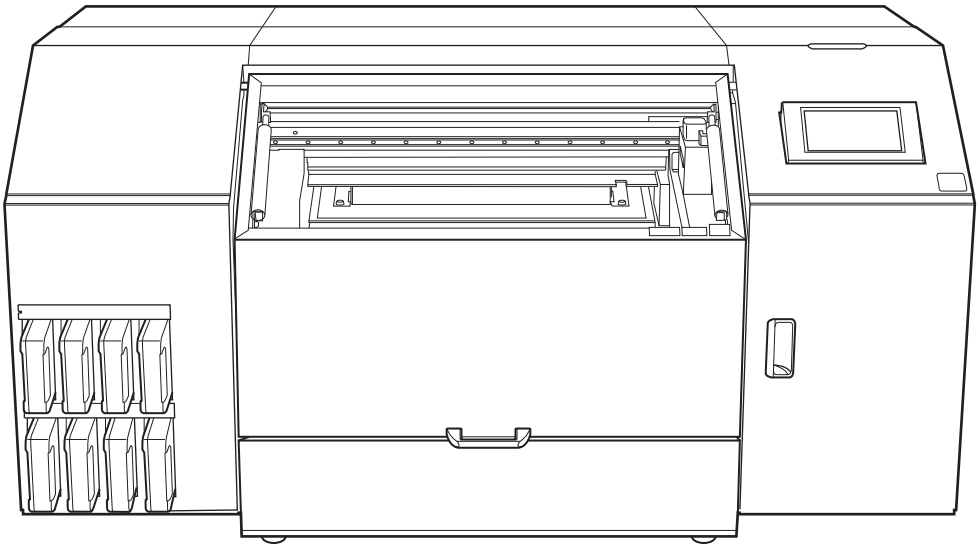
VersaOBJECT MO-240/MO-180

User's Manual



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.
- 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.
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R8-260730

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Basic Handling Methods

Introduction

About this Manual 9

About this Manual

This document is the user's manual for both the MO-240 and the MO-180. This document uses the following notations to distinguish between the models where necessary.

- MO-240 or 24-inch model
- MO-180 or 18-inch model

Most of the figures in this document depict the MO-240.

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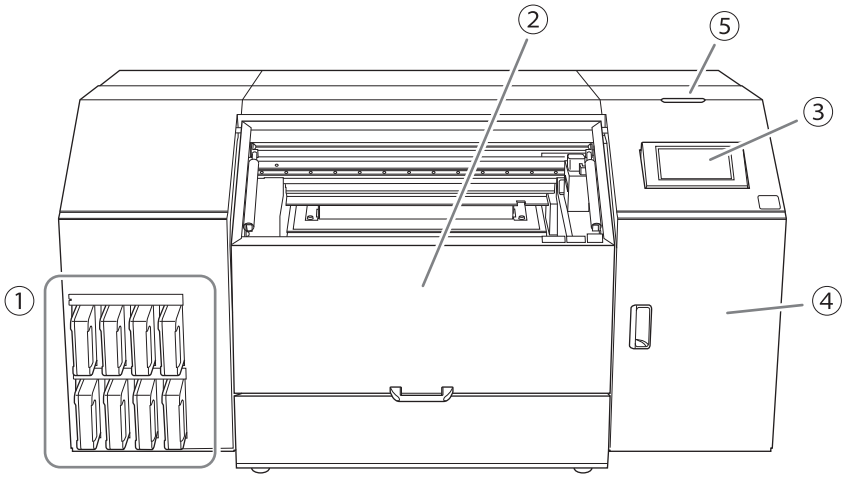
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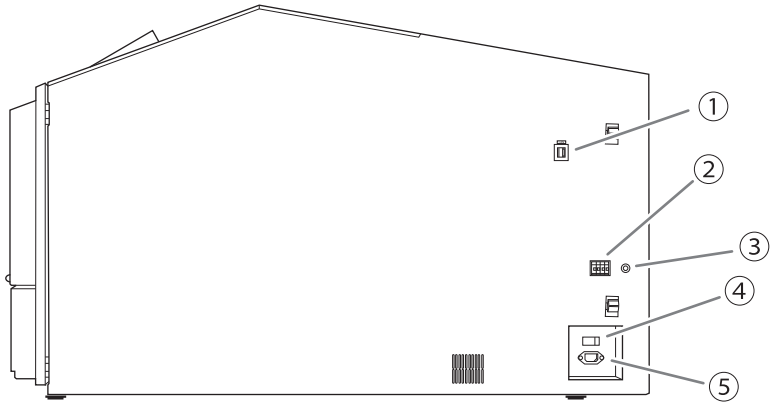
Part Names and Functions

Front



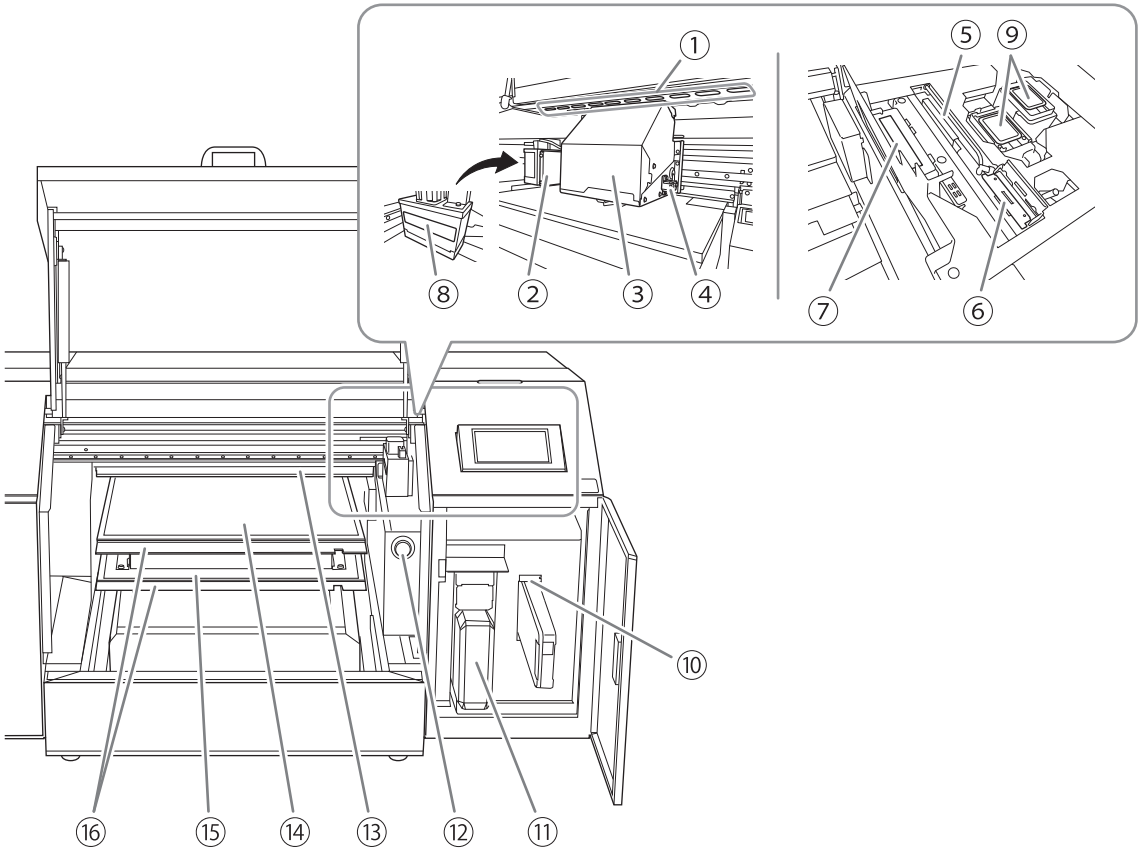
No.	Name	Function overview
①	Ink slots	Insert ink cartridges in which ink pouches have been loaded.
②	Front cover	Prevents contact with the print-head carriage and other such fast-moving parts when the machine is operating and reduces ultraviolet light from the UV-LED device. To prevent excessive dust from entering inside the printer, keep the front cover closed except when loading objects to be printed or when performing maintenance.
③	Operation panel	Used to perform all machine operations including printing, setup, and maintenance. Operation Panel(P. 35)
④	Maintenance cover	Provides access to the interior of the right side of the machine. Open this cover when performing maintenance such as cleaning and part replacement.
⑤	Status light	Uses colors to indicate the status of the machine. Statuses Indicated by Status Light Color(P. 15)

Side



No.	Name	Function overview
①	Ethernet connector	Connects an Ethernet cable.
②	Alarm Lamp Connector	This terminal is used to connect a commercially available alarm lamp.
③	Deodorizer fan switching control connector	You can switch the deodorizer fan on and off in tandem with the unit by connecting it to a deodorizer (sold separately).
④	Main power switch	Switches the main power of the machine on/off.
⑤	Power-cord connector	Connects the included power cable.

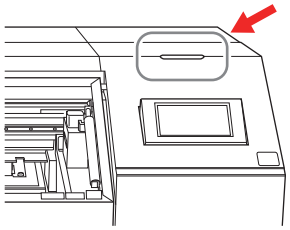
Inside the Printer/Print Head Area



No.	Name	Function overview
①	Print light	This light illuminates the interior of the printer. This makes it easier to see the printing status. It flashes if a serious error occurs.
②	UV-LED device	Shines the ultraviolet light. Shines the ultraviolet light on the print surface to cure the ink.
③	Print-head carriage	Transports the built-in print heads and UV-LED device.
④	Pointer	Shines the light when determining the printing area. Set the points of the light that is shined to the lower right and upper left of the printing area, respectively.
⑤	Wiper	Cleans the print heads. Removes dirt and excess ink that have adhered to these heads.
⑥	Wiper cleaner	Removes ink and dirt that have adhered to the wiper.
⑦	Flushing sponge	Absorbs the ink discharged from the print heads to prevent clogging.
⑧	UV mist filters	Absorb the ink mist generated during printing to reduce the amount of ink mist that adheres to the UV-LED device.
⑨	Print head caps	Prevent the print heads from drying out by sealing the print heads to protect the ink emission surface when the print heads are at the right side of the machine, such as when waiting for printing.
⑩	Cleaning liquid slot	A cleaning cartridge containing a cleaning liquid pouch is inserted here.
⑪	Drain bottle	Stores cleaning liquid and discharged ink. When discharged fluid is nearly overflowing from the bottle, an error is displayed and printing is not possible.

No.	Name	Function overview
⑫	Emergency stop button	This button is used to immediately stop the machine's operation in the event of an unintended movement of the machine due to an incorrect operation, etc. Safety Devices(P. 16)
⑬	Head gap sensor	Comes into contact with the object and sets its height. Determining the Print Surface Height and Printing Position(P. 77)
⑭	Vacuum table	The object is suctioned to prevent warping or lifting up of the printed object. You can attach and remove it.
⑮	Flat table	For objects that exceed 100 mm (3.94 in.) in thickness or 4 kg (8.82 lbs.) in weight, remove the vacuum table, and then load the object on the flat table.
⑯	Extension plates	Suppress UV light reflections.

Statuses Indicated by Status Light Color



The status light colors indicate the following statuses.

Status Light Color	Status
Off	When the sub power is off and no periodic maintenance or other operations are being performed.
Blue	• During initialization after turning on the sub power. • When setup of the object has not completed. • During maintenance operations. When flashing, the machine is in sleep mode.
Green	When printing.
Yellow	Setup is complete and printing can start. When flashing, printing has been paused.
Red	When an error that can be recovered from or an error that makes it impossible to continue operation has occurred. The error details are shown on the operation panel.

RELATED LINKS

- P. 265 Messages on the Operation Panel

Safety Devices

UV-LED devices are very dangerous because the ultraviolet radiation emitted from UV-LED devices can cause eye damage and skin diseases when directly irradiated on the human body. The machine is fitted with a cover to keep external leakage of ultraviolet radiation at low levels.

Therefore, if either the front cover or the maintenance cover (hereinafter collectively referred to as the "covers") is opened during printing, lamp illumination will immediately cease and operation will stop. At this time, a message is displayed on the operation panel prompting the user to close the cover. Close the covers as directed in the instructions shown on the screen. Also, if print data is received while the cover is open, printing will not begin.

When the cover is closed, you will be able to continue the operation. If you cannot continue the operation even after you close the cover, a nonrecoverable error may have occurred.

Front Cover

This cover absorbs ultraviolet radiation from the UV-LED device and reduces it to a non-harmful level.

If the front cover is damaged or cracked, stop using the printer immediately and contact your dealer or service center.

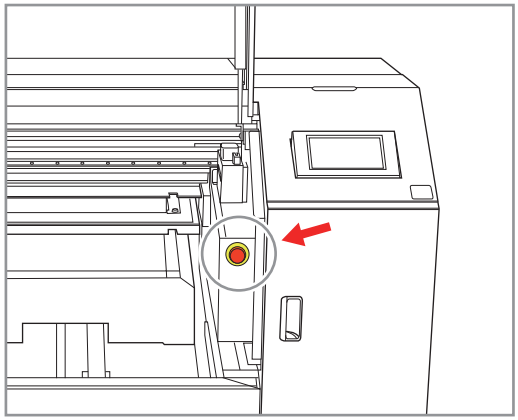
Maintenance Cover

This cover is opened and closed when the print heads and surrounding components are undergoing maintenance, during disposal of discharged fluid, or when cleaning liquid is being replaced. If opened while printing is in progress, the UV-LED device will immediately stop emitting light, triggering an emergency stop.

If the maintenance cover is damaged or deformed, stop using the printer immediately and contact your dealer or service center.

Emergency Stop Button

This button allows you to stop the machine immediately when it acts unexpectedly due to, for example, incorrect operation. As an example, assume that the front cover is open so a worker can perform operations on the machine. Pressing this button in the event of unexpected machine operation eliminates the hazards presented by such a situation.



For emergency stop, push in the button shown in the figure. "Fatal Error" is displayed in the screen, and all operations of the machine are immediately stopped.

If the print heads are stopped in a position where they are disengaged from the print head caps, turn the power back on within 10 minutes to prevent them from drying out.



To cancel the emergency stop, turn the button clockwise until it stops turning, and then release the button. If the button has been pulled out, the emergency stop has been canceled. After canceling the emergency stop, turn on the power.



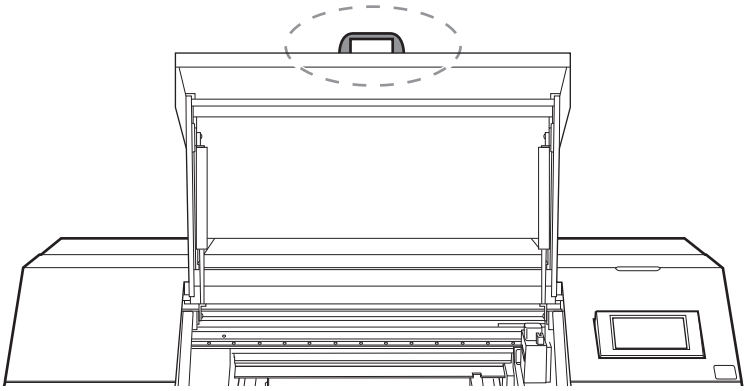
RELATED LINKS

- P. 31 Turning the Power On

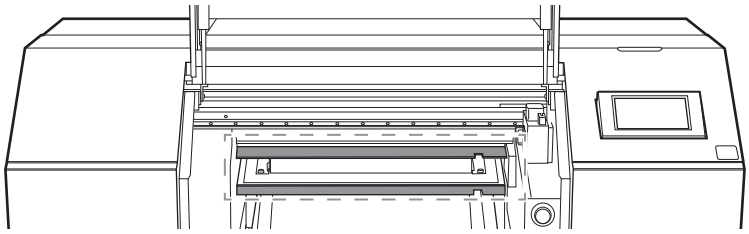
Important Notes on Handling and Use

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 relative humidity.
  - Install the machine in a quiet, stable location offering good operating conditions.
- **Open and close the front cover gently.**
  - Be sure to hold the handle of the front cover and keep holding it until the cover is completely opened or closed. If you do not open and close the front cover gently, it may break or you may be injured.



- **Do not place any objects on top of the extension plate or press on it with force.**
  - Placing any objects on top of the extension plate or pressing on it forcefully with your hand may cause damage.



The print heads and the UV-LED device are delicate devices.

- Avoid needlessly touching them, allowing them to scrape against the object, or similar. Failure to handle 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 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.
- **Keep the operation panel clean.**
  - If dirt or ink adheres to the operation panel, immediately wipe it clean with dry, soft fabric.

Ink Cartridges

- **The ink pouches inside 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 ink cartridges and ink pouches to impacts and never attempt to disassemble ink pouches.**
  - Never drop the ink cartridges or shake them forcefully. The impact may rupture the internal pouches and cause the ink to leak.
  - Never attempt to disassemble ink pouches.
  - Never attempt to refill the ink in ink pouches.
  - If ink gets on your hands or clothing, wash it off as soon as possible. Removal may become difficult if allowed to stand.
- **Storage**
  - Use up the ink before the expiration date printed on the ink pouch.
  - Store the ink cartridge 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 30°C (86°F) and a relative humidity of 20%RH to 80%RH.

Printable Materials and Shapes

MEMO

In this manual, the objects to be printed are called the "object" or "media."

The UV ink used in this machine is an ink that is instantly adhered to the object to be printed on by irradiating it with ultraviolet light. This makes it possible to perform printing on objects that are difficult to print on using conventional inks. Primer allows printing on a wider range of materials than printing with UV inks alone.

This section explains the materials and forms of objects to be printed on using the machine.

Even materials with the same name have many variations with different properties depending on slight differences in ingredients, and even if the ingredients are the same, printing may or may not be possible depending on differences in surface treatment such as plating or coating.

Even if a material is listed as a printable material, always be sure to perform a test print to confirm that satisfactory print quality can be achieved.

Objects that cannot be printed on or have print quality issues

- In the case of objects that easily reflect light, the reflection of UV light may accelerate the curing of the UV ink on the surface of the print heads, resulting in ink discharge failure.
- Objects to be printed on that are electrostatically charged should be discharged before use.

  If the ink is electrostatically charged, the position of the ink landing will not be stable, and printing quality will be adversely affected.
- Objects with excessive unevenness cannot be used for printing.
- If the object to be printed on still comes loose even with the vacuum table suction turned on, use commercially available tape or some other means to hold the object in place.

  If the object to be printed on comes loose, the ink emission surface of the print heads and the print surface can rub together, resulting in malfunction.

Material

Even materials with the same name can have many variations with their own distinct properties due to slight differences in composition, and even if the composition is the same, it may or may not be possible for you to print on them due to differences in plating, coating, or other such surface treatments.

Even if a material is listed as a printable material, be sure to print a trial print to confirm that you can achieve satisfactory print quality.

Primer Not Used:

- ABS
- PET (polyethylene terephthalate)
- PC (polycarbonate)
- TPU (thermoplastic polyurethane)
- Leather
- Wood

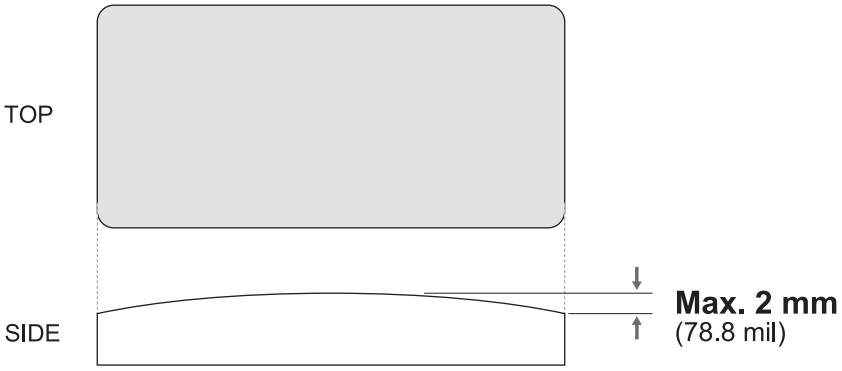
When Using Primer:

- Acrylic
- Glass
- Aluminum
- Iron

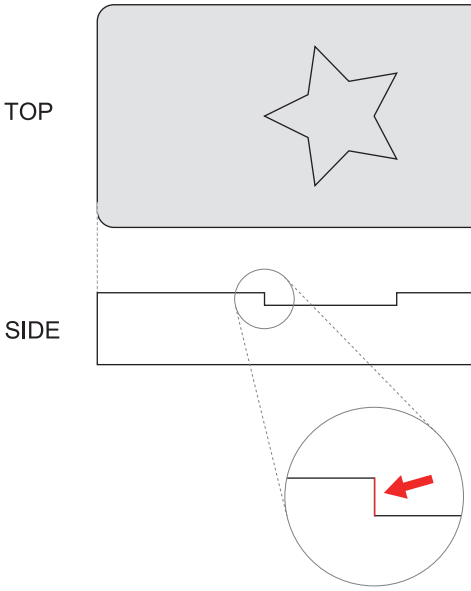
Shape

This section describes the shape of objects to be printed when printing on a flat table or vacuum table. See "Printing on Cylinders" for information on printing with the rotary axis unit.

Unevenness (variation in height) of the print surface is within 2 mm (78.7 mil)

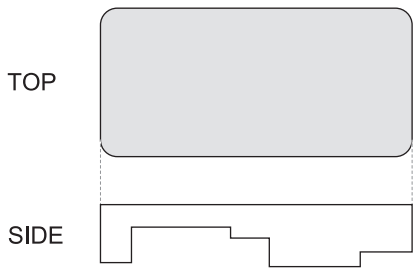


You cannot print on surfaces that are perpendicular to the print heads or that have an overhang at the top that hides hiding the surface beneath the overhang.

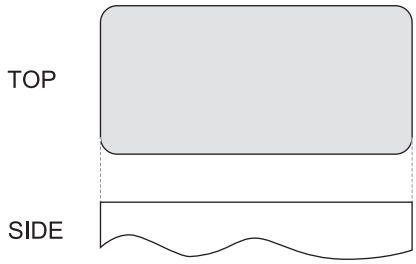


Print Surface Cannot Be Leveled

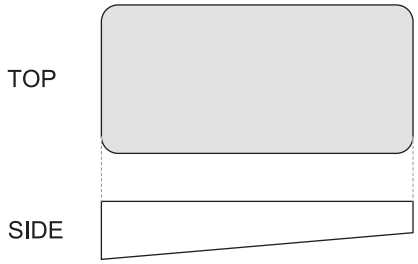
- The surface on which the object is secured is not level.



- The surface on which the object is secured has significant unevenness.



- The surface on which the object is secured is inclined.



If the print surface cannot be kept level due to the reasons mentioned above, measures must be taken to secure the object.

If you cannot keep the print surface level, you cannot print on it.

The Object Lifts Up during Printing

- The surface on which the object is secured is small.
- The surface on which the object is secured has cavities.
- The surface on which the object is secured has holes in it.

In the above cases, vacuum suction may not be effective and the object may be lifted up.

In such cases, it is necessary to secure the object by a method other than suction.

RELATED LINKS

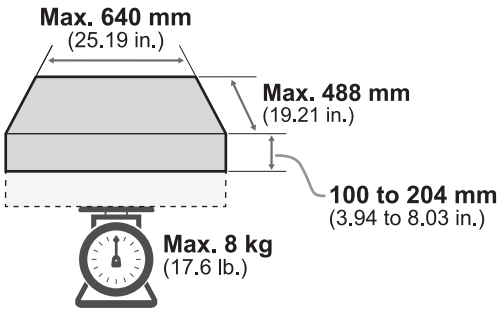
- P. 88 Printing on Cylinders

Size and Weight

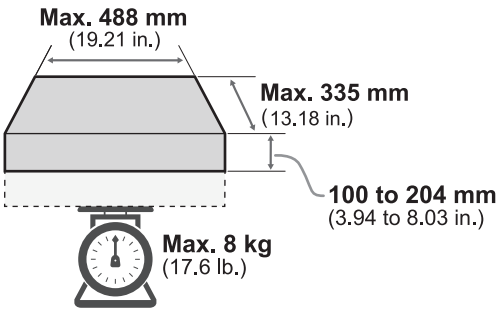
For objects that exceed 100 mm (3.94 in.) in thickness or 4 kg (8.82 lbs.) in weight, the vacuum table must be removed.

Flat Table Only, without Vacuum Table:

MO-240

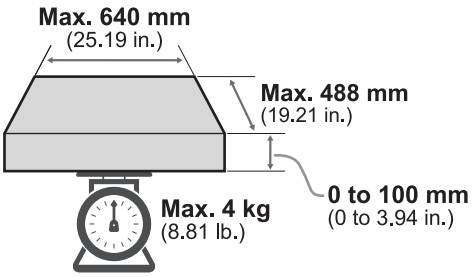


MO-180

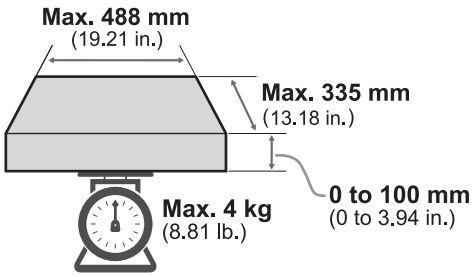


When the Vacuum Table Is Attached:

MO-240



MO-180



First Object to be Printed on

If the object to be printed on has never been printed on using this machine before, be sure to perform a test print.

If you have an object to be printed on that is not a product, such as a sample or trial product, you can try printing on that.

In the test print, check the following.

- Does the ink adhere to the object to be printed on?
- Does it peel off when rubbed?
- Can you achieve satisfactory print quality?

In addition to the items listed above, the items to be checked will vary depending on the conditions required for the product. Exercise caution.

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 a 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

Do not store discharged fluid in a location where it is exposed to direct sunlight.

When temporarily storing discharged fluid in the included drain bottle, do not store it in a location that is exposed to direct sunlight. The discharged fluid may harden, making the drain bottle unusable. The drain bottle may also deteriorate, leading to discharged fluid leaks.

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

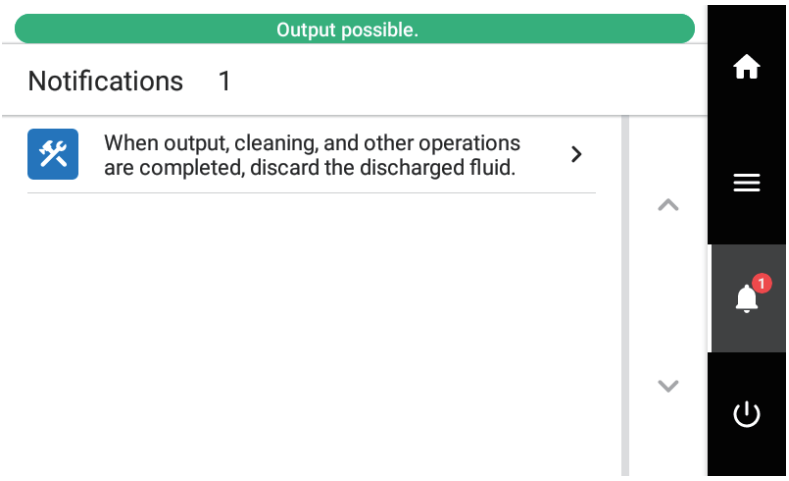
When the accumulated discharged fluid needs to be disposed of, one of the following messages will appear on the operation panel.

- Notifications: When output, cleaning, and other operations are completed, discard the discharged fluid.
- ERROR: Drain bottle error. Discard the discharged fluid in the drain bottle.

When "When output, cleaning, and other operations are completed, discard the discharged fluid." Is Displayed

Procedure

1. **Tap [OK].**
2. **Tap** .
3. **Tap [When output, cleaning, and other operations are completed, discard the discharged fluid.].**



4. **Tap [Execute].**
   Tap [**Execute**] to display a message reminding the user to wear protective gear.
5. **Tap [OK].**
6. **Open the maintenance cover.**
7. **Remove the drain bottle and discard the discharged fluid.**



8. Quickly attach the emptied bottle to the machine once more.
9. Close the maintenance cover.
10. Tap [Finish].
11. Tap  to return to the home screen.

When "Drain Bottle Error: Discard the discharged fluid in the drain bottle." Is Displayed

The drain bottle is already full of discharged fluid.
When this error occurs, a buzzer sounds at regular intervals.
Immediately dispose of the discharged fluid, and then clear the error.

Procedure

1. Open the maintenance cover.
2. Remove the drain bottle and discard the discharged fluid.



3. **Quickly attach the emptied bottle to the machine once more.**

   Weigh the amount of discharged fluid. If the drain bottle is no longer full, the error is cleared.

   If the drain bottle is not installed correctly, the error will not be cleared. If the error is not cleared after discarding the discharged fluid, try reinstalling the drain bottle.

4. **Close the maintenance cover.**

Basic Operations

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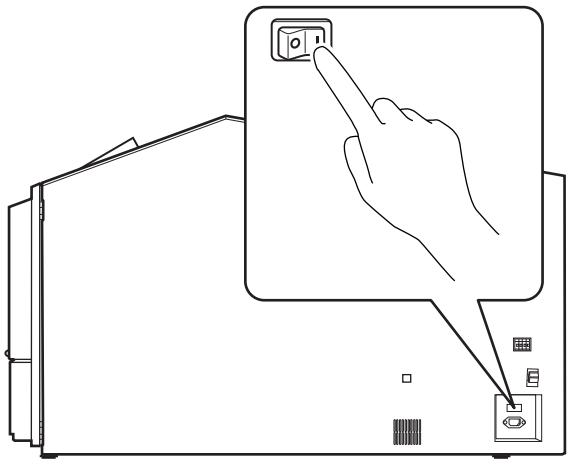
Power Supply Operations

Turning the Power On

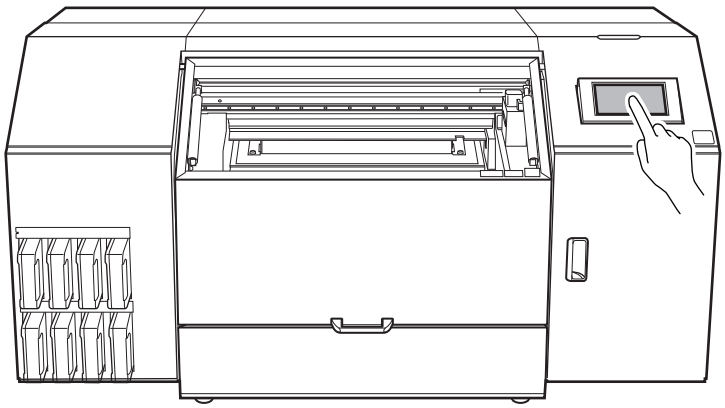
Procedure

1. **Close the front cover.**

2. **If the main power supply is off, turn it on.**



3. **Tap the operation panel.**



4. **Tap**  **when the guide appears on the screen.**

   The sub power is switched on.

Turning the Power Off

Never switch off the power during printing before it finishes. If printing is in progress, wait for printing to finish before switching off the power.

Procedure

1. **Tap  on the operation panel.**

   The confirmation screen appears.

2. **Tap [Yes].**

   The sub power switches off automatically.

Precautions When Operating the Power Supply

Always keep the main power switched on.

Never switch off the main power. Leaving the main power enables automatic maintenance to be carried out periodically. If the automatic maintenance is not carried out, it may result in the breakdown of this machine, such as the breakdown of the print heads.

Never switch off the main power or unplug the power cord suddenly while operation is in progress.

Switching off the main power or unplugging the power cord suddenly while operation is in progress may damage the print heads. Be sure to first switch off the sub power. If the main power is accidentally switched off, immediately turn the main power and sub power back on.

Sleep Mode (Power-saving Feature)

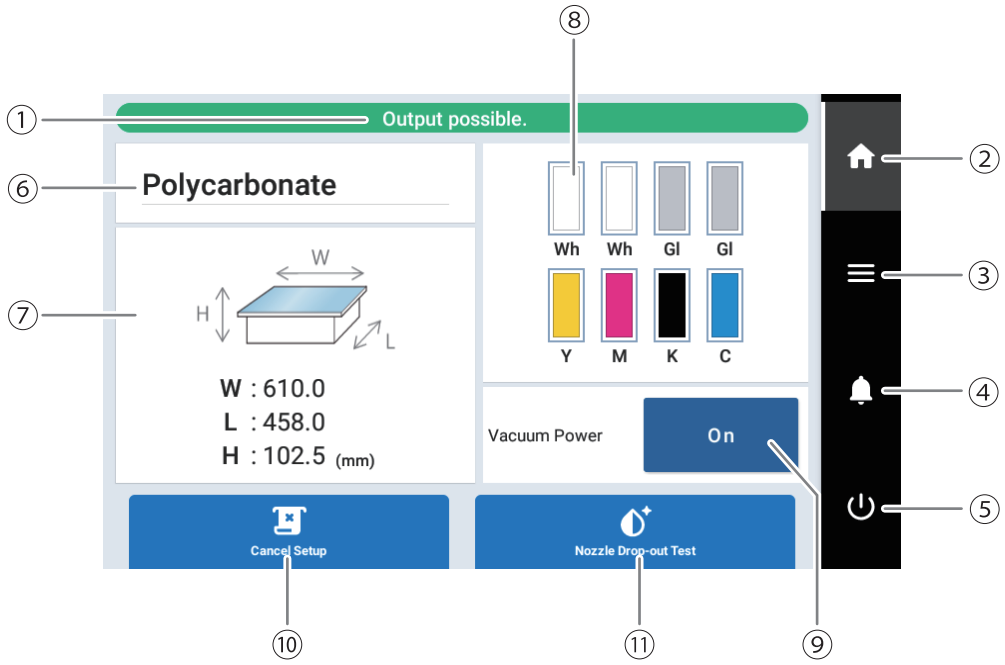
This machine is provided with a power-saving feature that switches to a low-power "sleep mode" when a fixed interval passes with no operation. The factory default for the time after which the machine switches to sleep mode is 30 minutes. The operation panel turns off when the machine enters sleep mode. Using the operation panel or performing operations such as sending print data from the computer restores the machine to its normal mode.

This sleep mode setting can be changed. However, we recommend setting the activation time for sleep mode to 30 minutes or less to reduce power consumption and prevent problems such as overheating.

RELATED LINKS

- P. 160 Setting the Activation Interval for Sleep Mode (Power-saving Feature)

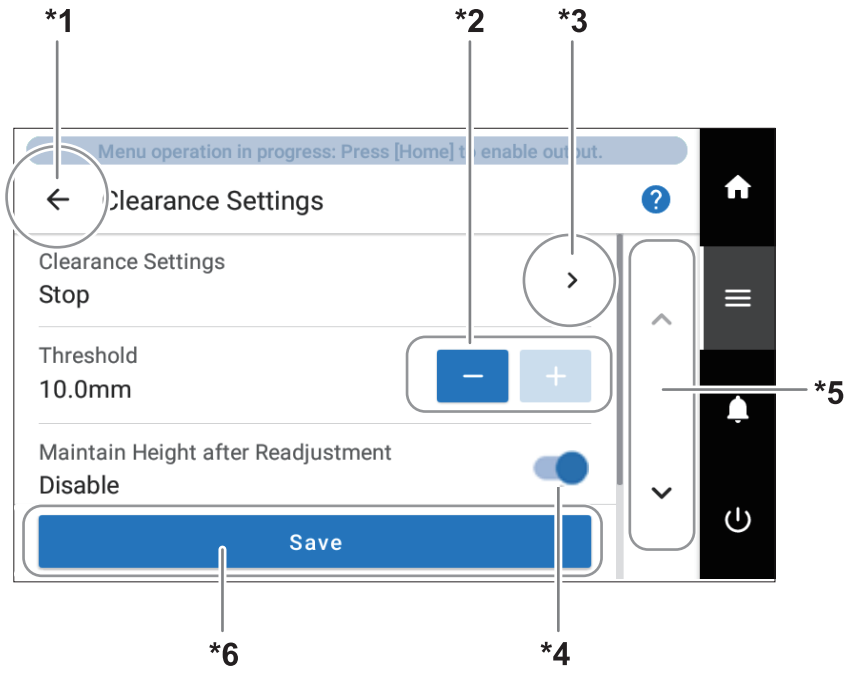
Operation Panel

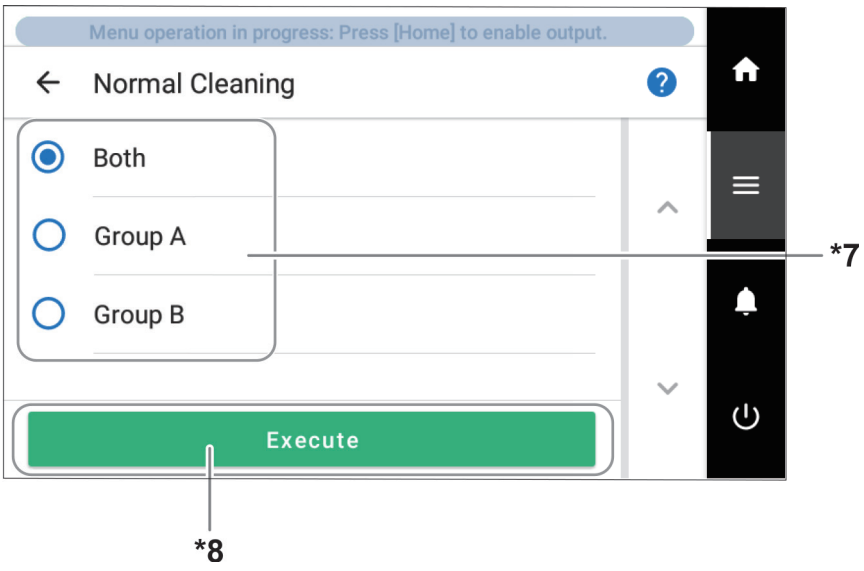


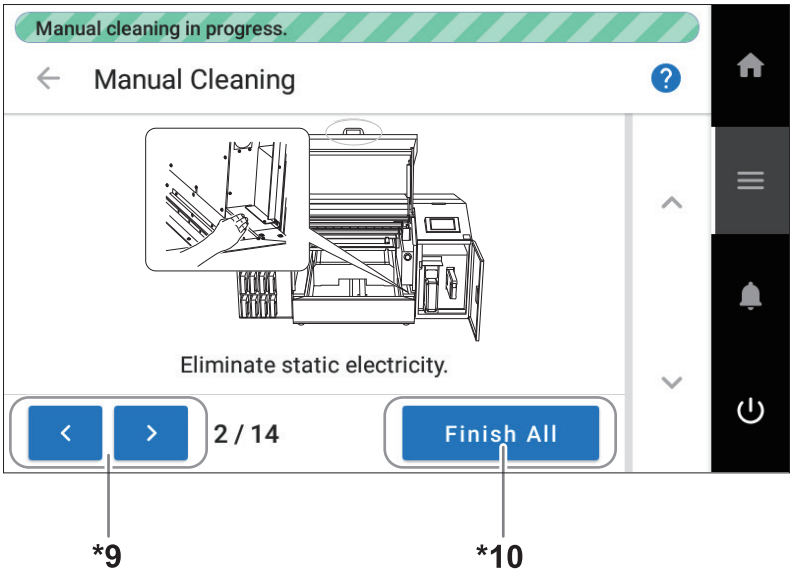
No.	Name	Details
①	Status bar	Displays the printer status and indicates the next operation.
②	Home	Displays the home screen.
③	Menu	Displays various setting menus.
④	Notifications	Displays important information. When there are notifications, their number is displayed next to the icon.
⑤	Sub power	Turn off the sub power. Tap the operation panel to turn the sub power back on.
⑥	Media name	Displays the selected media name. The media name is only displayed when the object is set up, and this is blank when the object has not been set up.
⑦	Printing area	Displays the set printing area size and the height of the print surface. This is displayed only when the object is set up. You can tap it to re-set the printing area. Determining the Print Surface Height and Printing Position(P. 77)
⑧	Amount of ink remaining	Displays the amount of ink remaining in each cartridge. If it is time to replace a color, ! is displayed next to the corresponding ink cartridge. Tap this icon to display the detailed information for the ink.
⑨	Vacuum	Switches suction on or off when the vacuum table is mounted.
⑩	**[Setup]/[Cancel Setup]**	Starts/cancels setting up the object to be printed on. Determining the Print Surface Height and Printing Position(P. 77)
⑪	**[Cleaning]/[Nozzle Drop-out Test]**	Displays the menu related to the printing test and cleaning for the nozzle drop-out check.

Menu

Menu Operation Legend







*1: Tap ← to return to the previous screen.

*2: Tap + or − to change the setting (value).

*3: Tap items marked with › to switch to the settings screen for that item.

*4: Switches settings on or off.

*5: Tap ^ or v to scroll the screen up or down.

*6: Tap [**Save**] to confirm changed details.

*7: Switches the selection.

*8: Tap [**Execute**] to start the work.

*9: When performing a series of work, tap › to display the next step. Tap ‹ to return to the previous step.

*10: Finish configuring settings at this stage and skip all subsequent steps. If all operations have been completed, the work is finished.

Menu List

Tap ☰ to display the list of operations.

MEMO

[**Media Settings**] is displayed only when the object to be printed on has been set up.

Level 1	Level 2	Level 3	Level 4	Details
[**Job Management**]	[**Direct Printing**]			Outputs a job saved in VersaWorks on the computer connected to the machine.
	[**Printing Log**]			Displays the printing log of the job. The [**Job Properties**] for each job, and the [**Total Time**] and [**Total Area**] for all jobs, can be checked.

Level 1	Level 2	Level 3	Level 4	Details
[Media Settings][*1]	[List of Media Settings]			Lists the settings of the object to be printed on that has been set up. Tap a setting to move to a screen for changing this setting.
	[Printing Zone]			Change the print origin and the printing area.
	[Media Reflective Intensity]			Select the reflective intensity of the object to be printed on.
	[Media Suction Force]			Adjust the suction force applied to the object on the vacuum table.
	[Printing Movement Range]			During printing, select the movement range of the printhead carriage from [**Output Data Width**], [**Media Width**], or [**Full Width**].
	[Batch Media Settings]			The minimum settings required for object setup can be configured by following the on-screen instructions on the operation panel.
[Media Management]				Displays a list of registered media. Up to 50 media names can be saved, and the following operations on media settings are possible. • Checking setting details in a list • Changing media names • Copying media settings • Deleting media settings
[Cleaning]	[Printing Test]			Before printing, use [**Nozzle Drop-out Test**] to check whether ink is discharged from the print heads correctly. If dot drop-out is present, perform cleaning appropriate for the severity of the drop-out. If faulty ink discharge cannot be improved, the problematic nozzle can be identified with [**Nozzle Mask Test**], making it possible to stop using this nozzle.
	[Normal Cleaning]			If dot drop-out or dot displacement occurs, select the nozzle from [**Group A**], [**Group B**], and [**Both**], and then perform cleaning of the print heads. If the problem cannot be fixed, perform more powerful cleaning. [**Powerful Cleaning**] also has the effect of improving uneven colors with white ink. If the media has already been set up, the [**After cleaning, perform a printing test.**] menu appears. When this is turned on, a printing test is performed after cleaning.
	[Medium Cleaning]			
	[Powerful Cleaning]			
	[Manual Cleaning]			Use cleaning liquid and a cleaning stick to clean the area around the print heads.

Level 1	Level 2	Level 3	Level 4	Details
[Maintenance]	[UV Lamp Manual Cleaning]			Cleans dirt from the glass surface of the UV-LED device.
	[Wiper Replacement]			Replaces the wiper used in cleaning the print heads.
	[Cap Replacement]			Replaces the print head caps, which are used to protect the print heads from drying out and from dust.
	[Wiper Cleaner Replacement]			Replaces the wiper cleaner used to wipe away dirt from the wiper.
	[UV Mist Filter Replacement]			Replaces the UV mist filters used to absorb ink mist.
	[Flushing Sponge Replacement]			Replaces the flushing sponge that absorbs the ink discharge to prevent clogging of the print heads.
	[Ink Renewal]			Perform this operation when ink circulation and other cleaning methods (normal, medium, powerful, manual, and ink renewal in the damper) do not correct poor discharge or uneven colors. However, this operation consumes a large amount of ink and may damage the print heads, so do not perform it more than necessary.
	[Ink Renewal Inside Damper]			Use this operation to stabilize output when uneven color issues with ink are not resolved even after shaking the ink cartridge to mix the ink or performing ink circulation or powerful cleaning. However, this operation consumes a large amount of ink and may damage the print heads, so do not perform it more than necessary.
	[Ink Circulation]*2			Circulates ink to prevent uneven color issues with white ink. If the media has already been set up, the [**After ink circulation, perform a printing test.**] menu appears. When this is turned on, a printing test is performed after [**Ink Circulation**].
	[Drain Bottle]			Use this menu to discard discharged fluid at any desired time, regardless of any notifications or errors.
[Preferences]	[Printing Zone Preview]			This is displayed when the object to be printed on is set up. Tap Execute to use the pointer to indicate the printing area that has been set.
	[Continuous Printing Settings]			Select whether to pause for each print data when multiple print data are sent. For example, if you want to replace the object loaded on the retainer each time printing is finished, disable continuous printing.
	[Sound at End of Printing]			Select whether to play a sound at the end of printing.
	[Base Printing Position]			Select the origin position of the printing area.
	[Media Reflective Intensity Selection Method]			Select the method for setting the reflective intensity of the object to be printed on.
	[Distance Mode Image Quality Stabilization]			This is used when printing with [**Generic Distance**] or [**Generic Distance (With Primer)**]. Set to [**On**] if the quality of the image on the left side of the flat table feels coarse. When set to [**On**], the print-head carriage stops momentarily when the print heads return to the opposite side on the left side of the flat table, stabilizing the image quality.
	[Print Light]			Set whether to turn on the lamp inside the printer. Select [**Auto**] to turn on the light during printing, when the cover is opened, and other such times.
	[Status Light]			Set whether the status light is turned on or off.
	[Printing Test Position]			Sets the direction for test pattern printing: [**Feed**] or [**Scan**]. If you set it to [**None**], the test pattern will print in the same position.

Level 1	Level 2	Level 3	Level 4	Details
[Preferences]	[Clearance Settings]	[Clearance Settings]		Set whether the height is re-set or not when the object to be printed on touches the head gap sensor during printing.
		[Threshold]		Set the maximum value for when the height is re-set during printing.
		[Maintain Height after Readjustment]		Set whether to overwrite the registered media settings with the table height to which the table was readjusted during printing. This setting is only enabled when [**Readjust**] is selected in [**Clearance Settings**].
		[Warning Display]		If this setting is enabled, a message is displayed when the height is readjusted.
	[Z-axis Origin]			You can select whether to set the origin of the Z axis (which indicates the distance in the height direction) to the lowest or highest position on the Z axis.
	[Vacuum Table or Rotary Axis Unit Attachment/Removal]			Moves the table to a position where the vacuum table or rotary axis unit can be inserted/removed.
	[Vacuum]			Set whether the start and end of suction is to be switched automatically or manually in conjunction with printing.
	[Ionizer]			Turns the ionizer on or off. When turned on, the ionizer neutralizes the static electricity of the object to be printed on.
	[Operation before Printing]			When On is selected, the table moves slowly from the back to the printing-start location, the height of the object is checked, and similar operations are performed.
	[Table High-Speed Operation]			When On is selected, the flat table operates at a faster speed for operations other than printing.
	[Ink Circulation Interval] *2			Sets the frequency of white ink circulation.
	[Automatic Maintenance Frequency]			Sets the frequency of automatic cleaning.
	[Notifications On/Off]			When this is set to on, notifications are displayed at the appropriate times. • [**Ink Mixing Notification**] *2 • [**Ink Expiration Date Notification**]
	[Sleep Time]			Sets the time until sleep mode (the state in which the power-saving features operate) activates.
	[Stopping the Warning Beep]			Sets the duration of the warning beep that sounds when, for example, an error occurs.
	[Time before Automatically Returning to Home Screen]			When [**Menu operation in progress: Press [Home] to enable output.**] is displayed in the status bar and this set time elapses without any operation while the menu is displayed, the display will automatically switch to the home screen.
	[Reset to Factory Defaults]			Returns all settings other than [**Language**] and [**Units**] to their factory default values.

Level 1	Level 2	Level 3	Level 4	Details
[**System Information**]	[**Machine Information**]			Displays the [**Model**], [**Serial Number**], [**Ink Type**], [**Firmware Version**], and [**MAC Address**].
	[**Network**]			Sets the [**Obtain IP Address Automatically**], [**IP Address**], [**Subnet Mask**], and [**Default Gateway**] to connect the machine to a computer.
	[**Units**]			Sets the [**Length**] and [**Temperature**].
	[**Language**]			Sets the language. The language can be set to Japanese, English, French, Italian, German, Spanish (Europe), Spanish (South America), or Portuguese (South America).
	[**Date/Time**]			Sets the current year, month, day, hour, minute, and second.
	[**Screen Brightness**]			Sets the brightness of the operation panel's screen.
	[**Screen Operation Sound**]			Turns the operation sound of the operation panel on/off.
	[**License**]			Displays the license information of the operation panel.

*1 This setting is displayed only when the object to be printed on has been set up.

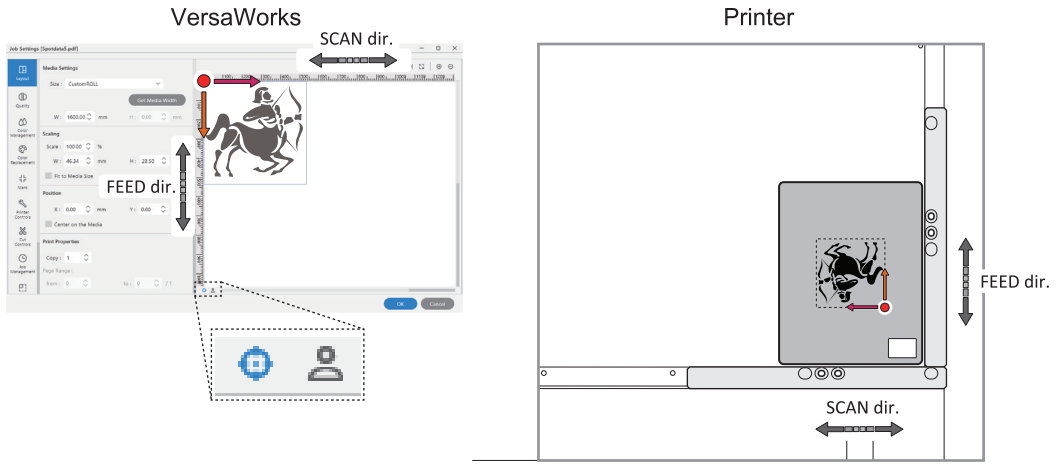
*2 This menu item is only displayed on machines when the ink type includes white ink.

Alignment of Object to Be Printed On

About This Machine and the VersaWorks Print Origin

The print origin is the lower right point of the printing area configured during setup.

The print origin of this machine and the print origin of VersaWorks (when using [Origin View]) are as shown in the figure below.



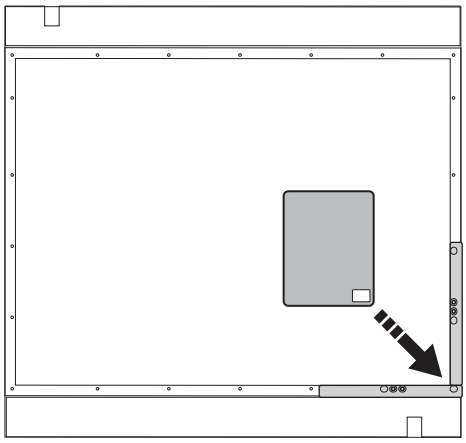
When setup is cancelled, the print origin and printing area are cleared.

When the power is turned off, setup is canceled, so the print origin and printing area will also be cleared when the power is turned off.

The printing area is saved to the selected media when its settings are configured, so if you want to print with the same printing area, select the same media again.

Loading the Object by Pressing It against the Positioning Jig

This section explains how to place the object by pressing it against the positioning jig.

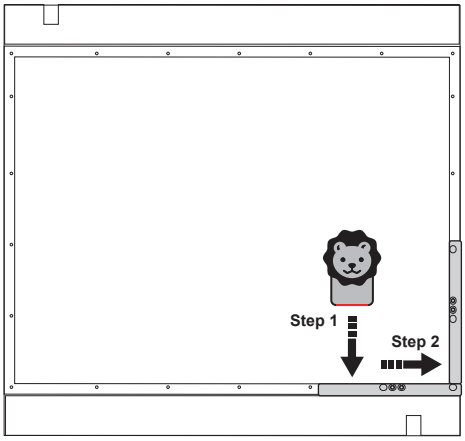


Characteristics of This Loading Method

- This method is used when any one of the sides of the object is a straight line.

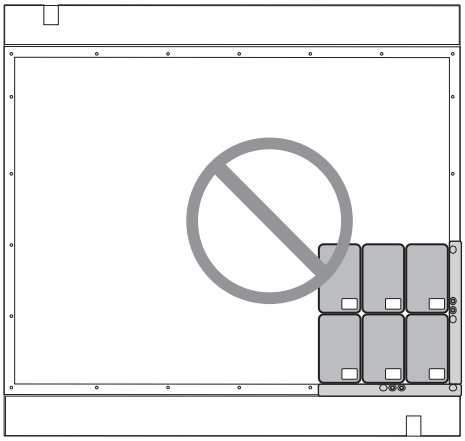
  If any one of the sides is straight, you can load the object by pressing that side against the positioning jig.

  This method is not suitable for objects with exclusively circular, elliptical, or curvilinear outlines.



- This method is used when printing objects one by one.

  This method is not suitable for printing multiple objects side by side at once.

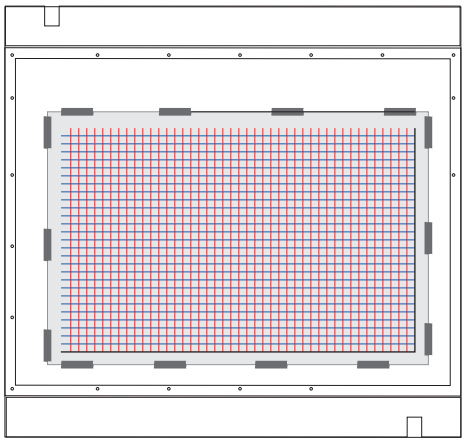


If the objects are square or rectangular, you can print several of them by placing them close to each other.

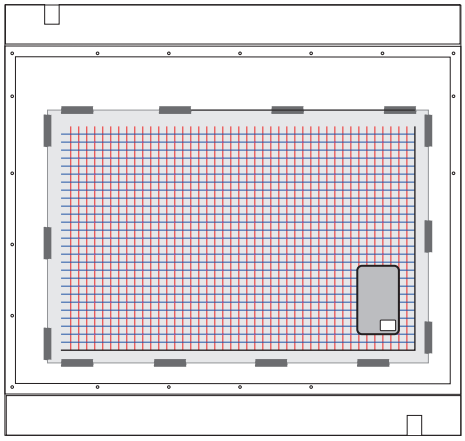
However, even if the printed object is placed in close contact with the adjacent object without any gap, it is difficult to keep the distance between the objects exactly the same; also, the further away from the corner against which the object is pressed, the more likely the object is to be misaligned. Therefore, we do not recommend this.

Aligning the Object to Be Printed on to the Grid

This section explains how to lay the printable media on a table and print grid lines (grids) on it. (In the following figure, the media is secured with tape affixed around the perimeter of the media. Use tape or other means to secure the media so that it will not change position even if the power is turned off and suction is lost.)



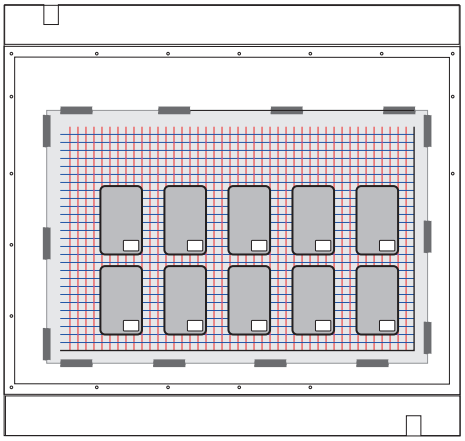
Use these grid lines to place the object at the position specified in the print data.



Characteristics of This Loading Method

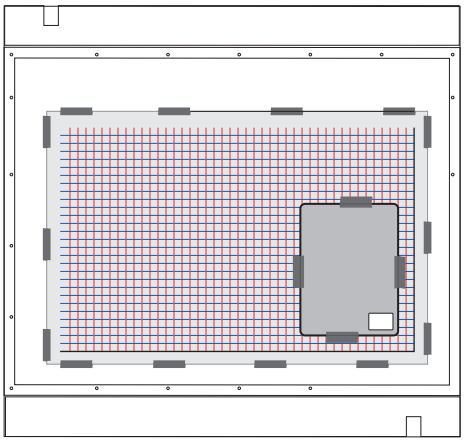
- You can load multiple objects at once.

  You can place objects at regular intervals along the grid lines.



- You cannot suction the object to the table since the media on which the grid lines are printed will cover the table.

If necessary, you may have to secure the object with a method other than suction, such as tape.



- Positioning accuracy is not high.

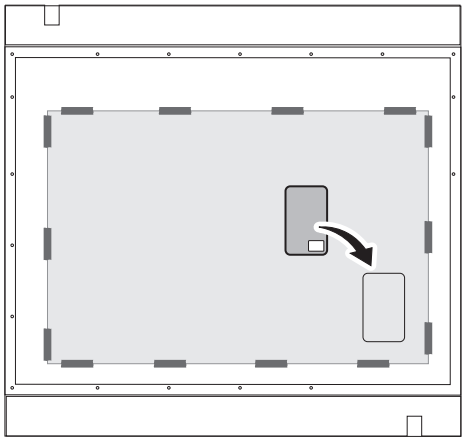
  If you are printing on something for which even the slightest misalignment would be noticeable, you may want to use a different method.

- The grid is a general-purpose grid, so you can continue to use it even if the object changes.

  However, if the grid lines become blurred or the media is torn, replace the media and reprint the grid lines.

Printing Object Outline and Placing the Object over the Outline

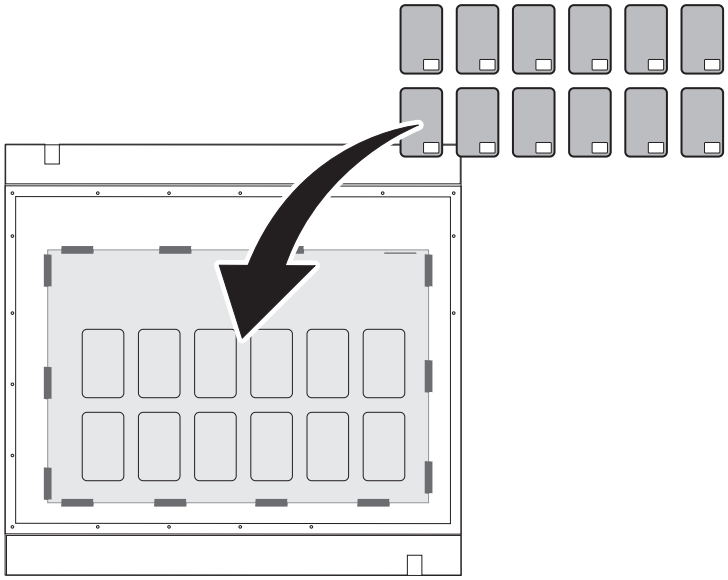
This section explains how to lay the printable media on the table, and then print the outline of the object. Place the object on top of the printed outline so that the printed outline is hidden.



Characteristics of This Loading Method

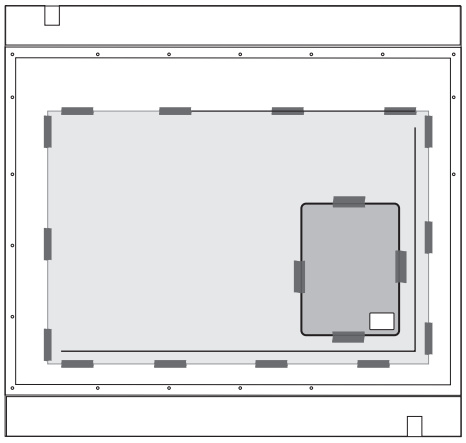
- You can load multiple objects at once.

  Print data is created with regular spacing, and then objects are placed according to their printing position.

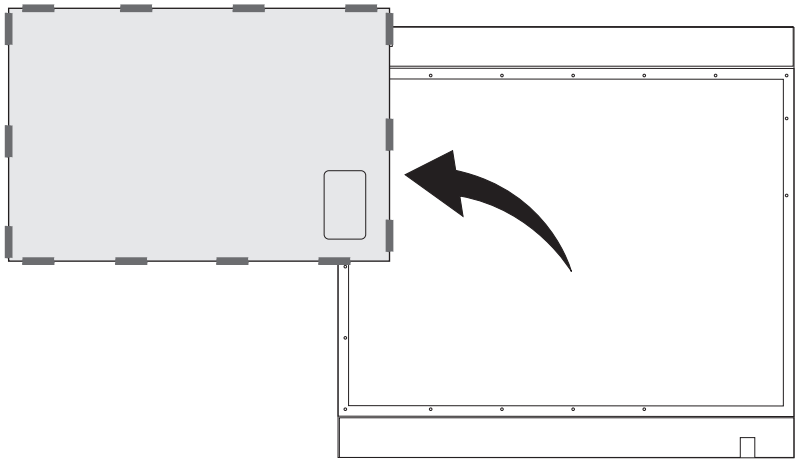


- You cannot suction the object to the table since the table is covered with media.

  If necessary, you may have to secure the object with a method other than suction, such as tape.



- Replace the media when changing the object.
  Since it cannot be used for objects of different shapes and sizes, the printed media must be removed.

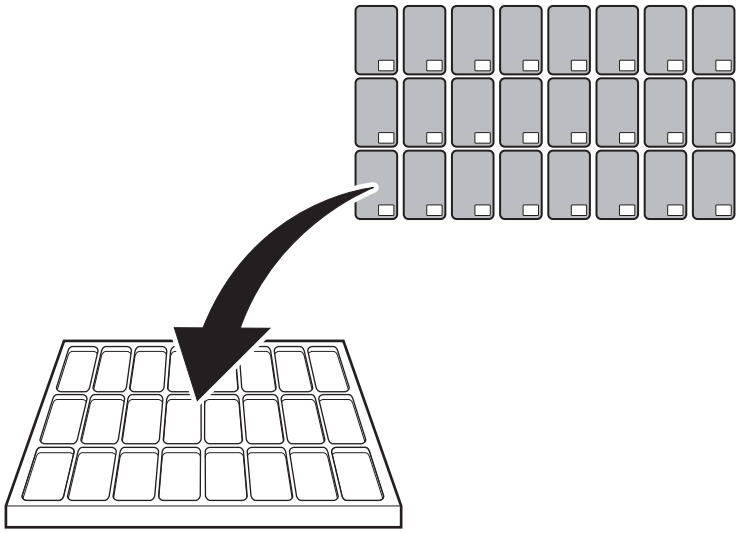


Loading the Object to Be Printed On in the Dedicated Jig

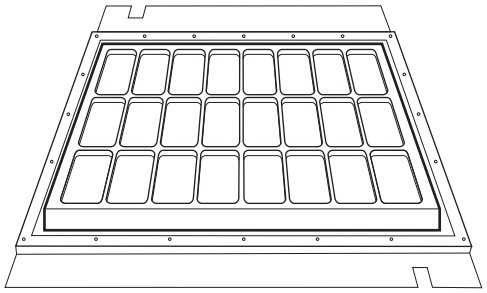
When printing on the same object in large quantities, it is common to use a dedicated fixing jig.

There are advantages to using a fixing jig when the results obtained from its use are worth the labor and cost of making the fixing jig.

Print data must be made to match the printing position of the object to be loaded on the fixing jig.



Jig Securing Method (1): Fixing the Fixing Jig Directly to Table



- Allows you to easily load objects.

  A jig that allows easy mounting and removal of the object is optimal.

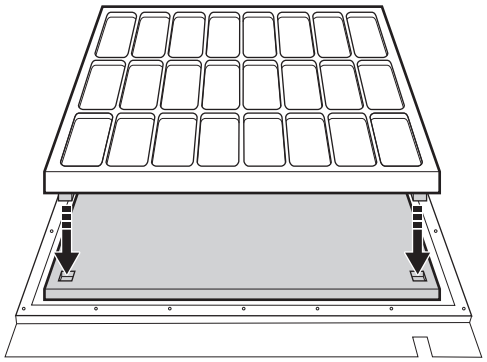
  Make a jig that allows you to do this.

- This method is not suitable for applications where jigs are frequently replaced.

  To position the fixing jig, load the object on the jig, perform a trial print several times, and adjust the position of the fixing jig.

  Therefore, if the jig is frequently put on and taken off, positioning the jig is time-consuming and inefficient.

Jig Securing Method (2): Fixing the Foundation to the Table, and Fixing the Fixing Jig to the Foundation



- Allows you to easily load objects.

  A jig that allows easy mounting and removal of the object is optimal.

  Make a jig that allows you to do this.
- Can also be used for applications where jigs are frequently changed.

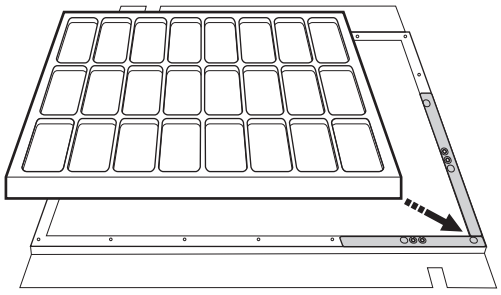
  Shapes that make positioning the jig easier should be prepared for both the foundation and the jig. (E.g., holes in the foundation or protrusions on the bottom of the jig.)

  The fit between the foundation and the jig facilitates positioning of the jig.
- Occasional remaking of foundations and jigs

  If you use protrusions and holes for positioning, you will not be able to position them accurately if there are gaps between them due to wear and tear.

  When this situation occurs, the foundation, the jig, or both need to be remade.

Jig Securing Method (3): Positioning the Fixing Jig by Pressing It against the Positioning Jig



- Allows you to easily load objects.

  A jig that allows easy mounting and removal of the object is optimal.

  Make a jig that allows you to do this.
- Can also be used for applications where jigs are frequently changed.

  You can position the jig relatively easily.

  To achieve accurate positioning of the jig, the corners of the jig to be pressed against must be made to form right angles.
- When the positioning jig is repositioned, the position of the jig may change.

Before, During, and After Printing

⚠ CAUTION

Do not place your hands on or touch the flat table or inside the machine (except for the cartridge slots).

Doing so may cause burns.

⚠ CAUTION

Do not place any objects on top of the extension plate or press on it with force.

Doing so may cause damage.

⚠ CAUTION

Do not place any objects in front of or behind the flat table.

The flat table moves horizontally and vertically. If there is an object between the flat table and the machine, it can be caught and cause the machine to malfunction.

⚠ CAUTION

If anything drops toward the back of the flat table, turn off all power switches before looking for the dropped object.

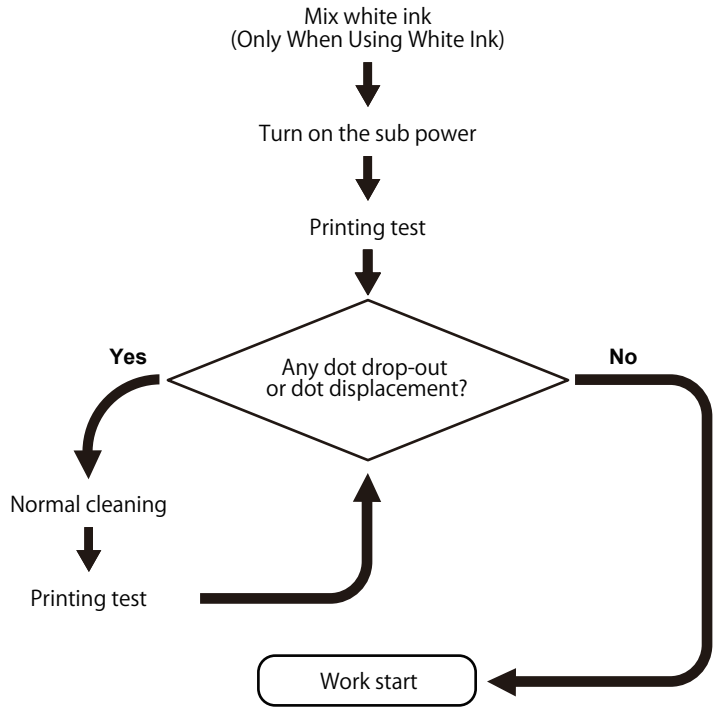
Otherwise sudden movement of the machine may cause injury.

First Thing Every Day

Before starting the day's work, eliminate white ink sedimentation and dot drop-out on the print heads.

We especially recommend test printing if the printer has not been used for a few days.

If there is a problem with discharge, clean the print heads.



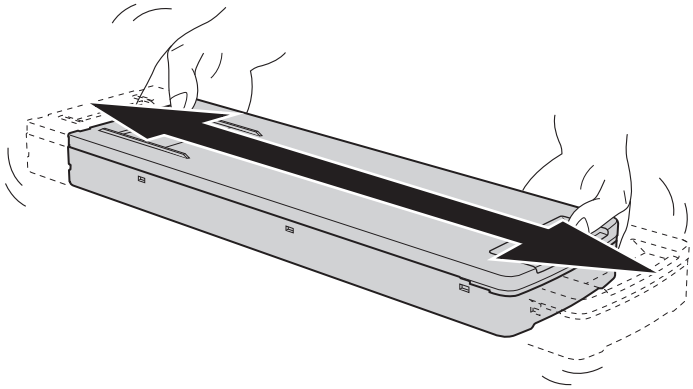
Step 1: Ink mixing

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.

Shake the ink cartridges:

- All inks: When replaced with a new product.
- White ink: Every day (before starting work for that day), remove the white ink cartridge, shake it 50 times (about 20 seconds), and then reinsert the white ink 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 work for that day, be sure to shake the ink cartridge. Allowing the ink to stand can cause the settled material to harden, resulting in malfunctions 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 shaking the ink cartridge, firmly hold it with both hands to prevent the ink cartridge cover from coming loose. The cover and ink pouch coming loose and falling may lead to damage or printer failure.
- 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.

Step 2: Performing a Nozzle Drop-out 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

When performing printing tests successively, you can select **[Feed]** (vertical printing), **[Scan]** (horizontal printing), or **[None]** (same location printing) as the printing position for the second and later tests in comparison to the first test.

Changing the Printing Test Printing Position(P. 153)

Procedure

1. **Set up the object to be printed on.**

   Determining the Print Surface Height and Printing Position(P. 77)

2. **Tap  [Nozzle Drop-out Test] on the home screen.**

3. **To change the printing test start position, tap [Change] under [Output Start Location].**

   If you have tapped on the [**Printing Test Start Location**] screen and enabled [**Use coordinates to specify the printing area without moving the carriage or table.**], specify the values for [S] and [F].

   For more information on settings, refer to Changing the Operation Performed when Setting the Printing Test Start Location(P. 149).

   (1) **Tap , , , or  once.**

   The table and print-head carriage will move, and the pointer will point to the previously-set print origin.

   Subsequently, when you have finished setting the print start position, the print-head carriage will automatically return to the standby position to protect the print heads from drying out if they have not been moved by the user for approximately three minutes. Perform the procedure again.

   MEMO

   If **[Use coordinates to specify the printing area without moving the carriage or table.]** is enabled, the print-head carriage will not move, so the print-head drying protection function will not work.

   (2) **Set the [Printing Test Start Location].**

   Long tap or tap , , , or  to set the printing test start position

MEMO

- If [**Use coordinates to specify the printing area without moving the carriage or table.**] is enabled, specify the values for [S] and [F].
- The printing test start position you have set will remain in effect until you change to a different media.

(3) **Tap [OK].**

4. **Tap [Execute] next to [Printing Test].**

Printing of the test pattern starts.

MEMO

Depending on the color of the object to be printed on, it may be difficult to check the white ink test pattern.

Tap  [**Nozzle Drop-out Test**] on the home screen, select [**Cleaning**]>[**Printing Test**]>[**Nozzle Drop-out Test (Base: Black)**] in that order, and then tap [**Execute**]>[**Yes**] to make the base of the white ink black, making it easier to check the white ink.

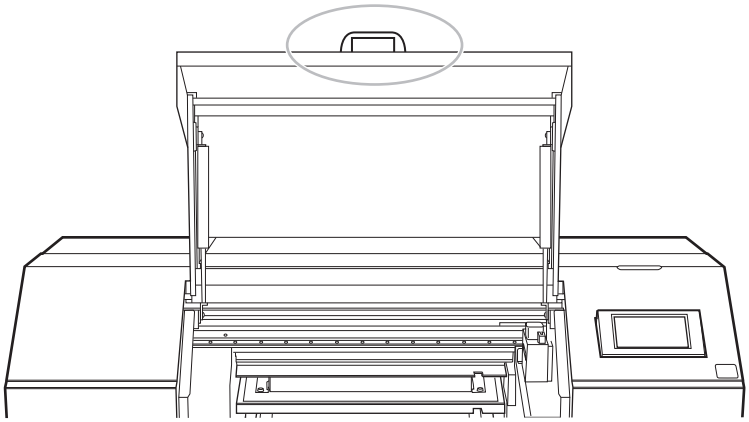
[**Nozzle Drop-out Test (Base: Black)**] is not displayed if the machine is not equipped with white ink.

5. **Open the front cover.**

MEMO

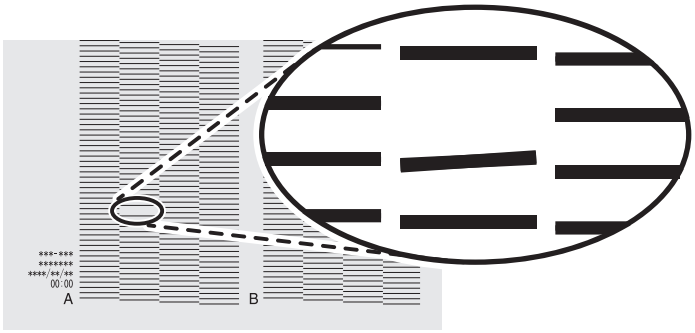
Be sure to hold the handle of the front cover and keep holding it until the cover is completely opened or closed.

If you do not open and close the front cover gently, it may break or you may be injured.



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

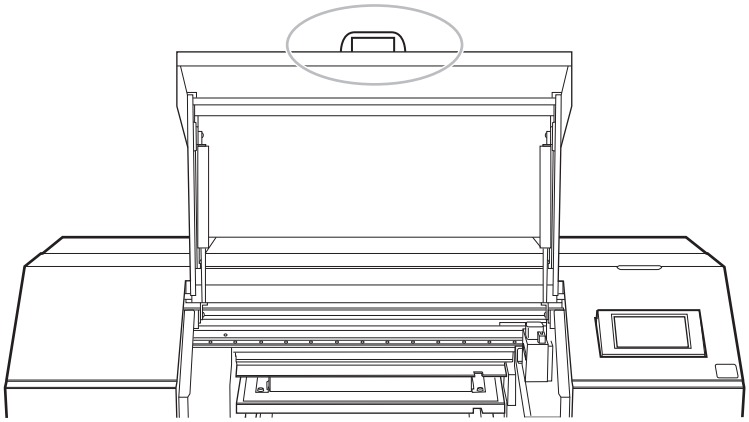
Missing blocks indicate dot drop-out. Collapsed or inclined blocks indicate dot displacement.



7. **Close the front cover.**

MEMO

Be sure to hold the handle of the front cover and keep holding it until the cover is completely opened or closed.
If you do not open and close the front cover gently, it may break or you may be injured.



If no dot drop-out or dot displacement occurs, preparations for output are finished.

RELATED LINKS

- P. 203 When Dot Drop-out or Dot Displacement Occurs

Step 3: Normal Cleaning Method

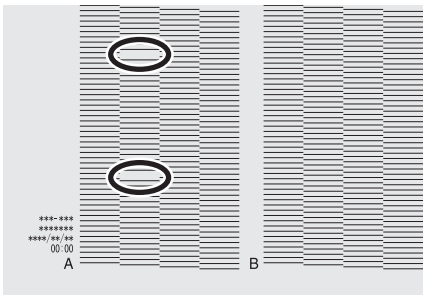
MEMO

If the object to be printed on is set up before [**Normal Cleaning**] is performed, [**After cleaning, perform a printing test.**] will be displayed on the [**Normal Cleaning**] menu screen. When this setting is turned on, [**Printing Test**] will be performed after [**Normal Cleaning**] even if [**Nozzle Drop-out Test**] is not performed.

Procedure

1. **Check for the group with dot drop-out or dot displacement by viewing the results of the printing test.**

The space from "A" to "B" is group A. The space from "B" to the right side is group B.



MEMO

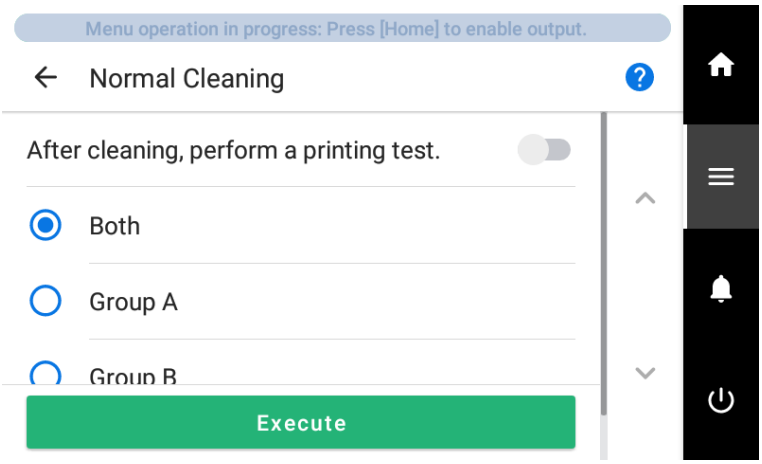
If the printing-test results are difficult to interpret

Check the results in a bright location, changing your line of vision. They are visible using the reflection of the light.

2. **Tap [Cleaning].**

3. **Tap [Normal Cleaning].**

   The screen shown below appears.



4. **Select the group of print heads to clean.**

5. **Tap [Execute].**

   Cleaning will start. The details of the operation in progress and the (approximate) remaining time of that work are displayed in the status bar at the top of the screen.

   When the work is finished, the status bar returns to its original display.

6. **Tap ← , and then tap it one more time after the screen switches.**

7. **Perform a printing test again.**

   Tap **[Execute]** under **[Printing Test]**.

8. **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.

RELATED LINKS

- P. 53 Performing a Nozzle Drop-out Test
- P. 205 When Normal Cleaning Is Not Effective

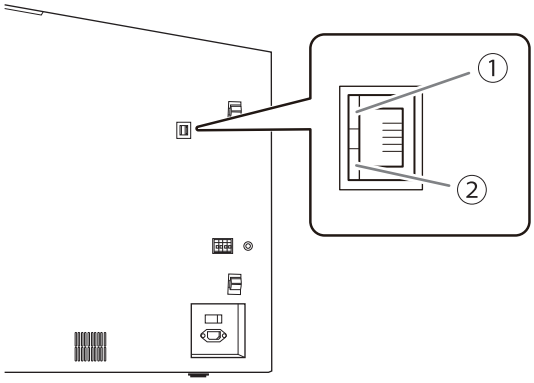
Before Printing

Before you start printing, check or perform the following.

LAN (Local Area Network) Terminal Status

Check that you can perform communication through the LAN terminal.

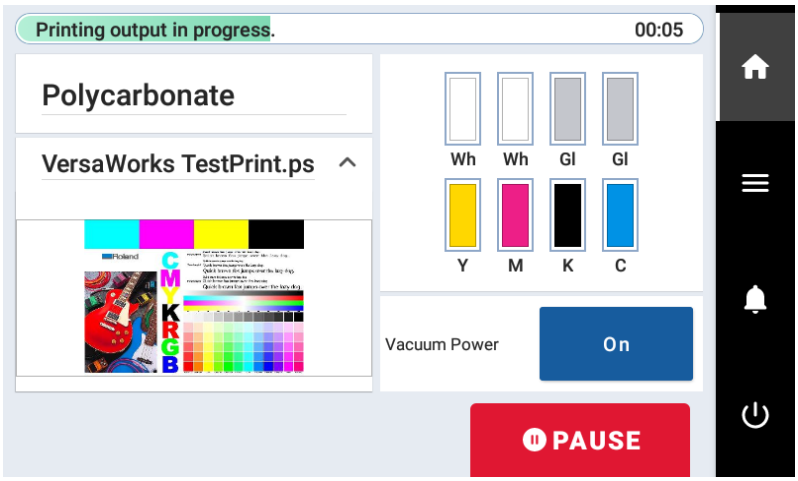
The LAN is enabled if the status LED (②) on the LAN connector located on the side of the printer is lit in green.



①	Activity LED	This flashes orange while data is being received from the network.
②	Status LED	This indicates the status of the communication function. When it lights in green, communication is possible.

Pausing, Resuming, and Canceling Printing

Tap [**Pause**] during printing to pause printing.



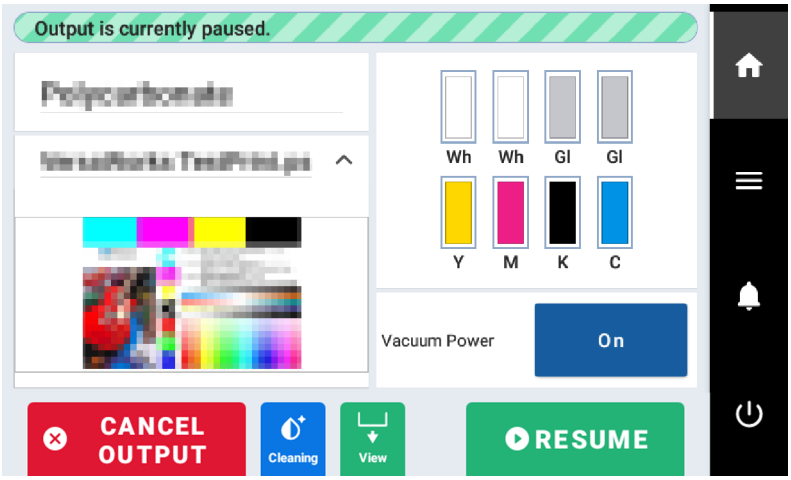
Tap [**Resume**] while printing is paused to resume printing.

Tap [**Cancel Output**] while printing is paused to cancel printing. If you have canceled printing, stop sending print data from your computer.

MEMO

Tapping View while the printer is paused will cause the print-head carriage to return to its original position.

Tap this button to correct the position of the tape holding the object to be printed on in place or to reapply the tape, such as before printing starts.



MEMO

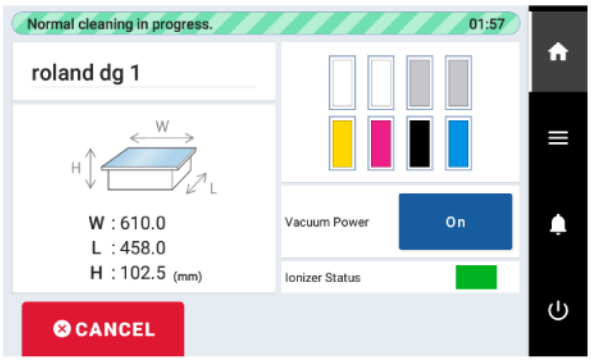
[**Normal Cleaning**], [**Medium Cleaning**], and [**Powerful Cleaning**] can be canceled if necessary.

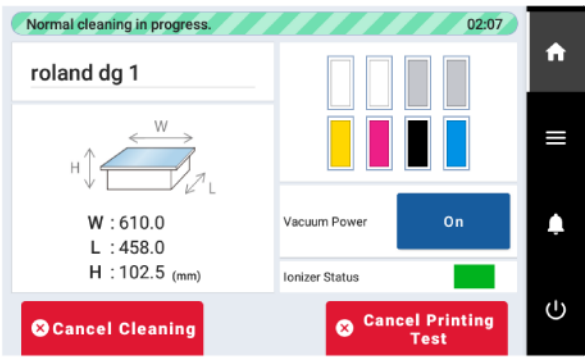
To cancel cleaning, tap  to return to the home screen, and then tap [**Cancel**].

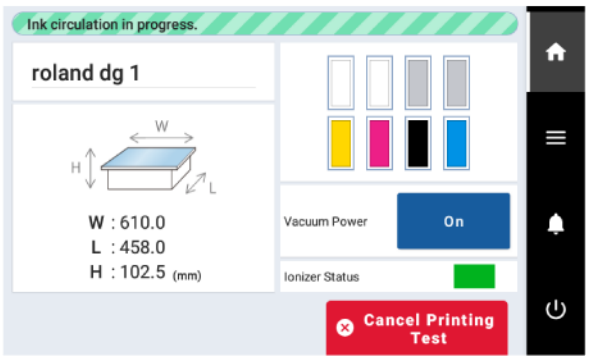
If [**After cleaning, perform a printing test.**] or [**After ink circulation, perform a printing test.**] is turned on, cleaning and printing tests can be canceled. To cancel cleaning, tap  to return to the home screen, and then tap [**Cancel**

Cleaning]. To cancel a printing test, tap  to return to the home screen, and then tap [**Cancel Printing Test**].

Note, however, that [**Ink Circulation**] cannot be canceled.
[**Normal Cleaning**] performed by tapping [**Manual Cleaning**] in the [**Finish All**] screen can also be canceled by tapping  to return to the home screen and then tapping [**Cancel**].







Replacing Ink Cartridges

Timing of Ink Replacement

When ink is about to run out, replace it before printing.

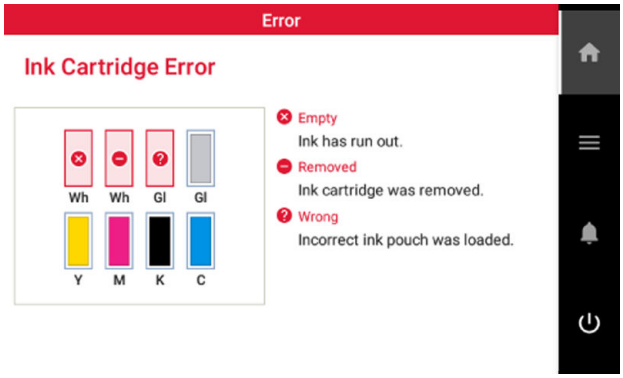
If the remaining ink display on the home screen of the operation panel is marked with , the ink level is low. (It is also displayed if the shelf life is about to expire or has expired.) We recommend replacing ink in advance as needed, using VersaWorks' ink usage amounts as a reference.

When an ink cartridge runs out of ink, an [Ink Cartridge Error] appears.

[Empty] is displayed for ink that has run out. Check the operation panel, and then replace the empty ink.

MEMO

- If ink runs out during printing, printing is paused.
- If ink runs out during cleaning, cleaning is canceled. When you replace the ink pouch, cleaning resumes.



Ink Replacement Method

⚠ WARNING

Never store ink, cleaning liquid, or discharged fluid in any of the following locations.

- **Any location exposed to open flame**
- **Any location where high temperature may occur**
- **Near bleach or any other such oxidizing agent or explosive material**
- **Any location within the reach of children**

Fire may be a danger. Accidental ingestion by children may pose a health hazard.

IMPORTANT

Precautions regarding ink pouch replacement

- Be sure to replace each pouch with an item of identical type and color.
- Never use an ink pouch that has already been used in another machine even if it is an identical type.
- Never mix different types of items.
- Never leave the machine with an ink cartridge removed. The print heads may become clogged.
- Do not remove or insert ink cartridges during printing, cleaning, or ink circulation. Ink may leak.
- If the cover of an ink cartridge does not lock securely, this cartridge needs to be replaced.

  For information about purchasing ink cartridges, contact your authorized dealer or visit our website (https://www.rolanddg.co.jp/).

IMPORTANT

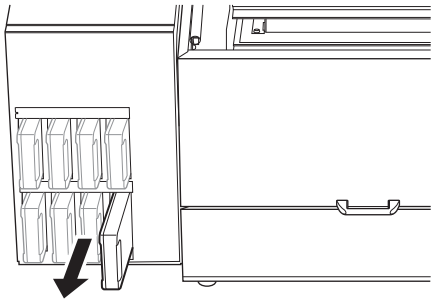
Never reuse an ink pouch within an ink cartridge for which the machine shows a sign indicating no ink.

Occasionally the machine will show a sign indicating no ink even if there is a small amount of ink remaining in the pouch, but nevertheless do not use it. Such an ink pouch is in a state where drawing ink from it is impossible. Using it in such a state may force air into the ink path and cause printer malfunctions.

Procedure

1. **Pull out from the machine the ink cartridge of the color to replace.**

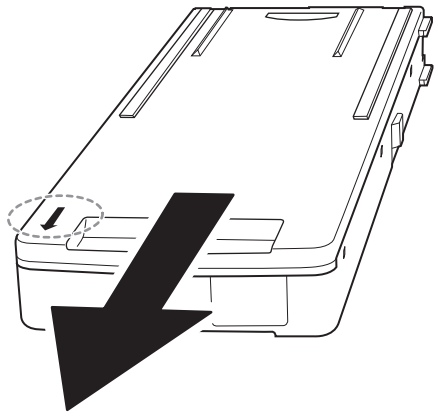
   When removing the ink cartridge, pull it out slowly and carefully, without any force.



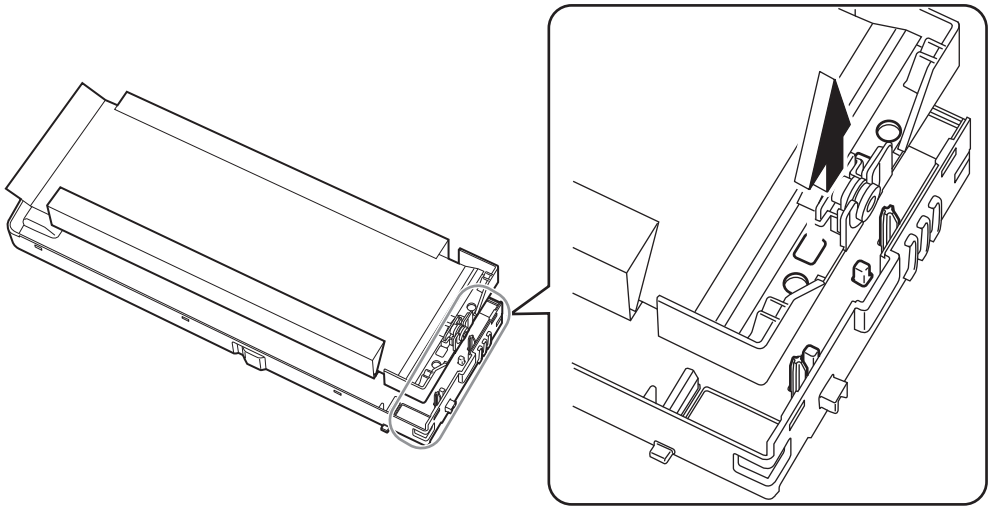
2. **Remove the ink cartridge cover.**

   a. Keep the side with the arrow face up.

   b. Slide the ink cartridge cover in the direction of the arrow to remove it.



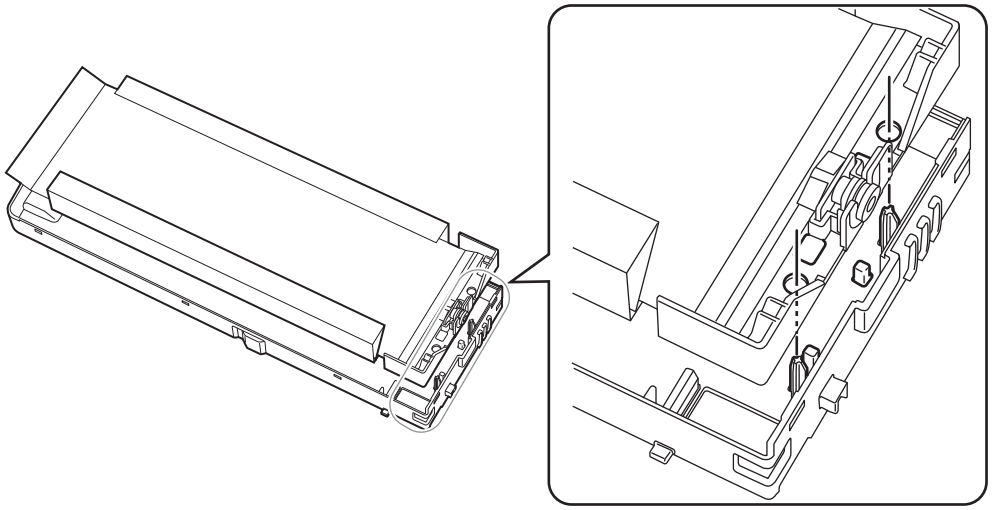
3. **Remove the used ink pouch from the cartridge case.**



4. **Load a new ink pouch in the cartridge case.**

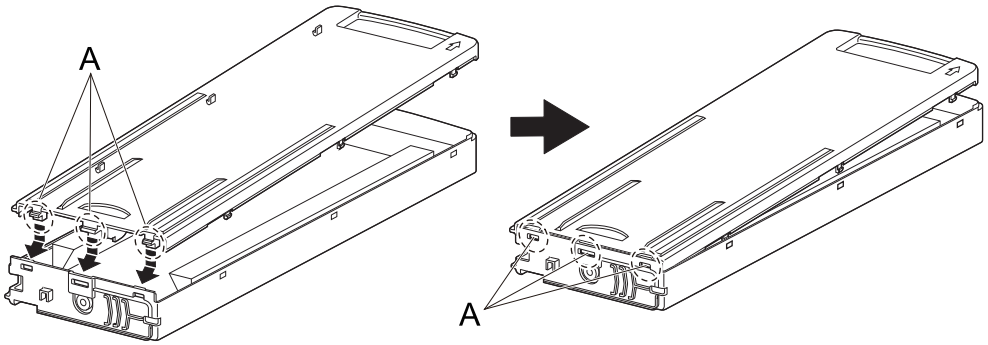
MEMO

Pass the protrusions on the cartridge case through the holes on the ink pouch to load it in the correct position.



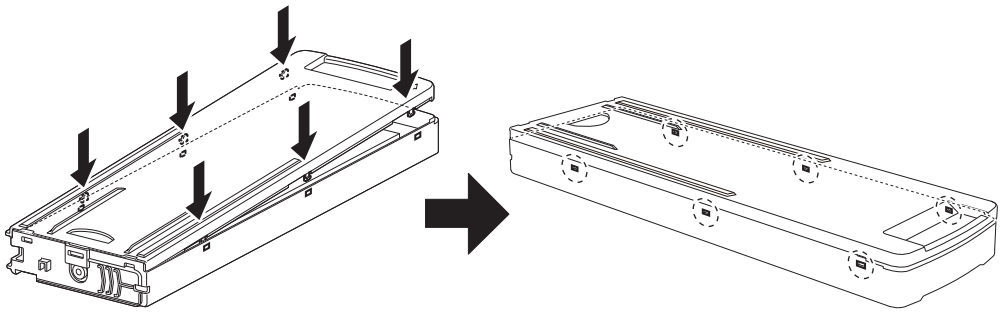
5. **Attach the ink cartridge cover to the cartridge case.**

a. Insert the protrusions (A) at the back of the ink cartridge cover into the holes in the cartridge case.



b. Push the ink cartridge cover to fit its hooks into the holes in the cartridge case.

There are hooks in six locations. Check that all the hooks are seated in the holes and that the ink cartridge cover does not come loose from the cartridge case.

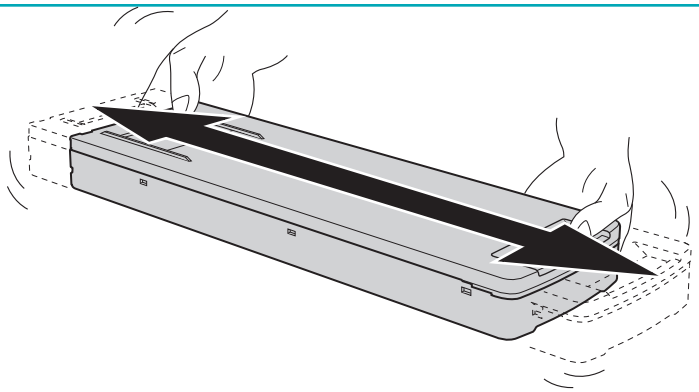


6. Shake the ink cartridge 50 times (about 20 seconds).

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.

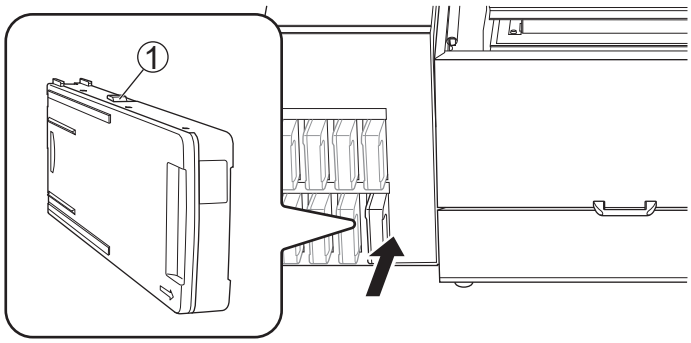
IMPORTANT

When shaking the ink cartridge, firmly hold it with both hands to prevent the ink cartridge cover from coming loose. The cover and ink pouch coming loose and falling may lead to damage or printer failure.



7. Insert the ink cartridge.

Orient the ink cartridge so its protrusion (①) is face up, and then, while keeping the cartridge level, slowly insert the cartridge as far as it will go.

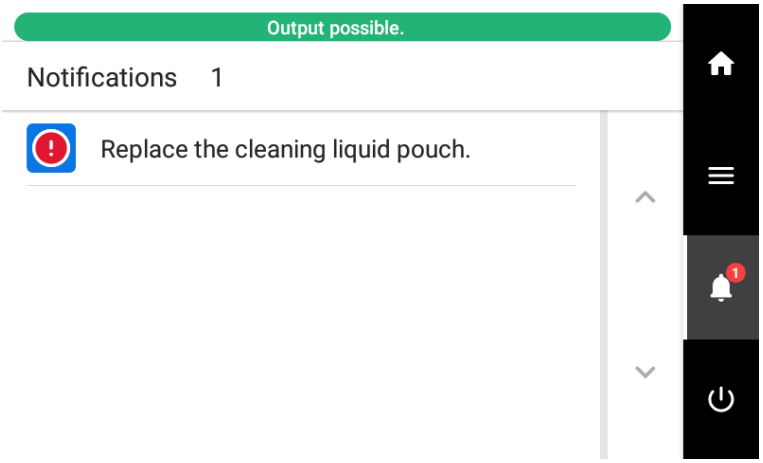

1

Replacing the Cleaning Liquid

Out-of-cleaning-liquid Warnings

If the cleaning liquid runs out, [**Replace the cleaning liquid pouch.**] appears on the screen. Tap [**OK**] to close this message.

You can also check the message by tapping .



RELATED LINKS

- P. 67 Cleaning Liquid Replacement Method

Cleaning Liquid Replacement Method

⚠ WARNING

Never store ink, cleaning liquid, or discharged fluid in any of the following locations.

- **Any location exposed to open flame**
- **Any location where high temperature may occur**
- **Near bleach or any other such oxidizing agent or explosive material**
- **Any location within the reach of children**

Fire may be a danger. Accidental ingestion by children may pose a health hazard.

IMPORTANT

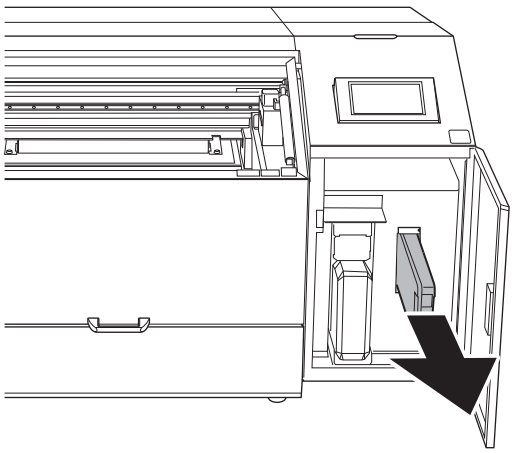
Precautions regarding cleaning liquid pouch replacement

- Never insert or remove the cleaning cartridge with undue force. Cleaning liquid may leak.
- If the cover of the cleaning cartridge does not lock securely, this cartridge needs to be replaced.
  For information about purchasing cleaning cartridges, contact your authorized dealer or visit our website (https://www.rolanddg.co.jp/).

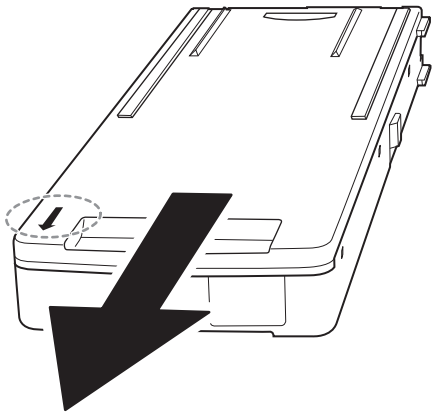
Procedure

1. **Open the maintenance cover.**

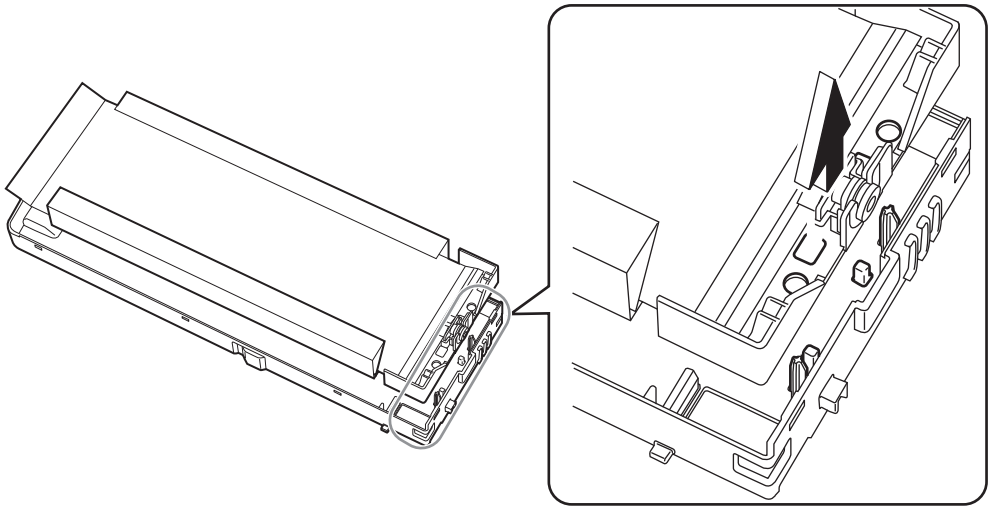
2. **Pull out the cleaning cartridge from the machine.**



3. **Remove the cleaning cartridge cover.**
   a. Keep the side with the arrow face up.
   b. Slide the cleaning cartridge cover in the direction of the arrow to remove it.



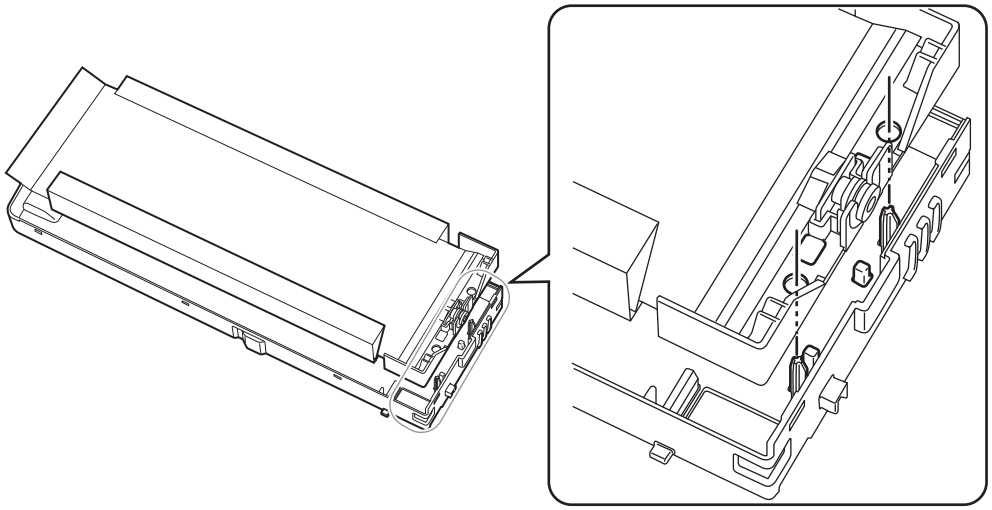
4. **Remove the used cleaning liquid pouch from the cartridge case.**



5. **Load a new cleaning liquid pouch in the cartridge case.**

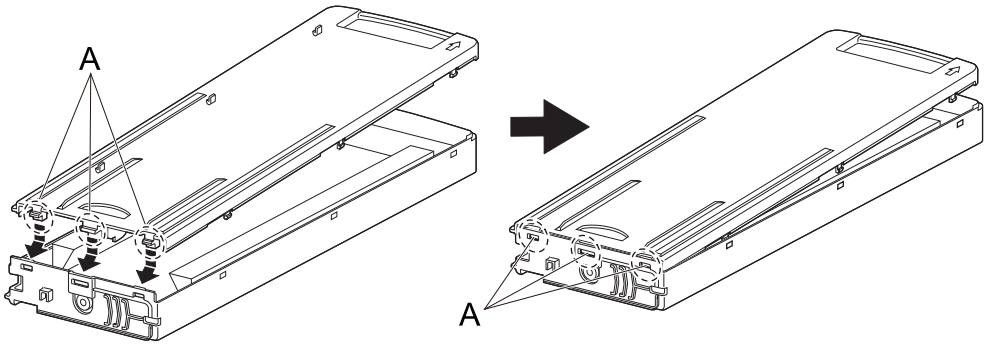
MEMO

Pass the protrusions on the cartridge case through the holes on the cleaning liquid pouch to load it in the correct position.



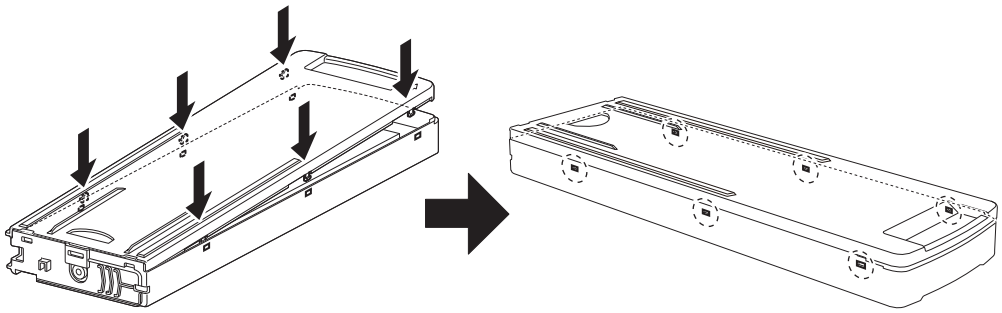
6. **Attach the cleaning cartridge cover to the cartridge case.**

a. Insert the protrusions (A) at the back of the cleaning cartridge cover into the holes in the cartridge case.



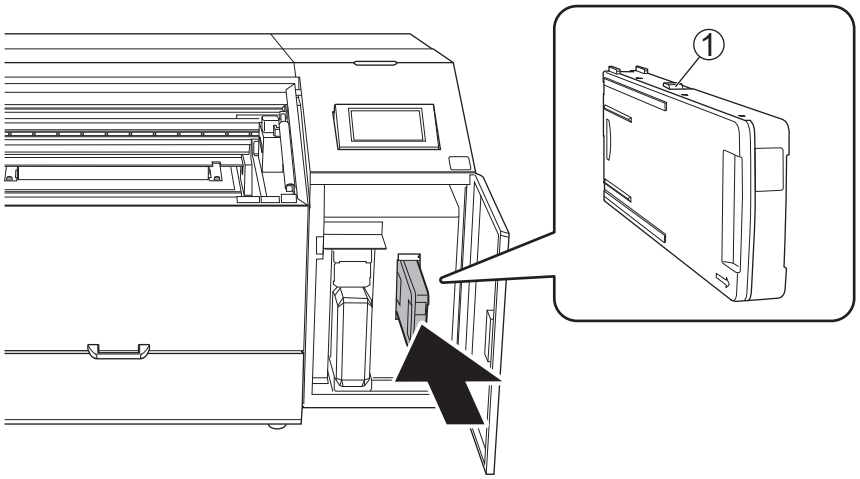
b. Push the cleaning cartridge cover to fit its hooks into the holes in the cartridge case.

There are hooks in six locations. Check that all the hooks are seated in the holes and that the cleaning cartridge cover does not come loose from the cartridge case.



7. Set the cleaning cartridge in the cleaning liquid slot.

Orient the ink cartridge so its protrusion (①) is face up, and then, while keeping the cartridge level, insert the cartridge as far as it will go.



8. Close the maintenance cover.

9. Tap [Yes] when the cleaning liquid pouch replacement confirmation screen appears.

If you tap [**Yes**] to reset the amount of cleaning liquid remaining, the cleaning liquid pouch will be identified as a new product.

MEMO

If you tap [**Yes**] on the cleaning liquid pouch replacement confirmation screen even though you have not replaced the cleaning liquid pouch, the amount of cleaning liquid remaining is reset. In this situation, no notification will appear even if the amount of cleaning liquid remaining is very small, and the message [**Replace the cleaning liquid pouch.**] will appear when the cleaning liquid runs out. To ensure you have enough time to prepare the replacement cleaning liquid, tap [**No**] if you have not replaced the cleaning liquid.

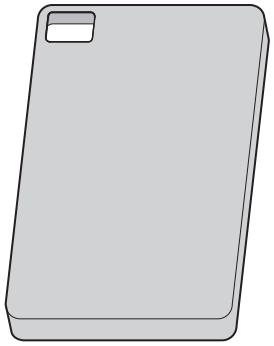
Printing Methods

Printing on a Flat Surface

Overview: Printing on a Flat Surface 73
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Overview: Printing on a Flat Surface

This section explains how to print on an object that has a flat print surface.



This section explains the following steps based on the assumption that you are printing on the above tablet cover for the first time.

See "Printable Materials and Shapes" for information on whether you can print on the target object.

Even materials with the same name can have many variations with their own distinct properties due to slight differences in composition, and even if the composition is the same, it may or may not be possible for you to print on them due to differences in plating, coating, or other such surface treatments.

If this is the first time you are printing on a material, or if it is similar to something you have printed on before but you are not sure if it can be printed, please print a trial print to see if it is viable.

Generally speaking, the criteria for determining whether printing is viable are as follows. In addition to the items listed below, the items to be checked will vary depending on the requirements for the printed product. Exercise caution.

- Does the ink adhere to the object?
- Does the printing not come off even if rubbed?
- Can a satisfactory level of print quality be achieved?

RELATED LINKS

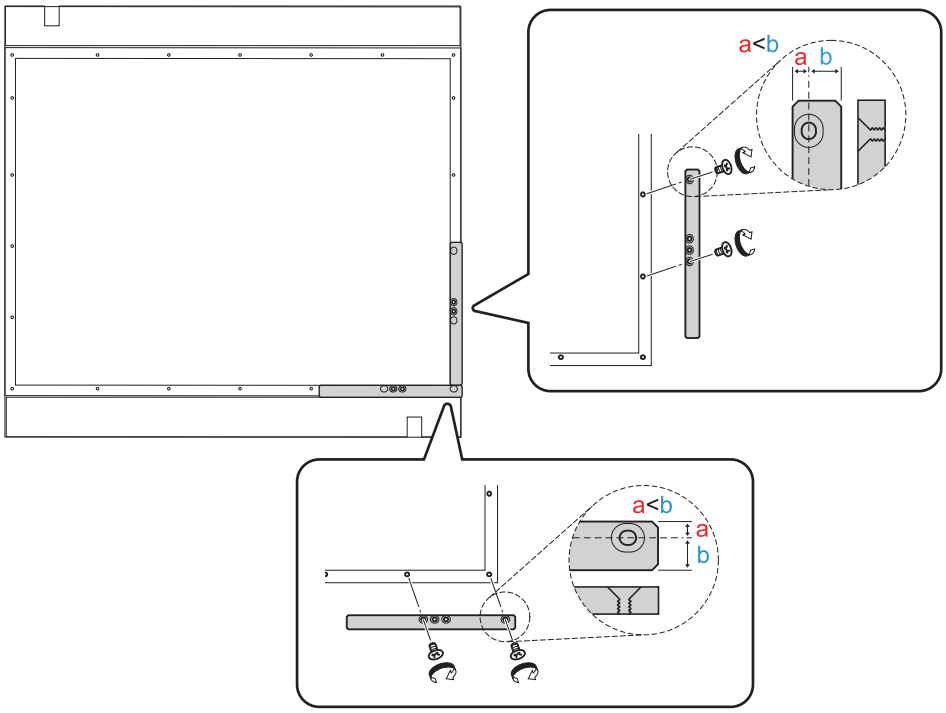
- P. 21 Printable Materials and Shapes
- P. 42 Alignment of Object to Be Printed On
- P. 88 Printing on Cylinders

Loading the Object to Be Printed On

Mounting the Positioning Jig

Objects to be printed on with a thickness of 3 mm (0.12 in.) or more should be used.

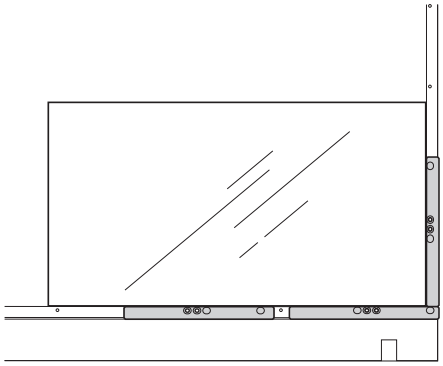
Fix the positioning jig to the table as shown in the figure.



The fixing holes are closer to one side of the jig, and the wider side of the jig is mounted facing the exterior of the table.

Make sure that the top and bottom sides are correct.

You can also use multiple positioning jigs according to the size of the object to be printed on.



This setting method cannot be used for objects to be printed on that are thinner than the thickness of the positioning jig.

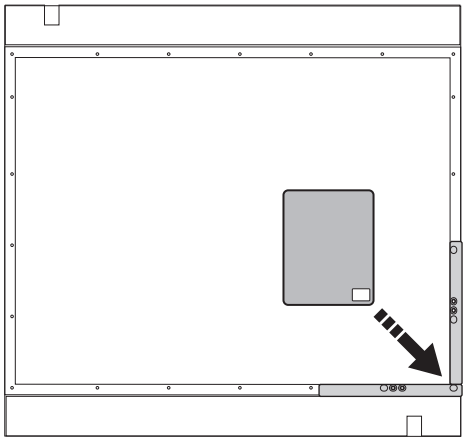
Loading the Object to Be Printed on by Pressing It Against the Positioning Jig

Procedure

1. **Open the front cover.**

2. **Load the object to be printed on by pressing it against the positioning jig.**

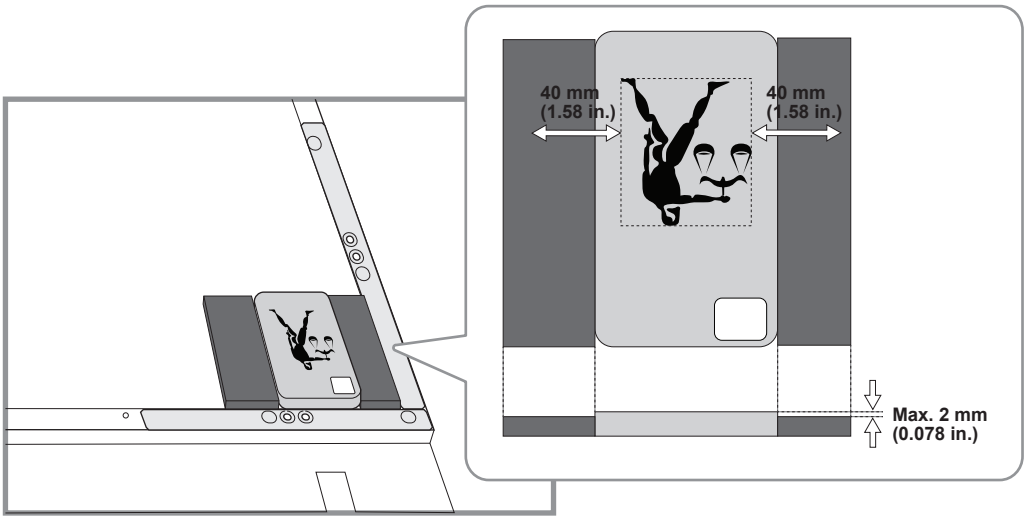
   Secure the object to be printed on with tape or other means as necessary to prevent it from moving during setup and printing.



Eliminating Spaces Around the Object to Be Printed On

When printing, make sure that there is no unnecessary space under the bottom of the print-head carriage (ink ejection surface of the print heads). If too much space is left open, ink mist can more easily form. Therefore, a jig to fill the space around the object to be printed on might be required depending on the size and shape of the object to be printed on. Prepare a jig if one of the following conditions is met.

- An area around the print data size (left and right: direction the print-head carriage moves) plus a margin of 40 mm (1.57 in.) extends beyond the object to be printed on.

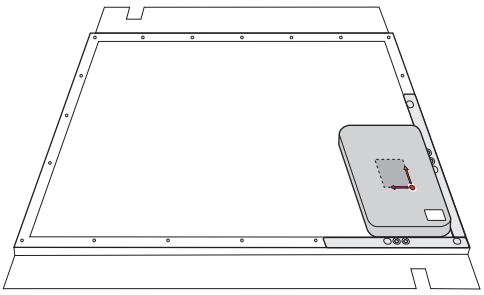


The height difference between the print surface and the jig surface should not exceed 2 mm (0.07 in.).

Determining the Print Surface Height and Printing Position

This section explains how to set the print heads to the appropriate height for printing and specify the location to be printed.

The height and printing position settings can be configured with the front cover open.



Procedure

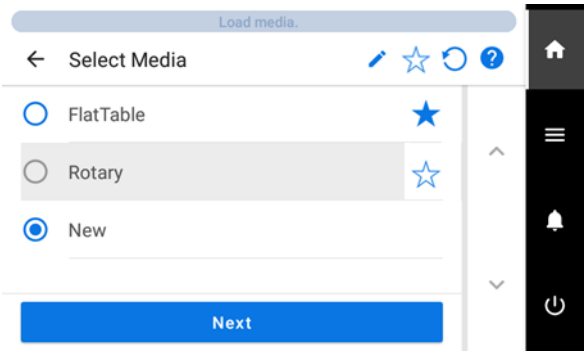
1. **If the home screen is not displayed, tap** .

2. **Tap** **[Setup].**

3. **Tap [Select] next to [Preset].**

4. **Tap [New], and then tap [Next].**

   Assuming this is the first time you are printing on this object, select [**New**] here.



If you have already registered the media, select the media (printing settings) from the list of existing media, tap [**Next**], and then proceed to step 8.

MEMO

- You cannot select media that you have registered when using the rotary axis unit with the flat table or vacuum table.
- Tapping makes it possible to search the registered media by keyword.

  To reset the entered keyword, tap .
- Tapping to the right of the media name will change the symbol to , and the media will be registered to Favorites.

Tap the Favorites filter ☆ at the top of the operation panel to turn the filter on ★ and show only favorited media.

Tap ★ to turn the Favorites filter off.

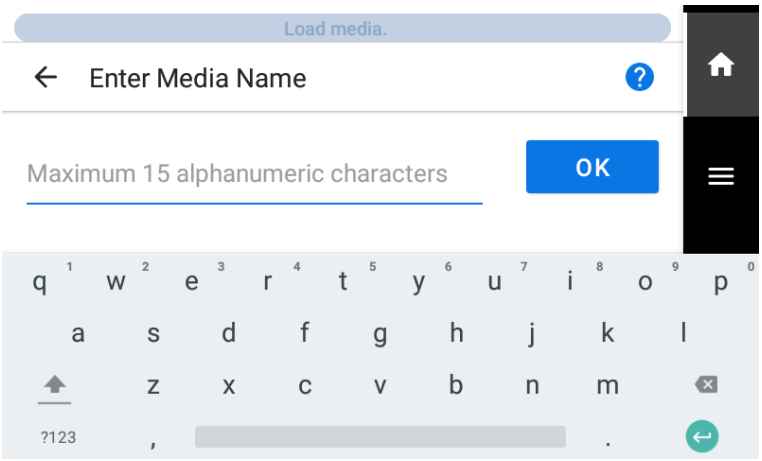
- Keyword searching and the Favorites filter can be used at the same time.

Tap ↻ to turn the Favorites filter off (☆) and reset all keywords.

5. Enter the media name and tap [OK].

Tap the keyboard that is displayed on the screen to enter the name.

You can use up to 15 alphanumeric characters.



6. Check the name you have entered and tap [Next] if it is correct.

To make corrections, tap the name you entered.

7. Set the media reflective intensity.

MEMO

There are two methods for selecting the reflective intensity of the media: [**Simple**] or [**Advanced**].
This procedure describes the flow for when [**Advanced**] is selected. Refer to the following for how to change media reflective intensity selection method and the flow for when [**Simple**] is selected.

- Changing the Media Reflective Intensity Selection Method(P. 123)
- Simple Media Reflective Intensity Selection(P. 124)

(1) **Perform [Media Type].**

Select whether the attached object is transparent or opaque, and then tap [**Next**].

MEMO

Determine whether the objects are transparent or opaque according to the following standard.

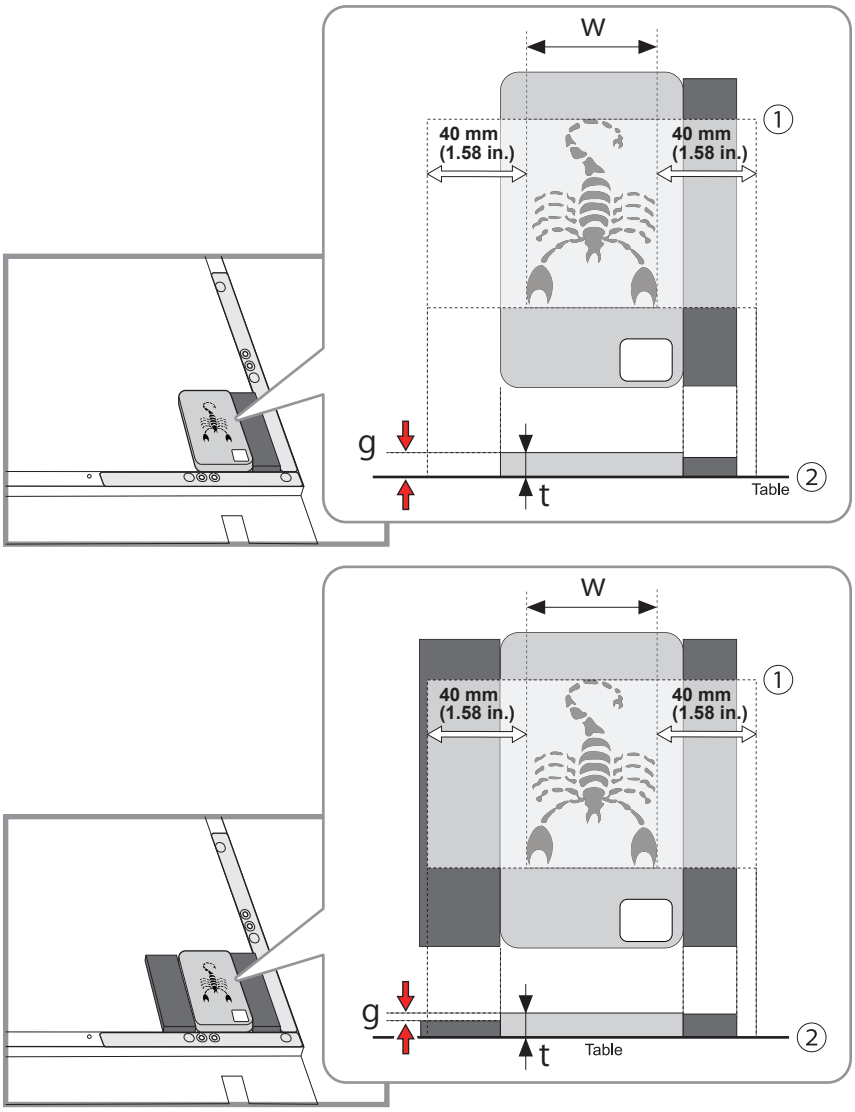
- Transparent: A hand placed on the other side of the object to be printed on can be seen through it.
- Opaque: A hand placed on the other side of the object to be printed on cannot be seen through it.

If selecting [Opaque], proceed to Step (2). If selecting [Transparent], proceed to Step (3).

(2) **Select the "difference in height between the bottom surface near the print data and the print surface" (g).**

The "difference in height between the bottom surface near the print data and the print surface" is the difference in height between the lowest point (including the table top) and the height of the print surface within 40 mm (1.57 in.) of the print data.

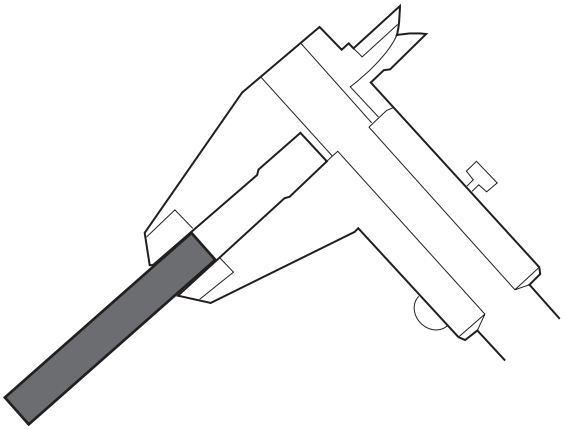
The figure below shows the "difference in height between the bottom surface near the print data and the print surface." The lowest point in the area enclosed by the dotted line (①) is the table surface (②), so the variation in height in this case is the height between the red arrows (g).



Tap [**Save**] and proceed to step 8.

(3) **Select the thickness of the object to be printed on (t).**

Use a ruler or vernier caliper to measure the thickness of the object to be printed on.



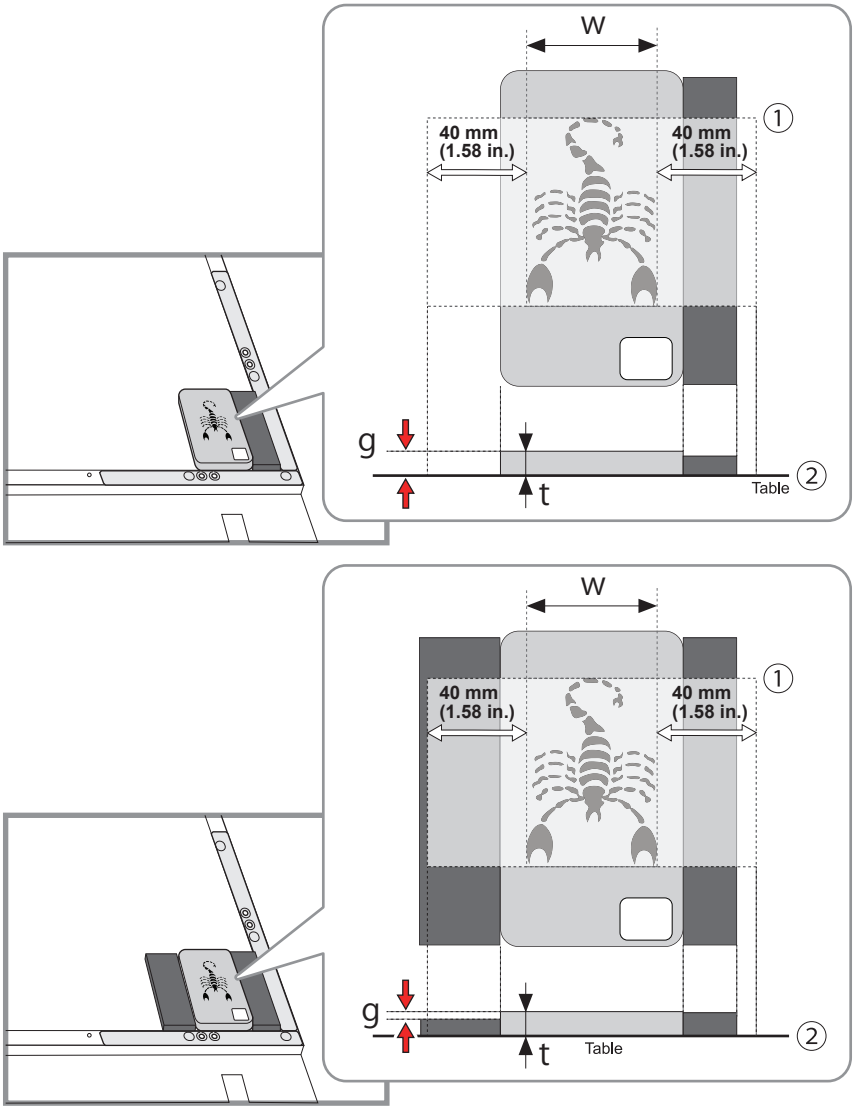
After making a selection, if [**Next**] is displayed, tap [**Next**] and proceed to step (4).

After making a selection, if [**Save**] is displayed, tap [**Save**] and proceed to step 8.

(4) **Select the "difference in height between the bottom surface near the print data and the print surface" (g).**

The "difference in height between the bottom surface near the print data and the print surface" is the difference in height between the lowest point (including the table top) and the height of the print surface within 40 mm (1.57 in.) of the print data.

The figure below shows the "difference in height between the bottom surface near the print data and the print surface." The lowest point in the area enclosed by the dotted line (①) is the table surface (②), so the variation in height in this case is the height between the red arrows (g).

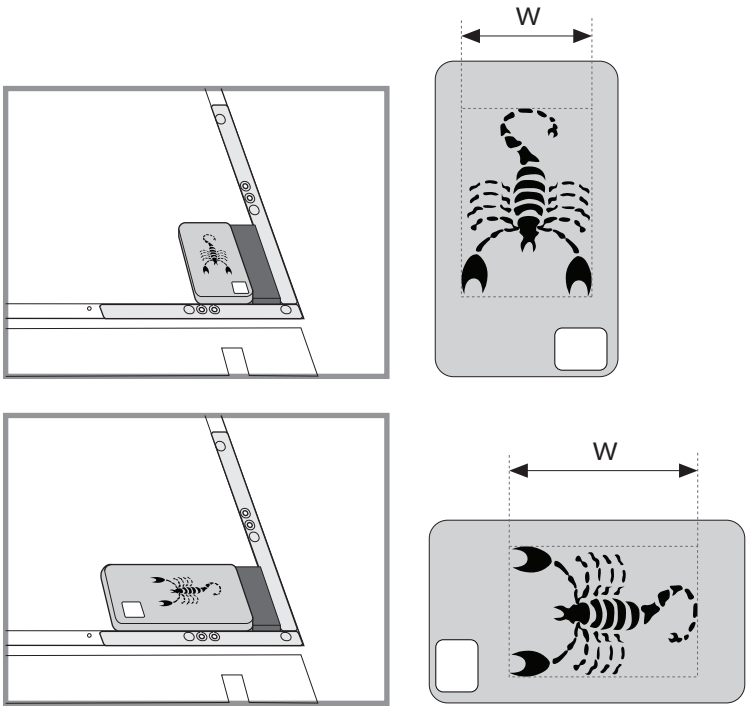


After making a selection, if **[Next]** is displayed, tap **[Next]** and proceed to step (5).

After making a selection, if **[Save]** is displayed, tap **[Save]** and proceed to step 8.

(5) **Select the print data width (w).**

Select the print data width (length of print-head carriage movement direction (w)).



Tap [**Save**] and proceed to step 8.

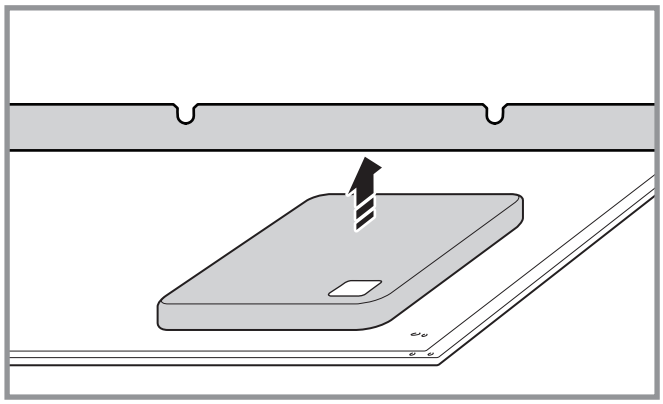
8. **Tap [Change] next to [Table Height].**

9. **Move the print surface so that it is close to the head gap sensor.**

Move the head gap sensor as close as possible to the print surface beforehand to avoid needlessly increasing the time required for automatic height setting.

Tap or long tap  and  for moving up/down or back/forth.

A long tap will speed up the movement after 2 seconds, so take care to avoid going too far.



10. **Tap [Automatic Setup].**

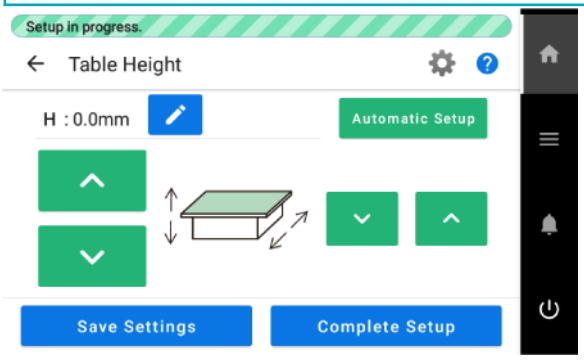
The height of the object to be printed on will be set automatically to a position about 1 mm (39.4 mil) away from the print head's ink emission surface.

11. **Tap [Save Settings].**

MEMO

Tap [**Save Settings**] if the [**Printing Area**] or [**Print Origin**] settings need to be configured.

Tap [**Complete Setup**] to finish the setup and return to the home screen, and output will be possible.



12. **Tap [Change] next to [Printing Area].**

You can tap ⚙ to change the operation performed by the machine when configuring settings.
For more information on settings, refer to Changing the Operation Performed When Setting Up the Printing Area(P. 120).

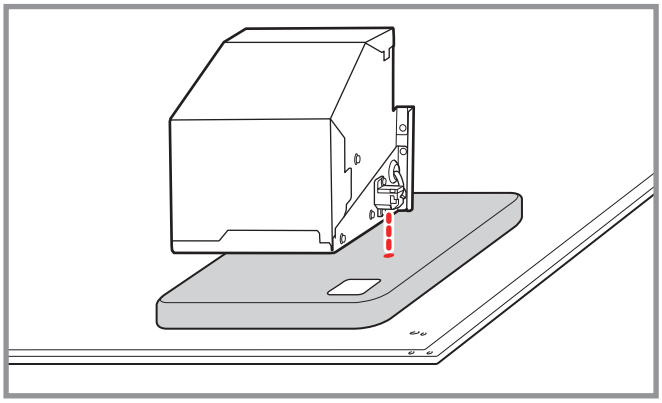
13. **Tap [Print Origin], and then tap ∧, ∨, <, or > one time.**

The print-head carriage moves to the bottom right point of the currently set printing area, and the pointer is lit.

Subsequently, when you have finished setting the printing area, the print-head carriage will automatically return to the standby position to protect the print heads from drying out if they have not been moved by the user for approximately three minutes. Perform the procedure again.

MEMO

If [**Use coordinates to specify the printing area without moving the carriage or table.**] is enabled, the print-head carriage will not move, so the print-head drying protection function will not work.



14. **Tap or long tap ∧, ∨, <, or >.**

Align the pointer with the lower right point of the printing area of the loaded object to be printed on.

MEMO

If [**Use coordinates to specify the printing area without moving the carriage or table.**] is enabled, specify the values for [**S**] and [**F**].

MEMO

When the pointer is difficult to see

Depending on the material of the object to be printed on, such as transparent media or high-gloss media with dark colors used on the print surface, the pointer may be difficult to see. In such cases, the pointer may become more visible by placing masking tape on the print surface or on the back.

15. **Tap [Printing Area].**

The print-head carriage moves to the top left point of the currently set printing area, and the pointer is lit.

MEMO

If **[Use coordinates to specify the printing area without moving the carriage or table.]** is enabled, the print-head carriage does not move.

16. **Tap or long tap , , , or .**

Align the pointer with the upper left point of the printing area of the loaded object to be printed on.

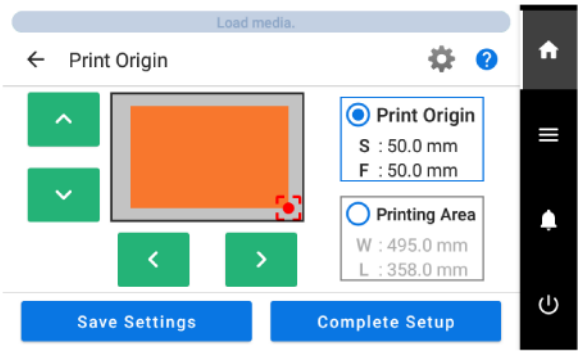
MEMO

If **[Use coordinates to specify the printing area without moving the carriage or table.]** is enabled, specify the values for **[W]** and **[L]**.

17. **Tap [Complete Setup].**

MEMO

Tap **[Save Settings]** to return to the setup item selection screen to change the settings as necessary.



18. **Close the front cover.**

RELATED LINKS

- P. 95 Adjusting the Height
- P. 109 Printing Area Settings
- P. 123 Changing the Media Reflective Intensity Selection Method

Performing Printing

Print data is created and then output to the machine using VersaWorks.

Print data is created in an application such as Adobe Illustrator and then saved in a file format (e.g., PDF or EPS) that can be read by VersaWorks.

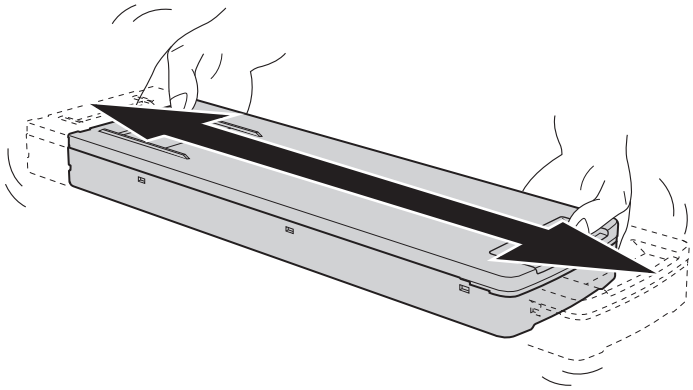
The methods for creating print data differ depending on the color layering and whether a primer has been applied. See the "VersaUV Usage Guide" for a description of how to create typical print data.

IMPORTANT

If you are using white ink

When printing for the first time for the day, remove just the white ink cartridge, shake it 50 times (about 20 seconds), and then reinsert the cartridge. 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.

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 can cause the settled material to harden, resulting in malfunctions or other problems.



- 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 shaking the ink cartridge, firmly hold it with both hands to prevent the ink cartridge cover from coming loose. The cover and ink pouch coming loose and falling may lead to damage or printer failure.
- 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.

Procedure

1. **Close the front cover if it is open.**
2. **Start VersaWorks.**
3. **Click the printer to use.**

   Check that:

   - VersaWorks Dual connects to the machine.
   - The machines status is [**Ready to Print**].
4. **Click the [Gear Icon] of the folder (one of A to E) to enter print data.**

   The [**Queue Properties**] screen appears.
5. **Click [Get Media Width].**

Obtain and then set the printing area set in "Determining the Print Surface Height and Printing Position" from the printer.

For other VersaWorks settings, see the VersaWorks manual.

6. **Click [OK].**

7. **Enter the print data in the queue folder for which the size was obtained in step 5.**

Drag the print data to the job list in the target queue folder.

8. **Double-click the entered print data.**

The job settings screen is displayed.

Use this screen to fit the print data in the printing area and adjust its position.

The white part in the layout area is the loaded printing area. Note that print data that does not fit within the printing area will be automatically split and then printed as separate pages.

MEMO

To set [**Base Printing Position**] to [**Center**], select the [**Center on the Media**] under [**Position**] in VersaWorks.

9. **When the size and position are adjusted, click[OK].**

10. **Click the [Printing Icon].**

The [**Advanced Print Settings**] screen appears.

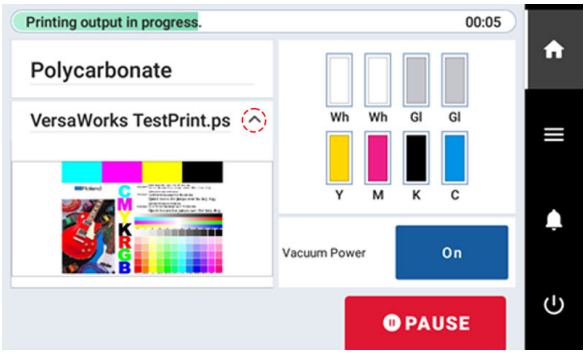
Set the [**Print Count**], and then click [**Print**].

Printing starts.

The operation panel will change to the display indicating that printing is in progress.

MEMO

- When you send the output data, [**Ink circulation in progress.**] or [**Normal cleaning in progress.**] may be displayed on the operation panel. These indicate the preparation operations performed before output. Output will begin after the time displayed on the screen elapses.
- The data being output can be viewed as an image. Tap ^ shown in the following figure to switch to the [**Printing Area**] screen. Tap this icon again to return to the screen for checking the data being output. However, this functionality is limited to software RIPs that support the display of the output data image (thumbnail).



RELATED LINKS

- https://downloadcenter.rolanddg.com/VersaWorks7

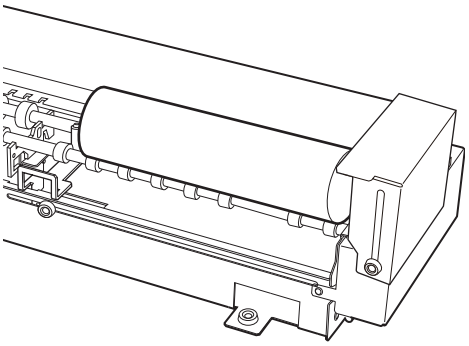
- https://downloadcenter.rolanddg.com/contents/manuals/UV-Guide_USE_EN

Printing on Cylinders

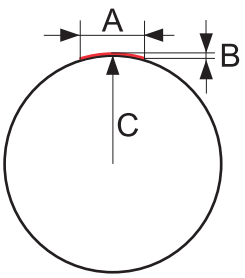
Overview: Printing on Cylinders.....89

Overview: Printing on Cylinders

You can print on cylindrical surfaces even without using the rotary axis unit as long as the variation in height of the printed surface is no more than 2 mm (78.7 mil). If the variation in height of the print surface exceeds 2 mm (78.7 mil), use the rotary axis unit (sold separately).



The table below shows the maximum width you can print without using the rotary axis unit for a given cylinder size (radius). If the printing width is narrower than the printing width in the table below, you can print without using the rotary axis unit since the variation in height of the print surface is within 2 mm (78.7 mil). If the printing width is wider than the one shown in the table below, use the rotary axis unit.



A: Maximum Printable Width	B: Variation in height (2 mm [0.08 in.])	C: Cylinder Size (Radius)

Cylinder Size (Radius)	Maximum Printable Width
5 mm (0.2 in.)	8 mm (0.31 in.)
10 mm (0.39 in.)	12 mm (0.47 in.)
15 mm (0.59 in.)	14.96 mm (0.58 in.)
20 mm (0.79 in.)	17.43 mm (0.68 in.)
30 mm (1.18 in.)	21.54 mm (0.84 in.)
50 mm (1.97 in.)	28 mm (1.1 in.)
80 mm (3.15 in.)	35.55 mm (1.39 in.)
100 mm (3.94 in.)	39.79 mm (1.56 in.)

For information on how to install and print with the rotary axis unit, see the manual for the rotary axis unit.

RELATED LINKS

- How to Use the Rotary Axis Unit

Optimizing Quality and Efficiency

Optimizing the Setup Method

Suction Function Setting 92
- Setting the Suction Function 92
- Turning the Suction Function On or Off 93
- Adjusting the Suction Force 94

Adjusting the Height 95
- Setting the Height of the Object to Be Printed On Manually 95
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- Determining the Maximum Value (Threshold) for Automatic Height Adjustment 103
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Stabilizing Image Quality on Left Side of Flat Table 126
- Setting [**Distance Mode Image Quality Stabilization**] 126

Suction Function Setting

Setting the Suction Function

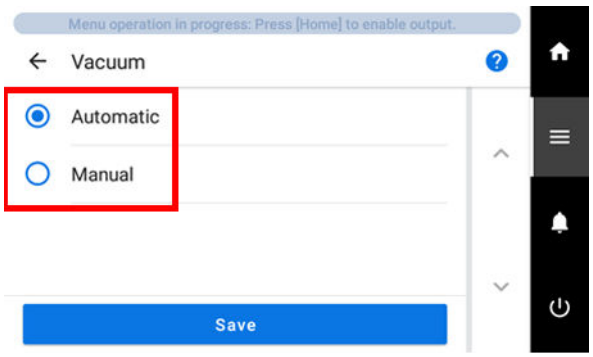
The vacuum table suctions the object to be printed on to make it hard to move and easy to load. This function is especially effective when the object to be printed on is thin and light.

MEMO

When the vacuum table is not attached, it is not displayed in the menu.

Procedure

1. Tap .
2. Tap [Preferences]>[Vacuum].
3. Select [Vacuum] from the following.



[Vacuum]	Description
[**Automatic**]	Turns the suction function on or off automatically, e.g., when printing.
[**Manual**]	Turns the suction function on or off on the home screen.

4. Tap [Save].
5. Tap  to return to the home screen.

MEMO

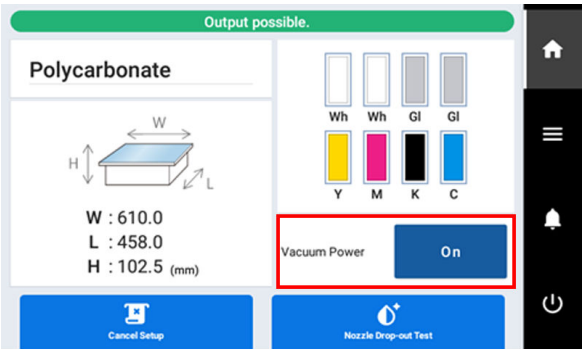
Default setting: [**Automatic**]

Turning the Suction Function On or Off

This operation turns the suction function on or off when [**Manual**] under [**Vacuum**] is selected.

Procedure

1. **Tap [Vacuum Power] on the operation panel's home screen.**
   The suction function turns on (or off).



IMPORTANT

The suction function cannot be used to hold in place warped or thick objects. Use commercially-available adhesive tape or similar to affix the object directly to the vacuum table and secure it.

MEMO

- You can adjust the suction force in [**Media Suction Force**].
- If the object is small, you can further increase the suction force by covering the suction holes at locations where the object is not attached with paper or similar.

MEMO

The suction function cannot be changed in the following situations.

- During setup
- When a menu is displayed
- When an error is displayed

RELATED LINKS

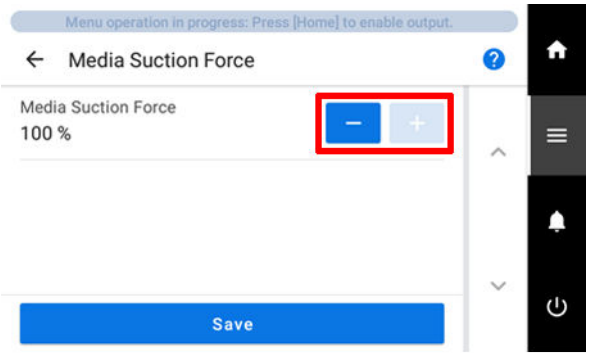
- P. 94 Adjusting the Suction Force

Adjusting the Suction Force

Procedure

1. Set up the object.
   Determining the Print Surface Height and Printing Position(P. 77)
2. Make sure that [Vacuum Power] is turned [On] on the home screen of the operation panel.
3. Tap .
4. Tap [Media Settings]>[Media Suction Force].
5. Tap  and  to set the media suction force.

   Each tap increases or decreases the suction force by 10%.

6. Tap [Save] to confirm your entry.
7. Tap  to return to the home screen.

MEMO

- Default setting: 100 %

Adjusting the Height

Setting the Height of the Object to Be Printed On Manually

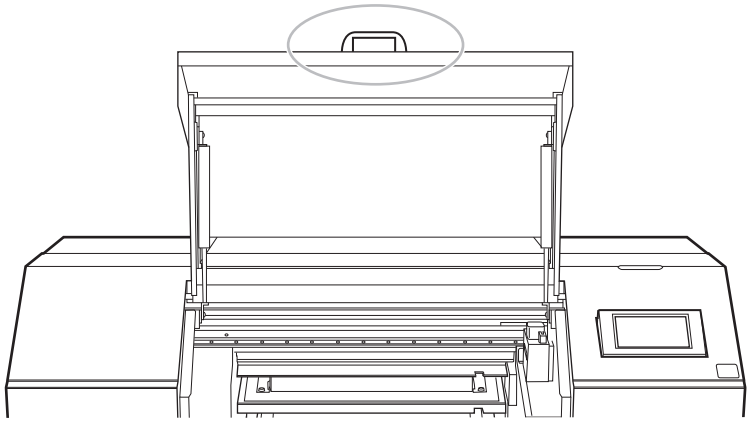
This section explains how to manually set the height of the object to be printed on. This is suited to the case when you do not want the head gap sensor to come in contact with the object to be printed on and the case when you want to set the distance between the print heads and the object to be printed on. The manual setting takes a little longer than the automatic setting because you need to visually set the height. If the print surface is uneven, there is a limit to the area of unevenness.

Procedure

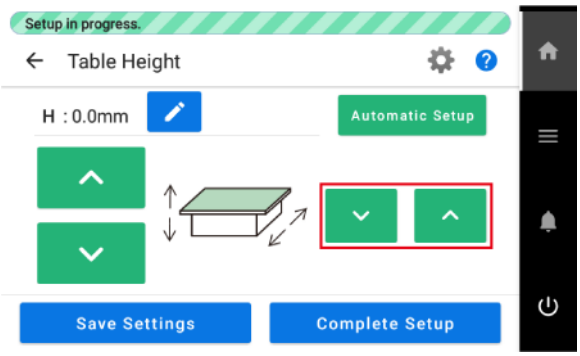
1. **Load the object to be printed on.**
   Loading the Object to Be Printed On(P. 74)
2. **Tap  [Setup].**
3. **Tap [Select] under [Preset], and then select the preset for which you would like to change the settings.**
4. **Tap [Next].**
5. **Tap [Change] next to [Table Height].**
6. **Open the front cover.**

   MEMO

   Be sure to hold the handle of the front cover and keep holding it until the cover is completely opened or closed.
   If you do not open and close the front cover gently, it may break or you may be injured.

   
7. **Move the object to be printed on so that it is under the head gap sensor.**

   Long tap or tap  lined up on the right side of the screen to move the table forward or backward.



MEMO

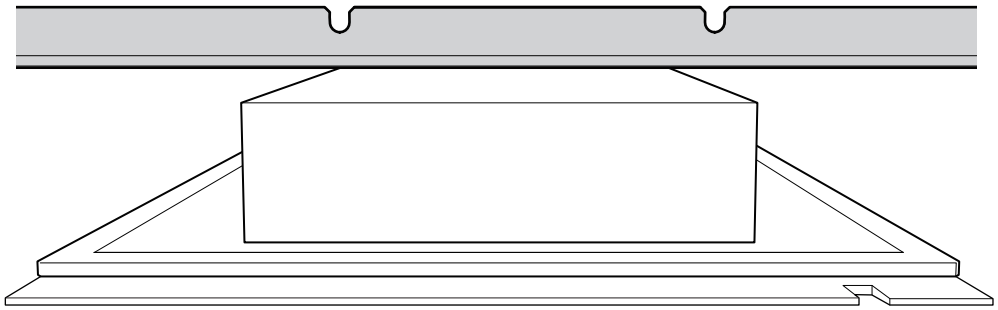
You can also tap  and then enter a value to set the height.

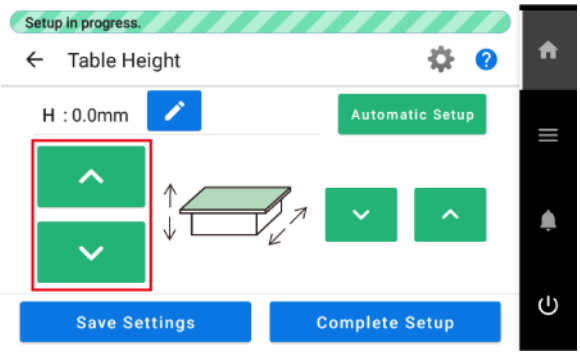
8. Adjust the height of the object to be printed on.

Long tap or tap  lined up on the left side of the screen to adjust the height of the object to be printed on. Move the head gap sensor as close as possible to the print surface.

IMPORTANT

Set the height of the table in a way that the highest position of the print surface will not come into contact with the head gap sensor. Note that print quality will deteriorate as the distance between the head gap sensor and print surface widens.





9. Once the position has been decided, tap [Complete Setup].

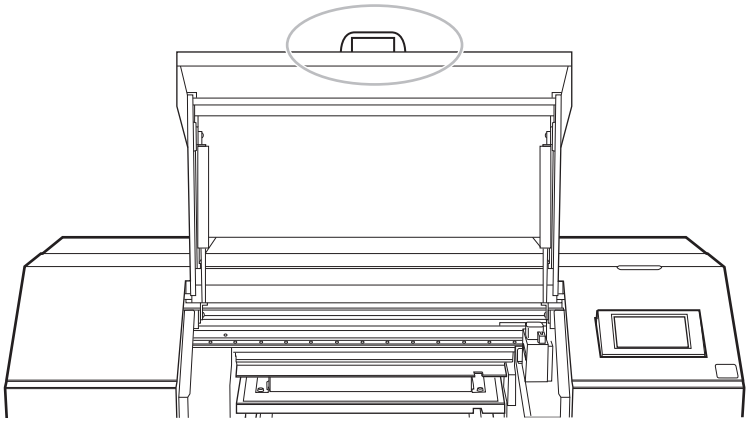
MEMO

Tap [**Save Settings**] to return to the setup item selection screen to change the settings as necessary.

10. **Close the front cover.**

MEMO

Be sure to hold the handle of the front cover and keep holding it until the cover is completely opened or closed.
If you do not open and close the front cover gently, it may break or you may be injured.



RELATED LINKS

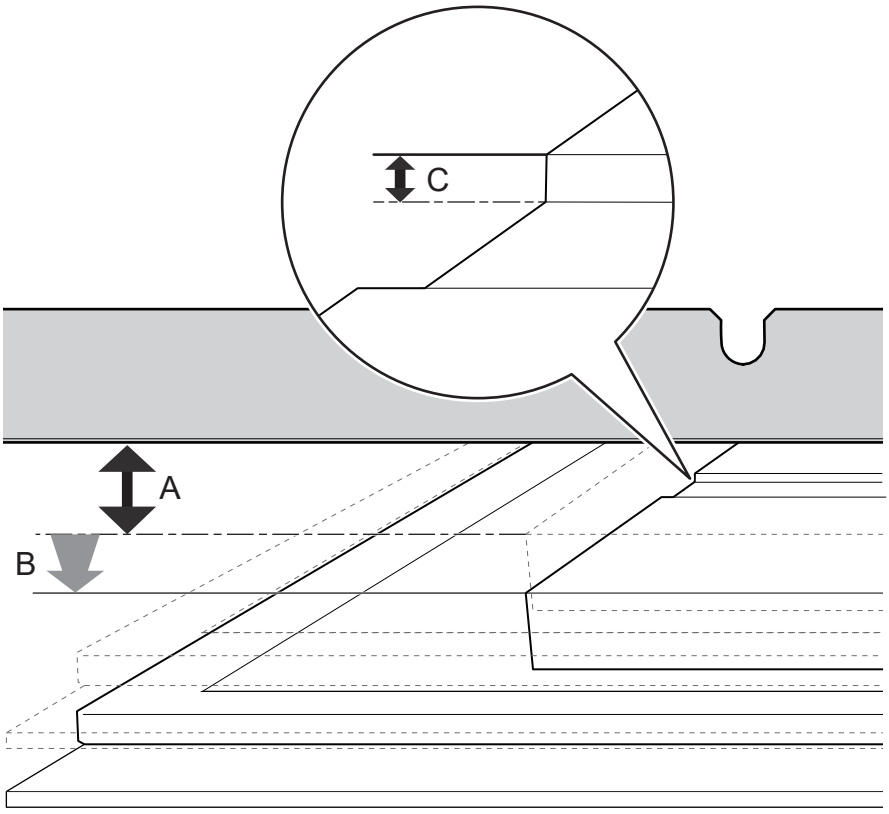
- P. 21 Printable Materials and Shapes
- P. 107 Notes When the Print Surface Is Uneven

Adjusting the Distance between the Object to Be Printed On and the Print Heads

If the height (thickness) of the object to be printed on varies or if the object to be printed on is lifted or warped during printing, the object to be printed on might come into contact with the print heads. You can expand the distance between the object to be printed on and the print heads in the [**Table Lowering Amount**] setting to prevent issues like this from happening.

IMPORTANT

- If the distance is expanded too much, the print quality may be deteriorated and the nozzles of the print heads may be clogged. Configure the settings so that the distance between the highest position of the object to be printed on and the lowest position of the print surface is 2 mm (78.7 mil) or less.
  Notes When the Print Surface Is Uneven(P. 107)
- This setting is enabled when the height of the object to be printed on is set automatically.



A	Height from print heads to print surface when [**Table Lowering Amount**] is not set
B	[**Table Lowering Amount**]
C	2 mm (78.7 mil) or less

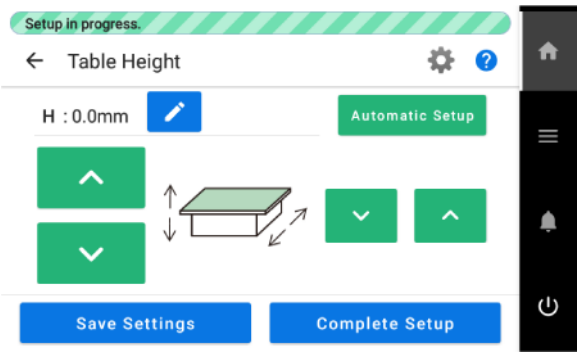
Procedure

1. **Set up the object to be printed on.**

   Refer to Steps 1 through 7 of Determining the Print Surface Height and Printing Position(P. 77) to perform [**Select**] of [**Preset**] and to configure the media reflective intensity setting.

2. **Tap [Change] next to [Table Height].**

The [**Table Height**] screen appears.



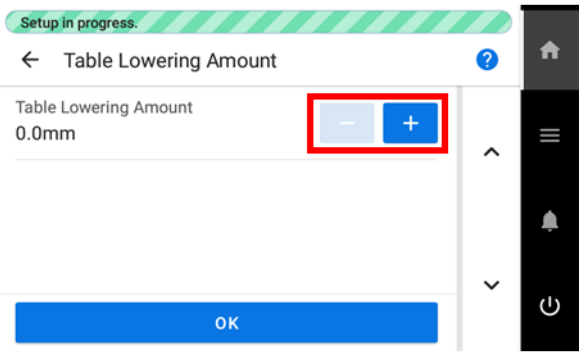
3. **Tap** ⚙.

The [**Table Lowering Amount**] screen appears.

4. **Set the distance between the object to be printed on and the print heads.**

Tap — + to adjust the distance.

You can adjust the distance in increments of 0.1 mm (3.9 mil).



[Table Lowering Amount]	Distance between the object to be printed on and the print heads
[**0.0 mm**]	1.0 mm (39.4 mil)
:	:
[**2.0 mm (0.08 in.)**]	3.0 mm (0.12 in.)

5. **Tap [OK].**

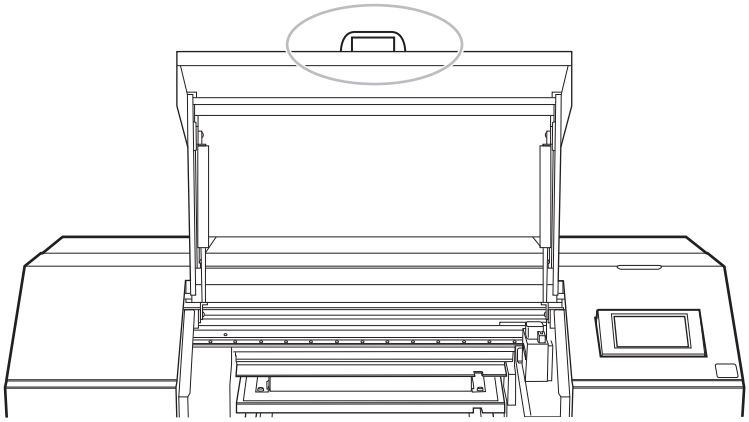
6. **Configure the [Table Height] and the [Print Origin] and [Printing Area] settings.**

Refer to steps 9 through 16 of Determining the Print Surface Height and Printing Position(P. 77) to configure the settings.

7. **Close the front cover.**

MEMO

Be sure to hold the handle of the front cover and keep holding it until the cover is completely opened or closed.
If you do not open and close the front cover gently, it may break or you may be injured.



8. **Tap [Complete Setup].**

MEMO

Tap [**Save Settings**] to return to the setup item selection screen to change the settings as necessary.

MEMO

- Default setting: 0.0 mm

RELATED LINKS

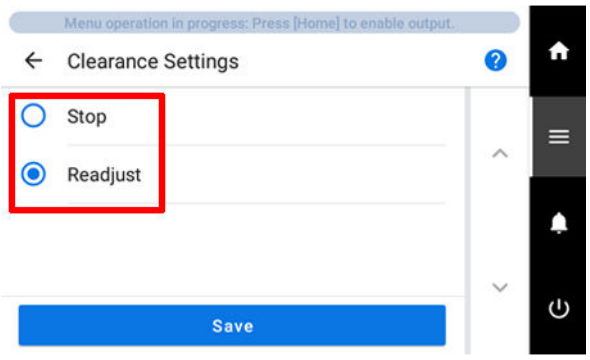
• P. 112 The height of the object to be printed on is detected automatically.

Enabling Automatic Height Adjustment during Printing

These settings allow the table height to be automatically readjusted and printing to continue when shifting or lifting up of the printing position of the object during printing is detected and there is a possibility of the print heads coming into contact with the object. This function is effective when using objects that cannot be reprinted on.

Procedure

1. Tap .
2. Tap [Preferences]>[Clearance Settings].
3. Tap [Clearance Settings] to select [Readjust].



[Clearance Settings]	Description
[Stop]	Cancels printing when the possibility of the print heads coming into contact with the object is detected during printing.
[Readjust]	Readjusts the table height and continues printing when the possibility of the print heads coming into contact with the object is detected during printing.

4. Tap [Save].
5. Tap  to return to the home screen.

MEMO

Default setting: [Stop]

MEMO

- After printing, [The table height was readjusted. Press [OK].] is displayed if the table height was automatically adjusted.
  To prevent [The table height was readjusted. Press [OK].] from being displayed, set [Warning Display] to  (OFF).
- When the table height is readjusted automatically and printing continues, the height setting is changed. Therefore, the print quality may be changed. Hence, proper printing requires that the object to be printed on be secured properly before printing to keep it from moving out of position or lifting up.
- The table height is automatically readjusted when the object comes into contact with the head gap sensor.
- Printing will be canceled in the following cases, even if [Readjust] is selected.

If printing is canceled, [**Table Height Error**] is displayed.

- When the object coming into contact with the head gap sensor is detected even though the flat table has moved to the bottom
- When the height reaches the maximum value (threshold) of automatic adjustment
  The maximum value (threshold) for readjustment can be set.

RELATED LINKS

- P. 42 Alignment of Object to Be Printed On
- P. 93 Turning the Suction Function On or Off
- P. 103 Determining the Maximum Value (Threshold) for Automatic Height Adjustment

Determining the Maximum Value (Threshold) for Automatic Height Adjustment

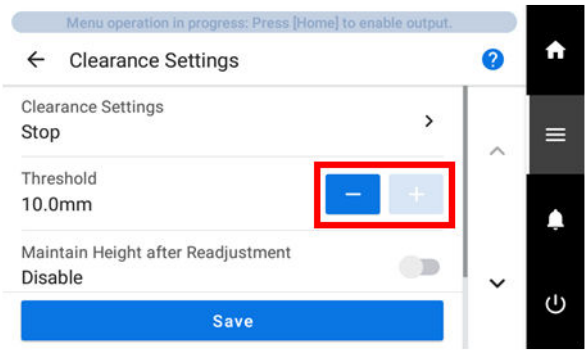
This section explains how to set the maximum value (the threshold) to use when automatically adjusting the height of the table during printing.

If an abnormal media height is detected during printing, the table is automatically lowered to avoid a collision between the print heads and the object, and then the media height is detected again. This operation is automatically repeated until no abnormal media height is detected, and printing continues when the media height is determined to be normal.
When the table lowering amount reaches the maximum value (threshold) for automatic height adjustment, printing is canceled.

This setting is only enabled when [**Readjust**] is selected in [**Clearance Settings**].

Procedure

1. Tap .
2. Tap [Preferences]>[Clearance Settings].
3. Tap  and  to set the [Threshold].



[Threshold]	Description
0.1 mm (0.01 in.) to 10.0 mm (0.39 in.)	The maximum value (the threshold) to use when automatically adjusting the height of the table during printing.

4. Tap [Save].
5. Tap  to return to the home screen.

MEMO

Default setting: 10.0 mm

IMPORTANT

The greater the distance between the print surface and the print head, the greater the trend for the printing image quality to drop. Therefore, it is beneficial to minimize the adjustment width. Keep the following points in mind when determining the setting value.

- Consider the effect on the printing image quality in order to obtain satisfactory image quality.

- The variation in height across the entire print surface (not the print target area but including parts that will not be printed)

RELATED LINKS

- P. 101 Enabling Automatic Height Adjustment during Printing

Reflecting Readjusted Table Heights in Registered Media Settings

Use the setting described here to overwrite the registered media settings with the table height to which the table was readjusted during printing.

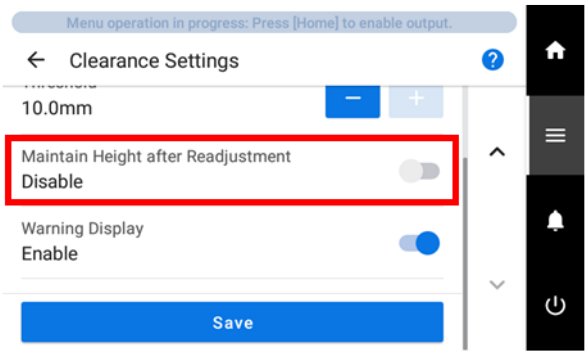
This setting is only enabled when [**Readjust**] is selected in [**Clearance Settings**].

MEMO

When this setting is set to [**Enable**], you can reduce the time it takes for [Readjust] when printing on the same object without changing the media settings. Print time is reduced, but print quality tends to be lower because the distance between the print heads and the object is lengthened. If print quality is important to you regardless of whether it takes more time to print, disable this setting.

Procedure

1. Tap .
2. Tap [Preferences]>[Clearance Settings].
3. Tap  next to [Maintain Height after Readjustment] to change the setting.



[Maintain Height after Readjustment]	Description
	Leaves the registered media settings unchanged.
	Overwrites the registered media settings with the table height to which the table was readjusted during printing.

4. Tap [Save].
5. Tap  to return to the home screen.

MEMO

Default setting:  [**Disable**]

RELATED LINKS

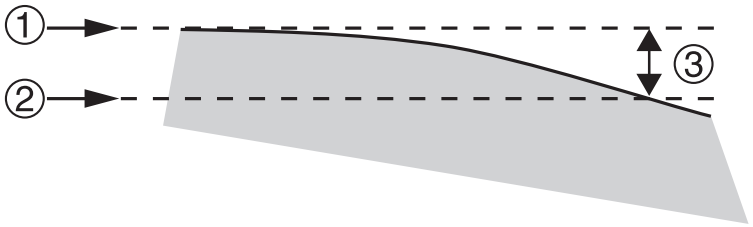
- P. 101 Enabling Automatic Height Adjustment during Printing

Notes When the Print Surface Is Uneven

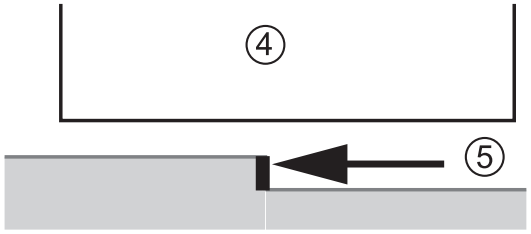
This machine can also print on uneven surfaces. However, remember the following points for the height setting.

- The gap between the "highest position of the object to be printed on" (①) and the "lowest position of the print surface" (②) should be 2 mm (78.7 mil) or less (③; as a general guide).

  Print quality at the lower position degrades as the height gap widens.



- Printing on a surface (⑤) that is perpendicular to the print head (④) is not possible.

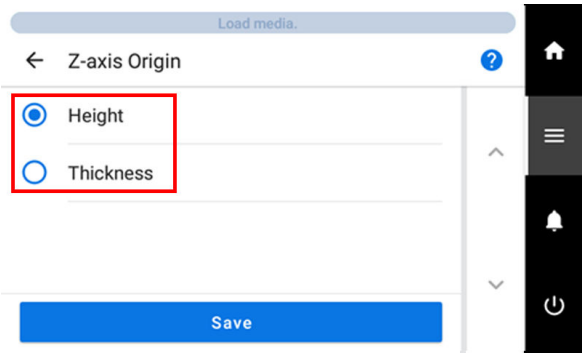


Changing [Z-axis Origin]

You can select whether to set the origin of the Z axis (which indicates the distance in the height direction) to the lowest or highest position on the Z axis.

Procedure

1. Tap .
2. Tap [Preferences]>[Z-axis Origin].
3. Select [Z-axis Origin] from the following.



[Z-axis Origin]	Description
[**Height**]	The lowest state of the table is used as the origin (0 mm) of the Z-axis, and the distance up along the axis from the origin is displayed as [**Height**].
[**Thickness**]	The highest state of the table is used as the origin (0 mm) of the Z-axis, and the distance down along the axis from the origin is displayed as [**Thickness**]. The value displayed as [**Thickness**] takes into account items such as the height of the table. Therefore, the displayed value may differ from the actual thickness of the object to be printed on.

4. Tap [Save].
5. Tap  to return to the home screen.

MEMO

Default setting: [**Height**]

Printing Area Settings

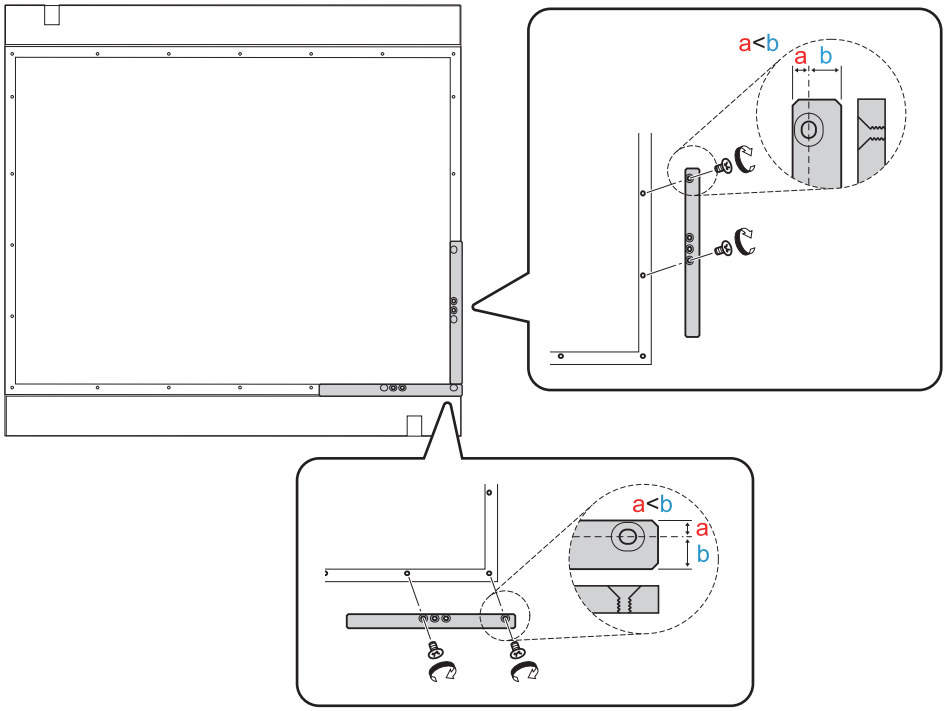
Fixing the Base Position of the Printing Area

You can use a positioning jig to fix the lower right corner of the table as the base position (home position) of the printing area.

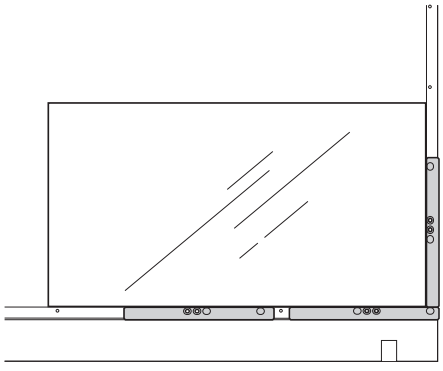
MEMO

The positioning jig has a correct orientation for use. Use the figure below as a reference.

- The fixing holes are close to one side of the jig, with the wider side facing the outside of the table.
- Make sure that the top and bottom sides are correct.
- You can also use multiple positioning jigs according to the size of the object to be printed on.



You can also use multiple positioning jigs according to the size of the object to be printed on.



IMPORTANT

When using positioning jigs, select objects to be printed on that have a thickness of 3 mm (0.1 in.) or more. If the object is less than 3 mm (0.1 in.) thick, the print surface will be lower than the positioning jigs, preventing the height from being set correctly.

Setting the Printing Area Using the Center of the Printing Area as the Base Position

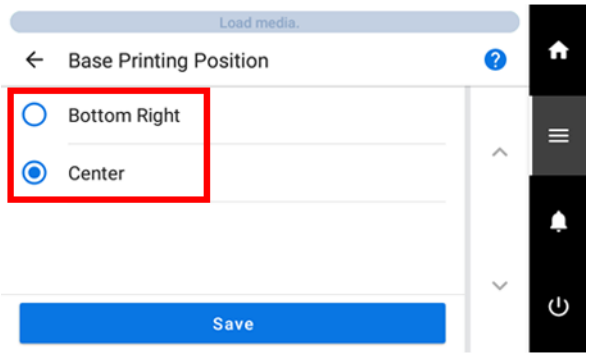
1. Setting the Base Printing Position Setting in the Center

This section explains how to set the print origin to the center of the printing area with the base printing position setting. This setting method is appropriate when clear specification of the printing area is difficult or when the print site is curved or uneven.

Printing area setup can be performed with the front cover open.

Procedure

1. Tap .
2. Tap [Preferences]>[Base Printing Position].
3. Select [Center].



4. Tap [Save].
5. Tap  to return to the home screen.

MEMO

- Default setting: **[Bottom Right]**

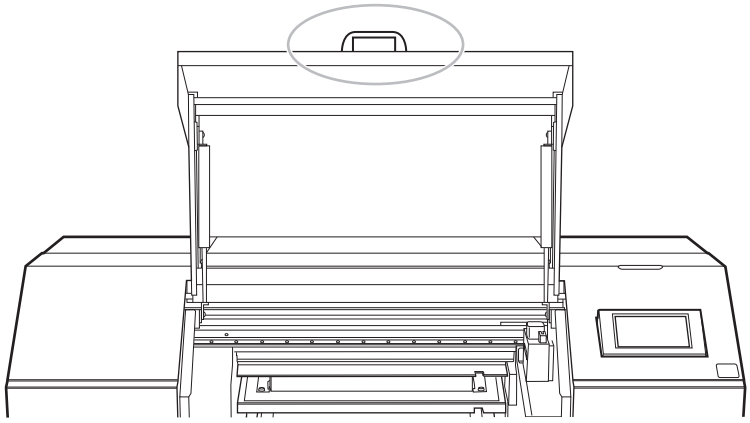
2. Attaching the Object to Be Printed on

Procedure

1. Open the front cover.

MEMO

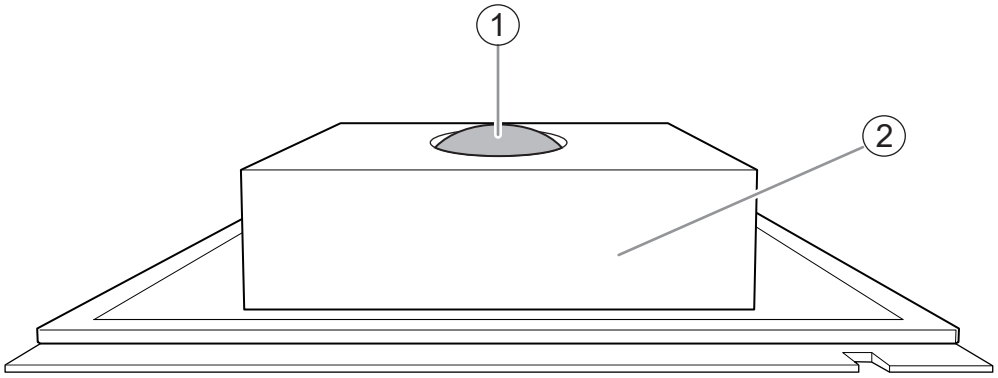
Be sure to hold the handle of the front cover and keep holding it until the cover is completely opened or closed.
If you do not open and close the front cover gently, it may break or you may be injured.



2. **Secure the object (①) to be printed on.**

A jig (②) might be required according to the shape of the object to be printed on.

The following figure shows an example of using jigs to fit the shape of the object to be printed on.

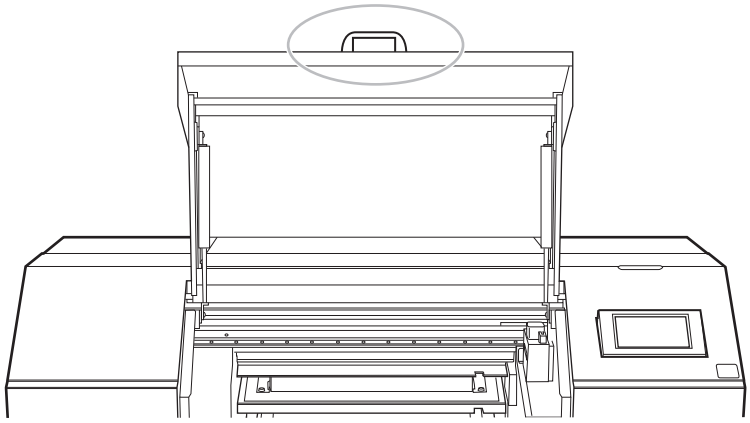


3. **Close the front cover.**

MEMO

Be sure to hold the handle of the front cover and keep holding it until the cover is completely opened or closed.

If you do not open and close the front cover gently, it may break or you may be injured.



RELATED LINKS

- P. 21 Printable Materials and Shapes

3. The height of the object to be printed on is detected automatically.

The height of the object to be printed on is automatically detected, and the print heads are adjusted to the appropriate height for printing.

Procedure

1. **Set up the object to be printed on.**

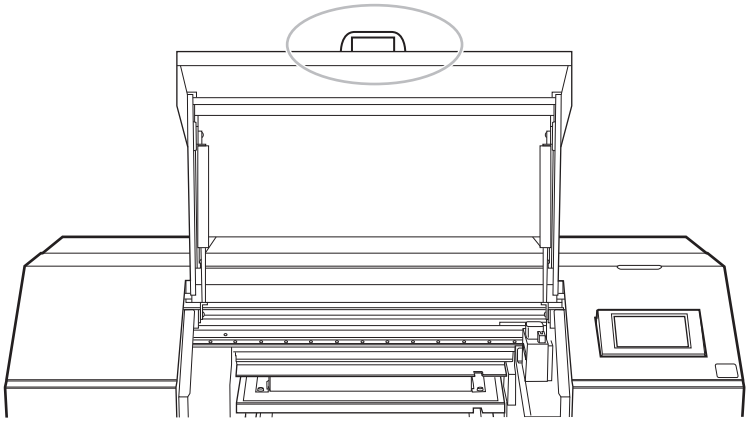
   Refer to Steps 1 through 7 of Determining the Print Surface Height and Printing Position(P. 77) to perform [**Select**] of [**Preset**] and to configure the media reflective intensity setting.

2. **Tap [Change] next to [Table Height].**

3. **Open the front cover.**

   MEMO

   Be sure to hold the handle of the front cover and keep holding it until the cover is completely opened or closed.
   If you do not open and close the front cover gently, it may break or you may be injured.



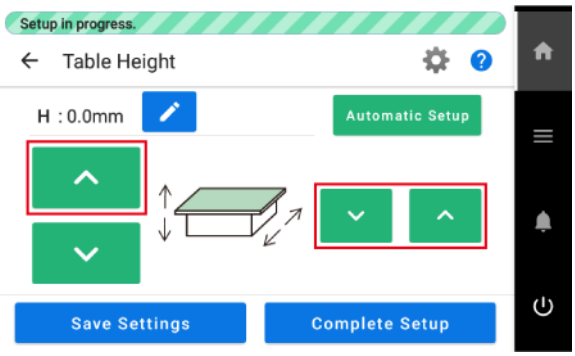
4. **Move the highest position of the printing surface closer to the head gap sensor.**

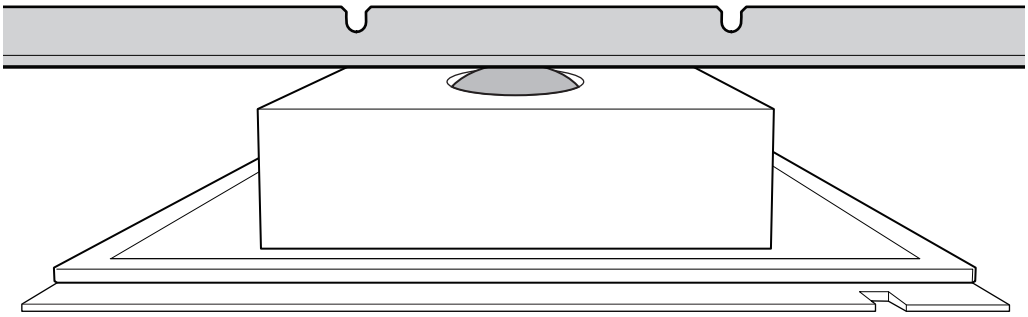
   (1) **Move the object to be printed on so that it is under the head gap sensor.**

   Long tap or tap  lined up on the right side of the screen to move the table forward or backward.

   (2) **Move the highest position of the printing surface closer to the head gap sensor.**

   Long tap or tap  lined up vertically on the left side of the screen to bring the highest printing position of the print surface closer to the head gap sensor.





5. **Tap [Automatic Setup].**

The height of the object to be printed on will be set automatically to a position about 1 mm (39.4 mil) away from the print head's ink emission surface.

MEMO

You can change the distance between the ink emission surface of the print heads and the object to be printed on.

6. **Tap [Save Settings].**

MEMO

Tap [**Save Settings**] if the [**Printing Area**] or [**Print Origin**] settings need to be configured. Tap [**Complete Setup**] to finish the setup and return to the home screen, and output will be possible.

RELATED LINKS

- P. 98 Adjusting the Distance between the Object to Be Printed On and the Print Heads

4. Set the printing area.

For a printing test, set the printing area with W (width) of 150 mm (5.91 in.) or more and L (length) of 75 mm (2.96 in.) or more. An error will occur and printing tests cannot be performed if the area is smaller than this.

Procedure

1. **Tap [Change] next to [Printing Area].**

2. **Tap , , , or once.**

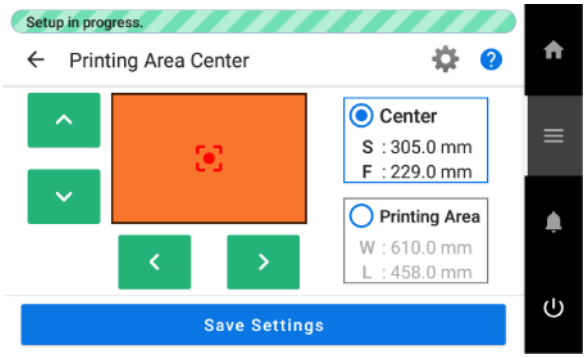
The table and print-head carriage will move, and the pointer will point to the previously-set print origin.

Subsequently, when you have finished setting the printing area, the print-head carriage will automatically return to the standby position to protect the print heads from drying out if they have not been moved by the user for approximately three minutes. Perform the procedure again.

3. **Long tap or tap , , , or to move the pointer to the position (print origin) so that it points to the center of the printing area.**

MEMO

If [**Use coordinates to specify the printing area without moving the carriage or table.**] is enabled, specify the values for [**S**] and [**F**].



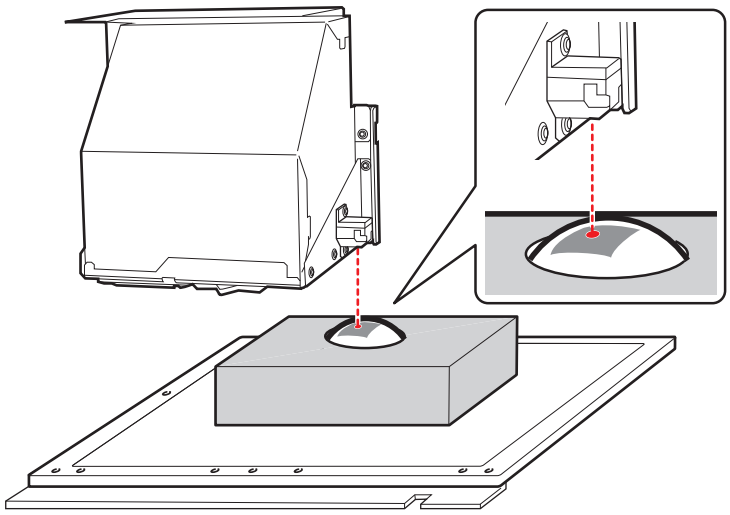
MEMO

When the pointer is difficult to see

Depending on the material of the object to be printed on, such as transparent media or high-gloss media with dark colors used on the print surface, the pointer may be difficult to see. In such cases, the pointer may become more visible by placing masking tape on the print surface or on the back.

MEMO

[**Print Origin**] cannot be changed if [**Base Printing Position**] is set to [**Center**] and [**Printing Area**] is set to the maximum. If [**Printing Area**] is set to the maximum, perform [**Printing Area Settings**] first.

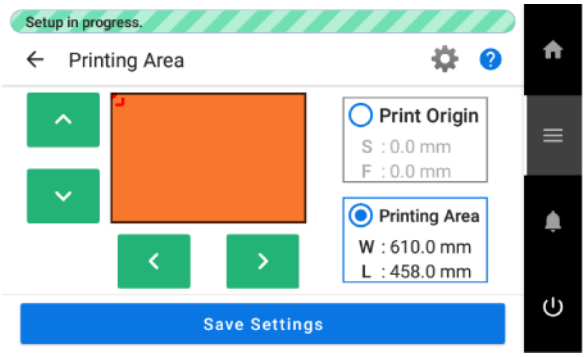


4. **Tap [Printing Area] to select it.**

5. **Tap , , , or to set the printing area W (width) and L (length).**

MEMO

The print-head carriage will not move if [**Base Printing Position**] is set to [**Center**].

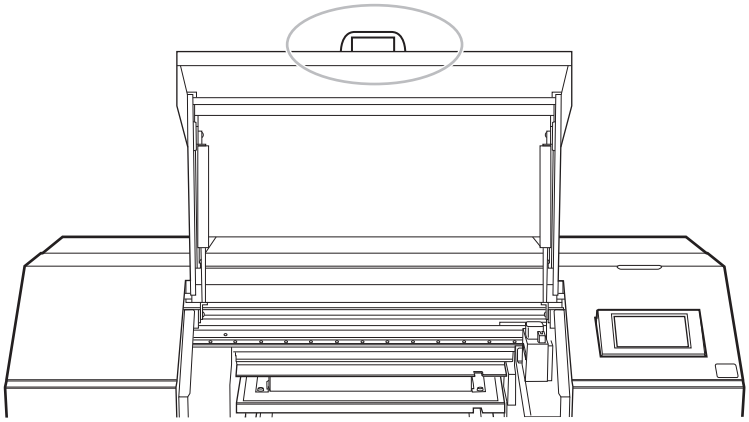


Make sure that the W and L values for the [**Printing Area**] are the values intended.

6. **Close the front cover.**

MEMO

Be sure to hold the handle of the front cover and keep holding it until the cover is completely opened or closed.
If you do not open and close the front cover gently, it may break or you may be injured.



7. **Tap [Complete Setup].**

The printing area is specified and the print-head carriage returns to the standby position.

MEMO

Tap [**Save Settings**] to return to the setup item selection screen to change the settings as necessary.

MEMO

Select the [**Center on the Media**] under [**Position**] in VersaWorks to print.

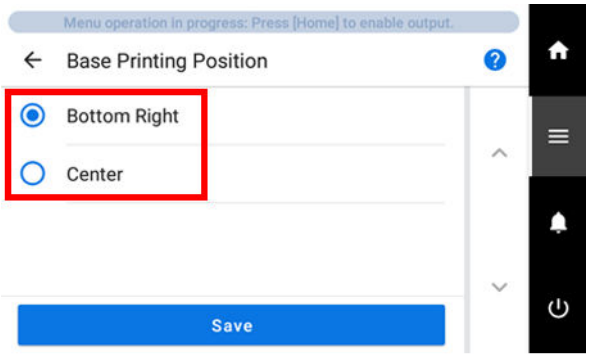
Changing Just the Printing Position Reference Setting (Origin)

You can change just the position reference (origin) for each printing operation.

1. Check that the base printing position setting is set to the lower right.

Procedure

1. Tap .
2. Tap [Preferences]>[Base Printing Position].
3. When [Center] is selected for [Base Printing Position], tap [Bottom Right] to select it.
   If [**Bottom Right**] is already selected, proceed to step 5.



4. Tap [Save].
5. Tap  to return to the home screen.

2. Change the print origin.

Procedure

1. Tap  [Setup] on the operation panel.
   Make sure that the media for which the print origin is to be changed is displayed in [**Preset**].
   If the media is not displayed, tap [**Select**] and select the media to be changed.
2. Tap [Change] next to [Printing Area].
3. Tap [Print Origin], and then tap , , , or  one time.
   The table and print-head carriage will move, and the pointer will point to the previously-set print origin.

Subsequently, when you have finished setting the printing area, the print-head carriage will automatically return to the standby position to protect the print heads from drying out if they have not been moved by the user for approximately three minutes. Perform the procedure again.

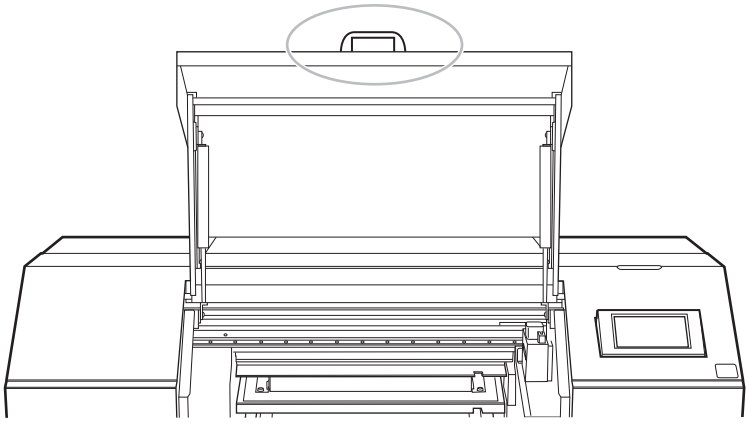
MEMO

If **[Use coordinates to specify the printing area without moving the carriage or table.]** is enabled, the print-head carriage will not move, so the print-head drying protection function will not work.

4. Open the front cover.

MEMO

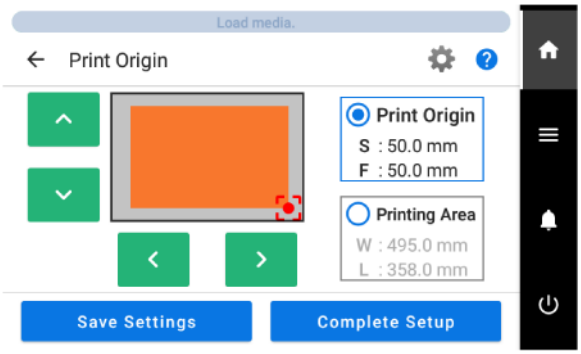
Be sure to hold the handle of the front cover and keep holding it until the cover is completely opened or closed.
If you do not open and close the front cover gently, it may break or you may be injured.



5. Long tap or tap , , , or to move the pointer to the position (origin) so that it points to the right front of the printing area.

MEMO

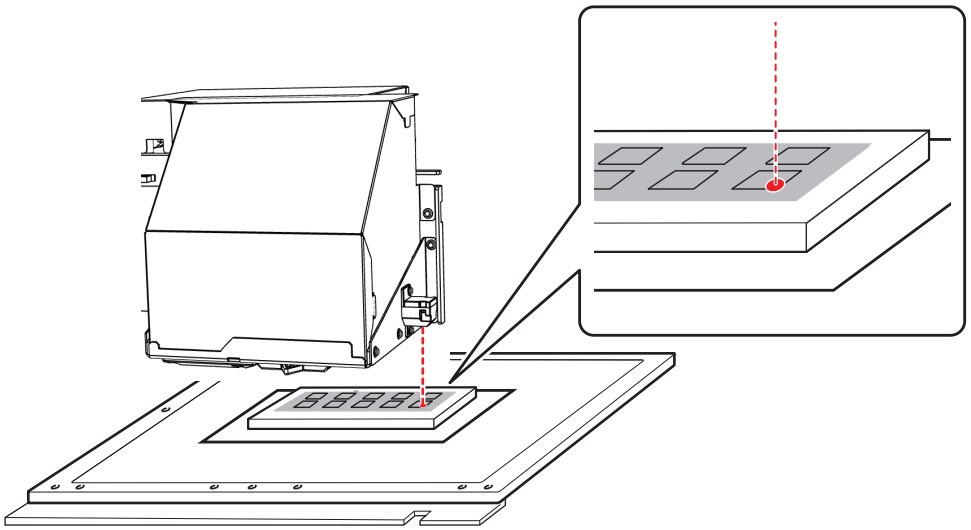
If **[Use coordinates to specify the printing area without moving the carriage or table.]** is enabled, specify the values for **[S]** and **[F]**.



MEMO

When the pointer is difficult to see

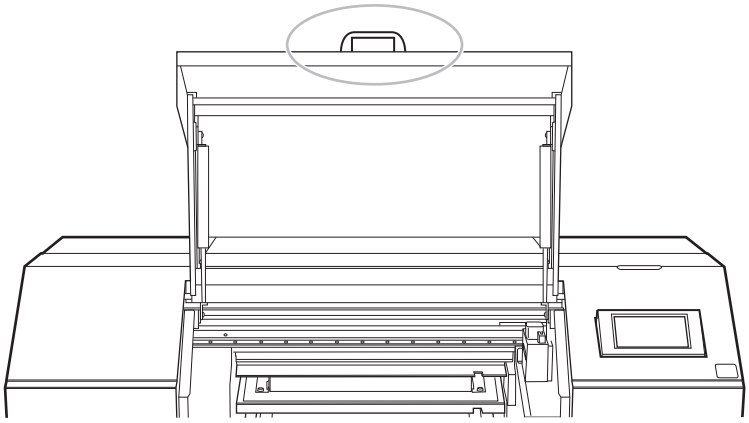
Depending on the material of the object to be printed on, such as transparent media or high-gloss media with dark colors used on the print surface, the pointer may be difficult to see. In such cases, the pointer may become more visible by placing masking tape on the print surface or on the back.



6. **Close the front cover.**

MEMO

Be sure to hold the handle of the front cover and keep holding it until the cover is completely opened or closed.
If you do not open and close the front cover gently, it may break or you may be injured.



7. **Tap [Complete Setup].**

The print origin is changed and the print-head carriage returns to the standby position.

MEMO

Tap [**Save Settings**] to return to the setup item selection screen to change the settings as necessary.

Changing the Operation Performed When Setting Up the Printing Area

This section explains how to change the operation of the machine when setting the print origin and printing area. You can configure settings without moving the print-head carriage or table, or you can set the operation of the up/down buttons to be opposite (*1) to the direction of table movement.

*1: This is an operation setting for the table that assumes the print-head carriage moves in the forward/backward direction.

Procedure

1. **Set up the object to be printed on.**

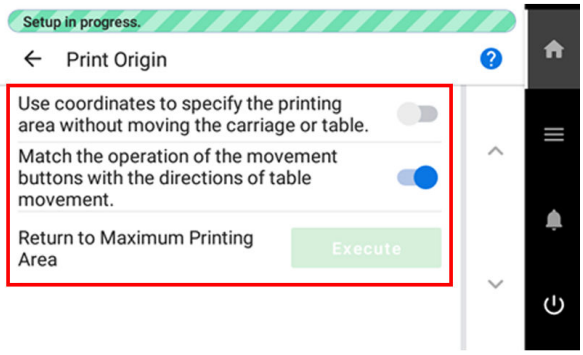
   Refer to steps 1 through 11 of Determining the Print Surface Height and Printing Position(P. 77) to configure settings for outside the printing area.

2. **Tap [Change] next to [Printing Area].**

3. **In the [Printing Area Settings] screen, select the [Print Origin].**

4. **Tap .**

   The [**Print Origin**] screen appears.



5. **Tap , , or [Execute] to change the settings.**

[Use coordinates to specify the printing area without moving the carriage or table.]	Description
	Configure settings without moving the print-head carriage or table. This is used when it is clear in advance at which position on the table the object is to be placed, such as when a retainer is used to hold the object. Tap , , , and on the control panel to specify the location.
	Move the print-head carriage or table, and then use the pointer to check the position of the print-head carriage or table as you configure settings. The print-head carriage and table are moved in conjunction with the , , , and operations on the control panel.

[Match the operation of the movement buttons with the directions of table movement.]	Description
	Tap  on the control panel to move the table toward the back or  to move the table forward.
	Tap  on the operation panel to move the table forward or  to move the table toward the back.

[Return to Maximum Printing Area]	Description
[Execute]	You can tap [**Execute**] when [**Use coordinates to specify the printing area without moving the carriage or table.**] is set to  and the setup of the object to be printed on is not completed.

MEMO

You can select [**Printing Area**] in the [**Printing Area Settings**] screen and then tap  to change the settings.

6. Tap .

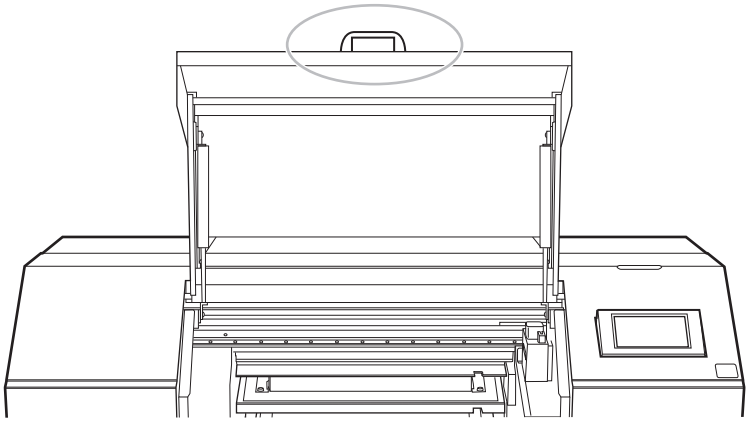
7. **Set the [Print Origin] and [Printing Area].**

Refer to steps 13 through 16 of Determining the Print Surface Height and Printing Position(P. 77) to set the printing area.

8. **Close the front cover.**

MEMO

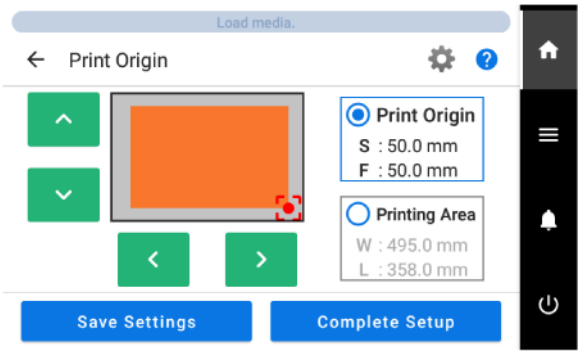
Be sure to hold the handle of the front cover and keep holding it until the cover is completely opened or closed.
If you do not open and close the front cover gently, it may break or you may be injured.



9. **Tap [Complete Setup].**

MEMO

Tap [**Save Settings**] to return to the setup item selection screen to change the settings as necessary.



MEMO

When [**Setup**] has completed for the object to be printed on, you can also change the settings from > [**Media Settings**]>[**Printing Zone**].

MEMO

Default setting:

- [**Use coordinates to specify the printing area without moving the carriage or table.**]: Off
- [**Match the operation of the movement buttons with the directions of table movement.**]: On

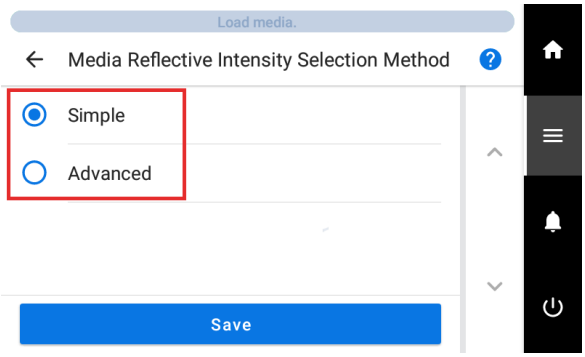
Media Reflective Intensity Selection Method

Changing the Media Reflective Intensity Selection Method

Change how to select the reflective intensity set when setting up an object. Selecting an appropriate reflective intensity will help ensure consistent print quality.

Procedure

1. Tap .
2. Tap [Preferences]>[Media Reflective Intensity Selection Method].
3. Select [Media Reflective Intensity Selection Method] from the following.



[Media Reflective Intensity Selection Method]	Description
[Simple]	Select from [Low], [High], or [Super High] for the media reflective intensity.
[Advanced]	Select the answers to questions displayed on the panel to determine the media reflective intensity.

4. Tap [Save].
5. Tap  to return to the home screen.

MEMO

Default setting: [Advanced]

Simple Media Reflective Intensity Selection

Unlike with the [**Advanced**] setting, the reflective intensity of the media can be selected directly.
This option can be used to reduce setup time if the print data and object details are known in advance.

Procedure

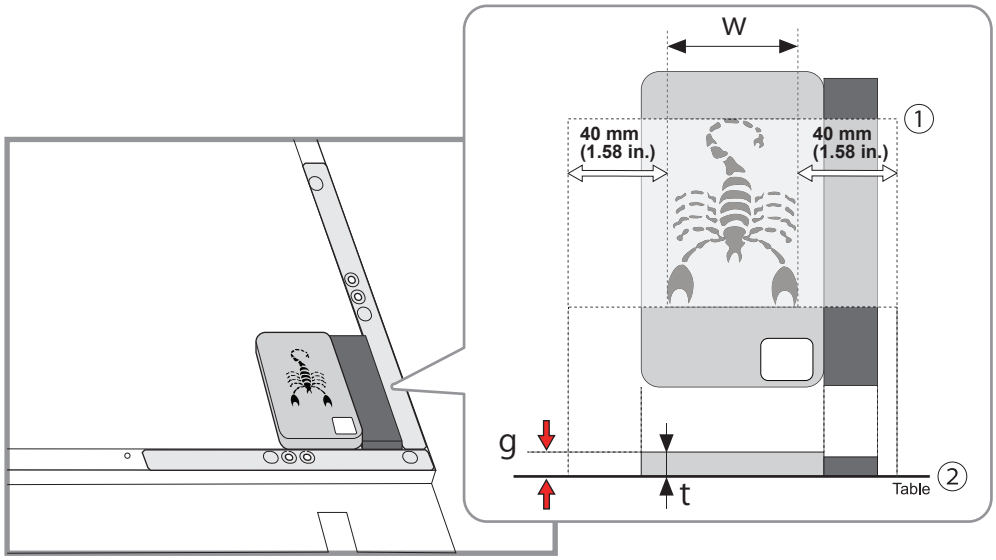
1. **Set up the object to be printed on.**

   Refer to steps 1 through 6 of Determining the Print Surface Height and Printing Position(P. 77) to configure the settings before [**Media Reflective Intensity**].

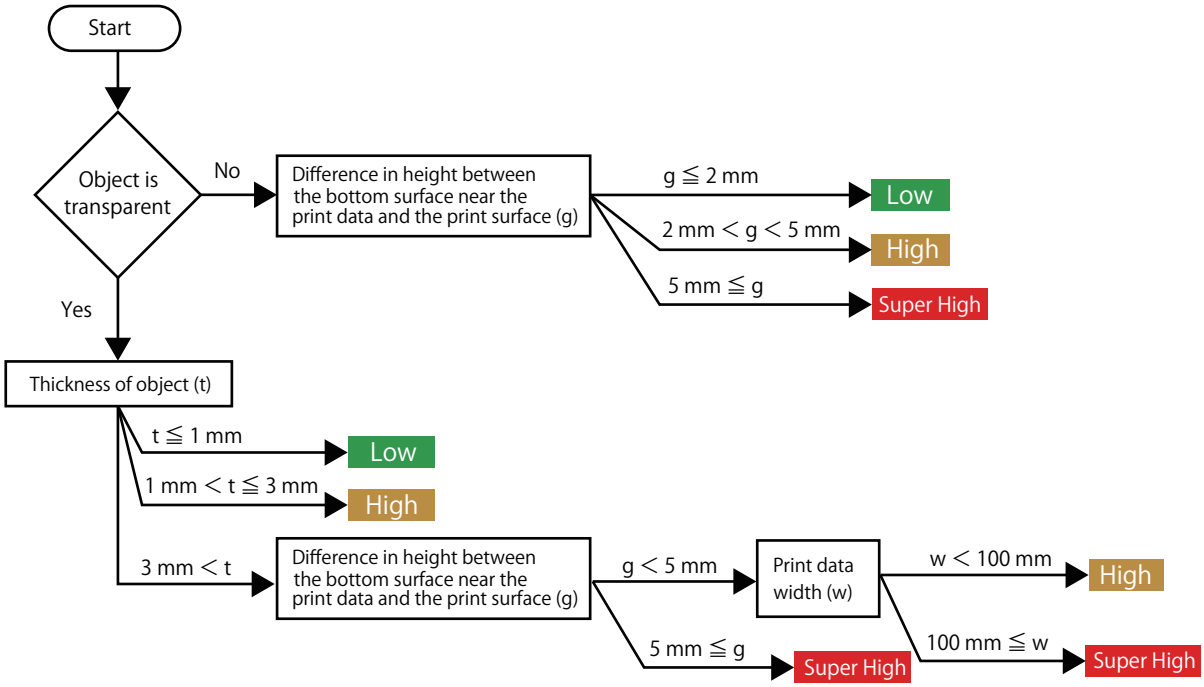
2. **Select the reflective intensity of the object to be printed on with [Media Reflective Intensity], and then tap [Save].**

   Select the appropriate item according to the transparency and thickness (t) of the object to be printed on, the width of the printing data (length in the direction of print-head carriage (w) movement), and the difference in height between the "bottom surface near the print data" and the "print surface." The "difference in height between the bottom surface near the print data and the print surface" is the difference in height between the lowest point (including the table top) and the height of the print surface within 40 mm (1.57 in.) of the print data.

   The figure below shows the "difference in height between the bottom surface near the print data and the print surface." The lowest point in the area enclosed by the dotted line (①) is the table surface (②), so the variation in height in this case is the height between the red arrows (g).



   The selection criteria for reflective intensity are as follows.



MEMO

Determine whether the objects are transparent or opaque according to the following standard.

- Transparent: A hand placed on the other side of the object to be printed on can be seen through it.
- Opaque: A hand placed on the other side of the object to be printed on cannot be seen through it.

3. Complete object setup.

Refer to steps 8 through 18 of Determining the Print Surface Height and Printing Position(P. 77) to complete object setup.

RELATED LINKS

- P. 123 Changing the Media Reflective Intensity Selection Method

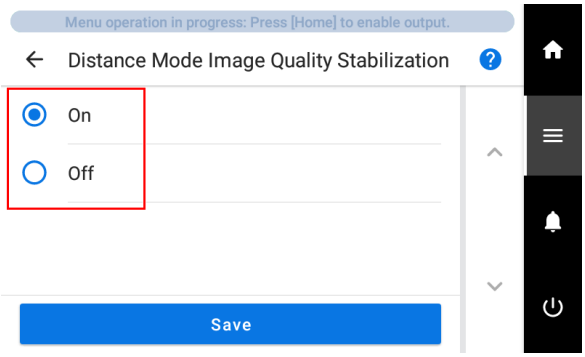
Stabilizing Image Quality on Left Side of Flat Table

Setting [Distance Mode Image Quality Stabilization]

The image quality on the left side of the flat table may feel rough when printing with **[Generic Distance]** or **[Generic Distance (With Primer)]**. Set **[Distance Mode Image Quality Stabilization]** to **[On]** if the quality of the image on the left side of the flat table feels coarse.

Procedure

1. Tap .
2. Tap **[Preferences]**>**[Distance Mode Image Quality Stabilization]**.
3. Tap **[On]**.



[Distance Mode Image Quality Stabilization]	Description
[On]	During printing, the print-head carriage stops momentarily when the print-head carriage returns to the opposite side on the left side of the flat table, stabilizing the image quality on the left side of the flat table.
[Off]	Printing is performed without the print-head carriage stopping when the print heads return to the opposite side on the left side of the flat table.

4. Tap **[Save]** to confirm your entry.
5. Tap  to return to the home screen.

MEMO

- Default setting: **[Off]**

Optimizing Work Efficiency

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Managing the Media Settings

Changing the Media Settings

Use the following procedure to change the media settings. These settings can only be changed for the media being set up.

Procedure

1. **Set up the object to be printed on.**
   Determining the Print Surface Height and Printing Position(P. 77)

2. **Tap**  **.**

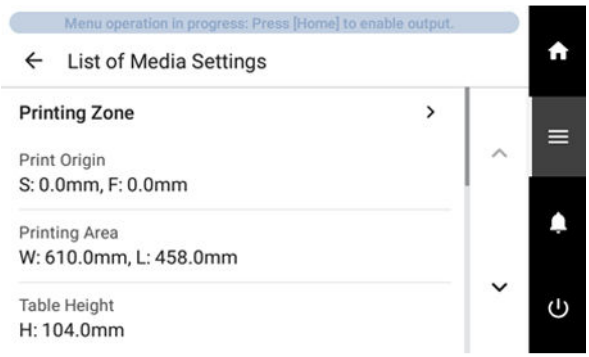
3. **Tap [Media Settings]>[List of Media Settings].**

4. **Tap**  **next to the setting you want to change to move to the screen for editing this setting.**

   The media settings that can be changed are as follows.

   MEMO

   Of the settings in the **[List of Media Settings]**, **[Table Height]** and **[Table Lowering Amount]** cannot be changed.

[List of Media Settings]	Reference page
[Printing Zone]	Determining the Print Surface Height and Printing Position(P. 77)
[Media Reflective Intensity]	Determining the Print Surface Height and Printing Position(P. 77)
[Media Suction Force]	Adjusting the Suction Force(P. 94)
[Printing Movement Range]	Speeding Up Printing for Narrow Objects(P. 137)

5. **If you have changed a setting, tap [Save Settings] or [Save].**

6. **Tap**  **to return to the home screen.**

Changing the Settings with Batch Media Settings

This section explains how to change media settings as a batch during setup.

Procedure

1. Tap .

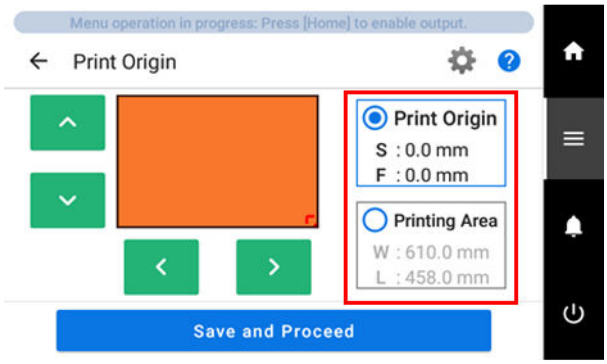
2. **Tap [Media Settings]>[Batch Media Settings].**

   Change the settings for **[Print Origin]**, **[Printing Area]**, **[Media Reflective Intensity]**, **[Media Suction Force]**, **[Output Start Location]** under **[Nozzle Drop-out Test]**, and **[Printing Movement Range]**, in that order.

3. **Change the settings for [Print Origin] and [Printing Area].**

   Refer to steps 13 through 16 of Determining the Print Surface Height and Printing Position(P. 77) to change the settings.

   When you have finished configuring the settings, tap **[Save and Proceed]**.

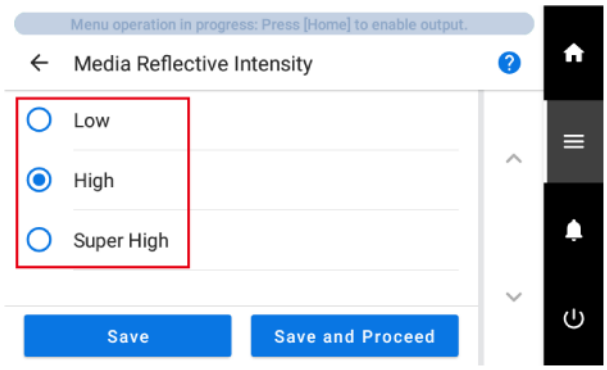


4. **Change the reflective intensity of the object to be printed on with [Media Reflective Intensity].**

   Refer to step 2 of Simple Media Reflective Intensity Selection(P. 124) to change the setting.

   When you have finished configuring the settings, tap **[Save and Proceed]**.

> **MEMO**
>
> If you want to stop after making changes up to this point, tap **[Save]**>.



5. **Change the [Media Suction Force].**

Refer to step 5 of Adjusting the Suction Force(P. 94) to change the setting.

When you have finished configuring the settings, tap **[Save and Proceed]**.

MEMO

- **[Media Suction Force]** is not displayed if a vacuum table is not attached.
- If you want to stop after making changes up to this point, tap **[Save]**> .



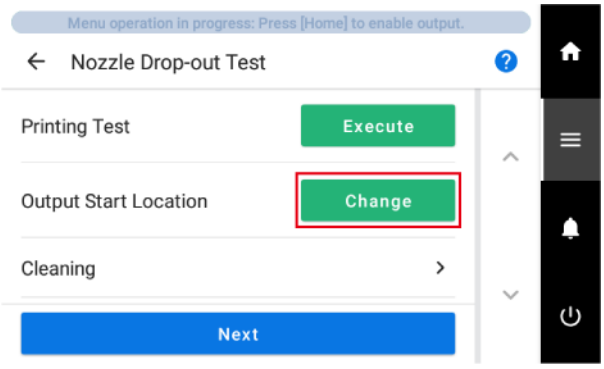
6. **Change the [Output Start Location].**

Refer to Step 3 of Step 2: Performing a Nozzle Drop-out Test(P. 53) to perform the test.

Once you have performed the test, tap **[Next]**.

MEMO

If you want to stop after making changes up to this point, tap .



7. **Change the [Printing Movement Range].**

Refer to step 3 of Speeding Up Printing for Narrow Objects(P. 137) to change the setting.

When you have finished configuring the settings, tap **[Save and Exit]**.

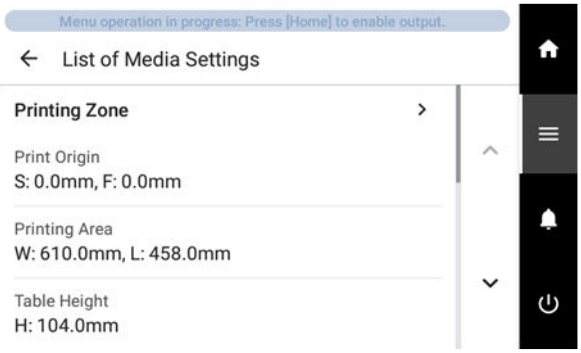


8. Tap  to return to the home screen.

Checking the Registered Media Settings

Procedure

1. Tap .
2. **Tap [Media Management].**
   The registered media are displayed in a list.
3. **Tap a media setting.**
4. **Tap [List of Media Settings].**
   The registered media setting values are displayed in a list.



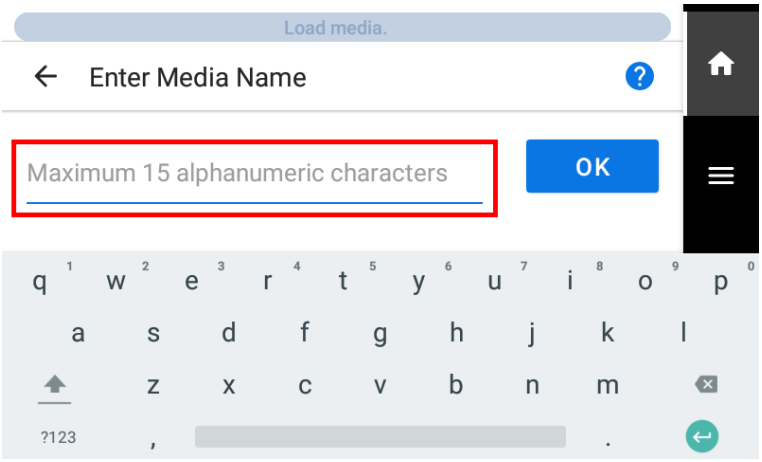
[List of Media Settings]
[Printing Zone]
[Media Reflective Intensity]
[Media Suction Force]
[Printing Movement Range]

5. Tap  to return to the home screen.

Changing the Media Name

Procedure

1. Tap .
2. **Tap [Media Management].**
   The registered media are displayed in a list.
3. **Tap the media whose name you want to change.**
4. Tap .
5. **Tap the input field and enter the media name.**
   You can use up to 15 alphanumeric characters.



6. **Tap [OK] to confirm your entry.**
7. Tap  **to return to the home screen.**

Duplicating Media Settings

This section explains how to duplicate existing media.

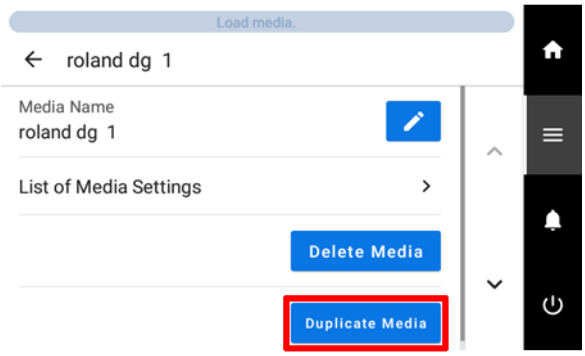
Procedure

1. **Tap** .

2. **Tap [Media Management].**
   The registered media are displayed in a list.

3. **Tap the media to duplicate.**

4. **Tap [Duplicate Media].**



   A screen for entering the name of the duplicated media appears. To create this name, [**COPY**] is added at the start of the name of the media being duplicated.

5. **Enter the media name and tap [OK].**
   You can use up to 15 alphanumeric characters.

6. **Tap**  **to return to the home screen.**

Deleting Media Settings

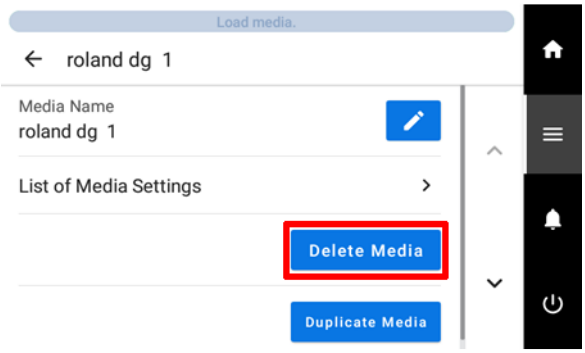
This deletes registered media.

MEMO

This operation cannot be performed on the object to be printed on being set up. To perform this operation, first cancel setup for the object to be printed on.

Procedure

1. Tap .
2. **Tap [Media Management].**
   The registered media are displayed in a list.
3. **Tap the media to be deleted.**
4. **Tap [Delete Media].**



5. **Tap [Yes] when the confirmation screen appears.**
   The media is deleted, and you are returned to the screen listing the registered media.
6. **Tap  to return to the home screen.**

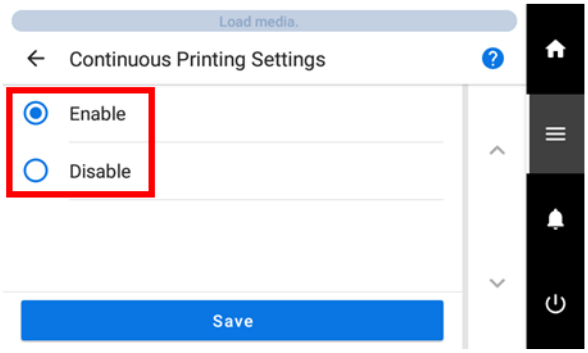
Reducing Output Time

Continuously Printing Multiple Sets of Data

You can set up printing so that when multiple sets of print data are sent at a time from the computer, the sent data is continuously printed.

Procedure

1. Tap .
2. Tap [Preferences]>[Continuous Printing Settings].
3. Select [Continuous Printing Settings] from the following.



[Continuous Printing Settings]	Description
[Enable]	Select this setting when outputting multiple data entries in a row without replacing the object. This function is useful when you want to overlay multiple images on a single object to be printed on.
[Disable]	Select this setting when the object is to be replaced each time one data entry is printed. Even when multiple data entries are sent at a time from the computer, they are not output as a batch, and a message indicating that printing is finished is displayed after each single data entry is printed. Check the message, and then tap [Exit].

4. Tap [Save] to confirm your entry.
5. Tap  to return to the home screen.

MEMO

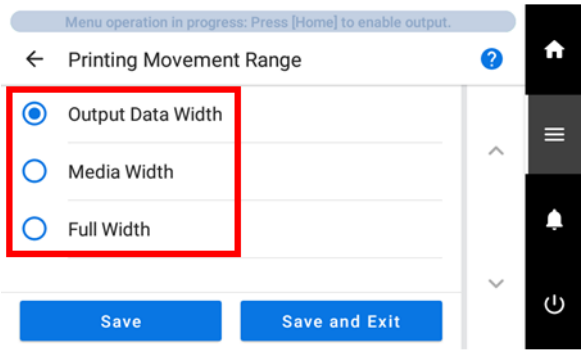
- Default setting: [Disable]

Speeding Up Printing for Narrow Objects

This shortens printing time by reducing the width of print-head carriage movement to the minimum necessary. This feature is effective when the object or print data has a small width.

Procedure

1. Tap .
2. Tap [Media Settings]>[Printing Movement Range].
3. Select [Printing Movement Range] from the following.



[Printing Movement Range]	Description
[Output Data Width]	"OFF" matches the range of print-head carriage movement to the printing data. Movement is limited to the minimum amount necessary, and this can be expected to yield the fastest printing. When this setting is used, the time needed for the ink to harden is not constant, and an uneven color may result.
[Media Width]	This setting aligns the movement range of the print-head carriage with the preset printing area.
[Full Width]	The print-head carriage moves from one end of the machine to the other. This setting makes the speed of print-head carriage movement constant at all times and produces the most stable printing results.

4. Tap [Save] to confirm your entry.
5. Tap  to return to the home screen.

MEMO

- Default setting: [Output Data Width]

Setting the Smallest Possible Printing Area

When [**Media Width**] is selected under [**Printing Movement Range**], you can reduce printing time by specifying the printing area to be a minimum. Specify the printing area to the minimum necessary. This restricts the range of the print-head carriage movement, which reduces the print time.

Example of good settings	Example of bad settings
	
The blank area in the printing area is minimized.	The printing area has a lot of unnecessary blank areas.

Specifying and Outputting VersaWorks Jobs from the Machine

Outputting a Job

You can link this machine to Roland DG Connect Hub and to VersaWorks and output VersaWorks jobs from the machine's operation panel.

Check that all the following conditions are met.

- Roland DG Connect Hub version 3.2.5 or later is installed on the computer where VersaWorks is installed.
- VersaWorks is version 7.6.0 or later.
- Roland DG Connect Hub has started, and you have signed in.
- VersaWorks has started.
- The printer is ready to print (media has been set up).

Procedure

1. **Tap** .
2. **Tap [Job Management]>[Direct Printing].**
   The VersaWorks list is displayed on the computer connected to the machine.
3. **Tap the desired VersaWorks.**
   A list of the queue folders is displayed.
4. **Tap the desired queue folder.**
   The job list is displayed.
   Tap  to update the job and get the latest job status information.
5. **Tap the job you want to print.**
6. **Tap** .
7. **Enter the print count.**

   IMPORTANT

   The print count is output with the print count set in VersaWorks as a unit of one.
   If the print count in VersaWorks is set to two times, the actual output count according to the instructions on the operation panel is as follows.
   - With "One time" specified on the operation panel: The print count is output twice.
   - With "Two times" specified on the operation panel: The print count is output four times.
8. **Tap [Execute].**
   The job is printed.

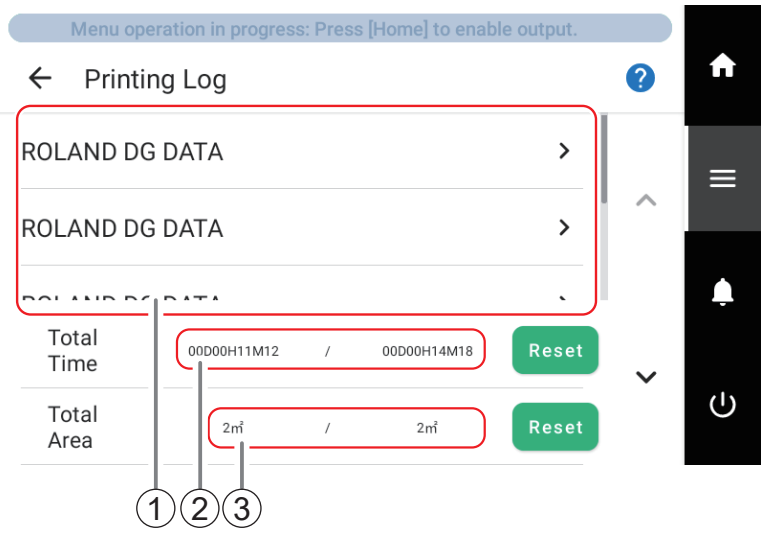
Displaying the Printing Log

Displays [**Printing Log**].
The [**Job Properties**] for each job and the [**Total Time**] and [**Total Area**] for all jobs, can be checked.
First check that VersaWorks is version 7.6.0 or later.

Procedure

1. Tap .

2. **Tap [Job Management]>[Printing Log].**
   The following is displayed.



①	[**Printing Log**] Tap a job to display the following [**Job Properties**]. • [**Job Name**] • [**Copy**] • [**Print Start Time**] • [**Print End Time**] • [**Required Time**]
②	[**Total Time**] */* is displayed. The left side indicates the trip [**Total Time**], and the right side indicates the total [**Total Time**]. • Trip [**Total Time**] Displays the total printing hours for any period of time, such as daily or weekly. To reset to 0, tap [**Reset**]. Reset when you wish to start measurement. • Total [**Total Time**] Displays the total cumulative printing time. This function cannot be reset.
③	[**Total Area**] */* is displayed. The left side indicates the trip [**Total Area**], and the right side indicates the total [**Total Area**]. • Trip [**Total Area**] Displays the total printing area for any period of time, such as daily or weekly. To reset to 0, tap [**Reset**]. Reset when you wish to start measurement. • Total [**Total Area**] Displays the total cumulative printing area. This function cannot be reset.

3. **To check the [Job Properties] for a specific job, select the job.**
   The [**Job Properties**] appears.

4. **Tap  to return to the home screen.**

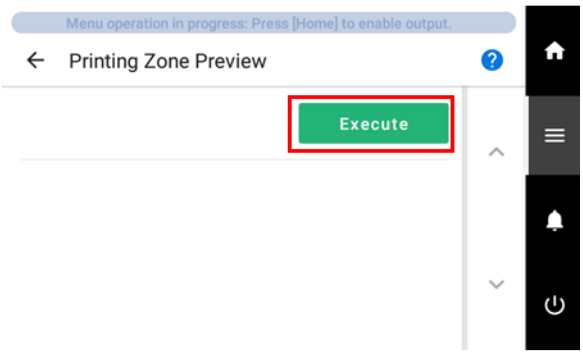
Other Useful Functions

Using the Printing Zone Preview

The printing zone of the set up media is indicated with pointers.

Procedure

1. **Set up the object.**
   Determining the Print Surface Height and Printing Position(P. 77)
2. **Tap** .
3. **Tap [Preferences]>[Printing Zone Preview].**
4. **Tap [Execute].**
   The set print range is indicated by the pointer.



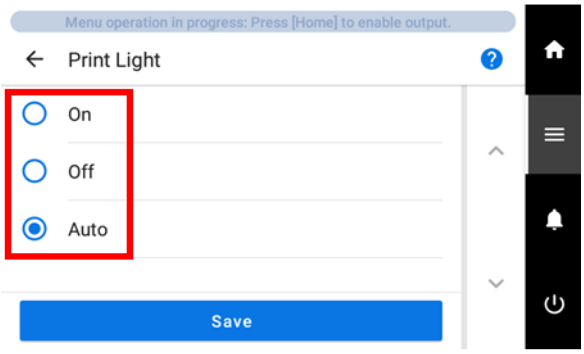
5. **Tap**  **to return to the home screen.**

Using the Print Light (Interior Light)

You can select the status of the light that shines on the table.

Procedure

1. Tap .
2. Tap [Preferences]>[Print Light].
3. Select the [Print Light] setting from the following.



[Print Light]	Description
[On]	The light is on at all times.
[Off]	The light is off at all times.
[Auto]	The light is turned on or off automatically according to the status of the printer.

4. Tap [Save] to confirm your entry.
5. Tap  to return to the home screen.

MEMO

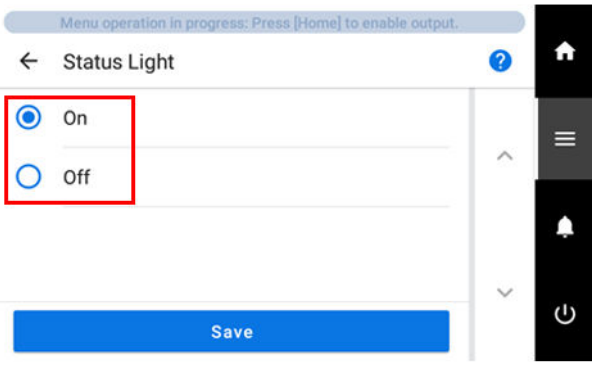
- Default setting: [Auto]

Using the Status Light

This section explains how to set whether to turn the status light to indicate the status of the machine on or off.

Procedure

1. Tap .
2. Tap [Preferences]>[Status Light].
3. Select the [Status Light] setting from the following.



[Status Light]	Description
[On]	Activates the status light that indicates the status of the machine.
[Off]	Turns off the status light.

4. Tap [Save] to confirm your entry.
5. Tap  to return to the home screen.

MEMO

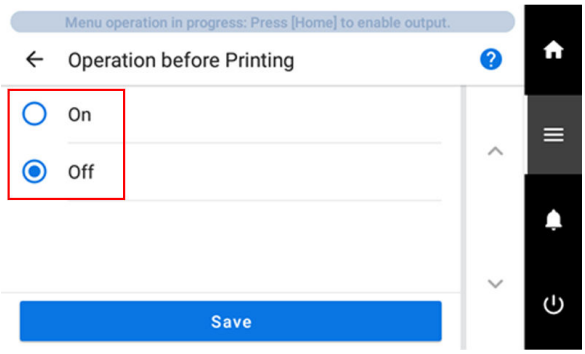
- Default setting: [On]

Performing [Operation before Printing]

Set whether to check the height of the object before starting printing.

Procedure

1. Tap .
2. Tap [Preferences]>[Operation before Printing].
3. Select [Operation before Printing] from the following.



[Operation before Printing]	Description
[On]	The table moves all the way to the back and then to the starting printing position so that the height of the object can be checked before printing begins.
[Off]	The height of the object is not checked before printing.

4. Tap [Save] to confirm your entry.
5. Tap  to return to the home screen.

MEMO

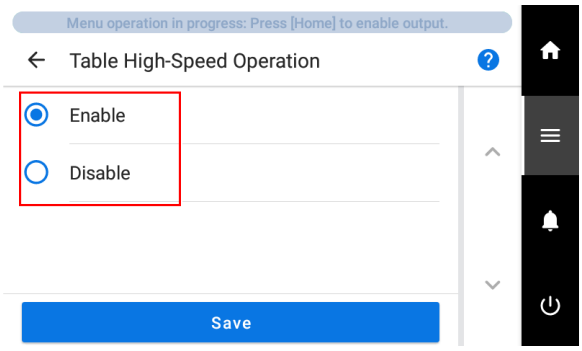
- Default setting: [On]

Changing the Flat Table Operating Speed

The flat table operation speed can be increased for operations other than printing. The speed at which the flat table moves, such as the printer initialization speed, can be changed.

Procedure

1. Tap .
2. Tap [Preferences]>[Table High-Speed Operation].
3. Select [Table High-Speed Operation].



[Table High-Speed Operation]	Description
[Enable]	The flat table operates at a faster speed for operations other than printing.
[Disable]	The flat table operates more slowly.

4. Tap [Save] to confirm your entry.
5. Tap  to return to the home screen.

MEMO

- Default setting: [Disable]

Setting the Ink Circulation Interval

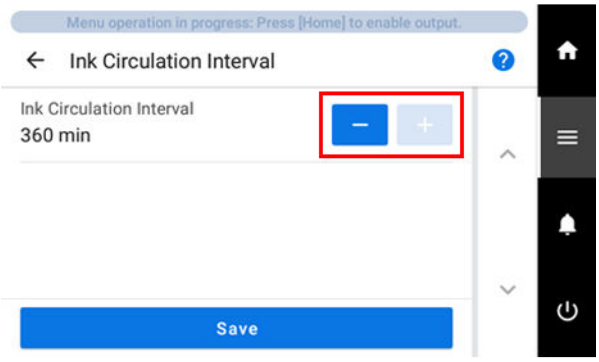
MEMO

This menu cannot be selected when using a four-color (CMYK) ink type and white ink is not used.

This section explains how to set the circulation of white ink at set intervals of time.

Procedure

1. Tap .
2. Tap [Preferences]>[Ink Circulation Interval].
3. Select [Ink Circulation Interval] from the following.



[Ink Circulation Interval]	Description
30 to 360 min*1	Sets the circulation of white ink at set intervals of time.

*1 Increase or decrease in 30 minute increments.

4. Tap [Save] to confirm your entry.
5. Tap  to return to the home screen.

MEMO

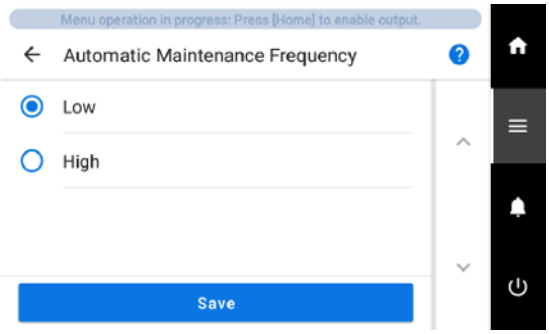
- Default setting: 360 min.

Setting the Automatic Maintenance Frequency

This machine periodically performs automatic cleaning such as cleaning before printing and cleaning that depends on the printing time. You can set the frequency of this automatic cleaning.

Procedure

1. Tap .
2. Tap [Preferences]>[Automatic Maintenance Frequency].
3. Select [Automatic Maintenance Frequency] from the following.



[Automatic Maintenance Frequency]	Description
[Low]	Maximizes the interval between cleaning, minimizing the amount of ink and cleaning liquid that are used. Automatic cleaning is performed at the longest interval possible, so perform [**Normal Cleaning**] and similar cleaning if necessary.
[High]	Minimizes the interval between cleaning, keeping the print head nozzle surfaces in optimal condition at all times. A large amount of ink and cleaning liquid is used, but the frequency of [**Normal Cleaning**] and similar cleaning that you have to perform is minimized.

4. Tap [Save] to confirm your entry.
5. Tap  to return to the home screen.

MEMO

- Default setting: [**High**]

Changing the Operation Performed when Setting the Printing Test Start Location

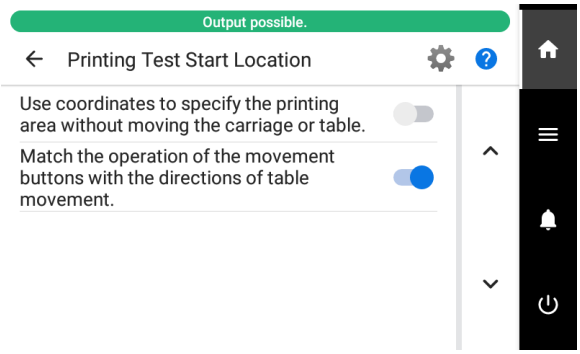
Procedure

1. **Set up the object to be printed on.**
   Determining the Print Surface Height and Printing Position(P. 77)

2. **Tap [Nozzle Drop-out Test] on the home screen.**

3. **Tap [Change] next to [Output Start Location].**
   The [**Printing Test Start Location**] screen appears.

4. **Tap .**



5. **Tap or to change the settings.**

[Use coordinates to specify the printing area without moving the carriage or table.]	Description
	Set [**Printing Test Start Location**] without moving the print-head carriage or table. Tap , , and on the control panel to specify the location.
	Move the print-head carriage or table, and then use the pointer to check the position of the print-head carriage or table as you configure settings. The print-head carriage and table are moved in conjunction with the , , , and operations on the control panel.

[Match the operation of the movement buttons with the directions of table movement.]	Description
	Tap on the control panel to move the table toward the back or to move the table forward.

[Match the operation of the movement buttons with the directions of table movement.]	Description
	Tap  on the operation panel to move the table forward or  to move the table toward the back.

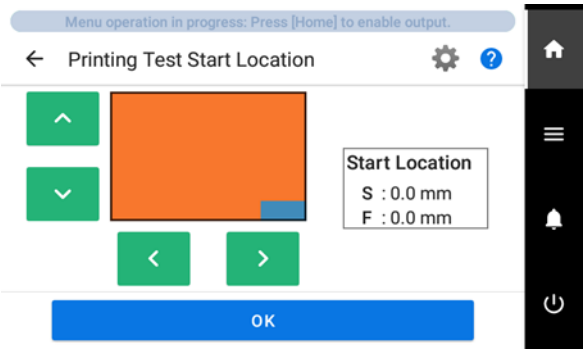
6. Tap ←.

7. **Set the printing test start location.**

   Tap , , , and  to set the printing test start location.

   MEMO

   The [S] and [F] coordinate values are displayed as the printing area required for the printing test (displayed in blue) is moved up, down, left, and right.



8. **Tap [OK].**

9. **Tap [Execute] next to [Printing Test].**

   Printing of the test pattern starts.

   MEMO

   Depending on the color of the object to be printed on, it may be difficult to check the white ink test pattern.

   Tap  **[Nozzle Drop-out Test]** on the home screen, select **[Cleaning]**>**[Printing Test]**>**[Nozzle Drop-out Test (Base: Black)]** in that order, and then tap **[Execute]**>**[Yes]** to make the base of the white ink black, making it easier to check the white ink.

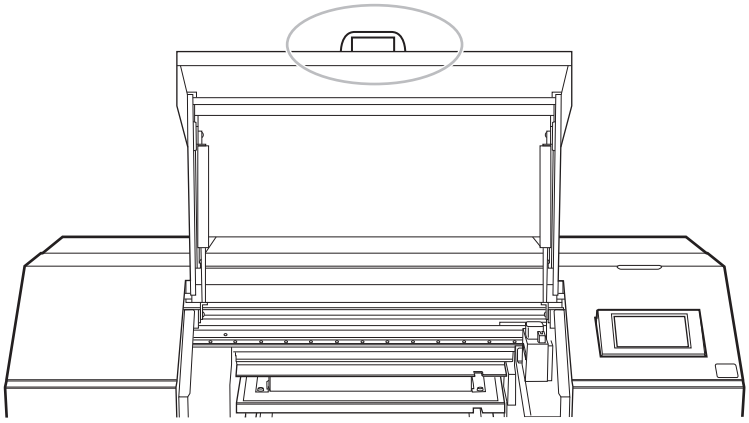
   [Nozzle Drop-out Test (Base: Black)] is not displayed if the machine is not equipped with white ink.

10. **Open the front cover.**

    MEMO

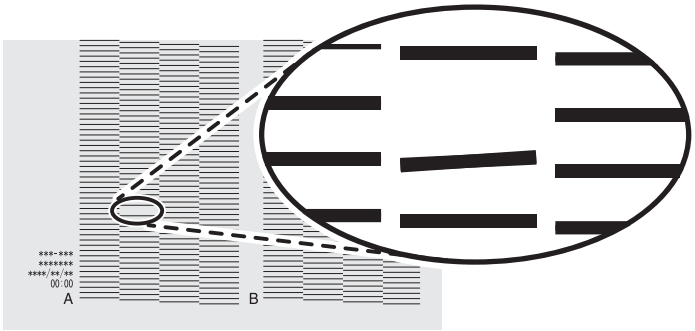
    Be sure to hold the handle of the front cover and keep holding it until the cover is completely opened or closed.

    If you do not open and close the front cover gently, it may break or you may be injured.



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

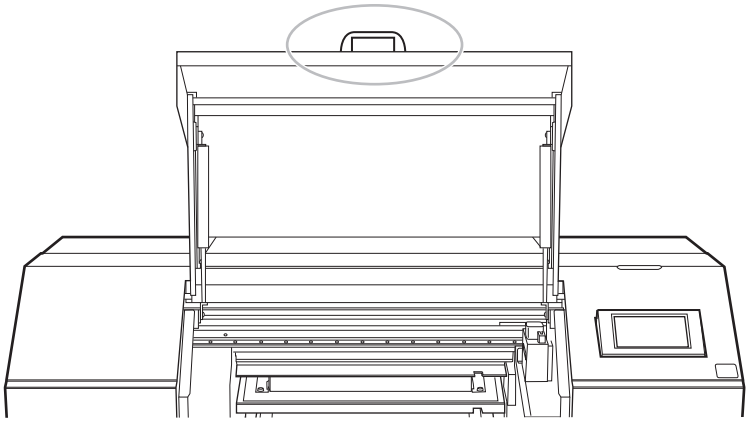
Missing blocks indicate dot drop-out. Collapsed or inclined blocks indicate dot displacement.



12. **Close the front cover.**

MEMO

Be sure to hold the handle of the front cover and keep holding it until the cover is completely opened or closed.
If you do not open and close the front cover gently, it may break or you may be injured.



If no dot drop-out or dot displacement occurs, preparations for output are finished.

MEMO

Default setting:

- **[Use coordinates to specify the printing area without moving the carriage or table.]**: Off

- [Match the operation of the movement buttons with the directions of table movement.]: On

RELATED LINKS

- P. 203 When Dot Drop-out or Dot Displacement Occurs

Changing the Printing Test Printing Position

When performing printing tests successively, you can select [**Feed**] (vertical printing), [**Scan**] (horizontal printing), or [**None**] (same location printing) as the printing position for the second and later tests in comparison to the first test.

MEMO

This setting changes the printing test position for the nozzle drop-out test. The printing test position for the nozzle mask test is not changed.

Procedure

1. Tap .
2. Tap [Preferences]>[Printing Test Position].
3. Select the printing test position.



[Printing Test Position]	Description
[Feed]	When performing printing tests successively, the second and subsequent printing positions are printed vertically in relation to the first printing position.
[Scan]	When performing printing tests successively, the second and subsequent printing positions are printed at the same position as the first printing position.
[None]	When performing printing tests successively, the second and subsequent printing positions are printed at the same position as the first printing position. *1

*1 When performing the second or subsequent printing tests, replace the object.

4. Tap [Save] to confirm your entry.
5. Tap  to return to the home screen.

MEMO

Default setting: [**None**]

Print with crop marks.

"Crop marks" are marks used to align positions. They are also called "alignment marks."

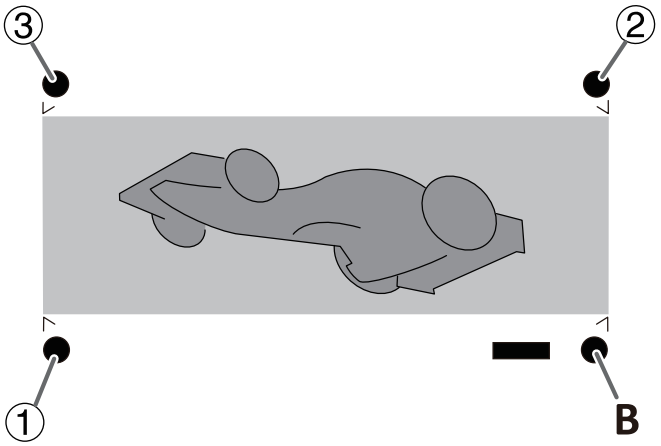
If you are removing the object that has been printed on and cutting it with a Roland DG Corporation cutting machine, you have to align the printing and cutting positions. By printing the data together with crop marks, you can make it possible to align the positions using the crop marks.

Procedure

1. **Use your software RIP to configure the settings for printing crop marks. For information on how to make the setting, refer to the documentation for the software RIP you're using.**

IMPORTANT

- When printing with crop marks, media with a minimum W (width) of 61 mm (2.41 in.) and L (length) of the print data plus 45 mm (1.77 in.) is required.
- The crop marks are printed as shown in the figure.



①②③	Align points
B	Base point

RELATED LINKS

- VersaWorks manual

Optimizing Operation Management

Managing the Operations Appropriately and Efficiently 156
Sounding a Buzzer to Notify the User of the End of Printing 156
Setting the Time before Automatically Returning to Home Screen 157
Setting the Current Date/Time and Using It for Maintenance 158
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Viewing Printer Information 166
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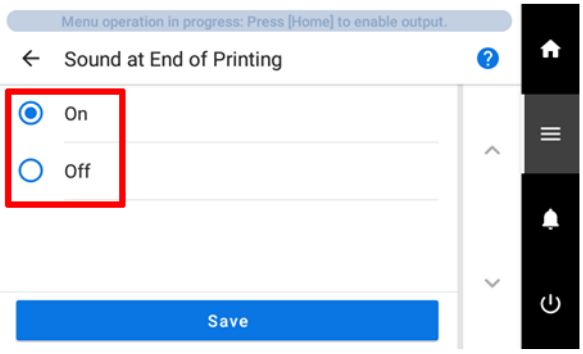
Managing the Operations Appropriately and Efficiently

Sounding a Buzzer to Notify the User of the End of Printing

You can configure the settings so that the user is notified of the end of printing with a buzzer.

Procedure

1. Tap .
2. Tap [Preferences]>[Sound at End of Printing].
3. Tap [On] to select it.



4. Tap [Save].
5. Tap  to return to the home screen.

MEMO

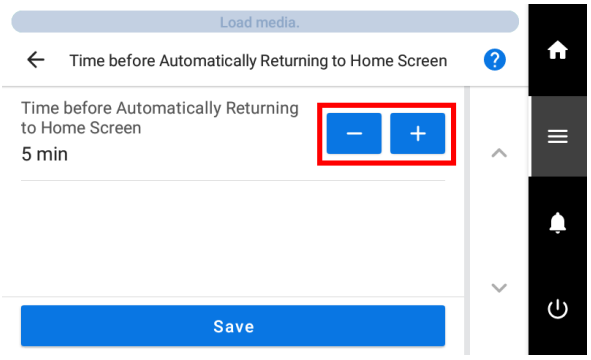
- Default setting: [Off]

Setting the Time before Automatically Returning to Home Screen

When [**Menu operation in progress.**] is displayed in the status bar, such as when each setting screen is open, the system will automatically return to the home screen after a set amount of time has elapsed.

Procedure

1. Tap .
2. Tap [Preferences]>[Time before Automatically Returning to Home Screen].
3. Tap  to set the [Time before Automatically Returning to Home Screen].



[Time before Automatically Returning to Home Screen]	Description
Off to 30 min*1	This setting automatically closes the open menu screen and returns to the home screen after a set amount of time has elapsed. If the menu screen is open while printing is possible, printing will not start even if print data is sent to the machine. Close the open menu screen and return to the home screen so that you can start printing.

*1 Increase or decrease in 1 minute increments.

4. Tap [Save].
5. Tap  to return to the home screen.

MEMO

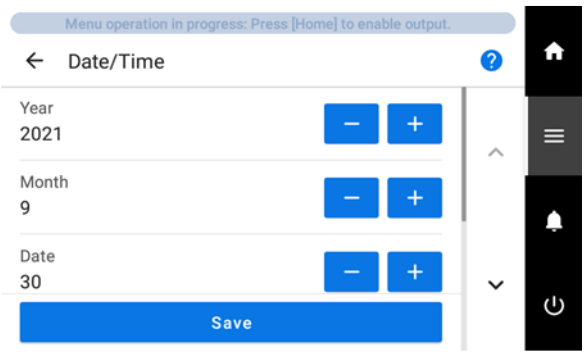
- Default setting: 5 min.

Setting the Current Date/Time and Using It for Maintenance

Use the following procedure to set the current date and time. By setting this, when you perform a printing test the printing test date and time will be printed alongside the printed test pattern.

Procedure

1. Tap .
2. Tap [System Information]>[Date/Time].
3. Tap  or  to set the date and time.



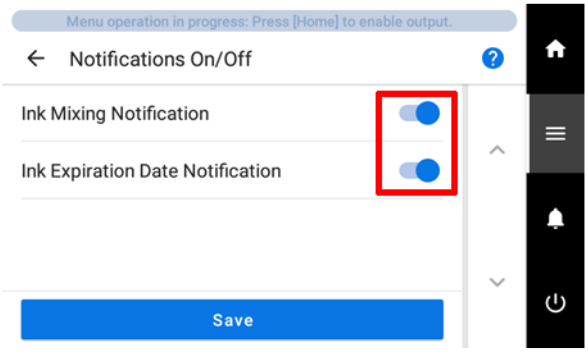
4. Tap [Save] to confirm your entry.
5. Tap  to return to the home screen.

Showing/Hiding Notifications

Use the following procedure to show/hide the following notifications, which prompt operators to perform proper operations.

Procedure

1. Tap .
2. Tap [Preferences]>[Notifications On/Off].
3. Tap  to show/hide the notifications.



	Displayed notification	Description
[Ink Mixing Notification]*1	[The time for ink mixing has arrived.]	Notification for white ink. Prompts you to mix the ink cartridge to prevent white ink precipitation. When enabled, a message recommending mixing the ink is displayed once a day.
[Ink Expiration Date Notification]	[There is ink that has expired.]	Ink has expired. Replace the ink as soon as possible.Ink Replacement Method(P. 62)

*1 Not displayed when using a four-color (CMYK) ink type and white ink is not used.

4. Tap [Save] to confirm your entry.
5. Tap  to return to the home screen.

MEMO

Default setting:

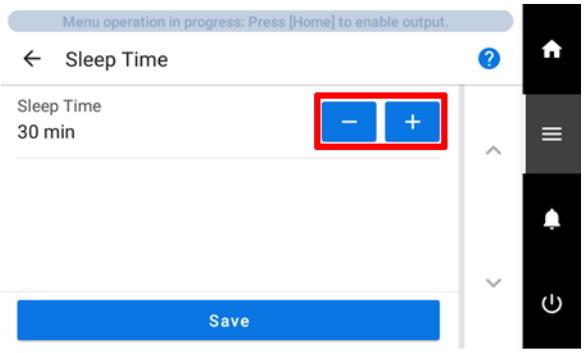
- [Ink Mixing Notification]: On
- [Ink Expiration Date Notification]: On

Setting the Activation Interval for Sleep Mode (Power-saving Feature)

This setting is used to set how long it should take until the machine goes into sleep mode (the state in which the power-saving feature is working) when no output data is received and no operations are performed for a continued length of time.

Procedure

1. Tap .
2. Tap [Preferences]>[Sleep Time].
3. Tap  or  to set the time.



[Sleep Time]	Description
15 to 120 min*1	The machine goes into sleep mode (state in which the power-saving feature is active) when no output data is received and no operations are performed for a set amount of time.

*1 Increase or decrease in 15 minute increments.

4. Tap [Save] to confirm your entry.
5. Tap  to return to the home screen.

MEMO

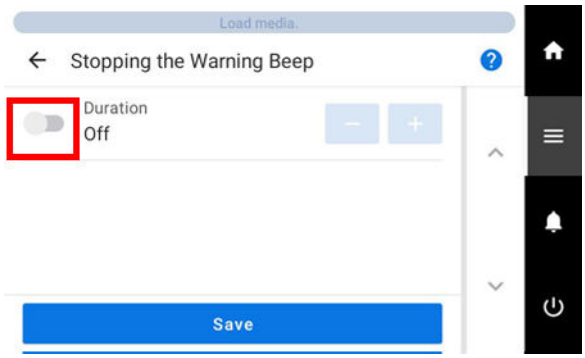
- Default setting: 30 min.

Setting the Duration of the Warning Beep

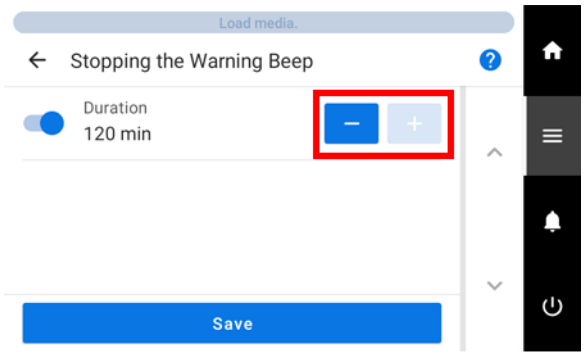
This feature sets the duration of the warning beep that sounds when, for example, an error occurs. If you turn this timer off, the warning beep will continue until the cause of the problem is eliminated.

Procedure

1. Tap .
2. Tap [Preferences]>[Stopping the Warning Beep].
3. Tap  to switch the setting.



4. Tap  or  to set the time.



[Stopping the Warning Beep]	Description
15 to 120 min*1	Sets the duration of the warning beep that sounds when, for example, an error occurs.

*1 Increase or decrease in 15 minute increments.

5. Tap [Save] to confirm your entry.
6. Tap  to return to the home screen.

MEMO

- Default setting: Off

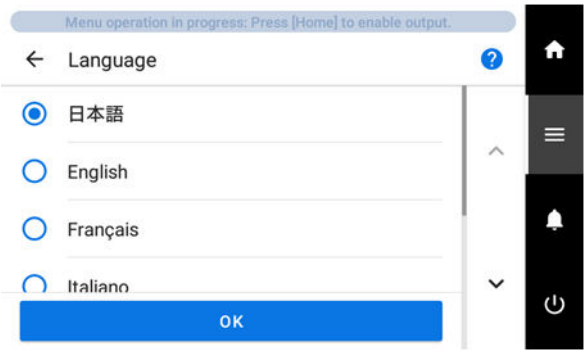
Managing the Basic Settings of the Printer

Changing the Display Language

This feature sets the language displayed on the operation panel.

Procedure

1. Tap .
2. **Tap [System Information]>[Language].**
3. **Tap [Language].**
4. **Select the display language.**



5. **Tap [OK].**
6. **Tap [Save] to confirm your entry.**
   The display language is changed, and you are returned to the home screen.

MEMO

Default settings

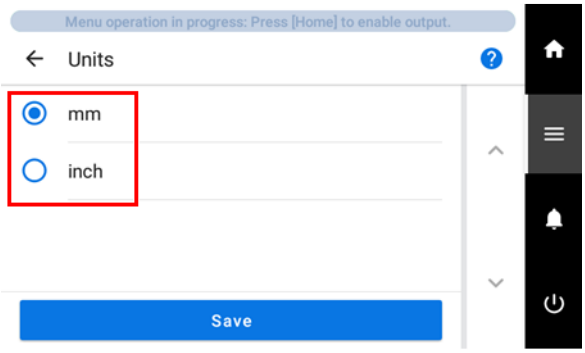
- **[Language]**: ENGLISH

Changing the Units of Measurement

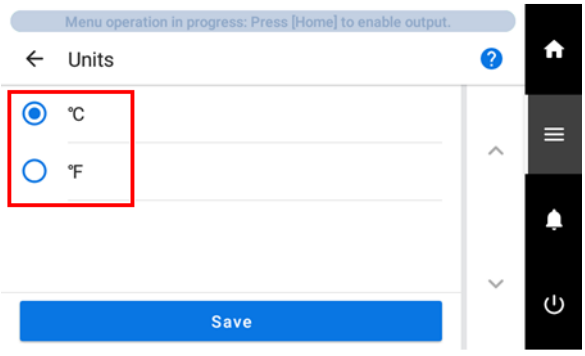
This feature sets the units displayed on the operation panel.

Procedure

1. Tap .
2. Tap [System Information]>[Units].
3. Tap [Length].
4. Select the unit.



5. Tap [Save] to confirm your entry.
6. Tap [Temperature].
7. Select the unit.



8. Tap [Save] to confirm your entry.
9. Tap  to return to the home screen.

MEMO

- Default settings
  - [Length]: mm

- [Temperature]: °C

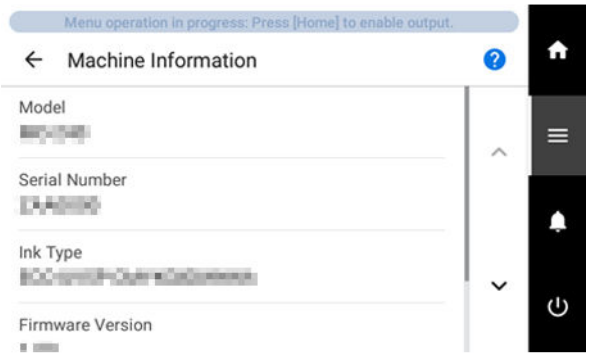
Viewing Printer Information

This is a method for viewing information of this machine, such as serial number and ink type.

Procedure

1. Tap .

2. **Tap [System Information]>[Machine Information].**
   You can check the following information:



   - **[Model]**: Model name
   - **[Serial Number]**: Serial number
   - **[Ink Type]**: Ink type
   - **[Firmware Version]**
   - **[MAC Address]**

3. **Tap  to return to the home screen.**

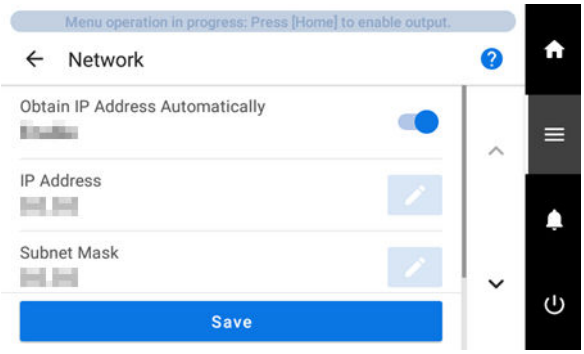
Viewing Network Information

Use the following procedure to view network information such as the IP address and default gateway.

Procedure

1. Tap .

2. **Tap [System Information]>[Network].**
   You can check the following information:



   - **[Obtain IP Address Automatically]**: Enables/disables the automatic obtaining of IP addresses via DHCP. When this is disabled, tap  to change the following settings.
   - **[IP Address]**
   - **[Subnet Mask]**
   - **[Default Gateway]**

3. **Tap  to return to the home screen.**

MEMO

- For information on how to set up a network, see the "Setup Guide."

RELATED LINKS

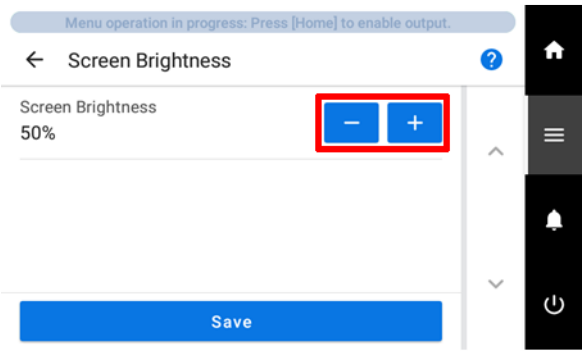
- Setup Guide

Adjusting the Brightness of the Operation Panel

Procedure

1. Tap .
2. Tap [System Information]>[Screen Brightness].
3. Tap  or  to adjust the brightness.

   The larger the value, the brighter the screen.



4. Tap [Save] to confirm your entry.
5. Tap  to return to the home screen.

MEMO

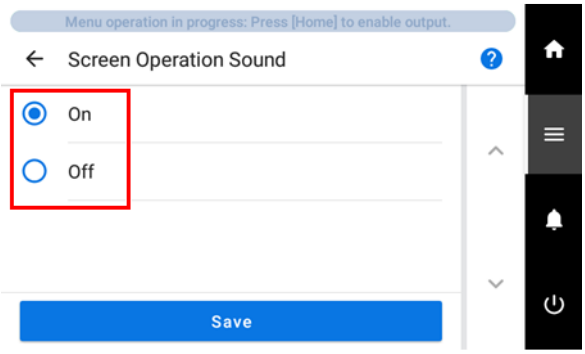
- Default setting: 50%RH

Turning Off Operation Panel Sounds

Use the following procedure to turn off the sound when you tap the operation panel.

Procedure

1. Tap .
2. Tap [System Information]>[Screen Operation Sound].
3. Tap [Off].



4. Tap [Save] to confirm your entry.
   The operation sound turns off.
5. Tap  to return to the home screen.

MEMO

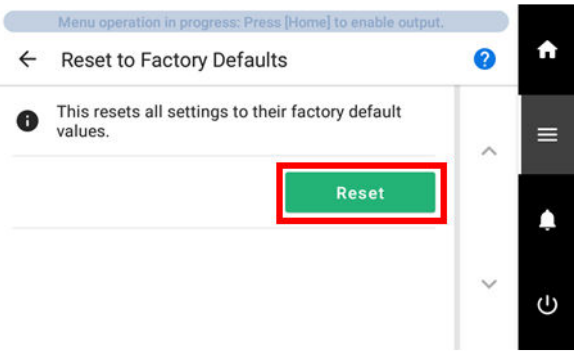
- Default setting: [On]

Returning All Settings to Factory Defaults

This menu returns all settings to the same as their factory defaults.
The settings for [**Language**] and [**Units**] are not returned to their factory default values.

Procedure

1. Tap .
2. Tap [Preferences]>[Reset to Factory Defaults].
3. Tap [Reset].



4. Tap [Yes] on the confirmation screen.
5. Tap  to return to the home screen.

Maintenance

Introduction

Basic Maintenance Knowledge 173
Types and Timing of Maintenance 173
Measures When the Printer Is Not in Use for a Prolonged Period 175

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	Print head check	Step 2: Performing a Nozzle Drop-out Test(P. 53)
	Ink mixing (white ink)	Maintenance of Ink Cartridges(P. 177)
After daily operations	Cleaning the machine	Cleaning the Machine(P. 181)
If a message appears	Cleaning around the print heads	Cleaning around the Print Heads(P. 182)
When the discharged fluid is ready to overflow	Disposing of discharged fluid	If the Discharged Fluid Disposal Message Appears(P. 199)
Once a month	Cleaning the UV-LED devices	Cleaning the UV-LED Device(P. 192)

Advanced Maintenance

Maintenance that is performed in an emergency. Some of this maintenance consumes a large amount of ink, so thoroughly read the explanation, and then perform the operation at the appropriate point in time.

Timing	Category	Item
When dot drop-out or dot displacement occurs	Checking and cleaning the print heads	Step 2: Performing a Nozzle Drop-out Test(P. 53)
		Step 3: Normal Cleaning Method(P. 55)
		Medium Cleaning Method(P. 205)
		Powerful Cleaning Method(P. 207)
		Manual Cleaning Method(P. 183)
		Method for Ink Renewal Inside Damper(P. 211)*1
When uneven colors with white ink are not resolved	Performing ink circulation and replacing ink in an ink path	Ink Circulating Method(P. 209)
		Method for Eliminating Uneven Color Issues with Powerful Cleaning(P. 210)
		Method for Ink Renewal Inside Damper(P. 211)*1
When uneven color, dot drop-out, and dot displacement issues are not resolved even by performing the above operations	Replacing the ink in all ink paths	Ink Renewal Method(P. 217)*1
When the operation panel is dirty	Cleaning the operation panel	Operation Panel Cleaning Method(P. 230)

*1 This cleaning consumes a large amount of ink.

Replacing Consumable Parts

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

Timing	Category	Item
When a message appears	Replacing consumable parts • Wiper • Wiper cleaner • UV mist filters • Flushing sponge • Print head caps	Replacing the Wiper(P. 232)
		Replacing the wiper cleaner(P. 238)
		Replacing the UV Mist Filters(P. 241)
		Replacing the Flushing Sponge(P. 244)
		Replacing the Print Head Caps(P. 235)

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, so periodically discard the discharged fluid.

  - Approximately 1 week after the message [**When output, cleaning, and other operations are completed, discard the discharged fluid.**] is displayed or approximately 120 days after the drain bottle is emptied

    If the Discharged Fluid Disposal Message Appears(P. 199)

- Do not allow the machine to run out of ink or cleaning liquid.

  The machine discharges ink and cleaning liquid during the automatic maintenance that is performed periodically. Set in the machine ink and cleaning liquid pouches having sufficient remaining ink and cleaning liquid. The machine cannot perform automatic maintenance if it has run out of ink or cleaning liquid.

- Switch on the sub power once a month.

  Switch on the sub power once a month. 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% (with no condensation). Temperatures that are too high may degrade the ink and cause malfunctions. Temperatures that are too low may cause the ink to freeze and damage the print heads.

- Do not leave the front cover open for a long time.

  If left open, it may cause the print heads to dry out or allow dust and debris to enter the machine.

RELATED LINKS

- P. 62 Ink Replacement Method
- P. 67 Cleaning Liquid Replacement Method

Regular Maintenance

Print Head Check before Printing 177
Maintenance of Ink Cartridges 177
Performing a Nozzle Drop-out Test 178
Cleaning the Machine 181
Cleaning the Machine on a Daily Basis 181
Cleaning around the Print Heads 182
Manual Cleaning Method 183
Consumable Products and Parts Related to Manual Cleaning 191
Cleaning the UV-LED Device 192
When UV-LED Device Cleaning Is Necessary 192
UV Lamp Manual Cleaning Method 193

Print Head Check before Printing

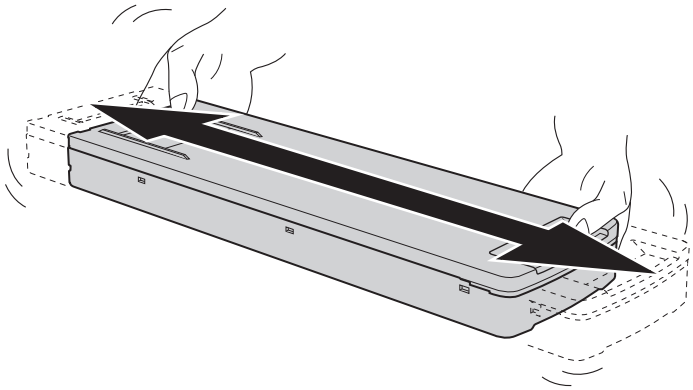
Maintenance of Ink Cartridges

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.

Shake the ink cartridges:

- All inks: When replaced with a new product.
- White ink: Every day (before starting the day's work), pull out the white ink cartridge once, shake it 50 times (for about 20 seconds), and insert it again.

  The ingredients in white ink tend to settle. Each day, before starting the day's operations, be sure to shake the ink cartridge. Allowing the ink to stand can cause the settled material to harden, resulting in malfunctions 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 shaking the ink cartridge, firmly hold it with both hands to prevent the ink cartridge cover from coming loose. The cover and ink pouch coming loose and falling may lead to damage or printer failure.
- 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.

Performing a Nozzle Drop-out 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

When performing printing tests successively, you can select **[Feed]** (vertical printing), **[Scan]** (horizontal printing), or **[None]** (same location printing) as the printing position for the second and later tests in comparison to the first test.
Changing the Printing Test Printing Position(P. 153)

Procedure

1. **Set up the object to be printed on.**
   Determining the Print Surface Height and Printing Position(P. 77)

2. **Tap**  **[Nozzle Drop-out Test] on the home screen.**

3. **To change the printing test start position, tap [Change] under [Output Start Location].**

   If you have tapped on the [**Printing Test Start Location**] screen and enabled [**Use coordinates to specify the printing area without moving the carriage or table.**], specify the values for [S] and [F].

   For more information on settings, refer to Changing the Operation Performed when Setting the Printing Test Start Location(P. 149).

   (1) **Tap**  **once.**

   The table and print-head carriage will move, and the pointer will point to the previously-set print origin.

   Subsequently, when you have finished setting the print start position, the print-head carriage will automatically return to the standby position to protect the print heads from drying out if they have not been moved by the user for approximately three minutes. Perform the procedure again.

   MEMO

   If **[Use coordinates to specify the printing area without moving the carriage or table.]** is enabled, the print-head carriage will not move, so the print-head drying protection function will not work.

   (2) **Set the [Printing Test Start Location].**

   Long tap or tap  to set the printing test start position

   MEMO

   - If **[Use coordinates to specify the printing area without moving the carriage or table.]** is enabled, specify the values for [S] and [F].
   - The printing test start position you have set will remain in effect until you change to a different media.

   (3) **Tap [OK].**

4. **Tap [Execute] next to [Printing Test].**

Printing of the test pattern starts.

MEMO

Depending on the color of the object to be printed on, it may be difficult to check the white ink test pattern.

Tap  **[Nozzle Drop-out Test]** on the home screen, select **[Cleaning]**>**[Printing Test]**>**[Nozzle Drop-out Test (Base: Black)]** in that order, and then tap **[Execute]**>**[Yes]** to make the base of the white ink black, making it easier to check the white ink.

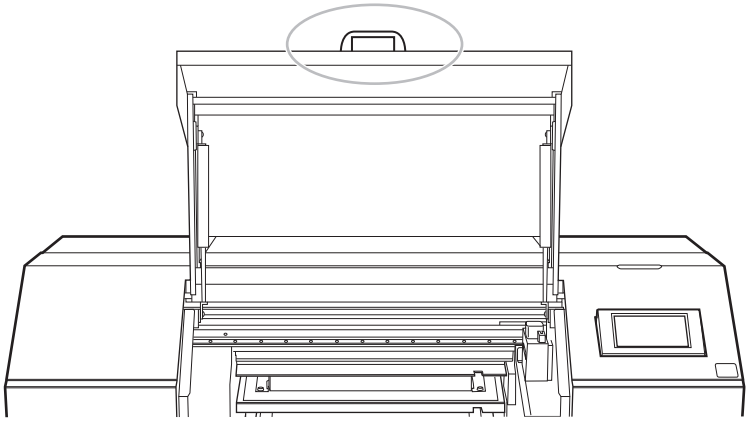
[Nozzle Drop-out Test (Base: Black)] is not displayed if the machine is not equipped with white ink.

5. **Open the front cover.**

MEMO

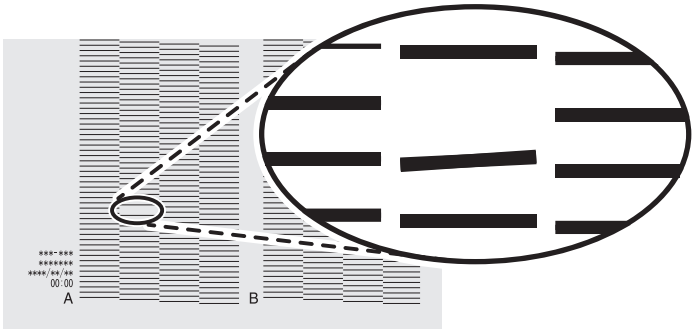
Be sure to hold the handle of the front cover and keep holding it until the cover is completely opened or closed.

If you do not open and close the front cover gently, it may break or you may be injured.



6. **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.

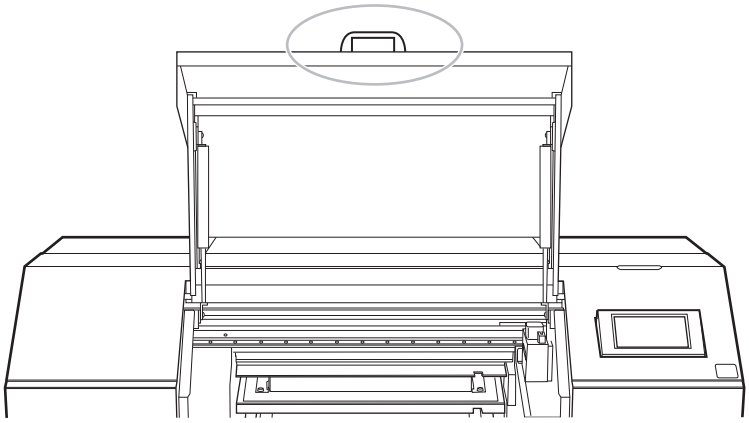


7. **Close the front cover.**

MEMO

Be sure to hold the handle of the front cover and keep holding it until the cover is completely opened or closed.

If you do not open and close the front cover gently, it may break or you may be injured.



If no dot drop-out or dot displacement occurs, preparations for output are finished.

RELATED LINKS

- P. 203 When Dot Drop-out or Dot Displacement Occurs

Cleaning the Machine

Cleaning the Machine on a Daily Basis

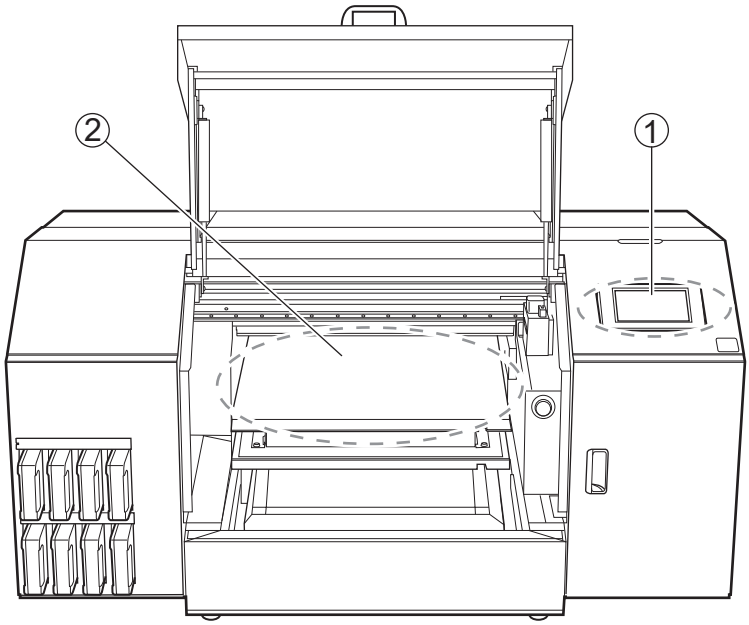
As part of daily cleaning, wipe away any buildup of ink or grime that has adhered to the machine. In particular, the flat table and vacuum table are likely to have a buildup of grime. Clean by wiping with a cloth moistened by neutral detergent diluted with water then wrung dry or a dry, soft cloth.

⚠ WARNING

Never use a solvent such as gasoline, alcohol, or thinner to perform cleaning.
Doing so may cause a fire.

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.
- Before performing this operation, remove any objects to be printed on.



①	Operation panel	The panel used to operate the machine. If dirt or ink adheres to the operation panel, immediately wipe it clean with dry, soft fabric.
②	Flat Table and Vacuum Table	These are where the object be printed on is fixed in place, so it is easy for grime to adhere to these positions. Clean by wiping with a cloth moistened by neutral detergent diluted with water then wrung dry.

MEMO

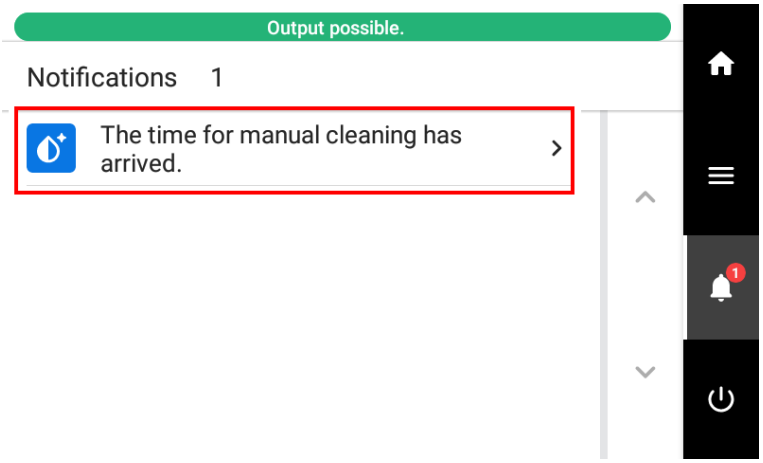
Frequently clean the inside of the machine using a vacuum cleaner or by wiping with a cloth moistened with water then wrung dry. If dust and dirt accumulate in the machine, they are likely to affix to printed materials.

Cleaning around the Print Heads

The print heads are important components that discharge ink. They require periodic and appropriate maintenance. Cleaning around the print heads is known as "manual cleaning." Be sure to perform manual cleaning in the following situations.

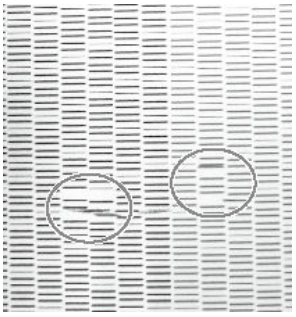
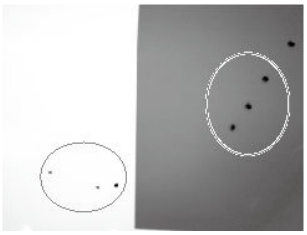
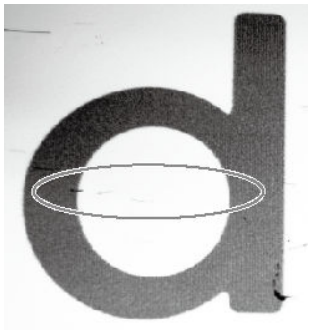
When a Message Appears

When a message appears, you can tap  on the home screen to check the notification details. Tap the notification to display the manual cleaning menu screen.



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 accumulates on dirty areas around the print heads and drips onto the object to be printed on.	Dirt accumulates on the area around the print heads and touches the object to be printed on.

MEMO

Wiper replacement may also be effective in improving these symptoms.

RELATED LINKS

- P. 232 Replacing the Wiper

Manual Cleaning Method

Perform manual cleaning:

- When the notification [**The time for manual cleaning has arrived.**] appears.
- Before sending the print data if you want to perform unmanned printing at night.
- When dot drop-out or ink drip issues that cannot be improved with powerful cleaning occur.

⚠ 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.

⚠ WARNING

Be sure to perform operations as specified by the instructions, and never touch any area not specified in the instructions.
Sudden movement of the machine may cause injury.

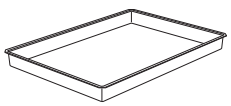
IMPORTANT

Important notes on this procedure

- Before performing this operation, remove any objects to be printed on.
- 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.
- Do not use cleaning liquid other than the included cleaning liquid.
- Be sure to use new cleaning sticks. 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).
- If you use up the cleaning sticks or cleaning liquid, contact your authorized dealer or visit our website (https://www.rolanddg.co.jp/).

When an alarm sounds during cleaning

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

Required items		
		
Cleaning stick	Cleaning liquid	Tray

1. Clean the print head caps.

Procedure

1. **Remove the object to be printed on.**

2. **Tap**  **[Cleaning].**

3. **Tap [Manual Cleaning].**

4. **Select the table position for when performing [Manual Cleaning].**
   Select either the center or the back.

   MEMO

   When a rotary axis unit is attached, select [**Table Position: Center**].

   When the Vacuum Table Is Attached

	Condition
[**Table Position: Center**]	When a jig is not installed over the vacuum table
[**Table Position: Back**]	When a jig is installed over the vacuum table

   When the Vacuum Table Is Not Attached

	Condition
[**Table Position: Center**]	• When a jig is not installed over the flat table • When a jig with a height of less than 100 mm (3.93 in.) is installed over the flat table
[**Table Position: Back**]	When a jig with a height of more than 100 mm (3.94 in.) is installed over the flat table

5. **Tap [Execute].**
   Tap [**Execute**] to display a message reminding the user to wear protective gear.

6. **Tap [OK].**
   Tap [**OK**] to move the print-head carriage and table.

7. **Follow the instructions on the operation panel to perform [Manual Cleaning].**

   - Tap  or  to check the procedure.
   - If you complete the work without viewing the instructions, tap [**Finish All**].

   IMPORTANT

   - Be sure to use one of the included cleaning sticks.
   - Do not use a previously used cleaning stick.
   - Do not put a previously used cleaning stick into the cleaning liquid.

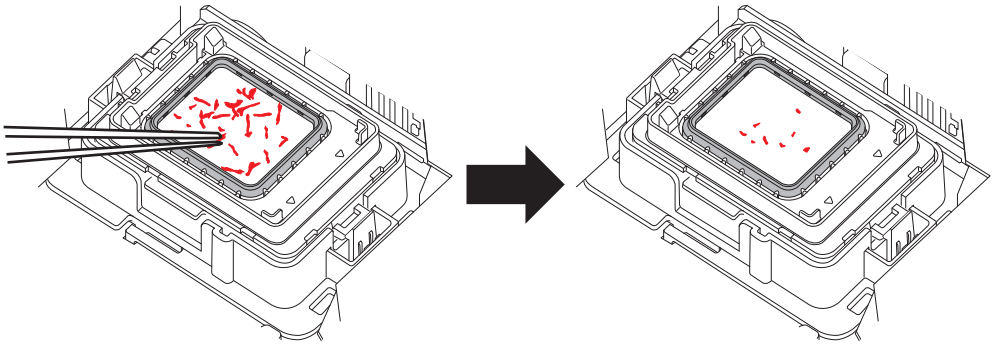


IMPORTANT

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

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.

◦



When you have finished cleaning, close the maintenance cover.

2. Clean the print heads.

Procedure

1. **Moisten a new cleaning stick with the cleaning liquid.**

IMPORTANT

- Be sure to use one of the included cleaning sticks.
- Do not use a previously used cleaning stick.
- Do not put a previously used cleaning stick into the cleaning liquid.



2. **Prepare the tray.**

- When [**Table Position: Center**] is selected

  Place the tray on the table.
- When [**Table Position: Back**] is selected

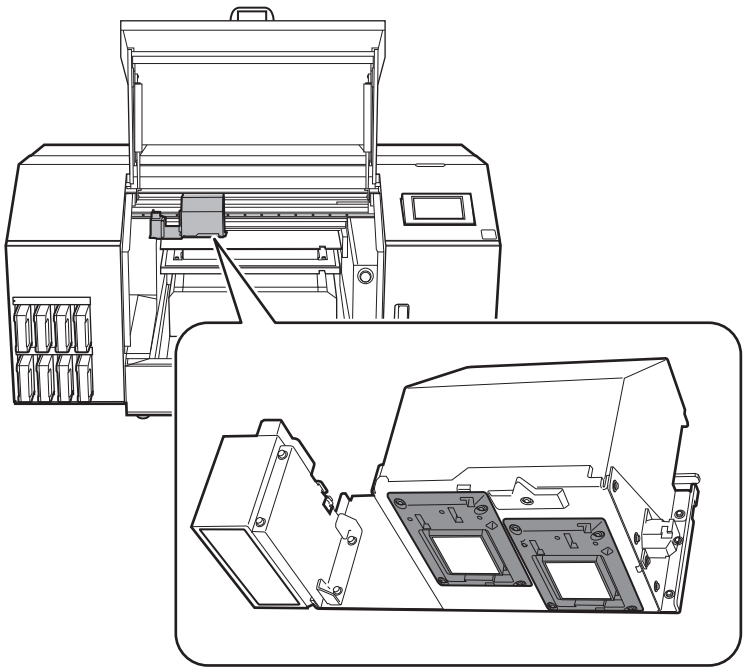
  Hold the tray in your hands.

3. **Clean the locations shown in the following figure.**

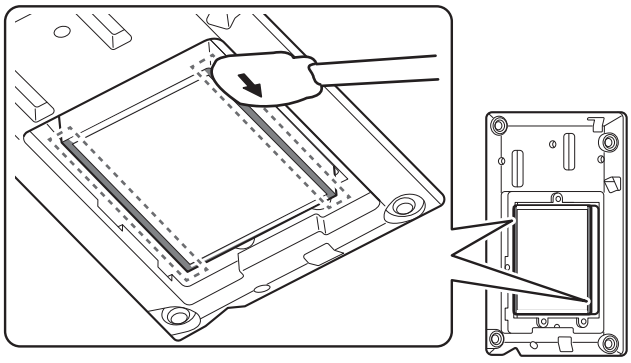
Be especially careful to clean away any fibrous dust (lint).

IMPORTANT

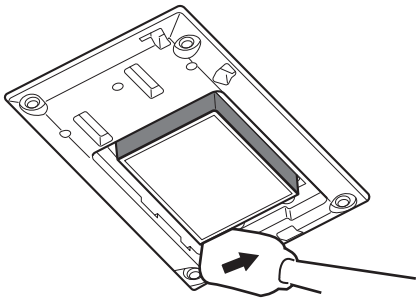
When [**Table Position: Back**] is selected, catch the cleaning liquid with a hand-held tray to prevent it from dripping onto the machine.



(1) **Press the wide surface of the cleaning stick against the left side and wipe it off. Then, press the opposite surface (which is clean) against the right side and wipe it off.**

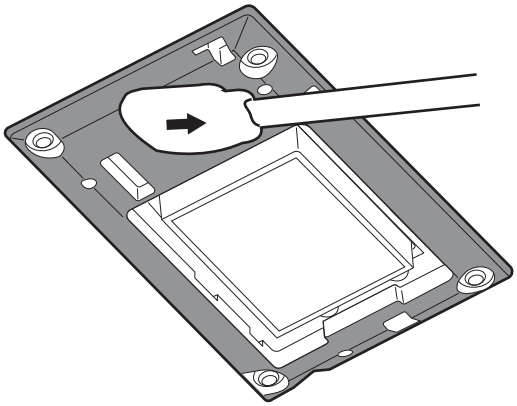


(2) **Stand the cleaning stick upright and wipe off all sides.**



(3) **Use the wide surface of the cleaning stick to wipe away any dirt from the locations 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.



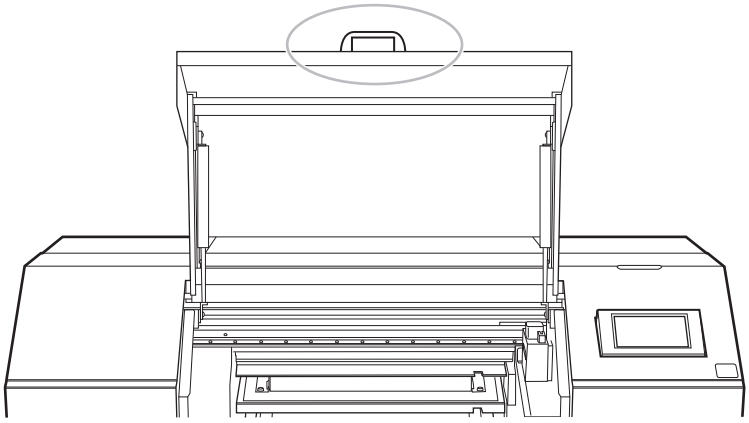
4. **Put away the tray.**

5. **Close the front cover.**

MEMO

Be sure to hold the handle of the front cover and keep holding it until the cover is completely opened or closed.

If you do not open and close the front cover gently, it may break or you may be injured.



6. **Tap [Finish All].**

   Cleaning will start. The details of the operation in progress and the (approximate) remaining time of that work are displayed in the status bar at the top of the screen.

   When the work is finished, the status bar returns to its original display.

7. **Tap  to return to the home screen.**

3. Perform a printing test to check the results.

Procedure

1. **Set up the object to be printed on.**
   Determining the Print Surface Height and Printing Position(P. 77)

2. **Tap  [Nozzle Drop-out Test] on the home screen.**

3. **Tap [Execute] next to [Printing Test].**
   Printing of the test pattern starts.

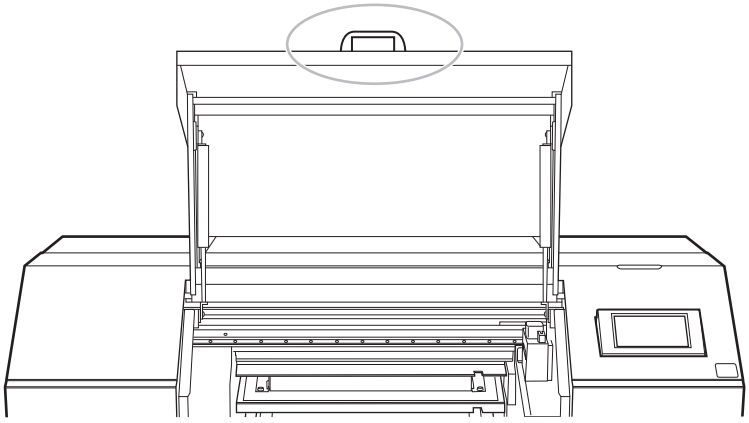
   MEMO

   Depending on the color of the object to be printed on, it may be difficult to check the white ink test pattern.
   Tap  **[Nozzle Drop-out Test]** on the home screen, select **[Cleaning]**>**[Printing Test]**>**[Nozzle Drop-out Test (Base: Black)]** in that order, and then tap **[Execute]**>**[Yes]** to make the base of the white ink black, making it easier to check the white ink.
   [Nozzle Drop-out Test (Base: Black)] is not displayed if the machine is not equipped with white ink.

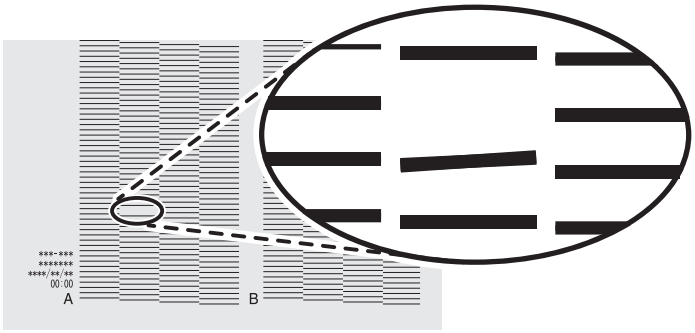
4. **Open the front cover.**

   MEMO

   Be sure to hold the handle of the front cover and keep holding it until the cover is completely opened or closed.
   If you do not open and close the front cover gently, it may break or you may be injured.

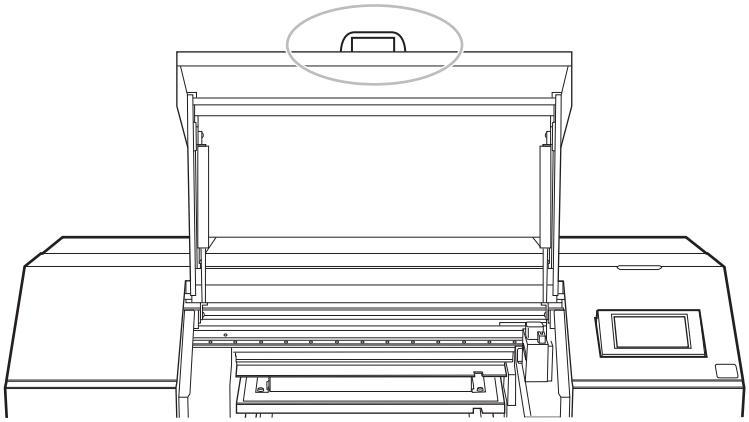
5. **Check whether there is dot drop-out or dot displacement in the test pattern.**
   Missing blocks indicate dot drop-out. Collapsed or inclined blocks indicate dot displacement.



6. **Close the front cover.**

MEMO

Be sure to hold the handle of the front cover and keep holding it until the cover is completely opened or closed.
If you do not open and close the front cover gently, it may break or you may be injured.



If no dot drop-out or dot displacement occurs, this operation is finished. Tap  to return to the home screen.

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

RELATED LINKS

- P. 203 When Dot Drop-out or Dot Displacement Occurs

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 (https://www.rolanddg.co.jp/).
- 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 the UV-LED Device

When UV-LED Device Cleaning Is Necessary

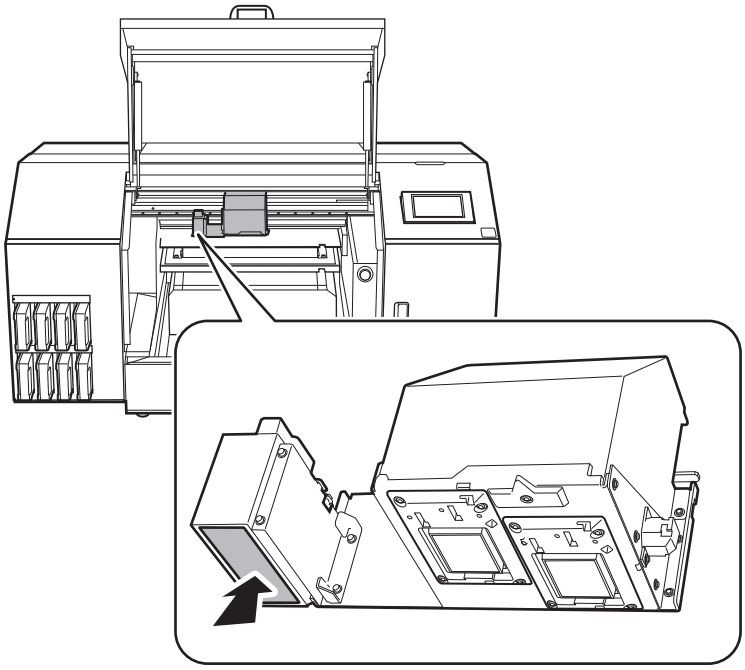
The UV-LED device is an important component for ink adhesion. They require periodic and appropriate maintenance. It is important to clean the UV-LED device with the appropriate timing.

Perform the UV lamp manual cleaning at the following times.

- When the notification **[The time for UV lamp manual cleaning has arrived.] appears.**

  To keep a stable printing condition at all times, perform manual cleaning whenever the notification is displayed.
- **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).**



MEMO

- 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 dealer.
- For hardened ink and other such dirt that cannot be completely cleaned away, contact your authorized dealer.

UV Lamp Manual Cleaning Method

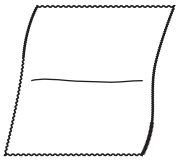
IMPORTANT

Important notes on this procedure

- Before performing this operation, remove any objects to be printed on.
- 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.

When a warning beep sounds during cleaning

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

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

⚠ 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.

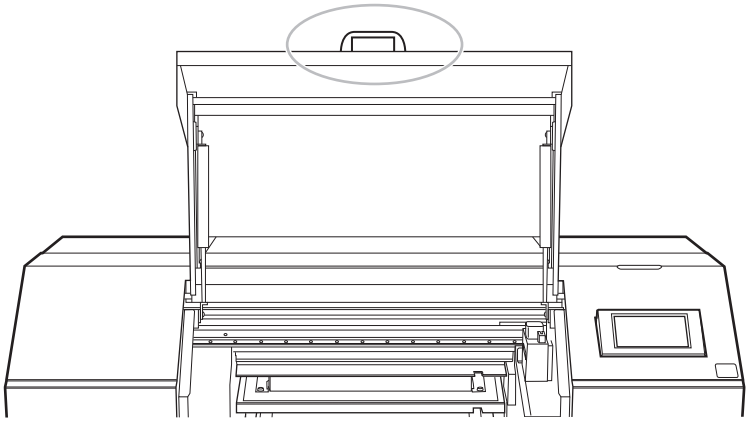
Using cloth that is fluffy or a hard material such as metal may lead to UV-LED device damage.

Procedure

1. **Open the front cover.**

MEMO

Be sure to hold the handle of the front cover and keep holding it until the cover is completely opened or closed.
If you do not open and close the front cover gently, it may break or you may be injured.

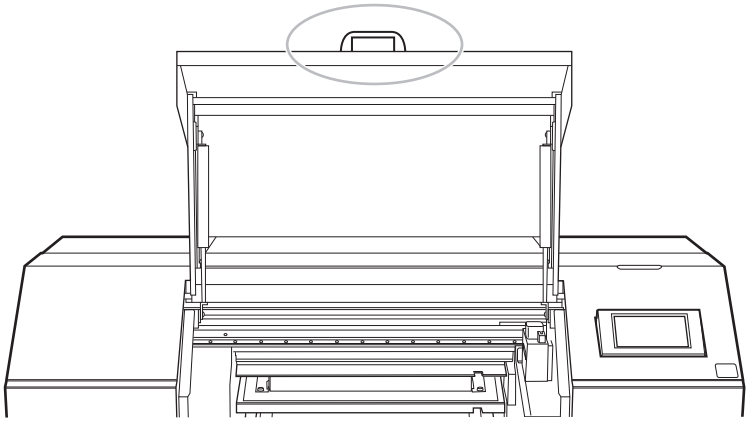


2. **Remove the object to be printed on.**

3. **Close the front cover.**

MEMO

Be sure to hold the handle of the front cover and keep holding it until the cover is completely opened or closed.
If you do not open and close the front cover gently, it may break or you may be injured.



4. **Tap** .

5. **Tap [Maintenance]>[UV Lamp Manual Cleaning].**

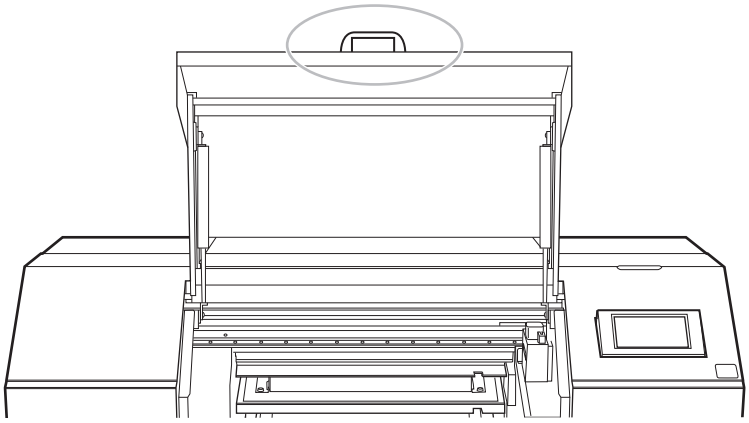
6. **Tap [Execute].**
   Tap [**Execute**] to display a message reminding the user to wear protective gear.

7. **Tap [OK].**
   Tap [**OK**] to move the print-head carriage and table.

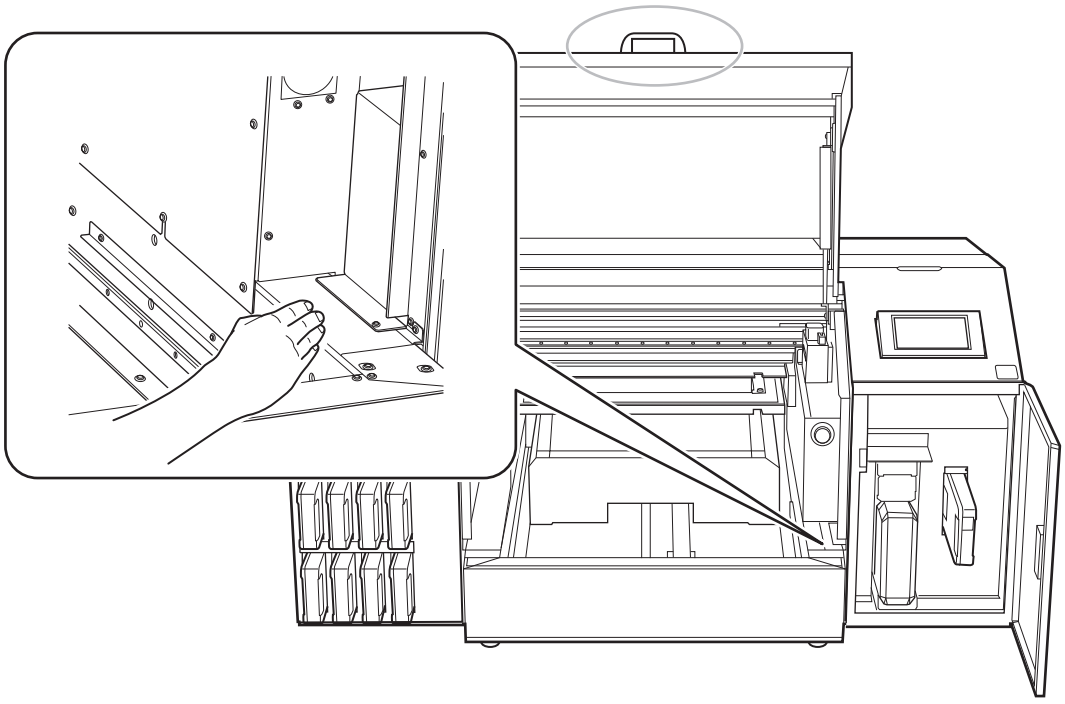
8. **Open the front cover.**

MEMO

Be sure to hold the handle of the front cover and keep holding it until the cover is completely opened or closed.
If you do not open and close the front cover gently, it may break or you may be injured.

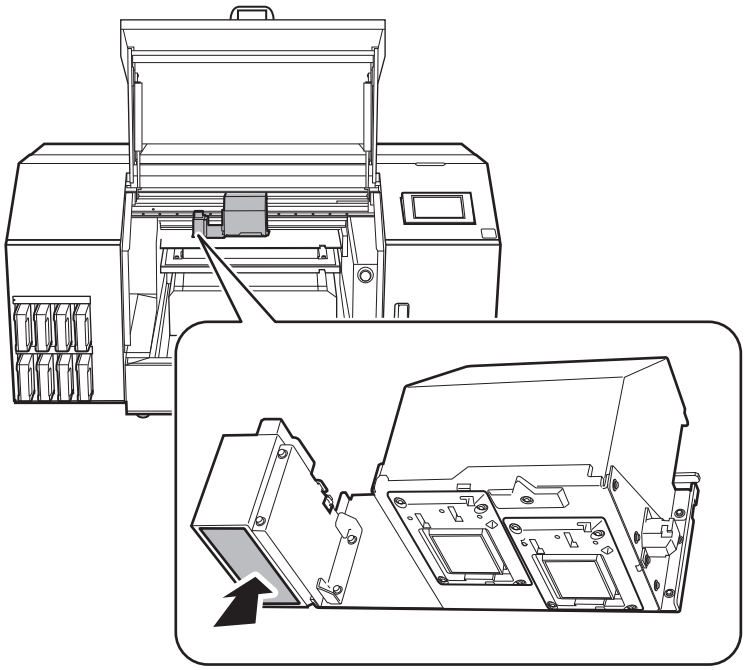


9. **Touch the location shown in the figure to discharge any static electricity.**



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

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

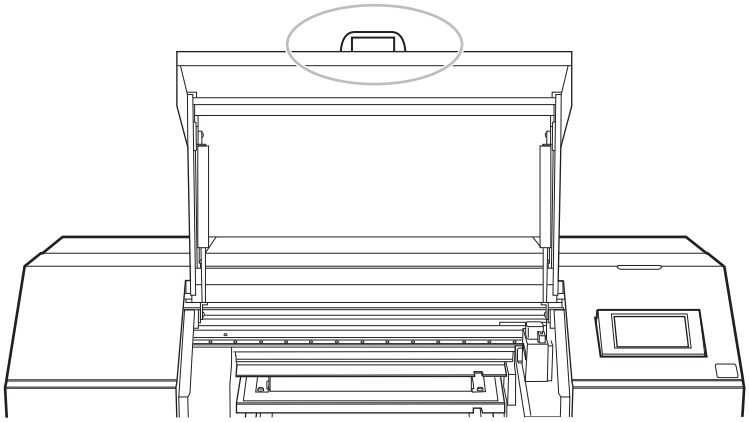


11. **Close the front cover.**

MEMO

Be sure to hold the handle of the front cover and keep holding it until the cover is completely opened or closed.

If you do not open and close the front cover gently, it may break or you may be injured.



12. **Tap [Finish All].**

Cleaning will start. The details of the operation in progress and the (approximate) remaining time of that work are displayed in the status bar at the top of the screen.

When the work is finished, the status bar returns to its original display.

13. **Tap  to return to the home screen.**

RELATED LINKS

- P. 192 When UV-LED Device Cleaning Is Necessary

Disposing of Discharged Fluid

Precautions for Disposing of Discharged Fluid 198
If the Discharged Fluid Disposal Message Appears..... 199

Precautions for Disposing of Discharged Fluid

⚠ WARNING

Never place discharged fluid or ink near an open flame.

Doing so may cause a 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

Do not store discharged fluid in a location where it is exposed to direct sunlight.

When temporarily storing discharged fluid in the included drain bottle, do not store it in a location that is exposed to direct sunlight. The discharged fluid may harden, making the drain bottle unusable. The drain bottle may also deteriorate, leading to discharged fluid leaks.

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

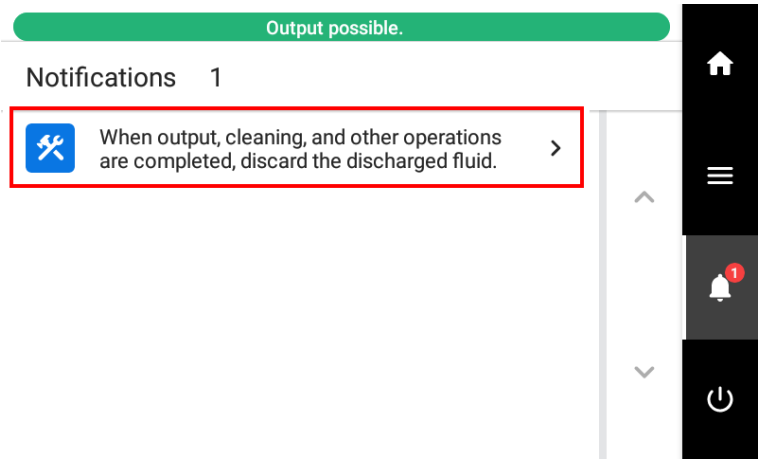
The [**When output, cleaning, and other operations are completed, discard the discharged fluid.**] message appears when a certain amount of discharged fluid has collected in the bottle. If this message appears, dispose of the discharged fluid.

Procedure

1. **When the message [When output, cleaning, and other operations are completed, discard the discharged fluid.] appears, tap [OK].**

2. **Tap  to display the notification.**

3. **Tap the following notification.**



The [**Drain Bottle**] screen appears.

MEMO

You can dispose of discharged fluid even if the above message has not appeared.
Use the following operations to display the drain bottle screen, and then dispose of discharged fluid according to the procedure starting from step 4.

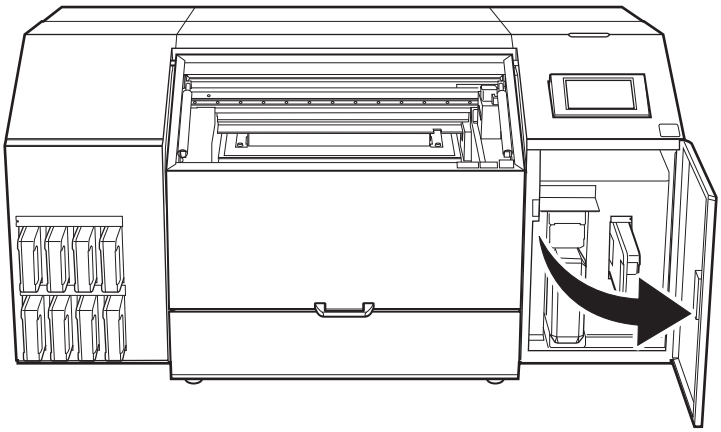
1. Tap .
2. Tap [**Maintenance**]>[**Drain Bottle**].

4. **Tap [Execute].**

   Tap [**Execute**] to display a message reminding the user to wear protective gear.

5. **Tap [OK].**

6. **Open the maintenance cover.**



7. **Remove the drain bottle and discard the discharged fluid.**



⚠ CAUTION

Before you detach the drain bottle, be sure to wait for the screen to display [Discard the discharged fluid in the bottle.]. After discarding the discharged fluid, promptly attach the drain bottle to the machine.

Failing to follow this procedure may cause discharged fluid to flow out of the tube and spill, soiling your hands or the floor.

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.

8. **Quickly attach the emptied bottle to the machine once more.**

9. **Close the maintenance cover.**

10. Tap [Finish].

11. Tap  to return to the home screen.

Advanced Maintenance

When Dot Drop-out or Dot Displacement Occurs 203
Normal Cleaning Method 203
When Normal Cleaning Is Not Effective 205
Medium Cleaning Method 205
Powerful Cleaning Method 207
When Uneven Color Issues Occur with White Ink 209
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When the Operation Panel Is Dirty 230
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When Dot Drop-out or Dot Displacement Occurs

If dot drop-out or dot displacement occurs, perform cleaning of the print heads (normal cleaning).

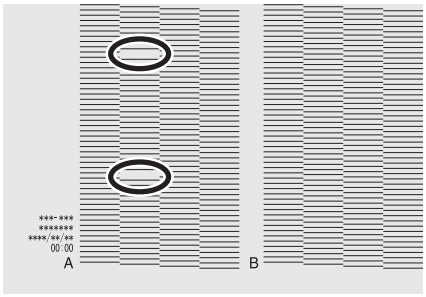
Normal Cleaning Method

MEMO

If the object to be printed on is set up before [**Normal Cleaning**] is performed, [**After cleaning, perform a printing test.**] will be displayed on the [**Normal Cleaning**] menu screen. When this setting is turned on, [**Printing Test**] will be performed after [**Normal Cleaning**] even if [**Nozzle Drop-out Test**] is not performed.

Procedure

1. **Check for the group with dot drop-out or dot displacement by viewing the results of the printing test.**
   The space from "A" to "B" is group A. The space from "B" to the right side is group B.



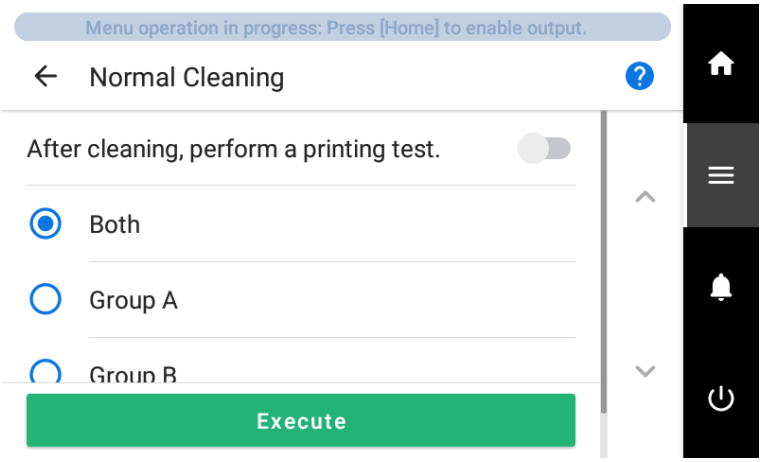
MEMO

If the printing-test results are difficult to interpret
Check the results in a bright location, changing your line of vision. They are visible using the reflection of the light.

2. **Tap  [Nozzle Drop-out Test].**

3. **Tap [Cleaning].**

4. **Tap [Normal Cleaning].**
   The screen shown below appears.



5. **Select the group of print heads to clean.**

6. **Tap [Execute].**

   Cleaning will start. The details of the operation in progress and the (approximate) remaining time of that work are displayed in the status bar at the top of the screen.

   When the work is finished, the status bar returns to its original display.

7. **Tap** ← **.**

8. **Tap [Printing Test].**

9. **Select [Nozzle Drop-out Test] and tap [Execute].**

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

MEMO

Depending on the color of the object to be printed on, it may be difficult to check the white ink test pattern.

Tap  **[Nozzle Drop-out Test]** on the home screen, select **[Cleaning]**>**[Printing Test]**>**[Nozzle Drop-out Test (Base: Black)]** in that order, and then tap **[Execute]**>**[Yes]** to make the base of the white ink black, making it easier to check the white ink.

[Nozzle Drop-out Test (Base: Black)] is not displayed if the machine is not equipped with white ink.

MEMO

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.

RELATED LINKS

- P. 53 Performing a Nozzle Drop-out Test
- P. 205 When Normal Cleaning Is Not Effective

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**], perform the more forceful [**Medium Cleaning**] to remove clogging from the print heads.

IMPORTANT

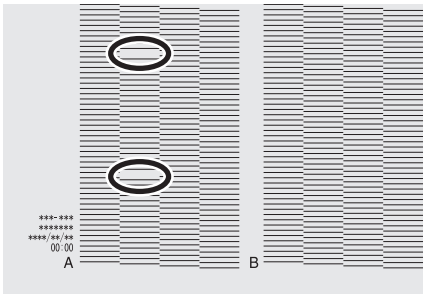
[**Medium Cleaning**] is more forceful cleaning that consumes more ink than [**Normal Cleaning**].

MEMO

If the object to be printed on is set up before [**Medium Cleaning**] is performed, [**After cleaning, perform a printing test.**] will be displayed on the [**Medium Cleaning**] menu screen. When this setting is turned on, [**Printing Test**] will be performed after [**Medium Cleaning**] even if [**Nozzle Drop-out Test**] is not performed.

Procedure

1. **Check for the group with dot drop-out or dot displacement by viewing the results of the printing test.**
   The space from "A" to "B" is group A. The space from "B" to the right side is group B.



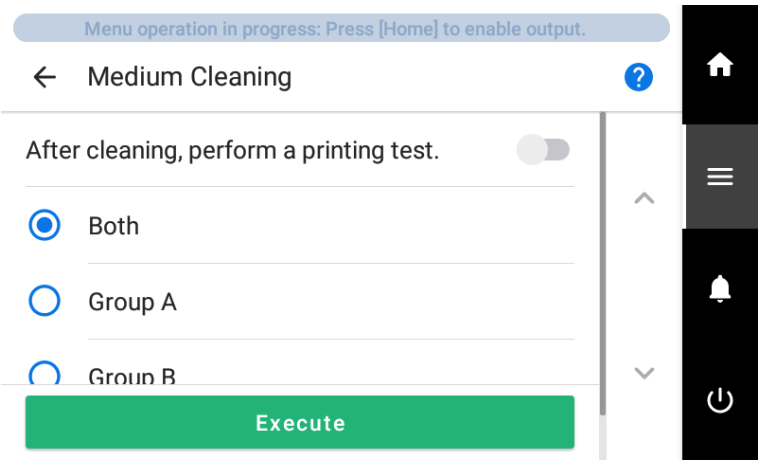
MEMO

If the printing-test results are difficult to interpret
Check the results in a bright location, changing your line of vision. They are visible using the reflection of the light.

2. **Tap**  **[Nozzle Drop-out Test].**

3. **Tap [Cleaning].**

4. **Tap [Medium Cleaning].**
   The screen shown below appears.



5. **Select the group of print heads to clean.**

6. **Tap [Execute].**

   Cleaning will start. The details of the operation in progress and the (approximate) remaining time of that work are displayed in the status bar at the top of the screen.

   When the work is finished, the status bar returns to its original display.

7. **Tap** ←.

8. **Tap [Printing Test].**

9. **Select [Nozzle Drop-out Test] and tap [Execute].**

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

MEMO

Depending on the color of the object to be printed on, it may be difficult to check the white ink test pattern.

Tap  **[Nozzle Drop-out Test]** on the home screen, select **[Cleaning]**>**[Printing Test]**>**[Nozzle Drop-out Test (Base: Black)]** in that order, and then tap **[Execute]**>**[Yes]** to make the base of the white ink black, making it easier to check the white ink.

[Nozzle Drop-out Test (Base: Black)] is not displayed if the machine is not equipped with white ink.

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]**.

RELATED LINKS

- P. 207 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**], perform the more forceful [**Powerful Cleaning**] to remove clogging from the print heads.

IMPORTANT

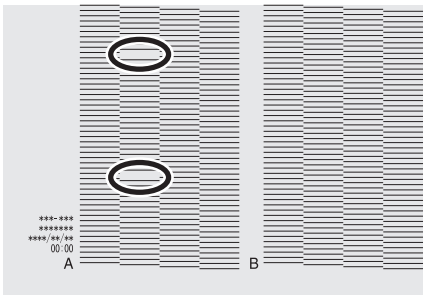
[**Powerful Cleaning**] is more forceful cleaning that consumes more ink than [**Medium Cleaning**].

MEMO

If the object to be printed on is set up before [**Powerful Cleaning**] is performed, [**[After cleaning, perform a printing test.]**] will be displayed on the [**Powerful Cleaning**] menu screen. When this setting is turned on, [**Printing Test**] will be performed after [**Powerful Cleaning**] even if [**Nozzle Drop-out Test**] is not performed.

Procedure

1. **Check for the group with dot drop-out or dot displacement by viewing the results of the printing test.**
   The space from "A" to "B" is group A. The space from "B" to the right side is group B.



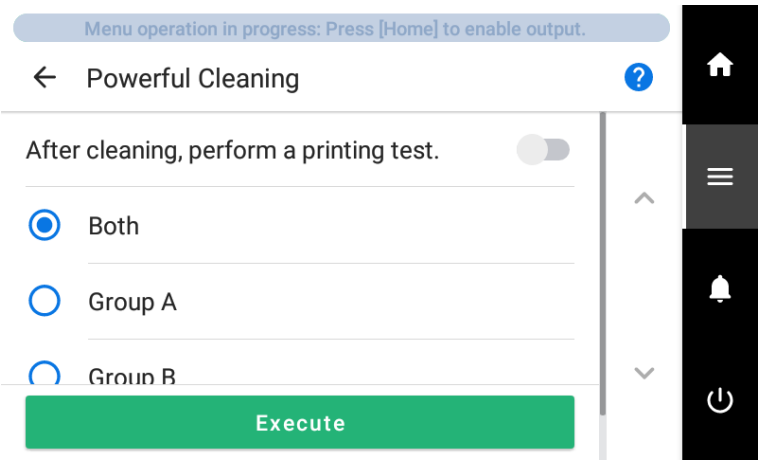
   MEMO

   If the printing-test results are difficult to interpret
   Check the results in a bright location, changing your line of vision. They are visible using the reflection of the light.

2. **Tap**  **[Nozzle Drop-out Test].**

3. **Tap [Cleaning].**

4. **Tap [Powerful Cleaning].**
   The screen shown below appears.



5. **Select the group of print heads to clean.**

6. **Tap [Execute].**

   Cleaning will start. The details of the operation in progress and the (approximate) remaining time of that work are displayed in the status bar at the top of the screen.

   When the work is finished, the status bar returns to its original display.

7. **Tap** ←.

8. **Tap [Printing Test].**

9. **Select [Nozzle Drop-out Test] and tap [Execute].**

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

MEMO

Depending on the color of the object to be printed on, it may be difficult to check the white ink test pattern.

Tap  **[Nozzle Drop-out Test]** on the home screen, select **[Cleaning]**>**[Printing Test]**>**[Nozzle Drop-out Test (Base: Black)]** in that order, and then tap **[Execute]**>**[Yes]** to make the base of the white ink black, making it easier to check the white ink.

[Nozzle Drop-out Test (Base: Black)] is not displayed if the machine is not equipped with white ink.

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]**.
- If problems remain with ink other than white ink, perform **[Ink Renewal Inside Damper]**.

RELATED LINKS

- P. 183 Manual Cleaning Method
- P. 209 When Uneven Color Issues Occur with White Ink
- P. 214 Handling Severe Dot Drop-out, Dot Displacement, and Uneven Colors

When Uneven Color Issues Occur with White Ink

Ink Circulating Method

If uneven color issues with white ink are not resolved even after shaking the ink cartridges to mix the ink, perform [**Ink Circulation**]. Uneven colors refers to the symptom of printed colors being uneven (such as the color density being inconsistent) even when the same data is printed with the same settings.

MEMO

If the object to be printed on is set up before [**Ink Circulation**] is performed, [**After ink circulation, perform a printing test.**] will be displayed on the [**Ink Circulation**] menu screen. When this setting is turned on, [**Printing Test**] will be performed after [**Ink Circulation**] even if [**Nozzle Drop-out Test**] is not performed.

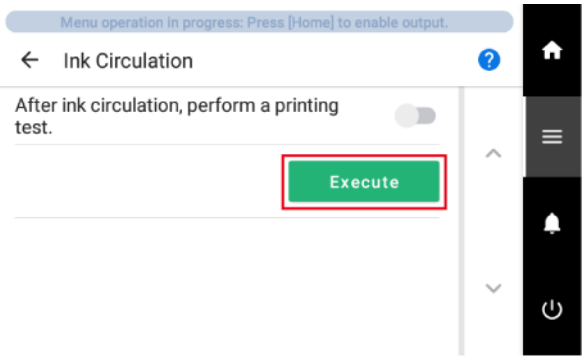
Note that [**After ink circulation, perform a printing test.**] is not displayed if a rotary axis unit is attached.

Procedure

1. Tap .
2. Tap [**Maintenance**]>[**Ink Circulation**].
3. Tap [**Execute**].

   Depending on the timing with which the [**Ink Circulation**] is started, cleaning may start. When cleaning is complete, [**Ink Circulation**] will start.

   If uneven output color issues with white ink are not resolved even after performing [**Ink Circulation**], perform [**Powerful Cleaning**].



4. Tap  to return to the home screen.

RELATED LINKS

- P. 210 Method for Eliminating Uneven Color Issues with Powerful Cleaning

Method for Eliminating Uneven Color Issues with Powerful Cleaning

When uneven color issues with white ink are not resolved even after performing [**Ink Circulation**], perform the more forceful [**Powerful Cleaning**] to eliminate these issues. Uneven colors refers to the symptom of printed colors being uneven (such as the color density being inconsistent) even when the same data is printed with the same settings.

IMPORTANT

The ink in the print heads is discharged to stabilize the output color, so a certain amount of ink is consumed.

MEMO

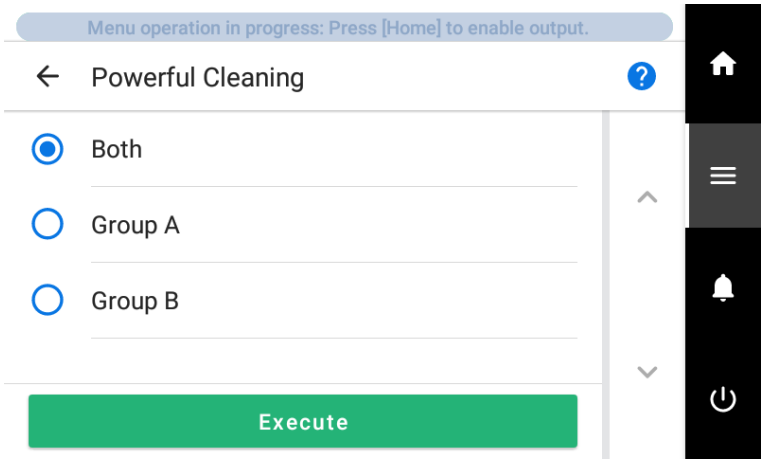
If the object to be printed on is set up before [**Powerful Cleaning**] is performed, [**After cleaning, perform a printing test.**] will be displayed on the [**Powerful Cleaning**] menu screen. When this setting is turned on, [**Printing Test**] will be performed after [**Powerful Cleaning**] even if Nozzle Drop-out Test is not performed.

Procedure

1. Tap  [**Cleaning**].

2. **Tap [Powerful Cleaning].**

   The screen shown below appears.



3. **Select [Group A].**

4. **Tap [Execute].**

   Cleaning will start. The details of the operation in progress and the (approximate) remaining time of that work are displayed in the status bar at the top of the screen.

   When the work is finished, the status bar returns to its original display.

   If uneven output color issues with white ink are not resolved even after performing [**Powerful Cleaning**], perform [**Ink Renewal Inside Damper**].

RELATED LINKS

- P. 211 Method for Ink Renewal Inside Damper

Method for Ink Renewal Inside Damper

If uneven color issues with the ink are not resolved even after performing [**Powerful Cleaning**], perform [**Ink Renewal Inside Damper**]. Uneven colors refers to the symptom of printed colors being uneven (such as the color density being inconsistent) even when the same data is printed with the same settings.

[**Ink Renewal Inside Damper**] can be used to stabilize the output colors by replacing the ink.

IMPORTANT

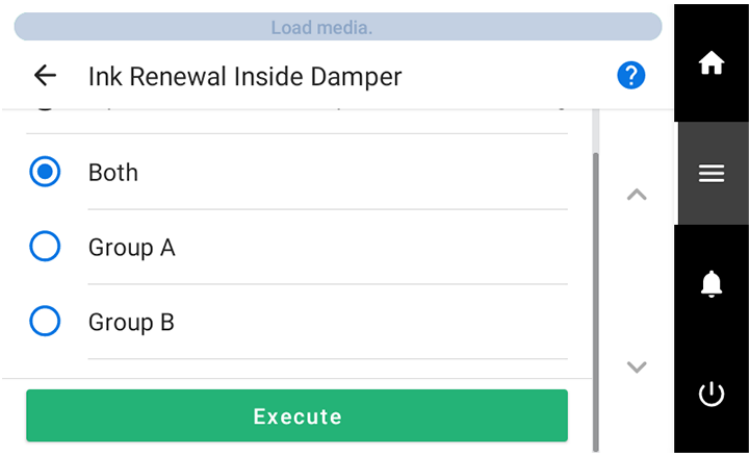
- [**Ink Renewal Inside Damper**] consumes more ink than [**Powerful Cleaning**].
- When you perform [**Ink Renewal Inside Damper**], replace with new ink pouches the existing ink pouches in all the ink cartridges in the group of print heads for which you will perform ink renewal inside the damper.
  If the ink runs out during cleaning, a [**Cleaning Error (Ink Cartridge)**] will occur and cleaning will stop.
  - The ink pouches that you have removed can still be used in operations other than ink renewal inside the damper (such as printing).

Procedure

1. **Tap** .

2. **Tap [Maintenance]>[Ink Renewal Inside Damper].**

3. **Select the group of print heads for which you will perform ink renewal inside the damper.**



4. **Replace with new ink pouches the existing ink pouches in the ink cartridges in the group of print heads for which you will perform ink renewal inside the damper.**

Ink Replacement Method(P. 62)

5. **Tap [Execute].**

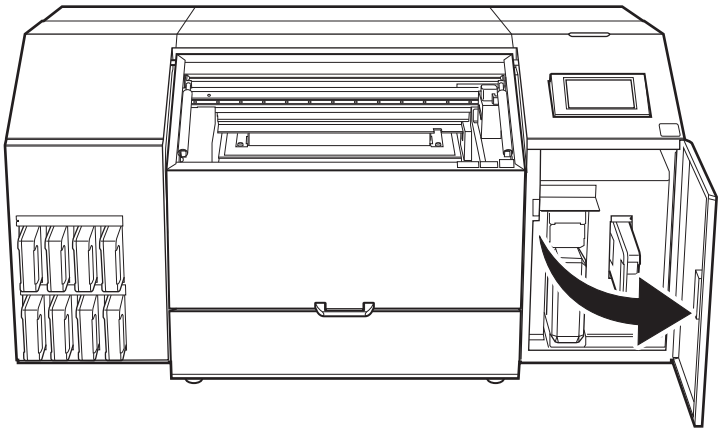
Starts the [**Ink Renewal Inside Damper**] function. The details of the operation in progress and the (approximate) remaining time of that work are displayed in the status bar at the top of the screen.

When the work is finished, the status bar returns to its original display.

MEMO

If [Discard the discharged fluid in the bottle.] appears after tapping [Execute]

1. Open the maintenance cover.



2. 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.



3. Quickly attach the emptied drain bottle to the machine once more.
4. Close the maintenance cover.
5. Tap [Finish].

⚠ CAUTION

Before you detach the drain bottle, be sure to wait for the screen to display [Discard the discharged fluid in the bottle.]. After discarding the discharged fluid, promptly attach the drain bottle to the machine.

Failing to follow this procedure may cause discharged fluid to flow out of the tube and spill, soiling your hands or the floor.

⚠ WARNING

Never place discharged fluid or ink near an open flame.

Doing so may cause a 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

Do not store discharged fluid in a location where it is exposed to direct sunlight.

When temporarily storing discharged fluid in the included drain bottle, do not store it in a location that is exposed to direct sunlight. The discharged fluid may harden, making the drain bottle unusable. The drain bottle may also deteriorate, leading to discharged fluid leaks.

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.

6. **If uneven output color issues with ink are not resolved even after performing [Ink Renewal Inside Damper], perform [Ink Renewal].**

7. **Tap  to return to the home screen.**

RELATED LINKS

- P. 217 Ink Renewal Method
- P. 273 [Cleaning Error]
- P. 273 [Cleaning Error (Ink Cartridge)]

Handling Severe Dot Drop-out, Dot Displacement, and Uneven Colors

Method for Ink Renewal Inside Damper

If uneven color issues with the ink are not resolved even after performing [**Powerful Cleaning**], perform [**Ink Renewal Inside Damper**]. Uneven colors refers to the symptom of printed colors being uneven (such as the color density being inconsistent) even when the same data is printed with the same settings.

[**Ink Renewal Inside Damper**] can be used to stabilize the output colors by replacing the ink.

IMPORTANT

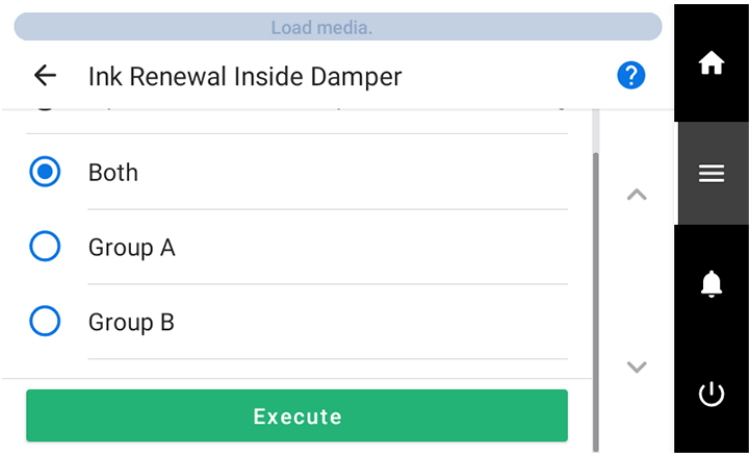
- [**Ink Renewal Inside Damper**] consumes more ink than [**Powerful Cleaning**].
- When you perform [**Ink Renewal Inside Damper**], replace with new ink pouches the existing ink pouches in all the ink cartridges in the group of print heads for which you will perform ink renewal inside the damper.
  If the ink runs out during cleaning, a [**Cleaning Error (Ink Cartridge)**] will occur and cleaning will stop.
  - The ink pouches that you have removed can still be used in operations other than ink renewal inside the damper (such as printing).

Procedure

1. **Tap** .

2. **Tap [Maintenance]>[Ink Renewal Inside Damper].**

3. **Select the group of print heads for which you will perform ink renewal inside the damper.**



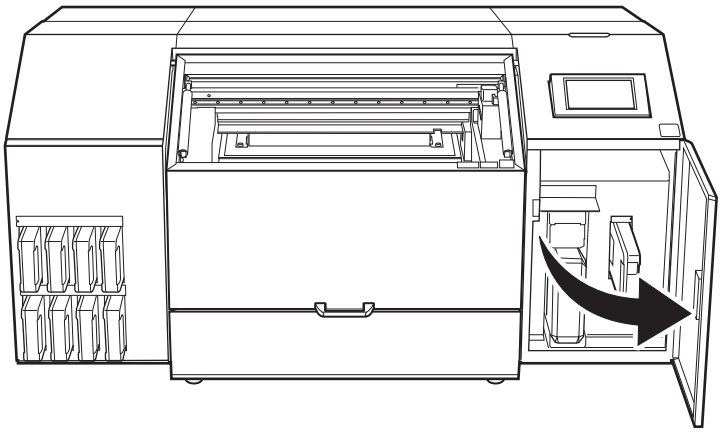
4. **Replace with new ink pouches the existing ink pouches in the ink cartridges in the group of print heads for which you will perform ink renewal inside the damper.**
Ink Replacement Method(P. 62)

5. **Tap [Execute].**
Starts the [**Ink Renewal Inside Damper**] function. The details of the operation in progress and the (approximate) remaining time of that work are displayed in the status bar at the top of the screen.
When the work is finished, the status bar returns to its original display.

MEMO

If [Discard the discharged fluid in the bottle.] appears after tapping [Execute]

1. Open the maintenance cover.



2. 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.



3. Quickly attach the emptied drain bottle to the machine once more.
4. Close the maintenance cover.
5. Tap [Finish].

⚠ CAUTION

Before you detach the drain bottle, be sure to wait for the screen to display [Discard the discharged fluid in the bottle.]. After discarding the discharged fluid, promptly attach the drain bottle to the machine.

Failing to follow this procedure may cause discharged fluid to flow out of the tube and spill, soiling your hands or the floor.

⚠ WARNING

Never place discharged fluid or ink near an open flame.

Doing so may cause a 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

Do not store discharged fluid in a location where it is exposed to direct sunlight.

When temporarily storing discharged fluid in the included drain bottle, do not store it in a location that is exposed to direct sunlight. The discharged fluid may harden, making the drain bottle unusable. The drain bottle may also deteriorate, leading to discharged fluid leaks.

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.

6. **If uneven output color issues with ink are not resolved even after performing [Ink Renewal Inside Damper], perform [Ink Renewal].**

7. **Tap  to return to the home screen.**

RELATED LINKS

- P. 217 Ink Renewal Method
- P. 273 [Cleaning Error]
- P. 273 [Cleaning Error (Ink Cartridge)]

Ink Renewal Method

Perform [**Ink Renewal**] in the following situations.

- When dot drop-out and uneven colors are not corrected after performing cleaning using the cleaning function (normal, medium, powerful), [**Manual Cleaning**], and [**Ink Renewal Inside Damper**].
- When white is uneven even after performing [**Ink Renewal Inside Damper**]
- When a color other than white is uneven even after shaking the ink cartridges to mix the ink

IMPORTANT

A large amount of ink will be discharged during [**Ink Renewal**]. Perform this operation only when ink discharge issues such as dot drop-out, dot displacement, and uneven colors cannot be corrected even after performing cleaning using the other cleaning functions (normal, medium, powerful, manual, and ink renewal inside damper).

RELATED LINKS

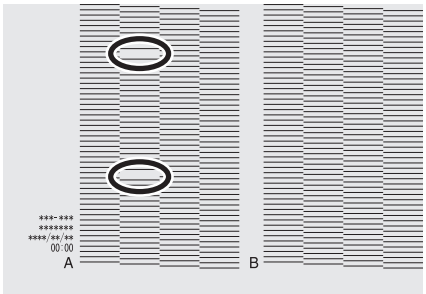
- P. 203 When Dot Drop-out or Dot Displacement Occurs
- P. 205 Medium Cleaning Method
- P. 207 Powerful Cleaning Method
- P. 183 Manual Cleaning Method
- P. 210 Method for Eliminating Uneven Color Issues with Powerful Cleaning
- P. 211 Method for Ink Renewal Inside Damper

1. Start the [Ink Renewal] menu.

Procedure

1. **Check for the group with dot drop-out, dot displacement, or uneven colors by viewing the results of the printing test.**

   The space from "A" to "B" is group A. The space from "B" to the right side is group B.



MEMO

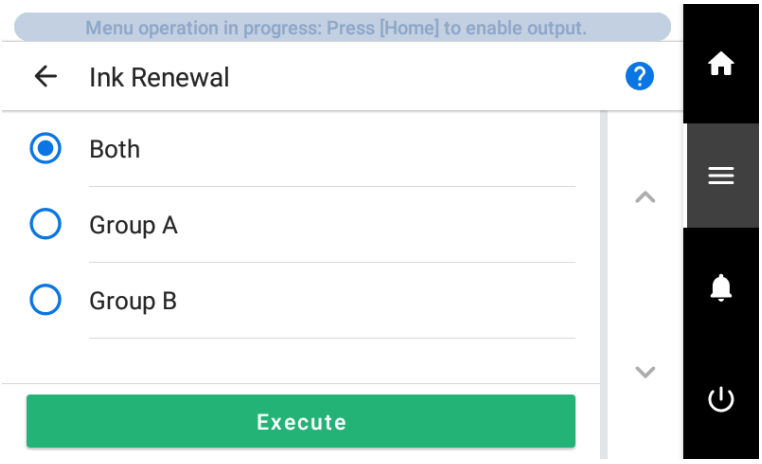
If the printing-test results are difficult to interpret

Check the results in a bright location, changing your line of vision. They are visible using the reflection of the light.

2. **Remove the object to be printed on.**

3. **Tap**  **.**

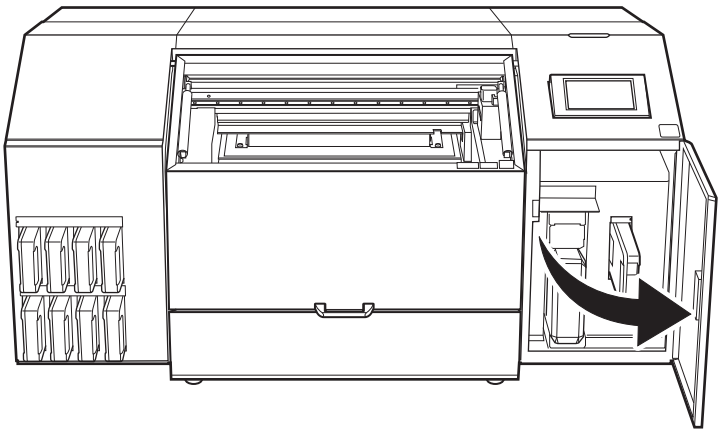
4. **Tap [Maintenance]>[Ink Renewal].**
   The screen shown below appears.



5. **Select the group of print heads to renew the ink of.**

6. **Tap [Execute].**
   The **[Discard the discharged fluid in the bottle.]** screen appears.

7. **Open the maintenance cover.**



8. **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.

⚠ CAUTION

Before you detach the drain bottle, be sure to wait for the screen to display [Discard the discharged fluid in the bottle.]. After discarding the discharged fluid, promptly attach the drain bottle to the machine.

Failing to follow this procedure may cause discharged fluid to flow out of the tube and spill, soiling your hands or the floor.

⚠ WARNING

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

Do not store discharged fluid in a location where it is exposed to direct sunlight.
When temporarily storing discharged fluid in the included drain bottle, do not store it in a location that is exposed to direct sunlight. The discharged fluid may harden, making the drain bottle unusable. The drain bottle may also deteriorate, leading to discharged fluid leaks.

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.



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

10. **Close the maintenance cover.**

11. **Tap [Finish].**
Ink renewal starts.

The details of the operation in progress and the (approximate) remaining time of that work are displayed in the status bar at the top of the screen.

When the work is finished, the status bar returns to its original display.

12. **Tap  to return to the home screen.**

2. Perform a printing test to check the results.

Procedure

1. **Set up the object to be printed on.**
   Determining the Print Surface Height and Printing Position(P. 77)

2. **Tap  [Nozzle Drop-out Test] on the home screen.**

3. **Tap [Execute] next to [Printing Test].**
   Printing of the test pattern starts.

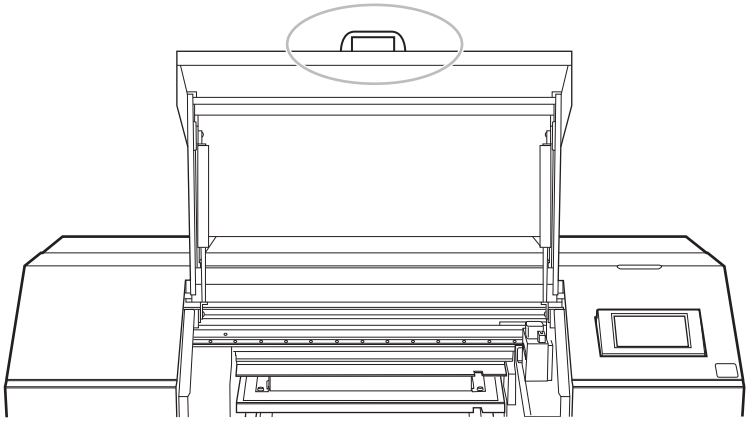
   MEMO

   Depending on the color of the object to be printed on, it may be difficult to check the white ink test pattern.
   Tap  **[Nozzle Drop-out Test]** on the home screen, select **[Cleaning]**>**[Printing Test]**>**[Nozzle Drop-out Test (Base: Black)]** in that order, and then tap **[Execute]**>**[Yes]** to make the base of the white ink black, making it easier to check the white ink.
   [Nozzle Drop-out Test (Base: Black)] is not displayed if the machine is not equipped with white ink.

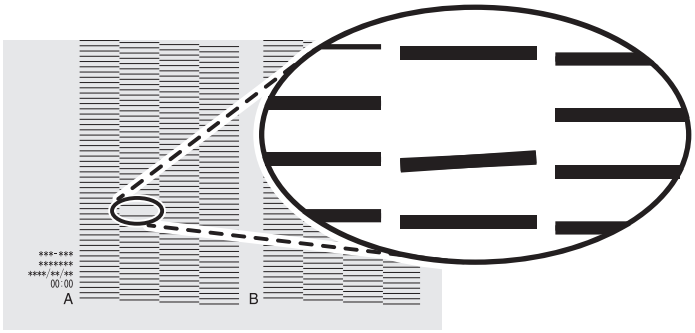
4. **Open the front cover.**

   MEMO

   Be sure to hold the handle of the front cover and keep holding it until the cover is completely opened or closed.
   If you do not open and close the front cover gently, it may break or you may be injured.

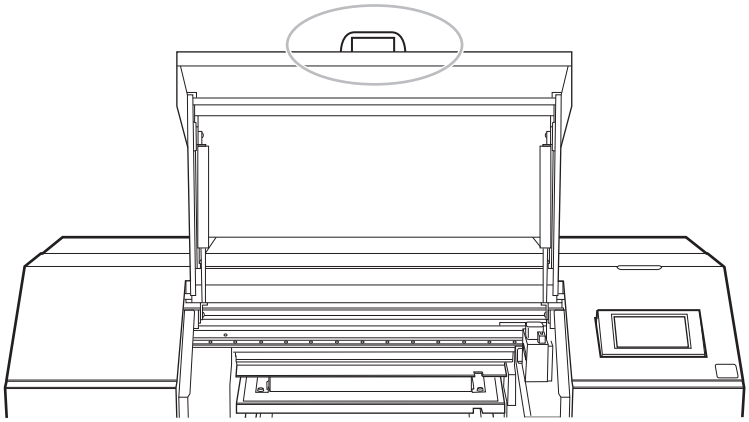
5. **Check whether there is dot drop-out or dot displacement in the test pattern and whether its uneven colors have been eliminated.**



6. **Close the front cover.**

MEMO

Be sure to hold the handle of the front cover and keep holding it until the cover is completely opened or closed.
If you do not open and close the front cover gently, it may break or you may be injured.



If no dot drop-out or dot displacement occurs and if there are no uneven colors, this operation is finished.

7. **Tap  to return to the home screen.**

If the dot drop-out or dot displacement location is different, perform medium cleaning another two or three times.

If this problem is not fixed, contact your authorized dealer.

Partially Restricting the Print Heads Used for Printing

When dot drop-out or dot displacement is not improved even after renewing the ink, partially restrict the print heads to use for printing. This operation is called the "nozzle mask," and while it slows down printing speed, it also allows you to decrease the impact of dot drop-out or dot displacement.

First print a test pattern, and then select the nozzle group to use by viewing the test results. After that, use VersaWorks to select the nozzle group used for printing.

1. Perform a printing test for the nozzle mask.

Procedure

1. **Set up the object.**

   Determining the Print Surface Height and Printing Position(P. 77)

2. **Tap** .

3. **Tap [Cleaning]>[Printing Test].**

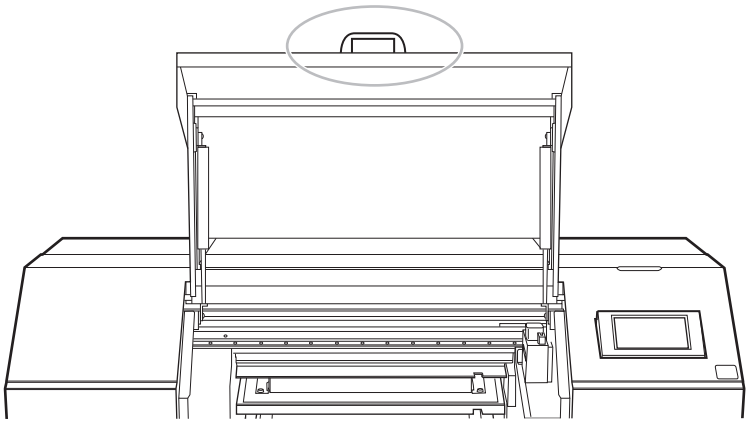
4. **Select [Nozzle Mask Test] and tap [Execute].**

   Printing of the test pattern starts.

5. **Open the front cover.**

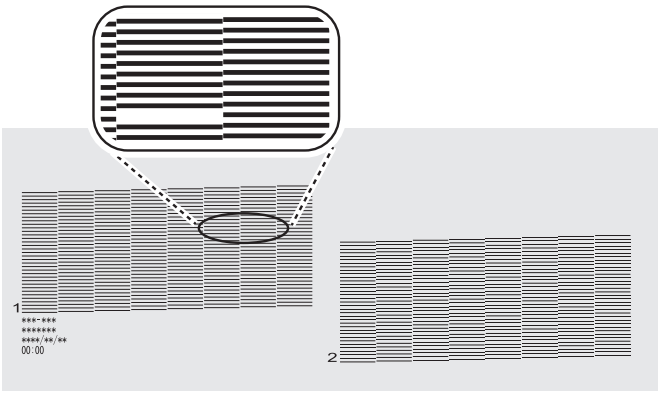
   MEMO

   Be sure to hold the handle of the front cover and keep holding it until the cover is completely opened or closed.
   If you do not open and close the front cover gently, it may break or you may be injured.

6. **Check for the nozzle group with dot drop-out or dot displacement by viewing the results of the printing test.**

   The results of the printing test are displayed separately for nozzle groups "1" and "2." The following shows a dot drop-out in nozzle group 1.



MEMO

If the printing-test results are difficult to interpret

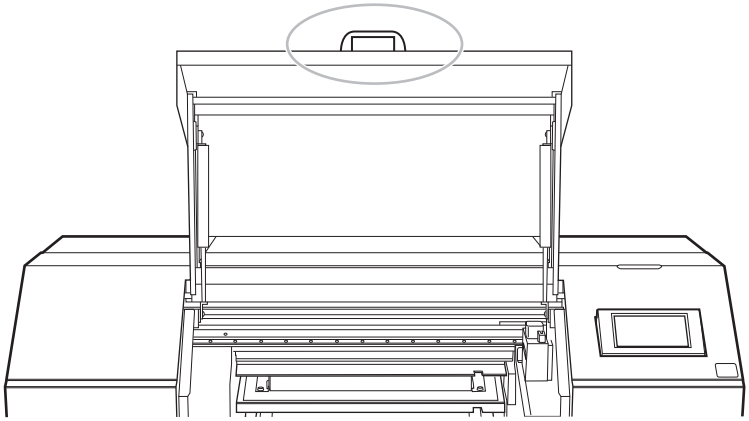
Check the results in a bright location, changing your line of vision. They are visible using the reflection of the light.

7. **Close the front cover.**

MEMO

Be sure to hold the handle of the front cover and keep holding it until the cover is completely opened or closed.

If you do not open and close the front cover gently, it may break or you may be injured.



If no dot drop-out or dot displacement occurs, this operation is finished.

8. **Tap  to return to the home screen.**

2. Limit the print heads used for printing.

Use VersaWorks to select the nozzle group used for printing. For the detailed procedure, see the VersaWorks Master Guide.

RELATED LINKS

- VersaWorks manual

Emergency Measure) Cleaning the Print Head Surface

When dot drop-out or dot deflection is not improved even if cleaning is performed several times, you can clean the surface of the print heads as an emergency measure. The print head surface (nozzle surface) is a very delicate mechanism, so work must be performed carefully and cautiously.

This operation is an emergency measure. It may damage defect-free parts depending on the symptoms, worsening the symptoms. If you have any questions, contact your authorized dealer.

⚠ 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.

⚠ WARNING

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

Sudden movement of the machine may cause injury.

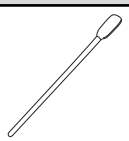
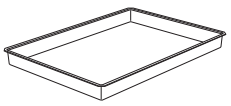
IMPORTANT

Important notes on this procedure

- Before performing this operation, remove any objects to be printed on.
- 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.
- Do not use cleaning liquid other than the included cleaning liquid.
- Be sure to use new cleaning sticks. 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).
- If you use up the cleaning sticks or cleaning liquid, contact your authorized dealer or visit our website (https://www.rolanddg.co.jp/).

When a warning beep sounds during cleaning

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

Required items		
		
Cleaning stick	Cleaning liquid	Tray

Procedure

1. Remove the object to be printed on.

2. Tap  [Cleaning].

3. Tap [Manual Cleaning].

4. Select the table position for when performing [Manual Cleaning].

   Select either [**Table Position: Center**] or [**Table Position: Back**].

   When the Vacuum Table Is Attached

	Condition
[**Table Position: Center**]	When a jig is not installed over the vacuum table
[**Table Position: Back**]	When a jig is installed over the vacuum table

   When the Vacuum Table Is Not Attached

	Condition
[**Table Position: Center**]	• When a jig is not installed over the flat table • When a jig with a height of less than 100 mm (3.93 in.) is installed over the flat table
[**Table Position: Back**]	When a jig with a height of more than 100 mm (3.94 in.) is installed over the flat table

5. Tap [Execute].

   Tap [**Execute**] to display a message reminding the user to wear protective gear.

6. Tap [OK].

   Tap [**OK**] to move the print-head carriage and table.

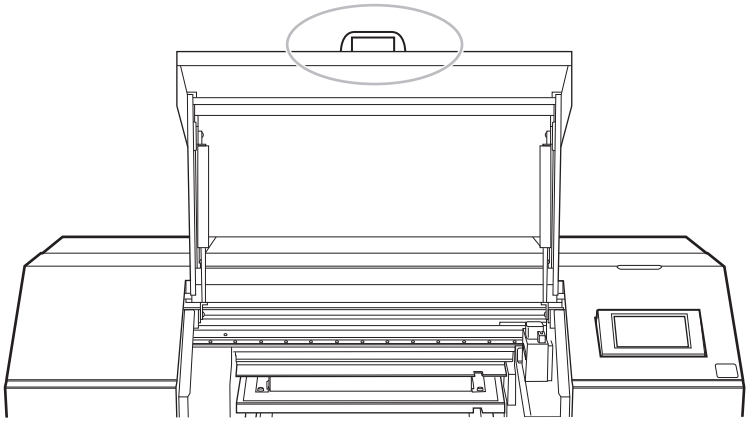
   MEMO

   The cleaning of the print head surface (as an emergency measure) uses the manual cleaning menu and moves the print-head carriage to the left side of the machine. Therefore, the manual cleaning procedure appears on the operation panel.

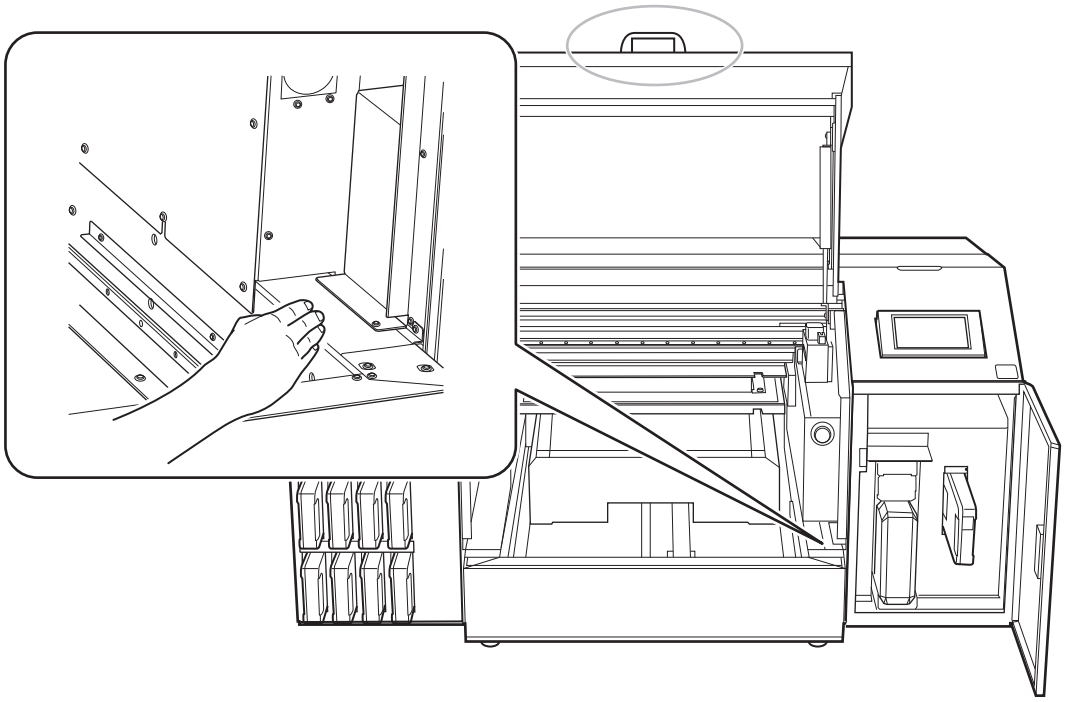
7. Open the front cover.

   MEMO

   Be sure to hold the handle of the front cover and keep holding it until the cover is completely opened or closed.
   If you do not open and close the front cover gently, it may break or you may be injured.



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



9. **Apply a large amount of cleaning liquid to a new cleaning stick.**

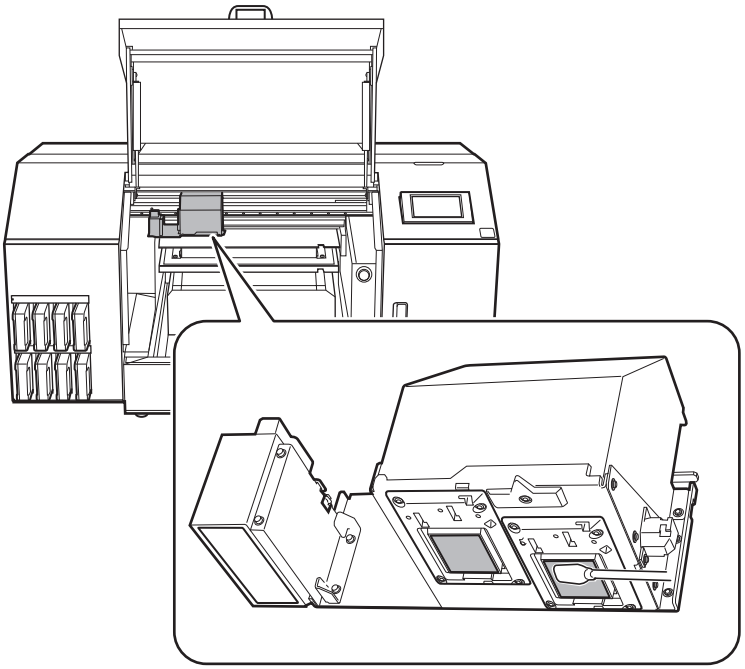
IMPORTANT

- Be sure to use one of the included cleaning sticks.
- Do not use a previously used cleaning stick.
- Do not put a previously used cleaning stick into the cleaning liquid.



10. **Very gently touch the cleaning stick against the print head surface (nozzle surface).**

Very softly press the cleaning stick against the print head so that cleaning liquid soaks into the print head surface (nozzle surface). Never rub the stick on the surface or press it forcibly.



11. Tap [Finish All].

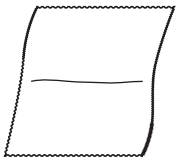
When the Operation Panel Is Dirty

Operation Panel Cleaning Method

IMPORTANT

Important notes on this procedure

- The cloths, alcohol, and similar items used in cleaning are not included with the product.
- Be sure to use a cloth when cleaning the operation panel. Liquid entering into the operation panel through its gaps may cause printer malfunctions.

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

⚠ 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 operation panel damage.

Procedure

1. **Switch off the sub power.**
2. **Wipe off the operation panel with a cloth soaked in anhydrous ethanol or isopropyl alcohol.**

   Wipe slowly and gently to remove the grime.

Replacing Consumable Parts

Replacing Parts for Maintenance 232
Replacing the Wiper 232
Replacing the Print Head Caps 235
Replacing the wiper cleaner 238
Replacing the UV Mist Filters 241
Replacing the Flushing Sponge 244
Positioning Jigs 247
Consumable Parts That Require Inquiries before Replacement 248

Replacing Parts for Maintenance

Replacing the Wiper

The wiper periodically cleans the surface of the print heads.

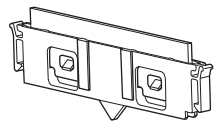
When it is time to replace the wiper, the message [**The time for wiper replacement has arrived.**] appears. In this situation, replace the wiper.

For information about purchasing wipers, contact your authorized dealer or visit our website (https://www.rolanddg.co.jp/).

⚠ WARNING

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

Sudden movement of the machine may cause injury.

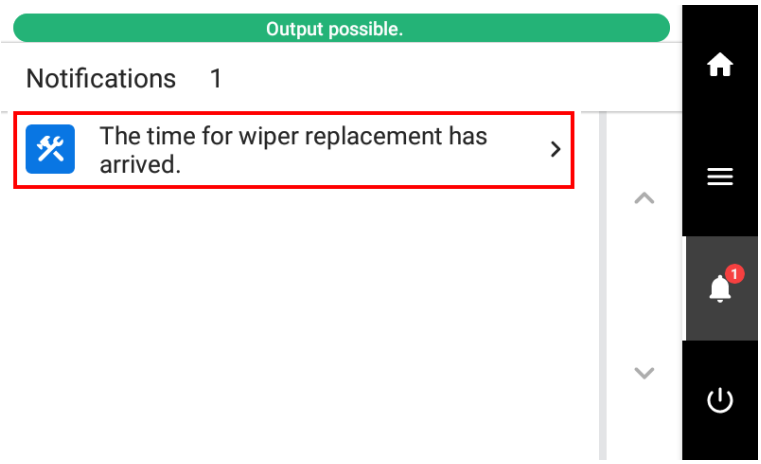
Required item

Wiper

IMPORTANT

- To prevent the print heads from drying out, finish this procedure in 10 minutes or less. A warning beep sounds after 10 minutes.
- Take care to prevent ink from adhering to the operation panel.

Procedure

1. **When the message [The time for wiper replacement has arrived.] appears, tap [OK].**
2. **Remove the object to be printed on.**
3. **Tap  to display the messages.**
4. **Tap [The time for wiper replacement has arrived.].**



The [**Wiper Replacement**] screen appears.

5. **Tap [Execute].**

   Tap [**Execute**] to display a message reminding the user to wear protective gear.

6. **Tap [OK].**

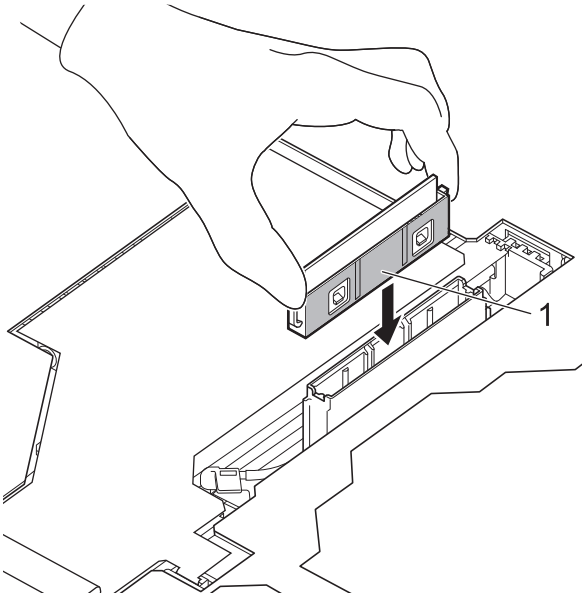
   Tap [**OK**] to move the print-head carriage to a location where wiper replacement is possible.

7. **Follow the instructions on the operation panel to replace the wiper.**

   - Tap < or > to check the procedure.
   - If you complete the work without viewing the instructions, tap [**Finish All**].

IMPORTANT

- Install the wiper so that surface (1) faces to the right.
- After installing the wiper, hold the hooks on the left and right sides, pressing in just enough so that the locks are not released. Then, gently pull the wiper up and check that it is not removed.



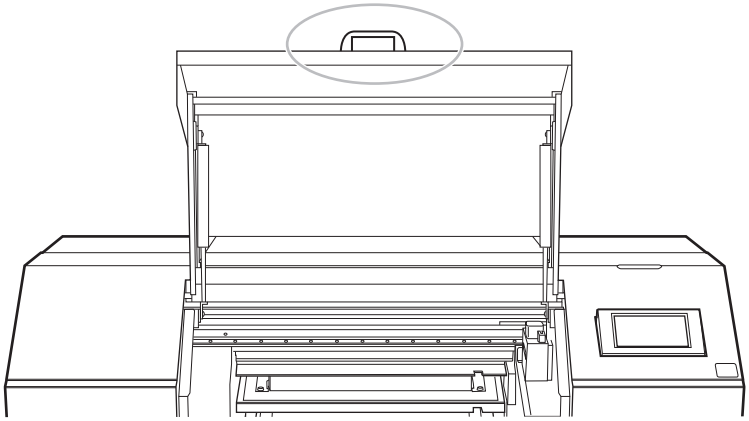
8. **When the wiper replacement is finished, tap [Finish All].**

9. **When [Close the cover.] is displayed, close the front cover and the maintenance cover.**

When you close the front cover and the maintenance cover, you are returned to the original screen.

MEMO

Be sure to hold the handle of the front cover and keep holding it until the cover is completely opened or closed.
If you do not open and close the front cover gently, it may break or you may be injured.



10. **Tap  to return to the home screen.**

Replacing the Print Head Caps

The print head caps seal the nozzle surfaces of the print heads, preventing these surfaces from drying out and preventing dust from adhering to them.

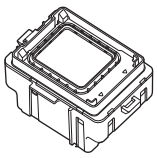
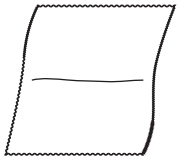
When it is time to replace the print head caps, the message [**The time for cap replacement has arrived.**] appears. In this situation, replace the print head caps.

For information about purchasing print head caps, contact your authorized dealer or visit our website (https://www.rolanddg.co.jp/).

⚠ WARNING

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

Sudden movement of the machine may cause injury.

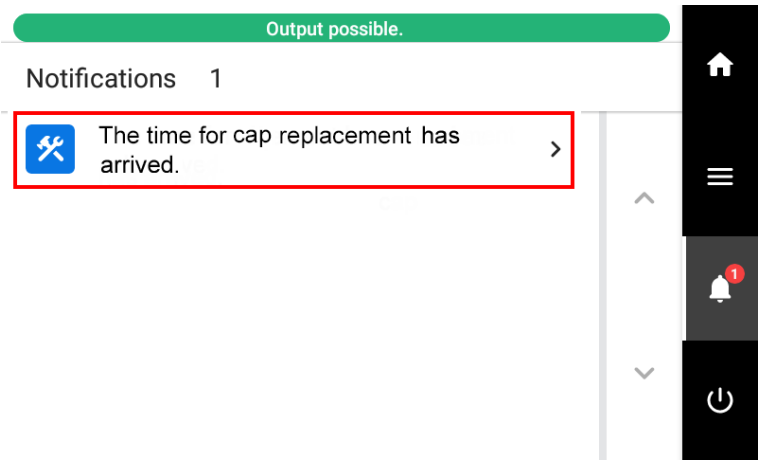
Required items		
		
Print head cap	Cloth (that is not fluffy)	Cleaning stick

IMPORTANT

- To prevent the print heads from drying out, finish this procedure in 10 minutes or less. A warning beep sounds after 10 minutes.
- Take care to prevent ink from adhering to the operation panel.

Procedure

1. **When the message [The time for cap replacement has arrived.] appears, tap [OK].**
2. **Remove the object to be printed on.**
3. **Tap**  **to display the messages.**
4. **Tap [The time for cap replacement has arrived.].**



The [**Cap Replacement**] screen appears.

5. **Tap [Execute].**

   Tap [**Execute**] to display a message reminding the user to wear protective gear.

6. **Tap [OK].**

   Tap [**OK**] to move the print-head carriage to a location where print head cap replacement is possible.

7. **Follow the instructions on the operation panel to replace the print head caps.**

   - Tap < or > to check the procedure.
   - If you complete the work without viewing the instructions, tap [**Finish All**].

   IMPORTANT

   Ink may drip from the removed print head cap. Exercise caution to prevent this fluid from soiling your hands or the floor.
   To prevent ink from adhering to your hands, the machine, or the floor, cover the bottom surface of the removed print head cap with paper towels or something similar.

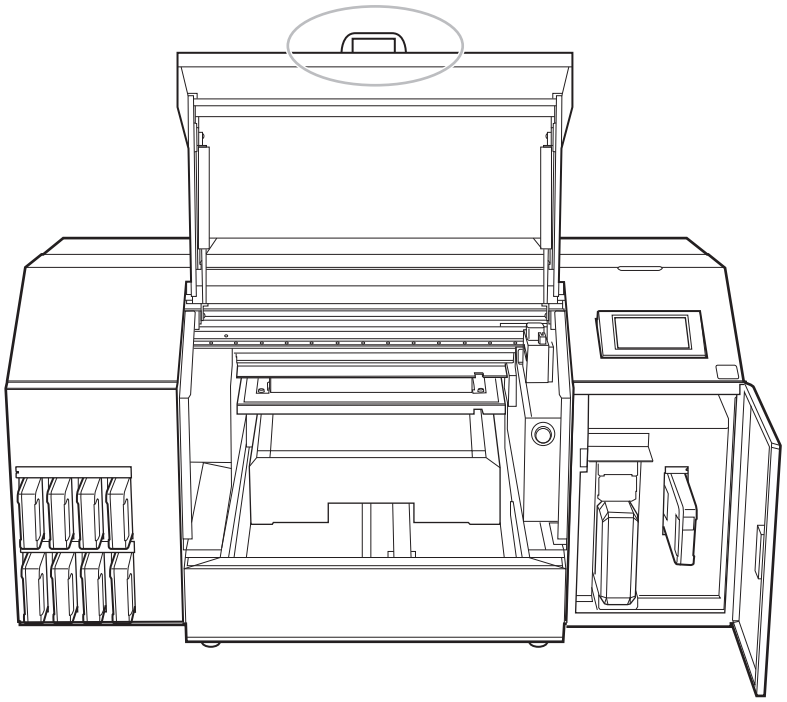
8. **When the print head cap replacement is finished, tap [Finish All].**

9. **When [Close the cover.] is displayed, close the front cover and the maintenance cover.**

   When you close the front cover and the maintenance cover, you are returned to the original screen.

   MEMO

   Be sure to hold the handle of the front cover and keep holding it until the cover is completely opened or closed.
   If you do not open and close the front cover gently, it may break or you may be injured.



10. Tap  to return to the home screen.

Replacing the wiper cleaner

The wiper cleaner removes ink, dust, and similar substances that have adhered to the wiper during cleaning.

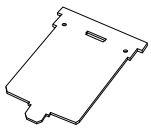
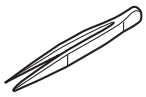
When it is time to replace the wiper cleaner, the message [**The time for wiper cleaner replacement has arrived.**] appears. In this situation, replace the wiper cleaner.

For information about purchasing wiper cleaners, contact your authorized dealer or visit our website (https://www.rolanddg.co.jp/).

⚠ WARNING

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

Sudden movement of the machine may cause injury.

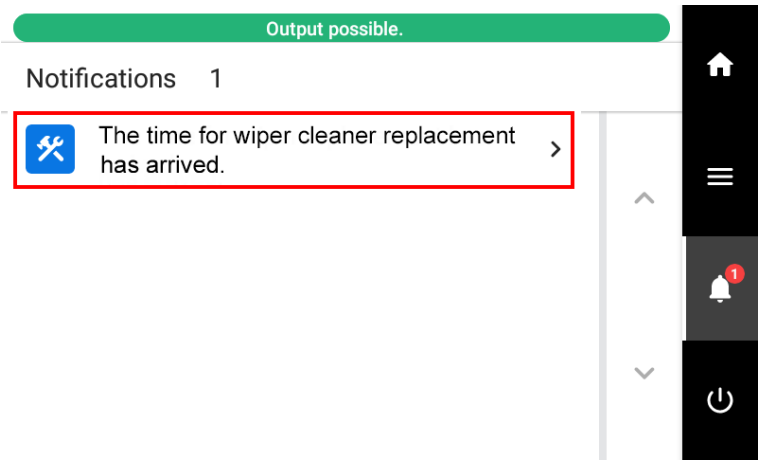
Required items	
	
Wiper cleaner	Tweezers

IMPORTANT

- To prevent the print heads from drying out, finish this procedure in 10 minutes or less. A warning beep sounds after 10 minutes.
- Take care to prevent ink from adhering to the operation panel.

Procedure

1. **When the message [The time for wiper cleaner replacement has arrived.] appears, tap [OK].**
2. **Remove the object to be printed on.**
3. **Tap**  **to display the messages.**
4. **Tap [The time for wiper cleaner replacement has arrived.].**



The [**Wiper Cleaner Replacement**] screen appears.

5. **Tap [Execute].**

Tap [**Execute**] to display a message reminding the user to wear protective gear.

6. **Tap [OK].**

Tap [**OK**] to move the print-head carriage to a location where wiper cleaner replacement is possible.

7. **Follow the instructions on the operation panel to replace the wiper cleaner.**

- When [**Eliminate static electricity.**] appears, touch the indicated location, and then tap [**Finish**] to display the instructions for wiper cleaner replacement.
- Tap < or > to check the procedure.
- If you complete the work without viewing the instructions, tap [**Finish All**].

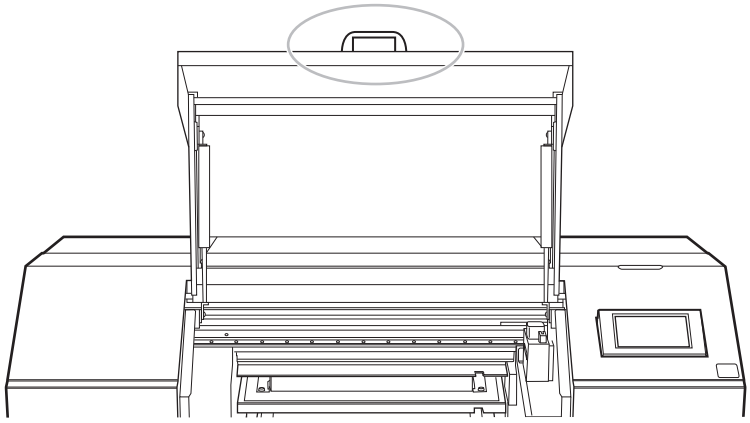
8. **When the wiper cleaner replacement is finished, tap [Finish All].**

9. **When [Close the cover.] is displayed, close the front cover, the flushing cover, and the maintenance cover.**

When you close the front cover, the flushing cover, and the maintenance cover, you are returned to the original screen.

MEMO

Be sure to hold the handle of the front cover and keep holding it until the cover is completely opened or closed.
If you do not open and close the front cover gently, it may break or you may be injured.



10. Tap  to return to the home screen.

Replacing the UV Mist Filters

The UV mist filters absorb the ink mist generated during printing to reduce the amount of ink mist that adheres to the UV-LED device.

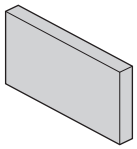
When it is time to replace the UV mist filters, the message [**The time for UV mist filter replacement has arrived.**] appears. If this message appears, replace the UV mist filters.

For information about purchasing UV mist filters, contact your authorized dealer or visit our website (https://www.rolanddg.co.jp/).

⚠ WARNING

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

Sudden movement of the machine may cause injury.

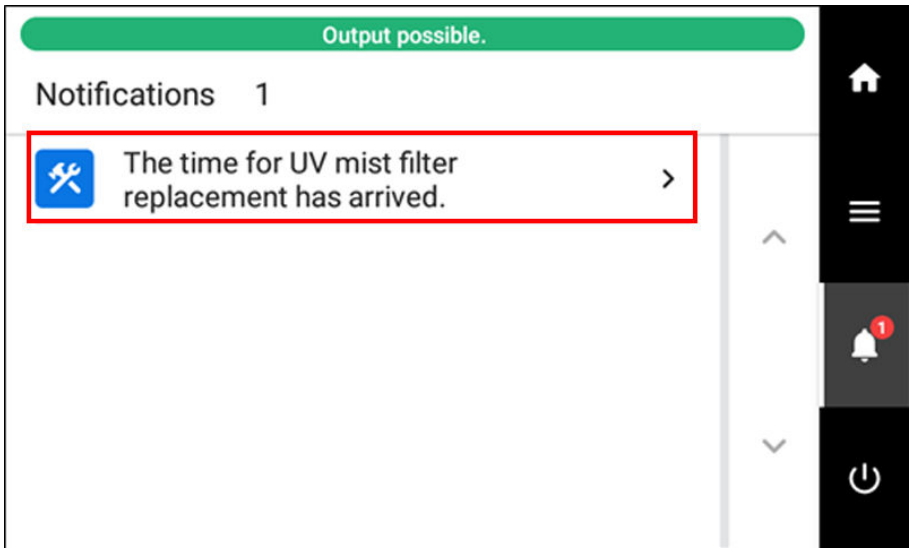
Required item

UV mist filters

IMPORTANT

- To prevent the print heads from drying out, finish this procedure in 10 minutes or less. A warning beep sounds after 10 minutes.
- Take care to prevent ink from adhering to the operation panel.

Procedure

1. **When the message [The time for UV mist filter replacement has arrived.] appears, tap [OK].**
2. **Remove the object to be printed on.**
3. **Tap**  **to display the messages.**
4. **Tap [The time for UV mist filter replacement has arrived.].**



The [**UV Mist Filter Replacement**] screen appears.

5. **Tap [Execute].**

   Tap [**Execute**] to display a message reminding the user to wear protective gear.

6. **Tap [OK].**

   Tap [**OK**] to move the print-head carriage to a location where the UV mist filter can be replaced.

7. **Follow the instructions on the operation panel to replace the UV mist filters.**

   - Tap < or > to check the procedure.
   - If you complete the work to replace the UV mist filter without viewing the instructions, tap [**Finish All**].

   MEMO

   UV mist filters do not have a specified front or back. They can be attached with either orientation.

8. **When the UV mist filter replacement is finished, tap [Finish All].**

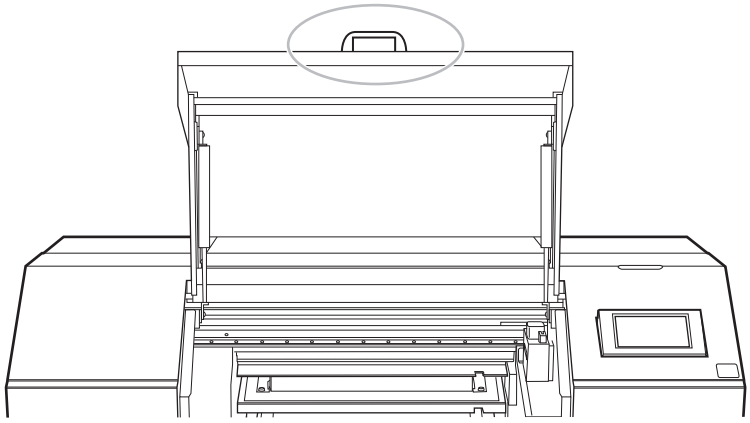
9. **When [Close the cover.] appears, close the front cover.**

   Close the front cover to start the cleaning process. The details of the operation in progress and the (approximate) remaining time of that work are displayed in the status bar at the top of the screen.

   When the work is finished, the status bar returns to its original display.

   MEMO

   Be sure to hold the handle of the front cover and keep holding it until the cover is completely opened or closed.
   If you do not open and close the front cover gently, it may break or you may be injured.



10. Tap  to return to the home screen.

Replacing the Flushing Sponge

The flushing sponge absorbs the discharged ink to prevent clogging of the print heads.

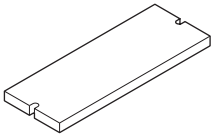
When it is time to replace the flushing sponge, the message [**The time for flushing sponge replacement has arrived.**] appears. In this situation, replace the flushing sponge.

For information about purchasing flushing sponges, contact your authorized dealer or visit our website (https://www.rolanddg.co.jp/).

⚠ WARNING

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

Sudden movement of the machine may cause injury.

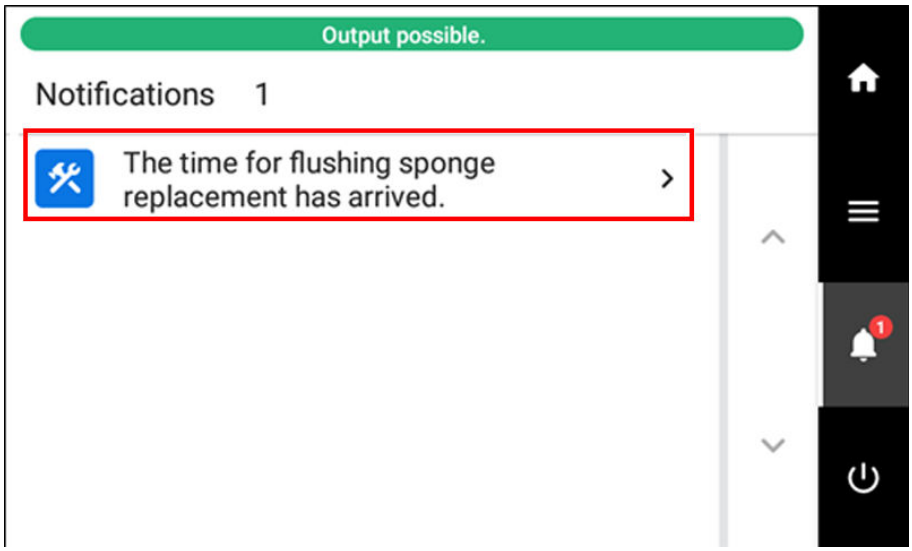
Required items	
	
Flushing sponge	Tweezers

IMPORTANT

- To prevent the print heads from drying out, finish this procedure in 10 minutes or less. A warning beep sounds after 10 minutes.
- Take care to prevent ink from adhering to the operation panel.

Procedure

1. **When the message [The time for flushing sponge replacement has arrived.] appears, tap [OK].**
2. **Remove the object to be printed on.**
3. **Tap  to display the messages.**
4. **Tap [The time for flushing sponge replacement has arrived.].**



The [**Flushing Sponge Replacement**] screen appears.

5. **Tap [Execute].**

Tap [**Execute**] to display a message reminding the user to wear protective gear.

6. **Tap [OK].**

Tap [**OK**] to move the print-head carriage to a location where flushing sponge replacement is possible.

7. **Follow the instructions on the operation panel to replace the flushing sponge.**

- When the message [**Eliminate static electricity.**] appears, touch the indicated location, and then tap [**Finish**] to display the instructions for flushing sponge replacement.
- Tap < or > to check the procedure.
- If you complete the work without viewing the instructions, tap [**Finish All**].

MEMO

Flushing sponges do not have a specified front or back. They can be attached with either orientation.

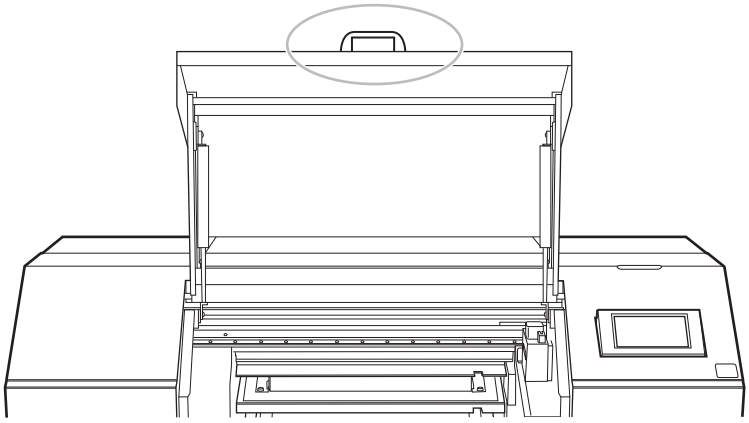
8. **When the flushing sponge replacement is finished, tap [Finish All].**

9. **When [Close the cover.] is displayed, close the front cover, the flushing cover, and the maintenance cover.**

When you close the front cover, the flushing cover, and the maintenance cover, you are returned to the original screen.

MEMO

Be sure to hold the handle of the front cover and keep holding it until the cover is completely opened or closed.
If you do not open and close the front cover gently, it may break or you may be injured.



10. Tap  to return to the home screen.

Positioning Jigs

Positioning jigs are components that wear out. Contact your authorized dealer if new parts are needed.

Consumable Parts That Require Inquiries before Replacement

When replacing the following consumable parts, contact your authorized dealer.

Item	Related page
Print heads	Cleaning around the Print Heads(P. 182)

Troubleshooting Methods

Output Quality Problems

Printed results are coarse or contain horizontal bands 251
- Do the Print Heads Cause Dot Drop-out? 251
- Is the printer installed in a level and stable location? 251
- Is the printer installed in a location that is not exposed to direct sunlight? 251
- Are the software RIP settings appropriate? 251
- Is the method of loading the object to be printed on appropriate? 251
- Are the [**Media Settings**] appropriate? 251

Printing Feels Rough on Left Side of Flat Table 252
- Is [**Distance Mode Image Quality Stabilization**] set to [**On**]? 252

The Object to be Printed on Becomes Soiled When Printed 253
- Are the print heads dirty? 253
- Is the humidity of the room too low? 253

Colors are unstable or uneven 254
- Did you shake the ink cartridges before installing them? 254
- Are colors still uneven after mixing the ink by shaking the ink cartridges? 254
- Was printing paused partway through? 254
- Is the printer installed in a level and stable location? 255
- Is the method of loading the object to be printed on appropriate? 255
- Are the operating parameters set to appropriate values? 255
- Is the printer being used in a location subject to severe changes in the operating environment? 255
- Are the [**Media Settings**] appropriate? 255
- Are the irradiation windows of the UV-LED devices dirty? 255

Printed results are coarse or contain horizontal bands

Do the Print Heads Cause Dot Drop-out?

Carry out a printing test and make sure no dot drop-out or dot displacement occurs. If dot drop-out or dot displacement is present, perform cleaning.

When [**Automatic Maintenance Frequency**] is set to [**Low**], the minimal amount of cleaning is performed. If necessary, perform [**Normal Cleaning**] or similar cleaning to eliminate dot drop-out or dot displacement. You can also reduce the risk of dot displacement and dot drop-out by setting [**Automatic Maintenance Frequency**] to [**High**].

RELATED LINKS

- P. 53 Performing a Nozzle Drop-out Test
- P. 55 Normal Cleaning Method
- P. 205 When Normal Cleaning Is Not Effective
- P. 148 Setting the Automatic Maintenance Frequency

Is the printer installed in a level and stable location?

Never install the machine in a location where it is tilted or where it may wobble or experience vibration. These factors may lead to dot-dropout or reduced printing quality.

Is the printer installed in a location that is not exposed to direct sunlight?

Never install the machine in a location that is exposed to direct sunlight. Doing so may result in dot drop-out or other problems with reduced printing quality, or may even result in malfunction.

Are the software RIP settings appropriate?

Try using the optimal print mode on software RIP. Specific combinations of the object to be printed on and print mode may cause the colors to be uneven. Results may also vary greatly depending on the color-profile selection. Select settings appropriate for the object to be printed on.

Is the method of loading the object to be printed on appropriate?

If the object to be printed on is not loaded correctly, output may be adversely affected. Load the object to be printed on correctly.

RELATED LINKS

- P. 74 Loading the Object to Be Printed On

Are the [Media Settings] appropriate?

If the settings are not suitable for the object to be printed on, output may be adversely affected. Select settings optimized for the object to be printed on.

RELATED LINKS

- P. 128 Changing the Media Settings

Printing Feels Rough on Left Side of Flat Table

Is [Distance Mode Image Quality Stabilization] set to [On]?

The image quality on the left side of the flat table may feel rough when printing with [Generic Distance] or [Generic Distance (With Primer)].

Set [**Distance Mode Image Quality Stabilization**] to [**On**] if the quality of the image on the left side of the flat table feels coarse.

RELATED LINKS

- P. 126 Setting [**Distance Mode Image Quality Stabilization**]

The Object to be Printed on Becomes Soiled When Printed

Are the print heads dirty?

The following may cause ink to drip on the object to be printed on during printing.

- Fibrous dust (lint) is built up around the print heads
- Ink transferred to the print heads due to rubbing against the object to be printed on

If this happens, perform manual cleaning. We recommend carrying out periodic cleaning of the print heads.

RELATED LINKS

- P. 182 Cleaning around the Print Heads

Is the humidity of the room too low?

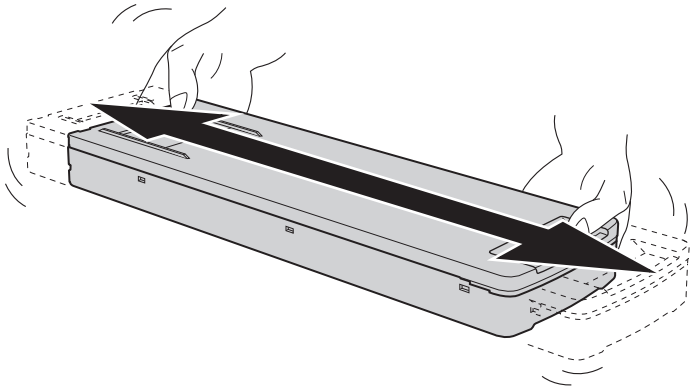
Use the machine in an environment with a humidity of 35 to 80% RH (no condensation).

Colors are unstable or uneven

Did you shake the ink cartridges before installing them?

Shake new ink cartridges 50 times (about 20 seconds) before you install them.

Every day before starting work, remove the white ink cartridge, shake it 50 times (about 20 seconds), and then reinsert it.



Are colors still uneven after mixing the ink by shaking the ink cartridges?

If uneven color issues with white ink still occur even after shaking the ink cartridges to mix the ink, perform [**Ink Circulation**].

If uneven color issues with white ink still occur even after performing [**Ink Circulation**], perform [**Powerful Cleaning**].

If uneven color issues with white ink still occur even after performing [**Powerful Cleaning**], perform [**Ink Renewal Inside Damper**].

If uneven color issues with white ink still occur even after performing [**Ink Renewal Inside Damper**], perform [**Ink Renewal**].

If uneven color issues with ink other than white ink still occur even after shaking the ink cartridges to mix the ink, perform [**Ink Renewal**].

RELATED LINKS

- P. 209 Ink Circulating Method
- P. 210 Method for Eliminating Uneven Color Issues with Powerful Cleaning
- P. 211 Method for Ink Renewal Inside Damper
- P. 217 Ink Renewal Method

Was printing paused partway through?

When printing is paused, the coloring at the seam may be altered when printing resumes. Avoid pausing printing. Printing pauses when ink remaining inside the machine runs out. Printing may also pause when data is not sent from the computer quickly enough. We recommend not performing any other tasks with the computer while printing is in progress.

Is the printer installed in a level and stable location?

Never install the machine in a location where it is tilted or where it may wobble or experience vibration. These factors may lead to dot-dropout or reduced printing quality.

Is the method of loading the object to be printed on appropriate?

If the object to be printed on is not loaded correctly, output may be adversely affected. Load the object to be printed on correctly.

RELATED LINKS

- P. 74 Loading the Object to Be Printed On

Are the operating parameters set to appropriate values?

Depending on the [**Printing Movement Range**] setting, uneven colors may occur. If you are concerned about uneven colors, try setting [**Printing Movement Range**] to [**Full Width**].

RELATED LINKS

- P. 137 Speeding Up Printing for Narrow Objects

Is the printer being used in a location subject to severe changes in the operating environment?

Large fluctuations in temperature or humidity while printing is in progress may cause the colors to change partway through the printing. When printing, use the machine in a location where the temperature and humidity are stable.

Are the [Media Settings] appropriate?

If the settings are not suitable for the object to be printed on, output may be adversely affected. Select settings optimized for the object to be printed on.

RELATED LINKS

- P. 128 Changing the Media Settings

Are the irradiation windows of the UV-LED devices dirty?

If the irradiation windows are dirty, this can reduce ink adhesion and the quality of the printed materials. Check the level of dirt and clean at the appropriate times.

RELATED LINKS

- P. 192 Cleaning the UV-LED Device

Machine Problems

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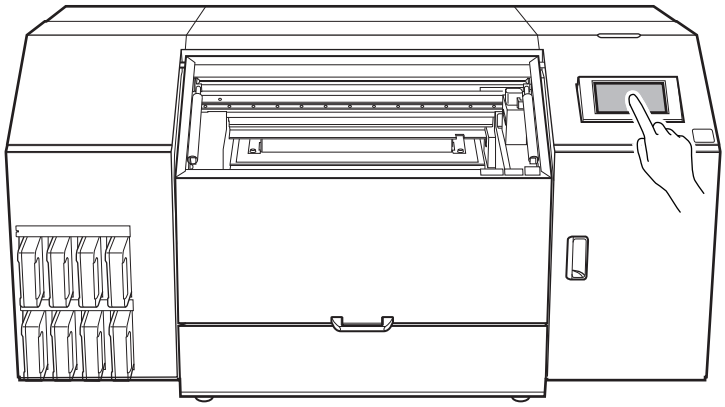
Why Has the Print-Head Carriage Stopped Moving?

If the print-head carriage stops on the table, take immediate action to prevent the print heads from drying out.

What to Do First

Switch the sub power off and then back on again.

If the print-head carriage moves to the home position (inside the maintenance cover), it means the operation has ended successfully.



If the print-head carriage still does not move

Try switching off the sub power, followed by the main power, then switching on the main power again, followed by the sub power.

If the Print Heads Still Do Not Move

If the heads still do not move, carry out the following emergency response measure, and then contact your authorized dealer.

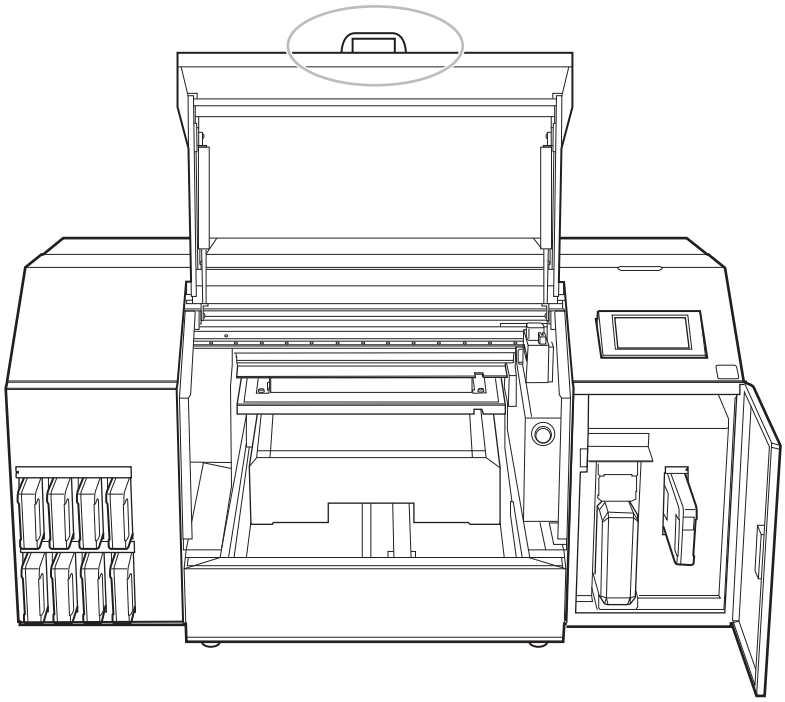
Procedure

1. **Switch off the sub power.**
2. **Turn off the main power switch.**
3. **Open the front cover and maintenance cover.**

MEMO

Be sure to hold the handle of the front cover and keep holding it until the cover is completely opened or closed.

If you do not open and close the front cover gently, it may break or you may be injured.



4. **Gently move the print-head carriage to the home position by hand.**

Stopping at the place where the audible click is heard locks the print-head carriage in place.

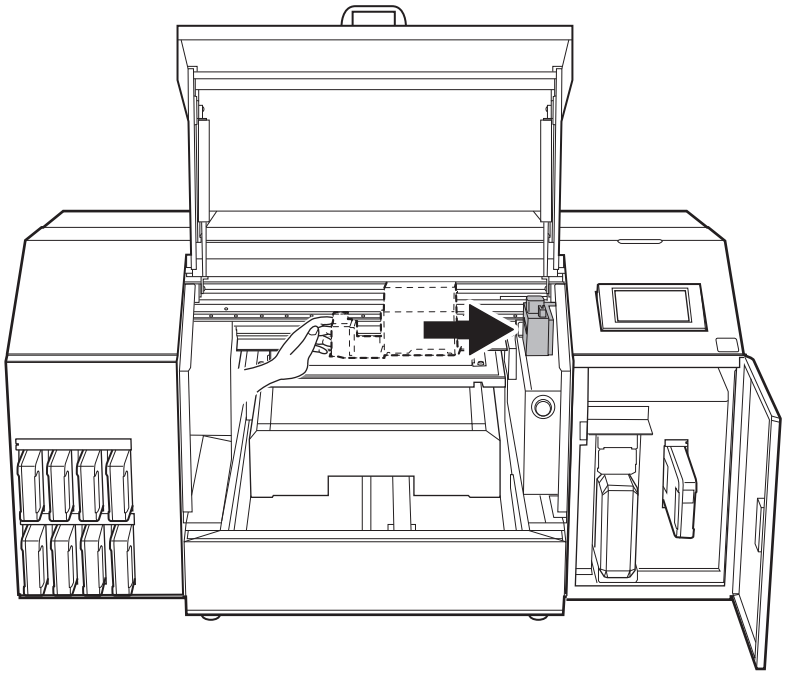
⚠ CAUTION

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.

IMPORTANT

When moving the print-head carriage by hand, check that it does not come in contact with the wiper or the print head cap. If it does come into contact with the wiper or print head cap, the print-head carriage cannot be moved to the standby position and should be left in place.



5. **Gently apply pressure from the right side to make sure the print-head carriage does not move to the left.**

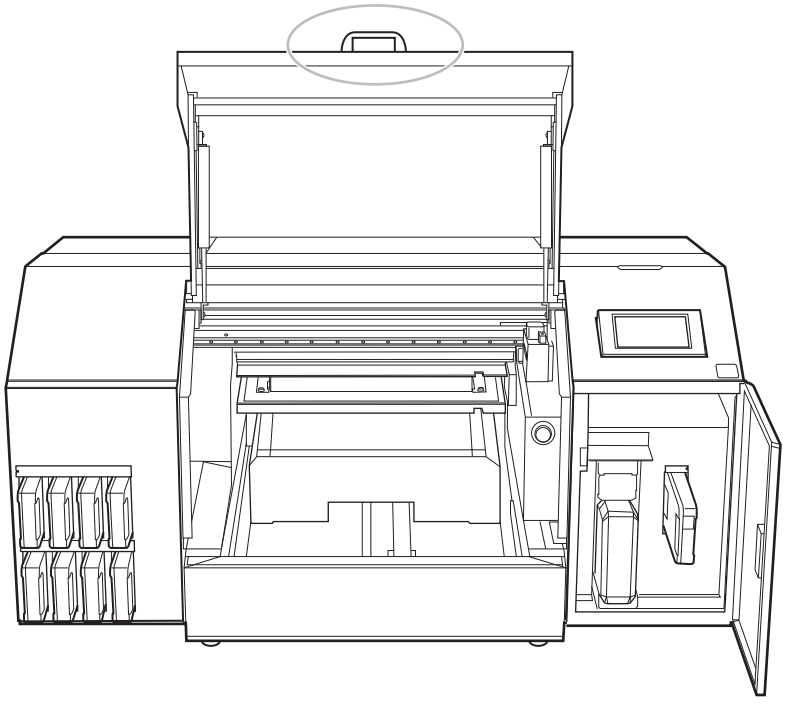
If the print-head carriage moves to the left, move it again slowly by applying pressure from the left side and make sure it locks in place.

6. **Close the front cover and maintenance cover.**

MEMO

Be sure to hold the handle of the front cover and keep holding it until the cover is completely opened or closed.

If you do not open and close the front cover gently, it may break or you may be injured.



The printer unit does not run

Is the power switched on?

Switch on the printer's main power, followed by the sub power and make sure the home screen appears.

RELATED LINKS

- P. 31 Turning the Power On

Is [Output possible.] displayed?

Output is not performed when [**Output possible.**] is not displayed at the top of the operation panel. Load the object to be printed on, tap  [**Setup**], and follow the on-screen instructions to complete the setup of the object to be printed on. Also, when operating the setting menu, output doesn't start when data is sent from the computer with some menu items. When you return to a menu item where output is possible or tap  to return to the home screen, output starts.

Are any covers open?

Close the front cover and maintenance cover.

Is the message [Output is currently paused.] displayed on the screen?

When [**Output is currently paused.**] is displayed on the screen, operation is paused. To resume, tap [**Resume**].

RELATED LINKS

- P. 59 Pausing, Resuming, and Canceling Printing

Is a message displayed on the screen?

RELATED LINKS

- P. 266 Messages
- P. 270 Error Messages

Are the cables connected?

Connect the cables securely.

RELATED LINKS

- Setup Guide

Is the LAN routing appropriate?

Check whether or not the network routing is appropriate. Try connecting the computer and the machine to the same hub or connecting them directly using a cable. If this makes it possible to perform output, it means the problem may be in the network itself.

Are the LAN settings correct?

If the cable connections are secure and no problem is found in the network itself, make sure that the IP address and other such settings are appropriate. The settings on both the machine and the computer must be appropriate. Redo the settings, checking to ensure that the IP address does not conflict with the IP address for another device on the network, that the port setting for the software RIP specifies the IP address set on the machine, that the settings have no typing errors, and for other such problems.

RELATED LINKS

- P. 166 Viewing Printer Information
- Setup Guide

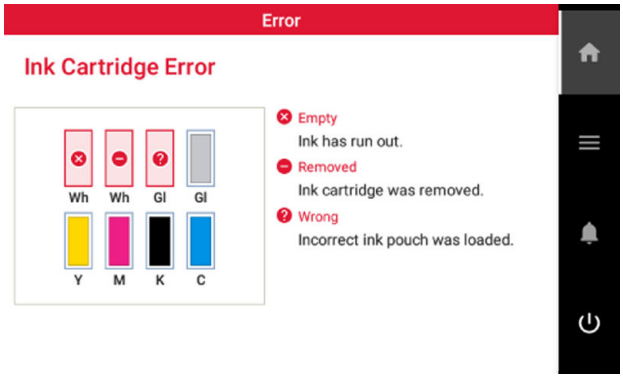
Did the software RIP end abnormally?

Make sure the software RIP is running correctly, then switch the sub power switch off and back on.

RELATED LINKS

- VersaWorks manual

Is an [Ink Cartridge Error] displayed?



When [**Ink Cartridge Error**] appears on the operation panel, output data cannot be accepted. If there is data that has not yet been output remaining in the machine, output resumes when the error is cleared. If there is unsent data in the computer, output resumes when the data is resent.

When ink runs out

Replace the ink pouch in the ink cartridge with a new ink pouch.

When an ink pouch with the incorrect color is loaded

Remove the ink pouch that was loaded incorrectly and load the appropriate ink pouch.

When an ink cartridge is removed or has not been securely loaded

Securely load the ink cartridge by pushing it all the way to the back.

RELATED LINKS

- P. 62 Ink Replacement Method
- P. 270 [**Ink Cartridge Error**]

The Table Does Not Move

Is something stuck in one of the movable components inside of the machine?

Check whether or not something is catching or stuck and interfering with operation.

Are any covers open?

Keep the front cover and maintenance cover closed during printing. If any cover is open while printing, the table cannot be moved for your safety.

The Head Gap Sensor Does Not Detect the Object to Be Printed on

Is something covering the head gap sensor or has it attracted dust?

Check whether something is interfering with the head gap sensor's detection.

Messages on the Operation Panel

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Messages

These are the main messages that appear on the machine's operation panel to prompt correct operation. These messages are not errors, so you can close them and perform other work. To check messages again or to carry out their corresponding actions, tap  to display the list of messages. Tap a message to display the menus and procedure required for the action. Perform operations according to the on-screen instructions.

[When output, cleaning, and other operations are completed, discard the discharged fluid.]

This message appears when a certain amount of discharged fluid collects in the drain bottle.

Tap [**When output, cleaning, and other operations are completed, discard the discharged fluid.**]>[**Execute**] to discard this fluid.

RELATED LINKS

- P. 199 If the Discharged Fluid Disposal Message Appears

[The time for manual cleaning has arrived.]

This message appears when it is time to perform manual cleaning.

Tap [**The time for manual cleaning has arrived.**]>[**Execute**] to perform manual cleaning.

RELATED LINKS

- P. 183 Manual Cleaning Method

[The time for UV lamp manual cleaning has arrived.]

This message appears when it is time to perform UV lamp manual cleaning.

Tap [**The time for UV lamp manual cleaning has arrived.**]>[**Execute**] to perform UV lamp manual cleaning.

RELATED LINKS

- P. 193 UV Lamp Manual Cleaning Method

[The time for wiper replacement has arrived.]

This message appears when it is time to replace the wiper.

Tap [**The time for wiper replacement has arrived.**]>[**Execute**] to replace the wiper.

RELATED LINKS

- P. 232 Replacing the Wiper

[The time for cap replacement has arrived.]

This message appears when it is time to replace the print head caps.

Tap [**The time for cap replacement has arrived.**]>[**Execute**] to replace the print head caps.

RELATED LINKS

- P. 235 Replacing the Print Head Caps

[The time for wiper cleaner replacement has arrived.]

This message appears when it is time to replace the wiper cleaner.

Tap [**The time for wiper cleaner replacement has arrived.**]>[**Execute**] to replace the wiper cleaner.

RELATED LINKS

- P. 238 Replacing the wiper cleaner

[The time for UV mist filter replacement has arrived.]

This message appears when it is time to replace the UV mist filters.

Tap [**The time for UV mist filter replacement has arrived.**]>[**Execute**] to replace the UV mist filters.

RELATED LINKS

- P. 241 Replacing the UV Mist Filters

[The time for flushing sponge replacement has arrived.]

This message appears when it is time to replace the flushing sponge.

Tap [**The time for flushing sponge replacement has arrived.**]>[**Execute**] to replace the flushing sponge.

RELATED LINKS

- P. 244 Replacing the Flushing Sponge

[Print head protection mode has activated.]

This message appears when the ink in use may not be a product specified by Roland DG Corporation.

If the ink is not a product specified by Roland DG Corporation, a larger amount of ink will be consumed, and cleaning will be performed frequently. To obtain optimal performance, we recommend that you use ink specified by Roland DG Corporation. To purchase ink, contact your authorized dealer.

[Replace the cleaning liquid pouch.]

This message appears when the cleaning liquid runs out.

Replace the empty cleaning liquid pouch.

When you replace the cleaning liquid pouch, the message [**Has the cleaning liquid pouch been replaced? Tap "Yes" to reset the amount of remaining cleaning liquid.**] appears.

Tap [**Yes**] to reset the amount of cleaning liquid remaining and identify the cleaning liquid pouch as a new product.

MEMO

If you tap [**Yes**] on the cleaning liquid pouch replacement confirmation screen even though you have not replaced the cleaning liquid pouch, the amount of cleaning liquid remaining is reset. In this situation, no notification will appear even if the amount of cleaning liquid remaining is very small, and the message [**Replace the cleaning liquid pouch.**] will appear when the cleaning liquid runs out. To ensure you have enough time to prepare the replacement cleaning liquid, tap [**No**] if you have not replaced the cleaning liquid.

RELATED LINKS

- P. 67 Cleaning Liquid Replacement Method

[Install the cleaning liquid pouch.]

This message appears when a cleaning cartridge that does not contain a cleaning liquid pouch is loaded or when the cleaning cartridge is removed from the machine.

Correctly load a new cleaning liquid pouch into the cleaning cartridge and insert this cartridge into the machine. If the cleaning cartridge was removed from the machine, quickly insert it.

When you insert the cleaning cartridge, the cleaning liquid pouch replacement confirmation screen appears.

- If you have replaced the cleaning liquid pouch, tap [**Yes**]. The amount of cleaning liquid remaining is reset.
- If you have not replaced the cleaning liquid pouch, tap [**No**]. The amount of cleaning liquid remaining is not changed.

MEMO

If you tap [**Yes**] on the cleaning liquid pouch replacement confirmation screen even though you have not replaced the cleaning liquid pouch, the amount of cleaning liquid remaining is reset. In this situation, no notification will appear even if the amount of cleaning liquid remaining is very small, and the message [**Replace the cleaning liquid pouch.**] will appear when the cleaning liquid runs out. To ensure you have enough time to prepare the replacement cleaning liquid, tap [**No**] if you have not replaced the cleaning liquid.

RELATED LINKS

- P. 67 Cleaning Liquid Replacement Method

[Remaining cleaning liquid level low.]

This message appears when the remaining cleaning liquid level is low.

The cleaning liquid can be used until it runs out, so it does not need to be replaced immediately. However, printing is not possible if there is no cleaning liquid. If this message appears, prepare a replacement cleaning liquid pouch.

[The time for ink mixing has arrived.]

This message appears when it is time to mix the ink.

When [**Ink Mixing Notification**] accessed with [**Preferences**]>[**Notifications On/Off**] is on, this message appears when 1 day elapses from the last time the ink was mixed.

When the message [**The time for ink mixing has arrived.**] appears, tap [**OK**] to clear the message.

Tap  then [**The time for ink mixing has arrived.**] to display a confirmation screen.

Remove the white ink cartridge, shake it 50 times (about 20 seconds), and then reinsert this cartridge. On completion, tap [**Yes**].

[The LAN cable is not connected.]

This message appears when the machine and a computer are not connected with a LAN cable.

Properly connect the LAN cable.

[Connection is requiring too much time. Manually setting the IP address will improve the connection speed.]

This message appears when automatic IP address acquisition is enabled and the machine connects to a network on which no DHCP server exists while this automatic acquisition is in progress.

Connect to a network on which a DHCP server exists or disable automatic IP address acquisition and set a fixed IP address.

RELATED LINKS

- Network Settings (Setup Guide)

[There is ink that has expired.]

Ink has expired.

Replace with an ink pouch that is within its expiration date.

RELATED LINKS

- P. 62 Ink Replacement Method

Error Messages

This section describes the error messages that may appear on the machine's operation panel and how to take action to remedy the problem.

Follow the instructions on the screen to clear the error or switch the power off before starting to operate the machine again.

If the action displayed on the screen does not correct the problem or if an error message not described here appears, contact your authorized dealer.

[Ink Cartridge Error]

This message appears when one of the following ink cartridge errors is detected.

MEMO

When an error occurs, the ⊗, ⊖, or ? icon is displayed next to the corresponding ink cartridge on the screen.

Implement appropriate countermeasures according to the error.

- **When ink runs out**

  ⊗[Empty][Ink has run out.]

  Replace the ink pouch with a new one, and then load the ink cartridge.

- **When an ink cartridge is removed**

  ⊖[Removed][Ink cartridge was removed.]

  Load the removed ink cartridge.

- **When an ink cartridge with the incorrect color is loaded**

  ?[Wrong][Incorrect ink pouch was loaded.]

  Remove the ink pouch that was loaded incorrectly and load the correct ink pouch.

  When an ink cartridge is removed, ⊖ [Removed][Ink cartridge was removed.] is displayed.

[Cover Open Error]

The front cover or maintenance cover is open.

For safety, the machine stops if a cover is opened during operation.

Close the open cover.

[Drain Bottle Error]

[Discard the discharged fluid in the drain bottle.]

This message appears when the drain bottle has reached its limit for discharged fluid.

Discard the discharged fluid in the drain bottle, and then attach this bottle again.

MEMO

When the drain bottle is detached, the error message changes to **[Install the drain bottle.]**.

[Install the drain bottle.]

This message appears when the drain bottle is misaligned or removed.

Install the drain bottle again.

[Unable to Fill Wiper Cleaning Liquid]

The cleaning liquid pouch in the cleaning cartridge is empty.

Quickly replace this cleaning liquid pouch with a new one.

[Insufficient Media Printing Area]

[The print data is larger than the media width. Continue output?]

This message appears when the size of the printing data is larger than the printing area of the loaded object.

To continue performing output without making corrections, tap [**Continue Output**]. At this time, the portion extending beyond the printing area is not output.

To cancel output, tap [**Cancel**]. Check the data output settings, and then send the data again.

[Crop marks cannot be added because the print data is larger than the media width. Continue output?]

This message appears when one of the following situations is detected.

- The size of the data with crop marks is larger than the printing area of the loaded object.
- The width of the printing data is 60 mm (2.36 in.) or less.

To continue performing output without making corrections, tap [**Continue Output**]. The data is output without printing the crop marks.

To cancel output, tap [**Cancel**]. Check the data output settings, and then send the data again.

The size of the data being output is too small.

The horizontal-direction (scan-direction) size of the data should be at least 61 mm (2.41 in.). To continue performing output without making corrections, tap [**Continue Output**]. At this time, the data is output without printing the crop marks.

To cancel output, tap [**Cancel**]. Increase the size of the data, and then send the data again.

[Table Height Error]

[Check the table height. Press [OK].]

This message is displayed when the head gap sensor interferes with the object during non-printing operations.

Confirm that the object is not too large to be loaded in the printer. If it is too large, load an object that is the appropriate size.

Tap [**OK**] to clear the message.

[Operation was stopped because the media height is abnormal. Press [OK].]

If the following clearance settings are configured, the table is automatically lowered and printing is stopped when an abnormal object height is detected during printing.

- Clearance Settings: [**Stop**]

Confirm that the object is not too large to be loaded in the printer. If it is too large, load an object that is the appropriate size.

Tap [**OK**] to clear the message.

[The table height was readjusted. Press [OK].]

If the following clearance settings are configured, the table height is automatically readjusted and printing resumes when an abnormal object height is detected during printing. When printing is finished, the user is notified that printed has been performed with the table height readjusted.

- Clearance Settings: [**Readjust**]
- Warning Display: [**Enable**]

When the message [**The table height was readjusted.**] appears, tap [**OK**] to clear the message.

RELATED LINKS

- P. 21 Printable Materials and Shapes

[External Device Error]

This message is displayed when installation or removal is performed without executing [Vacuum Table or Rotary Axis Unit Attachment/Removal] on the operation panel or when the wiring is not correctly connected.

Tap [**OK**] to switch to the [**Vacuum Table or Rotary Axis Unit Attachment/Removal**] menu.

Check the connection status of the vacuum table or rotary axis unit connected to the machine.

[Motor Error]

A motor error occurred.

Operation cannot be continued. Turn off the sub power. Next, eliminate the cause of the error, then immediately switch on the sub power.

If the machine is allowed to stand with the error uncorrected, the print heads may dry out and become damaged. This error may be caused by the object to be printed on being set incorrectly, etc.

[Print Head Dry-out Error]

This message appears when the print heads are forced to the home position to prevent them from drying out.

Operation cannot be continued. Switch the sub power off, and then back on.

[Low Temperature Error]

The internal temperature of the machine has fallen below that at which it can operate.

This message appears when the temperature falls to 16°C (60.8°F) or lower during startup or to 14°C (57.2°F) or lower during operation. Operation cannot be continued. Turn off the sub power. Bring the installed location to a temperature of 20°C to 32°C (68°F to 89.6°F), and then turn on the power.

RELATED LINKS

- P. 31 Power Supply Operations

[High Temperature Error]

The internal temperature of the machine has risen above that at which it can operate.

This message appears when the temperature rises to 46°C (114.8°F) or higher during startup or to 51°C (123.8°F) or higher during operation (when recovering from sleep mode). Operation cannot be continued. Turn off the sub power. Bring the installed location to a temperature at which operation is possible (20 to 32°C [68 to 90°F]), and then turn on the power.

RELATED LINKS

- P. 31 Power Supply Operations

[Pump Stop Error]

This message appears when an ink cartridge is pulled out during pump operation, such as during cleaning, or when the machine has no ink for 10 minutes or more.

Operation cannot be continued. Switch the sub power off, and then back on.

[Cleaning Error (Ink Cartridge)]

The printer made an emergency stop for one of the following reasons.

- Ink ran out during [**Ink Renewal Inside Damper**].
- An ink cartridge was removed during [**Ink Renewal Inside Damper**].
- The ink ran out during the first ink fill.
- An ink cartridge was pulled out during the initial ink filling.

Operation cannot be continued. Perform the following operations.

1. Check that the ink cartridges are inserted and that there is sufficient ink.
2. Switch the sub power off and back on.
3. Perform [**Ink Renewal Inside Damper**] or fill the machine with ink.

MEMO

If the printer stopped partway through [**Ink Renewal Inside Damper**], perform [**Ink Renewal**] for the group of print heads on which you were performing operations when the error occurred, and then perform [**Ink Renewal Inside Damper**] again.

If an Ink Cartridge Error appears during work, remove and reinsert the corresponding ink cartridge.

RELATED LINKS

- P. 211 Method for Ink Renewal Inside Damper
- P. 217 Ink Renewal Method

[Cleaning Error]

During operation, an error was detected with the internal pressure, and an emergency stop was executed.

Operation cannot be continued. Perform the following operations.

1. Switch the sub power off and back on.
2. Perform [**Manual Cleaning**].
3. Perform [**Ink Renewal Inside Damper**].
4. To check whether the error has been cleared, perform the same operation that you performed when the error occurred (for example, printing).

You may also perform a printing test. If no error messages appear when you perform the above operations, the work is complete.

If [**Cleaning Error**] appears again while you perform steps 2 to 4, perform the following operations.

5. Replace the print head cap.
6. Perform steps 2 to 4.

   If, once more, an error message appears during this work, switch the sub power off, and then contact your authorized dealer.

RELATED LINKS

- P. 186 Clean the print heads.
- P. 211 Method for Ink Renewal Inside Damper
- P. 235 Replacing the Print Head Caps

[Cleaning Error (Drain Bottle)]

This message appears when one of the following situations is detected.

- The drain bottle was removed while [**Ink Renewal Inside Damper**] was in progress.
- The drain bottle became full while [**Ink Renewal Inside Damper**] was in progress.
- The drain bottle is removed during initial ink filling.
- The drain bottle became full during the first ink fill.

Operation cannot be continued. Perform the following operations.

1. Discard the discharged fluid and correctly attach the drain bottle.
2. Check that the ink cartridges are inserted and that there is sufficient ink.
3. Switch the sub power off and back on.
4. Perform [**Ink Renewal Inside Damper**] or fill the machine with ink.

MEMO

If the printer stopped partway through [**Ink Renewal Inside Damper**], perform [**Ink Renewal**] for the group of print heads on which you were performing operations when the error occurred, and then perform [**Ink Renewal Inside Damper**] again.

If an Ink Cartridge Error appears during work, remove and reinsert the corresponding ink cartridge.

RELATED LINKS

- P. 211 Method for Ink Renewal Inside Damper
- P. 217 Ink Renewal Method

[Emergency Stop In Progress]

This is displayed when the emergency stop button is pressed.

Operation cannot be continued. Perform the following operations.

1. Check the safety of the surrounding area.
2. Release the emergency stop button.
3. Switch the sub power off and back on.

RELATED LINKS

- P. 16 Safety Devices

[Service Call]

An unrecoverable error occurred or part replacement that must be performed by a service technician is required.

Note the number displayed on the operation panel, and then switch off the sub power. After turning the power off, contact your authorized Roland DG Corporation dealer.

[Software error]

An error occurred in the internal communication or applications of the machine or part replacement that must be performed by a service technician is required.

Switch off the main power. Then, switch on the main power again, followed by the sub power. If the error still occurs, contact your authorized Roland DG Corporation dealer.

Appendix

Vacuum Table Attachment/Removal

Attaching the Vacuum Table 278
Removing the Vacuum Table 282

Attaching the Vacuum Table

⚠ WARNING

Only insert and remove the vacuum table connector when the main power is off or when executing [Vacuum Table or Rotary Axis Unit Attachment/Removal] from the printer's operation panel.
Failure to do so may damage the device or result in electric shock.

Procedure

1. **Tap  on the operation panel's home screen.**

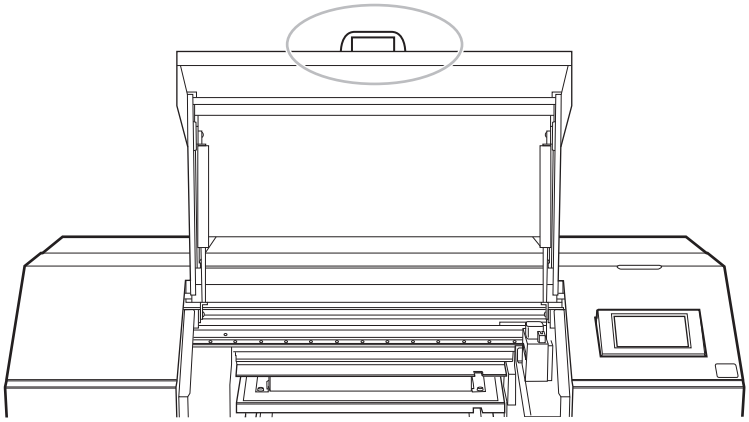
2. **Tap [Preferences]>[Vacuum Table or Rotary Axis Unit Attachment/Removal].**

3. **Tap [Execute] next to [Move Table to Attachment/Removal Position].**
   The flat table moves to a position where the vacuum table can be attached.

4. **After the flat table stops, open the front cover.**

   IMPORTANT

   Be sure to hold the handle of the front cover and keep holding it until the cover is completely opened or closed.
   If you do not open and close the front cover gently, it may break or you may be injured.

5. **When [Remove devices as necessary.] is displayed on the operation panel, tap .**
   The vacuum table and the rotary axis unit cannot be attached at the same time, so if the rotary axis unit is attached, remove it, and then tap .

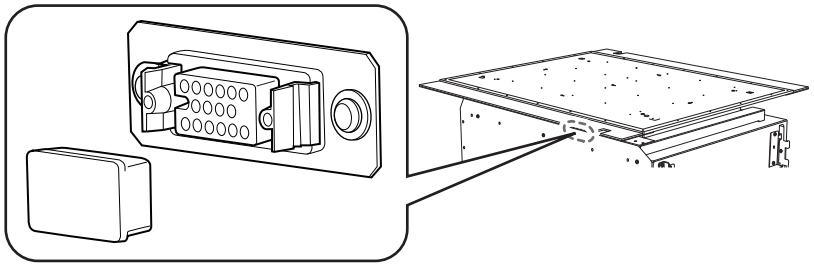
6. **Clean the surface of the flat table with a rag.**

7. **Remove the cover from the flat table [VACUUM/ROTARY] connector.**

   IMPORTANT

   Store the cover carefully so that you do not lose it.

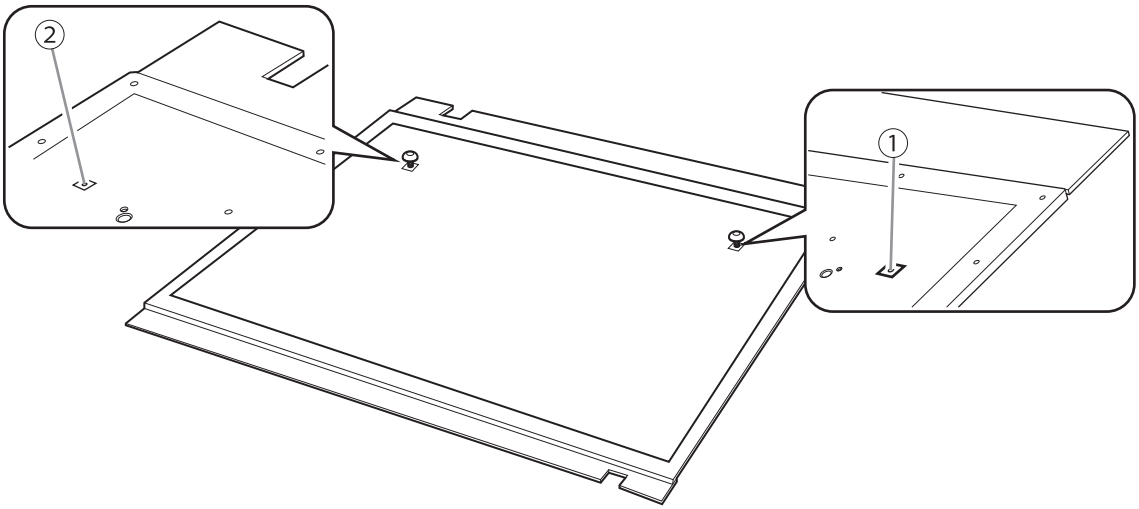
If you are not using the **[VACUUM/ROTARY]** connector, be sure to attach the cover to prevent dust and debris from adhering to the connector.



8. Attach the vacuum table to the flat table.

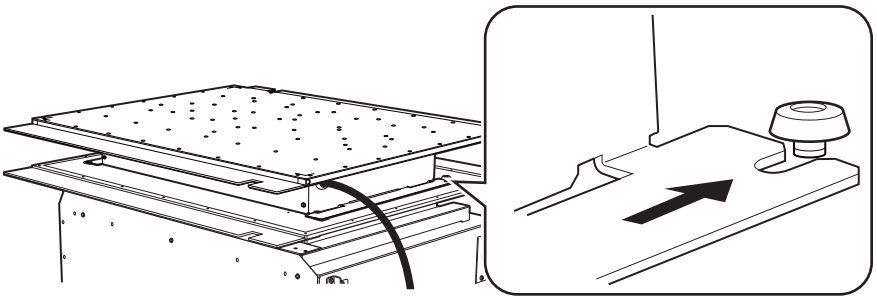
(1) **Temporarily tighten the vacuum table mounting screws in the flat table.**

Temporarily tighten the two mounting screws on the back side of the vacuum table in screw holes ① and ② that are marked with square lines.



(2) **Insert the temporarily tightened mounting screws on the flat table into the grooves at the back of the vacuum table on its left and right sides.**

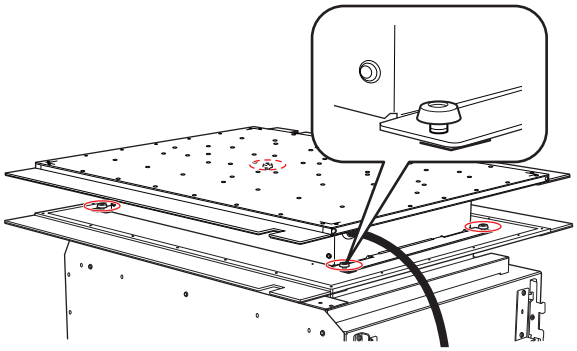
To avoid scratching or damaging the flat table, carefully slide the vacuum table backward onto the screws.



(3) **Temporarily tighten the mounting screws on the front of the vacuum table.**

Temporarily tighten the mounting screws while adjusting the vacuum table position.

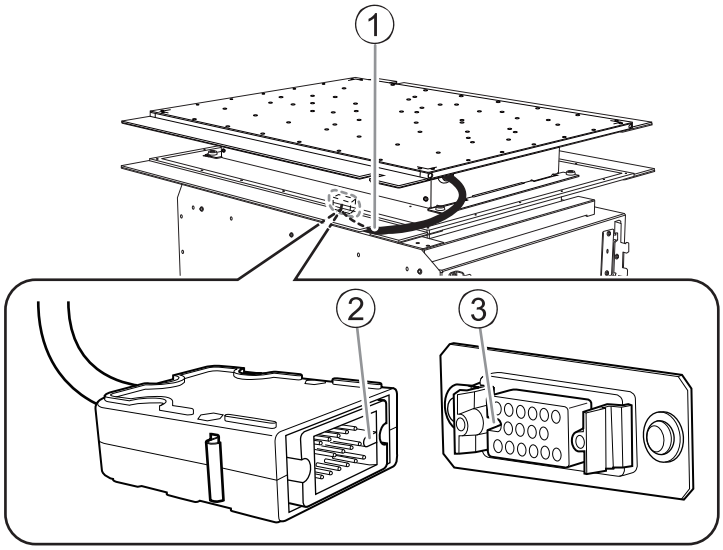
(4) **Fully tighten the four vacuum table mounting screws.**



9. **Place the vacuum table cable in the indentation in the flat table (①), and then connect the vacuum table connector to the flat table [VACUUM/ROTARY] connector.**

Align the protrusion (②) on the vacuum table connector with the indentation (③) on the [**VACUUM/ROTARY**] connector, and then insert the former into the latter.

Insert the vacuum table connector until you hear a click.

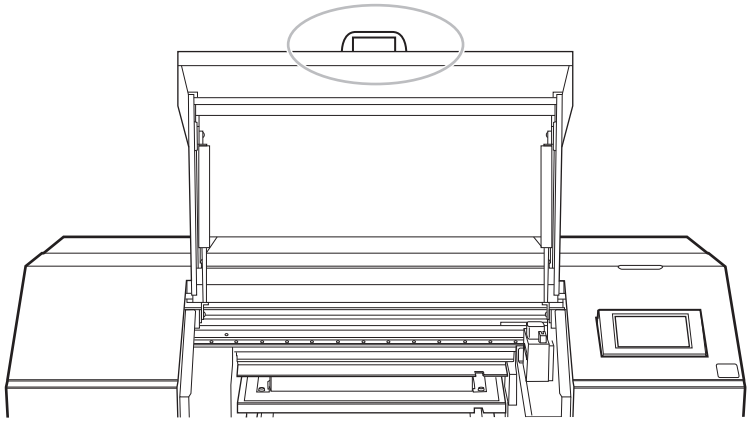


10. **Close the front cover.**

MEMO

Be sure to hold the handle of the front cover and keep holding it until the cover is completely opened or closed.

If you do not open and close the front cover gently, it may break or you may be injured.



11. Tap [Finish All] on the operation panel.

12. Tap  to go back to the original screen.

Removing the Vacuum Table

⚠ WARNING

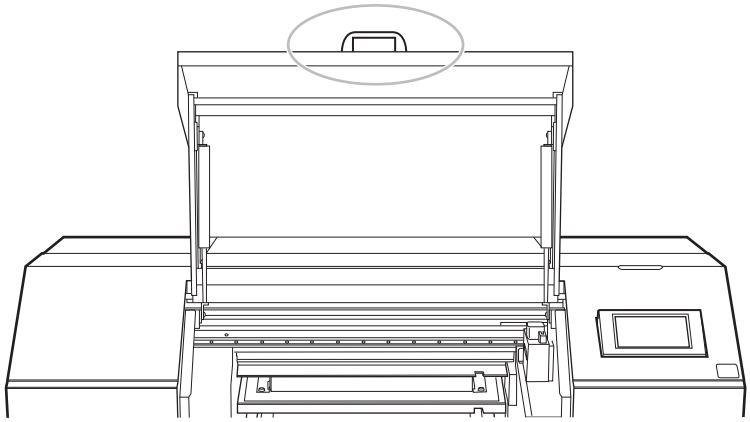
Only insert and remove the vacuum table connector when the main power is off or when executing [Vacuum Table or Rotary Axis Unit Attachment/Removal] from the printer's operation panel.
Failure to do so may damage the device or result in electric shock.

Procedure

1. Tap .
2. **Tap [Preferences]>[Vacuum Table or Rotary Axis Unit Attachment/Removal].**
3. **Tap [Execute] next to [Move Table to Attachment/Removal Position].**
   The flat table moves to a position where the vacuum table can be removed.
4. **After the flat table stops, open the front cover.**
   Remove any object loaded in the machine.

   MEMO

   Be sure to hold the handle of the front cover and keep holding it until the cover is completely opened or closed.
   If you do not open and close the front cover gently, it may break or you may be injured.

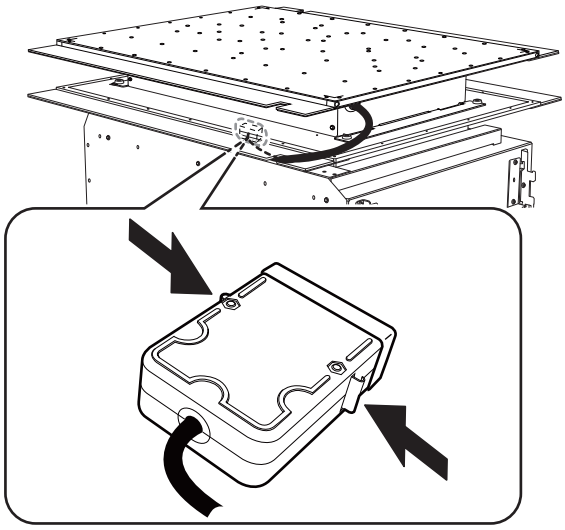
5. **When [Remove devices as necessary.] is displayed on the operation panel, begin the removal work.**

   MEMO

   To install the rotary axis unit after removing the vacuum table, tap .

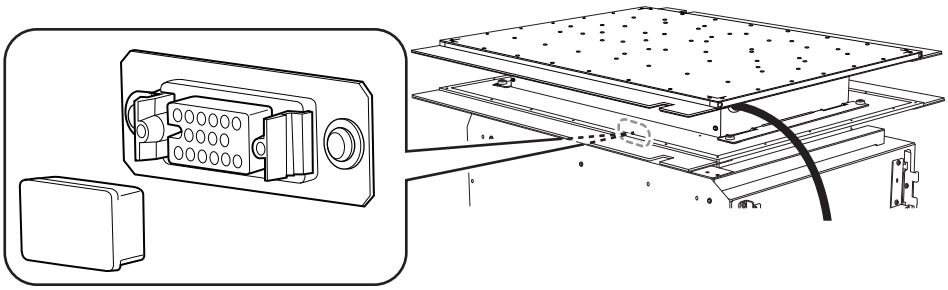
   When [**Attach devices as necessary.**] is displayed, begin the installation work.
   For information on how to install the rotary axis unit, see "How to Use the Rotary Axis Unit."

6. **Remove the vacuum table connector from the flat table [VACUUM/ROTARY] connector.**
   While pressing down on the arrow parts, remove the vacuum table connector.

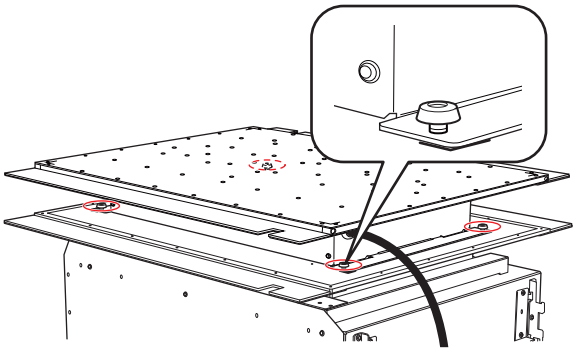


7. **Attach the cover to the flat table [VACUUM/ROTARY] connector.**

If you are not using the [**VACUUM/ROTARY**] connector, be sure to attach the cover to prevent dust and debris from adhering to the connector.



8. **Remove the fixing screws for the vacuum table.**

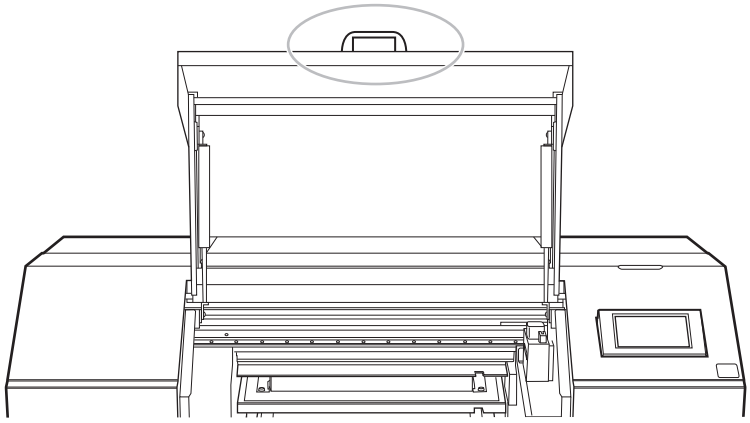


9. **Remove the vacuum table from the flat table.**

10. **Close the front cover.**

MEMO

Be sure to hold the handle of the front cover and keep holding it until the cover is completely opened or closed.
If you do not open and close the front cover gently, it may break or you may be injured.



11. Tap [Finish All] on the operation panel.

12. Tap  to go back to the original screen.

RELATED LINKS

- How to Use the Rotary Axis Unit

Connecting and Removing External Devices

Connecting an Alarm Lamp 286
Removing the Alarm Lamp 288

Connecting an Alarm Lamp

You can connect an alarm lamp to this machine. The alarm lamp must be prepared by the user separately.

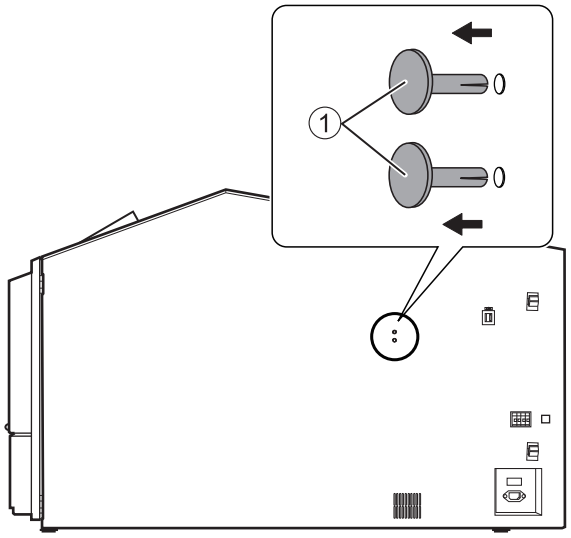
⚠ WARNING

Perform this task with all power switches left switched off.
Otherwise sudden movement of the machine may cause injury.

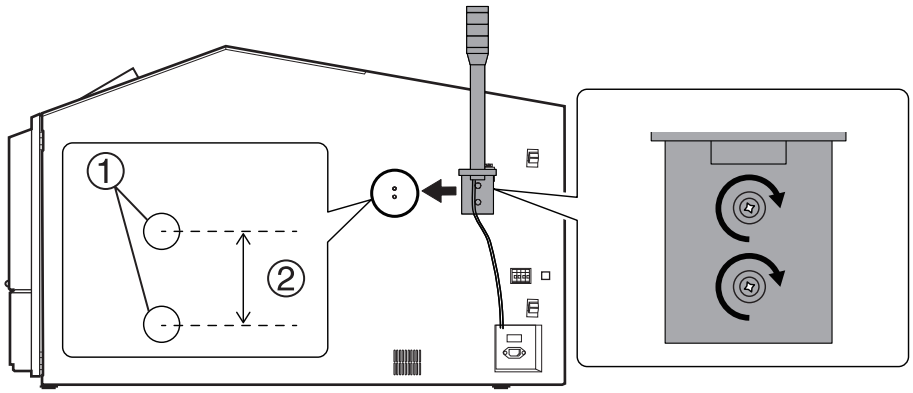
Procedure

1. **Turn off the machine's main power and sub power switches.**

2. **Remove the cap (①) on the right side of the machine.**

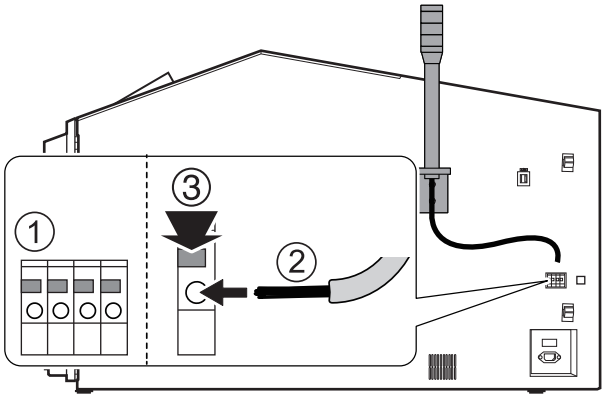


3. **Attach the alarm lamp to the position where you removed the caps.**



- ①: 2 - M8 tap
- 20 mm (0.79 in.)

4. **Connect the alarm lamp wires (①) to the alarm lamp connectors (②).**
   While pressing the release button (③) with the included tweezers, insert the alarm lamp wire.



5. **Lightly tug the wire of the alarm lamp to make sure it does not come loose.**

6. **Turn on the machine's main power and sub power.**

7. **Tap**  **[Setup].**

   Make sure that the alarm lamp turns on.

Removing the Alarm Lamp

⚠ WARNING

Perform this task with all power switches left switched off.

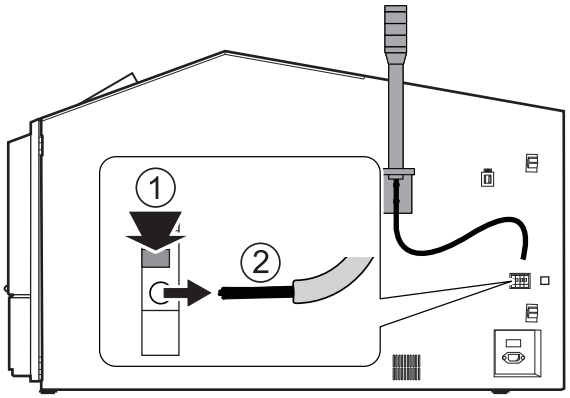
Otherwise sudden movement of the machine may cause injury.

Procedure

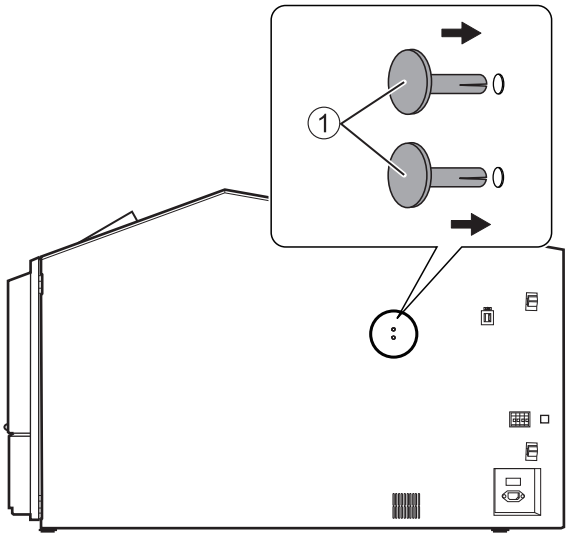
1. **Turn off the machine's main power and sub power switches.**

2. **Remove the alarm lamp wires.**

   While pressing the release button (①) with the included tweezers, pull out the alarm lamp wire (②).



3. **Remove warnings, etc., and mount caps on the screw holes.**



4. **Turn on the machine's main power and sub power.**

Operations When Moving the Unit

Preparing to Move the Machine 290
Step 1: Circulating the Ink (Only When Using White Ink) 290
Step 2: Discarding the Discharged Fluid 291
Step 3: Securing with the Retainers 293
Step 4: Reinstalling the Machine 296

Preparing to Move the Machine

Before moving the machine, dispose of the discharged fluid and secure the print-head carriage, the flat table, and other such components in place. Also, if you are using white ink, you will have to manually circulate it. Attempting to move the machine without first performing these preparations may result in damage to internal components due to leaking ink or damage to the print heads.

IMPORTANT

- Once the preparations for moving the machine are complete, move the machine promptly and turn on the machine as soon as possible after the machine is relocated. If you leave the machine alone without turning it on, the precipitated ink will coagulate and result in problems such as the clogging of the print heads.
- When moving the machine, keep it at a temperature from 5 to 40°C (41 to 104°F) and at a humidity from 20 to 80%RH (with no condensation). Failure to do so may result in a breakdown.
- Handle the machine with care when moving it, keeping it level (not tilted at an angle) and preventing it from striking other objects.

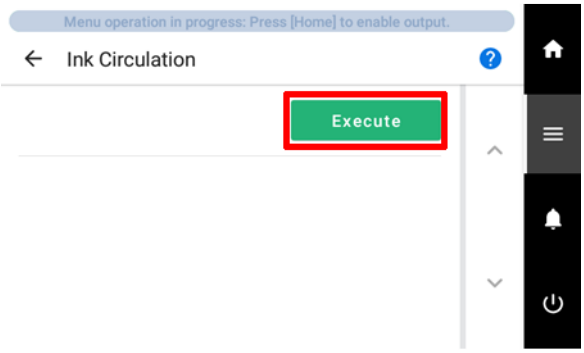
Step 1: Circulating the Ink (Only When Using White Ink)

MEMO

This procedure is not necessary when using a four-color (CMYK) ink type and white ink is not used.

Procedure

1. **Remove any object loaded in the machine.**
2. **Tap**  **.**
3. **Tap [Maintenance]>[Ink Circulation].**
   The **[Ink Circulation]** screen appears.
4. **Tap [Execute].**
   Ink circulation starts.

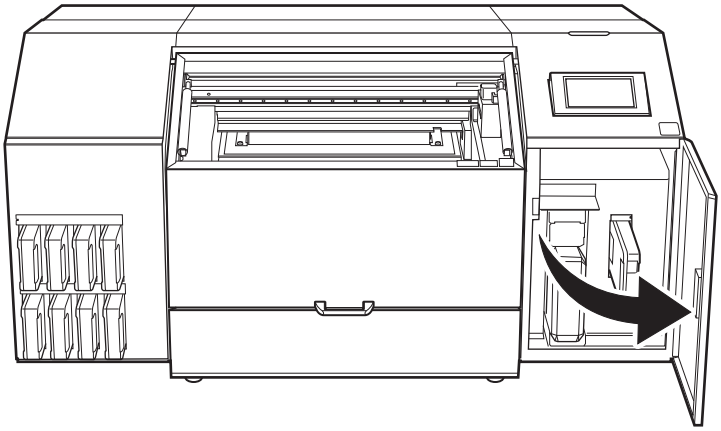


5. **Tap**  **to return to the home screen.**

Step 2: Discarding the Discharged Fluid

Procedure

1. Tap .
2. Tap [Maintenance]>[Drain Bottle].
3. Tap [Execute].
   Tap [**Execute**] to display a message reminding the user to wear protective gear.
4. Tap [OK].
   Tap [**OK**] to move the table.
5. Open the maintenance cover.



6. 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 a 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.

7. **Quickly attach the emptied drain bottle to the machine once more.**
8. **Close the maintenance cover.**
9. **Tap [Finish].**

Step 3: Securing with the Retainers

MEMO

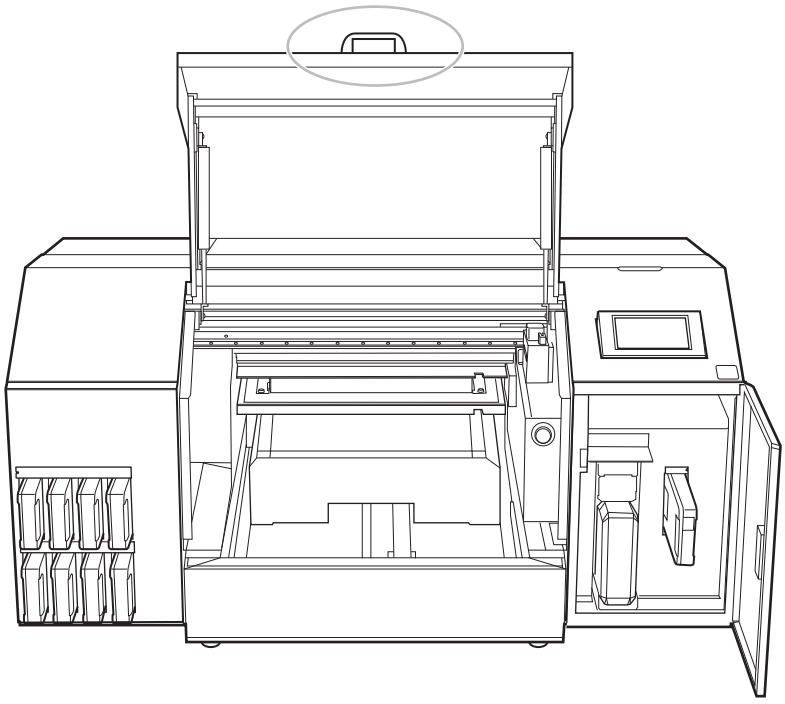
2.5 mm (0.1 in.) and 3.0 mm (0.12 in.) hexagonal wrenches are included. Use the 2.5 mm (0.1 in.) hexagonal wrench for retainers A and B, and the 3.0 mm (0.12 in.) hexagonal wrench for retainers C and D.

Procedure

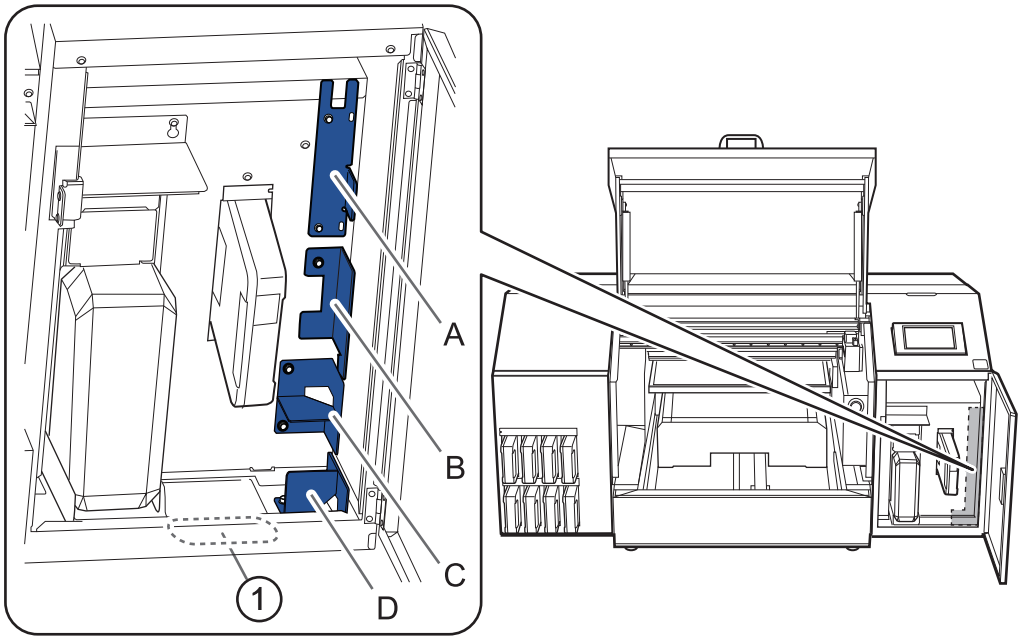
1. **If the vacuum table or rotary axis unit is attached, remove it.**
   - Removing the Vacuum Table(P. 282)
   - "How to Use the Rotary Axis Unit" Removing the Rotary Axis Unit
2. **Switch off the sub power.**
3. **Turn off the main power switch.**
4. **Open the front cover and maintenance cover.**

   MEMO

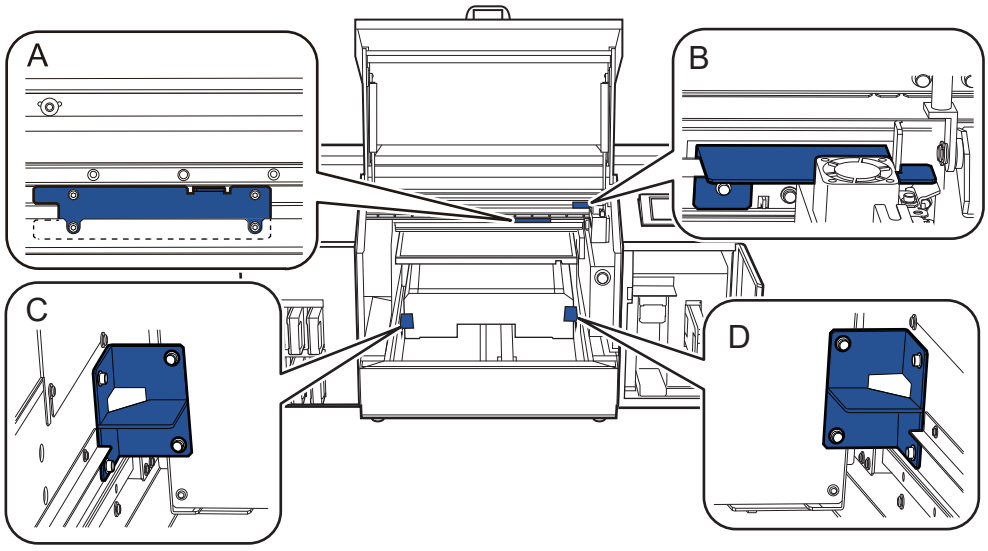
   Be sure to hold the handle of the front cover and keep holding it until the cover is completely opened or closed.
   If you do not open and close the front cover gently, it may break or you may be injured.

   
5. **Push the flat table by hand all the way to back.**
6. **Using a hexagonal wrench, remove retainers A, B, C, and D from the retainer storage area located inside the maintenance cover.**

   Use the screws from the loss prevention screw holder (①) and the screws securing the retainer to mount the fixing jig.

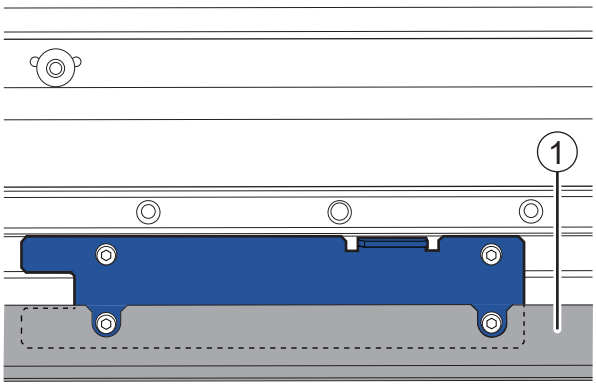


7. **Install retainers A, B, C, and D at the positions indicated in the figure.**



- Retainer A

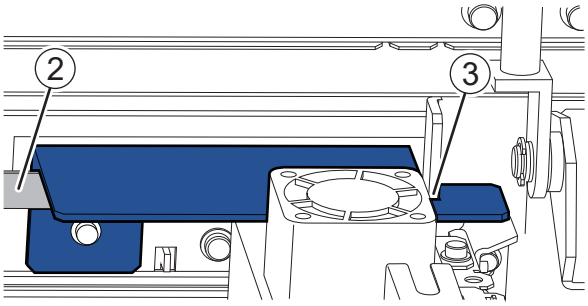
  Place retainer A behind the head gap sensor (①), and then secure it with four screws.



- Retainer B

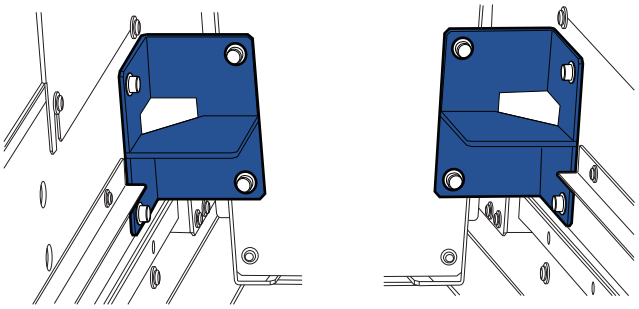
  a. Place retainer B behind the belt (②).

b. Fit the groove of retainer B onto the print-head carriage (③) and secure with screws.



- Retainers C and D

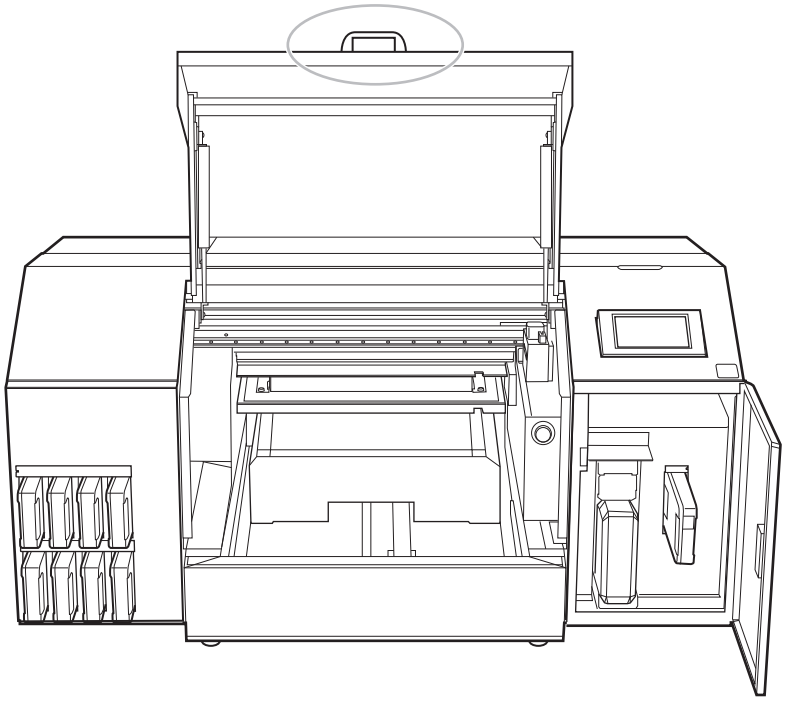
  Attach retainers C and D to the base of the flat table and secure them with four screws.



8. Close the front cover and the maintenance cover.

MEMO

Be sure to hold the handle of the front cover and keep holding it until the cover is completely opened or closed.
If you do not open and close the front cover gently, it may break or you may be injured.



Step 4: Reinstalling the Machine

MEMO

2.5 mm (0.1 in.) and 3.0 mm (0.12 in.) hexagonal wrenches are included. Use the 2.5 mm (0.1 in.) hexagonal wrench for retainers A and B, and the 3.0 mm (0.12 in.) hexagonal wrench for retainers C and D.

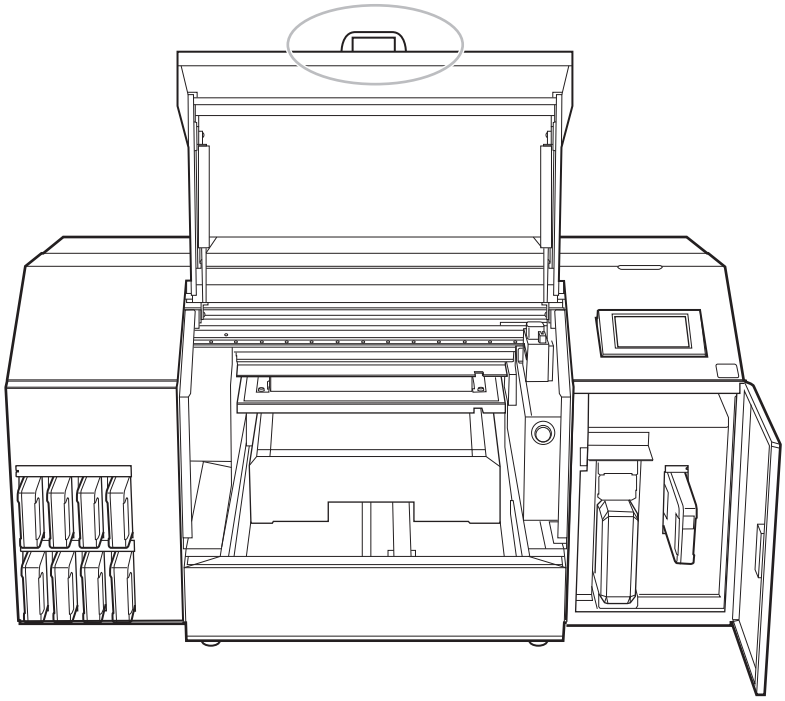
Procedure

1. **Once the preparations are complete, move the machine with as little delay as possible.**

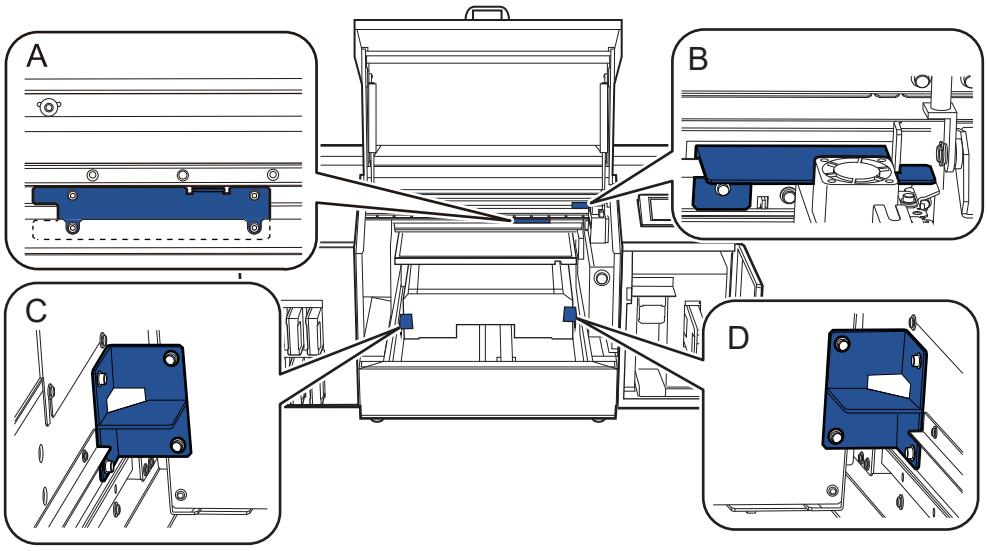
2. **Immediately reinstall the machine, and then open the front cover and the maintenance cover.**

   MEMO

   Be sure to hold the handle of the front cover and keep holding it until the cover is completely opened or closed.
   If you do not open and close the front cover gently, it may break or you may be injured.



3. **Using a hexagonal wrench, remove retainers A, B, C, and D.**

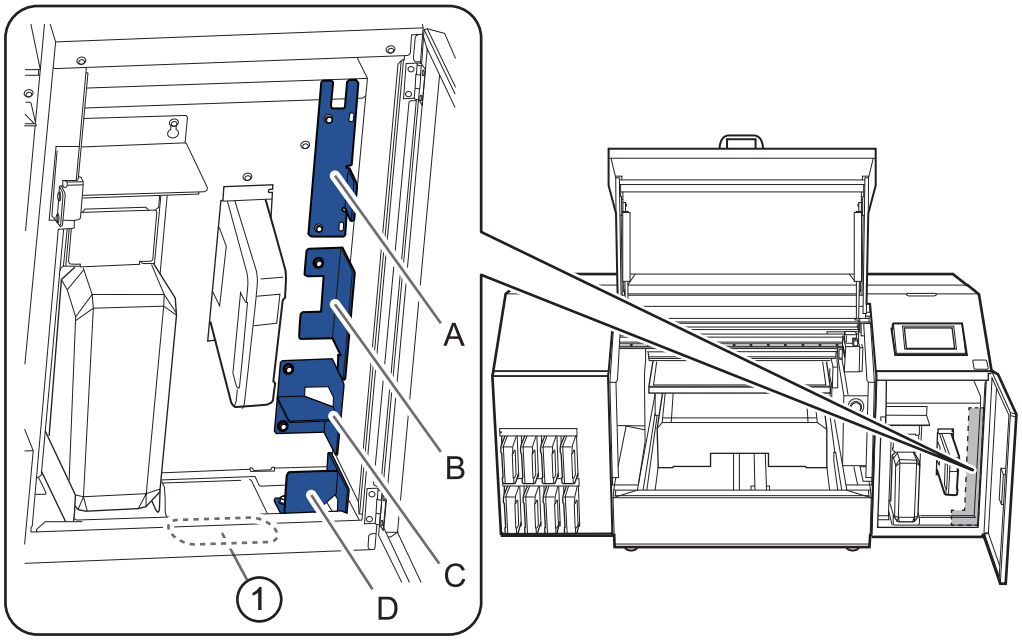


4. **Install retainers A, B, C, and D, which you have removed, at the positions indicated in the figure for storage.**

Use the screw removed in step 3.

IMPORTANT

To prevent the loss of the screws that are not being used, store them in the screw holder (①).

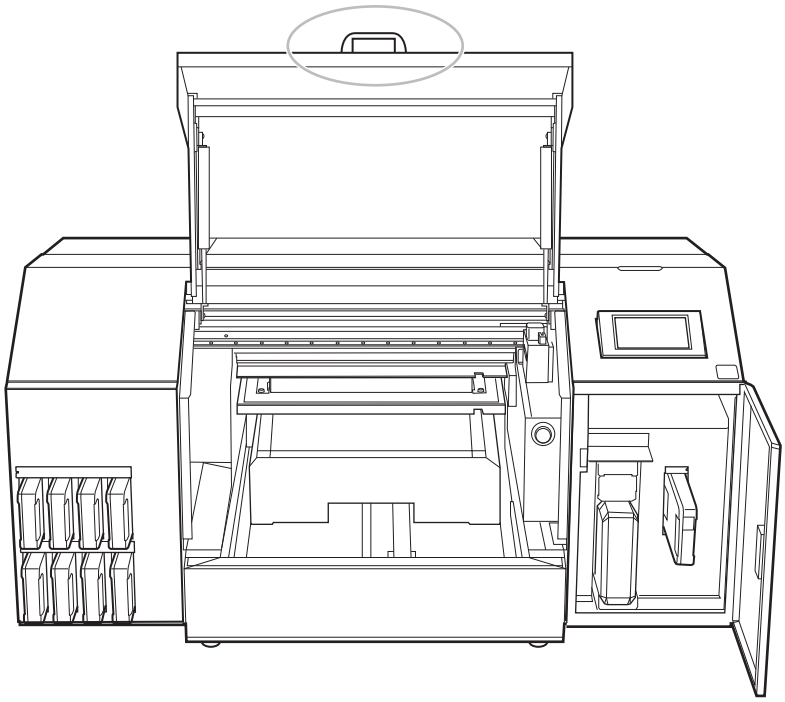


5. **Close the front cover and the maintenance cover.**

MEMO

Be sure to hold the handle of the front cover and keep holding it until the cover is completely opened or closed.

If you do not open and close the front cover gently, it may break or you may be injured.



6. **Turn on the main power switch.**

IMPORTANT

To prevent the print heads from being damaged, move the machine with as little delay as possible and switch on the main power as soon as possible after moving the machine. To install the machine again, follow the procedure in the Setup Guide.

7. **Press the sub power button.**

The home screen appears.

MEMO

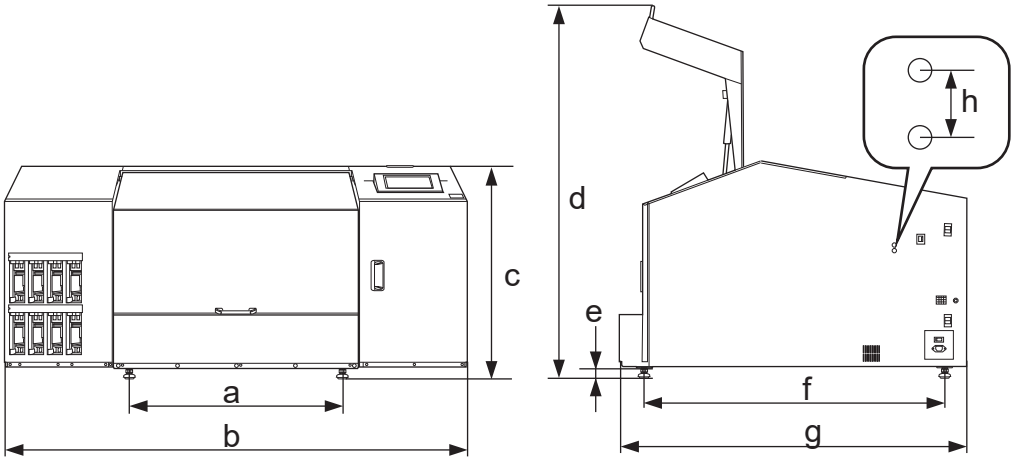
If the initial setup or the ink filling is not complete, the language selection screen will appear. Follow the instructions on the screen to carry out the initial setup and ink filling.

Main Specifications

Dimensional Drawings 300
Outer Dimensions 300
Flat Table Dimensions 301
Vacuum Table Dimensions 303
Specifications and Diagrams for the External Expansion Terminal 305
Connector for an External Deodorizer 305
Alarm Lamp Connector 306

Dimensional Drawings

Outer Dimensions



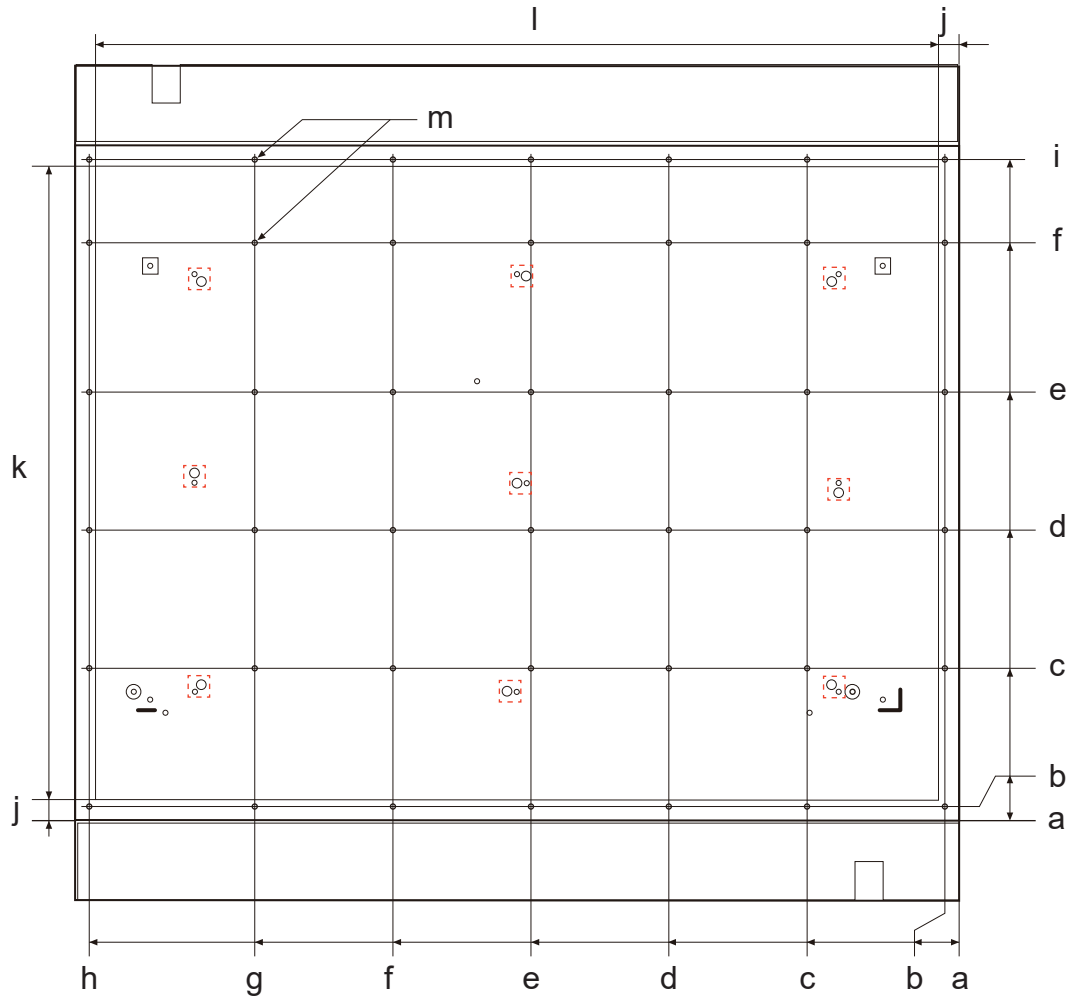
	MO-240	MO-180
a	736 mm (28.98 in.)	584 mm (23 in.)
b	1,601 mm (63.03 in.)	1,449 mm (57.05 in.)
c	760 mm (29.92 in.)	760 mm (29.92 in.)
d	1,275 mm (50.20 in.)	1,275 mm (50.20 in.)
e	40 mm (1.57 in.)	40 mm (1.57 in.)
f	1,054 mm (41.50 in.)	748 mm (29.45 in.)
g	1,224 mm (48.19 in.)	918 mm (36.15 in.)
h	20 mm (0.79 in.)	20 mm (0.79 in.)

Flat Table Dimensions

MEMO

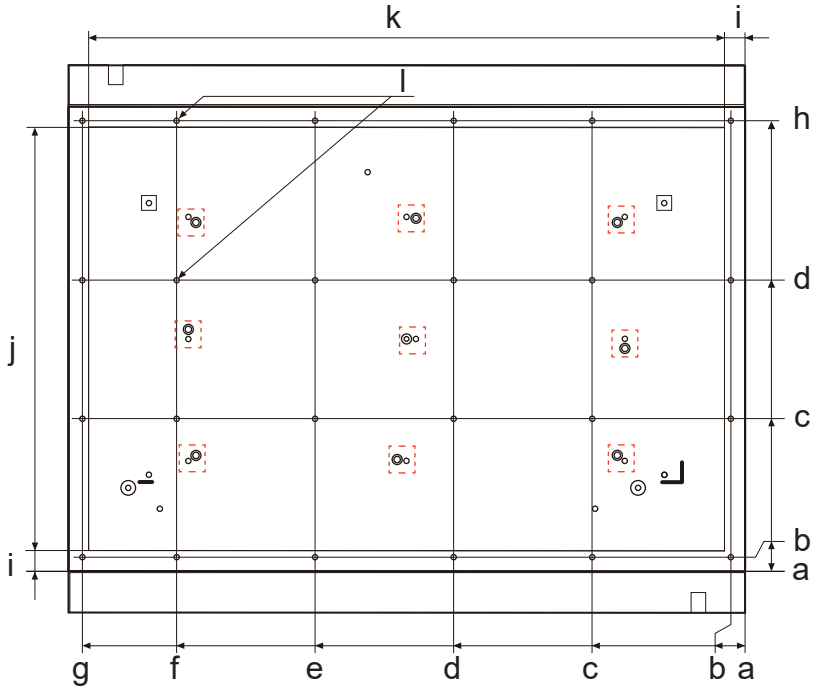
The red dashed lines in the figure indicate screws that should never be removed.

MO-240



a	0 mm (0 in.)
b	10 mm (0.4 in.)
c	110 mm (4.3 in.)
d	210 mm (8.2 in.)
e	310 mm (12.2 in.)
f	410 mm (16.14 in.)
g	510 mm (20.08 in.)
h	630 mm (24.80 in.)
i	478 mm (18.82 in.)
j	15 mm (0.59 in.)
k	458 mm (18.03 in.) (printing area)
l	610 mm (24.02 in.) (printing area)
m	42 × M4 (for jigs)

MO-180



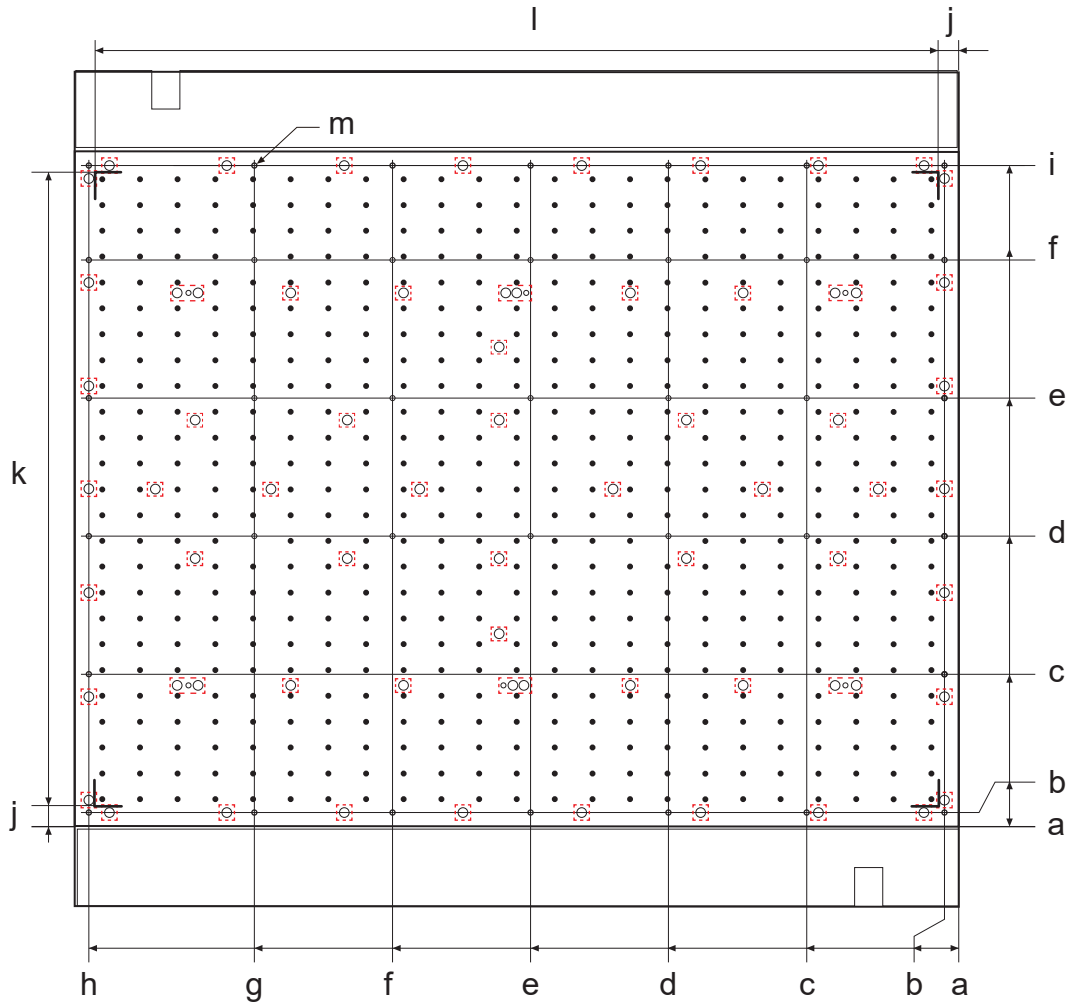
a	0 mm (0 in.)
b	10 mm (0.4 in.)
c	110 mm (4.3 in.)
d	210 mm (8.2 in.)
e	310 mm (12.2 in.)
f	410 mm (16.14 in.)
g	478 mm (18.82 in.)
h	325 mm (12.79 in.)
i	15 mm (0.59 in.)
j	305 mm (12.007 in.) (printing area)
k	458 mm (18.03 in.) (printing area)
l	24 × M4 (for jigs)

Vacuum Table Dimensions

MEMO

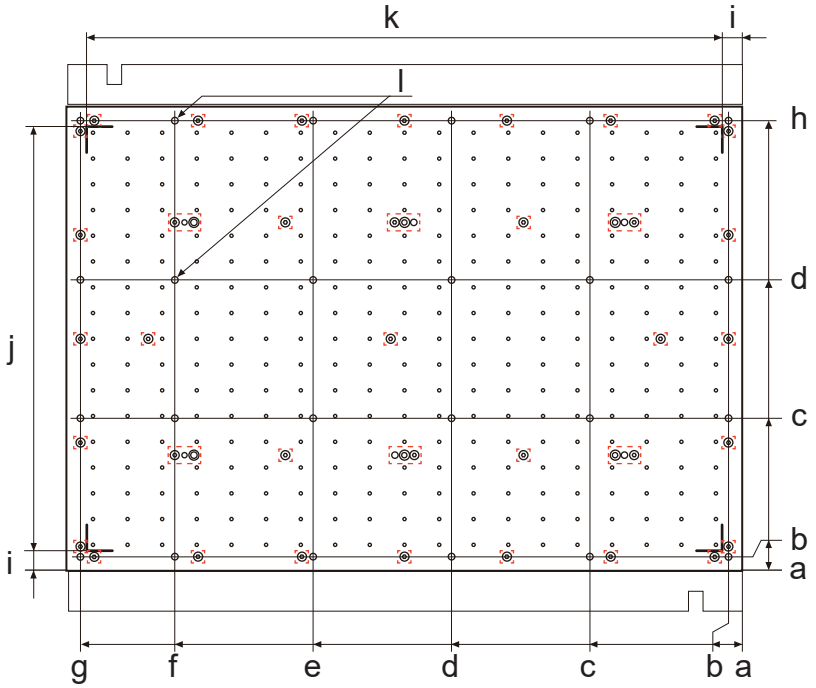
The red dashed lines in the figure indicate screws that should never be removed.

MO-240



a	0 mm (0 in.)
b	10 mm (0.4 in.)
c	110 mm (4.3 in.)
d	210 mm (8.2 in.)
e	310 mm (12.2 in.)
f	410 mm (16.14 in.)
g	510 mm (20.08 in.)
h	630 mm (24.80 in.)
i	478 mm (18.82 in.)
j	15 mm (0.59 in.)
k	458 mm (18.03 in.) (printing area)
l	610 mm (24.02 in.) (printing area)
m	37 × M4 (for jigs)

MO-180



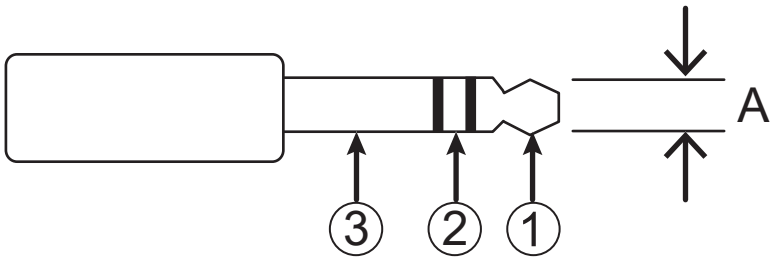
a	0 mm (0 in.)
b	10 mm (0.4 in.)
c	110 mm (4.3 in.)
d	210 mm (8.2 in.)
e	310 mm (12.2 in.)
f	410 mm (16.14 in.)
g	478 mm (18.82 in.)
h	325 mm (12.79 in.)
i	15 mm (0.59 in.)
j	305 mm (12.007 in.) (printing area)
k	458 mm (18.03 in.) (printing area)
l	24 × M4 (for jigs)

Specifications and Diagrams for the External Expansion Terminal

Connector for an External Deodorizer

Compliant plug

Only use three-contact type plugs of the size shown below.

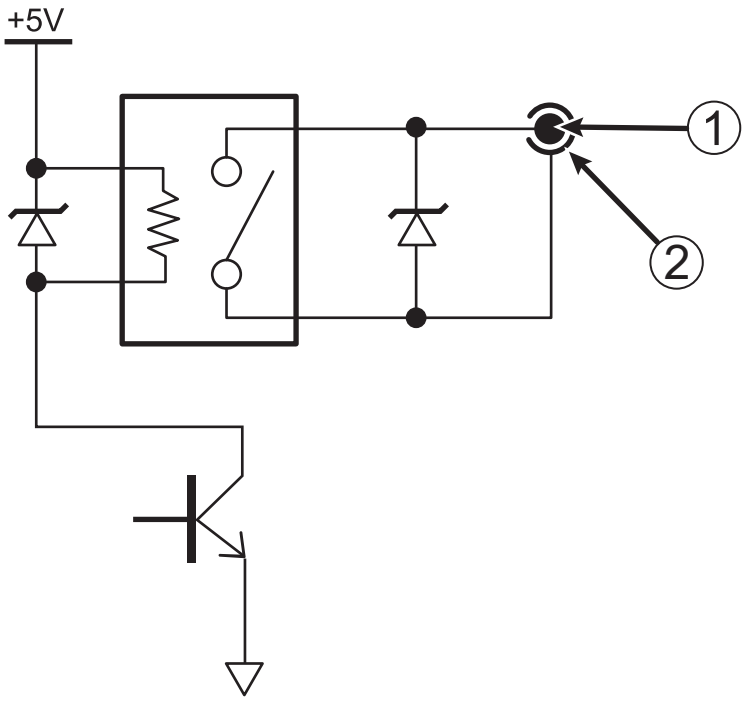


A: Diameter 3.5 mm (0.14 in.)

Output specifications

Output	Relay contact
Output capacity	100 mA or less

Connect to ① and ② of the compliant plug described above. Ensure that the current capacity is 100 mA or less. The output turns on during printing and turns off when printing finishes.



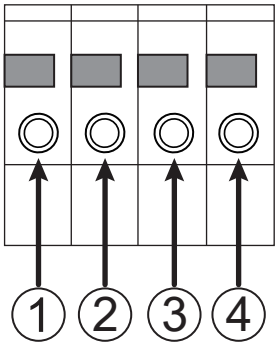
Alarm Lamp Connector

Pin assignment

CN	Signal name	Details
①	+24 V	Power supply for the light
②	ERROR	[**Motor Error**], [**Print Head Dry-out Error**], or [**Temperature Error**] status
③	READY	• Lit In this status, setup has been completed and the machine can start printing. • Flashing In this status, output has been paused.
④	BUSY	Printing.

* Off: This indicates the standby status, warning status, or a similar status. The machine cannot start printing when it is in this status.

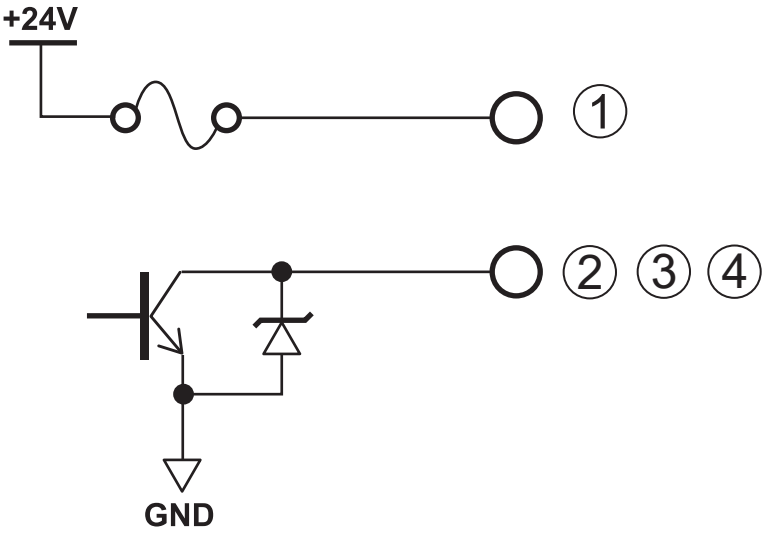
Connector assignment



Output specifications

Power supply	+24 V (Max 150 mA)
Output	Open collector
Output capacity	Max 50 mA / terminal

Connect the lamp between the 24 V power supply (①) and (②), (③), and (④).



Memo

Software 308

Software

This product is equipped with an "eT-Kernel Multi-Core Edition" eT-Kernel and a "PrCONNECT(R)/Pro" TCP/IP protocol stack, both made by eSOL Co., Ltd. eT-kernel and PrCONNECT are registered trademarks of eSOL Co., Ltd.

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Roland