Monu-Cut Pro2 15 Portable
Stencil Cutter   USER'S MANUAL 2023

Specifications:
Cutting area: will cut 2″ to 14.76"
Will hold media widths: Min - 2" to Max 19"
Maximum cutting speed: 24" per second
Maximum cutter force: 20 gf - 450 gf
Maximum media thickness: 10 mils
Display panel: LCD with backlight (240 dots by 128 dots).
Plotter Dimensions: 26.5" x 13.3" x 10.5"
Shipping weight: 29 pounds

Warranty: One year parts and labor (Does Not Include Shipping Or physical abuse)

Extended Warranty: $250.00 to add 1 year to warranty for a total of two years (must purchase within 45 days)

   Within 45 DAYS - we accept credit card, paypal or check made payable to:
   THE PLOTTER DOCTOR LLC
   8410 SOMERSET BLVD
   PARAMOUNT, CA 90723

E-Mail: jdpartin@flash.net Website: ThePlotterDoctor.com   Phone: 562-633-4132

Front View: Monu-Cut Pro2 15 Portable
Control panel = Used to access various plotter functions.
Push rollers = Rollers that push the media against the grit rollers.
Grit rollers = Metallic rollers with a file-like surface that feed the media back and forth.
Media sensors =the front sensor is used to sense the leading edge of the media. The rear
Sensor is used to sense the trailing edge of the media.
Tool carriage= Moves the cutter-pen or plotting pen across the media during cutting or plotting.
Tool holder= Holds the cutter-pen or plotting pen and moves it up or down.
Grit roller position guide=Stickers on the front of the Y rail and the rear side of the top cover that show
The position of each grit roller. Use these alignment marks as an aid in locating the Push rollers.
Cutting groove = Use this groove when using the media cutter.
Media set lever =Used to raise or lower the Push rollers during the loading or unloading of media.
USB interface connector = Used to connect the plotter to the computer with a USB interface cable.
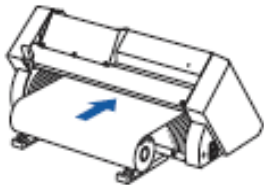**RS-232C interface connector =**Used to connect the plotter to the computer with a RS-232C interface
Rear View:
Roll-medium tray = A tray to set media in.
Roll-medium tray guide rail= A rail to set the roll media tray in.
Power switch = Used to turn the plotter on and off.

Mounting the Roll-medium tray
Mounting
Set the roll media tray in using the roll media tray guide rail.
Make sure the rollers on the roll media tray are on the outside
Connection
Check that the power switch is turned off
 Connect the plotter to the computer using the USB cable.
USB cable to the Computer / Connection via USB Cable to the Computer

Preparing to Cut

Cutter Plunger

The plotter cuts using a cutter blade mounted in a Blade Holder.
The cutter blade to be mounted (the φ0.9 mm cutter plunger).
Be sure to mount the cutter blade into the Blade Holder.
Blade-length adjustment knob

Adjusting the Blade Length

Blade length needs to be adjusted to perform optimal cut. Perform few test cuts and set the optimal blade length.
CAUTION
To avoid bodily injury, handle cutter blades with care.
It may result in damaging the cutter blade or the cutting mat if the blade is extended too much. Make sure the blade length is set
Less than the thickness of the media.
Supplement
See "Running Cutting Tests"   for cutting tests.
See "Adjust the Blade Length Manually"   for method to manually adjust the blade length.
See "Adjust the Blade Length (Automatic Height Adjust)"   for method to automatically adjust the blade length.
Adjust the blade length by turning the blade-length adjustment knob. Turn the knob in direction "A" to extend
The blade, or in direction "B" to retract the blade. When the knob is turned by one scale unit, the blade moves
Approximately 0.1 mm. One full turn of the knob moves the blade approximately 0.5 mm.
Cutter blade moves

Attaching a Tool

Attach a tool (cutter Holder, plotter pen) to the plotter.

Attaching a Tool

When mounting the tool in the tool holder, please note the following.
Push the tool all the way into the holder until its flange contacts the upper part of the holder and then tighten the screw firmly.

Tool holder 2
(Forward: Using cutting)
Flange Tool holder
 Make sure that the tool bracket is engaged on the tool's flange, and then tighten the screw.
Bracket to hold tool Flange

Loading Roll Media Operation

 Lower the media set lever to raise the push rollers.
Media set lever
Push roller
Media sensor

.
The push rollers push down on either side of the media. Use
The grit roller position guide to make sure the push rollers are
Set on top of the grit rollers.
Push roller Media

Selecting Tool Condition

Normal mode

Operation

Name of the media assigned in "Cutting
Plotter controller" is displayed as the
CONDITION No. name.
CONDITION No. can also be changed from
READY status. See "Change the Cutting
Condition"   .
 Press the [COND/TEST] key in the default screen.
CONDITION setting screen (1/3) is displayed.
Supplement
It will return to CONDITION screen without
Changing the settings when you press the
POSITION ( ) key (CANCEL) .
 Press the [1] key.
CONDITION No. selection screen is displayed. Press the POSITION ( ) key and select the setting

(CONDITION No.).
 Confirm the setting and press the [ENTER] key (SET).
Setting will be set, and it will return to CONDITION screen (1/3)
 Press the [COND/TEST] key.
It will return to default screen.

Setting the Tool Condition

This section describes how to make the tool, speed, force, acceleration, and tool number settings. Before cutting
Media, the following four cutter-pen conditions must be specified.

- FORCE

- SPEED

- ACCELERATION

- OFFSET

Setting the Speed and Force (Simple mode)

In Simple mode, set the speed and force to be used with each tool condition.
Setting range (SPEED) : 5 to 60 (in 5cm/s increment)
Setting range (FORCE) : Standard Value + Adjusted Value
When the value (standard value + adjusted value) is as follows;

Operation
Supplement
Use Normal mode for changing the type of
Blade, offset, and acceleration.
It will return to CONDITION screen (1/3)
Without changing the settings when you press
The [4] key (CANCEL) .
 Press the [COND/TEST] key in the default screen.
CONDITION setting screen (1/5) is displayed.
 Press the POSITION ( ) key and select the setting.
Select the preset Media Type (Tool Conditions).
 Press the [2] key (SPEED) to change the speed.
The screen below will appear.
Supplement
Press the [ENTER] key (SET), confirm the
Settings, and then return to the READY
Screen.
Press the [4] key (RETURN) to return to the READY screen without changing any settings.
 Press the POSITION ( ) keys to change the current value.
You can enter any value between 5 and 60 (in increments of
5cm/s).
If you only want to change the speed, press the [ENTER] key
(SET). Setting will be set, and it will return to default screen.
Setting will be set, and it will return to default screen.
 When you want to change the force, press the [3] key
(FORCE).
The screen below will appear.

Press the [ENTER] key (SET) to confirm the
Settings and return to the READY screen.
Press the [4] key (RETURN) to return to
The READY screen without changing any
Settings.
The +0 value allows you to use the standard
Force setting. If adjustment is necessary, you
Can enter the ± adjusted value.
 Press the POSITION ( ) keys to change the current value.
The force setting can be modified with the ± adjusted value.
When confirming the setting, press the [ENTER] key (SET).
Setting will be set, and it will return to default screen.

Setting the Tool

Set the type and offset value of the tool that is used in each of the tool condition numbers.

Operation
Supplement
Perform the settings in Normal mode.In Simple mode, it is locked.

Press the [COND/TEST] key in the default screen.
CONDITION setting screen (1/3) is displayed.
Supplement
It will return to CONDITION screen without
Changing the settings when you press the
POSITION ( ) key (CANCEL).
Press the [2] key (TOOL).
TOOL setting screen is displayed.
Press the [1] key.
CONDITION No. selection screen is displayed.
* Display may vary depending on the selected condition number.
Press the POSITION ( ) keys to select the Condition No. of
The Tool/Offset you wish to change.
Confirm the setting and press the POSITION ( ) key
(PREVIOUS) .
CONDITION No. will get set and return to TOOL setting screen.
Press the POSITION ( ) key, and set the tool. **Supplement**
It will return to CONDITION screen without
Changing the settings when you press the
POSITION ( ) key (CANCEL) .

Supplement
What is offset?
It will adjust the difference between the
Tip of the blade in the plunger and the
Center of the plunger. There are standard
Adjustment values for each cutter blades.
Fine adjustment will be made to that standard
Values here. (Adjustment will be made with
Standard value as 0.)
It is not necessary to set the offset if "PEN",
Was selected in the tool settings. (Not
Displayed)
Guideline to Set Offset
Refer to the Cutter Blade Manual.
To return to continue the settings of other
Tool condition number, return to step 3 by
Pressing the [1] key.
Press the [3] key (OFFSET).
OFFSET setting screen is displayed.
Press the POSITION ( ) key and increase or decrease the
Setting value.
Confirm the setting and press the [ENTER] key (SET).
Setting will be set, and it will return to CONDITION screen (1/3).
Press the [COND/TEST] key.
It will return to default screen.

Setting the Speed

Set the speed of the tool that is used in each of the condition numbers.
Setting range: 1 to10 (in 1 cm/s increment), 10 to 60 (in 5 cm/s increment)

Operation

Perform the settings in Normal mode.
Press the [COND/TEST] key in the default screen.
CONDITION setting screen (1/3) is displayed.
Supplement
It will return to CONDITION screen (1/3)
Without changing the settings when you press
The [4] key (CANCEL) .
Press the [3] key (SPEED) .
SPEED setting screen is displayed.
* Display may vary depending on the selected tool condition number.
Press the POSITION ( ) key and select the tool condition
Number (CONDITION No.) .
Supplement
Guideline to set speed
See "Setting the Tool Condition"   .
Press the POSITION ( ) key and increase or decrease the
Setting value.
Confirm the setting and press the [ENTER] key (SET).
Setting will be set, and it will return to CONDITION screen (1/3).
Press the [COND/TEST] key. It will return to default screen.

Setting the Force

Set the cutting force that is used in each of the condition numbers.

Setting range: 1 to 38

Operation

Supplement

Perform the settings in Normal mode.

Press the [COND/TEST] key in the default screen.

CONDITION setting screen (1/3) is displayed.

Supplement

It will return to CONDITION screen (1/3)

Without changing the settings when you press

The [4] key (CANCEL) .

Press the [4] key (FORCE).

FORCE setting screen is displayed.

* Display may vary depending on the selected condition number.

Press the POSITION ( ) key and select the condition

Number (CONDITION No.).

Supplement

Guideline to set force

See "Setting the Tool Condition"   .

Press the POSITION ( ) key and increase or decrease the

Setting value.

Confirm the setting and press the [ENTER] key (SET).

Setting will be set, and it will return to CONDITION screen (1/3).

Press the [COND/TEST] key.

It will return to default screen.

Setting the Acceleration

Set the acceleration of the tool that is used in each of the tool condition numbers.

Setting range: 1 to 3

Adjust the Blade Length Manually

Optimal cut is not achieved unless the blade length is adjusted in accordance to the used media and the cutter

Blade. Perform further adjustment by performing cutting test after adjusting the blade length manually.

CAUTION

To avoid bodily injury, handle cutter blades with care.

It may result to damaging the cutter blade or the cutting mat if the blade is extended too much. Make sure the blade length is set

Less than the thickness of the media.

Supplement

See "Running Cutting Tests"   or cutting tests.

See "Adjust the Blade Length (Automatic Height Adjust) "   for method to automatically adjust the blade length.

Operation

Align the blade tip to the tip of the cutter pen, and make it

Touch the surface of the media.

Media

Blade

Blade length can be changed by spinning

The adjustor on the blade. Spinning it in the A

Direction pushes it out, while spinning it in the

B direction pulls it in. One scale unit is equal

To 0.1 mm.

Cutter blade moves approximately

0.1 mm turning one scale unit.

Guideline to Set the Blade Length

See "Setting the Tool Condition"

For the thickness of the media.

Extend the blade little by little to the thickness of the media.

Optimal blade length is less than the thickness of film and

Backing sheet combined, but more than the thickness of the

Film.

Try cutting the film, and adjust so there is slight cutting on

The backing sheet. If the backing sheet gets cut completely,

Reduce the blade length, and if the film does not get cut

Completely, increase the blade length.

Backing Sheet

Film

Optimal blade length Thickness of Media

Test cutting can be performed after making the tool, speed, force, and acceleration settings to ensure that the Selected cutting conditions actually produce the desired cutting results. Check how far the blade cuts into the Media and how the corners are being cut. If the cutting results are not satisfactory, adjust the various settings and Repeat the test cutting until the optimal settings are achieved.

Cutting Test

Here, you can either cut one test pattern based on the current values

To make 1 cut with set value

Operation

Load the media for test cutting in the plotter.

Press the [COND/TEST] key in the default screen.

In Normal mode, CONDITION screen (1/3) is displayed.
In Simple mode, CONDITION screen (1/5) is displayed.
CONDITION screen
(Simple mode)
CONDITION screen
(Normal mode)

Supplement

It will return to CONDITION screen by pressing
The [4] key (CANCEL).

Press the POSITION ( ) key (CUT TEST).

Supplement

Pushing the [POSITION] and [FAST] keys
Simultaneously will move the tool carriage
Faster.

Press the POSITION ( ) key the tool carriage to the
Location you wish to perform the test cutting.

CAUTION

When the [ENTER] key is pressed, the tool
Carriage will start moving, so take care not to
Cut your fingers.

Press the [ENTER] key.

1 cut test pattern is cut.

Press the [ENTER] key after completion.

CONDITION screen is displayed.

Press the [COND/TEST] key.

It will return to default screen.

Basic Operations

This is a function to raise or lower the tool

Perform the settings in Normal mode.

Press the [PAUSE/MENU] key.

MENU screen is displayed.

Press the [1] key (TOOL).

TOOL SETTING (1/3) screen is displayed.

Tool is raised or lowered every time the [1] key (TOOL UP/
DOWN) is pressed.

Press the [PAUSE/MENU] key.

It will return to default screen.
Distance for the step movement.

Press the [1] key (1.0mm) or the [2] key (0.1mm).

Supplement

It will return to DEFAULT setting screen (1/2)
Without changing the settings when you press
The POSITION ( ) key (CANCEL).

Confirm the setting and press the [ENTER] key (SET).

Setting will be set, and it will return to DEFAULT setting screen (1/2).

Press the [PAUSE/MENU] key.

It will return to default screen.

Stop Cutting

Stop Cutting

Operation

Peration will stop and following screen is displayed.

Supplement

It will resume cutting by pressing [1]
(CONTINUE JOB) key.
See "Pause and Resume Cutting"　　.

Press the [2] key (QUIT JOB).

Following screen is displayed.

Supplement

It will return to operation stop screen
Without clearing buffer memory when [2] key
(CANCEL) is pressed.
In the case that the operation is interrupted
And the buffer is cleared, make sure that the
Data transfer is stopped.
If the data transfer continues, abnormal
Operations where data is processed from the
Middle may occur.

Confirm if the data transfer from the computer is stopped and
Press the [1] key (YES, CLEAR).

Following screen is displayed, the buffer memory is cleared, and it will
Return to default screen.
READY screen
(Simple mode)
READY screen
(Normal mode)

To cut the corner of thick media sharply

Setting the Tangential Mode

On/off and the mode of the tangential mode can be set individually for each of 1-8 tool control numbers.

Operation

Supplement

Perform the settings in Normal mode.

Press the [COND/TEST] key.

CONDITION setting screen (1/3) is displayed.

Press the POSITION ( ) key.

CONDITION setting screen (2/3) is displayed.

Press the [3] key (TANGENTIAL MODE).

TANGENTIAL MODE setting screen is displayed.

Press the POSITION ( ) keys and select the tool condition
Number (CONDITION No.).

Press the [1] key (MODE1), the [2] key (MODE2), or the [3]
Key (OFF) and select the mode.

Supplement

It will return to CONDITION screen (2/3)
Without changing the settings when you press
The [4] key (CANCEL).

Confirm the setting and press the [ENTER] key (SET).

Setting will be set, and it will return to CONDITION setting screen (2/3).

Press the [COND/TEST] key.

It will return to default screen.

Setting Length of the Overcut

Set the length of overcut with tangential mode.

Operation

Perform the settings in Normal mode.

Press the [COND/TEST] key.

CONDITION setting screen (1/3) is displayed.

Press the POSITION ( ) key.

CONDITION setting screen (2/3) is displayed.

Press the [4] key (OVERCUT).

OVERCUT setting screen is displayed.

Press the [1] key (Condition No.)

CONDITION No. selection screen is displayed.

Press the POSITION ( ) key and select the CONDITION

 Confirm the setting, and press the POSITION ( ) key
(PREVIOUS).
Condition No. is selected and return to OVERCUT setting screen.

 Press the [2] key (START).
Overcut length for START setting screen is displayed.
Supplement
Setting range is from 0.0 mm to 0.9 mm.
 Press the POSITION ( ) key and increase or decrease the
Setting value.
 Confirm the setting value, and press the POSITION ( ) key
(PREVIOUS).
Length for overcut START is selected and return to OVERCUT setting
Screen.
 Press the [3] key (END).
Overcut length for END setting screen is displayed.
Supplement
Setting range is from 0.0 mm to 0.9 mm.
 Press the POSITION ( ) key and increase or decrease the
Setting value.
 Confirm the setting value, and press the POSITION ( ) key
(PREVIOUS).
Length for overcut END is selected and return to OVERCUT setting
Screen.
 Repeat steps 3 to 12 as necessary to set multiple tool
CONDITION No.
Supplement
It will return to CONDITION screen (2/3)
Without changing the settings when you press
The POSITION ( ) key (CANCEL).
 Confirm the setting and press the [ENTER] key (SET).
Setting will be set, and it will return to CONDITION setting screen (2/3).
 Press the [COND/TEST] key.
It will return to default screen.

Setting of the Initial down Force
The initial down-force setting is effective when tangential mode is selected.
Tangential mode is generally used for the cutting of thick media. With thick film, additional time is required for the
Cutter blade to penetrate the media fully, even when the necessary cutting force is applied.
The cutting operation starts before the cutter blade has fully penetrated the media, causing uncut sections to be left.
When the initial down force is specified, this force is used as the cutting force immediately after the lowering of the
Tool when tangential mode is selected, enabling the cutter blade to penetrate the media rapidly. (As an example,
if the cutting force is 25 and the initial down force is 4, for example, the cutting force applied immediately after the
Pen is lowered will be 29)
The upper limit for added value is 38 for the CE6000-40/60/120.
Operation
Perform the settings in Normal mode.
 Press the [COND/TEST] key.
CONDITION setting screen (1/3) is displayed.
 Press the POSITION ( ) key.
CONDITION setting screen (3/3) is displayed.
 Press the [2] key (INITIAL DOWN FORCE).
INITIAL DOWN FORCE setting screen is displayed.
 Press the POSITION ( ) key and select the CONDITION No.
Setting range is from 0 to 20.
 Press the POSITION ( ) key and increase or decrease the
Setting value
It will return to CONDITION screen (3/3)
Without changing the settings when you press
The POSITION ( ) key (CANCEL).
 Confirm the setting and press the [ENTER] key (SET).
Setting will be set, and it will return to CONDITION setting screen (3/3).
 Press the [COND/TEST] key.
It will return to default screen.

It may not cut the curved line smoothly if there is very short lines in the curve.
It will cut in the units of the specified value when the STEP PASS is used, which allows to control the short lines
With certain length, resulting to stable rotation of the blade for higher cut quality.
Setting range of STEP PASS is from 0 to 20.
Actual length of the STEP PASS is the value of the STEP PASS multiplied by the distance set in the "STEP SIZE".
  "Setting the Step Size (STEP SIZE)"
Supplement
This setting will be saved even if the power is shut off.
The cut image may not be what you intended if the set value is too large. It is recommended to set to "1" for normal use.

Operation
Supplement
Perform the settings in Normal mode.
  Press the [PAUSE/MENU] key.
MENU screen is displayed.
  Press the [1] key (TOOL).
TOOLS SETTING screen (1/3) is displayed.
  Press the [2] key (STEP PASS).
STEP PASS setting screen is displayed.
Supplement
Setting range is from 0 to 20.
  Press the POSITION ( ) key and increase or decrease the
Setting value.
Supplement
It will return to TOOLS setting screen (1/3)
Without changing the settings when you press
The POSITION ( ) key (CANCEL).
  Confirm the setting and press the [ENTER] key (SET).
Setting will be set, and it will return to TOOLS setting screen (1/3).
  Press the [PAUSE/MENU] key.
It will return to default screen.

Setting Regarding Interface
This chapter describes setting regarding interface.

Setting Interface
This section describes how to set the interface.
The plotter has USB and RS-232C interfaces, and these interfaces are switched automatically.

USB Interface
To use the USB interface, a plotter driver must be installed in the computer. Please the SETUP MANUAL to
Install the plotter driver.
For the plotter side, please perform command settings*, step size settings (when using GP-GL commands), and
Origin point settings for HP-GL (when using HP-GL commands).
* There is no need to set a command in Simple mode. (There are no settings in Simple mode.)
Operation cannot be guaranteed in the following cases:
When the plotter is connected to a USB hub or extension port.
When the plotter is connected to a hand-built or modified computer.
When a driver other than the one provided as a standard accessory is used.
Do not perform the followings:
Do not connect or disconnect the USB cable while installing the USB driver on the computer.
Do not connect or disconnect the USB cable when the computer or the plotter is performing an initialization routine.
Do not disconnect the USB cable within a 5-second period of connecting it.
Do not disconnect the cable during data transfer.
Do not connect multiple plotters to a single computer using the USB interface.

RS-232C Interface
When using the RS-232C interface, set the command settings, step size settings (when using GP-GL
Commands), origin point settings for HP-GL (when using HP-GL commands), and transfer conditions for the RS-
232C interface. The transfer conditions for the RS-232C interface can be set from the operations panel. The
Transfer condition should be set to the same in the software used and in the CE6000. If there is a mistake in the
Settings an error may displayed in the machine and lack of data can cause a malfunction. In such a case, please
Confirm the data transfer settings again.
  Setting Origin Point When HP-GL is set
  Connecting with RS-232C
  Setting the Command (COMMAND)   Setting the Step Size (GP-GL STEP SIZE)
Supplement In Simple mode, the RS-232C interface cannot be used.

Interface Setting Menu

Setting of the interface condition is only necessary when the plotter is connected using RS- 232C cables.
It is not necessary when the plotter is connected using the USB cable.
   Connecting with RS-232C

Setting Interface

Connecting with RS-232C

In Normal mode only, the RS-232C settings can remember up to 4 different settings that can be switched if Necessary.
See "Switching Setting Numbers"   to call out the settings to use, and see "Changing and Storing RS-232C Settings"   to change and save the settings.

Switching Setting Numbers
Operation
Supplement
Perform the settings in Normal mode.
  Press the [PAUSE/MENU] key in the default screen.
MENU screen is displayed.
  Press the POSITION ( ) key (I/F) in Normal mode.
INTERFACE SETTING screen (1/2) is displayed.
  Press the POSITION ( ) key.
INTERFACE setting screen (2/2) is displayed.
Supplement
It will return to INTERFACE setting screen
Without changing the settings when you press
The POSITION ( ) key (CANCEL).
  Press the [1] key (RS-232C).
RS-232C setting screen is displayed.
  Press the POSITION ( ) key (RS-232C).
RS-232C setting number select screen is displayed.

Supplement
There are 4 different setting numbers.
  Press the POSITION ( ) key, and select the settings
Number.
  Confirm the setting and press the POSITION ( ) key
(CANCEL).
Setting will be set, and it will return to RS-232C setting screen.
  Press the [PAUSE/MENU] key.
It will return to default screen.

Changing and Storing RS-232C Settings
Operation
Supplement
Perform the settings in Normal mode.
  Press the [PAUSE/MENU] key in the default screen.
MENU screen is displayed.
  Press the POSITION ( ) key (I/F) in Normal mode.
INTERFACE setting screen (1/2) is displayed.
  Press the POSITION ( ) key.
INTERFACE setting screen (2/2) is displayed.
Supplement
It will return to INTERFACE setting screen
Without changing the settings when you press
The POSITION ( ) key (CANCEL).
  Press the [1] key (RS-232C).
RS-232C setting screen is displayed.

Baud rate can be set to 19200, 9600, 4800,
2400, 1200, 600, and 300.
  Press the [1] key (BAUD RATE).
BAUD RATE setting screen is display ayed.
Supplement
Match the setting value of the application to be
Used.
  Press the POSITION ( ) key and increase or decrease the
Setting value. Confirm the setting and press the POSITION ( ) key (CANCEL).
BAUD RATE will be set, and it will return to RS-232C setting screen.

Press the [2] key (DATA BIT).
DATA BIT setting screen is displayed.
Supplement
Match the setting value of the application to
be used.
It will return to RS-232C setting screen
Without changing the settings when you
Press POSITION ( ) key (CANCEL).
Press the [1] key (8 BIT) or the [2] key (7 BIT).
DATA BIT will be set, and it will return to RS-232C setting screen.
Press the [3] key (PARITY).
PARITY setting screen is displayed.
Supplement
Match the setting value of the application to
Be used.
It will return to RS-232C setting screen
Without changing the settings when you
Press POSITION ( ) key (CANCEL).
Press the [1] key (NONE), [2] key (EVEN), or the [3] key (ODD).
PARITY will be set, and it will return to RS-232C setting screen.

Press the [4] key (HANDSHAKE).
HANDSHAKE setting screen is displayed.
Supplement
Match the setting value of the application to
Be used.
It will return to RS-232C setting screen
Without changing the settings when you
Press POSITION ( ) key (CANCEL).
Enq/Ack setting is valid only when it is set to
HP-GL. It will be set to HARDWIRE even if
Enq/Ack is selected when it is set to GP-GL.
Press the [1] key (HARDWIRE), the [2] key (Xon/off), or the [3]
Key (Enq/Ack).
HANDSHAKE will be selected, and it will return to RS-232C setting
Screen.
Confirm the setting and press the [ENTER] key (SET).
Setting will be set, and it will return to INTERFACE setting screen.
Press the [PAUSE/MENU] key.

Settings Regarding Operation Environment

It will return to default screen.

This chapter describes setting regarding the operation environment.

Related to Menu Display

Display Language Setting (LANGUAGE SELECTION)

This function sets the language used on the display.
One of ten languages can be selected: English, Japanese, German, French, Italian, Spanish, Portuguese,
Russian, Korean, and Chinese.

Operation

Press the [PAUSE/MENU] key in the default screen.
MENU screen is displayed.
Menu screen
(Simple mode)
Menu screen
(Normal mode)
Press the POSITION ( ) key (ADV.) in Normal mode, or
Press the [3] key (ADV.) in Simple mode.
ADVANCE setting screen is displayed.
ADVANCE setting screen
(Simple mode)
ADVANCE setting screen
(Normal mode)
Press the [2] key (LANGUAGE SELECTION) in Normal mode,
Or press the [1] key (LANGUAGE SELECTION) in Simple
Mode. LANGUAGE SELECTION screen is displayed.
LANGUAGE SELECTION screen is displayed

 Press the POSITION ( ) key and select the language.
(In these instructions it's explained for when it's set to
English.)
 Confirm the setting and press the [ENTER] key (SET).
Setting will be set, and it will return to ADVANCE setting screen.
 Press the [PAUSE/MENU] key.
It will return to the default screen.

Setting the Display Length Unit (LENGTH UNIT)

The coordinate values that appear on the display and the other parameters for various settings can be changed
To either meter or inch display.

Operation
 Press the [PAUSE/MENU] key in the default screen.
MENU screen is displayed.
Menu screen
(Simple mode)
Menu screen
(Normal mode)
 Press the POSITION ( ) key (ADV.) in Normal mode, or
Press the [3] key (ADV.) in Simple mode.
ADVANCE setting screen is displayed.
ADVANCE setting screen
(Simple mode)
ADVANCE setting screen
(Normal mode)
 Press the [3] key (LENGTH UNIT) in Normal mode, or press
The [2] key (LENGTH UNIT) in Simple mode. LENGTH UNIT
Screen is displayed.
LENGTH UNIT setting screen is displayed.
 Press the [1] key (METRIC) or the [2] key (INCH).
 Confirm the setting and press the [ENTER] key (SET).
Setting will be set, and it will return to ADVANCE setting screen.
 Press the [PAUSE/MENU] key.
It will return to the default screen.

Related to Sensor
Enabling/Disabling the Media Sensors (MEDIA SENSOR)

This function enables or disables the media sensors that detect the size of the medium in the feed direction.
CAUTION
Normally, please use it while set to "ENABLED". Turn it DISABLED when setting undetectable media with high transmittance. When
Set to "DISABLED", the cutting mat may be damaged. Please be sure to configure the "area".

Operation
Perform the settings in Normal mode.
 Press the [PAUSE/MENU] key in the default screen.
MENU screen is displayed.
 Press the POSITION ( ) key (ADV.).
ADVANCE setting screen (1/2) is displayed.
 Press the [4] key (MEDIA SENSOR).
MEDIA SENSOR setting screen is displayed.
 Press the [1] key (ENABLED) or the [2] key (DISABLED).
 Confirm the setting and press the [ENTER] key (SET).
Setting will be set, and it will return to ADVANCE setting screen.
 Press the [PAUSE/MENU] key.
It will return to the default screen.

Enabling/Disabling the Push Roller Sensors (PUSH ROLLER SENSOR)

This function enables or disables the push roller sensors that detect the width of the media.

Operation
Perform the settings in Normal mode.
 Press the [PAUSE/MENU] key in the default screen.
MENU screen is displayed.
 Press the POSITION ( ) key (ADV.).
ADVANCE setting screen (1/2) is displayed.
 Press the POSITION ( ) key.
ADVANCE setting screen (2/2) is displayed.
 Press the [1] key (PUSH ROLLER SENSOR).
PUSH ROLLER SENSOR setting screen is displayed.

Supplement
If "DISABLED" is selected, push roller
Detection is not performed.
It will not generate error even if the inner push
Rollers are not on the grit rollers when the
"INSIDE DISABLED" is selected.
  Press the [1] key (ENABLED), the [2] key (INSIDE
DISABLED), or the [3] key (DISABLED).
Supplement
When "DISABLE" has been set, the home
Sensor position is not detected, so depending
on the data, a position error could occur.
  Confirm the setting and press the [ENTER] key (SET).
Setting will be set, and it will return to ADVANCE setting screen.
  Press the [PAUSE/MENU] key.
It will return to the default screen.

Related to Plotter Environment
Fan Suction Setting (FAN POWER)

This function sets the suction force used to affix media to the plotter.
It may not feed properly if the media is thin, so decrease the suction force.

Operation

Supplement
Perform the settings in Normal mode.
  Press the [PAUSE/MENU] key in the default screen.
MENU screen is displayed.
  Press the POSITION ( ) key (ADV.).
ADVANCE setting screen (1/2) is displayed.
  Press the POSITION ( ) key.
ADVANCE setting screen (2/2) is displayed.
  Press the [2] key (FAN POWER).
FAN POWER setting screen is displayed.
  Press the [1] key (NORMAL) or the [2] key (WEAK).
  Confirm the setting and press the [ENTER] key (SET).
Setting will be set, and it will return to ADVANCE setting screen (2/2).
  Press the [PAUSE/MENU] key.
It will return to the default screen.

Enabling/Disabling the Beep Setting (BEEP FOR KEY OPERATION)

This function selects whether to enable or disable the beep that is emitted whenever a control panel key is
Pressed.

Operation

Perform the settings in Normal mode.
  Press the [PAUSE/MENU] key in the default screen.
MENU screen is displayed.
  Press the POSITION ( ) key (ADV.).
ADVANCE setting screen (1/2) is displayed.
  Press the POSITION ( ) key.
ADVANCE setting screen (2/2) is displayed.
  Press the [3] key (BEEP FOR KEY OPE.).
BEEP FOR KEY OPE. Setting screen is displayed.
  Press the [1] key (ON) or the [2] key (OFF).
  Confirm the setting and press the [ENTER] key (SET).
Setting will be set, and it will return to ADVANCE setting screen (2/2).
  Press the [PAUSE/MENU] key.It will return to the default screen.

Settings of Controls from Computer

This chapter describes setting regarding the controls from the computer.

Related to Command ProcessingSetting the Command (COMMAND)

There are 2 types of commands, the GP-GL and the HP-GL, which the plotter can use. Match the setting to the
Used software, or set it to AUTO.
Automatic detection of the command may make mistake depending on the data. It will give error or malfunction when it has made
Mistake. In that case, set the command before using.
Always send the data when the plotter is in READY status when in the automatic detection of the command.

Once the data is cut with the automatic detection of the command, it will be ready to automatically detect next command 10 Seconds after completing the cutting. Send next data after 10 seconds has passed after previous cutting when sending data with Different command.

Operation

Supplement
Perform the settings in Normal mode.
In simple mode there are no settings. (It's set
To an automatic state.) When a faulty judgment
Has been made in Simple mode, please use
Normal mode where commands can be set.

Press the [PAUSE/MENU] key in the default screen.
MENU screen is displayed.

Press the POSITION ( ) key (I/F).
INTERFACE setting screen (1/2) is displayed.

Press the [1] key (COMMAND).
COMMAND setting screen is displayed.

Select the [1] key (GP-GL), the [2] key (HP-GL), or the [3] key
(AUTO).

Confirm the setting and press the [ENTER] key (SET).
Setting will be set, and it will return to INTERFACE setting screen (1/2).

Press the [PAUSE/MENU] key.
It will return to the default screen.

Priority of Tool Condition Selection (CONDITION PRIORITY)

Select the priority of the setting created by different method when the tool condition is set.
All the tool condition that is received from the computer will be ignored, and only the setting and change of the
Tool condition from the control panel is accepted when MANUAL is selected. This setting set here is maintained
Even if the power is turned off.
On the other hand, it will set the most current tool condition either from the control panel or from the software
When PROGRAM is selected. The values set from the control panel is maintained, and the values set from the
Software is erased when the power is turned off.

Operation

Supplement
Perform the settings in Normal mode.

Press the [PAUSE/MENU] key in the default screen.
MENU screen is displayed.

Press the [1] key (TOOL).
TOOLS SETTING screen (1/3) is displayed.

Press the POSITION ( ) key.
TOOLS SETTING screen (2/3) is displayed.

Press the [3] key (CONDITION PRIORITY).
CONDITION PRIORITY setting screen is displayed.

Press the [1] key (MANUAL) or the [2] key (PROGRAM).

Confirm the setting and press the [ENTER] key (SET).
Setting will be set, and it will return to TOOLS SETTING screen (2/3).

Press the [PAUSE/MENU] key.
It will return to the default screen.

Related to GP-GL Command

A useful chapter when using the GP-GL command.

Setting the Step Size (GP-GL STEP SIZE)

The distance to travel with 1 step can be changed. Match the setting value of the application to be used.

Operation

Press the [PAUSE/MENU] key in the default screen.
MENU screen is displayed.
Menu screen(Simple mode)Menu screen
(Normal mode)

Press the POSITION ( ) key (I/F) in Normal mode, or press
The [2] key (I/F) in Simple mode.
INTERFACE setting screen is displayed.
INTERFACE screen(Simple mode)
INTERFACE screen (Normal mode)

Press the [4] key (GP-GL STEP SIZE) in Normal mode,

Or press the [2] key (GP-GL STEP SIZE) in Simple mode.
LANGUAGE screen is displayed.
GP-GL STEP SIZE setting screen is displayed.
  Press the [1] key (0.100 mm), the [2] key (0.050 mm), the [3]
Key (0.025 mm), or the [4] key (0.010 mm).
  Confirm the setting and press the [ENTER] key (SET).
Setting will be set, and it will return to INTERFACE setting screen.
  Press the [PAUSE/MENU] key.
It will return to the default screen.

Enabling/Disabling the ' : ' and ' ; ' Commands (COMMAND ' : ', ' ; ')
If the first part of the data is lost when the GP-GL command is set, these commands may be having an adverse
Effect. In this case, set the ' : ' and ' ; ' commands to DISABLED.
Operation
Supplement
Perform the settings in Normal mode.
  Press the [PAUSE/MENU] key in the default screen.
MENU screen is displayed.
  Press the POSITION ( ) key (I/F).
INTERFACE setting screen (1/2) is displayed.
  Press the POSITION ( ) key.
INTERFACE setting screen (2/2) is displayed.
  Press the [2] key (COMMAND ' : ', ' ; ').
COMMAND ' : ', ' ; ' setting screen is displayed.
  Press the [1] key (ENABLED) or the [2] key (DISABLED).
  Confirm the setting and press the [ENTER] key (SET).
Setting will be set, and it will return to INTERFACE setting screen (2/2).
  Press the [PAUSE/MENU] key.
It will return to the default screen.

Maintenance
This chapter describes the settings for the maintenance.

Daily Maintenance / Replacing Cutter Blade / Cleaning the Cutter Pen / Cutter Plunger Exchange
Daily Maintenance
Never lubricate the mechanisms of the plotter.
Clean the plotter's casing using a dry cloth that has been moistened in a neutral detergent diluted with water.
Never use thinner, benzene, alcohol, or similar solvents to clean the casings; they will damage the casing's finish.
Clean the cutting mat using a dry cloth. In case of stubborn stains, use a cloth that has been moistened in
Alcohol or in a neutral detergent diluted with water.
Clean the plotter's paper sensors using a cloth moistened in a neutral detergent diluted with water.
Never use thinner, benzene, alcohol, or similar solvents to clean the sensors; cleaners such as these will
Damage the sensors.
The sliding surface has lubricant on it, so be sure not to wipe all the lubricant off as well.
Replacing Cutter Blade
  Turn the blade-length adjustment knob in the direction of the
B arrow and pull the blade into the plunger.
One scale unit
Approximately 0.1 mm
Graduation
Graduation
  Turn the plunger cap in the counter-clockwise direction to
Remove it from the plunger.
  Remove the blade from inside the plunger cap.
  Remove a new blade from its pack. Insert the new blade into
The hole provided in the plunger cap.
  With the blade inserted into the plunger cap, screw on the
Plunger from above. Fix the plunger cap by turning it clockwise.

Troubleshooting

When the Plotter Does Not Operate After Turning the Power On

Symptom Possible Cause Solution

• Nothing is displayed on the LCD panel. There is no power supplied. Or, the plotter is defective.
Check that the power cord is securely connected to the plotter's AC line inlet and the electrical Outlet.
Check that the power is supplied to the electrical
Nothing is displayed on the LCD panel. The plotter is defective. Contact you're The Plotter Doctor if Problem still exists.

Troubleshooting

When It Does Not Work Right

Symptom Possible Cause Solution Reference

Drops the media while Detecting.
Bright light might be shining onto the media sensor.
Block the light if there is direct sunlight shining on the plotter that is placed near the window.
Move away the fluorescent lamps if there is one close to the plotter. Media sensor may be Defective.
Contact you're The Plotter Doctor if Problem still exists
Or Set the Media sensor to DISABLED to use the Plotter / Disabling the Media
Sensors (MEDIA SENSOR)
• Media wobbles. Push rollers are not set
Correctly on the grit rollers.Check the position of the push rollers
Hold-down Force
• One of the push roller goes
Off the media.
The leading edge or the
Trailing edge of the media is
Not cut straight against the
Media.

When the Cutting Result is Not Good

Symptom Cause Solution

• Corners are rounded.
• Corners are too sharp.
Blade and OFFSET does not match. Change the OFFSET.
It is rounded: Increase the OFFSET
It is too sharp: Decrease the OFFSET
• The cut line starts out crooked. The blade inside the plunger doesn't turn
Smoothly.
Remove dirt from inside the plunger.
• The blade skips and does not
Completely cut lines that should be solid.
• Straight cut lines seems to wobble.
The blade is extended too far. Adjust the blade length.
The cutting speed is too high. Lower the speed setting.
• Coarse resolution of curved lines. The software's resolution setting is too low.
Adjust the software's resolution setting.
The blade offset angle is too low. Increase the value for the blade offset angle.
• The media curls up at the corners.
• Fine cut characters peels off.
The blade is extended too far. Adjust the blade length.

Normal Menu

Menu items setting items initial value

TOOLS SETTING STEP PASS 1
OFFSET FORCE 4
OFFSET ANGLE 30
DATA SORTING OFF
TOOL UP SPEED AUTO
CONDITION PRIORITY MANUAL
INITIAL BLADE CONTROL POSITION 2 mm BELOW
TOOL UP MOVE DISABLED
ARMS SETTING MARK SCAN MODE OFF
NUMBER OF POINTS 2 POINTS
MARK DISTANCE (X) X=+0.0 mm
MARK DISTANCE (Y) Y=+0.0 mm
MARK TYPE 2
MODE USER
CUSTOM UNIT 5 mm
MARK SIZE 20.0 mm
AXIS ORIGIN OFFSET (X) X=+0.0 mm
AXIS ORIGIN OFFSET (Y) Y=+0.0 mm
SENSOR OFFSET ADJ. (X) X=+0.0 mm
SENSOR OFFSET ADJ. (Y) Y=+0.0 mm
PAPER-WEIGHT ON
SENSING SPEED NORMAL
SENSING LEVEL (X) X=70
SENSING LEVEL (Y) Y=80
AREA PARAMETER SETTINGS EXPAND DEFAULT
SCALE 1
ROTATE OFF
MIRROR OFF
AREA (LOWER LEFT) DEFAULT
AREA (UPPER RIGHT) DEFAULT
MEDIA SETTING FEED LENGTH 1.0 m
AUTO PRE FEED OFF
FEED LENGTH 1.0 m
PAGE LENGTH 200.0 cm (15")
500.0 cm (24" and 48")
INITIAL FEED OFF
FEED SPEED NORMAL
PANEL CUTTING OFF
DIVIDE LENGTH 100.0 cm

Warranty: One year parts and labor (Does Not Include Shipping Or physical abuse)
(PLUS YOU CAN PAY $250.00 US TO ADD AN ADDITIONAL ONE YEAR TOTAL 2 YEARS)
         YOU HAVE 45 DAYS TO PAY WE TAKE CREDIT CARDS, PAYPAL OR MAIL CHECK TO

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