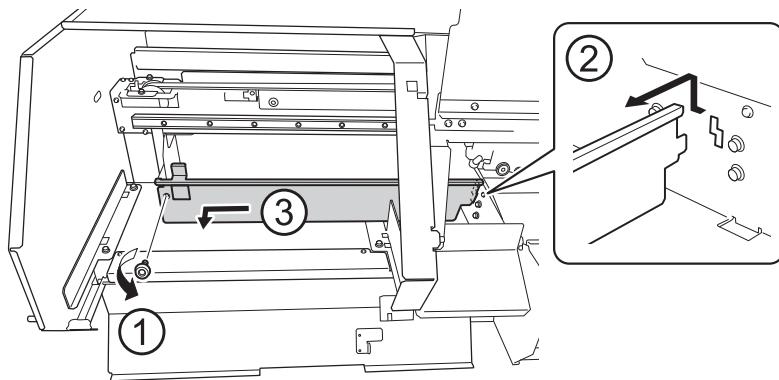
- 8 Open the left covers (top and bottom).



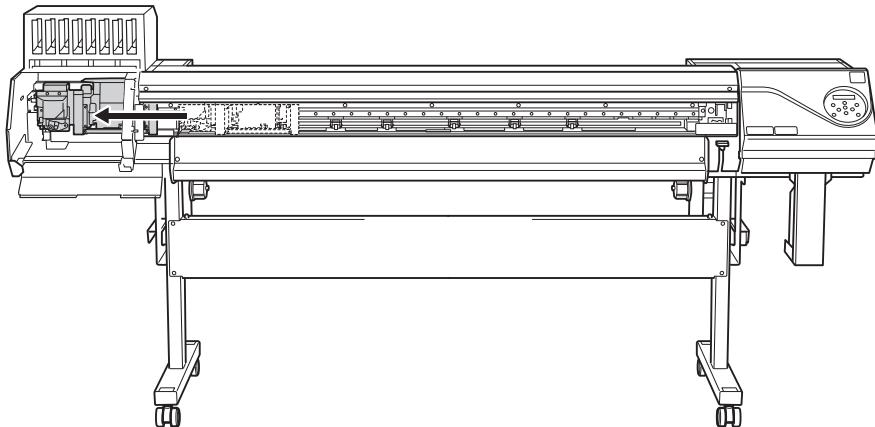
- 9 Touch the location shown in the figure to discharge any static electricity.



- 10 Remove the cut rail.



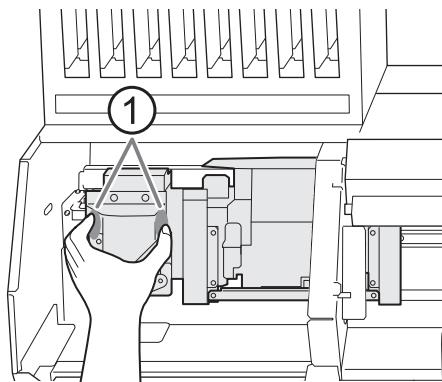
- 11 Move the print-head carriage to the left end.



Move the print-head carriage by hand.

CAUTION When moving the print-head carriage by hand, be sure to hold the specified position.

Moving it by holding positions other than those specified may deform and damage the cover.

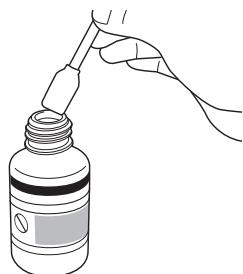


①: Position to hold with your hand

- 12 Apply a large amount of cleaning liquid to the cleaning stick.

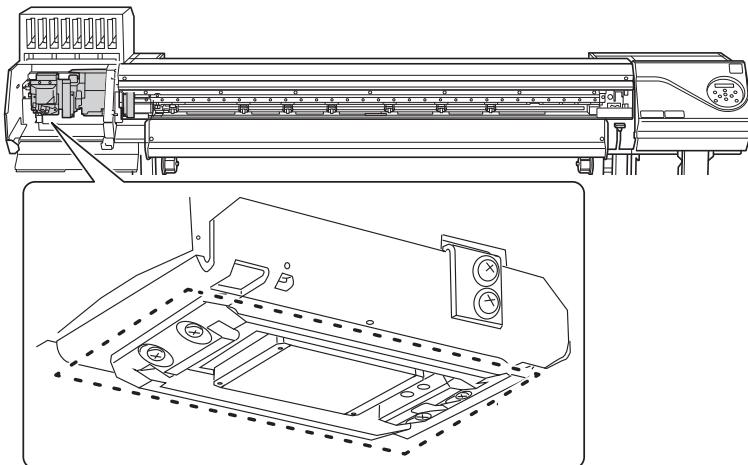
IMPORTANT

Be sure to use one of the included cleaning sticks.

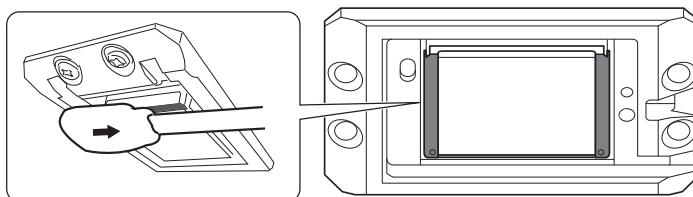


⑬ Clean the locations shown in the following figure.

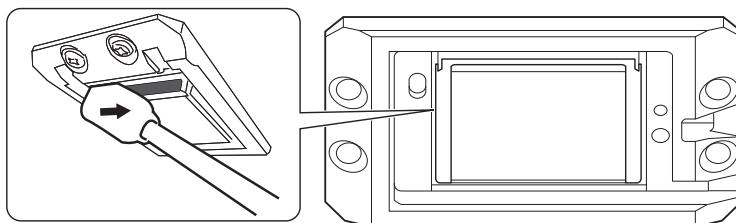
Be especially careful to clean away any fibrous dust (lint).



- ① Use the wide surface of the cleaning stick to wipe off the left side. Then, use the opposite surface (which is not dirty) to wipe off the right side.

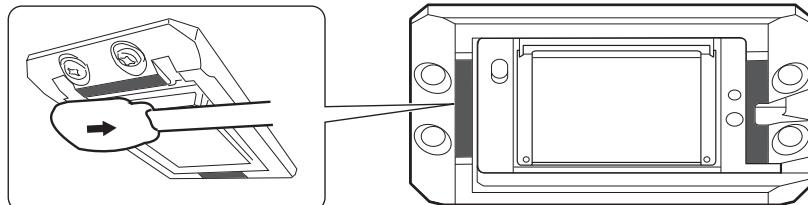


- ② Stand the cleaning stick upright and wipe off the left side. Then, use the opposite surface to wipe off the right side.

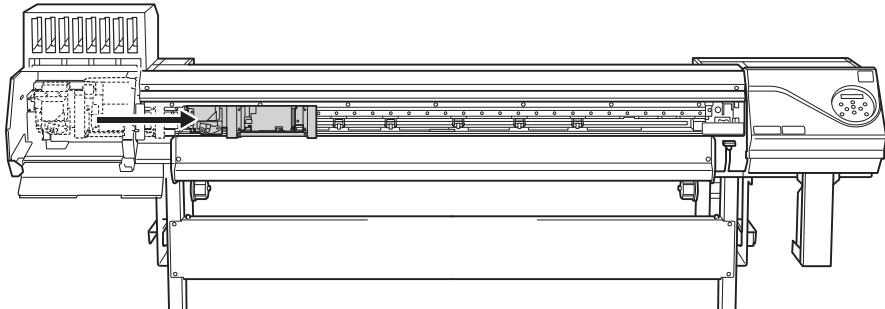


- ③ Use the wide surface of the cleaning stick to wipe away any dirt from the area shown in the figure.

If this area has any ink or cleaning liquid that appears likely to drip, use a dry cloth that is not fluffy to gently wipe away the ink or cleaning liquid.



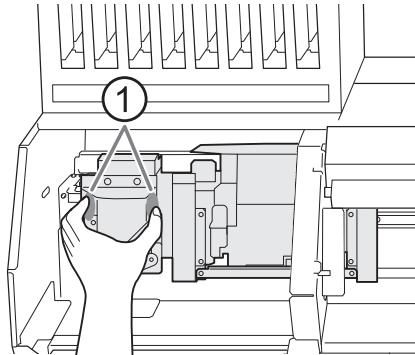
- 14** When you have finished cleaning, move the print-head carriage to above the platen.



Move the print-head carriage by hand.

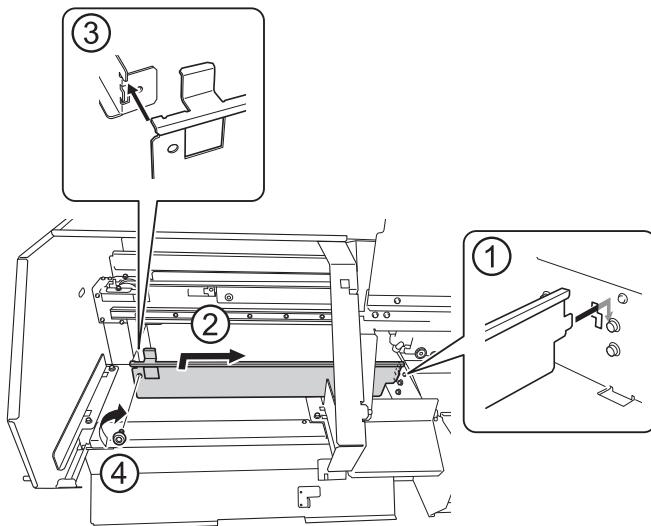
⚠ CAUTION When moving the print-head carriage by hand, be sure to hold the specified position.

Moving it by holding positions other than those specified may deform and damage the cover.



①: Position to hold with your hand

- 15** Attach the cut rail.

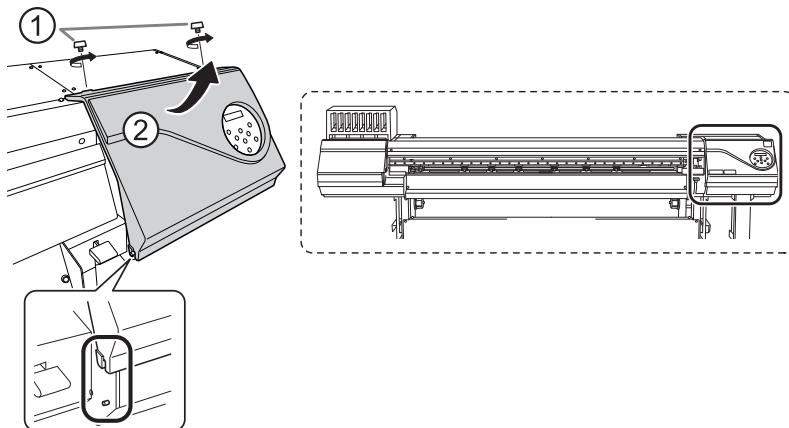


- 16** When you have finished cleaning, close the left covers (top and bottom).

2. Clean the print head caps.

Procedure

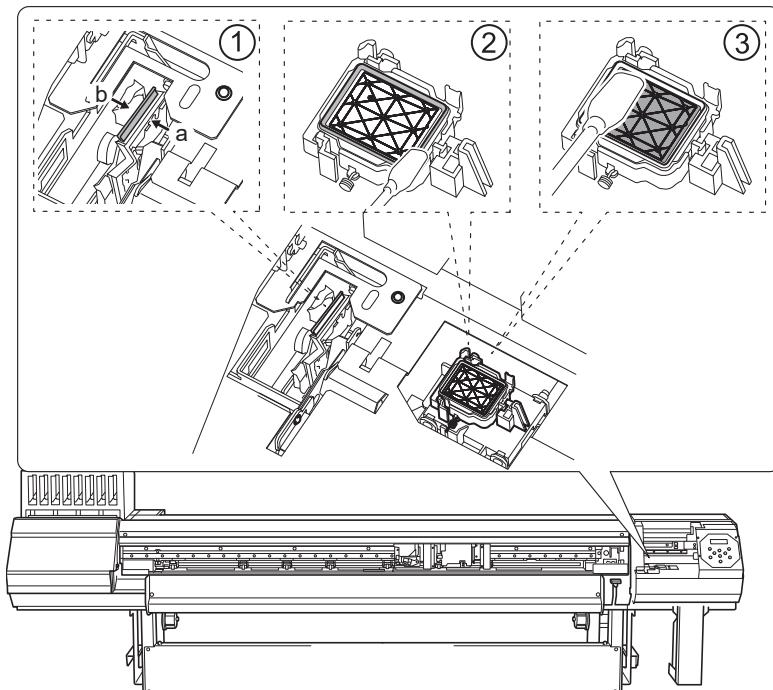
① Open the right cover.



② Clean the locations shown in the following figure.

Be especially careful to clean away any fibrous dust (lint).

- ① After wiping off the hooked side of the wiper (a) with a cleaning stick, wipe off the opposite side (b).
- ② Wipe off the area in the figure with a cleaning stick.
- ③ Use the wide surface of the cleaning stick, and then shift it to a different location, pressing the cleaning stick against the location to absorb the dirt there.

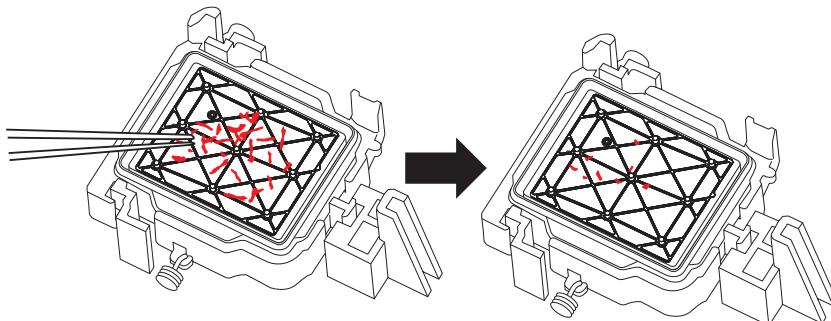


3 Remove any hardened ink on top of the print head caps.

Use a pair of tweezers to remove the pieces of hardened ink that are 3 mm (0.12 in.) or more in length.

IMPORTANT

Do not use excessive force when pulling on pieces of hardened ink that are difficult to remove. Doing so may damage the print head caps.



4 Close the right cover.

5 Close the front cover.

6 Press [ENTER].



The screen shown below appears, and then cleaning starts. The (approximate) remaining time for the procedure is displayed on the screen. (The display shown below is an example. "01:45" = "1 minute and 45 seconds")



When finished, the screen shown below appears again.



7 Press [FUNCTION] to go back to the original screen.

3. Perform a printing test to check the results.

Procedure

1 Load the media.

☞ User's Manual (<https://downloadcenter.rolanddg.com/LEC2-640>)

2 Press [FUNCTION].

3 Press [▼], then [▶] to display the screen shown below.

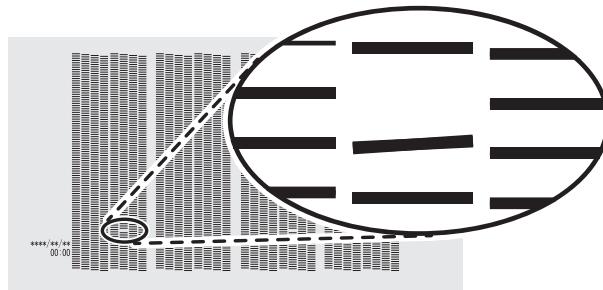


4 Press [ENTER].

Printing of the test pattern starts.

5 Check whether there is dot drop-out or dot displacement in the test pattern.

Missing blocks indicate dot drop-out. Collapsed or inclined blocks indicate dot displacement.



6 If you have opened the front cover, close it.

If no dot drop-out or dot displacement occurs, this operation is finished. Press [FUNCTION] to go back to the original screen.

If dot drop-out or dot displacement is present, perform cleaning such as normal cleaning.

☞ P. 13 "Printing Tests and Normal Cleaning"

☞ P. 23 "Medium Cleaning Method"

☞ P. 25 "Powerful Cleaning Method"

Consumable Products and Parts Related to Manual Cleaning

The cleaning sticks, cleaning liquid, and print heads are consumable products or consumable parts.

- If you use up the cleaning sticks and cleaning liquid used for manual cleaning, contact your authorized Roland DG Corporation dealer or visit our website (<http://www.rolanddg.com/>).
- The print heads are components that wear out. Periodic replacement is required, with the frequency of replacement depending on use. Contact your authorized Roland DG Corporation dealer.

Cleaning That Must Be Performed Once a Month or More

When UV-LED Device Cleaning Is Necessary

The UV-LED device is an important component for ink adhesion. It requires periodic and appropriate maintenance. It is important to clean the UV-LED device with the appropriate timing.

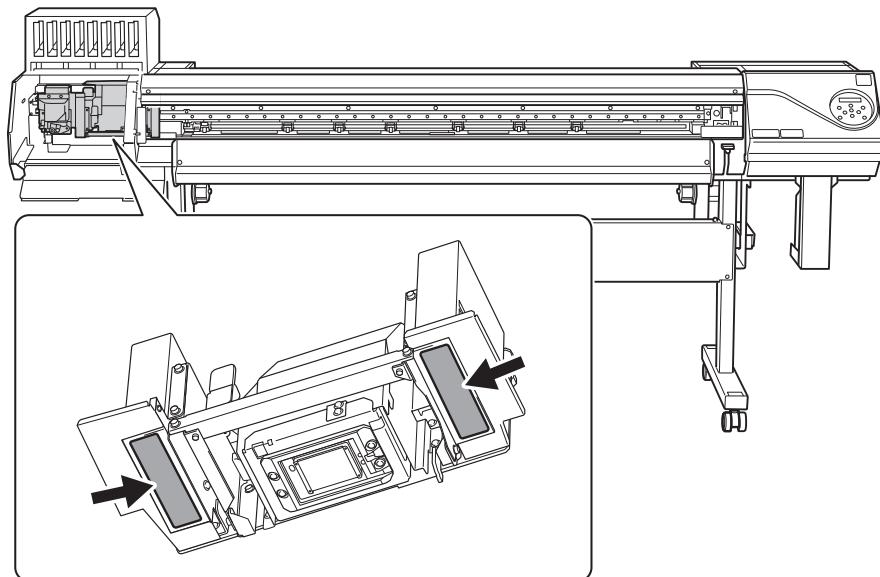
Once a month or more

To keep a stable printing condition at all times, perform cleaning once a month or more.

When there is a lot of scattered ink mist and the inside of the machine is soiled

Perform this cleaning every day when frequently printing with the print heads at a distance from the print surface or when ink is emitted to locations that protrude from the print surface. If the scattered ink mist is allowed to harden, it may cause malfunctions.

When the bases and irradiation windows of the UV-LED device are dirty (see the following figure).



Point

- The frequency with which UV-LED device cleaning is required depends on the machine's use. For information about the frequency of cleaning needed for your conditions of use, contact your authorized Roland DG Corporation dealer.
- For hardened ink and other such dirt that cannot be completely cleaned away, contact your authorized Roland DG Corporation dealer.

How to Clean the UV-LED Device

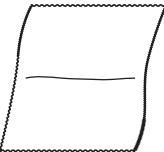
IMPORTANT

Important notes on this procedure

- Before attempting this operation, remove any media.
- To prevent the print heads from drying out, finish this procedure in 10 minutes or less. A warning beep sounds after 10 minutes.
- The cloths, alcohol, and similar items used in cleaning are not included with the product.

If a warning beep sounds during cleaning

A warning beep sounds 10 minutes after operation starts. Stop work, close all the covers, and then press [ENTER] to end the manual cleaning mode. After that, restart the procedure from the beginning.

Required items		
 Anhydrous ethanol or isopropyl alcohol	 Cloth (that is not fluffy)	 Rubber gloves

⚠ CAUTION

Do not perform cleaning immediately after printing has finished. (Wait approximately 15 minutes after printing finishes.)

The area around the UV-LED device is hot and may cause burns.

⚠ CAUTION

When using anhydrous ethanol or isopropyl alcohol, be sure to follow the product's usage precautions.

Exercise caution regarding items such as fire, ventilation, and rashes.

⚠ CAUTION

Only use anhydrous ethanol or isopropyl alcohol.

Using chemicals (or similar substances) other than anhydrous ethanol or isopropyl alcohol may lead to UV-LED device damage.

⚠ CAUTION

Use cloth that is not fluffy to wipe off the parts. Do not use a hard material such as metal.

Using cloth that is fluffy or a hard material such as metal may lead to UV-LED device damage.

Procedure

1 Remove any media.

2 Remove the media clamps.

3 Press [FUNCTION].

Cleaning That Must Be Performed Once a Month or More

④ Press [▶].

⑤ Press [▼] several times to display the screen shown below.



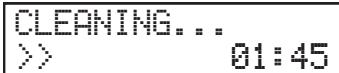
⑥ Press [ENTER].

After "NOW PROCESSING.." is displayed, the screen shown below appears. Also, the print head moves to the left end of the platen.



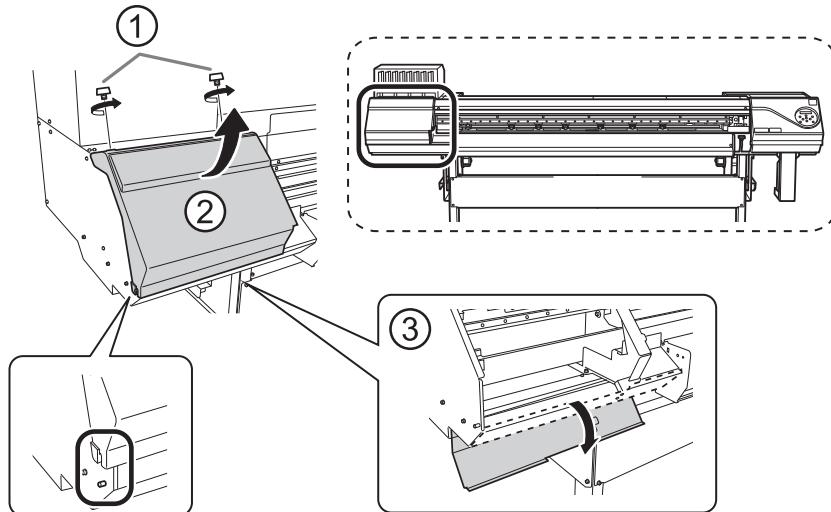
IMPORTANT

Do not press [ENTER] at this stage. Press [ENTER] after the work is complete. If you press [ENTER] at this stage, wait for the screen to change as shown in the following figure, and then press [ENTER] again.

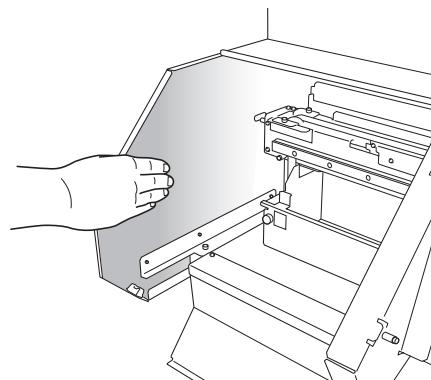


⑦ Open the front cover.

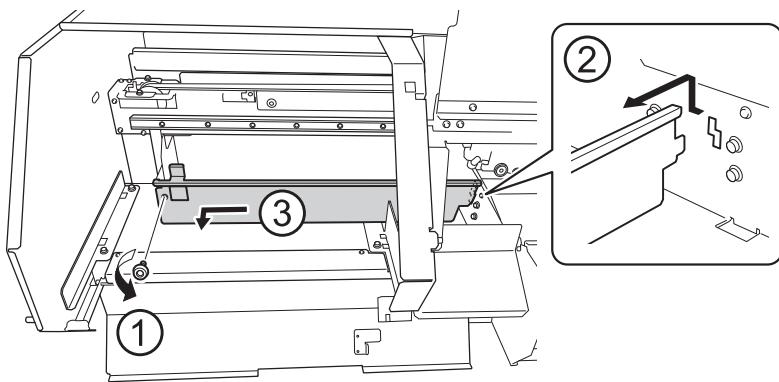
⑧ Open the left covers (top and bottom).



- 9 Touch the location shown in the figure to discharge any static electricity.

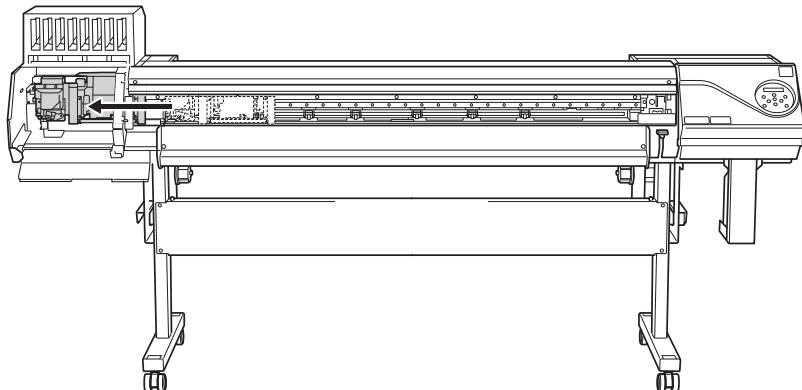


- 10 Remove the cut rail.



Cleaning That Must Be Performed Once a Month or More

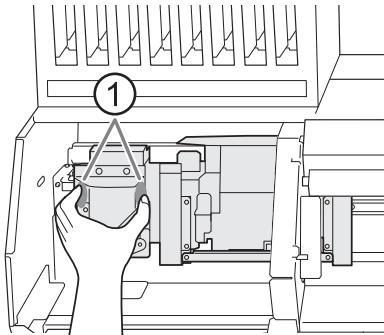
- 11 Move the print-head carriage to the left end.



Move the print-head carriage by hand.

CAUTION When moving the print-head carriage by hand, be sure to hold the specified position.

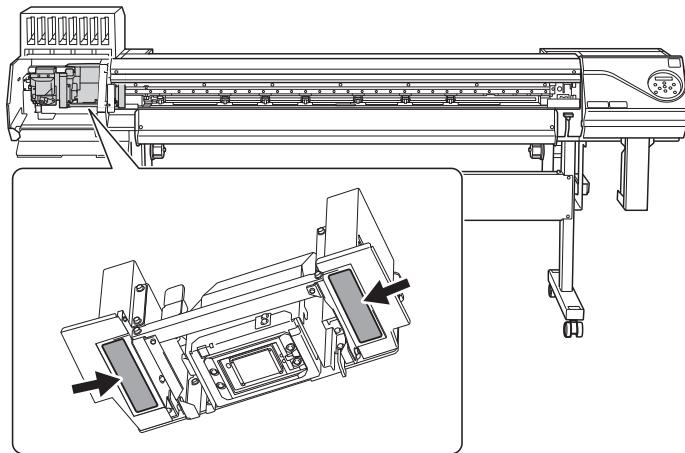
Moving it by holding positions other than those specified may deform and damage the cover.



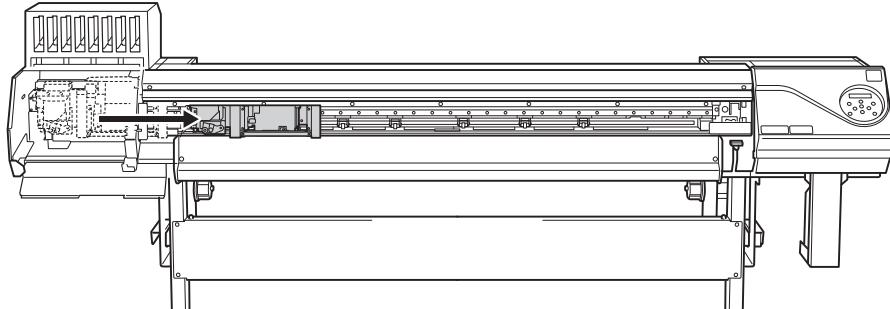
①: Position to hold with your hand

- 12 Wet a cloth with anhydrous ethanol or isopropyl alcohol, and then wipe off the base and irradiation unit of each UV lamp with this cloth.

Wipe the cloth across each UV lamp for approximately 10 round trips until all the dirt is cleared away.



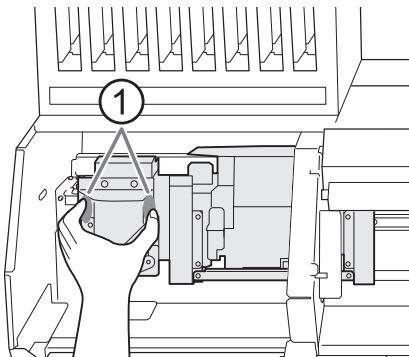
- 13 When you have finished cleaning, move the print-head carriage to above the platen.



Move the print-head carriage by hand.

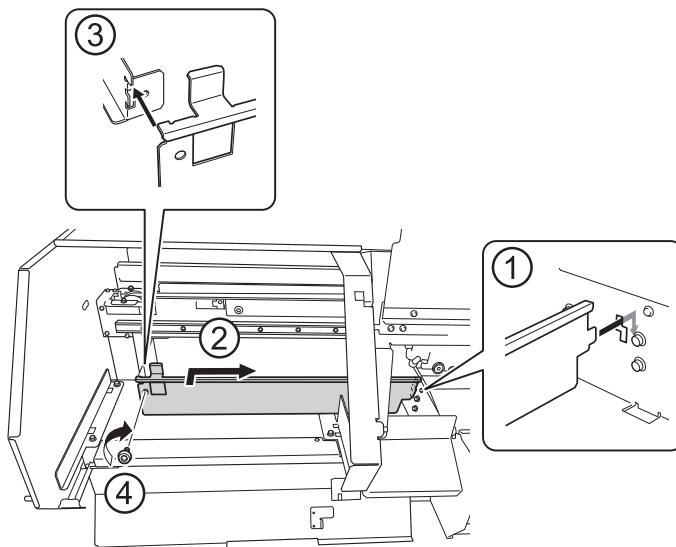
⚠CAUTION When moving the print-head carriage by hand, be sure to hold the specified position.

Moving it by holding positions other than those specified may deform and damage the cover.



①: Position to hold with your hand

- 14 Attach the cut rail.

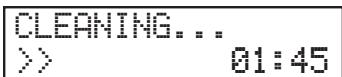


15 Close the left covers (top and bottom).

16 Close the front cover.

17 Press [ENTER].

The screen shown below appears, and then head cleaning starts. The (approximate) remaining time for the procedure is displayed on the screen. (The display shown below is an example. "01:45" = "1 minute and 45 seconds")



When the following screen is displayed again, UV-LED device cleaning is finished.

