When Not in Use for a Prolonged Period

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.

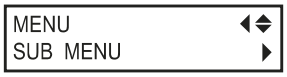
Alarm Feature

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.

Special maintenance

Draining Ink and Performing Internal Washing

Procedure

1. Press MENU.
2. 

Press ▼ several times until the screen shown on the left appears.
Press ►.
Press ▲ twice.
3. 

Press ►.
Press ▼ twice.
4. 

Press ENTER to execute.

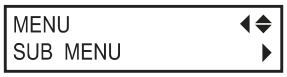
Description

This drains the ink inside the printer and washes the interior using cleaning cartridges as a preliminary for moving the printer or conducting maintenance. This operation requires eight unused SOL INK cleaning cartridges and six dummy cartridges. The screen displays information such as instructions to insert and remove cartridges. Follow these instructions to carry out the procedure. After finishing washing, the sub power is automatically switched off.

You do not need to carry this out as part of your daily maintenance activities.

Draining Ink Remaining Inside the Machine

Procedure

1. Press MENU.
2. 

Press ▼ several times until the screen shown on the left appears.
Press ►.
3. 

Press ▼ several times until the screen shown on the left appears.
Press ►, and then ▼.
4. 

Press ENTER to execute.

Description

This removes ink inside the printer as a preliminary procedure for performing maintenance. This operation requires six dummy cartridges. The screen displays information such as instructions to insert and remove cartridges. Follow these instructions to carry out the procedure. After finishing the procedure, the sub power is automatically switched off. You do not need to carry this out as part of your daily maintenance activities.

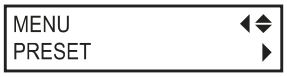
Chapter 4
Part of Practice

Fully Utilizing Preset Function

Saving Various Settings as a Name Assigned Preset

Procedure

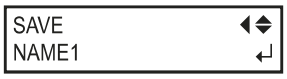
❶ **Press (MENU).**

❷ 

Press (▼) to display the left figure.
Press (►), and then (▼).

❸ 

Press (►).

❹ 

Press (▲) (▼) to select one of NAME1 through 8.
press (ENTER) to enable the setting.
The present menu settings are saved.

❺ 

Press (▲) (▼) to enter a character.
When a character is decided, press (►).
The characters you can enter are "A" through "Z," "0" through "9," and the "-" character. You can enter up to 15 characters, including spaces.

❻ 

Press (▲) (▼) to enter a character.
Enter the following characters in the same way.
When entries are completed, press (ENTER) to enable the setting.

❼ **Press (MENU) (◄) in this order to go back to the original screen.**

4 Part of Practice

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 troublesome. 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.

[PRE] (Preheater), [PRINT] (Print heater), [DRYER]	☞ P. 106, "Making the Temperature Setting for the Media Heating System"
[PREHEATING]	☞ P. 108, "Control of Media Heating System during Preheating"
[DRYING TIME]	☞ P. 109, "Setting the Drying Time after Printing"
[ADJUST BI-DIR SIMPLE SETTING]	☞ P. 111, "Correcting for Misalignment in Bidirectional Printing"
[ADJUST BI-DIR DETAIL SETTING]	☞ P. 112, "Correcting for Misalignment in Bidirectional Printing More Precisely"
[CALIBRATION]	☞ P. 112, "Alleviating Horizontal Bands and the Like (feed correction function)"
[EDGE DETECTION]	☞ P. 115, "Using Transparent Media"
[SCAN INTERVAL]	☞ P. 115, "Printing Hard-to-dry Media"
[VACUUM POWER]	☞ P. 116, "Using the Media Easy to be Winkled/ Hard to be Fed"
[FULL WIDTH S]	☞ P. 117, "Speeding Up Output for Narrow Media"
[FEED FOR DRY]	☞ P. 108, "Drying the Trailing Edge of the Printing Area on the Dryer"
[FORCE], [SPEED], [OFFSET], [UP-SPEED]	☞ P. 121, "Fine-tuning the Cutting Conditions"
[CALIBRATION] (in the [CUTTING MENU])	☞ P. 124, "Performing Distance Correction During Cutting"
[PRINT-CUT ADJ.]	☞ P. 125, "Correcting Misalignment of the Printing and Cutting Positions"
[CROP-CUT ADJ.]	☞ P. 134, "Correcting Misalignment for Printing and Cutting Position When Using Crop Marks"
[BROWER FAN]	☞ P. 110, "Using a Blower-fan Unit"
[MEDIA RELEASE]	☞ P. 119, "Using Sticky Media"

☞ P. 103, "Loading a Saved Preset"

Loading a Saved Preset

Procedure

❶ **Press** (MENU).

❷

Press (▼) to display the left figure.
Press (►) twice.

❸

Press ▲ ▼ to select a name to be called.
Press ENTER to enable the setting.

The settings are changed and the screen shown in the figure appears.

Description

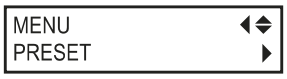
This loads a saved preset. You can select any one of eight types of presets. (When no names have been assigned, you select from among NAME1 through NAME8.) If you load a preset while SET UP is illuminated, SET UP goes dark. If this happens, raise the loading lever, make sure the media is loaded straight, then lower the loading lever again to make output possible. .

Automatic loading of a saved preset when media is loaded

Procedure

❶ **Press MENU .**

❷



Press ▼ to display the left figure.
Press ►, and then ▲ .

❸

Press ► .

❹

Press ▲ ▼ to select "ENABLE."
Press ENTER to enable the setting.

❺ **Press ENTER ◄ in this order to go back to the original screen.**

Description

Once "ENABLE" is selected, the screen for loading a preset is always displayed when the media is loaded. Follow the procedure given below to use the loaded preset.

How to use the loaded preset

When you press SET UP at the end of the media loading process, the screen shown in the figure appears. When you press ENTER, the preset displayed in the screen is loaded. (Pressing SET UP before pressing ENTER performs setup with current settings without loading the preset.)

The preset displayed in the screen is either the last loaded preset or last saved preset.
You can select other presets by pressing ▲ and ▼ .

Fully Utilize the Media Heating System

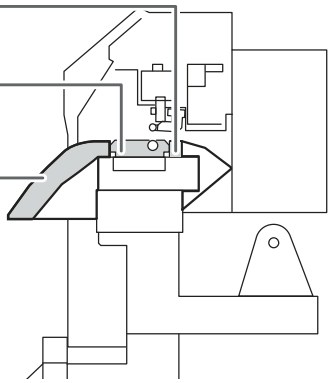
What Is the Media Heating System?

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.

Preheater
This device warms the media before printing.

Print heater
You use this mainly to improve ink adhesion.

Dryer
You use this to speed up drying of the ink.



* By using an optional dryer, you can speed up drying of the ink more.

☞ P. 110, "Using an Optional Dryer"

⚠WARNING **CAUTION: high temperatures**
The platen and dryer 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.

⚠WARNING **Never use media that cannot withstand the heat.**
Doing so may result in fire or the release of toxic gases, or may degrade the media.

⚠WARNING **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).

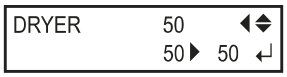
Making the Temperature Setting for the Media Heating System

Procedure

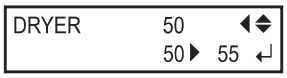
1. **Press** (HEATER CONFIG) **.**

2. 

The present temperature is displayed.
Press (HEATER CONFIG) **a second time.**

3. 

Press (◄) (►) **to select the unit.**

4. 

Press (▲) (▼) **to select a temperature.**
You can set to "OFF."
Press (ENTER) **to enable the setting.**

5. **Press** (MENU) (◄) **in this order to go back to the original screen.**

Estimate and hint of temperature setting

The optimal temperature for the media heating system varies according to such factors as the type of media and differences in the print mode. Use the following as a general guide and adjust accordingly.

Preheater	Set this to a temperature that is the same as or lower than the temperature of the print heater. You use the preheater mainly to heat media gradually. This is because media becomes more likely to shrink or wrinkle if heated suddenly.
Print heater	You use this mainly to improve ink adhesion and inhibit smudging. 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.
Dryer	When ink drying is poor, raise the temperature. Note, however, that a temperature that is too high may degrade the media or cause it to wrinkle.
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 software RIP 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.

Examples of Preset Temperatures

Media	Temperature
Type: Scrim banner (PVC) Thickness: 300 to 400 µm (12 to 16 mil)	Preheater: 40°C (104°F) Print heater: 40°C (104°F) Dryer: 50°C (122°F)
Type: Marking film (PVC, with adhesive) Thickness: 60 to 100 µm (2.5 to 4 mil, not including backing paper)	Preheater: 40°C (104°F) Print heater: 40°C (104°F) Dryer: 50°C (122°F)

- These are only rough estimates. Make adjustments to match the media you're using.
- Using the media heating system does not necessarily make it possible to apply ink to every kind of media. Be sure to test in advance.
- Results may vary greatly depending on the print mode and other factors. Make settings suited to the media.
- When suggested settings for temperature, print mode, and other values are given, use the suggested settings.

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 SET UP lights up. You can also make this setting on the software RIP. When you have made the setting on the software RIP, the software RIP'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.

Default Setting

[PRE]: 40°C (104°F)
[PRINT]: 40°C (94°F)
[DRY]: 50°C (122°F)

Control of Media Heating System during Preheating

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

Procedure

1. **Hold down (MENU) and press (HEATER CONFIG).**
2. 

Press (▼) to display the screen shown on the left.
Press (►).
3. 

Press (▲) (▼) to select setting.
MENU: The system performs heating to the preset temperature at all times, without lowering the temperature during preheating.
30°C: The system keeps 30°C during preheating.
OFF: The system switches the media heating system off during preheating.
Press (ENTER) to enable the setting.
4. **Press (MENU) (◄) in this order to go back to the original screen.**

Default Setting

[PREHEATING]: 30°C

Drying the Trailing Edge of the Printing Area on the Dryer

Procedure

1. **Hold down (MENU) and press (HEATER CONFIG).**
2. 

Press (►).
3. 

Press (▲) (▼) to select "ENABLE."
Press (ENTER) to enable the setting.
4. **Press (MENU) (◄) in this order 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. A margin from the print end position to the subsequent print start position is fixed at 200 mm. The margin set on the computer is ignored.
  ☞ P. 110, "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

1. **Hold down** MENU **and press** HEATER CONFIG **.**
2. HEATER MENU / DRYING TIME ▶ — **Press ▲ to display the screen shown on the left. Press ► .**
3. DRYING TIME / 0min ▶ 10min ↵ — **Press ▲ ▼ to select the interval. Press ENTER to enable the setting.**
4. **Press MENU ◄ in this order to go back to the original screen.**

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 SET UP while PAUSE is lighting, output is canceled. You can also make this setting on the software RIP. When you have made the setting on the software RIP, the software RIP's setting is used.

Default Setting

[DRYING TIME]: 0 min

Using an Optional Dryer

Procedure

1. **Hold down (MENU) and press (HEATER CONFIG).**
2. 

Press (▼) several times to display the screen shown on the left.
Press (►).
3. 

Press (▲) (▼) to select "ENABLE".
Press (ENTER) to enable the setting.
4. **Press (MENU) (◄) in this order 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

Using a Blower-fan Unit

Procedure

1. **Hold down (MENU) and press (HEATER CONFIG).**
2. 

Press (▼) several times to display the screen shown on the left.
Press (►).
3. 

Press (▲) (▼) to select "ENABLE".
Press (ENTER) to enable the setting.
4. **Press (MENU) (◄) in this order to go back to the original screen.**

Description

This switches the optional blower-fan unit "ENABLE" or "DISABLE".
When using an blower-fan unit, select "ENABLE". And you can speed up drying of the ink more.
Contact your authorized Roland DG Corp. dealer for recommended blower-fan unit models. For the details of how to use a blower-fan unit, refer to the documentation for the blower-fan unit you are using.

Default Setting

[BLOWER FAN]: DISABLE

Fully Utilizing the Correction Function

Correcting for Misalignment in Bidirectional Printing

Procedure

❶ **Press** (MENU).

❷ MENU / ADJUST BI-DIR ▶

Press (▼) several times to display the screen shown on the left.
Press (►).

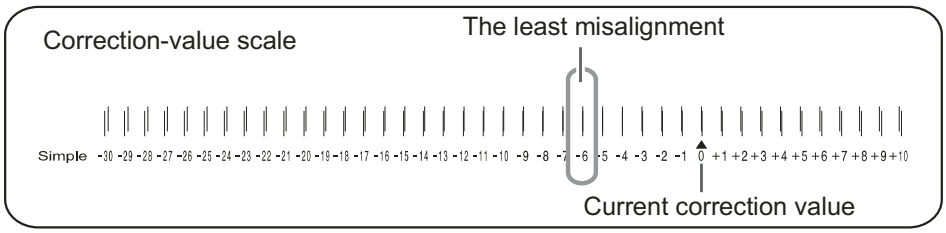
❸ ADJUST BI-DIR / TEST PRINT ↵

Press (ENTER).
A test pattern is printed.
When printing is completed, press (▼) (►) in this order.

❹ SIMPLE SETTING / 0 ▶ -6 ↵

Press (▲) (▼) to select a correction value.
Press (ENTER) to enable the setting.

To decide a Correction Value
Choose the value that produces the least misalignment of 2lines.



❺ **Press (MENU) (◄) in this order 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. 125, "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. 49, "Performing the Initial Adjustment (Correcting for Misalignment in Bidirectional Printing More Precisely)"

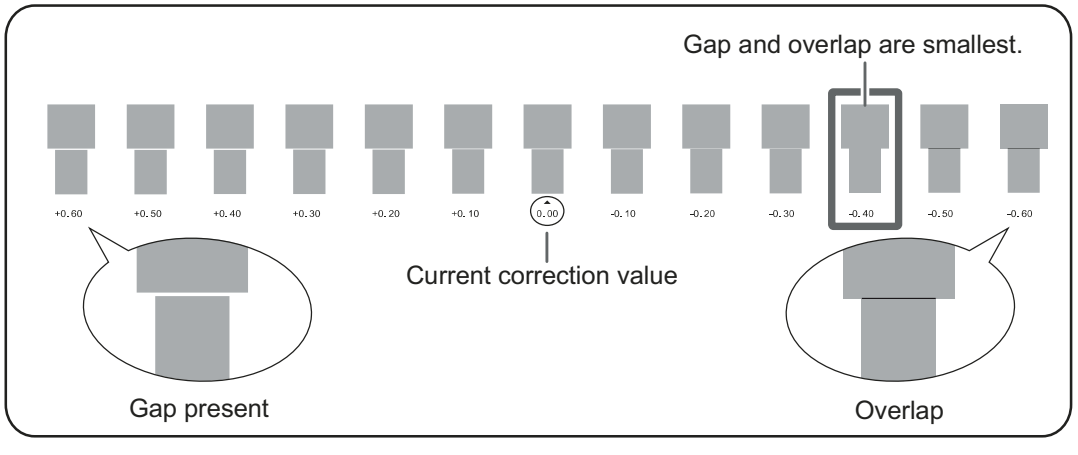
Alleviating Horizontal Bands and the Like (feed correction function)

Procedure

1. **When the roll media is used, check that no sagging is found on the media.**
2. **Press** (MENU).
3. MENU / CALIBRATION ▶
   Press (▼) **several times to display the screen shown on the left.**
   Press (►).
4. CALIBRATION / TEST PRINT ↵
   Press (ENTER).
   A test pattern is printed.
   When printing is completed, press (▼) (►) **in this order.**
5. SETTING / 0.00% ▶ -0.40% ↵
   Press (▲) (▼) **to select a correction value.**
   Press (ENTER) **to enable the setting.**

To decide a Correction Value

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



6. **Press** (MENU) (◄) **in this order to go back to the original screen.**

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 software RIP 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.

Default Setting

[SETTING]: 0.00%

Adjusting Head Height to Match Media Thickness

Procedure

❶ **Press** MENU **.**

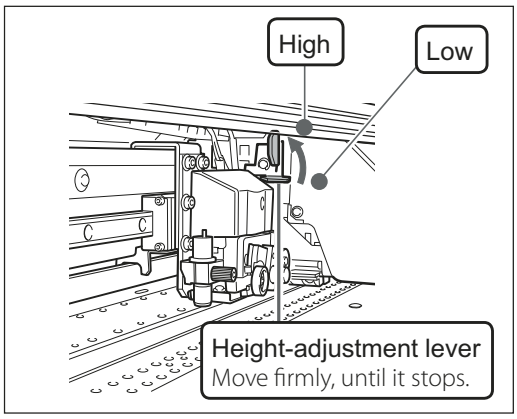
❷

Press ▼ several times to display the screen shown on the left.
Press ► .

❸

When the left figure is displayed, open the front cover.

❹



Move the height-adjustment lever to adjust the head height.
Moving the lever to "HIGH" makes a warning beep sound twice. Moving it to "LOW" makes the warning beep sound once.

❺

Close the front cover.
The print-head carriage moves to the original position, and then the screen shown in the figure appears.

❻ **Press** MENU ◄ **in this order to go back to the original screen.**

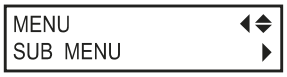
Description

Depending on the media, media may wrinkle or come loose from the platen during printing, increasing the chance of contact with the print heads. 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. 49, "Performing the Initial Adjustment (Correcting for Misalignment in Bidirectional Printing More Precisely)"
☞ P. 111, "Correcting for Misalignment in Bidirectional Printing"
☞ P. 118, "Preventing Soiling of the Media and Dot Drop-out"

Using Transparent Media

Procedure

1. **Press MENU.**
2. 

Press ▼ several times to display the screen shown on the left.
Press ► twice.
3. 

Press ▲ ▼ to select "DISABLE."
Press ENTER to enable the setting.

The settings are changed and the screen shown in the figure appears.

Description

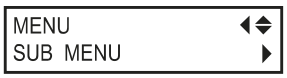
This setting enables or disables detection of the leading and trailing edges of the media. It is normally set to "ENABLE." When transparent media is loaded, set it to "DISABLE."
When "DISABLE" is selected, "ROLL," "TU," and "TU2" are available in setting the media. At this time, set the margin from the leading edge of the media to the print start position to 75 mm or more.
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

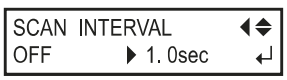
[EDGE DETECTION]: ENABLE

Printing Hard-to-dry Media

Procedure

1. **Press MENU.**
2. 

Press ▼ several times to display the screen shown on the left.
Press ►, and then ▼.
3. 

Press ►.
4. 

Press ▲ ▼ to select a value.
Larger values produce progressively slower movement of the media, enabling you to extend the drying time accordingly.
Press ENTER to enable the setting.
5. **Press MENU ◄ in this order 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 software RIP. When you have made the setting on the software RIP , the 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

1. **Press (MENU).**
2. 

Press (▼) several times to display the screen shown on the left.
Press (►).
Press (▼) twice.
3. 

Press (►).
4. 

Press (▲) (▼) to select a value.
0 to 100%
A larger value produces a larger suction force. For the media easy to be loose due to warping or winkling, increase of the suction force may help correct the problem. When the media is flimsy and cannot move smoothly, reduction of the suction force may correct such the problem.
AUTO
The suction force is automatically adjusted to the optimal level for the media width.
Press (ENTER) to enable the setting.
5. **Press (MENU) (◄) in this order 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 software RIP. When you have made the setting on the software RIP, the RIP's setting is used and the printer's setting is ignored.

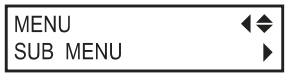
Default Setting

[VACUUM POWER]: AUTO

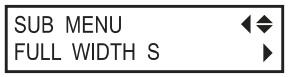
Speeding Up Output for Narrow Media

Procedure

1. **Press (MENU).**

2. 

   Press (▼) several times to display the screen shown on the left.
   Press (►).

3. 

   Press (▼) several times to display the screen shown on the left.
   Press (►).

4. 

   Press (▲) (▼) to select an item.
   SHEET
   "SHEET" matches the range of head movement to the width of the media.
   OFF
   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.
   FULL
   This makes the speed of media movement constant at all times and produces the most stable printing result.
   Press (ENTER) to enable the setting.

5. **Press (MENU) (◄) in this order to go back to the original screen.**

Description

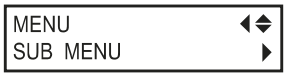
This shortens output time by reducing the width of head movement to the minimum necessary. This is effective when the width of the media or the output data is narrow.

Default Setting

[FULL WIDTH S]: FULL

Preventing Soiling of the Media and Dot Drop-out

Procedure

1. **Press MENU.**
2. 

Press ▼ several times to display the screen shown on the left.
Press ►.
3. 

Press ▼ several times to display the screen shown on the left.
Press ►.
4. 

Press ▲ ▼ to select an item.
PAGE
Automatic cleaning is performed every time before printing starts.
10 to 990 min
Automatic cleaning is performed when the cumulative printing time reaches the value you set here.
NONE
Automatic cleaning is not performed.
Press ENTER to enable the setting.
5. **Press MENU ◄ in this order 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."

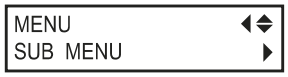
Selecting "PAGE" or a value from "10 min" to "990 min," the ink buildup is removed before or during printing while printing is performed. Note, however, that using "PAGE" or a value from "10 min" to "990 min," results in longer printing times.

Default Setting

[PERIODIC CL.]: NONE

Using Sticky Media

Procedure

1. **Press MENU.**
2. 

Press ▼ several times to display the screen shown on the left.
Press ►.
3. 

Press ▼ several times to display the screen shown on the left.
Press ►.
4. 

Press ▲ ▼ to select "ENABLE."
Press ENTER to enable the setting.
5. **Press MENU ◄ in this order to go back to the original screen.**

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. 120, "Preventing Pulling of the Media with Undue Force When Performing Cutting Only"
- **Switching off the media heating system and allowing the temperature to cool before performing cutting can yield results that are more stable.**
  ☞ P. 106, "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. 123, "Accurately Adjusting the Cutting-in Amount"

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

Procedure

1. **Hold down (MENU) and press (CUT CONFIG).**
2. CUTTING MENU / PREFEED ▶ — **Press (▼) several times to display the screen shown on the left. Press (►).**
3. PREFEED / DISABLE ▶ ENABLE ↵ — **Press (▲) (▼) to select "ENABLE." Press (ENTER) to enable the setting.**
4. **Press (MENU) (◄) in this order to go back to the original screen.**

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

1 **Performing the Cutting Test**

☞ P. 66, "Setting The Cutting Test And The Blade Force" Procedure *1.*

2 **When cutting of the test patterns is completed, press** (CUT CONFIG)**.**

3

Press (◄) (►) **to select the cutting condition you want to set.**

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

[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)

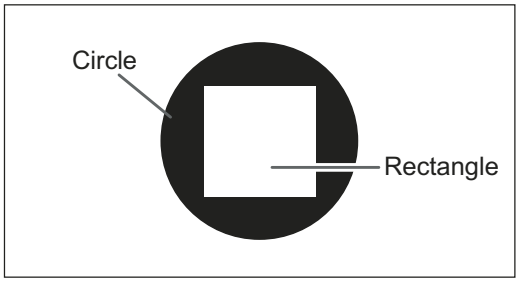
4

Press (▲) (▼) **to select a value.**
Press (ENTER) **to enable the setting.**

Evaluating the Results of a Cutting Test

Check the shape of the test pattern.

The cut shape is distorted. ⇨ Decrease the value of [Speed].



Peel off the circle.

The rectangle also peels off. ⇨ Increase the value of [Force].

Some uncut areas remain. ⇨ Decrease the value of [Speed].

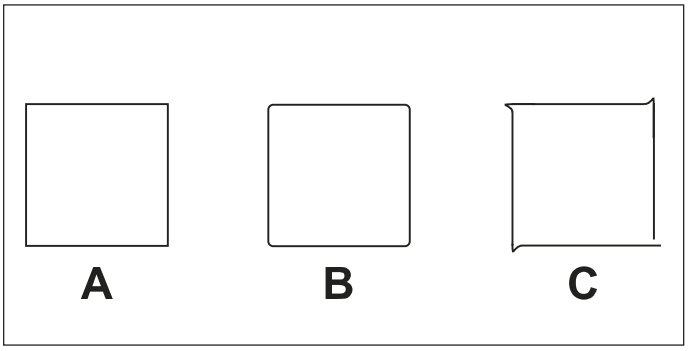
Peel off the rectangle.

The blade should leave faint traces on the backing paper. ⇨ Do not change the value of [Force].

The blade trace is indistinct. ⇨ Increase the value of [Force].

The blade trace is too deep and cuts into the backing paper. ⇨ Decrease the value of [Force].

Check the shape of the rectangle.



A⇨ Do not change the value of [OFFSET].

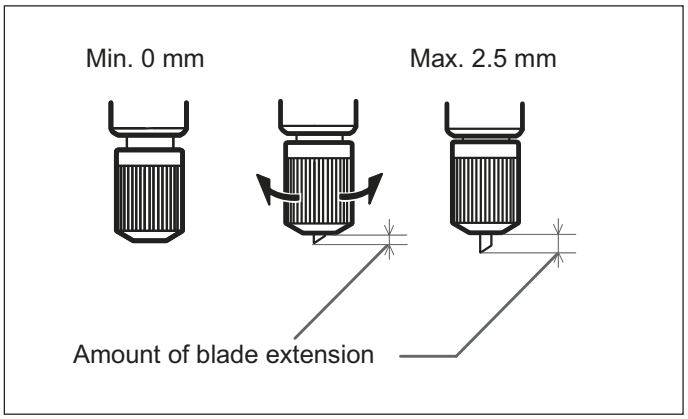
B (The corners are rounded.) ⇨ Increase the value of [OFFSET].

C (The corners have "horns.") ⇨ Decrease the value of [OFFSET].

5 Press MENU ◄ in this order to go back to the original screen.

Accurately Adjusting the Cutting-in Amount

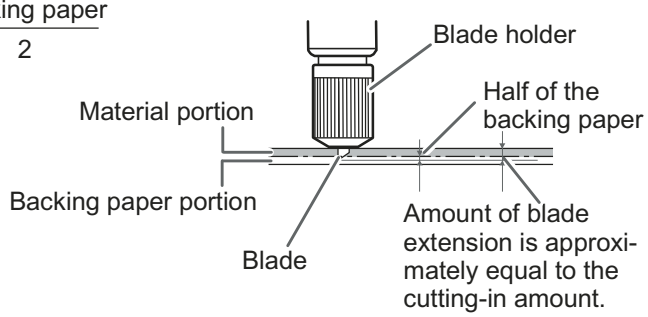
When you want to perform accurate and fine adjustment of the cutting-in amount, such as when cutting media with thin backing paper, you can obtain good results by adjusting the tip of the blade. Turn the cap portion of the blade holder to adjust the amount of blade extension. Each indicator tick corresponds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

$$\text{Amount of blade extension} = \text{Thickness of the material portion} + \frac{\text{Thickness of the backing paper}}{2}$$



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

1. **Hold down (MENU) and press (CUT CONFIG).**

2. 

   Press (▼) twice to display the screen shown on the left.
   Press (►).

3. 

   Press (►).

   Press (▲) (▼) to select a correction value.
   Set the correction value of media feed direction.
   Press (ENTER) to enable the setting.
   Press (◄), and then (▼).

4. 

   Press (►).

   Press (▲) (▼) to select a correction value.
   Set the correction value of head movement direction.
   Press (ENTER) to enable the setting.

5. **Press (MENU) (◄) in this order to go back to the original screen.**

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. 124, "Performing Distance Correction During Cutting"

Procedure

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

☞ P. 128, "Viewing the Automatic Environment Correction Function Settings"

2 Perform bidirectional adjustment.

☞ P. 111, "Correcting for Misalignment in Bidirectional Printing"
☞ P. 112, "Correcting for Misalignment in Bidirectional Printing More Precisely"

3 Hold down (MENU) and press (CUT CONFIG).

4

CUTTING MENU ◆▲▼
PRINT-CUT ADJ. ▶

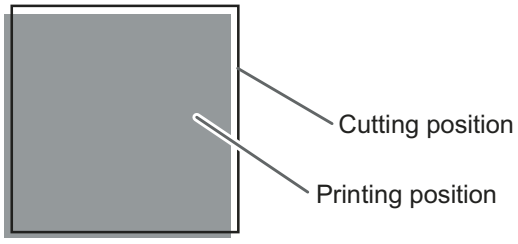
Press (►).

5

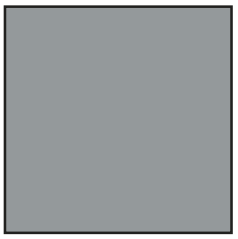
PRINT-CUT ADJ. ◆▲▼
TEST PRINT ↵

Press (ENTER).
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.
When adjustment is needed, go on to the next Procedure.

To check the test pattern (P&C1)
Check to make sure that the printing position and the cutting position are aligned.



Printing position and Cutting position are misaligned.



Printing position and Cutting position are aligned.

6

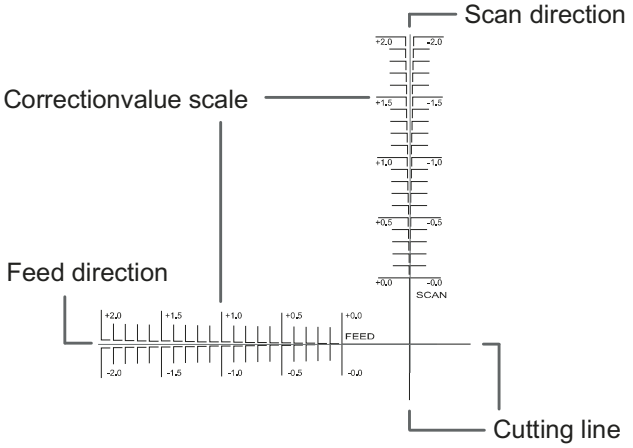
PRINT-CUT ADJ. ◆▲▼
TEST PRINT 2 ↵

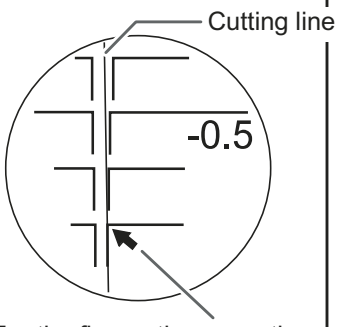
Press (▲) to display the left figure.
Press (ENTER).
The test pattern (P&C2) is printed and cut.

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

To check the test pattern (P&C2)

The point where the cutting line intersects the correction-value scale is the correction value. Check the scan direction and feed direction respectively.





For the figure, the correction value is “-0.3.”

❼

```
PRINT-CUT ADJ.
SETTING
```

Press ▲ to display the left figure.
Press ► .

❽

```
F : -0.30   ▶ -0.30mm
S :  0.00   ▶ -0.20mm
```

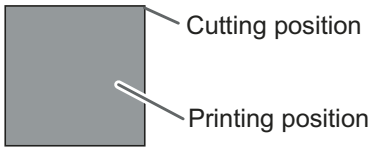
Press ▲ ▼ to select a correction value of [F] (feed direction of media).
Press ◄ ► to select a correction value of [S] (movement direction of head).
Press ENTER to enable the setting.

❾

```
PRINT-CUT ADJ.
TEST PRINT
```

Press MENU ▲ in this order to display the left figure.
Press ENTER .

The test pattern (P&C1) is printed and cut. If the printing and cutting lines are aligned, adjustment is complete. If further adjustment is needed, go back to Procedure ❽ and fine-tune the adjustment.



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 Settings of This Machine to The Settings of a Computer Side in Software RIP

Procedure

1. **Hold down** MENU **and press** CUT CONFIG **.**
2. 

Press ▲ twice to display the left figure.
Press ► .
3. 

Press ▲ ▼ to select "MENU."
Press ENTER to enable the setting.
4. **Press** MENU ◄ **in this order to go back to the original screen.**

Description

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

Default Setting

[CUTTING PRIOR]: COMMAND

Viewing the Automatic Environment Correction Function Settings

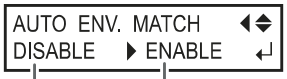
The automatic environment correction function is the function that adjusts automatically to the optimal condition of this machine according to the operating environment (humidity and temperature). Performing automatic adjustment can reduce misalignment in the scanning direction (the direction of head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

Procedure

1. **Hold down MENU and press CUT CONFIG.**

2. 

   Press ▲ to display the left figure.
   Press ►.

3. 

   Current setting — Setting after changed

   Check that setting is "ENABLE."
   Press ▲ ▼ to select an item to change the setting.
   Press ENTER to enable the setting.

4. **Press MENU ◄ in this order to go back to the original screen.**

Default Setting

[AUTO ENV. MATCH]: ENABLE

Performing Printing and Cutting Separately

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

1 Printing with Crop Marks.

☞ P. 129, "Printing with Crop Marks"

2 Align to the printed crop marks and perform cutting.

You can detect the crop marks automatically or manually.

☞ P. 131, "Aligning Automatically and Cutting"
☞ P. 133, "Aligning Manually and Cutting"

Note: Correct misalignment of the printing and cutting positions, if applicable.

☞ P. 134, "Correcting Misalignment for Printing and Cutting Position When Using Crop Marks"

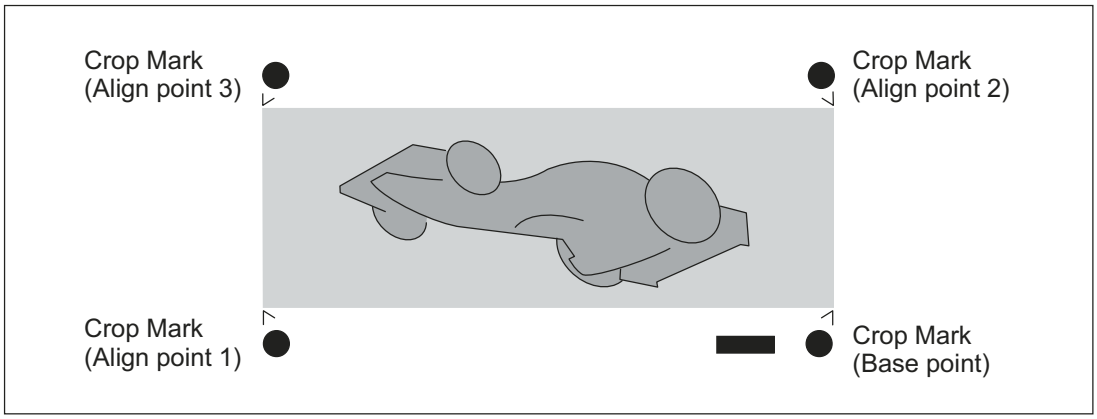
Printing with Crop Marks

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.

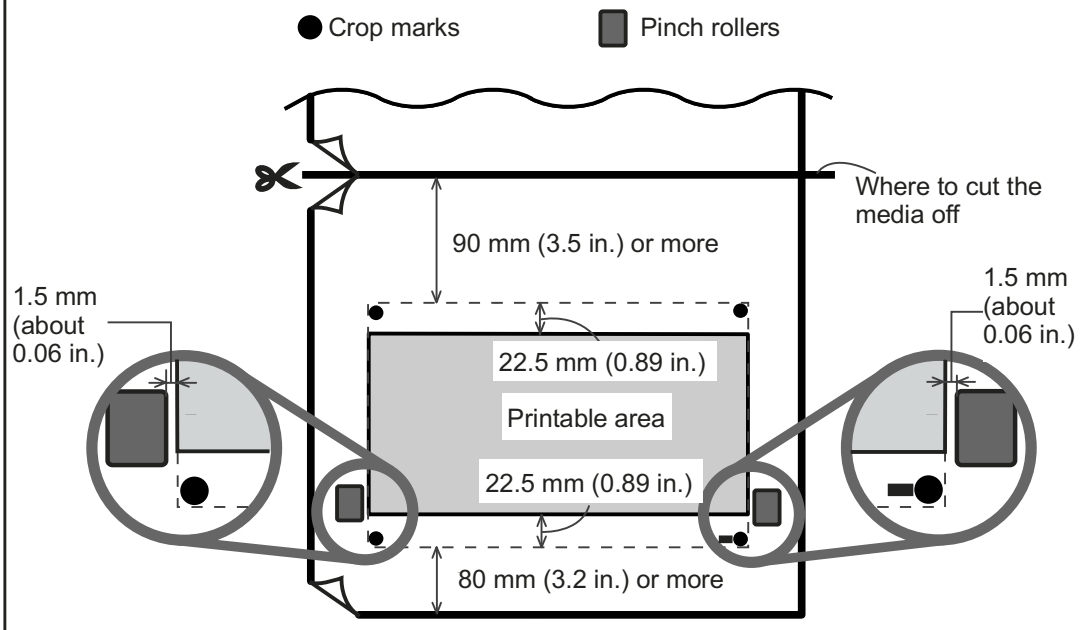
IMPORTANT!

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.



Media Sizes Allowing Automatic Crop Mark Detection



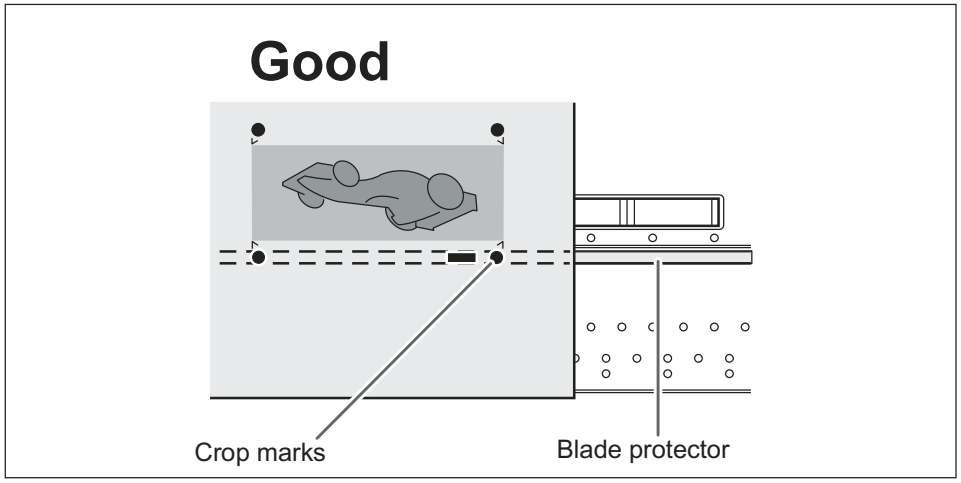
When you are printing with crop marks, set a margin of at least 90 mm (3.5 in.) before the next printstart position. You can set the margin value with the software RIP you're using. For information on how to make the setting, refer to the documentation for the software RIP you're using.

Aligning Automatically and Cutting

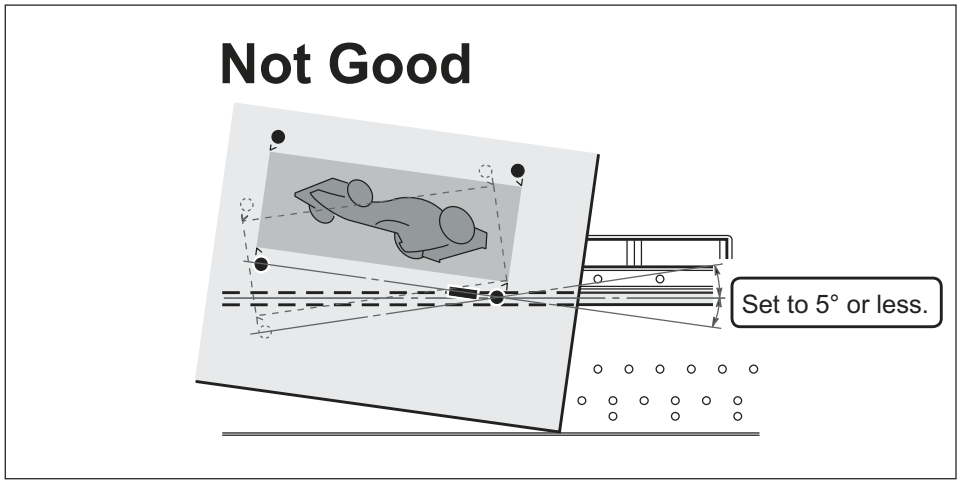
When you make the setting for reading crop marks when sending cutting data from the computer, alignment is performed with the presence or absence of crop marks determined automatically. For information on how to make the setting, refer to the documentation for the software RIP you're using.

Points for Media Setting

Place the crop marks on the blade protector.



Angled no more than 5 degrees. Otherwise alignment becomes impossible.



If Automatic Alignment Cannot Be Performed

If the machine fails to detect the crop marks, the screen shown in the figure appears and operation stops.
Press any key to go back to the original screen.
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. 133, "Aligning Manually and Cutting"

To Quit Detection and Start Cutting

Procedure

1. **Press PAUSE during detection of crop marks.**
   Crop-mark detection stops. Depending on the content of the data, some time may pass before detection actually stops.

2. 

   Press ENTER.
   This stops detection and starts cutting.

*Note: After pressing PAUSE in Procedure 1, resuming detection or canceling output is also possible.

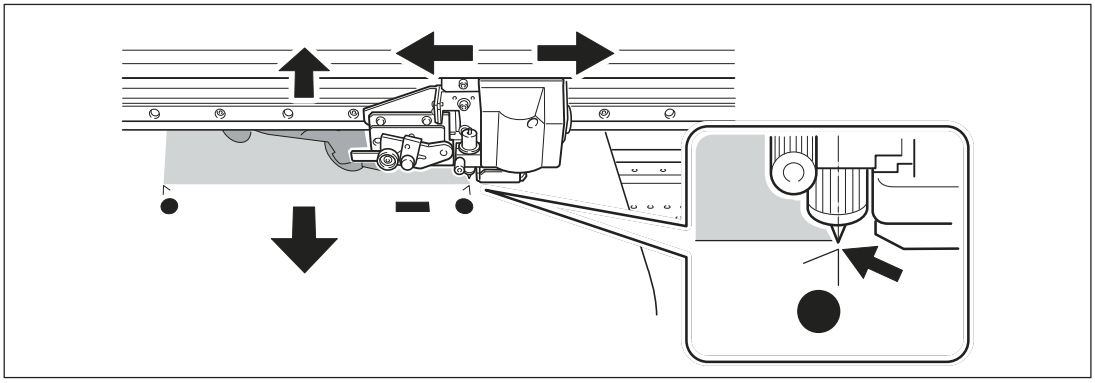
☞ P. 69, "Pausing and Canceling Output"

Aligning Manually and Cutting

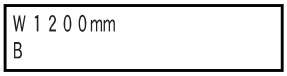
Depending on the type of media, it may not be possible to detect crop marks automatically. When crop marks cannot be detected automatically, you perform alignment manually.

1. Set the base point.

❶ **Use ◄ ► ▲ ▼ to align the center of the blade with the location shown in the figure.**



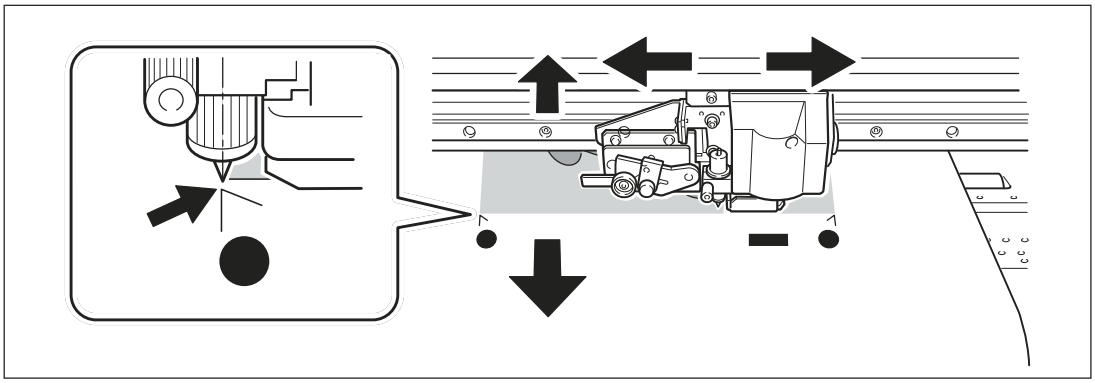
❷ **Press BASE POINT.**



The character "B" appears on the lower left of the setting screen. The base point is set.

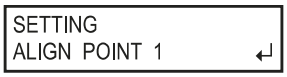
2. Set the align points.

❶ **Use ◄ ► ▲ ▼ to align the center of the blade with the location shown in the figure.**

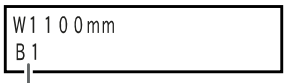


❷ **Hold down** (BASE POINT) **for one second or longer.**

❸



When the screen shown in the figure appears, press (ENTER)**.**
The number of the align point you set is automatically determined.



Align point is set.

This indicates that the base point and align point 1 have been set.

❹ **Repeat Procedure ❶ ~ ❸ to specify other align points as required.**

❺ **Send the cutting data and perform cutting.**

POINT! About Align Points
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 Position When Using Crop Marks

Note: When performing this setting, make sure to set the correction value of [CUTTING MENU CALIBRATION] to "0.00%."
☞ P. 124, "Performing Distance Correction During Cutting"

Procedure

❶ **Make sure the [AUTO ENV. MATCH] menu item is set to "ENABLE."**
☞ P. 128, "Viewing the Automatic Environment Correction Function Settings"

❷ **Perform bidirectional adjustment.**
☞ P. 111, "Correcting for Misalignment in Bidirectional Printing"
☞ P. 112, "Correcting for Misalignment in Bidirectional Printing More Precisely"

❸ **Hold down** (MENU) **and press** (CUT CONFIG)**.**

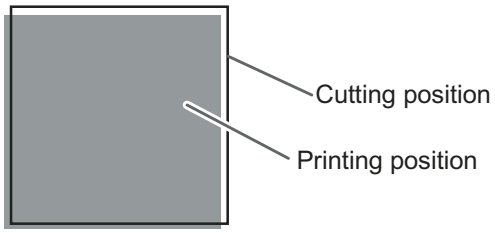
❹

Press (▼) **to display the left figure.**
Press (►)**.**

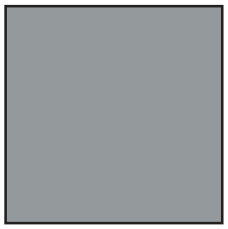
❺ CROP-CUT ADJ. ◀▲▼
TEST PRINT ↵

Press ENTER.
The test pattern (C&C1) is printed and cut.
When adjustment is needed, go on to the next Procedure.

To check the test pattern (C&C1)
Check to make sure that the printing position and the cutting position are aligned.



Printing position and Cutting position are misaligned.

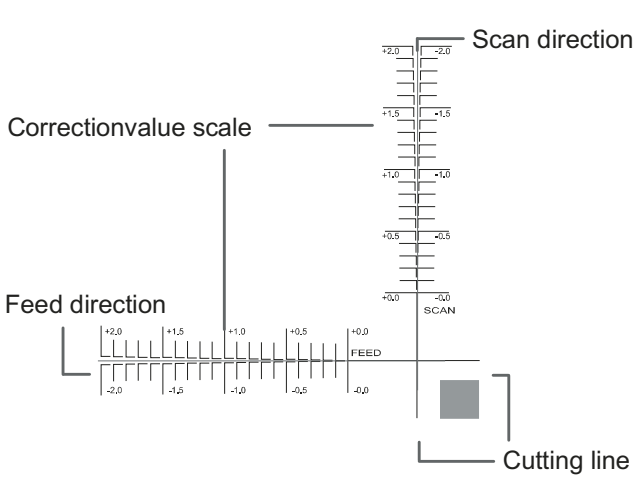


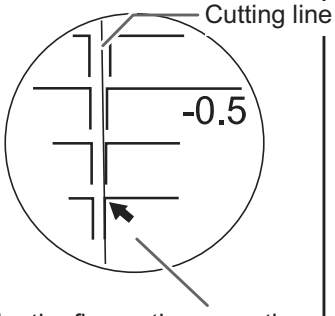
Printing position and Cutting position are aligned.

❻ CROP-CUT ADJ. ◀▲▼
TEST PRINT 2 ↵

Press ▲ to display the left figure.
Press ENTER.
The test pattern (C&C2) is printed and cut.

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 feed direction respectively.



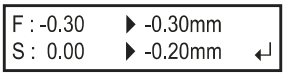


For the figure, the correction value is “-0.3.”

❼ CROP-CUT ADJ. ◀▲▼
SETTING ▶

Press ▲ to display the left figure.
Press ▶.

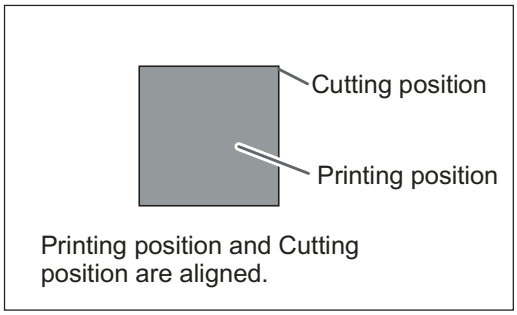
❽



Press ▲ ▼ to select a correction value of [F] (feed direction of media).
Press ◄ ► to select a correction value of [S] (movement direction of head).
Press ENTER to enable the setting.

❾

Press MENU ▲ in this order to display the left figure.
Press ENTER.
The test pattern (C&C1) is printed and cut. If the printing and cutting lines are aligned, adjustment is complete. If further adjustment is needed, go back to Procedure ❽ and fine-tune the adjustment.



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

Using Media Take-up System

Features of the Take-up System

Using the take-up unit lets you perform printing while the media is taken up automatically. This makes possible unattended operation at night and efficient output of lengthy media.

What to Select at the Time of Media Setup

When the take-up system is used, select "TU" or "TU2" in [SETUP SHEET]. "TU" and "TU2" have the following features.

TU	This performs printing operation while automatically taking up the output media. Select this when only printing operation is performed, not accompanied by taking-back operation.
TU2	Select this when printing operation is accompanied by taking-back operation, such as when only cutting operation or printing & cutting operation is performed. The media is not taken up when output is performed before taking-back operation. Note that outputting for a long time at once may cause the media to touch the work floor and get dirty. ☞ P. 142, "About Length Output At One Time When "TU2" is selected"

Operating Conditions for the Take-up System

Some operating conditions for the take-up system differ between "TU" and "TU2."

TU	TU2
Never operate the MANUAL switch for the take-up unit when the loading lever is pulled back.	
Do not feed the media reversely by pressing ▲. 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 software RIP, media cutoff is performed when printing of one page finishes. When you're performing continuous printing and take-up for two or more pages, turn off the automatic-cutoff feature on the software RIP. Take-up quits as soon as the media is cut off.	
Never Use When Performing Cutting Never use the take-up unit when you're performing cutting operations. Use is possible only when performing printing.	
When feeding out media toward the front of the machine by pressing ▼, be sure to set the base point.	
Set the [PREFEED] setting-menu item to "DISABLE."	
Set the [FEED FOR DRY] setting-menu item to "DISABLE." ☞ P. 108, "Drying the Trailing Edge of the Printing Area on the Dryer"	
Margin Settings If you can set the margins on the computer, set them each to 40 millimeters or more.	

About the Paper Tube

For the paper tube, use the included item.

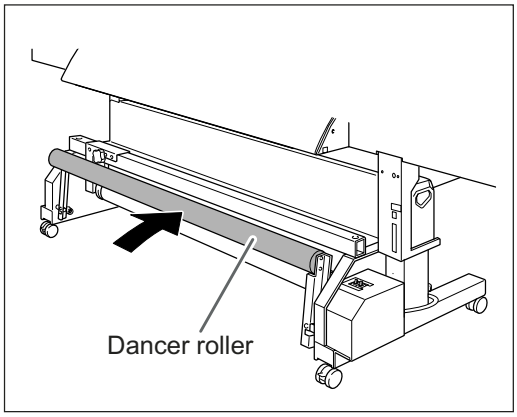
The included paper tube is a special part exclusively for use with this machine. Using something other than the included item may result in spinning without traction or other problems that impede media take-up.

The paper tube is a part that wears out.

The paper tube is a part that wears out. The replacement cycle varies according to usage conditions, but to ensure good media take-up, monitor the state of the paper tube and replace it when necessary. To purchase a replacement, contact your authorized Roland DG Corp. dealer.

How to Take Up Media

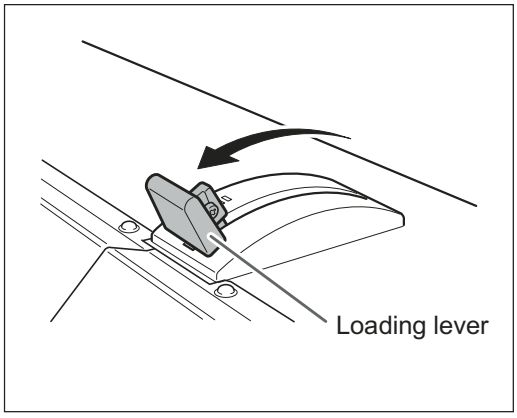
1. Pass the media through the printer.

❶ 

Move the dancer roller toward the rear.

❷ **Load the roll media.**

☞ P. 39, "Loading Media"

❸ 

Pull back the loading lever to secure the media in place.

2. Fasten the media to the paper tube.

When you attach the paper tube, insert it securely onto the end caps on the take-up unit. For information on how to attach the paper tube, refer to the Setup Guide.

❶

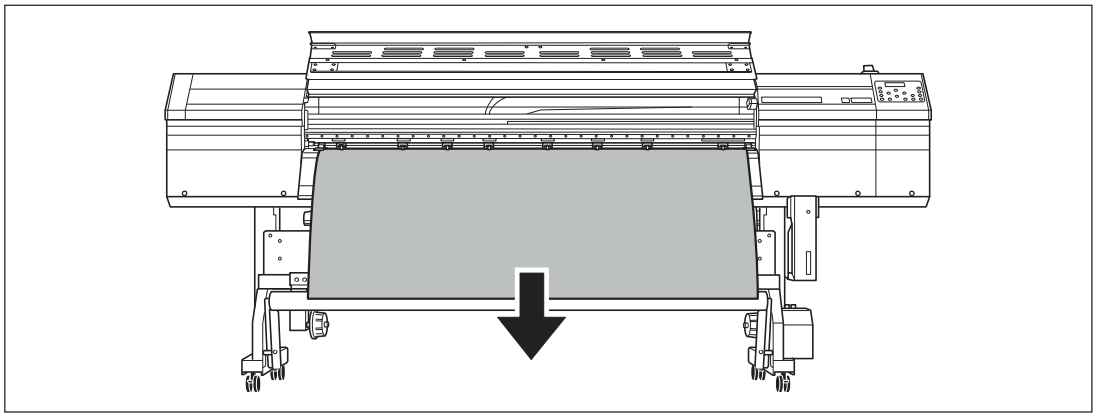
Press ◄ ► to select "TU" or "TU2."

Press SET UP .

❷

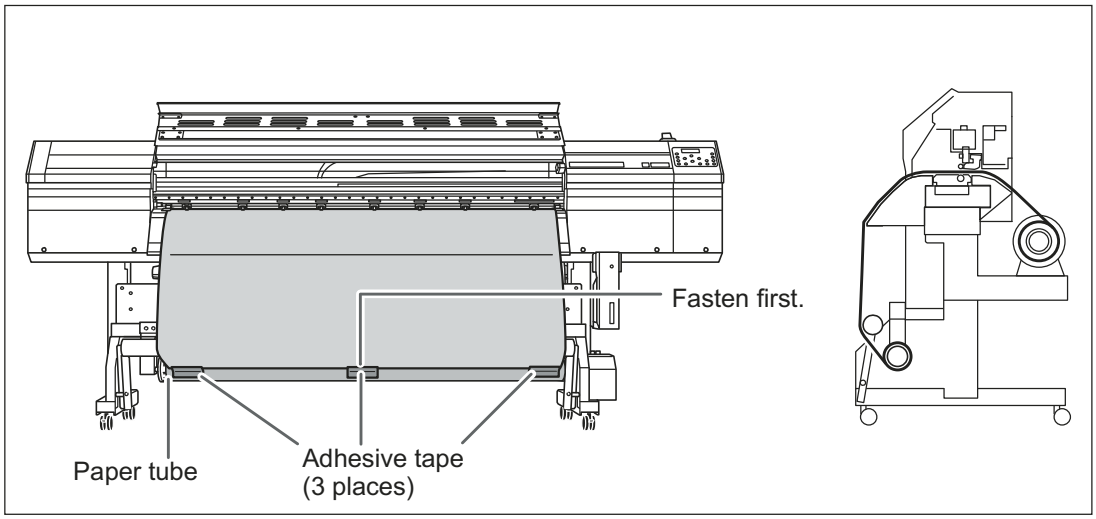
Press ▼ to pull out the media until its leading edge reaches the paper tube.

You can adjust the length of the media in 10-millimeter steps by pressing ▼ (To pull out media continuously, hold down the key.)

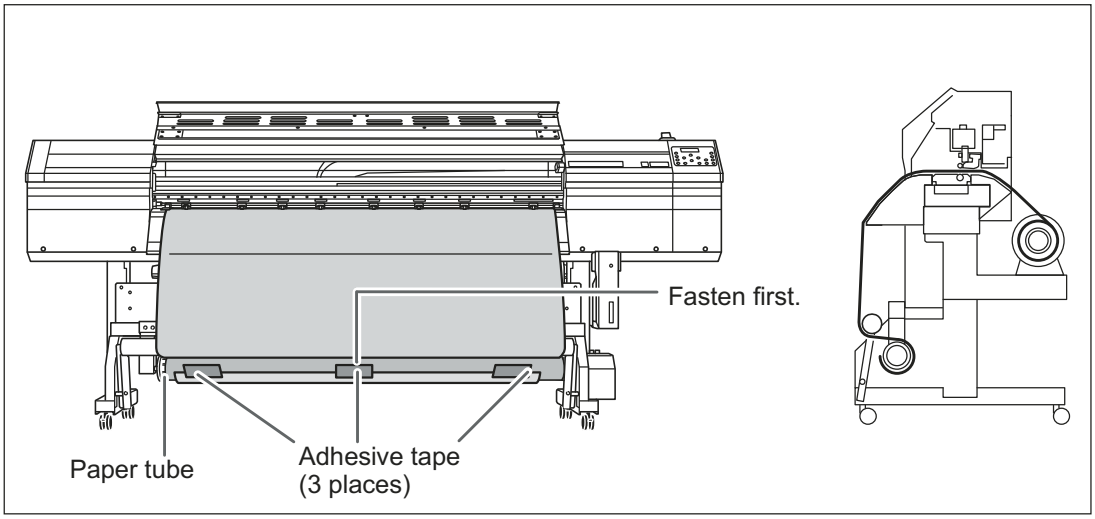


❸ **Fasten the media in place with tape at three locations (the center and both edges) so that the media is not at an angle.**

■ Take-up with outward curl



■ **Take-up with inward curl**



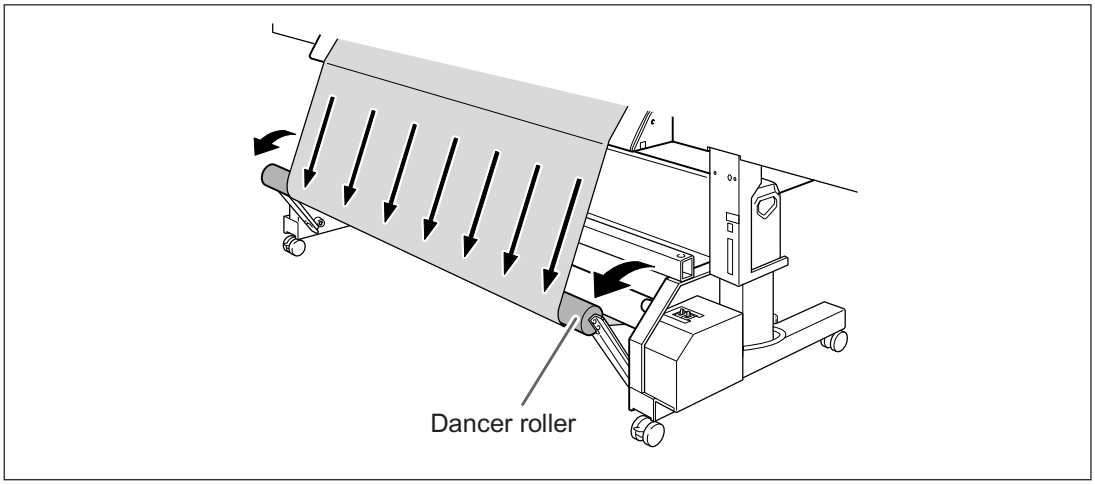
❹ **Press** ENTER **.**

The media is fed out to the front.

❺

TILT DANCER ROLLER TO FRONT ↵

Pull the dancer roller back toward you.
Make sure the media is stretched taut, and press ENTER **.**

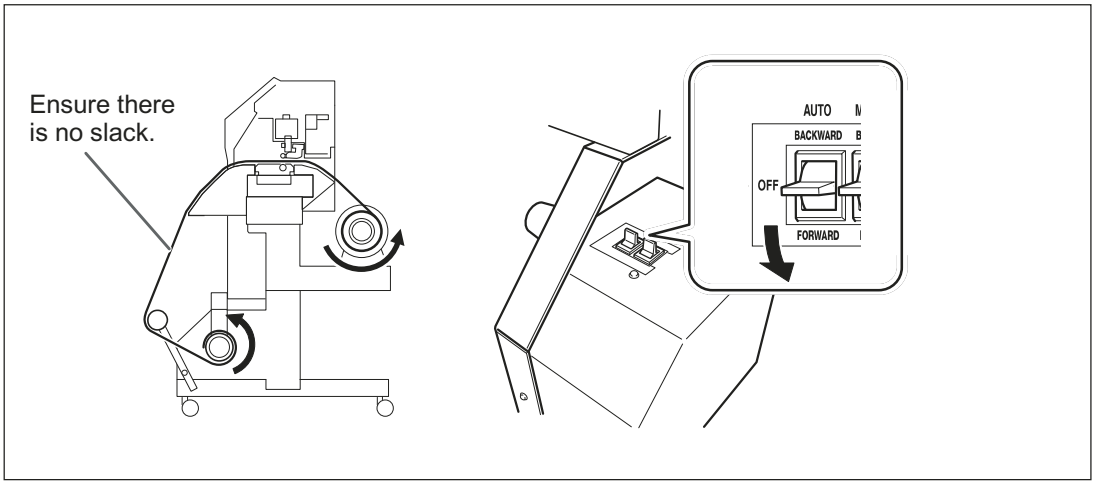


3. Make the settings for the take-up unit.

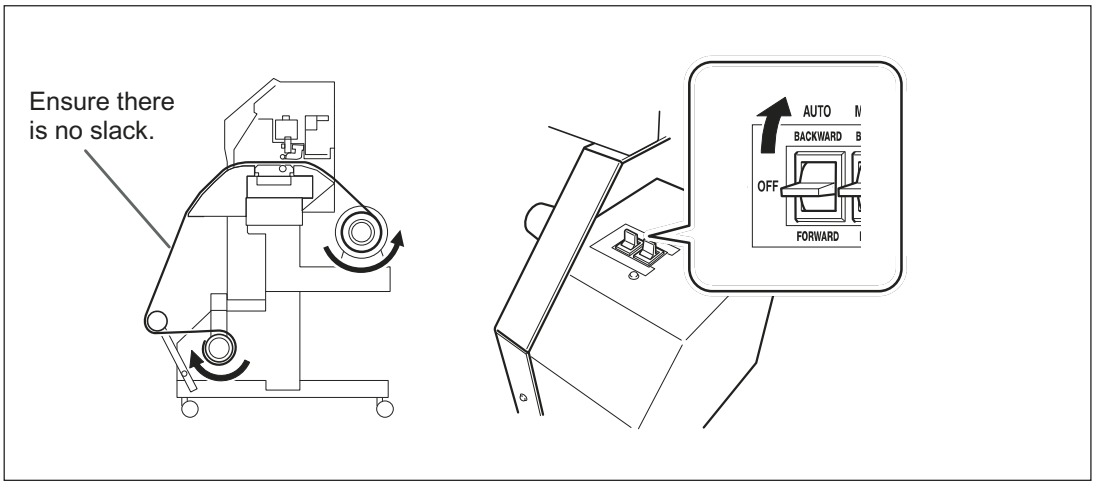
❶ CHECK
TAKE-UP SETTING ↵

Make the setting for the AUTO switch on the take-up unit.

■ **Take-up with outward curl**



■ **Take-up with inward curl**



When you begin take-up, take care to ensure that the end of the media does not become rolled or creased.

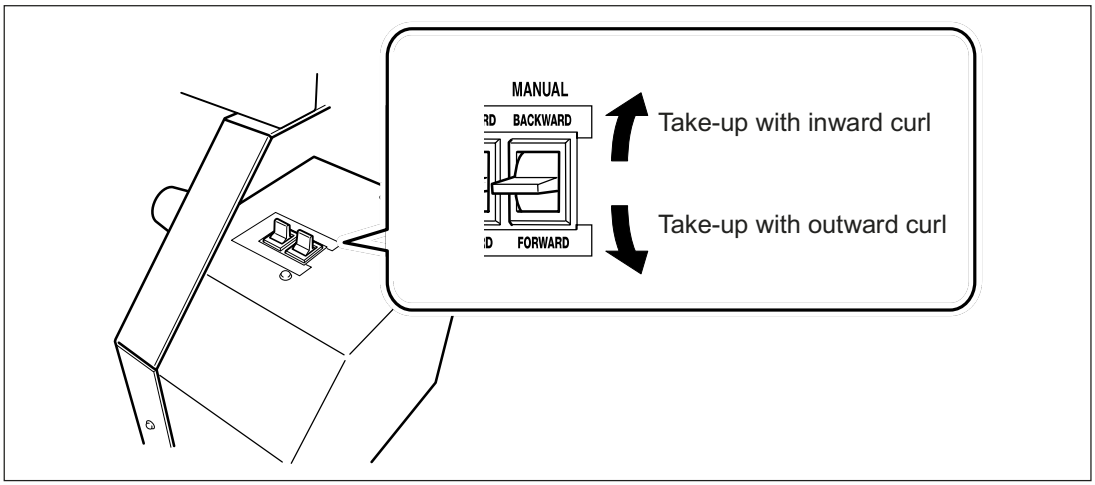
❷ **Press** ENTER **.**

W 1200 m

Making the setting is complete when this screen appears.

How to Operate the MANUAL Switch on the Take-up Unit

You can take up media by using the MANUAL switch.



About Length Output At One Time When "TU2" is selected

If too long media is output at one time when "TU2" is selected, 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 software RIP.

☞ Refer to the following when Roland VersaWorks is used.

How to Output by Limiting Length (Roland VersaWorks)

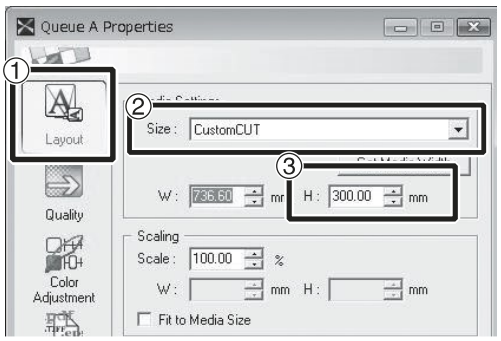
This section describes "how to output by limiting the length" using Roland VersaWorks (hereinafter RVW). For information on the detail usage of RVW, refer to the user's manual of RVW.

Procedure

❶ **Open "Que Properties" window (or "Job Setting" window)**

Select the input folder to be used.

❷



Que Properties window
(The setting item and the method in "Job Setting" window are the same as this procedure.)

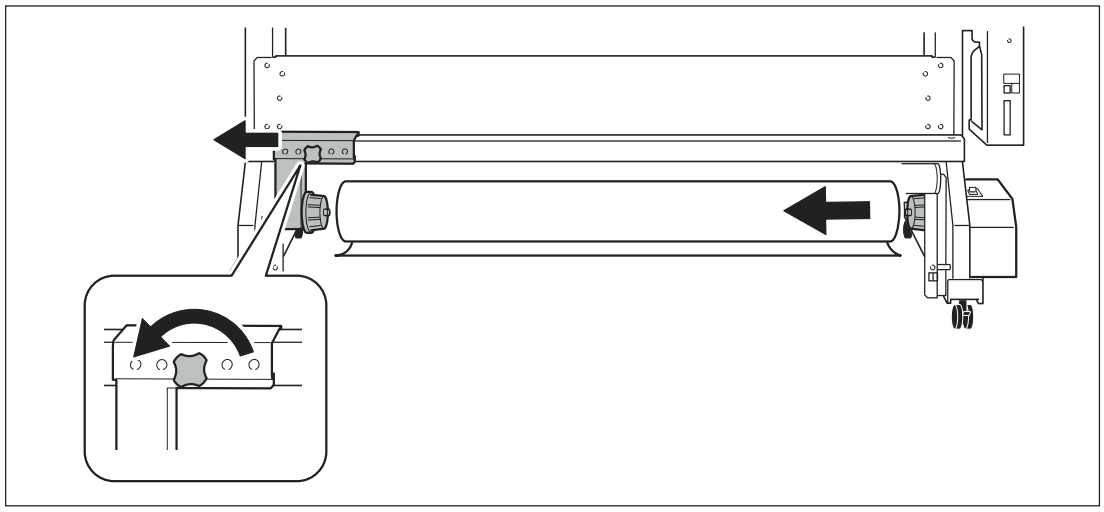
① Click .
② Select "CustomCUT" from [Size] under "Media Settings."
③ Set "H."

How to Remove Taken-up Media

⚠CAUTION **Removal of taken-up roll media from the unit is a task which must be carried out by two or more persons.**
Injury may result if attempted by one person without assistance.

Removing Taken-up Media

1. **Cut off the media.**
☞ P. 69, "Cutting Off the Media"
2. **Support the paper tube to prevent it from falling.**
3. **Loosen the retaining screw and move the arm.**
4. **Detach the paper tube from the flanges.**



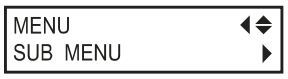
Chapter 5
To Administrators

Output Operation Management

Printing a System Report

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

Procedure

1. **Press (MENU).**
2. 

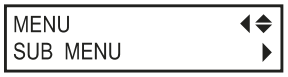
Press (▼) several times to display the screen shown on the left.
Press (►).
3. 

Press (▼) several times to display the screen shown on the left.
Press (ENTER).
Start printing.
4. **Press (MENU) (◄) in this order to go back to the original screen.**

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

1. **Press (MENU).**
2. 

Press (▼) several times to display the screen shown on the left.
Press (►).
Press (▲) twice.
3. 

Press (►) twice.
4. 

Press (▲) (▼) to select.
"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.
5. **Press (MENU) (◄) in this order 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

1. **Press MENU.**
2. MENU / SHEET REMAIN ▸ **Press ▲ twice to display the left figure. Press ►, and then ▼.**
3. SHEET REMAIN / SET LENGTH ▸ **Press ►.**
4. SET LENGTH / 0.0 m ▸ 25.0 m ↵ **Press ▲ ▼ to set the current amount of media remaining. Press ENTER to enable the setting.**
5. W 1200mm L 25.0m **Press MENU ◄ in this order to go back to the original screen.**

This display is updated.

SETUP SHEET / ◆◆ ROLL L 25.0m — If setup has not been performed, the set value flashes.

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.
Note, however, that when sheet media is loaded (that is, when [SETUP SHEET] is set to "PIECE"), the setting for the amount of remaining media is made automatically.
You can also make the setting display this menu automatically whenever you change the media. See the next section, "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.

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

Set to display

every time when a media is changed.

Procedure

1. **Press MENU.**
2. 

Press ▲ twice to display the left figure.
Press ►.
Press ▼ twice.
3. 

Press ►.
4. 

Press ▲ ▼ to select "ENABLE".
Press ENTER to enable the setting.
If you set to "ENABLE," you must set the [EDGE DETECTION] menu to "ENABLE."
☞ P. 115, "Using Transparent Media"
5. **Press MENU ◄ in this order 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. 115, "Using Transparent Media") to "ENABLE." When [EDGE DETECTION] is set to "DISABLE," [SHEET REMAIN] is not displayed automatically.
Also, when sheet media is loaded (that is, when [SETUP SHEET] is set to "PIECE"), the setting for the amount of remaining media is made automatically, and so this menu is not displayed.

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

1. **Press** (MENU).
2. 

Press (▲) **twice to display the left figure.**
Press (►).
3. 

Press (ENTER).
Start printing.
4. **Press** (MENU) (◄) **in this order to go back to the original screen.**

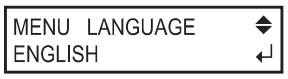
Description

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

1. **Hold down (MENU) and switch on the sub power.**
2. 

Use (▲) (▼) to select the display (menu) language.
Press (ENTER) to enable the setting.
3. 

Use (▲) (▼) to select the measurement unit for length.
Press (ENTER) to enable the setting.
4. 

Use (▲) (▼) to select to the measurement unit for temperature.
Press (ENTER) to enable the setting.

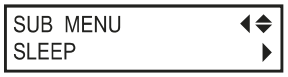
Default Setting

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

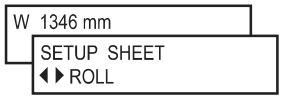
Setting the Interval until Activation of the Sleep Mode (Power Saving Function)

Procedure

1. **Press (MENU).**
2. 

Press (▼) several times to display the screen shown on the left.
Press (►).
3. 

Press (▲) several times to display the screen shown on the left.
Press (►) twice.
4. 

Use (▲) (▼) to make the setting.
Press (ENTER) to enable the setting.
5. 

Press (MENU) (◄) in this order to go back to the original screen.

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."

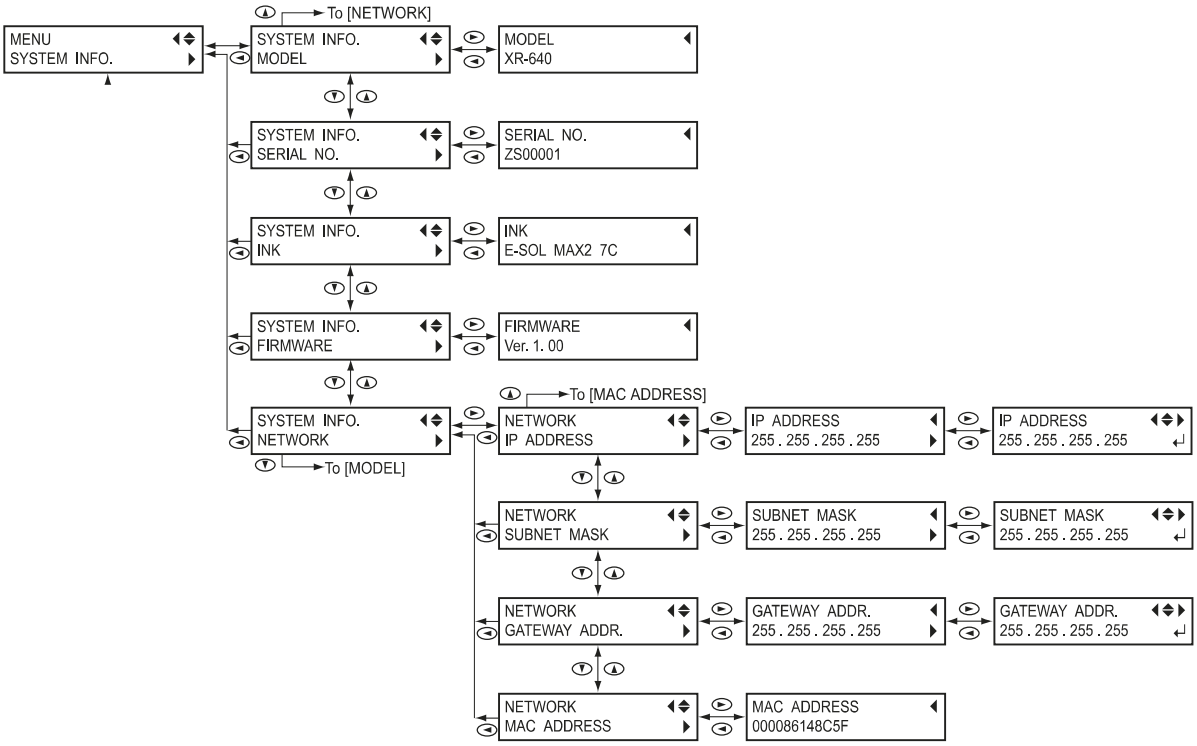
Procedure

1. **Press MENU.**

2. MENU
   SYSTEM INFO.

   Press ▲ several times to display the screen shown on the left.

   You can view the following information.
   [MODEL]: Model name
   [SERIAL NO.]: Serial number
   [INK]: Ink type
   [FIRMWARE]: Firmware version
   [NETWORK]: Network setting such as IPadress

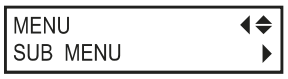


Returning All Settings to Their Initial Values

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

1. **Press (MENU).**

2. 

Press (▼) several times to display the screen shown on the left.
Press (►).

3. 

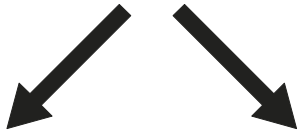
Press (▼) several times to display the screen shown on the left.
Press (ENTER) to execute.

Changing ink type

About change of ink type

On this machine, you can change the ink type by yourself only in the following cases:

Cyan	Magenta	Yellow	Black
Light Cyan	Light Magenta	Light Black	(Cleaning liquid)



Cyan	Magenta	Yellow	Black
Light Cyan	Light Magenta	Light Black	White

Cyan	Magenta	Yellow	Black
Light Cyan	Light Magenta	Light Black	Metallic Silver

How to change the ink type

This task requires the following items. Prepare them before starting the task.

- New dummy cartridge: 6 pieces
- Cleaning liquid
- Cleaning stick

Contact your authorized Roland DG Corp. dealer for purchasing them.

1. Drain ink in the machine.

❶ **Press** (MENU).

❷ MENU / SUB MENU ◂▸▴▾ ▸

Press (▼) **several times to display the left figure.**
Press (►).

❸ SUB MENU / INK CONTROL ◂▸▴▾ ▸

Press (▲) **several times to display the left figure.**
Press (►)**, and then** (▼).

❹ INK CONTROL / PUMP UP ◂▸▴▾ ↵

Press (ENTER).

❺ CHECK DRAIN BOTTLE ↵

Confirm that the drain bottle is loaded, and then press ENTER.

❻ **By following the on-screen instructions, remove and insert the SOL INK cartridges and dummy cartridges.**

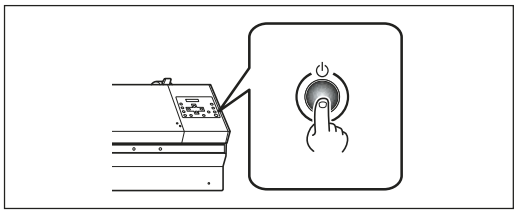
❼ EMPTY DRAIN BOTTLE ↵

When draining of the ink is complete, the message shown in the figure appears.
Dismount the drain bottle and discard the drained ink.
After discarding the drained ink, mount the drain bottle again.

❽ **Press ENTER.**
The sub power is switched off.

IMPORTANT!
Go on to the next procedure as soon as the sub power is switched off. If you leave the machine with ink drained, it damages the print heads.

2. The sub power is switched off.

❶ 

Press the sub power button.

❷ SELECT INK TYPE ▲▼
E-SOL MAX2 7C ↵

Press ▲ or ▼.

❸ SELECT INK TYPE ▲▼
E-SOL MAX2 LkW ↵

Press ▲ ▼ to select ink type.
Select the ink type according to which color is used, white or metallic silver.

White (W)	Metallic silver (MT)	Ink Mode
○		E-SOL MAX2 LkW
	○	E-SOL MAX2 LkMT

❹ **After selecting the Ink Type, press ENTER.**

❺ E-SOL MAX2 LkW ◀▶
[YES] No ↵

Confirm the Ink Type is correct, and then use ◄ ► to select [Yes].
Press ENTER.

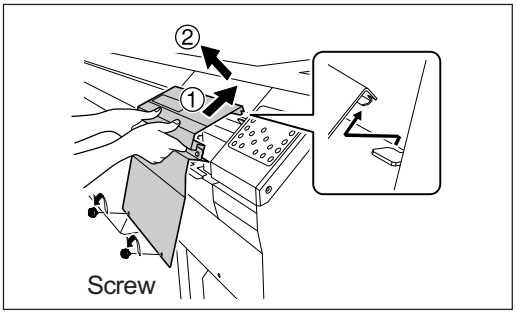
❻ INSTALL DRAIN BOTTLE ↵

Make sure the drain bottle is installed.
Press ENTER.

3. Clean using the cleaning stick.

❶ OPEN COVER R

When the message shown on the left appears, remove the cover R.

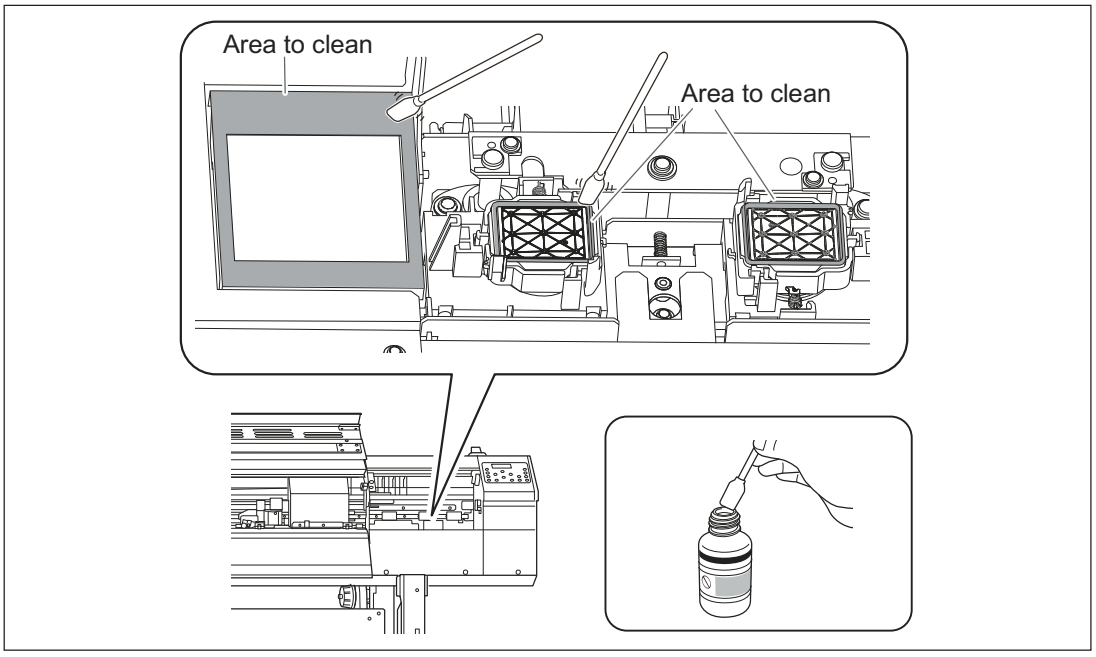


Remove the screws, lift the cover R in the direction of ① , and then pull it out in the direction of ②.

❷ APPLY
CLEANING LIQUID ↵

When the message shown on the left appears, put the cleaning stick in the cleaning liquid and clean the indicated location.

Use one cleaning stick per cleaning session, then discard the stick after use. Reusing cleaning sticks may reduce printing quality.



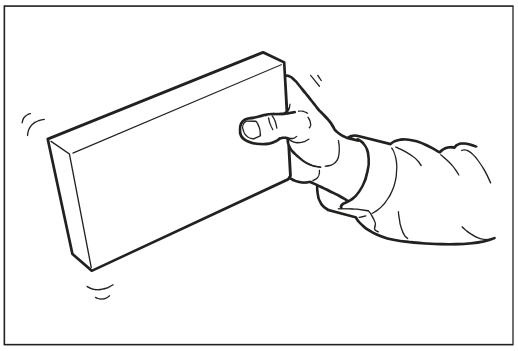
❸ **After cleaning, install the cover R.**

❹ APPLY
CLEANING LIQUID ↵

Press ENTER **.**

4. Insert the ink cartridge for each color.

❶

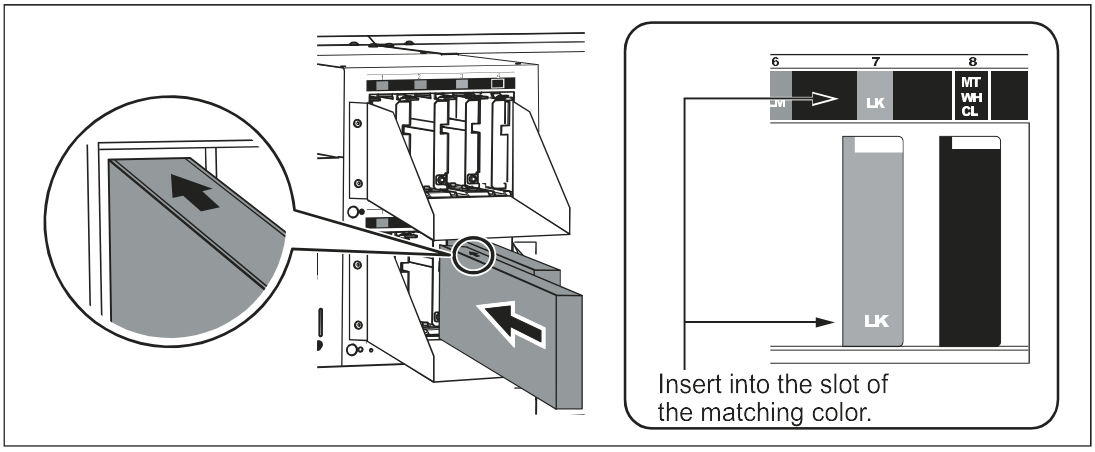


Before you insert the ink cartridge for each color, gently shake the cartridge.

❷

```
SET  SOL  CRT.
          7 8
```

Insert Ink cartridges into slots 7 and 8.



❸

```
SET  DUMMY  CRT.
     1 2 3 4 5 6   ↵
```

```
FILLING INK...
>>>
```

Insert the dummy cartridges into slots from 1 to 6 .
Press (ENTER).

❹

```
REMOVE  DUMMY  CRT.
     1 2 3 4 5 6   ↵
```

Pull out the dummy cartridges of slots 1 to 6 .
Press (ENTER).

❺

```
SET  SOL  CRT.
     1 2 3 4 5 6 7 8
```

```
FILLING INK...
>>>>>>>>>>>>>>>>
```

Insert the ink cartridge for each color.
Insert the cartridges into the cartridge slots of the matching color.

5. Clean the print heads.

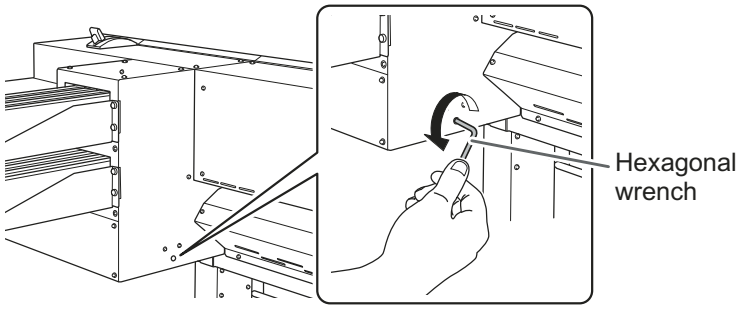
IMPORTANT!

This operation takes about 5 minutes. During this operation, do not walk away from the machine and complete this operation by following the on-screen instructions. Walking away before the operation is complete may cause damage to the print heads, making the machine unusable.

❶ CLOSE THE VALVE

Insert the provided hexagon wrench into the hole shown in the figure below. Rotate it in the direction of arrow until the buzzer sounds once and hold it with your hand.

The valve will close.



NOW PROCESSING..

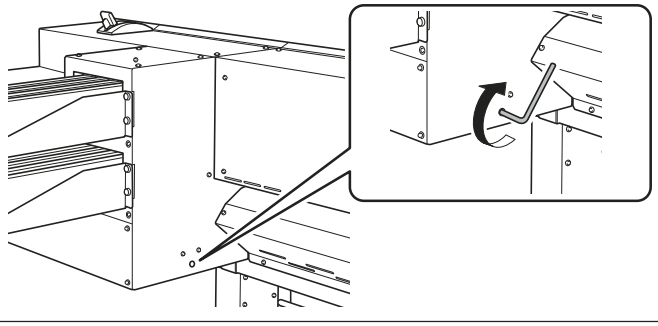
While holding the hexagon wrench with your hand, wait until the next instruction is displayed.

❷ OPEN THE VALVE

When the screen shown to the left appears and the buzzer sounds twice, rotate the hexagon wrench in the direction of the arrow shown in the figure below until the buzzer sounds once.

The valve opens.

Open the valve immediately although cleaning continues inside the machine even after the screen shown on the left appears. Leaving the valve closed may cause damage to the print heads.

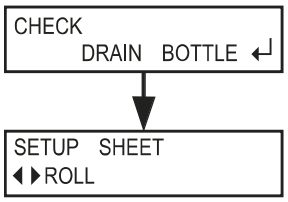


NOW PROCESSING..

Wait until the displayed next operation appears.

❸ **By following the on-screw instruction, repeat steps ❶ and ❷.**

❹



Make sure no fluid is overflowing from the drain bottle and press ENTER.

When this screen appears, filling with ink is finished.

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

Printer Does Not Start Up!

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. 38, "Switch On!"

Is SET UP illuminated?

Output is not performed when SET UP is not illuminated.

Pull back the loading lever, close the front cover, and press SET UP.

☞ P. 67, "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

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 ◄.

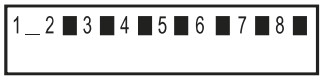
☞ P. 67, "Getting Ready to Receive Data from a Computer"

Is PAUSE illuminated?

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

☞ P. 69, "Pausing and Canceling Output"

Has ink run out?



When printing data is sent while the screen shown in the figure is displayed, a message appears and a warning beep sounds. At the same time, operation pauses. When the ink cartridge is replaced with a new one, printing or cutting starts.

☞ P. 75, "How to Replace Ink Cartridges"
☞ P. 146, "Determining What Happens When Ink Runs Out"

Is a message displayed on the screen?

☞ P. 173, "A Message Appears"
☞ P. 175, "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. 151, "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.

☞ "Roland VersaWorks Quick Start Guide"

The Media Take-up System Doesn't Run

Is the cable connected?

Connect the cable for the take-up unit to the machine. To perform take-up automatically during printing, also make the setting for the AUTO switch.

☞ "Setup Guide"
☞ P. 138, "How to Take Up Media"

The Media Heating System Doesn't Warm Up

Is media loaded?

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

☞ P. 105, "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. 97, "Replacing the Separating Knife"

Cannot select "EDGE" and "PIECE".

Is "EDGE DETECTION" set to "DISABLE"?

If "EDGE DETECTION" is set to "DISABLE", the front edge and trailing edge of the media cannot be detected, and consequently "EDGE" and "PIECE" cannot be selected in "SETUP SHEET". To select "EDGE" or "PIECE", set "ENABLE" to "EDGE DETECTION".

☞ P. 115, "Using Transparent Media"

Attractive Printing or Cutting is Impossible…

Printed Results Are Coarse or Contain Horizontal Stripes

Does 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. 63, "Printing Tests and Normal Cleaning"
☞ P. 80, "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. 114, "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. 112, "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. 111, "Correcting for Misalignment in Bidirectional Printing"
☞ P. 112, "Correcting for Misalignment in Bidirectional Printing More Precisely"

Is the media heating system 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. 105, "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 colorprofile 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.

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. 169, "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. 51, "Setup of Media ([Media Setting] menu)"
☞ P. 102, "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. 169, "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.

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. 169, "Media Feed Is Not Smooth"

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. 117, "Speeding Up Output for Narrow Media"
☞ P. 118, "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. 102, "Fully Utilizing Preset Function"

The Media Becomes Soiled When Printed

Does 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. 114, "Adjusting Head Height to Match Media Thickness"
☞ P. 168, "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. 82, "Maintenance that Should Be Performed More Than Once a Month"

- **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. 78, "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. 169, "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. 102, "Fully Utilizing Preset 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. 128, "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 [CALIBRATION] value to "0.00."

☞ P. 124, "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. 39, "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. 178, "[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. 169, "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. 114, "Adjusting Head Height to Match Media Thickness"

Media Feed is Not Smooth

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. 51, "Setup of Media ([Media Setting] menu)"

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. 105, "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. 105, "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. 51, "Setup of Media ([Media Setting] menu)"

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. 51, "Setup of Media ([Media Setting] menu)"

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. 78, "Cleaning"

The Media Cannot Be Taken Up Smoothly

Is media feed unstable?

Various factors can make media feed unstable. Refer to the following and correct the problem.

☞ P. 169, "Media Feed Is Not Smooth"

Is the paper tube installed correctly?

Securely insert the paper tube onto the end caps. If the paper tube is not attached correctly, it may spin without traction and fail to take up the media.

☞ "Setup Guide"

Is the paper tube bent or sagging?

Media cannot be taken up smoothly when the paper tube is bent or sagging.

Are you using the included paper tube?

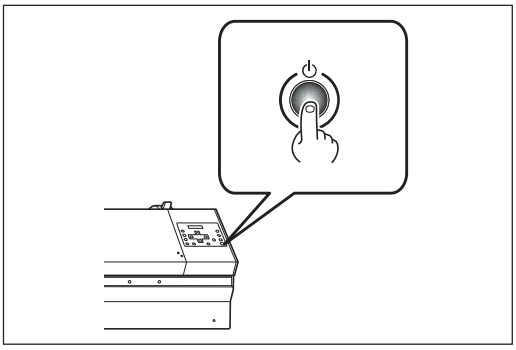
For the paper tube, use the included item. Using something other than the included item may result in spinning without traction or other problems that impede media take-up.

☞ P. 138, "About the Paper Tube"

Print Heads Stop 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 stand-by position (inside the cover R), it means the operation has ended successfully.

If The Print Heads Still Do Not Move

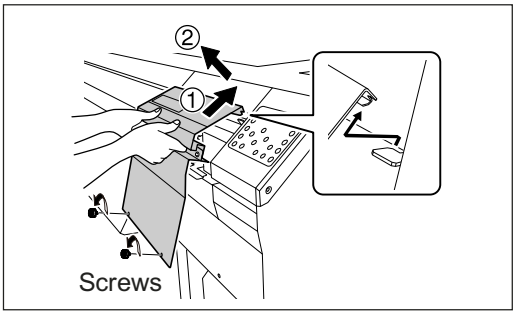
Try switching off the main power, then again switching on the main power, followed by the sub power.

If the Print Heads Still Do Not Move

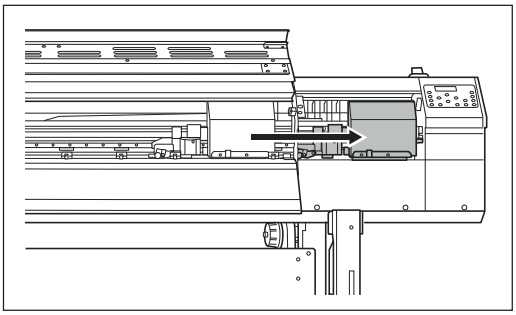
If the print heads still do not move, carry out the following emergency response measure, then contact your authorized Roland DG Corp. dealer.

Procedure

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

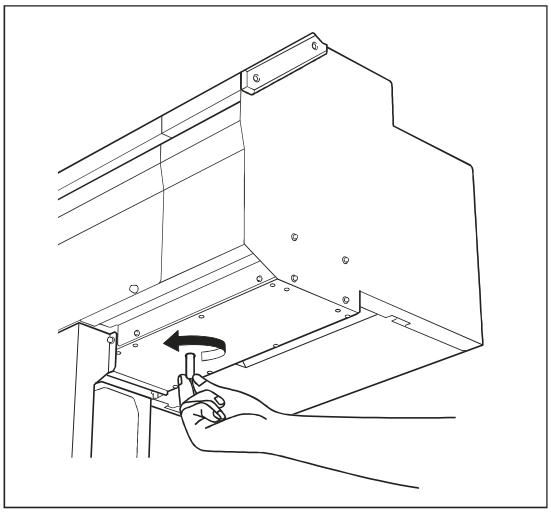
2. 

Remove the Cover R.
Remove the screws, lift the cover R in the direction of ① and then pull it out in the direction of ②.

3. 

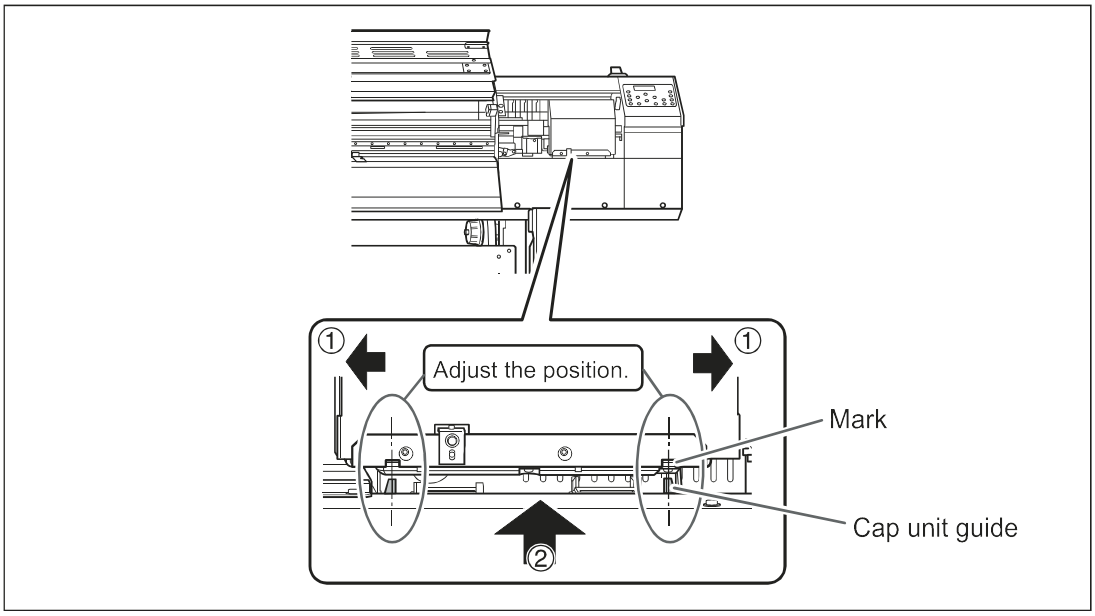
Gently move the print head carriage to the standby position.
Stopping at the place where the audible click is heard locks the print heads in place.

4

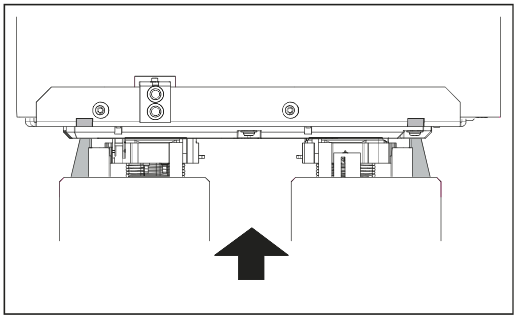


Insert the cap-unit tool into the hole at the bottom of the machine and turn gently.
The cap unit rises.

5 **① Move the print head carriage manually to align the mark with the cap unit guide.**
② Turn the tool further to bring the cap unit near the heads.



6



When the print heads make contact with the cap unit, turn the cap-unit tool one or two turns more.
Make sure the print heads are capped tightly.

A Message Appears

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. 99, "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 PRESS SETUP KEY]

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

[END OF THE SHEET]

The trailing edge of the media was detected during operation. Press any button on the operation panel to clear the message. Load new media.

[CHECK DRAIN BOTTLE]

This appears when a certain amount of discharged fluid collects in the drain bottle. To clear the message, press ENTER. If this screen appears, go to the [DRAIN BOTTLE] menu and discard the discharged fluid in the bottle.

☞ P. 76, "Disposing of Discharged Ink"

[INSTALL DRAIN BOTTLE]

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

☞ P. 76, "Disposing of Discharged Ink"

[NOW HEATING...]

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

[REMOVE MEDIA CLAMPS]

This appears if SHEET CUT is pressed while the media clamps are attached. Remove the media clamp and press ENTER.

[TIME FOR MAINTENANCE]

It is time to clean the printer heads manually. After verifying, press ENTER .

☞ P. 83, "Manual Cleaning of Print Heads"

[TIME FOR WIPER (FELT) REPLACE]

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

☞ P. 89, "Replacing the Wiper"
☞ P. 92, "Replacing the Felt Wiper"

[OPEN THE VALVE]

Open the valve. The valve described here is the part you handle when you clean heads to perform the first ink filling after purchasing this machine. Do not operate this except when filling ink for the first time and "Selecting the ink type". If you try to close the valve in an undesirable manner, it may cause troubles including NG ink discharge.

☞ "Setup Guide"
☞ P. 153, "How to change the ink type"

An Error Message Appears

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 .

[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. 129, "Performing Printing and Cutting Separately"

[OPTION-DRYER IS NOT CONNECTED]

When the drying-heater unit is not connected to the printer, [OPTION DRYER] is set to "ENABLE." Switch the sub power and main power off, and then connect the drying-heater unit to the printer.

[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).

[CARRIAGES ARE SEPARATED]

The cutting carriage and the print-head carriage were improperly disconnected.
A problem such as a media jam occurred, impeding correct operation. Operation cannot be continued. Switch the sub power off, then back on.

[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. 129, "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. There is no limitation in the size of the data in the media-feed direction.

[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) and allow the machine to come to room temperature, then turn on the power.

[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) and allow the machine to come to room temperature, then turn on the power.

[SERVICE CALL xxxx]

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 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]

SET UP was pressed even though no media is loaded.

Press any key to clear the error. Load media and pull back the loading lever, then press SET UP.

☞ P. 39, "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. 115, "Using Transparent Media"

The loaded media is too small.

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

[SETUP SHEET AGAIN]

The media setup is canceled because two or more of the following conditions are present.

- **"EDGE" or "PIECE" is selected in [SETUP SEET], where media setup is done.**
- **"AUTO DISPLAY is set to "ENABLE" (the screen for loading a preset is displayed at the time of media setup).**

☞ P. 104, "Automatic loading of a saved preset when media is loaded"

- **In the loaded preset, "EDGE DETECTION" is set to "DISABLE" (detection of the leading and trailing edges of the media is disabled).**

☞ P. 115, "Using Transparent Media"

When "EDGE DETECTION" is set to "DISABLE," you cannot select "EDGE" or "PIECE" in [SETUP SHEET]. For this reason, the setting is canceled if two or more of the above conditions are present. If you want to select "EDGE" or "PIECE," call a preset for which "ENABLE" has been selected for [EDGE DETECTION], or set [EDGE DETECTION] to "ENABLE" before [SETUP SHEET].

[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.

First, move the loading lever to the rear and move the left (right) pinch roller to the correct location.

☞ P. 39, "Loading Media"

[PINCHROLL ERROR LOWER PINCHROLL]

SET UP was pressed without first lowering the pinch rollers.

Press any key to clear the error. Pull back the loading lever, then press SET UP.

The pinch rollers were raised while SET UP was illuminated.

The error is cleared automatically after a short wait. Never move the loading lever while printing is in progress.

[WRONG CARTRIDGE]

A cartridge that cannot be used was installed.

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

[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 xxx]

The height of the print head is lower than the height specified on the software RIP.
This warning indicates that the height of the print heads is too low for the media thickness specified on the software RIP. The heads move to a location where you can operate the height-adjustment lever. Adjust to the displayed height, then press ENTER.

☞ P. 114, "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 heads 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, move the loading lever to the rear and adjust the media to create a small amount of slack, then switch on the sub power.

[WRONG HEAD IS INSTALLED]

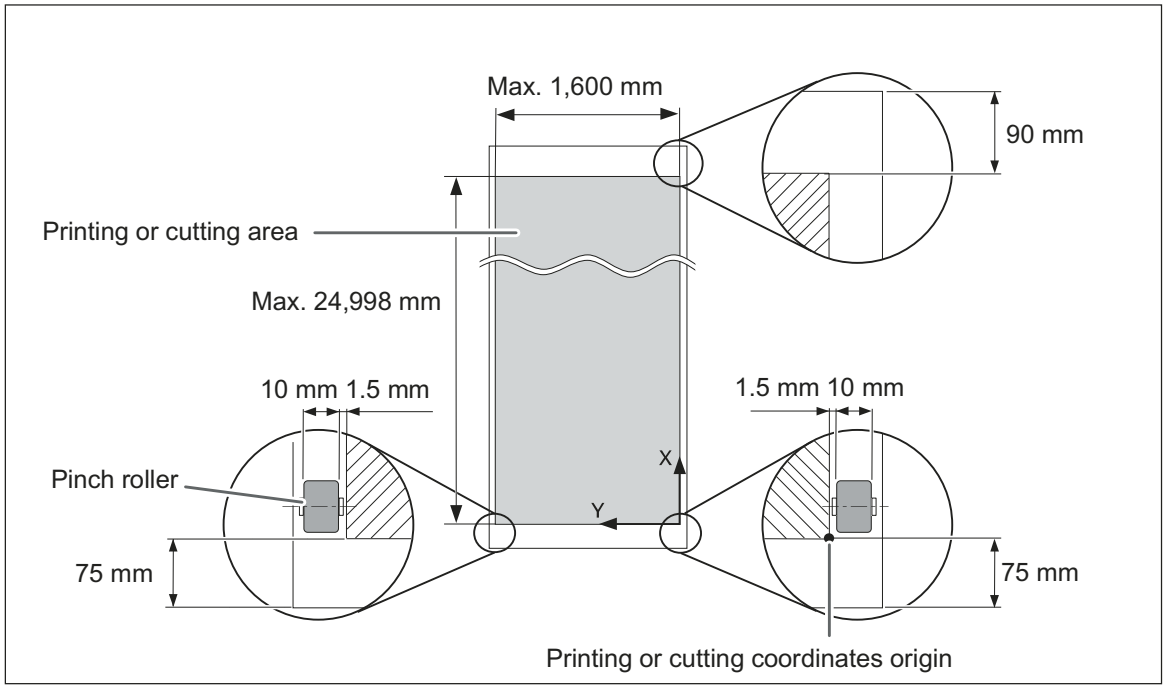
An unusable print head is installed.
Switch off the sub power. After you switch off the power, inform your authorized Roland DG Corp. dealer.

Chapter 7
Main Specifications

Printing/Cutting Area

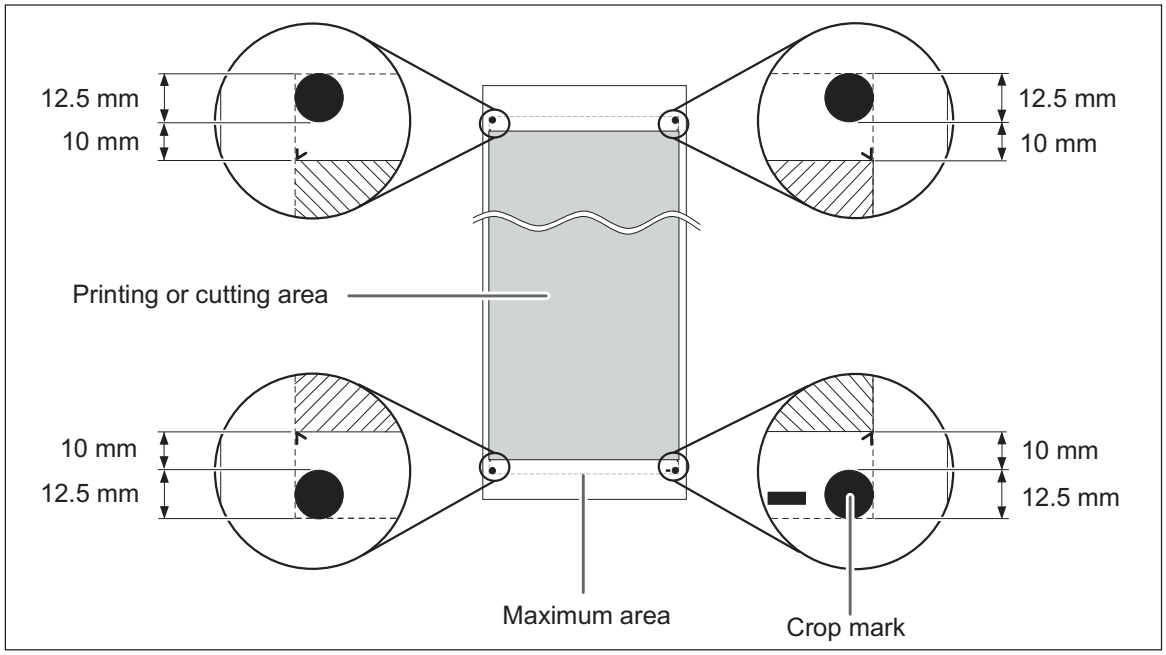
Maximum Area

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.



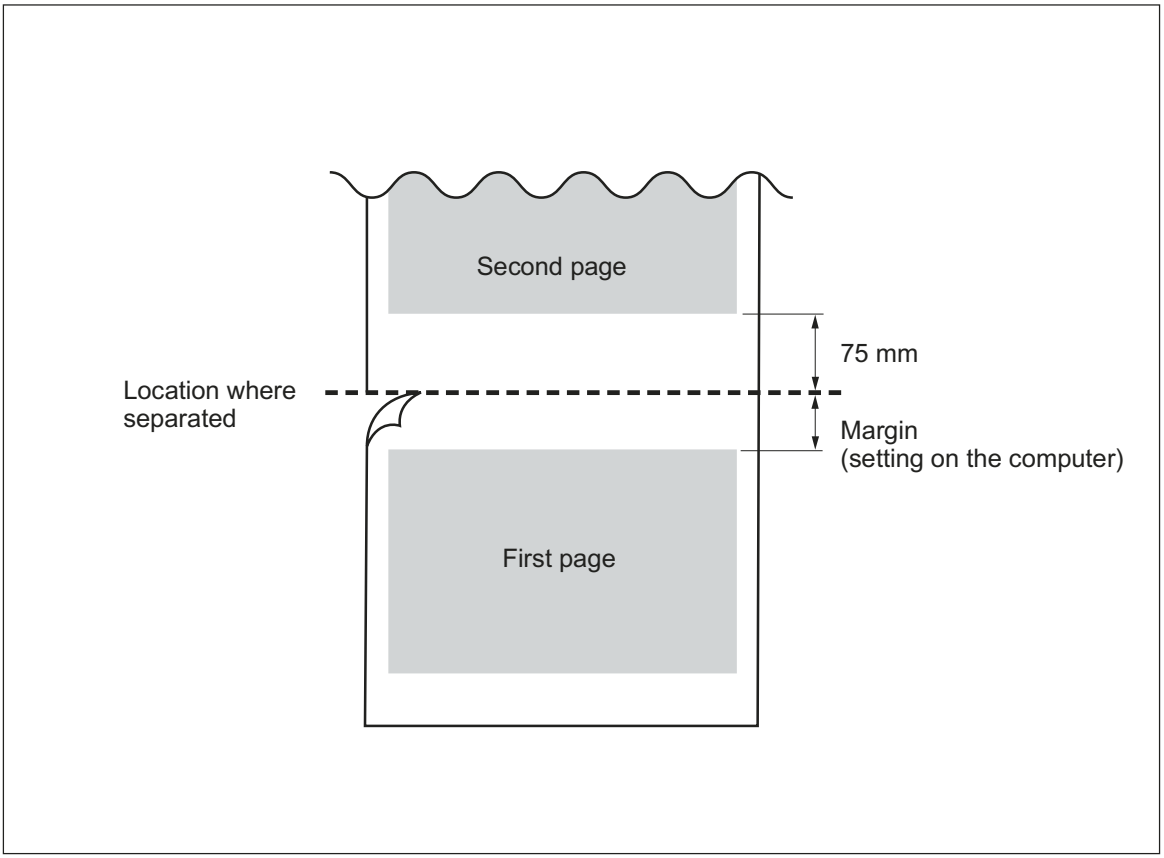
Maximum Area When Using Crop Marks

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.



About the Blade

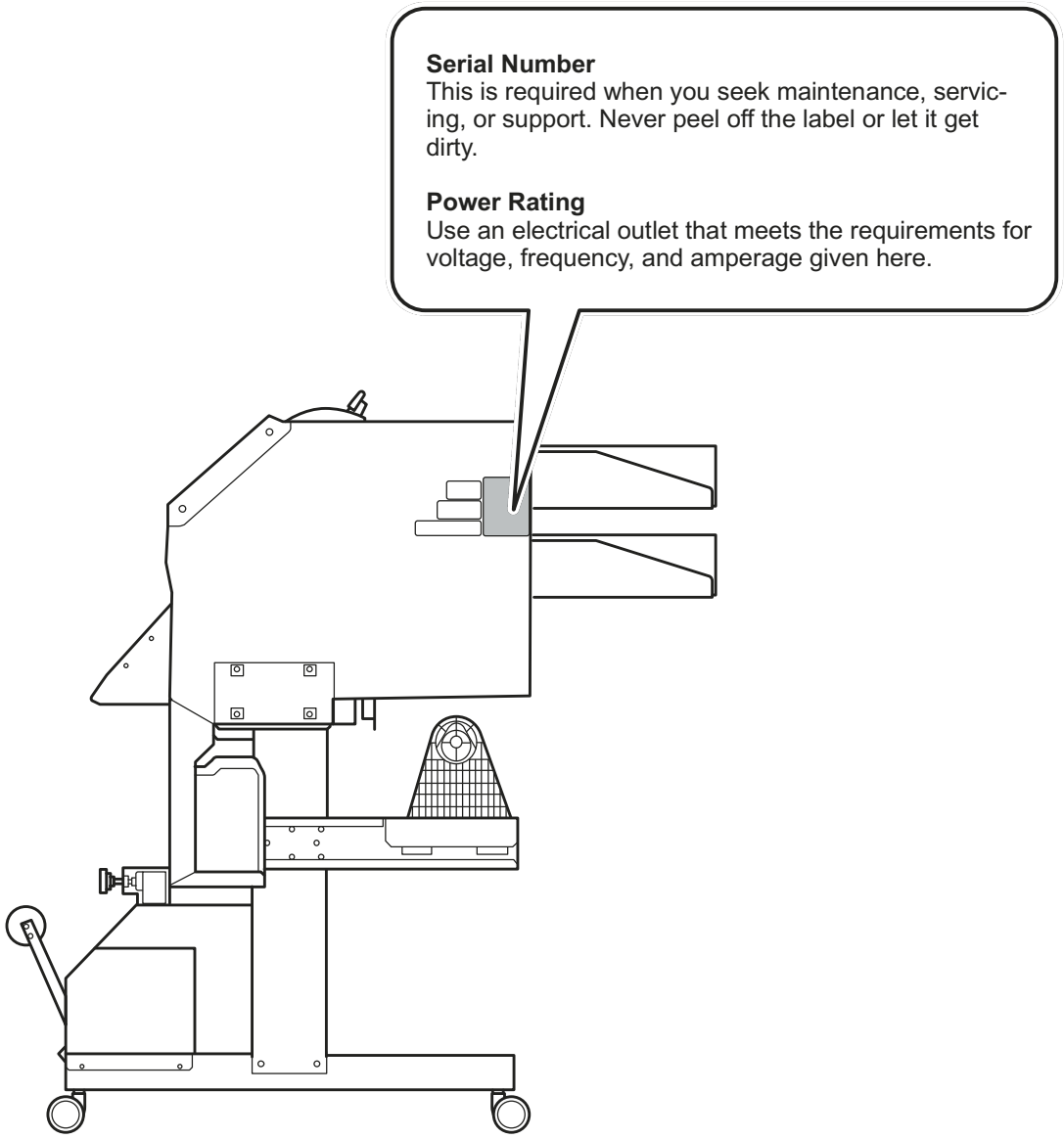
The cutting conditions and the service life of the blade change according to the media and the operating environment, even when you're using identical blades. The service life also differs according to the type of blade. A rough guide is shown below.

Blade	Media	Blade force	Amount of blade offset	Blade life* (general guide)
ZEC-U1005	General signage vinyl	50 to 150 gf	0.25 mm	8000 m
ZEC-U5025	General signage vinyl	30 to 100 gf	0.25 mm	4000 m
	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



Specifications

		XR-640
Printing/cutting method		Piezo ink-jet method/media-moving method
Media	**Width**	315 to 1,625 mm (12.4 to 64 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 lb.)
	Core diameter	76.2 mm (3 in.) or 50.8 mm (2 in.)
Printing/cutting width (*1)		Max. 1,600 mm (63 in.)
Ink cartridges	**Types**	440-cc cartridge (cyan, magenta, yellow, black, light cyan, light magenta, light black) 220-cc cartridge (metallic silver, white)
	Colors	Seven colors (cyan, magenta, yellow, black, light cyan, light magenta, light black) or, Eight colors (cyan, magenta, yellow, black, light cyan, light magenta, light black, white) or, Eight colors (cyan, magenta, yellow, black, light cyan, light magenta, light black, metallic silver) or, Eight colors (cyan, magenta, yellow, black, light cyan, light magenta, metallic silver, white)
Printing resolution (dots per inch)		Maximum 1,440 dpi
Cutting speed		10 to 600 mm/s (Media-feed direction: 10 to 300 mm/s)
Blade force		30 to 300 gf
Cutting blade	**Type**	Roland CAMM-1 series compatible
	Blade offset	0.000 to 1.500 mm(0 to 0.059 in.)
Software resolution (when cutting)		0.025 mm/step
Distance accuracy (when printing) (*2)(*3)		Error of less than ±0.3 % of distance traveled, or ±0.3 mm, whichever is greater
Distance accuracy (when cutting) (*2)		Error of less than ±0.4 % of distance traveled, or ±0.3 mm, whichever is greater When distance correction has been performed (when the setting for [CUTTING MENU] - [CALIBRATION] has been made): Error of less than ±0.2% of distance traveled, or ±0.1 mm, whichever is greater
Repeatability (when cutting) (*2)(*4)		±0.1 mm or less
Alignment accuracy for printing and cutting (*2)(*5)		±0.5 mm or less
Alignment accuracy for printing and cutting when reloading media (*2)(*6)		Error of less than ±0.5 % of distance traveled, or ±3 mm, whichever is greater
Dryer unit		Heating type, setting range for the preset temperature: 30 to 55°C (86 to 130°F)
Ink-fixing device (*7)		Print heater / preheater, setting range for the preset temperature: 30 to 50°C (86 to 122°F)
Connectivity		Ethernet (10BASE-T/100BASE-TX, automatic switching)
Power-saving function		Automatic sleep feature
Power requirements		AC 100 to 120 V ±10%, 12 A, 50/60 Hz or AC 220 to 240 V ±10%, 6.5 A, 50/60 Hz
Power	**During operation**	Approx. 1,600 W
	Sleep mode	Approx. 47 W
Acoustic noise level	**During operation**	65 dB (A) or less
	During standby	45 dB (A) or less

Dimensions (with stand)		2,948 (W) x 1,211 (D) x 1,260 (H) mm (116.1 (W) x 47.7 (D) x 49.6 (H) in.)
Weight (with stand)		205 kg (452 lb.)
Environmental	**Power on (*8)**	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, software RIP, User's Manual, etc.

*1
The length of printing or cutting is subject to the limitations of the program.

*2
- 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.

*3
- Print travel: 1 m

*4
- [PREFEED] menu item must be set to "ENABLE."

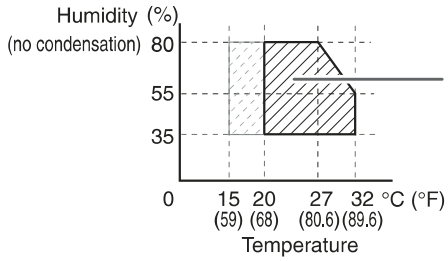
Range for assured repetition accuracy
- For media with a width exceeding 610 mm: Length 4,000 mm
- For media with a width of 610 mm or less: Length 8,000 mm

*5
- Provided that media length is under 3,000 mm
- Excludes the effects of slanted movement and of expansion and contraction of the media.

*6
- Data size:1,000 mm in the media-feed direction, 1,600 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.

*7
- 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.

*8
- Operating environment



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