EPSON

SC-V4000

User's Guide

CMP0521-00 EN

Copyrights and Trademarks

No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of Seiko Epson Corporation. The information contained herein is designed only for use with this Epson printer. Epson is not responsible for any use of this information as applied to other printers.

Neither Seiko Epson Corporation nor its affiliates shall be liable to the purchaser of this product or third parties for damages, losses, costs, or expenses incurred by the purchaser or third parties as a result of accident, misuse, or abuse of this product or unauthorized modifications, repairs, or alterations to this product, or (excluding the U.S.) failure to strictly comply with Seiko Epson Corporation's operating and maintenance instructions.

Seiko Epson Corporation shall not be liable for any damages or problems arising from the use of any options or any consumable products other than those designated as Original Epson Products or Epson Approved Products by Seiko Epson Corporation.

Seiko Epson Corporation shall not be held liable for any damage resulting from electromagnetic interference that occurs from the use of any interface cables other than those designated as Epson Approved Products by Seiko Epson Corporation.

Microsoft and Windows are trademarks of the Microsoft group of companies.

Apple and Mac are trademarks of Apple Inc., registered in the U.S. and other countries.

Intel and Intel Core are trademarks of Intel Corporation or its subsidiaries.

Adobe, Illustrator, Photoshop and Reader are either registered trademarks or trademarks of Adobe in the United States and/or other countries.

The SuperSpeed USB Trident Logo is a registered trademark of USB Implementers Forum, Inc.

General Notice: All other trademarks are the property of their respective owners and used for identification purposes only.

Printer Summary

The SC-V4000 is a flatbed printer equipped with UV ink. The 10-color ink set enables delicate, vivid, high-quality output.

With a supported media size of up to 980 mm (38.58 in.) (W) x 700 mm (27.56 in.) (D), it is suitable for a wide range of applications, including fine art production and mass production of acrylic goods.

Before using this printer, be sure to receive safety and operation training from our service support.

©2025 Seiko Epson Corporation

Note for North American and Latin American Users

IMPORTANT: Before using this product, make sure you read the safety instructions in the online *Notices*.

Contents

Copyrights and Trademarks

Printer Summary. 2
Note for North American and Latin American Users 3

Notes on Manuals

Meaning of Symbols. 6
Screenshots. 6
Illustrations. 6
Notes on Operating Systems. 6
Manual Organization. 7
Viewing PDF Manuals. 7

Introduction

Checking Included Items. 9
Printer Parts. 10
- Front. 10
- Interior. 13
- Back. 16
- Control Panel. 18

Emergency Stop and Release. 19
- Emergency Stop Procedure. 19
- Releasing an Emergency Stop. 19

Understanding the Signal Lamp. 20
Notes on Handling. 22
- Notes for Using the Printer. 22
- Notes on Long-term Storage. 22
- Notes on Handling Ink Bottles. 23
- Handling Media. 24

Supported Media. 24
- Supported Thickness, Weight, and Size. 24
- Unusable (Restricted) Media. 25

Flatbed Specifications. 26
- Flatbed Size and Maximum Printable Area. 26
- Flatbed Illustration. 27

Software Supplied. 28
Using Epson Edge Print PRO. 29
- Starting Procedure. 29
- Closing Procedure. 29

Using UV Flatbed Controller. 29
- Starting Procedure. 29
- Notes when Using the UV Flatbed Controller. . . 29
- Screen Composition. 29
- Details of the Menu. 30
- Function Button Explanations. 32
- Status Information Explanations. 33
- Closing Procedure. 35

Basic Operations

Print Job Workflow. 36
Turning on and Performing Pre-work Inspections. . 37
- Turning on the Printer. 37
- Pre-work Inspections. 37

Creating Print Data. 38
- Print Layer Order and Print Results. 38
- Braille Printing. 46

Types and Overview of Thickness Detection Settings. 47
- Manual Overview. 47
- Auto Overview. 47

Loading Media (For Flat Media such as Acrylic Board and Film). 48
- Notes on Loading Media. 48
- Loading Media. 48

Loading Media (for Media with Spherical or Curved Surfaces). 50
- Notes on Creating Jigs. 50
- Notes on Loading Media. 50
- Loading Media. 50

Print Settings. 51
- Setting Thickness Detection. 51
- Automatic Operation. 52
- Setting Multi-layer Printing. 53

Starting and Canceling Printing. 54
- Starting. 54
- Pausing/Canceling. 54
- Printing Stopped Due to Foreign Object Detection. 54
- Removing Media. 55

Cleaning and Turning Off after Finishing Work. . . 56
- Cleaning after Finishing Work. 56
- Periodic Maintenance. 62
- Turning Off. 63

Various Printing

Multi-layer Printing. 64
- Before Making Print Settings. 64
- **Layer Setting**. 65

Printing Using Horizontal Mirroring. 68

Contents

Printing Images Repeatedly (Step & Repeat). 69
Printing Only Necessary Parts of an Image (Crop). 70
Printing at a Higher Print Quality. 71
Improving the Image Quality of Text or Fine Lines. 71
Reducing Banding or Color Unevenness in the X-direction. 72
Improving Print Quality with Print Quality Settings in Epson Edge Print PRO. 73
Reprinting a Previously Printed Job. 73
Useful Functions. 74
Changing the Screen Display Language. 74
Changing the Display of Task History. 75
Backing Up Adjustment Results. 75
Nozzle Compensation. 76
Status Sheet (CSV File). 80
Export Maintenance Information Sheet (CSV File). 80

Periodic Maintenance

When to Perform Various Maintenance Operations. 81
Maintenance Areas and Timing. 81
Preparation. 84
Cleaning the Laser. 85
Cleaning the UV light. 85
Cleaning the Ionizer. 87
Refilling Ink. 88
Disposing of Waste Ink. 89
Replacing the Wiper Unit. 92
Cleaning the print head. 94
Checking for Clogged Nozzles. 94
Clearing Clogged Nozzles. 95
Cleaning the Vents. 97
Replacing the Mist Filters. 97
Replacement Time. 97
Procedure. 97
Disposal of Used Consumables. 99
Disposal. 99

Problem Solver

Checking Messages. 100
Troubleshooting. 101
You Cannot Print (Because the Printer Does Not Work). 101
The Printer Operates, but Does Not Print. 102
Print Results Are Not What You Expected. 102
Size of Print Data and Print Results Do Not Match/Step & Repeat Print Position has Shifted 107
Switching between **Print Task List** and **Task History** in the UV Flatbed Controller takes time. 107

Appendix

Options and Consumable Products. 109
Ink Bottles. 109
Maintenance Items. 109
Moving and Transporting. 111
Notes When Moving or Transporting the Printer. 111
System Requirements. 112
UV Flatbed Controller. 112
Epson Edge Print PRO. 112
Specifications Table. 114

Notes on Manuals

Meaning of Symbols

This manual uses the following symbols to indicate dangerous operations or handling procedures to prevent harm to users or other people or damage to property. Make sure you understand these warnings before reading the content of this manual.

Warning:	Warnings must be followed to avoid serious bodily injury.
Caution:	Cautions must be followed to avoid bodily injury.
Important:	Important must be followed to avoid damage to this product.
Note:	Notes contain useful or additional information on the operation of this product.
☞	Indicates related content.

Screenshots

- ❏ The screenshots used in this manual may differ slightly from the actual screens.
- ❏ Unless otherwise stated, the Windows screenshots used in this manual are from Windows 11.

Illustrations

The illustrations may differ slightly from the model you are using. Please be aware of this when using the manual.

Notes on Operating Systems

Windows

In this manual, terms such as "Windows 11","Windows 10", "Windows 8.1", "Windows 8", "Windows 7", "Windows Server 2022", "Windows Server 2019", "Windows Server 2016", "Windows Server 2012 R2", "Windows Server 2012", "Windows Server 2008 R2", and "Windows Server 2008" refer to the following operating systems. Additionally, "Windows" is used to refer to all versions and "Windows Server" is used to refer to "Windows Server 2022", "Windows Server 2019", "Windows Server 2016", "Windows Server 2012 R2", "Windows Server 2012", "Windows Server 2008 R2", and "Windows Server 2008".

- ❏ Microsoft® Windows® 11 operating system
- ❏ Microsoft® Windows® 10 operating system
- ❏ Microsoft® Windows® 8.1 operating system
- ❏ Microsoft® Windows® 8 operating system
- ❏ Microsoft® Windows® 7 operating system
- ❏ Microsoft® Windows Server® 2022 operating system
- ❏ Microsoft® Windows Server® 2019 operating system
- ❏ Microsoft® Windows Server® 2016 operating system
- ❏ Microsoft® Windows Server® 2012 R2 operating system
- ❏ Microsoft® Windows Server® 2012 operating system
- ❏ Microsoft® Windows Server® 2008 R2 operating system
- ❏ Microsoft® Windows Server® 2008 operating system

Manual Organization

U.S., Canada, and Latin America

To view user manuals, visit the support site for your region and search for your product:

- ❏ https://epson.com/support (U.S.)
- ❏ https://epson.ca/support (Canada)
- ❏ https://latin.epson.com/support (Latin America)

Other Regions

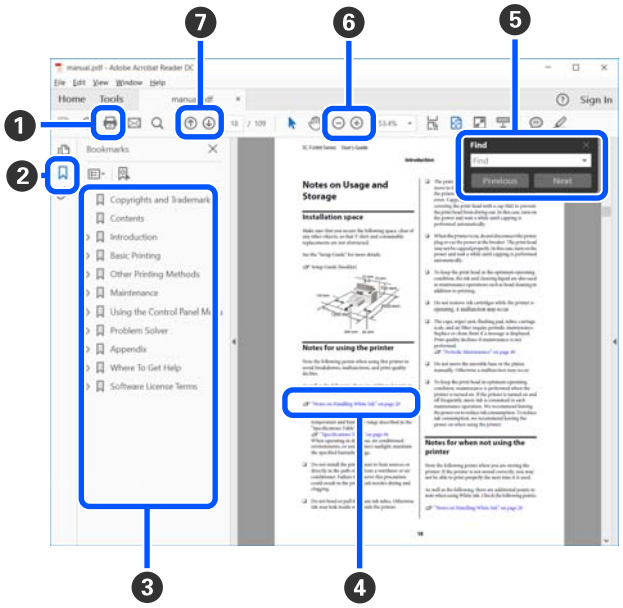
The manuals for the product are organized as shown below.

You can view the PDF manuals using Adobe Reader or Preview (Mac OS).

Standards and Approvals		This section explains safety standards and legal approvals for each country. Make sure you read this manual to perform operations safely.
Epson Support (PDF)		Provides information about Epson Support for each region.
Online Manual		
	User's Guide (this manual)	Explains how to use and maintain this printer.
	Safety Precautions	This booklet explains how to handle the printer safely. Make sure you read this before you start using the printer.
	Braille Printing Guide	Explains how to print braille using this printer.

Viewing PDF Manuals

This section uses the Adobe Acrobat Reader as an example to explain the basic operations for viewing the PDF in Adobe Acrobat Reader DC.



❶ Click to print the PDF manual.

❷ Each time it is clicked the bookmarks are hidden or shown.

❸ Click the title to open the relevant page.

Click [+] to open the titles lower in the hierarchy.

❹ If the reference is in blue text, click the blue text to open the relevant page.

To return to the original page, do the following.

For Windows

While pressing the Alt key, press the ← key.

For Mac OS

While pressing the command key, press the ← key.

❺ You can input and search for keywords, such as the names of items you want to confirm.

For Windows

Right click on a page in the PDF manual and select **Find** in the menu that is displayed to open the search toolbar.

For Mac OS

Select **Find** in the **Edit** menu to open the search toolbar.

❻ To enlarge the text in the display that is too small to see well, click ⊕. Click ⊖ to reduce the size. To specify a part of an illustration or screenshot to enlarge, do the following.

For Windows

Right click on the page in the PDF manual and select **Marquee Zoom** in the menu that is displayed. The pointer changes to a magnifying glass, use it to specify the range of the place you want to enlarge.

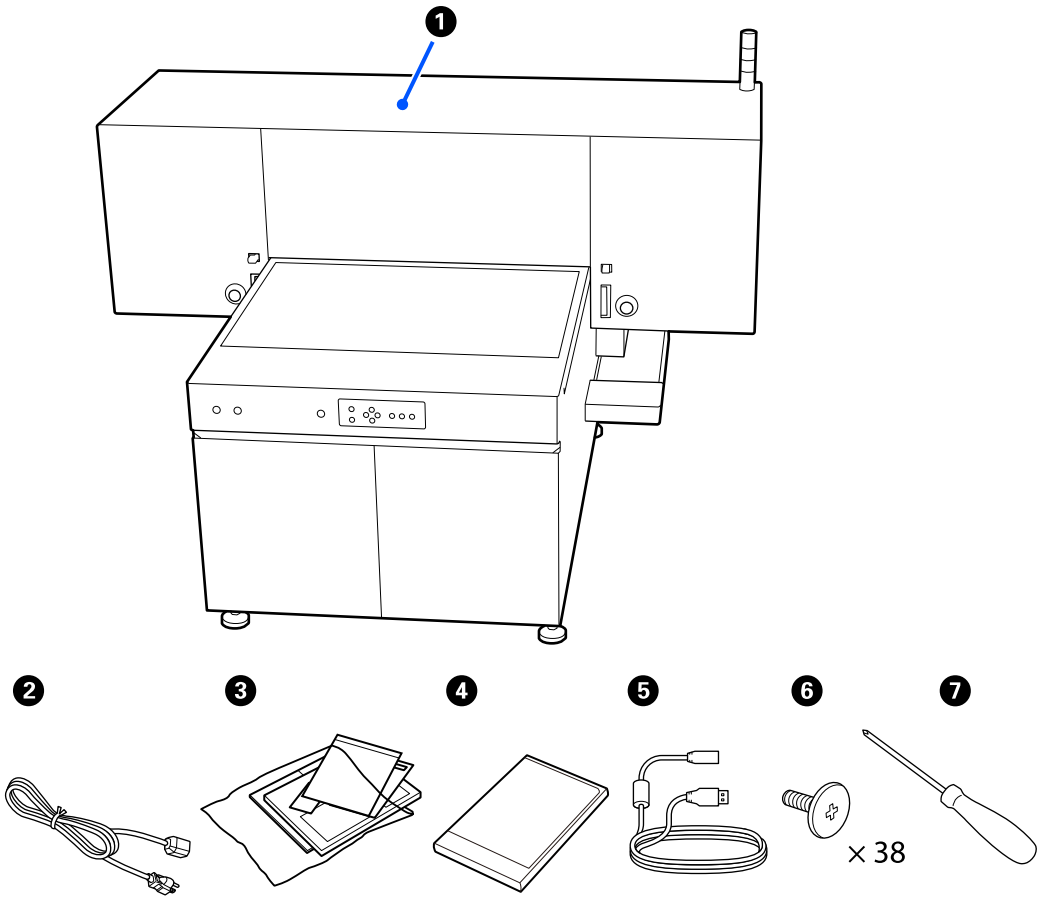
For Mac OS

Click **View** menu - **Zoom** - **Marquee Zoom** in this order to change the pointer to a magnifying glass. Use the pointer as a magnifying glass to specify the range of the place you want to enlarge.

❼ Opens the previous page or next page.

Introduction

Checking Included Items



1 Printer

See the following for the functions of each part.

"Printer Parts" on page 10

2 Power cable

3 Manual

4 Epson Edge Print PRO

This is genuine Epson RIP software.

5 USB cable

6 Screws

Use when loading media. You can also use these to secure the jigs.

❼ Screwdriver

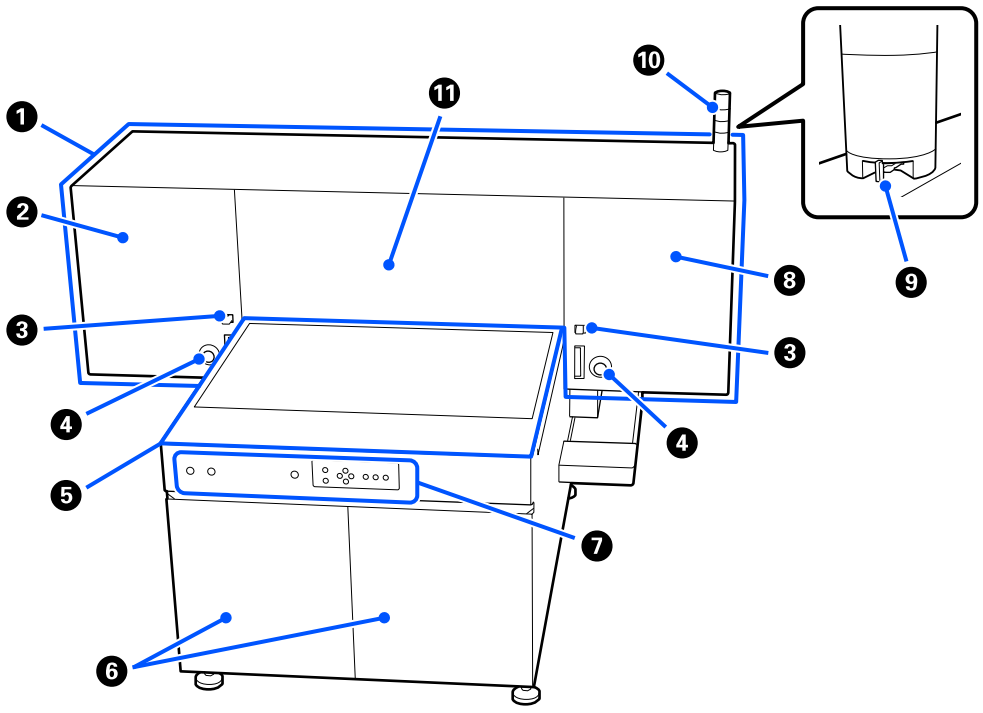
Use when tightening screws.

> **Important:**
> *Always use the included power cable and USB cable.*

> **Note:**
> *Ink bottles are not included. Purchase them separately.*
> *"Options and Consumable Products" on page 109*

Printer Parts

Front



❶ Gantry

The print head moves along this.

❷ Maintenance cover (left side)

Not used during normal operation. This is used by service engineers during maintenance.

❸ Laser

Measures media thickness. Also detects obstacles on the flatbed and immediately stops operation. See the following for how to respond when operation stops.

☞ "Printing Stopped Due to Foreign Object Detection" on page 54

❹ Emergency stop button

Press to stop the printer immediately.

☞ "Emergency Stop Procedure" on page 19

❺ Flatbed

Place the media you want to print.

For flat media such as acrylic board and film ☞ "Loading Media" on page 48

For media with spherical or curved surfaces ☞ "Loading Media" on page 50

❻ Cover

Open when refilling ink or disposing of waste ink.

❼ Control Panel

☞ "Control Panel" on page 18

❽ Maintenance cover (right side)

Open when cleaning or replacing the wiper unit, or when cleaning around the flushing box and suction cap.

☞ "Periodic Maintenance" on page 81

❾ Adjustment lever

Adjusts the volume of the warning sound.

> ⚠ ***Caution:***
> *Keep the warning sound volume at the maximum setting.*
> *Reducing the volume may prevent you from noticing gantry movements and other operations, which could result in injury.*

❿ Signal lamp

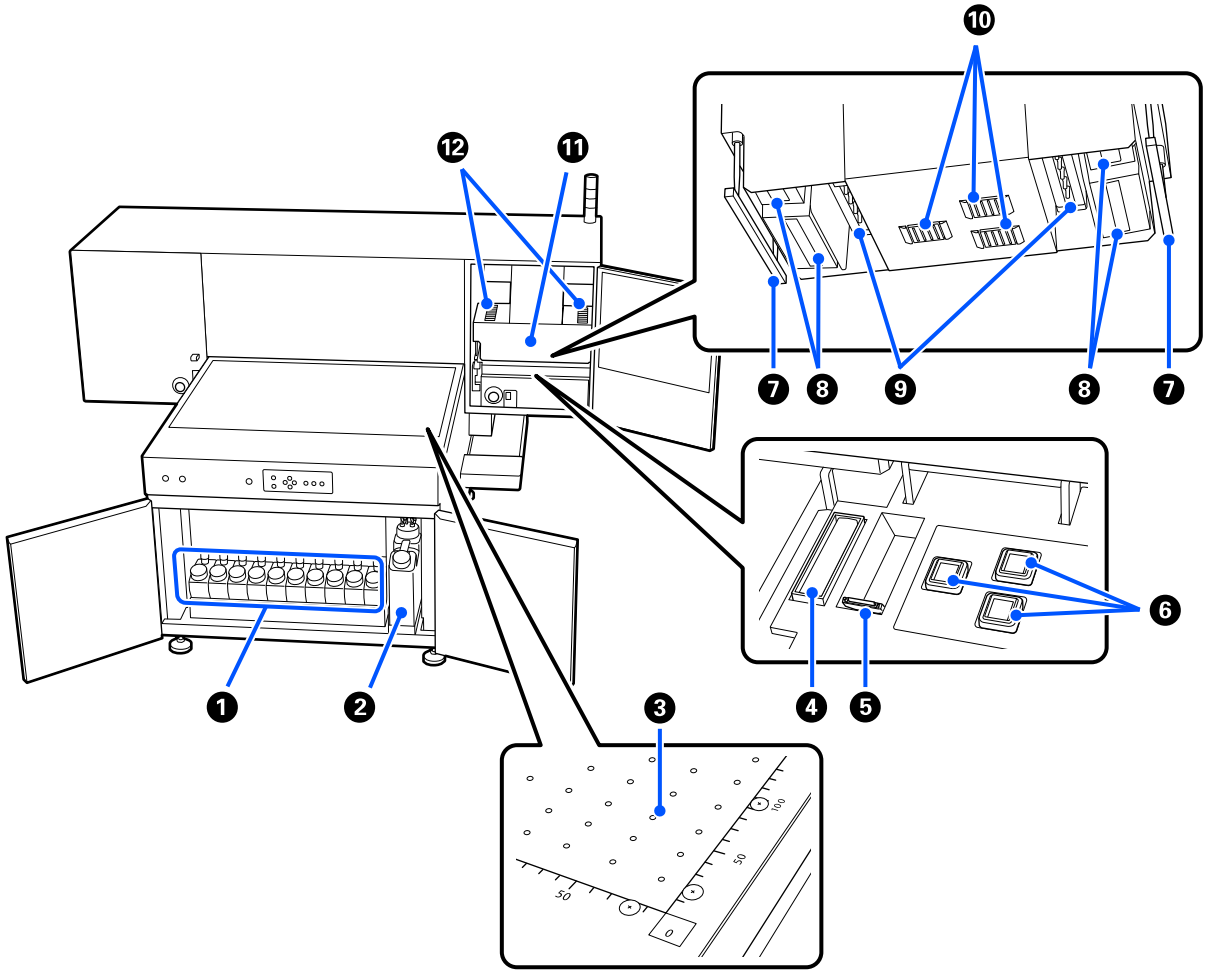
The lamp uses three colors to indicate the printer status by lighting or flashing.

☞ "Understanding the Signal Lamp" on page 20

⓫ Front cover

This cover protects the print head from collisions during printing. Do not open or close.

Interior



❶ Ink tank

Fill with ink for printing. Refill when an ink low error is displayed.

“Refilling Ink” on page 88

❷ Waste ink bottle

This is a container that stores waste ink. When a waste ink full error is displayed, dispose of the waste ink.

Replace the waste ink bottle when it is noticeably dirty.

“Disposing of Waste Ink” on page 89

❸ Media suction holes

Air is sucked in from the media suction holes to suction the media.

❹ Flushing box

Ink is discharged here during flushing operations to prevent nozzle clogging.

Clean at the end of each working day.

☞ "Cleaning after Finishing Work" on page 56

❺ Wiper unit

Wipes off ink from the nozzle surface of the print head.

Clean at the end of each working day. Also, replace it when a replacement notification message is displayed.

☞ "Cleaning after Finishing Work" on page 56

☞ "Replacing the Wiper Unit" on page 92

❻ Suction caps

These caps suck ink from the print head nozzles.

Clean at the end of each working day.

☞ "Cleaning after Finishing Work" on page 56

❼ Jam detection sensor

Operation stops immediately when media or foreign objects come into contact with the bar. See the following for how to respond when operation stops.

☞ "Printing Stopped Due to Foreign Object Detection" on page 54

❽ UV Light

Emits UV light on the ink to cure it during printing.

Clean when a cleaning notification message is displayed.

☞ "Cleaning the UV light" on page 85

❾ Ionizer

Disperses static electricity from the media to reduce print quality issues such as blurring or lack of sharpness.

Clean when a cleaning notification message is displayed.

☞ "Cleaning the Ionizer" on page 87

❿ Nozzles

Fires ink through high density nozzles to print.

⓫ Print head

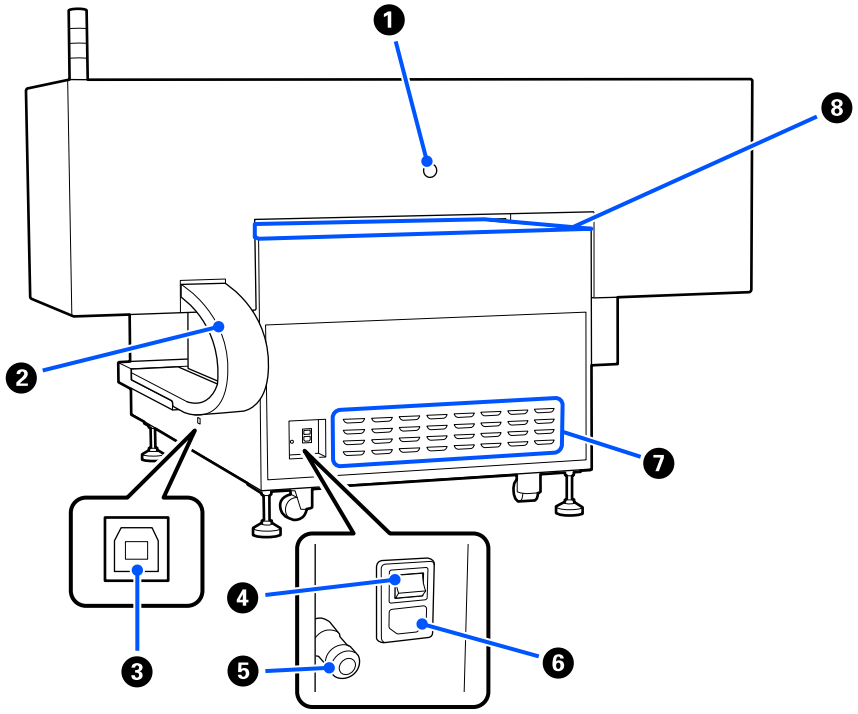
Sprays ink while moving left and right to print. In this manual, the unit that includes the UV light, nozzles, and ionizers is referred to as the print head.

⓬ Mist filter

Removes dust, ink, and other foreign objects when cooling the UV light.

☞ "Replacing the Mist Filters" on page 97

Back



❶ Emergency stop button

Press to stop the printer immediately.

☞ "Emergency Stop and Release" on page 19

❷ Cable carrier

Routes and secures cables and ink tubes to prevent damage from external impacts and other sources.

❸ USB port

Connects to the computer on which the UV Flatbed Controller installed using the USB cable supplied with this printer.

❹ Main power switch

Turns on/off the main power for the printer.

❺ Option connector

Not used on this printer.

❻ AC inlet

Insert the power cable supplied with this printer.

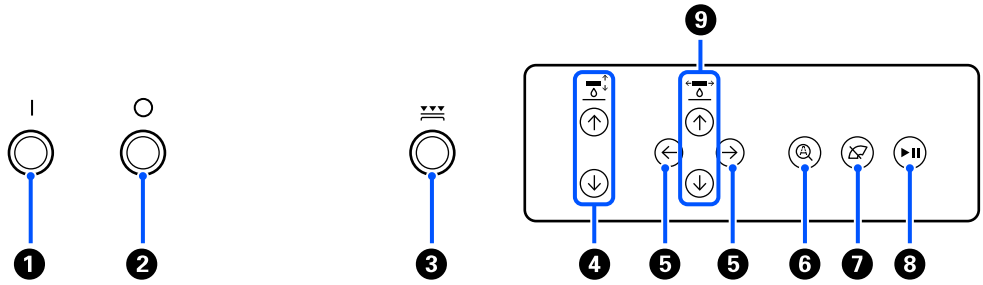
❼ Vent

Blocking the vent causes heat to build up inside the printer, and a malfunction may occur. Do not place objects in front of the vent.

❽ Gantry start position

When you exit the UV Flatbed Controller, the gantry returns to the start position.

Control Panel



❶ Power button (|)

To turn on the printer, turn on the main power switch on the back panel, and then press this button.

❷ Power button (◯)

To turn off the printer, press this button, and then turn off the main power switch on the back panel.

❸ Suction button

Turns the media suction fan on or off.

❹ Height adjustment button

Press to move the gantry up or down.

For example, use this when you want to check the nozzle surface of the print head.

❺ Print head positioning button

Press to move the print head left or right. It cannot move during maintenance work or print head cleaning.

For example, use this when you want to check the condition of the caps.

❻ Nozzle check button

Press to print a nozzle check pattern.

☞ “Cleaning the print head” on page 94

❼ Print head cleaning button

Press to clean the print head.

☞ “Cleaning the print head” on page 94

❽ Pause button

Press to stop printing. Press again while stopped to resume printing.

9 Gantry positioning button

Press to move the gantry forward or backward. It cannot be moved while in maintenance mode.

For example, use this when you want to load or remove media, or check print results.

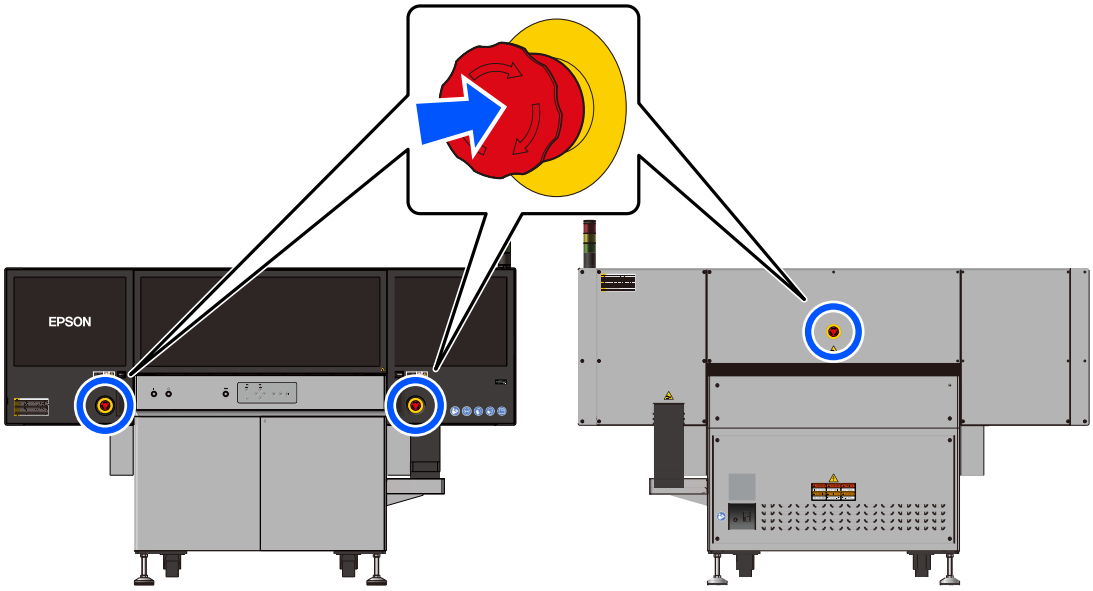
Emergency Stop and Release

Emergency Stop Procedure

Press the emergency stop button.

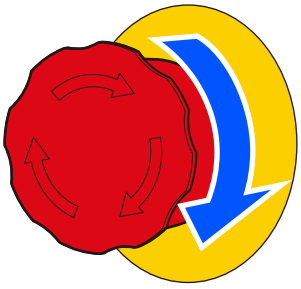
As shown below, the printer has emergency stop buttons on the front and back.

When an emergency stop button is pressed, the printer will not operate until the release procedure described in the next section is performed.



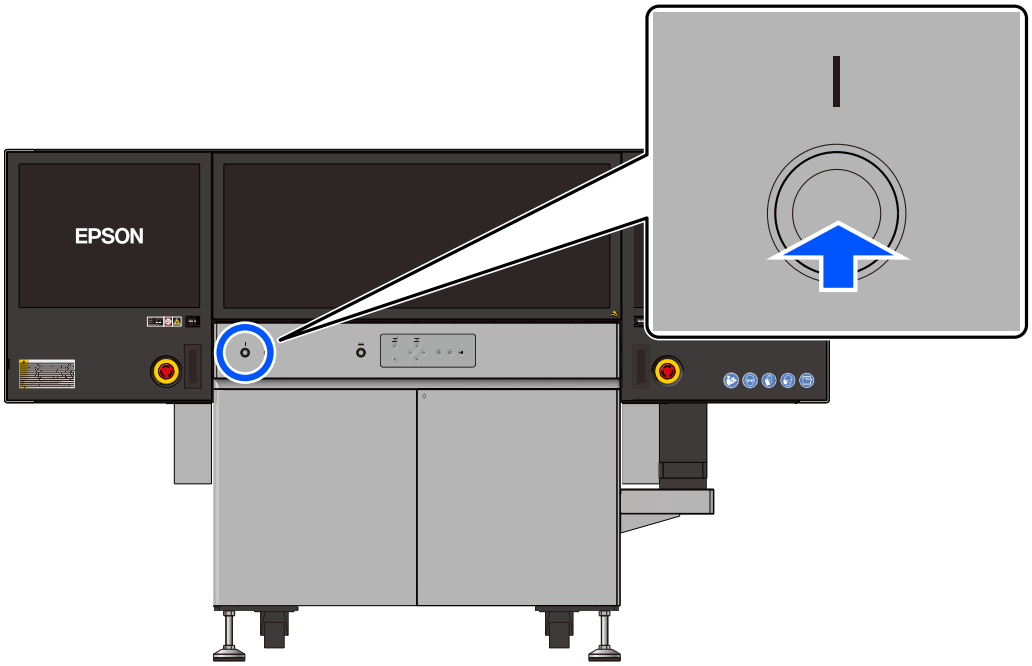
Releasing an Emergency Stop

1 Turn the emergency stop button to the right.

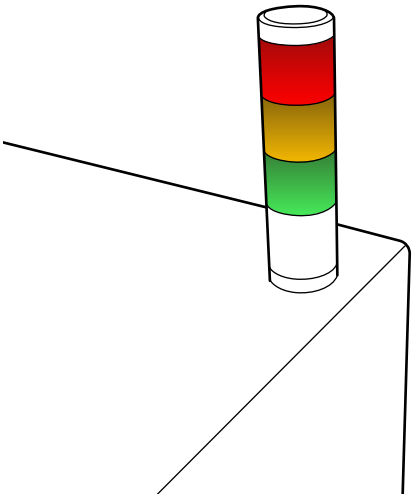


2 Press the power button (|) to turn on the power.

When you turn on the power, the printer restarts and initialization begins.



Understanding the Signal Lamp



Turns on or flashes in the following situations.

Lamp Color	Status	Warning Sound	Meaning
Red	On	Yes	An emergency has occurred. (Example: The emergency stop button has been pressed or a service call error has occurred.)

Lamp Color	Status	Warning Sound	Meaning
Yellow	On	Yes	An error has occurred. (Example: The amount of ink remaining has fallen below the minimum allowed, or the print head has stopped mid-operation.)
Green	On	No	Normal status (Example: Standing by or printing)
	Flashing	Yes	Normal status (Example: Print head/gantry operation has started or print data is being received.)

Notes on Handling

> ***Important:***
> *To use this printer safely and correctly, read the Safety Precautions before starting operation.*

Notes for Using the Printer

Note the following points when using this printer to avoid breakdowns, malfunctions, and print quality decline.

- ❏ When operating this printer, make sure there are no objects in the surrounding area. If there are objects there, workers may collide with the gantry, or objects may interfere with maintenance work.
- ❏ The UV ink used in the printer will cure when exposed to sunlight or fluorescent lights. Do not use the printer in direct sunlight. Not doing so could cause the print head nozzles to clog.
- ❏ When using the printer, observe the operating temperature and humidity range described in the "Specifications Table".
  ☞ "Specifications Table" on page 114
  However, you may not be able to print correctly even if the above criteria are met, but if the environmental requirements of the media you are using are not met. Use the printer in an environment that meets the media's requirements. Also, when operating in dry areas, or in air conditioned environments, be careful of dryness and maintain the specified humidity range.
- ❏ Do not install the printer next to heat sources or directly in the path of air from a ventilator, air conditioner, or treatment machine. Failure to observe this precaution could result in the print head nozzles drying and clogging.
- ❏ Turning off the power while an error has occurred could cause the print head nozzles to clog. Check the UV Flatbed Controller log for errors and solutions.
- ❏ When the power is on, do not remove the power plug or cut the power at the breaker, especially during maintenance. Doing so may cause ink to be consumed, and the print head nozzles may become clogged. If the power turns off, turn it on again.
- ❏ Even when not printing, ink is consumed during maintenance operations to keep the print head in optimum condition.
- ❏ The print head may move even when not printing. Do not put your hands inside the front cover.
- ❏ Do not move the print head by hand. Doing so can cause malfunctions.
- ❏ You need to perform maintenance, such as cleaning or replacement, at the recommended time or sooner depending on the frequency of use. Failure to perform maintenance can cause print quality to decline. Continuing to use the printer without performing proper maintenance can damage the print head.
  ☞ "Periodic Maintenance" on page 81
- ❏ Do not print on mirrors, glass, or glossy metal. UV light reflected by materials such as these can cure the ink around the print head, causing a malfunction to occur.

Notes on Long-term Storage

When storing this printer for an extended period without using it, the procedures differ depending on whether the storage period is 10 days or more or 45 days or more.

If the printer is not stored correctly, you may not be able to print properly the next time it is used.

Preparations before storage

Do the following before turning off the printer and storing it.

- ❏ Confirm that the print head is in the standby position (right side).
  If the print head is not in the standby position, turn the printer off and back on, and then check that the print head has moved to the standby position.

❏ Confirm that all covers on the printer are closed. Storing the printer with the covers open allows dust to enter, which can cause malfunctions.

❏ In **Advanced** in UV Flatbed Controller, set the print head cleaning level performed from the printer's control panel to **Level 2**.
☞ "Cleaning from the printer's control panel" on page 96

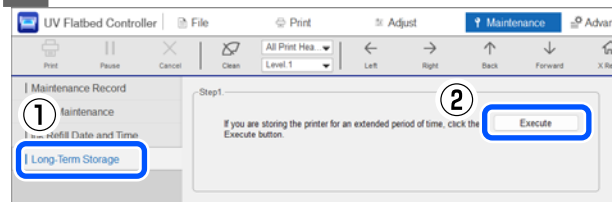
❏ Perform capping.
Capping protects the nozzle surface by covering it with the suction cap.
See the next section for the detailed capping procedure.

Capping procedure

> ***Important:***
> *After capping, immediately exit the UV Flatbed Controller and turn off the printer. Leaving the printer on after capping can cause malfunctions.*

1 Click **Maintenance** on the UV Flatbed Controller menu.

2 Click **Long-term storage** - **Execute**.



3 An information message is displayed. Check it and click **OK**.

Capping is performed.

4 Immediately exit the UV Flatbed Controller and turn off the printer.

When storing for 10 days or more

Once every 10 days, turn on the printer and perform **Level 2** print head cleaning from the printer's control panel.

Leaving the printer unused for more than 10 days without cleaning the print head can cause malfunctions.

☞ "Cleaning from the printer's control panel" on page 96

When storing for 45 days or more

By having a service engineer perform long-term storage preparation, you can eliminate the need to turn on the printer once every 10 days.

For long-term storage preparation, contact your dealer or Epson Support.

You also need a service engineer to perform preparations when resuming use after long-term storage.

Notes on Handling Ink Bottles

Notes on Handling and Storing

❏ Read the safety data sheet before use.
You can download it at your local Epson Web site.

❏ Store ink bottles at room temperature and out of direct sunlight.

❏ When installing ink supply units for the first time, a lot of ink is consumed to fill all parts of print head nozzles to get the printer ready for printing. Prepare replacement ink bottles as soon as possible.

❏ Do not subject the ink bottles to powerful impacts such as dropping them. Ink may leak from the ink bottles, and you could slip and fall on ink that has spilled on the floor.

❏ Do not open the lid of the ink bottle until just before refilling the ink tank.

Notes on Maintaining Good Print Quality

❏ Use the ink within the recommended expiration date indicated on the ink bottle.

❏ When moving the ink bottles from a cold to a warm location, leave them at room temperature for at least three hours before use.

❏ When refilling the ink tank, do not leave any ink in the ink bottle; instead, pour it all into the tank. If ink remains in the ink bottle, use it as soon as possible. Using ink that has been open for a long time can cause print quality to decline.

Handling Media

Note the following when handling or storing media. Media that are in poor condition will not produce good quality prints.

Notes on Handling and Storing

❏ Do not bend the media or damage the printing surface.

❏ Wear gloves when handling media. Handling the media with bare hands may leave fingerprints and marks on the media.

❏ Keep the media dry.

❏ Avoid locations that are subject to direct sunlight, excessive heat, or humidity.

❏ Store the media so that dust does not adhere to it. Dust can cause print quality to decline.

❏ When media is not being used, remove it from the printer and store it. If you leave media loaded for an extended period, dust may adhere to it, which can cause print quality to decline.

Handling Media After Printing

To maintain long lasting, high quality print results, note the following points.

❏ The abrasion resistance and flexibility of cured ink, and the adhesion of the ink to the media varies depending on the printed media and print data.
Check the printed results yourself and handle them with care.

❏ Rubbing or scratching the print surface forcefully may damage it.
Printing varnish ink on the top surface may improve resistance to print surface damage.

❏ If the ink has not been cured sufficiently, expose it to additional UV light. Uncured ink that comes into contact with the skin may cause allergic reactions and other harmful effects on the body.
☞ "When the ink or varnish is not sufficiently cured" on page 103

❏ Print outs may contain un-reacted ink components. Unreacted ink components may cause allergic reactions and other harmful effects on the body. Do not use printed materials for the following purposes.

- ❏ For food wrappers
- ❏ For items that children may accidentally put in their mouths
- ❏ For fabric or leather that directly touches the body (such as clothes or accessories)
- ❏ For any items that touch or are inserted into the body such as medical instruments

Supported Media

Supported Thickness, Weight, and Size

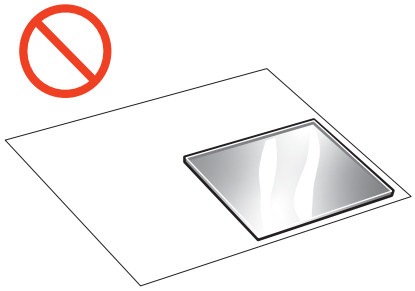
This printer can print on media with the following specifications.

Maximum media thickness	200 mm (7.87 in.)
Maximum media weight	50 kg (110.2 lbs) (including jig)
Maximum media size	X direction (left-right) 1033 mm (40.67 in.) Y direction (front-back) 1600 mm (63.0 in.)
Maximum print area	X direction (left-right) 980 mm (38.58 in.) Y direction (front-back) 700 mm (27.56 in.)

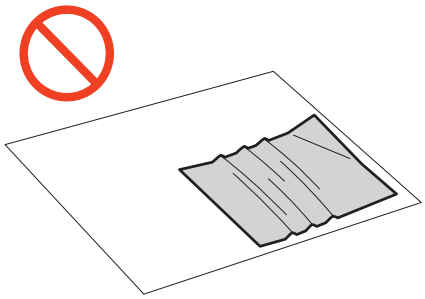
Unusable (Restricted) Media

❏ You cannot use media in the following conditions. Doing so can cause clogged nozzles or malfunctions.

  ❏ Highly reflective media (mirrors, glass, glossy metal)



  ❏ Media with wrinkles or folds

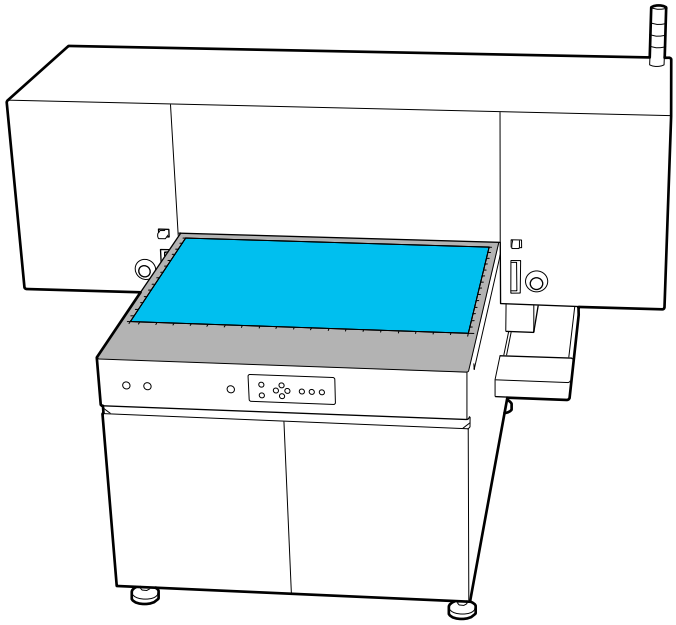


❏ Depending on the media material, some media cannot be printed on this printer. Before production printing, always perform a test print using the same media you will use for the actual job to confirm the print quality in advance.

Flatbed Specifications

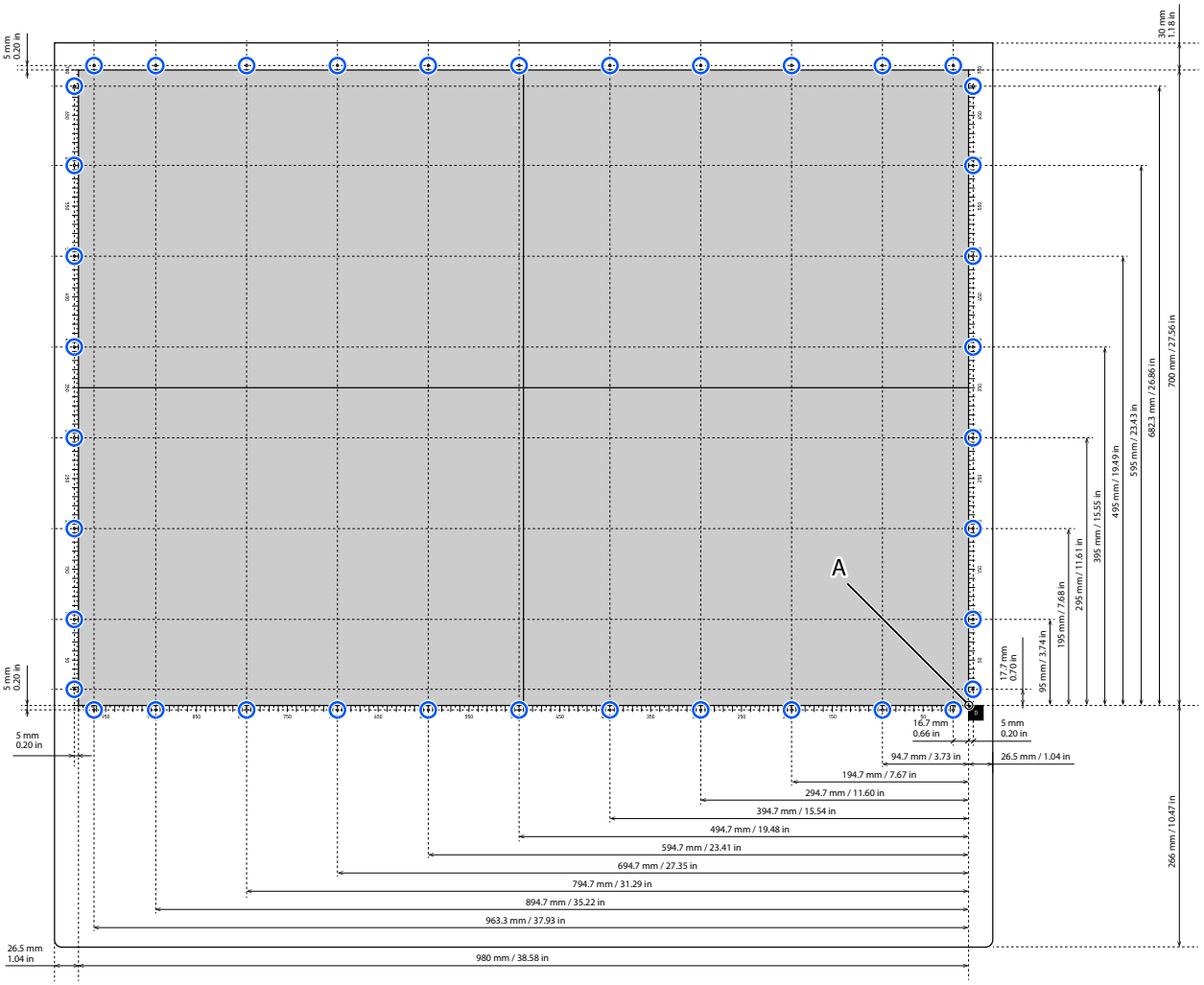
Flatbed Size and Maximum Printable Area

The gray ( ) area in the illustration below is the flatbed. The blue ( ) area is the printable area. The size of each area is shown in the following table.



Flatbed size	X direction (left-right) 1033 mm (40.67 in.) Y direction (front-back) 996 mm (39.21 in.)
Maximum printable area	X direction (left-right) 980 mm (38.58 in.) Y direction (front-back) 700 mm (27.56 in.)

Flatbed Illustration



- ❏ (A) indicates the home position.
- ❏ ▭ indicates the printable area.
- ❏ In the illustration above, the ○ indicate the locations of holes that can be used to attach supplied screws or jigs. The dotted lines in the illustration above connect the centers of the holes. The size of the holes is M3 and the depth of the holes is 10 mm (0.39 in.).
- ❏ The solid lines within the printable area indicate suction area divisions.

Software Supplied

Epson Edge Print PRO

Epson Edge Print PRO is RIP software that is easy to use with straightforward operations.

Install it by accessing the URL specified on the sheet in the Epson Edge Print PRO package.

This printer can print braille by applying multiple layers of varnish ink. When you use Epson Edge Print PRO, you can print data for braille printing created in Adobe Illustrator.

For details on braille printing, see the *Braille Printing Guide* (Online Manual).

See the following for more details on Epson Edge Print PRO.

“Using Epson Edge Print PRO” on page 29

UV Flatbed Controller

The UV Flatbed Controller is control software that receives job files from Epson Edge Print PRO and sends print data to this printer.

Using Epson Edge Print PRO

Starting Procedure

The application can be launched using any of the following methods.

- ❏ Double-click the desktop shortcut icon .
- ❏ Click the Windows Start button - **All Programs** - **Epson Software** - **Epson Edge Print PRO**.

For more information, see the Epson Edge Print PRO online help.

Closing Procedure

Select **Done** from **File** at the top left of the screen.

Using UV Flatbed Controller

Starting Procedure

The application can be launched using any of the following methods.

- ❏ Double-click the desktop shortcut icon .
- ❏ Click the Windows Start button - **All Programs** - **UV Flatbed Controller**.

Notes when Using the UV Flatbed Controller

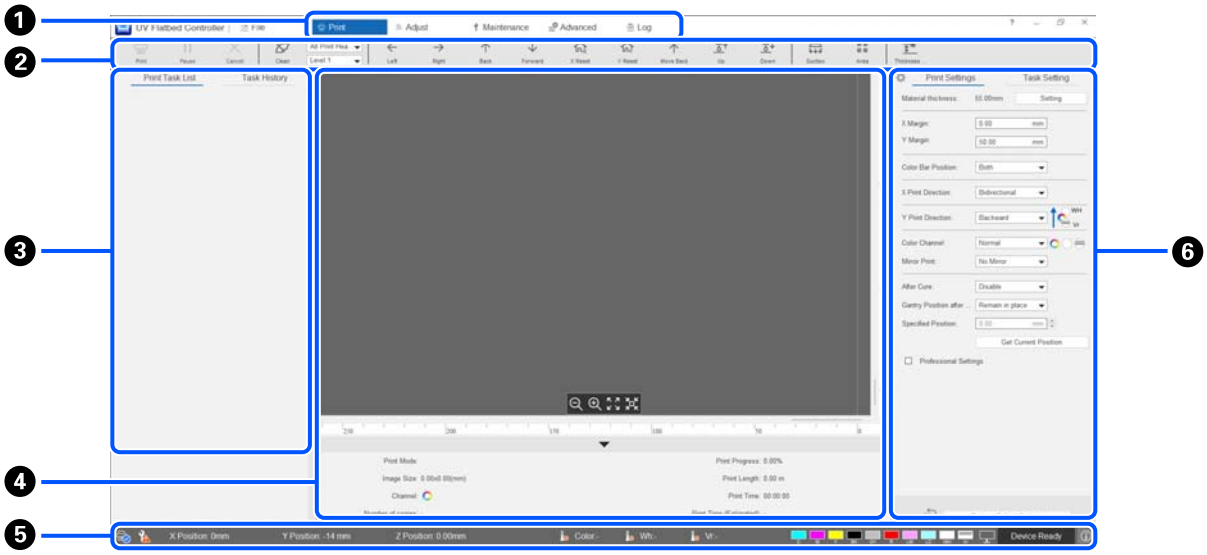
Note the following two points.

- ❏ The UV Flatbed Controller registers the first connected printer as the target printer.
  If you connect a printer other than the registered printer later, you cannot print correctly from Epson Edge Print PRO. Do not connect any printer other than the one you connected initially.
- ❏ Start UV Flatbed Controller with administrator privileges.

Screen Composition

When you start this software, the following print menu screen is displayed.

The screen layout and functions are as follows.



❶	Menu	Allows you to make and execute various settings. The following describes the functions of each menu. ☞ "Details of the Menu" on page 30
❷	Function buttons	The printer executes operations when buttons are clicked. Depending on the printer's operating status, some operations may not be available. In such cases, the icon turns gray (grayed out) to indicate that the function is disabled. The functions are as follows. ☞ "Function Button Explanations" on page 32
❸	Print Task List/Task History*	The Print Task List displays thumbnails, original names, status, and other information for jobs that are waiting to print or currently printing. Jobs that have completed printing are automatically moved to the Task History.
❹	Preview Area*	You can check a preview of the job selected in the Print Task List. You can also drag the preview image to change the print position. Click at the bottom of the preview area to reduce/enlarge the preview area display. Click to automatically reduce or enlarge the display so that the currently set media width fills the entire width of the preview area.
❺	Status display area	Allows you to check the printer's operating status. The following describes each display status. ☞ "Status Information Explanations" on page 33
❻	Print Settings/Task Settings*	Sets the Thickness Detection, layout, margins, print direction, and other settings for the stand by job selected in the Print Task List.

*Displayed when the print menu is selected. Not displayed in other menus.

Details of the Menu

The following items and parameters can be set and executed in the Menu.

Item	Explanation
File	Select print jobs and add them to the **Print Task List**.
Print	You can configure print settings and task settings for the print job selected in the **Print Task List**. You can also check the Task History.
Adjust	
Basic Adjustment	
Nozzle Check	Prints a check sheet to check for clogged nozzles in the print head. ☞ "Cleaning the print head" on page 94
Nozzle Compensation	Compensates for ink ejection from clogged nozzles by using the surrounding functioning nozzles. By using nozzle compensation, you can achieve print results with no visible effects from nozzle clogging. However, depending on the conditions, Nozzle Compensation may not work effectively. ☞ "Nozzle Compensation" on page 76
Advanced Adjustment	
Head Interval	Checks the horizontal and vertical spacing between each print head. A service engineer performs the adjustment.
Color Adjustment	Checks the position where ink droplets from each color nozzle land. A service engineer performs the adjustment.
Adjustment Mode	
Select Adjustment Mode	Used to select the target adjustment mode and perform the desired adjustment when executing bidirectional adjustment or step adjustment. ☞ "When there is horizontal line misalignment or graininess" on page 102
Bidirectional Adjust	Adjust this when horizontal line misalignment or graininess occurs in print results. ☞ "When there is horizontal line misalignment or graininess" on page 102
Step Adjust	Adjust this when banding occurs in print results. ☞ "When banding occurs" on page 105
Maintenance	
Maintenance Record	Check the maintenance history and timing for the next maintenance.
User Maintenance	Use this when performing cleaning after work or periodic maintenance. ☞ "Cleaning after Finishing Work" on page 56 ☞ "Periodic Maintenance" on page 81
Ink refill date and time	Check the history of when the ink was refilled.
Long-term storage	Use this when storing for 10 days or more.

Item			Explanation
Advanced			
	Service		This mode cannot be used as it is reserved for service engineers.
	Version Info		Allows you to check the printer's Device Serial Number, Firmware Version, Software Version, Firmware Config Info, and Firmware Parameter Info.
		Refresh	This function is for service engineers only.
		Detail	This function is for service engineers only.
	Advanced		
		Language	Sets the display language. After changing the language, restart the UV Flatbed Controller. ☞ "Changing the Screen Display Language" on page 74
		Statistical info	Allows you to check Base Info (Device Name, Serial Number, and so on), Print Info (print area, print time, and so on), and the update date/time for each firmware. You can also update the statistical information by clicking Refresh.
		Print while Ripping	Set the Port to 9100. If problems occur due to interference from other applications, take the following measures. ☞ "An error has occurred in the printer." on page 101
		Step-and-Repeat Interval	You can set the interval when printing images arranged in a repeated pattern. ☞ "Printing Images Repeatedly (Step & Repeat)" on page 69
		Display of Task History	You can display the task history by grouped jobs or arranged in print order. ☞ "Changing the Display of Task History" on page 75
		Change layer display order	You can change the display order of the layers in the Print Task List.
		Printer Control Panel Settings	You can set the nozzle check pattern and cleaning execution process for panel operations on this printer.
		Printer Status Information	You can output maintenance information for service engineers to a file.
		UV Light Intensity	You can change the UV light intensity.
Log			When warnings or errors occur, or are displayed in at the bottom-right corner of the screen. Click this when you want to check the content of warnings or errors and how to resolve them.

Function Button Explanations

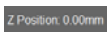
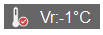
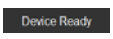
You can perform the following operations using the function buttons.

Function Buttons	Explanation
	Performs printing.

Function Buttons	Explanation
	Pauses or resumes printing during a print job.
	Cancels printing during a print job.
	Performs print head cleaning if there are gaps in the nozzle check pattern. ☞ "Cleaning the print head" on page 94
	Moves the print head to the left. You can also move in the same way by holding down the [ctrl] key on your computer keyboard and pressing [←]. It cannot be moved while in maintenance mode. For example, move this when you want to check the condition of the caps.
	Moves the print head to the right. You can also move in the same way by holding down the [ctrl] key on your computer keyboard and pressing [→]. It cannot be moved while in maintenance mode. For example, move this when you want to check the condition of the caps.
	Moves the gantry to the back. You can also move in the same way by holding down the [ctrl] key on your computer keyboard and pressing [↑]. It cannot be used during printing. For example, move this when you want to load or remove media, or check print results.
	Moves the gantry to the front. You can also move in the same way by holding down the [ctrl] key on your computer keyboard and pressing [↓]. It cannot be used during printing. For example, move this when you want to load or remove media, or check print results.
	Moves the print head to the X direction (left-right) reset position (the rightmost position within the print head's range of motion). Once you activate this operation, it continues moving until it reaches the reset position.
	Moves the gantry to the Y direction (front-back) reset position (the frontmost position within the gantry's range of motion). Once you activate this operation, it continues moving until it reaches the reset position.
	Moves the gantry to the backmost position. Once you activate this operation, it continues moving until it reaches the backmost position.
	Moves the gantry upward. For example, move this when you want to check the nozzle surface of the print head.
	Moves the gantry downward. For example, move this when you want to check the nozzle surface of the print head.
	Sucks in air through the media suction holes to grip and hold the media in place.
	Selects the suction area. When you turn On suction, the selected suction area is displayed in blue.
	Set whether foreign object detection by laser is on or off.

Status Information Explanations

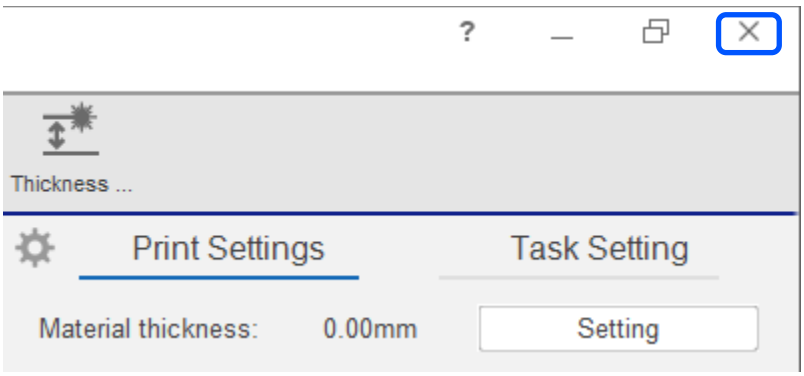
The icons indicate the following content.

Connection information	The following icons allow you to check the printer's connection status.	
		Normal operation.
	 	Cannot receive data. Disconnect the USB cable, and then reconnect it to the printer and computer. Also, check that the printer is turned on.
Maintenance information	The following icons allow you to check the maintenance status.	
		No user maintenance or service maintenance is required.
		It is nearly time for user maintenance or service maintenance. Click the icon for more details.
		User maintenance or service maintenance is required. Click the icon for more details.
Coordinate position information	  	Displays the coordinate position of the print head or gantry.
Print head temperature information	  	Displays the plate temperature around the print head. Immediately after turning on the power, the temperature has not warmed up sufficiently, so printing will not produce accurate print results. Print after the temperature reaches the appropriate level.
Ink level information		Displays the approximate amount of ink remaining for each ink. The following icons are displayed based on ink level status.
		Ink is low. You need to prepare a new ink bottle.
		Ink level is below the minimum limit. Refill the ink.
		The following letters indicate the ink colors. The following shows the relationship between the symbols and the ink colors. C: Cyan M: Magenta Y: Yellow BK: Black GY: Gray R: Red LM: Light Magenta LC: Light Cyan WH: White Vr: Varnish
Waste ink amount information		Displays the approximate remaining free space of the waste ink bottle. The following icons are displayed depending on the waste ink bottle status.
		The waste ink bottle is nearly full. You need to dispose of waste ink.
		The waste ink bottle is full. Dispose of the waste ink.
Operating status information		Displays the operating status of the printer. Start printing when **Device Ready** is displayed.

Printer status information	When warnings or errors occur, or are displayed in at the bottom-right corner of the screen. Click this when you want to check the content of warnings or errors and how to resolve them.	
		Normal operation.
		An error has occurred.
		A warning has occurred.

Closing Procedure

Click the × at the top-right corner of the screen.



Basic Operations

Print Job Workflow

The following provides the basic workflow from starting work operations to loading media into the printer and printing.

1. Turning on and Performing Pre-work Inspections

Turn on the printer, start the UV Flatbed Controller, and prepare for work.

"Turning on and Performing Pre-work Inspections" on page 37

↓

2. Creating Image or Illustration Files

Create the image you want to print using graphic software such as Adobe Illustrator or Adobe Photoshop and save it as a PDF.

"Creating Print Data" on page 38

↓

3. Sending Print Data (Jobs)

Load the PDF you created above into Epson Edge Print PRO, make the print settings, and create a print job (.prn). When you execute **Print** in Epson Edge Print PRO, the print job is sent to the UV Flatbed Controller.

See the Epson Edge Print PRO manual for more details.

↓

4. Checking and Preparing the Media

❏ Check the type of media that can be used with this printer.
"Supported Media" on page 24

❏ Check the precautions for loading media into this printer. Depending on the media, you may need jigs or tape for attachment.
For flat media such as acrylic board and film
"Notes on Loading Media" on page 48
For media with spherical or curved surfaces
"Notes on Loading Media" on page 50

↓

5. Loading the Media

Load the media on the flatbed/gantry start position.

For flat media such as acrylic board and film

"Loading Media" on page 48

For media with spherical or curved surfaces

"Loading Media" on page 50

↓

6. Making Print Settings

Make print settings in the UV Flatbed Controller, such as Thickness Detection, Margin, and Y Print Direction. Incorrect settings may cause malfunctions or reduced print quality.

"Print Settings" on page 51

↓

7. Start Printing

Click **Print** in the UV Flatbed Controller to start printing.

"Starting" on page 54

↓

8. Cleaning and Turning Off After Finishing Work

After finishing work operations, perform maintenance before turning off the printer.

"Cleaning and Turning Off after Finishing Work" on page 56

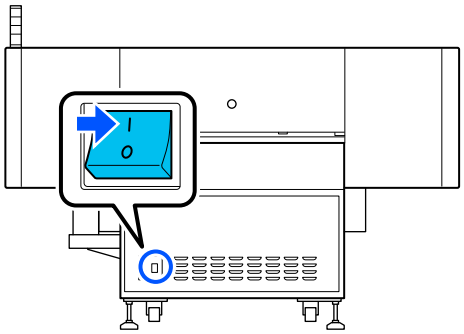
Turning on and Performing Pre-work Inspections

Turning on the Printer

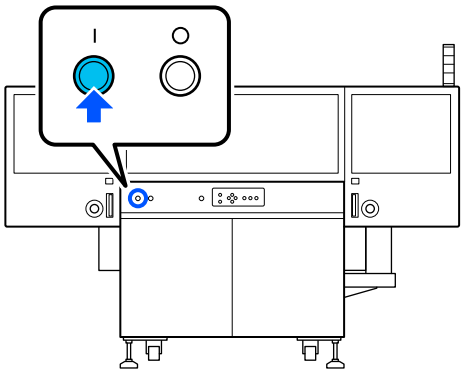
Before starting, be sure to read the included *Safety Precautions*.

1 Make sure there is nothing on the flatbed/ gantry start position.

2 Press the main power switch (|) on the back of the printer to turn it on.



3 Press the power button (|) on the control panel on the front of the printer to begin the initialization process.



Note:
Initialization does not begin if the maintenance cover is open. Make sure the maintenance cover is closed.

4 Start UV Flatbed Controller.

Pre-work Inspections

We recommend performing the following inspections before starting daily operations to maintain print quality.

Check the amount of ink remaining:

Check the amount of ink remaining from the UV Flatbed Controller, and refill with new ink if the remaining ink is below the limit.

"Refilling Ink" on page 88

When ink is running low, we recommend refilling as soon as possible.

If the ink level falls below the limit during printing, you can continue printing by refilling the ink. However, if you do refill ink during printing, colors may look different depending on how the ink dries.

Checking for Clogged Nozzles

We recommend printing a nozzle check pattern to confirm that nozzles are not clogged.

Perform **Clean** if there are any faded or missing segments in the printed nozzle check pattern.

Note that heater warm-up* occurs immediately after turning on the printer. Printing during heater warm-up will reduce the accuracy of the print results. Print the nozzle check pattern after the heater has finished warming up.

"Checking for Clogged Nozzles" on page 94

"Clearing Clogged Nozzles" on page 95

*The internal heater warms to the appropriate temperature to raise the UV ink temperature.

Creating Print Data

This printer can perform multi-layer printing by stacking multiple print layers. Multi-layer printing enables expressive printing that takes advantage of the characteristics of Varnish ink and White ink.

This section explains how to create print data using multi-layer printing expressions as examples.

Print Layer Order and Print Results

Types of Print Layers

This section explains using examples of print results based on the stacking order of the following three types of print layers.

- ❏ Color print layer (hereafter referred to as the "color layer")
  This layer prints images and illustrations created with graphic software.
- ❏ White ink print layer (hereafter referred to as the "white layer")
  This layer prints using only White ink as a base for the color layers.
- ❏ Varnish ink print layer (hereafter referred to as the "varnish layer")
  This layer prints using only Varnish ink. When creating print data (jobs) in Epson Edge Print PRO, you can select either a gloss or matte finish.

Multi-layer Printing Process

The following outlines the general process for multi-layer printing on this printer.

Creating Images and Illustrations for Printing

Create images using graphic software such as Adobe Illustrator or Adobe Photoshop.



Creating White Layers and Varnish Layers

You can automatically generate White layers and Varnish layers from color plates in Epson Edge Print PRO. You can also create them using graphic software such as Adobe Illustrator or Adobe Photoshop.



Printing using Epson Edge Print PRO

The print job is sent to the UV Flatbed Controller.



Loading Media

"Loading Media (For Flat Media such as Acrylic Board and Film)" on page 48

"Loading Media (for Media with Spherical or Curved Surfaces)" on page 50

Making Multi-layer Print Settings in the UV Flatbed Controller

Make the settings for correct multi-layer printing on this printer.

"Print Settings" on page 51

"Multi-layer Printing" on page 64

Printing

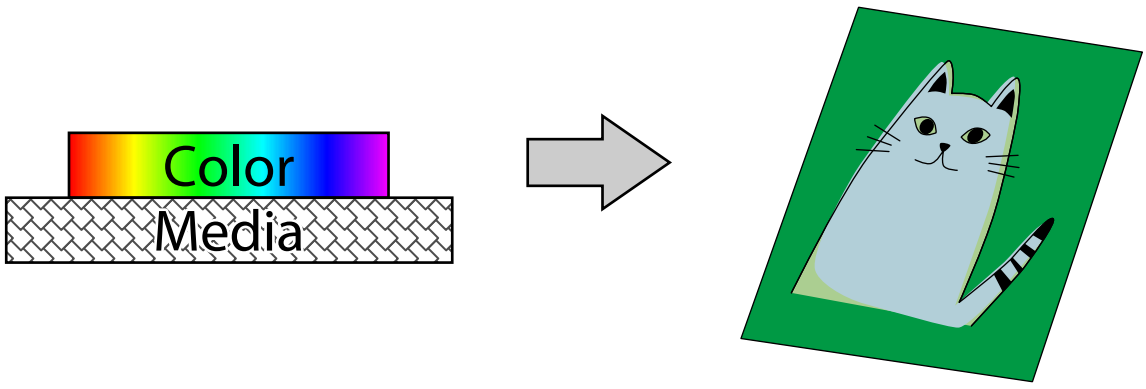
"Starting and Canceling Printing" on page 54

For detailed information on how to use Epson Edge Print PRO, on the Epson Edge Print PRO main screen, click the Help menu - **Help**.

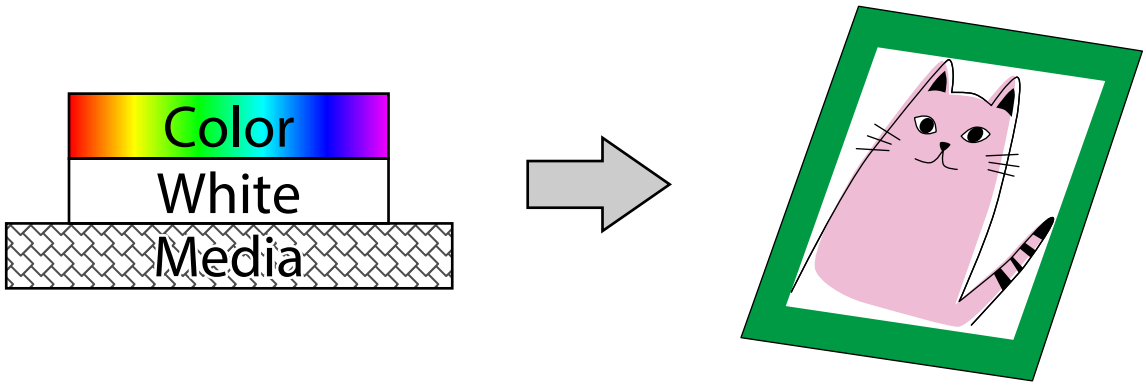
When you want to print images without being affected by the media color

When printing only the color layer on dark media, the media's color affects the print results, causing the color tone to differ from the print data, as shown in the following example. Printing a White layer as an under-base allows you to print without being affected by the media color.

Example) When printing only the color layer on green media



Example) When printing on green media with White as the first layer and color as the second layer



Note:
When images appear transparent, make the following settings and try printing again

- ❏ *Increase the White ink density of the first White layer*
- ❏ *Print the White layer twice (two layers)*

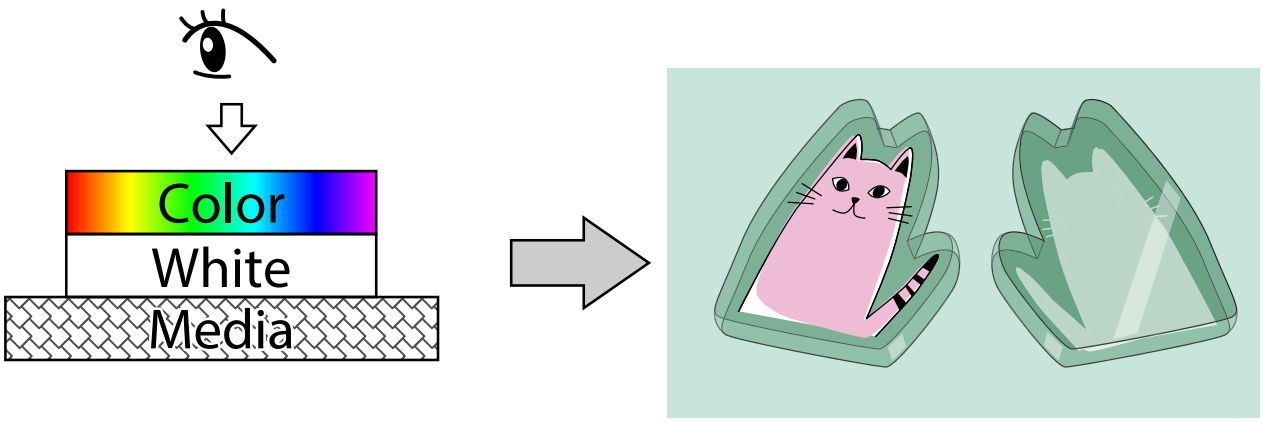
When you want to print images clearly without being affected by light passing through the media

When printing only one color layer on transparent media, such as film or acrylic board, light passes through and the image does not appear clearly. In this case, printing a White layer as an under-base prevents light from passing through the media and allows the image to be seen clearly.

The stacking order of each layer differs as follows, depending on the direction in which the image is viewed.

When viewing the image from the printed surface side

As with the item above, print with White as the first layer and color as the second layer.



Note:
When images appear transparent, make the following settings and try printing again

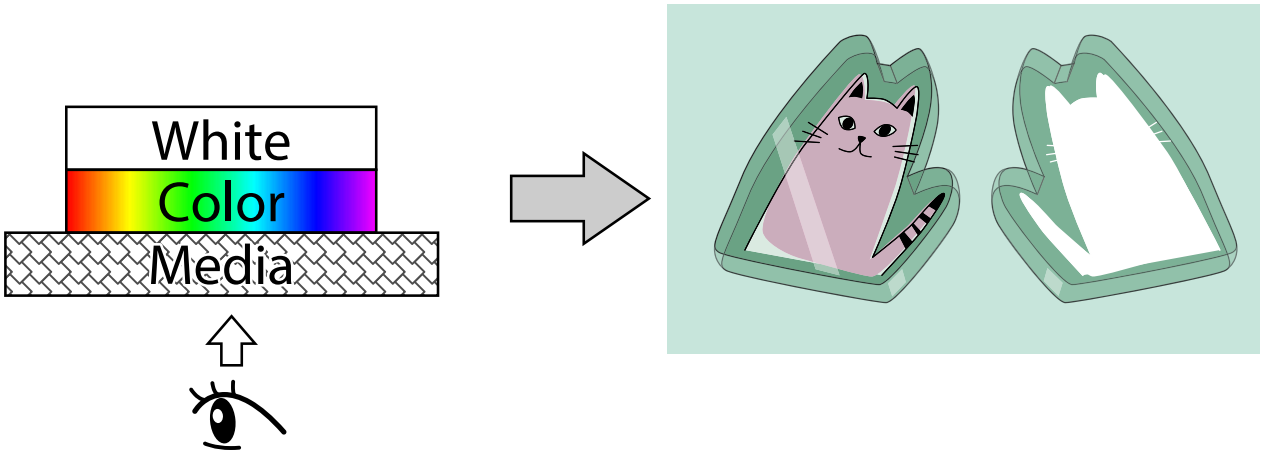
- ❏ *Increase the White ink density of the first White layer*
- ❏ *Print the White layer twice (two layers)*

When viewing the image from the opposite side of the printed surface

When viewing images through film or acrylic board, print with color as the first layer and White as the second layer.

To view the printed image in reverse, create print data by horizontally mirroring text or images with a fixed left-right orientation.

Example) When printing on transparent media with color as the first layer and White as the second layer



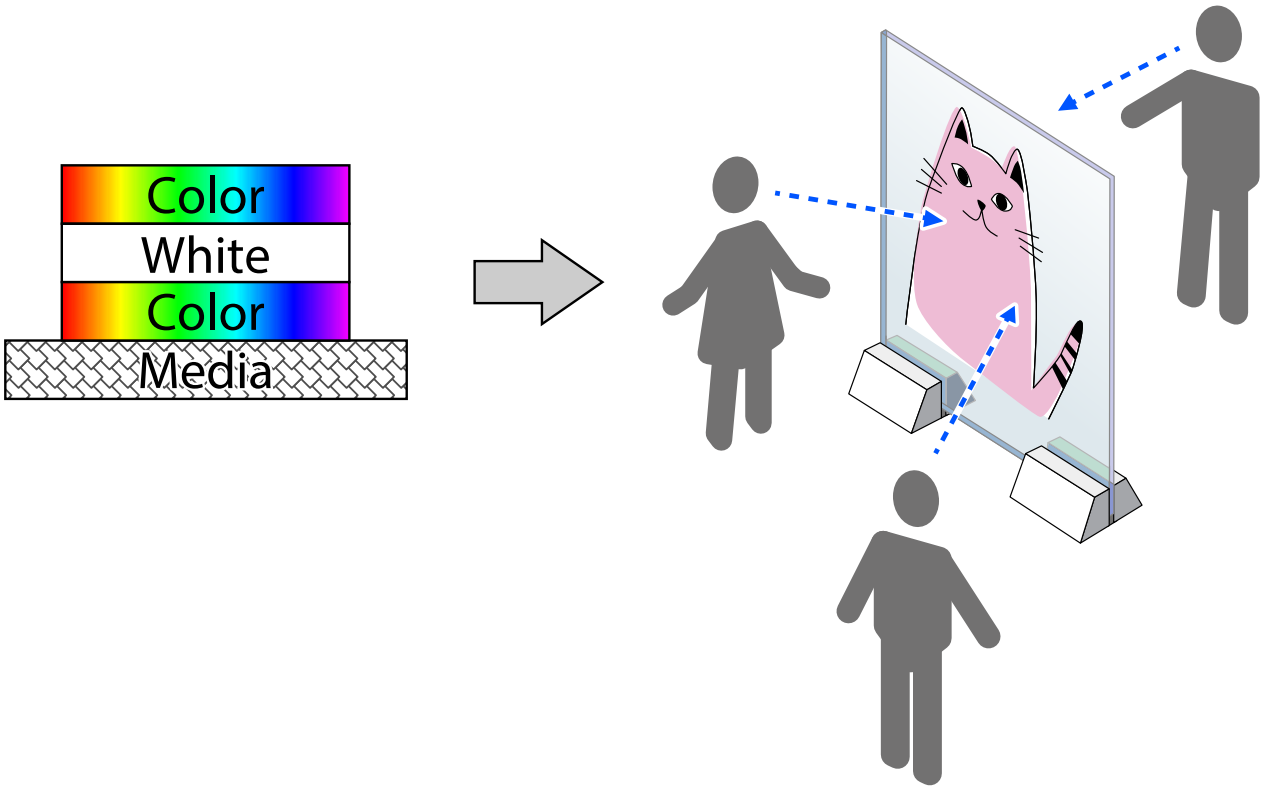
Note:
You can create horizontally mirrored print data by selecting ***Mirror Image*** *from* *(Layout) in the Job Settings menu of Epson Edge Print PRO.*

When you want to show printed images from both sides of transparent media (printing on one side)

When you want to print on only one side of transparent media, such as film or acrylic board, and show the printed images from both sides of the media, print three layers as shown in the following example.

For the first layer, to view the printed image in reverse through the media, create print data by horizontally mirroring text or images with a fixed left-right orientation.

Example) When printing with color as the first layer, White as the second layer, and color as the third layer



The following outlines the steps for creating the three-layered job mentioned above in Epson Edge Print PRO. For details, see the Epson Edge Print PRO *Operation Guide*.

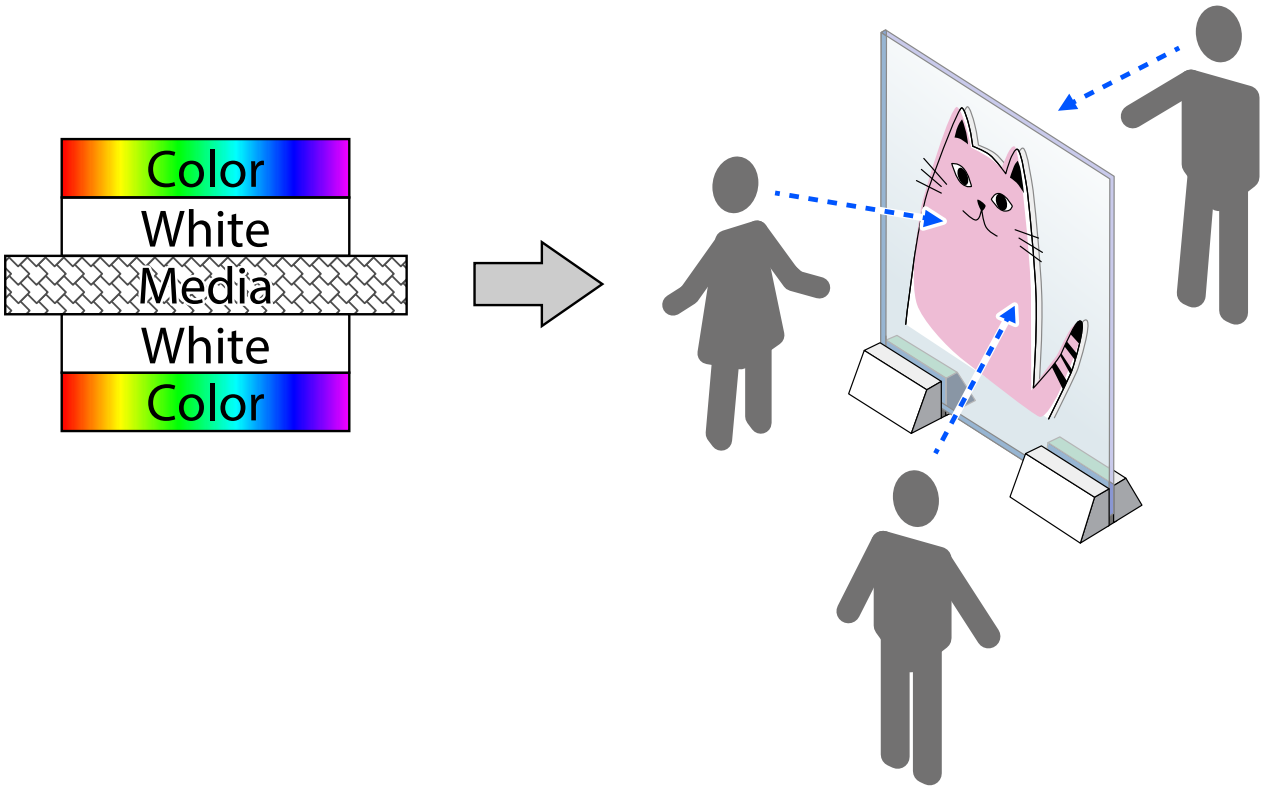
❏ Use the No. of Layers and Layer Order customization function to create the number of layers and stacking order for the following three layers.
First layer color, second layer White, third layer color

❏ Follow the steps below to combine the jobs.
① Add the print data for the first layer to the Job List and select **Triple Layer (Color -> White -> Color)** in **Number and Order of Layering**.
When horizontally mirroring, select **Mirror Image** in (Layout).
② Add the print data for the third layer to the Job List.
③ Select the ② print job and drag & drop it to the third layer of ①.

When you want to show printed images from both sides of transparent media (printing on both sides)

When printing on both sides of transparent media, such as film or acrylic board, print a white layer as an under-base on both sides, or on one side, to prevent images on the opposite side from showing through.

Example) When printing on both sides with White as the first layer and color as the second layer

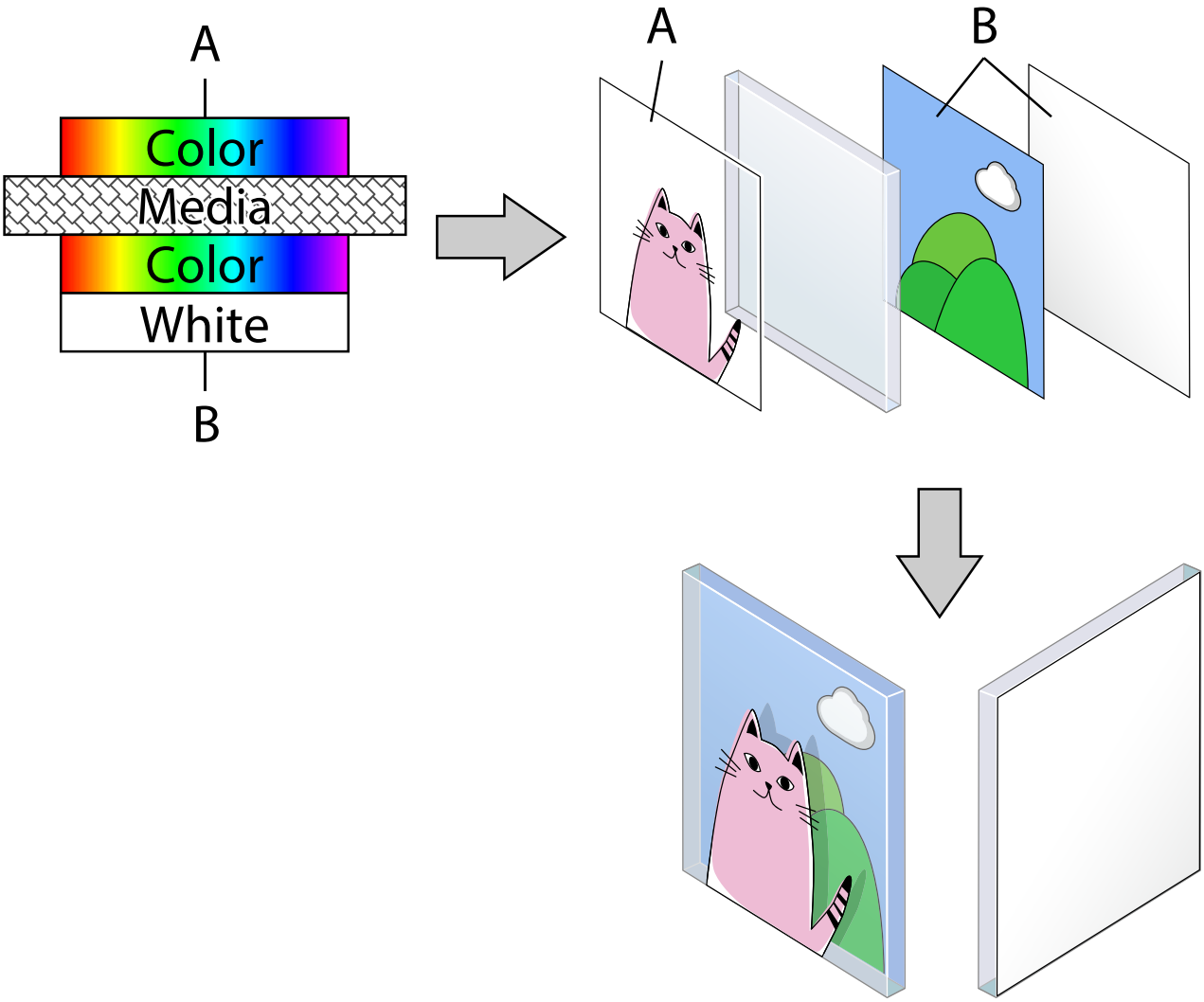


When you want to express depth on transparent media

By printing two different jobs, A and B, on opposite sides of the media as shown in the following example, you can create a sense of three-dimensionality and depth when viewing the image from side A. Since the printed image on side B is viewed from the opposite side, create print jobs by horizontally mirroring text or images with a fixed left-right orientation.

Example)

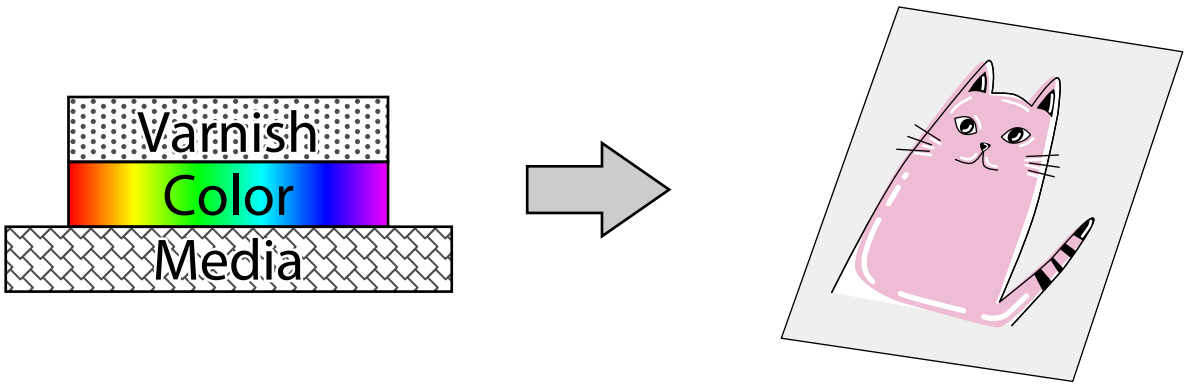
Side A: Print with one color layer
Side B: Print with color for the first layer and White for the second layer



When you want to add a glossy finish to the print surface or print transparent patterns

Printing by overlaying a Varnish layer on top of a color layer can express the unique glossy characteristics of Varnish ink on the print surface. You can set the glossy characteristics of the Varnish layer to either a glossy or matte finish in **Number and Order of Layering** in Epson Edge Print PRO.

Example) When printing with color as the first layer and varnish as the second layer

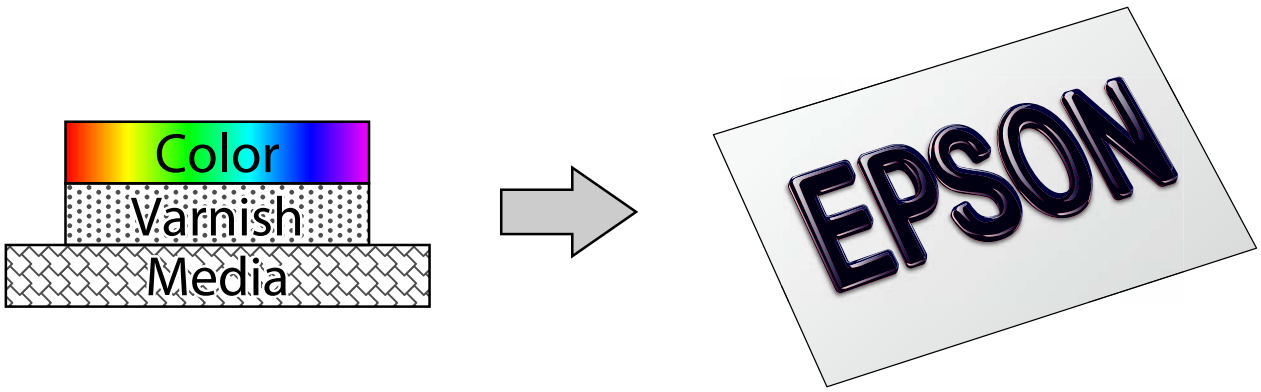


When you want to add a three-dimensional feel to images

Printing a Varnish layer that prints only specific parts of the image under a color layer creates a raised texture on the print surface of the color layer producing a three-dimensional feel.

Use the No. of Layers and Layer Order customization function in Epson Edge Print PRO to create the number of layers and stacking order with a **Varnish** - **Matte** layer under the **Color** layer. When setting a Varnish layer under a **Color** or **White** layer, always select **Varnish** - **Matte**. Selecting **Varnish** - **Glossy** prevents Varnish ink from curing.

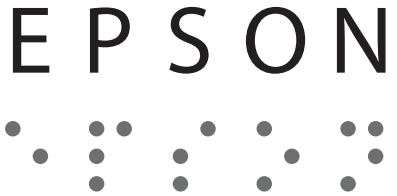
Example) When printing Varnish as the first layer and color as the second layer



Note:
In addition to the layer combinations introduced in this section, you can perform a wide variety of multi-layer printing by combining color layers, White layers, and Varnish layers. You can also print each layer multiple times (multiple layers).

Using the multi-layer printing function in Epson Edge Print PRO, you can add up to 10 layers. For details, see the Epson Edge Print PRO Operation Guide.

Braille Printing



You can print braille using Varnish ink. The shape of the braille dots conforms to the following standards.

- ❏ JIS Standard: UV-Curable Resin Ink Braille - Quality and Test Methods (JIS T9253)
- ❏ ADA (Americans with Disabilities Act)

However, print results may not meet these standards.

Notes on braille printing

- ❏ Use media that is 199.5 mm or less in thickness.
- ❏ When setting the media thickness, add 0.5 mm to the actual media thickness.

For details on braille printing methods, see the *Braille Printing Guide* (Online Manual).

Types and Overview of Thickness Detection Settings

If the print head height is not set correctly for the thickness of the media being printed on, the print head may come into contact with the media, causing a malfunction or blurred text and images, which can reduce print quality.

Therefore, you need to set Thickness Detection correctly when printing for the first time or each time you print a different job.

There are two methods for setting Thickness Detection: **Manual** and **Auto**. The following provides an overview of each method. See the following for details on setting Thickness Detection.

☞ "Setting Thickness Detection" on page 51

Manual Overview

The print head is adjusted to the appropriate height based on the Thickness Detection you enter. When printing, the process starts immediately without laser measurement.

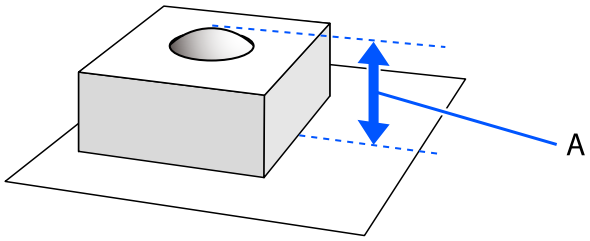
The value you enter is saved for each job. Therefore, when you print the same job on media with the same specifications, you do not need to set Thickness Detection from the second time onward.

Manual is suitable in the following cases.

- ❏ When the media used for each job is fixed.
- ❏ When the thickness is clearly marked on packages, such as for acrylic boards.
- ❏ When using media for which Auto Thickness Detection cannot be accurately measured.

Auto Overview

When set to **Auto**, the printer uses the standard-equipped laser to measure the highest point (A in the illustration below) of the media loaded on the flatbed and sets the print head to the appropriate height.



Auto is suitable in the following cases.

- ❏ When making short-run, diverse printing jobs where media shapes differ for each print job.
- ❏ When the media surface is not flat and the height cannot be measured accurately.

When set to Auto, the laser measures the entire flatbed or a specified range to determine the media thickness and Thickness Detection. Therefore, it takes time before printing starts.

The measured media thickness is saved for each job. Therefore, when you print the same job on media with the same specifications, you do not need to set Auto from the second time onward.

Depending on the media type or shape, Auto may not measure the media height correctly. In particular, transparent media cannot be measured correctly due to the laser's characteristics, so specify the height using Manual.

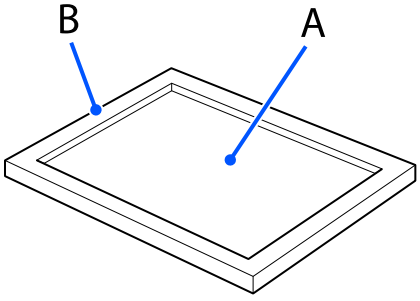
Loading Media (For Flat Media such as Acrylic Board and Film)

Notes on Loading Media

See the following for supported media specifications (thickness, weight, and size) and unsupported media.

“Supported Media” on page 24

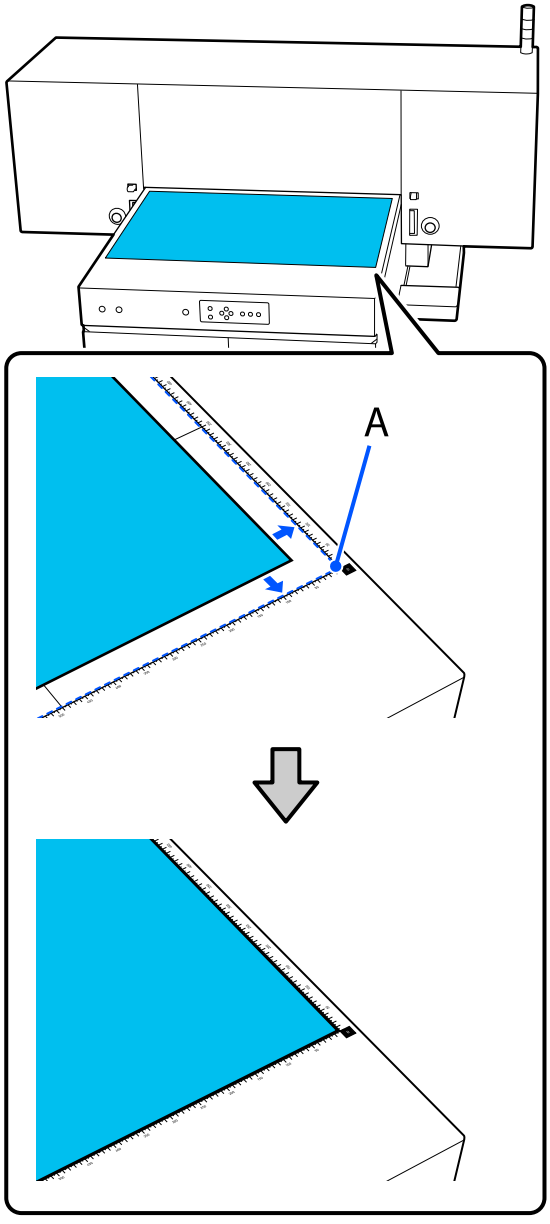
- Always turn on suction to secure the media firmly to the flatbed.
  “Loading Media” on page 48
- In the following cases, secure the outer edges of the media to the flatbed with masking tape or a similar material.
  - When the edges of the media lift up, even with suction turned on
  - When printing on media up to approximately 3 mm (0.12 in.) thick that is prone to wrinkles or warping due to heat
- When printing on a recessed surface (A) as shown in the illustration, you cannot print if the height (B) exceeds 1.5 mm (0.059 in.). Also, you cannot print on the inner surface of (B).



- Borderless printing or printing beyond the edge of the media will stain the flatbed. Take measures such as placing paper or cloth on the flatbed and loading the media on it before printing.
- Do not place anything other than media on the flatbed/gantry start position.
  Printing while something is there can cause a malfunction.
- Media may expand or contract due to room temperature and humidity.
  Therefore, do not use media immediately after opening. After opening, place it near the printer for at least 30 minutes before loading it into the printer.

Loading Media

1. Check that **Device Ready** is displayed in the lower right of the UV Flatbed Controller screen.
2. Place the media on the flatbed and align the corner of the media with the home position (A).



> ***Note:***
> *The media can extend into the gantry start position without causing problems.*

Specifying the print start position

- ❏ When printing at the print position shown on the Epson Edge Print PRO preview screen
  Set **X Margin** and **Y Margin** to 0.00 mm in the UV Flatbed Controller.
- ❏ When specifying the print start position in the UV Flatbed Controller
  Set **Horizontal** and **Vertical** in **Layout** - **Left Top Position** to 00 in Epson Edge Print PRO.

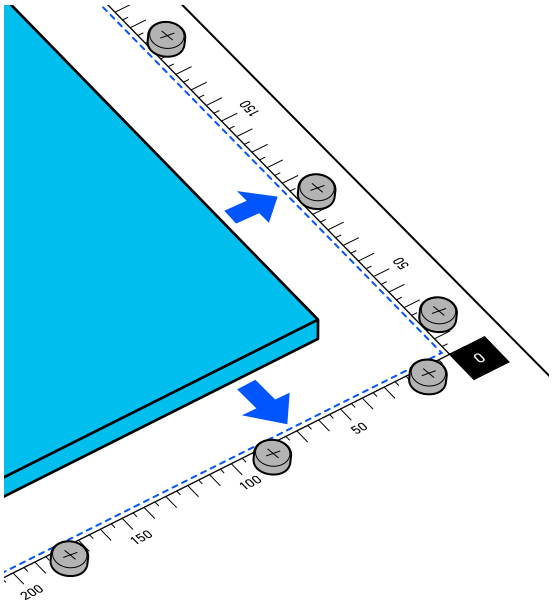
Using the supplied screws

Use the supplied screws for media that is 1 mm (0.039 in.) or thicker.

You cannot print correctly if the screw heads protrude above the media.

Tighten the screws firmly until they cannot be turned. If they are not tightened firmly, the media will not be secured correctly.

Install the supplied screws into the holes on the flatbed, and then press the media against the screws.

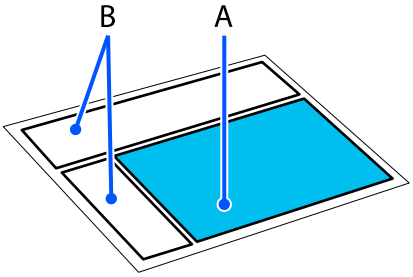


3 Secure the media to the flatbed.

Use the printer's suction function to hold and secure the media.

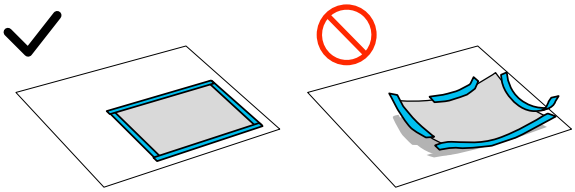
Start suction using one of the following methods.

- ❏ Press on the UV Flatbed Controller screen
- ❏ Press the suction ( ) button on the control panel

> ***Important:***
> - ❏ *Position the media (A) so that it covers all media suction holes in the suction area. Cover any uncovered areas with a sheet (B) to prevent a decrease in the suction force.*
>
> 
>
>
> - ❏ *The suction area is divided into four sections that you can select based on the media size and loading position. Make selections using on the UV Flatbed Controller screen. The suction areas are indicated by solid lines on the flatbed.*

When the media is warped

In addition to suction, secure the outer edges of the media to the flatbed using masking tape.



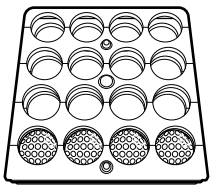
> ***Important:***
> - ❏ *If the masking tape on the outer edges of the media is uneven, remove that masking tape and reapply new masking tape.*
> - ❏ *If the media is warped so severely that the corners lift up even after taping with masking tape, do not use that media. Doing so can cause malfunctions.*

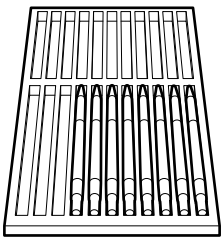
Loading Media (for Media with Spherical or Curved Surfaces)

We recommend using jigs when printing on the following media.

- ❏ When printing on multiple pieces of media arranged side by side
- ❏ Lightweight media or unstable media, such as spheres, pens, or miniature toy cars
  These may move at unintended times during printing.

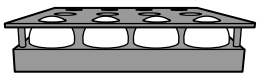
Example of jigs:

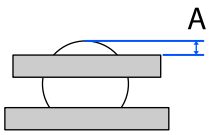




Notes on Creating Jigs

- ❏ Jigs should not be made of materials that are transparent or that reflect light. UV light emitted during printing can reflect off the jig and strike the nozzle surface, increasing the risk of nozzle clogging.
- ❏ Do not make jigs larger than the flatbed size.
- ❏ Cover curved surfaces so that the height of the printing surface (A) is within 1.5 mm (0.059 in.). If you do not cover curved surfaces, UV light emitted during printing can reflect off the media and strike the nozzle surface, increasing the risk of nozzle clogging.





- ❏ The flatbed has holes for securing the jigs. When using the holes, be sure to create jigs that align with the hole positions. See the following for the hole positions.
  “Flatbed Specifications” on page 26

Notes on Loading Media

See the following for supported media specifications (thickness, weight, and size) and unsupported media.

“Supported Media” on page 24

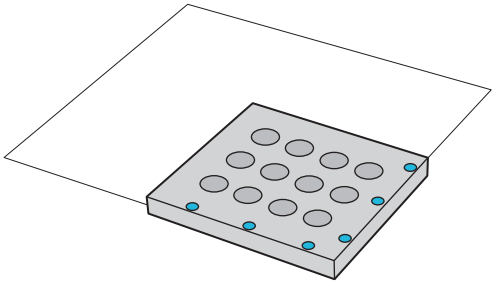
- ❏ Media may expand or contract due to room temperature and humidity.
  Therefore, do not use media immediately after opening. After opening, place it near the printer for at least 30 minutes before loading it into the printer.
- ❏ Secure the jigs to the flatbed using screws or masking tape.
- ❏ Borderless printing or printing beyond the edge of the media will stain the jigs or the flatbed. Take measures such as placing paper or cloth on the flatbed and loading the jigs on it before printing.
- ❏ Do not place anything other than jigs with loaded media on the flatbed/gantry start position. Printing while something is there can cause a malfunction.

Loading Media

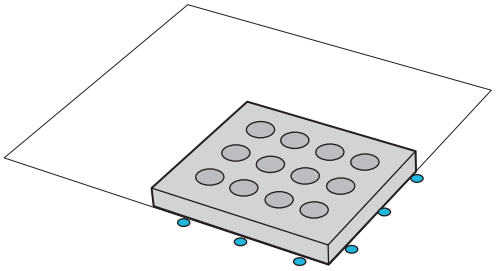
1. Check that **Device Ready** is displayed in the lower right of the UV Flatbed Controller screen.
2. Secure the jigs to the flatbed.

   There are three methods of securing jigs.

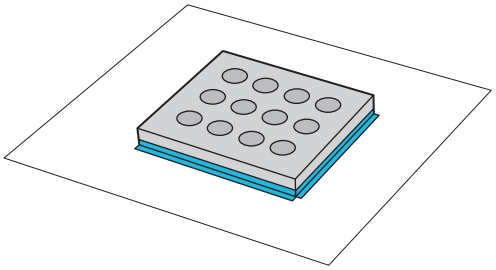
❏ Align the holes in the flatbed with the holes in the jigs and secure using the supplied screws or similar fasteners.



❏ Install the supplied screws into the holes on the flatbed, and secure the jig by pressing it against the screws.



❏ Secure the jig by attaching its outer edges to the flatbed using masking tape.



3 Load the media on the jigs.

Specifying the print start position

❏ When printing at the print position shown on the Epson Edge Print PRO preview screen
Set **X Margin** and **Y Margin** to 0.00 mm in the UV Flatbed Controller.

❏ When specifying the print start position in the UV Flatbed Controller
Set **Horizontal** and **Vertical** in **Layout** - **Left Top Position** to 00 in Epson Edge Print PRO.

Print Settings

Before starting printing, set Thickness Detection in the UV Flatbed Controller. For multi-layer printing, set Y Print Direction as needed.

Setting Thickness Detection

> ***Important:***
> *If the Thickness Detection is not set correctly, the print head may come into contact with the media, causing a malfunction or blurred text and images, which can reduce print quality.*

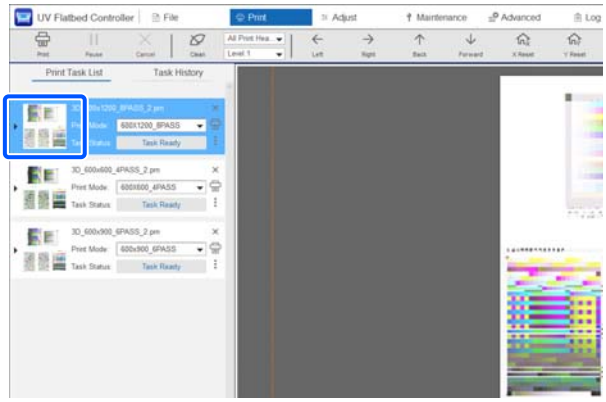
There are two methods for setting Thickness Detection: Manual and Auto. Manual is selected when the UV Flatbed Controller starts.

Manual operation

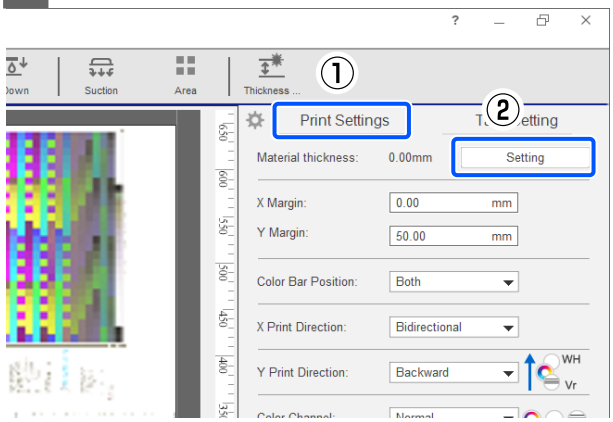
1 Check that the job you printed using Epson edge Print PRO is displayed in **Print** - **Print Task List** in the UV Flatbed Controller.

2 Select the job you want to print.

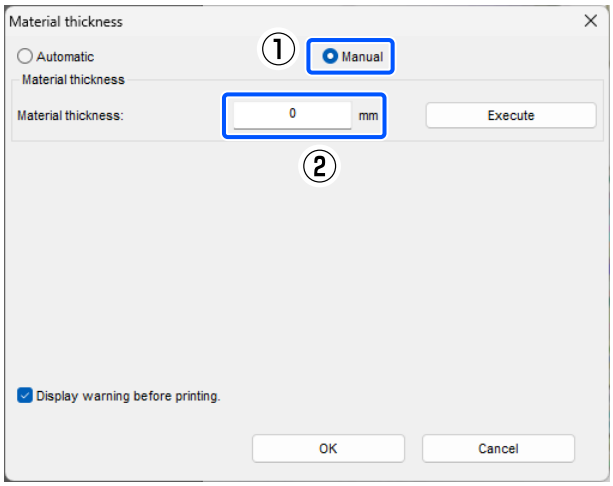
Click the image area of the target job.



3 Click **Setting** in **Print Settings**.

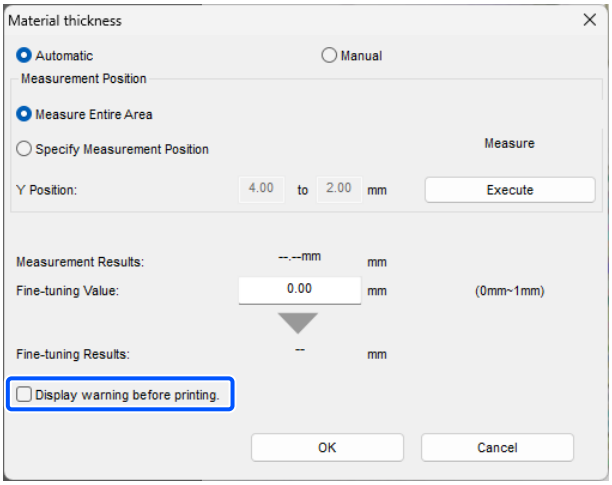


4 Select **Manual** and enter a value in **Material thickness**.



> ***Note:***
> *When you click Execute, the print head height changes to match the Thickness Detection setting.*

5 Select the following if you want to display a confirmation message before printing to verify that Thickness Detection is set correctly.



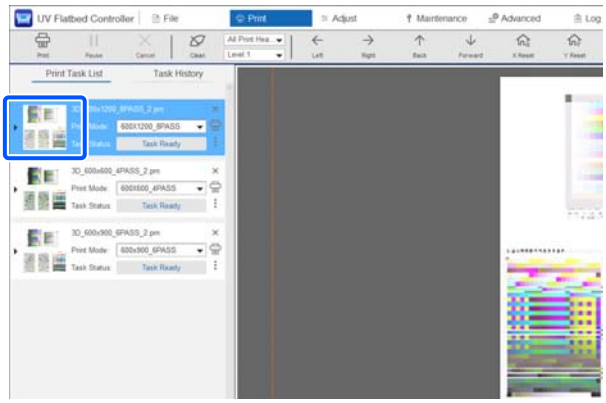
6 When the Thickness Detection settings are complete, click **OK**.

Automatic Operation

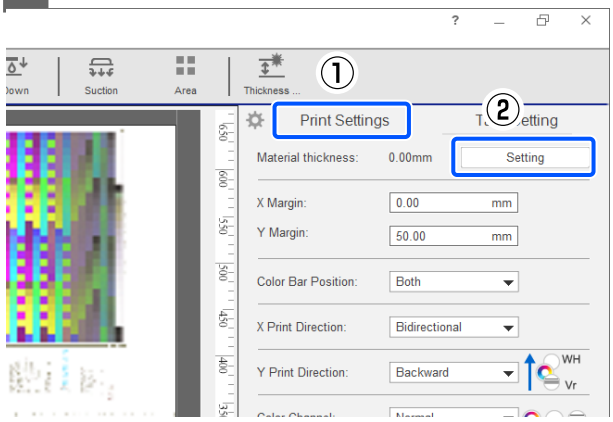
1 Check that the job you printed using Epson edge Print PRO is displayed in **Print** - **Print Task List** in the UV Flatbed Controller.

2 Select the job you want to print.

Click the image area of the target job.



3 Click **Setting** in **Print Settings**.

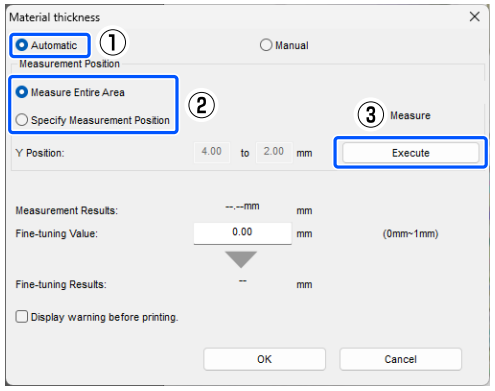


4 Select **Auto**, select either **Measure Entire Area** or **Specify Measurement Position**, and then click **Execute**.

Thickness Detection for the media begins.

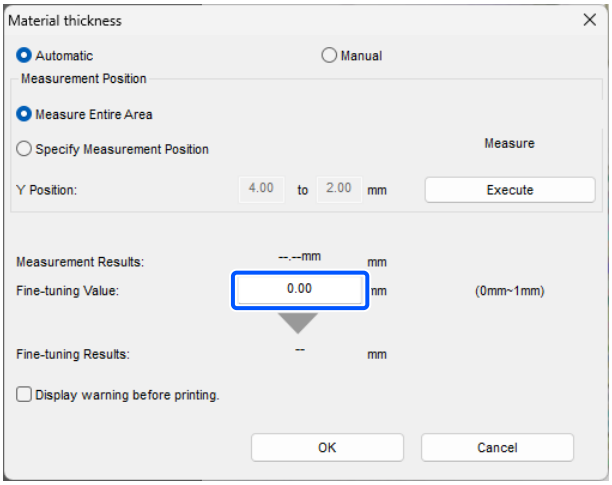
Note:

- ❏ *Measure Entire Area measures the entire flatbed area.*
- ❏ *Specify Measurement Position measures a specified area within the printable area.*

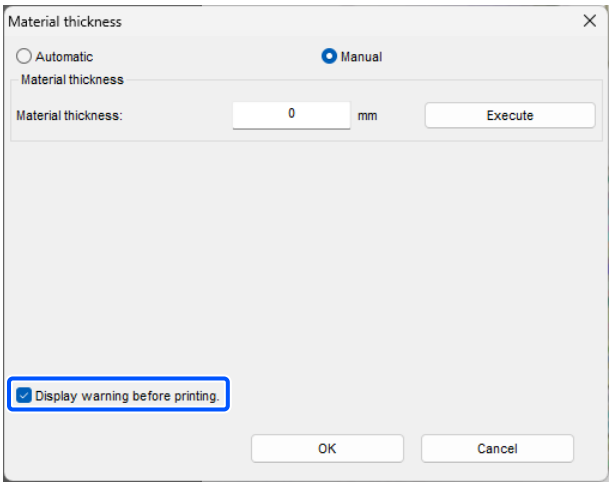


5 For fuzzy media or media that is sensitive to heat, you can fine-tune the measured value to increase it.

Enter an adjustment value within the range of 0 to 1 mm in **Fine-tuning Value** and click ▼. The final media thickness is displayed in **Fine-tuning Results**.



6 Select the following if you want to display a confirmation message before printing to verify that the media thickness is set correctly.



7 When the Thickness Detection settings are complete, click **OK**.

Setting Multi-layer Printing

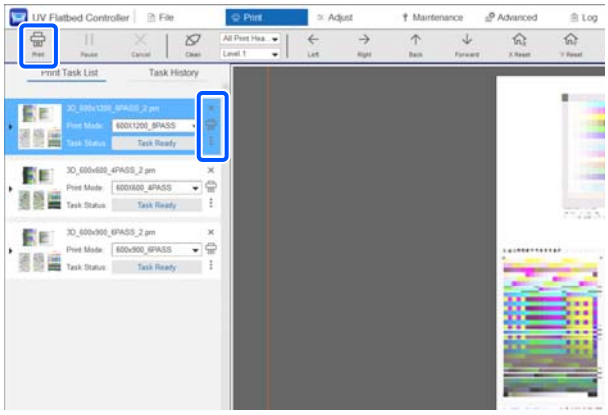
When performing multi-layer printing, you cannot print correctly if **Y Print Direction** is not set correctly. See the following for more details.

☞ "Multi-layer Printing" on page 64

Starting and Canceling Printing

Starting

When the print settings are complete, click from the function buttons on the UV Flatbed Controller or in the Print Task List to start printing.



Note:
When printing starts, the estimated print time is displayed at the bottom of the preview area. If After Cure is enabled, the curing time will also be included.



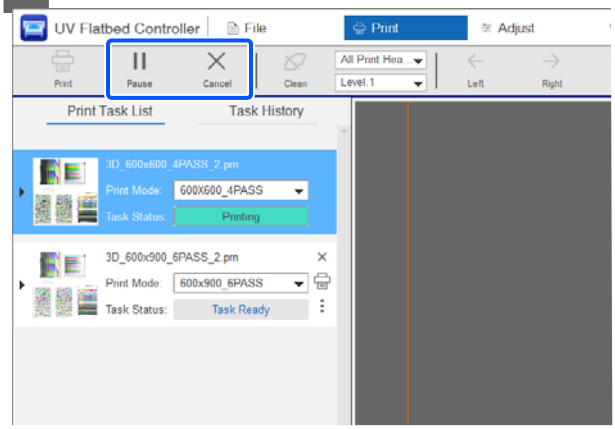
Pausing/Canceling

You can pause and resume printing using either the UV Flatbed Controller or the printer's control panel.

When printing is paused and then resumed, colors may look different depending on how the ink dries.

Using the UV Flatbed Controller

1. Click from the function buttons.



   Printing stops, and the function button changes to .

2. To resume printing, click .

   To cancel printing, click .

Using the printer control panel

1. Press .

   Printing stops.

2. To resume printing, press again.

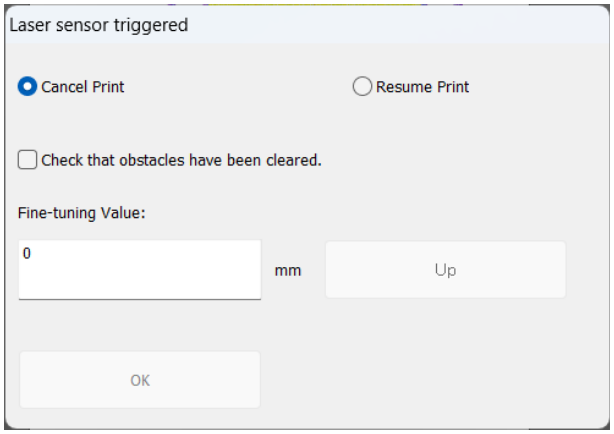
   You cannot cancel printing from the control panel.

Printing Stopped Due to Foreign Object Detection

This printer detects foreign objects with the laser during printing. When a foreign object is detected, an error is displayed, and printing stops. See the following for how to respond when this error occurs.

Foreign object detection by laser

When the laser misidentifies the thickness of masking tape securing the media as a foreign object, or when a foreign object is detected, the following screen is displayed, and printing stops.



1. Select **Cancel Print** or **Resume Print**.

   If you resume printing, colors may look different depending on how dry the ink is.

2. If there is a foreign object, remove it. If there are no foreign objects, enter a value in **Fine-tuning Value**, and click **Up** to adjust the print head height.

3. After confirming there are no foreign objects, select **Check that obstacles have been cleared.**

4. Click **OK**.

If misidentification occurs frequently, press on the UV Flatbed Controller screen to turn off foreign object detection by laser.

> ***Important:***
>
> *Even when on the UV Flatbed Controller is turned off, the laser light is still emitted. Do not look directly into the laser.*

Foreign object detection by jam detection sensor

When a foreign object is detected, printing is canceled, and the following screen is displayed.



1. Remove the foreign object.

   If the foreign object is difficult to remove, click **Raise Carriage** to raise the gantry to a height where the foreign object can be removed.

2. After confirming there are no foreign objects, select **Check that obstacles have been cleared.**

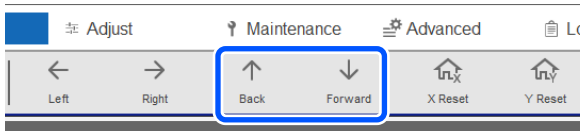
3. Click **OK**.

4. Try printing again.

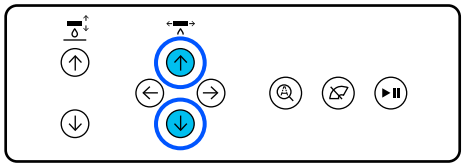
Removing Media

1. After printing is complete, if the gantry remains over the media, use the following buttons to move the gantry.

   UV Flatbed Controller



Control Panel

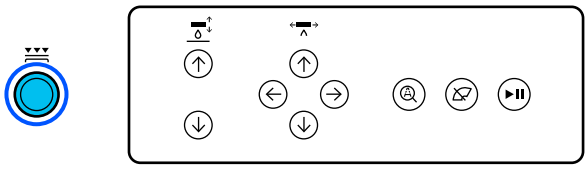


2 If suction is turned on, use the following button to turn it off.

UV Flatbed Controller



Control Panel



3 Remove the media.

Cleaning and Turning Off after Finishing Work

Cleaning after Finishing Work

After daily work is complete, perform cleaning in the following order. Continuing to use the printer without cleaning can cause clogged nozzles or stains on the printed materials.

- ❏ Suction caps
- ❏ Wiper unit
- ❏ Flushing box
- ❏ Around the print head
- ❏ Flatbed

Important:

Do not leave the printer unused for more than 50 minutes during daily or periodic maintenance. Ink may be affected by fluorescent light or sunlight and cause malfunctions to occur.

Tools required for cleaning

The following consumables are required for cleaning.

Cleaning liquid, cleaning sticks

The following commercially available tools are also required.

Tray, cup, dropper, scraper, polyester/nylon knit woven fabric

See the following for more details.

"Preparation" on page 84

Cautions when Operating

Caution:

- ❏ *Wear the same protective equipment used during printer operation when performing maintenance or refilling the ink. Should any ink, waste ink, or cleaning liquid come into contact with your skin or enter your eyes or mouth, immediately take the following actions.*
  - ❏ *If fluid adheres to your skin, immediately wash it off using large volumes of soapy water. Consult a physician if the skin appears irritated or inflamed.*
  - ❏ *If fluid enters your eyes, rinse immediately with water. Failure to observe this precaution could result in bloodshot eyes or mild inflammation. If problems persist, consult a physician.*
  - ❏ *If any enters your mouth, consult a physician immediately.*
  - ❏ *If fluid is swallowed, do not force the person to vomit and consult a physician immediately. If the person is forced to vomit, fluid may get caught in the trachea which can be dangerous.*
- ❏ *Store ink bottles, waste ink, and cleaning liquid out of the reach of children.*

- ❏ Remove the media from the printer before starting work.
- ❏ Do not touch any parts, belts, or circuit boards other than the parts that need to be cleaned. It may cause a malfunction or decline of the print quality.

- ❏ Do not use any cleaning sticks other than the consumables supplied. Using items that produce lint can damage the print head.
- ❏ Use new cleaning sticks and polyester/nylon knit woven fabric each time. Reusing items that have been used once can cause contamination.
- ❏ Do not touch the tips of the cleaning sticks with your hands. Oils from skin can adhere to them and damage the print head.
- ❏ Do not use anything other than the specified cleaning liquid to clean around the print head, suction caps, or flushing box. Using anything other than what is specified can cause printer malfunctions or print quality to decline.
- ❏ Cleaning sticks, cleaning liquid, fabric, and other items used for cleaning that have ink on them should be disposed of as industrial waste.
☞ "Disposal of Used Consumables" on page 99
- ❏ Touch a metal object before starting operations to disperse any static electricity.

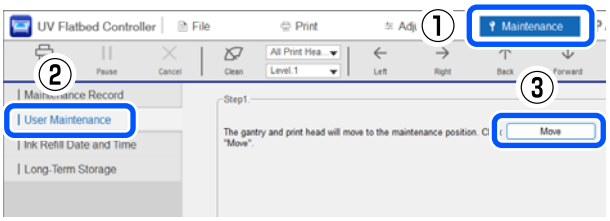
Clean around the print head

The following procedures use cleaning liquid, a tray, a cup, and polyester/nylon knit woven fabric.

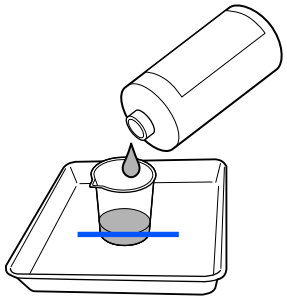
> **Important:**
> *The gantry may move. Before starting the procedure, make sure no one is in the gantry's range of motion. Until maintenance work is complete, make sure no one enters the gantry's range of motion.*

1 In the UV Flatbed Controller, select the **Maintenance** menu and click **User Maintenance** - **Move**.

The print head moves to the maintenance position.



2 Place the cup on the tray and pour in approximately 20 ml (approximately 0.68 oz) of cleaning liquid.



> **Important:**
> ❏ *Do not reuse cleaning liquid from a previous cleaning session in the next cleaning session. Using dirty cleaning liquid can cause contamination.*
> ❏ *After using the cleaning liquid, close the lid tightly and store it at room temperature away from high temperatures, high humidity, and direct sunlight.*

3 Soak a cleaning stick with cleaning liquid.

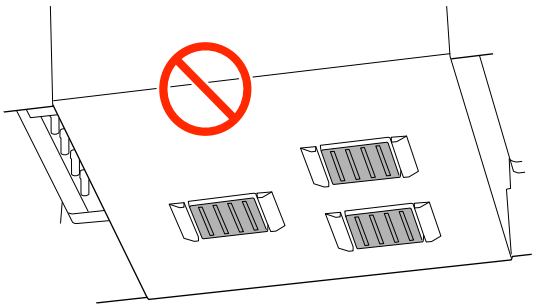
At this time, be careful not to let cleaning liquid drip from the cleaning stick.

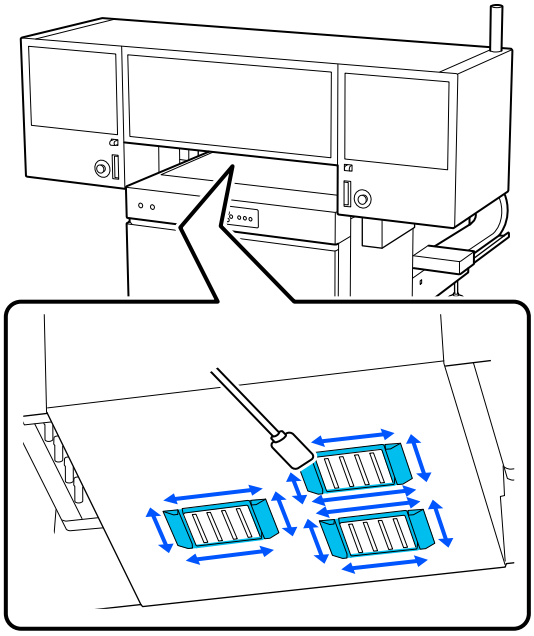


4 From under the front cover, use the cleaning stick to wipe off ink, lint, and dust that have built up on the area (nozzle side) shown in the illustration.

Important:

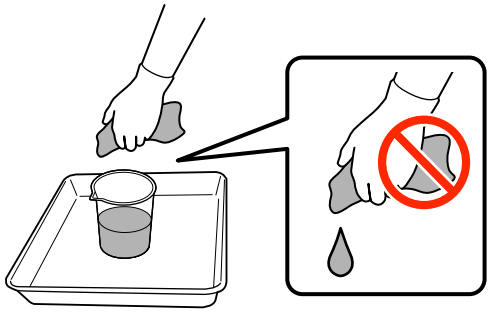
Do not touch the area shown in the following illustration. Doing so can cause malfunctions.





5 Soak the polyester/nylon knit woven fabric in cleaning liquid.

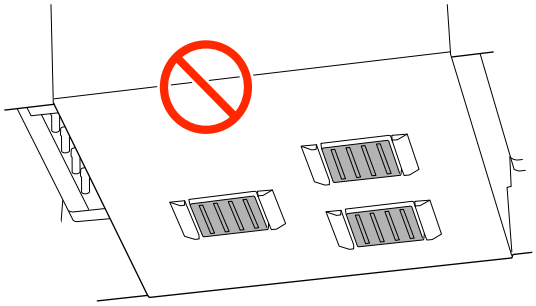
At this time, gently wring it out so that cleaning liquid does not drip from the polyester/nylon knit woven fabric.

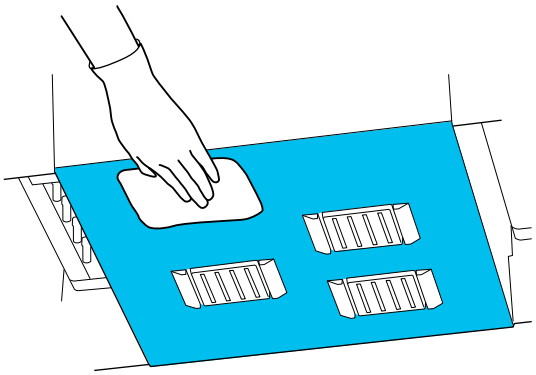


6 Use the polyester/nylon knit woven fabric to wipe off ink, lint, and dust that have built up on the area shown in the illustration.

Important:

Do not touch the area shown in the following illustration. Doing so can cause malfunctions.



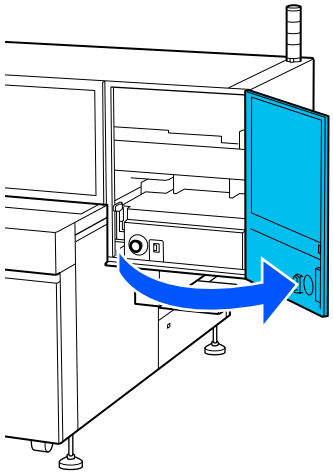


Next, clean the suction caps, wiper unit, and flushing box.

Cleaning the suction caps, wiper unit, and flushing box

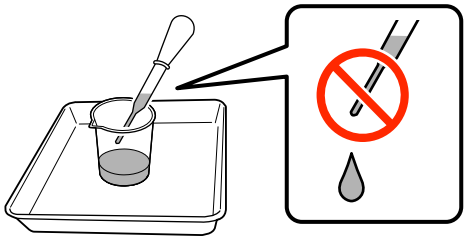
The following procedure uses a dropper in addition to the cleaning liquid, cleaning sticks, tray, cup and polyester/nylon knit woven fabric used for cleaning around the print head.

1 Open the maintenance cover on the right.

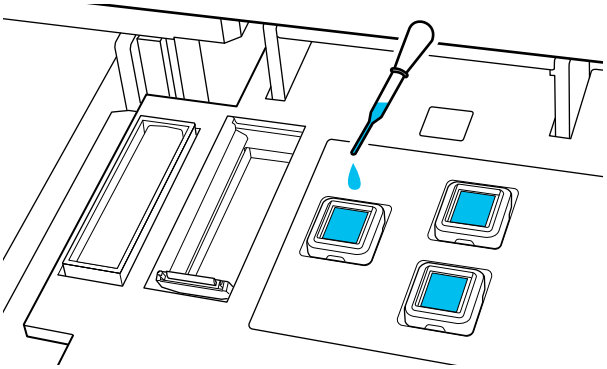


2 Use the dropper to draw up cleaning liquid.

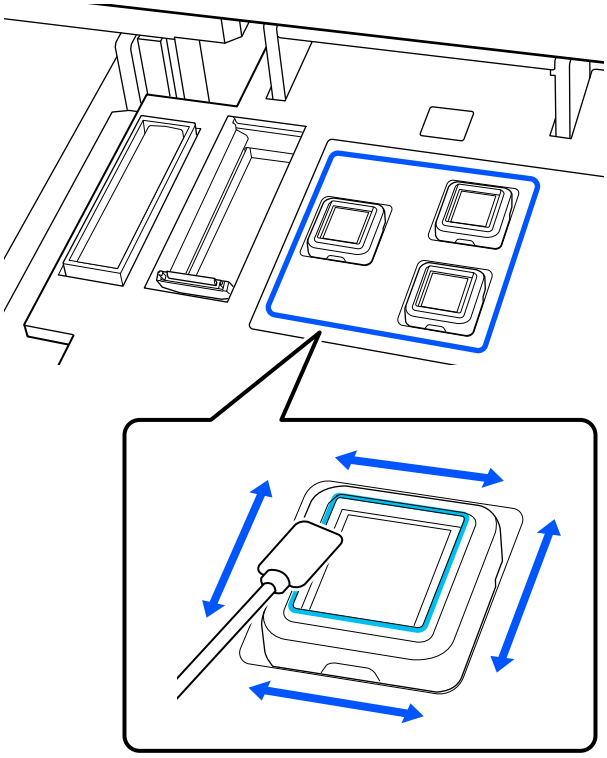
At this time, be careful not to let cleaning liquid drip from the dropper.



3 Apply 2 to 3 ml (0.07 to 0.10 oz) of cleaning liquid for each suction cap to the positions shown in the following illustration (enough to sufficiently fill the suction caps without overflowing).

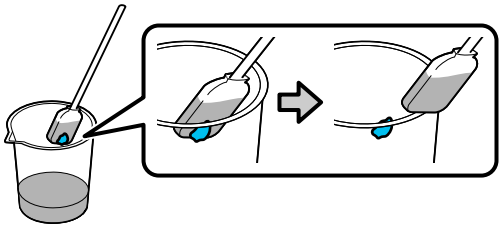


4 Flatten the cleaning stick used for cleaning around the print head and wipe the edges of the top surface of all suction caps.

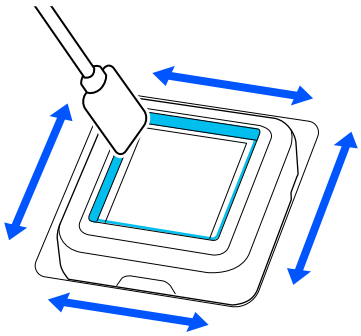


Important:

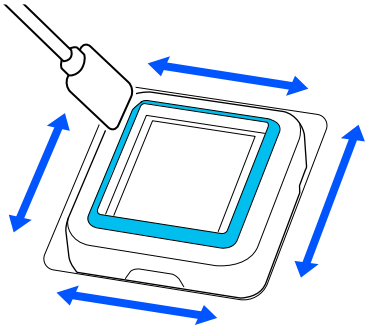
- *If the cleaning stick becomes dirty, rinse it with cleaning liquid and then wipe it clean.*
- *When you remove deposits of ink with the cleaning stick, use the edge of the cup to remove the deposits adhering to the cleaning stick.*



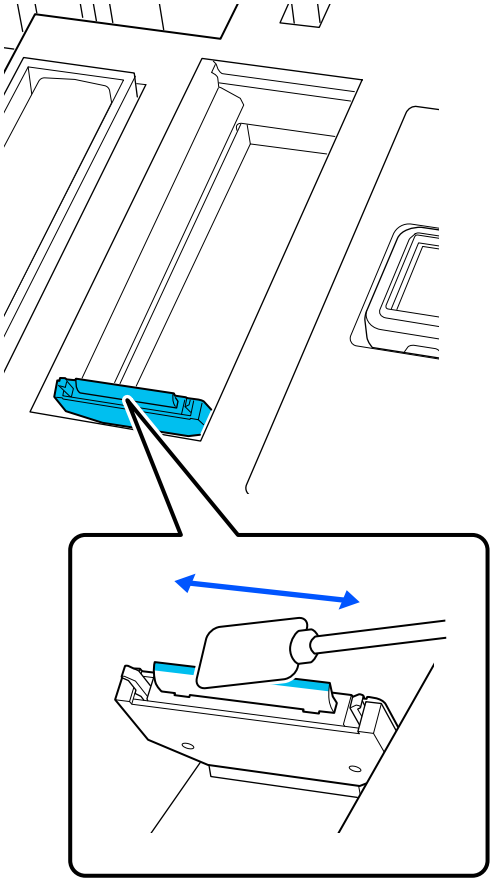
5 Hold the cleaning stick vertically and wipe the inner circumference of all suction caps.



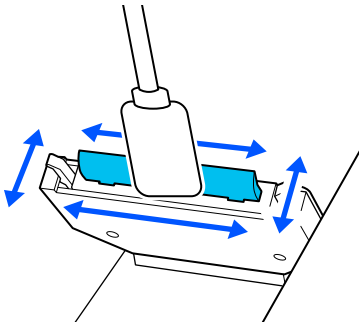
6 Hold the cleaning stick vertically and wipe the outer circumference of all suction caps.



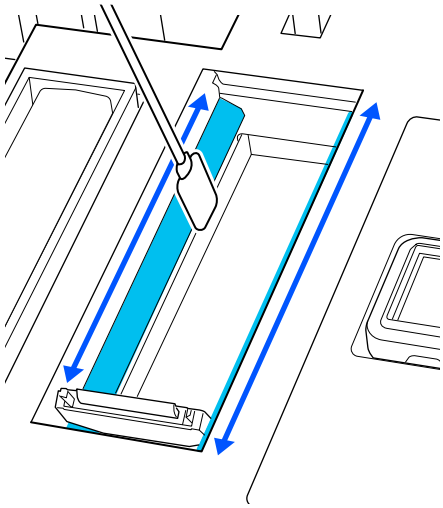
7 Flatten the cleaning stick and wipe the edges of the top surface of the wiper unit.



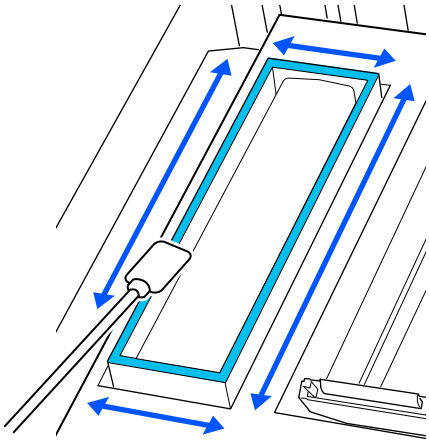
8 Hold the cleaning stick vertically and wipe the outer circumference of the wiper unit.



9 Hold the cleaning stick vertically and wipe the area on the inner circumference of the guide section.

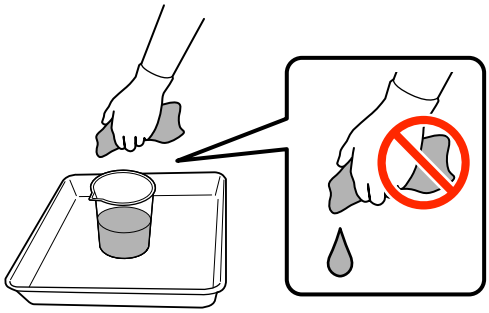


10 Flatten the cleaning stick and wipe the edges of the top surface of the flushing box.



11 Soak the polyester/nylon knit woven fabric in cleaning liquid.

At this time, gently wring it out so that cleaning liquid does not drip from the polyester/nylon knit woven fabric.

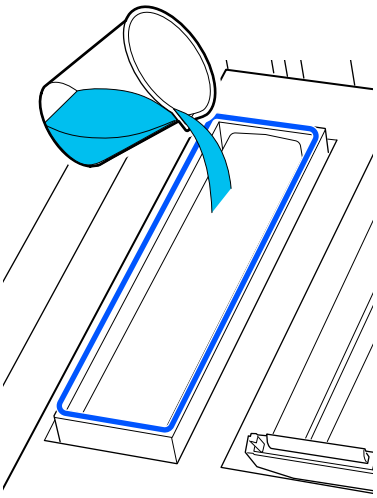


12 Use the polyester/nylon knit woven fabric to wipe off ink, lint, and dust that have built up on the area shown in the illustration.

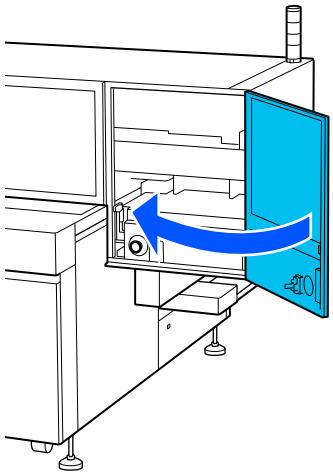


13 Pour approximately 10 ml (0.34 oz) of used cleaning liquid into the positions shown in the following illustration.

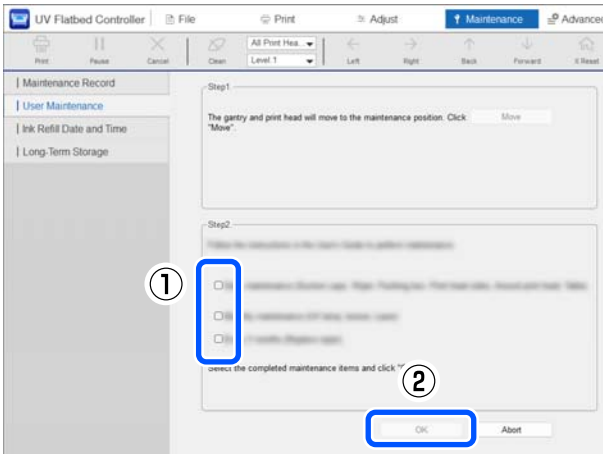
Dispose of the remaining cleaning liquid in the waste ink bottle.



14 Close the maintenance cover on the right.



15 When cleaning is complete, select the target areas in the UV Flatbed Controller and click **OK**.



The maintenance counter is reset, and the print head moves to the home position.

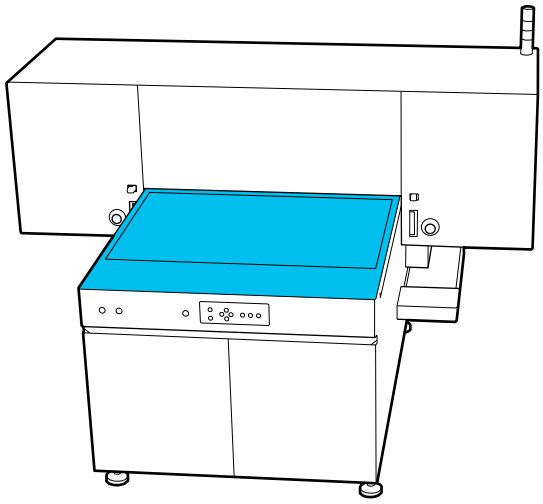
> ***Note:***
> *If you click **Cancel**, the maintenance counter is not reset.*

Next, clean the flatbed.

Cleaning the flatbed

Use new polyester/nylon knit woven fabric and a scraper.

1 Clean the ▭ area (flatbed) shown in the illustration.



If dust or dirt accumulates

Use the polyester/nylon knit woven fabric to wipe away dust, as it can cause clogged nozzles. If it is particularly dirty, dampen the polyester/nylon knit woven fabric with water containing a small amount of neutral detergent, and then firmly wring it dry before wiping. Then use the dry polyester/nylon knit woven fabric to wipe off moisture.

If there are ink stains

- ❏ If ink has not cured, wipe it off with the dry polyester/nylon knit woven fabric. Next, dampen the polyester/nylon knit woven fabric with water containing a small amount of neutral detergent, and then firmly wring it dry before wiping. Finally, use the dry polyester/nylon knit woven fabric to wipe off moisture.
- ❏ If ink has cured, use a scraper to remove it. Next, dampen the polyester/nylon knit woven fabric with water containing a small amount of neutral detergent, and then firmly wring it dry before wiping. Finally, use the dry polyester/nylon knit woven fabric to wipe off moisture.

Periodic Maintenance

In addition to cleaning after work, perform the following maintenance according to the time periods.

Once a Month

Clean the following parts. See the following for detailed cleaning procedures.

- ❏ Laser
  “Cleaning the Laser” on page 85
- ❏ UV Light
  “Cleaning the UV light” on page 85
- ❏ Ionizer
  “Cleaning the Ionizer” on page 87

Every three months

Replace the following parts. See the following for detailed replacement procedures.

Wiper unit

“Replacing the Wiper Unit” on page 92

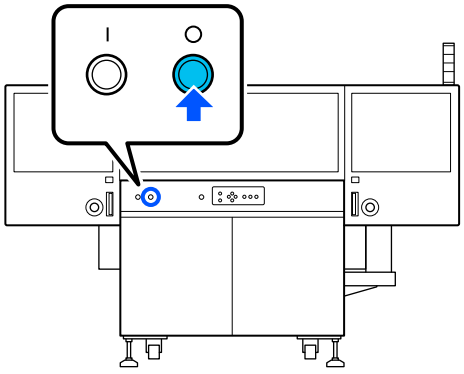
Turning Off

This section explains the procedure for turning off this printer.

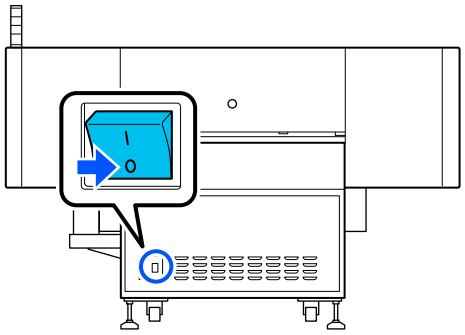
1 Close UV Flatbed Controller.

> ***Important:***
> *When you exit the UV Flatbed Controller, the gantry may move. Before starting the procedure, make sure no one is in the gantry's range of motion.*

2 Press the power button (◯) on the control panel on the front of the printer.



3 Press the main power switch (◯) on the back of the printer to turn it off.



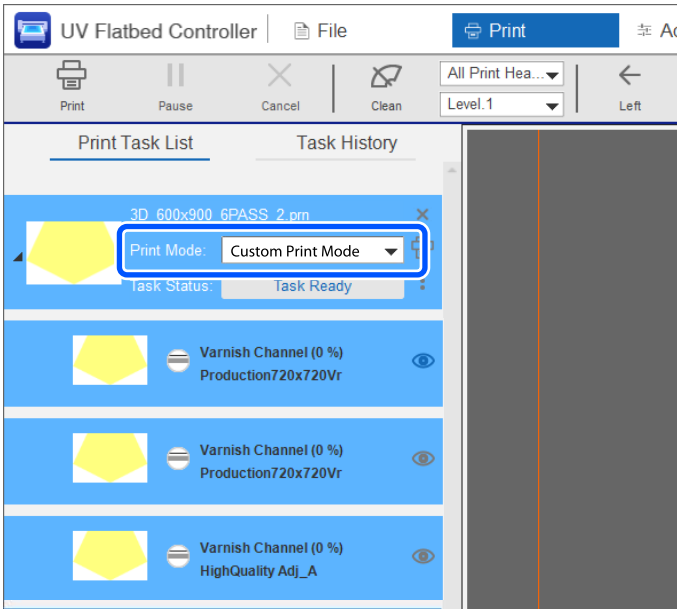
Various Printing

Multi-layer Printing

Before Making Print Settings

Multi-layer printing settings differ depending on the job type.

Check the following to determine whether the job was created in normal mode or custom print mode.



Jobs created in normal mode:

You need to set the **Y Print Direction** and **Color Channel**. Make settings according to the multi-layer printing procedure.

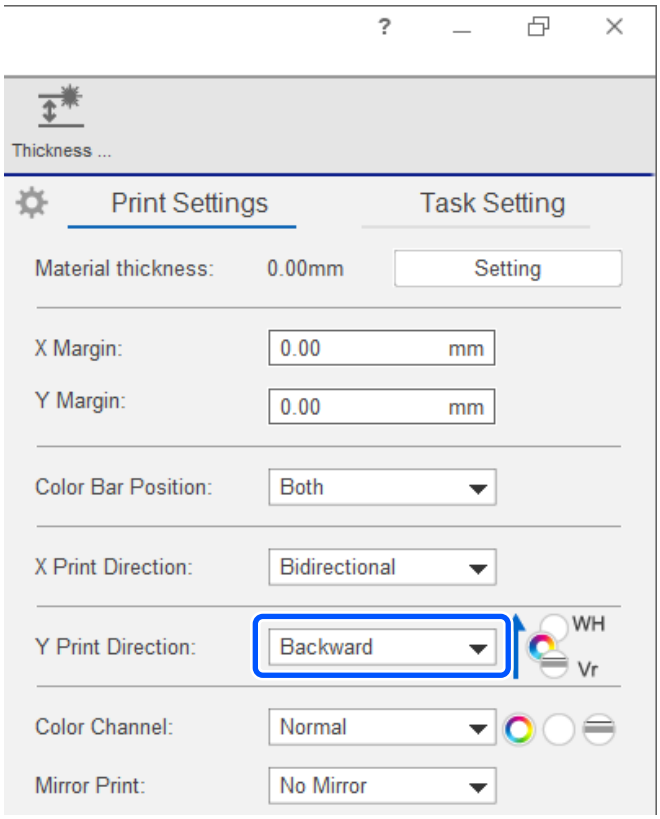
"**Layer Setting**" on page 65

Jobs created in custom print mode:

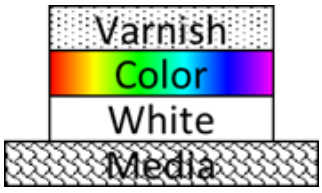
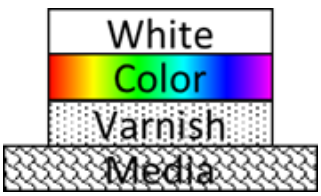
You cannot change the **Y Print Direction** or **Color Channel**. Since the number of layers and stacking order are set in Epson Edge Print PRO, you can print as is.

Layer Setting

Set the **Y Print Direction**.



Y Print Direction settings differ depending on the printed material. The following shows an image with all layers printed: White, Color, and Varnish.

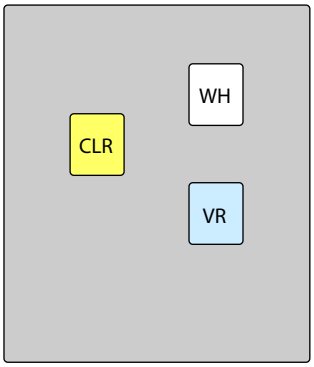
Finished image	Y Print Direction	Print order
	**Backward**	The gantry moves from front to back and prints in the order of White, Color, and Varnish.
	**Forward**	The gantry moves from back to front and prints in the order of Varnish, Color, and White.

Note:
The print heads are arranged as shown in the illustration below. (Print heads viewed from above)

*When you set Y Print Direction to **Forward**, the gantry moves from back to front and prints in the order of Varnish, Color, and White.*

*When you set Y Print Direction to **Backward**, the gantry moves from front to back and prints in the order of White, Color, and Varnish.*

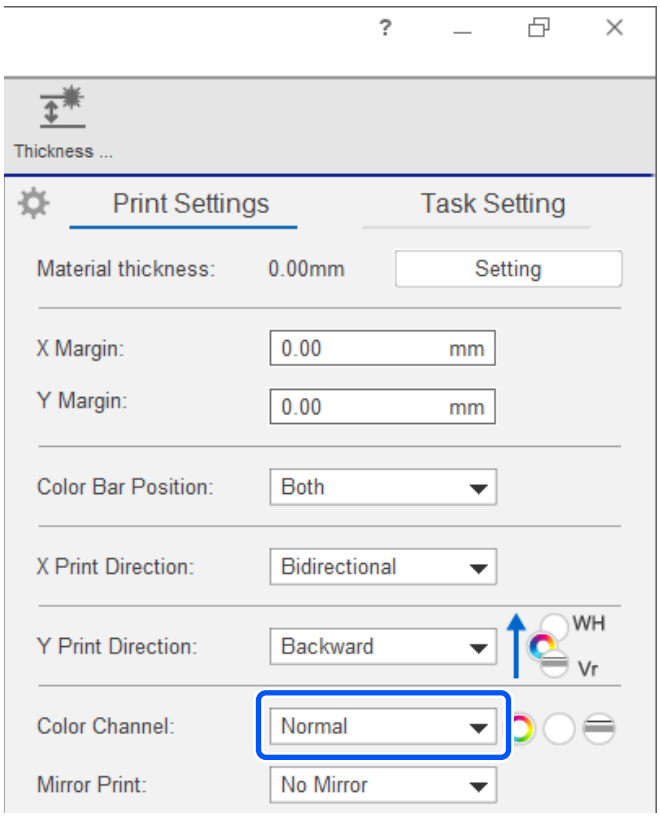
Back



Front

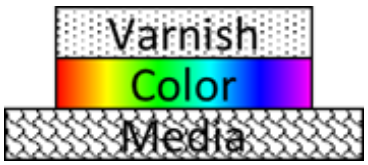
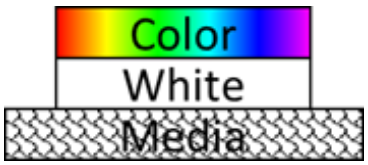
Print a specific layer from multiple layers

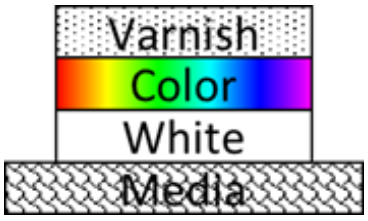
You can use **Color Channel** to specify the layer you want to print. Select from **Normal**, **Color Only**, **WH Only**, **Vr Only**, **Color and WH**, **Color and Vr**, and **WH and Vr** according to your printing needs. If you select **Normal**, layers are printed according to the data sent.



Example of multi-layer print setting

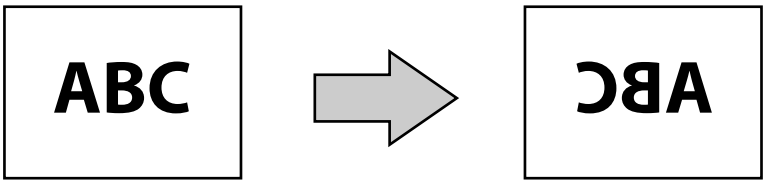
By using print data containing the same three layers and simply setting the color channels, you can obtain different print results.

Finished image	Y Print Direction	Color Channel
	**Backward**	Color and Vr
	**Forward**	Color and WH

Finished image	Y Print Direction	Color Channel
	**Backward**	Normal

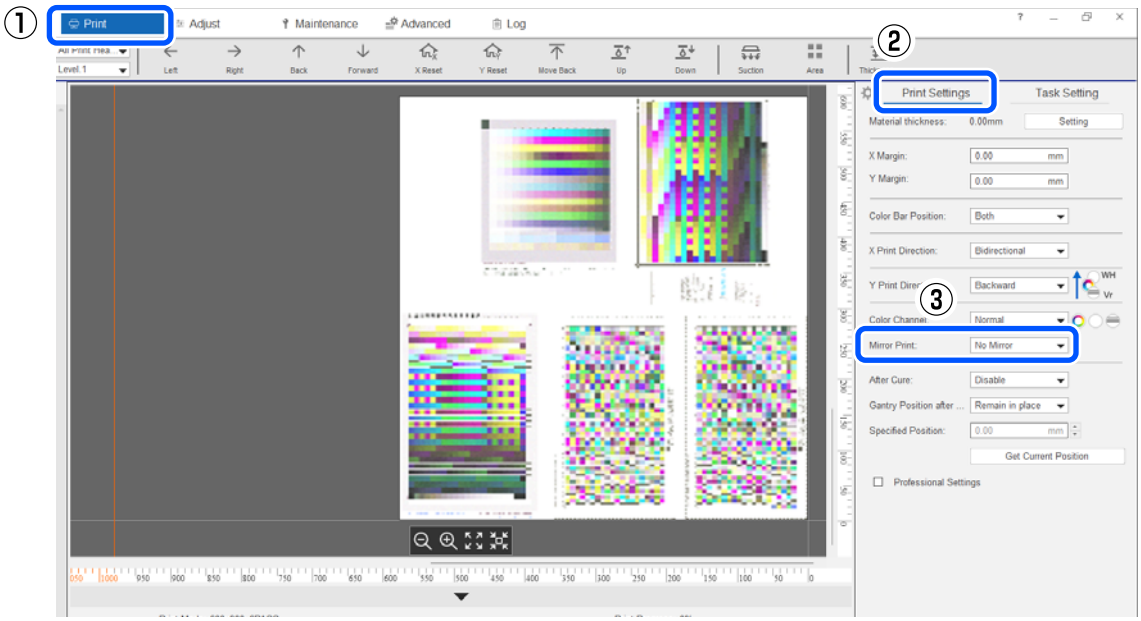
Printing Using Horizontal Mirroring

When printing on the back of transparent media, mirror the print job horizontally.



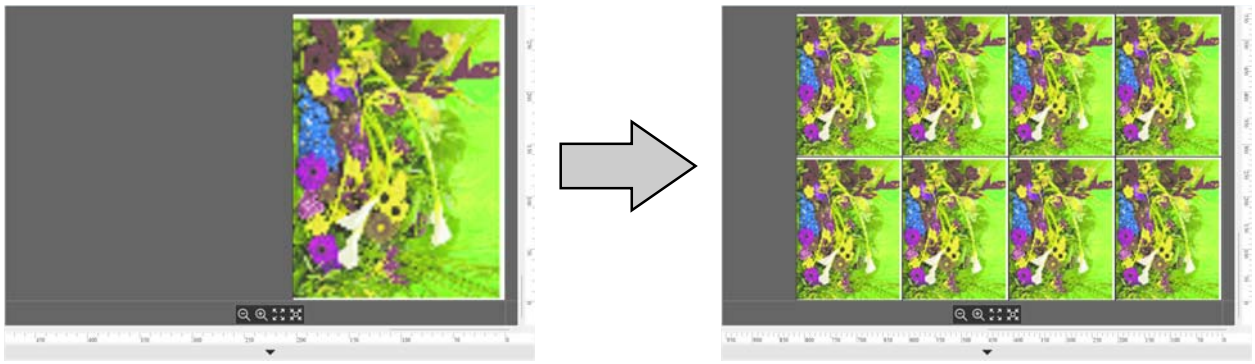
Select **Print** – **Print Settings** – **Mirror Print** – **Mirror Image**.

The image is mirrored horizontally.

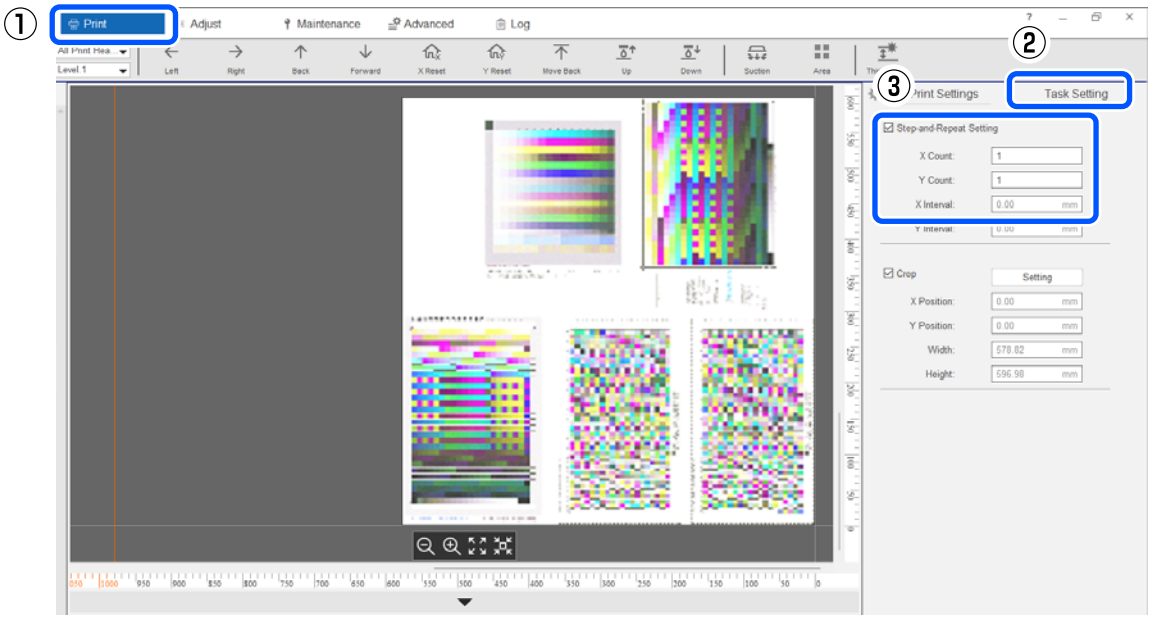


Printing Images Repeatedly (Step & Repeat)

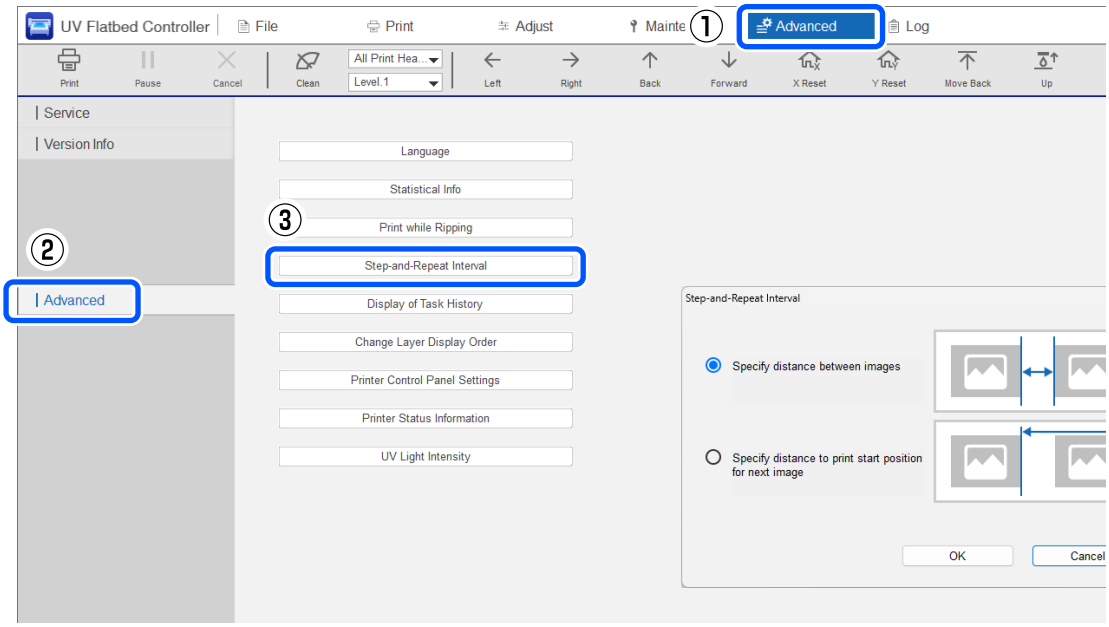
When printing multiple copies of the same image, use the step-and-repeat printing function.



Select **Print** - **Task Setting**. Select **Step-and-Repeat Setting** and enter the number of repetitions in the X and Y directions. Also, enter the image spacing.



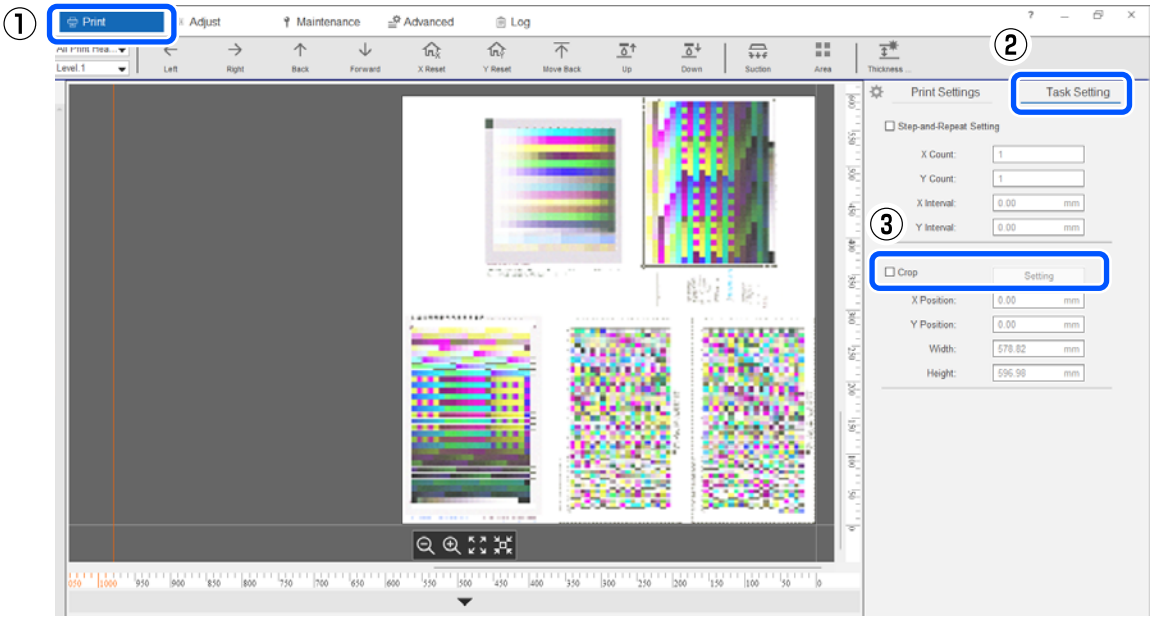
Note:
For image spacing, you can specify either the distance between the images or the distance to the print start position of the next image. The default setting is the distance between images. You can change the setting in ***Advanced*** *-* ***Advanced*** *-* ***Step-and-Repeat Interval*** *on the screen.*



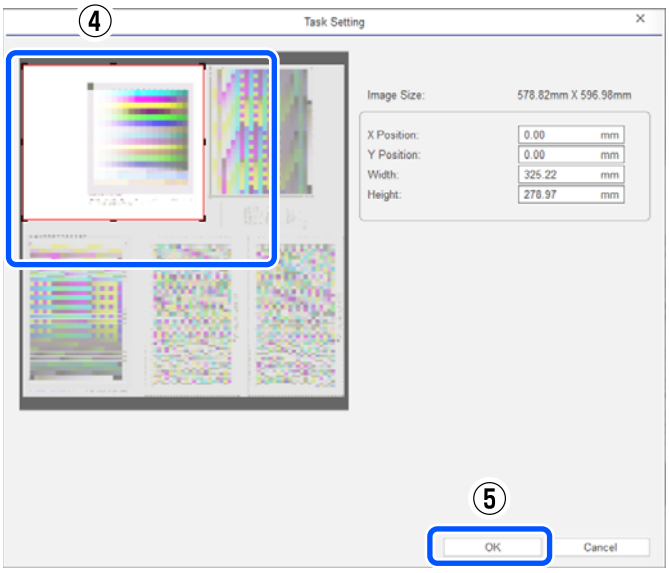
Printing Only Necessary Parts of an Image (Crop)

When printing only part of an image, use the Crop function.

Select **Print** - **Task Setting**. Select **Crop** and then **Setting** to display the settings screen.



Drag the red frame on the preview screen to select the area you want to print. Press **OK**.



Printing at a Higher Print Quality

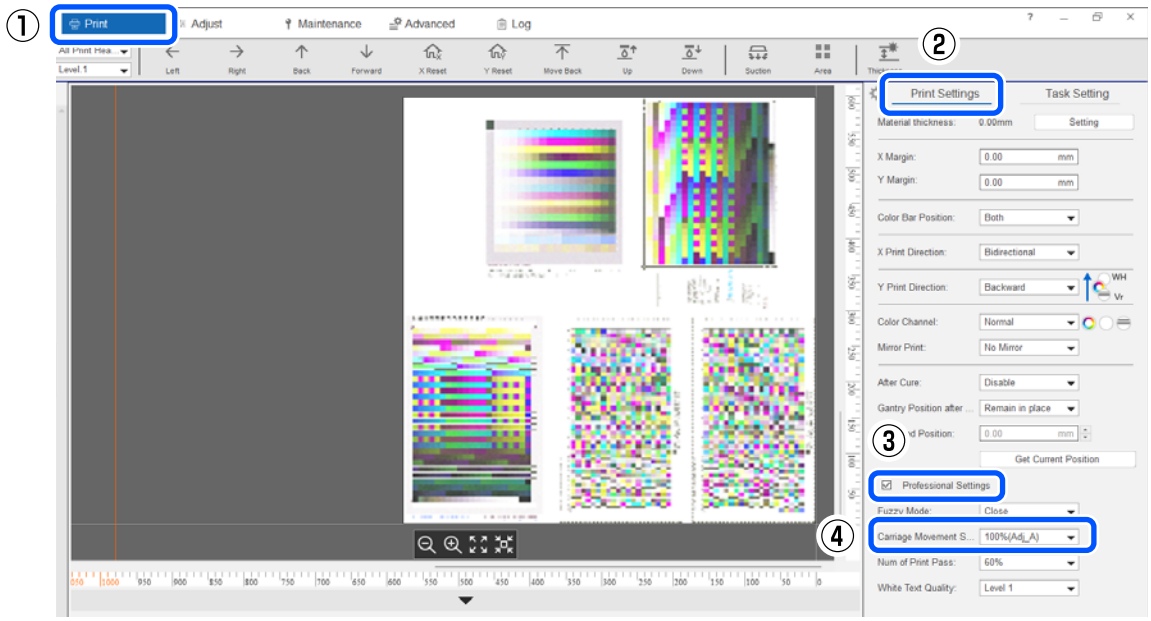
You can improve the print quality without recreating the RIP file (.prn) by changing the carriage movement speed and the number of print passes. When you want to improve the image quality of text or fine lines, or when you want to reduce banding or color unevenness in the X-direction, change the carriage movement speed and the number of print passes.

> ***Important:***
> *For some **Print Mode** items, you cannot change the **Carriage Movement Speed** or the **Num of Print Pass**.*

Improving the Image Quality of Text or Fine Lines

Adjust the carriage movement speed.

Select **Print** - **Print Settings**. Select **Professional Settings** and select a value lower than the currently selected value to reduce the **Carriage Movement Speed**. Note that the **Auto** value for the carriage movement speed differs depending on the print mode. Set a value lower than the **Auto** setting.

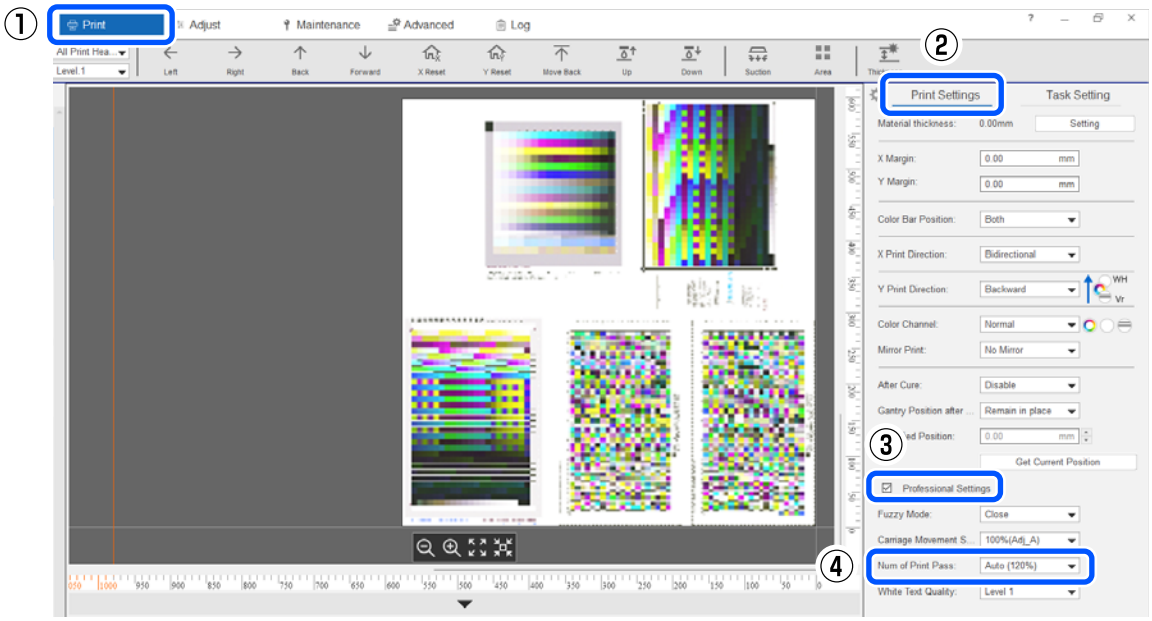


Note:
Lowering the carriage movement speed increases the printing time.

Reducing Banding or Color Unevenness in the X-direction

Adjust the number of print passes.

Select **Print** - **Print Settings**. Select **Professional Settings** and select a value higher than the currently selected value to increase the **Num of Print Pass**. Note that the **Auto** value for the number of print passes differs depending on the print mode. Set a value higher than the **Auto** setting.



Note:
Increasing the number of print passes increases the printing time.

Improving Print Quality with Print Quality Settings in Epson Edge Print PRO

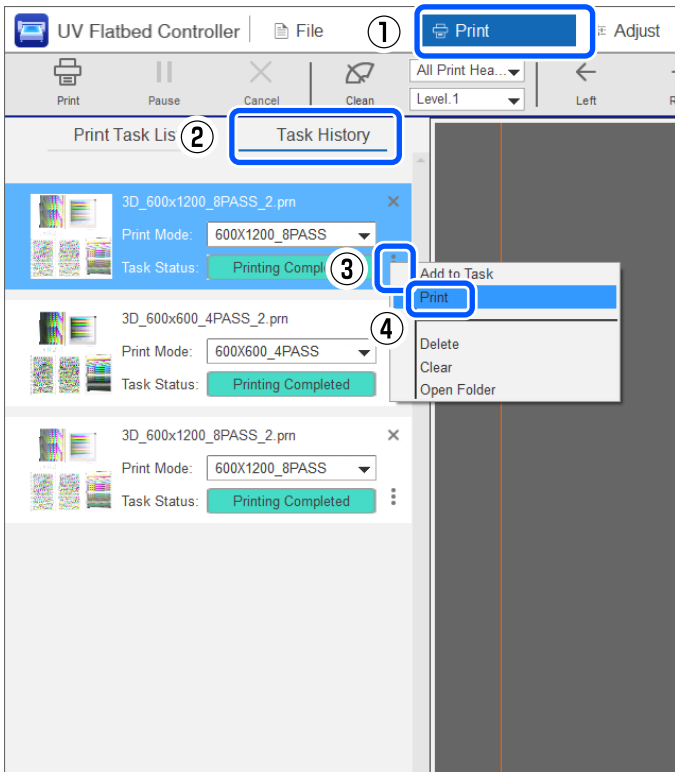
When printing on media with curved or uneven surfaces, text and images may appear blurred. Also, small text or fine lines may appear blurred when printed.

In such cases, you can improve print quality by selecting a mode that includes "WG" (Wide Gap) in the Epson Edge Print PRO Print Quality settings.

Reprinting a Previously Printed Job

Print data remains in the task history. If you want to print again, you can print from the task history.

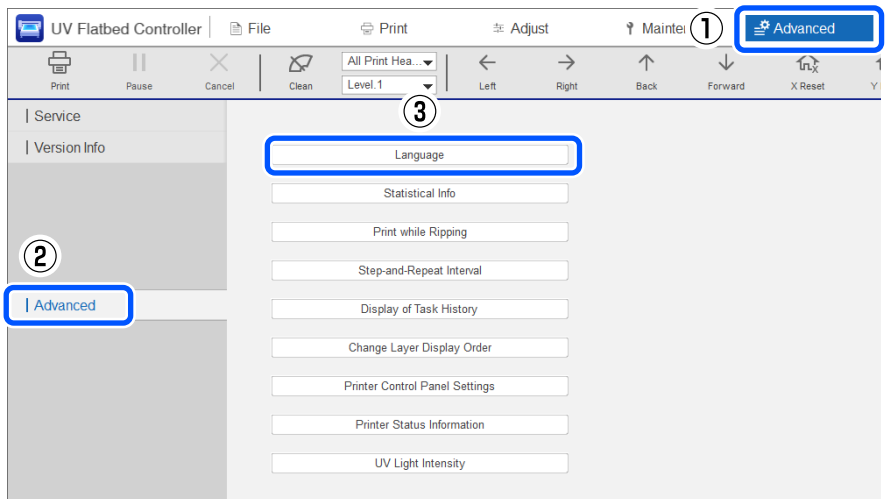
You can reprint by pressing **Print** - **Task History** - **...** - **Print**.



Useful Functions

Changing the Screen Display Language

You can change the language displayed by pressing **Advanced** – **Advanced** – **Language**. After selecting the language, restart the UV Flatbed Controller to change the display language.

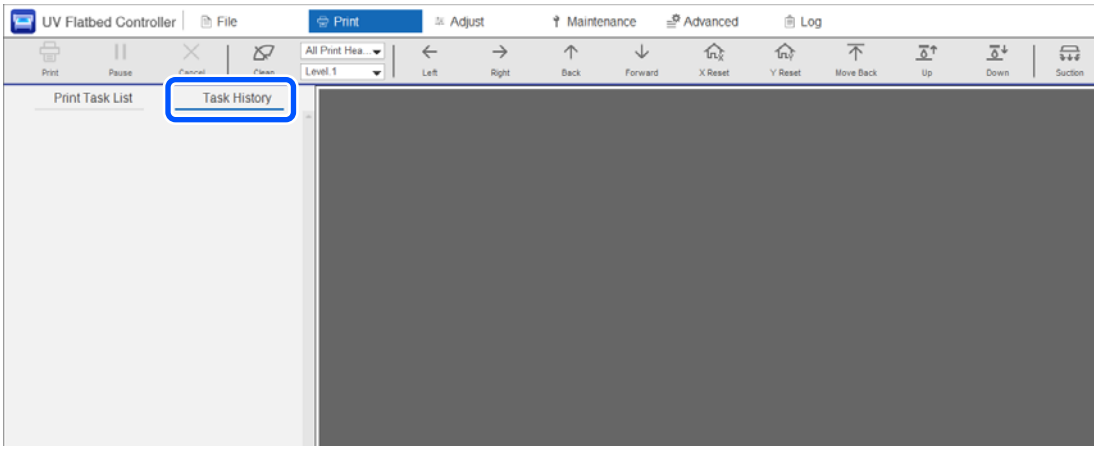


Changing the Display of Task History

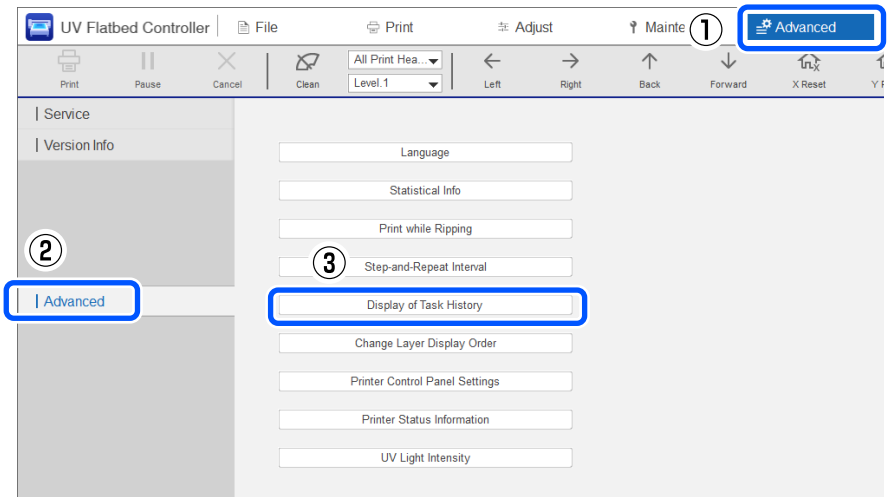
The following shows how you can change the task history display.

❏ **Basic display in print order**: **Task History** is displayed in print order. This display is the default setting.

❏ **Grouped by job**: When you reprint the same job from Task History, the number of prints by job, the number of errors or cancellations, and the time required to print are displayed. When you reprint the same job from **Task History**, the aggregated records, such as the time required to print, the total number of prints, successes, failures, interruptions, and so on, are displayed as a group. Click the ▶ on the left of the job preview image in **Task History** to display the information.
When a job is re-sent from Epson Edge Print PRO, it is counted as a separate group even if it is the same job. However, when a job is re-sent from Epson Edge Print PRO, even the same jobs are not grouped together. They are aggregated as separate groups.



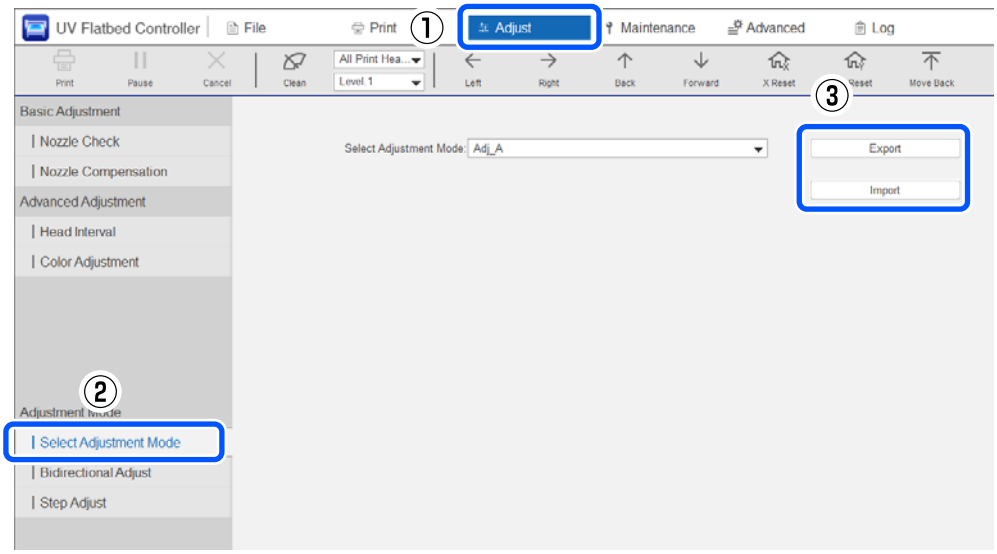
You can change the Task History display in **Advanced** - **Advanced** - **Display of Task History**.



Backing Up Adjustment Results

You can save all the adjustment results made on the adjustments screen as a file. By loading this saved file, you can reproduce the adjustment results from the saved file. We recommend backing up your data regularly in case your PC fails or is replaced.

Press **Export** to save the adjustment results or **Import** to load the adjustment results.



Note:
When you select Export, all items in ***Adjustment Mode*** *are exported at once. You do not need to export each adjustment mode individually.*

Nozzle Compensation

When you use Nozzle Compensation, the printer uses normal nozzles to compensate for missing ink ejection due to clogged nozzles.

However, Nozzle Compensation may not work effectively under the following conditions.

- ❏ When two or more consecutive nozzles are clogged
- ❏ When nozzles in the center of the array are clogged

Nozzle Compensation prints a check pattern to identify the nozzles to be compensated for. When printing the check pattern, prepare the following media.

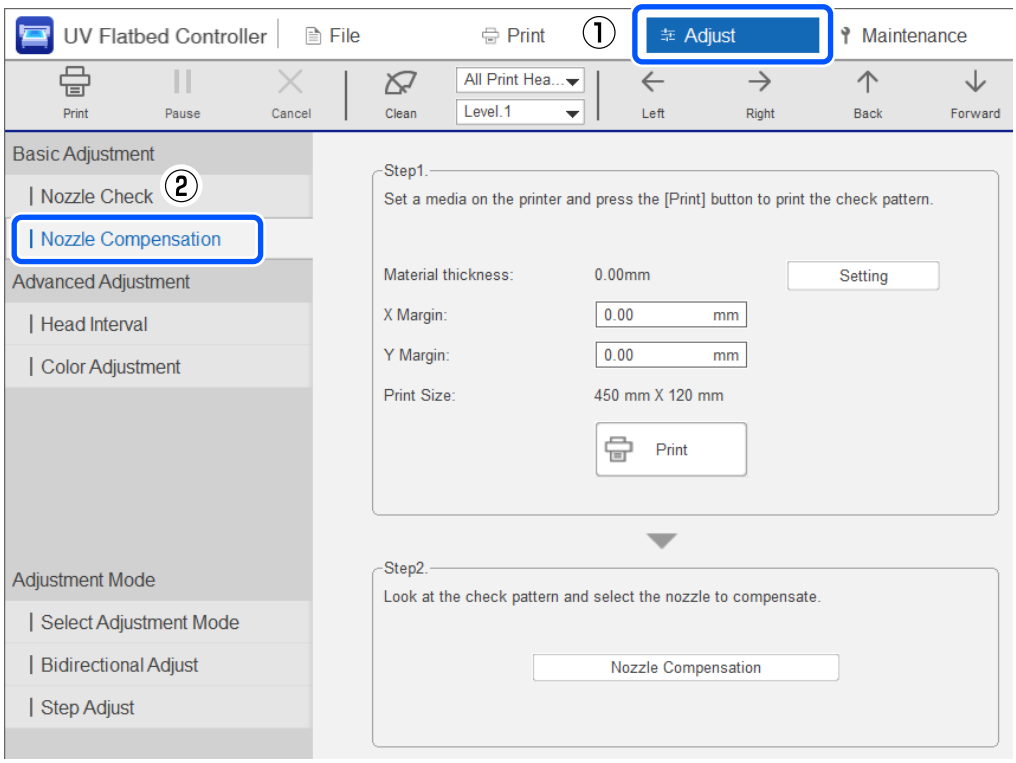
Recommended media

Transparent sheet that supports inkjet printing

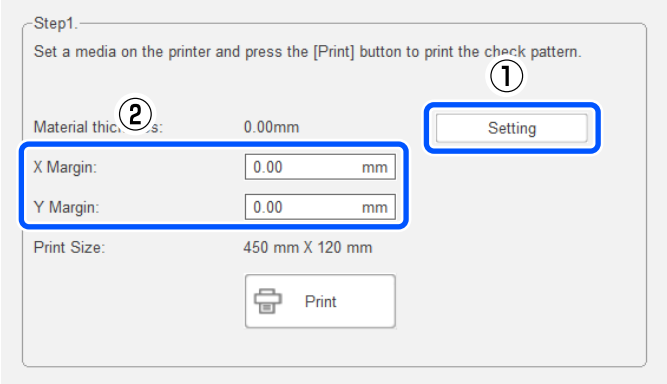
Size

Printable size of 450 mm (17.72 in.) wide × 120 mm (4.72 in.) long

1 Click the **Adjust** menu – **Nozzle Compensation** in the UV Flatbed Controller.

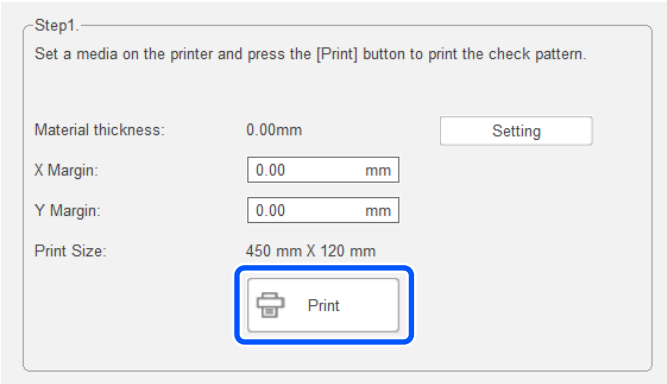


2 Set Thickness Detection to Auto and X Margin and Y Margin to 0 mm.



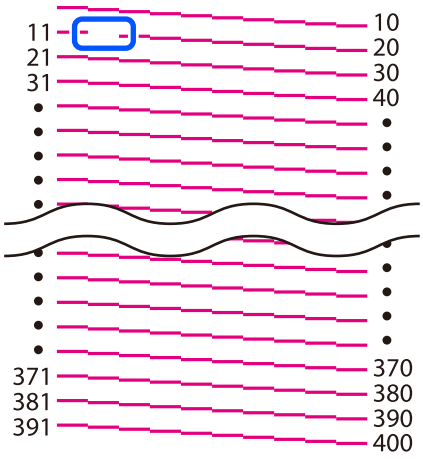
3 Click Print.

The check pattern is printed.



4 Inspect the check pattern and identify the number of clogged nozzles.

Example when there are gaps



Check the number with the gap.

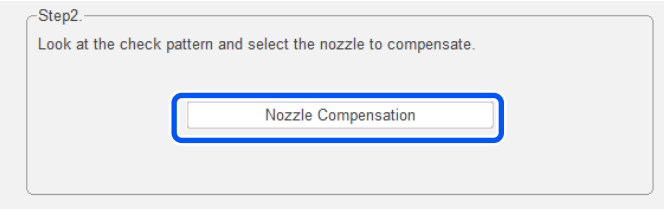
Note:
The following explains the meanings of the symbols on the check pattern and the ink colors for each nozzle.

H1 to H3 are print head numbers.

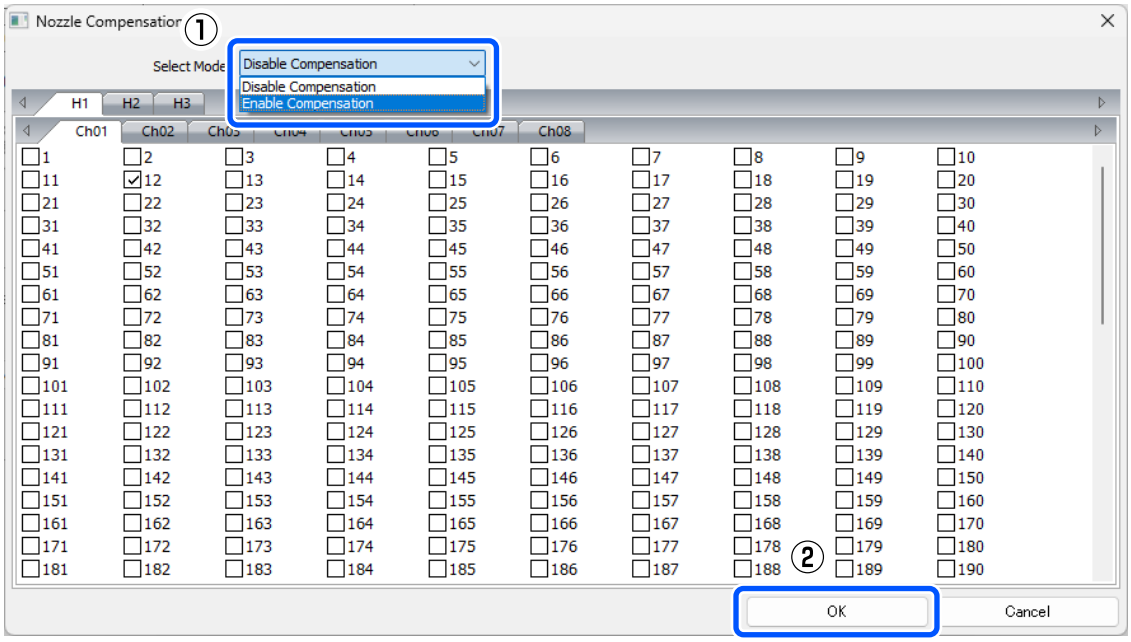
CH01 to CH08 are nozzle row numbers for each print head.

	CH1	CH2	CH3	CH4	CH5	CH6	CH7	CH8
H1	C	M	Y	BK	GY	R	LM	LC
H2	WH	WH	WH	WH	WH	WH	WH	WH
H3	Vr	Vr	Vr	Vr	Vr	Vr	Vr	Vr

5 Click Nozzle Compensation.

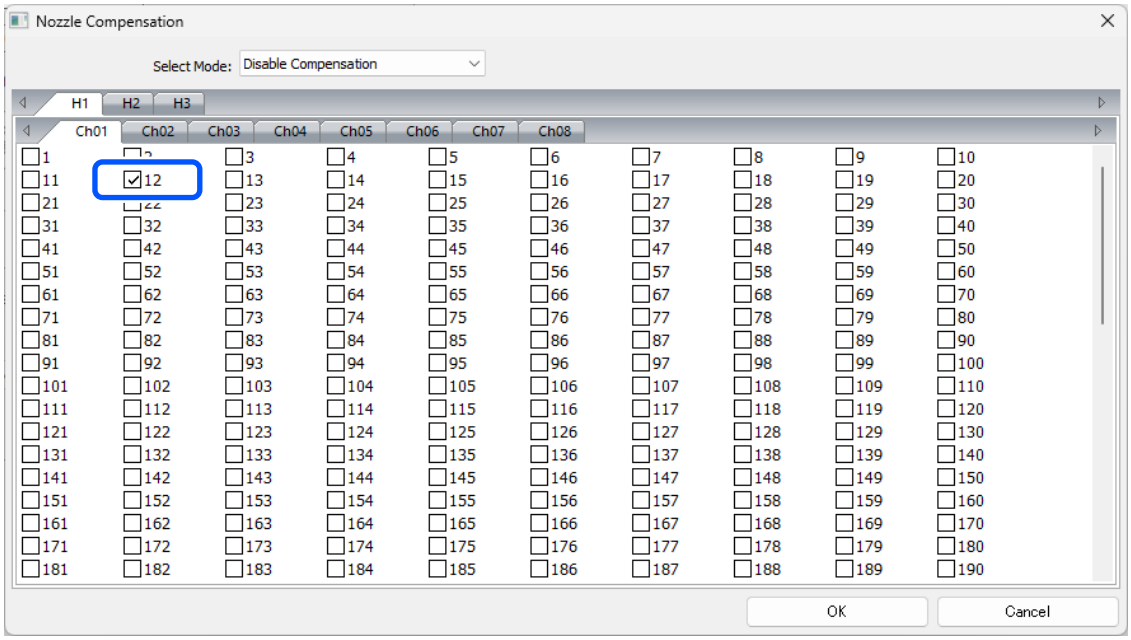


6 Select Enable from Select Mode and press **OK**.



> ***Note:***
> *To disable Nozzle Compensation, select Disable.*

7 Select the boxes for the nozzle numbers you want to compensate for.



8 Perform a test print.

When the compensation function is enabled

If you do not see unevenness or banding, you can continue using the printer as it is.

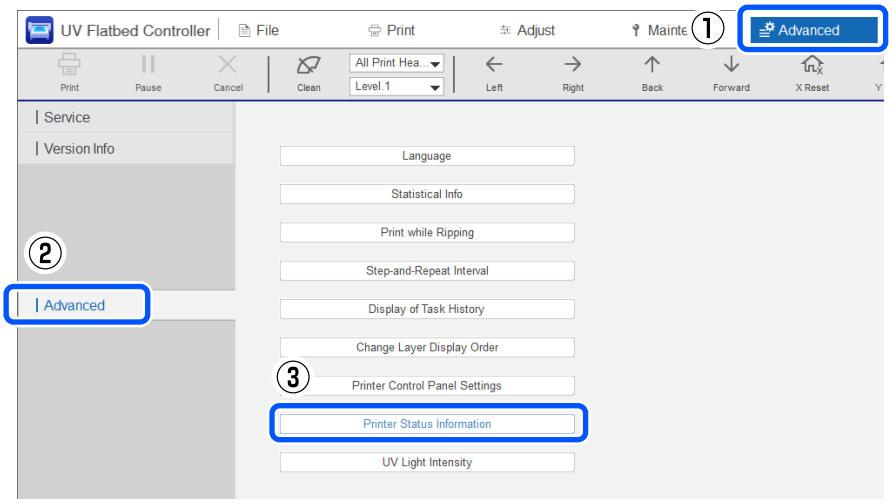
When the compensation function is insufficient

If you still see unevenness or banding, contact your dealer or Epson Support.

Status Sheet (CSV File)

The status sheet is for service engineers. Exports a status sheet showing the printer's status as a .csv file.

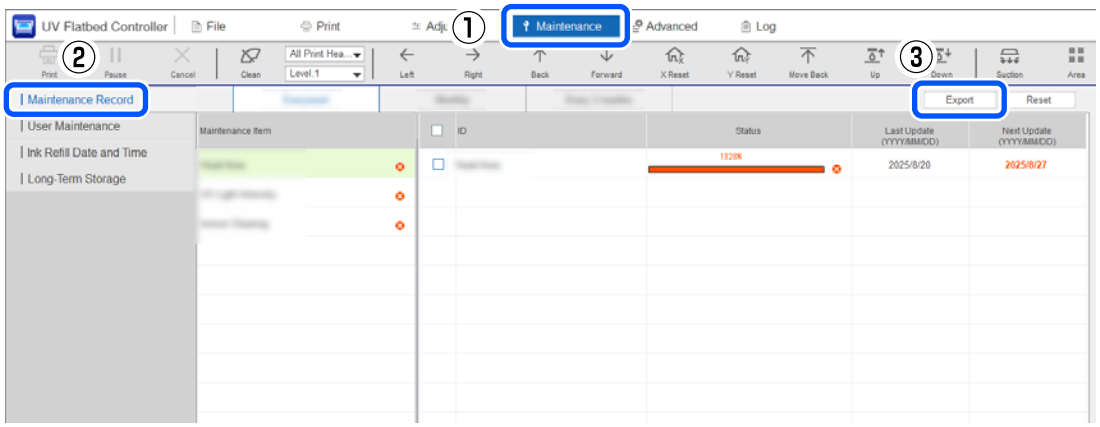
Select **Advanced** - **Advanced** on the screen, and then press **Printer Status Information**.



Export Maintenance Information Sheet (CSV File)

The export maintenance information sheet is for service engineers. Exports a status sheet showing the printer's status as a .csv file.

Select **Maintenance** - **Maintenance Record** on the screen, and then press **Export**.



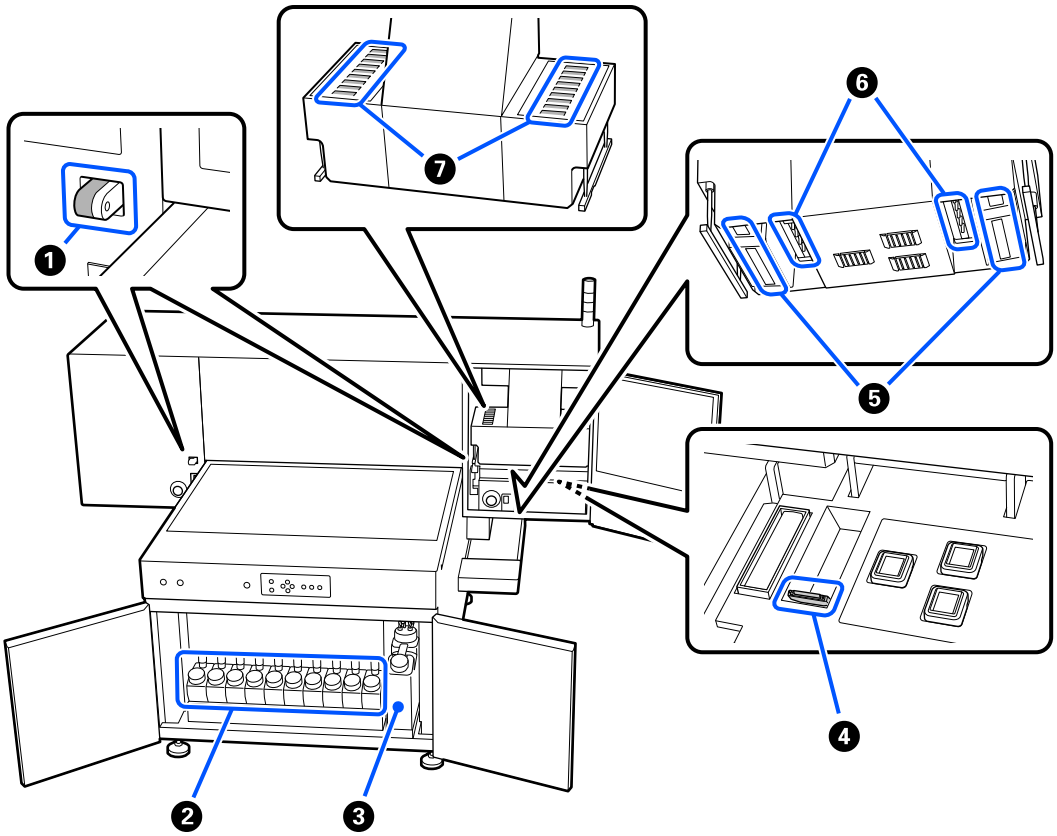
Periodic Maintenance

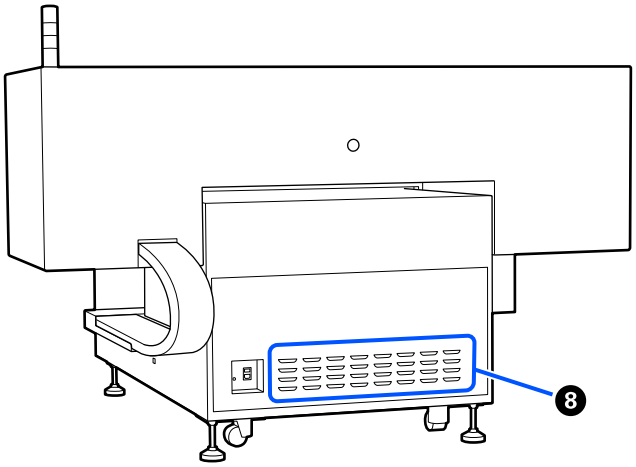
When to Perform Various Maintenance Operations

To maintain the print quality of the printer, you need to perform cleaning and replace consumables.

If maintenance is not performed, print quality may decline, the printer's service life may be reduced, or you may be liable for the cost of any repairs. Perform maintenance according to the schedule.

Maintenance Areas and Timing





Periodic cleaning areas and timing

When to perform	Target area
When a message is displayed* (Displayed once a month)	❶ Laser ☞ "Cleaning the Laser" on page 85 ❺ UV light ☞ "Cleaning the UV light" on page 85 ❻ Ionizer ☞ "Cleaning the Ionizer" on page 87
When noticeably dirty	❽ Vent ☞ "Cleaning the Vents" on page 97

* The message is always displayed as **User maintenance necessary**. See the following for how to check the target areas.
☞ "Checking the target areas" on page 83

When to replenish, replace, or dispose of waste ink

When to perform	Target area
When an error message is displayed **XXX ink is out***1	❷ Ink tank ☞ "Refilling Ink" on page 88
When an error message is displayed **The waste ink bottle is full**	❸ Waste ink bottle ☞ "Disposing of Waste Ink" on page 89
When ink has accumulated in the waste ink bottle	
When a message is displayed*2 (Displayed once every three months)	❹ Wiper unit ☞ "Replacing the Wiper Unit" on page 92
When noticeably dirty	❾ Mist filter ☞ "Replacing the Mist Filters" on page 97

*1 Where XXX is the name of the ink color.

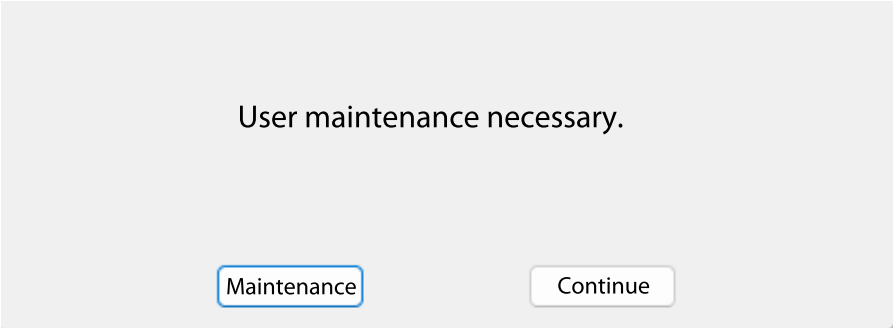
*2 The message is always displayed as **User maintenance necessary**. See the following for how to check the target areas.
☞ "Checking the target areas" on page 83

Other Maintenance

When to perform	Operation
❏ When checking if nozzles are clogged ❏ Horizontal stripes or tint unevenness (banding) are appeared. ❏ When colors look wrong	Checking for clogged nozzles "Checking for Clogged Nozzles" on page 94
When clogging is found after checking for clogged nozzles	Cleaning the print head "Clearing Clogged Nozzles" on page 95

Checking the target areas

The message is always displayed as **User maintenance necessary**.



When you click **Maintenance**, the following Maintenance Record screen is displayed. Parts with the **Next Update** date displayed in red require maintenance.



Preparation

Ready the following items before beginning cleaning and replacement.

Make sure you prepare ink bottles and replacement parts specifically for this printer.

“Options and Consumable Products” on page 109

Polyester/nylon knit woven fabric (commercially available)

Purchase lint-free fabric.
Example: Berkshire SuperPolx®

Use when cleaning the following.

- ❏ Around the print head
- ❏ Flushing box
- ❏ UV Light
- ❏ Laser
- ❏ Flatbed

Metal scraper (commercially available)

Use when cleaning the flatbed.



Vacuum cleaner (commercially available)

Use when cleaning the vents.

Cotton swabs (commercially available)

Use when cleaning the ionizer. We recommend using white cotton swabs to confirm that dirt has been removed.

Dropper (commercially available)

Use when cleaning the suction caps and flushing box.

Cup (commercially available)

Use when pouring the cleaning liquid into the cup. We recommend a cup with a capacity of approximately 100 ml (approximately 3.4 oz).

Metal or plastic (PP/PE) tray (commercially available)

Use this to hold cleaning tools, removed consumables, and cleaning liquid that has been transferred to the cup.

Ink bottles (consumable)

Use these to refill the ink tank when ink is running low.

Cleaning sticks (consumable)

Use when cleaning the following.

- ❏ Flushing box
- ❏ Wiper unit
- ❏ Around the suction caps
- ❏ Around the print head

Cleaning liquid (consumable)

Use when cleaning the following.

- ❏ Flushing box
- ❏ Wiper unit
- ❏ Suction caps
- ❏ Around the print head
- ❏ UV Light
- ❏ Flatbed

Waste ink bottle (consumable)

Use when replacing the waste ink bottle.

Mist filter (consumable)

Use when replacing the mist filter.

Wiper unit (consumable)

Use when replacing the wiper unit.

Cleaning the Laser

If the laser emitter becomes dirty, media thickness detection or foreign object detection may not work correctly.

Before starting this procedure, be sure to read the following:

"Preparation" on page 84

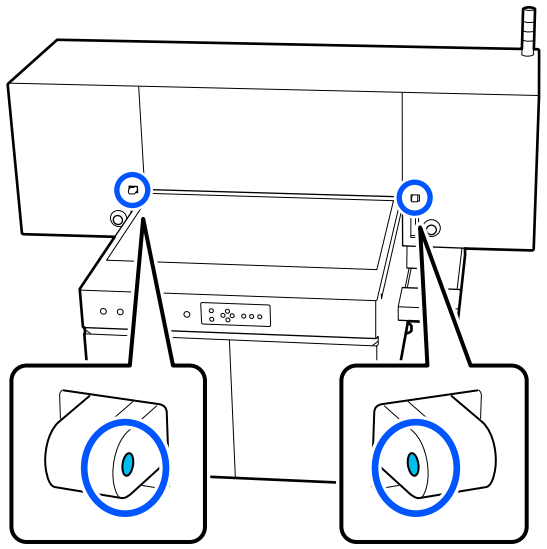
"Cautions when Operating" on page 56

1 Turn off the printer.

"Turning Off" on page 63

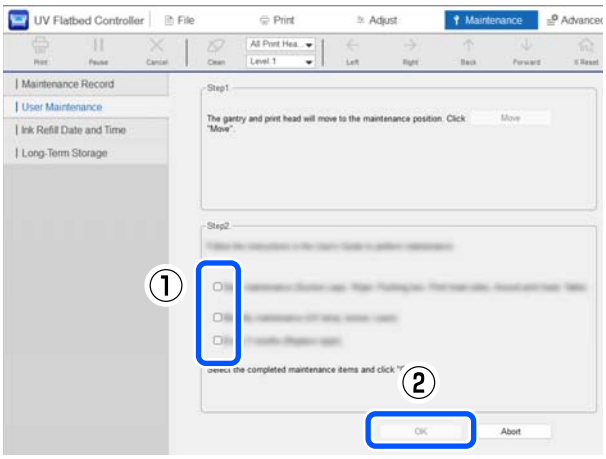
> ***Important:***
> *If you clean with the power on, laser light will be emitted.*

2 Use a polyester/nylon knit woven fabric to wipe off dust and lint that may be adhering to the laser.



3 When cleaning is complete, select the target areas in the UV Flatbed Controller and click **OK**.

The maintenance counter is reset, and the print head moves to the home position.



> ***Note:***
> *If you click **Cancel**, the maintenance counter is not reset.*

Cleaning the UV light

If the UV light is dirty, the UV light intensity decreases, and the ink may not cure sufficiently, which can affect print quality.

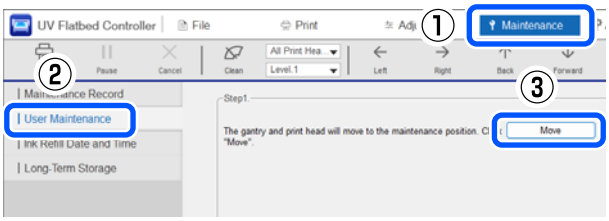
Before starting this procedure, be sure to read the following:

"Preparation" on page 84

"Cautions when Operating" on page 56

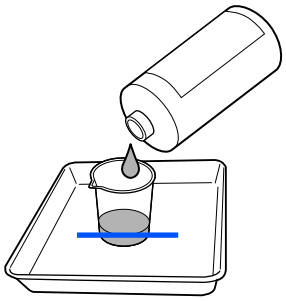
> ***Important:***
> *The gantry may move. Before starting the procedure, make sure no one is in the gantry's range of motion. Until maintenance work is complete, make sure no one enters the gantry's range of motion.*

1 In the UV Flatbed Controller, select the **Maintenance** menu and click **User Maintenance** - **Move**.



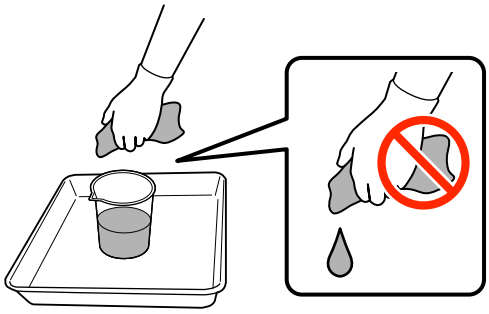
2 When continuing from daily cleaning, dispose of the remaining cleaning liquid in the waste ink bottle. Place the cup on the tray and pour in approximately 20 ml (approximately 0.68 oz) of new cleaning liquid.

> ***Important:***
> *Using dirty cleaning liquid can cause contamination.*

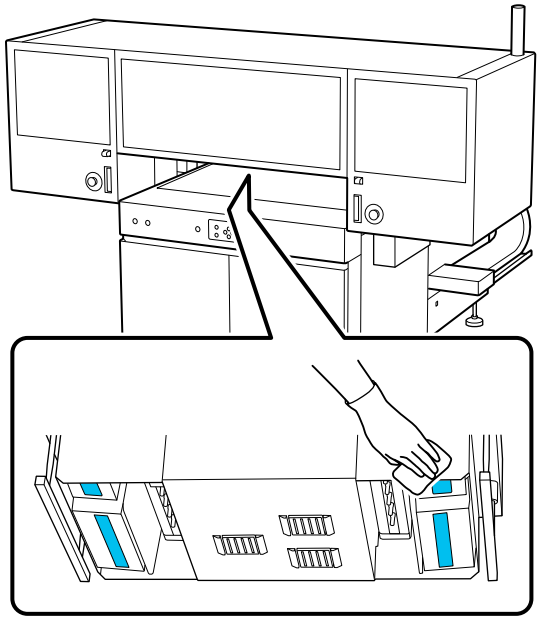


3 When continuing from daily cleaning, dispose of the polyester/nylon knit woven fabric used for daily cleaning.
Soak a new polyester/nylon knit woven fabric in cleaning liquid.

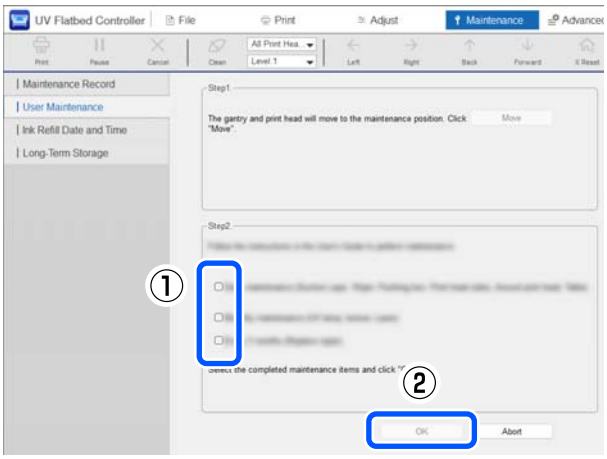
At this time, gently wring it out so that cleaning liquid does not drip from the polyester/nylon knit woven fabric.



4 Use the polyester/nylon knit woven fabric to wipe off ink, lint, and dust that have built up on the ▭ area shown in the illustration.



5 When cleaning is complete, select the target areas in the UV Flatbed Controller and click **OK**.



The maintenance counter is reset, and the print head moves to the home position.

> ***Note:***
> *If you click **Cancel**, the maintenance counter is not reset.*

Cleaning the Ionizer

If the ionizer is dirty, static electricity causes ink droplets to land in the wrong positions, causing unclear print results.

Before starting this procedure, be sure to read the following:

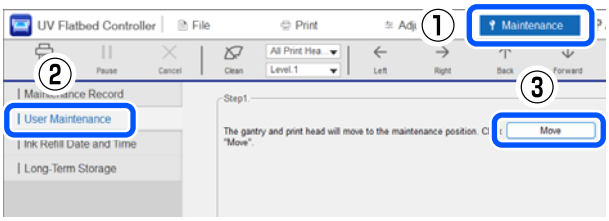
"Preparation" on page 84

"Cautions when Operating" on page 56

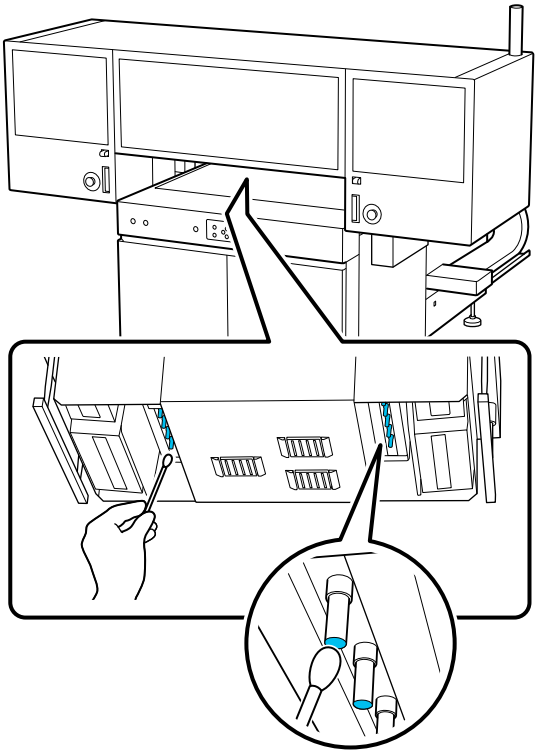
> ***Important:***
> *The gantry may move. Before starting the procedure, make sure no one is in the gantry's range of motion. Until maintenance work is complete, make sure no one enters the gantry's range of motion.*

1 In the UV Flatbed Controller, select the **Maintenance** menu and click **User Maintenance** - **Move**.

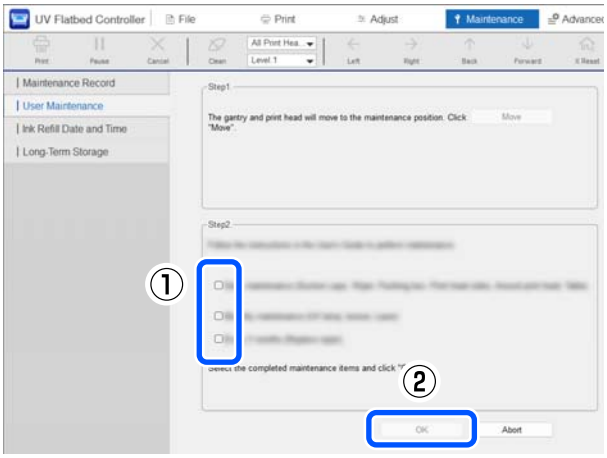
The print head moves to the maintenance position.



2 Insert a cotton swab into the ionizer holes (parts in the illustration) and wipe off ink, lint, and dust that have built up.



3 When cleaning is complete, select the target areas in the UV Flatbed Controller and click **OK**.



The maintenance counter is reset, and the print head moves to the home position.

> ***Note:***
> *If you click **Cancel**, the maintenance counter is not reset.*

Refilling Ink

Before starting this procedure, be sure to read the following:

“Preparation” on page 84

“Cautions when Operating” on page 56

Important:

We recommend using genuine Epson ink bottles to get the full performance from your printer. Using non-genuine products may adversely affect the printer and print quality, and may prevent it from performing to its full potential. We cannot guarantee the quality or reliability of non-genuine products. Repairs for damage or malfunctions caused by the use of non-genuine products will incur a repair fee, even during the warranty period.

You cannot print if even one color's ink level falls below the limit. If you continue to use the printer with low ink levels, you may need to refill ink during printing. If the ink level falls below the limit during printing, printing stops. You can continue printing by refilling the ink for colors that have fallen below the limit. However, if you do refill ink during printing, colors may look different depending on how the ink dries. If this is not acceptable, we recommend refilling ink before printing.

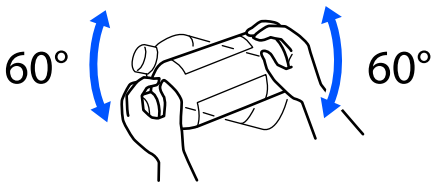
Refill ink using the following procedure.

Procedure

1 Take out the ink bottle of the color you want to refill from the bag, and then shake it as shown in the illustration.

The number of times you shake the bottle depends on the color of the ink.

Ink bottle 1000 ml (33.8 oz)



C, M, Y, BK, GY, R, LM, LC	20 times in 20 seconds
WH	100 times in 100 seconds
Vr	No need to shake

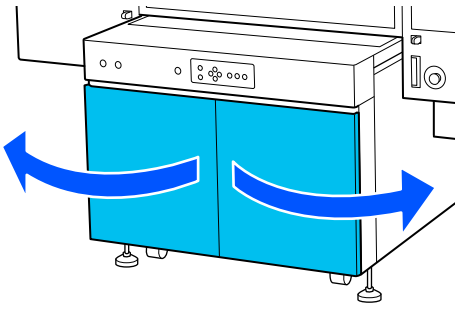
2 With the ink bottle standing upright, slowly turn the cap to remove it.



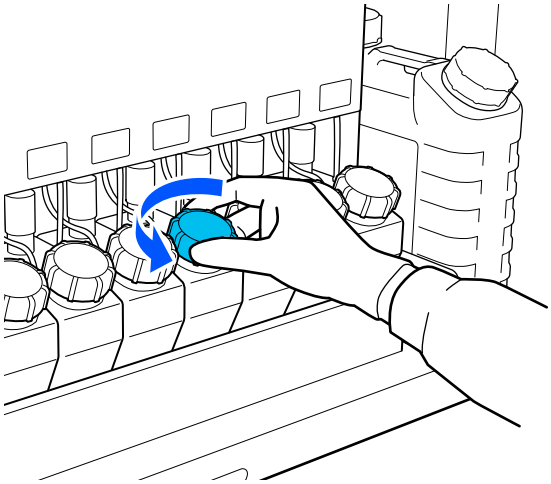
3 Take a firm grip on the ink bottle, and use a spoon-shaped tool to punch a hole in the lid.



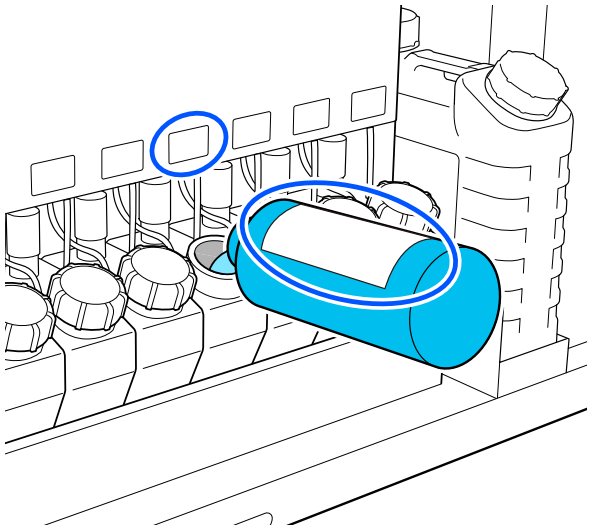
4 Open the left and right covers.



5 Check the color of the ink tank that needs to be refilled, and turn the cap to remove it.



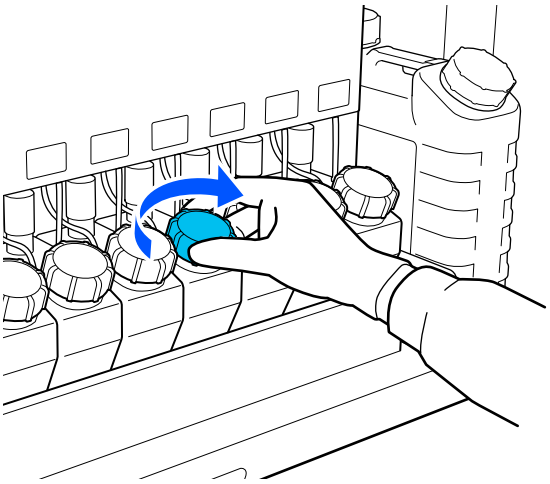
6 Make sure the label color on the ink tank matches the ink bottle, and then refill the ink.



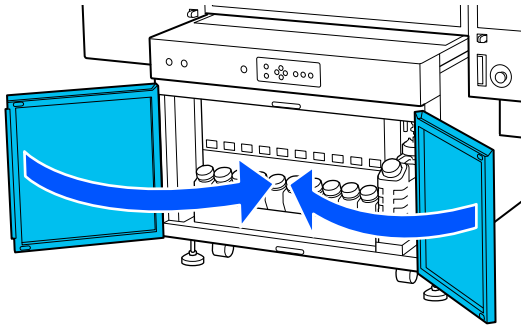
Important:

- ❏ *Do not leave any ink in the ink bottle, instead pour it all into the tank. If ink remains in the ink bottle, use it as soon as possible. Using ink that has been open for a long time can cause print quality to decline.*
- ❏ *If you refill ink when ⚠ or ⛔ is displayed in the ink level information at the bottom of the UV Flatbed Controller screen, a warning sound may occur during refilling. This warning sound indicates that the tank is nearly full. When the warning sound occurs, slow the pouring rate.*

7 Close the ink tank cap.



8 Close the left and right covers.



Disposing of waste ink bottles ☞ "Disposal of Used Consumables" on page 99

Disposing of Waste Ink

When the message **Waste ink bottle is nearly full** is displayed, transfer the waste ink from the waste ink bottle to another container.

If you continue to use it as is, the message **The waste ink bottle is full** will be displayed. You cannot print while this message is displayed.

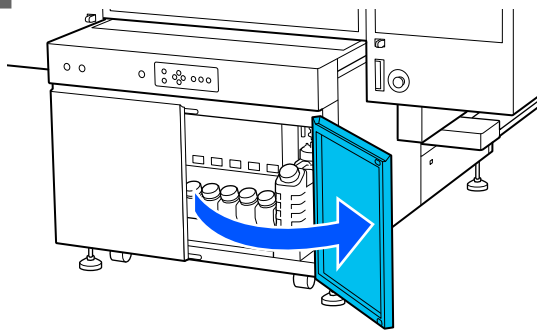
Before starting this procedure, be sure to read the following:

☞ "Preparation" on page 84

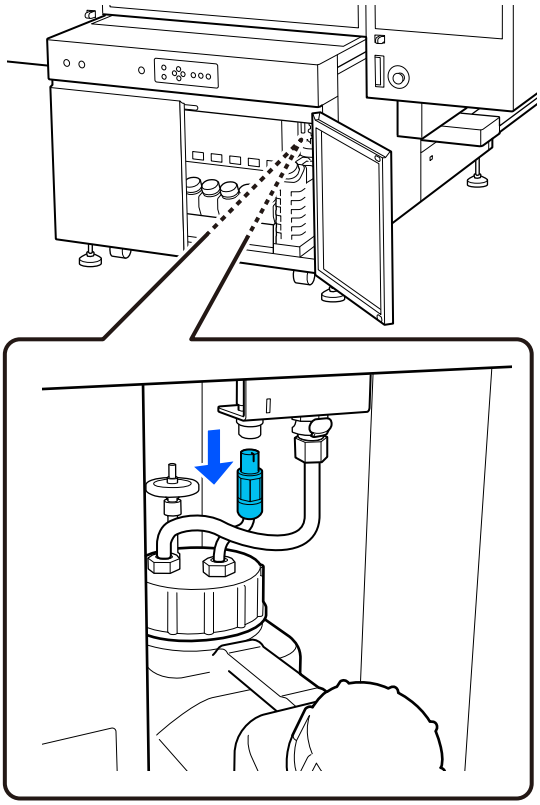
☞ "Cautions when Operating" on page 56

1 Check that the printer is turned on.

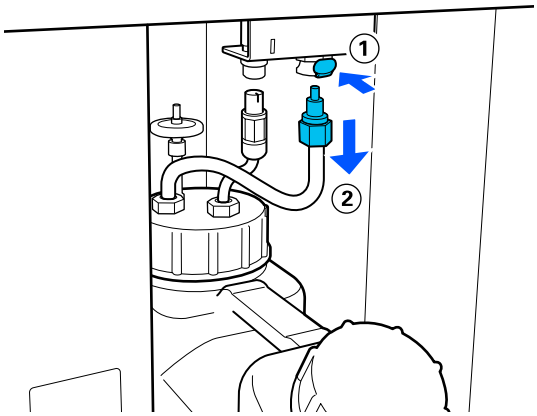
2 Open the right cover.



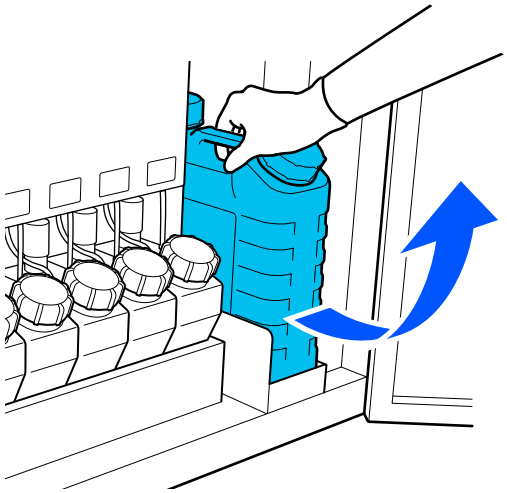
3 Pull the plug down from the left jack.



4 While pressing the part shown in the illustration on the right jack, pull the plug down.



5 Remove the waste ink bottle.



If waste ink has accumulated beyond the yellow tape wrapped around the body of the waste ink bottle, the waste ink bottle is damaged.

In step 7 below, install a new waste ink bottle. If you continue to use a damaged waste ink bottle, waste ink will spill into the surrounding area.

6 Transfer the waste ink to another container.

Note the following points when transferring waste ink to another container.

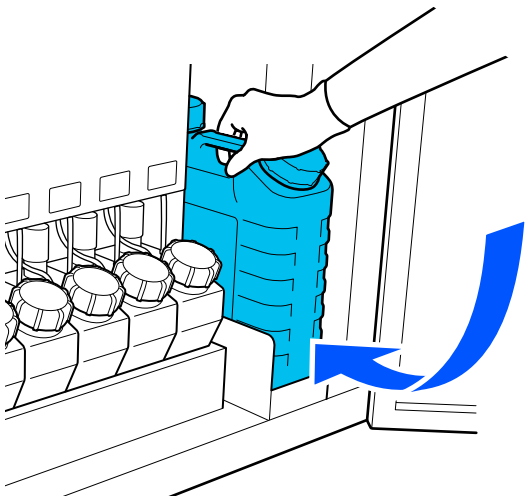
- ❏ *Use a PE container for the destination container.*
- ❏ *Pour carefully. If you pour too vigorously, waste ink may spill or splash.*
- ❏ *Close the lid of the container holding the transferred waste ink tightly and store it in a location away from fire.*
- ❏ *See the following for waste ink disposal.* *"Disposal of Used Consumables" on page 99*

7 Install the waste ink bottle.

Important:

If ink has accumulated in the waste ink bottle, replace it with a new one.

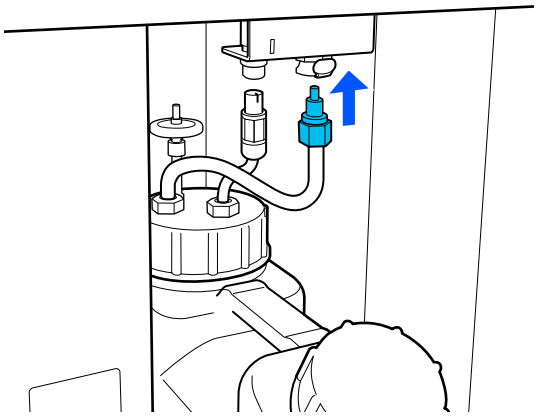
If you continue to use it with accumulated ink, the waste ink amount will not be measured correctly and can cause malfunctions.



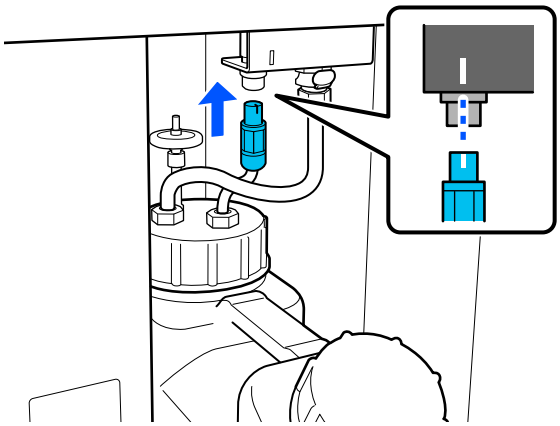
8 Insert the plug of the left cable into the right jack until it clicks.

Be sure to insert the cable plug until it clicks.

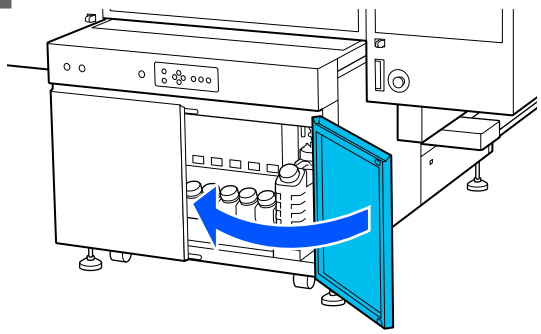
If the plug is not connected correctly, waste ink will spill into the surrounding area.



9 As shown in the illustration below, align the white line on the left jack with the white line on the right cable plug and insert it.



10 Close the right cover.



Replacing the Wiper Unit

Continuing to use a worn-out wiper unit can lead to frequent clogged nozzles and dirty print results.

Before starting this procedure, be sure to read the following:

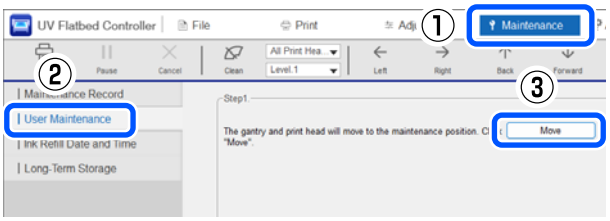
“Preparation” on page 84

“Cautions when Operating” on page 56

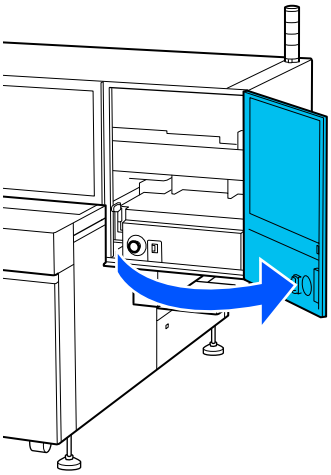
> ***Important:***
> *The gantry may move. Before starting the procedure, make sure no one is in the gantry's range of motion. Until maintenance work is complete, make sure no one enters the gantry's range of motion.*

1 In the UV Flatbed Controller, select the **Maintenance** menu and click **User Maintenance** - **Move**.

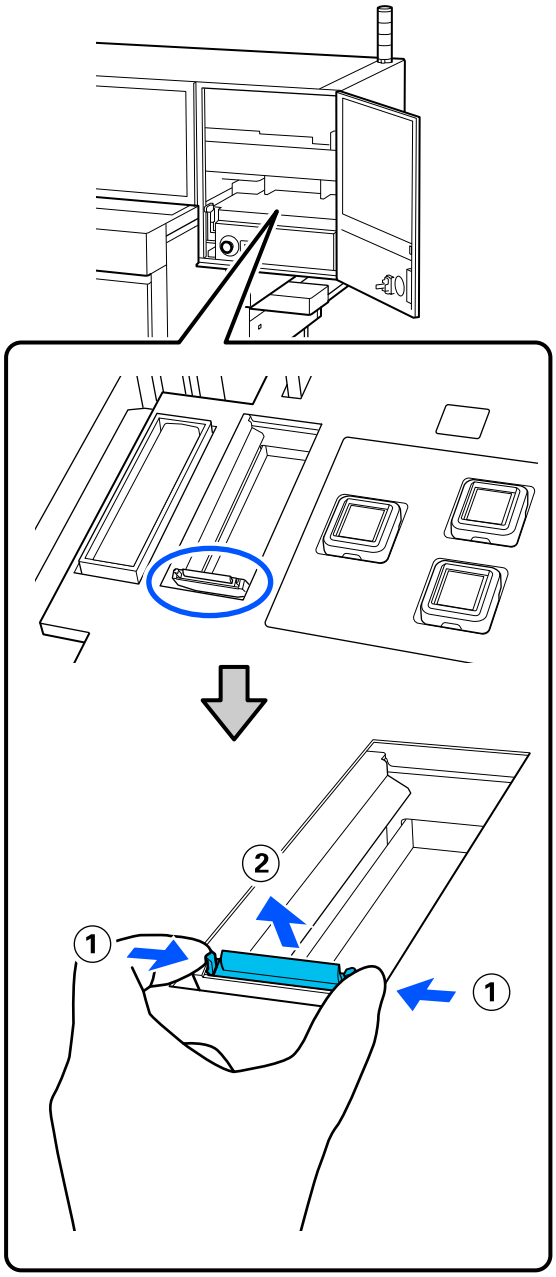
The print head moves to the maintenance position.



2 When the print head stops moving and a message is displayed on the UV Flatbed Controller, open the maintenance cover on the right.

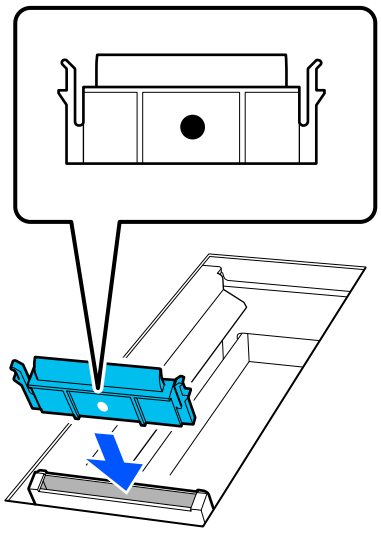


3 Pinch the left and right tabs of the wiper unit, and pull it up to remove it.

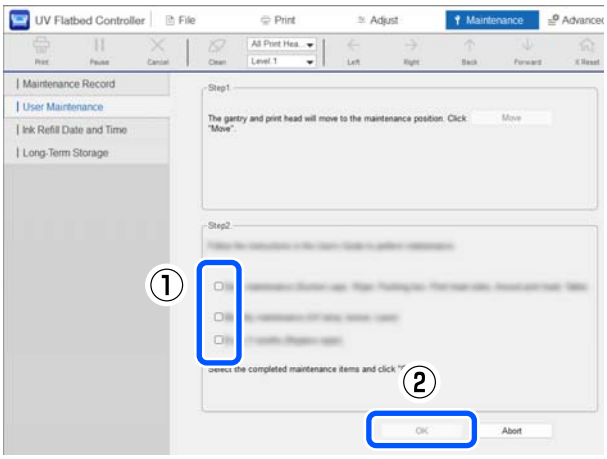


4 Push in the new wiper unit with the side marked with ● facing forward until it clicks.

> **Important:**
> *Be sure to install the wiper unit with the side marked with ● facing forward. Installing it in the wrong direction can cause print quality to decline.*



5 When replacement is complete, select the target areas in the UV Flatbed Controller and click **OK**.



The maintenance counter is reset, and the print head moves to the home position.

> ***Note:***
> *If you click **Cancel**, the maintenance counter is not reset.*

Disposing of used wiper units “Disposal of Used Consumables” on page 99

Cleaning the print head

Checking for Clogged Nozzles

When you want to check the condition of the nozzles before starting work, or when you notice stripes or unevenness in print results, print a check pattern and examine it to assess the condition of the nozzles.

When printing the nozzle check pattern, prepare the following media.

Recommended media

Transparent sheet that supports inkjet printing

Size

A4

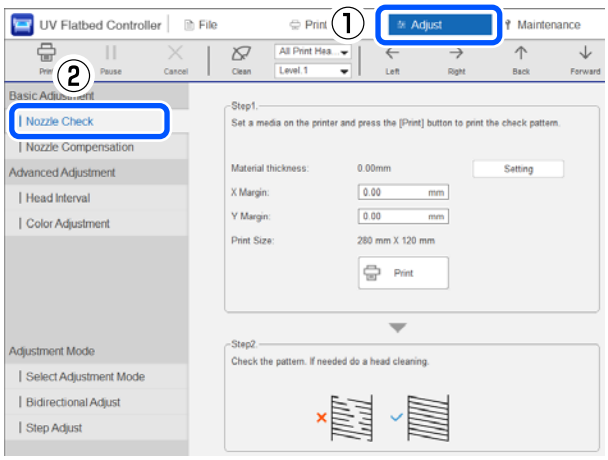
Nozzle check pattern size: Printable size of 280 mm (11.02 in.) wide × 120 mm (4.72 in.) long

Printing a check pattern from the UV Flatbed Controller

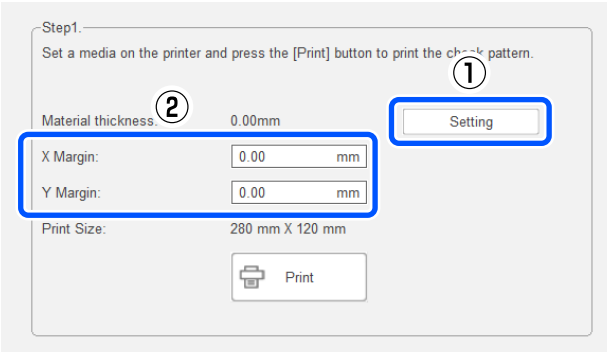
1 Load the media so that it is aligned with the home position in the printable area.

“Loading Media” on page 48

2 Click the **Adjust** menu – **Nozzle Check** in the UV Flatbed Controller.

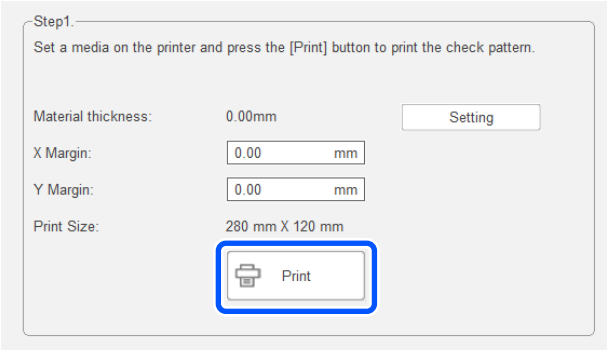


3 Set Thickness Detection to Auto and X Margin and Y Margin to 0 mm.



4 Click **Print**.

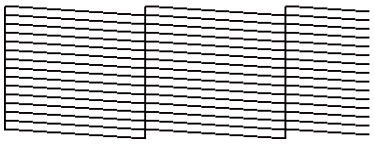
The nozzle check pattern is printed.



5 Check the nozzle check pattern.

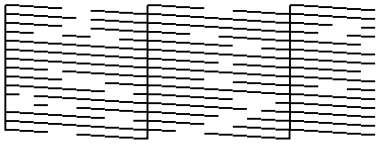
Varnish is printed as a transparent pattern. Check these by using reflected light.

Example of clean nozzles



There are no gaps in the check pattern.

Example of clogged nozzles



Perform print head cleaning if there are gaps in the nozzle check pattern.

“Clearing Clogged Nozzles” on page 95

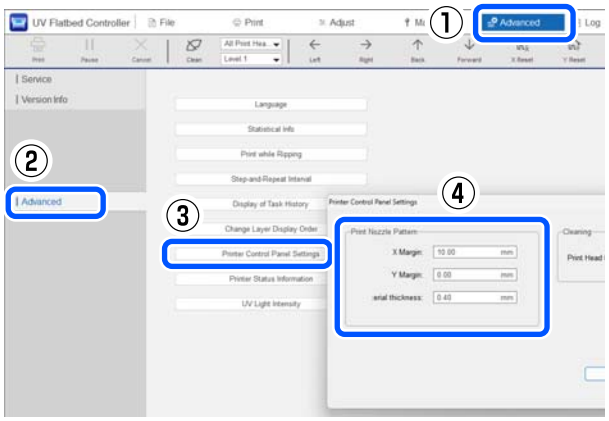
Note:
Even with Nozzle Compensation, the compensated parts of the nozzle check pattern will be missing. If you can determine from actual print results that Nozzle Compensation has cleared the effects of the clogged nozzles, continue using the printer as it is.

Printing a check pattern from the printer's control panel

1 Set the nozzle pattern print position and media thickness in advance in **Advanced** - **Advanced** - **Printer Control Panel Settings** in the UV Flatbed Controller.

When loading media aligned with the home position, set X Margin (left-right) and Y Margin (front-back) to 0.00 mm.

This setting is retained until the next time you change the setting.



2 Load the media so that it is aligned with the home position in the printable area.

☞ "Loading Media" on page 48

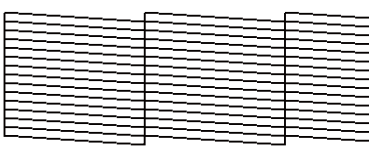
3 Press the ⊙ button on the control panel.

The nozzle check pattern is printed.

4 Check the nozzle check pattern.

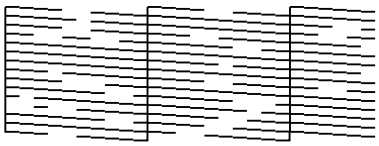
Varnish is printed as a transparent pattern. Check these by using reflected light.

Example of clean nozzles



There are no gaps in the check pattern.

Example of clogged nozzles



Perform print head cleaning if there are gaps in the nozzle check pattern.

☞ "Clearing Clogged Nozzles" on page 95

Note:
Even with Nozzle Compensation, the compensated parts of the nozzle check pattern will be missing. If you can determine from actual print results that Nozzle Compensation has cleared the effects of the clogged nozzles, continue using the printer as it is.

Clearing Clogged Nozzles

Perform print head cleaning if the nozzle check pattern has missing lines, print results have stripes, colors look wrong, or ink drops are falling.

After print head cleaning is complete, print a nozzle check pattern again and check the condition of the nozzles.

Cleaning levels and order

There are four cleaning levels: Level 1 to Level 4.

If there are still gaps when you print a nozzle check pattern after cleaning, try increasing the cleaning level in the following order.

Level 1

↓

Level 2

↓

Level 3

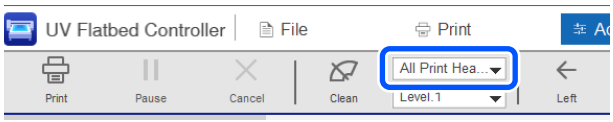
If there are still gaps in the printed nozzle check pattern after performing Level 3

Perform **Level 4**.

Level 4 consumes more ink than other cleaning levels, and cleaning takes longer. Only perform this level after confirming that there is sufficient ink remaining in the ink tanks, and only when clogging is not cleared even after cleaning up to **Level 3**.

Cleaning from the UV Flatbed Controller

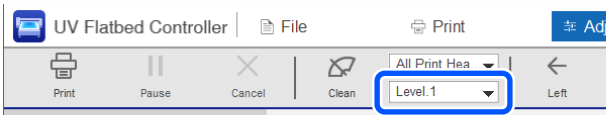
1 Select the color of the print head to be cleaned from the drop-down menu next to the function buttons in the UV Flatbed Controller.



Item	Content
All Print Heads	Select when the check pattern has missing sections or gaps evenly throughout.
Print Head for Color Ink	Select when there are missing sections or gaps other than in the VR and WH columns.
Print Head for White Ink	Select when there are missing sections or gaps only in the WH column
Print Head for Varnish	Select when there are missing sections or gaps only in the VR column

2 Select the cleaning level.

First, select **Level 1**.



3 Click the Clean button.

Cleaning starts.

When cleaning is finished, print a nozzle check pattern to confirm that the clogging has been cleared.

If clogging is cleared

Resume printing.

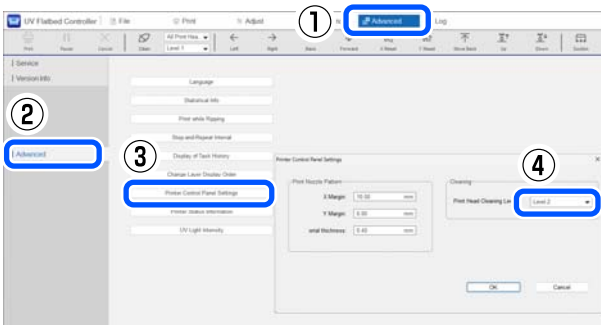
If clogging is not cleared

Perform cleaning at one level higher.

> ***Note:***
> *This printer is equipped with a Nozzle Compensation function that prints by using normal nozzles to compensate for missing ink ejection due to clogged nozzles. When you use Nozzle Compensation, even if nozzles are clogged, it will only have a minimal impact on print results.*
>
> *If clogging is not cleared even after performing **Level 4**, try using Nozzle Compensation.*
>
> *"Nozzle Compensation" on page 76*

Cleaning from the printer's control panel

1 Set the level for **Cleaning** in advance in **Advanced** - **Advanced** - **Printer Control Panel Settings** in the UV Flatbed Controller.



Normally, set **Level 2**.

This setting is retained until the next time you change the setting.

2 Press the ⊗ button on the control panel.

Cleaning starts at the level set in step 1. When cleaning is finished, print a nozzle check pattern to confirm that the clogging has been cleared. If the clogging has been cleared, resume printing.

Cleaning the Vents

Continuing to use the printer when the vents are dirty causes heat to build up inside the printer, and a malfunction may occur.

Before starting this procedure, be sure to read the following:

“Preparation” on page 84

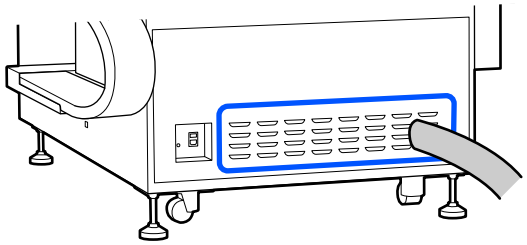
“Cautions when Operating” on page 56

1 Turn off the printer.

“Turning Off” on page 63

> ***Important:***
> *If you clean with the power on, a malfunction may occur.*

2 Use a vacuum cleaner to remove dust from the vents.



Replacing the Mist Filters

Continuing to use the printer when the mist filters are dirty causes heat to build up inside the UV light, and a malfunction may occur.

Before starting this procedure, be sure to read the following:

“Preparation” on page 84

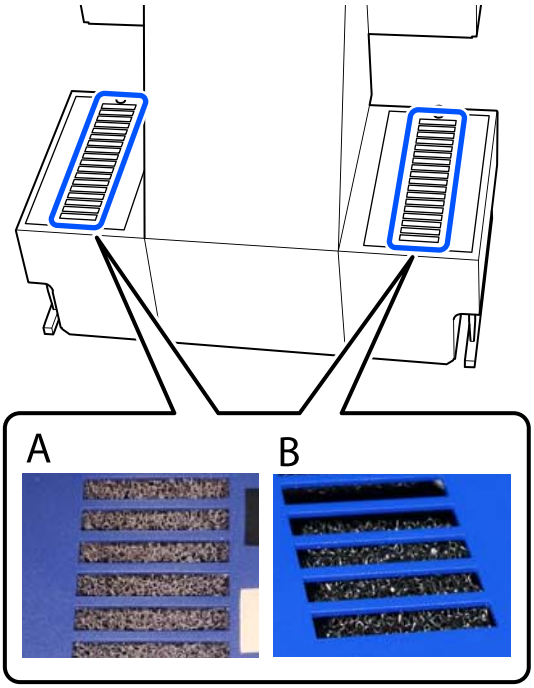
“Cautions when Operating” on page 56

Replacement Time

Check the following photos to determine if replacement is necessary.

A: Replacement is necessary. Ink is adhering to the mist filters.

B: Replacement is not necessary.

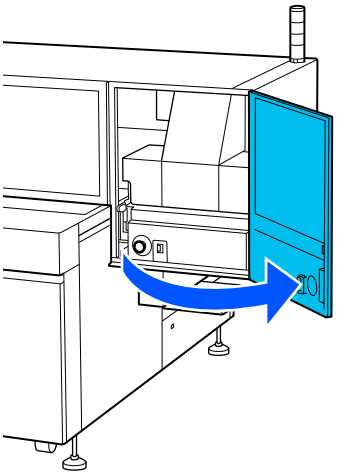


Procedure

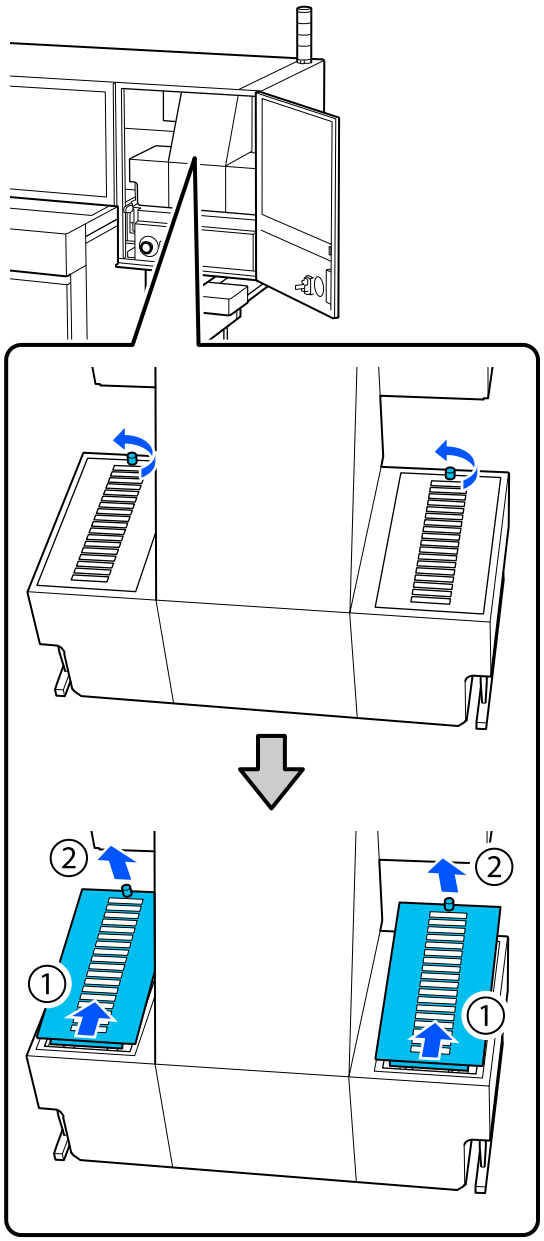
1 Turn off the printer.

“Turning Off” on page 63

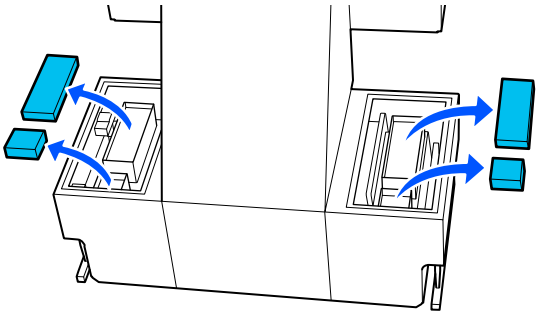
2 Open the maintenance cover on the right.



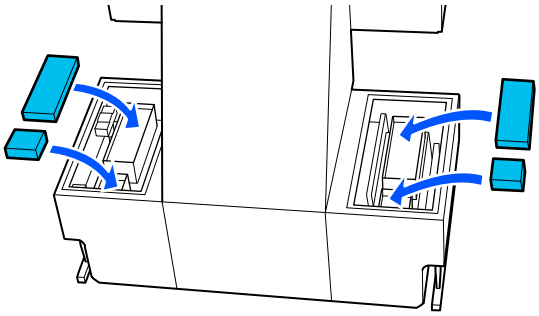
3 Loosen the screws at the locations shown in the illustration and remove the mist filter covers.



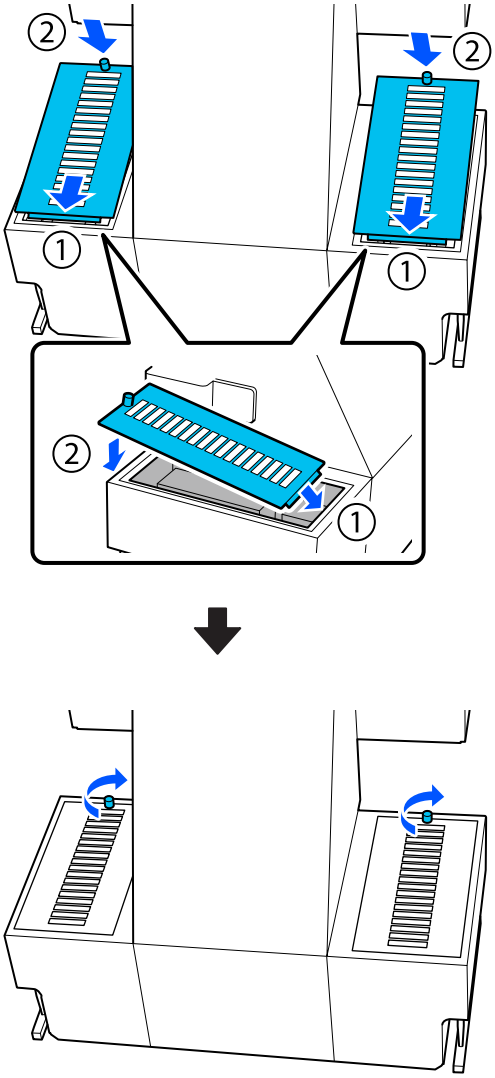
4 Remove the mist filters.



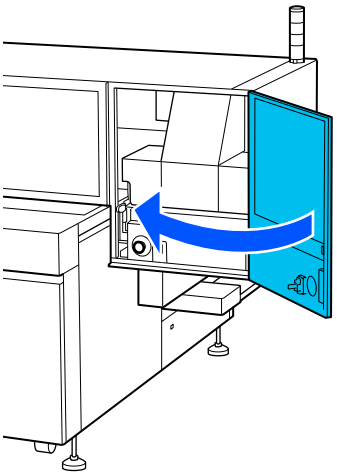
5 Install new mist filters.



6 Replace the covers as shown in the illustration and tighten the screws.



7 Close the maintenance cover on the right.



Disposal of Used Consumables

Disposal

The following used parts on which there is ink are classified as industrial waste.

- ❏ Empty ink bottles
- ❏ Wiper unit
- ❏ Mist filter
- ❏ Cleaning liquid
- ❏ Waste ink
- ❏ Waste ink bottle
- ❏ Cleaning sticks
- ❏ Polyester/nylon knit woven fabric
- ❏ Media after printing

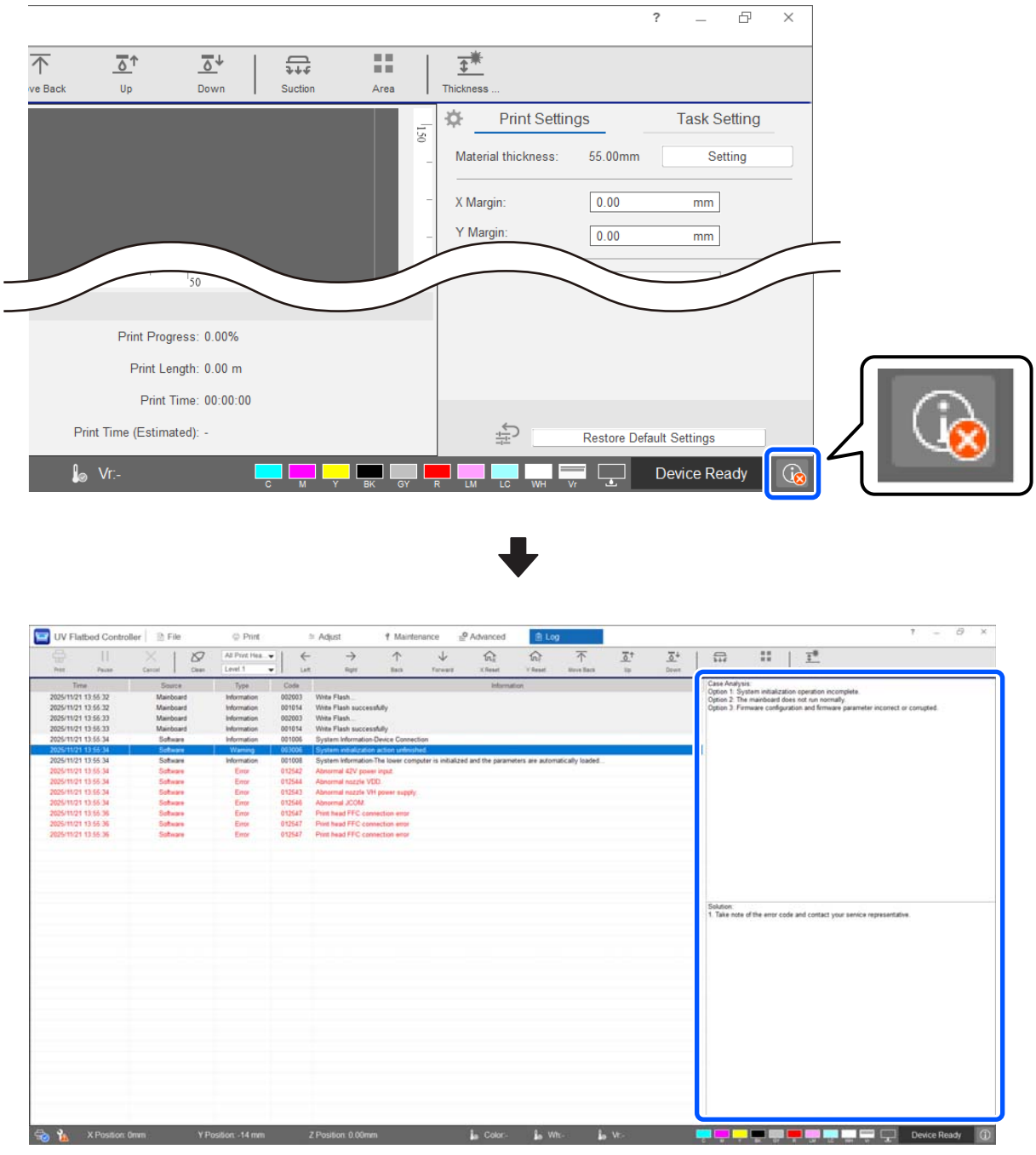
Dispose of tube cleaning liquid according to your local laws and statutes such as entrusting it to an industrial waste disposal company. A material Safety Data Sheet must be submitted to the industrial waste disposal company at the time of commission.

Dispose of items according to local laws and regulations. For example, contract an industrial waste disposal company for disposal. In such cases, submit the “Safety data sheet” to the industrial waste disposal company. You can download it at your local Epson Web site.

Problem Solver

Checking Messages

When a warning or error occurs in the printer, the icon at the bottom right of the UV Flatbed Controller screen changes to (Warning) or (Error). Click the icon to check the content of the message and the solutions.



Troubleshooting

You Cannot Print (Because the Printer Does Not Work)

The printer does not turn on.

■ **Is the power cable plugged into the electrical outlet and the printer?**

Make sure the power cable is securely plugged into the printer.

■ **Is there a problem with the power outlet?**

Make sure your outlet works by connecting the power cable for another electric product.

■ **Has the emergency stop button been pressed?**

Release the emergency stop.

"Releasing an Emergency Stop" on page 19

An error has occurred in the printer.

■ **Check the content of the error and the solutions in the UV Flatbed Controller.**

"Checking Messages" on page 100

■ **Is the message The port for communicating with the software RIP is not available. displayed?**

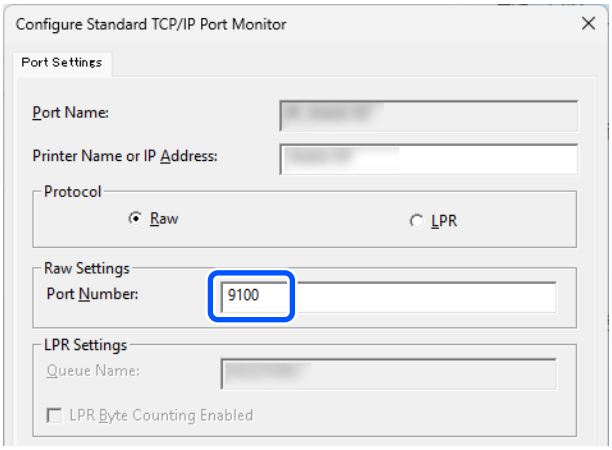
If the message above is displayed when you click at the bottom right of the UV Flatbed Controller screen to display the **Log** screen, Epson edge Print PRO and third-party software are using the same communication port. Follow the steps below to change the communication port used by Epson edge Print PRO.

Changing the communication port

1 On the computer where Epson edge Print PRO is installed, click **Start** - **Settings** - **Bluetooth & devices** - **Printers & scanners** - **SC-V4000** - **Printer properties** to open the SC-V4000 properties screen.

2 Click the **Ports** tab - **Configure Port**.

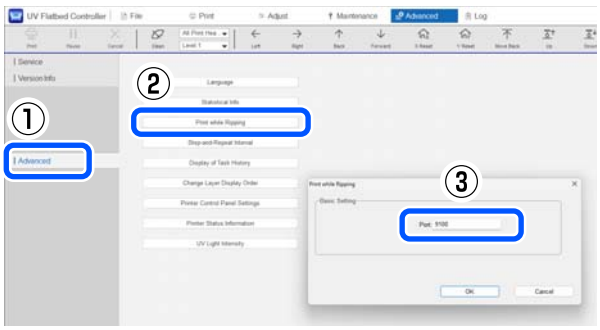
3 Change the **Port** in **Raw Settings** to 9101 or 9102, and then click **OK**.



4 Click **Apply** to close the properties screen.

5 Click **Advanced** from the menu in the UV Flatbed Controller.

6 Click **Advanced** - **Print while Ripping** and enter the port number that you changed in step 3 in **Port**.



7 Click **OK**.

The Printer Operates, but Does Not Print

The print head moves, but does not print.

■ **Check the printer operations.**

Print a nozzle check pattern.

☞ "Cleaning the print head" on page 94

Check the next section if the nozzle check pattern is not printed correctly.

The nozzle check pattern is not printed correctly.

■ **Has the printer been left unused for a long time?**

Print head nozzles may be dried and clogged if the printer is not used for a long time (more than 2 weeks).

Steps to take when the printer has not been used for a long time ☞ "Notes on Long-term Storage" on page 22

■ **Perform print head cleaning.**

The nozzles may be clogged. Perform print head cleaning, and then print a nozzle check pattern again.

☞ "Clearing Clogged Nozzles" on page 95

Print Results Are Not What You Expected

When there is horizontal line misalignment or graininess

This may be improved by performing Bidirectional Adjust in the UV Flatbed Controller.

For Bidirectional Adjust, visually check the printed adjustment pattern and make adjustments. Prepare the following media to print the adjustment pattern.

❏ Transparent sheet for inkjet printing

❏ A size that can print a 110 × 40 mm adjustment pattern

The following outlines the adjustment procedure.

Important:

To adjust correctly, check the following points before printing the adjustment pattern.

❏ *Nozzles are not clogged.*
☞ *"Cleaning the print head" on page 94*

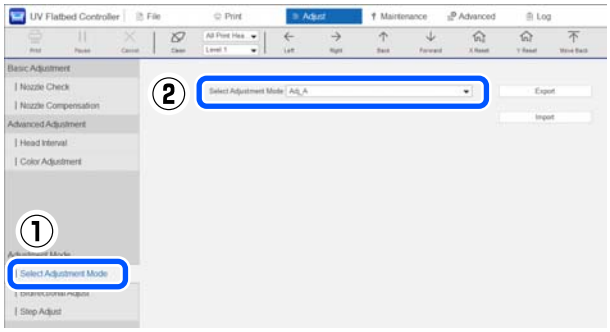
❏ *Check the temperature information at the bottom of the UV Flatbed Controller screen and confirm it has reached the appropriate temperature.*

1 Place the media for printing the pattern on the flatbed.

☞ "Loading Media (For Flat Media such as Acrylic Board and Film)" on page 48

2 Click **Adjust** from the menu.

3 Click **Select Adjustment Mode** from **Adjustment Mode** and select the adjustment mode according to the print mode of the target print job.

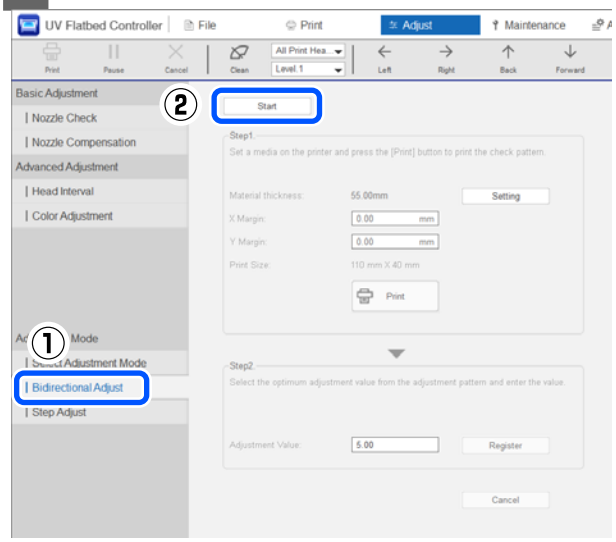


See the table below for the relationship between the Print Mode and Adjustment Mode.

Print Mode	Adjustment Mode
High Speed Adj_A	Adj_A
Speed 600x600 Adj_A	Adj_A
Production 600x900 Adj_A	Adj_A
Quality 600x1200 Adj_A	Adj_A

Print Mode	Adjustment Mode
High Quality 600x1200 Adj_C	Adj_C
WG High Speed 300x600 Adj_C	Adj_C
WG Speed 600x600 Adj_C	Adj_C
WG Production 600x900 Adj_C	Adj_C
WG Quality 600x1200 Adj_C	Adj_C
WG High Quality 600x1200 Adj_H	Adj_H

4 Click **Bidirectional Adjust** - **Start**.



5 Click **Setting** from **Thickness Detection** to select whether to perform print head height adjustment using **Auto** or **Manual**, and then click **OK**.

See the following for detailed instructions on adjusting the print head height.

“Print Settings” on page 51

When you select **Auto**, Thickness Detection begins. Wait until the measurement is complete.

6 Set the print start position (**X Margin** (left-right) and **Y Margin** (front-back)) to 0.00 mm.

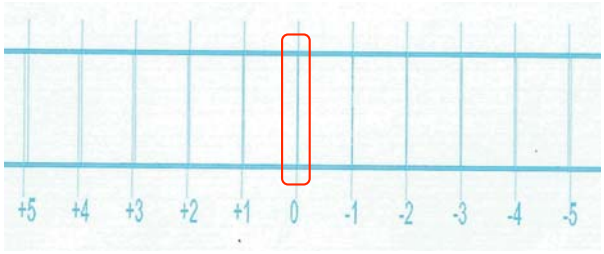
7 Click .

The adjustment pattern starts printing.

Wait until printing is complete.

8 Check the printed adjustment pattern and enter the adjustment value.

The "0" line in the adjustment pattern (the vertical line in the red box) is straight, which is normal.



For example, if the "0" line is not straight and the "+1" line is the straightest, add "+1" to the number already entered in **Adjustment Value**, and enter that value.

<Example>

Screen value: 25.50

Value selected for the pattern: +1

Entered value: 26.50

9 Click **Register** to register the adjustment value you entered.

When the ink or varnish is not sufficiently cured

When the ink or varnish is not sufficiently cured, perform additional UV light curing after printing is complete.

The following outlines the procedure for additional curing.

When additional UV light curing is performed during printing

1 Load the media on the flatbed.

“Loading Media (For Flat Media such as Acrylic Board and Film)” on page 48

“Loading Media (for Media with Spherical or Curved Surfaces)” on page 50

2 Click **Print** from the UV Flatbed Controller menu to move the job for additional curing from **Task History** to **Print Task List**.

Double-click the image area of the target job.

3 From **Print Settings**, select **Enable** in **After Cure** and perform printing.

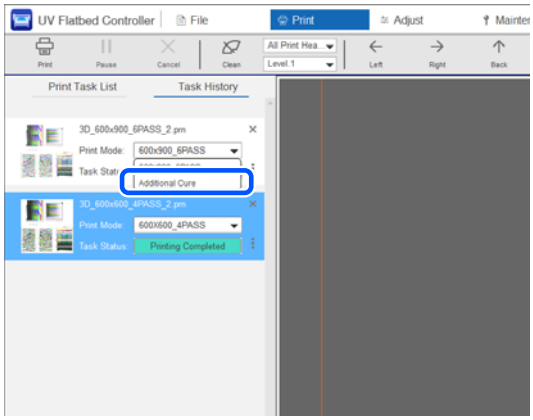
After printing, additional UV light curing starts.

When additional UV light curing is performed after printing is complete

After printing, perform additional UV light curing only while the media remains placed on the flatbed.

1 Click **Print** from the UV Flatbed Controller menu, and then select the target job in **Task History**.

2 Select **Additional Cure** from the **Print Mode** drop-down menu and execute **Print**.



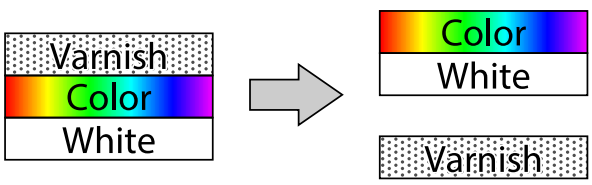
3 Click to print.

UV irradiation begins.

If varnished surfaces are noticeably rough

Instead of printing the color layers and varnish layer in a single job, print them as separate jobs.

For example, for the three-layer multi-layer print job shown below, split it into two jobs: one for varnish and one for the other layers, and then print them.



The following outlines the workflow.

Create two jobs in Epson edge Print PRO: one for varnish and one for the other layers

The following outlines the procedure for creating two jobs.

① Add the file to be printed to the Job List

② Make the necessary print settings in **Basic Settings** and print

Select the file printed in ② from the ③ printed job list and move it to the Job List

④ Select **Number and Order of Layering** and **Single Layer (Varnish Only)** from **Basic Settings**

⑤ Set **Density Control** to 100% in **Color Settings**

⑥ Select **Whole Area** or **Image** in **Creating Method** from **Multi Layer Print**, and then print

To view the manual, on the Epson edge Print PRO main screen, click the Help menu - **Help**.

Print received jobs in the UV Flatbed Controller

Print the color job and then the varnish job on the same media in that order.

"Basic Operations" on page 36

Varnish print quality is poor

■ **Are you using a print mode that does not support varnish printing?**

The following Print Mode does not support varnish printing.

Fine Production Adj_B, Fine Standard Adj_C, Fine Quality Adj_H, Fine Quality Adj_B, Fine High Quality Adj_H

When unevenness occurs

You can reduce print unevenness by making **Fuzzy mode** settings in **Print Settings** in the UV Flatbed Controller. However, the print quality will be reduced.

1 Click **Print** from the menu.

2 Select the target print job in **Print Task List**.

3 Select **Professional Settings** in **Print Settings**.

4 Select the level in **Fuzzy mode**.

First, select **Level 1**.

If you feel unevenness has not improved after reprinting, repeat steps 1 to 4 and select **Level 2**.

If you feel unevenness has not improved after reprinting, repeat steps 1 to 4 and select **Level 3**.

Note that selecting **Close** prints the data as it is without applying fuzzy effects.

Normally, keep this set to **Auto**.

When white text or lines appear blurry

If you notice that white text or lines appear blurry when printing with white ink, you can improve their clarity by adjusting the **White Text Quality** setting in **Print Settings**.

1 Click **Print** from the menu.

2 Select the target print job in **Print Task List**.

3 Select **Professional Settings** in **Print Settings**.

4 Select the level in **White Text Quality**.

The default is **Level 1**, so try selecting **Level 2**.

If you feel blurriness has not improved after reprinting, repeat steps 1 to 4 and select **Level 3**.

When banding occurs

When banding (horizontal banding, tint unevenness, or stripes) occurs in print results, perform **Step Adjust** in **Adjust** to adjust the gantry feed rate.

For **Step Adjust**, visually check the printed adjustment pattern and make adjustments. Prepare the following media to print the adjustment pattern.

- ❏ Transparent sheet for inkjet printing
- ❏ A size that can print a 265 × 40 mm adjustment pattern

The following outlines the adjustment procedure.

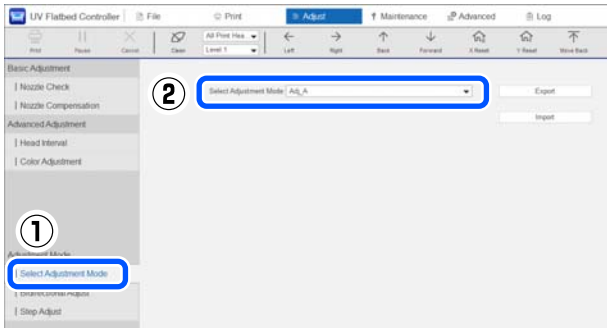
> ***Important:***
> *To adjust correctly, check the following points before printing the adjustment pattern.*
> - ❏ *Nozzles are not clogged.*
> *"Cleaning the print head" on page 94*
> - ❏ *Check the temperature information at the bottom of the UV Flatbed Controller screen and confirm it has reached the appropriate temperature.*

1 Place the media for printing the pattern on the flatbed.

"Loading Media (For Flat Media such as Acrylic Board and Film)" on page 48

2 Click **Adjust** from the menu.

3 Click **Select Adjustment Mode** from **Adjustment Mode** and select the adjustment mode according to the print mode of the target print job.

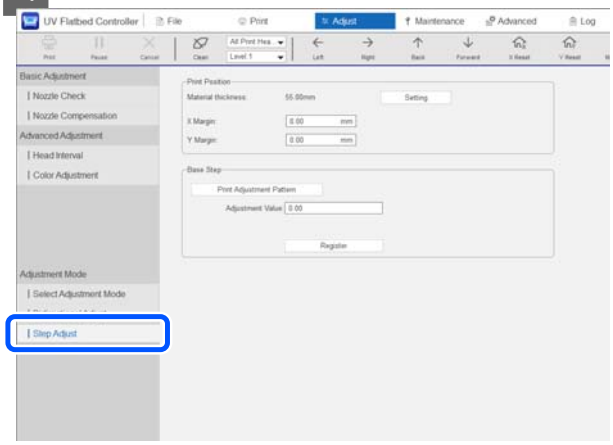


See the table below for the relationship between the Print Mode and Adjustment Mode.

Print Mode	Adjustment Mode
High Speed Adj_A	Adj_A
Speed 600x600 Adj_A	Adj_A
Production 600x900 Adj_A	Adj_A
Quality 600x1200 Adj_A	Adj_A
High Quality 600x1200 Adj_C	Adj_C

Print Mode	Adjustment Mode
WG High Speed 300x600 Adj_C	Adj_C
WG Speed 600x600 Adj_C	Adj_C
WG Production 600x900 Adj_C	Adj_C
WG Quality 600x1200 Adj_C	Adj_C
WG High Quality 600x1200 Adj_H	Adj_H

4 Click **Step Adjust**.



5 Click **Setting** from **Thickness Detection** to select whether to perform print head height adjustment using **Auto** or **Manual**, and then click **OK**.

See the following for detailed instructions on adjusting the print head height.

"Print Settings" on page 51

When you select **Auto**, Thickness Detection begins. Wait until the measurement is complete.

6 Set the print start position (**X Margin** (left-right) and **Y Margin** (front-back)) to 0.00 mm.

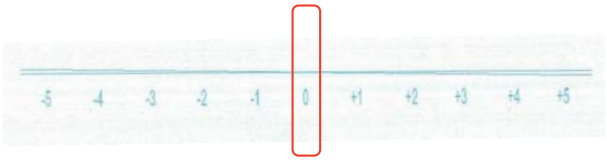
7 Click **Print Adjustment Pattern**.

The adjustment pattern starts printing.

Wait until printing is complete.

8 Check the printed adjustment pattern and enter the adjustment value.

Check the number with the least amount of deviation from the reference line (horizontal line). In the following illustration, this is "0".



For example, if "+1" had the least amount of deviation instead of "0", add "+1" to the number already entered in **Adjustment Value**, and enter that value.

<Example>

Screen value: 0.00

Value selected for the pattern: +1

Entered value: 1.00

9 Click **Register** to register the adjustment value you entered.

When ink droplets are sprayed like a mist making images unclear

■ **Is the media charged with static electricity?**

This printer uses a built-in ionizer to remove static electricity from the printing surface during printing. However, if the media is charged with an excessive amount of static electricity that cannot be removed entirely, the landing positions of ink droplets become disrupted, resulting in unclear print results. When printing on such media, use commercially available anti-static agents or ionizers beforehand to remove static electricity from the printing surface. Use an anti-static agent that is suitable for the media material.

When the surface looks uneven or appears to have air bubbles

■ **Are you printing on dusty media?**

When printing on dusty media, ink may be drawn to the dust, causing an uneven surface.

If there is dust on the media surface, wipe it off with a commercially available anti-static cleaner before printing. Use an anti-static agent that is suitable for the media material.

Size of Print Data and Print Results Do Not Match/Step & Repeat Print Position has Shifted

The following outlines the workflow.

Measure the print area of the print results with a tape measure

If printing was performed with the media print position not aligned to the home position (0,0), reprint with the print start position aligned to the home position (0,0), and then measure those results.

↓

Calculate the correction values in Epson edge Print PRO and create a print job with the corrections applied

↓

Perform printing on the printer

When printing, place the media so that the print position aligns with the home position (0,0).

The following provides detailed instructions.

1. Measure the image size of the print results.

   Measure the width and height of the image in mm.

   If printing was performed with the media print start position not aligned to the home position (0,0), reprint with the print start position aligned to the home position (0,0), and then measure those results.

2. Calculate the correction values in Epson edge Print PRO, create print data (RIP file) with the corrections applied, and then execute **Print**.

   See the following for detailed instructions.

   ☞Epson edge Print PRO*Operation Guide*"When the Size of the Print Data and the Print Results are Different"

3. Place the media you want to print on the printer's flatbed.

   Make sure the media is placed so that the print start position is aligned with the home position (0,0).

   ☞ "Loading Media (For Flat Media such as Acrylic Board and Film)" on page 48

   ☞ "Loading Media (for Media with Spherical or Curved Surfaces)" on page 50

4. Select the target print job in **Print Task List** from the print menu in the UV Flatbed Controller.

5. Enter 0.00 in **X Margin** (left-right) and **Y Margin** (front-back) from **Print Settings**, and then print.

Switching between Print Task List and Task History in the UV Flatbed Controller takes time

When there are too many jobs registered in **Print Task List** and **Task History**, it takes time to display the job list when you select **Print** on the UV Flatbed Controller menu and switch from **Print Task List** to **Task History** or the other way around.

Use the following procedure to delete unnecessary jobs.

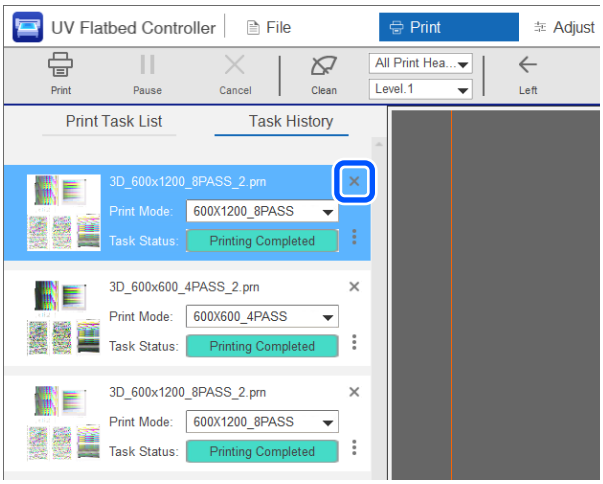
We recommend organizing so that the total number of combined jobs in **Print Task List** and **Task History** is 100 or fewer.

The deletion procedure is the same for **Print Task List** and **Task History**. This procedure explains how to delete from the **Task History** list.

Deleting jobs one at a time

1. Click **Task History**.

2 Click ✕ at the top-right corner of the job you want to delete in the list.



3 A confirmation screen is displayed; click **Yes**.

Repeat steps 2 and 3 to delete each job.

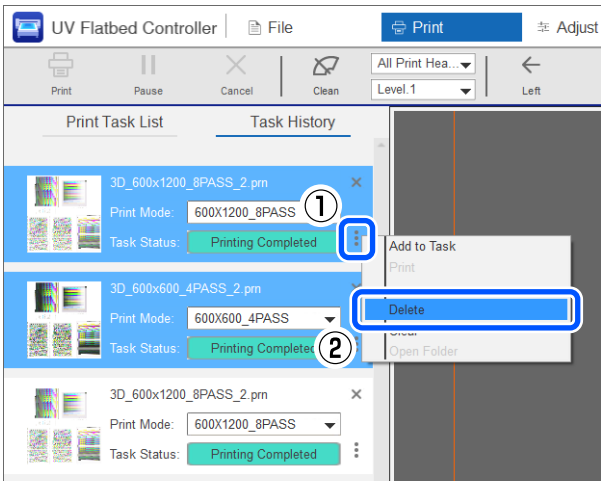
Deleting multiple jobs at once

1 Click **Task History**.

2 Select the jobs you want to delete from the list.

As with normal file selection, hold down the Shift key or Ctrl key and select the target jobs.

3 Click ⋮ on the right side of any job and click **Delete** in the menu displayed.



4 A confirmation screen is displayed; click **Yes**.

Appendix

Options and Consumable Products

The following options and consumable products are available for use with your printer. (As of December, 2025)

For the latest information, see the Epson Web site.

Ink Bottles

Name	Part Number	Notes
Black	C13T52C100	
Cyan	C13T52C200	
Magenta	C13T52C300	
Yellow	C13T52C400	
Light Cyan	C13T52C500	
Light Magenta	C13T52C600	
Gray	C13T52C700	
Red	C13T52C900	
White	C13T52CA00	
Varnish	C13T52CV00	

Epson recommends the use of genuine Epson ink bottles. Epson cannot guarantee the quality or reliability of nongenuine ink. The use of non-genuine ink may cause damage that is not covered by Epson's warranties, and under certain circumstances, may cause erratic printer behavior.
Information about non-genuine ink levels may not be displayed, and use of non-genuine ink is recorded for possible use in service support.

Maintenance Items

Product name	Product number	Explanation
Wiper Unit	C13S400275	The same as the wiper unit supplied with the printer.
Mist Filter	C13S400274	The same as the mist filter supplied with the printer.
Waste Ink Bottle	C13S400273	The same as the waste ink bottle supplied with the printer. 1 item.
Cleaning Stick	C13S090013	Use these to clean around the print head and other areas.

Appendix

Product name	Product number	Explanation
Cleaning	C13T49V010/ C13T52B080*	Use this to clean the area around the print head. (In this guide, this item is described as "cleaning liquid".)
Cleaning(small)	C13T52AL00/ C13T51RL80*	Use this to clean the area around the print head. (In this guide, this item is described as "cleaning liquid".)

* The product number may differ depending on your region.

Moving and Transporting

The definitions of moving and transporting are explained in the following table.

Moving	Changing the installation location on the same floor without having to use any steps.
Transporting	Changing the installation location to another floor or building. This includes situations in which the printer is outsourced to a carrier.

Notes When Moving or Transporting the Printer

Contact your local dealer or Epson support for assistance.

System Requirements

Each software can be used in the following environments. (As of December, 2025)

The supported operating systems may change.

For the latest information, see the Epson Web site.

UV Flatbed Controller

Operating systems (OS)	Windows 11 Windows 10 x 64
CPU	Intel Core i7 2.0 GHz or faster
Free memory	8 GB or more/4th generation
Storage	SSD 100 GB or more
Display resolution	Full HD (1920 x 1080) recommended

Epson Edge Print PRO

Operating environment

Operating systems (OS)	Windows 11 Windows 10 x 64
CPU	Intel Core i3 3.0 GHz or faster (released after April 2014)
Available memory capacity	8 GB or more
Storage (free space during installation)	50 GB or more
Display resolution	1280 x 1024 or better
Communication interface	Hi-Speed USB Ethernet 100Base-TX/1000Base-T

The computer on which this software is installed is expected to be able to simultaneously use other applications, such as Adobe Illustrator. Therefore, we recommend using a computer with the highest specifications available.

In addition, the data that this software handles is normally several GB, and could reach several tens of GB for long, high-quality print jobs. Because of this, we recommend a computer that has storage with sufficient free memory.

The following is the recommended environment for using this software.

Recommended environment

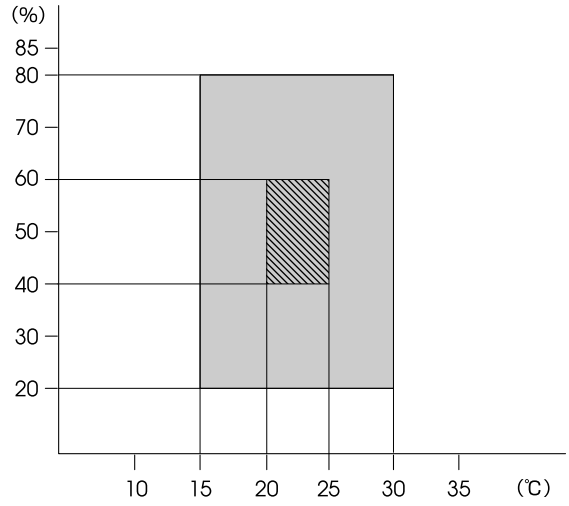
Operating systems (OS)	Windows 11 Windows 10 x 64

Appendix

CPU	Intel Core i7-14700 processor or faster
Available memory capacity	32GB or more
Storage (free space during installation)	SSD 1 TB or more
Display resolution	1280 x 1024 or better
Communication interface	Hi-Speed USB Gigabit Ethernet

Specifications Table

Printer Specifications	
Printing method	On-demand ink jet
Nozzle configuration	
Except White and Varnish	400 nozzles × 2 rows × 4 chips 8 colors (Black, Cyan, Magenta, Yellow, Light Cyan, Light Magenta, Gray, Red)
White, Varnish	400 nozzles × 2 rows × 4 chips
Resolution (maximum)	600 x 1200 dpi
Platen feed method	Gantry type
Built-in memory	1 GB
Interface	
USB	SuperSpeed USB
Rated voltage	AC 115–120 V (for U.S. and Canada) AC 100–240 V (for other regions)
Rated frequency	60Hz (for U.S. and Canada) 50 / 60Hz (for other regions)
Rated short-circuit current	5 kA
Rated current	10 A or less
Temperature	Recommended: 20 to 25˚C (68 to 77˚F) Operating: 15 to 30˚C (59 to 86˚F) Storage (before ink filling): -20 to 40˚C (-4 to 104˚F) (within 96 hours at -20˚C [-4˚F], within 1 month at 40˚C [104˚F], within 120 hours at 60˚C [140˚F]) Storage (after ink filling): -20 to 40˚C (-4 to 104˚F) (within one month at 40˚C /104˚F)
Humidity (without condensation)	Recommended: 40 to 60% Operating: 20 to 80% Storage: 5 to 85%

Printer Specifications	
Operating temperature/humidity Gray area: When in use Diagonal line area: Recommended  	
Sound pressure level	When printing: Less than 60 dB(A)
Dimension	(W) 2100 × (D) 1600 × (H) 1255 mm ([W] 82.7 x [D] 63.0 x [H] 49.4 in.)
Weight (Without ink)	Approx. 602 kg (approx. 1,327 lb)

Important:

Use this printer at altitudes below 2000 m (6562 ft.).

Ink Bottle Specifications	
Type	Dedicated ink bottles
Types of ink	UV-curable ink
Printing guarantee period	Expiration date on ink bottle (stored at room temperature)

Appendix

Ink Bottle Specifications	
Temperature	When packed for transport: -30 to 60˚C (-22 to 140˚F) (Within 24 hours at -30 to -10˚C [-22 to 14˚F], within 1 month at -10 to 40˚C [14 to 104˚F], within 120 hours at 50˚C [122˚F], and within 24 hours at 60˚C [140˚F]) When packed for storage: -30 to 40˚C (-22 to 104˚F) (Within 24 hours at -30 to -20˚C [-22 to -4˚F] and within 1 month at 30 to 40˚C [86 to 104˚F]) Ink freezing temperature: -30˚C (-22˚F) or colder
Capacity	1000 ml (33.8 oz)