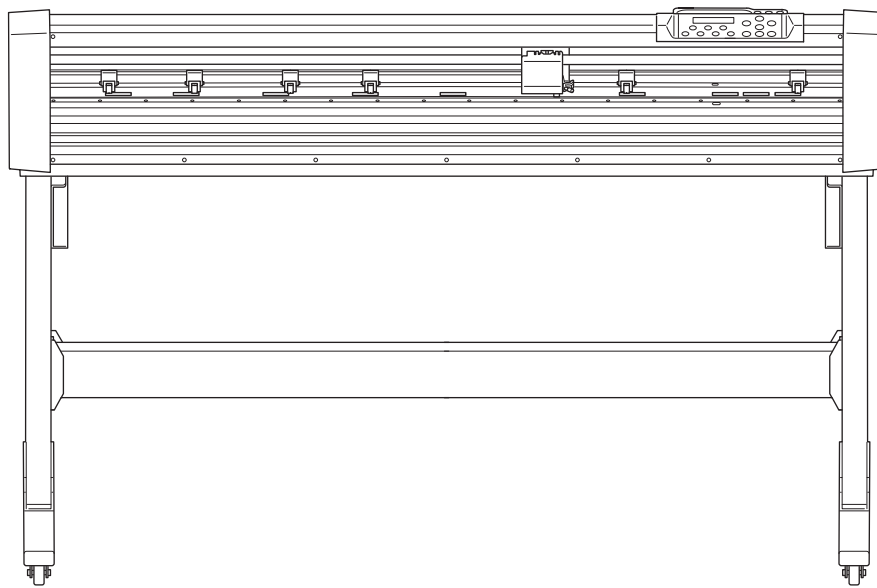


CAMM-1

GR2-640

GR2-540

User's Manual



Thank you very much for purchasing this product.

- To ensure correct and safe usage with a full understanding of this product's performance, please be sure to read through this manual completely.
- Unauthorized copying or transferal, in whole or in part, of this manual is prohibited.
- The specifications of this product and the contents of this operation manual are subject to change without notice.
- The operation manual and the product have been prepared and tested as much as possible. If you find any misprints or errors, please inform us.
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Basic Handling Methods

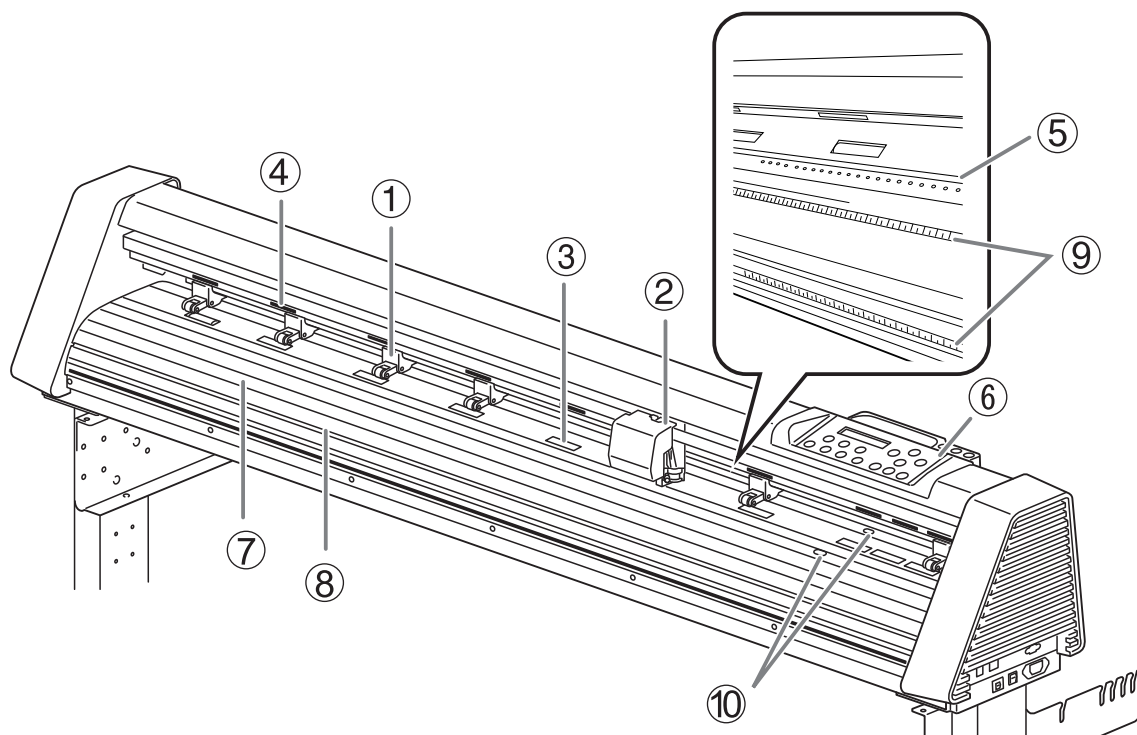
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Part Names and Functions

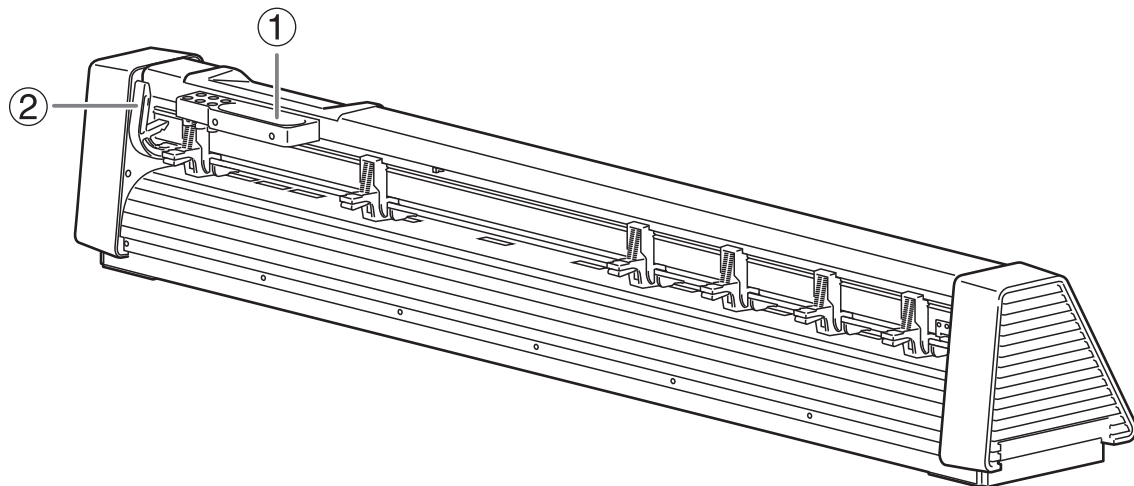
Cutting Machine Main Unit

Front



No.	Name	Function overview
①	Pinch rollers	When you lower the lever, this part pinches the material. Lift the lever to release the material.
②	Cutting carriage	Install the blade holder. This part moves to the left and right to cut the material.
③	Grit rollers	These rollers feed the material to the front and rear.
④	Grit patterns	These indicate the locations of the grit rollers. When loading the material, be sure to place the pinch rollers within the area indicated by each of these patterns.
⑤	Blade protector	This is the path that the blade takes during cutting. It protects the tip of the blade.
⑥	Operation panel	The panel containing the buttons used to operate the machine.
⑦	Platen	This is the path over which the material passes.
⑧	Cutting groove	The safe blade slides along the groove and separates the material.
⑨	Rulers	Load the material using the rulers as a guide.
⑩	Paper sensors	These sensors detect the presence/absence of material.

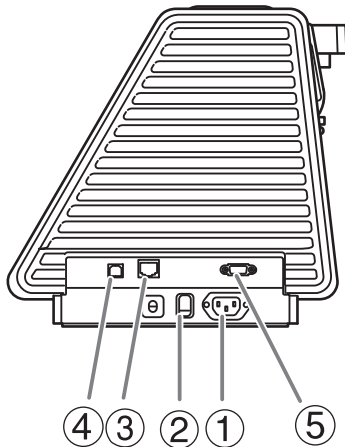
Rear



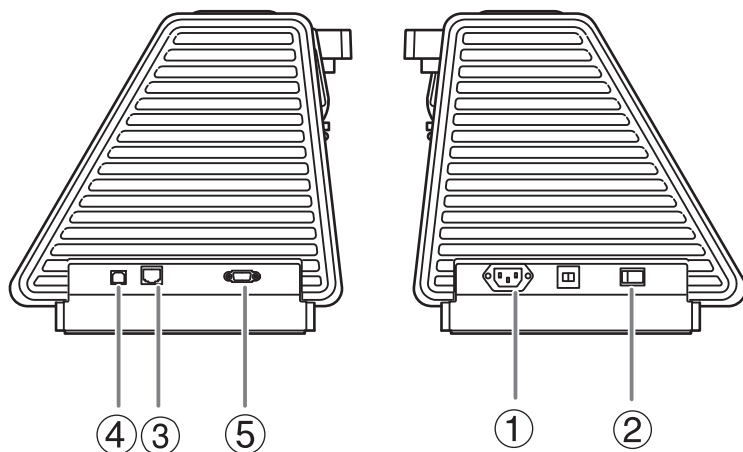
No.	Name	Function overview
①	Small article storage	This space is for placing small tools such as clips and blades.
②	Lever	Use this to raise and lower the pinch rollers. You operate this to move the pinch rollers or to load materials.

Side

GR2-640

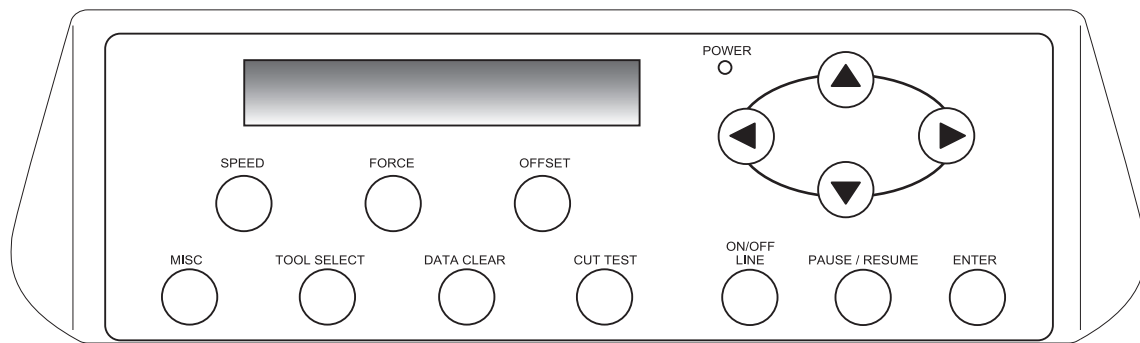


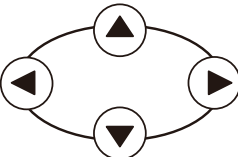
GR2-540



No.	Name	Function overview
①	Power-cord connector	This is for connecting a power cord.
②	Power switch	Switch the power on/off.
③	Ethernet connector	Use this to connect an Ethernet cable.
④	USB connector	This is for connecting a USB cable.
⑤	Serial connector (RS-232C)	Use this to connect the RS-232C cable. This is disabled when a USB cable is connected.

Operation Panel



Part	Name	Details	Notation in this manual
	Display screen	This displays various setting menus and other information.	
	POWER LED light	Lights up when the machine is turned on.	[POWER]
	Cursor keys	Use these keys to select settings for menu items, to move the material or cutting carriage, and for other such operations.	[◀][▼][▲][▶]
	ENTER key	Use this key for such tasks as enabling setting values.	[ENTER]
	PAUSE/RESUME key	This key pauses the printing operation. Press this key again to resume operation.	[PAUSE/RESUME]
	ON/OFF LINE key	If material is set up, press this key to switch the mode.	[ON/OFF LINE]
	SPEED key	Set the cutting speed and quality values.	[SPEED]
	FORCE key	Set the force (pressure) of the blade.	[FORCE]
	OFFSET key	Set the blade offset.	[OFFSET]
	MISC key	Set basic operations or view system information.	[MISC]
	TOOL SELECT key	Use this key when you want to set the cutter control or restore default settings.	[TOOL SELECT]
	DATA CLEAR key	Use this key to delete the cache.	[DATA CLEAR]
	CUT TEST key	Set up a cutting test or set the conditions for a cutting test.	[CUT TEST]

Material Used and Cuttable Area

Types of Materials

The two main types of materials used with this machine are shown below.

- Roll material
Media wound onto a paper tube
- Flat material
Media not wound onto a paper tube such as standard-size material

Various materials are selectable according to your purpose. For detailed information about each material, contact your material supplier.

MEMO

This manual may collectively refer to roll materials and flat materials as "media."

Conditions for Usable Materials

The conditions for materials that can be loaded in the machine are shown below.

		GR2-640 (64 in.)	GR2-540 (54 in.)
Size	Width	50 to 1,782 mm (1.97 to 70.1 in.)	50 to 1,594 mm (1.97 to 62.7 in.)
	Length* ¹	120 mm (4.73 in.) or more (flat material)	
	Cuttable material thickness* ²	0.8 mm (31.4 mil.) or less (Depending on material type)	
	Max. outer diameter of roll material	160 mm (6.3 in.)* ³ (210 mm [8.2 in.] when roll holder flanges are not used)	
	Inner diameter of roll material core* ³	76.2 mm (3 in.)	
Weight	Max. weight of roll material	24 kg (52.9 lb.)	20 kg (44.1 lb.)

*1 There is no limit for roll materials

*2 Includes the thickness of carrier paper

*3 When roll holder flanges are used

Other Conditions

Materials with any of the following characteristics cannot be used:

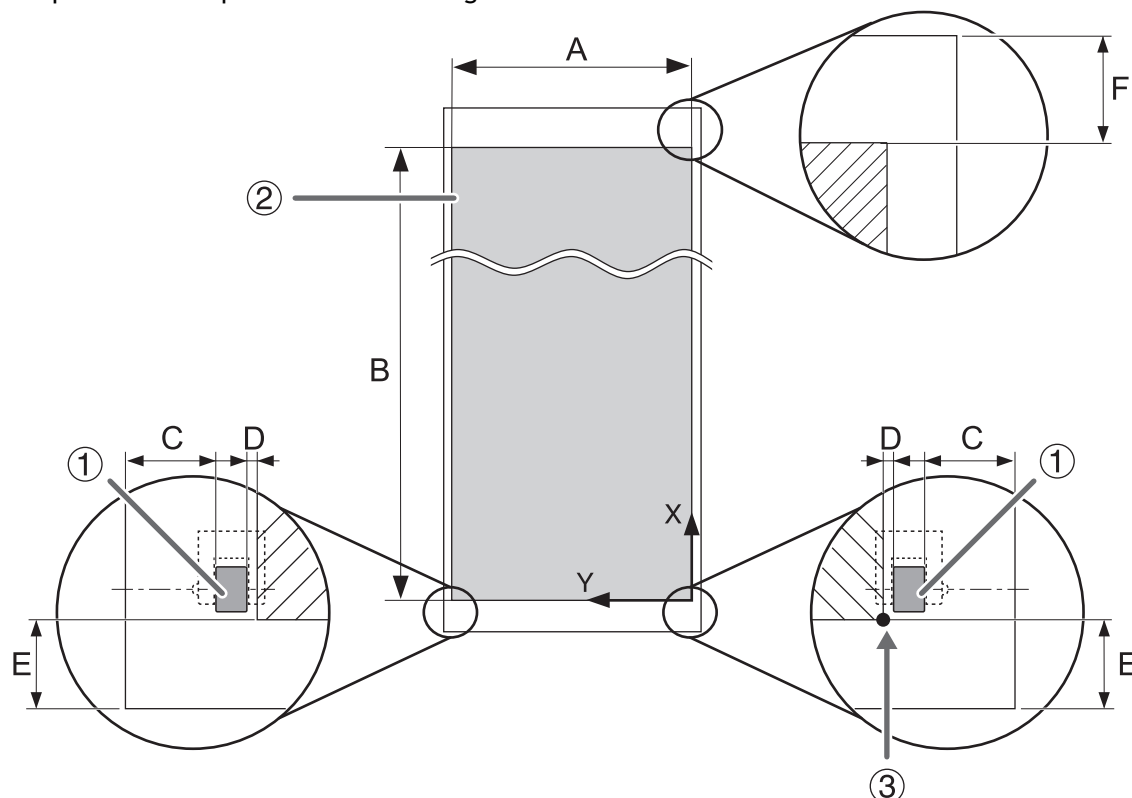
- Strongly warped or bent
- Edges are not parallel
- Transparent
- Colored (when printing and cutting)

MEMO

For printing and cutting, use white material with carrier paper that can be printed on using a laser or inkjet printer.

Cutting area

The cutting area along the material's horizontal plane (the direction in which the cutting carriage moves) is determined by the position of the pinch rollers set up on both edges of the material. When printing and cutting use crop marks, the maximum area in the vertical and horizontal directions is reduced by an amount equal to the crop mark size and margin.



①	Pinch roller
②	Cutting area
③	Cutting coordinates origin
A	64-inch model: Max. 1,627 mm (64.05 in.), 54-inch model: Max. 1,372 mm (54.01 in.)
B	Max. 50,000 mm (1968.50 in.)* ¹
C	Material length (B) is no more than 4,000 mm (157.48 in.): 0.5 to 25 mm (0.02 to 0.98 in.) Material length (B) is more than 4,000 mm (157.48 in.): 25 mm (0.99 in.) or more
D	Approx. 1 mm (0.04 in.)
E	Min. 25 mm (0.99 in.)
F	Min. 85 mm (3.35 in.)/35 mm (1.38 in.)* ²

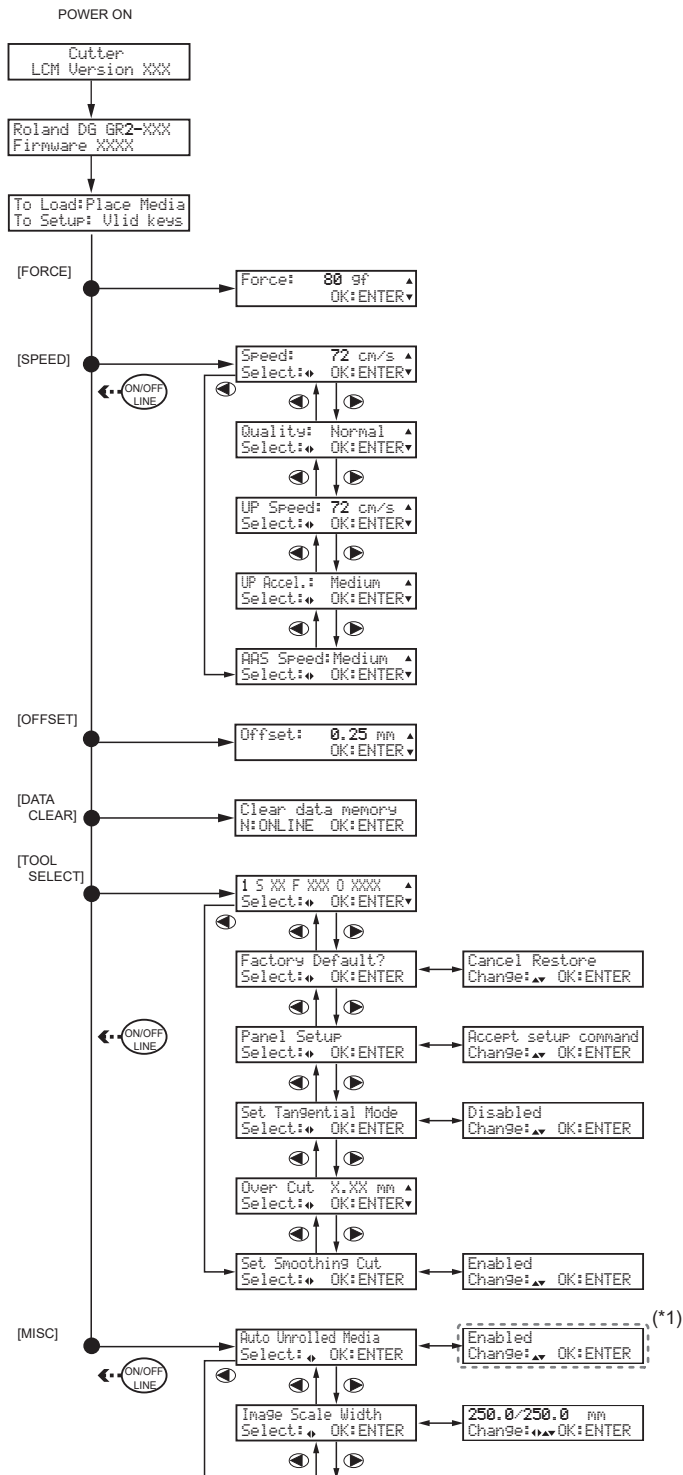
*1 Refer to "Specifications" in the Setup Guide for information on the range of assured accuracy.

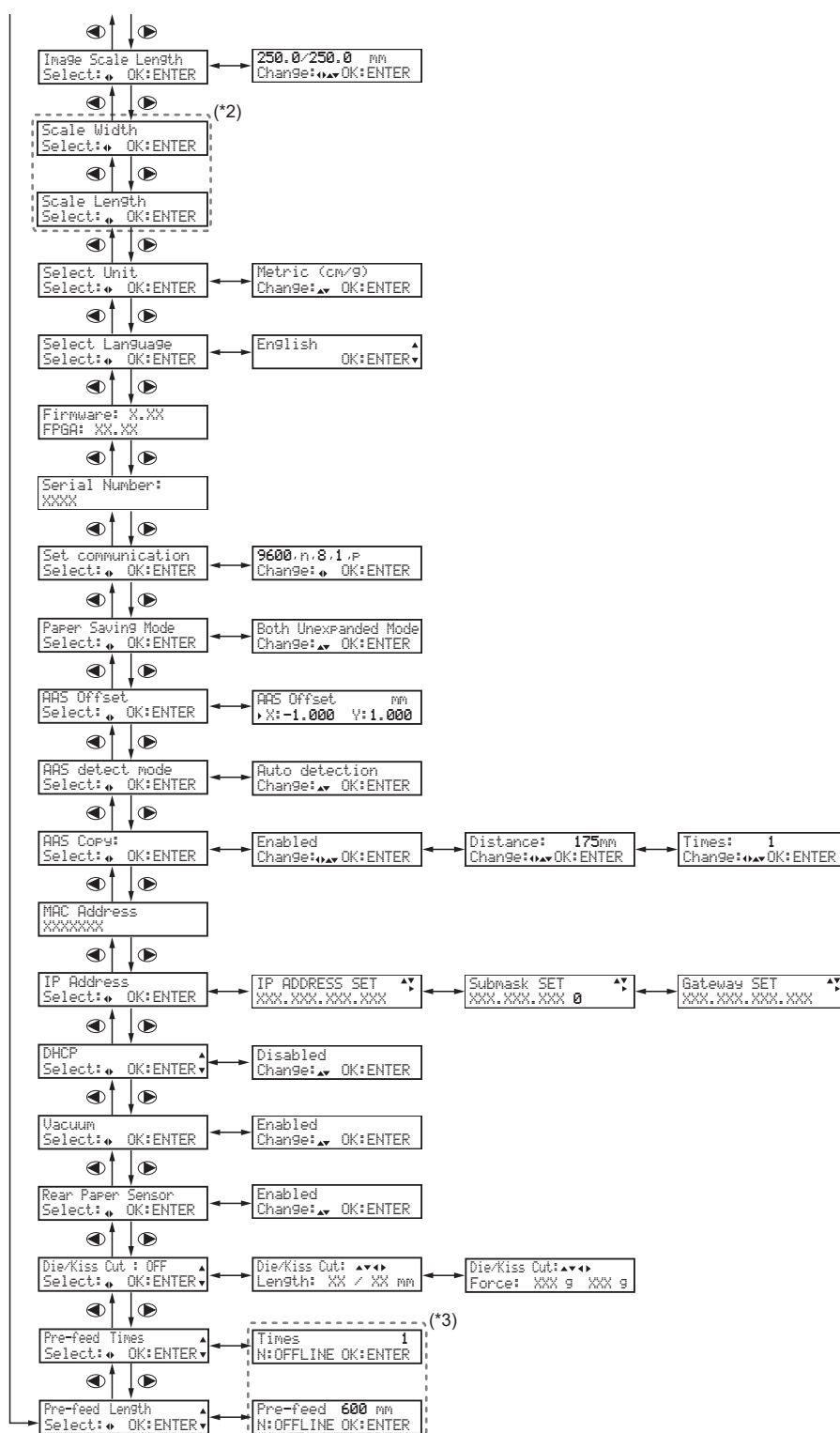
*2 When extended in the feed direction (length)

Menu List

Offline Mode Menu

Offline mode is a preparation state in which a connection to the computer is not possible. It is a mode for configuring all machine settings regardless of whether there is material that has been set up.





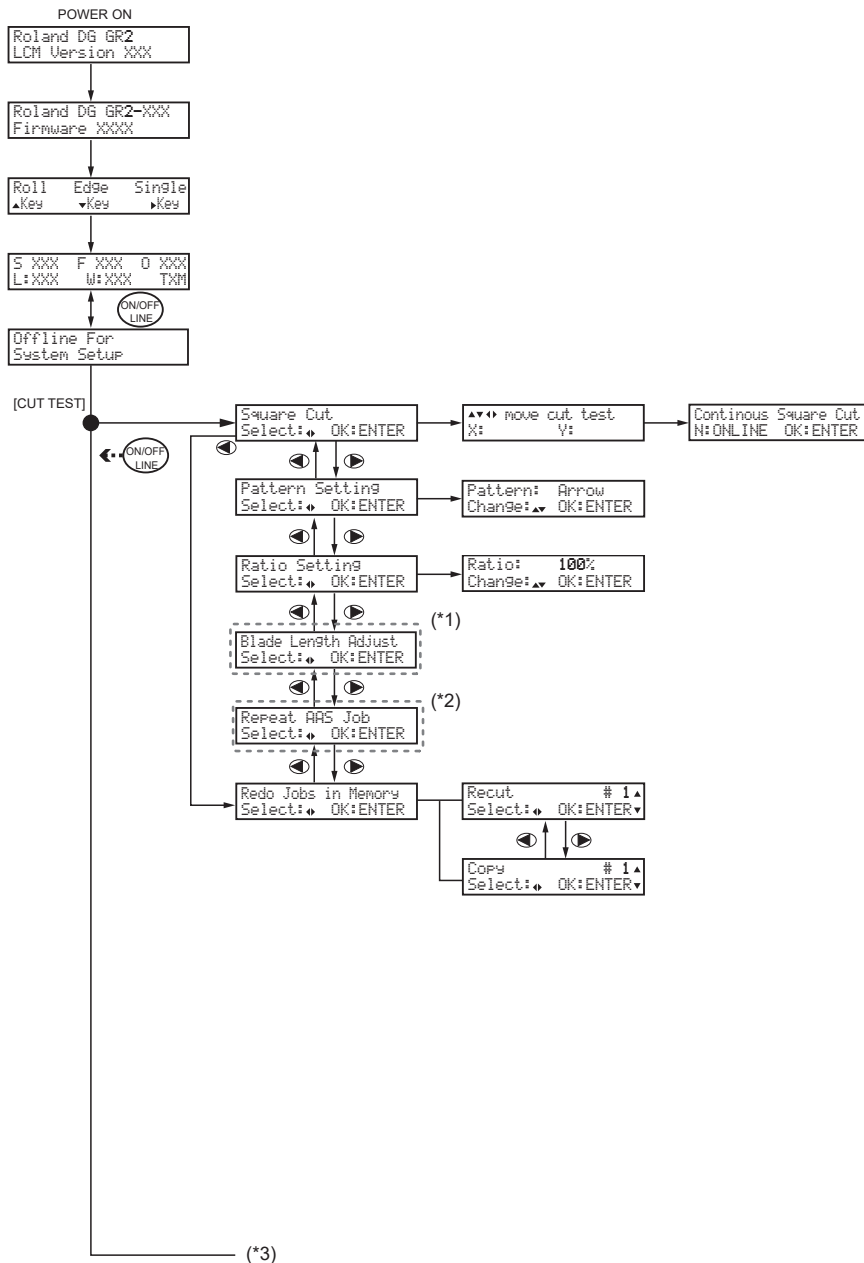
(*1) When this is set to "Enabled", the "Pre-feed Length" menu is displayed automatically.

(*2) This is normally not used.

(*3) This can be set when the "Auto Unrolled Media" menu is set to "Enabled".

Online Mode Menu

Online mode is the cutting start mode displayed when material is loaded in the machine. When outputting cutting data, set the machine to online mode to receive cutting jobs from the computer. You can press [ON/OFF LINE] to switch between online and offline modes.



(*1) This machine does not use this function.

(*2) Displayed after cutting data with crop marks is output using the AAS plug-in. When this menu is displayed, the "Recut/Copy" menu is not. (One of these menus is displayed depending on the last data output.)

(*3) To use the offline mode menu, press [ON/OFF LINE].

Basic Settings and Operations

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Configuring and Viewing Environment Settings

Setting the Display Language and the Unit

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

Procedure

1. Press [MISC].
If material is loaded, press [ON/OFF LINE] to switch to offline mode.
2. Set the display language.
 - (1) Press [▶] several times to display the screen shown below.

```
Select Language  
Select:◀ OK:ENTER
```
 - (2) Press [ENTER].
 - (3) Press [▲] or [▼] to select the display (menu) language.
 - (4) Press [ENTER] to confirm your entry.
3. Select the measurement unit for length.
 - (1) On the following screen, press [ENTER].
The screen is displayed with the selected language.

```
Select Unit  
Select:◀ OK:ENTER
```
 - (2) Press [▲] or [▼] to select the measurement unit for length.
 - (3) Press [ENTER] to confirm your entry.
4. Press [ON/OFF LINE] to go back to the original screen.

MEMO

Default setting:

- Display language: "English"
- Unit: "Metric"

Viewing System Information

Check the system information, including the firmware version, IP address, and MAC address.

Procedure

- 1. Press [MISC].
If material is loaded, press [ON/OFF LINE] to switch to offline mode.
- 2. Press [▶] several times to display the screen shown below.

Display screen	Information
DHCP Select: ◀ OK: ENTER ▶	IP address assigned by the DHCP server on the network
IP Address Select: ◀ OK: ENTER ▶	Manually set a static IP address for the cutting machine
MAC Address XXXXXXXX	MAC address of device
Set communication Select: ◀ OK: ENTER ▶	Set the communication speed of the RS-232C cable
Firmware: X.XX FPGA: XX.XX	Firmware version
Serial Number: XXXX	Device serial number

MEMO

For information on how to set up a network, see the Installation Guide.

- 3. Press [ON/OFF LINE] to go back to the original screen.

Prioritizing the Cutting Settings of This Machine

The cutting settings on the operation panel can be prioritized over the printer driver settings. For cutting settings (blade force, speed, quality, and offset), the printer driver (or CutStudio/VersaWorks) settings are usually prioritized.

Procedure

1. Press [TOOL SELECT].

If material is loaded, press [ON/OFF LINE] to switch to offline mode.

2. Press [▶] several times to display the screen shown below.

```
Panel Setup
Select:◀ OK:ENTER
```

3. Press [ENTER].

4. Press [▲] or [▼] to select "Control panel only".

This setting prioritizes the cutting conditions set up on the operation panel over the printer driver settings. If this is set to "Accept setup command", the printer driver (or CutStudio/VersaWorks) settings are prioritized.

```
Control Panel only
Change:▲▼ OK:ENTER
```

5. Press [ENTER] to confirm your entry.
6. Press [ON/OFF LINE] to go back to the original screen.

MEMO

Default setting: "Accept setup command"

Prioritizing the Cutting Settings of the Printer Driver (or CutStudio/VersaWorks)

The cutting settings of the printer driver (or CutStudio/VersaWorks) can be prioritized over the operation panel settings.

Procedure

1. Press [TOOL SELECT].
If material is loaded, press [ON/OFF LINE] to switch to offline mode.

2. Press [▶] several times to display the screen shown below.

```
Panel Setup
Select:◀ OK:ENTER
```

3. Press [ENTER].

4. Press [▲] or [▼] to select "Accept setup command".

The cutting conditions set with the printer driver (or CutStudio/VersaWorks) will be prioritized over the operation panel settings.

```
Accept setup command
Change:▲▼ OK:ENTER
```

5. Press [ENTER] to confirm your entry.
6. Press [ON/OFF LINE] to go back to the original screen.

MEMO

Default setting: "Accept setup command"

Restoring Default Settings

This procedure returns all edited settings to their factory default values.

MEMO

This operation restores all settings to their default settings, which deletes all changes made to the settings by the user. Keep a record of any necessary information such as cutting conditions.

Procedure

1. Press [TOOL SELECT].

If material is loaded, press [ON/OFF LINE] to switch to offline mode.

2. Press [▶] to display the screen shown below.

```
Factory Default?
Select:◀ OK:ENTER
```

3. Press [ENTER].

The screen shown below appears. If you are not restoring default settings, proceed directly to step 5.

```
Cancel Restore
Change:▲▼ OK:ENTER
```

4. Press [▼] to display the screen shown below.

```
Sure to Restore
Change:▲▼ OK:ENTER
```

5. Press [ENTER].

Press [ENTER] on the "Cancel Restore" screen to return to the original screen.

6. When the following screen is displayed, turn off the power.

```
Reboot Please
```

Turning Off Rear Paper Sensor Detection

You can turn off the detection of the paper sensor at the rear side of the cutting machine. As this feature informs the machine that the material is properly loaded, we recommend that you set this to "Enabled" for normal use. This option is effective for measuring the material size in roll mode or edge mode.

Procedure

1. Press [MISC].
If material is loaded, press [ON/OFF LINE] to switch to offline mode.
2. Press [▶] several times to display the screen shown below.

3. Press [ENTER].
The current setting is displayed.
4. Press [▲] or [▼] to set this to "Disabled".
5. Press [ON/OFF LINE] to go back to the original screen.

MEMO

Default setting: "Enabled"

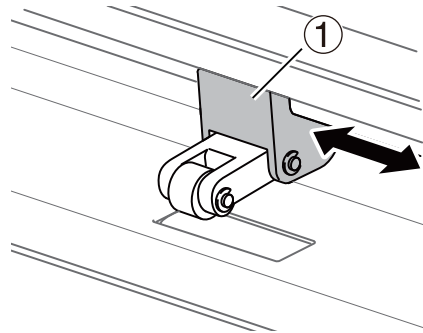
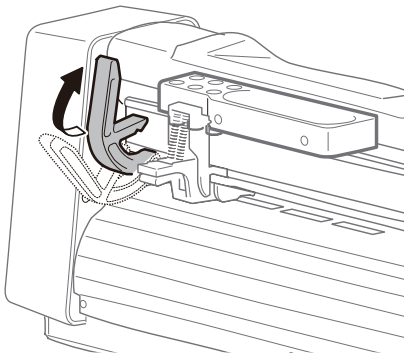
Loading the Material

Precautions for Loading Materials

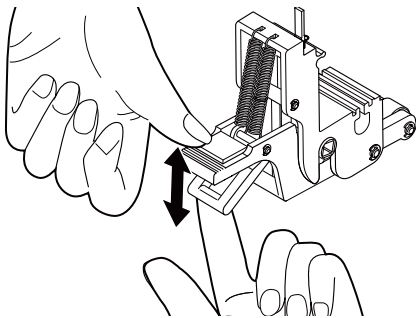
1. Pinch Rollers

Observe the following points when moving the position of the pinch rollers.

- Do not move the pinch rollers while they are down. Be sure to raise the lever and the pinch rollers before moving them.
- To move a pinch roller, hold the pinch roller support (①).

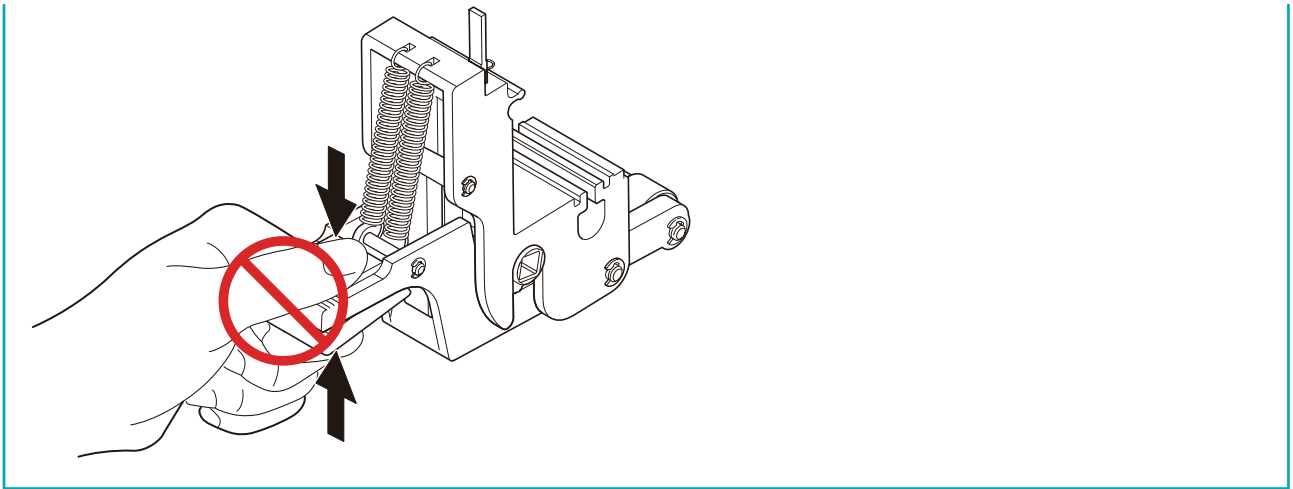


Push the grip on the top side of a pinch roller to raise pinch rollers that are not used for loading the material. To return a pinch roller to its original position, push up the grip on the bottom side while supporting the grip on the top side.



IMPORTANT

Gripping both the top and bottom grips of a pinch roller at the same time may break the grips.



2. Loading Material

Make sure that the material is loaded and set up correctly in the machine.

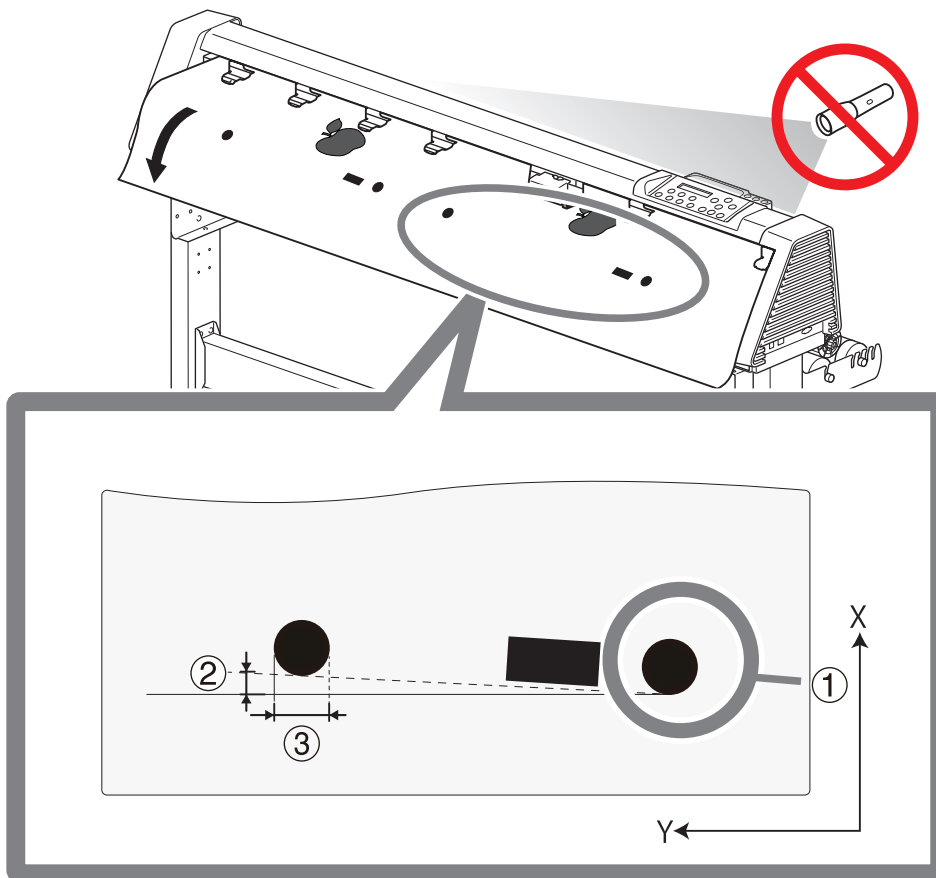
- Place the pinch rollers with the necessary space at both edges of the material.
- Be sure to place the pinch rollers on both edges of the material within the grit patterns that indicate the position of grit rollers. If the pinch rollers are not placed within the range of the grit patterns, the material cannot be fed properly.
- If the material lifts up even when it is fixed by pinch rollers on both edges, or when loading large material, place pinch rollers in the middle of the material. When placing pinch rollers in the middle of the material, avoid placing them where there is cutting data as the pinch rollers may leave marks on the material.
- Make sure that the material is loaded straight. If not, the material cannot be fed properly.

Follow the rules below to ensure correct crop mark reading when printing and cutting.

- Avoid using any lighting that may shine horizontally onto the AAS sensor inside the cutting carriage.
- Place the origin of crop marks (①) at the front right when facing the machine.
[P. 169 Setting the Margins and the Distance between Crop Marks](#)
- Ensure that the two crop marks (the origin ① and second mark) at the front are not angled when loading the material.

Allowable range of slant (②): No more than half the length of a crop mark (③)

- Ensure that the first crop mark in the Y direction is not over the grit rollers and place it near the cutting carriage path.



Loading Roll Material

1. Load the roll material.

Load the roll material on the cutting machine.

⚠ CAUTION

Load the roll media correctly.
Otherwise the media may fall and cause injury.

⚠ CAUTION

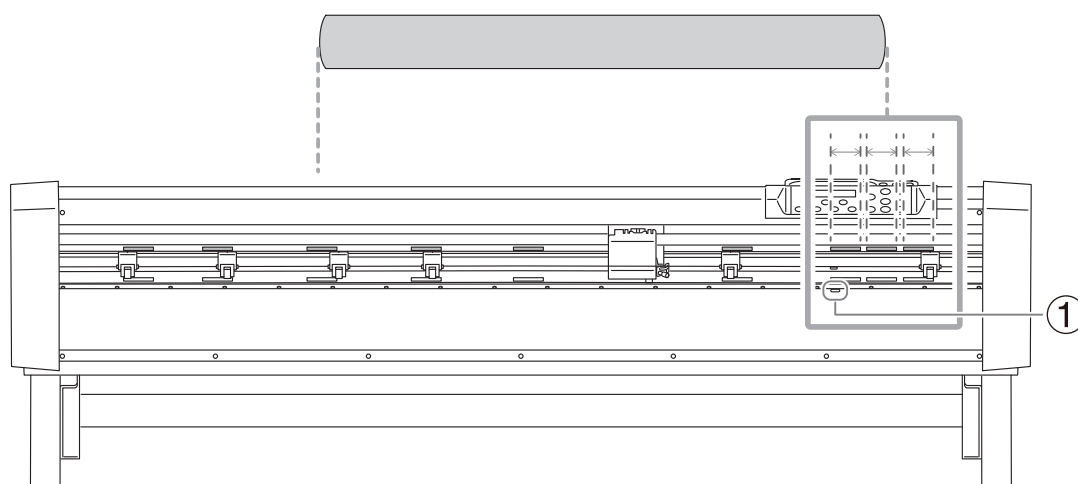
The roll media is approximately 24 kg (52.91 lb.) (54-inch model: 20 kg [44.09 lb.]).
To avoid injury, handle the roll media with care.

⚠ CAUTION

Never load media that weighs over 24 kg (52.91 lb.) (54-inch model: 20 kg [44.09 lb.]).
The machine may fail to withstand the weight and tip over or cause the media to fall.

Procedure

1. Determine the left and right edge positions of the roll material with the grit patterns as a reference. Ensure that the right edge of the material (looking from the front of the machine) is positioned so that it is within the range of the grit patterns and covers the paper sensor (①).

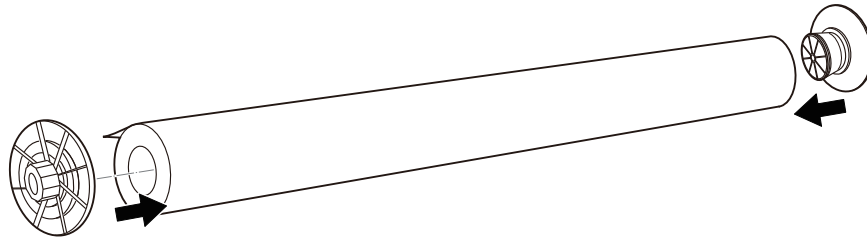


2. Insert the roll holder flanges into the paper tube of the roll material.

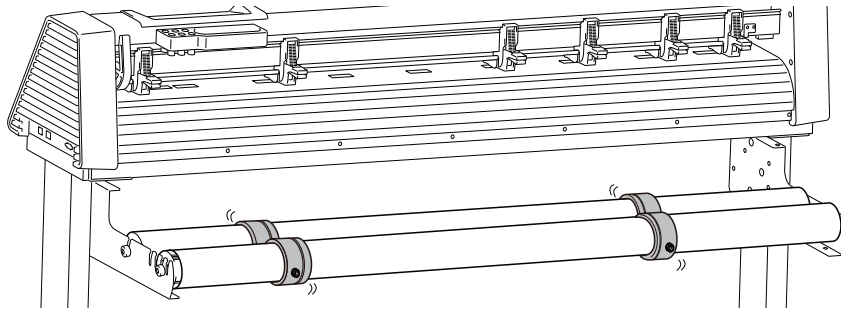
Turn the knobs of the roll holder flanges to securely attach them to the roll material.

MEMO

Roll holder flanges cannot be used for roll materials with an outer diameter of 160 mm (6.30 in.) or more or for roll materials with 2-inch paper tubes.



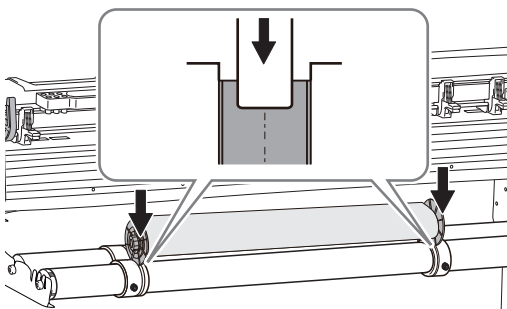
3. Place the roll holder guide bushes by aligning them at both ends of the roll material. Move the roll holder guide bushes with the resin bolts loosened.



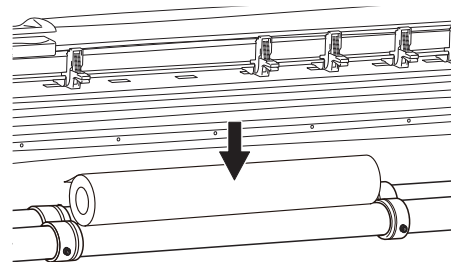
4. Place the roll material in the roll holder.

- When using the roll holder flanges, place them in the center of the grooves on the roll holder guide bushes to prevent these flanges from interfering with the sides of these grooves. This interference may lead to misaligned material due to lopsided material feeding.
- If roll holder flanges are not used, place the roll material between the two roll holders and the front, back, left, and right roll holder guide bushes. When placing the damper-equipped roll holder in notches up to the second set of notches on the machine side of the roll holder supports, remove the roll holder guide bushes from this roll holder.

When roll holder flanges are used



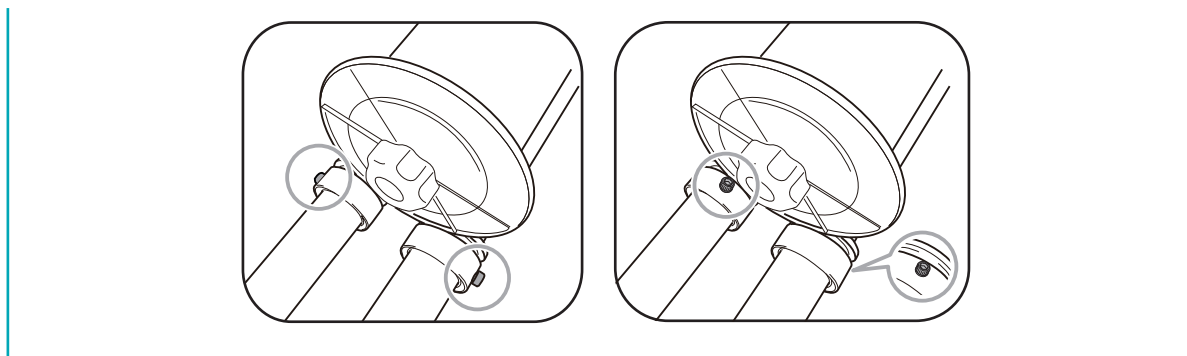
When roll holder flanges are not used



5. Tighten the resin bolts of the roll holder guide bushes.

IMPORTANT

To evenly distribute the weight of the roll holder's rotation shaft during roll material feeding, place the resin bolts of the roll holder guide bushes on the machine side and the front side facing 180 degrees opposite of each other as shown in the pictures.

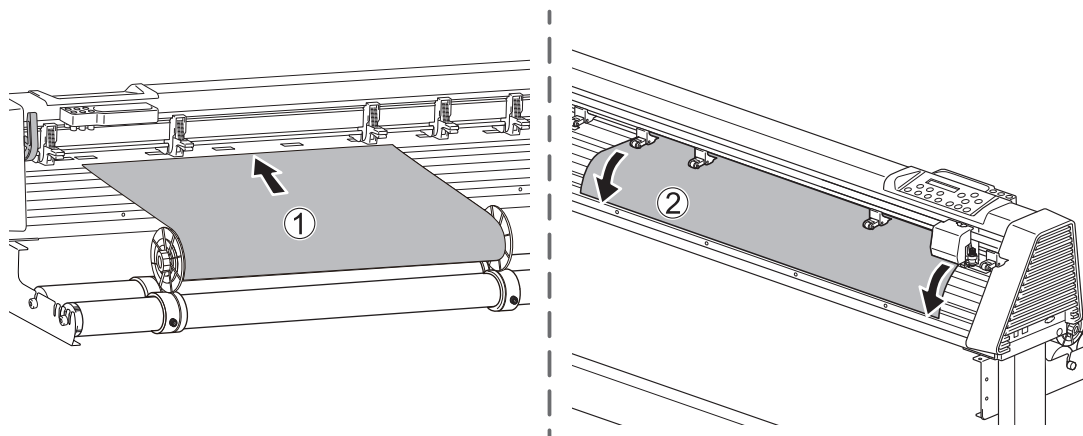


6. Check that the lever is raised.

If the lever is lowered, raise the lever.

7. Pass the front end of the roll material between the pinch rollers and the grit rollers from the rear side of the machine (①) and pull it straight out to above the platen (②) using the scale of the rulers (in two locations: one on the top and one on the bottom) as a guide.

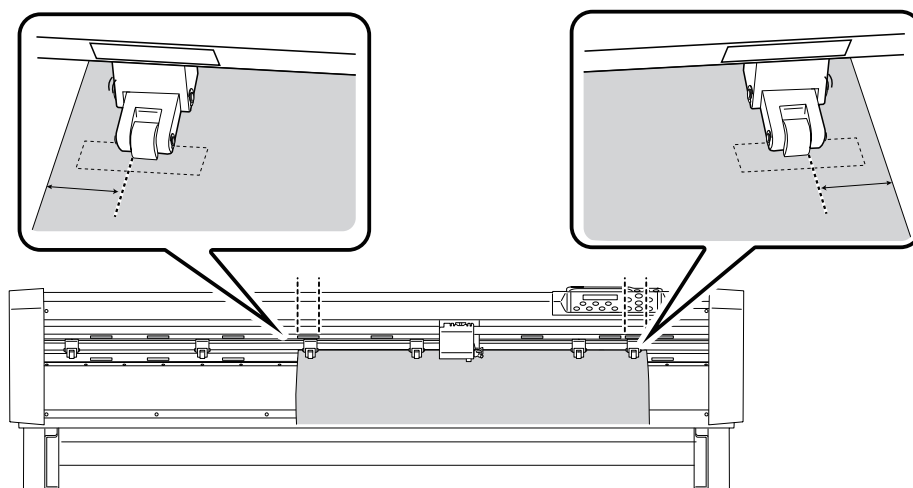
Feed the material so it is slightly longer than necessary, leaving some slack.



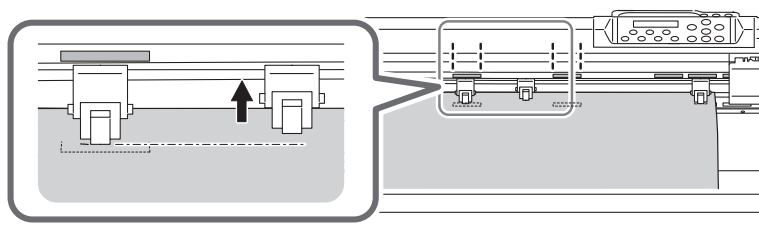
8. Move the pinch rollers and place them on both edges of the roll material.

Check that the pinch rollers are positioned within the range of the grit patterns. If the pinch rollers are not placed within the range of the grit patterns, the material cannot be fed properly.

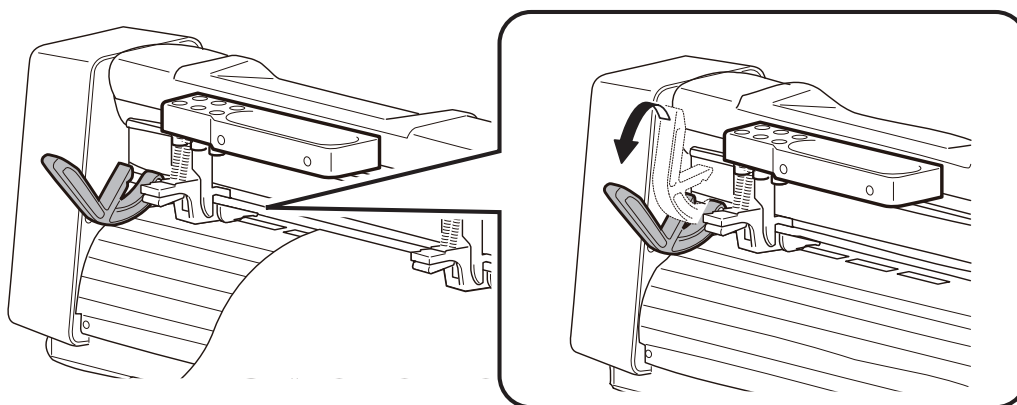
Position the pinch rollers on the edges so that each one is 0.5 to 25 mm (0.02 to 0.98 in.) (if the roll material used is more than 4 m [157.49 in.] long, then more than 25 mm [0.99 in.]) inside of the respective left or right edge of the material.



- 9.** When loading material that lifts up easily, place the pinch rollers on the middle of the material. Individually raise pinch rollers that are not in use.

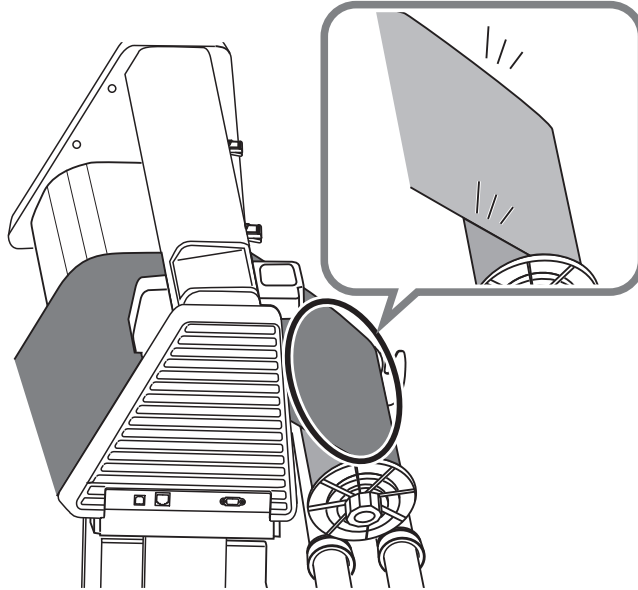


- 10.** Lower the lever.
The material is secured in place.



- 11.** Check that the roll material is equally taut on the left and right.

Twisted material may indicate that it is not being fed in a straight manner. Adjust the position of the material and reload it.



12. Set the material feeding so the material length required for the cutting data is fed before cutting starts.

[P. 107 Preventing Positioning Errors by Setting Material Feeding](#)

13. For roll material 4 m (157.49 in.) or more in length, feed the loaded material, checking that there is no misalignment or twisting.

- (1) Turn on the power.

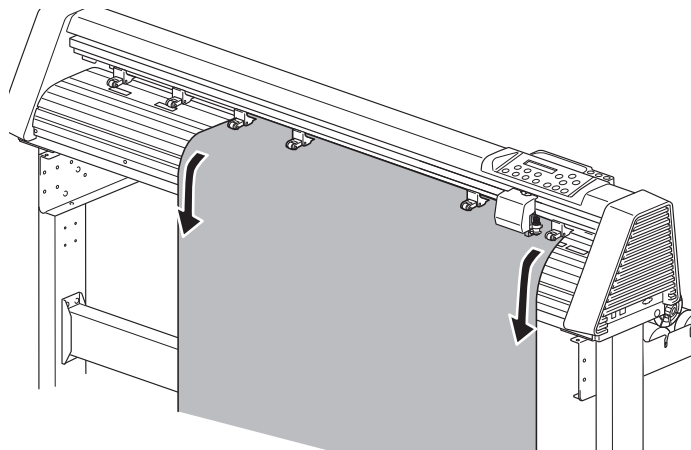
When you turn on the power, the screen for measuring the material size appears.

Roll	Edge	Single
▲Key	▼Key	►Key

- (2) Press [▲] or [▼] to measure the material size.
 (3) Press [▼] to feed about 1 to 2 meters (39.37 to 78.74 in.) of the material.

MEMO

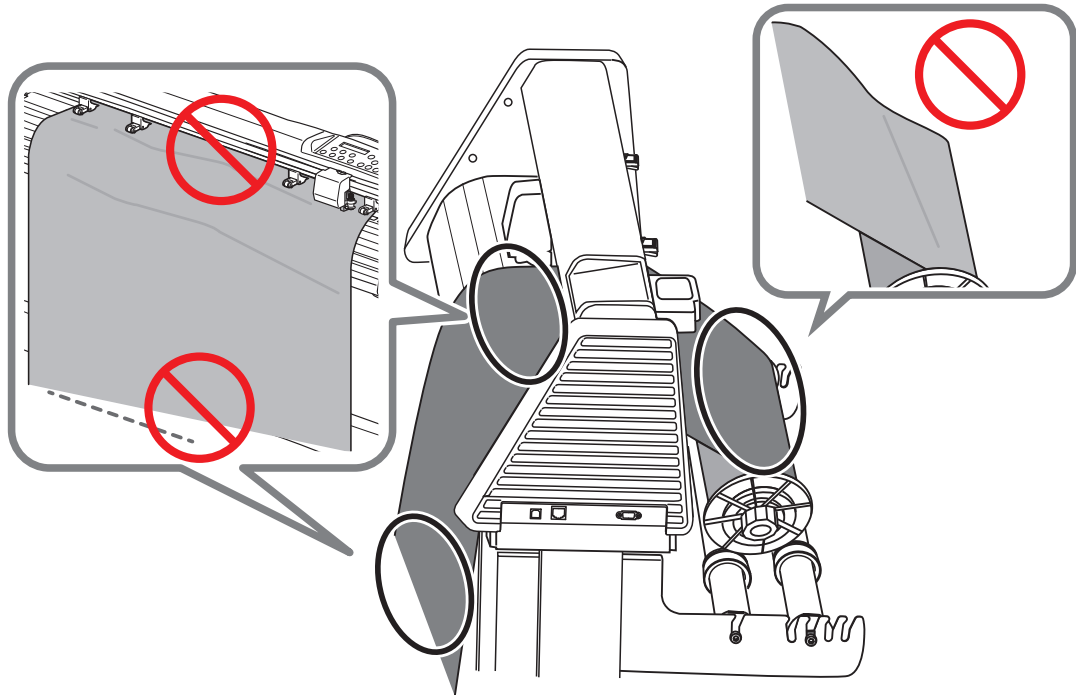
After the material size is measured, press a cursor key to display the screen for setting the output-start location. To test the feeding of the material and check that it has been set up, only press [▼] on this screen.



- (4) Check the status of the cutting surface (part near the cutting carriage path), the material edges, and the material on the rear side of the machine.

Incorrectly loaded material will lead to misalignment, so reload the material if:

- The surface of the material displays waviness or wrinkles.
- The roll material is fed diagonally.
- The material on the rear side of the machine is twisted.



(5) Press [ON/OFF LINE] twice to return the material to its original position.

IMPORTANT

Remove the roll material when it is not in use.

Do not leave roll material loaded on the machine for long periods of time. Be sure to remove and store the media when not in use. Leaving roll material loaded on the machine for a long period of time will cause the material to sag, which can adversely affect output quality.

RELATED LINKS

- [P. 10 Conditions for Usable Materials](#)
- [P. 11 Cutting area](#)
- [P. 24 Loading Material](#)
- [P. 35 Measuring the Material Size](#)

2. Adjusting the Roll Material Feed

Adjust the roll holder so it tracks the rotation of the roll material, ensuring the smooth feeding of this material.

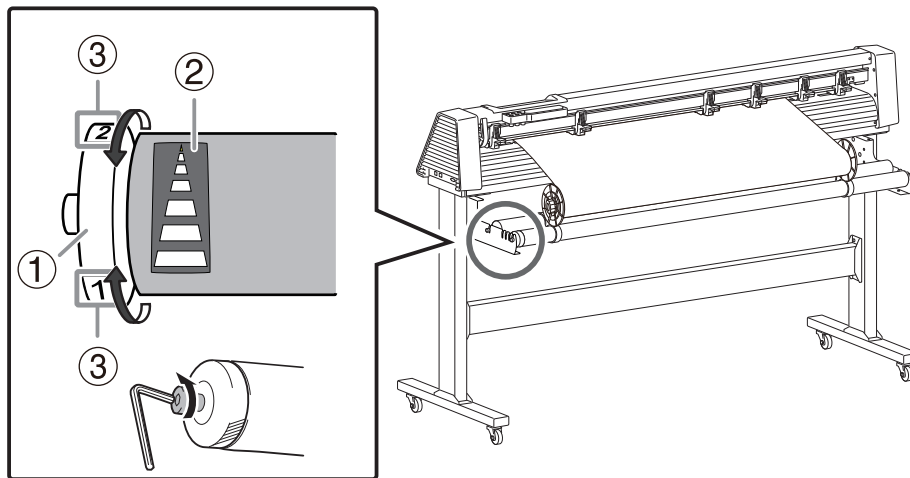
Procedure

1. Turn the damper (①) to adjust how much the roll holder rotates.

Make adjustments using the adjustment reference sticker (②) and the damper number (③) as references. The roll holder's rotation decelerates as the number of damper (③) increases.

- If the roll material jumps from the roll holder, turn the damper toward the main unit.
- If the roll material is slack even after adjusting the tension of the roll material, turn the damper toward the front.

When turning the damper, loosen the screw on the side using a hex wrench.



Loading Flat Material

Load the flat material on the cutting machine. If flat material is used, it must be at least 100 mm (3.94 in.) longer (70 mm [2.76 in.] when the cutting area is extended in the length direction) than the vertical size of the cutting data. This is the length required for the pinch rollers to feed out the material to the front and rear.

⚠ CAUTION

Never load media that weighs over 24 kg (52.91 lb.) (54-inch model: 20 kg [44.09 lb.]).

The machine may fail to withstand the weight and tip over or cause the media to fall.

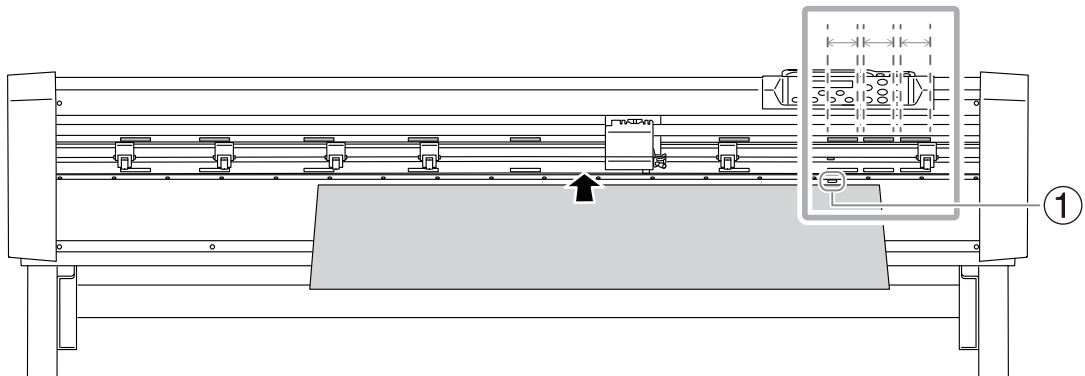
Procedure

1. Check that the lever is raised.

If the lever is lowered, raise the lever.

2. Pass the material in a straight manner between the pinch rollers and grit rollers using the gradations of the rulers (in two locations: one on the top and one on the bottom) as a guideline.

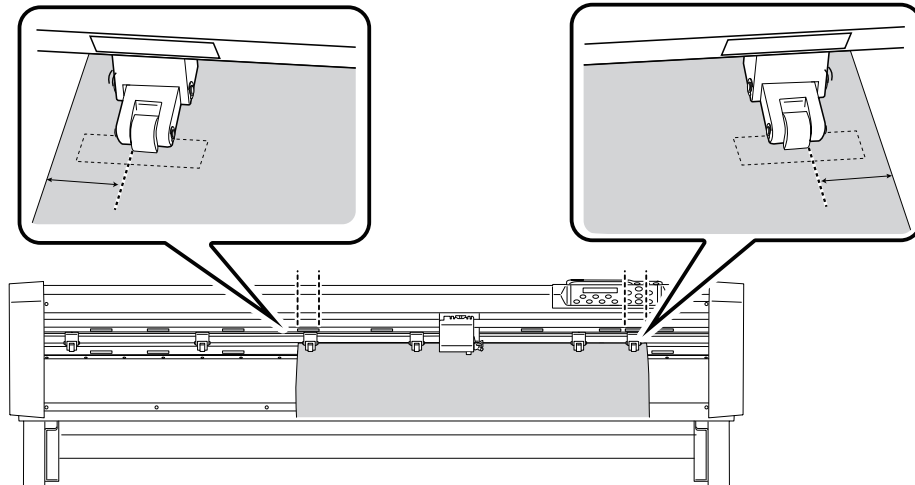
Ensure that the right edge of the material (looking from the front of the machine) is positioned so that it is within the range of the grit patterns and covers the paper sensor (①).



3. Move the pinch rollers and place them on both edges of the flat material.

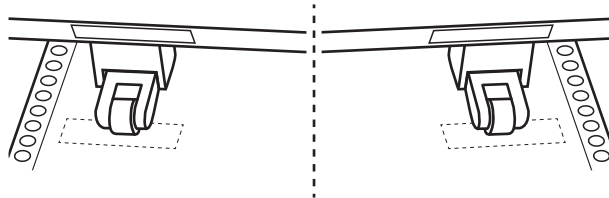
Check that the pinch rollers are positioned within the range of the grit patterns. If the pinch rollers are not placed within the range of the grit patterns, the material cannot be fed properly.

Position the pinch rollers on the edges so that each one is 0.5 to 25 mm (0.02 to 0.98 in.) (if the roll material used is more than 4 m [157.49 in.] long, then more than 25 mm [0.99 in.] inside of the respective left or right edge of the material).

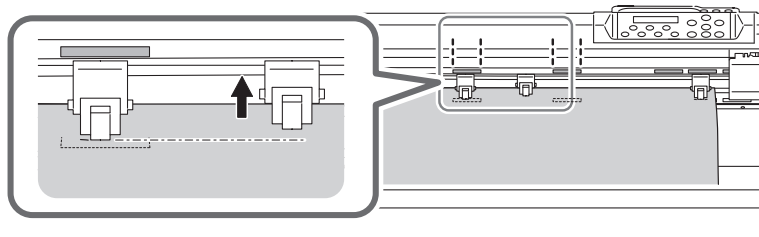


MEMO

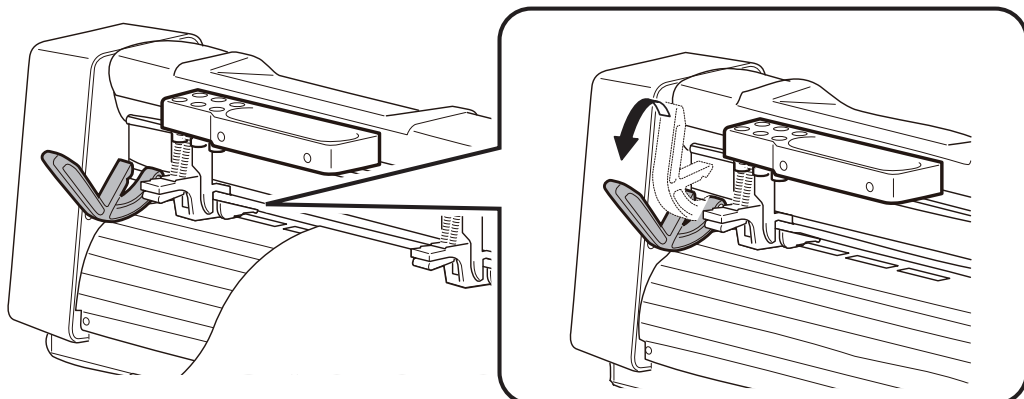
Sprocket-fed perforated material has perforations along each edge. If the pinch rollers are positioned over the perforations, the material cannot be fed correctly. When using this material with the machine, place the pinch rollers to avoid the perforations.



4. When loading material that lifts up easily, place the pinch rollers on the middle of the material. Individually raise pinch rollers that are not in use.



5. Lower the lever.
The material is secured in place.



MEMO

When you turn on the power, the screen for measuring the material size appears.

Roll	Edge	Single
▲Key	▼Key	▶Key

6. When loading material longer than 1.6 m (63.00 in.), set the material feeding so the material length required for the cutting data is fed before cutting starts.

[P. 107 Preventing Positioning Errors by Setting Material Feeding](#)

RELATED LINKS

- [P. 10 Conditions for Usable Materials](#)
- [P. 11 Cutting area](#)
- [P. 24 Loading Material](#)
- [P. 22 Pinch Rollers](#)
- [P. 35 Measuring the Material Size](#)

Measuring the Material Size

The size of the material loaded in the cutting machine can be measured and recorded in the machine. Raising the lever resets the memory of material size, and therefore the size of the material must be measured every time the lever is raised and lowered.

⚠ WARNING

Never touch the cutting carriage while measurement is in progress.

The cutting carriage moves at high speed. Coming into contact with the moving carriage may cause injury.

Procedure

1. Turn on the power.

Load the material in the machine, if it has not yet been loaded.

2. When the following screen appears, press [▲], [▼], or [▶] to select a measurement mode.

The cutting carriage moves at high speed to start measurement. When the measurement is finished, the cutting carriage stops and the measurements are displayed on the screen.

Roll Edge Single

▲Key ▼Key ▶Key

Display Settings	Key	Measurement mode	Measurement location	Notes
[Roll]	[▲]	ROLL	Width of material	Max. 150 m (492.12 ft.)
[Edge]	[▼]	Edge	Front edge and width of material	Max. 150 m (492.12 ft.)
[Single]	[▶]	Single	Front edge, width, and length of material	Max. 10 m (32.80 ft.) ^{*1}

^{*1}

Do not select this mode for the measurement of roll materials or flat materials with a length of 1.6 m (63.00 in.) or more.

MEMO

Raise the lever to suspend measurement.

RELATED LINKS

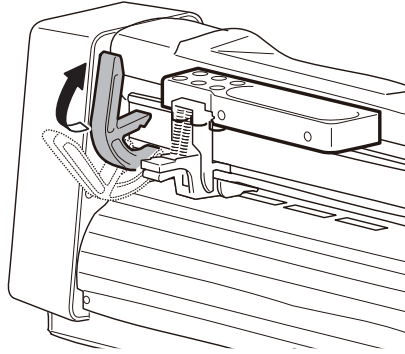
- [P. 25 Load the roll material.](#)
- [P. 32 Loading Flat Material](#)

Remove the Material

Remove the material from the cutting machine.

Procedure

1. Raise the lever.
The pinch rollers rise up to release the material.

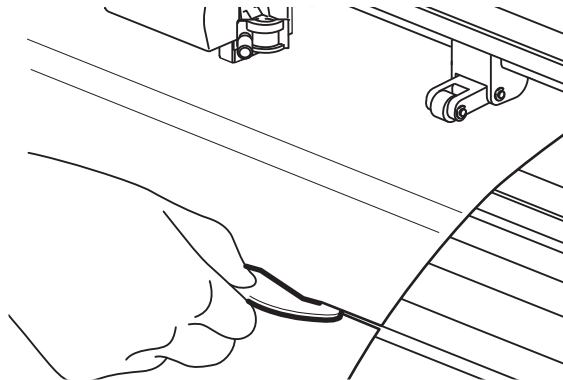


2. Remove the material from the front or rear side of the machine.

Separating Only the Cut Area

Procedure

1. Press [▲] or [▼] to feed the material to the position that you want to cut.
2. Move the safe blade along the cutting groove at the front of the cutting machine to cut off the material.



Pausing and Canceling Output

Pausing and Resuming Output

You can pause an ongoing cutting process and resume paused cutting output.

MEMO

This operation may compromise cutting quality. Do not stop the cutting process if you can avoid it.

Procedure

1. Press [PAUSE/RESUME] before printing finishes.
Cutting output pauses.
2. Press [PAUSE/RESUME] again.
The printing operation resumes.

Canceling Output

Perform the following operation to terminate cutting output while the cutting process is ongoing.

MEMO

This operation will end the job, which means that it cannot be resumed.

Procedure

1. Press [PAUSE/RESUME] before printing finishes.
2. Press [DATA CLEAR].
The screen shown below appears.

3. Press [ENTER].
Turn off the machine, and then restart it.

Output Method

Cutting Method

- Preparations for Cutting Output.....40
 - Recommended Cutting Conditions.....40
 - Performing a Cutting Test.....41
 - Adjusting the Cutting Conditions43
- Creating and Outputting Cutting Data46
 - Cutting with CutStudio46
 - Cutting with Adobe Illustrator49
 - Cutting with CorelDRAW.....54

Preparations for Cutting Output

Recommended Cutting Conditions

A general guide for cutting conditions for different combinations of materials and blades is given below. Before cutting, perform a cutting test with a suitable blade for the sheet material.

IMPORTANT

Blades have suitability for particular sheet materials, and cutting materials that are not specified as suitable may cause the blade to break.

Blade	Material	Cutting force (gf)	Cutting speed (cm/sec) ^{*1}	Amount of blade offset (mm)
ZEC-U5032	General Signage Vinyl	30 to 100	30 or less	0.25
	General inkjet vinyl	50 to 100		
	Iron-on print vinyl	50 to 100		
ZEC-U5025	General Signage Vinyl	40 to 100	30 or less	0.25
	Fluorescent Vinyl	120 to 200	10 or less	
ZEC-U5010	Glass (car) film	80 to 120	30 or less	0.50
ZEC-U1715	Sandblast	100 to 150	5 or less	0.25
ZEC-U3050	Coated board (thin)	200 to 350	5 or less	0.50
	Fluorescent Vinyl	350 to 450		
ZEC-U3075	Coated board (thick)	250 to 400	5 or less	0.75
	Fluorescent Vinyl	350 to 450		

*1 The faster the cutting speed, the worse the image quality, so you have to adjust the speed to match the required image quality.

MEMO

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

RELATED LINKS

- [P. 41 Performing a Cutting Test](#)
- [P. 43 Adjusting the Cutting Conditions](#)
- [P. 132 Replacing the Blade](#)

Performing a Cutting Test

To obtain high-quality cutting results, carry out a cutting test to check the cutting quality for the material before you perform the actual cutting. Find the appropriate settings by checking the results.

Procedure

1. Load the material and measure its size.

[P. 22 Loading the Material](#)

2. Press [ON/OFF LINE] to switch to offline mode.

3. Press [CUT TEST].

4. Select a cutting test pattern.

Normally you select "Arrow", but if you are cutting a thick material, select "Cross".

- (1) Press [◀] or [▶] to display the screen shown below.

```
Pattern Setting
Select:◀ OK:ENTER
```

- (2) Press [ENTER].

The current pattern is displayed.

```
Pattern: Arrow
Change:▲ OK:ENTER
```

- (3) Press [▲] or [▼] to select a cutting test pattern.

- (4) Press [ENTER].

5. Change the scale of the pattern size.

This is set to 100% by default. Using a larger pattern size makes it easier to check the cutting test result.

- (1) Press [◀] or [▶] to display the screen shown below.

```
Ratio Setting
Select:◀ OK:ENTER
```

- (2) Press [ENTER].

The current scale of the pattern size is displayed.

```
Ratio: 100%
Change:▲ OK:ENTER
```

- (3) Press [▲] or [▼] to select the scale of the pattern size.

The size can be scaled from 1x to 4x.

- (4) Press [ENTER].

6. Press [◀] or [▶] to display the screen shown below.

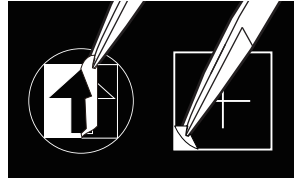
```
Square Cut
Select:◀ OK:ENTER
```

7. Press [ENTER].

8. Press [◀], [▶], [▲] or [▼] to move the cutting carriage to the appropriate location (cutting test start position).
9. Press [ENTER].

The test pattern is cut. When the cutting test finishes, the screen shown below is displayed.

```
Continuous Square Cut
N:ONLINE OK:ENTER
```



Check item	Result		Setting item	Adjustment
Peel off the pattern	Two shapes peel off separately/Cross cutting lines are cut			Appropriate
	Two shapes peel off together/Cross cutting lines are not cut		Cutting force	Increase
	Some uncut areas remain.		Cutting speed	Reduce
	Carrier paper is also cut		Cutting force	Reduce
Pattern shape			Corners are not rounded and do not have horns	Appropriate
			Corners are rounded	Blade offset Increase
			Corners have horns	Blade offset Reduce
			The cut shape is distorted.	Cutting speed Reduce

10. If the appropriate result is not achieved, adjust the necessary settings.

[P. 43 Adjusting the Cutting Conditions](#)

11. After adjusting the settings, press [ENTER].

The test pattern is cut again. Repeat steps 9 through 11 until an appropriate cutting result is obtained.

12. Press [ON/OFF LINE] twice to switch to online mode.

RELATED LINKS

- [P. 40 Recommended Cutting Conditions](#)
- [P. 100 Adjusting the Cutting-in Amount](#)

Adjusting the Cutting Conditions

This setting enables you to make adjustments to the cutting conditions on the operation panel while checking the cutting test results. After running a cutting test, you can change the cutting conditions from the printer driver's **[Printing Preferences]** window (or CutStudio/VersaWorks).

Setting the Blade Force

If the design peels off or if the carrier paper is also cut with the material, change the blade force.

Procedure

1. Press **[FORCE]**.

If material is loaded, press **[ON/OFF LINE]** to switch to offline mode.

The current blade force is displayed.



Force: 80 gf ▲
OK: ENTER ▼

2. Press **[▲]** or **[▼]** to change the blade force.

3. Press **[ENTER]** to confirm your entry.

MEMO

- Default setting: 80 gf
- Setting range: 5 to 600 gf (changeable in 5 gf increments)

RELATED LINKS

- [P. 40 Recommended Cutting Conditions](#)

Setting the Cutting Speed

If the design peels off or if the cut lines are not clean, reduce the cutting speed. When the cutting speed is too fast, extra load is applied to the material, which can move the material up and down during cutting. Also reduce the cutting speed in such cases. The cutting speed and quality mutually affect each other. Therefore, use a cutting speed within the range that can maintain cutting quality while selecting cutting quality that matches the cutting speed.

Procedure

1. Press [SPEED].

If material is loaded, press [ON/OFF LINE] to switch to offline mode.

The current cutting speed is displayed.

```
Speed: 72 cm/s ▲
Select:◀ OK:ENTER▼
```

2. Press [▲] or [▼] to change the cutting speed.

3. Press [ENTER] to confirm your entry.

The current cutting quality is displayed.

```
Quality: Normal ▲
Select:◀ OK:ENTER▼
```

4. Press [▲] or [▼] to set the quality.

Quality improves in this order: "Draft", "Fair", "Normal", "Fine", and "Small Letter". Normally, quality is set to "Normal". If you need to cleanly cut small text or complex graphics, select "Small Letter".

5. Press [ENTER] to confirm your entry.

6. Press [ON/OFF LINE] to go back to the original screen.

MEMO

- [SPEED]
Default setting: 72 cm/s (28.34 in./s)
Setting range: 3 to 153 cm/s (1.18 to 60.23 in./s) (changeable in 3 cm/s [1.18 in./s] increments)
- Quality: "Normal"

RELATED LINKS

- [P. 40 Recommended Cutting Conditions](#)

Setting the Blade Offset

Set the blade offset. Enter the listed offset value for the blade. When using the included blade, cutting can be performed using the factory-default settings.

MEMO

If the beginning of a cut deviates from the intended location or if the corners of a shape are not clean, adjust the offset value.

Procedure

1. Press [OFFSET].

If material is loaded, press [ON/OFF LINE] to switch to offline mode.

The current offset value is displayed.

```
Offset:  0.25 mm ▲
        OK:ENTER ▼
```

2. Press [▲] or [▼] to change the offset value.

3. Press [ENTER] to confirm your entry.

MEMO

- Default setting: 0.250 mm (0.010 in.)
- Setting range: 0.000 to 1.000 mm (0.000 to 0.040 in.)

RELATED LINKS

- [P. 40 Recommended Cutting Conditions](#)

Creating and Outputting Cutting Data

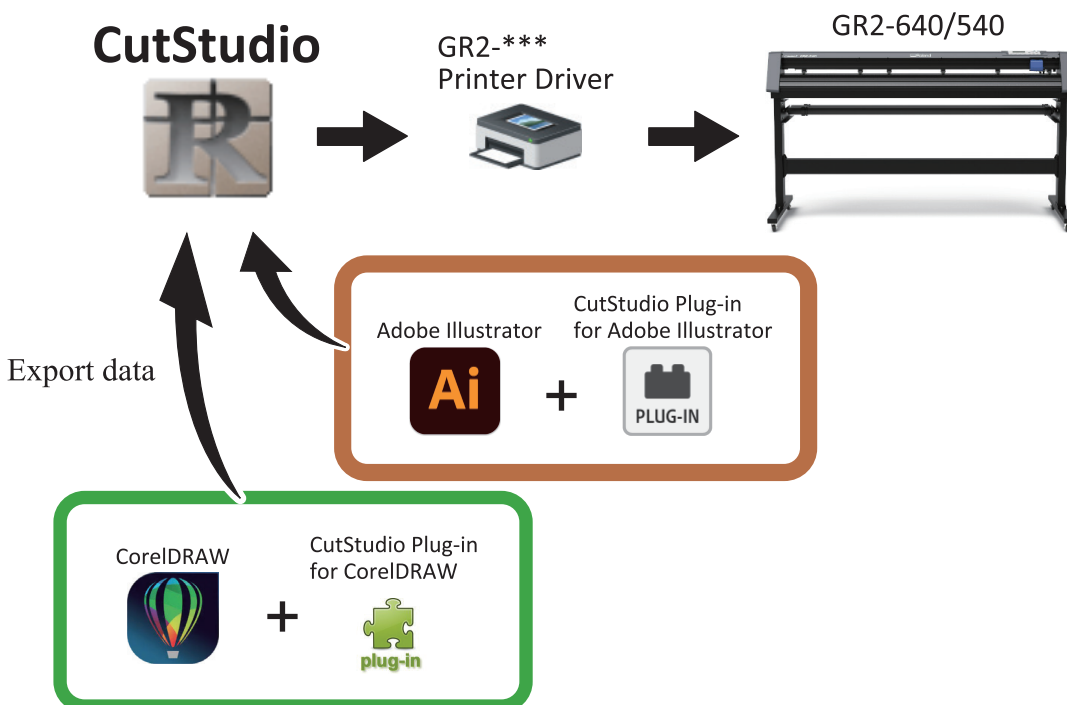
This section introduces how to output cutting data using CutStudio, Adobe Illustrator, and CorelDRAW. Choose whichever method you are most familiar or comfortable with.

For information on creating shapes with the software, refer to the manual for the applicable software. This section does not explain how to create shapes but how to configure the settings for using shapes as cutting data and how to output the data.

Cutting with CutStudio

Mastering CutStudio is easy and quick thanks to how easy the program is to use.

The program is perfect for those without Adobe Illustrator or CorelDRAW licenses who want to cut material as quickly as possible. You can use CutStudio to create simple cutting data such as text in a relatively short time. You can also use CutStudio to combine Adobe Illustrator or CorelDRAW data into a single cutting data.



1. Creating the cutting data

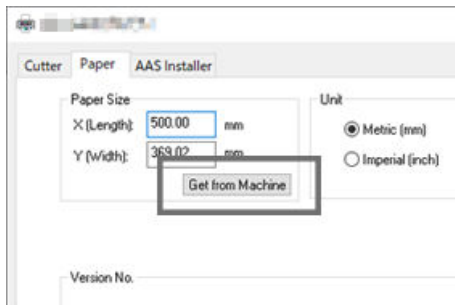
The procedure described here is for a cutting machine with material already loaded.

[P. 22 Loading the Material](#)

Procedure

1. Start CutStudio.
2. Click [File]>[Cutting Setup].
The [Cutting Setup] window appears.
3. Click [Change].
The printer driver properties window appears.

4. Click the [Paper] tab.
5. Click [Get from Machine].



The size (cutting area) of the material loaded in the cutting machine will be imported into [Paper Size].

6. Click [OK] in the printer driver properties window.
7. In the [Cutting Setup] window, click [OK].
The cutting area (working area) obtained from the machine is displayed in CutStudio.
8. Draw the cutting data so that it fits within the cutting area.
Cutting will not be performed for data outside the cutting area.
Import data from Adobe Illustrator or CorelDRAW for use as necessary.
9. Click .
The [Save As] window appears.
Select the folder in which to save the file, enter a file name, and then save the file.

2. Perform cutting

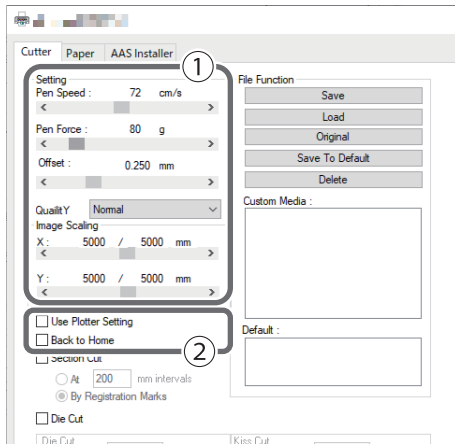
MEMO

If the material comes loose or the machine operates unusually, press [PAUSE/RESUME] to cancel output. Then reload the material, starting over from the beginning.

Procedure

1. If CutStudio is not running, start it.
Open the file if it is not currently opened.
2. Click .
The [Cut] window appears.
3. Click [Change].
The [Cutting Setup] window appears.
4. Click [Change].
The printer driver properties window appears.

5. Click the [Cutter] tab.
6. Edit the cutting conditions (①).
Set other items (②) as necessary.
Click [Load] to load cutting condition presets.

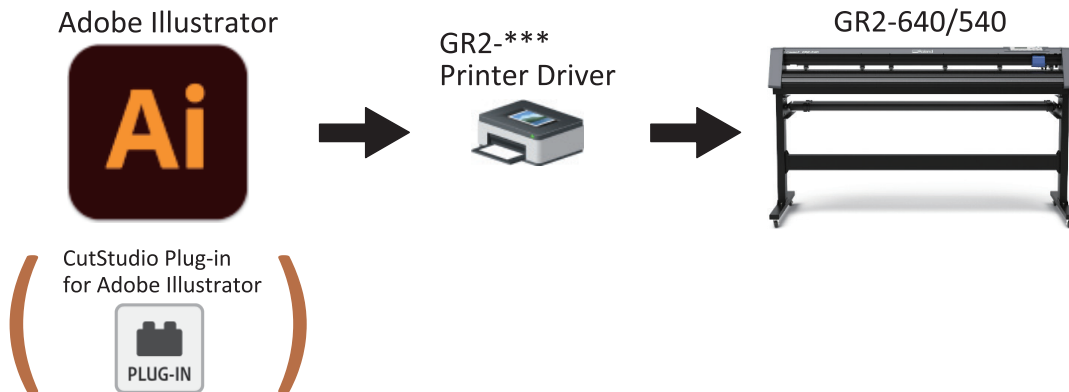


7. Click [OK] in the printer driver properties window.
8. In the [Cutting Setup] window, click [OK].
9. In the [Cut] window, click [OK].
The data is output and cutting starts.

Cutting with Adobe Illustrator

Although it may take some practice to ensure smooth operation, once you become familiar with the software, you can use it to create complex shapes.

Those who already have a license and are proficient at using the software may prefer to use Adobe Illustrator.



1. Create the cutting data. (Adobe Illustrator 2022)

The procedure described here is for a cutting machine with material already loaded.

[P. 22 Loading the Material](#)

Procedure

1. Start Adobe Illustrator.
2. Create a new file.
3. Draw the cutting data.
 - When specifying a path as a cutting line, use a line width of 0.001 mm (0.039 mil).
 - Outline paths to express line width, line end shapes, or corner shapes using cutting.
 - Outline text to be used for cutting.
 - Set the line color to any color other than green (R:0 G:255 B:0). Green will be recognized as a perforated cut line.
 - Fill areas will be ignored even if specified.

MEMO

- The CutStudio Plug-in for Illustrator includes buttons for outlining and offsetting.
- Keeping the window open makes creating cutting data easier.
- Click [Window]>[Extensions]>[Roland CutStudio] to open the CutStudio plug-in window.
- To view the CutStudio plug-in help, click [Help] from  in the CutStudio plug-in window.

4. Click [File]>[Save].

The [Save As] window appears.

Select the folder in which to save the file, enter a file name, and then save the file.

RELATED LINKS

- [P. 86 Cutting Perforated Lines with Adobe Illustrator](#)

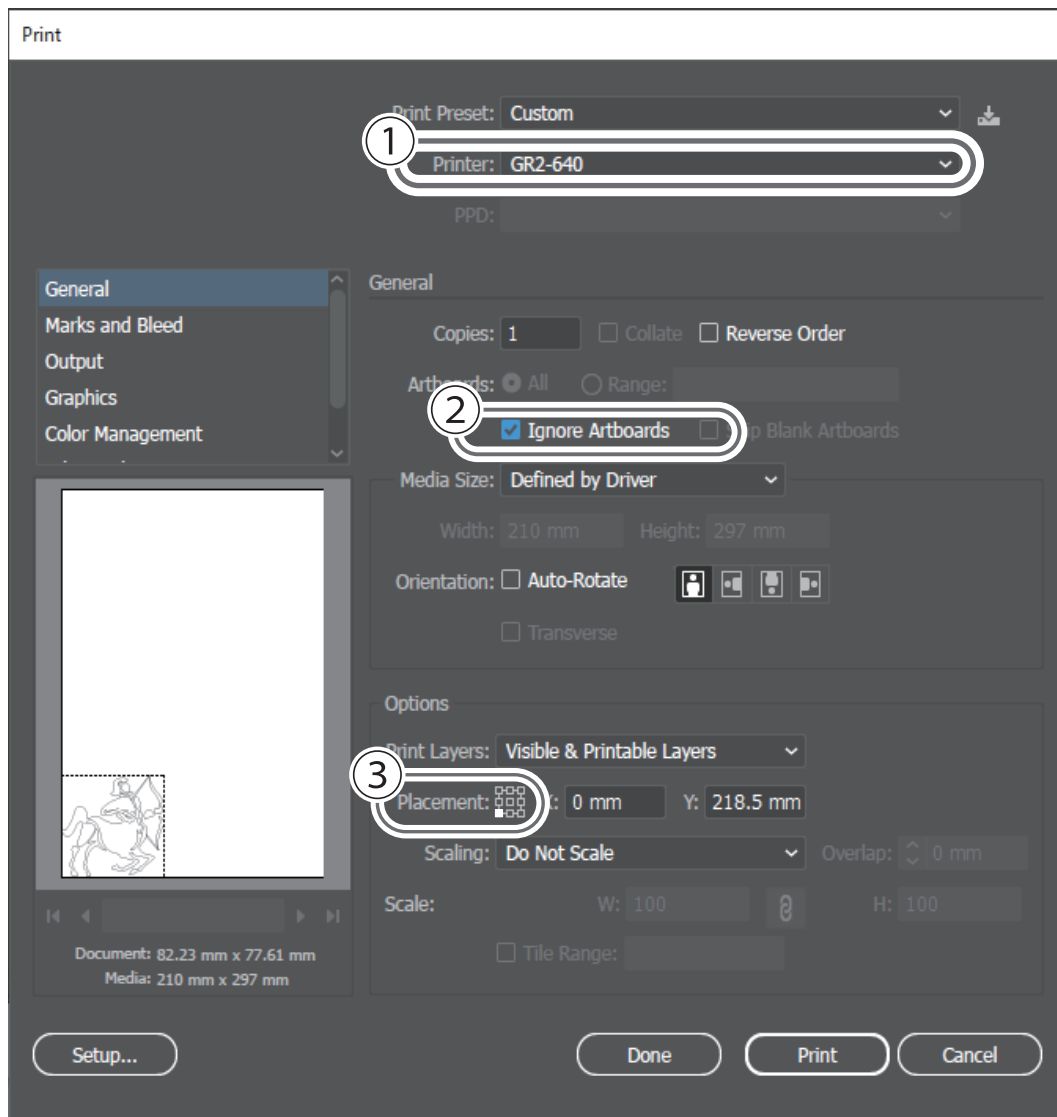
2. Perform cutting

MEMO

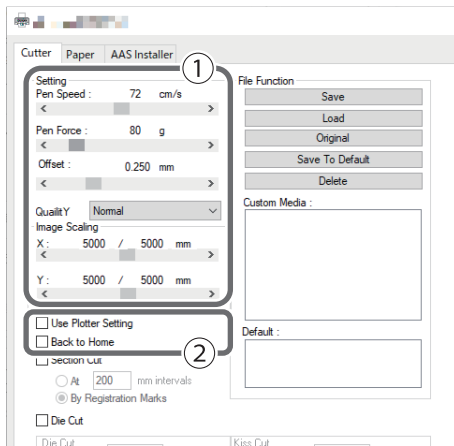
If the material comes loose or the machine operates unusually, press [PAUSE/RESUME] to cancel output. Then reload the material, starting over from the beginning.

Procedure

1. If Adobe Illustrator is not running, start it.
Open the target file if it is not currently opened.
2. Click [File]>[Print].
The [Print] window appears.
3. Configure the following settings.
 - (1) Click the printer pull-down menu (①), and then select [GR2-640] or [GR2-540] as the output destination.
 - (2) Select the [Ignore Artboards] (②) check box.
Leave this check box unselected if the object is fitted perfectly to the artboard.
 - (3) Select the lower-left corner for [Placement] (③).

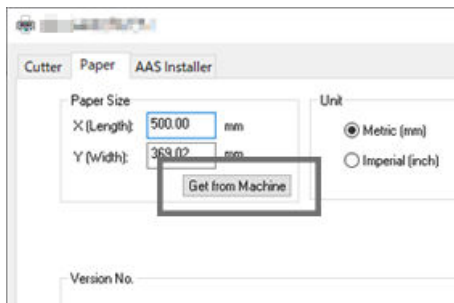


4. Click [Printer].
If a message appears, click [Continue].
The [Print] window appears.
5. Click [Preferences].
The [Printing Preferences] window appears.
6. Click the [Cutter] tab.
7. Edit the cutting conditions (①).
Set other items (②) as necessary.
Click [Load] to load cutting condition presets.



8. Click the [Paper] tab.

9. Click [Get from Machine].



The size (cutting area) of the material loaded in the cutting machine will be imported into [Paper Size].

10. Click [OK].

The [Printing Preferences] window closes.

11. Click [Print].

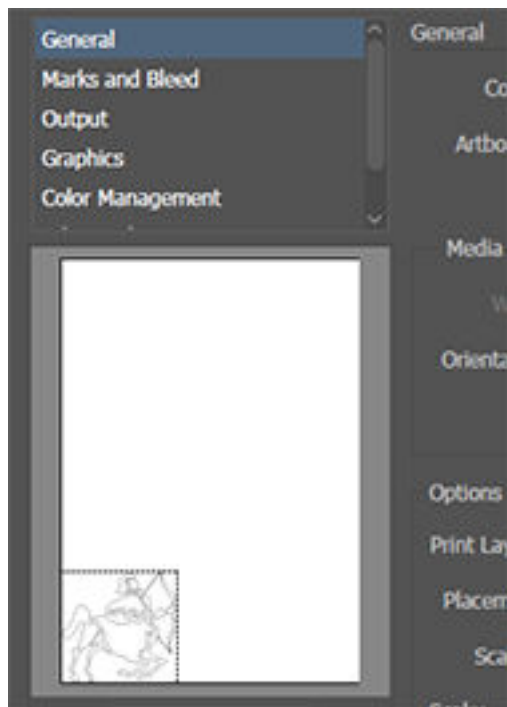
The [Print] window closes.

12. Click [Done].

13. Click [File]>[Print].

The [Print] window appears again.

Using the preview window, check that the cutting data is displayed at the bottom left.



14. Click [Print].

The data is output and cutting starts.

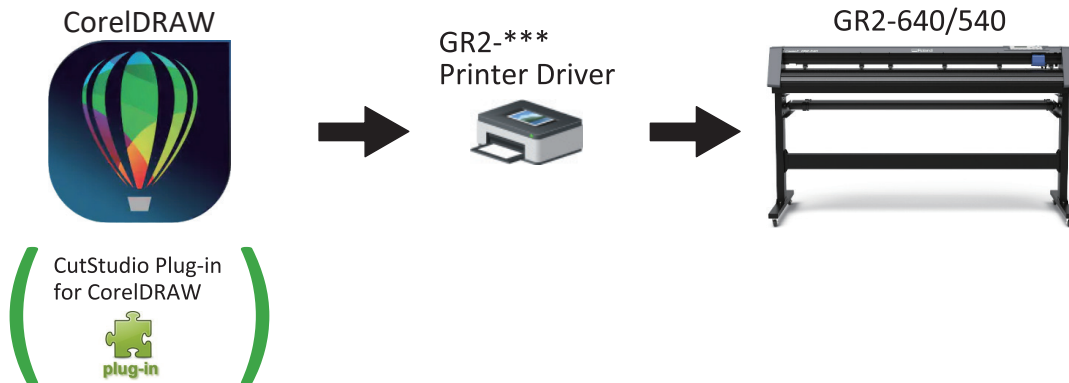
RELATED LINKS

- [P. 86 Cutting Perforated Lines with Adobe Illustrator](#)
- [P. 97 Setting Overlap Cutting Using the Printer Driver](#)

Cutting with CorelDRAW

Although it may take some practice to ensure smooth operation, once you become familiar with the software, you can use it to create complex shapes.

Those who already have a license and are proficient at using the software may prefer to use CorelDRAW.



1. Create the cutting data. (CorelDRAW 2022)

The procedure described here is for a cutting machine with material already loaded.

[P. 22 Loading the Material](#)

Procedure

1. Start CorelDRAW.
2. Create a new file.
3. Draw the cutting data.
 - When specifying a path as a cutting line, use a line width of 0.001 mm (0.039 mil).
 - Outline paths to express line width, line end shapes, or corner shapes using cutting.
 - Outline text to be used for cutting.
 - Set the line color to any color other than green (R:0 G:255 B:0). Green will be recognized as a perforated cut line.
 - Fill areas will be ignored even if specified.

MEMO

- The CutStudio Plug-in for CorelDRAW includes buttons for outlining and offsetting.
- Keeping the window open makes creating cutting data easier.
- Click  to open the CutStudio plug-in window.
- To view the CutStudio plug-in help, click [Help] from  in the CutStudio plug-in window.

4. Click [File]>[Save].

The window for saving the file appears.

Select the folder in which to save the file, enter a file name, and then save the file.

RELATED LINKS

- [P. 90 Cutting Perforated Lines with CorelDRAW](#)

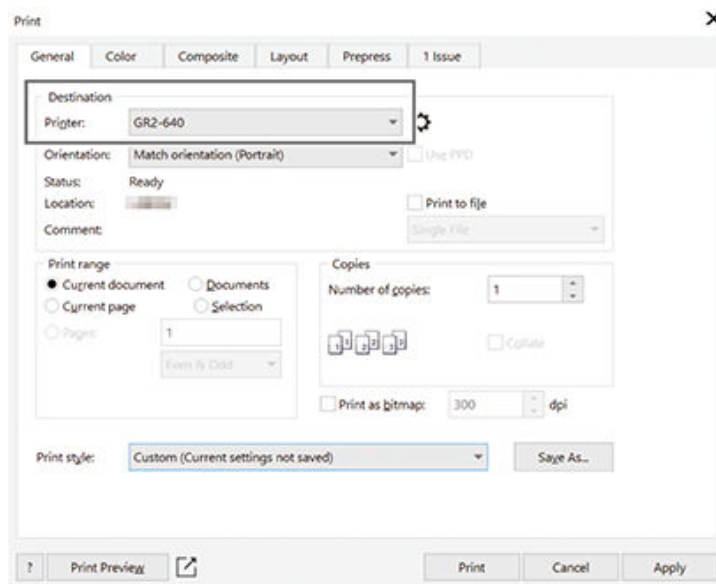
2. Perform cutting

MEMO

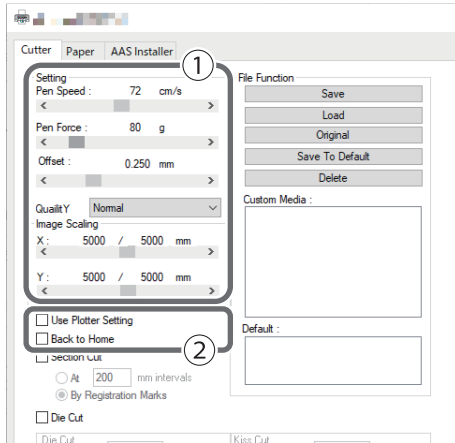
If the material comes loose or the machine operates unusually, press [PAUSE/RESUME] to cancel output. Then reload the material, starting over from the beginning.

Procedure

1. If CorelDRAW is not running, start it.
Open the target file if it is not currently opened.
2. Click [File]>[Print].
The [Print] window appears.
3. Click the [General] tab.
4. Click the [Printer] pull-down menu, and then select [GR2-640] or [GR2-540] as the output destination.

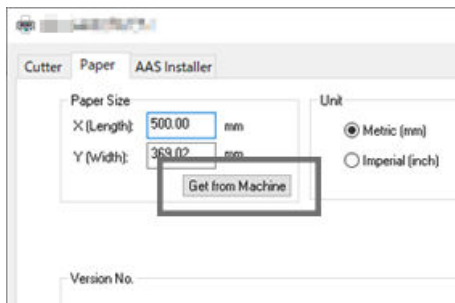


5. Click .
The printer driver properties window appears.
6. Click the [Cutter] tab.
7. Edit the cutting conditions (①).
Set other items (②) as necessary.
Click [Load] to load cutting condition presets.



8. Click the [Paper] tab.

9. Click [Get from Machine].



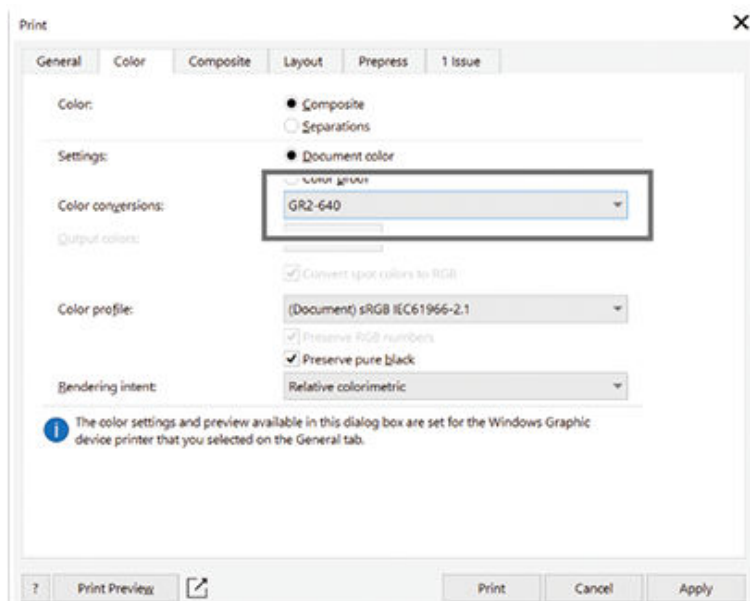
The size (cutting area) of the material loaded in the cutting machine will be imported into [Paper Size].

10. Click [OK].

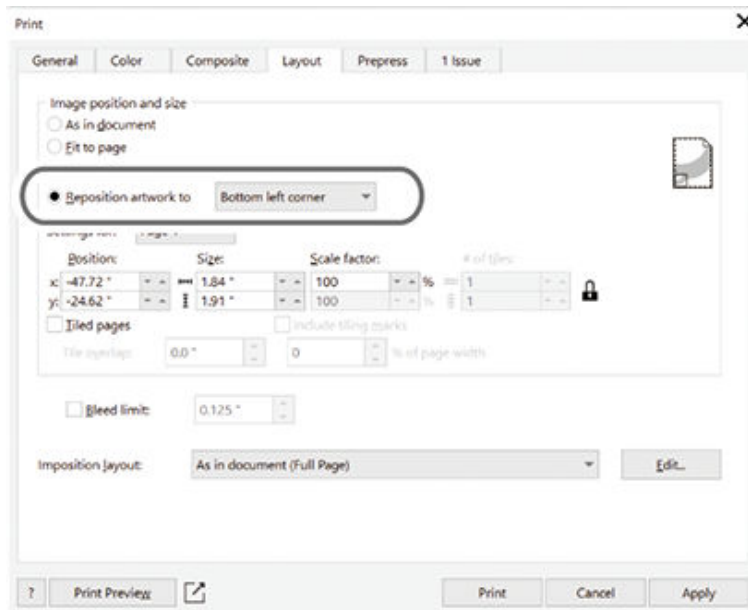
The printer driver properties window closes.

11. Click the [Color] tab.

12. Click the [Color conversions] pull-down menu, and then select [GR2-640] or [GR2-540].



13. Click the [Layout] tab.
14. Click the [Reposition artwork to] pull-down menu, and then select [Bottom left corner].



15. Click [Print].
The data is output and cutting starts.

RELATED LINKS

- [P. 90 Cutting Perforated Lines with CorelDRAW](#)
- [P. 97 Setting Overlap Cutting Using the Printer Driver](#)

Cutting after Printing

- Preparations for Cutting Output.....59
 - Recommended Cutting Conditions.....59
 - Performing a Cutting Test.....60
 - Adjusting the Cutting Conditions62
- Creating and Outputting Data65
 - Creating Data for Cutting after Printing.....66
 - Performing Printing and Cutting (VersaWorks).....67

Preparations for Cutting Output

Recommended Cutting Conditions

A general guide for cutting conditions for different combinations of materials and blades is given below. Before cutting, perform a cutting test with a suitable blade for the sheet material.

IMPORTANT

Blades have suitability for particular sheet materials, and cutting materials that are not specified as suitable may cause the blade to break.

Blade	Material	Cutting force (gf)	Cutting speed (cm/sec) ^{*1}	Amount of blade offset (mm)
ZEC-U5032	General Signage Vinyl	30 to 100	30 or less	0.25
	General inkjet vinyl	50 to 100		
	Iron-on print vinyl	50 to 100		
ZEC-U5025	General Signage Vinyl	40 to 100	30 or less	0.25
	Fluorescent Vinyl	120 to 200	10 or less	
ZEC-U5010	Glass (car) film	80 to 120	30 or less	0.50
ZEC-U1715	Sandblast	100 to 150	5 or less	0.25
ZEC-U3050	Coated board (thin)	200 to 350	5 or less	0.50
	Fluorescent Vinyl	350 to 450		
ZEC-U3075	Coated board (thick)	250 to 400	5 or less	0.75
	Fluorescent Vinyl	350 to 450		

*1 The faster the cutting speed, the worse the image quality, so you have to adjust the speed to match the required image quality.

MEMO

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

RELATED LINKS

- [P. 41 Performing a Cutting Test](#)
- [P. 43 Adjusting the Cutting Conditions](#)
- [P. 132 Replacing the Blade](#)

Performing a Cutting Test

To obtain high-quality cutting results, carry out a cutting test to check the cutting quality for the material before you perform the actual cutting. Find the appropriate settings by checking the results.

Procedure

1. Load the material and measure its size.

[P. 22 Loading the Material](#)

2. Press [ON/OFF LINE] to switch to offline mode.

3. Press [CUT TEST].

4. Select a cutting test pattern.

Normally you select "Arrow", but if you are cutting a thick material, select "Cross".

- (1) Press [◀] or [▶] to display the screen shown below.

```
Pattern Setting
Select:◀ OK:ENTER
```

- (2) Press [ENTER].

The current pattern is displayed.

```
Pattern: Arrow
Change:▲ OK:ENTER
```

- (3) Press [▲] or [▼] to select a cutting test pattern.

- (4) Press [ENTER].

5. Change the scale of the pattern size.

This is set to 100% by default. Using a larger pattern size makes it easier to check the cutting test result.

- (1) Press [◀] or [▶] to display the screen shown below.

```
Ratio Setting
Select:◀ OK:ENTER
```

- (2) Press [ENTER].

The current scale of the pattern size is displayed.

```
Ratio: 100%
Change:▲ OK:ENTER
```

- (3) Press [▲] or [▼] to select the scale of the pattern size.

The size can be scaled from 1x to 4x.

- (4) Press [ENTER].

6. Press [◀] or [▶] to display the screen shown below.

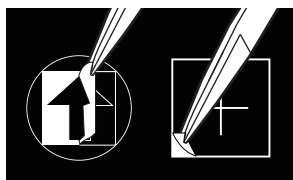
```
Square Cut
Select:◀ OK:ENTER
```

7. Press [ENTER].

8. Press [◀], [▶], [▲] or [▼] to move the cutting carriage to the appropriate location (cutting test start position).
9. Press [ENTER].

The test pattern is cut. When the cutting test finishes, the screen shown below is displayed.

```
Continuous Square Cut
N:ONLINE OK:ENTER
```



Check item	Result		Setting item	Adjustment
Peel off the pattern	Two shapes peel off separately/Cross cutting lines are cut			Appropriate
	Two shapes peel off together/Cross cutting lines are not cut		Cutting force	Increase
	Some uncut areas remain.		Cutting speed	Reduce
	Carrier paper is also cut		Cutting force	Reduce
Pattern shape			Corners are not rounded and do not have horns	Appropriate
			Corners are rounded	Blade offset Increase
			Corners have horns	Blade offset Reduce
			The cut shape is distorted.	Cutting speed Reduce

10. If the appropriate result is not achieved, adjust the necessary settings.

[P. 43 Adjusting the Cutting Conditions](#)

11. After adjusting the settings, press [ENTER].

The test pattern is cut again. Repeat steps 9 through 11 until an appropriate cutting result is obtained.

12. Press [ON/OFF LINE] twice to switch to online mode.

RELATED LINKS

- [P. 40 Recommended Cutting Conditions](#)
- [P. 100 Adjusting the Cutting-in Amount](#)

Adjusting the Cutting Conditions

This setting enables you to make adjustments to the cutting conditions on the operation panel while checking the cutting test results. After running a cutting test, you can change the cutting conditions from the printer driver's [Printing Preferences] window (or CutStudio/VersaWorks).

Setting the Blade Force

If the design peels off or if the carrier paper is also cut with the material, change the blade force.

Procedure

1. Press [FORCE].

If material is loaded, press [ON/OFF LINE] to switch to offline mode.

The current blade force is displayed.



2. Press [▲] or [▼] to change the blade force.

3. Press [ENTER] to confirm your entry.

MEMO

- Default setting: 80 gf
- Setting range: 5 to 600 gf (changeable in 5 gf increments)

RELATED LINKS

- [P. 40 Recommended Cutting Conditions](#)

Setting the Cutting Speed

If the design peels off or if the cut lines are not clean, reduce the cutting speed. When the cutting speed is too fast, extra load is applied to the material, which can move the material up and down during cutting. Also reduce the cutting speed in such cases. The cutting speed and quality mutually affect each other. Therefore, use a cutting speed within the range that can maintain cutting quality while selecting cutting quality that matches the cutting speed.

Procedure

1. Press [SPEED].

If material is loaded, press [ON/OFF LINE] to switch to offline mode.

The current cutting speed is displayed.



2. Press [▲] or [▼] to change the cutting speed.

3. Press [ENTER] to confirm your entry.

The current cutting quality is displayed.



4. Press [▲] or [▼] to set the quality.

Quality improves in this order: "Draft", "Fair", "Normal", "Fine", and "Small Letter". Normally, quality is set to "Normal". If you need to cleanly cut small text or complex graphics, select "Small Letter".

5. Press [ENTER] to confirm your entry.

6. Press [ON/OFF LINE] to go back to the original screen.

MEMO

- [SPEED]
Default setting: 72 cm/s (28.34 in./s)
Setting range: 3 to 153 cm/s (1.18 to 60.23 in./s) (changeable in 3 cm/s [1.18 in./s] increments)
- Quality: "Normal"

RELATED LINKS

- [P. 40 Recommended Cutting Conditions](#)

Setting the Blade Offset

Set the blade offset. Enter the listed offset value for the blade. When using the included blade, cutting can be performed using the factory-default settings.

MEMO

If the beginning of a cut deviates from the intended location or if the corners of a shape are not clean, adjust the offset value.

Procedure

1. Press [OFFSET].

If material is loaded, press [ON/OFF LINE] to switch to offline mode.

The current offset value is displayed.



2. Press [▲] or [▼] to change the offset value.

3. Press [ENTER] to confirm your entry.

MEMO

- Default setting: 0.250 mm (0.010 in.)
- Setting range: 0.000 to 1.000 mm (0.000 to 0.040 in.)

RELATED LINKS

- [P. 40 Recommended Cutting Conditions](#)

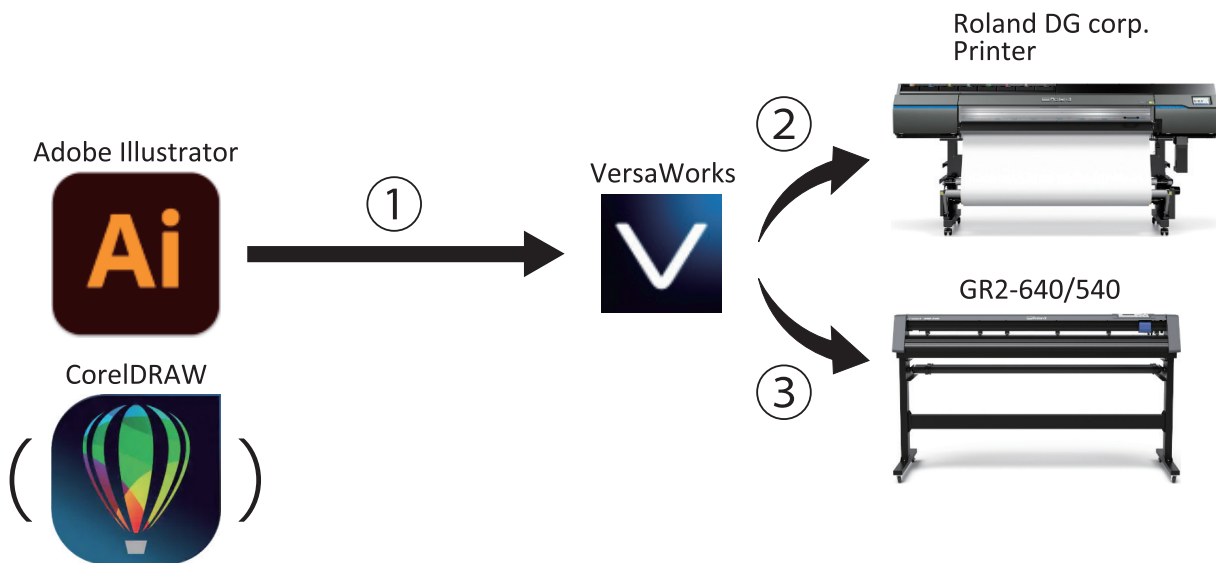
Creating and Outputting Data

This section introduces how to perform printing and cutting using Adobe Illustrator, CorelDRAW, and VersaWorks.

For information on creating shapes with the software, refer to the manual for the applicable software. This section does not explain how to create shapes but how to configure the settings for using shapes as cutting data and how to output the printing data or cutting data.

MEMO

No VersaWorks license is provided to customers purchasing this machine. The example introduced here includes using a Roland DG printer. To use VersaWorks, use the license included with the printer.



①	Add the mixed printing and cutting data to the job.
②	Add crop marks and print using the printer.
③	Load the crop mark data, and then output the cutting data.

Creating Data for Cutting after Printing

Procedure

1. Start Adobe Illustrator or CorelDRAW.

2. Create a new file.

3. Draw the data for printing and for cutting.

When specifying a path as a cutting line, register a spot color or specify a spot color for the path.
For more information, refer to the following link.

[To Users of VersaWorks](#)

MEMO

- The CutStudio plug-in includes buttons for outlining and offsetting.
- Keeping the window open makes creating cutting data easier.

4. Click [File]>[Save].

The window for saving the file appears.

Select the folder in which to save the file, enter a file name, and then save the file in EPS or PDF format.

Performing Printing and Cutting (VersaWorks)

The procedure described here assumes that the GR2-640 or GR2-540 is already registered as the output destination in VersaWorks.

For the registration procedure, refer to the following link. [To Users of VersaWorks - Points for Outputting Data to a GR2-640/540](#)

1. Enter data in VersaWorks.

Procedure

1. Start VersaWorks.
2. Click the printer to use.
3. Click [Job].
The main screen is displayed.
4. Drag the print data to the job list.
The printing data is added to the job list.
5. Select the entered job, and confirm that  is displayed under [Document Information]>[Special Items] in the job overview area.
If it is not displayed, the data does not include cutting lines. Check the data.

2. Perform printing and cutting

For the operation procedure, refer to the following link. [To Users of VersaWorks - Points for Outputting Data to a GR2-640/540](#)

Various Cutting and Printing and Cutting

- Performing Lengthy Printing and Cutting69
 - What Is AAS (Automatic Aligning System)?69
 - Performing Section Cutting with Adobe Illustrator71
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- Cutting Perforated Lines82
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 - Performing Perforated Cutting for All Cutting Lines.....94

Performing Lengthy Printing and Cutting

The longer the material being used for printing and cutting, the more likely the printing and cutting positions will become misaligned.

Using the AAS section cutting function can help prevent this from happening.

This section introduces how to perform section cutting.

What Is AAS (Automatic Aligning System)?

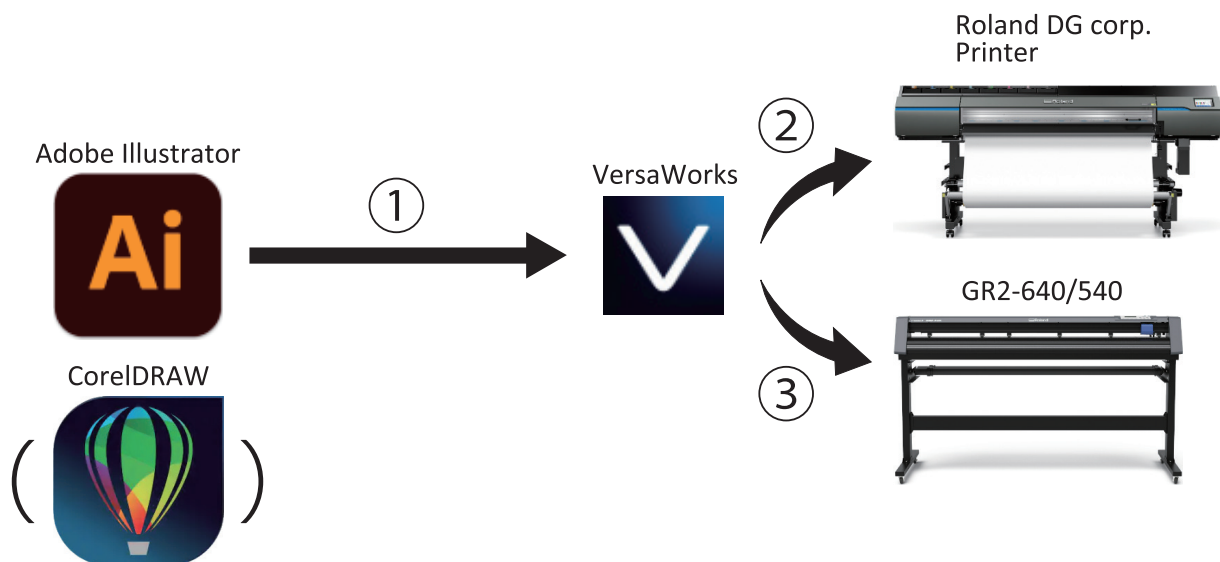
When printing and cutting material, the material is printed using a printer and cut with a cutting machine. To do so, the printing position and cutting position must align perfectly.

This means printing with crop marks (images) around the graphic, and then scanning the crop marks using the cutting machine to align the positions before cutting. In this manual, this alignment function is called the Automatic Aligning System (AAS).

There are multiple methods for automatically aligning the positions.

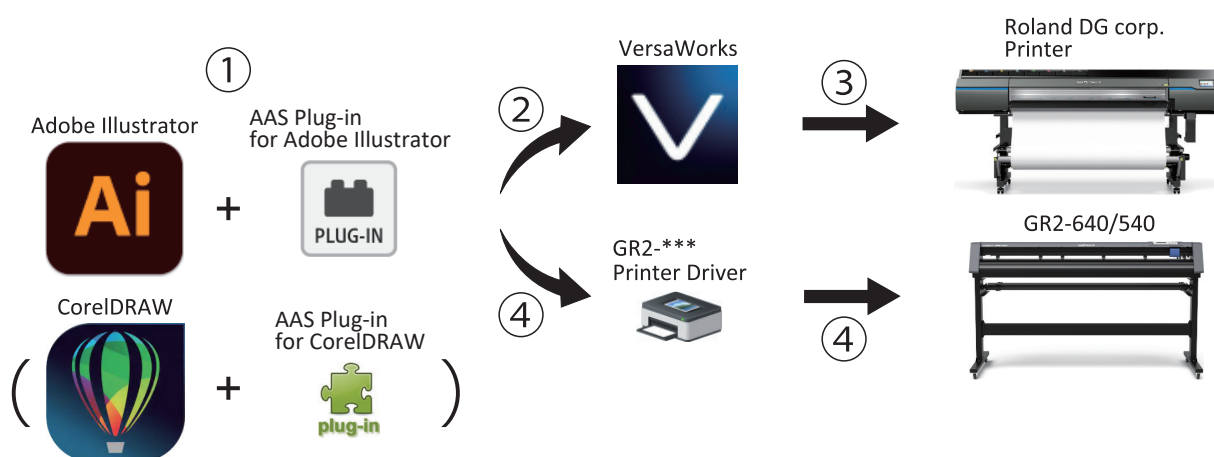
The following two methods are the most typical.

- Adding crop marks in VersaWorks before printing and cutting



①	Add the mixed printing and cutting data to the job.
②	Add crop marks and print using the printer.
③	Load the crop mark data, and then output the cutting data.

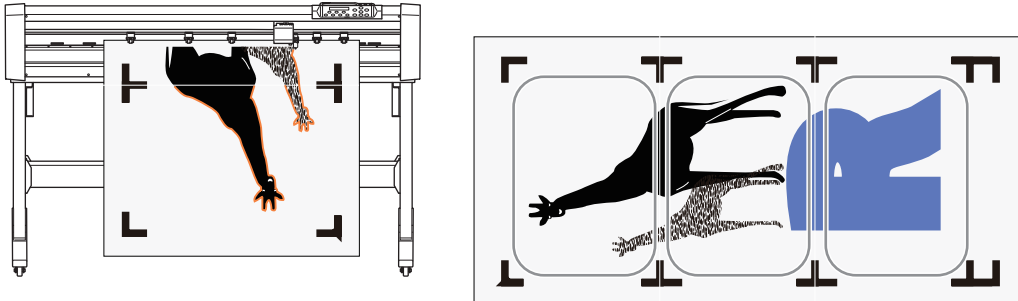
- Adding crop marks using the AAS plug-in (for Adobe Illustrator/CorelDRAW) and then printing via VersaWorks and cutting via the printer driver



①	Create the data, and using the AAS plug-in to add crop marks.
②	Add the data with crop marks to the job.
③	Perform printing only using the printer.
④	Output cutting data via the printer driver.

Performing Section Cutting with Adobe Illustrator

Section cutting is one method of performing printing and cutting using the AAS plug-in to add crop marks. This function cuts material upon scanning the specified distance or by sections specified by crop marks, which stabilizes the cutting quality when cutting long material.



1. Create the section cutting data (Adobe Illustrator 2022)

Procedure

1. Start Adobe Illustrator.
2. Create a new file.
3. Draw the data for printing and for cutting.
When specifying a path as a cutting line, register a spot color or specify a spot color for the path.
For more information, refer to the following link.
[To Users of VersaWorks](#)
4. Click [File]>[Script]>[RolandDG_AASII_Mark].
5. Select the [Segmental Positioning] check box.
6. Enter the interval for adding crop marks.
7. Click [Apply].
Crop marks will be added to the data at fixed intervals.
8. Click [File]>[Save].
The [Save As] window appears.
Select the folder in which to save the file, enter a file name, and then save the file in EPS or PDF format.

2. Enter the data in VersaWorks and perform printing.

Procedure

1. Start VersaWorks.
2. Click the printer to use.
3. Click [Job].
The main screen is displayed.
4. Drag the print data to the job list.
The printing data is added to the job list.
5. Perform printing with VersaWorks.
For the operation procedure, refer to VersaWorks Help.
[P. 67 Performing Printing and Cutting \(VersaWorks\)](#)

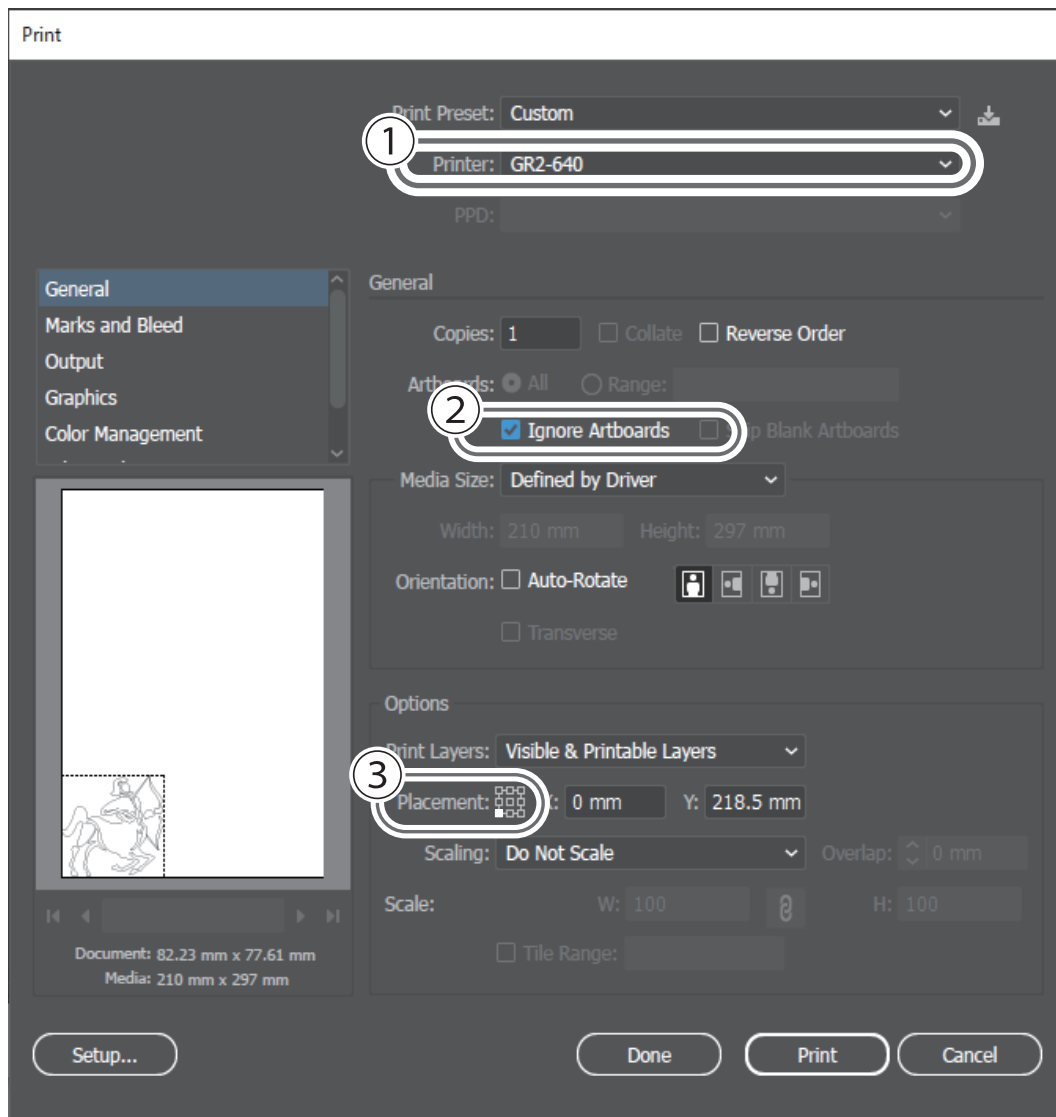
RELATED LINKS

- [VersaWorks Help](#)

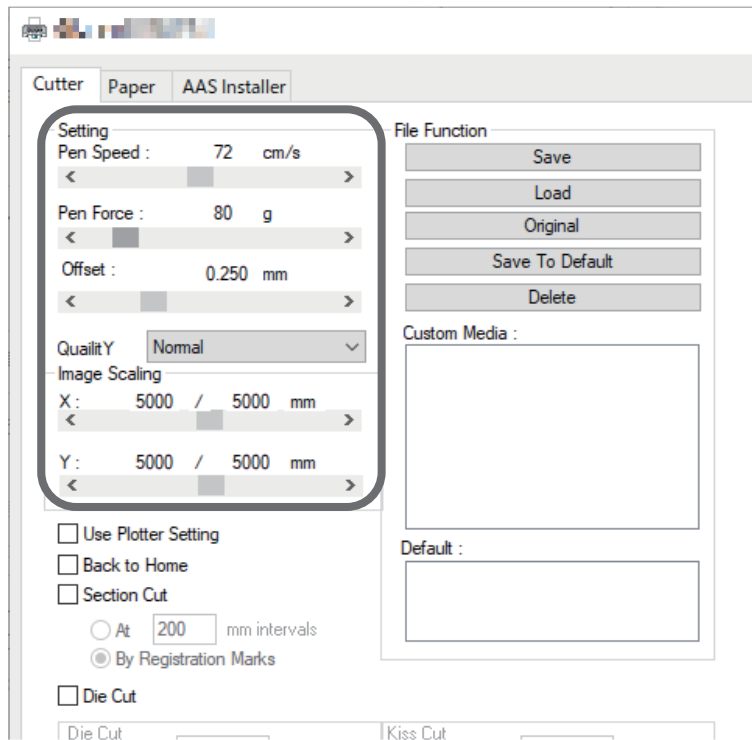
3. Perform cutting

Procedure

1. Load the material.
[P. 22 Loading the Material](#)
2. If Adobe Illustrator is not running, start it.
Open the target file if it is not currently opened.
3. Click [File]>[Print].
The [Print] window appears.
4. Configure the following settings.
 - (1) Click the printer pull-down menu (①), and then select [GR2-640] or [GR2-540] as the output destination.
 - (2) Select the [Ignore Artboards] (②) check box.
Leave this check box unselected if the object is fitted perfectly to the artboard.
 - (3) Select the lower-left corner for [Placement] (③).

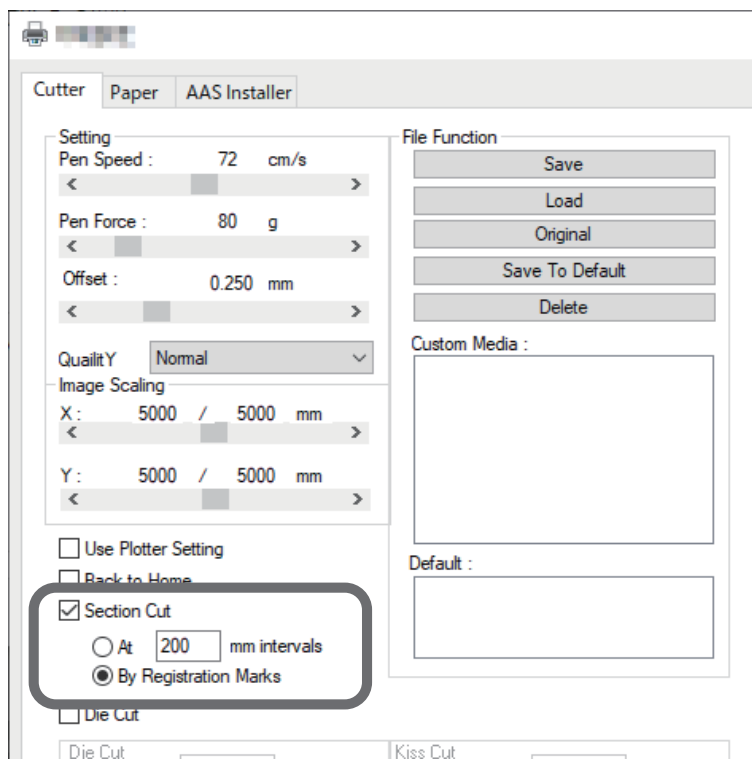


5. Click [Printer].
If a message appears, click [Continue].
The [Print] window appears.
6. Click [Preferences].
The [Printing Preferences] window appears.
7. Click the [Cutter] tab.
8. Edit the cutting conditions.
Click [Load] to load cutting condition presets.



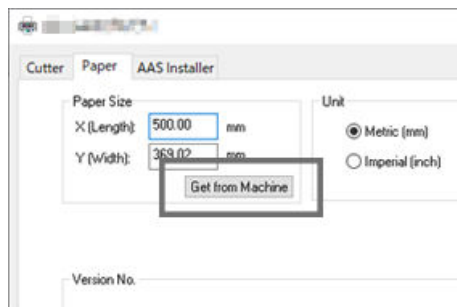
9. Select the [Section Cut] check box.

10. Select the [By Registration marks] check box.



11. Click the [Paper] tab.

12. Click [Get from Machine].



The size (cutting area) of the material loaded in the cutting machine will be imported into [Paper].

13. Click [OK].

The [Printing Preferences] window closes.

14. Click [Print].

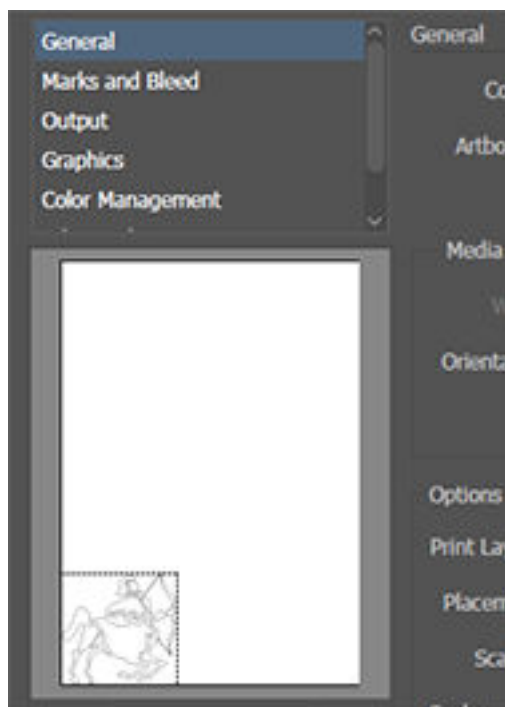
The [Print] window closes.

15. Click [Done].

16. Click [File]>[Print].

The [Print] window appears again.

Using the preview window, check that the cutting data is displayed at the bottom left.

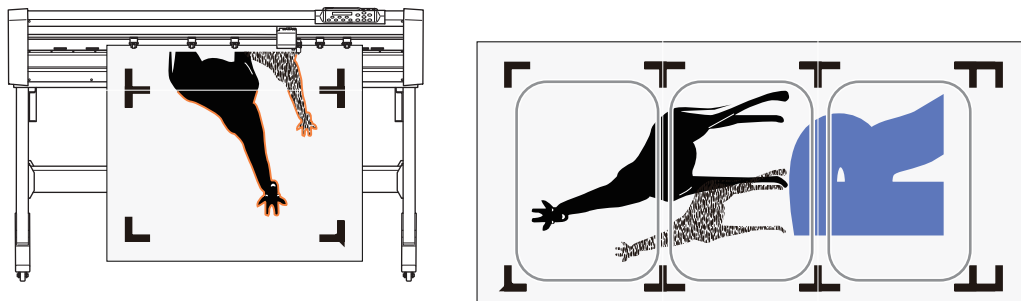


17. Click [Print].

The data is output and cutting starts.

Performing Section Cutting with CorelDRAW

Section cutting is one method of performing printing and cutting using the AAS plug-in to add crop marks. This function cuts material upon scanning the specified distance or by sections specified by crop marks, which stabilizes the cutting quality when cutting long material.



1. Create the section cutting data (CorelDRAW 2022)

Procedure

1. Start CorelDRAW.
2. Create a new file.
3. Draw the data for printing and for cutting.
When specifying a path as a cutting line, register a spot color or specify a spot color for the path.
For more information, refer to the following link.
[To Users of VersaWorks](#)
4. Click [Tools]>[Scripts]>[Run Script].
The [Run Macro] window appears.
5. Click the [Macros in] pull-down menu, and then click [GlobalMacros (RolandDG_AASII_Mark gms)].
6. Click [Run].
The [RolandDG_AASII_Mark Setting] window appears.
7. Enter the interval for adding crop marks.
8. Click [Apply].
Crop marks will be added to the data at fixed intervals.
9. Click [File]>[Save].
The window for saving the file appears.
Select the folder in which to save the file, enter a file name, and then save the file in EPS or PDF format.

2. Enter the data in VersaWorks and perform printing.

Procedure

1. Start VersaWorks.
2. Click the printer to use.
3. Click [Job].
The main screen is displayed.
4. Drag the print data to the job list.
The printing data is added to the job list.
5. Perform printing with VersaWorks.
For the operation procedure, refer to VersaWorks Help.
[P. 67 Performing Printing and Cutting \(VersaWorks\)](#)

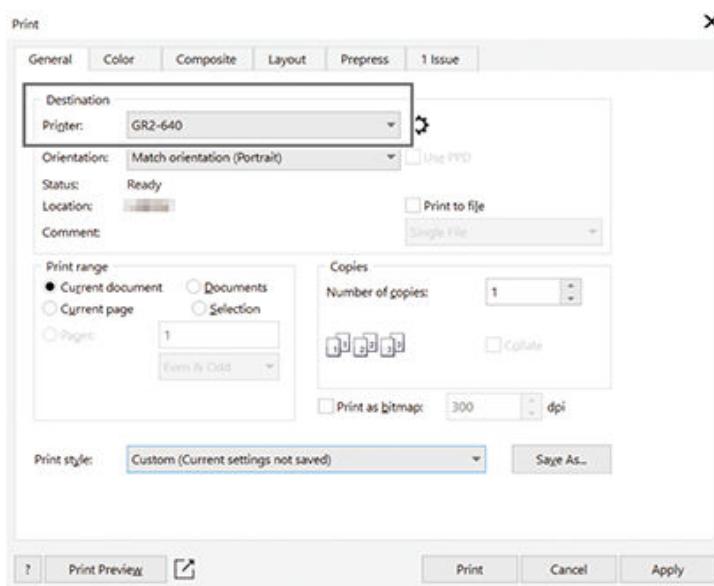
RELATED LINKS

- [VersaWorks Help](#)

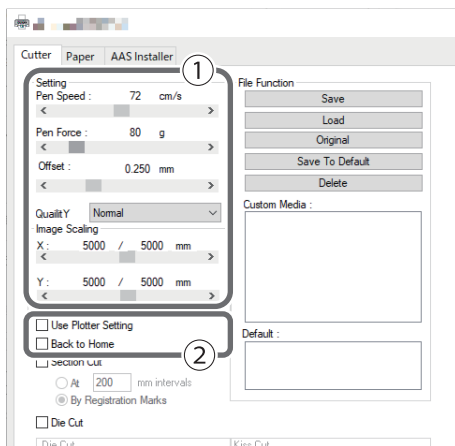
3. Perform cutting

Procedure

1. If CorelDRAW is not running, start it.
Open the target file if it is not currently opened.
2. Click [File]>[Print].
The [Printing Preferences] window appears.
3. Click the [General] tab.
4. Click the [Printer] pull-down menu, and then select [GR2-640] or [GR2-540] as the output destination.

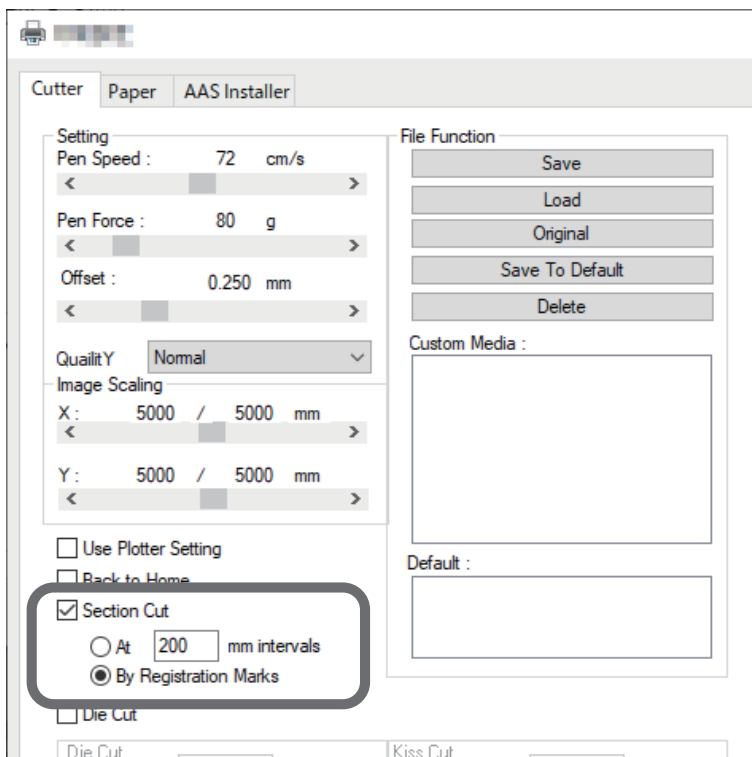


5. Click .
The printer driver properties window appears.
6. Click the [Cutter] tab.
7. Edit the cutting conditions.
Click [Load] to load cutting condition presets.



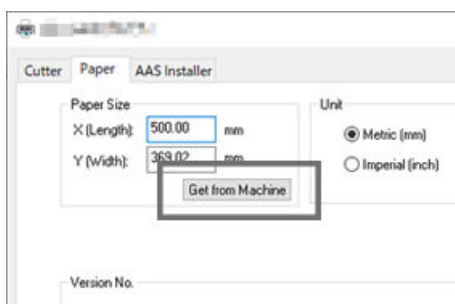
8. Select the [Section Cut] check box.

9. Select the [By Registration marks] check box.



10. Click the [Paper] tab.

11. Click [Get from Machine].



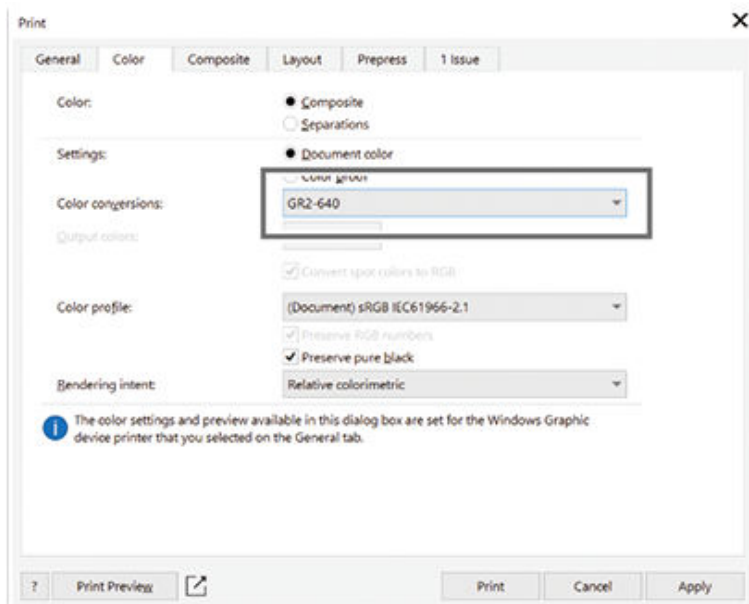
The size (cutting area) of the material loaded in the cutting machine will be imported into [Paper Size].

12. Click [OK].

The printer driver properties window closes.

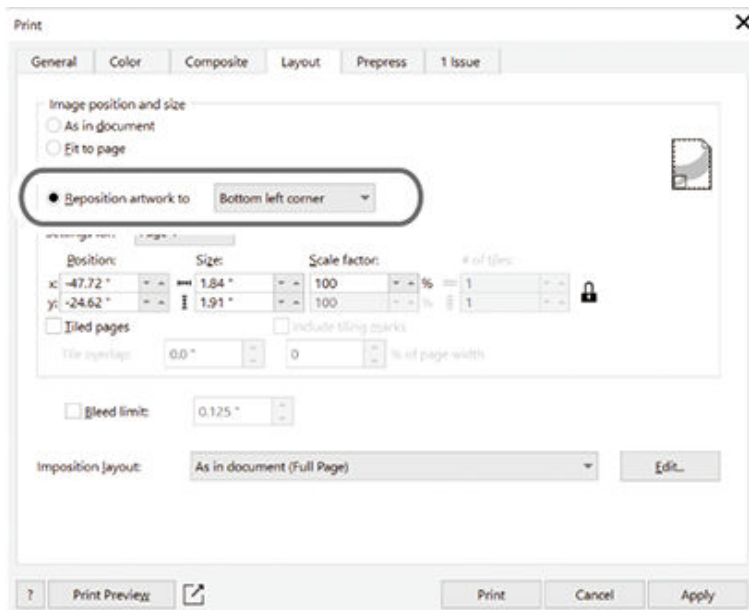
13. Click the [Color] tab.

14. Click the [Color conversions] pull-down menu, and then select [GR2-640] or [GR2-540].



15. Click the [Layout] tab.

16. Click the [Reposition artwork to] pull-down menu, and then select [Bottom left corner].



17. Click [Print].

The data is output and cutting starts.

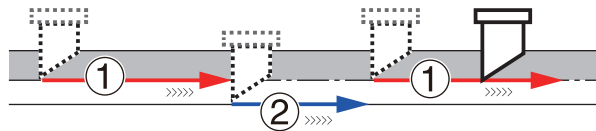
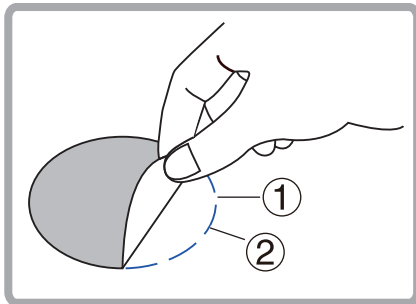
Cutting Perforated Lines

Perforated cutting is a combination of Die Cut (②), which cuts through to the carrier paper, and Half-cut (or Kiss Cut) (①), which only cuts through the material, leaving the carrier paper intact. Perforated cutting can be used with materials with no carrier paper, such as coated paper.

The blade force depends on the type of material or paper used. Perform a cutting test to check the cutting quality of the material, and adjust the blade force for both Die Cut and Half-cut (or Kiss Cut) accordingly.

IMPORTANT

Leave some parts of the carrier paper uncut even when you want to cut through parts of the material. Cutting through to the carrier paper in all parts can cause the cutting to come off the material while cutting is in progress, resulting in a material feeding failure or paper jam.



Cutting Perforated Lines with CutStudio

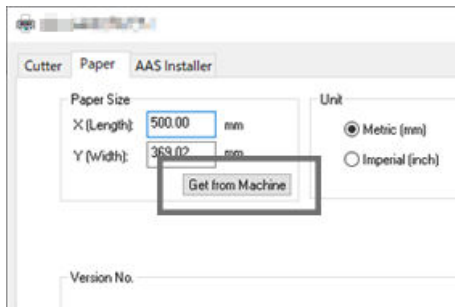
The procedure described here is for a cutting machine with material already loaded.

[P. 22 Loading the Material](#)

1. Create the cutting data and configure the perforated cut settings (CutStudio)

Procedure

1. Start CutStudio.
2. Click [File]>[Cutting Setup].
The [Cutting Setup] window appears.
3. Click [Change].
The printer driver properties window appears.
4. Click the [Paper] tab.
5. Click [Get from Machine].



The size (cutting area) of the material loaded in the cutting machine will be imported into [Paper Size].

6. Click [OK] in the printer driver properties window.

7. In the [Cutting Setup] window, click [OK].

The cutting area (working area) obtained from the machine is displayed in CutStudio.

8. Draw the cutting data so that it fits within the cutting area.

Cutting will not be performed for data outside the cutting area.

Import data from Adobe Illustrator or CorelDRAW for use as necessary.

9. Select the object that you want to apply perforated lines to.

10. Click .

11. Click .

The [Save As] window appears.

Select the folder in which to save the file, enter a file name, and then save the file.

2. Perform cutting.

IMPORTANT

Before cutting, select the "Accept setup command" setting on the machine.

[P. 19 Prioritizing the Cutting Settings of the Printer Driver \(or CutStudio/VersaWorks\)](#)

Procedure

1. Click .

The [Cut] window appears.

2. Click [Change].

The [Cutting Setup] window appears.

3. Click [Change].

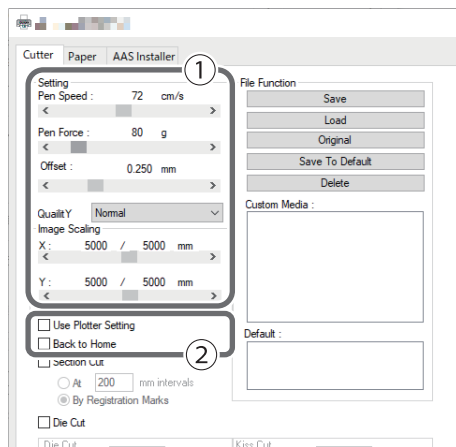
The printer driver properties window appears.

4. Click the [Cutter] tab.

5. Edit the cutting conditions (①).

Set other items (②) as necessary.

Click [Load] to load cutting condition presets.

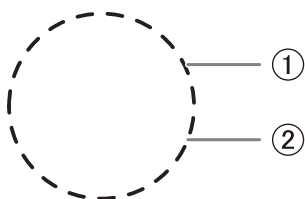
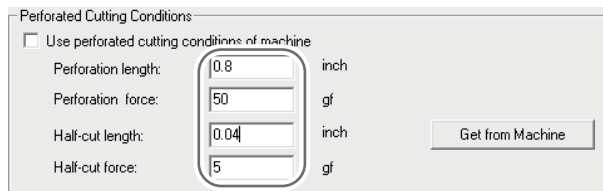


6. Click [OK].

The printer driver properties window closes.

7. In the [Cutting Setup] window, clear the [Use perforated cutting conditions of machine] check box. This allows values to be entered under [Perforated Cutting].

8. Set [Perforation length], [Perforation Force], [Half-cut length], and [Half-cut Force] under [Perforated Cutting].



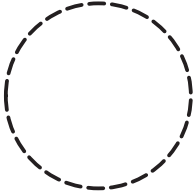
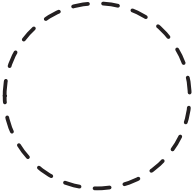
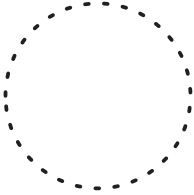
- ①: Perforation length

Length of the part that will be cut through to the carrier paper

- ②: Half-cut Length

Length of the part to be cut up to the material while leaving the carrier paper

Adjust the perforation force or the half-cut force according to the type of material.

[Perforation length] > [Half-cut length]	[Perforation length] = [Half-cut length]	[Perforation length] < [Half-cut length]
		
Perforation length: 20 mm (0.8 in.) Half-cut length: 1 mm (0.04 in.)	Perforation length: 20 mm (0.8 in.) Half-cut length: 20 mm (0.8 in.)	Perforation length: 1 mm (0.04 in.) Half-cut length: 20 mm (0.8 in.)

- 9. In the [Cutting Setup] window, click [OK].
- 10. In the [Cut] window, click [OK].
The data is output and cutting starts.

Cutting Perforated Lines with Adobe Illustrator

The procedure described here is for a cutting machine with material already loaded.

[P. 22 Loading the Material](#)

1. Create the cutting data and configure the perforated cut settings (Adobe Illustrator 2022)

Save the cutting lines in the cutting data as perforated cutting lines and set up perforated cutting using the printer driver.

Procedure

1. Start Adobe Illustrator.
2. Create a new file.
3. Draw the cutting data.
 - When specifying a path as a cutting line, use a line width of 0.001 mm (0.039 mil).
 - Outline paths to express line width, line end shapes, or corner shapes using cutting.
 - Outline text to be used for cutting.
 - Fill areas will be ignored even if specified.
4. Select the path for perforated cutting and set the line color to green (R:0 G:255 B:0).
5. Click [File]>[Save].
The [Save As] window appears.
Select the folder in which to save the file, enter a file name, and then save the file.

2. Perform cutting.

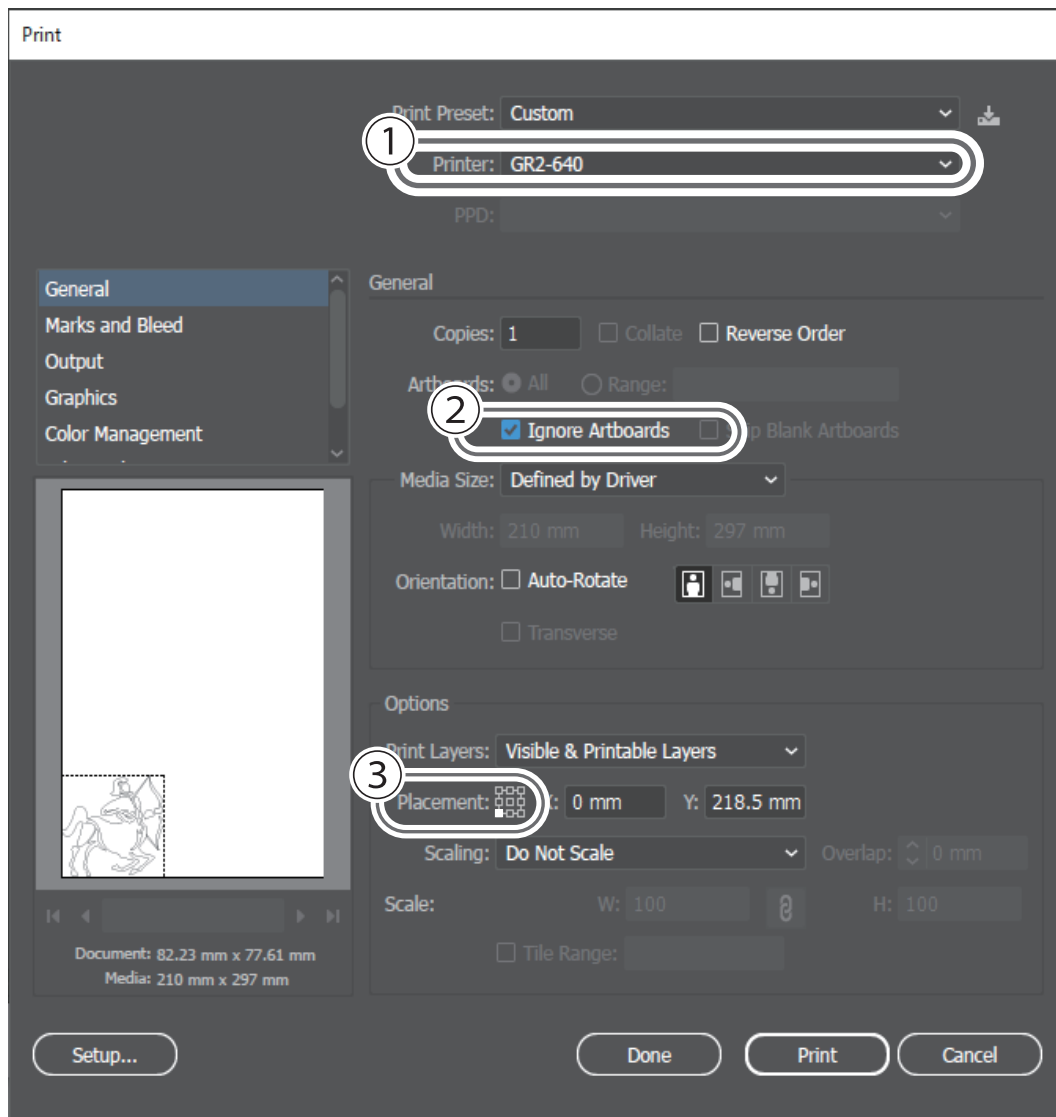
IMPORTANT

Before cutting, select the "Accept setup command" setting on the machine.

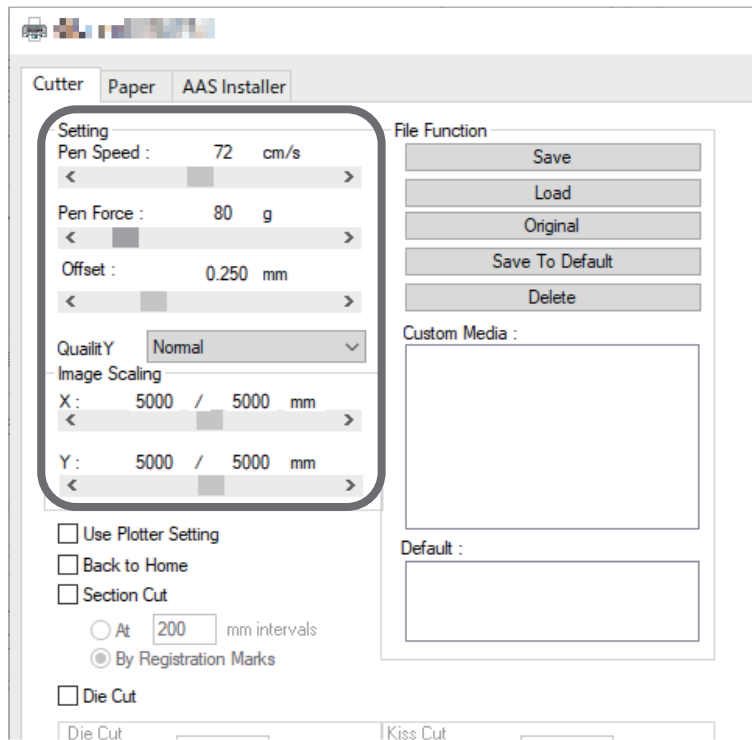
[P. 19 Prioritizing the Cutting Settings of the Printer Driver \(or CutStudio/VersaWorks\)](#)

Procedure

1. Click [File]>[Print].
The [Print] window appears.
2. Configure the following settings.
 - (1) Click the printer pull-down menu (①), and then select [GR2-640] or [GR2-540] as the output destination.
 - (2) Select the [Ignore Artboards] (②) check box.
Leave this check box unselected if the object is fitted perfectly to the artboard.
 - (3) Select the lower-left corner for [Placement] (③).



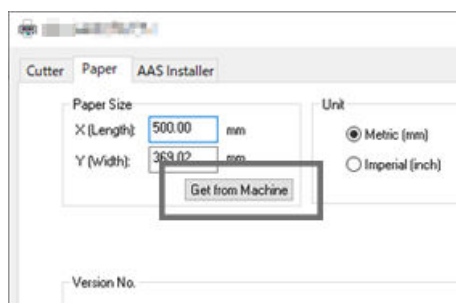
3. Click [Printer].
If a message appears, click [Continue].
The [Print] window appears.
4. Click [Preferences].
The [Printing Preferences] window appears.
5. Click the [Cutter] tab.
6. Edit the cutting conditions.
Click [Load] to load cutting condition presets.



7. Select the [Die Cut] check box.
8. Enter the lengths and blade forces for [Die Cut] and [Kiss Cut].



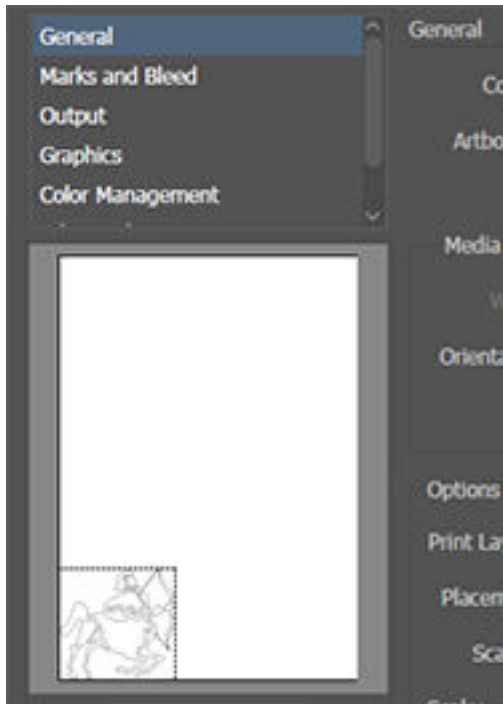
9. Click the [Paper] tab.
10. Click [Get from Machine].



The size (cutting area) of the material loaded in the cutting machine will be imported into [Paper Size].

11. Click [OK].
The [Printing Preferences] window closes.

12. Click [Print].
The [Print] window closes.
13. Click [Done].
14. Click [File]>[Print].
The [Print] window appears again.
Using the preview window, check that the cutting data is displayed at the bottom left.



15. Click [Print].
The data is output and cutting starts.

Cutting Perforated Lines with CorelDRAW

The procedure described here is for a cutting machine with material already loaded.

[P. 22 Loading the Material](#)

1. Create the cutting data and configure the perforated cut settings (CorelDRAW 2022)

Procedure

1. Start CorelDRAW.
2. Create a new file.
3. Draw the cutting data.
 - When specifying a path as a cutting line, use a line width of 0.001 mm (0.039 mil).
 - Outline paths to express line width, line end shapes, or corner shapes using cutting.
 - Outline text to be used for cutting.
 - Fill areas will be ignored even if specified.
4. Select the path for perforated cutting and set the line color to green (R:0 G:255 B:0).
5. Click [File]>[Save].

The window for saving the file appears.

Select the folder in which to save the file, enter a file name, and then save the file.

2. Perform cutting.

IMPORTANT

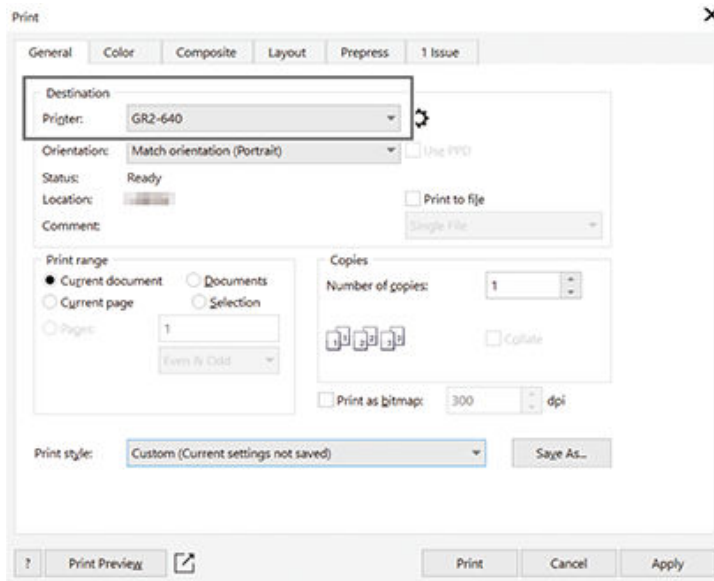
Before cutting, select the "Accept setup command" setting on the machine.

[P. 19 Prioritizing the Cutting Settings of the Printer Driver \(or CutStudio/VersaWorks\)](#)

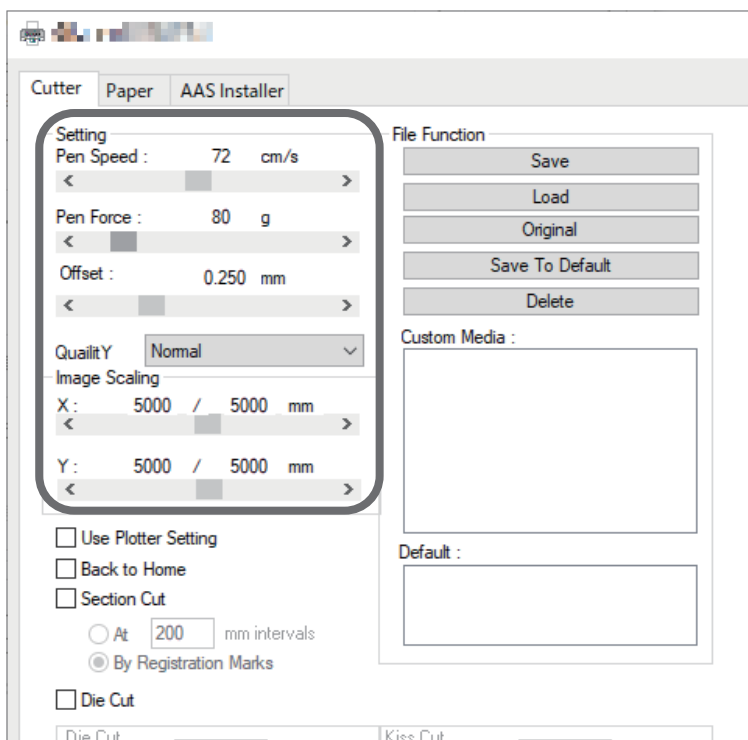
Procedure

1. Click [File]>[Print].

The [Print] window appears.
2. Click the [General] tab.
3. Click the [Printer] pull-down menu, and then select [GR2-640] or [GR2-540] as the output destination.



4. Click  .
The printer driver properties window appears.
5. Click the [Cutter] tab.
6. Edit the cutting conditions.
Click [Load] to load cutting condition presets.

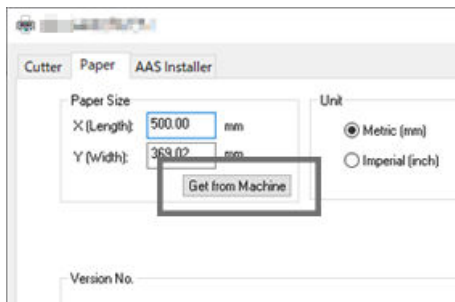


7. Select the [Die Cut] check box.
8. Enter the lengths and blade forces for [Die Cut] and [Kiss Cut].



9. Click the [Paper] tab.

10. Click [Get from Machine].



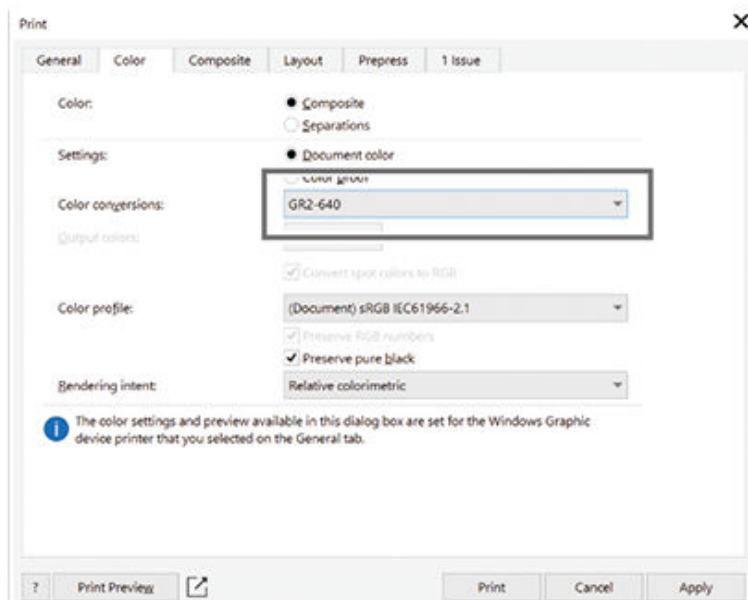
The size (cutting area) of the material loaded in the cutting machine will be imported into [Paper Size].

11. Click [OK].

The printer driver properties window closes.

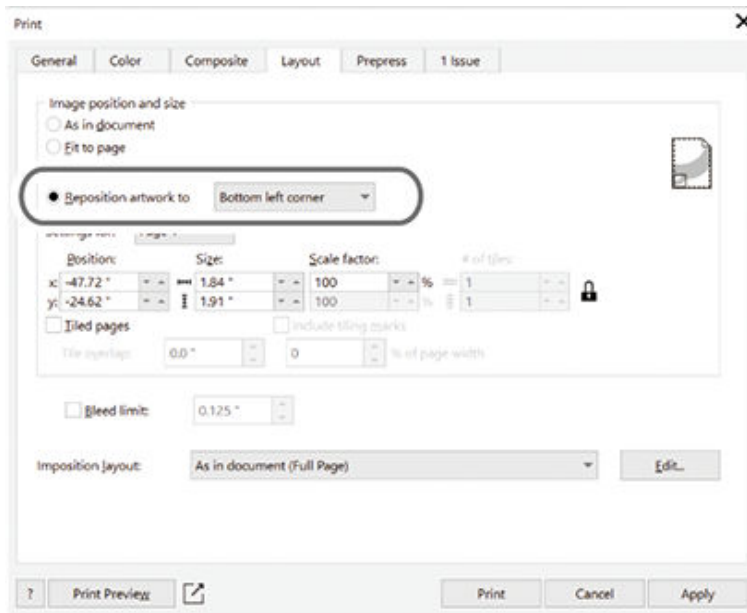
12. Click the [Color] tab.

13. Click the [Color conversions] pull-down menu, and then select [GR2-640] or [GR2-540].



14. Click the [Layout] tab.

15. Click the [Reposition artwork to] pull-down menu, and then select [Bottom left corner].



16. Click [Print].

The data is output and cutting starts.

Performing Perforated Cutting for All Cutting Lines

You can use all cutting lines sent to the cutting machine for perforated cutting. Select this method to use all cutting data for perforated cutting rather than changing some cutting data to perforated lines.

Procedure

1. Press [MISC].

If material is loaded, press [ON/OFF LINE] to switch to offline mode.

2. Press [▶] several times to display the screen shown below.

The current setting is displayed.

```
Die/Kiss Cut : OFF ▲
Select: ◀ OK:ENTER ▼
```

3. If "Die/Kiss Cut" is "OFF", press [▲] or [▼] to switch "Die/Kiss Cut" to "ON".

4. Press [ENTER].

5. Set the cutting lengths for "Die Cut" and "Kiss Cut".

```
Die/Kiss Cut: ▲▼◀▶
Length: XX / XX mm
```

(1) Press [◀] to select "Die Cut". Press [▶] to select "Kiss Cut".

(2) Press [▲] or [▼] to change the value.

6. Press [ENTER].

7. Set the blade forces for "Die Cut" and "Kiss Cut" on the following screen.

```
Die/Kiss Cut: ▲▼◀▶
Force: XXX g XXX g
```

(1) Press [◀] to select "Die Cut". Press [▶] to select "Kiss Cut".

(2) Press [▲] or [▼] to change the value.

8. Press [ENTER].

9. Press [ON/OFF LINE] to go back to the original screen.

MEMO

Default setting: "OFF"

Cutting length setting range (Die Cut/Kiss Cut): 0.1 to 100 mm/0.1 to 100 mm (changeable in 0.1 mm increments)

Blade force setting range (Die Cut/Kiss Cut): 5 to 600 gf/5 to 600 gf (changeable in 5 gf increments)

Optimizing Quality and Efficiency

Optimizing Cutting Quality

Dealing with Material Thickness/Hardness (Softness)	97
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Cutting the Corners Longer to Make It Easy to Detach Cutting Data (Over Cut).....	101
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Smoothly Cutting Arcs and Other Curves (Smoothing)	103
Preventing and Correcting Misaligned Cutting	104
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Dealing with Material Thickness/Hardness (Softness)

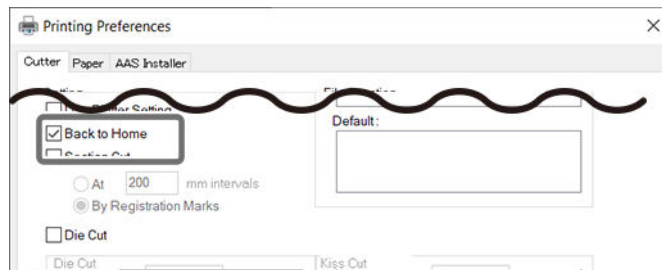
Overlap Cutting

This function allows you to cut thick material that cannot be cut in one go by returning the machine to the original position after the first run to repeat the same cutting process.

Setting Overlap Cutting Using the Printer Driver

Procedure

1. Start Adobe Illustrator or CorelDRAW.
2. Open the [Printing Preferences] window.
3. Select the [Cutter] tab, and then select the [Back to Home] check box.



MEMO

When you have finished configuring the settings, send a number of cutting jobs from the printer driver to match the number of overlap cutting processes.

RELATED LINKS

- [P. 49 Cutting with Adobe Illustrator](#)
- [P. 54 Cutting with CorelDRAW](#)

Setting Up Overlap Cutting with CutStudio

Procedure

1. Start CutStudio and create the cutting data.
2. Click  .
The [Cut] window appears.
3. Click [Overlap Cutting] and select the number of cut passes.
This does not include the initial cut. Specify the number of additional cut passes.
4. Click [Change].
The [Cutting Setup] window appears.

5. Click [Change].
The printer driver properties window appears.
6. In the [Cutting Setup] window, click [OK].
7. In the [Cut] window, click [OK].
The cutting data is output.

Setting Up Overlap Cutting with the Operation Panel

Using the operation panel, you can repetitively cut a preceding cutting job sent to the cutting machine.

MEMO

To send jobs from the printer driver, open the [Printing Preferences] window, and then select the [Back to Home] check box.

Procedure

1. Load the material and measure its size.

[P. 22 Loading the Material](#)

2. Press [ON/OFF LINE] to switch to offline mode.
3. Press [CUT TEST].
4. Press [▶] several times to display the screen shown below.

```
Redo Jobs in Memory
Select: ◀ OK:ENTER
```

5. Press [ENTER].

The current value is displayed on the screen.

```
Recut # 1 ▲
Select: ◀ OK:ENTER ▼
```

6. Press [▶] to select [Recut].
7. Press [▲] or [▼] to select the number of repetitions.
8. Press [ENTER].
Cutting starts. If you set the repetition count to 2 or higher, a confirmation message will appear at the end of the job, asking whether you want to execute the next job. Press [PAUSE/RESUME] to execute the next job.
9. When the cutting is finished, press [ON/OFF LINE] to go back to the original screen.

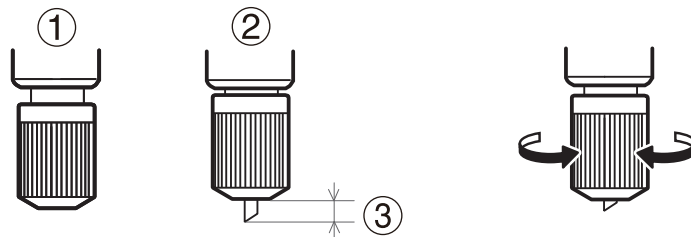
RELATED LINKS

- [P. 97 Setting Overlap Cutting Using the Printer Driver](#)

Adjusting the Cutting-in Amount

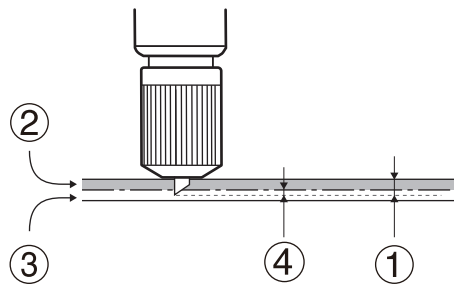
When you want to perform accurate and fine adjustment of the cutting-in amount, such as when cutting material with thin carrier paper, you can obtain good results by adjusting the amount of blade extension. Turn the cap portion of the blade holder to adjust the amount of blade extension.

The amount of blade extension (③) is 0 mm (①) at minimum and 2.5 mm (98.42 mil) (②) at maximum. An adjustment of 0.5 mm (0.02 in.) can be made by rotating the cap one full turn.



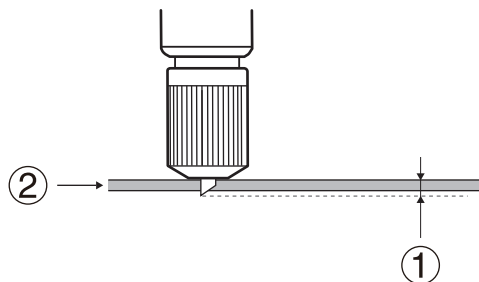
Rough estimate for the amount of blade extension:

Set the amount of blade extension (①) to an amount that is the sum of the thickness of the material portion (②) and half (④) the thickness of the carrier paper (③).



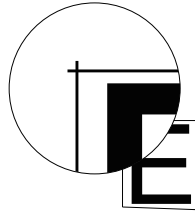
MEMO

If you are cutting perforated lines in material without carrier paper, set the amount of blade extension (①) so that when the cutter pierces the material (②), the blade extends slightly. Pushing the blade out too far will damage the blade and blade protector and hasten their deterioration, so exercise caution.



Cutting the Corners Longer to Make It Easy to Detach Cutting Data (Over Cut)

Cutting the top left corner of the cutting line slightly longer makes it easy to peel off the sticker. If the over cut function is enabled when cutting small characters or complex shapes, areas of the material that are required may be cut. Therefore, this function is turned off for normal use.



Procedure

1. Press [TOOL SELECT].
If material is loaded, press [ON/OFF LINE] to switch to offline mode.
2. Press [▶] to display the screen shown below.
The current value is displayed on the screen.

Over Cut 0.00 mm ▲
Select:◀ OK:ENTER▼
3. Press [▲] or [▼] to enter the over cut length.
4. Press [ENTER] to confirm your entry.
5. Press [ON/OFF LINE] to go back to the original screen.

MEMO

- Default setting: 0.00 mm
- Setting range: 0.00 to 3.00 mm (0.00 to 0.12 in.) (changeable in 0.05 mm [0.01 in.] increments)

Cutting Small Text and Complex Graphics Cleanly (Tangential)

Corners and edges are cut cleanly when the material is cut with the tool blade facing the direction of travel. This setting is effective for cutting intricate designs, small text, or thick materials. We recommend that you set this to "Enabled" for normal use.

Procedure

1. Press [TOOL SELECT].
If material is loaded, press [ON/OFF LINE] to switch to offline mode.
2. Press [▶] several times to display the screen shown below.

3. Press [ENTER].
The current value is displayed on the screen.
4. Press [▲] or [▼] to set this to "Enabled".
5. Press [ENTER] to confirm your entry.
6. Press [ON/OFF LINE] to go back to the original screen.

MEMO

Default setting: [Disabled]

Smoothly Cutting Arcs and Other Curves (Smoothing)

You can set the curves in cutting data sent to this machine to be smooth. Normally, the smoothing function is set to "Enabled", but in cases where you are cutting small text or intricate shapes, set the smoothing function to "Disabled" in order to prevent the corners from being cut rounded. We recommend that you also set this to "Disabled" when you need to increase productivity regardless of quality.

Procedure

1. Press [TOOL SELECT].
If material is loaded, press [ON/OFF LINE] to switch to offline mode.
2. Press [▶] several times to display the screen shown below.

3. Press [ENTER].
The current value is displayed on the screen.
4. Press [▲] or [▼] to set this to "Enabled".
5. Press [ENTER] to confirm your entry.
6. Press [ON/OFF LINE] to go back to the original screen.

MEMO

Default setting: [Enabled]

Preventing and Correcting Misaligned Cutting

Keeping Material in Place and Stabilizing Cutting Accuracy

Turn on the suction fan to hold the material in place during cutting so as to prevent the material from lifting up or otherwise moving out of place. Normally, it is recommended that you use the machine with the suction fan turned on; however, the suction fan should be turned off when using materials that are thin and/or not firm. The strength of suction cannot be changed.

Procedure

1. Press [MISC].
If material is loaded, press [ON/OFF LINE] to switch to offline mode.
2. Press [▶] several times to display the screen shown below.

3. Press [ENTER].
The current value is displayed on the screen.
4. Press [▲] or [▼] to switch between "Enabled"/"Disabled".
5. Press [ENTER] to confirm your entry.
6. Press [ON/OFF LINE] to go back to the original screen.

MEMO

Default setting: "Enabled"

Correcting Distance during Cutting Based on the Thickness of Material

This correction should be performed when you want to accurately align the lengths of the cuts in the X and Y directions when cutting. This setting is applied to both cutting only and printing and cutting.

The movement distance of the material changes subtly depending on the material's thickness. This means that the length of a line when cut may differ from the length set in the cutting data.

MEMO

It is possible to correct only the feed direction (X direction) or the width (Y direction).

Procedure

1. Create cutting lines for a design whose feed direction (X direction) and width (Y direction) are set to the specified lengths.

Create a simple design, such as a square.

[P. 46 Creating and Outputting Cutting Data](#)

Feed-direction (X direction) length	Width (Y direction) length
250 to 2000 mm (9.85 to 78.74 in.) (Create this in units of 250 mm [9.84 in.].)	250 mm/500 mm (9.84 in./19.69 in.)

2. Load the material in the machine.

[P. 22 Loading the Material](#)

3. Perform cutting output.

[P. 39 Cutting Method](#)

4. Measure the cut lengths (feed direction and width).

5. Press [MISC].

If material is loaded, press [ON/OFF LINE] to switch to offline mode.

6. Correct the output length in the material feed direction.

- (1) Press [▶] several times to display the screen shown below.

```
Image Scale Length
Select: ◀ OK:ENTER
```

- (2) Press [ENTER].

- (3) Press [◀] to select the number on the left and then press [▲] or [▼] to change the value to the feed-direction length created in step 1.

- (4) Press [▶] to select the number on the right and then press [▲] or [▼] to change the value to the feed-direction length actually cut.

- (5) Press [ENTER].

7. Correct the output length for the width.

- (1) Press [▶] to display the screen shown below.

```
Image Scale Width
Select: ◀ OK:ENTER
```

- (2) Press [ENTER].

- (3) Press [◀] to select the number on the left and then press [▲] or [▼] to change the value to 250 mm (9.84 in.) or 500 mm (19.68 in.) (length of width created in step 1).
- (4) Press [▶] to select the number on the right and then press [▲] or [▼] to change the value to the length of width actually cut.
- (5) Press [ENTER].

- 8. Press [ON/OFF LINE] to go back to the original screen.

Preventing Positioning Errors by Setting Material Feeding

Before starting cutting, set up the machine so that the material length necessary for cutting data is fed forward automatically beforehand, stabilizing the material feeding and preventing positioning errors. Also, feeding the material forward at the speed it is cut reduces the load on the motor. Be sure to set feeding for materials that require it.

IMPORTANT

This function is disabled when the [Single] mode is selected for material size measurement.

MEMO

Materials that Require Feeding

- Roll material
- Long, flat material that is longer than 1.6 m (63.00 in.)

Procedure

1. Press [MISC].

If material is loaded, press [ON/OFF LINE] to switch to offline mode.

The screen shown below appears.



Auto Unrolled Media
Select: ◀ OK:ENTER

2. Press [ENTER].

The current setting is displayed.



Disabled
Change: ▲ OK:ENTER

3. Press [▲] or [▼] to switch to "Enabled".

4. Press [ENTER].

The screen shown below appears.



Pre-feed Length
Select: ◀ OK:ENTER ▶

5. Press [ENTER].

The current setting is displayed.



Pre-feed 600 mm
N:OFFLINE OK:ENTER

6. Press [▲] or [▼] to set the material length required for the cutting data.

It is a good idea to set a value that is about 500 mm (19.69 in.) longer than the required material length.

7. Press [ENTER].

The screen shown below appears.



Pre-feed Times ▲
Select: ◀ OK:ENTER ▶

8. Press [ENTER].

The current setting is displayed.



Times 1
N:OFFLINE OK:ENTER

9. Press [▲] or [▼] to set the number of test feeds.

The greater this number, the better positioning errors will be prevented.

10. Press [ENTER].

11. Press [ON/OFF LINE] to go back to the original screen.

MEMO

Default setting:

- "Auto Unrolled Media": "Enabled"
- "Pre-feed Length": 500 mm (19 in.)
- "Pre-feed Times": 1

Setting range:

- "Pre-feed Length": 500 to 15000 mm (19 to 590 in.) (changeable in 100 mm [4 in.] increments)
- "Pre-feed Times": 1 to 5

RELATED LINKS

- [P. 35 Measuring the Material Size](#)

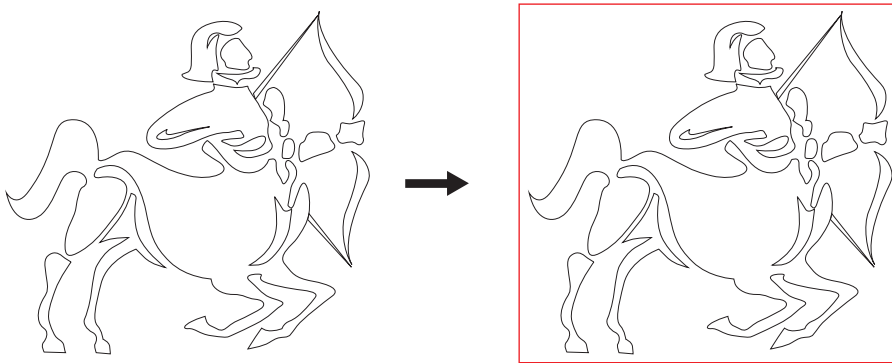
Working Efficiently

Making Weeding Easier.....	110
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Making Weeding Easier

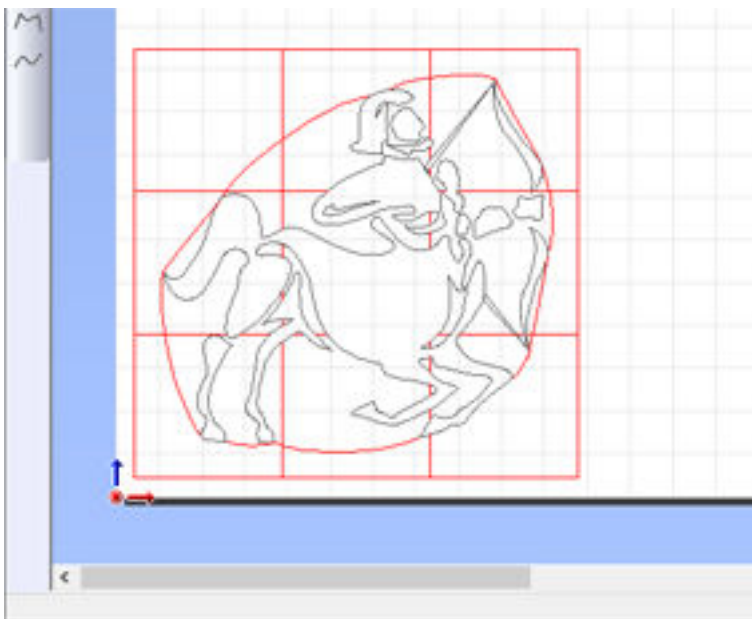
Cutting the material in the removal area into small pieces will make weeding easier.

Surround the cutting data with a rectangle or circle to reduce the area of the material being peeled off. This is an effective method regardless of the software being used to create the cutting data.



CutStudio includes a function for adding weeding lines.

By determining which material should be left and which should be peeled off, such as when an object is placed within another object, the software can automatically determine where the weeding lines should be placed. For more information on the function, refer to the CutStudio help.

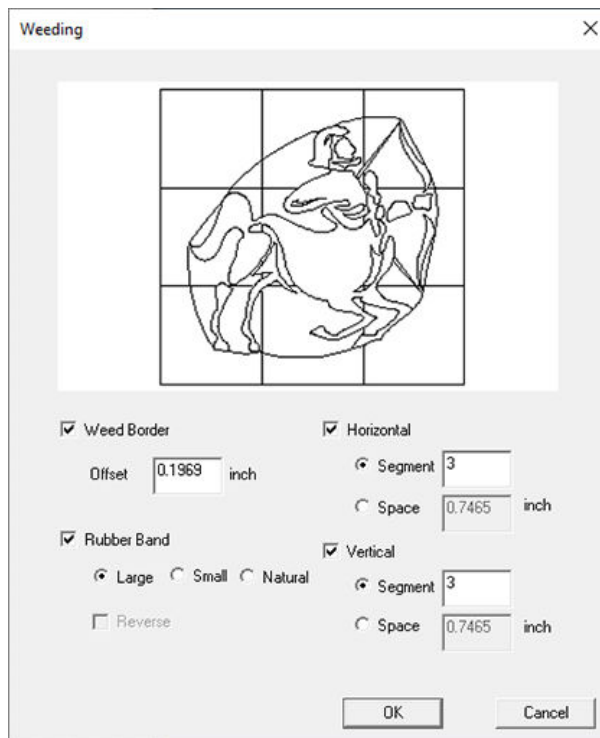


MEMO

The red lines are the added weeding lines. Although the lines are displayed in color here for easy identification, the weeding lines are not colored in CutStudio.

Procedure

1. Select an object to apply weeding lines to.
2. Click [Object]>[Weed].
The [Weed] window appears.
3. Select the check box for the type of weeding line to use, and configure the settings accordingly.



4. Click [OK].

Using the Material with Minimal Waste

Cutting Remaining Unused Material

Set the origin to be used as the cutting start position to anywhere in the output area. You can cut without setting the origin, but setting the output area allows you to use material without being wasteful, and also to cut targeted locations.

Procedure

1. Check that the material has been properly loaded and set up.
2. Press [◀], [▶], [▲] or [▼] to move the cutting carriage to the location you want to set as the origin.

MEMO

The origin point can be set in either online mode or offline mode.

3. Press [ENTER].
The origin point (cutting start location) is set.

RELATED LINKS

- [P. 22 Loading the Material](#)

Expanding the Cutting Area

Extending the cutting area allows for maximum material usage.

Procedure

1. Press [MISC].

If material is loaded, press [ON/OFF LINE] to switch to offline mode.

2. Press [▶] several times to display the screen shown below.

```
Paper Saving Mode
Select: ◀ OK:ENTER
```

3. Press [ENTER].

The current setting is displayed.

4. Press [▲] or [▼] to select the mode of extension.

NORMAL	Both Unexpanded Mode Change: ▲▼ OK:ENTER	Do not extend the length (X direction) or width (Y direction)
Length Expanded Mode	Length Expanded Mode Change: ▲▼ OK:ENTER	Extend the length (X direction)
Width Expanded Mode	Width Expanded Mode Change: ▲▼ OK:ENTER	Extend the width (Y direction)
Both Expanded Mode	Both Expanded Mode Change: ▲▼ OK:ENTER	Extend both the length (X direction) and width (Y direction)

5. Press [ENTER] to confirm your entry.

The screen shown below appears. If material is loaded, the size must be measured again. Raise the lever and measure the material.

```
Place Media And Then
Lower Down The Lever
```

MEMO

- Default setting: "Both Unexpanded Mode"
- Extended range:
 - Width: 20 mm (0.79 in.)
 - Length (feed direction): 50 mm (1.97 in.)

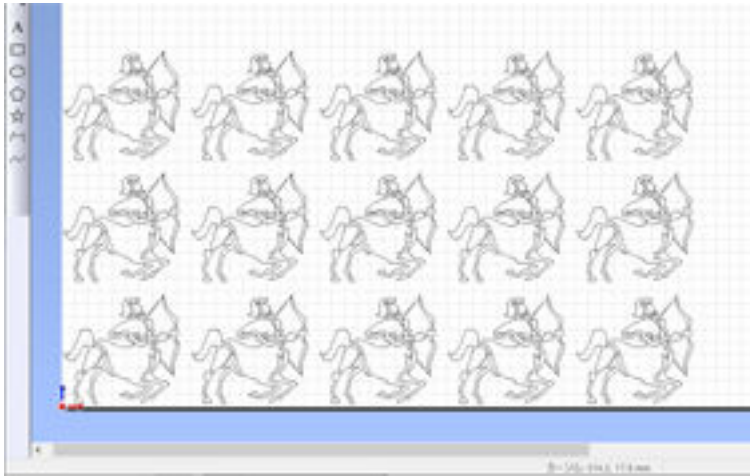
RELATED LINKS

- [P. 35 Measuring the Material Size](#)

Creating Multiple Copies of the Same Object

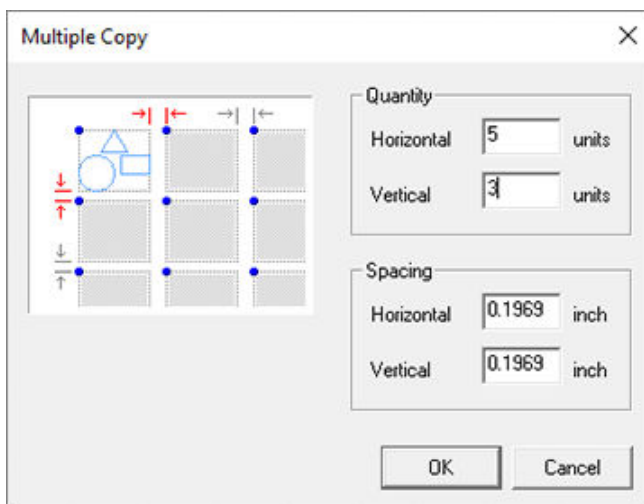
Use the "Multiple Copy" function in CutStudio.

This function makes it possible to specify the gap between objects and is ideal for creating multiple copies of the same cutting data.



Procedure

1. Select the object to copy.
2. Click [Edit]>[Multiple Copy].
The [Multiple Copy] window appears.
3. Enter the number of objects to be included and the spacing between the objects.



4. Click [OK].

Reusing Cutting Conditions

To save the time spent on setting up cutting conditions for every material changeover, you can save the cutting conditions for frequently used materials as presets. The next time you use the same material, you can change the settings to those suitable for the material simply by loading the preset you saved.

Saving Cutting Conditions to the Machine for Reuse

1. Save the cutting conditions

Up to four sets of cutting conditions, which include blade force, cutting speed, and offset, can be saved from the panel of this machine.

Procedure

1. Press [TOOL SELECT].

If material is loaded, press [ON/OFF LINE] to switch to offline mode.

The number of the currently applied preset is displayed. Normally 1 is displayed if no presets are registered.

MEMO

Preset names are fixed with numbers 1 through 4, and cannot be changed.



1 S 30 F 80 0 0.275 ▲
Select:◀ OK:ENTER▼

2. Press [▼] to select your desired preset number.

Register cutting conditions to the number selected here.

3. Press [ENTER].

4. Edit the cutting conditions: [SPEED], [FORCE], and [OFFSET].

The cutting conditions are saved to the selected preset number.

[P. 43 Adjusting the Cutting Conditions](#)

2. Apply the saved cutting conditions

You can select a preset saved on the operation panel and apply it.

Procedure

1. Press [TOOL SELECT].

If material is loaded, press [ON/OFF LINE] to switch to offline mode.

The number of the currently applied preset is displayed.



1 S 30 F 80 0 0.275 ▲
Select:◀ OK:ENTER▼

2. Press [▼] to select the number of the preset for the cutting conditions you want to apply.

3. Press [ENTER].

Saving Cutting Conditions to the Printer Driver for Reuse

1. Save the cutting conditions.

You can save cutting conditions and cutting method settings to the printer driver.

Procedure

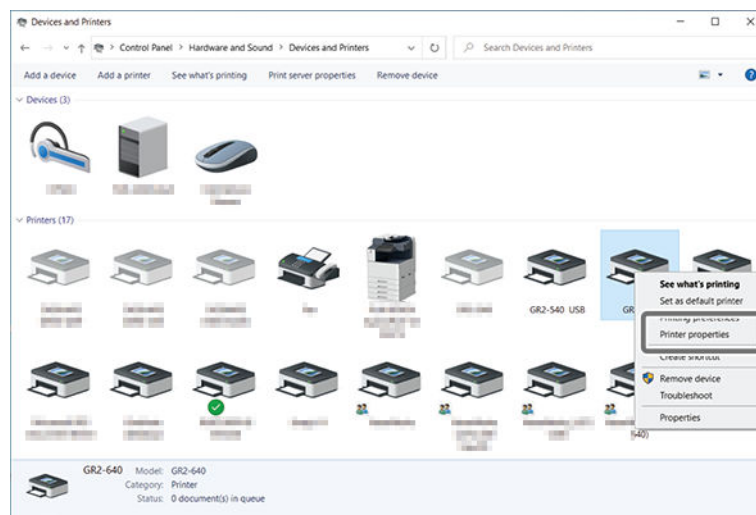
1. Display the driver's properties.

(1) Display the list of devices and printers.

- Windows 11:
 - i. Click [Start]>[Settings].
 - ii. Click [Bluetooth & devices]>[Devices]>[More devices and printer settings].
- Windows 10:
 - i. Click [Start]>[Window System]>[Control Panel].
 - ii. Click [View devices and printers].

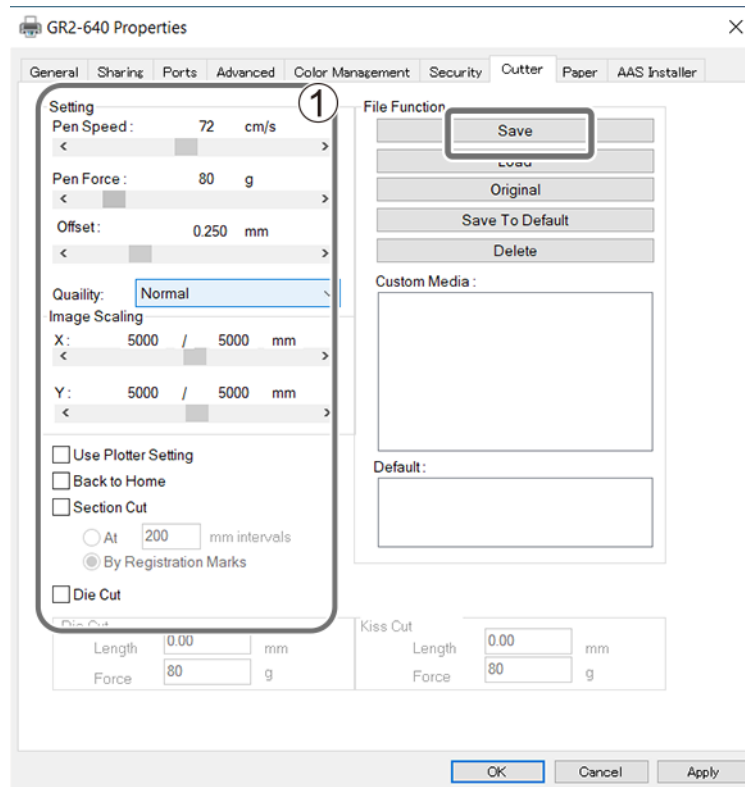
(2) Right-click the icon of this machine.

(3) Click [Printer properties].



(4) Switch to the [Cutter] tab in the [Printer properties] window.

- #### 2. Edit the cutting conditions and cutting method settings (①) and click [Save] under [File Function].
- Click [Save] to open the window for saving the preset file. Select a folder of your choice.



3. Enter a file name and save the file.

When naming the file, include the name of the material so that it is easy to distinguish it from other files. The file will have the extension GR2.

MEMO

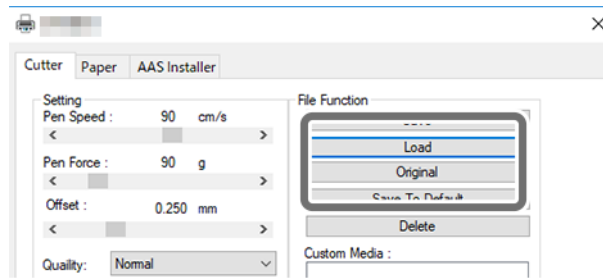
To delete a preset file, manually delete it from the folder.

2. Apply the saved cutting conditions

When sending a cutting job to the machine, open the printer driver properties window and load the settings saved in a preset.

Procedure

1. Start CutStudio.
2. Click [File]>[Open] to open the data for cutting.
3. Click [File]>[Cutting Setup].
The [Cutting Setup] window appears.
4. Click [Change].
The printer driver properties window appears.
5. Display the [Cutter] tab.
6. Click [Load] under [File Function].



When loading the factory default settings (default settings), click [Original].

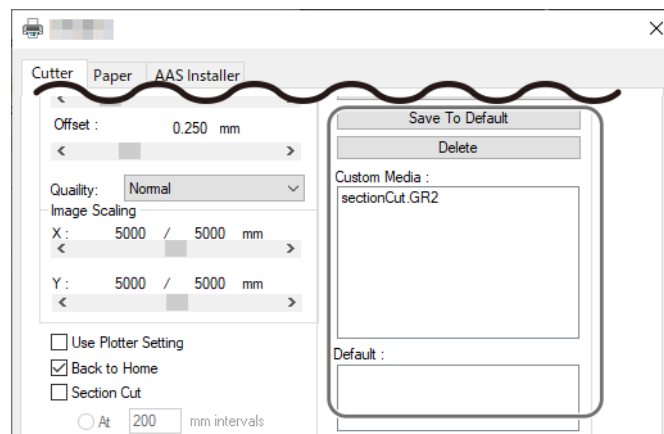
7. Select the preset file you want to load, and then click [Open].

The values of the selected preset are applied.

To display the current setting values in the printer driver properties window after launching the app, click [Save To Default].

MEMO

The saved preset is displayed in [Custom Media]. You can also double-click [Custom Media] to apply the preset. To delete the display of a preset from [Custom Media], click [Delete].



8. Click [OK] to close the printer driver properties window.

9. Click [OK].

Reducing Output Time

Setting the Up Speed for Cutting

This setting lets you set the speed for moving the blade to the next cutting position with the blade lifted off the material during cutting operation. Using a faster up speed can shorten output time. If the material comes loose during no-load feeding and the blade damages the surface of the material, reduce the speed.

Procedure

1. Press [SPEED].
If material is loaded, press [ON/OFF LINE] to switch to offline mode.

2. Press [▶] several times to display the screen shown below.

The current value is displayed on the screen.

```
UP Speed: 72 cm/s ▲  
Select: ◀ OK: ENTER ▶
```

3. Press [▲] or [▼] to set the up speed for moving the blade to the next cutting data.
4. Press [ENTER] to confirm your entry.
5. Press [ON/OFF LINE] to go back to the original screen.

MEMO

- Default setting: 72 cm/s (28.34 in./s)
- Setting range: 3 to 153 cm/s (1.18 to 60.23 in./s) (changeable in 3 cm/s [1.18 in./s] increments)

RELATED LINKS

- [P. 120 Setting the Acceleration Level for Up Speed](#)

Setting the Acceleration Level for Up Speed

Set the blade's up speed during cutting (the speed at which the blade travels horizontally when it moves to the next cutting line after cutting one cutting line), and then set the blade acceleration.

Procedure

1. Press [SPEED].

If material is loaded, press [ON/OFF LINE] to switch to offline mode.

2. Press [▶] several times to display the screen shown below.

The current value is displayed on the screen.



UP Accel.: Medium ▲
Select: ◀ OK:ENTER ▼

3. Press [▲] or [▼] to select the acceleration level.

You can select from three acceleration levels: "High", "Medium", and "Low".

4. Press [ENTER] to confirm your entry.

5. Press [ON/OFF LINE] to go back to the original screen.

MEMO

Default setting: "Medium"

RELATED LINKS

- [P. 119 Setting the Up Speed for Cutting](#)

Setting the Crop Mark Detection Speed for the AAS Sensor

Set the crop mark reading speed to be used when printing and cutting.

Procedure

1. Press [SPEED].
If material is loaded, press [ON/OFF LINE] to switch to offline mode.

2. Press [▶] several times to display the screen shown below.

The current value is displayed on the screen.

```
AAS Speed:Medium ▲
Select:◀ OK:ENTER▼
```

3. Press [▲] or [▼] to select the crop mark detection speed.
You can choose from two levels of AAS detection speed: "Medium" and "Low".
4. Press [ENTER] to confirm your entry.
5. Press [ON/OFF LINE] to go back to the original screen.

MEMO

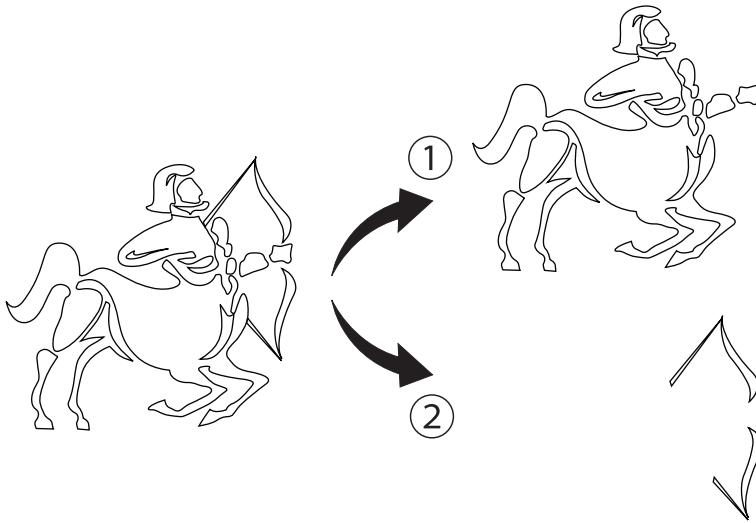
Default setting: "Medium"

RELATED LINKS

- [P. 65 Creating and Outputting Data](#)

Outputting Only the Line for Cutting

To output data only for perforated cutting later, or to combine different colored sheets into a single product, you may want to specify the lines to be used for cutting.



①	First output
②	Second output

In Adobe Illustrator or CorelDRAW, you can select whether to create paths in layers or to output only for individual layers.

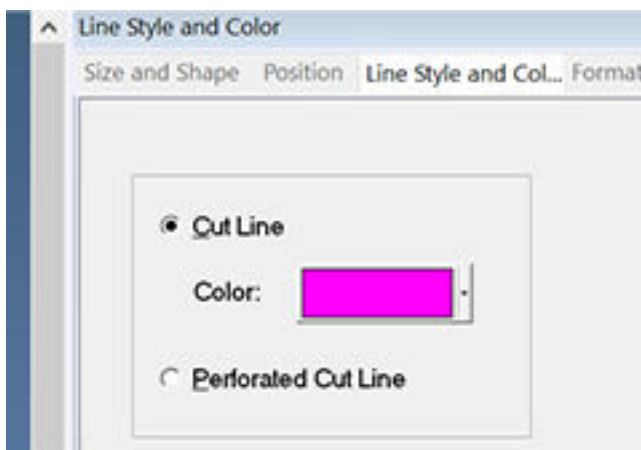
The method for doing so varies according to the software, such as selecting the target layer before output, or specifying whether the layer itself should be printed or not. For more information on operation, refer to the documentation for the software you are using.

CutStudio includes a function for sorting output data by line color.

You can color lines beforehand and choose which color lines to output.

Procedure

1. Select an object to apply color to.
2. Click the [Line Style and Color] tab on the docking panel.
3. Click [Color] under [Cut Line], and select the color you want to specify.
Set the same color to cutting lines you want to output together.



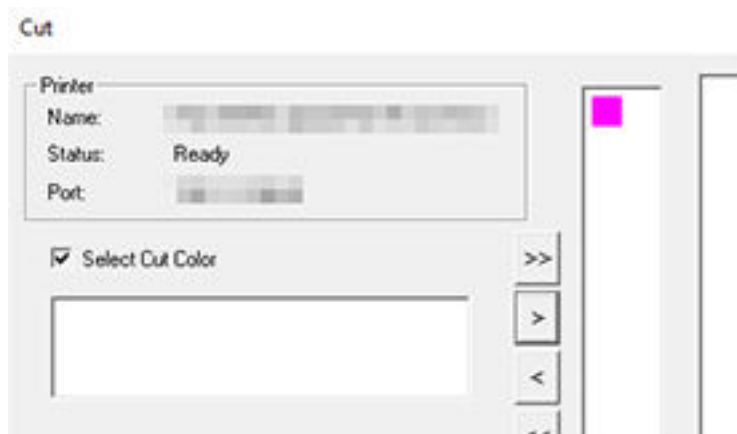
4. Click .

The [Cut] window appears.

5. Select the [Select Cut Color] check box.

6. Click the color you want to cut in order to select it, and then click .

You can specify multiple colors. If you also want to cut other colors, perform the same operations.



7. Click [OK].

Only the selected cutting line is output.

Performing Cutting Again

You can repetitively cut a preceding cutting job sent to the cutting machine for the specified number of times.

Procedure

1. Load the material and measure its size.
[P. 22 Loading the Material](#)
2. Press [ON/OFF LINE] to switch to offline mode.
3. Press [CUT TEST].
4. Press [▶] several times to display the screen shown below.

```
Redo Jobs in Memory
Select:◀ OK:ENTER
```

5. Press [ENTER].
The current value is displayed on the screen.

```
Recut # 1▲
Select:◀ OK:ENTER▼
```

6. Press [▶] to select "Copy".

```
Copy # 1▲
Select:◀ OK:ENTER▼
```

7. Press [▲] or [▼] to select the number of repetitions.
8. Press [ENTER].
Cutting starts for the specified number of times.
9. When the cutting is finished, press [ON/OFF LINE] to go back to the original screen.

RELATED LINKS

- [P. 46 Creating and Outputting Cutting Data](#)
- [P. 97 Setting Overlap Cutting Using the Printer Driver](#)

Cutting All at Once after Printing

Use the AAS plug-in to print material with several crop marks and then repeat the cutting process using a cutting machine for the number of printed materials. Doing so eliminates the need to output the cutting data each time by repeating the cutting process using only the first cutting data sent.

Procedure

1. Print as many sheets with crop marks as necessary.
 - Adobe Illustrator [GR2-640 User's Manual \(Users of GreatCut-R\) - Setting Crop Marks in Cutting Data - Setting Crop Marks with the AAS Plug-in \(Adobe Illustrator\)](#)
 - CorelDRAW [GR2-640 User's Manual \(Users of GreatCut-R\) - Setting Crop Marks in Cutting Data - Setting Crop Marks with the AAS Plug-in \(CorelDRAW\)](#)

2. Load the material and measure its size.

[P. 22 Loading the Material](#)

3. Send cutting data to the printer and perform cutting.

Adobe Illustrator [2. Perform cutting\(P. 50\)](#)

CorelDRAW [2. Perform cutting\(P. 55\)](#)

4. Remove the cut material.

5. Load the next material and measure its size.

[P. 22 Loading the Material](#)

6. Press [ON/OFF LINE] to switch to offline mode.

7. Press [CUT TEST].

8. Press [▶] several times to display the following screen.



```
Repeat AAS Job
Select:◀ OK:ENTER
```

9. Press [ENTER].

The screen shown below appears. Cutting starts after the crop marks are read.



```
AAS Detecting
OK:ENTER
```

10. Repeat steps 4 to 9 for the number of printed sheets.

Maintenance

Cleaning and Replacing Consumable Parts

- Cleaning the Machine 128
 - Cleaning the Parts that Come into Contact with the Material 128
 - Cleaning the Blade Holder Cap..... 130
- Replacing Consumable Parts 131
 - Replacing the Blade..... 132
 - Replacing the Blade Protector 134

Cleaning the Machine

Clean this machine periodically to ensure use under optimal conditions.

⚠ WARNING

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

Sudden movement of the machine may cause injury or burns.

⚠ WARNING

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

Doing so may cause a fire.

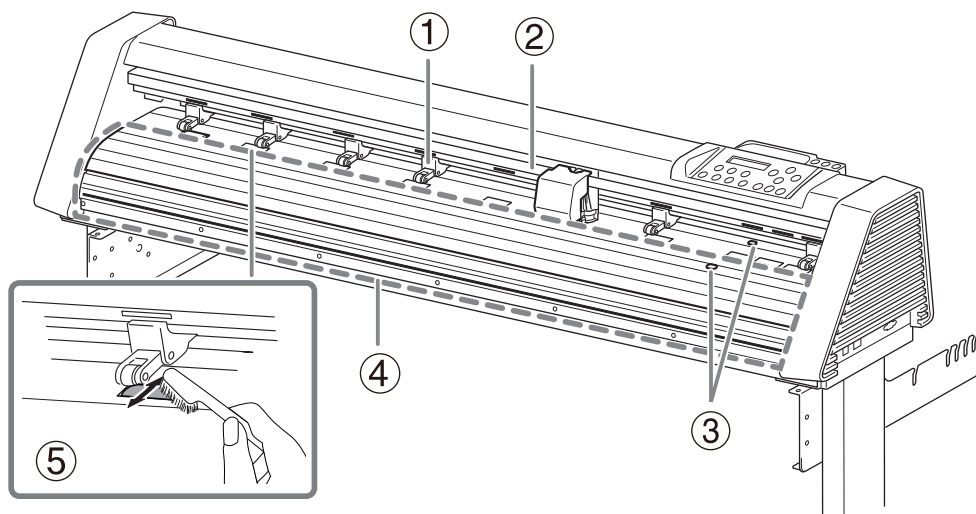
IMPORTANT

Disconnect the power cord before starting cleaning.

Do not use solvents, detergents with abrasive components, or strong cleansers. Using such cleaning products may cause damage to the surface of the cutting machine or movable parts.

Cleaning the Parts that Come into Contact with the Material

Wipe off dirt and grime with a cloth moistened with water and then wrung out firmly.



①	Pinch roller	Hold the roller with your hand so that it does not turn, and wipe off grime and material scraps from the rubber part of the pinch roller. Then, wipe clean with a dry cloth.
②	Carriage rail ^{*1}	Wipe away any dust and grime.
③	Paper sensors	After wiping away dust and grime, wipe clean with a dry cloth.
④	Platen	After wiping away dust and grime, wipe clean with a dry cloth.
⑤	Grit roller ^{*1}	After raising all of the pinch rollers, turn the grit roller while using a brush ^{*2} to remove dust from the surface.

^{*1} When cleaning, move the cutting carriage away from where you are cleaning.

*2 Do not use a metal brush.

Cleaning the Blade Holder Cap

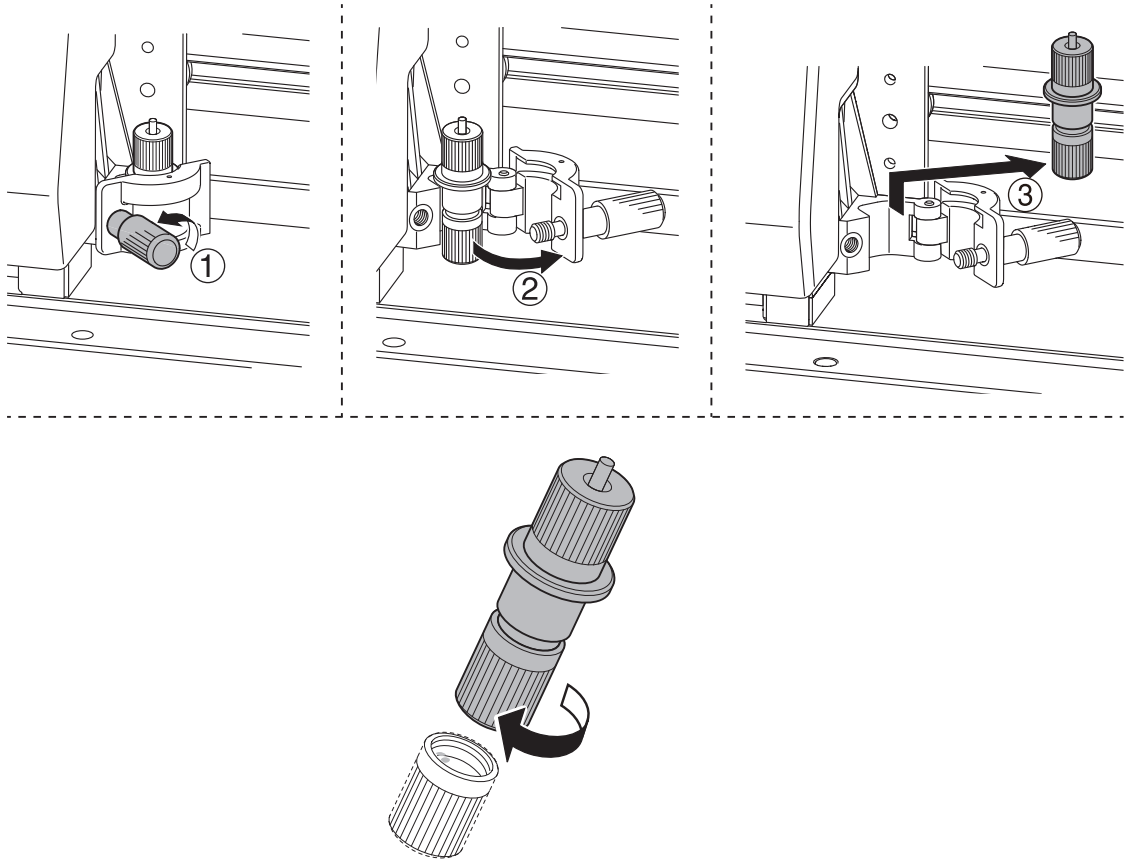
When a blade holder has been used for many hours, the bearing that supports the blade deteriorates, making it more difficult for the blade to turn. If you continue to use a blade holder that has deteriorated in this fashion, the machine will not cut cleanly because the tip of the blade will not turn smoothly. Also, if pieces of material or dust build up inside the blade holder cap, corners and curves will not be cut cleanly or the cuts will be perforated lines. In this situation, clean the blade holder cap.

⚠ CAUTION

Never touch the tip of the knife.

Doing so may result in injury. The cutting performance of the blade will also be impaired.

Loosen the cap to remove it, and remove any buildup of material or dust inside the cap.



MEMO

If cleaning the blade holder cap fails to improve cutting, replace the blade holder with a new one.

Replacing Consumable Parts

To purchase consumable items, visit the Roland DG Corporation website (<https://www.rolanddg.com/>) or contact your authorized Roland DG Corporation dealer.

Blade

In the cases below, the blade has reached the end of its service life. Replace with new items.

- The tip of the blade is broken.
- Uncut areas remain even though the blade force has been increased to 50 to 60 gf.
- The cutting edge is dull.
- The material starts to curl up from the carrier paper when cutting detailed areas or corners.
- The tip of the blade has worn down due to long-term use or cutting hard material.

Blade holder

After the tip of the blade has been adjusted, the cap of the blade holder rubs against the material when cutting, causing the end of the cap to gradually wear away. As the cap becomes increasingly worn it becomes impossible to adjust the tip of the blade correctly, and clean cutting is no longer possible. When this happens, replace the blade holder with a new one.

Blade protector

In the cases below, replace the blade protector.

- The surface of the blade protector is deformed due to scratching or similar damage.
- The blade protector has deteriorated to the point it is falling apart.

Replacing the Blade

If the blade becomes dull, replace it with the included replacement blade.

⚠ WARNING

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

Sudden movement of the machine may cause injury or burns.

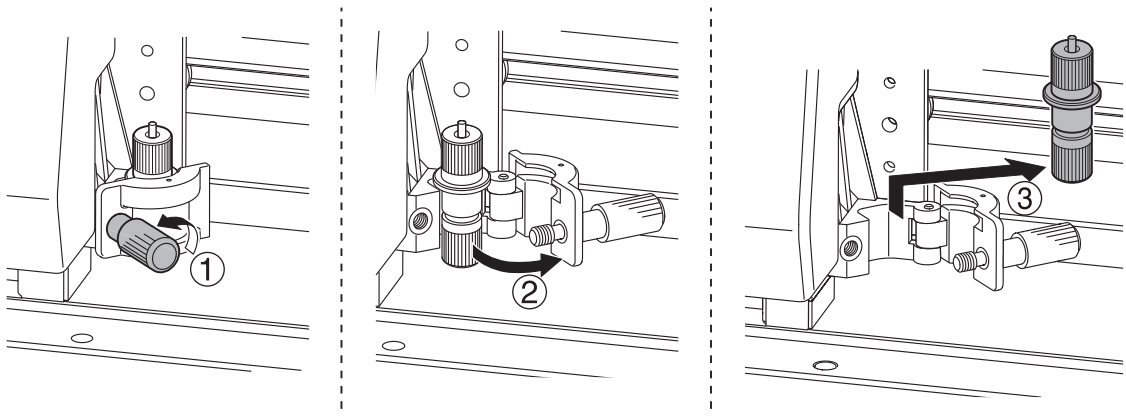
⚠ CAUTION

Never touch the tip of the knife.

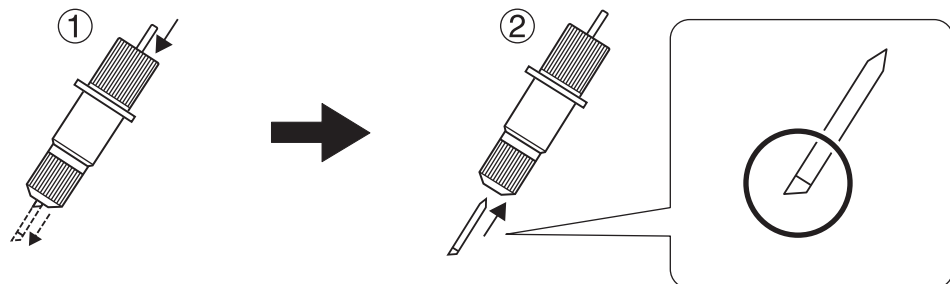
Doing so may result in injury. The cutting performance of the blade will also be impaired.

Procedure

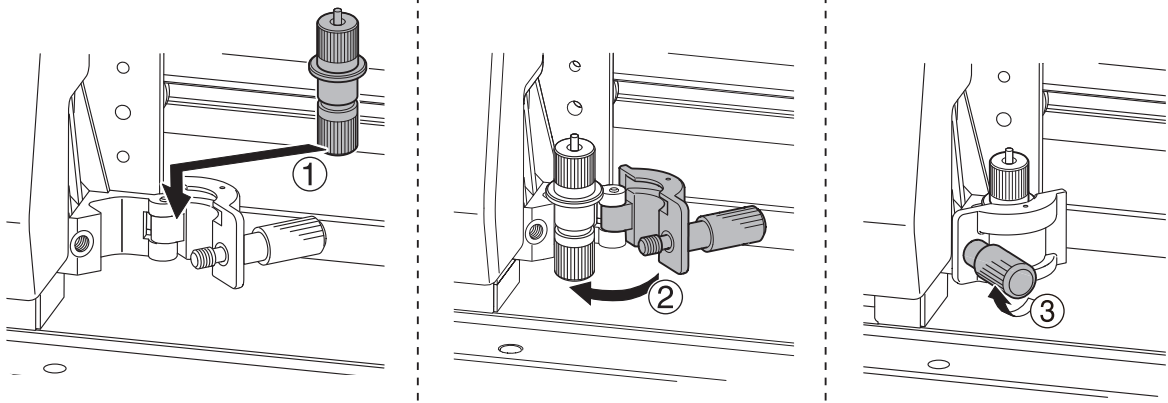
1. Remove any material loaded in the machine.
2. Detach the cutting tool.



3. Replace the blade.
 - (1) Press the pin to push out the old blade.
 - (2) Insert a new blade.



4. Install the cutting tool in the cutting carriage.



5. Ensure that the screw is tightened.

RELATED LINKS

- [P. 36 Remove the Material](#)
- [P. 100 Adjusting the Cutting-in Amount](#)

Replacing the Blade Protector

If cutting is performed when the amount of blade extension or the blade force is not adjusted appropriately, the tip of the blade may pierce the carrier paper and scratch the blade protector. Replace the blade protector with the cutting pad supplied with this machine.

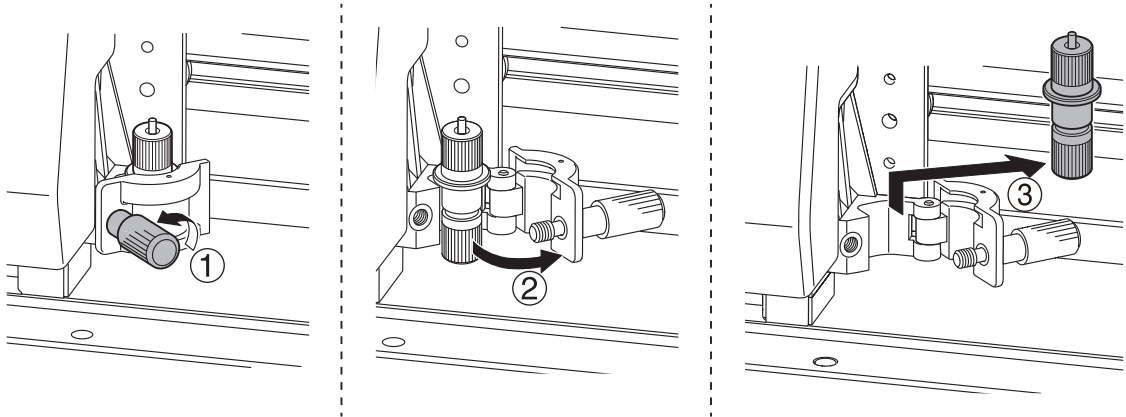
⚠ CAUTION

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

Sudden movement of the machine may cause injury or burns.

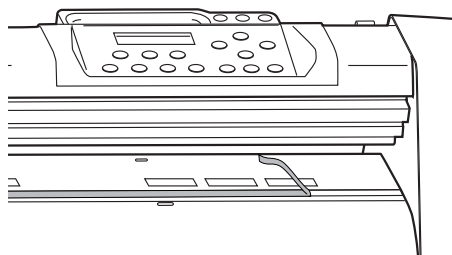
Procedure

1. Remove the material.
Raise the lever.

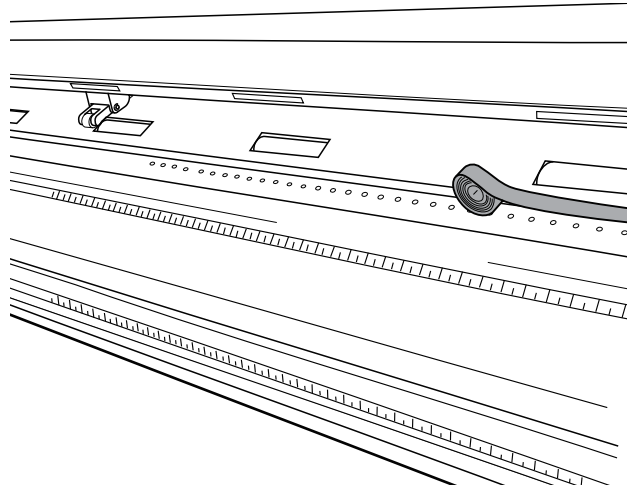


2. Move the cutting carriage to the edge.

3. Remove the blade protector.



4. Affix the cutting pad where the blade protector was, ensuring that it is straight.



AAS Offset Test

Running an AAS Offset Test 137

Adjusting the AAS Offset 139

Running an AAS Offset Test

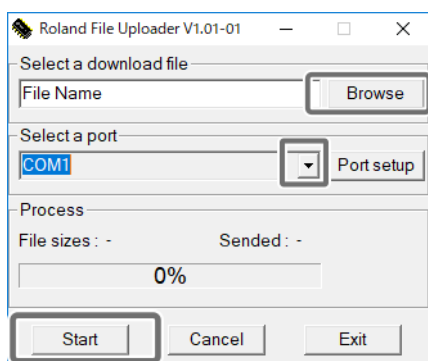
The AAS sensor's reading of crop marks may be out of position if the cutting carriage sustained a strong impact. If this is the case, send the AAS offset test file data to the machine from a computer on which File Uploader is installed and run an AAS offset test.

MEMO

The blade offset value is set for the AAS offset test. Enter the offset value according to the blade being used.

Procedure

1. Print any data stored in the downloaded AAS offset test file with a high-precision printer.
 - AASII_X_Y_Offset_Caberation_A4.eps (A4 size)
 - AASII_X_Y_Offset_Caberation_600_600.eps (Default settings data recommended for test use)
2. Turn on the power to the machine.
3. Load the material printed in step 1 in the machine.
Ensure that the material is loaded with the crop mark origin at the front right.
[P. 22 Loading the Material](#)
[P. 169 Setting the Margins and the Distance between Crop Marks](#)
4. Press [◀], [▼], [▲], and/or [▶] to move the cutting carriage close to the crop mark origin.
[P. 112 Cutting Remaining Unused Material](#)
5. Connect this machine and the computer with a USB cable.
6. Start File Uploader.
7. Select the transmission file and port for sending the file to the machine.
 - (1) Press [Browse] and select the prn file with the same conditions as the print data.
 - (2) Select the port for the cutting machine from the [Select a port] pull-down list.



8. Click [Start].
The AAS offset test data is sent to the machine and cutting starts.
9. Check the AAS offset test result.
If there is any deviation in the intersections of printed lines and cut lines, adjust the AAS offset.

RELATED LINKS

- [P. 139 Adjusting the AAS Offset](#)

Adjusting the AAS Offset

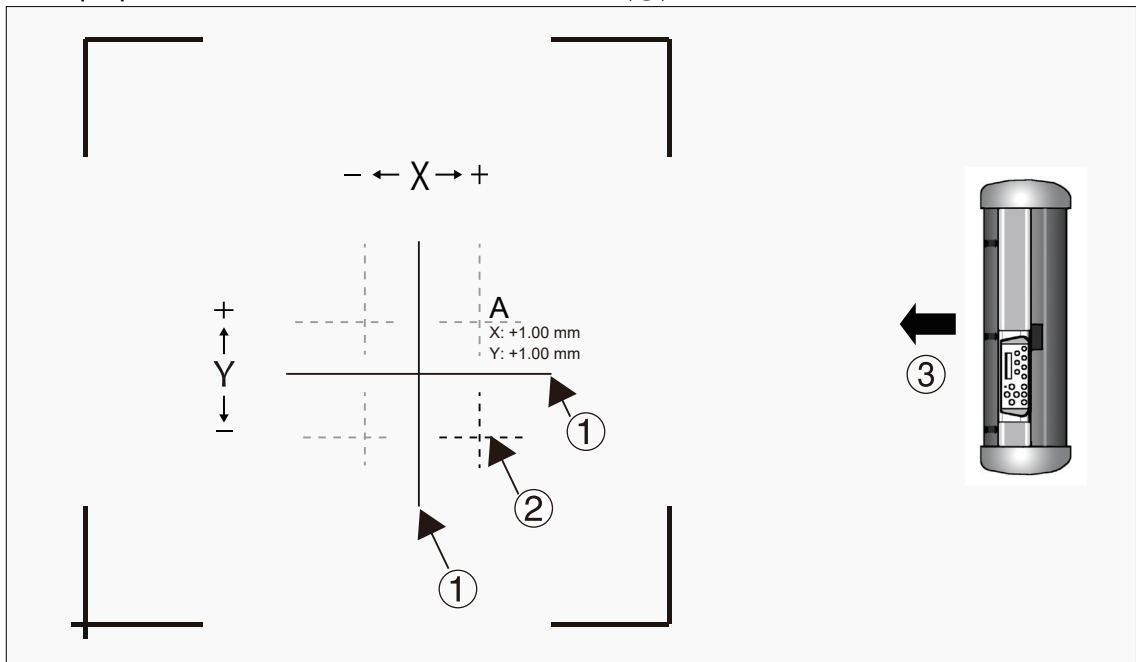
If a shift has been found as a result of an AAS offset test, adjust the deviations in the width and length.

Procedure

1. Measure how much the cutting line (②) shifted using the printed lines (①) as a reference.

AAS offset test result

- Line parallel to the material-feed direction (③): X
- Line perpendicular to the material-feed direction (③): Y



2. Press [MISC].
If material is loaded, press [ON/OFF LINE] to switch to offline mode.

3. Press [▶] several times to display the screen shown below.

```
AAS Offset
Select: ◀ OK:ENTER
```

4. Press [ENTER].

5. Press [▶] to move the cursor to X or Y, and then enter the offset value using [▲] or [▼].

```
AAS Offset      mm
▶ X: -1.000    Y: 1.000
```

If the result is shifted to the positive direction, enter a negative offset. If the result is shifted to the negative direction, enter a positive offset. In the case of (A) in the sample AAS offset test result above, -1.00 is entered for both X and Y.

6. Press [ENTER].
7. Press [ON/OFF LINE] to go back to the original screen.
8. Run an AAS offset test again.

RELATED LINKS

- [P. 137 Running an AAS Offset Test](#)

What to Do If

Machine Problems

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 - Is the power switched on? 143
 - Is the POWER LED light on? 143
 - Are the communication settings correct? 143
 - Is the machine in online mode? 143
 - Are the software application settings correct?..... 143
- Cutting Data Cannot Be Sent from the Operation Application 144
 - Has a communication error occurred? 144

The Machine Doesn't Run

Are cables connected?

Check that the power cord and the communication cable to the computer are connected correctly.

Is the power switched on?

If not, turn on the machine power.

Is the POWER LED light on?

Turn off the power to the machine and then turn it back on again. After turning on the power, if the LED light does not light up and the menu does not appear on the display of the operation panel, contact your authorized Roland DG Corporation dealer.

Are the communication settings correct?

If the cable connections are secure and no problem is found in the network, 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 machine's IP address set during the driver's installation process does not conflict with the IP address for another device on the network, that the machine's IP address is specified on the computer, that the output port and device are correctly specified and the settings are correct, and for other problems.

Is the machine in online mode?

If the display shows that the machine is in offline mode, cutting is not performed even when data is sent.

Press **[ON/OFF LINE]** to switch to online mode.

If material is not loaded, the machine cannot be switched to online mode. Load the material.

RELATED LINKS

- [P. 22 Loading the Material](#)

Are the software application settings correct?

Select the appropriate driver for the machine. For the selection procedure, refer to the manual for the application software.

Cutting Data Cannot Be Sent from the Operation Application

Has a communication error occurred?

Cutting data cannot be sent to the machine if communication is unstable or if a communication error has occurred.

If this data is not sent, change the way the machine and computer are connected.

- If the machine and computer are connected through a USB port, change the port that is used or connect over Ethernet.
- If the machine and computer are connected over a LAN, connect them through a USB port.

Cutting Output Problems

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Crop Marks Are Not Detected

Is the material loaded correctly?

Make sure that the material is loaded and set up correctly.

RELATED LINKS

- [P. 22 Loading the Material](#)

Are you using material that is not white or is glossy?

Crop marks cannot be detected if decorations or colors are on the material. Crop marks also cannot be detected on glossy material even if it is white.

Prepare a white, matte (minimally glossy) material and redo the process from the printing step.

RELATED LINKS

- [P. 10 Conditions for Usable Materials](#)

Are you using a transparent material?

Crop marks cannot be detected on transparent material. Change the material you are using.

RELATED LINKS

- [P. 10 Conditions for Usable Materials](#)

Does the material have creases or wrinkles?

Crop marks may not be read if the material has creases or wrinkles.

Stretch the creases or wrinkles out and load the material again. If the crop marks still fail to be read, prepare new material without creases or wrinkles and repeat the operation from printing the data.

Are the crop marks blurred or are they in a color other than black?

Set the color of crop marks to black, specify 100% printing density on your printer, and print the data again.

RELATED LINKS

- [P. 65 Creating and Outputting Data](#)

Are the crop marks at the correct positions?

Place the crop marks at the correct positions.

RELATED LINKS

- [P. 169 Setting the Margins and the Distance between Crop Marks](#)

Is direct sunlight or high intensity indoor light hitting the machine?

If direct sunlight or indoor light hits the cutting carriage sensor, crop marks may not be detected. Move the machine to a location where it is not exposed to direct sunlight or indoor lighting.

Is the material loaded and set up straight and securely? Are the printing results crooked?

Crop marks cannot be detected if the second crop mark is angled beyond the allowable range in reference to the crop mark origin.

Ensure that the material is loaded or printed with straight crop marks.

RELATED LINKS

- [P. 24 Loading Material](#)

Are the size and shape of crop marks correct?

The machine can only detect crop marks in the prescribed shape.

Generate crop marks using CutStudio, VersaWorks, or the AAS plug-in.

RELATED LINKS

- [P. 168 Crop Mark Types](#)

Is the printing expanded or reduced?

If the size is expanded or reduced when printing, the crop marks cannot be read when cutting.

Print the data by specifying 100% for the magnification.

RELATED LINKS

- [P. 65 Creating and Outputting Data](#)

Is the crop mark line width appropriate?

It may not be possible to read crop marks if their lines are too thin.

Increase the width of the crop mark lines.

Material Feeding Is Not Smooth

Is the material too thick?

Use material with cuttable thickness. Some thick materials may make feeding unstable.

RELATED LINKS

- [P. 10 Conditions for Usable Materials](#)

Are the grit rollers dirty?

Check to make sure that the grit rollers are free of buildup of foreign material, such as material scraps. We recommend carrying out periodic cleaning.

RELATED LINKS

- [P. 128 Cleaning the Parts that Come into Contact with the Material](#)

Is the material loaded and set up straight and securely?

Feeding is not smooth when the material is not straight or is tensioned unevenly on the left and right. Reload the material.

RELATED LINKS

- [P. 24 Loading Material](#)

The Material Slips Away from the Pinch Rollers during Cutting

Is the material loaded in parallel with the gradations of the ruler?

If the front end of the material is cut at an angle, trim off the excess portion so that the front edge is parallel with the gradations of the ruler, and then load the material.

Is the material making contact somewhere during cutting?

Make sure that the left and right edges of the material do not make contact with the inner surfaces of the machine during cutting. Such contact not only damages the material, but also hinders normal material feed and causes the material to slip out of position.

Was the material feed checked before cutting (for roll material)?

If you start cutting without checking the material feed, correct cutting results may not be obtained. In the worst case, it may cause an error or malfunction or damage the material.

RELATED LINKS

- [P. 25 Load the roll material.](#)

Are the pinch rollers used to secure both edges of the material?

If the pinch rollers are not placed within the range of the grit rollers, the material is not secured, which prevents it from being fed properly.

Reload the material.

Material Lifts Up during Cutting and Gets Damaged by Blade

Is wide material being used?

When using wide material, be sure to place pinch rollers on the grit rollers near the center of the material.

Is the horizontal movement speed of the cutting carriage too fast?

Reduce the horizontal movement speed of the cutting carriage. Additionally, reduce the cutting speed.

RELATED LINKS

- [P. 119 Setting the Up Speed for Cutting](#)
- [P. 120 Setting the Acceleration Level for Up Speed](#)

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Printing and Cutting Are Misaligned

Is a thick material being used?

Correct the cutting length according to the material actually used.

RELATED LINKS

- [P. 105 Correcting Distance during Cutting Based on the Thickness of Material](#)

Is the sensor reading inaccurate?

The AAS sensor's reading of crop marks may be out of position due to long-term use or a strong impact on the machine.

Run an AAS offset test.

RELATED LINKS

- [P. 137 Running an AAS Offset Test](#)

Was the machine set to feed forward some amount of material before cutting?

When using roll material or flat material longer than 1.6 m (63.00 in.), if cutting is performed without the material length required for the cutting data being fed forward, the material may slip or operation may stop due to a motor error.

Set the machine so that the necessary amount of the material is fed forward before cutting.

RELATED LINKS

- [P. 107 Preventing Positioning Errors by Setting Material Feeding](#)

Is the cutting data rotated?

If the cutting data with crop marks has been rotated from the initial settings in CutStudio, the origin point will be changed, resulting in the cutting position becoming misaligned.

Open [Cutting Setup] in CutStudio, and select [Clockwise 90—] from the [Rotate] list.

Uncut Areas Remain or Cut Edges Are Not Clean

Are the blade and blade holder securely mounted?

Make sure the screws are tightened securely so that they do not come loose during cutting.

RELATED LINKS

- [P. 132 Replacing the Blade](#)

Is the tip of the blade broken?

If it is, then replace the blade with a new one.

RELATED LINKS

- [P. 132 Replacing the Blade](#)

Is there any buildup of dust or material adhesive on the tip of the blade?

If dirty, remove and clean the blade.

RELATED LINKS

- [P. 132 Replacing the Blade](#)

Is there any buildup of pieces of material or dust inside the blade holder?

Take off the tip of the blade holder and remove any pieces of material or dust inside.

RELATED LINKS

- [P. 130 Cleaning the Blade Holder Cap](#)

Is a thick material being used?

Correct the cutting length according to the material actually used. Additionally, reduce the cutting speed to increase the cutting quality level.

RELATED LINKS

- [P. 105 Correcting Distance during Cutting Based on the Thickness of Material](#)
- [P. 44 Setting the Cutting Speed](#)

Are the blade force and cutting speed appropriate for the material being cut?

Carry out a cutting test and adjust the settings until cutting can be performed adequately.

RELATED LINKS

- [P. 41 Performing a Cutting Test](#)

Is the amount of blade offset correct?

If the setting for the amount of blade offset is not correct for the blade, corners may be rounded or have horns.

Use an appropriate blade offset value.

RELATED LINKS

- [P. 45 Setting the Blade Offset](#)

Is the smoothing function set to [Disabled]?

To cut curves cleanly, set the smoothing function to [Enabled].

RELATED LINKS

- [P. 103 Smoothly Cutting Arcs and Other Curves \(Smoothing\)](#)

Is the blade protector damaged or deformed?

If the blade protector is damaged, the material may not be cut correctly even if the machine's settings and the installation of the blade and blade holder are all correct.

Replace the blade protector with the cutting pad supplied with this machine.

RELATED LINKS

- [P. 134 Replacing the Blade Protector](#)

The Machine Cuts the Carrier Paper

Are the blade tip adjustment and blade force appropriate for the material being cut?

Perform a cutting test and adjust the blade tip and blade force appropriately.

RELATED LINKS

- [P. 40 Recommended Cutting Conditions](#)
- [P. 41 Performing a Cutting Test](#)
- [P. 100 Adjusting the Cutting-in Amount](#)

The Machine Cuts the Same Area Twice

Are there overlapping lines?

The same data may have been copied, resulting in overlapping lines. Check the data.

Is Overlap Cutting set to 0 in CutStudio?

Overlap cutting will be performed if [Overlap Cutting] is set to any value other than "0" in the [Cut] window in CutStudio. Set [Overlap Cutting] to "0."

RELATED LINKS

- [P. 97 Setting Up Overlap Cutting with CutStudio](#)

Is the [Back to Home] Checkbox Selected in the Printer Driver Settings?

If the [Back to Home] check box is selected in the printer driver settings, the next output may overlap with the completed cutting position. Unselect the [Back to Home] check box.

If the [Back to Home] check box is always selected when outputting cutting data, the setting will be saved to the driver. The following procedure explains how to change the settings saved to the driver.

Procedure

1. Open the printer driver properties window.
 - Windows 11:
 - a. Click [Start]>[Settings].
 - b. Click [Bluetooth & devices]>[Printers & scanners].
 - c. Select the machine, and then click [Printer properties].
 - Windows 10:
 - a. Click [Start]>[Window System]>[Control Panel].
 - b. Click [View devices and printers].
 - c. Right-click the icon of this machine, and then click [Printer properties].
2. Click the [Cutter] tab, and then unselect the [Back to Home] check box.
3. Click [Save To Default].
4. Click [OK].

RELATED LINKS

- [P. 97 Setting Overlap Cutting Using the Printer Driver](#)

Misaligned Cutting Start and End Points

Was material feeding set?

When using roll material or flat material longer than 1.6 m (63.00 in.), if cutting is performed without the material length required for the cutting data being fed forward, the cutting start and end points may be misaligned.

Set the machine so that the necessary amount of the material is fed forward before cutting.

RELATED LINKS

- [P. 107 Preventing Positioning Errors by Setting Material Feeding](#)

Messages on the Operation Panel

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Messages

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.

"File Too Large Press OFFLINE"

File size exceeded memory buffer while repeating jobs.
Check the file size and resend the file.

"Buffer Empty Press OFFLINE"

Memory is empty when repeating a job.
Check the file and resend it.

"Reboot Please"

The machine must be restarted because it has been returned to the factory default settings.
Turn the machine off and then on again.

RELATED LINKS

- [P. 20 Restoring Default Settings](#)

"File size exceed 16M Please adjust"

AAS file size is over 16 MB.
Check the file size.

"Please Stop Transmit File: Press OFFLINE"

Output was canceled while a job was being processed.
Resend the job.

"AAS Detect Fail"

Automatic detection of crop marks failed.
Check the crop mark positions, and resend the job after increasing the length and width of crop marks for better readability.

"AAS ADC Value Error"

The AAS registration mark and media surface contrast are lower than limit.
Increase the AAS mark thickness.
Increase AAS mark thickness.

Error Messages

This section 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 Corporation dealer.

"Error; Rollers Are /Up Sensor"

An error occurred during the measurement of material size.
Lower two or more pinch rollers.

RELATED LINKS

- [P. 24 Loading Material](#)

"Error; Check Media Or Drum Or X Motor"

An error occurred in the X motor.

After you switch off the power, inform your authorized Roland DG Corporation dealer of the message that appeared on the display.

"Error; Check Media Or Y Motor"

An error occurred in the Y motor.

After you switch off the power, inform your authorized Roland DG Corporation dealer of the message that appeared on the display.

"Error; Check Carriag Sensor Or VC Motor"

An error occurred in the VC motor.

After you switch off the power, inform your authorized Roland DG Corporation dealer of the message that appeared on the display.

"Out Of Space; # of Copies finished"

Material size is not sufficient for a cutting test.
Check the material and change the size.

"HPGL/2 Cmd. Error"

Machine received an undefined command.
Check the file settings.

"Communication Error Setup Press MISC"

Communication settings between RS-232 and computer do not match when receiving commands from the computer.

Check the communication settings.

RELATED LINKS

- [P. 17 Viewing System Information](#)

"AAS File Command Error"

The orientation of the first crop marks in the computer file and that of the loaded material do not match when executing an AAS job.

Check the orientation of the printed material and in the transmission file.

RELATED LINKS

- [P. 24 Loading Material](#)

"ERROR: AAS CMDs was Wrapped"

When executing "Redo AAS," the copy number exceeded the maximum setting.

Reduce the copy number.

Appendix

Operations When Moving the Unit

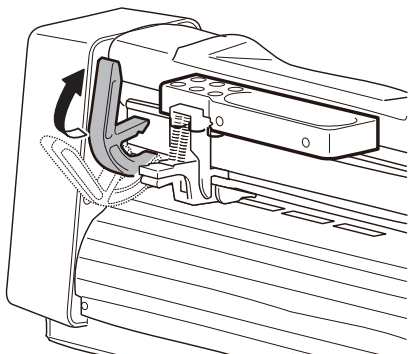
Removing the Material and Blade Holder	164
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Removing the Material and Blade Holder

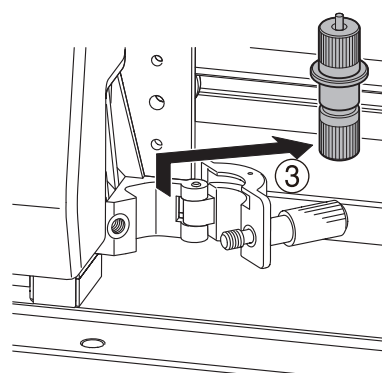
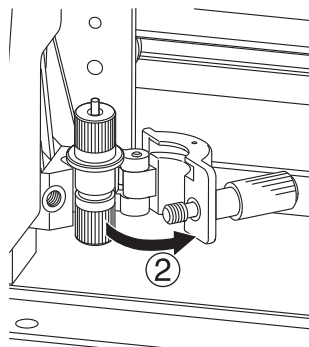
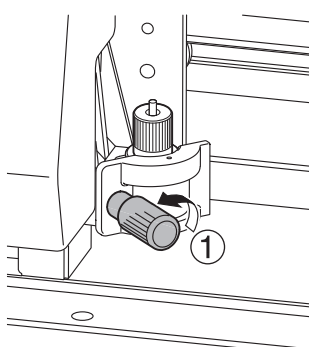
Procedure

1. Raise the lever.

Remove any material loaded in the machine.



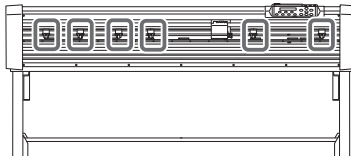
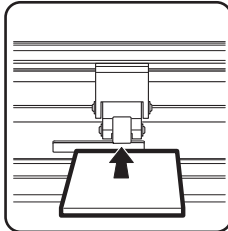
2. Detach the cutting tool.



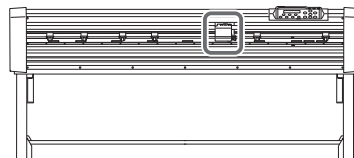
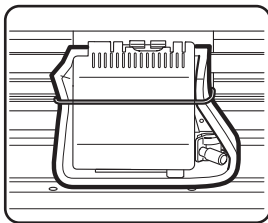
Securing the Cutting Carriage and Pinch Rollers with Retainers

Procedure

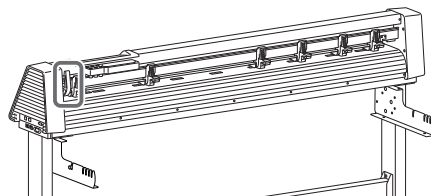
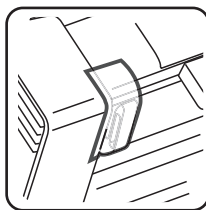
1. Prepare the retainers that were stored when installing the machine.
2. Place a retaining cushion between each pinch roller and blade protector.



3. Wrap the cutting carriage with cushioning.



4. Using tape, fasten the lever in place so that it does not move.

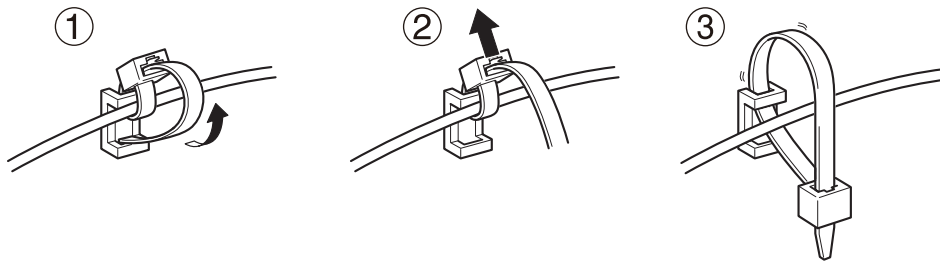
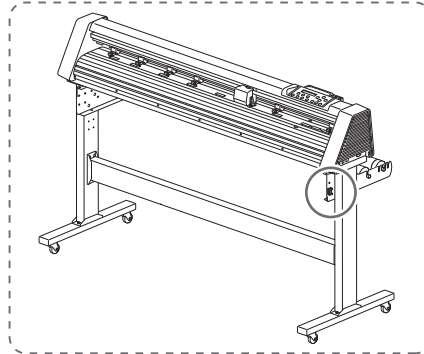


Removing the USB Cable Tie

The USB cable tie does not need to be removed and can be kept fixed onto the machine. When reattaching the USB cable tie after removing it, refer to the Setup Manual.

Procedure

1. Pull out the tip of the USB cable tie from the tie head.
2. Push the cable tie pin in and pull forward.
3. Loosen the cable tie.



Crop Marks

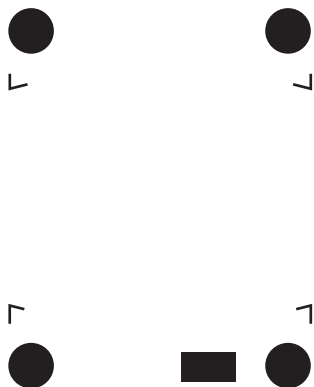
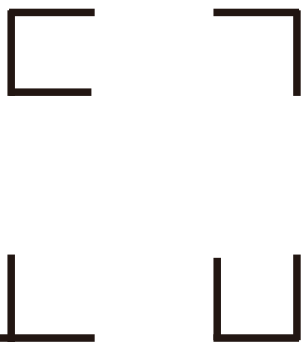
- Crop Mark Types 168
- Setting the Margins and the Distance between Crop Marks 169
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 - AAS Plug-in Working Area and Required Margins 170
- Aligning Positions with the AAS Plug-in 171
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Crop Mark Types

To use this machine for cutting material printed with a printer, the print position and cut position must align perfectly. Use crop marks to align these positions. Add crop marks around the graphics before printing, and then scan and align the crop marks before performing cutting.

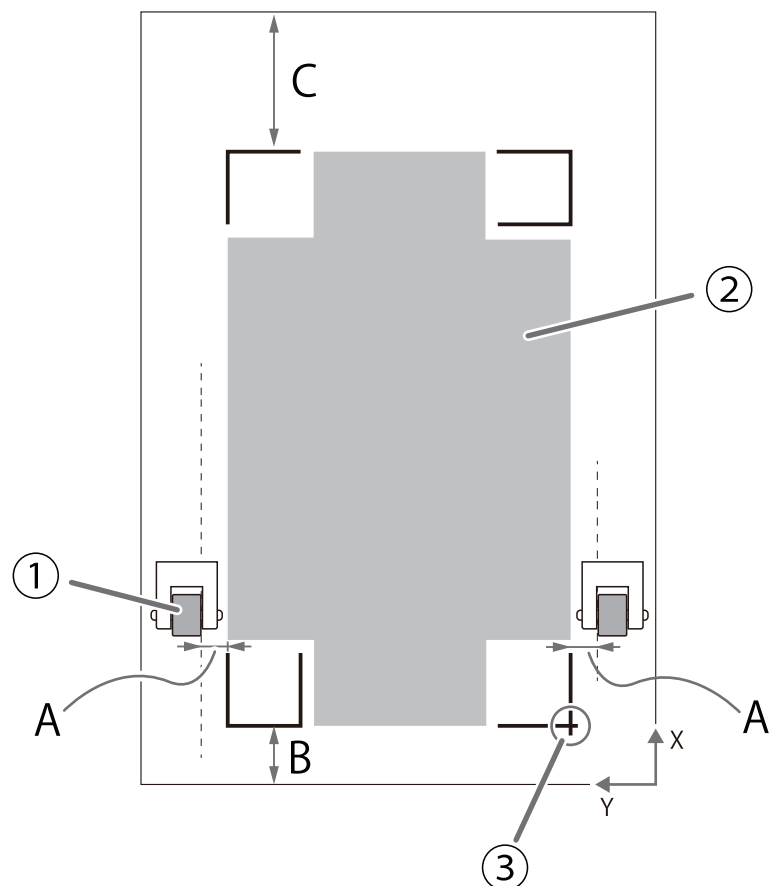
Use VersaWorks, CutStudio, or the AAS plug-in to add the crop marks.

The crop mark shapes are indicated below.

	CutStudio / VersaWorks	AAS plug-in
Crop mark shape		

AAS Plug-in Working Area and Required Margins

The working area and necessary margins when using crop marks are described below.



①	Pinch roller
②	Working area
③	Crop mark origin
A	10 mm (0.4 in.)
B	20 mm (0.8 in.)
C	Min. 80 mm (3.15 in.) (or 50 mm [1.97 in.]*1)

*1 When extended in the feed direction (length)

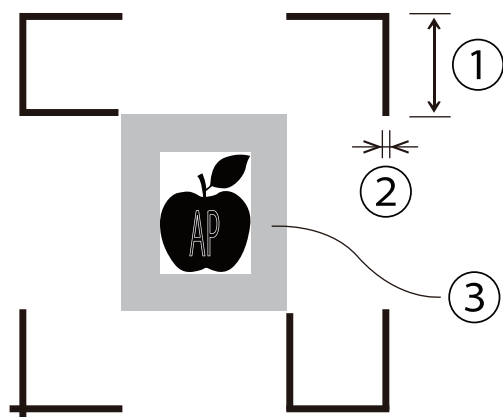
Aligning Positions with the AAS Plug-in

There are three methods for adding crop marks using the AAS plug-in depending on the number and positions of the marks being added.

Four-point

This type of crop mark is created in the four corners of the selected object.

The settings for four-point crop marks are applied to all crop marks. These crop marks are used to set up crop marks for the entire page instead of each object.

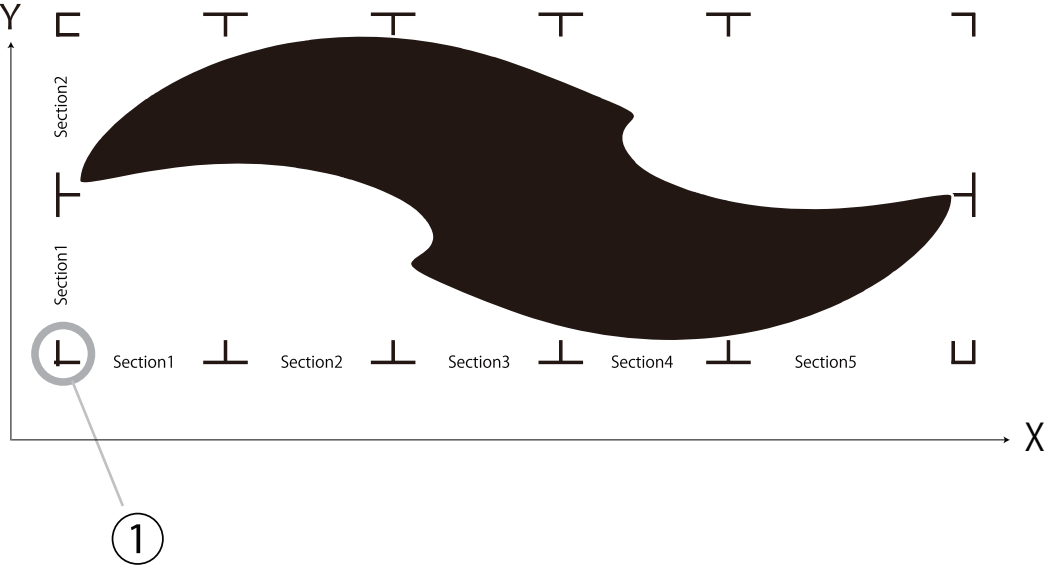


Keep the crop mark length and line width as well as the margins from the object to within the following ranges.

	Setting item	Setting range	Recommended value
①	Length	5 to 50 mm (0.2 to 1.96 in.)	25 mm (0.98 in.)
②	Thickness	1 to 2 mm (0.04 to 0.07 in.)	1 mm (0.04 in.)
③	Margin	0 to 50 mm (0 to 1.96 in.)	5 mm (0.2 in.)

Segmental

This crop mark type is suitable for cutting long printed materials. This type allows for correction of warpage when cutting long materials and scans the material in sections. Intermediate crop marks are added between four-point crop marks at distances specified in X (feed direction) and Y (width), respectively, from the crop mark origin (①).

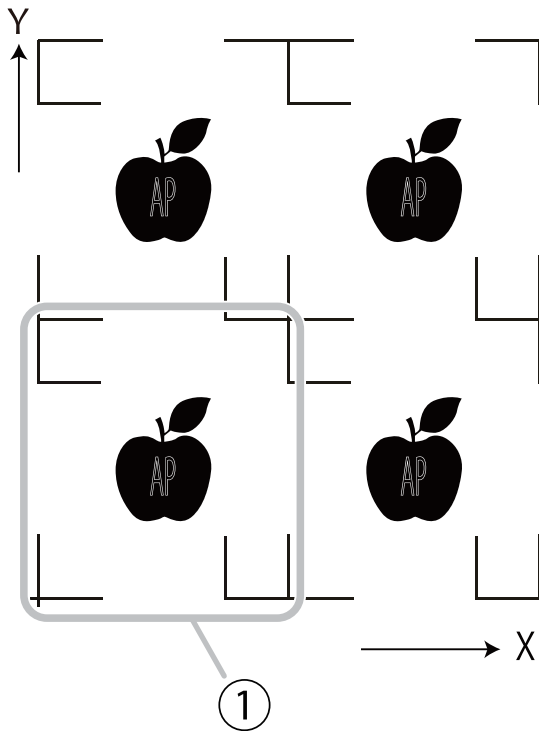


	Setting range
X: feed direction	50 to 600 mm (1.97 to 23.62 in.)
Y: Width of material	200 to 600 mm (7.88 to 23.62 in.)

Multiple

Based on the four-point crop mark settings, crop marks can be set by specifying the number of duplicates and the main direction (X and Y directions).

One set of crop marks is added to the selected object, which is recommended for cutting multiple complex objects.



①	Source data
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Memo

Company names and product names are trademarks or registered trademarks of their respective holders.

