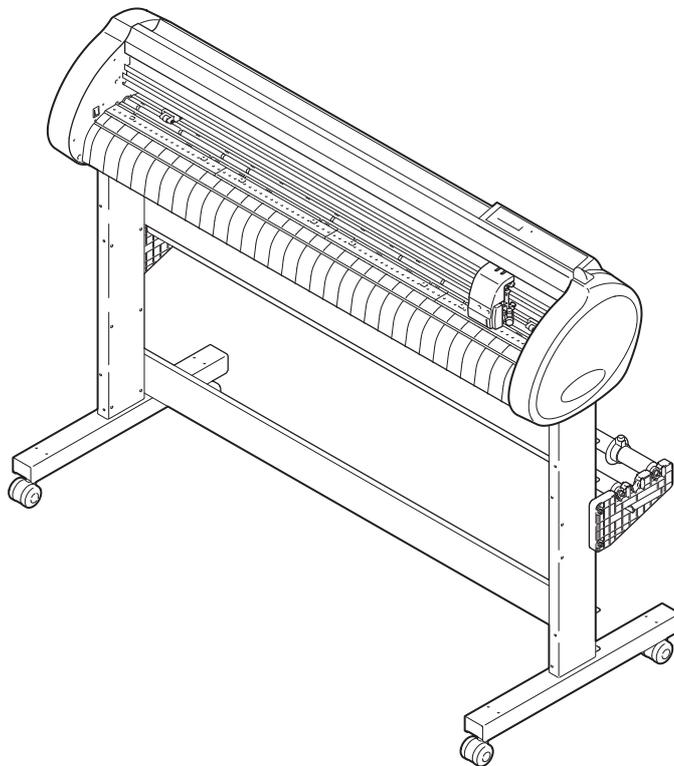


**CUTTING PLOTTER**

***CG-100SRII***

***CG-130SRII***

**QUICK REFERENCE GUIDE**



**MIMAKI ENGINEERING CO., LTD.**

URL: <http://www.mimaki.co.jp/>

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# Foreword

Congratulations on your purchase of Mimaki cutting plotter CG-SR11 series.

This guide explains basic operation of CG-SR11.

For more details, please refer to the “CG-SR11 series Operation Manual” supplied with the attached operation manual CD-ROM.

You can also download the latest quick reference guide from our website.

## DISCLAIMER OF WARRANTY

DISCLAIMER OF WARRANTY : THIS LIMITED WARRANTY OF MIMAKI SHALL BE THE SOLE AND EXCLUSIVE WARRANTY AND IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS, AND MIMAKI NEITHER ASSUMES NOR AUTHORIZES DEALER TO ASSUME FOR IT ANY OTHER OBLIGATION OR LIABILITY OR MAKE ANY OTHER WARRANTY OR MAKE ANY OTHER WARRANTY IN CONNECTION WITH ANY PRODUCT WITHOUT MIMAKI'S PRIOR WRITTEN CONSENT. IN NO EVENT SHALL MIMAKI BE LIABLE FOR SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES OR FOR LOSS OF PROFITS OF DEALER OR CUSTOMERS OF ANY PRODUCT.

## Requests

- This Operation manual has been carefully prepared for your easy understanding. However, please do not hesitate to contact a distributor in your district or our office if you have any inquiry.
- Description contained in this Operation manual are subject to change without notice for improvement.

## FCC Statement (USA)

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the Operation manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.



- In the case where MIMAKI-recommended cable is not used for connection of this device, limits provided by FCC rules can be exceeded. To prevent this, use of MIMAKI-recommended cable is essential for the connection of this plotter.

## Interference to televisions and radios

The product described in this manual generates high frequency when operating. The product can interfere with radios and televisions if set up or commissioned under improper conditions. The product is not guaranteed against any damage to specific-purpose radio and televisions. The product's interference with your radio or television will be checked by turning on/off the power switch of the product.

In the event that the product is the cause of interference, try to eliminate it by taking one of the following corrective measures or taking some of them in combination.

- Change the orientation of the antenna of the television set or radio to find a position without reception difficulty.
- Separate the television set or radio from this product.
- Plug the power cord of this product into an outlet which is isolated from power circuits connected to the television set or radio.

## About media

Please follow the local regulations to dispose of roll sheets or other media.

# Safety Precautions

## Symbols

Symbols are used in this Operation Manual for safe operation and for prevention of damage to the machine. The indicated sign is different depending on the content of caution. Symbols and their meanings are given below. Please follow these instructions as you read this manual.

### Examples of symbols

	Meaning
	Failure to observe the instructions given with this symbol can result in death or serious injuries to personnel. Be sure to read and observe the instructions for proper operation.
	Failure to observe the instructions given with this symbol can result in injuries to personnel or damage to property.
	This symbol indicates that the information is helpful in proper operation of the plotter.
	This symbol indicates that it is important to know of the information on proper operation of the plotter. Use this information for your operation.
	Indicates the reference page for related contents.
	The symbol "  " indicates that the instructions must be observed as strictly as the CAUTION instructions (including DANGER and WARNING instructions). A sign representing a precaution (the sign shown at left warns of hazardous voltage) is shown in the triangle.
	The symbol "  " indicates that the action shown is prohibited. A sign representing a prohibited action (the sign shown at left prohibits disassembly) is shown in or around the circle.
	The symbol "  " indicates that the action shown must be taken without fail or the instructions must be observed without fail. A sign representing a particular instruction (the sign shown at left instructs to unplug the cable from the wall outlet) is shown in the circle.

 <b>WARNING</b>	
<b>Do not disassemble or remodel the plotter.</b>	<b>Handling of the power cable</b>
 <ul style="list-style-type: none"> <li>Never disassemble or remodel the plotter. Disassembly or remodeling can result in an electric shock or breakdown of the machine. Do not use the plotter in a damp place.</li> </ul>	 <ul style="list-style-type: none"> <li>Use the supplied power cable. Take care not to damage, break or work upon the power cable. If a heavy material is placed on the power cable, or if it is heated or pulled, the power cable can break, thus resulting in fire or electric shocks.</li> </ul>
<b>Avoid locating the plotter in a damp environment.</b>	
 <ul style="list-style-type: none"> <li>Do not splash water onto the machine. Use in such an environment can give rise to fire, electric shocks or breakdown of the plotter.</li> </ul>	
<b>In case abnormal event occurs.</b>	
 <ul style="list-style-type: none"> <li>Use of the plotter under an abnormal condition where the device produces smoke or strange smell can result in fire or electric shocks. If such an abnormality is found, be sure to turn off the power switch immediately and unplug the cable from the wall outlet. Check first that the plotter no longer produces smoke, and contact your distributor for repair. Never repair your plotter by yourself since it is very dangerous for you to do so.</li> </ul>	

 <b>CAUTION</b>		
<b>A place exposed to direct sunlight</b>	<b>On an inclined surface</b>	<b>A place where temperature or humidity varies significantly</b>
 	 	 <ul style="list-style-type: none"> <li>Use the plotter under the following environmental conditions: Operating environment: 20 to 35°C 35 to 65% (Rh)</li> </ul>
<b>A place that vibrates</b>	<b>A place exposed to direct air flow from an air conditioner or the like.</b>	<b>Around a place where flame is used</b>
 	 	 

 <b>CAUTION</b>	
<p><b>Be careful with the movable parts</b></p> <ul style="list-style-type: none"> <li> Do not touch the rolling grit roller; otherwise, you may hurt your fingers or tear off your finger nails.</li> </ul>	<p><b>Caution with cutters</b></p> <ul style="list-style-type: none"> <li> Do not touch the cutter blade, which is very sharp.</li> <li>Do not shake or swing the cutter holder; otherwise, the blade may come off.</li> </ul>
<ul style="list-style-type: none"> <li> Keep your head and hands away from any moving parts during cutting (plotting) operation; otherwise, you may get your hair caught in the machine or get injuries.</li> </ul>	<p><b>Caution with cutters</b></p> <ul style="list-style-type: none"> <li> Be sure to connect the ground wire. Using without the ground wire causes the damage of this device and electric shock that may be very dangerous.</li> <li>Regarding the use of two polar plug outlet, you must connect the auxiliary ground adapter to the plug of power cable. Earth the green wire (ground wire) of the ground adapter. If you cannot, consult with an electrician.</li> </ul>
<ul style="list-style-type: none"> <li> Wear proper clothes. (Do not wear loose-fit clothes or accessories). Bind a long hair.</li> </ul>	
<p><b>Sheets</b></p> <ul style="list-style-type: none"> <li> Straighten the sheet of media, if significantly curled, before using it for printing. Heavily curled sheet affects the cutting (plotting) result.</li> </ul>	

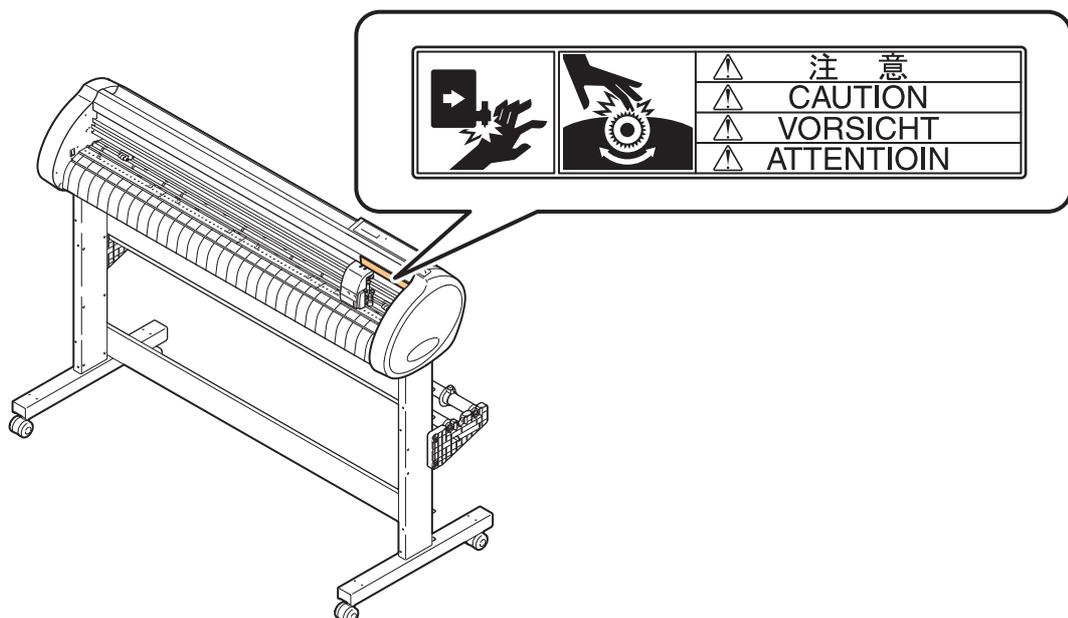
## Safety Labels

A safety label is stuck on the machine. The label informs the user of possible risks associated with the machine.

Be sure to understand the correct meaning of the safety label to avoid danger.

If the safety label is illegible due to stains or has come off, purchase a new one from your local distributor or our office. (Reorder: No.M904451, Safety label)

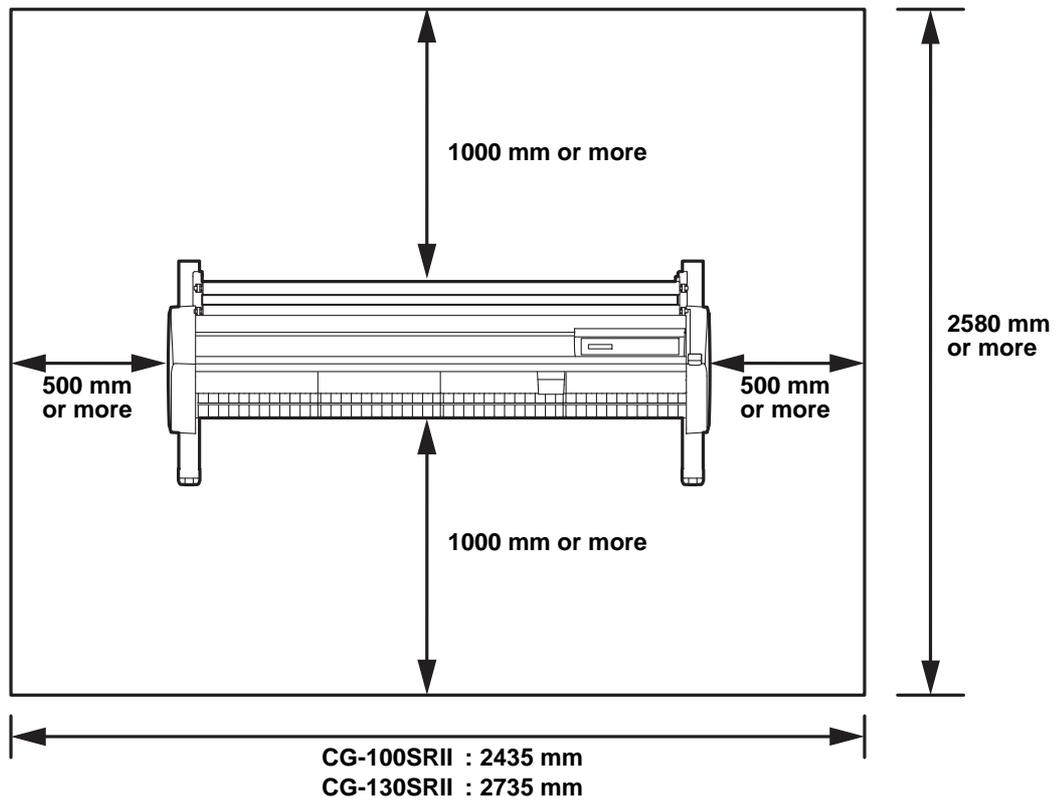
Depending on the manufacturing time, the label differs. When reordering the label, please ask for M904451 as a order number.



# Where to install this machine

Secure a suitable installation space before assembling this machine.  
The place of installation must have enough space for not only this machine itself but also for printing operation.

Model	Width	Depth	Height	Gross weight
CG-100SR II	1435 mm	580 mm	1125 mm	38 kg
CG-130SR II	1735 mm	580 mm	1125 mm	44 kg



# Configuration and function

## The Front

### Pinch roller

The pinch rollers feed out the sheet while pressing it against the grit rollers.

### Power switch

The switch turns on/off the power. (☞ P.19, P.35)

### Grit roller

The grit rollers operate in combination with the pinch rollers to feed the sheet.

### Pen line

The plotter performs cutting or plotting on the pen line.

### Platen

The sheet of media moves along the platen.

### Cut slot

The slot is used for cutting the sheet manually. (☞ P.34)

### Carriage

The carriage carries the pen and moves it up and down.

### Operation panel

This panel operates this machine and sets functions. (☞ P.11)

### Clamp lever

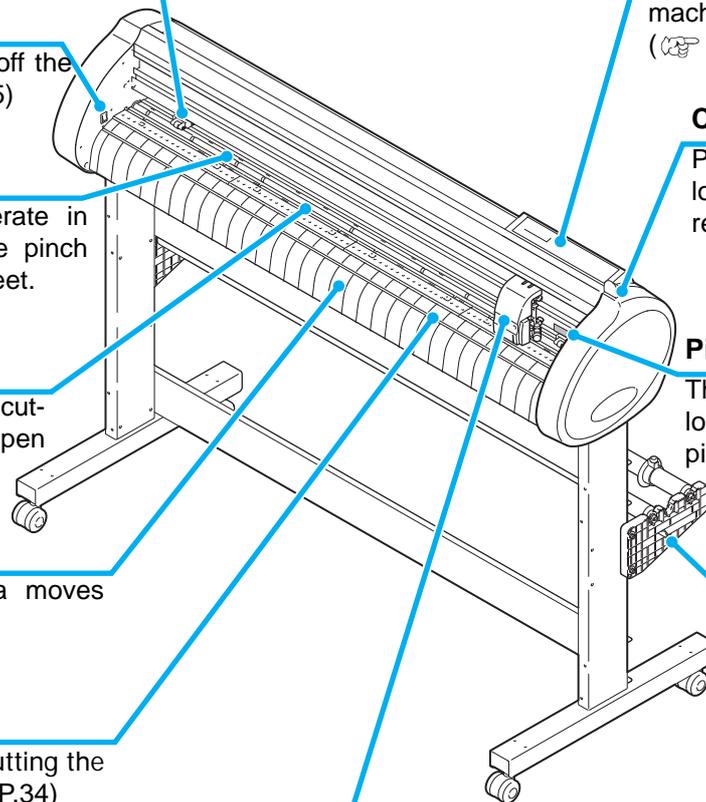
Pushing a lever down lowers a pinch roller and retains the sheet.

### Pinch roller guide mark

This marks indicate the locations at which the pinch roller are to be set.

### Roll stopper

When setting a sheet, prevents the roll sheet from rotating. (☞ P.29)



## The Rear

### Clamp pressure lever

This lever adjusts the force by which the clamp is held.

### Sheet sensor

This sensor detects the presence of the sheet and sheet length.

### USB / RS-232C interface connector

The USB and RS-232C interface connector. (P.12)

### Tray

Small tools, such as a retractable knife and other cutters, can be placed on.

### AC inlet

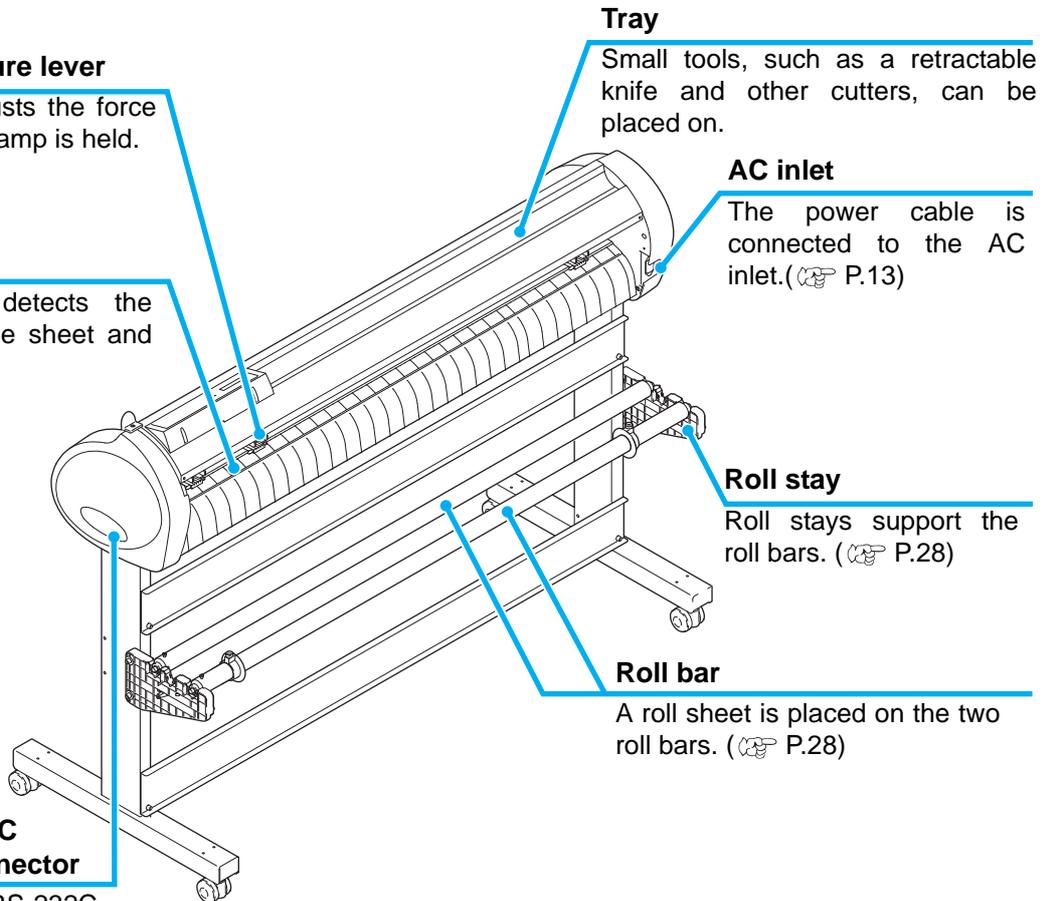
The power cable is connected to the AC inlet. (P.13)

### Roll stay

Roll stays support the roll bars. (P.28)

### Roll bar

A roll sheet is placed on the two roll bars. (P.28)



# Operation Panel

## Display panel

The display panel indicates tool conditions such as speed, pressure and offset, tool coordinates, functions and error messages.

### **SHEET SET** key

Use this key for detection of the sheet or clearing of the detection result. (P.26)

### **POWER** lamp

This lamp lights up when the power to the plotter is turned on.

### **FUNCTION** key

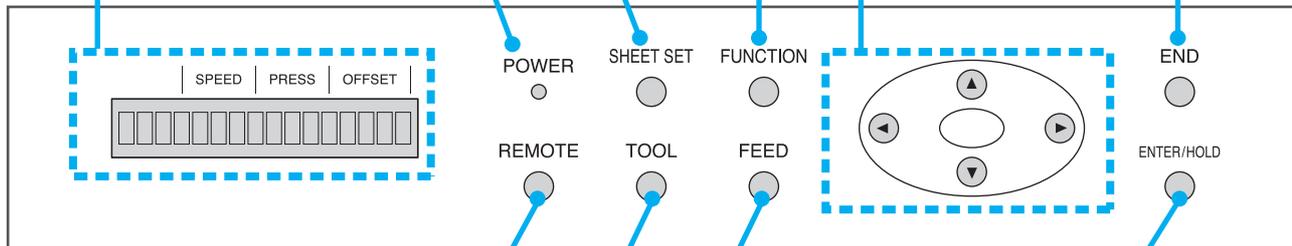
Use this key to enter function setting mode.

### **JOG Key**

Each of these arrow keys shifts the carriage or sheet in the direction of the arrow or changes settings. (P.11)

### **END** key

This key cancels the last input value or returns the setting menu to the immediate higher level in the hierarchy. Use the key to detect only the sheet width.



### **REMOTE** key

This key switches the operation mode between REMOTE mode and LOCAL mode. If this key is pressed when the plotter is in operation, the plotter will come to a halt. Press the key again to restart the plotter,

### **TOOL** key

Use this key to select a tool and establish tool conditions. (P.21)

### **FEED** key

Press this key to execute sheet feeding.

### **ENTER/HOLD** key

This key registers the last input value as the setting value or returns the setting menu to the immediate lower level in the hierarchy. Use the key to correct the drifting of the sheet during cutting (plotting) operation.



**Press the keys with the fingers. Pressing with a sharp blade or a pointed thing may break the key.**

## Jog keys

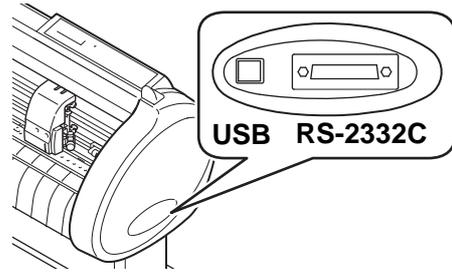
The arrow keys are used as described in the table below.

	Before the detection of a sheet	After the detection of a sheet	When selecting a function	When selecting a setting value
	Detects the sheet width.	Shifts the carriage to the left.	—	—
	Detects the width and length of the sheet.	Shifts the carriage to the right.	—	—
	Detects the sheet width.	Move the sheet toward the rear of the plotter.	1Restores the previous function.	Selects the previous value.
	Detects the width and length of the sheet.	Move the sheet toward the front of the plotter.	Selects the next function.	Selects the next value.

In this manual, the sheets of media other than roll sheets are referred to as leaf sheets or cut sheets.

# Connecting the cables

This plotter uses the USB and RS232C connector for connection to the host computer.



**Important!**

- Connect or disconnect the connectors carefully. Applying undue force to a connector may damage the connector.

## USB Cable Connection

When connecting the USB cable, you must observe the followings.

**Important!**

- Do not plug in or unplug any cable during data transferring.
- Follow the instructions on the LCD if the wizard is displayed when connecting the USB cable.

### Connecting USB driver

As for USB driver connection, refer to “USB Driver Installation Guide” in the FineCut supplied with this machine.

- (1) Set the supplied CD for FineCut into the disk drive.
- (2) Click [CD-ROM Contents] on the menu.
- (3) Open [usb11\_installguid(en).pdf] for the plotter used in [Mimaki USB1.1 Driver] folder.

## RS-232C Cable Connection

When you want to connect the RS-232C cable, you must observe the following notabilia.

**Important!**

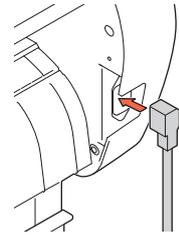
- When connecting the cables, turn off first the power to the device and that to the host computer which the power cable is to be connected.
- Do not plug in or unplug any cable during data transferring.

## Connecting the power cable

After connecting the interface cable, you must connect the power cable.

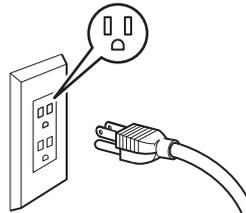
Connect the power cable with the plug outlet of the following power specifications.

- Voltage : AC100 - 240V  $\pm$  10%
- Frequency : 50/60Hz
- Capacity : 145 VA or less



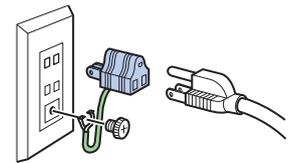
### Be sure to connect the ground wire.

- Using without the ground wire causes the damage of this device and electric shock that may be very dangerous.



### Regarding the use of two polar plug outlet, you must connect the auxiliary ground adapter to the plug of power cable.

- Earth the green wire (ground wire) of the ground adapter. If you cannot, consult with an electrician.



# Operation flow

**1** Installing a tool

See "Installing a tool" (☞ P.15)

**2** Turning the power on

See "Turning the power on" (☞ P.19)

**3** Setting the tool conditions

See "Setting the tool conditions" (☞ P.20)

**4** Loading a sheet of media

See "Loading a sheet of media" (☞ P.23)

**5** Test cutting (plotting)

See "Test cutting (plotting)" (☞ P.31)

**6** Cutting (plotting)

See "Cutting (plotting)" (☞ P.32)

**7** Turning the power off

See "Turning the power off" (☞ P.35)

# Installing a tool

For this device, you can use the following tools.

- Cutter** : Select this to cut the image printed on a sheet and to create the cut letters with the cutting sheet.
- Pen (rollerball)** : Select this to “trial-write” for confirming how to actually cut.
- Pouncing Pin (option)** : Select this to sketch the cutting line.

## Using a cutter

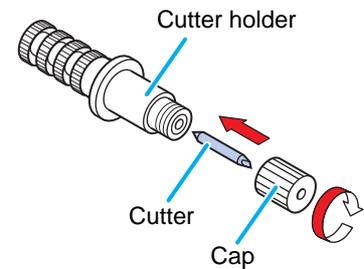


- Don't touch the cutter blade with your fingers.  
->Sharp cutter tip may injure you.
- After setting the cutter, do not shake the cutter holder.  
->The tip of the cutter may pop out and may injure you.
- Keep the cutter out of reach of children. Dispose of the used cutter blade in compliance with the applicable regulations.

## How to install a cutter

**1**

Remove the cap located at the edge by rotating it.



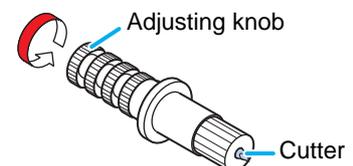
**2**

Replace the cutter with a new one using tweezers or the like.

**3**

Turn the adjusting knob to adjust the protruding amount of the cutter.

- arrow to protrude the cutter blade.  
( 0.5 mm per revolution)



## Adjusting the protrusion of the cutter blade

Adjust the cutter blade according to the types of the cutters and the sheet for use.

After adjusting the protrusion of the cutter blade, set the cutting conditions and conduct test cutting to check the cutting quality.

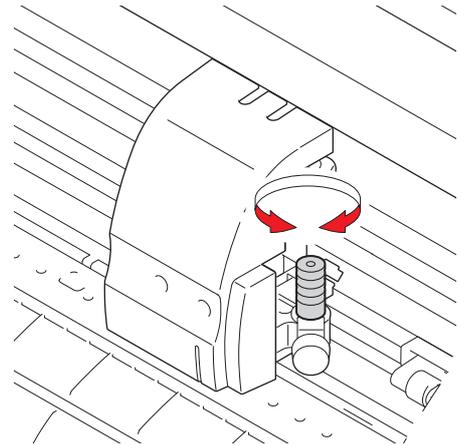
**Important!**

- Take care not to protrude the blade too much. If the cutter is used with its blade excessively protruded, the cutter can cut out the base paper, thus damaging the main unit.

**1**

### Turn the adjusting knob to adjust the protruding amount of the cutter blade.

- arrow to protrude the cutter blade.  
( 0.5 mm per revolution)



**Important!**

- See the operation manual for the blade adjustment of the cutters other than the auxiliary products

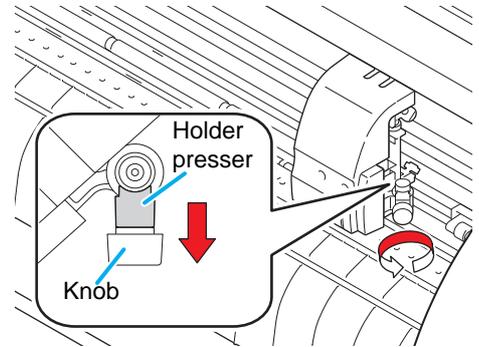
## How to install the cutter

**Important!**

- Install the cutter to the tool holder of the carriage. Be sure to insert the cutter all the way in the tool holder.

**1**

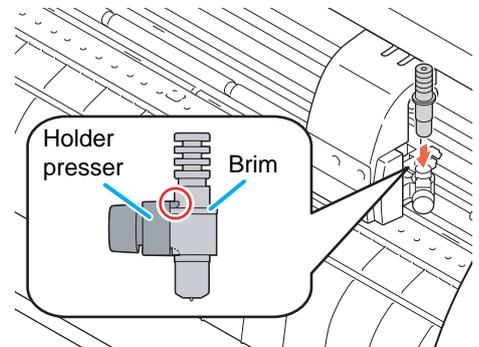
**Rotate the knob to loosen the holder presser.**



**2**

**Insert the cutter holder into the tool holder.**

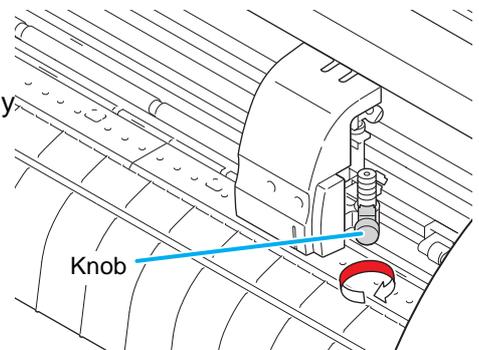
- Push the brim of the cutter holder against the tool holder.
- Press the brim of the cutter holder with the holder presser.



**3**

**Fix the cutter holder.**

- Turn the knob of the tool holder clockwise, and surely fix it.



**Important!**

- Fix the cutter firmly. If not, accurate and high-quality cutting (plotting) will not be achieved.

## How to Install a Ballpoint Pen

**Important!**

- When use a boll-point pen on the market, refer to the oeration manual and select a installable boll-point pen.

### 1

#### Put the cap on the pen adapter.

- Use the cap to adjust the pen height.

### 2

#### Insert the pen into the pen adapter.

- Insert the pen until the pen head reaches the cap.

### 3

#### Fix the pen tip.

- Tighten the fixing screw clockwise.
- Be careful not to over-tighten the fixing screw for the pen adapter. If tightened too much, the ball-point pen may crack.

### 4

#### Remove the cap.

### 5

#### Rotate the knob to loosen the holder presser.

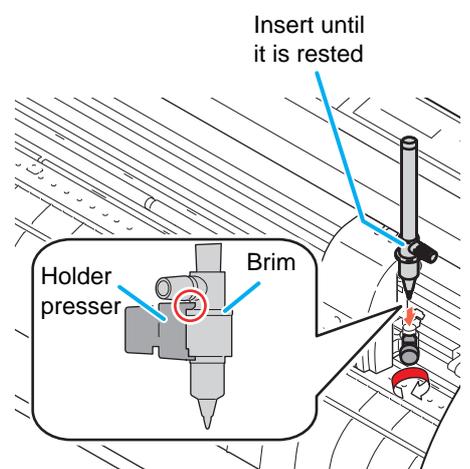
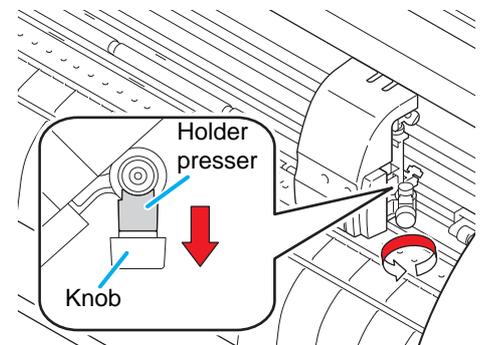
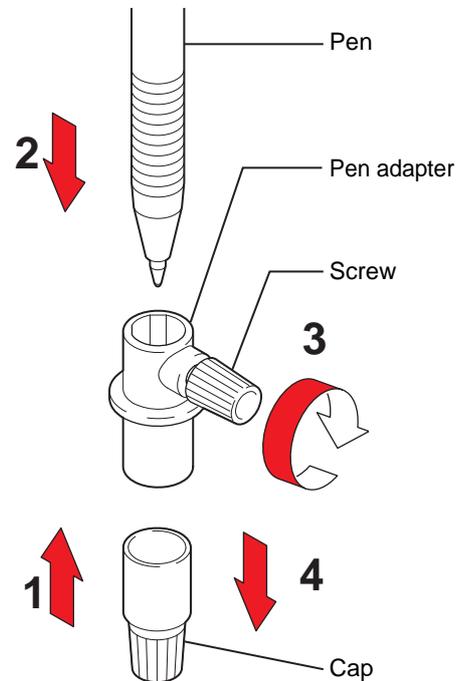
### 6

#### Insert the pen adapter with the pen into the tool holder.

- Make sure that the collar of the pen adapter is rested on the holder.
- Set the adapter in such a way that the fixing screw will not obstruct operation.

### 7

#### Turn the knob of the tool holder clockwise to fix the tool.



# Turning the power on

Important!

- Before turning the power on, check that the pinch rollers have been raised.
- Be sure to turn on the host computer before turning on the plotter. If this order is not correctly followed, the plotter can malfunction.
- Once the power is turned off, wait at least five seconds before turning the power on again.

1

## Press the “ | ” side of the power switch.

- When the plotter is turned on, it will enter the first operation mode, which are followed by the subsequent modes. Refer to page 1-15 for the operation modes.

2

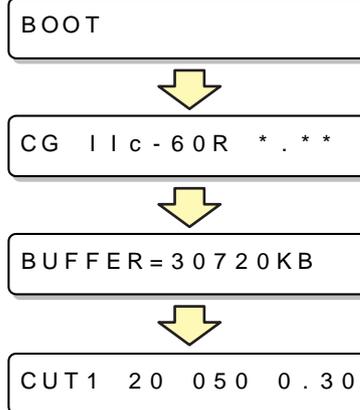
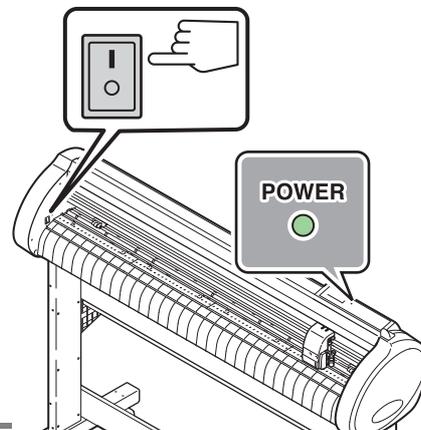
## The POWER indicator lamp lights up green.

- The sheet suction fan rotates.

3

## Check the receiving buffer.

- Then, the tool conditions for the currently selected tool appears on the LCD.

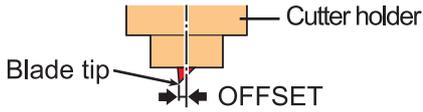


# Setting the tool conditions

You must set the tool conditions adjusting to your use.

## Kinds of the Tool Conditions

The kinds of the tool conditions include cutting and plotting conditions.  
See P.20 for the way of setting tool conditions.

Kinds	Description
<p>Cutting Condition (CUT1 ~ CUT5)</p> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">CUT1 20 050 0.30</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">CUT2 20 080 0.30</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">CUT3 05 150 0.30</div> <div style="border: 1px solid black; padding: 2px; margin-bottom: 5px;">CUT4 20 060 0.30</div> <div style="border: 1px solid black; padding: 2px;">CUT5 20 070 0.30</div>	<p>This is the tool conditions for using the cutter.</p> <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;">CUT1 20 050 0.30</div> <p><b>OFFSET</b> The distance from the center of the cutter holder to the cutter blade</p> <p><b>PRESSURE</b> The pressure required for cutting</p> <p><b>SPEED</b> The speed of cutting</p> 
<p>Plotting Condition (PEN)</p> <div style="border: 1px solid black; padding: 2px;">PEN 40 080</div>	<p>This is the tool conditions for using a pen.</p> <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;">PEN 40 080</div> <p>You need not to set OFFSET.</p>



- Besides the above list, able to set the cutting condition for "POUNCHING" and "HALF CUT". Refer to the operation manual for more detail.

## Set the Tool Conditions.

1

Press the **TOOL** key several times to select a tool condition for setting.

TOOL  


CUT2 20 080 0.30

- Refer to P.20 for selectable tool conditions
- Select [CUT2] here.

2

Press the jog key  or  to change the SPEED value.


CUT2 50 080 0.30

- The setting values : 1 to 10cm/s (settable by 1cm/s step)  
15 to 60cm/s (settable by 5cm/s step)
- Increase the value, and you get the higher speed. Decrease the value, and you get the lower speed. (Set 20 to 30cm/s regularly).
- When [HEAVY] is set on [SHEET TYPE], the maximum cutting speed is limited to 20cm/s.

3

Press the **ENTER/HOLD** key or jog key  to move the cursor to PRESSURE.

ENTER/HOLD  
  
 or  


CUT2 50 080 0.30

- When you want to return to the previous setting item, press the jog key .

4

Change the value of PRESSURE using the jog key  or .


CUT2 50 100 0.30

- The setting values : 10 to 20g (settable by 2g step)  
20 to 100g (settable by 5g step)  
100 to 400g (settable by 10g step)

5

Press the **ENTER/HOLD** key or jog key  to move the cursor to OFFSET.

ENTER/HOLD  
  
 or  


CUT2 50 100 0.30

- When you want to return to the previous setting item, you must press the jog key .

6

Press the jog key  or  to change the value of OFFSET.


CUT2 50 100 0.35

- The setting values : 0.0 to 2.5mm (settable by 0.05mm step)
- If you have selected the POUNCING condition (PIN) in the Step 1, you must set the pounce interval here. (The setting value: 1 to 100mm (1mm step))

7

Press the **ENTER/HOLD** key or jog key  to secure the setting value.

ENTER/HOLD



or



CUT2 50 100 0.35



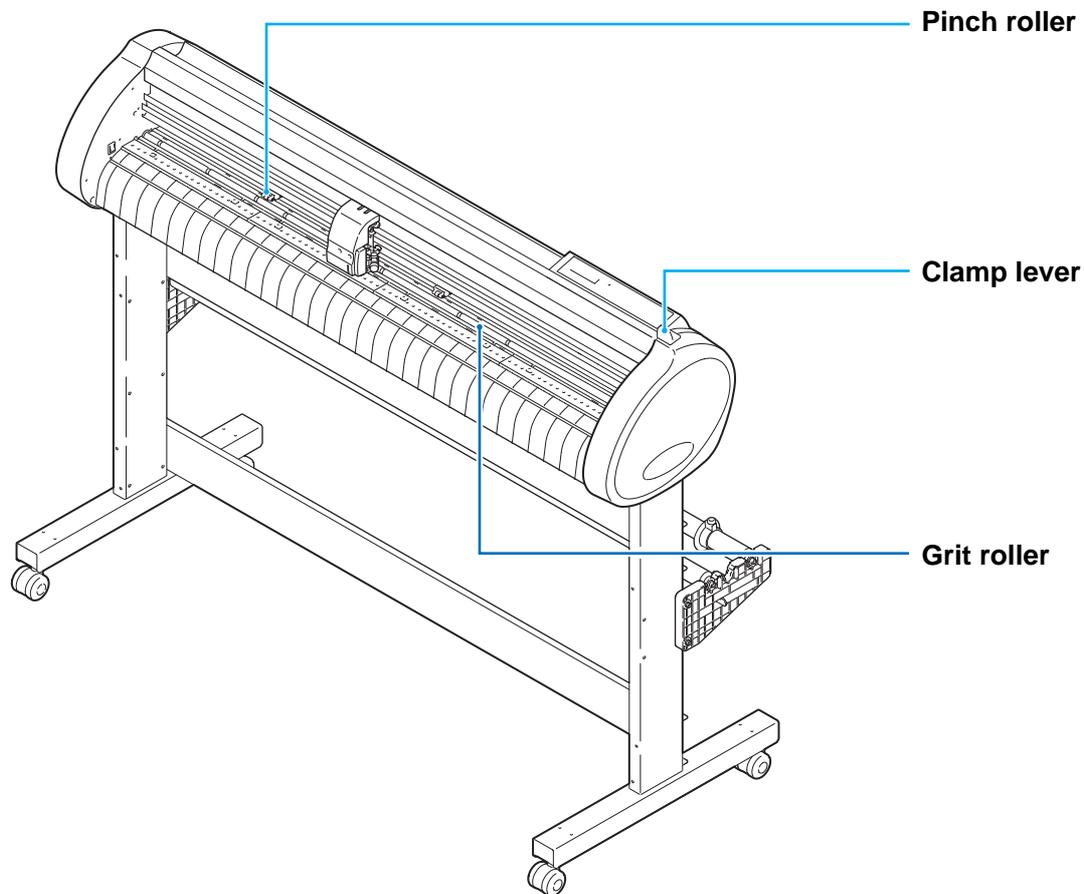
- After setting the tool condition, execute test cutting. ( P.31)

Important!

- When you set PRESSURE to lower than 20g in the Step 4, you must set the setting of SPEED to lower than 10cm/s in the Step 2. Otherwise, the setting may cause the tool to be lifted, and blurred plotting as well as undone cutting.
- Don't perform cutting adjustment only with the protruding amount of the cutter edge while PRESSURE (cutting pressure) remains to be set hard. If cutting is made with the less protruding amount of the cutter edge but with stronger PRESSURE, strange sound may come out during cutting. In addition, the bottom of the cutter and the sheet scrape each other, which may cause the sheet surface to have scratches and which may lower the cutting quality.

# Loading a sheet of media

Either a leaf sheet (cut sheet) or a roll sheet can be loaded on the plotter. The pinch rollers and grit rollers hold the sheet in position. Locate the pinch rollers so that they match the sheet to be used.



## Sheet width available

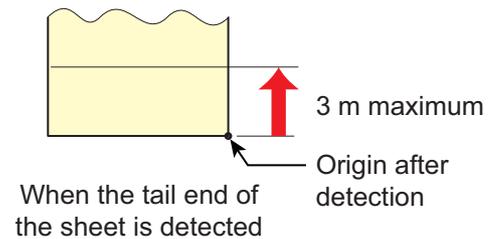
	mm	inch
CG-100SR II	90 to 1250	3.55 to 49.20
CG-130SR II	90 to 1550	3.55 to 61.00

## Sheet detection

The width and length of the sheet are detected by pressing     or  key depending on the sheet loaded. (☞ P.25)

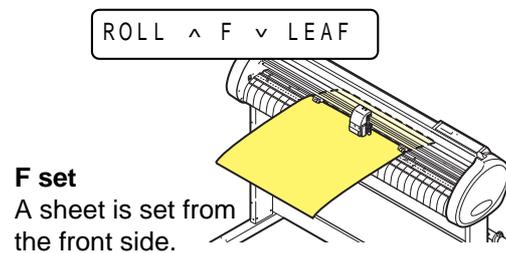
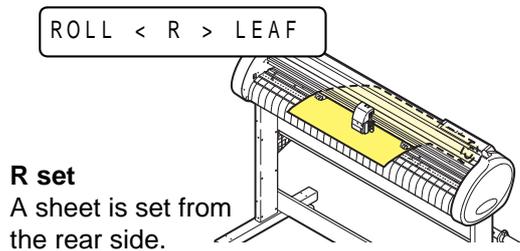
### Important!

- Once the sheet length has been detected, if the received data is larger than the sheet, the portion of data that exceeds the sheet cannot be used for cutting. If the sheet length is not detected, the plotter will terminate cutting operation when data goes beyond the sheet.
- If the sheet sensor function is set to [OFF], a press of a jog key     will make the plotter perform the same sheet detection as the case  key is pressed. (Only the sheet width is detected.)
- The maximum length that can be detected at the front and rear ends of the sheet of media is 3 m.

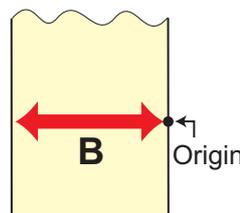
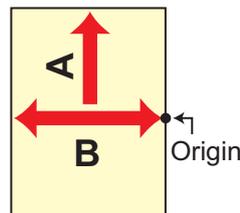
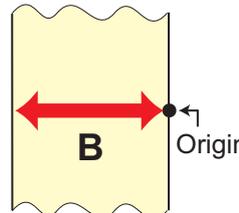
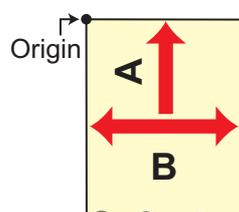
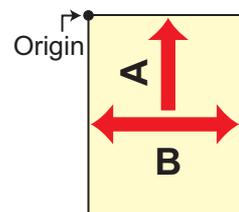


## Method of detecting a sheet

When a sheet of media is set, the following two displays will appear alternately on the LCD panel. Align to the direction of the set sheet, and press the jog keys , ,  or .



The plotter uses the five different methods to detect a sheet of media as shown below.

<b>Key</b>	 Sets the roll sheet in the back.	 Sets the leaf sheet in the back.	 Detects only the sheet width.
<b>Detecting method</b>	The sheet width is detected.	After the sheet width is detected, The back end of the sheet is detected.	The sheet width is detected.
	 Front side of the plotter	 Front side of the plotter	 Front side of the plotter
<b>Example of display after the sheet detection</b>	A= **** B=123	A=567 B=123	A= **** B=123
<b>Key</b>	 Sets the roll sheet in the front.	 Sets the leaf sheet in the front.	
<b>Detecting method</b>	After the sheet width is detected, the back end of the sheet is detected.	After the sheet width is detected, the back end of the sheet is detected.	
	 Front side of the plotter	 Front side of the plotter	
<b>Example of display after the sheet detection</b>	A= **** B=123	A=567 B=123	



- When the detected length is 3 m or more, the display “ \*\*\*\* ” will appear on the LCD.



- When a long sheet of media is used or a sheet which has already been drawn out is used from its middle area, the sheet detection will require an extended period of time. In such a case, the detection time can be reduced by detecting only the sheet width.

## Loading a leaf sheet (cut sheet)

# 1

Press the **SHEET SET** key to switch to **NOT READY** mode.

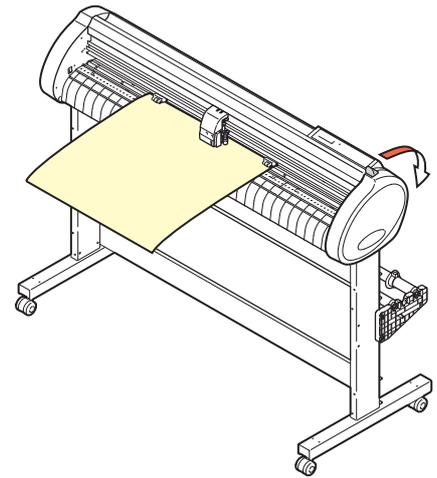
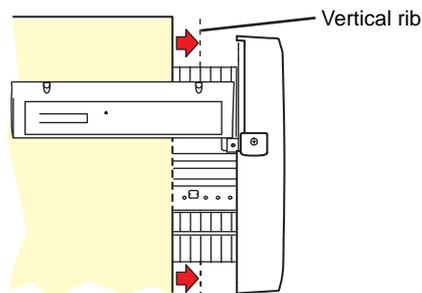
ROLL < R > LEAF

- You need not to do so if it's already in the NOT READY mode.  
Start operation from the Step 2.

# 2

**Load the leaf sheet on the platen.**

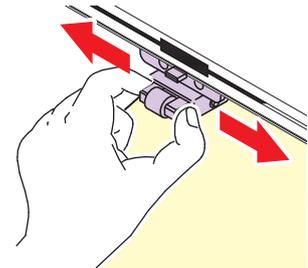
- Move down the clamp lever to the rear and raise the pinch rollers.
- Set the right end of the sheet considering the platen vertical rib as the measure.  
Or, align the near end of the sheet in parallel with the platen.



# 3

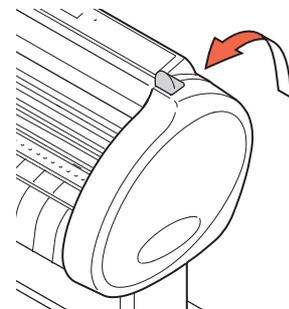
**Move the pinch rollers so that they suit the sheet width.**

- Locate each of the pinch rollers 5 mm or more inside the sheet edge; otherwise, the sheet can slip off the pinch rollers while it is being fed.



# 4

**Move down the clamp lever to the front and move the pinch rollers down.**



5

Press the jog key  or  to select "LEAF".

- "Sheet detection" (  P.24)
-  : In the case the sheet is loaded from the rear
-  : In the case the sheet is loaded from the front

6

Press the jog key  or  to select number of pinch rollers to be used.



PINCH ROLL . : 3

- When [ROLL. SELECT] is set to [ON], select the number of pinch rollers to be used.

7

Start detecting the sheet.

- When [DUMMY CUT] is set to [ON], after completing the sheet detection, the plotter performs dummy cutting operation.
- This plotter cannot detect the discard sheet of longer than 3m.

Displays the detected size of the leaf sheet.

A = 6 5 4    B = 4 5 9



Unit : mm

CUT1 20 050 0.30

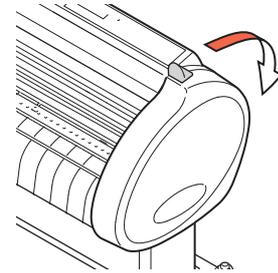
Displays the current settings of tool conditions.

## How to Place the Roll Sheet

If you want to use the roll sheet, you must mount the roll-placing table.

# 1

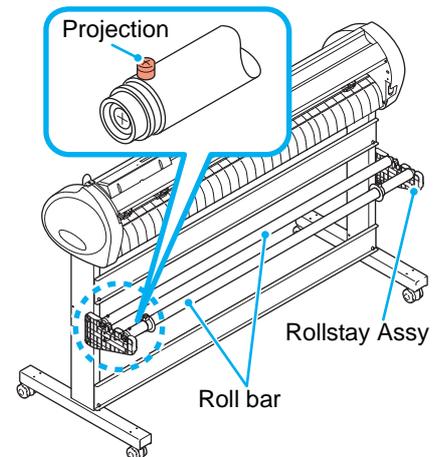
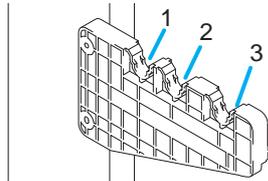
**Move down the clamp lever to the rear.**



# 2

**Set the roll bars on the roll stays.**

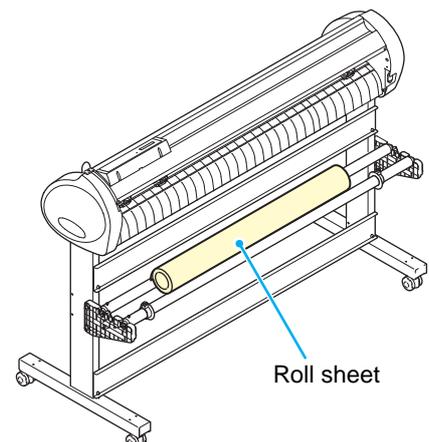
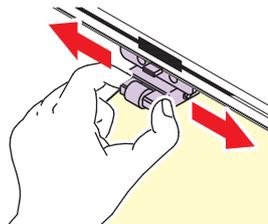
- Set each roll bar so that the side provided with a projection is located on the left side as viewed from the rear of the platen.
- Select the groove 1 or 2 to set one of the rollbars depending on the outside diameter of the roll sheet to be used.
- If the outside diameter of the roll sheet is 3 inch or more, place the roll bars in the grooves 1 and 3.
- If the outside diameter of the roll sheet is less than 3 inch, place the roll bars in the grooves 2 and 3.



# 3

**Load a roll sheet.**

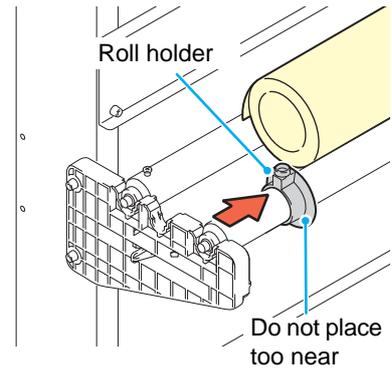
- (1) Place a roll sheet on the roll bars.
  - (2) Pass the leading edge of the sheet onto the platen and adjust the location of the pinch rollers to the sheet width.
- Locate each of the pinch rollers 5 mm or more inside the sheet edge; otherwise, the sheet can slip off the pinch rollers while it is being fed.



# 4

## Retain the roll sheet with the roll holders.

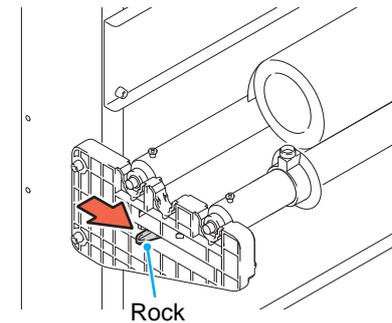
- Move the roll holders to both ends of the roll, respectively, and secure them by tightening the screws.
- Locate the roll holders 2 to 3 mm away from the respective roll ends. If the roll holders are fixed pressed against the roll ends, there may be a case where the roll cannot turn and thus the sheet cannot be feed.



# 5

## Lock the roll stopper.

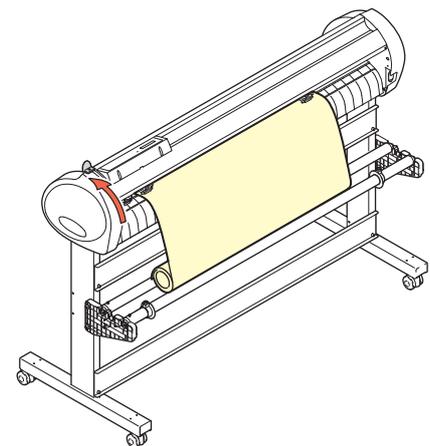
- Push the lock lever toward the rear of the main unit to lock the stopper.
- The roll stopper prevents the roll from turning when you draw out the sheet.



# 6

## Hold the sheet.

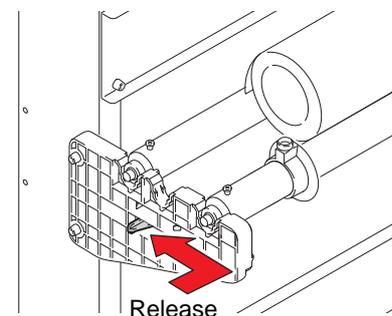
- (1) Pull the sheet to take up the slack in it.
- (2) Check that the sheet is set without slacks and then move down the clamp lever to the front.
  - If the plotter has been turned on: The suction fan will rotate to retain the sheet by suction.
  - If the plotter has been turned off: The suction fan will not rotate. It is, therefore, necessary to tilt the clamp lever toward the front of the unit while retaining the sheet with your left hand to prevent the sheet from warp-ing.



# 7

## Release the roll stopper.

- Push and pull the stopper to the front of the plotter.
- If you do not release the roll stopper, the buzzer sounds during sheet feeding and the plotter stops.



# 8

## Press the jog key or to select "LEAF".

- "Sheet detection" (  P.24)
-  : In the case the sheet is loaded from the rear
-  : In the case the sheet is loaded from the front

**9** Press the jog key  or  to select number of pinch rollers to be used.

- When [ROLL. SELECT] is set to [ON], select the number of pinch rollers to be used.



PINCH ROLL : 3

**10** Press the  key to start to search the sheet.

- After the sheet width is displayed, dummy cut will be performed.

Displays the detected size of the leaf sheet.

A = \* \* \* \* B = 5 5 9

Unit : mm



CUT 1 2 0 0 5 0 0 . 3 0

Displays the current settings of tool conditions.

**11** Press the  key to pull out the sheet of the length you want to use.

**12** Input the feed amount using the jog key  or .

- Setting value**  
In "mm" : 0.1 m to 51.0 m (in increments of 0.1 m)  
In "inch" : 1 to 167 feet (in increments of 1 ft.)



SHEET FEED : 1 0 . 0 m

**13** Press the  key.

- The sheet will be fed by the input length.

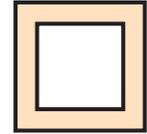


SHEET FEED : 8 . 0 m

**Important!** Before you use the roll sheet, previously pull out the sheet of the length you use to make enough room. By feeding out the sheet, you can verify if there is any sheet misalignment or not.

# Test cutting (plotting)

Execute test cutting (plotting) to confirm the tool conditions.  
In the test cutting, the plotter cuts two squares.



**Important!**

- When the cutter blade is worn and dull, you can use it temporarily by enhancing the value of PRESSURE. However, you are recommended to replace the worn cutter blade with a new one to ensure a satisfactory cutting quality.



- When the tool conditions are proper, the results of test cutting (plotting) are as follows:
  - The two squares are cut perfectly.
  - The base sheet remains uncut.
  - No corner of the squares is round.
  - No corner of the squares is curled-up.

## 1

**Confirm that the plotter is in the local mode.**

CUT1 20 050 0.30

## 2

**Press the **FUNCTION** key a few times to select [SQUARE CUT].**



SQUARE CUT <ENT>

## 3

**Press the **ENTER/HOLD** key .**

- The plotter will execute test cutting (plotting) and then return to the local mode display.

Change the settings of the cut conditions according to the test cutting (plotting) results.

Cut Condition	Cause	Remedy
Some parts uncut.	The blade is lifted above the sheet because of a too high cutting speed.	Lower the speed. (☞ P.21)
		Tighten up the thumbscrew for the tool holder. (☞ P.17)
The base sheet has been cut.	Too high pressure.	Lower the pressure. (☞ P.21)
	Too large protrusion of the cutter blade.	Adjust the protrusion of the cutter blade. (☞ P.16)
Any of the square corners rounded.	Improper OFFSET value.	Adjust the OFFSET value so that it suits the cutter blade in use. (☞ P.21)
Any of the square corners curled-up.	<ul style="list-style-type: none"> <li>The protruded cutter blade is too much.</li> <li>The cutting pressure is higher.</li> <li>The [COMPENSATION PRESSURE OFFSET value] is large.</li> </ul> More than two out of the above fall under this category.	Adjust the protrusion of the cutter blade. (☞ P.16)
		Adjust the cut pressure. (☞ P.21)
		Adjust the ADJ-PRS OFS value

# Cutting (plotting)

You can start cutting (plotting) after completion of setting up a tool, loading a sheet and setting the tool conditions.

## Setting the origin

The origin is a reference point for the cutting (plotting) data.

When the origin is to be changed, set the new origin before starting cutting (plotting).

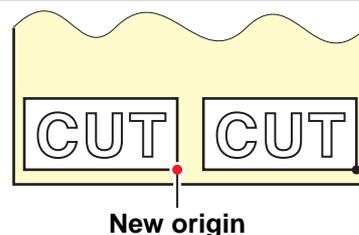
**Important!**

- Change the origin before you make the plotter start cutting for the next data; otherwise, cutting will be performed over the previous data.

# 1

**Move the head to a point at which the new origin is to be set.**

-  : Moves the head to the right.
-  : Moves the head to the left.
-  : Feeds the sheet toward the rear of the plotter.
-  : Feeds the sheet toward the front of the plotter.
- Every time you press the  key, the tool will move up and down alternately. This helps you to set the origin at a correct position.



# 2

**Press the  key to register the origin.**

- The display panel will show the effective cutting area first and then the tool conditions.



\*\* ORIGIN \*\*



A = \* \* \* \* B = \* \* \* \*



CUT1 20 050 0.30

## Start cutting (plotting)

1

After completion of setting the origin, press the **REMOTE** key.



CUT 1 \* REMOTE \*

- The display changes to REMOTE.

2

Send the data to the plotter.

- On receiving the data, the plotter performs cutting (plotting) while displaying the remaining amount of the data.
- Upon completion of cutting (plotting), the display changes as shown at right.

CUT 1 \* 1356KB \*



**When the cutter is selected**

CUT 1 \* REMOTE \*

**When the pen is selected**

PEN \* REMOTE \*

## Bringing the cutting (plotting) to a halt

To temporarily stop the plotter during cutting (plotting), press the **REMOTE** key once. Another press of the key will make the plotter resume cutting (plotting).

**Important!**

- In case the sheet has slipped off the plotter during cutting operation, turn off the power immediately; otherwise, the main unit may be damaged.



- The LCD will show the following error message if you try to execute any function that can initiate some action during temporary suspension or any operation that can affect the command coordinate system.

ERR34 DAT REMAIN

- If the error message appears, let the plotter complete the cutting for the remaining portion of the data or discontinue the cutting by executing data clearing (  OPERATION MANUAL).

## Cut off the Sheet (Manual Cutting)

**1**

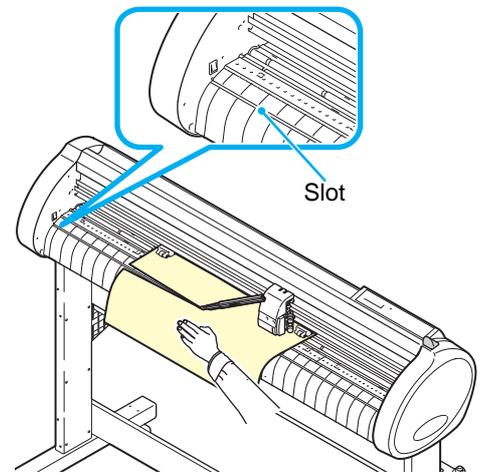
### Hold the sheet by hand.

- Make sure to hold firmly to avoid the sheet raiseup.

**2**

### Cut the sheet.

- Cut the sheet with a cutter knife in the slot on the platen.



# Turning the power off

When plotting is completed, press the “ O ” side of the power switch to turn the power off.

**Important!**

- Once the power is turned off, wait at least five seconds before turning the power on again.

**1**

**Confirm that the plotter is not receiving any data.**

- Make sure that the display is indicating REMOTE or LOCAL.

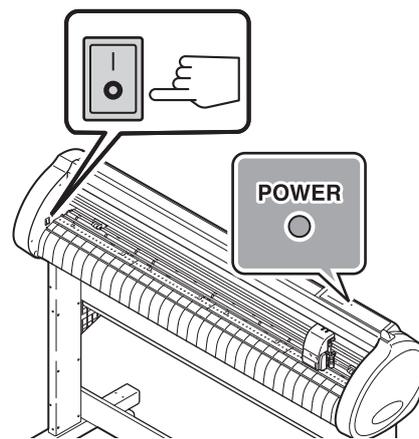
CUT1 \* REMOTE \*

CUT1 20 050 0.30

**2**

**Press the “ O ” side of the power switch.**

- The POWER lamp on the operation panel turns off.



# Cut Out Data with Registration Mark

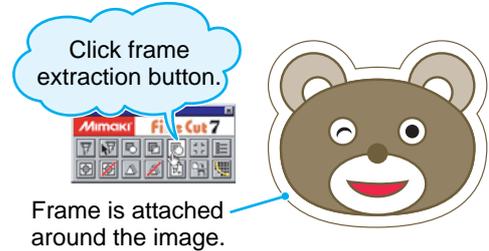
## Making sticker with a register mark (When using FineCut)

Create registration marks on an output image that you want to make a seal, and then the plotter detects them to cut it out.

1

### Make frame around the image.

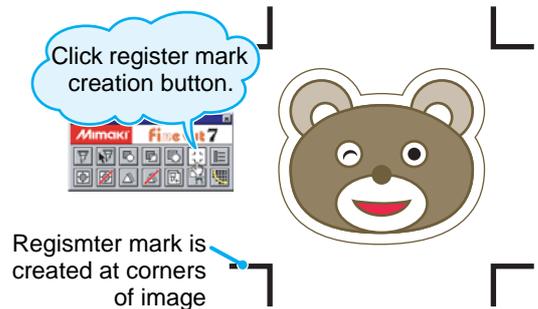
- Make frame with an attached plug-in soft "FineCut"



2

### Make register mark.

- Make register mark at corners of image.
- Cutting start position is settled according to the register mark.
- Use "FineCut" to make a register mark.
- Refer to P.39 to P.42 for the limitation of making a register mark.



3

### Print the image with register mark.



4

### Load the sheet to CG-SR11.

- Refer to P.23 for loading the sheet.

5

### Send the data with "FineCut" from computer, and cut.



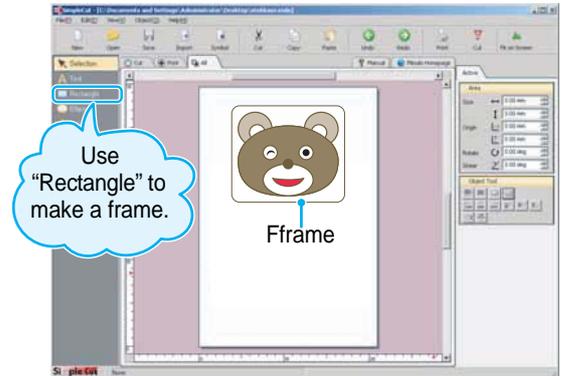
- For the operation of plug-in software FineCut, refer to the operation manual provided with a FineCut CD-ROM.

## Making sticker with a register mark (When using SimpleCut)

1

### Make frame around the image.

- Make frame with an attached plug-in soft "SimpleCut"



2

### Make register mark.

- Make register mark at corners of image.
- Cutting start position is settled according to the register mark.
- Use "SimpleCut" to make a register mark.
- Refer to P.39 to P.42 for the limitation of making a register mark.



3

### Print the image with register mark.



4

### Load the sheet to CG-SR11.

- Refer to P.23 for loading the sheet.

5

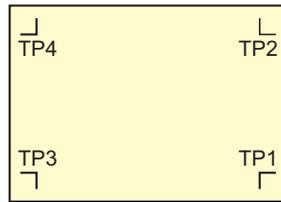
### Send the data with "SimpleCut" from computer, and cut.



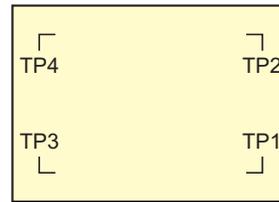
- For the operation of plug-in software SimpleCut, refer to the operation manual provided with a SimpleCut CD-ROM.

## Register mark type

There are following two types of registration marks.



Registration mark: Type 1



Registration mark: Type 2



- Use the TP4 when performing trapezium compensation to correct the uneven sheet feeding rate caused by the difference in the diameter between the right and left grit rollers. If the trapezium compensation is to be omitted, there is no need to set the TP4. In that case, however, cutting distortion will increase.

## Enter the registration mark detection mode

# 1

Press the **END** key in the local mode.

- It turns out to be a registration mark detection mode.



- When the registration detection is set to OFF, it doesn't enter into the registration mode. (☞ P.43)
- While various functions are under setting, data entry may be cancelled and the plotter may go back to the previous setting item.

# Precautions in inputting data with registration marks

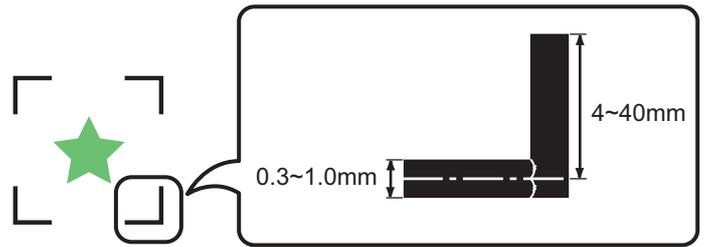
There are some limitations on preparing data with registration marks. In order to make full use of this function, read the following instructions carefully and prepare data with registration marks properly.

**Important!**

- The registration mark described here is intended to detect the sheet inclination and the lengths along the A and B axes. It is not a mark for trimming.

## Size of the registration marks

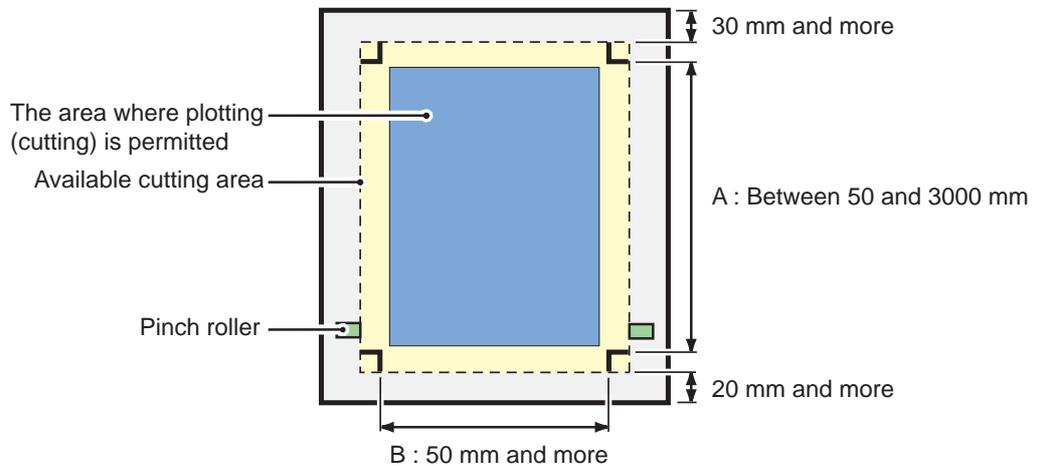
Refer to "The size of, and the distance between, registration marks" (P.41) for the relationship between the data and the length of one side of a registration mark.



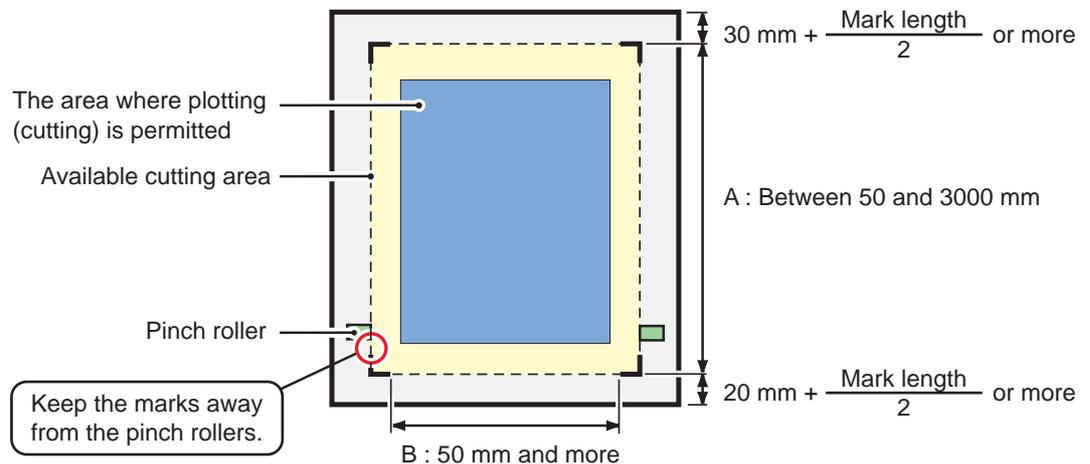
## The area where registration marks and designs can be arranged

- The TP1 starting position must be 20 mm or more away from the leading edge of the sheet.
- The TP2 end position must be 30 mm or more away from the tail end of the sheet.

### Mark Form : Type 1



### Mark Form : Type 2

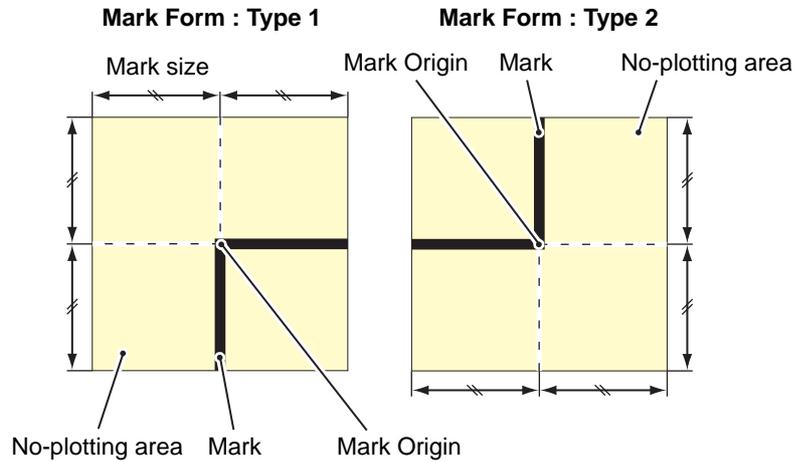


## No-plotting area around the registration marks

An area around a registration mark (from the mark origin to the mark size area) is a non-plotting area. There must be no data plotted or stain in this area; otherwise, a wrong origin may be detected or a mark read error can occur.

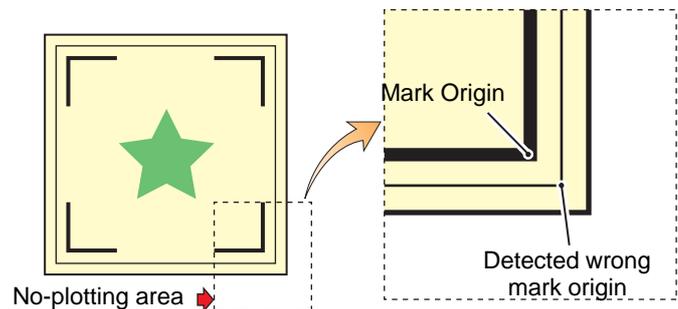
**Important!**

- If a wrong mark origin is detected, the cutting will be performed in a wrong area.



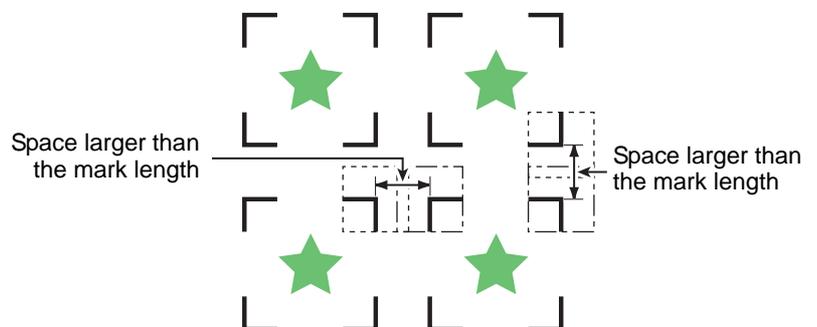
## Example of cause of wrong detection 1

There is a line outside the registration marks



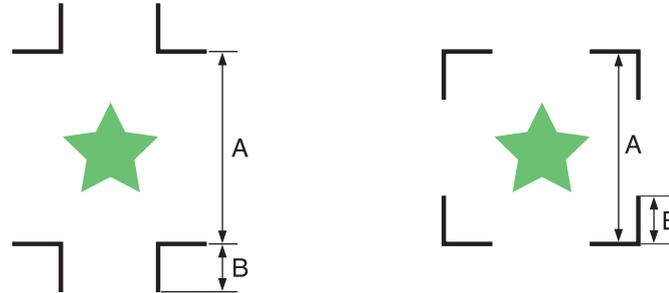
## Example of cause of wrong detection 2

The distance between registration marks (TP2 and TP1 or TP4 and TP2) is smaller than the mark length (for Type 2)



## The size of, and the distance between, registration marks

The size (B) of a registration mark suited for the distance (A) between the marks is as shown below. If the mark size (B) is too small relative to the distance (A), the marks may not be detected correctly. Be sure to prepare the registration marks with an appropriate size.

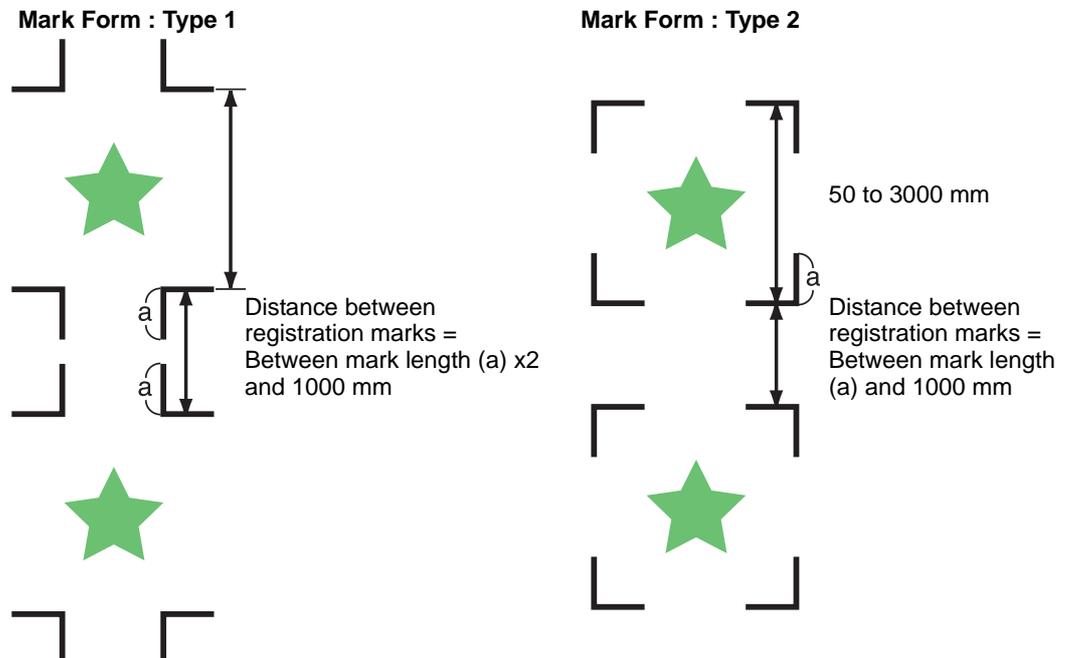


A	200 max.	500 max.	1000 max.	2000 max.	2001 min.
B	4 min.	8 min.	15 min.	25 min.	35 to 40

(mm)

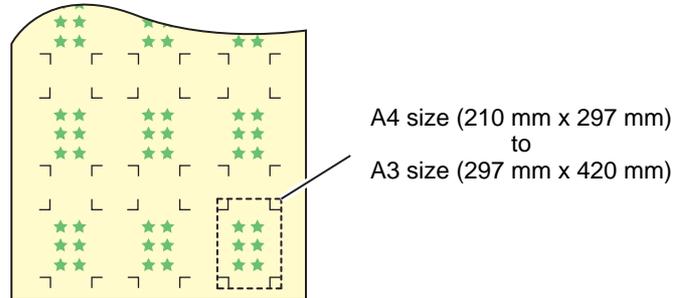
## Distance between registration marks for copied designs

For Type 1 registration marks, the distance between the marks must be not shorter than two times the mark length and not longer than 1000 mm. For Type 2 registration marks, the distance between the marks must be not shorter than the mark length and not longer than 1000 mm.



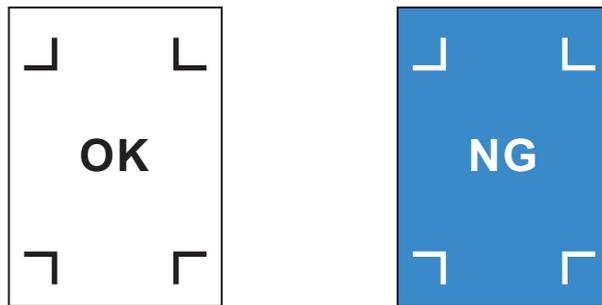
## Recommended size of the area defined with a set of four registration marks

It is recommended that the size of the area defined with a set of four registration marks is in the range of A4 size (210 mm x 297 mm) to A3 size (297 mm x 420 mm). If you follow this recommendation, you can minimize wasteful spaces and arrange the designs efficiently.



## Color of mark

The mark must be printed in black against the white background.  
The registration mark will not be detected correctly if the background is not white or the mark is not black.



## Mark blurred

If the mark is blurred, a wrong mark origin can be detected, thus resulting in deviated cutting.



## Set for Detecting the Registration Marks

When you want to cut the data with registration marks, you must set the following without fail.

1

Press the **FUNCTION** key in the local mode.

FUNCTION



DATA CLEAR <ENT>

2

Press the jog key or to select [SET UP].



SET UP <ENT>

3

Press the **ENTER/HOLD** key.

ENTER/HOLD



4

Press the jog key or to select [MARK DETECT].



MARK DETECT <ent>

5

Press the **ENTER/HOLD** key.

ENTER/HOLD



MARK DETECT : OFF

6

Press the jog key or to select [Number of detected registration marks].



MARK DETECT : 2 p t A

- Set values: OFF, 1pt, 2ptA, 2pt B, 3pt, and 4pt

7

Press the **ENTER/HOLD** key.

- In case you selected "OFF" in Step 6, proceed to Step 12.

8

Press the jog key or to select the following items.

- The following items are provided for the setting of registration mark detection:  
Scale compensation, registration mark size, offset A, offset B, form of registration mark, number of continuous cutting in direction A, number of continuous cutting in direction B, high speed limit and skew check
- See pages P.44 through P.47 for the contents of each setting item.

**9** Press the **ENTER/HOLD** key..

**10** Press the jog key **▲** or **▼** to select the set values.

- See pages P.44 through P.47 for the contents of each setting item.

**11** Press the **ENTER/HOLD** key to confirm the value.

**12** When you want to terminate this procedure, press the **END** key twice.

## Setting Items

### Setting the Number of Registration Mark Detection

The higher the number of detected points, the higher the cutting accuracy.

- Important!** • Select “1pt” when using FineCut.

Setting	Description
<b>OFF</b>	Select this setting for cutting a normal sheet, not for cutting the outline.
<b>1pt</b>	Detects the TP1. Sets only the origin.
<b>2pt A</b>	Detects the two registration marks TP1 and TP2. Performs the skew compensation and the scale compensation in the sheet feeding direction.
<b>2pt B</b>	Detects the two registration marks TP1 and TP3. Performs the skew correction and the scale compensation in the width direction.
<b>3pt</b>	Detects the three registration marks TP1, TP2 and TP3. Performs the skew compensation and the scale compensation in the sheet feeding and the width direction.
<b>4pt</b>	Detects the four registration marks TP1, TP2, TP3 and TP4. Performs the skew compensation, the scale compensation in both directions, and the trapezium compensation.

## DIST.REVI

Select "OFF" when using FineCut.

Setting	Description
<b>OFF</b>	The plotter will not perform any scale compensation.
<b>BEFOR</b>	With this setting, enter the scale compensation values and the trapezium compensation* <sup>1</sup> value before executing the registration mark detection. (☞ P.49 , ☞ P.52) Since the distance between registration marks is entered beforehand, rapid movement is expected when detecting.
<b>AFTER</b>	With this setting, enter the scale compensation values and the trapezium compensation value* <sup>1</sup> after executing the registration mark detection. (☞ P.49 , ☞ P.52) Since there is an understanding of the distance between marks, setting values can be input rapidly. The AFTER setting will take less time than the BEFORE setting.

\*1: The diameter difference between the grit rollers may cause a significant difference in the sheet feeding distance between the right side and the left side. The trapezium compensation function corrects this difference in sheet feeding between the right side and the left side.

## Size

Setting	Description
<b>4 ~ 40mm</b>	Set the length of one side of the registration mark. When the printed mark's horizontal and vertical lengths differ from each other, set the same value as the shorter length.

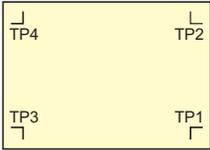
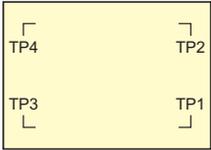
Length of one side



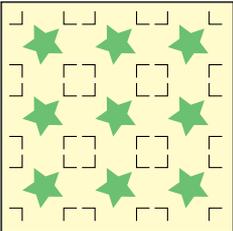
## Offset A, Offset B

Setting	Description
<b>± 40.00mm</b>	<p>Generally the origin will be set at the position shown below. However, the position information of the origin may differ depending on the application software. In this case, the location of the origin can be corrected.</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <p>Mark: Type 1</p> </div> <div style="text-align: center;"> <p>Mark: Type 2</p> </div> </div> <p>If the origin is located out of the available cutting area, "ERR37 MARK ORG" will be displayed. In this case, write the registration marks in the area closer to the center of the sheet.</p>

### MARK FORM

Setting	Description
<b>TYPE1</b>  <b>TYPE2</b> 	<p>Select either one of the following types of registration marks.</p> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;"> <p>Mark: TYPE1</p>  </div> <div style="text-align: center;"> <p>Mark: TYPE2</p>  </div> </div>

### COPIES A ( UP ), COPIES B ( LEFT )

Setting	Description
<b>1 ~ 9999</b> <b>(COPIES A)</b>  <b>1 ~ 99</b> <b>(COPIES B)</b>	<p>Effective when the same pattern is multi-printed at regular intervals. Cuts automatically the preset number of sheets while detecting registration marks consecutively based on the first data.</p> <div style="display: flex; align-items: center;"> <div style="text-align: center; margin-right: 20px;">  <p>3x3 copies</p> </div> <div> <p>For leaf sheets (cut sheets), the value of [COPIES A] is used as the number of copies. When the number of copies can be set on the application software, like on the supplied FineCut, set the value to [1].</p> </div> </div>

### SPD LIMIT

Setting	Description
<b>0 ~ 60cm/s</b>	<p>Set a speed limit for rapid moving in continuous copying. During rapid moving, mark detection may not be performed correctly if a slippery sheet is used. In such a case, set a speed limit. If no speed limit is required, set the value to "0".</p>

## SKEW CHECK

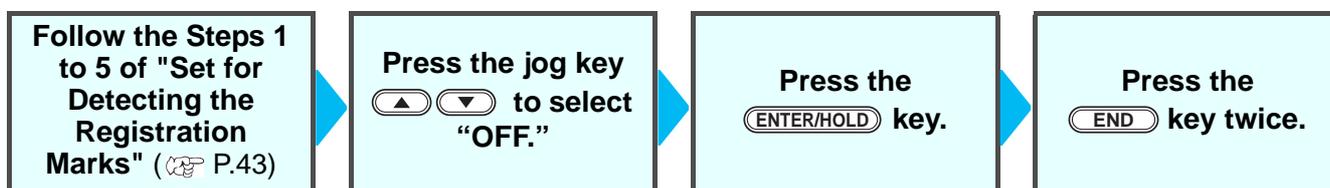
Setting	Description
0 ~ 99mm	<p>Set the allowable range of the sheet feeding error when performing continuous copy.</p> <p>During continuous copying on a roll sheet, copies may be misaligned little by little because of sheet skewing. If the error in the B-axis coordinate of the TP1 mark has exceeded the allowable range, cutting operation is temporarily stopped.</p> <p>Press the <b>ENTER/HOLD</b> key after correcting the sheet feeding error. Then the plotter waits for mark detection.</p> <p>Move the light pointer to the position shown below with jog keys and press the <b>ENTER/HOLD</b> key. Then the light pointer starts mark detection. If skew check is to be omitted, set the value to "0" .</p> <div style="text-align: center;"> <p>Mark: TYPE1                      Mark: TYPE2</p> <p>Reference mark 1                      Reference mark 2 (TP1)</p> <p>(TP1)                                      (TP1)</p> <p>Starting point for mark detection</p> </div>

## DETECT MODE

Setting	Description
<b>FAST</b>	The position is determined by scanning the registration mark segment back and forth once. Time required for detection is short, however, the accuracy becomes lower a little.
<b>PREC</b>	After scanning the registration mark segment back and forth once, measures the position without fail by scanning the segment included its outside again. Time required for detection becomes slightly longer.

## Reset the Setting of Registration Mark Detection

In case the plotter detects the sheet that has no printing of registration marks and displays [SEARCH START POS] you must set the registration mark detection to "OFF."  
Then, the registration mark detection becomes rendered ineffective.



## Method of detecting registration marks

Registration marks are detected in two different ways; full-automatic detection and semi-automatic detection. Use the semi-automatic function when the TP1 is not located at the bottom right of the sheet, or when the supplied FineCut is to be used as the cutting software.

**Important!**

- If the sheet is curled, straighten it.
- When using a cutting software having no mark function, use a sheet which has neither stains nor images in the area (A) located between TP1 and TP2 and in the area (B) located between TP1 and TP3.

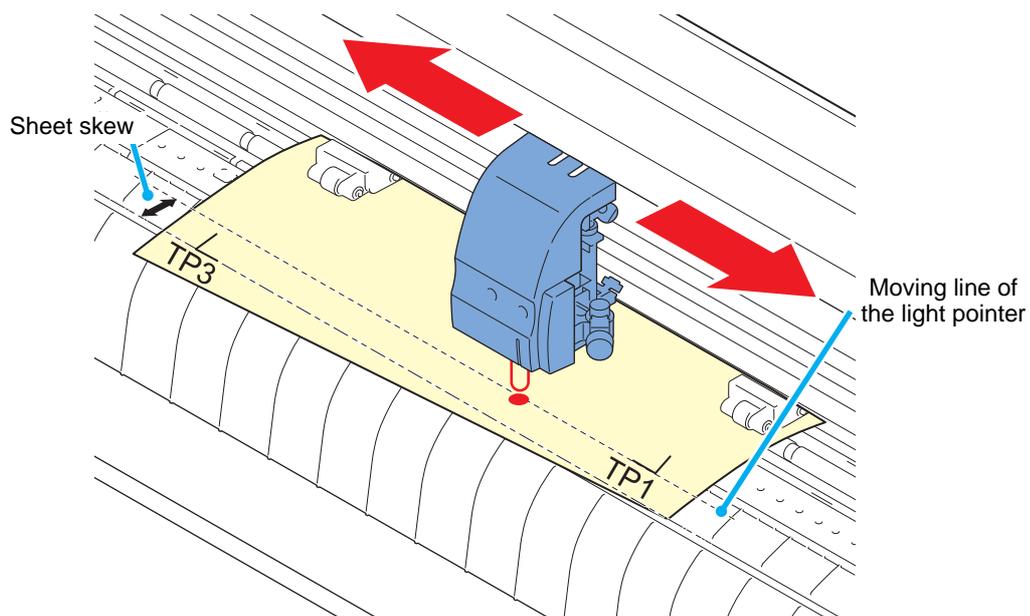
## Check sheet skew with a light pointer

Depress the clamp lever, raise the pinch roller and reset the sheet with the **SHEET SET** . And then the Light Pointer is turned lit.

You can manually move the carriage to the left and right. Depress the clamp lever, and manually move the carriage between the registrations TP1 and TP3. Then you can confirm the sheet inclination by the move line of Light Pointer. Align to the move line and adjust the sheet inclination.

**Important!**

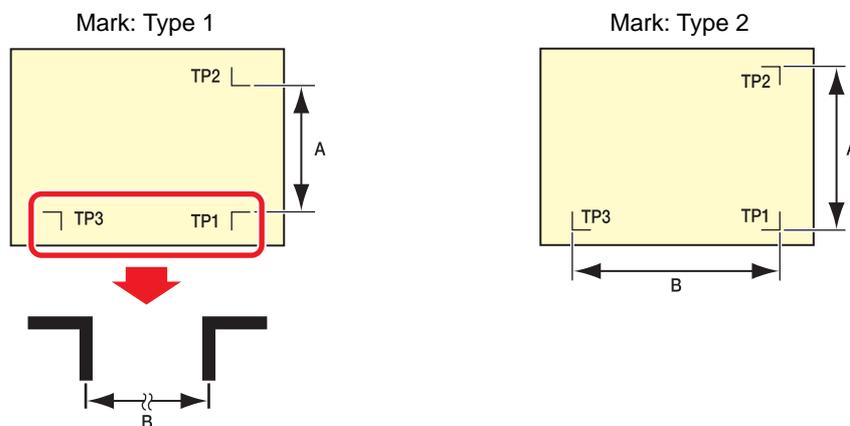
- If no operation is performed for five minutes, the light pointer will automatically go out.



## Full-automatic detection of marks

Use this function to correct the error in the detected length between registration marks as compared with the printed length between registration marks. For this purpose, measure the length A and B on the data beforehand.

Measure the length between the registration marks.



### Detecting procedure ( [DIST.REVI.] Setting value is "BEFOR")

**Important!**

- Be sure to set the sheet in the rear.

**1**

**Measure the lengths A and B on the data to be output.**

**2**

**Place TP1 at a location shown at right.**

- If it is impossible to place the registration mark TP1 at the location shown in the sketch, follow the procedure for "Semi-automatic registration mark detection".

**3**

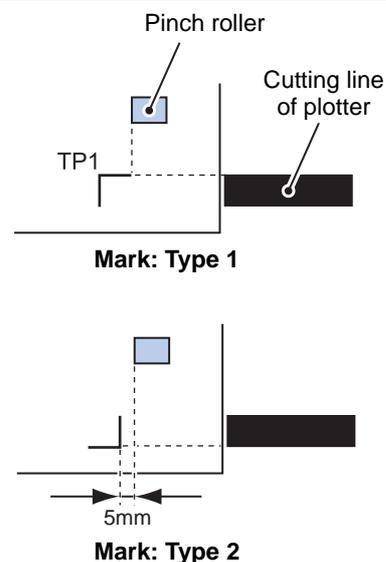
**You must take care to tighten the sheet, and raise the clamp lever.**

- Then the pinch rollers will retain the sheet.

**4**

**Press the **ENTER/HOLD** key.**

- The scale compensation display appears after detecting only the sheet width. (The right figure shows the 4-point detection display as an example.)



ENTER/HOLD



ROLL < R > LEAF



A ( 1 - 2 ) = \* \* \* . \*

5

**Set with the jog key  or .**

- Press the  key. And the plotter moves to the next scale compensation setting.
- If [MARK DETECT] is set to [2ptA], the display for inputting the B length will not appear.
- If [MARK DETECT] is set to [1pt], the scale compensation setting display will not appear but the origin point will be displayed. (Step 7)

A ( 1 - 2 ) = \* \* \* . \*



B ( 1 - 3 ) = \* \* \* . \*

6

**Press the  key after completing the settings.**

- The registration mark detection will be started.
- See "Setting the Number of Registration Mark Detection" ( P.44) for the number of registration marks.
- In case the plotter cannot detect any registration marks, it displays "Error 36 in the registration mark detection" on the display. Set the sheet again.

ENTER/HOLD  


B ( 1 - 3 ) = \* \* \* . \*



\* \* MARK DETECT \* \*

7

**Set the origin.**

- After the detection of the registration marks, the display will show the available cutting area and then return to local mode.

\* \* ORIGIN \* \*



A = \* \* \* \*    B = \* \* \* \*



CUT1 20 050 0.30

## Detecting procedure ( [DIST.REVI.] Setting value is "AFTER")

**Important!**

- Be sure to set the sheet in the rear.

# 1

Follow steps 1 to 3 of "Detecting procedure ( [DIST.REVI.] Setting value is "BEFOR")" (P.49)

# 2

Press the **ENTER/HOLD** key.

- The registration mark detection will be started after detecting only the sheet width.
- See "Setting the Number of Registration Mark Detection" (P.44) for the number of registration marks.
- In case the plotter cannot detect any registration marks, it displays "Error 36 in the registration mark detection" on the display. Set the sheet again.

ENTER/HOLD



ROLL < R > LEAF



\* MARK DETECT \*

# 3

After the detection of the registration marks, the scale compensation display appears.

- The right figure shows the 4-point detection display as an example.
- If there is a difference between the actually measured value and the detected length, make setting with the jog key (▲) or (▼).
- Press the **ENTER/HOLD** key to change the display to the next scale compensation setting.
- If [DIST. REVI.] is set to [OFF], the display for scale compensation setting will not appear.
- If [MARK DETECT] its set to [2ptA], the display for inputting the B length will not appear.
- If [MARK DETECT] is set to [1pt], the display for scale compensation will not appear. Proceed to Step 4 and set the origin.

A ( 1 - 2 ) = \* \* \* . \*



B ( 1 - 3 ) = \* \* \* . \*

# 4

Press the **ENTER/HOLD** key after completing the settings.

- Set the origin.
- The display will show the available cutting area and then return to local mode.

ENTER/HOLD



\* \* ORIGIN \* \*



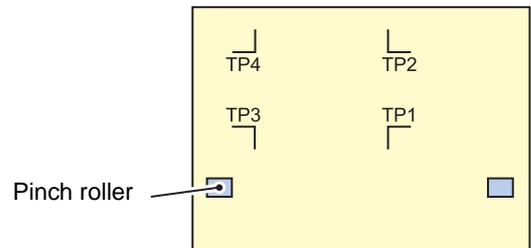
A = \* \* \* \* B = \* \* \* \*



CUT1 20 050 0.30

## Semi-automatic detection of registration marks

When TP1 cannot be located at the position where it can be detected full-automatically or when no registration mark can be detected full-automatically, perform registration mark detection semiautomatically.

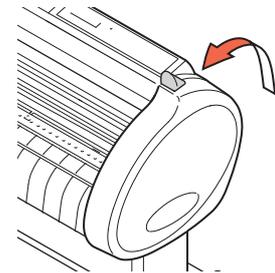


### Detecting procedure ( [DIST.REVI.] Setting value is "BEFOR")

1

#### Load the sheet and lower the clamp lever.

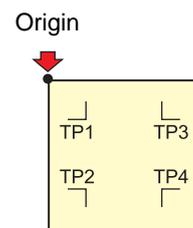
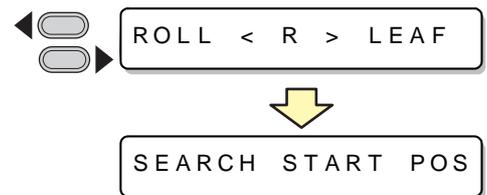
- Then the pinch rollers will retain the sheet.



2

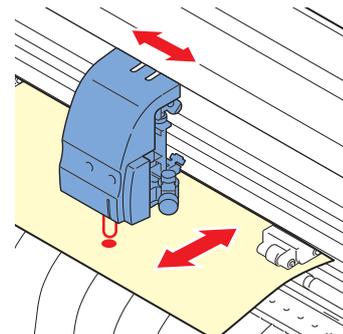
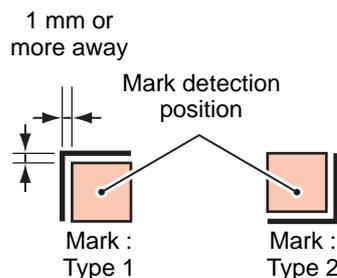
#### Perform the sheet detection by pressing the jog key ◀ or ▶. (Set the sheet in the rear.)

- Once the sheet is detected, the display indicates that the plotter is waiting for registration mark detection operation.
- When the sheet is set in the front, the positions of the TP1 to TP4 are viewed inverted as shown at right.



3

#### Move the Light Pointer into the area shown below by pressing the appropriate ones of the jog keys ▲, ▼, ◀, and ▶.



**4****Press the  key.**

- The scale compensation display appears. (The right figure shows the 4-point detection display as an example.)

ENTER/HOLD



SEARCH START POS



A ( 1 - 2 ) = \* \* \* . \*

**5****Make setting with the jog key  or**

- Press the  key to change the display to the next scale compensation setting.
- If [DIST.REVI.] is set to [OFF], the display for scale compensation setting will not appear.
- If [MARK DETECT] its set to [2ptA], the display for inputting the B length will not appear.
- If [MARK DETECT] is set to [1pt], the scale compensation setting display will not appear but the origin point will be displayed.

A ( 1 - 2 ) = \* \* \* . \*



B ( 1 - 3 ) = \* \* \* . \*

**6****Press the  key after completing the settings.**

- The plotter will start detecting the registration marks according to the settings of [MARK DETECT].
- See "Setting the Number of Registration Mark Detection" ( P.44) for the number of registration marks.
- In case the plotter cannot detect any registration marks, it displays "Error 36 in the registration mark detection" on the display. Set the sheet again.

ENTER/HOLD



B ( 1 - 3 ) = \* \* \* . \*



\* \* MARK DETECT \* \*

**7****Set the origin.**

- The display will show the available cutting area and then return to local mode.

\* \* ORIGIN \* \*



A = \* \* \* \* B = \* \* \* \*



CUT1 20 050 0.30

Detecting procedure ( [DIST.REVI.] Setting value is "BEFOR")

1

Follow steps 1 to 3 of "Detecting procedure ( [DIST.REVI.] Setting value is "BEFOR")" (P.52)

2

Press the **ENTER/HOLD** key.

ENTER/HOLD



\*\* MARK DETECT \*\*

- The plotter will start detecting the registration marks according to the settings of [MARK DETECT].
- See "Setting the Number of Registration Mark Detection" (P.44) for the number of registration marks.
- In case the plotter cannot detect any registration marks, it displays "Error 36 in the registration mark detection" on the display. Set the sheet again.

3

After the detection of the registration marks, the scale compensation display appears.

A ( 1 - 2 ) = \* \* \* . \*

- The right figure shows the 4-point detection display as an example.
- If there is a difference between the actually measured value and the detected length, make setting with the jog key or .
- Press the **ENTER/HOLD** key to change the display to the next scale compensation setting.
- If [DIST.REVI.] is set to [OFF], the display for scale compensation setting will not appear.
- If [MARK DETECT] is set to [2ptA], the display for inputting the B length will not appear.
- If [MARK DETECT] is set to [1pt], the scale compensation setting display will not appear but the origin point will be displayed.

4

Press the **ENTER/HOLD** key after completing the settings.

- Set the origin.
- The display will show the available cutting area and then return to local mode.

\*\* ORIGIN \*\*



A = \* \* \* \* B = \* \* \* \*



CUT1 20 050 0.30

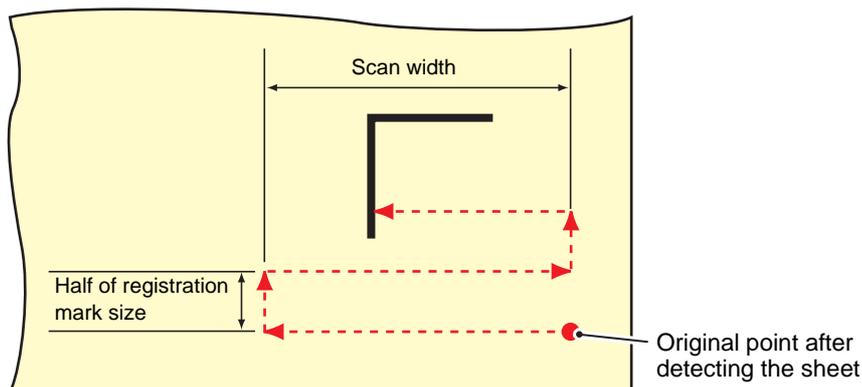
## Detect a registration mark automatically after the sheet is detected

Set the automatic registration mark search function performed after the sheet is detected.

If both of the registration mark detection and the registration mark search is valid, the function will search the registration mark automatically after the sheet is detected.

From the original point after detecting the sheet, it scans the set scan width back and forth at half intervals of the registration mark size. Then, when it finds a segment, a point or a printed material, the registration mark detection will be performed.

If the vertical line and the horizontal line are detected properly, it is recognized as a registration mark and the original point setting will be performed.



1

Press the **FUNCTION** key in the local mode.



DATA CLEAR <ENT>

2

Press the jog key  or  to select [SET UP].



SET UP <ENT>

3

Press the **ENTER/HOLD** key.



SEARCH MARK <ent>

4

Press the jog key  or  to select [SEARCH MARK].



SEARCH MARK : OFF

5

Press the **ENTER/HOLD** key.



SEARCH MARK : ON

6

Press the jog key  or  to select "ON".



SEARCH MARK : ON

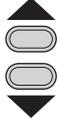
- 7** Press the **ENTER/HOLD** key.


SCAN WIDTH : 10 cm

---

- 8** Press **▲** or **▼** key to select the scan width.

• Set values: 10 to 30cm


SCAN WIDTH : 20 cm

---

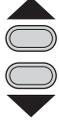
- 9** Press the **ENTER/HOLD** key.


SearchRange : 10 cm

---

- 10** Press **▲** or **▼** key to select the search range.

• Set values: 10 to 50cm


SearchRange : 30 cm

---

- 11** Press the **ENTER/HOLD** key.

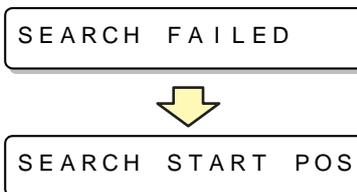


---

- 12** Press the **END** key twice for terminating this function.

**Important!**

- If it is not recognized as a registration mark or there is no response even if the function scans the area set for search, the message indicating the search failure will be displayed in a certain time.  
Then, it will return to the original point and the mode will move to the normal semi-automatic registration mark detection mode.



## Confirm the following when failed in cutting correctly.

### Check the sensor for the registration mark detection

Important!

- If you move the head and sheet manually, you cannot perform the right response check. Be sure to perform it via the following operations.

1

Make sure that the plotter is in local mode.

CUT1 20 050 0.30

2

Enter the jog mode by pressing the jog key    or .

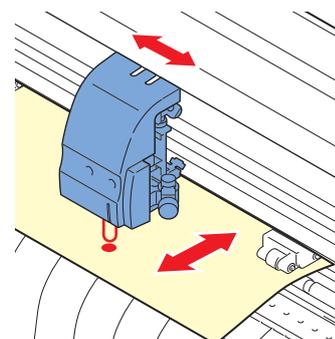
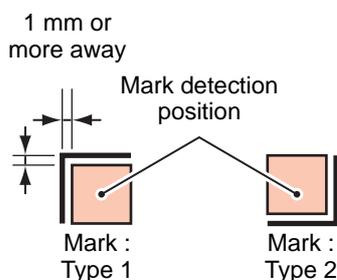
3

Turn on the Light Pointer by pressing the  key.

4

Move the Light Pointer to the registration mark detection position by pressing the appropriate ones of the jog keys    and .

- Perform registration mark detection at a position 1mm or more away from the registration mark.



5

Press the  key to terminate the jog mode.

- The plotter returns to the local mode.

6

Press the  key.

FUNCTION



DATA CLEAR <ENT>

7

Select [MARK sensor] by pressing the jog key  or  .



MARK sensor <ENT>

8

Press the  key.

ENTER/HOLD



SENSOR CHK <ent>

9

Press the  key after confirming [SENSOR CHK] is displayed.

10

Select the length of the registration mark, shape of the registration mark, and speed of the registration mark detection.

SIZE : 10mm

FORM : TYPE 1 

- For details on setting the [SIZE] and [FORM], refer to the [MARK DETECT] setting procedure. ( P.39)

11

Perform registration mark detection with the jog key  .  
( Next page)

## Detect operation

**1**

**Scan in the B direction (plus direction) to detect the line.**

- The buzzer sounds when the line is detected. If the line is not detected, the buzzer does not sound.

**2**

**Scan in the B direction (minus direction) to detect the line.**

**3**

**Scan in the A direction (plus direction) to detect the line.**

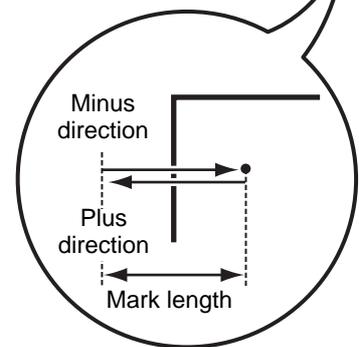
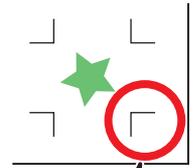
**4**

**Scan in the A direction (minus direction) to detect the line.**

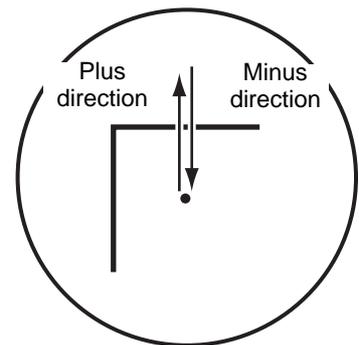
**5**

**Follow the Steps 1 to 4, and confirm if the buzzer sounds 4 times.**

- When the detection behavior completes successfully, the buzzer sounds 4 times.
- If the plotter cannot detect the line successfully even after you adjusted the sensitivity, you must verify the registration conditions and contact our sales branches (for service call).



Scan in the A direction

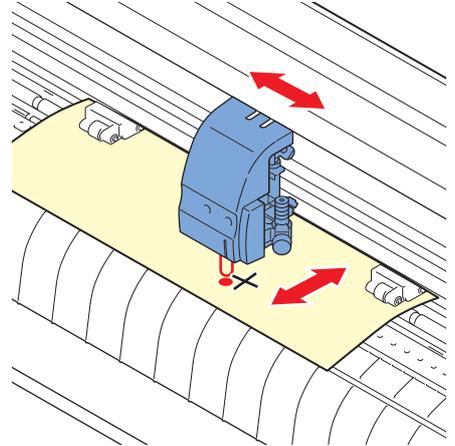


Scan in the B direction

## Correct the light pointer position

If the plotter fails to recognize any registration mark properly, the possible cause is an error in the positional relationship between the MARK sensor and the light pointer. In this case, adjust the position of the light pointer.

**1** Install a cutter in the tool holder.



**2** Load the copy paper.

**3** Confirm that the plotter is in the local mode.

CUT1 20 050 0.30

**4** Press the **FUNCTION** key.

FUNCTION

DATA CLEAR <ENT>

**5** Select [MARK SENSOR] by pressing the jog key **▲** or **▼**.



MARK sensor <ENT>

**6** Press the **ENTER/HOLD** key.

ENTER/HOLD

SENSOR CHK <ent>

**7** Select [POINTER OFS] by pressing the jog key **▲** or **▼**.



POINTER OFS <ent>

**8** Press the **ENTER/HOLD** key.

ENTER/HOLD

A = - 3 . 9    B = - 6 . 0

- A 10 mm by 10 mm cross pattern will be cutted.
- The light pointer turns on and moves to the center of the cross pattern.

---

**9**

By pressing the jog keys    and , adjust the light pointer position so that the center of the light pointer is in alignment with the center of the cross pattern.

---

**10**

Press the  key.

- The plotter will return to the local mode after registering the compensation value.

ENTER/HOLD



CUT1 20 050 0.30

---

## Alignment of MARK SENSOR

The offset value of the cutter and the mark sensor can be adjusted.  
Set the sheet on which the register mark is printed.  
Usable on Firmware Ver.1.1 or later.

**1** Install a cutter in the tool holder.

**2** Confirm that the plotter is in the local mode.

CUT1 20 050 0.30

**3** Press the **FUNCTION** key.



DATA CLEAR <ENT>

**4** Select [MARK SENSOR] by pressing the jog key or .



MARK sensor <ENT>

**5** Press the **ENTER/HOLD** key.



SENSOR CHK <ent>

**6** Select [SENSOR OFS] by pressing the jog key or .



SENSOR OFS <ent>

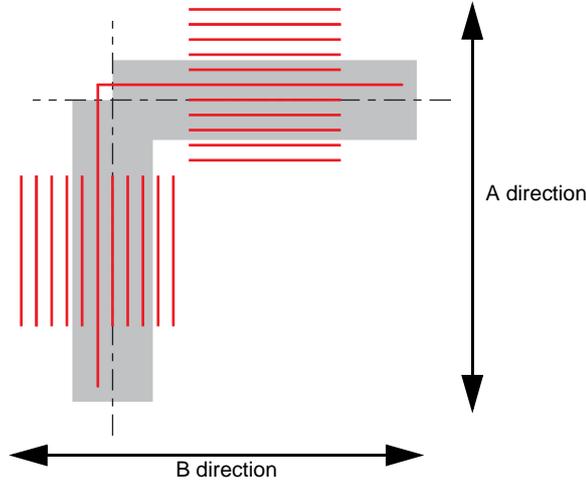
7

Press the **ENTER/HOLD** key.



A = 0 . 0      B = 0 . 0

- The offset value of the cutter and the mark sensor can be adjusted.
- Set the sheet on which the register mark is printed.



Misaligned by +0.2 mm from the center line of the register mark (---) in the A and the B direction.

8

Enter the corrected value (mm) by pressing the **▲** **▼** for the A direction, or the **◀** **▶** for the B direction.

A = - 0 . 2      B = - 0 . 2

- If misaligned by +0.2 mm, enter "-0.2".

9

Press the **ENTER/HOLD** key.



CUT1 20 050 0.30

- The plotter will return to the local mode after registering the compensation value.

**Important!**

- The setting values are kept in memory even when the power is turned off.
- The sensor offset value selected by this operation is not initialized by SETUP RESET operation.







