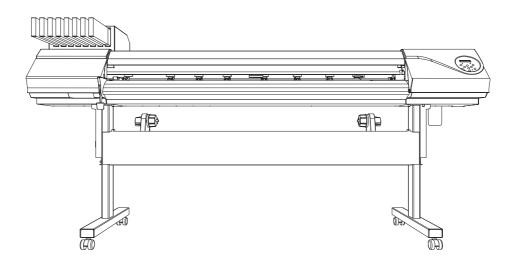
## 



# **VS-640i VS-540i VS-300i** USER'S MANUAL



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This document is the Use's Manual for four models: VS-640i/540i/300i. This document uses the following notation to distinguish between the four models where necessary. VS-640i — 64-inch model VS-540i — 54-inch model VS-300i — 30-inch model

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

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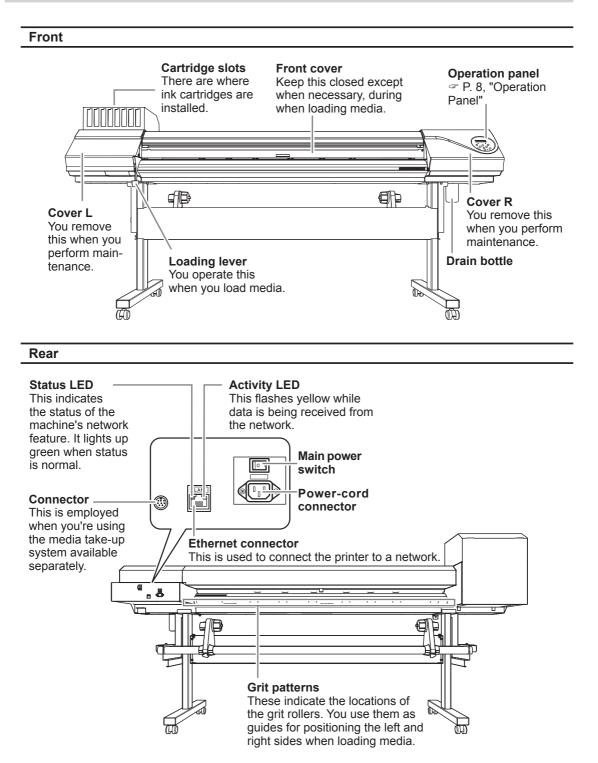
http://www.rolanddg.com/

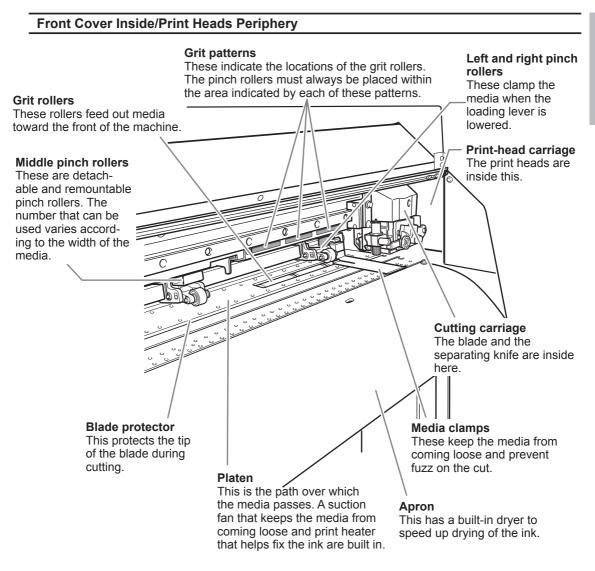
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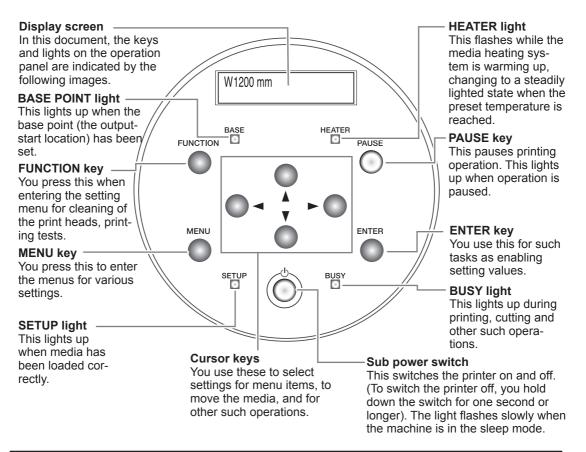
## **Part Names and Functions**

**Printer Unit** 



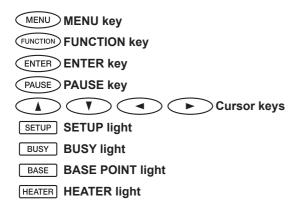


### **Operation Panel**

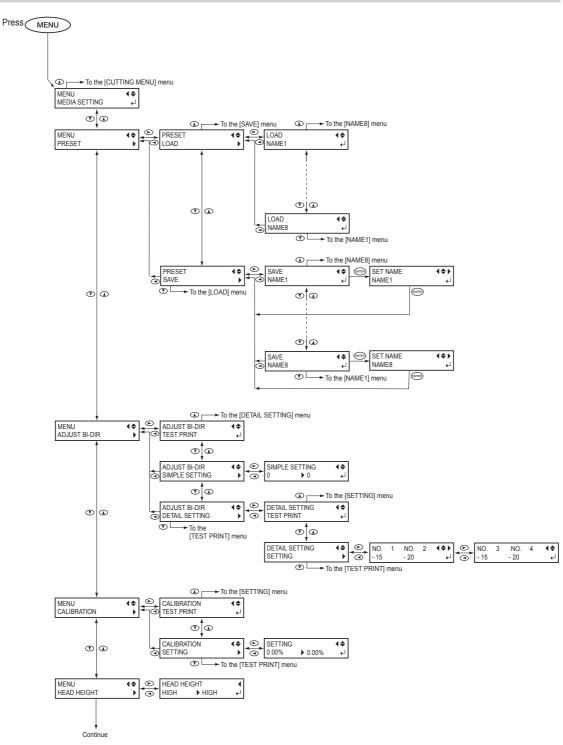


### **Panel Notation**

In this document, the keys and lights on the operation panel are indicated by the following illustration.

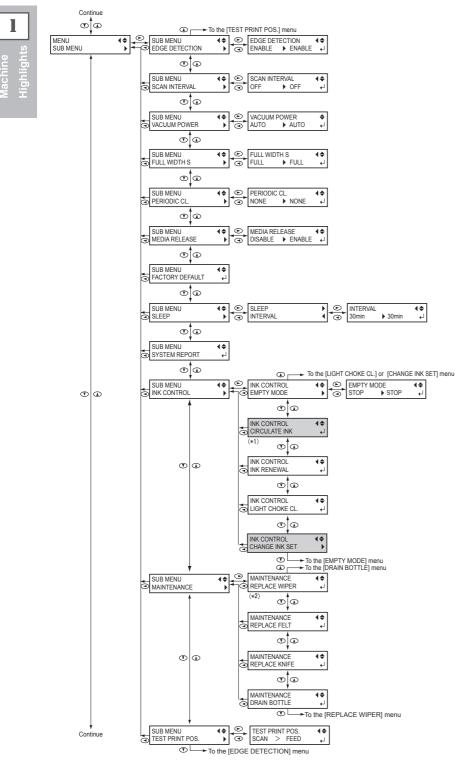


Main Menu

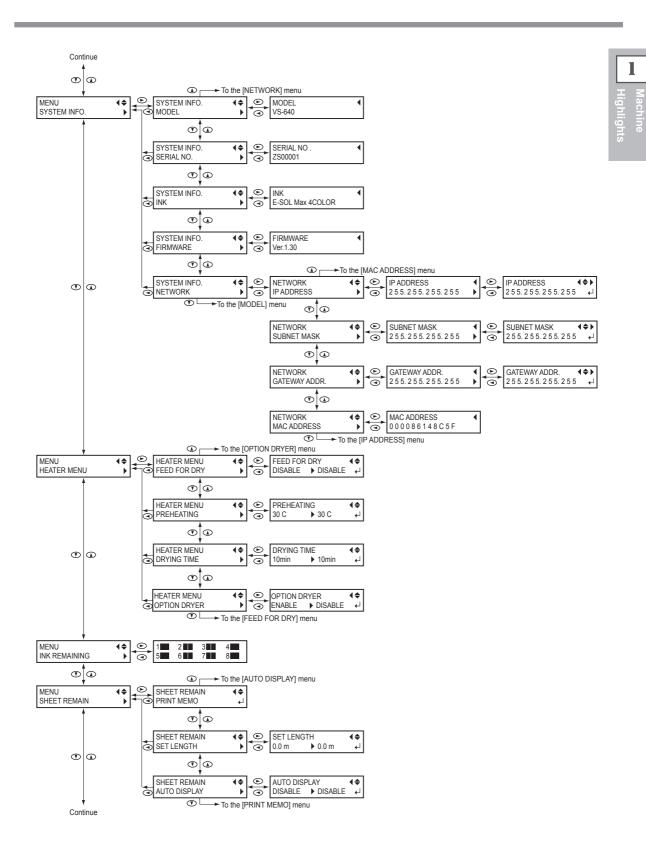


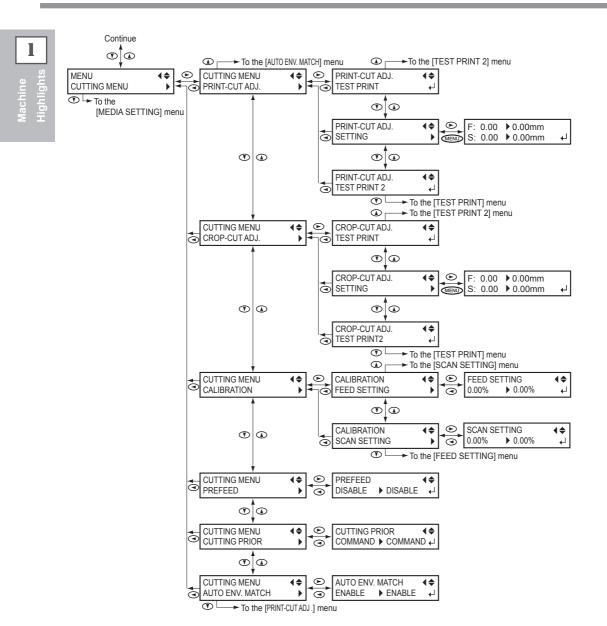
Machine Highlights

### Menu List



- (\*1) This menu is displayed only when the ink mode is CMYKLcLmW (W mode), CMYKLcLmLkMT (MT mode), or CMYKLcLmWMT (WMT mode).
- (\*2)This menu is only displayed when "E-SOL MAX2 4 C", "E-SOL MAX2 7 C", "E-SOL MAX2 LkW", "E-SOL MAX2 LkW", "E-SOL MAX2 WMT" is selected for the ink type.





### Language and Unit Menu

While holding down (MENU, switch on the sub power.

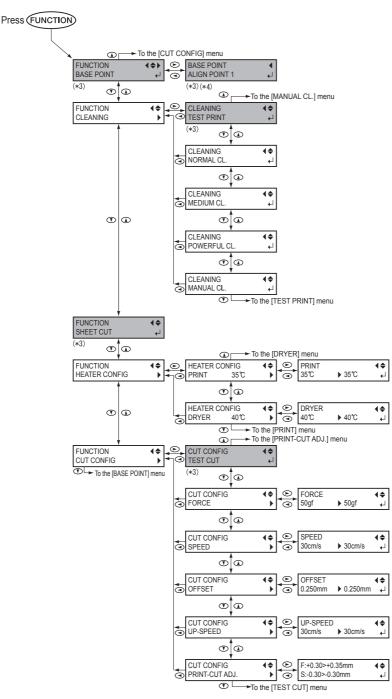
TEMP UNIT

▶\*C

**\$** ↓

Highlights

## **Function Menu**



(\*2) This is not displayed when no media is loaded (that is, when SETUP is dark).

(\*3) This is not displayed when base point is not set.

(\*4) This is displayed when no media is loaded (that is, when SETUP is dark) or when the width of the media is displayed after the media has been loaded.

(\*5) This is not displayed when PAUSE is not pressed.

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## **Prepare the Media**

## **Type of Media**

In this manual, the paper used for output is called "media." There are the following main two media types used in this machine.

- > Roll media: Media wound onto a paper tube
- > Sheet media: Media not wound onto a paper tube such as standard-size media

Various paper quality types of roll media and sheet media are selectable according your purpose. For detailed information about each media, contact your media supplier. Media is also available from our following website.

http://www.rolanddg.com/

### **Usable Media**

This machine cannot necessarily print every kind of media. When selecting media, be sure to carry out testing in advance to make sure that satisfactory printing quality is obtained.

### Size

### Width (for both roll media and sheet media)

64-inch model: 210 to 1,625 mm (8.3 to 64 inches) 54-inch model: 210 to 1,371 mm (8.3 to 54 inches) 30-inch model: 182 to 762 mm (7.2 to 30 inches)

### A) Cuttable media thickness (for both roll media and sheet media)

0.08 mm-0.22 mm (0.3 to 1 mil) (depending on media composition)

#### B) Maximum media thickness (for both roll media and sheet media)

Printing only:1.0 mm (4 mil) When performing cutting: 0.4 mm (1.6 mil)

#### **Roll outer diameter**

210 mm (8.2 inches)

#### Paper tube (core) inner diameter

76.2 mm (3 inches) or 50.8 mm (2 inches)

Note: To use 2 inches media, the optional media flanges are required. For information about optional items, contact your authorized dealer or us.

### **Roll Weight**

64-inch model: 40 kg (88 lbs)

54-inch model: 30 kg (66 lbs)

30-inch model: 25 kg (55 lbs)

Note: When using the take-up unit, conditions are dependent on the usable media of the take-up unit.

### **Other Conditions**

Media such as the following cannot be used.

- > Media whose end is attached to the paper tube (core)
- > Media which is severely warped or which has a strong tendency to reroll
- > Media that cannot withstand the heat of the media heating system
- > Media whose paper tube (core) is bent or crushed
- > Media that bends under its own weight when loaded
- Media on a sagging roll
- Media that is rolled unevenly

## Switch On!

### Switch On!

### 

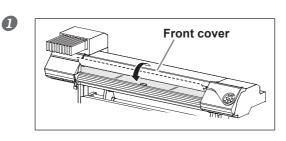
When output is not being performed, remove any loaded media or switch off the sub power.

The continued application of heat at a single location may cause the release of toxic gases from the media or pose a fire hazard.

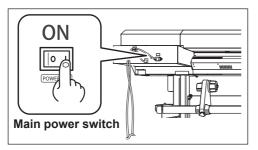
### Procedure

2

B



Close the front cover.



Turn on the main power switch.



### Press the sub power button.

Note: For installation of the ink cartridge and selection of the language displayed on the display screen, refer to "Setup Guide."

### The Power-Saving Feature (Sleep Mode)

This machine is provided with a power-saving feature that switches to a low-power "sleep mode" when a fixed interval passes with no operation. The factory default for the time after which the machine switches to the sleep mode is 30 minutes. When the machine is in the sleep mode, the sub power switch flashes slowly. Using the operation panel or performing operations such as sending output data from the computer (when media is loaded) restores the machine to its normal mode.

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

@ P. 90, "Correcting for Misalignment in Bidirectional Printing"

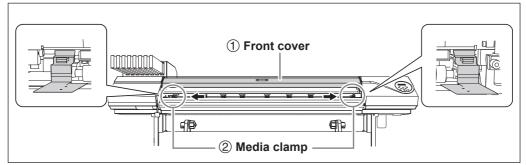
	Load roll media correctly. Otherwise the media may fall and cause injury.
	Roll media weighs about 40 kg (88.2 lbs). To avoid injury, handle with care.
	Never load media that weighs over 40 kg (88 lbs) for the 64-inch model, 30 kg (66 lbs) for the 54-inch model, and 25 kg (55 lbs) for the 30-inch model). The machine may fail to withstand the weight and tip over or cause the media to fall.
-	

### 1. Install the media to the media holder.

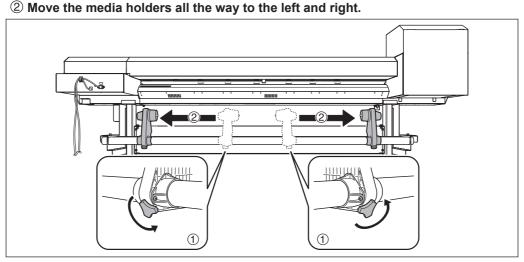
Note: The media holder of this machine is exclusive use for the media of paper tube (core) inner diameter 3 inches. To use 2 inches media, the optional media flanges are required. For information about optional items, contact your authorized dealer or us.

### ① ① Open the front cover.

### ② Move the media clamps to the left and right ends respectively.



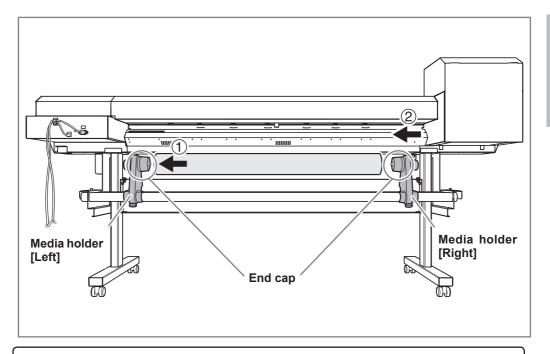
## 2 ① Loosen the retaining screws of the media holders. ② Move the media holders all the way to the left and right.



### If the paper tube (core) onto the end cap of the media holder [Left]. Do not secure the media holder now.

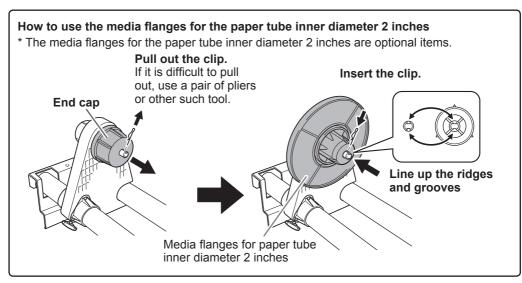
2 Move the media holder [Right] and fit the end cap onto the paper tube core of the media.

Fit it securely to prevent the media from easy loose.



### (IMPORTANT!) Install conforming to the procedures.

Load the media while the left media holder is positioned close to the left edge, as shown in the figure. Also, never secure the media holder in place before loading the media. Loading media without performing these steps in the proper order may make smooth media feed impossible or yield poor printing results.

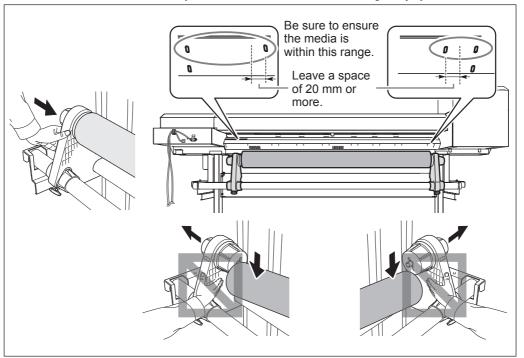


Hold the outer side of the media holder [Left] and position the left and right side edges of the media to match the grit patterns.

When deciding the position, hold the both sides of media holders from the outer sides and move it. Do not hold the media directly to move.

## **CAUTION** Never attempt this operation while holding any location other than the one specified.

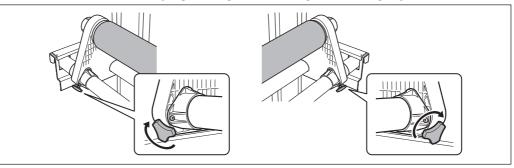
The media may fall from the media holder, resulting in injury.



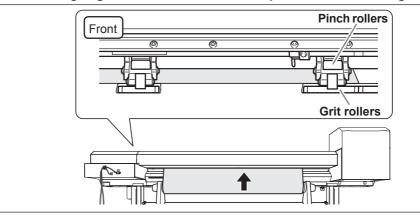
## **IMPORTANT!** Decide the left and right side positions of the media finally at this step.

After this procedure is completed, if the left and right side positions do not fit the proper position when securing the media with pinch rollers, go back to this step to redo this procedure. Printing quality is affected due to skew media feed, if you hold the media only to readjust the position forcibly.

### Secure the media holder by tightening the securing screws slightly.

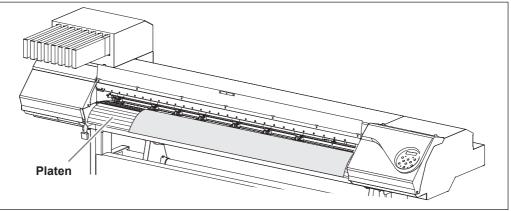


## 2. Pass the media through the printer and secure the media holders.

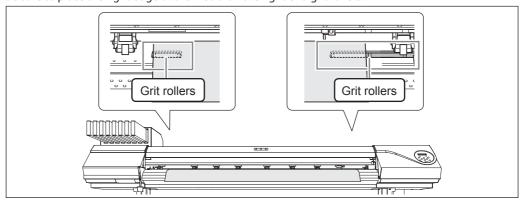


### Pass the leading edge of the media between the pinch rollers and the grit rollers.

**2** Pull out the media over the platen.

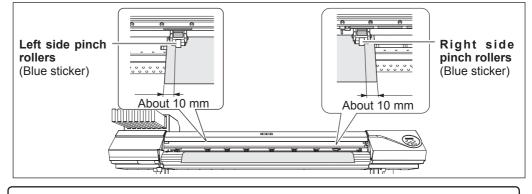


**Check both edges of the media are placed on the grit rollers.** Be sure to place the right edge of the media on the right end grit rollers.



## Place the left and right pinch rollers (affixed with blue stickers) on both edges of the media.

Place them on the positions from the media edges by about 10 mm respectively.

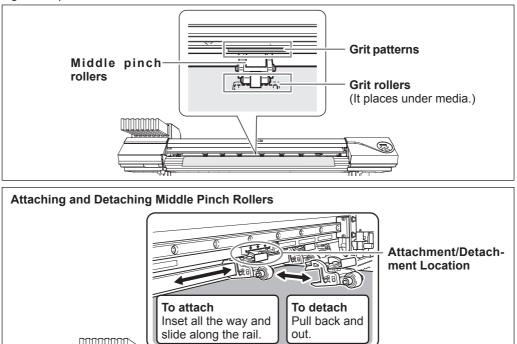


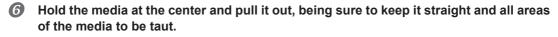
### [IMPORTANT!]

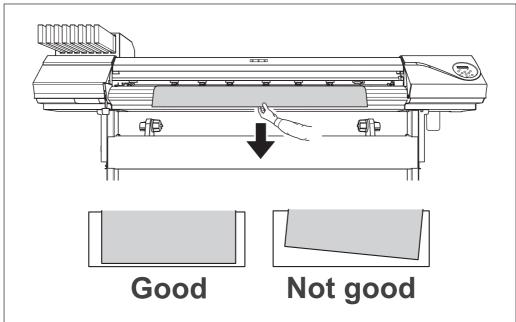
If you want to readjust the media position at this step, go back to the procedure 1 and redo the procedure  $1 \cdot 0$ . Printing quality is affected due to skew media feed, if you hold the media only to readjust the position forcibly.

### **6** Place the pinch rolls over all the grid rollers covered by the media.

The grit patterns can be found at the place where grit rollers are located. Be sure to remove the remaining middle pinch rollers.



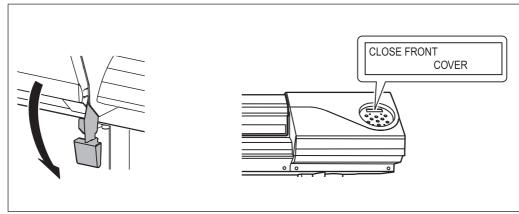




### Lower the loading lever to secure the media in place.

0

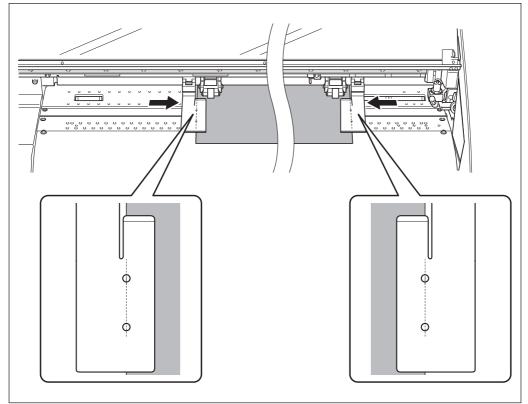
**SETUP** starts to flash, and then the screen shown in the figure appears.



## $\boldsymbol{\beta}_{\bullet}$ Clamp the edges of the media with the media clamp.

 ① Move the left and right media clamps above the edges of the media.
 ② Line up the edges of the media with the centers of the holes of the media clamps. When you're performing cutting only, never use the media clamps.

P. 43, "Important Note on Cutting"



### **2** Close the front cover.

When the front cover is closed, the print-head carriage moves and detects the width of media. This operation is called initialization. When initialization ends, **SETUP** remains steadily lighted, and the printable width is displayed on the display screen. This completes loading of the media.

## IMPORTANT! Remove when not using roll media.

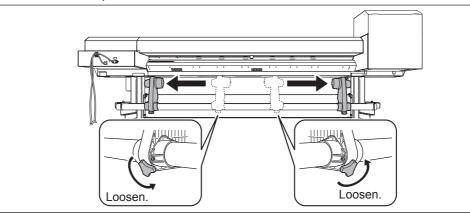
If roll media is allowed to stand unused in a loaded state for an extended period, the media may sag. This can cause poor printing quality and motor errors, so be sure to remove and store such media when not in use.

## Loading the Sheet Media

### Procedure

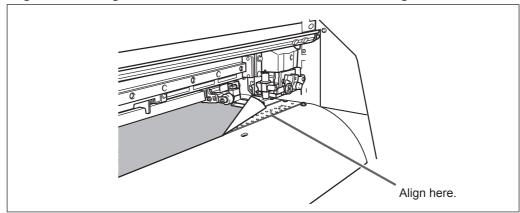
### **1** Move the media holders to the left and right.

Move them to a location where they don't disturb the media when the media is hung down from the rear of the machine. If they disturb the media, remove them with the shaft. For information on how to remove, refer to "Setup Guide."



## Pass the media through the printer and secure the media holders. Procedure 2 1 to 5 of P. 21, "Pass the media through the printer and secure the media holders."

Align the front edge of the media with the location shown in the figure.

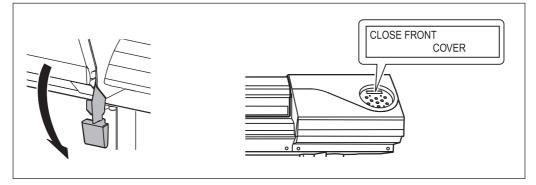


### 4 Lower the loading lever to secure the media in place.

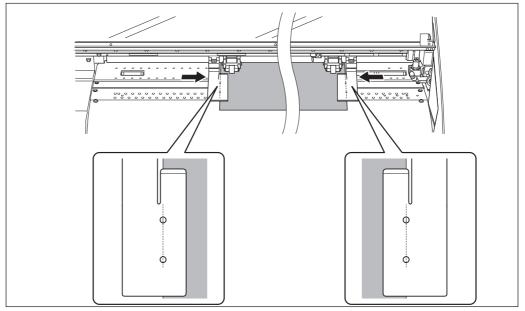
**SETUP** starts to flash, and then the screen shown in the figure appears.

When you're performing cutting only, never use the media clamps.

P. 43, "Important Note on Cutting"



① Move the left and right media clamps above the edges of the media.
 ② Line up the edges of the media with the centers of the holes of the media clamps.



### **6** Close the front cover.

When the front cover is closed, the print-head carriage moves and detects the width of media. This operation is called initialization. When initialization ends, **SETUP** remains steadily lighted, and the printable width is displayed on the screen. This completes loading of the media.

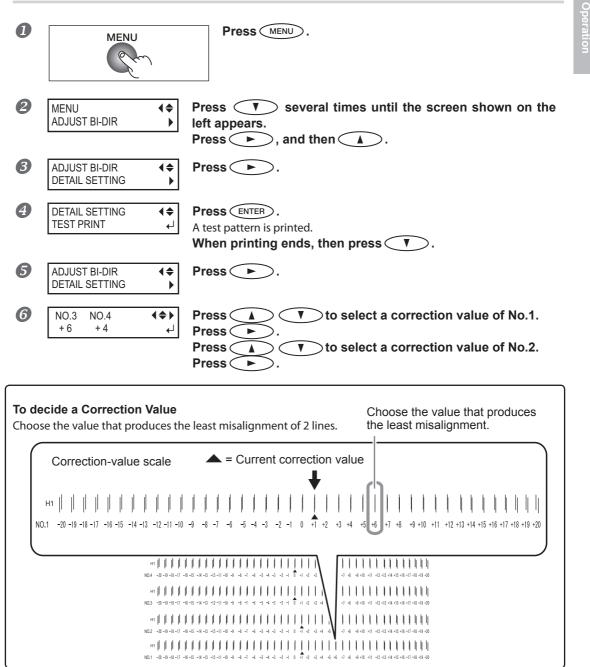
2

### Performing the Initial Adjustment (Correcting for Misalignment in Bidirectional Printing More Precisely)

Perform the initial adjustment (correction for misalignment in bidirectional printing more precisely) of this machine. In the following case, perform this adjustment.

- > When using this machine for the first time
- > When changing the media to use for the first time
- When further correction is required to improve printing, such as when simple correction is performed for misalignment in bidirectional printing (P. 93, "Adjusting Head Height to Match Media Thickness")

#### Procedure



0	NO.3 NO.4 <b>♦</b> +6 +4 ↓	Press A T to select a correction value of No.3 Press A. Set correction values of No.4 in the same manner.
8	NO.3 NO.4 <b>♦</b> +6 +4 <b>↓</b>	When correction value settings end, press ENTER.
9	W1200mm	Press MENU to go back to the original screen.

## About [Media Setting] Menu

To ensure the optimal output according to the media size and type, various setting items are provided in this machine. However, it is hard work to perform these settings one by one referring to this document. So, this machine provides the [Media Setting] menu that guides these settings in the interactive mode. Using this menu, you can set all of the basic settings only by setting according to the instructions on the display. Since the setting details can be stored as the preset menu, you can promote your operation efficiently saving the setup steps when using the same type of media. Once storing the basic settings as the preset, you can do fine adjustment according to need.

The items set through the [Media Setting] menu can be also set individually.

## Setup of Media ([Media Setting] Menu)

 $\triangleright$  Only Printing: Perform the procedure 1. to 6, and 10., 11.

 $\succ$  Printing & Cutting: Perform all the procedure  $I_{\bullet}$  to  $II_{\bullet}$ 

Note: If any setting is not needed for each setting item, you can go to the next menu by selecting [NEXT].

#### Ι. Starting the [Media Setting] menu.

#### П Load media.

Check that no sagging is found on the media. If any sagging exists, the followed correction value settings do not work effectively.

P. 18, "Loading Media"



MENU

Press MENU).



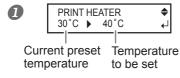
**∢**♦ MEDIA SETTING ₊

MENU

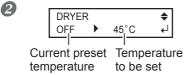
When the left figure is displayed, press (ENTER).



Setting the temperature of print heater and dryer.



Use  $\subset \land \supset \subset \lor \supset$  to set the temperature. Recommended temperature: 40 °C (104 °F) Press ENTER to enable the setting.

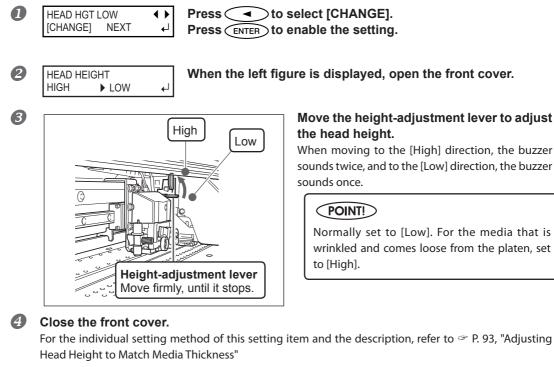


Use  $\checkmark$   $\checkmark$  to set the temperature. Recommended temperature: 45 °C (113 °F) Press (ENTER) to enable the setting.

For the individual setting method of this setting item and the description, refer to @ P. 85, "Making the Temperature Setting for the Media Heating System"

Procedure	
Press MENU during	the setting.
QUIT SETTING? ↓ YES [NO] ↓	Press to select [YES]. Press ENTER.
W1200mm	The screen returns to the screen shown at the left. By selecting [NO], the screen returns to the screen displaye when you pressed MENU.

## ${\it 3.}$ Adjusting the head height



## Move the height-adjustment lever to adjust

When moving to the [High] direction, the buzzer sounds twice, and to the [Low] direction, the buzzer

Normally set to [Low]. For the media that is wrinkled and comes loose from the platen, set

## 4. Perform the position correction of feed direction (alleviate horizontal stripes)

### POINT!

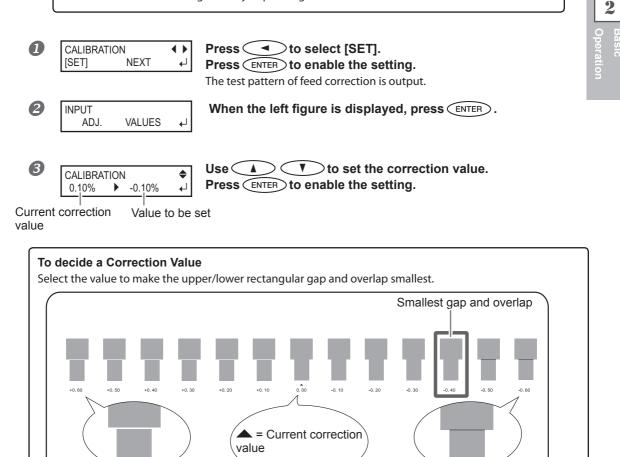
Gap present

4

REDO ADJ. ?

YES

Feed direction means the feed direction of the media. Perform the correction adjusting to the media in advance because horizontal stripes are more likely to occur during printing when the movement distance of the media changes subtly depending on the media's thickness.





The test pattern of feed correction is output again Go back to the procedure and set again.

Overlap

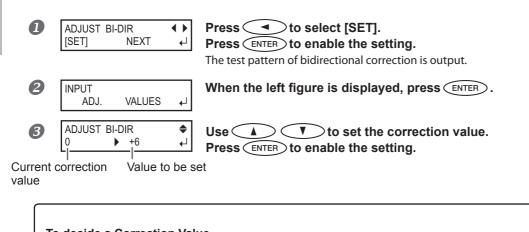
[To go to the next after correction is completed] Press b to select [DONE]. Press ENTER to enable the setting.

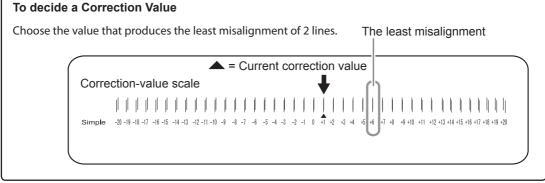
For the individual setting method of this setting item and the description, refer to  $\Im$  P. 91, "Alleviating Horizontal Bands and the Like (Feed Correction Function)"

## **5.** Performing the correction for misalignment in bidirectional printing

### POINT!

This machine prints by the bidirectional mode (in which the heads perform printing during both their outbound pass and return pass). This printing method is called "Bidirectional Printing." This method offers the advantage of being able to shorten output times, but subtle misalignment occurs during the outbound and return passes. The procedure to correct this and eliminate misalignment is "Bidirectional Correction."





REDO ADJ. ?
 YES [DONE]
 ↓

Press ENTER to enable the setting.

The test pattern of bidirectional correction is output again. Go back to the procedure 3 and set again.

[To go to the next after correction is completed] Press b to select [DONE]. Press ENTER to enable the setting.

For the individual setting method of this setting item and the description, refer to  $\Im$  P. 90, "Correcting for Misalignment in Bidirectional Printing"

## $\boldsymbol{6}$ . Deciding to perform the setting for cutting or not

```
CUT CONFIG ↓
[SET] NEXT ↓
```

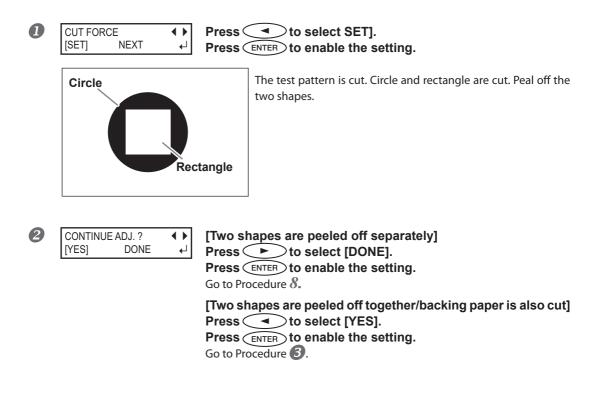
[Only Printing] Press  $\rightarrow$  to select [NEXT]. Press ENTER to enable the setting. Go to Procedure 10.

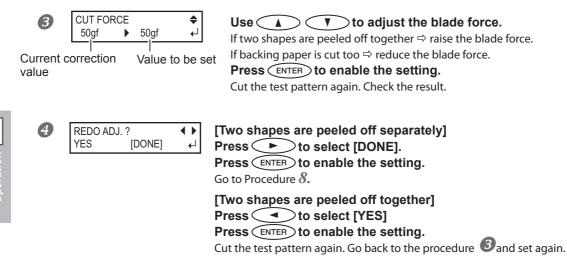
[Print & Cut] Press to select [SET]. Press ENTER to enable the setting. Go to Procedure 7.

## 7. Setting the blade force

### POINT!

For high-quality cutting, perform a cutting test to check the cutting quality for the media and adjust the blade force.





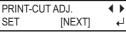
For the individual setting method of this setting item and the description, refer to @ P. 100, "Fine-Tuning the Cutting Conditions"

#### 8. Correcting misalignment for printing and cutting

### POINT!

Subtle misalignment between the printing and cutting positions may occur due to the thickness of the media or the head height. We recommend making correction to match the media you're using.





### Press ⊂ < ⊃to select [SET]. Press ENTER to enable the setting.

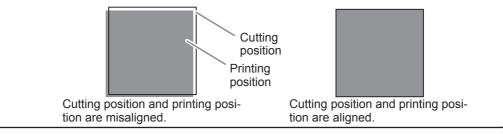
The test pattern (P&C1) is printed and cut. The test pattern is printed at three locations on the media: at the two edges and in the center.

### Check the test pattern condition.

### To check the test pattern (P&C1)

₽

Check to make sure that the printing position and the cutting position are aligned.



CONTINUE ADJ. ? [YES] DONE +J INPUT ADJ. VALUES +J	[Cutting position and printing position are aligned] Press b to select [DONE]. Press ENTER to enable the setting. Go to Procedure 9. [Cutting position and printing position are not aligned] Press to select [YES]. Press ENTER to enable the setting. The test pattern (P&C2) for setting the correction values is printed and cut. Go to Procedure 9. When the left figure is displayed, press ENTER.	<b>2</b> Basic Operation
To check the test patter The point where the cuttir the scan direction and the Corre	Alues from the test pattern condition. rn (P&C2) g line intersects the correction-value scale is the correction value. Check feed direction respectively. Cutting line Cutting line of the test pattern condition. Cutting line of the test pattern condition. Cutting line of the test pattern condition. For the figure,	
$\begin{array}{c c} S: 0.00 & -0.20 \text{ mm} & -1 \\ \hline \\ Current correction & Value to be \\ value & set & t \\ \hline \\ F \end{array}$	Jse A V to set the correction value of feed direc- ion (F). Jse A V to set the correction value of scan direc- ion (S). Press ENTER to enable the setting. The test pattern (P&C1) is printed and cut again. Check the condition of test	

The test pattern (P&C1) is printed and cut again. Check the condition of test pattern to check that the printing position and the cutting position are aligned.

REDO ADJ.	?	••
YES	[DONE]	4

[Cutting position and printing position are aligned] Press to select [DONE]. Press ENTER to enable the setting. Go to Procedure 9. [Cutting position and printing position are not aligned] Press to select [YES]. Press ENTER to enable the setting. Go back to Procedure 6 and set the correction values again. Repeat Procedure 6 and 7 until the optimal alignment is got.

For the individual setting method of this setting item and the description, refer to  $\Im$  P. 107, "Correcting Misalignment of the Printing and Cutting Positions During Cutting"

Correcting misalignment for printing and cutting position when using crop marks.

### POINT!

When you remove the printed media, and then reload it and perform cutting, use the crop marks. For this case, correction is to be performed because the positioning of printing and cutting may be misaligned even when you're using crop marks depending on the composition of the media.



[To perform consecutive printing and cutting] Press  $\rightarrow$  to select [NEXT]. Go to Procedure 10.

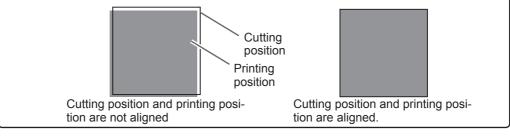
[To perform printing and cutting separately] Press to select [SET]. Press ENTER to enable the setting.

The test pattern (C&C1) is printed and cut. Go to Procedure 2.

#### Check the test pattern condition.

#### To check the test pattern (C&C1)

Check to make sure that the printing position and the cutting position are aligned.



2 Basic Operation

CONTINUE ADJ. ? ↓ [YES] DONE ↓	[Cutting position and printing position are aligned] Press to select [DONE]. Press ENTER to enable the setting. Go to Procedure 10.					
	[Cutting position and printing position are not aligned] Press to select [YES]. Press ENTER to enable the setting. The test pattern (C&C2) for setting the correction values is printed and cut.					
④ INPUT ADJ. VALUES ↓	When the left figure is displayed, press ENTER.					
To check the test patte The point where the cuttin	Check the correction values from the test pattern condition.           To check the test pattern (C&C2)           The point where the cutting line intersects the correction-value scale is the correction value. Check the scan direction and the feed direction respectively.					
	ection- e scale					
	tion (S).					
	Press ENTER to enable the setting.					

The test pattern (C&C1) is printed and cut again. Check the condition of test pattern to check that the printing position and the cutting position are aligned.

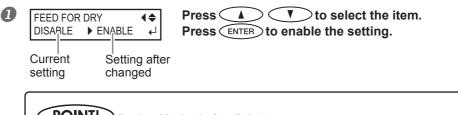


REDO ADJ. ? YES [DONE] ↓ [Cutting position and printing position are aligned] Press b to select [DONE]. Press ENTER to enable the setting. Go to Procedure 10.

[Cutting position and printing position are not aligned] Press to select [YES]. Press ENTER to enable the setting. Go back to Procedure 6, fine-tune the adjustment value, and then repeat Procedure 6 and 7 until the optimal alignment is got.

For the individual setting method of this setting item and the description, refer to  $\Im$  P. 115, "Correcting Misalignment for Printing and Cutting When Using Crop Marks".

### *10.* Setting the drying method and time after printing



#### **POINT!** Drying Method after Printing

After the 1st page is printed, set that the media should be fed until the trailing edge of the printed area is positioned directly on the dryer. To make sure to dry the entire printed area, select [ENABLE]. If [DISABLE] is selected, the trailing edge of the printing area is not fed to the dryer unless you continue with a subsequent printing operation.

For the individual setting method of this setting item and the description, refer to  $\Im$  P. 88, "Drying the Trailing Edge of the Printing Area on the Dryer"

2	DRYING TIM		Press 🚺 💎 to set the drying time.
	Current setting	I0min Setting after changed	<ul> <li>Example of setting time (general guide):</li> <li>*The setting time varies according to the settings of type of media and printing quality.</li> <li>Condition: Output accompanying pull-back; use the middle pinch rollers; non-coated vinyl media</li> <li>Setting time: about three minutes</li> </ul>

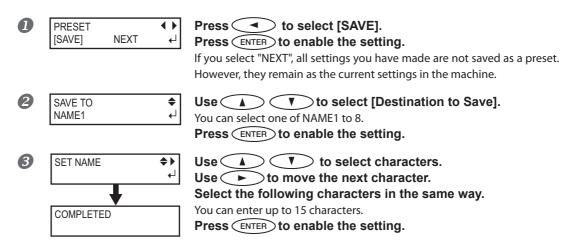
Press ENTER to enable the setting.

### **POINT!** Drying Time after Printing

Set the drying time after the 1st page is printed. The next operation is not started until the set time passes.

For the individual setting method of this setting item and the description, refer to  $\Im$  P. 88, "Setting the Drying Time After Printing".

### *11.* Saving the setting as preset



For the individual setting method of this setting item and the description, refer to  $\Im$  P. 82, "Fully Utilizing Preset Function"

This completes the operation of the [Media Setting] menu.

### Setting the Output-Start Location

You can set the output-start location at any location you prefer. (You can output if you do not set this.) Note, however, that this setting must be made for each individual page.

Procedure

Open the front cover.
Printing area
Output-start location
Scan-direction Feed-direction start location start location



start location. Only cutting carriage moves.

When the location is set, press (FUNCTION).

**♦** 

₊

4

When the left figure is displayed, press ENTER to enable the setting.

W1100mm B
--------------

**BASE** remains steadily lighted and when the screen displays the character "B" together with the output-possible width at the location, setting is completed.

#### POINT!

FUNCTION

BASE POINT

Note, however, that the left and right positions are not restored to their defaults for test patterns. If you're using the separately available media take-up unit, never adjust by pressing . Doing so may pull the media with undue force, resulting in an error or malfunction.

2

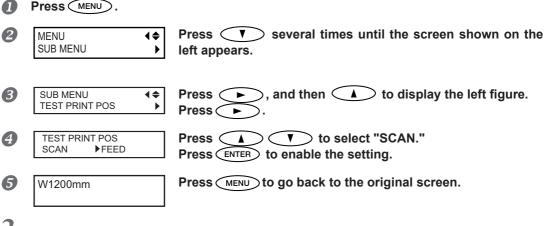
### **Printing Tests and Cleaning**

Before you carry out actual printing, we recommend performing a printing test to ensure no dot drop-out occurs. If dot drop-out occurs, perform cleaning of the print heads (Normal Cleaning).

### ${\it 1.}$ Setting a test print direction

\* The factory default setting of the test print direction is "FEED." When performing printing tests successively, you can select "FEED" or "SCAN" as the print direction applied to the second and later tests. However, when the optional media take-up system is used, "Feed" is applied regardless of the setting of the test print direction.

P. 118, "Using Media Take-Up System"



```
2. Setting the output-start location
```

#### **1** Setting the Output-start Location.

P. 40, "Setting the Output-Start Location"

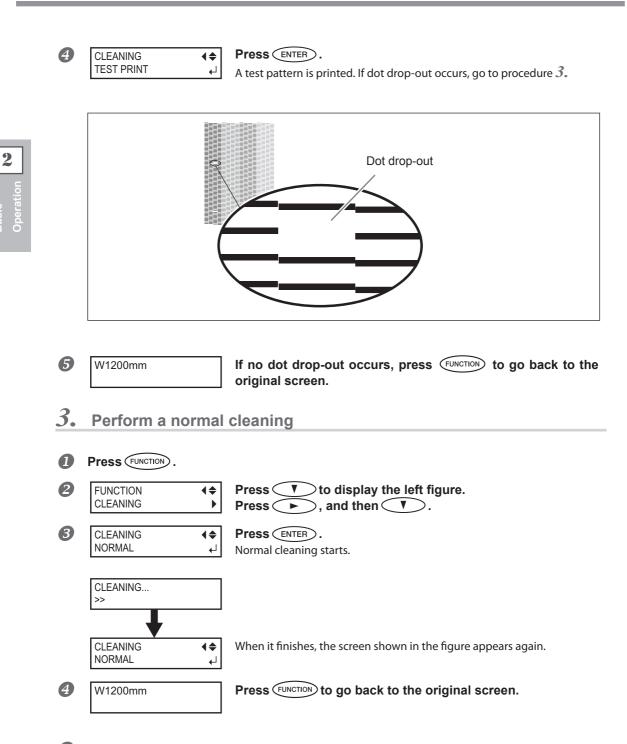
#### POINT!

When performing the tests successively, you don't need to set the output-start location for the second and later tests. However, if one of the following is conducted, the default output-start location takes effect. Set the desired output-start location again as necessary.

- Cutting of sheet
- Printing of output data you created, and cutting
- Cancellation of setup







# Perform a printing test on procedure 2. again to make sure the dot drop-out has been corrected.

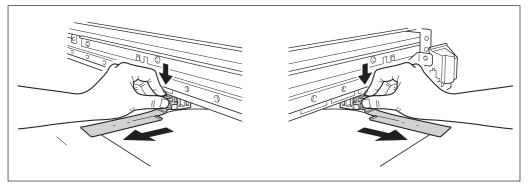
If the problem persists, try performing cleaning a second time. If the printer has been used for a long period, the problem may persist even after two or three-cycle cleaning. Then try cleaning using a different method.

P. 57, "When Normal Cleaning Is Not Effective"

### **Important Note on Cutting**

#### When You're Performing Cutting Only, Never Use the Media Clamps.

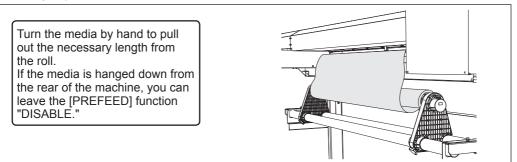
When you're performing cutting only, remove the media clamps or move to the locations where they don't clamp the media.



# When Using the Roll Media and Only Performing Cutting, Let the Media Hang Down To the Rear of the Machine. (Or Set the [PREFEED] Menu to "ENABLE.")

This prevents a motor error or fall of the roll because the media is pulled with excessive force.

For the [PREFEED] menu, refer to  $\Im$  P. 99, "Preventing Pulling of the Media with Undue Force When Performing Cutting Only".

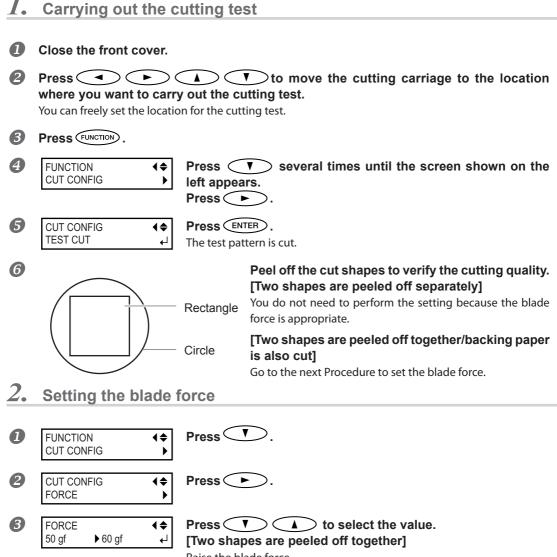


When You're Performing Printing Followed Immediately by Cutting (Print and Cut), Then Before You Start Cutting, Allow the Ink to Dry Sufficiently.

Use your software RIP to make the setting for the drying time. For information on how to make the setting, refer to the documentation for the software RIP you're using. The drying time varies according to the media.

### Setting the Cutting Test and the Blade Force

For high-quality cutting, then before you perform actual cutting, we recommend carrying out a cutting test to check the cutting quality for the media. Adjust the blade force depending on the cutting quality.



[Two shapes are peeled off together] Raise the blade force. [Backing paper is also cut] Reduce the blade force. Press ENTER to enable the setting.

4 W1200mm

Press FUNCTION to go back to the original screen.

At the [CUT CONFIG] menu, you can also make settings for other cutting conditions in addition to the blade force. Refer to the following pages.

P. 100, "Fine-Tuning the Cutting Conditions"

2

### Getting Ready to Receive Data from a Computer

When  $\Im$  P. 18, "Loading Media",  $\Im$  P. 29, "Setup of Media" are completed, get ready to receive the data from a computer.

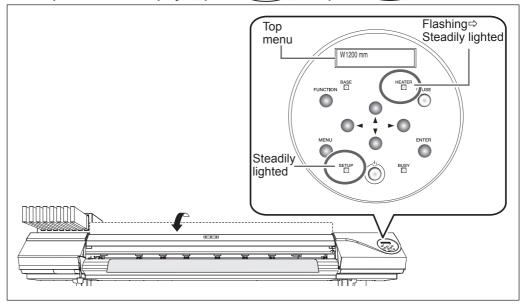
#### 

**Never touch the print heads while output is in progress.** The print heads move at high speed. Contact may cause injury.

#### Procedure

Close the front cover.

- Make sure SETUP stays steadily lit. If the light does not come on, lower the loading lever.
- **3** Wait until HEATER stays steadily lit.
- Make sure the top menu is displayed.
   If the top menu is not displayed, press (MENU), then press (



#### POINT!

Output Is Not Possible in These Situations

- > The machine does not run when the front cover is open.
- > Never open it when printing is in progress. Doing so interrupts printing.
- > Data from the computer is not accepted when **SETUP** is dark.
- > When "ON" is set to the print heater and/or the dryer, Printing does not start until HEATER lights up.
- > Data from the computer is not accepted when you are not at the top menu.

### **Starting Output**

When the operation of  $\Im$  P. 45, "Getting Ready to Receive Data from a Computer" is completed, you can start output.

To output, the following procedure is required.

#### ① Creating output data

Create the output data using the application software like Adobe Illustrator and like that. For information on how to create the data, refer to the documentation of your application software.

#### ② Sending the output data to this machine using the software RIP.

Use the included software RIP "VersaWorks series. For information on how to install and use VersaWorks, refer to the "Roland VersaWorks Install Guide" and the HELP of VersaWorks.

- VersaWorks Dual
  - https://webmanual.rolanddg.com/RolandVersaWorksDual
- ➤ VersaWorks 6
  - https://webmanual.rolanddg.com/VersaWorks6
- If using the white ink and metallic silver ink, refer to "Special Color Ink Guide."
  - ☞ https://webmanual.rolanddg.com/VS-640i

### (IMPORTANT!) Points that must be observed

- Be sure to set the media clamps during printing. Otherwise the edges of the media may warp and catch on the print heads.
- > During output, never touch the media that's already been discharged. Doing so may obstruct media feed or cause the media to rub against the heads, which may result in a paper jam or damage to the heads.
- > Keep the loading lever raised when the machine is not in use.

#### POINT!

#### If Ink Runs Out

When ink runs out, a warning beep sounds and a slot number of which ink runs out is displayed on the display screen. Exchange the ink cartridge.

P. 52, "How to Replace Ink Cartridges"

#### Before you perform lengthy printing, check the amount of ink remaining in the ink cartridges.

Before you perform lengthy printing, check the amount of ink remaining in the ink cartridges. When ink runs out and printing is paused, the coloring at the seam may be altered when printing resumes. P. 51, "Checking for Remaining Ink"

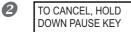
### **Pausing and Canceling Output**

You can pause and cancel printing before it finishes. We do not recommend resuming printing because horizontal stripes are produced at the place where output stopped.

**Procedure** 



Press PAUSE before output finishes. This pauses printing operation. **Press** (PAUSE) again to resume printing. To cancel the output, go the next Procedure without pressing (PAUSE) in this procedure.



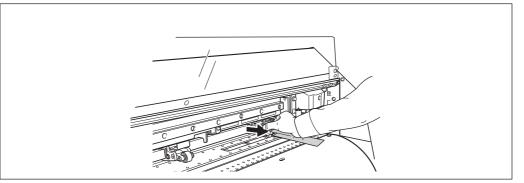
When the screen shown in the figure appears, hold down PAUSE for one second or longer. This cancels printing operation.

B Stop sending the output data from the computer.

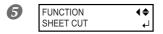
### **Cutting Off the Media**

#### **Procedure**

A Detach the left and right media clamps.

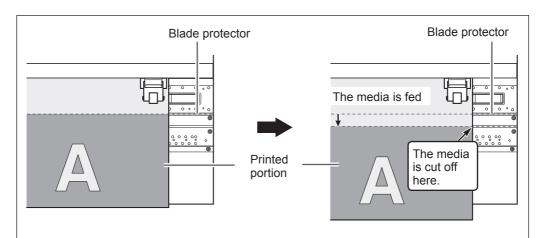


- Close the front cover. 2
- Make sure SETUP lights up.
- Press FUNCTION .



Press **v** several times until the screen shown on the left appears. Press ENTER).

The media is cut off.



You can make the setting in the software RIP for automatic media cutoff after printing or cutting has finished. For information on how to make the setting, refer to the documentation for the software RIP you're using.

#### (IMPORTANT!) Cut-off Operations

4

REMOVE MEDIA CLAMPS

When the media clamps are attached, the screen shown in the figure appears. Open the front cover and detach the left and right media clamps and press **ENTER**.

- Be sure to detach the media clamps. Performing cutoff with the media clamps remaining attached may cause the operation to be interrupted due to detection of the media clamps.
- If the media clamps are present on the machine when the setting to execute automatic cutoff of the media is made on the RIP software computer, the media clamps are detected and no cutoff operation is performed.
- Before you're performing cutoff, never use to pull the media back. Unless the end of the media has been pulled out to a location to the front of the platen, cutoff may not be performed smoothly.

### (IMPORTANT!) Give Attention to Media Composition

- > For some types of media, cutoff is not possible.
- Some types of media may remain on the platen after cutoff. If the media remains on the platen, remove it by hand.

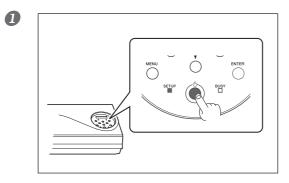
### Switch Off

### 

When output is not being performed, remove any loaded media or switch off the sub power.

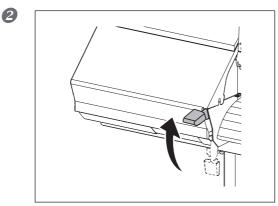
The continued application of heat at a single location may cause the release of toxic gases from the media or pose a fire hazard.

#### Procedure



# Switch off the sub power whenever output is finished.

Hold down the sub power button for one second or longer.



# Raise the loading lever and remove the loaded media.

Raise the loading lever when the machine is not used even if the power is not turned off.

#### [IMPORTANT!]

#### Leave the main power switched on at all times.

Never switch off the main power. By switching on the main power, the automatic maintenance function is carried out periodically. If the automatic maintenance is not carried out, it may result in breakdown of this machine such as breakdown of the print heads.

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

Switching off the main power or unplugging the power cord suddenly while operation in progress may damage the print head. Be sure to first switch off the sub power.

If the main power is accidentally switched off, immediately turn the power back on.

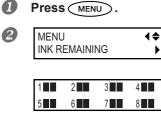
# Chapter 3 Maintenance:

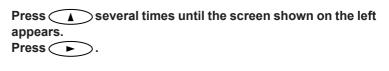
For always in the best condition

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### **Checking for Remaining Ink**

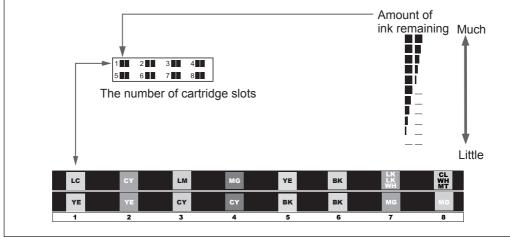
**Procedure** 





indicates the amount of ink remaining. When there are more the amount of ink remaining is larger. (The display varies according to the number of ink cartridge slots in use.)

\* The display shows an approximate guide to the amount of remaining ink. It may differ somewhat from the actual amount remaining.





SETUP SHEET

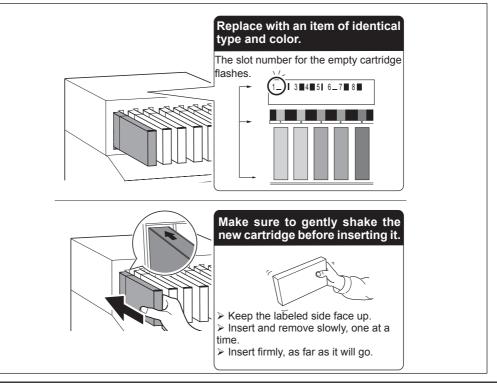
W1200mm

3

Press MENU to go back to the original screen.

### How to Replace Ink Cartridges

When ink runs out, a warning beep sounds and printing pauses (unless the default settings have been changed). Pull out the empty cartridge and insert a new one. Printing resumes.



#### IMPORTANT!

#### Important Notes on Replacing Cartridges

- Insert and remove slowly, one at a time.
- Be sure to replace with an item of identical type.
- > Never use an ink cartridge which has already been used in other machines even if it is of the identical type.
- Never mix items of different types.
- > Never allow the machine to stand with an ink cartridge removed. The print heads may become clogged.
- > Never insert or remove a partially used ink cartridge.
- > Never remove an ink cartridge suddenly while the printer is in operation.

### 

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

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

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

### **Disposing of Discharged Fluid**

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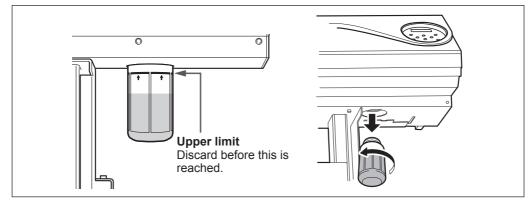
The drain bottle collects discharged fluid. Dispose of collected material before the bottle becomes full. The message shown in the figure appears when a certain amount of discharged fluid has collected in the bottle. Follow the procedure below to discard the discharged fluid.

#### Procedure



# When the screen shown on the left appears, detach the bottle, discard the discharged fluid to empty it.

After discarding the discharged fluid, you must promptly attach the drain bottle to the machine.

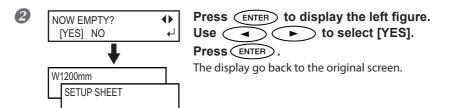


#### 

#### Before you detach the drain bottle, be sure to wait for the screen to display "EMPTY DRAIN BOTTLE."

## After discarding the discharged fluid, promptly attach the drain bottle to the machine.

Failing to follow this procedure may cause discharged fluid to flow out of the tube and spill, soiling your hands or the floor.



#### If you select [NO] without discarding discharged fluid:

This also allows you to go back to the original screen. The [EMPTY DRAIN BOTTLE] message disappears temporarily. When a certain amount of discharged fluid has collected in the bottle, the message appears again.

#### 

## When the [EMPTY DRAIN BOTTLE] message appears on the screen, discard discharged fluid as early as possible.

Repeatedly selecting [NO] without discarding the discharged fluid may cause it to spill out of the drain bottle, soiling your hands or the floor.

#### When You Cannot Check Discharged Fluid Level in Drain Bottle

#### POINT!

Due to the characteristics of SOL INK, splashes inside the drain bottle surface may not allow you to easily check the amount of discharged fluid in the bottle. If the inner surface is not visible, clean the drain bottle in the following way when disposing of the discharged fluid.

- > Clean the inside of the bottle using the included cleaning stick. (Cleaning sticks cannot be reused.)
- > If the method described above does not work well, try the following method.

#### Procedure

- Detach the drain bottle to be cleaned from the machine, and attach the other drain bottle included as an accessory to the machine.
- When discarding the discharged fluid of the removed drain bottle, let the fluid remain in the bottle by 2 to 3 cm from the bottom.
- **③** Firmly tighten the cap of the drain bottle.
- Lay down the bottle and roll it so that all the inner surface is wet with the remaining discharged fluid.
- **6** Place the bottle upright and leave it as it is for 1 to 2 hours.
- 6 If the splashes still remain, repeat steps 4 and 5.
- Dispose of the fluid.

**WARNING** Never place discharged fluid and ink near open flame. Doing so may cause fire.

CAUTION To store discharged fluid temporarily, place it in the included drain bottle or in a durable sealed container such as a metal can or polyethylene tank, and cap tightly. Any spillage or vapor leakage make cause fire, odor, or physical distress.

#### Store discharged fluid in a location not exposed to direct sunlight.

When temporarily storing discharged fluid in the included drain bottle, keep the drain bottle out of direct sunlight. Otherwise the discharged fluid may harden, making the drain bottle unusable.

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

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

### Cleaning

#### **WARNING** Never use gasoline, alcohol, thinner, or any other flammable material. Doing so may cause fire.

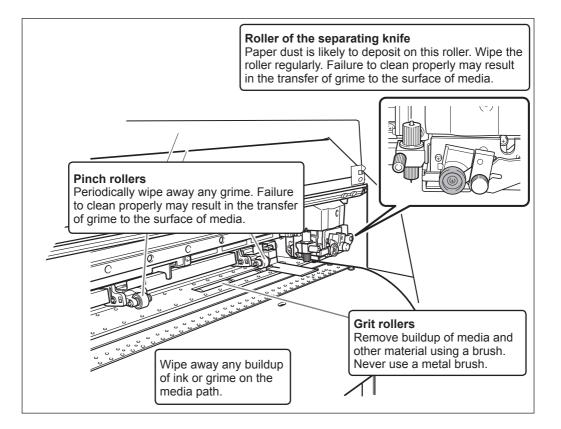
CAUTION Before attempting cleaning, switch off the sub power and wait until the platen and dryer cool (approximately 30 minutes). Sudden movement of the machine may cause injury, or hot components may cause burns.

Wipe away any buildup of ink or grime on the media path and other locations as daily cleaning. In particular, the pinch rollers, grit rollers, and platen are likely to get a buildup of grime. Clean by wiping with a cloth moistened by neutral detergent diluted with water then wrung dry.

#### POINT!

> This machine is a precision device, and is sensitive to dust and dirt. Perform cleaning on a daily basis.

> Never attempt to oil or lubricate the machine.



### **About Care and Maintenance of Print Heads**

Care of the print heads is essential to ensuring optimal printing at all times. There are daily care and periodic care.

#### When Using ECO-SOL MAX 2 Ink

Cleaning timing	Cleaning meth- od	Page	Remarks
Before daily opera- tions	Normal cleaning	P. 41	Carry out a printing test. If dot drop-out occurs, perform cleaning.
When dot drop-outs	Medium cleaning		<ul> <li>If dot drop-outs are not fixed by performing medium cleaning, perform powerful cleaning.</li> </ul>
are not fixed by per- forming normal clean- ing multiple times	Powerful cleaning	P. 57	<ul> <li>This consumes more ink than normal clean- ing, and too-frequent use may damage the print heads themselves. Avoid using it more than necessary.</li> </ul>
If colors are uneven	Light choke cleaning	P. 58	Perform this cleaning when printed colors are unstable or uneven, e.g., when color density is inconsistent, even if the same data is printed with the same settings.
<ul> <li>Once per month</li> <li>When symptoms cannot be improved with medium or pow- erful cleaning</li> </ul>	Manual cleaning	P. 61	<ul> <li>We recommend that you perform this clean- ing periodically.</li> <li>Replacing the wiper and felt wiper is also an effective means of improving the symptoms.</li> </ul>

#### When Using ECO-SOL MAX 3 Ink

Cleaning timing	Cleaning method	Page	Remarks
Before the start of operations	Normal cleaning	P. 41	Carry out a printing test. If dot drop-out occurs, perform cleaning.
If the message "TIME FOR MAINTENANCE" is displayed (approxi- mately once per week)	Manual clean- ing of the print heads	P. 61	"TIME FOR MAINTENANCE" is displayed approximately once per week, but it may be displayed more frequently depending on the usage conditions. When this message is displayed, be sure to perform manual cleaning.
When dot drop-outs are not fixed by per-	Medium cleaning	P. 57	<ul> <li>If dot drop-outs are not fixed by performing medium cleaning, perform powerful cleaning.</li> <li>This consumes more ink than normal clean-</li> </ul>
forming normal clean- ing multiple times	Powerful cleaning		ing, and too-frequent use may damage the print heads themselves. Avoid using it more than necessary.
If colors are uneven	Light choke cleaning	P. 58	Perform this cleaning when printed colors are unstable or uneven, e.g., when color density is inconsistent, even if the same data is printed with the same settings.
When symptoms can- not be improved with medium or powerful cleaning	Manual cleaning	P. 61	Replacing the wiper and felt wiper is also an effective means of improving the symptoms.

\*The print head is component that wears out. Periodic replacement is required, with the frequency of replacement depending on use. Purchase them from your authorized Roland DG Corp. dealer.

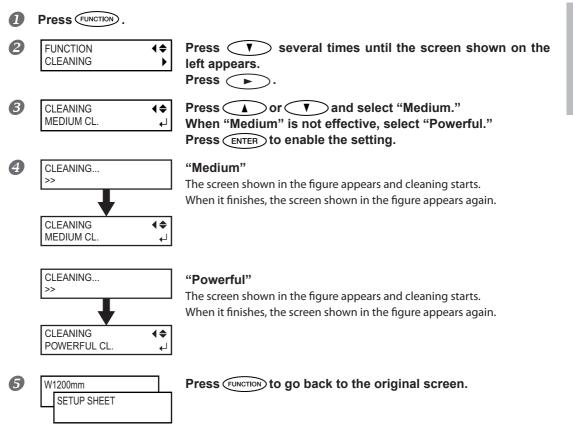
### Medium / Powerful Cleaning

When the problems such as dot drop-out are not cleared up by the "normal cleaning" (P. 41, "Printing Tests and Cleaning"), try the more forceful "medium cleaning." If the condition is not improved, try the even more forceful "powerful cleaning."

#### POINT!

Note, however, that the medium and powerful cleaning consumes more ink than normal cleaning, and too-frequent use may damage the print head itself. Avoid using it more than necessary.

#### Procedure



#### When powerful cleaning is not effective

When the problems such as dot drop-out are not cleared up even by performing powerful cleaning several times, perform "Manual Cleaning" @ P. 61, "Manual Cleaning"

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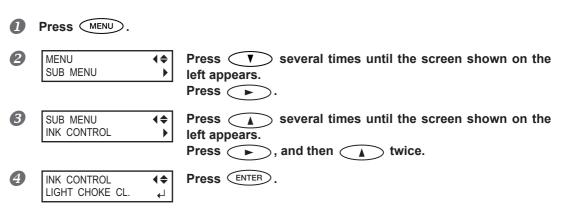
### **Light Choke Cleaning**

#### POINT!

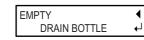
Light choke cleaning consumes a large quantity of ink. Frequently performing light choke cleaning makes the print heads more likely to be damaged. Avoid using it more than necessary.

Perform the light choke cleaning when color is uneven and unstable, i.e. darkness or brightness is different though the same data is printed with the same settings. To obtain stabilized output color, stir the ink.

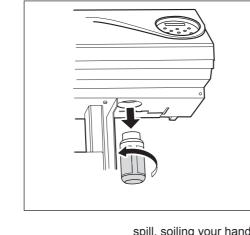
Procedure



When the [EMPTY DRAIN BOTTLE] message appears on the screen:



When the message shown in the figure appears, discard the discharged fluid. Attach the empty drain bottle to the machine again, and press (ENTER) to go to the next step.



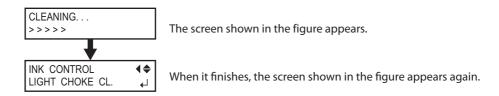
CAUTION Be sure to discard the Discharged fluid at this step.

If you do not discard the Discharged fluid at this step, the discharged ink overflows from the drain bottle during the subsequent process.

CAUTION Before you detach the drain bottle, be sure to wait for the screen to display "EMPTY DRAIN BOTTLE."

Failing to follow this procedure may cause discharged fluid to flow out of the tube and

spill, soiling your hands or the floor.



#### (IMPORTANT!)

#### Never remove ink cartridges during cleaning.

If an ink cartridge is removed during cleaning, [CLEANING ERROR] appears on the display screen to disable the continuance of cleaning. In that case, refer to P. 144, "[CLEANING ERROR]" to recover from the error, and start from the beginning again.

**5** Press MENU to go back to the original screen.

If the output color is still unstable after the light choke cleaning, contact your authorized Roland DG Corp. dealer.

In order to maintain stable printing at all times, perform manual cleaning. Manual cleaning takes approximately 10 minutes.

### When Manual Cleaning Becomes Necessary

#### **Time Frames for Periodic Cleaning**

The time frame for periodic cleaning varies depending on the ink.

Ink	When maintenance is necessary
ECO-SOL MAX 2	Once a Month If the message "TIME FOR MAINTENANCE" is displayed (approxi- mately once per week)
ECO-SOL MAX 3	If the message "TIME FOR MAINTENANCE" is displayed (approxi- mately once per week)

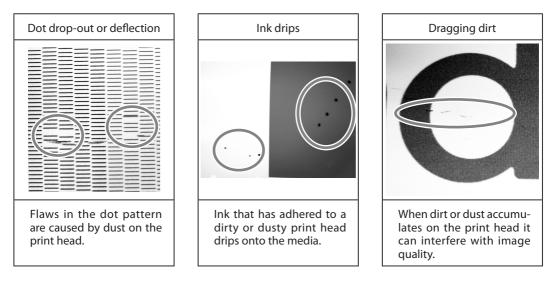
#### When the Following Symptoms Occur

It is recommended to perform the manual cleaning when any of the symptoms given below occurs and it cannot be solved by the automatic cleaning functions such as the normal cleaning.

For your information, replacement of the wiper or felt wiper is also effective to improve the symptoms.

☞ P. 69, "Replacing the Wiper"

P. 72, "Replacing the Felt Wiper"



- > When the cleaning stick and cleaning liquid for the manual cleaning runs out, place an order for them with your authorized Roland DG Corp. dealer.
- > The print heads are components that wear out. Periodic replacement is required, with the frequency of replacement depending on use. Purchase them from your authorized Roland DG Corp. dealer.

### **Manual Cleaning**

### IMPORTANT!

#### Important Notes on This Procedure

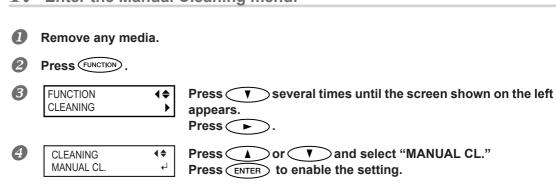
- > Before attempting this operation, remove any media.
- > To prevent the heads from drying out, finish this procedure in 30 minutes or less. A warning beep sounds after 30 minutes.
- Never use any implement other than the included cleaning stick. Cotton swabs or other lintproducing items may damage the heads. If you use up the cleaning stick, purchase a new one from your authorized Roland DG Corp. dealer.
- Never immerse a cleaning stick that has already been used to perform cleaning in the cleaning liquid. Doing so may degrade the cleaning liquid.
- > Do not put the cleaning stick used for cleaning into the cleaning liquid. It will deteriorate the fluid.
- Never rub the nozzle surface of the print heads.
- Stroke the sponges very gently, applying as little pressure as possible. Never rub, scrape, or crush them.

#### When a warning beep sounds during cleaning

A warning beep sounds in 30 minutes after the operation is started. At this time, stop work, and follow the procedure 4 P. 64, "Reattach cover L, cover R, and quit the manual cleaning menu." to attach cover L and cover R, then close the front cover. Press ENTER to quit the Manual Cleaning menu. After that, restart the procedure from the beginning.

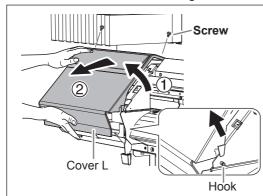
### **CAUTION** Be sure to perform operations as specified by the instructions above, and never touch any area not specified in the instructions. Sudden movement of the machine may cause injury.

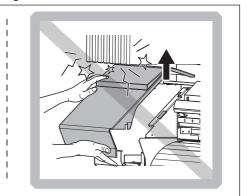
### *1.* Enter the Manual Cleaning menu.

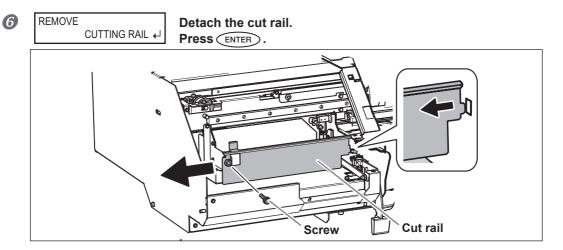




When the screen shown on the left appears, open the cover L. Pull the cover L toward you and remove it. Just raising the cover allows it to hit against the ink cartridges.

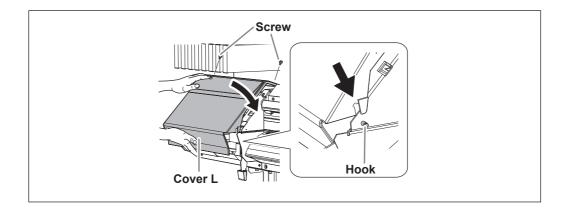


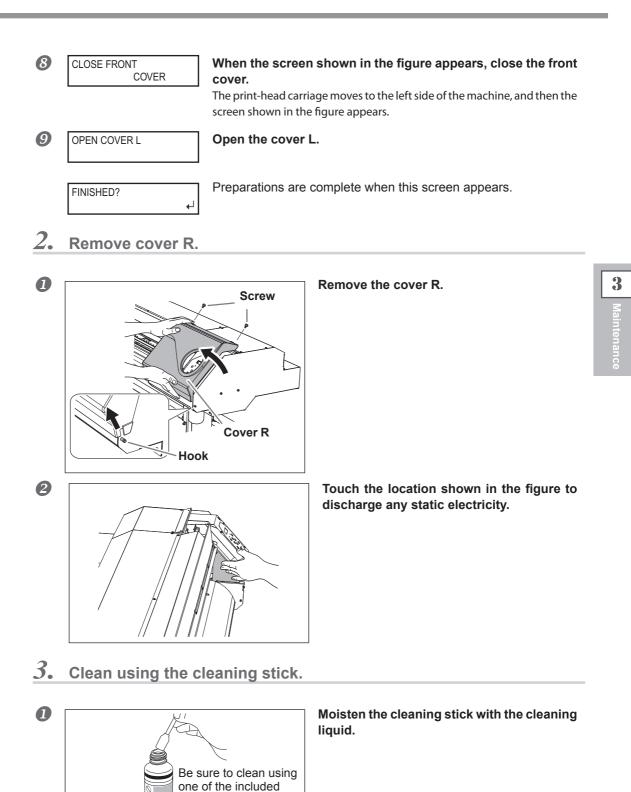




CLOSE COVER L

Close the cover L.





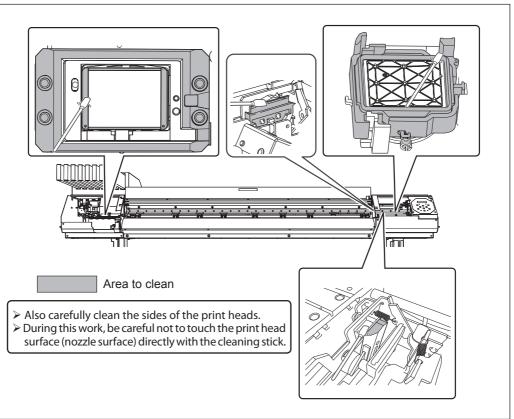
cleaning sticks.

#### Check that the cut rail has been detached.

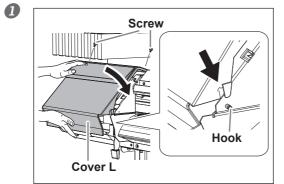
If the cut rail is not detached, close all the covers and restart the operation from the beginning. If you continue the operation as the cut rail remains attached, the print heads might get broken.

#### **B** Perform cleaning in the sequence shown in the figure below.

Exercise special care in wiping off any fibrous dust (lint) and accumulated ink. You can make the accumulated ink easier to clean off by applying cleaning liquid to the cleaning locations, and then wiping these locations off with the cleaning stick.

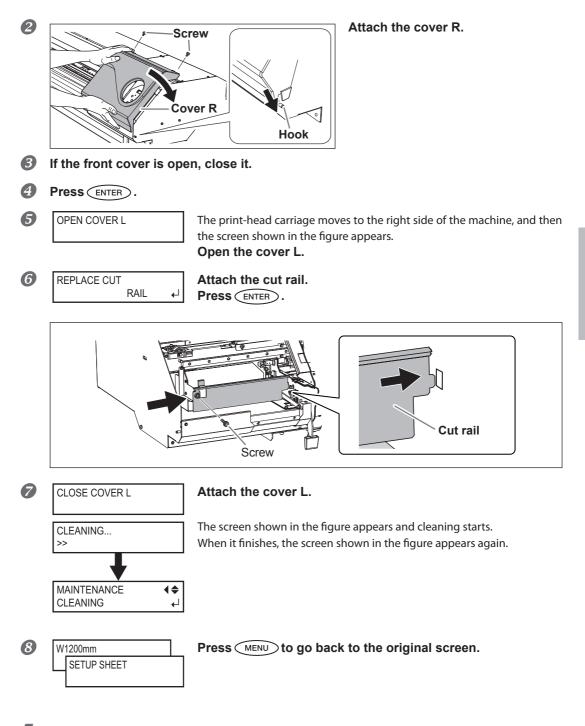


### **4.** Reattach cover L, cover R, and quit the manual cleaning menu.



#### Attach the cover L.

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**5.** Perform a printing test to verify the results of the procedure.

#### Perform a printing test to check the results.

Perform cleaning using the machine's cleaning feature several times when necessary.

☞ P. 41, "Printing Tests and Cleaning"

### When Problems Such As Dot Drop-Out Are Not Cleared Up

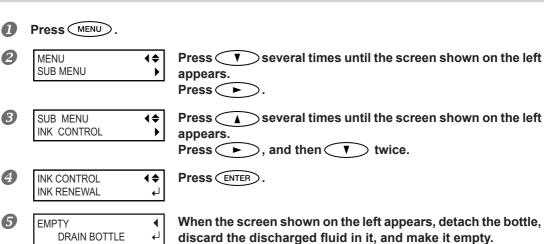
When flaws in the dot pattern such as dot drop-out are not cleared up even after performing cleaning using the cleaning function (normal, medium, or powerful) or manual cleaning, perform the operation described below.

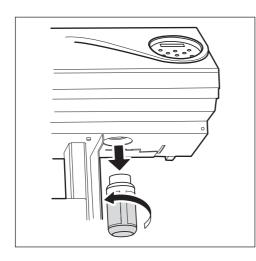
#### [IMPORTANT!]

A large amount of ink will be discharged during this operation. Perform this operation only when dot dropout cannot be cleared up even after performing cleaning using the cleaning function (normal, medium, or powerful) or manual cleaning.

- P. 53, "Maintenance that Should Be Performed Daily"
- P. 57, "When Normal Cleaning Is Not Effective"
- P. 61, "Manual Cleaning"

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# **CAUTION** Be sure to discard the Discharged fluid at this step.

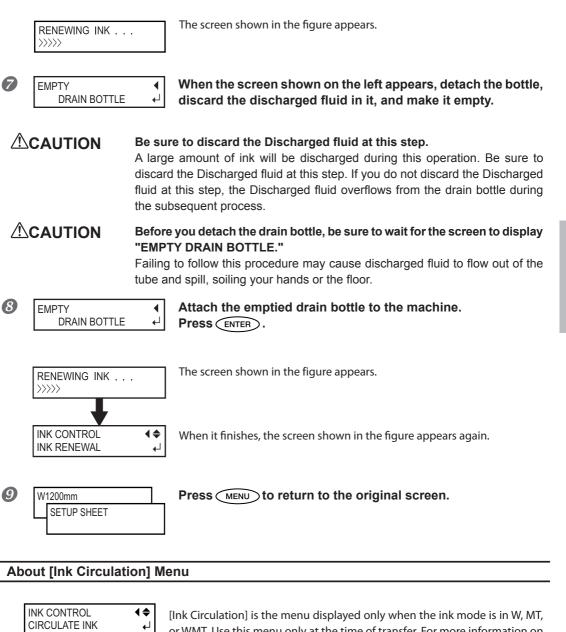
A large amount of ink will be discharged during this operation. Be sure to discard the Discharged fluid at this step. If you do not discard the Discharged fluid at this step, the Discharged fluid overflows from the drain bottle during the subsequent process.

# CAUTION Before you detach the drain bottle, be sure to wait for the screen to display "EMPTY DRAIN BOTTLE."

Failing to follow this procedure may cause discharged fluid to flow out of the tube and spill, soiling your hands or the floor.



Attach the emptied drain bottle to the machine. Press (ENTER).



[Ink Circulation] is the menu displayed only when the ink mode is in W, MT, or WMT. Use this menu only at the time of transfer. For more information on the operation at the time of transfer, refer to the "Setup Guide."

3

Maintenance

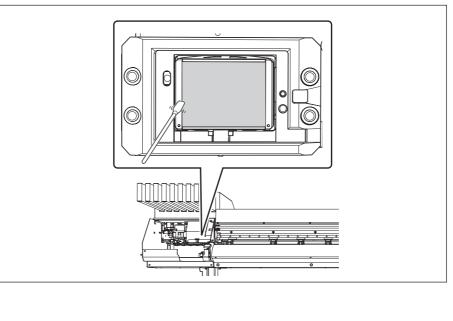
### **POINT!** Cleaning of the head surface as an emergency measure

When dot drop-out and/or dot deflection is not improved even if cleaning is performed several times, you can clean the head surface as an emergency measure. Since the head surface (nozzle surface) has an extremely delicate mechanism, make sure to perform the operation carefully and deliberately. Note that this operation is an emergency measure. It may damage defect-free parts depending on the symptom, deteriorating it. If you have any questions, contact your authorized Roland DG Corp. dealer or Roland DG Corp.

#### Procedure

#### Moisten the cleaning stick with the cleaning liquid.

#### Softly press the cleaning stick to the head surface (nozzle surface). Press it gently and softly so that the head nozzle is permeated with the cleaning liquid. Never rub the stick on the surface and press it forcibly.



### **Replacing the Wiper**

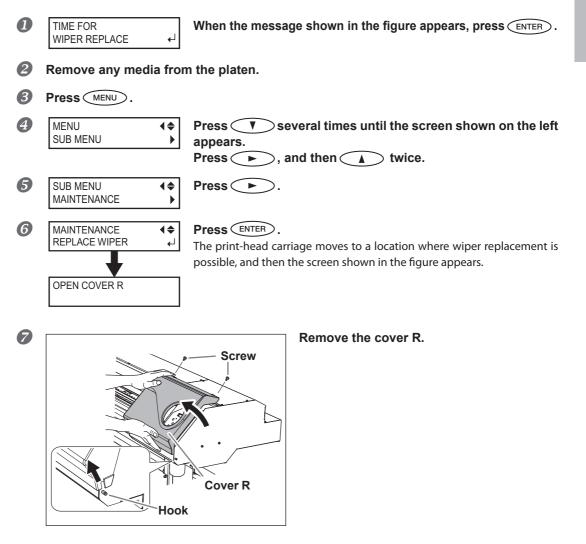
The wipers are components that you use when cleaning the print heads. When the screen displays a message like the one shown, it means the item needs to be replaced. Replace with new items.

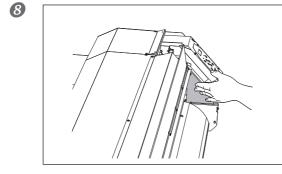
TIME FOR	
WIPER REPLACE	+

Regarding the purchase of the wiper, contact your authorized Roland DG Corp. dealer or Roland DG Corp.

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

### **1.** Display the [REPLACE WIPER] menu.





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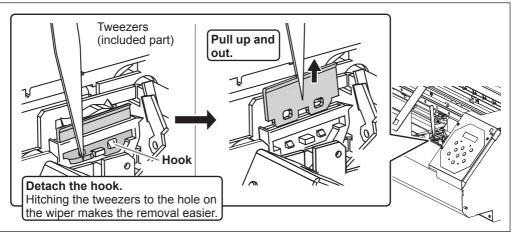
Touch the location shown in the figure to discharge any static electricity.

9 FINISHED?

Preparations are complete when this screen appears.

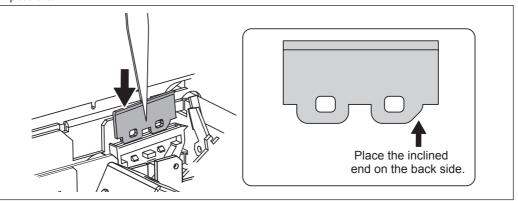
**2.** Replace the wiper.

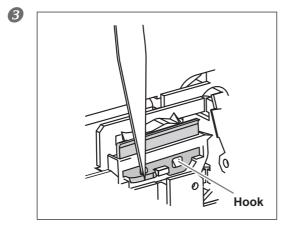
#### Detach the old wiper.



#### Insert the new wiper.

Place the inclined end on the back side If the wiper is placed inversely, the proper cleaning becomes impossible.



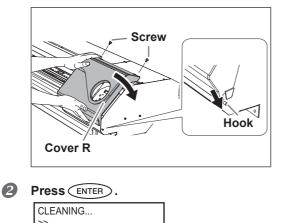


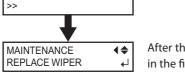
#### Attach the hook.

Make sure to attach the hook. Otherwise it cases dotdrop out or else.

 $\boldsymbol{\beta}_{\bullet}$  Reattach the cover R, and quit the wiper replacement menu.

**1** Attach the cover R.





After the process to quit the wiper replacement menu, the screen shown in the figure appears.

Press MENU to go back to the original screen.



#### Perform a printing test to check the result.

P. 41, "Printing Tests and Cleaning"

SETUP SHEET

B

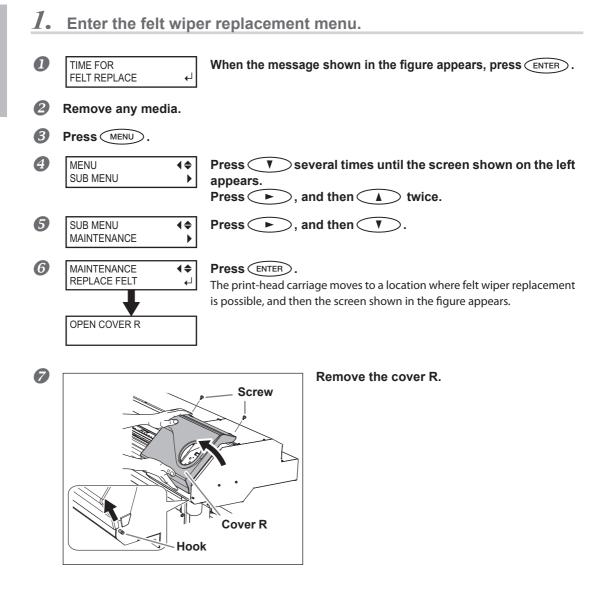
### **Replacing the Felt Wiper**

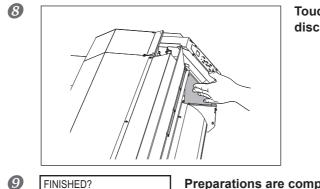
The felt wiper is the part used for cleaning of the print heads. When such the screen is displayed on the display screen, it is the time for replacement. Replace it with a new item.



Regarding the purchase of the felt wiper, contact your authorized Roland DG Corp. dealer or Roland DG Corp.

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





4

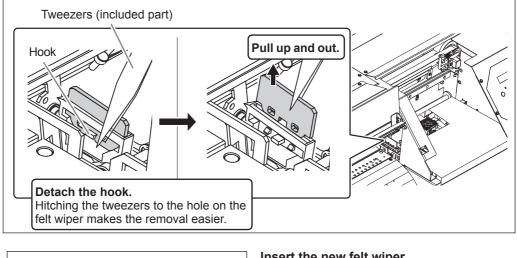
Touch the location shown in the figure to discharge any static electricity.

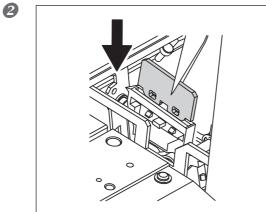
9

Preparations are complete when this screen appears.

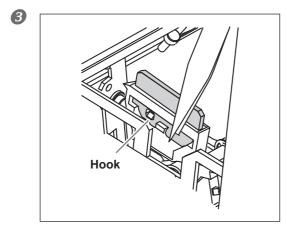
2. Replace the felt wiper.

#### **Detach the old felt wiper.**





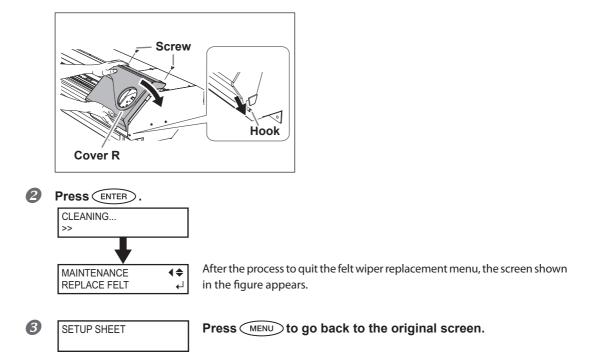
Insert the new felt wiper.



Attach the Hook.

Make sure to attach the hook. Otherwise it cases dot-drop out or else.

- 3. Reattach the cover R, and quit the felt wiper replacement menu.
- **1** Attach the cover R.



### **4.** Perform a printing test to check the result.

#### Perform a printing test to check the result.

☞ P. 41, "Printing Tests and Cleaning"

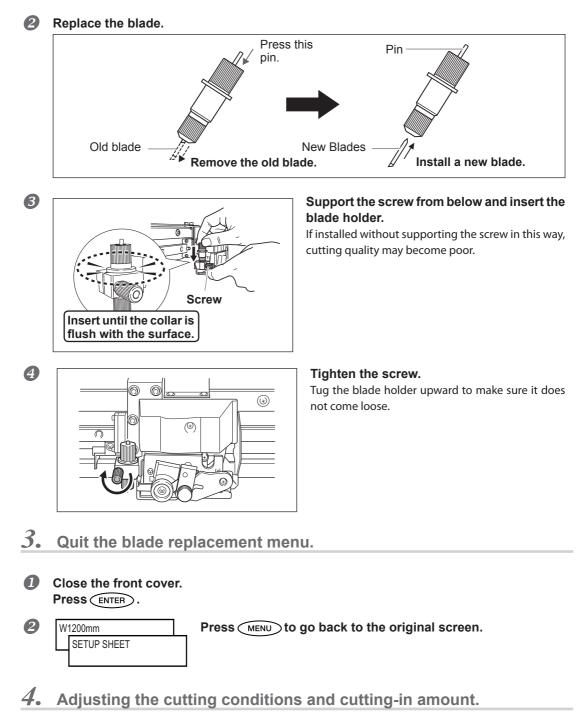
### **Replacing the Blade**

If the blade becomes dull, or if the edge of the blade is chipped, or if the blade quality is lowered, replace it with a new blade.

⚠		e sure to perform operations as specified by the following ins nd never touch any area not specified in the instructions. udden movement of the machine may cause injury.	structions,
Ţ		ever touch the tip of the blade with your fingers. oing so may result in injury.	
<i>1</i> .	Enter the bla	e replacement menu.	
0	Press MENU.		3
2	MENU SUB MENU	<ul> <li>Press v several times until the screen shown appears.</li> <li>Press , and then  twice.</li> </ul>	on the left Maintenance
3	SUB MENU MAINTENANCE	♦ Press ►.	6
4	MAINTENANCE REPLACE KNIFE	<ul> <li>♦ Press ▼ several times until the screen shown appears.</li> <li>Press ENTER .</li> </ul>	on the left
5	NOW PROCESSING.	The cutting carriage moves to a location permitting placement, and then the screen shown in the figure	•
	OPEN FRONT COVER		
6	FINISHED?	<ul> <li>Open the front cover.</li> <li>              ← Preparations are complete when this screen appears.      </li> </ul>	
<i>2</i> .	Replace the	ade.	

0

Remove the blade holder.



☞ P. 100, "Fine-Tuning the Cutting Conditions"

P. 102, "Accurately Adjusting the Cutting-in Amount"

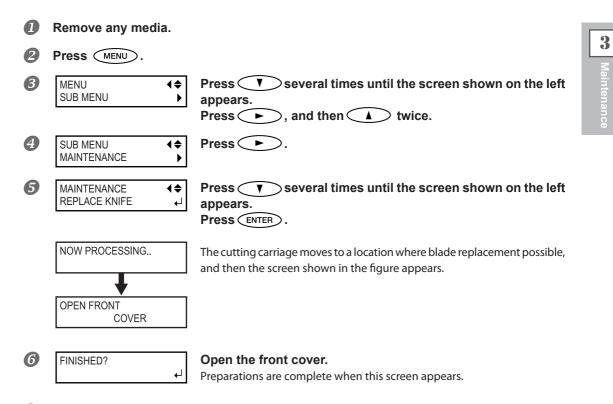
3

### **Replacing the Separating Knife**

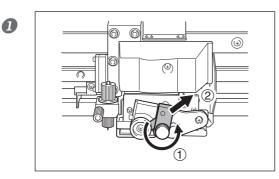
If the separating knife becomes dull, replace it with the included replacement knife.

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

- **CAUTION** Never touch the tip of the blade with your fingers. Doing so may result in injury.
- **1.** Enter the blade replacement menu.



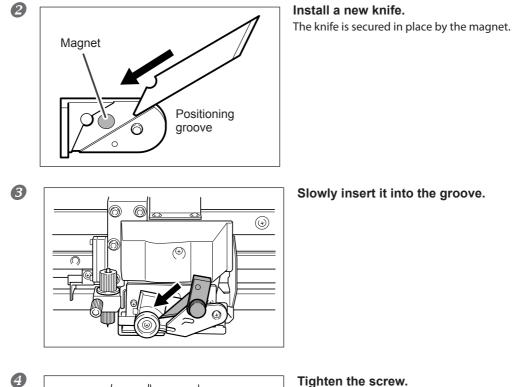
2. Replace the separating knife.



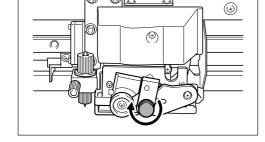
Remove the separating knife.

1 Loosen the screw until it slips out.

② Grasp the screw portion, and slowly pull it out in the direction of the arrow. When doing this, do not pull it back toward you.



Take care to ensure that the knife does not slip out of position at this time.



6

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#### Tighten the screw.

3. Quit the blade replacement menu.



2 SETUP SHEET Press MENU to go back to the original screen.

### **Keep Performing Maintenance**

#### Switch on the power once a month

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

#### Keep at a constant temperature and relative humidity

Even when the machine is not in use, keep it at a temperature of 5 to 40°C (41 to 104°F) and a relative humidity of 20 to 80% (with no condensation). Temperatures that are too high may degrade the ink and cause malfunction. Temperatures that are too low may cause the ink to freeze and damage the heads.

### **Alarm Feature**

PRESS THE POWER KEY TO CLEAN

This feature is to remind you to switch on the sub power once a month. When the machine remains unused for about one month, this screen appears and a warning beep sounds. If this screen appears, switch on the sub power. When maintenance operations finish, switch off the sub power.

This feature operates when the printer's main power is turned on. Be sure to always switch on the printer's main power even if the printer is not used for a prolonged period.

### When Not in Use for a Prolonged Period, Precaution 1

#### In advance, insert ink cartridges that have a large amount of ink remaining.

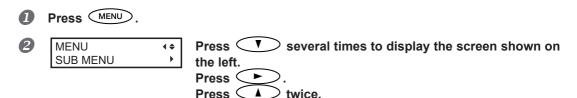
If the ink runs out, the machine will not be able to periodically perform automatic maintenance. If the machine is left in this state, the print heads may malfunction. If you know that you will not use the machine for a prolonged period, insert ink cartridges that have a large amount of ink remaining.

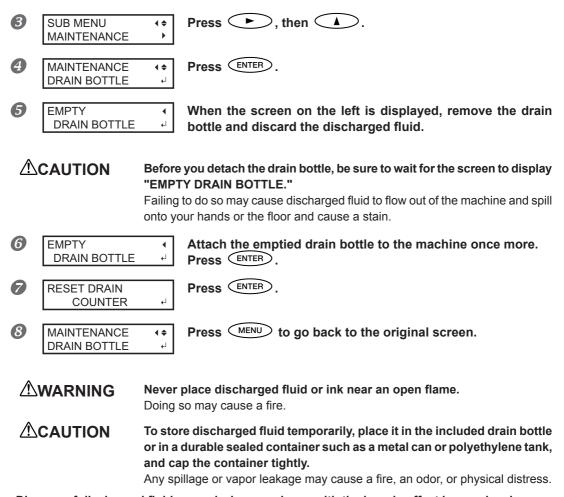
### When Not in Use for a Prolonged Period, Precaution 2

#### Discard the discharged fluid in advance of prolonged periods of disuse.

If you know that you will not use the machine for a prolonged period, follow the procedure below to discard the discharged fluid.

Procedure





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

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## 4 Part of Practice

### Saving Various Settings as a Name Assigned Preset

**Procedure** 

0	Press MENU.	
2	MENU 4 PRESET	<ul> <li>Press V to display the left figure.</li> <li>Press A display then V.</li> </ul>
3	PRESET 4	Press .
4	SAVE ANAME1	<ul> <li>Press Inter to enable the setting.</li> <li>The present menu settings are saved.</li> </ul>
6	NAME <b>\$</b> _	<ul> <li>Press  To enter a character.</li> <li>When a character is decided, press .</li> <li>The characters you can enter are "A" through "Z," "0" through "9," and the "-" character. You can enter up to 15 characters, including spaces.</li> </ul>
6	NAME <b>↓</b> SAMPLE_	<ul> <li>Press  To enter a character.</li> <li>Enter the following characters in the same way.</li> <li>When entries are completed, press ENTER to enable the setting.</li> </ul>
7	W1200mm SETUP SHEET	Press MENU to go back to the original screen.

#### Description

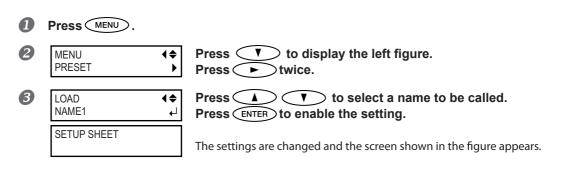
Using the [PRESET] menu lets you easily change a wide variety of settings to optimize them for the media. Up to eight types of presets can be saved. You can assign a name to each one. Using media names for these may aid recognition and clarity. Making changes for each menu item every time you change the media can be trouble-some. That's why it can be useful to save the menu-item settings optimized for an often-used type of media as a preset. The next time you use the media, you can change the menu-item settings to the optimal values for the media simply by loading the preset you saved. Menu items that can be saved in presets are listed below.

[PRINT] (Print heater), [DRYER]	P. 85, "Making the Temperature Setting for the Media Heating System"
[PREHEATING]	P. 87, "Control of Media Heating System Dur- ing Preheating"
[DRYING TIME]	P. 88, "Setting the Drying Time After Printing"
[FEED FOR DRY]	P. 88, "Drying the Trailing Edge of the Printing Area on the Dryer"
[ADJUST BI-DIR SIMPLE SETTING]	P. 90, "Correcting for Misalignment in Bidi- rectional Printing"
[ADJUST BI-DIR DETAIL SETTING]	P. 91, "Correcting for Misalignment in Bidirec- tional Printing More Precisely"
[CALIBRATION]	P. 91, "Alleviating Horizontal Bands and the Like (Feed Correction Function)"
[EDGE DETECTION]	P. 94, "Using Transparent Media"
[SCAN INTERVAL]	P. 94, "Printing Hard-to-Dry Media"
[VACUUM POWER]	P. 95, "Using the Media Easy to Be Winkled/ Hard to Be Fed"
[FULL WIDTH S]	P. 96, "Speeding Up Output for Narrow Media"
[MEDIA RELEASE]	☞ P. 98, "Using Sticky Media"
[FORCE], [SPEED], [OFFSET], [UP-SPEED]	P. 100, "Fine-Tuning the Cutting Conditions"
[CALIBRATION] (in the [CUTTING MENU])	P. 103, "Performing Distance Correction Dur- ing Cutting"
[PRINT-CUT ADJ.]	P. 104, "Correcting Misalignment of the Printing and Cutting Positions"
[CROP-CUT ADJ.]	P. 115, "Correcting Misalignment for Printing and Cutting When Using Crop Marks"

☞ P. 84, "Loading a Saved Preset"

### Loading a Saved Preset

Procedure

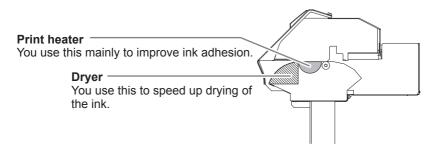


#### Description

This loads a saved preset. You can select any one of eight types of presets (When no names have been assigned, you select from among NAME1 through NAME8). If you call a preset while SETUP stays illuminated, SETUP starts flashing. When the setup operation is completed, SETUP is illuminated again.

### What Is the Media Heating System?

This machine is equipped with a media heating system that warms the media. You use this mainly to improve ink adhesion and also dry the ink. You can adjust the temperature settings to match the type of media and the printing speed.



- \* By using an optional dryer, you can speed up drying of the ink more. Contact your sales dealer or Roland DG Corporation for recommended dryer models.
  - P. 89, "Using an Optional Dryer"

CAUTION: high temperatures
The platen and drver become hot. Exercise caution to avoid fire or burns.

WARNING Remove any loaded media or switch off the sub power when printing is not being performed. The continued application of heat at a single location may cause fire or produce toxic gases. Never use media that cannot withstand the heat. Doing so may degrade the media, or may result in fire or the release of toxic gases. Never use the platen or dryer for any purpose for which they are not intended, such as to dry clothing. Doing so may cause overheating, resulting in fire or accident.

Use at an ambient temperature of 20 to 32°C (68 to 90°F).

If the machine is used at an ambient temperature lower than 20°C (68°F), then depending on the type or width of the media, wrinkling or temperature-caused unevenness may occur. If this happens, try lowering the temperature of the media heating system by about 2°C. To obtain stable printing results, however, the machine should be used at an ambient temperature of 20 to 32°C (68 to 90°F).

### Making the Temperature Setting for the Media Heating System

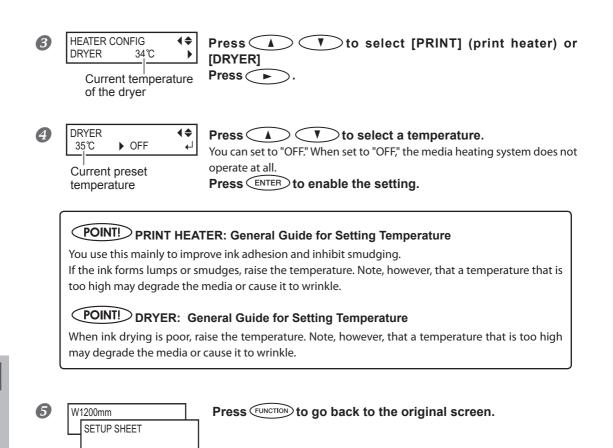
#### Procedure

Press (FUNCTION)

FUNCTION

2

> several times until the screen shown on the left Press ( HEATER CONFIG appears. Press 🤇 🕨



#### Description

By default setting, simply switching on the power does not make the media heating system warm up to the preset temperature. The temperature rises until preset temperature when the media is loaded correctly and SETUP lights up. You can also make this setting on the software RIP. When you have made the setting on

the software, the software's setting is used.

\* Depending on the usage environment, the temperature of the print heater or dryer may become higher than the preset temperature, but this does not represent a problem.

#### **POINT!** Hints and Tips for Temperature Setting

#### The relationship between the print mode and temperature

The optimal temperature for the media heating system varies according to such factors as the type of media and differences in the print mode. If smudging or poor drying occur even after raising the temperature, try using a print mode of RIP software offering higher image quality. Conversely, when you want to use a faster print mode, raise the temperature.

#### Amount of ink

When you change the amount of ink using the settings for your software RIP, adjusting this may yield better results. If problems such as smudging persist even after raising the temperature, try reducing the amount of ink.

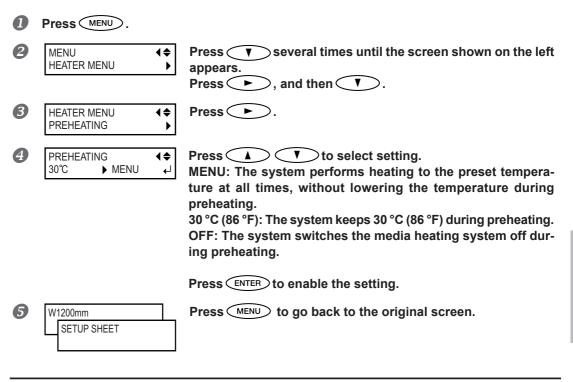
#### Other points to remember

When recommended settings for temperature, print mode, and other values are given as the use condition of your media, use the suggested settings.

### **Control of Media Heating System During Preheating**

Note: Preheating: State that the main power and the sub power are switched on and SETUP is not lighted (state that media setup is not completed)

Procedure



#### **Default Setting**

[PREHEATING]: 30 °C (86 °F)

4

### Drying the Trailing Edge of the Printing Area on the Dryer

**Procedure** 

0	Press MENU.	
2	MENU ( HEATER MENU	Press veveral times until the screen shown on the left appears. Press twice.
3	FEED FOR DRY     ↓       DISABLE     ▶     ENABLE	Press Term to enable the setting.
4	W1200mm SETUP SHEET	Press (MENU) to go back to the original screen.

#### Description

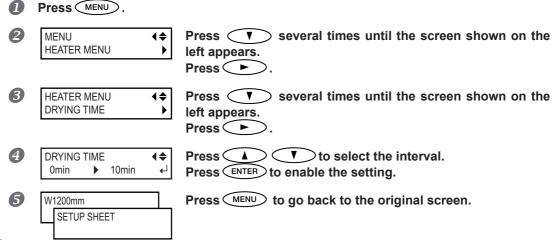
- "ENABLE" : media feed is performed until the trailing edge of the printing area is positioned on the dryer. The margin between the print-end position and the next print-start position is set to a value of 100 millimeters when [OPTION DRYER] is "DISABLE" or 250 millimeters when "ENABLE."
  - P. 89, "Using an Optional Dryer"
- > "DISABLE" : media feed stops simultaneously when printing ends. This means that the trailing edge of the printing area is not fed to the dryer unless you continue with a subsequent printing operation.

#### **Default Setting**

[FEED FOR DRY]: DISABLE

### **Setting the Drying Time After Printing**

#### Procedure



#### Description

Set the interval after the 1st page is printed. The next operation is not started until the set time passes. PAUSE is lighting during the interval. When pressing PAUSE while PAUSE is lighting, the interval is finished and the next operation is started. When holding on PAUSE while PAUSE is lighting, output is canceled.

#### **Default Setting**

[DRYING TIME]: 0 min

### Using an Optional Dryer

**Procedure** 

	Press MENU.	
2	MENU ↓ HEATER MENU ▶	Press V several times until the screen shown on the left appears. Press N, and then A.
3	HEATER MENU OPTION DRYER ►	Press .
4	OPTION DRYER ↓ DISABLE ↓ ENABLE ↓	Use <b>A V</b> to select "ENABLE." Press ENTER.
6	W1200mm SETUP SHEET	Press MENU to go back to the original screen.

#### Description

This switches the optional dryer "ENABLE" or "DISABLE".

When using an optional dryer, set [OPTION DRYER] to "ENABLE". And you can speed up drying of the ink more. Contact your authorized Roland DG Corp. dealer for recommended dryer models. For the details of how to use an optional dryer, refer to the documentation for the dryer you're using.

#### **Default Setting**

[OPTION DRYER]: DISABLE

### **Correcting for Misalignment in Bidirectional Printing**

**Procedure** 

1	Press MENU.		
2	MENU (\$ ADJUST BI-DIR	Press v several times until the screen shown on the left appears. Press .	
8	ADJUST BI-DIR TEST PRINT ↓	Press ENTER. A test pattern is printed. When printing is completed, press V I in this order.	
4	SIMPLE SETTING $4 \Leftrightarrow$ 0 + 6 $\downarrow$	Press Tense to enable the setting.	
Т	o decide a Correction Val	ue	
C	Choose the value that produces the least misalignment of 2 lines. The least misalignment		
	Correction-value scale	Current correction value	
		0 -9 -8 -7 -6 -5 -4 -3 -2 -1 0 +1 +2 +3 +4 +5 +6 +7 +8 +9 +10 +11 +12 +13 +14 +15 +16 +17 +18 +19 +20	

**5** Press **MENU** to go back to the original screen.

#### Description

This machine prints by the bidirectional mode in which the heads perform printing during both their outbound pass and return pass. This printing method is called "Bidirectional Printing." This method offers the advantage of being able to shorten output times, but subtle misalignment occurs during the outbound and return passes. The procedure to correct this and eliminate misalignment is "Bidirectional Correction." This misalignment varies according to the head height and the thickness of the media, so we recommend performing correction to match the media you're using.

This settings also serves to correct for misalignment of the printing and cutting positions. In such cases, check or adjust this setting.

@ P. 104, "Correcting Misalignment of the Printing and Cutting Positions"

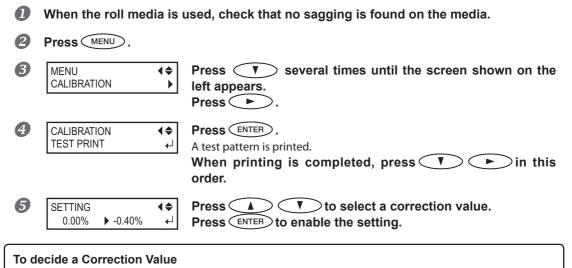
### **Correcting for Misalignment in Bidirectional Printing More Precisely**

When further correction is required, such as when adjustment made using [SIMPLE SETTING] does not enhance printing, use [DETAIL SETTING] to make corrections.

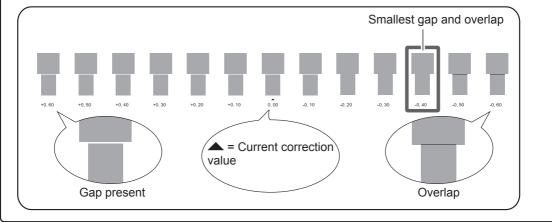
For information on operations, refer to P. 27, "Performing the Initial Adjustment (Correcting for Misalignment in Bidirectional Printing More Precisely)".

### Alleviating Horizontal Bands and the Like (Feed Correction Function)

```
Procedure
```



Select the value to make the upper/lower rectangular gap and overlap smallest.



**6** Press MENU to go back to the original screen.

4

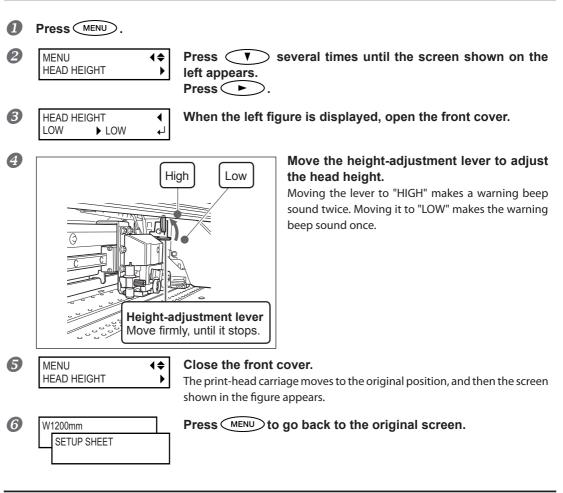
#### Description

The movement distance of media experiences subtle changes due to the thickness of the media and the temperature of the media heating system. When the movement distance becomes discrepant, horizontal stripes are more likely to occur during printing. We recommend performing correction to match the media you're using and the media heating system. Repeat the process of printing a test pattern and entering a correction value several times to find the optimal value.

You can also make this setting on the RIP software computer (by, for example, choosing the media type in the software RIP you are using). When you have made the setting on the computer, the computer's setting is used and the printer's setting is ignored.

### Adjusting Head Height to Match Media Thickness

**Procedure** 



#### Description

Depending on the media, media may wrinkle or come loose from the platen during printing, increasing the chance of contact with the print head. When you are using such media, adjust the head height to "HIGH." Printing quality when the head height is set to "HIGH" may be coarser or otherwise lower than when set to "LOW." If this happens, refer to the pages indicated below.

- P. 90, "Correcting for Misalignment in Bidirectional Printing"
- P. 27, "Performing the Initial Adjustment (Correcting for Misalignment in Bidirectional Printing More Precisely)"
- @ P. 97, "Preventing Soiling of the Media and Dot Drop-Out"

### **Using Transparent Media**

**Procedure** 

	Press MENU.	
2	MENU ↓ SUB MENU ▶	Press v several times until the screen shown on the left appears. Press twice.
3	EDGE DETECTION	Press to enable the setting.
	SETUP SHEET	The settings are changed and the screen shown in the figure appears.

#### Description

This setting enables or disables detection of the leading and trailing edges of the media. It is normally set to "ENABLE." When transparent media is loaded, set it to "DISABLE." When [EDGE DETECTION] is set to "DISABLE," printing operation does not stop when the media runs out. If media runs out while printing is in progress, immediately press PAUSE to quit printing. Otherwise, there is a chance that the platen or the like may become soiled by ink or that ink may get inside and damage the machine.

#### **Default Setting**

[EDGE DETECTION]: ENABLE

### **Printing Hard-to-Dry Media**

#### **Procedure**

1		
2	MENU (\$ SUB MENU	Press ▼ several times until the screen shown on the left appears. Press ▶, and then ▼.
8	SUB MENU SCAN INTERVAL ►	Press .
4	SCAN INTERVAL OFF ► 1.0 sec ←	Press ( ) ( ) to select a value. Larger values produce progressively slower movement of the media, en- abling you to extend the drying time accordingly Press ( NTER ) to enable the setting.
6	W1200mm SETUP SHEET	Press (MENU) to go back to the original screen.

#### Description

You use this when ink dries poorly even when the media heating system is used. You can also make this setting on the RIP software computer. When you have made the setting on the computer, the computer's setting is used and the printer's setting is ignored.

#### **Default Setting**

[SCAN INTERVAL]: OFF

### Using the Media Easy to Be Winkled/Hard to Be Fed

Procedure

0	Press MENU.	
2	MENU (\$ SUB MENU	Press v several times until the screen shown on the left appears. Press . Press v twice.
3	SUB MENU VACUUM POWER	Press ►.
4	VACUUM POWER AUTO ▶ 90% ←	
6	W1200mm SETUP SHEET	Press MENU to go back to the original screen.

#### Description

The platen uses suction to grip the media and keep it stable. The suction force can be adjusted corresponding to the mature and condition of the media.

You can also make this setting on the RIP software computer. When you have made the setting on the computer, the computer's setting is used and the printer's setting is ignored.

#### **Default Setting**

[VACUUM POWER]: AUTO

### **Speeding Up Output for Narrow Media**

**Procedure** 

0	Press MENU.	
2	MENU ↓ SUB MENU ▶	Press v several times until the screen shown on the left appears. Press .
8	SUB MENU ↓ FULL WIDTH S ►	Press v several times until the screen shown on the left appears. Press .
4	FULL WIDTH S FULL → OFF ↓	<ul> <li>Press A v to select an item.</li> <li>SHEET</li> <li>"SHEET" matches the range of head movement to the width of the media.</li> <li>OFF</li> <li>"OFF" matches the range of head movement to the output data. Movement is limited to the minimum amount necessary, and this can be expected to yield the fastest output. Note, however, that because the speed of media movement is no longer constant, colors may be uneven.</li> <li>FULL</li> <li>This makes the speed of media movement constant at all times and produces the most stable printing result.</li> <li>Press ENTER to enable the setting.</li> </ul>
5	W1200mm SETUP SHEET	Press (MENU) to go back to the original screen.

#### Description

This shortens output time by reducing the width of head movement to the minimum necessary. This is effective when the width of the media or the output data is narrow.

#### **Default Setting**

[FULL WIDTH S]: FULL

Part of **P** 

### Preventing Soiling of the Media and Dot Drop-Out

**Procedure** 

1	Press MENU.	
2	MENU (\$ SUB MENU )	Press V several times until the screen shown on the left appears. Press A.
3	SUB MENU ↓ PERIODIC CL. ↓	Press v several times until the screen shown on the left appears. Press .
4	PERIODIC CL	<ul> <li>Press A T to select an item.</li> <li>PAGE</li> <li>Automatic cleaning is performed every time before printing starts.</li> <li>10 to 990 min</li> <li>Automatic cleaning is performed when the cumulative printing time reaches the value you set here.</li> <li>NONE</li> <li>Automatic cleaning is not performed.</li> <li>Press ENTER to enable the setting.</li> </ul>
5	W1200mm SETUP SHEET	Press MENU to go back to the original screen.

#### Description

In the following cases, Ink tends to collect on the surface of the heads. Under some conditions, this ink may be transferred to the media or cause dot drop-out. Use this feature at such times.

- > When you use media prone to buildup of static charge.
- When the ambient temperature is low.
- When the head height is set to "HIGH."

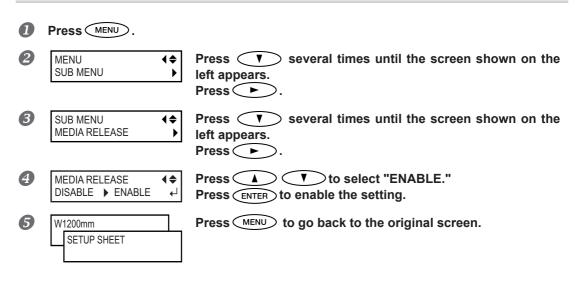
Selecting "PAGE" or a value from "10 min" to "990 min", the ink buildup is removed before or during printing while printing is performed. Note, however, that using "PAGE" or a value from "10 min" to "990 min," results in longer printing times.

#### **Default Setting**

[PERIODIC CL.]: NONE

### **Using Sticky Media**

**Procedure** 



#### Description

Some types of media may tend to stick to the platen. Starting printing with the media sticking to the platen may make normal media feed impossible and cause the media to jam. When you're using such media, set the [MEDIA RELEASE] menu item to "ENABLE." This peels off the media if sticking before starting printing. Note, however, that media feed may be unstable when printing is performed after executing this operation. Leave this menu item set to "DISABLE." unless you specifically need to change it

#### **Default Setting**

[MEDIA RELEASE]: DISABLE

### Hints and Tips for Cutting Setting

Setting the [PREFEED] menu item to "ENABLE" makes the machine automatically feed out media and take it up again before cutting. This makes it unnecessary to run out media to the rear of the machine before the operation.

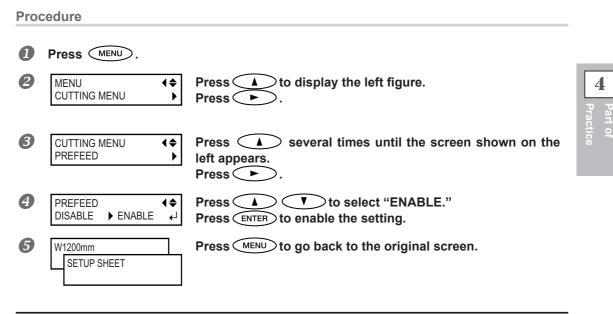
P. 99, "Preventing Pulling of the Media with Undue Force When Performing Cutting Only"

Switching off the print heater and dryer and allowing the temperature to cool before performing cutting can yield results that are more stable.

P. 85, "Making the Temperature Setting for the Media Heating System"

- > The tip of the blade holder cap may scrape, and soil or damage the printed surface. If this happens, increase the amount of blade extension.
  - P. 102, "Accurately Adjusting the Cutting-in Amount"

### Preventing Pulling of the Media with Undue Force When Performing Cutting Only



#### Description

This feeds out media according to the size of the data sent from the computer before performing cutting. This makes it unnecessary to turn the media flanges by hand to feed out media every time you perform cutting. Note, however, that this feeds out media even when you're performing printing only, so set it to "DISABLE" when not needed.

#### **Default Setting**

[PREFEED]: DISABLE

### **Fine-Tuning the Cutting Conditions**

**Procedure** 

#### Performing the Cutting Test.

 $^{\circ}$  P. 44, "Setting the Cutting Test and the Blade Force" Procedure IWhen cutting of the test patterns is completed, press  $\bigcirc$ .

CUT CONFIG FORCE Press V to select the set cutting condition. Press .

#### [Force]

This sets the force (pressure) of the blade. (Default Setting 50gf)

#### [Speed]

This sets the speed of cutting. Default Setting: 30 cm/s)

#### [OFFSET]

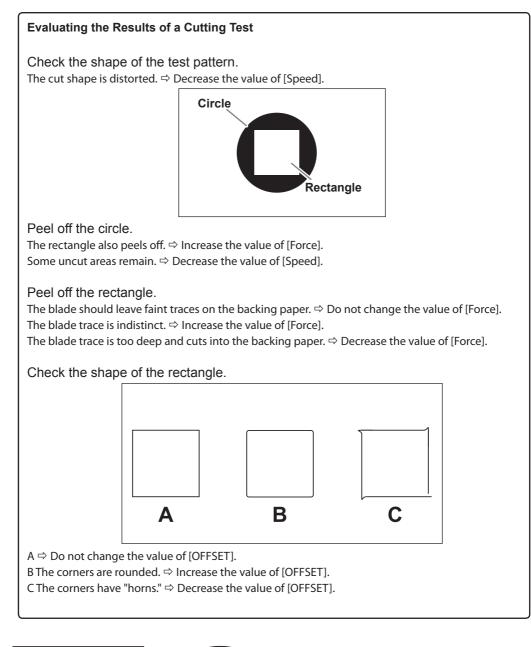
This makes the blade-offset setting for the blade. Enter the listed offset value for the blade. (Default Setting: 0.250 mm)

#### [UP-SPEED]

This sets the blade's up speed during cutting (the speed at which the blade travels when it moves to the next cutting line after cutting one cutting line). If the media comes loose during no-load feed and the blade damages the surface of the media, reduce the speed. (Default Setting: 30 cm/s)

B	FORCE			Press 🚺 🔽 to select a value.
	50 gf	▶ 60 gf	L.	Press ENTER to enable the setting.

For information on the evaluation method of cutting test, refer to the next page.



4

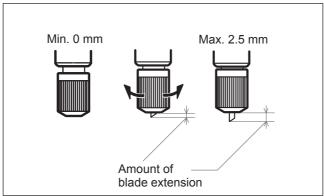
W1200mm

Press **FUNCTION** to go back to the original screen.

### Accurately Adjusting the Cutting-in Amount

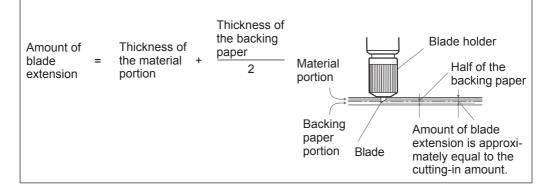
When you want to perform accurate and fine adjustment of the cutting-in amount, such as when cutting media with thin backing paper, you can obtain good results by adjusting the tip of the blade. Turn the cap portion of the blade holder to adjust the amount of blade extension. Each indicator tick corresponds to 0.1 millimeters, and adjustment for 0.5 millimeters can be made by rotating the cap one full turn.

Note that making the amount of blade extension too small may cause the tip of the blade holder cap to touch, and may soil and damage the printed surface. It's important to be especially careful about this when you're using media that has poor ink adhesion properties.



#### Rough Estimate for the Amount of Blade Extension

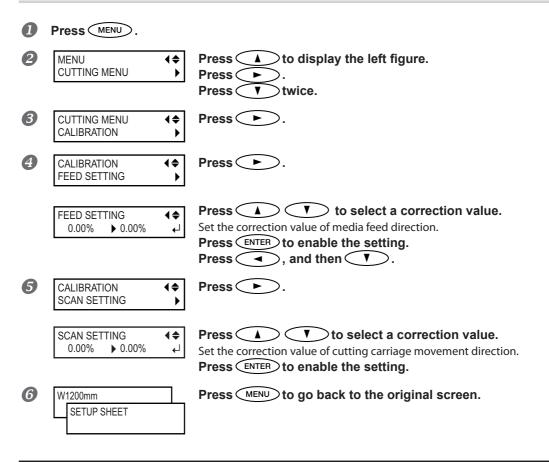
Use the following dimension as a rough estimate for setting the amount of blade extension.



### **Performing Distance Correction During Cutting**

\* When you're performing printing followed by cutting, be sure to set the correction value to "0.00%." Otherwise the printing and cutting positions may become misaligned.

#### Procedure



#### Description

The movement distance of the media changes subtly depending on the media's thickness. This means that the length of a line when cut may differ from the length setting in the data. You enter a correction value when you want to align the lengths

#### **Default Setting**

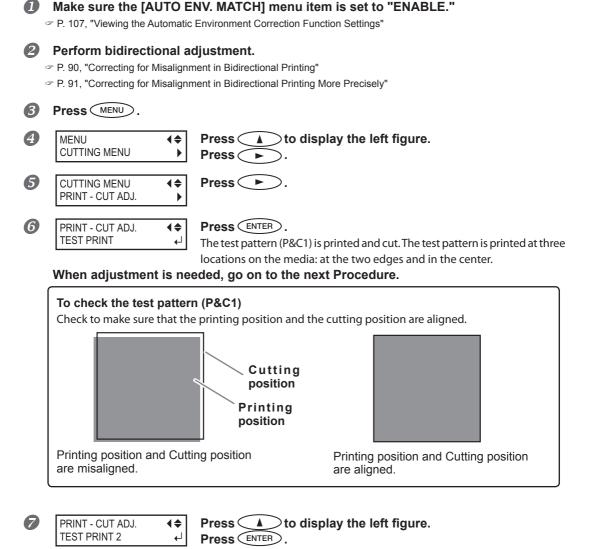
[FEED SETTING]: 0.00% [SCAN SETTING]: 0.00%

### **Correcting Misalignment of the Printing and Cutting Positions**

Note: When performing this setting, make sure to set the correction value of [CUTTING MENU CALIBRATION] to "0.00%."

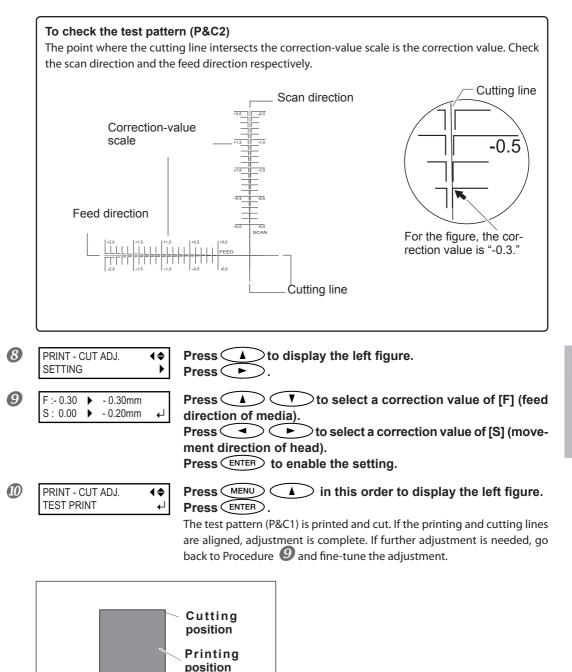
P. 103, "Performing Distance Correction During Cutting"

Procedure



The test pattern (P&C2) is printed and cut.

For information on the method of test pattern check, refer to the next page.



Printing position and Cutting position are aligned.

#### Description

You perform this when printing followed immediately by cutting yields positioning for printing and cutting that is slightly misaligned. You print alignment marks, perform detection of the printed marks, and correct the discrepancy. Subtle misalignment between the printing and cutting positions may occur due to the thickness of the media or the head height. We recommend making correction to match the media you're using.

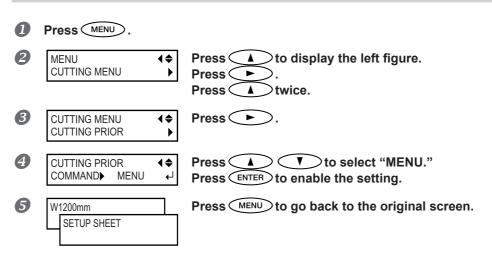
#### **Default Setting**

[F] (correction value of media feed direction): 0.00mm

[S] (correction value of head movement direction): 0.00mm

### Prioritize the Cuttings Setting of This Machine to the Settings of a Computer Side in RIP Software

Procedure



#### Description

You can also make the settings for the cutting conditions using the RIP software computer. By default, the settings made with the computer take priority. To make the cutting conditions set on the machine take priority, either turn off the settings of the computer or make the setting described above.

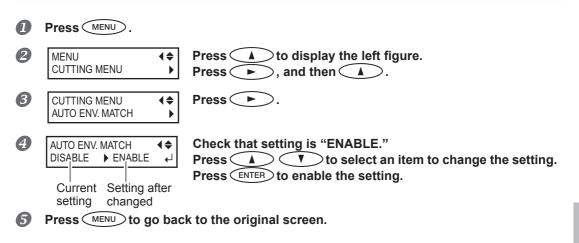
#### **Default Setting**

[CUTTING PRIOR]: COMMAND

### **Viewing the Automatic Environment Correction Function Settings**

The automatic environment correction function is the function that adjusts automatically to the optimal condition of this machine according to the operating environment (humidity and temperature). Performing automatic adjustment can reduce misalignment in the scanning direction (the direction of cutting carriage movement) during printing or cutting. Normally set to "ENABLE."

Procedure

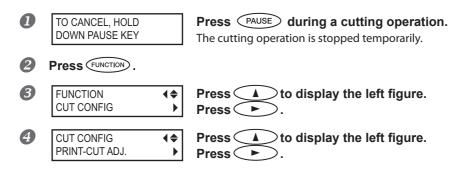


#### **Default Setting**

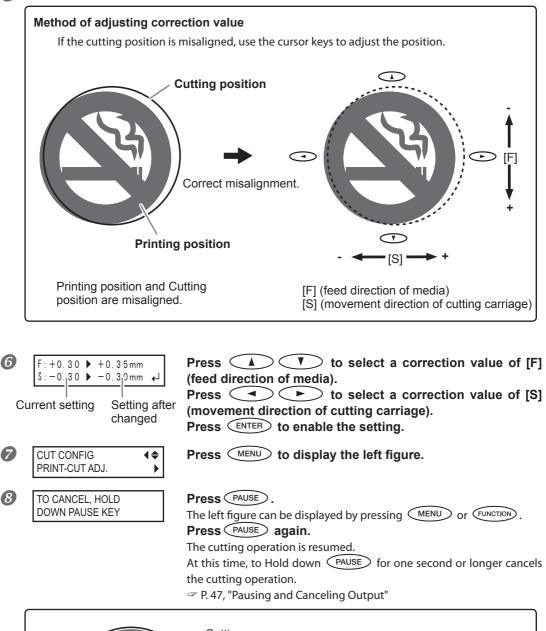
[AUTO ENV. MATCH]: ENABLE

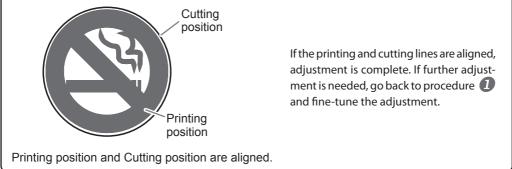
### **Correcting Misalignment of the Printing and Cutting Positions During Cutting**

Procedure









### Description

This machine allows you to stop a cutting operation temporarily to correct the misalignment of the printing and cutting positions. The correction values set here take effect as the default values of the printing and cutting positions.

If the printing and cutting positions are misaligned, normally, you adjust the positions while checking a test pattern.

☞ P. 104, "Correcting Misalignment of the Printing and Cutting Positions"

### **Default Setting**

- [F] (correction value of media feed direction): 0.00 mm
- [S] (correction value of cutting carriage movement direction): 0.00 mm

### **To Perform Printing and Cutting Separately**

You can remove the printed media and then reload it and perform cutting.

(Example: Perform lamination or other processing after printing, then reload the media and perform cutting.) Then, carry out alignment to prevent misalignment of the printing results and the cut lines. Perform this adjustment in the next Procedure.

**Procedure** 



### Printing with Crop Marks.

P. 110, "Printing with Crop Marks"



### Align to the printed crop marks and perform cutting.

- You can detect the crop marks automatically or manually.
- P. 112, "Aligning Automatically and Cutting" P. 114, "Aligning Manually and Cutting"

Note: Correct misalignment of the printing and cutting positions, if applicable. P. 115, "Correcting Misalignment for Printing and Cutting When Using Crop Marks"

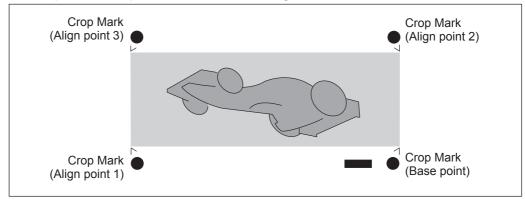
### **Printing with Crop Marks**

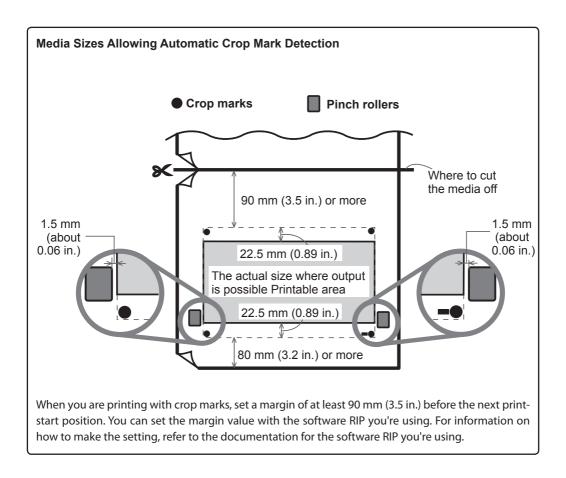
Use your software RIP to make the settings for printing crop marks. For information on how to make the setting, refer to the documentation for the software RIP you're using.

### **IMPORTANT!**

Alignment marks and symbols drawn using a graphics program cannot be used as crop marks.

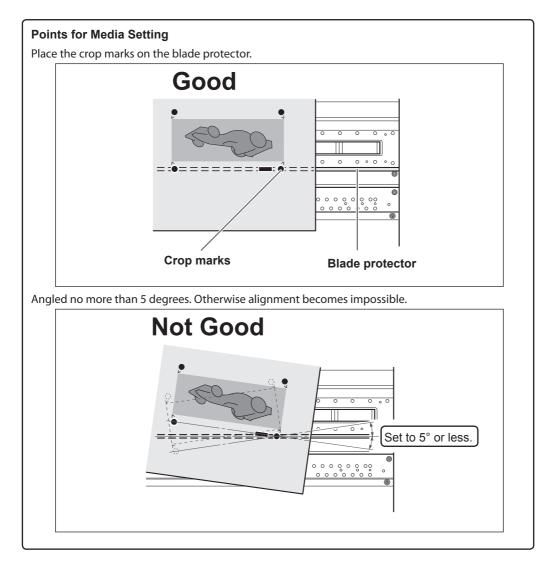
### The crop marks are printed as shown in the figure.





### **Aligning Automatically and Cutting**

When you make the setting for reading crop marks when sending cutting data from the computer, alignment is performed with the presence or absence of crop marks determined automatically. For information on how to make the setting, refer to the documentation for the software RIP you're using.



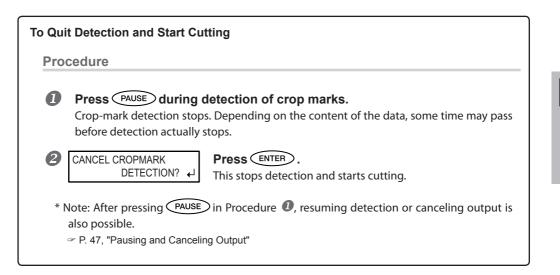
### If Automatic Alignment Cannot Be Performed

CROPMARK ERROR NOT FOUND If the machine fails to detect the crop marks, the screen shown in the figure appears and operation stops. Press any key then the screen goes back to the previous screen. Reload the media, and then send the data again. Reload the media, and then send the data again.

\* When you want to perform automatic alignment with lengthy media, we recommend performing output with the data separated into sizes that are as short as possible.

The crop marks cannot be detected easily because of the effects of media warping or the like. With large sizes, error due to warping and the like increases, making smooth detection impossible. In such the cases, perform alignment manually.

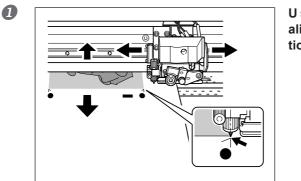
P. 114, "Aligning Manually and Cutting"

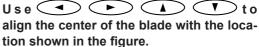


### **Aligning Manually and Cutting**

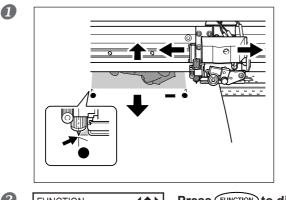
Depending on the type of media, it may not be possible to detect crop marks automatically. When crop marks cannot be detected automatically, you perform alignment manually.

### *I*. Set the base point.



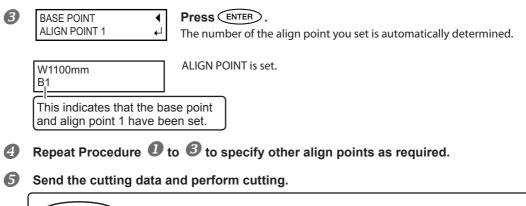


- FUNCTION
  FUNCTION
  BASE POINT
  W1100mm
  B
  Press ENTER
  B
  BASE POINT is set.
- 2. Set the align points.



align the center of the blade with the location shown in the figure.

 FUNCTION
 Image: Second state s





The numbers for align points are determined with reference to the location of the base point. You cannot set an align point unless you specify a base point. Redoing the setting for the base point clears any align points that have been set.

### **Correcting Misalignment for Printing and Cutting When Using Crop Marks**

Note: When performing this setting, make sure to set the correction value of [CUTTING MENU CALIBRATION] to "0.00%."

@ P. 103, "Performing Distance Correction During Cutting"

### **Procedure**



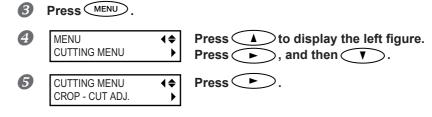
### Make sure the [AUTO ENV. MATCH] menu item is set to "ENABLE."

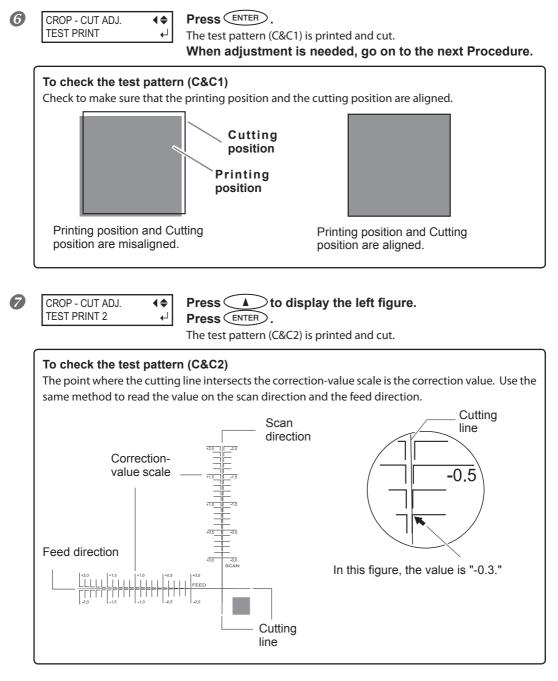
P. 107, "Viewing the Automatic Environment Correction Function Settings"



### Perform bidirectional adjustment.

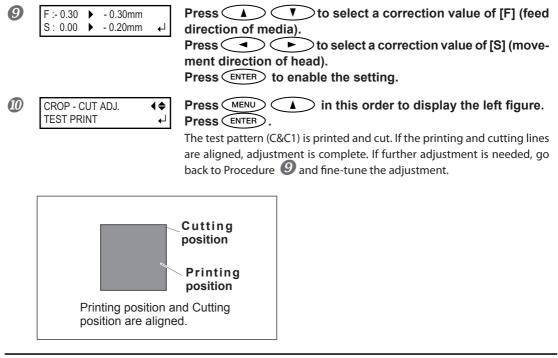
P. 90, "Correcting for Misalignment in Bidirectional Printing" P. 91, "Correcting for Misalignment in Bidirectional Printing More Precisely"











### Description

Depending on the composition of the media, the positioning of printing and cutting may be misaligned even when you're using crop marks. Make corrections for misaligned printing and cutting for the media you're using.

### **Default Setting**

- [F] (feed direction): 0.00 mm
- [S] (scanning direction): 0.00 mm

### Use the Media Take-Up System When the Output Accompanied with the Pull-Back Operation Is Performed

Note: The media take-up system (hereinafter called take-up system) is optional part.

- Note: For information on how to assemble and install the take-up system, refer to the user's manual of the take-up system.
- Note: For information on the output not accompanied with the pull-back operation, refer to the user's manual of the take-up system.

If you use the take-up system when the output accompanied with the pull-back operation is performed, perform the following procedures before use of it.

**Procedure** 

### Move the dancer roller toward the rear.



SETUP SHEET

TU2

Turn on the sub power, and select "TU2" by pressing 
 when the left figure is displayed.

Then, operate according to the procedure in the user's manual of the media take-up system.

### Use Conditions of Take-Up System When "TU2" Is Selected

The use conditions vary according to the selections of "TU2" (accompanying the pull-back operation) and "TU" (not accompanying the pull-back operation). When you select "TU", be sure to comply with the use conditions in the user's manual of the take-up system. When you select "TU2", be sure to comply with the following conditions.

- > Do not operate the manual switch on the take-up system leaving the loading lever lower.
- $\succ$  Do not feed the media reversely by pressing  $\frown$ .

It may cause an error because the media is pulled with excessive force.

### > Do not use the automatic cut-off function.

When the setting to execute automatic cutoff of the media is made on the RIP software, media cutoff is performed when printing of one page finishes. When you're performing continuous printing and takeup for two or more pages, turn off the automatic-cutoff feature on the RIP software. Take-up quits as soon as the media is cut off.

### About Length Output at One Time

If the length of output at one time is too long, the media may get soiled by touching the work floor. To avoid the media from getting soiled by touching the floor, output the media by about 300 mm. To output by limiting the length, use the function of RIP software.

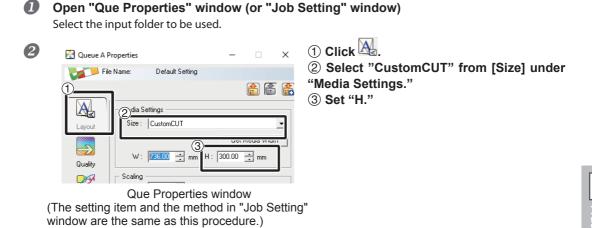
The setting method when using VersaWorks is continued on next page.

### How to Output by Limiting Length

For information on the detail usage of VersaWorks series, refer to the link below.

- VersaWorks Dual
  - The https://webmanual.rolanddg.com/RolandVersaWorksDual
- VersaWorks 6
  - https://webmanual.rolanddg.com/VersaWorks6

### When using Versa Works Dual



### When using Versa Works 6

For information on the detail usage of VersaWorks series, refer to the link below.

https://webmanual.rolanddg.com/VersaWorks6 Output Settings > Setting the Layout > Setting the Media Size

### **Test Print Direction**

When performing printing tests successively, you can select "FEED" or "SCAN" as the print direction. However, when the optional media take-up system is used, "Feed" is applied regardless of the setting of the test print direction.

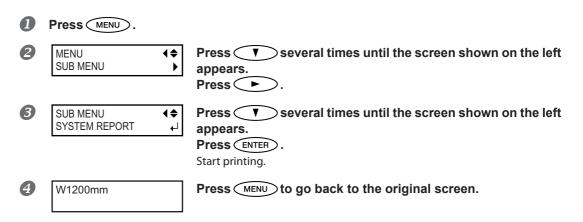
# Chapter 5 To Administrators

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### **Printing a System Report**

This prints system information, including a list of setting values.

### Procedure



### **Determining What Happens When Ink Runs Out**

This lets you change, according to your purpose, the operation that takes place when an ink cartridge is empty.

### Procedure

<b>1</b> 2	Press MENU . MENU SUB MENU	<b>1</b> ≑ ▶	Press veral times until the screen shown on the left appears. Press .	Administrator
3	SUB MENU INK CONTROL	<b>↓</b>	Press several times until the screen shown on the left appears. Press twice.	rators
4	EMPTY MODE STOP CONT.	<b>♦</b> ↓	Press STOP: Printing pauses immediately when a cartridge becomes empty. CONT (continue): Printing does not stop when a cartridge becomes empty. When a cartridge becomes empty, a warning beep sounds. Press ENTER to enable the setting.	
6	W1200mm SETUP SHEET		Press MENU to go back to the original screen.	

### Description

When "STOP" is selected, printing pauses and so colors may be uneven. Ensure a sufficient amount of remaining ink before you begin printing.

When "CONT" is selected, printing does not stop even if ink runs out completely. To replace the cartridge, wait until printing ends or press PAUSE to pause printing.

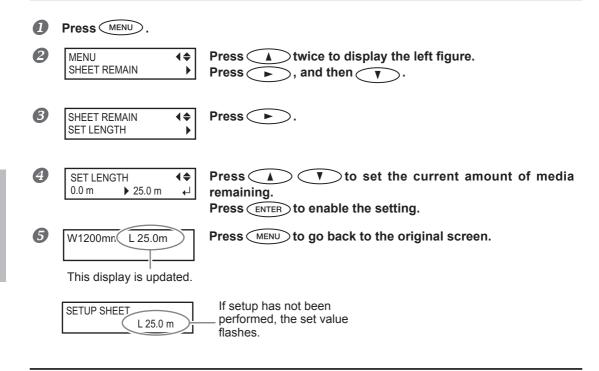
### **Default Setting**

[EMPTY MODE]: STOP

### **Displaying the Amount of Media Remaining**

You can display how much of the media in use is left. First, you set the amount of media remaining, the amount remaining is displayed at the top menu until it reaches zero.

**Procedure** 



### Description

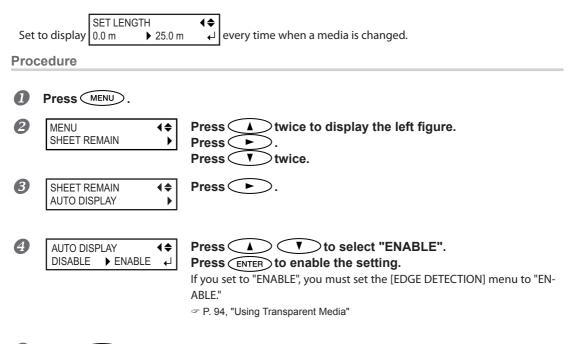
If you cancel the setup such as by removing the media or raising the loading lever, the amount remaining at that time flashes on the screen.

Because the amount of media remaining is not updated automatically when you change the media, redo the setting whenever you change the media. You can also make the setting to display this menu automatically whenever you change the media. See the next section, P. 123, "Making Sure to Verify the Setting for the Amount Remaining Every Time the Media Is Changed"

Note: The remaining amount that is displayed is only an estimate, and its accuracy is not assured.

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### Making Sure to Verify the Setting for the Amount Remaining Every Time the Media Is Changed



**5** Press MENU to go back to the original screen.

### Description

Setting this menu to "ENABLE" can keep you from forgetting to redo the setting when you change the media. Be sure, however, also to set the [EDGE DETECTION] menu (refer to P. 94, "Using Transparent Media") to "EN-ABLE." When [EDGE DETECTION] is set to "DISABLE," [SHEET REMAIN] is not displayed automatically.

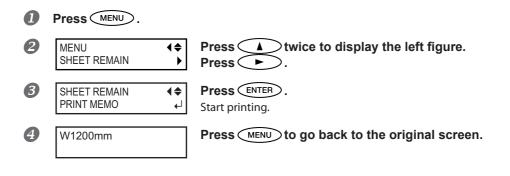
### **Default Setting**

[AUTO DISPLAY]: DISABLE

### Printing the Amount of Remaining Media

This prints the amount of media remaining that is displayed at the top menu.

### Procedure



### Description

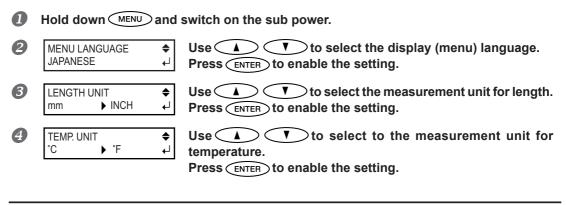
You use this when you want to make a record of the remaining length of the media now in use. Printing the amount of media remaining before you change the media enables you to refer to the printed record and use the value to make the setting for the remaining amount the next time you use the media.

Note, however, that continuing by performing the next output starts the output on top of the portion where the amount of remaining media is printed. After printing the amount remaining, then before you perform the next output operation, we recommend cutting off the media.

### Setting for the Menu Language and the Units of Measurement

This sets the language and units of measurement displayed on the display screen of the operation panel.

### Procedure

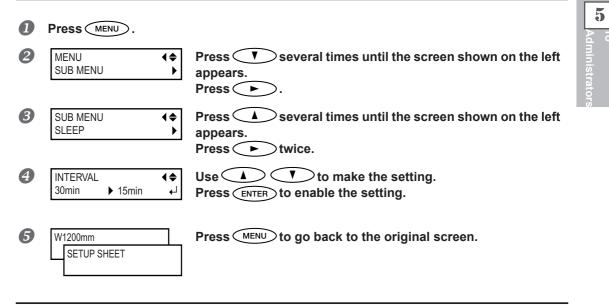


### **Default Setting**

[MENU LANGUAGE]: ENGLISH [LENGTH UNIT]: mm [TEMP. UNIT]: ℃

### Setting the Interval Until Activation of the Sleep Mode (Power Saving Function)

Procedure



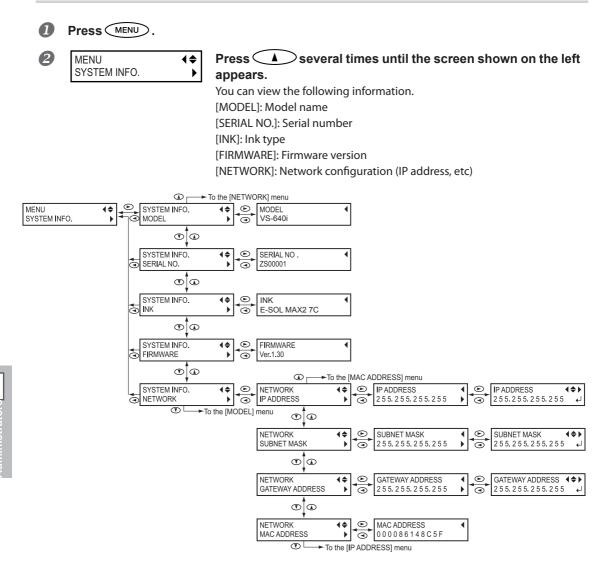
### **Default Setting**

[INTERVAL]: 30min

### Viewing Information About the System of This Machine

Note: For information on how to set up a network, refer to "Setup Guide."

### Procedure

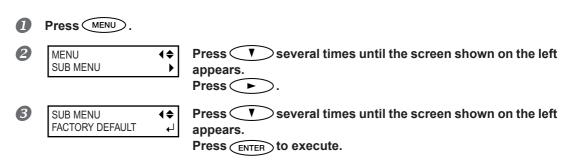


5

### **Returning All Settings to Their Initial Values**

This menu returns all settings to the same as their factory defaults. However, the settings for [MENU LANGUAGE], [LENGTH UNIT], and [TEMP. UNIT] are not returned to the factory defaults.

Procedure



# Chapter 6 Read This Chapter Whenever You Face a Problem. (FAQ)

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### Printed Results Are Coarse or Contain Horizontal Stripes

### Do the print heads show dot drop-out?

Carry out a printing test and make sure no dot drop-out occurs. If dot drop-out is present, perform head cleaning.

- P. 41, "Printing Tests and Cleaning"
- P. 57, "When Normal Cleaning Is Not Effective"

### Is the head height appropriate?

Printing when the [HEAD HEIGHT] menu item is set to "HIGH" is coarser than when set to "LOW." Keep this set to "LOW" except when changing it is necessary, such as when you're using thick media.

P. 93, "Adjusting Head Height to Match Media Thickness"

### Have you carried out feed correction?

Large misalignment in the amount of feed of the media may result in printing that seems coarse or contains horizontal stripes. Either make the setting on the computer to match the type of media you're using, or make the setting for correction on the printer.

P. 91, "Alleviating Horizontal Bands and the Like (Feed Correction Function)"

### Have you carried out bidirectional correction?

When you are performing bidirectional printing, use the [ADJUST BI-DIR] menu item to carry out correction. The optimal adjustment value may vary, depending mainly on the thickness of the media. Set or select an adjustment value that is suited to the media. When further correction is required, such as when adjustment made using [SIMPLE SETTING] does not enhance printing, use [DETAIL SETTING] to make correction.

P. 90, "Correcting for Misalignment in Bidirectional Printing"

P. 91, "Correcting for Misalignment in Bidirectional Printing More Precisely"

### Is the print heater at a suitable temperature?

If the ink forms lumps or smudges, raise the temperature. Note, however, that a temperature that is too high may degrade the media or cause it to wrinkle.

P. 85, "Fully Utilize the Media Heating System"

### Is the temperature of the room too low?

The media heating system may not warm up sufficiently when the ambient temperature is less than 20°C (68°F). Also, even when the media heating system reaches its preset temperatures, adequate effectiveness may not be apparent if the media is thoroughly chilled. Before printing, allow the media to come to room temperature.

### Is the print mode suitable?

If attractive printing is impossible even when the media heating system is at a high temperature, try using a higher-quality print mode. Depending on the media, smudging may occur when using a high-quality print mode, and results may also vary greatly depending on the settings of your software RIP (such as the color-profile selection). Make settings suited to the media you're using.

### Is the printer installed in a level and stable location?

Never install the machine in a location where it is tilted or where it may wobble or experience vibration. Also make sure that the print heads are not exposed to moving air. These factors may lead to missing dots or reduced printing quality.

6

### Is the media loaded and set up correctly?

If the media is not loaded and set up correctly, media feed may not be smooth, or printing may be adversely affected. Make sure the media is loaded and set up correctly.

P. 135, "Media Feed Is Not Smooth"

### Are the settings for the [PRESET] menu item appropriate?

If the settings selected with the [PRESET] menu item are not suitable for the type of media, printing may be adversely affected. Choose settings optimized to the media you're using.

P. 29, "Setup of Media"

P. 82, "Fully Utilizing Preset Function"

### **Colors Are Unstable or Uneven**

### Did you shake the ink cartridges gently before in-stalling them?

Shake new cartridges gently before you install them.

### Is the media wrinkled?

If the media is wrinkled and comes loose from the platen, colors may be uneven or printing quality may suffer.

P. 135, "Media Feed Is Not Smooth"

### Was printing paused partway through?

When printing is paused, the coloring at the seam may be altered when printing resumes. Avoid pausing printing. By default, printing pauses when ink remaining inside the machine runs out. Before you perform lengthy printing, check the amount of ink remaining in the ink cartridges. Printing may also pause when data is not sent from the computer quickly enough. We recommend not performing any other tasks with the computer while printing is in progress.

### Is the printer installed in a level and stable location?

Never install the machine in a location where it is tilted or where it may wobble or experience vibration. Also make sure that the print heads are not exposed to moving air. These factors may lead to missing dots or reduced printing quality.

### Are the operating parameters set to appropriate values?

Depending on the settings for such menu items as [FULL WIDTH S] and [PERIODIC CL.], uneven colors may occur. If the settings have been changed, try restoring them to their default values.

- P. 96, "Speeding Up Output for Narrow Media"
- P. 97, "Preventing Soiling of the Media and Dot Drop-Out"

### Are the settings for the [PRESET] menu item appropriate?

If the settings selected with the [PRESET] menu item are not suitable for the type of media, printing may be adversely affected. Choose settings optimized to the media you're using.

P. 82, "Fully Utilizing Preset Function"

### The Media Becomes Soiled When Printed

### Do the print heads contact the media?

The height of the print heads may be too low. Also, if the media is not loaded and set up correctly, it may wrinkle or come loose and strike the heads.

- P. 93, "Adjusting Head Height to Match Media Thickness"
- P. 135, "Media Feed Is Not Smooth"

### Are the print heads dirty?

The following may cause ink to drip on the media during printing.

> Buildup of fibrous dust (lint) around the heads.

> Ink transferred to the heads due to rubbing against the media.

If this happens, clean the print heads manually. We recommend carrying out periodic head cleaning.

P. 61, "Manual Cleaning"

> Tow Low Humidity.

Use this machine in the environment of 35 to 80 % RH (non condensation).

### Are the pinch rollers or the media clamps dirty?

Periodically clean them.

@ P. 55, "Cleaning"

### **Cutting Is Misaligned or Skewed**

### Is the media loaded and set up correctly?

If the media is not loaded and set up correctly, or media feed is not smooth, cutting may be adversely affected. Make sure the media is loaded and set up correctly.

P. 135, "Media Feed Is Not Smooth"

### Are the settings for the cutting conditions appropriate?

Misalignment or skewing may occur if the cutting speed is too fast or the blade force is too high. Try changing the cutting conditions. With media having a strong adhesive layer, the adhesive layer reattaches to itself immediately after cutting. However, if a cutting test shows that the peeling of the media and the blade traces on the backing paper are optimal, then the media is being cut properly. Be careful not to make the blade force too high.

P. 99, "Fully Utilizing Cutting Function"

### Is the length of output too long?

For printing followed immediately by cutting in particular, the longer the page length (that is, the longer the distance the media is returned after printing), the greater is the chance of misalignment occurring. It is a good idea to keep the size of each single page to the minimum necessary.

### Are you using media that exhibits large expansion and contraction?

When you're performing printing followed immediately by cutting, misalignment occurs if the media expands or contracts. If this happens, try performing printing with crop marks, then setting the base point and one or more align points and performing cutting. This corrects for expansion and contraction of the media.

### Is [AUTO ENV. MATCH] set to the "DISABLE" setting?

The printing and cutting positions may become misaligned due to ambient temperature or humidity. Setting [AUTO ENV. MATCH] to "ENABLE" performs matching to the environment to correct for misalignment. P. 107, "Viewing the Automatic Environment Correction Function Settings"

# Are the settings for the [CALIBRATION] menu item (in the [CUTTING MENU] menu item) correct?

When you're performing printing followed immediately by cutting, go to [CUTTING MENU] and set the [CALI-BRATION] value to "0.00."

P. 103, "Performing Distance Correction During Cutting"

### Are the pinch rollers placed on the proper locations?

Be sure to place the pinch Rollers on the grit rollers. If the pinch rollers are not placed on the proper locations, misalignment of the media may occur.

@ P. 18, "Loading Media"

## Media Jam Occurs!

### The Media Jams

If an error message is displayed because the media has jammed, immediately correct the problem. Failure to do so may damage the print heads.

P. 145, "[MOTOR ERROR TURN POWER OFF]"

#### Is the media warped or wrinkled?

Many factors can cause warping or wrinkling. Refer to the following and correct the problem. P. 135, "Media Feed Is Not Smooth"

### Is the height of the print heads too low?

Try raising the heads higher. Media may inevitably warp or wrinkle slightly, so adjust the height of the heads to take this into account.

P. 93, "Adjusting Head Height to Match Media Thickness"

A variety of problems can occur if the media feed is not smooth. This can cause such problems as poor printing quality, contact with the media by the print heads, misaligned positioning, or media jams. Take action as follows.

### **Media Wrinkles or Shrinks**

### Is the media loaded and set up straight and securely?

Feed is not smooth when the media is not straight or is tensioned unevenly on the left and right. Reload the media.

P. 29, "Setup of Media"

### Was loaded media allowed to stand for some time?

Media may shrink or wrinkle if it is heated for an extended time. When printing ends, switch off the sub power or remove the media.

### Are the media clamps mounted?

When you're performing printing, be sure to attach the media clamps.

### Was the media loaded while the print heater was hot?

Loading media after the print heater has warmed up causes the temperature of the media to rise suddenly, which may cause the media to shrink or wrinkle during printing. Before loading media, switch off the sub power and allow the platen to cool.

P. 85, "Fully Utilize the Media Heating System"

### Is the temperature of the media heating system too high?

Set the temperature to suitable values for the type of media.

P. 85, "Fully Utilize the Media Heating System"

### Is the temperature of room too low?

Use this machine in an environment having an ambient temperature of 20 to 32°C (68 to 90°F). If the machine is used at an ambient temperature less than 20°C, then depending on the type or width of the media, wrinkling or temperature-caused unevenness may occur. If this happens, try lowering the temperature of the media heating system by about 2°C. To obtain stable printing results, however, the machine should be used at an ambient temperature of 20 to 32°C(68 to 90°F).

### Is the humidity of the room too high?

Use this machine in the environment of 35 to 80 %RH (non condensation).

### Is the using media deflected?

If using the deflected media, it cause winkle of the media.

### Media Feed Is Not Straight

### Is the media loaded and set up straight and securely?

Feed is not smooth when the media is not straight or is tensioned unevenly on the left and right. Reload the media.

P. 29, "Setup of Media"

### Media Feed Is Not Smooth

### Do the media or the shafts strike some other object?

Make sure the media and the shafts do not touch anything else. This may affect output, even when feed appears to be smooth.

P. 29, "Setup of Media"

### Is the media too thick?

Media that is too thick may not only cause unstable feed, but may scrape the print heads, resulting in malfunction. Never use such media.

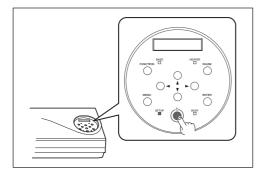
### Are the grit rollers dirty?

Check to make sure the grit rollers are free of buildup of foreign material such as media scraps. P. 55, "Cleaning"

# **Print Head Stops Moving. Why?**

If the print-head carriage stops over the platen, take action immediately to prevent the heads from drying out.

### What to Do First



Switch the sub power off, then back on again.

If the media is jammed, then also remove the media.

If the print-head carriage move to the standby position (inside the side cover), it means the operation has ended successfully.

### If the Heads Still Do Not Move

Try switching off the main power, then again switching on the main power, followed by the sub power.

### If the Heads Still Do Not Move

If the heads still do not move, carry out the following emergency response measure, then contact your authorized Roland DG Corp. dealer or us.

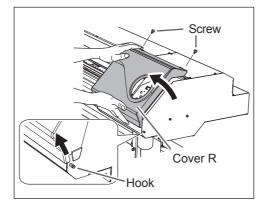
### Procedure



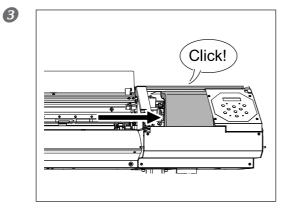
2

**1** Switch off the main power and open the front cover.

6



Remove the Cover R. Detach the side cover.



# Gently move the print head to the standby position.

Stopping at the place where the audible click is heard locks the print heads in place.

Gently apply pressure from the right side to make sure the heads don't move to the left. If the print heads move to the left, again move them slowly by applying pressure from the left side and make sure they lock in place.

### The Printer Unit Doesn't Run

### Is the power switched on?

Switch on the printer's main power, then press the sub power switch and make sure the sub power switch lights up.

@ P. 17, "Switch On!"

#### Is **SETUP** illuminated?

Output is not performed when **SETUP** is not illuminated. Lower the loading lever.

P. 45, "Getting Ready to Receive Data from a Computer"

#### Is the front cover open?

Close Front Cover, Cover L and Cover R.

#### Is the top menu displayed?

#### Top menu

W1200mm

If the top menu isn't displayed, output doesn't start even when data is sent from the computer. To go to the top menu, press (MENU), then press (

P. 45, "Getting Ready to Receive Data from a Computer"

### Is **PAUSE** illuminated?

When PAUSE lights up, operation is paused. To resume, press PAUSE . PAUSE goes dark and outputting resumes.

P. 47, "Pausing and Canceling Output"

#### Has ink run out?

### 1 2 3 4 5 6 7 8

When the screen shown in the figure is displayed, the machine cannot receive the data of printing or cutting instructions. If the screen shown in the figure appears during a printing operation, the printer operation differs according to the setting of "EMPTY MODE".

- > When "STOP" is selected: The printing operation temporarily stops.
- When "CONT." is selected: A warning beep sounds and the printing operation continues until the machine finishes outputting the received print data. You can temporarily stop the printing operation by pressing PAUSE.

In either case, replacing the ink cartridge with a new one allows the machine to recover from the error. If the machine holds the print data that have not been processed, the printing operation is resumed. If there are unsent data in the computer, resending the data allows printing and cutting to be restarted.

- P. 52, "How to Replace Ink Cartridges"
- P. 121, "Determining What Happens When Ink Runs Out"

#### Is a message displayed on the screen?

- P. 141, "A Message Appears"
- P. 142, "An Error Message Appears"

### Is the cable connected?

Connect the cable securely.

"Setup Guide"

### Is the network routing appropriate?

Try connecting the computer and the machine to the same hub, or connecting them directly using a crossover cable. If this makes it possible to perform output, it means the problem is in the network itself.

### Are the network settings correct?

If the cable connections are secure and no problem is found in the network itself, make sure that the IP address and other such settings are appropriate. The settings on both the machine and the computer must be appropriate. Redo the settings, checking to ensure that the IP address doesn't conflict with the IP address for another device on the network, that the port setting for the software RIP specifies the IP address set on the machine, that the settings have no typing errors, and for other such problems.

☞ "Setup Guide"

P. 126, "Viewing Information About the System of This Machine"

### Did the software RIP end abnormally?

Make sure the software RIP is running correctly, then switch the sub power switch off and back on.

- ·RolandVersaWorksDual "Installation Guide"
- Thttps://webmanual.rolanddg.com/RolandVersaWorksDual
- VersaWorks6 "VersaWorks Installation Guide"
- Thttps://webmanual.rolanddg.com/VersaWorks6

### The Media Heating System Doesn't Warm Up

### Is media loaded?

The media heating system does not warm up to the preset temperature when **SETUP** is dark (by default). Load media and wait for the machine to warm up.

P. 85, "Fully Utilize the Media Heating System"

### Is the temperature of the room too low?

Use the machine in an environment where the temperature is 20 to 32°C (68 to 90°F).

### **Cannot Cut Off the Media**

### Is the separating knife mounted?

If the separating knife is not mounted, you cannot cut off the media.

P. 77, "Replacing the Separating Knife"

### Are the cut rail mounted?

If the cut rail is not mounted, you cannot cut off the media.

P. 77, "Replacing the Separating Knife"

### Discharged Fluid Level Cannot Be Checked.

### Are there ink splashes inside the drain bottle?

If the inner surface of the drain bottle has ink splashes, you may not be able to check the amount of discharged fluid.

P. 54, "When You Cannot Check Discharged Fluid Level in Drain Bottle"

These are the main messages that appear on the machine's display to prompt correct operation. They do not indicate any error. Follow the prompts and take action accordingly.

### [1 = 2 = 3 = 4 = 5 = 6 = 7 = 8 =]

Only a small amount of ink remains. Replace the cartridge indicated by the flashing number with a new cartridge. (The display varies according to the number of ink cartridge slots in use.)

### [PRESS THE POWER KEY TO CLEAN]

This appears when the machine has been unused for about one month. Switch on the sub power once a month. P. 79, "When Not in Use for a Prolonged Period"

### [CLOSE THE COVER (FRONT COVER, COVER L or COVER R]

Close the Front cover, Cover L, or Cover R. For safety, the carriage does not operate while a cover is open.

### [SHEET NOT LOADED SETUP SHEET]

Load media. This message appears when an attempt to perform a printing test was made while no media was loaded.

### [EMPTY DRAIN BOTTLE]

This appears when a certain amount of discharged fluid collects in the drain bottle. If this screen appears, discard the discharged fluid in the bottle.

P. 53, "Disposing of Discharged Fluid""

### [INSTALL DRAIN BOTTLE]

Check whether the drain bottle is installed. Install the drain bottle, then press ENTER.

P. 53, "Disposing of Discharged Fluid""

### [NOW HEATING...]

Wait until the media heating system reaches the preset temperature. Printing starts when HEATER lights up. You can stop printing by holding down PAUSE for one second or longer while this is displayed. Pressing PAUSE makes printing start immediately, without waiting to reach the preset temperature.

### [TIME FOR MAINTENANCE]

It is time to clean the printer heads manually. After verifying, press If this message is displayed, be sure to perform manual cleaning.

P. 61, "Manual Cleaning"

### [TIME FOR WIPER REPLACE]

It is time to replace the wiper or felt wiper. After verifying, press ENTER.

- P. 69, "Replacing the Wiper"
- P. 72, "Replacing the Felt Wiper"

This describes the error messages that may appear on the machine's display, and how to take action to remedy the problem. If the action described here does not correct the problem, or if an error message not described here appears, contact your authorized Roland DG Corp. dealer or us.

### [ALIGN POINT POSITION INVALID]

An attempt was made to set an align point at a location where the setting cannot be made. No align point can be set when the angle of the base point and the align point is too large. Reload the media correctly, so that the angle is minimized, then set the base point and the align point again to match the crop marks.

P. 110, "Performing Printing and Cutting Separately"

### [HEATING TIMEOUT CONTINUE?]

#### The print heater or dryer did not reach the preset temperature.

This occurs because the temperature of the location where the machine is installed is too low. We recommend raising the temperature. To continue waiting for the temperature to rise, press **ENTER**. To start printing immediately, press **PAUSE**.

### [CROPMARK ERROR NOT FOUND]

#### Automatic detection of crop marks could not be accomplished.

Load the media at the correct position and perform detection of crop marks again. Depending on the media, it may not be possible to detect crop marks automatically. If repeating automatic crop-mark detection results in an error again, then perform manual crop-mark detection.

P. 110, "Performing Printing and Cutting Separately"

### [CAN'T PRINT CROP CONTINUE?]

## The size of the data including the crop marks is larger than the printing or cutting area of the loaded media.

To continue performing output without correcting this, press **ENTER**. At this time, the portion extending beyond the printing or cutting area and the crop marks are not printed. To stop output, stop sending data from the computer, then raise the loading lever. Make the printing or cutting area wider, such as by replacing the media with a larger piece of media or by changing the positions of the pinch rollers, then send the data again.

### The size of the data being output is too small.

Make the scanning-direction size of the data at least 65 mm (2.6 in). To continue performing output without correcting this, press **ENTER**. At this time, the data is output without printing the crop marks. To stop output, stop sending data from the computer, then raise the loading lever. Change the size of the data, then send the data again.

### [TEMPERATURE IS TOO HIGH \*\*°C]

# The temperature of the location where the machine is installed has risen above the ambient temperature at which the machine can operate.

Operation cannot be continued. Switch off the sub power. The displayed temperature is the current ambient temperature of the installation location. Bring the installed location to a temperature at which operation is possible (15 to 32°C (59 to 90°F)) and allow the machine to come to room temperature, then turn on the power.

### [SERVICE CALL \*\*\*\*]

# An unrecoverable error occurred, or part replacement that must be performed by a service technician is required.

Note the number displayed, then switch off the sub power. After you switch off the power, inform your authorized Roland DG Corp. dealer or us of the number that appeared on the display.

### [SHEET TOO SMALL CONTINUE?]

### The size of the data is larger than the printing or cutting area of the loaded media.

To continue performing output without correcting this, press **ENTER**. At this time, the portion extending beyond the printing or cutting area is not output. To stop output, stop sending data from the computer, then raise the loading lever. Make the printing or cutting area wider, such as by replacing the media with a larger piece of media or by changing the positions of the pinch rollers, then send the data again.

### [SHEET SET ERROR SET AGAIN]

### The loading lever was lowered while no media was loaded.

Raise the loading lever, place media at the correct location, then lower the lever again.

@ P. 18, "Loading Media"

### [EDGE DETECTION] is set to "ENABLE," but transparent media was loaded.

Raise the loading lever, set the [EDGE DETECTION] menu item to "DISABLE," then reload the media.

P. 96, "Speeding Up Output for Narrow Media"

### The loaded media is too small.

Press any key to clear the error. Replace with media of usable size.

### [TEMPERATURE IS TOO LOW \*\*°C]

# The temperature of the location where the machine is installed has fallen below the ambient temperature at which the machine can operate.

Operation cannot be continued. Switch off the sub power. The displayed temperature is the current ambient temperature of the installation location. Bring the installed location to a temperature at which operation is possible (15 to 32°C (59 to 90°F)) and allow the machine to come to room temperature, then turn on the power.

### [DATA ERROR CANCELING...]

### Output was stopped because a problem was found in the data received.

Operation cannot be continued. Check for a problem with the connector cable or the computer, and redo the operation from the step of loading the media.

### [PINCHROLL ERROR INVALID LEFT (RIGHT) POS]

### The left (right) pinch roller is positioned at a location where it does not pinch the media.

Raise the loading lever and move the left pinch roller to the correct location.

P. 18, "Loading Media"

### [PINCHROLL ERROR \*\*\* FROM RIGHT]

The middle pinch rollers are positioned at locations where they do not pinch the media.

Raise the loading lever and move the middle pinch rollers to the correct location.

P. 18, "Loading Media"

### Too many middle pinch rollers are installed.

Raise the loading lever, then remove all middle pinch rollers that are not positioned above grit rollers. The number of middle pinch rollers used varies according to the width of the loaded media.

P. 18, "Loading Media"

### [WRONG CARTRIDGE]

### A cartridge that cannot be used was installed.

Remove the cartridge to clear the error. Use a cartridge of the specified type.

### [CLEANING ERROR]

# The printer made an emergency stop because an ink cartridge was removed while light choke cleaning or ink filling for the first time in the printer was in progress.

The ongoing task cannot be continued. Switch the sub power off by holding down the switch for one second or longer, and then back on. Then perform light choke cleaning or ink filling from the beginning. Note, how-ever, be sure to perform light choke cleaning after the [INK RENEWAL] menu is perform and [INK RENEWAL] menu is finished.

☞ P. 66, "When Problems Such As Dot Drop-Out Are Not Cleared Up"

### [CANCELED FOR PUMP PROTECTION]

The printer made an emergency stop because the following state has continued for 10 minutes or longer while light choke cleaning or ink filling for the first time in the printer was in progress.

- > Printer is left with an ink cartridge removed
- Printer runs out of ink

The ongoing task cannot be continued. Switch off the sub power. After switching off the power, contact your authorized Roland DG Corp. dealer.

### [AVOIDING DRY-UP TURN POWER OFF]

The print heads were forced to standby position to prevent them from drying out.

Operation cannot be continued. Switch the sub power off, then back on.

### [SET HEAD HEIGHT TO . . .]

### The height of the print heads is lower than the height specified on the RIP software.

This warning indicates that the height of the print heads are too low for the media thickness specified on the computer. The heads move to a location where you can operate the height-adjustment lever. Adjust to the displayed height, then press **ENTER**.

P. 93, "Adjusting Head Height to Match Media Thickness"

### [MOTOR ERROR TURN POWER OFF]

### A motor error occurred.

Operation cannot be continued. Switch off the sub power. Next, eliminate the cause of the error, then immediately switch on the sub power. If the machine is allowed to stand with the error uncorrected, the print head may dry out and become damaged.

This error may be caused by such factors as a mistake in loading the media, a media jam, or an operation that pulls the media with excessive force.

### The media has jammed.

Carefully remove the jammed media. The print heads may also be damaged. Perform head cleaning, then perform a printing test and check the results.

### The media was pulled with excessive force.

Excessive tension was applied to the media, and additional action is necessary to recover from this state. First, up the loading lever and adjust the media to create a small amount of slack, then switch on the sub power.

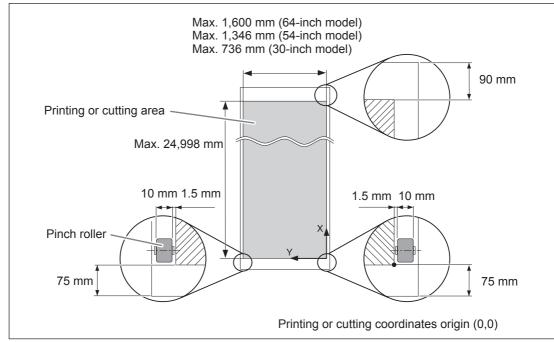
# Chapter 7 Main Specifications

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# **Printing / Cutting Area**

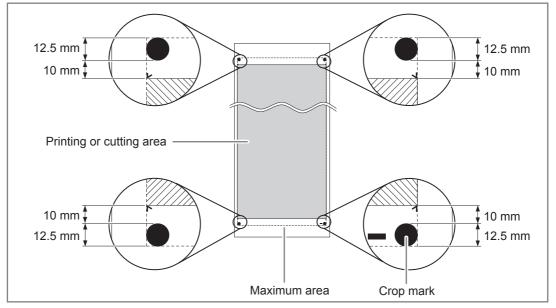
### **Maximum Area**

The printing or cutting area along the horizontal plane (the direction in which the carriages move) is determined by the position of the pinch rollers.



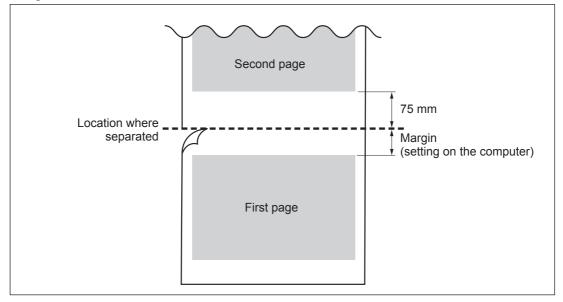
### Maximum Area When Using Crop Marks

When crop marks are used, the printing or cutting area is reduced from the maximum area by an amount equal to the crop marks.



### The Media-Cutoff Location During Continuous Printing

When a media-cutoff command is sent from the computer, the cutoff location on the media is as shown in the figure below.



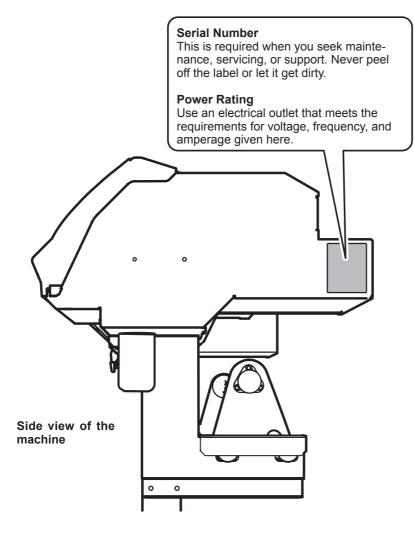
The cutting conditions and the service life of the blade change according to the media and the operating environment, even when you're using identical blades. The service life also differs according to the type of blade. A rough guide is shown below.

Blade	Media	Blade force	Amount of blade offset	Blade life* (general guide)
ZEC-U5022	General signage vinyl	30 to 100 gf	0.25 mm	8000 m
	General signage vinyl	30 to 100 gf	0.25 mm	4000 m
ZEC-U5025	Fluorescent vinyl	120 to 200 gf	0.25 mm	4000 m
	Reflective vinyl	100 to 200 gf	0.25 mm	4000 m

When uncut areas remain even when the blade force is increased to a value that is higher by 50 to 60 gf than the values shown in this chart, then replace the blade.

\* The values for "Blade life" are estimates for when an identical type of media is used.

## Locations of the Power Rating and Serial Number Labels



Main Specifications

# **Specifications**

		VS-640i	VS-540i	VS-300i		
Printing techno	ology	Piezoelectric inkjet				
Media	Width	210 to 1,625 mm (8.3 to 64 in.)	210 to 1,371 mm (8.3 to 54 in.)	182 to 762 mm (7.2 to 30 in.)		
	Thickness	Maximum 1.0 mm (39 mil) with liner, for printing				
		Maximum 0.4 mm (16 mil) with liner and 0.22 mm (9 mil) without liner, for cutting				
	Roll outer diameter	Maximum 210 mm (8.3 in.)				
	Roll weight	Max. 40 kg (88 lbs)	Max. 30 kg (66 lbs)	Max. 25 kg (55 lbs)		
	Core diameter(*1)	76.2 mm (3 in.) or 50.8 mm (2 in	.)			
Printing/cutting	g width(*2)	Max. 1,600 mm (63 in.)	Max. 1,346 mm (53 in.)	Max. 736 mm (29 in.)		
Ink	Types	ECO-SOL MAX 2	440-cc cartridge (cyan, magent	a, yellow, black, light cyan, light		
cartridges	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		magenta, and light black)			
-			220-cc cartridge (metallic silver and white)			
		ECO-SOL MAX 3	500 cc cartridge (cyan, magen	ta, yellow, black,light cyan, light		
			magenta, and light black)			
			220-cc cartridge (cyan, magent	a, yellow, black)		
	Colors	Four colors (cyan, magenta, yellow, and black) or,				
			ellow, black, light cyan, light mage	-		
			llow, black, light cyan, light magen			
		Eight colors (cyan, magenta, yellow, black, light cyan, light magenta, light black, and metallic silv Eight colors (cyan, magenta, yellow, black, light cyan, light magenta, metallic silver, and whit				
Printing resolu	tion (dots par inch)	Maximum 1,440 dpi	now, black, light cyan, light mager	ita, metanic silvei, and write)		
Printing resolution (dots per inch)						
Cutting speed		10 to 300 mm/s				
Blade force		30 to 300 gf				
Cutting	Туре	Roland CAMM-1 series compati				
blade	Blade offset	0.000 to 1.500 mm (0.000 to 0.059 in)				
	ution (when cutting)	0.025 mm/step				
Distance accuracy (when printing)		Error of less than $\pm 0.3\%$ of distance traveled, or $\pm 0.3$ mm, whichever is greater				
(*3)(*4)						
Distance accur	•	Error of less than $\pm 0.4\%$ of distance traveled, or $\pm 0.3$ mm, whichever is greater				
(when cutting)(*3)		When distance correction has been performed (when the setting for [CUTTING MENU] - [CALIBRA- TION] has been made): Error of less than $\pm 0.2\%$ of distance traveled, or $\pm 0.1$ mm, whichever is greater				
Reneatability (	when cutting) (*3)(*5)	$\pm 0.1 \text{ mm or less}$				
	uracy for printing and					
cutting (*3)(*6)		±0.5 mm or less				
	uracy for printing and	Error of less than ±0.5% of distance traveled, or ±3 mm, whichever is greater				
•	eloading media (*3)(*7)	Error of less than $\pm 0.5\%$ of distance traveled, or $\pm 3$ mm, whichever is greater				
Media heating		Print heater, setting range for the preset temperature: 30 to 45°C (86 to 112°F)				
John Strang		Dryer, setting range for the preset temperature: 30 to 50°C (86 to 122°F)				
Connectivity		Ethernet (10BASE-T/100BASE-T/	X, automatic switching)			
Power-saving	function	Automatic sleep feature				
Power require		AC 100 to 120 V ±10%, 7.8A,	AC 100 to 120 V ±10%, 7.5 A,	AC 100 to 120 V ±10%, 5.1 A		
		50/60 Hz or	50/60 Hz or	50/60 Hz or		
		AC 220 to 240 V ±10%, 4.0 A,	AC 220 to 240 V ±10%, 3.8 A,	AC 220 to 240 V ±10%, 2.6 A		
		50/60 Hz	50/60 Hz	50/60 Hz		
Power	During operation	Approx. 1,044 W	Approx. 995 W	Approx. 670 W		
	Sleep mode	Approx. 14.5 W	Approx. 15.1 W	Approx. 14.4 W		
Acoustic	During operation	69 dB (A) or less				
noise level	During standby	43 dB (A) or less				
Dimensions (w		2,575 mm (W) x 795 mm (D) x	2,315 mm (W) x 795 mm (D) x	1,700 mm (W) x 795 mm (D) >		
		1,270 mm (H)	1,270 mm (H)	1,270 mm (H)		
		(101.4 (W) x 31.1 (D) x 50	(91.1 (W) x 31.1 (D) x 50 (H) in.)	(66.9 (W)x 31.1 (D) x 50 (H) in.)		
		(H) in.)				
Weight (with s	tand)	140 kg (309 lbs)	130 kg (287 lbs)	100 kg (220 lbs)		

Environmen- tal	Power on (*9)	Temperature: 15 to 32°C (59 to 90°F) (20°C [68°F] or more recommended) Humidity: 35 to 80%RH (non-condensing)
	Power off	Temperature: 5 to 40°C (41 to 104°F), humidity: 20 to 80%RH (non-condensing)
Accessories		Exclusive stands, power cord, blade, blade holder, media clamps, media holder, replacement blade for separating knife, User's Manual, etc.

\*1

Note: The media holder of this machine is exclusive use for the media of paper tube (core) inner diameter 3 inches. To use 2 inches media, the optional media flanges are required.

\*2

The length of printing or cutting is subject to the limitations of the program.

\*3

- > Media type: Media specified by Roland DG Corp.
- Temperature: 25°C (77°F), humidity: 50%
- > Roll media must be loaded correctly.
- > Applicable when all pinch rollers available to the media width are used.
- > Side margins: 25 mm or more for both the left and right margins
- Front margin: 35 mm or more
- > Excluding expansion/contraction of the media
- > Not assured when the print heater or dryer is used.
- > All correction or adjustment function of this machine has been made properly.

\*4

> With Roland PET film, print travel: 1 m

### \*5

> [PREFEED] menu item must be set to "ENABLE."

Range for assured repetition accuracy

64-inch model:

- > For media with a width exceeding 610 mm: Length 4,000 mm
- For media with a width of 610 mm or less: Length 8,000 mm

54-inch model

- For media with a width exceeding 610 mm: Length 4,000 mm
- > For media with a width of 610 mm or less: Length 8,000 mm

30-inch model

Length 3,000 mm

### \*6

- Provided that media length is under 3,000 mm
- > Excludes the effects of slanted movement and of expansion and contraction of the media.

### \*7

Data size:

64-inch model:1,000 mm in the media-feed direction, 1,600 mm in the carriage-movement direction 54-inch model:1,000 mm in the media-feed direction, 1,346 mm in the carriage-movement direction 30-inch model:1,000 mm in the media-feed direction, 736 mm in the carriage-movement direction > No lamination

- > Automatic detection of crop marks at 4 points when media is reloaded.
- > During cutting, [PREFEED] menu item must be set to "ENABLE."
- > Excluding possible shift caused by expansion/contraction of the media and/or by reloading the media.

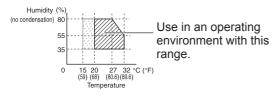
### \*8

> Warm-up is required after power up. This may require 5 to 20 minutes, depending on the operating environment.

> Depending on the ambient temperature and media width, the preset temperature may fail to be reached.

7

### \*9 ➤ Operating environment



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