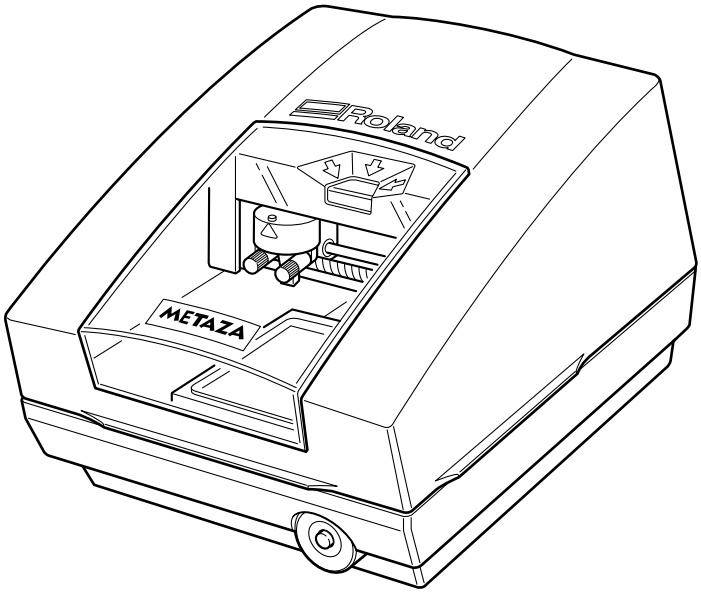
Roland

METAZA

METAL PRINTER MPX-70

User's Manual



Thank you very much for purchasing this product.

- To ensure correct and safe usage with a full understanding of this product's performance, please be sure to read through this manual completely and store it in a safe location.
- Unauthorized copying or transferral, in whole or in part, of this manual is prohibited.
- The contents of this operation manual and the specifications of this product are subject to change without notice.
- The operation manual and the product have been prepared and tested as much as possible. If you find any misprint or error, please inform us.
- Roland DG Corp. assumes no responsibility for any direct or indirect loss or damage which may occur through use of this product, regardless of any failure to perform on the part of this product.
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Roland DG Corporation

For the USA

FEDERAL COMMUNICATIONS COMMISSION RADIO FREQUENCY INTERFERENCE STATEMENT

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 instruction 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.

Unauthorized changes or modification to this system can void the users authority to operate this equipment.

The I/O cables between this equipment and the computing device must be shielded.

For Canada

CLASS A NOTICE

This Class A digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

CLASSE A AVIS

Cet appareil numérique de la classe A respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

ROLAND DG CORPORATION
1-6-4 Shinmiyakoda, Hamamatsu-shi, Shizuoka-ken, JAPAN 431-2103
MODEL NAME : See the MODEL given on the rating plate.
RELEVANT DIRECTIVE : EC LOW VOLTAGE DIRECTIVE (73/23/EEC)
EC ELECTROMAGNETIC COMPATIBILITY DIRECTIVE (89/336/EEC)

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⚠ To Ensure Safe Use

Improper handling or operation of this machine may result in injury or damage to property. Points which must be observed to prevent such injury or damage are described as follows.

About ⚠WARNING and ⚠CAUTION Notices

⚠WARNING	Used for instructions intended to alert the user to the risk of death or severe injury should the unit be used improperly.
⚠CAUTION	Used for instructions intended to alert the user to the risk of injury or material damage should the unit be used improperly. * Material damage refers to damage or other adverse effects caused with respect to the home and all its furnishings, as well to domestic animals or pets.

About the Symbols

	The △ symbol alerts the user to important instructions or warnings. The specific meaning of the symbol is determined by the design contained within the triangle. The symbol at left means "danger of electrocution."
	The ⃠ symbol alerts the user to items that must never be carried out (are forbidden). The specific thing that must not be done is indicated by the design contained within the circle. The symbol at left means the unit must never be disassembled.
	The ● symbol alerts the user to things that must be carried out. The specific thing that must be done is indicated by the design contained within the circle. The symbol at left means the power-cord plug must be unplugged from the outlet.

⚠ Incorrect operation may cause injury

⚠WARNING

Never allow children near the machine.
The machine includes locations and components that pose a danger to children, and major accident, including injury, blindness, or choking, may occur.

Do not disassemble, repair, or modify.
Doing so may lead to fire or abnormal operation resulting in injury.

⚠CAUTION

Install on a stable surface.
Failure to do so may result in the unit tipping over, leading to injury.

Be sure to follow the operation procedures described in this manual.
Failure to follow the procedures may cause sudden operation or the like of the machine, which may result in unexpected injury.

⚠ Danger of electrical short, shock, electrocution, or fire

⚠WARNING

Do not use with any electrical power supply that does not meet the ratings displayed on the AC adapter.
Use with any other power supply may lead to fire or electrocution.

Do not use with any power supply other than the dedicated AC adapter.
Use with any other power supply may lead to fire or electrocution.

Never operate the machine or insert or remove its power plug with wet hands.
Doing so may result in electrical shock or electrocution.

Never allow the machine to get wet, or apply gasoline, thinner, or any other flammable material to it.
Current leakage may cause electrical shock, electrocution, or combustion and fire.

Never allow hairpins, coins, matches, or any other object to get inside the machine.
Doing so may cause and electrical short, resulting in shock or electrocution, or the inserted object may catch fire.

Never place gasoline, alcohol, thinner, or any other flammable material near the machine, or use an aerosol spray close to the machine.
Doing so may cause fire.

Never damage the power cord or pull it with force.
Doing so may tear the cord's insulation, causing an electrical short and resulting in electrical shock, electrocution, or fire.

Never place any object on the power cord, bend the power cord using excessive force, or allow the power cord to become deformed.
If it becomes deformed, the deformed location may grow hot and cause fire.

Never use the machine with the power cord bound into a bundle or roll.
If the cord is in a bundle or roll, it may grow hot and cause fire.

Never use any power cord other than the power cord included with the machine. Also, never use a power strip or extension cord.
The power strip or extension cord may grow hot and cause fire.

Do not use with a damaged AC adapter, power cord or plug, or with a loose electrical outlet.
Doing so may lead to fire, electrical shock, or electrocution.

When unplugging the electrical power cord from the power outlet, grasp the plug, not the cord.
Unplugging by pulling the cord may damage it, leading to fire, electrical shock, or electrocution.

In the event of an abnormal state (such as smoke or sparks, odor or burning or unusual noise), immediately unplug the power cord.
Failure to do so may result in fire, electrical shock, or electrocution. Immediately disconnect the power cord and contact your Roland DG Corp. service center.

When not in use for several hours, unplug the power-cord plug from the electrical outlet.
Failure to do so may result in danger of electrical shock, electrocution or fire due to deterioration of electrical insulation.

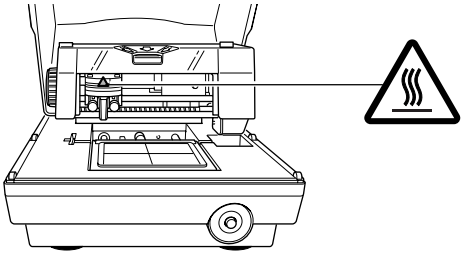
⚠ The head area becomes hot

⚠WARNING

Never touch the head immediately after printing has finished.
Doing so may cause burns.

⚠ Warning Label

Warning label is affixed to make areas of danger immediately clear. The meaning of the label is as follows. Be sure to heed its warnings.
Also, never remove the label or allow it to become obscured.



Caution: High Temperature
Never touch immediately after printing.

Important Notes on Handling and Use

This machine is a precision device. To ensure the full performance of this machine, be sure to observe the following important points. Failure to observe these may not only result in loss of performance, but may also cause malfunction or breakdown.

This machine is a precision device.

- ➢Handle carefully, and never subject the machine to impact or excessive force.
- ➢Never print material outside the range of specifications.

Install in a Suitable Location

- ➢Install in a location having the specified temperature and relative humidity.
- ➢Install in a quiet, stable location offering good operating conditions.

Important Notes on Connecting the Cables

- ➢Connect the power cord and the computer's input and output cables securely.

When Moving the Machine

- ➢When moving the machine, be sure to support it at the bottom using two hands. Attempting to move the machine by holding it at a different location may result in damage.
- ➢When moving the machine, turn the knob to secure the head in place.
- ➢When moving the machine to another location, be sure to attach the retainers. Attempting moving without attaching the retainers may result in damage.

Printing

- ➢Never attempt to perform printing on the edges or over holes in printing material.
- ➢Printing results may vary according to the original data, the material printed, and the details of settings. Before you perform actual printing, we recommend carrying out test printing.

Chapter 1
Getting Started

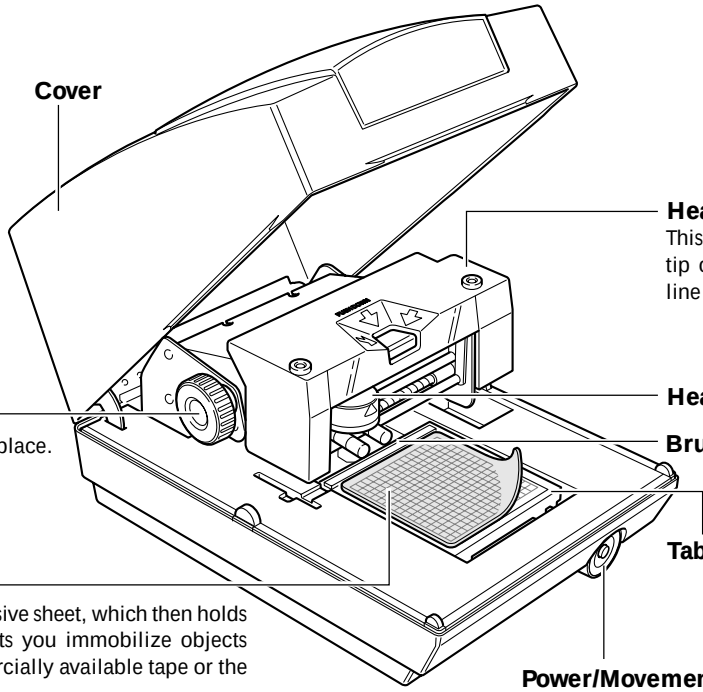
1-1 About the Machine

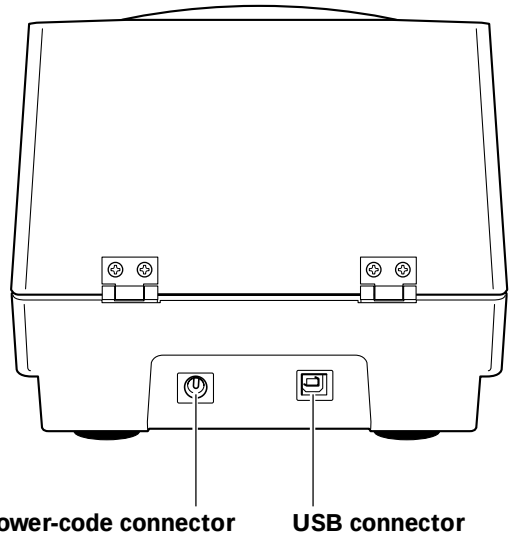
Features

This machine is a metal printer. It prints images by striking detailed points using a marking pin mounted in a head.

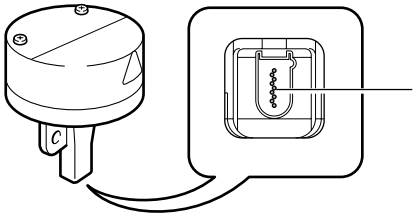
Names and Functions

Main Unit





Head



Marking pins
Nine pins are arranged in the head. Printing is performed using one of these pins.

1-2 About the Documentation

Included Documentation

The following documentation is included with the machine.

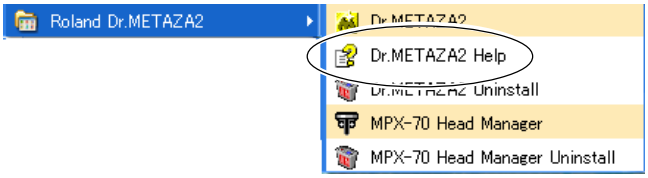
MPX-70 User's Manual (this manual)

This explains how to install and set up the machine, how to install and set up the software, how to perform printing, and other such matters.

Dr. METAZA2 online help

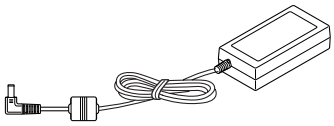
This is the operation manual for the Dr. METAZA2 program included with the machine. Installing and setting up the software enables you to view the documentation.
To view the online help, follow the procedure below.

From the [Start] menu, click [All Programs] (or [Programs]).
Click [Roland Dr. METAZA2], then click [Dr. METAZA2 Help].

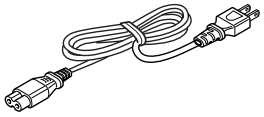


1-3 Checking the Included Items

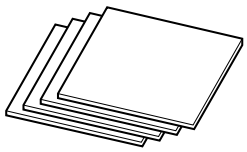
The following items are included with the machine. Make sure they are all present and accounted for.



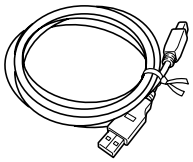
AC adapter



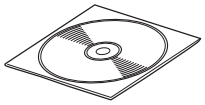
Power cord



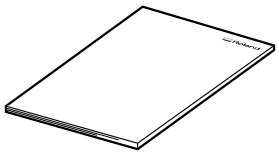
Test-use printing material



USB cable



CD-ROM



User's manual
(This document)

Chapter 2
Getting Ready to Print

2-1 Installation

Deciding On an Installation Site

Install the machine on a stable base in a stable location. Also, use the machine in a location having the correct operating environment (temperature of 10 to 30 °C and relative humidity of 35 to 80% [with no condensation]).
Use in an unsuitable location may result in malfunction or breakdown.

⚠CAUTION **Install on a stable surface.**
Failure to do so may result in the unit tipping over, leading to injury.

Unsuitable Installation Sites

- ➢Locations subject to large fluctuations in temperature or humidity
- ➢Locations subject to shaking or vibration
- ➢Locations where the floor is tilted, not level, or unstable
- ➢Dusty locations
- ➢Locations exposed to direct sunlight or near air-conditioning or heating equipment
- ➢Locations exposed to considerable electrical or magnetic noise, or other forms of electromagnetic energy

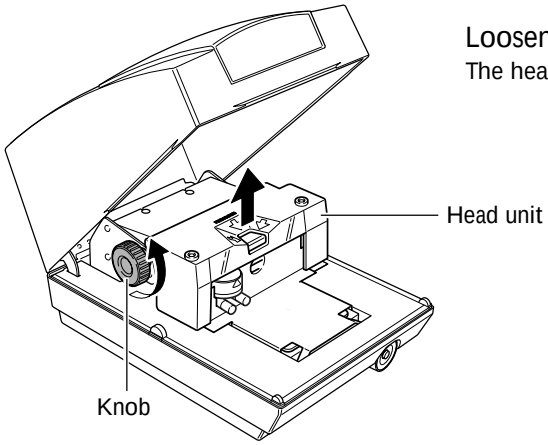
Removing the Protective Material

Protective material is attached to protect the machine from vibration and the like during transportation. Remove this once the machine is installed.

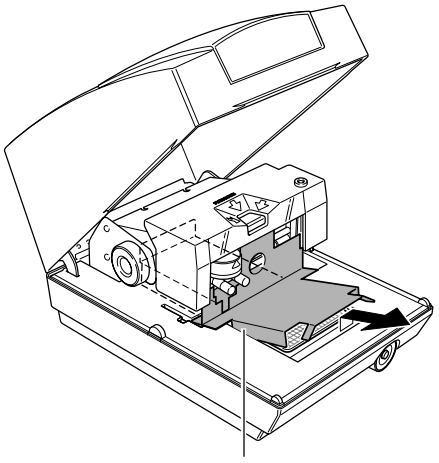
➢Be sure to remove the protective material.Any that remains may cause breakdown when the power is switched on.
➢The protective material is required when moving the machine. Be sure not to discard it.

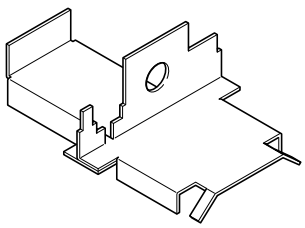
Procedure

❶ Loosen the knob.
The head unit rises.



❷ Remove the protective material.

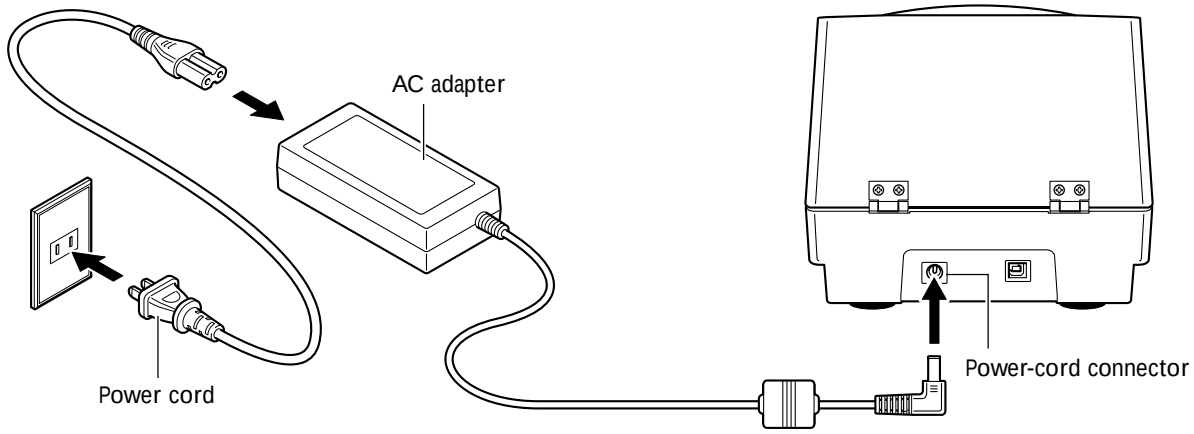



Protective material

2-2 Connecting the Cables

Connecting the Power Cord

⚠WARNING **Do not use with any electrical power supply that does not meet the ratings displayed on the AC adapter.**
Use with any other power supply may lead to fire or electrocution.



Important Notes on the Power Cord

⚠WARNING **Never damage the power cord or pull it with force.**
Doing so may tear the cord's insulation, causing an electrical short and resulting in electrical shock, electrocution, or fire.

⚠WARNING **Never place any object on the power cord, bend the power cord using excessive force, or allow the power cord to become deformed.**
If it becomes deformed, the deformed location may grow hot and cause fire.

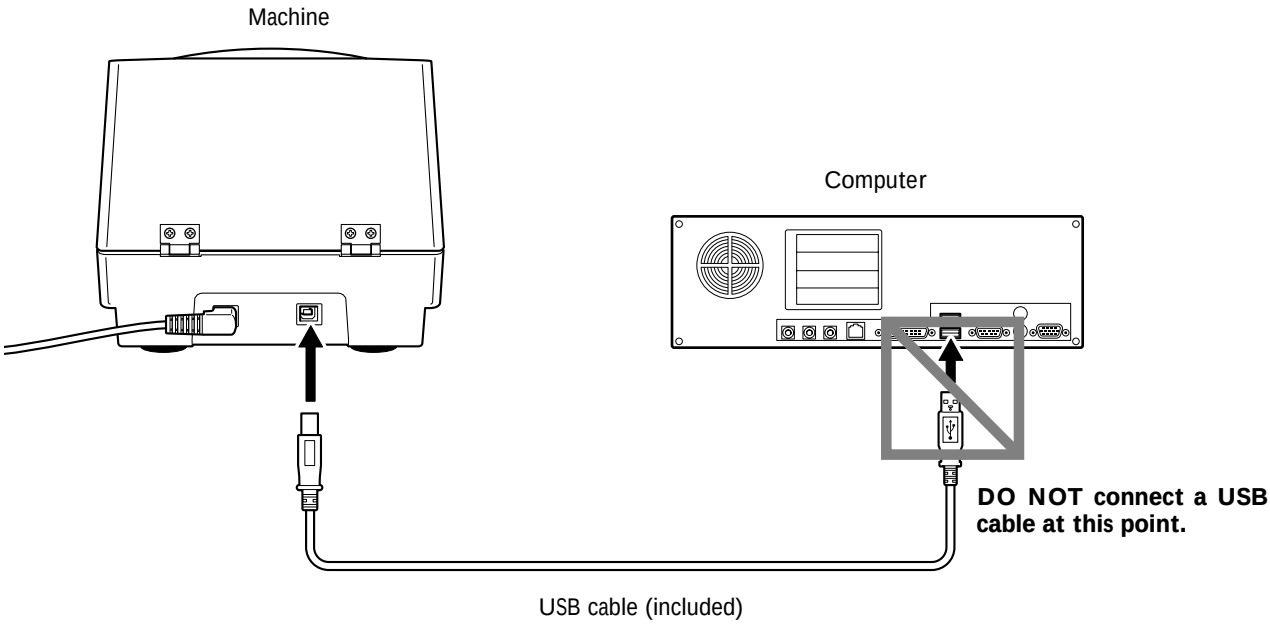
⚠WARNING **Never use the machine with the power cord bound into a bundle or roll.**
If the cord is in a bundle or roll, it may grow hot and cause fire.

⚠WARNING **Never use any AC adapter and power cord other than the AC adapter and power cord included with the machine. Also, never use a power strip or extension cord.**
The power strip or extension cord may grow hot and cause fire.

⚠WARNING **Do not use with a damaged AC adapter, power cord or plug, or with a loose electrical outlet.**
Doing so may lead to fire, electrical shock, or electrocution.

Connecting to the Computer

You make the connection to the computer using the included USB cable.
Be sure to make the connection between the machine to the computer during the course of installing the driver.
Driver installation may fail and the machine may become unusable if you connect a USB cable before starting installing the driver.



Important Notes on USB Connection

➢Never use a USB hub or the like.
➢Connect one single machine to a single computer. Never connect two or more machines to one computer.

2-3 Installing and Setting Up the Software

Overview of the Included Software

The included CD-ROM contains the following software.

Dr. METAZA2

This is a program for printing images on the surface of printing material using this machine. It enables you import and crop images to print, and perform editing to add text, boxes, and the like.

MPX-70 Head Manager

This is a utility for adjusting the head. Run it when you replace the head or adjust the marking pins.

Windows-based drivers

These are necessary for sending data from Windows to the machine. Be sure to install them.

System Requirements

System Requirements for Installing the Software

Operating system	Windows 98 SE (Second Edition)/Me/2000/XP
Computer	Computer running Windows (Pentium processor or better recommended)
Drive	CD-ROM drive
Monitor	16-bit color (High Color) video card with a resolution of 800 x 600
Memory (RAM)	64 MB or more recommended
Free hard-disk space required for installation	10 MB
Interface	USB port

System Requirements for USB Connection

Making a USB connection with Windows requires use of a computer that meets all of the following system requirements. Please note that other configurations cannot be supported.

Operating system	Windows 98 SE (Second Edition)/Me/2000/XP
Computer	1) Computers preinstalled with Windows 98 SE/Me/2000/XP at the time of purchase (This includes such computers later upgraded to Windows Me/2000/XP.) 2) Computers on which USB operation is assured by the manufacturer of computers

Installing the Driver

Never make the connection to the computer before installing.

Keep the machine and the computer unconnected until you carry out this installation operation. Failure to follow the correct procedure may make installation impossible.

☞ p 75 "What to Do If Installation Is Impossible"

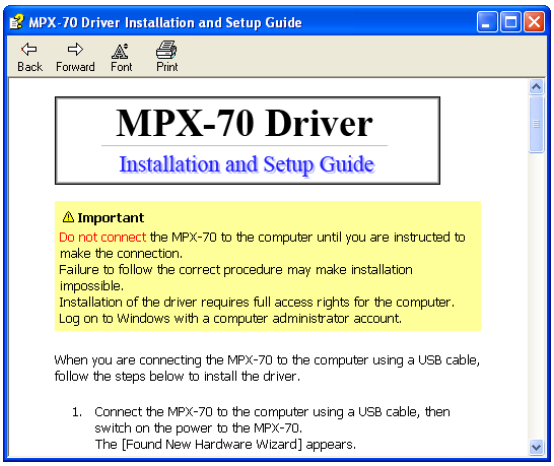
❶ Before you start installation and setup, make sure the USB cable is not connected.

❷ Log on to Windows. If you are installing under Windows 2000/XP, log on as "Administrators" right.

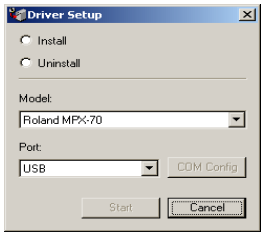
❸

①Insert the included CD-ROM into the CD-ROM drive.
After a short wait, the setup menu shown at left appears.
②Click [METAZA Driver Install].
An Installation and Setup Guide matched to the basic software on your computer is displayed.
If you're using Windows 98 SE/Me/2000, the Installation and Setup Guide and the Setup program appear.

❹ Follow the instructions in the Installation and Setup Guide to finish installing.



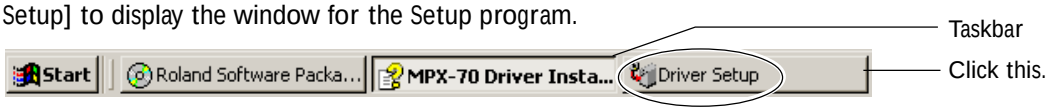
Installation and Setup Guide



Setup program
(Windows 98 SE/Me/2000)

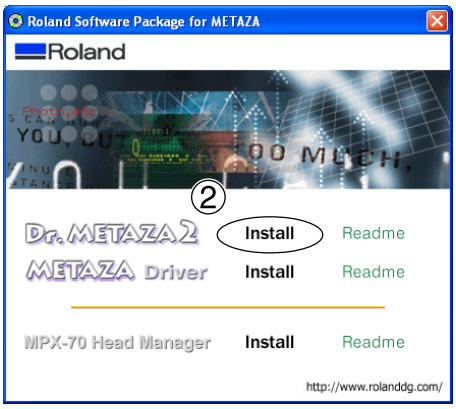
If the [Driver Setup] Window Doesn't Appear

If you're using Windows 98 SE/Me/2000 and the Setup program doesn't appear, first check the taskbar at the bottom of the screen. If [Driver Setup] is displayed, the program is running. Go to the taskbar and click [Driver Setup] to display the window for the Setup program.



Installing Dr.METAZA2

Procedure

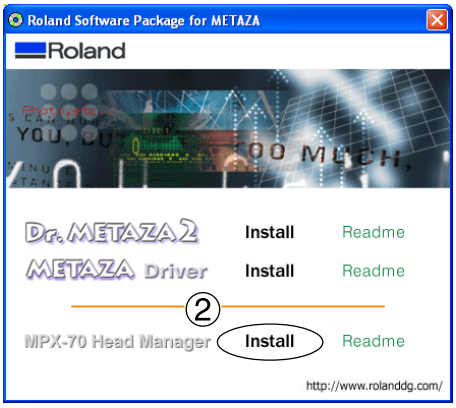
❶ 

①Display the setup menu.
②Click [Dr.METAZA2 Install].

❷ Thereafter, follow the instructions in the messages to complete installation and setup.

Installing MPX-70 Head Manager

Procedure

❶ 

①Display the setup menu.
②Click [MPX-70 Head Manager Install].

❷ Thereafter, follow the instructions in the messages to complete installation and setup.

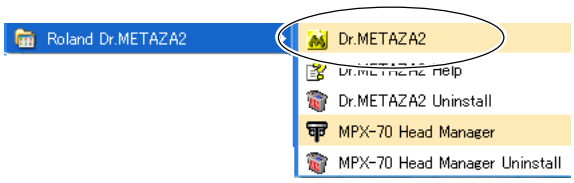
2-4 Dr. METAZA2 Settings

Making the Setting for the Printer

After you finish installing and setting up Dr. METAZA2, continue by making the setting for the printer. Be sure to make the setting before use.

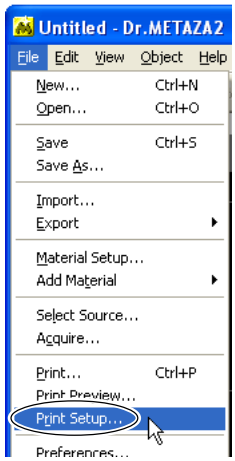
Procedure

❶



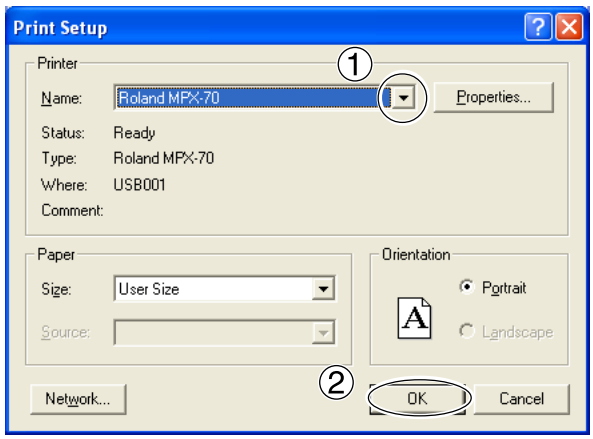
Click [Start], then click [All Programs] (or [Programs]).
Click [Roland Dr. METAZA2], then click [Dr. METAZA2].

❷



Go to the [File] menu and click [Print Setup].
The [Print Setup] dialog box appears.

❸



①Click the arrow shown in the figure, then select [Roland MPX-70].
②Click [OK].

Chapter 3
Performing Printing

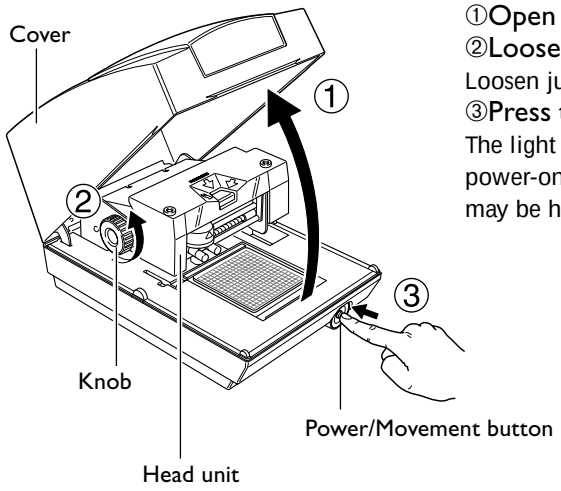
3-1 Switching the Power On and Off

Switching the Power On and Off

Before You Switch On the Power

Before you switch on the power, be sure to loosen the knob and raise the head.
Otherwise the head may scrape and damage the adhesive sheet.

Switching On the Power



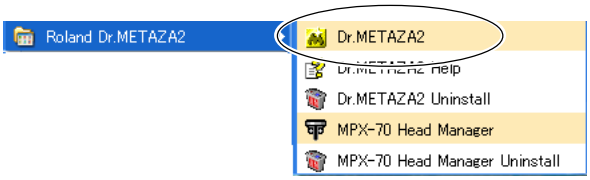
①Open the cover.
②Loosen the knob.
Loosen just enough for the head unit to rise.
③Press the Power/Movement button.
The light comes on. The table moves and initialization begins. The power-on initialization performs origin detection, and so a noise may be heard.

Switching Off the Power

Hold down the Power/Movement button for one second or longer.
The light goes dark and the power is switched off.

3-2 Starting Dr. METAZA2

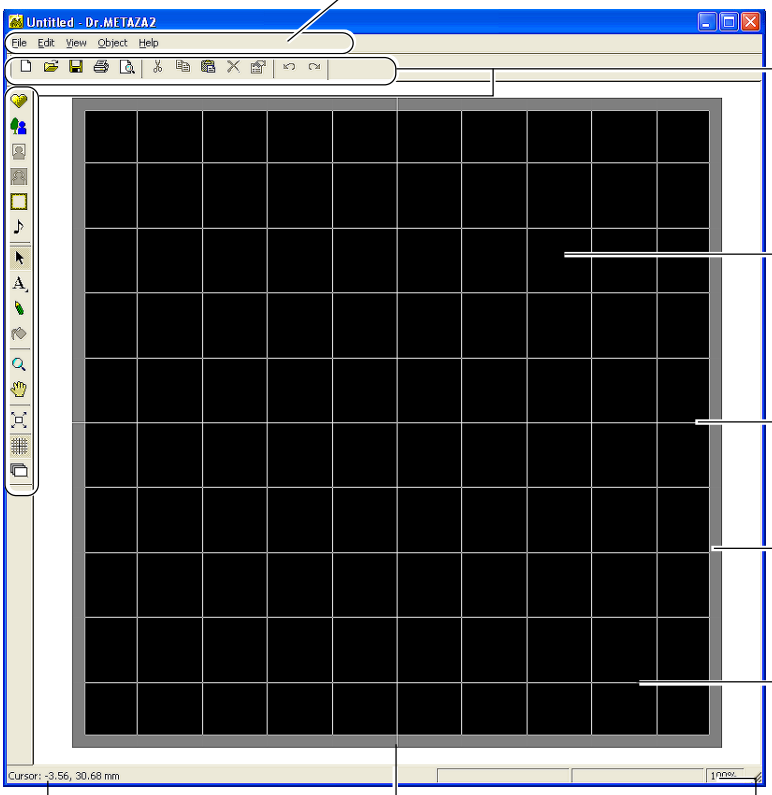
Starting Dr. METAZA2



Click [Start], then click [All Programs] (or [Programs]).
Click [Roland Dr. METAZA2], then click [Dr. METAZA2].

After the opening screen, the screen for Dr. METAZA2 appears.

Names and Functions of Dr. METAZA2 Screen Items



Menu Bar
Runs the various commands for Dr.METAZA2.

Toolbar
The toolbar is provided with buttons for running Dr.METAZA2 commands such as [Open...] and [Save]. Moving the mouse pointer over a button displays a brief description of the button's function.

Material
The combined black and gray areas indicate the material.
To decide on the size and shape of the material, then from the [File] menu, click [Material Setup].

Centerline
This indicates the vertical center location of the window.

Margin
The gray area indicates the margin. The margin areas are not printed. The default margin is 1 mm.

Grid
This is a grid of lines displayed on the screen. It serves as a guide for positioning images and text. To hide the displayed grid, click to clear the selection.

Centerline
This indicates the horizontal center location of the window.

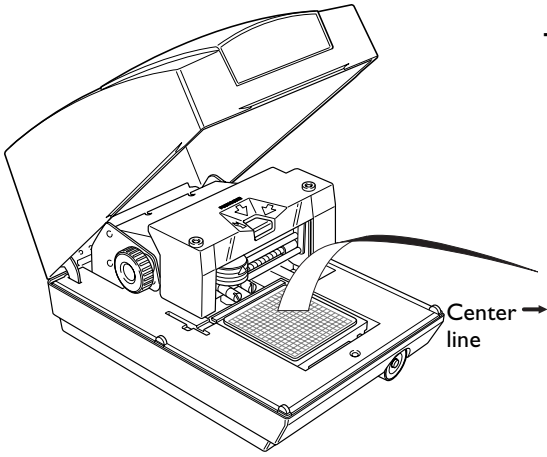
Status Bar
This shows Dr.METAZA2's state of operation and provides brief descriptions of commands.
This also shows amount of zoom in or zoom out for the image.

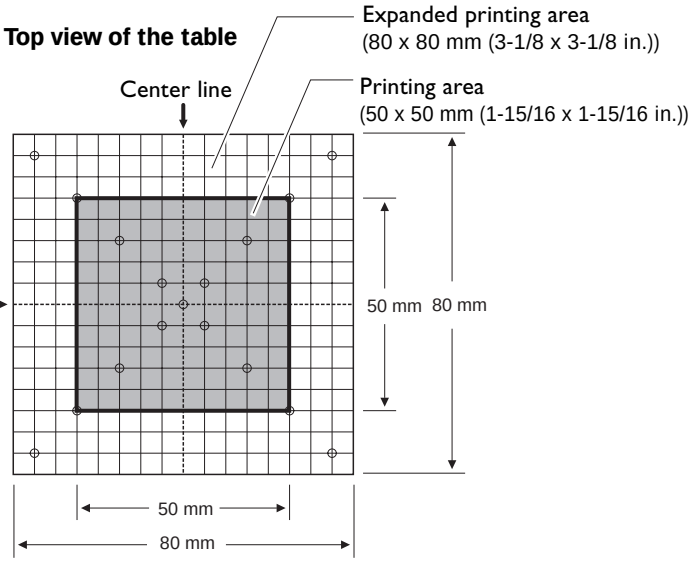
Cursor location
This indicates the present location of the cursor. You can use it to check the locations of images and text. The position at the center of the window (where the two centerlines intersect) is (0, 0).

3-3 Getting Ready to Print

The Printing Area

The machine's printing area is as follows.





Preparing Material to Print

Prepare material that meets all of the following conditions.
Loading material that is larger or thinner than this may cause the material to warp during printing and strike the head, damaging the marking pin.

Conditions for Materials that Can Be Printed

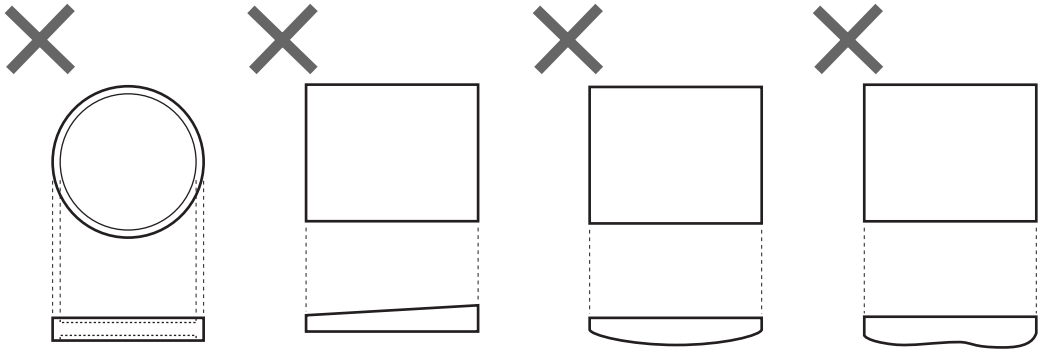
Thickness 0.3 to 20 mm (0.01 to 0.8 in.)

Size Length (or width) of 90 mm (3-9/16 in.) or less

* Note that even if thickness and size are within the range as described above, it may not be possible to perform printing correctly on materials that warp when struck. Refer to the table below, which provides a general guide to printable sizes according to thicknesses.

Material	Thickness	Printable material size (general guide)
Aluminium	2.0 mm (0.08 in.)	Length (or width) of 60 mm (2-3/8 in.) or less
	1.5 mm (0.06 in.)	Length (or width) of 40 mm (1-9/16 in.) or less
	1.0 mm (0.04 in.)	Length (or width) of 30 mm (1-3/16 in.) or less
	0.5 mm (0.02 in.)	Length (or width) of 20 mm (3/4 in.) or less
	0.3 mm (0.01 in.)	Length (or width) of 20 mm (3/4 in.) or less
Brass or copper	2.0 mm (0.08 in.)	Length (or width) of 60 mm (2-3/8 in.) or less
	1.5 mm (0.06 in.)	Length (or width) of 40 mm (1-9/16 in.) or less
	1.0 mm (0.04 in.)	Length (or width) of 30 mm (1-3/16 in.) or less
	0.5 mm (0.02 in.)	Length (or width) of 15 mm (9/16 in.) or less
	0.3 mm (0.01 in.)	Length (or width) of 15 mm (9/16 in.) or less
Stainless steel	2.0 mm (0.08 in.)	Length (or width) of 60 mm (2-3/8 in.) or less
	1.0 mm (0.04 in.)	Length (or width) of 40 mm (1-9/16 in.) or less

Hardness of surface to print	Vickers hardness (HV) of 200 or less * Note that materials which may crack or split by printing (such as glass, stone, precious stones, china, and porcelain) cannot be printed even if hardness is within the preceding range. Attempting to print such materials may damage the machine.
Cross-section of printing material	Flat, with no difference in level The printed surface must be level when the material is placed on the table.



Edge of the material is too high.

Surface to print is not straight.

Back surface is curved.

Back surface is uneven.

Preparing the Image

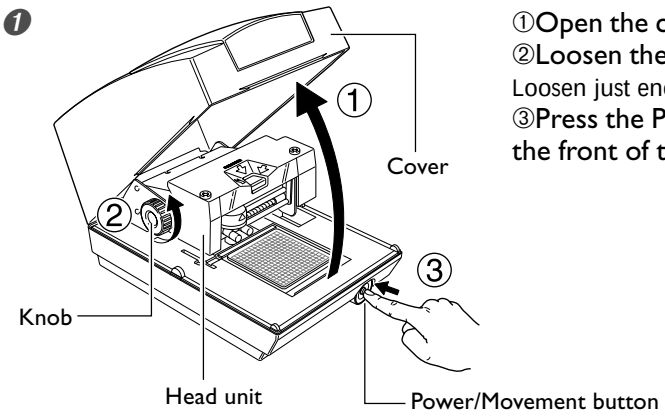
Prepare an image (such as a photograph or drawing) for printing.
Data in JPEG or BMP format can be used with Dr. METAZA2.

3-4 Loading Material

Mounting Material on the Table

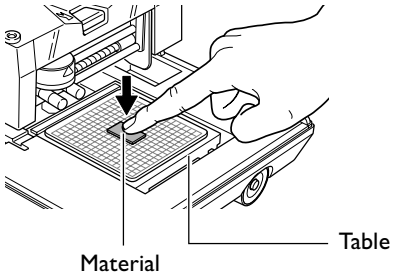
Procedure

❶



①Open the cover.
②Loosen the knob.
Loosen just enough for the head unit to rise.
③Press the Power/Movement button to move the table to the front of the machine.

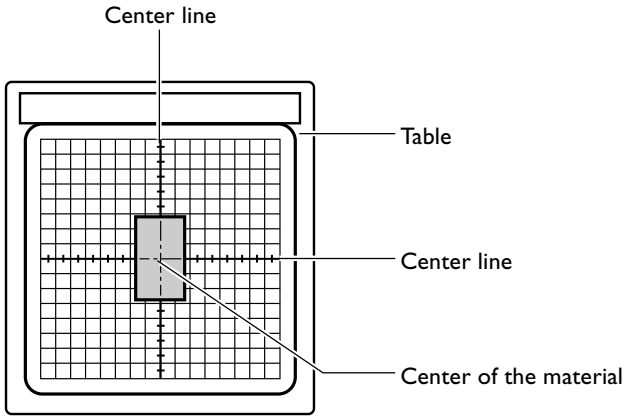
❷



Place the material on the table and press down on it gently to secure it in place.

How to Place Material

Place the material at the center of the scale on the table.



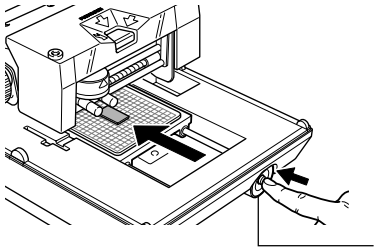
About the Adhesive Sheet

➢Buildup of dust or the like on the adhesive sheet can reduce the sheet's adhesive force, making it difficult to secure material in place. If the adhesive force has been reduced, then wash the adhesive sheet.

☞ p 62 "Cleaning the Adhesive Sheet"

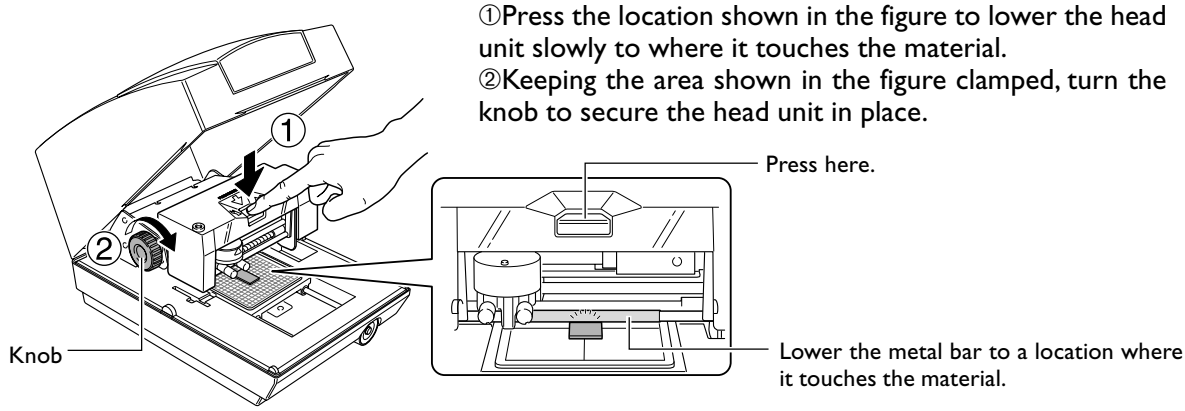
➢Never rub the surface of the adhesive sheet with force. Doing so may damage the surface and reduce its adhesive strength.

❸



Press the Power/Movement button.
The table moves to the center.

❹



①Press the location shown in the figure to lower the head unit slowly to where it touches the material.
②Keeping the area shown in the figure clamped, turn the knob to secure the head unit in place.

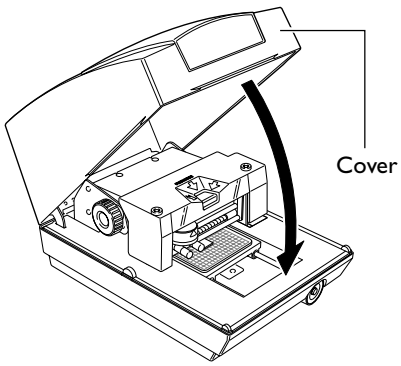
Notes on Loading Material

When you lower the head unit, the metal bar also descends, and contacts the material. Secure the knob in place at the location where contact is made with the material. The metal portion rises slightly when released, but this does not affect the loading of the material.

Important!

➢Lower the head unit slowly. Lowering it too quickly or forcefully may damage the surface of the material.
➢When you lower the head unit, be sure to press it at the location specified in the procedure. Pressing it at another area may cause inaccurate height alignment.

❺



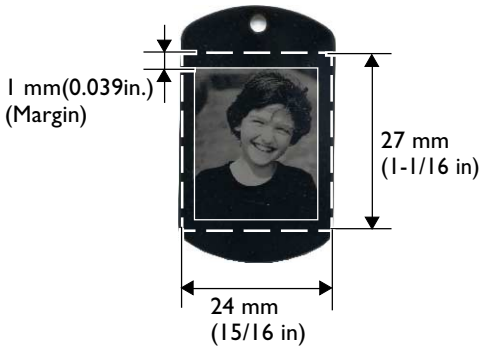
Close the cover.

Detaching the Material

Loosen the knob, raise the head, then remove the material.
If the material is difficult to detach, inserting a thin, flat object (such as a piece of stiff paper or cardboard) between the adhesive sheet and the material may make it easier to dislodge.

3-5 Creating Printing Data

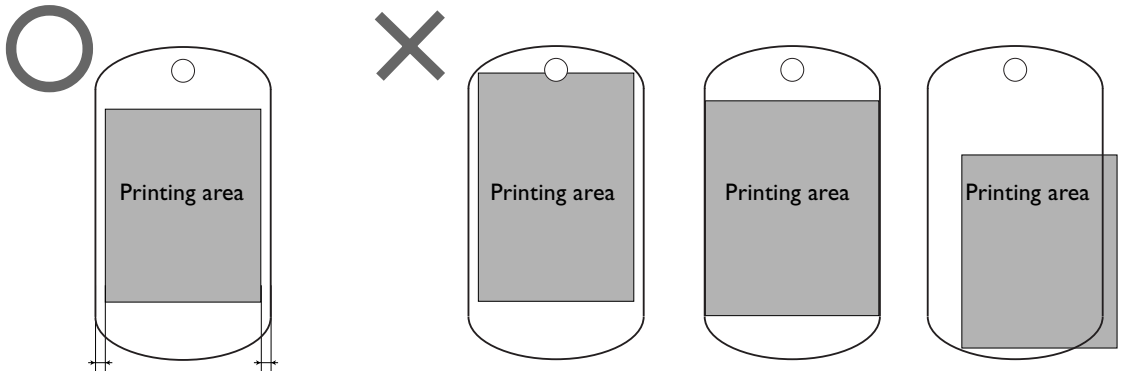
This section describes how to create data, using printing of a plate like the one shown below as an example.



Step 1 : Decide on the Size and Shape of the Material

Important Notes on Printing

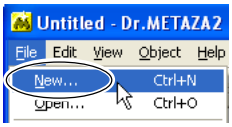
Be sure to ensure a margin of 1 mm or more at each edge of the material. Also, avoid printing at areas where there are holes in the material. The marking pin may be damaged if it strikes an edge or the like on the material.



Procedure

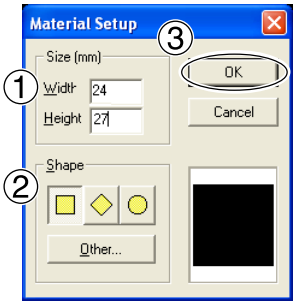
Enter the material's size (outer dimensions), then choose the shape.
In this example, enter 24 mm by 27 mm for the size and choose "quadrilateral" as the shape.

❶



Go to the [File] menu and click [New].
The [Material Setup] dialog box appears.

❷



①For the material's size, enter 24 mm for [Width] and 27 mm for [Height].
②Choose [ ] for the shape of the material.
③Click [OK].
A quadrilateral measuring 24 mm by 27 mm appears in the window, with 1 mm margin formed around the quadrilateral.

Step 2 : Import the Image

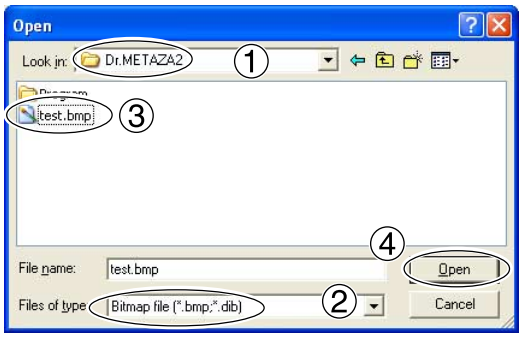
Here you import the image to print. Prepare an image file to import.

Procedure

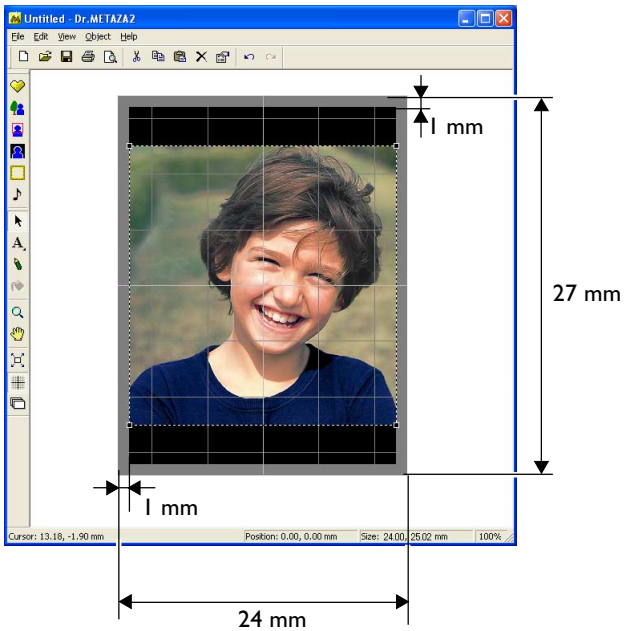
❶

Go to the [File] menu and click [Import].
The [Open] dialog box appears.

❷



①At [Look in], select the location of the file.
②At [Files of type], select either [Bitmap file] or [JPEG file].
③Select the file you want.
√ Click [Open].
The specified image is imported and displayed so as to match the size of the material.

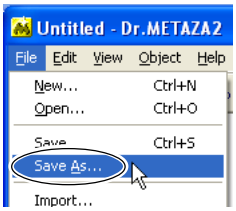


Step 3 : Save the File

Save the printing data in a file.

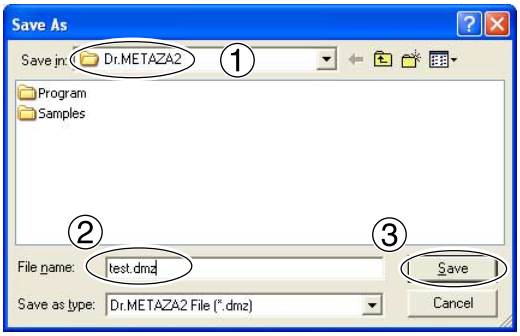
Procedure

❶



Go to the [File] menu and click [Save As].
The [Save As] dialog box appears.

❷



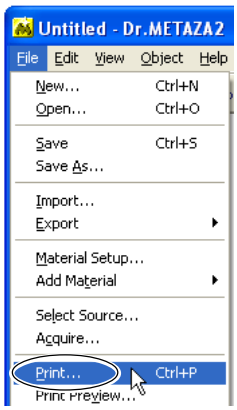
①For [Save in], specify where to save the file.
②Type in a file name.
③Click [Save].

3-6 Starting Printing

Starting Printing

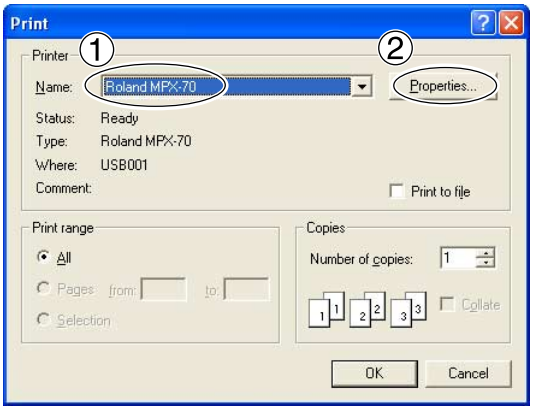
Procedure

❶



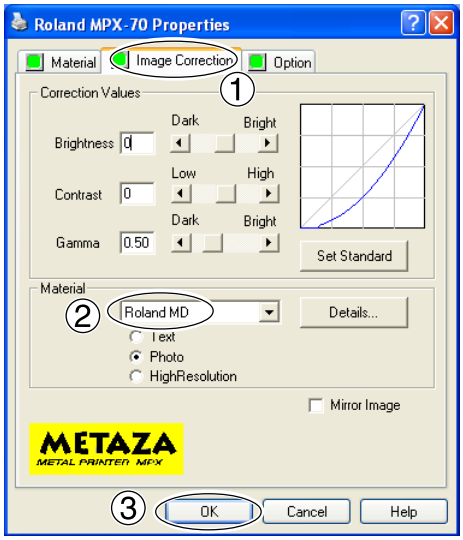
Go to the [File] menu and click [Print].
The [Print] dialog box appears.

❷



①Make sure [Roland MPX-70] is chosen as the printer name.
②Click [Properties].

❸



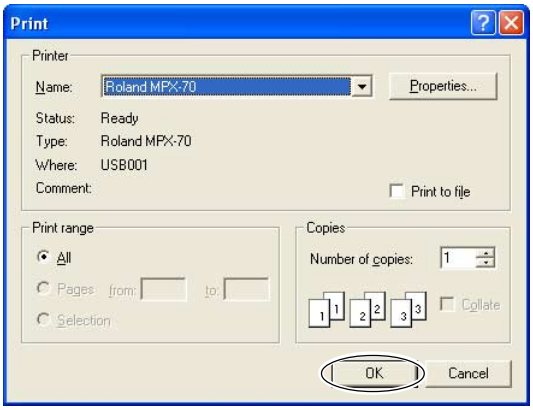
①Click the [Image Correction] tab.
②Select [Material].
Select either the composition or the product code of the material.
③Click [OK].

Selection of the Material

When you select the composition of the loaded material, printing is performed using an optimal striking force for the composition.

☞ p 57 "A Wide Variety Settings You Can Make with the Driver"

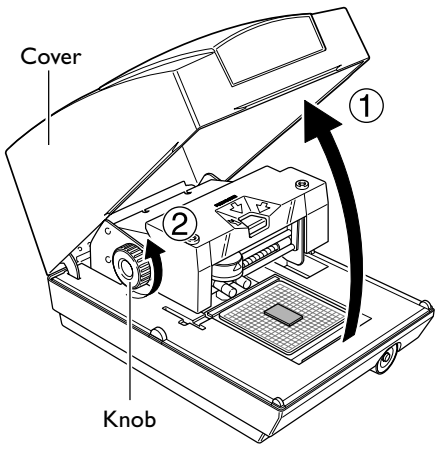
❹



Click [OK].

The printing data is sent to the machine and printing starts.

❺



①After printing has finished, open the cover.
②Loosen the knob.
③Detach the material.

If the material is difficult to detach, inserting a thin, flat object (such as a piece of stiff paper or cardboard) between the adhesive sheet and the material may make it easier to dislodge.

When Printing Ends

After printing has finished, be sure to loosen the knob and raise the head.
This prevents damage to the head and the adhesive sheet.

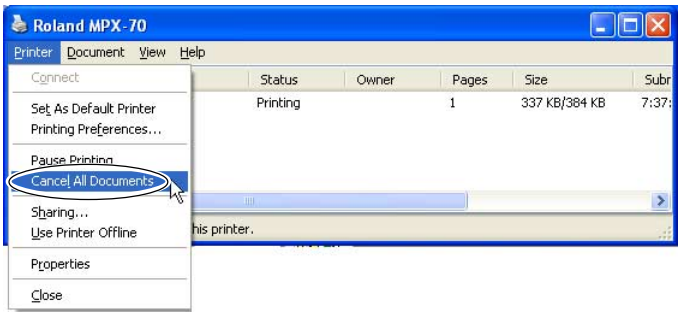
Stopping Printing Operations

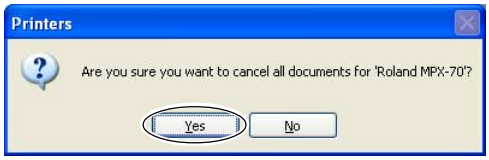
❶ **Windows XP**
Click [Start], then click [Control Panel].
Click [Printers and Other Hardware], then click [Printers and Faxes].
Windows 98 SE/Me/2000
Click [Start].
Click [Settings], then click [Printers].

❷

Double-click the [Roland MPX-70] icon.

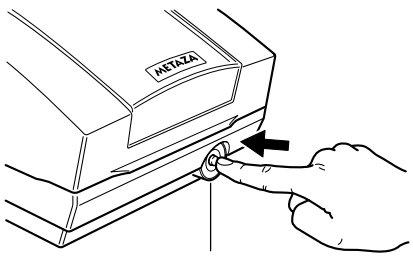
❸ At the [Printers] menu, click [Cancel All Documents] (or [Purge Print Documents]).



❹ 

If you're using Windows XP, then click [Yes].

❺ Make sure the printing data has disappeared from the window and operation of the machine has stopped.

❻ 

Power/Movement button

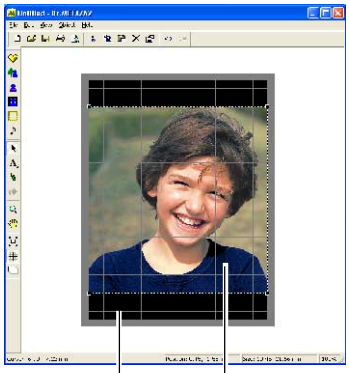
Hold down the Power/Movement button for one second or longer to switch off the power.

Chapter 4
More Advanced Operations

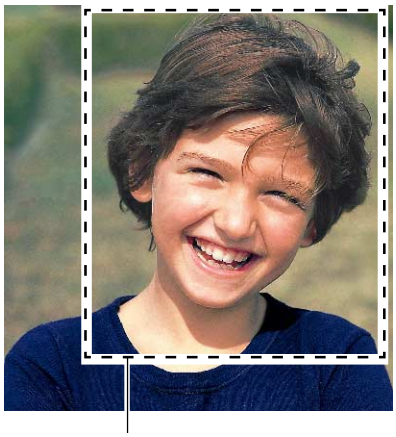
Tips and Tricks for Image Layout

Lay out the image and create data like the following.

Original image



Trim away everything except the area to print.



Import the image.

☞p 33 "Step 2 : Import the Image"

Make the settings for the material.

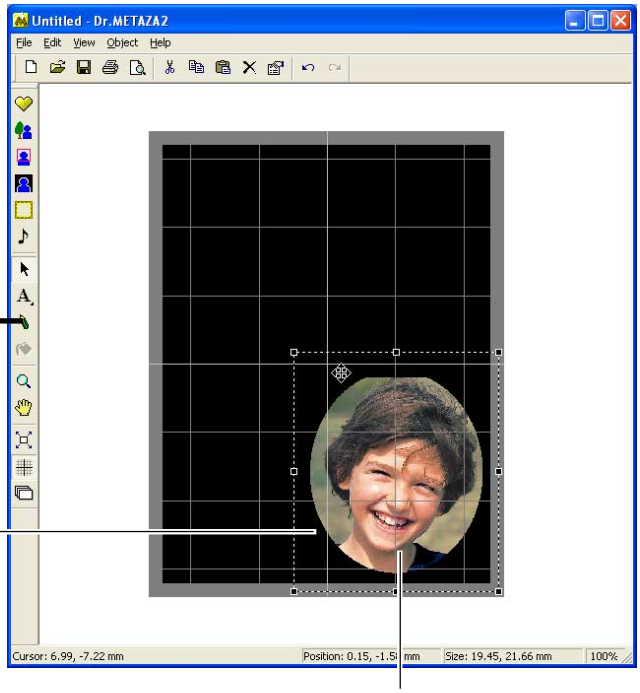
☞p 32 "Step 1 : Decide on the Size and Shape of the Material"

Step 1 : Cut Out the Required Image

☞p 41 "Step 1 : Cut Out the Required Image"

Trim the original image to leave just the required portion.

Completed data



Completed view

Step 3 : Enclose the Image in a Circle

☞p 43 "Step 3 : Enclose the Image in a Circle"

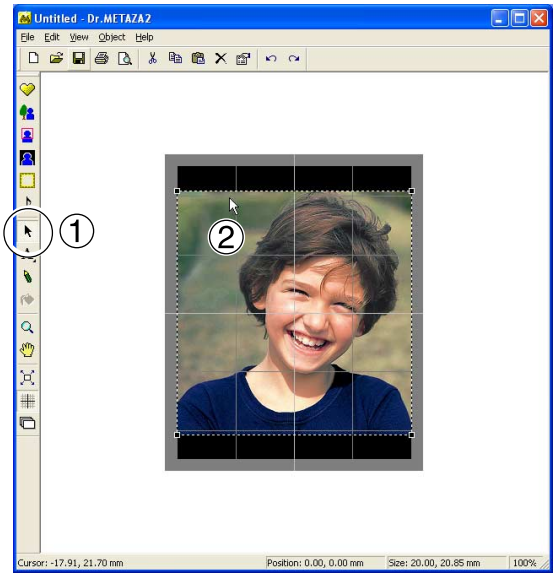
Step 2 : Adjust the Location and Size of the Image

☞p 42 "Step 2 : Adjust the Location and Size of the Image"

Step 1 : Cut Out the Required Image

Trim the original image to leave just the required portion.

❶

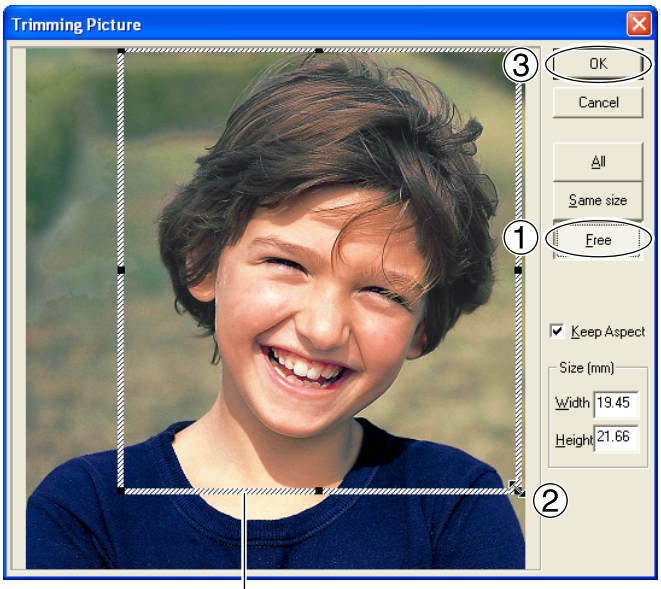


①Click .
②Click the image.

❷

At the [Object] menu, click [Trimming].
The [Trimming Picture] dialog box appears.

❸

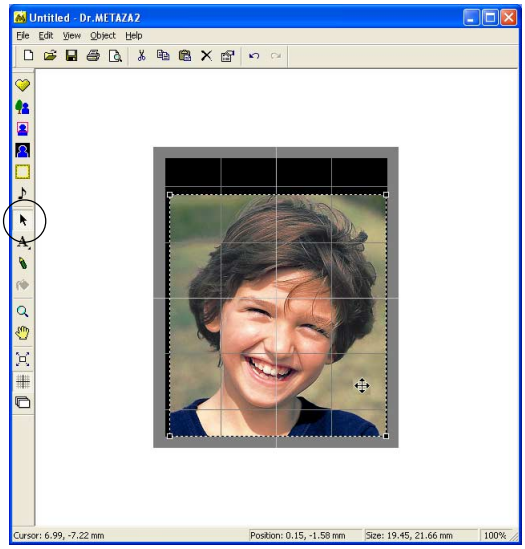


①Click [Free].
②Drag inside the shaded-line box to change the location to trim.
Drag the pointer (■) to change the trimmed size.
③Click [OK].
The trimmed image only is displayed in the window.

Step 2 : Adjust the Location and Size of the Image

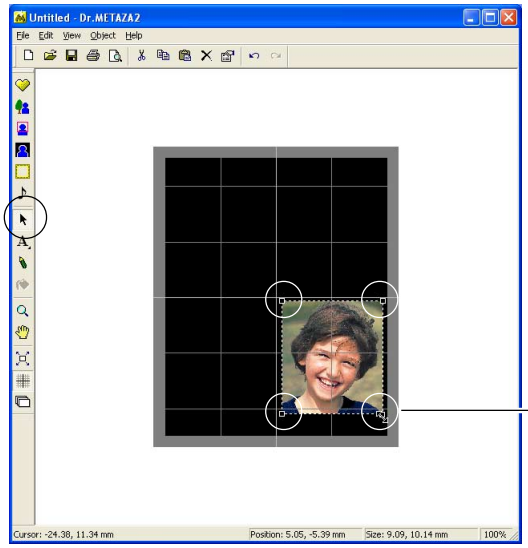
Adjust the layout and the size of the image. Keep adjusting the location and size until you achieve the layout you want.

Adjusting the Location



Click , then click the image.
Drag to adjust the location.

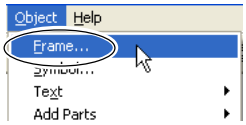
Adjusting the Size



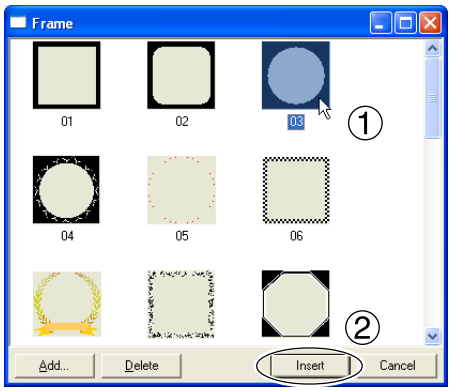
Click , then click the image.
Drag the pointers (■) at the four corners of the image to adjust the size.

Step 3 : Enclose the Image in a Circle

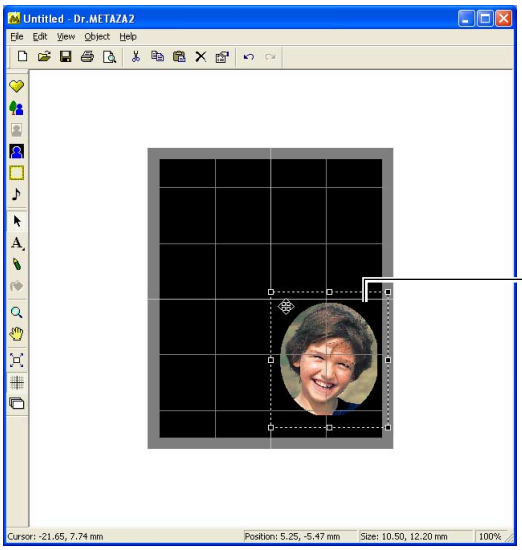
Use a frame to enclose the image in a circle.

❶ 

At the [Object] menu, click [Frame].
The [Frame] dialog box appears.

❷ 

①For the frame, select [03].
②Click [Insert].
A frame is inserted into the window.

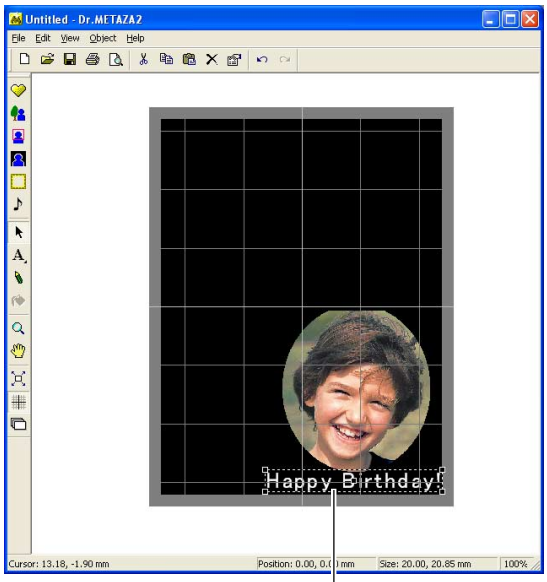
❸ 

Drag the pointers (■) around the frame to adjust its size and location.
Adjust the location and size so as to enclose the image. The adjustment methods are the same as the methods for adjusting the location and size of an image.
☞p 42 "Step 2 : Adjust the Location and Size of the Image"

Tips and Tricks for Text Layout

Arrange text and create data like that shown in the figure.

Dr. METAZA2 screen

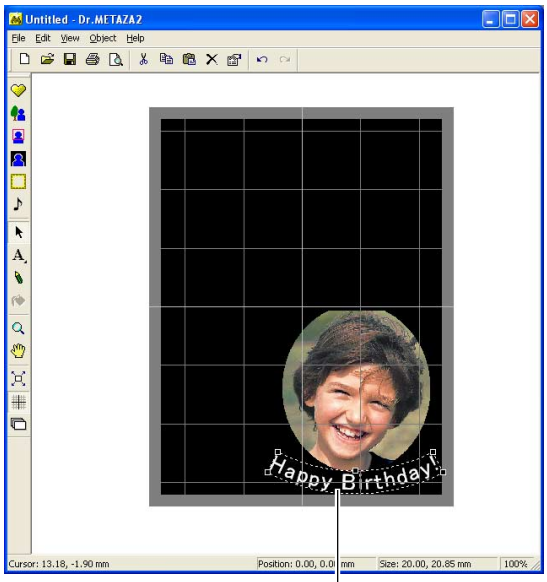


Completed view

1. Lay out the text horizontally.

☞p 45 "1. Arranging Text Horizontally"

Dr. METAZA2 screen



Completed view

2. Arrange in the shape of a fan.

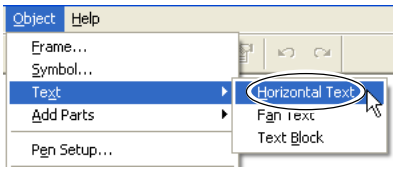
☞p 48 "2. Arranging in the Shape of a Fan"

1. Arranging Text Horizontally

Type in the text to arrange horizontally in the image.

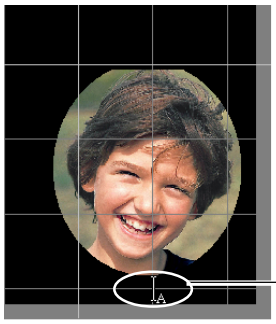
Procedure

❶



Go to [Object] menu, click [Text].
Select [Horizontal Text].

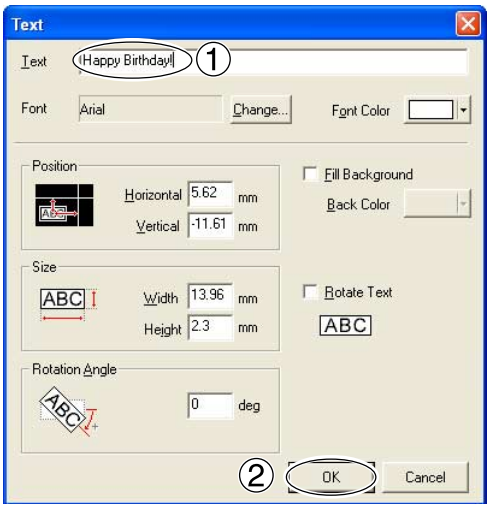
❷



Click the location where you want to insert text.
The [Text] dialog box appears.

Line up the pointer with the location where you want to insert.

❸



①Go to [Text] and enter the text.
②Click [OK].
The text appears in the window.

You can adjust the size and layout of the entered text, and change the typeface.

☞p 46 "Adjusting the Layout and Size of Text"
☞p 47 "Changing the Font Style"

Adjusting the Layout and Size of Text

Changing the Size

Dragging the pointers (■) of the text box changes the size.

Changing the Layout

Dragging the center of the text moves it up, down, or to the left or right.
You can rotate the text by dragging it at a location to either the left or right of its center.

Cursor for movement up, down, or to the left or right

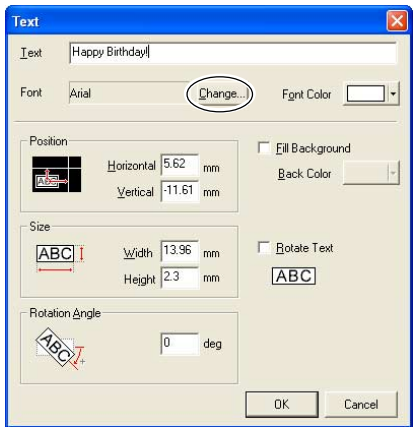
Cursor for rotation

Changing the Font Style

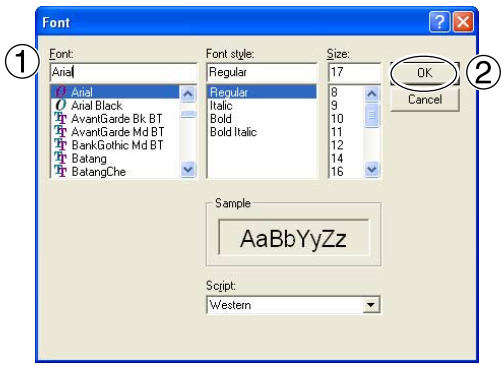
Procedure

❶

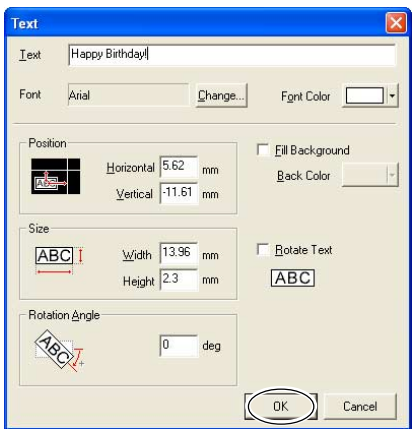
Double-click the text string.
The [Text] dialog box appears.

❷ 

Click [Change].
The [Font] dialog box appears.

❸ 

①Make the selections for the font, style, and size.
②Click [OK].
The [Text] dialog box appears again.

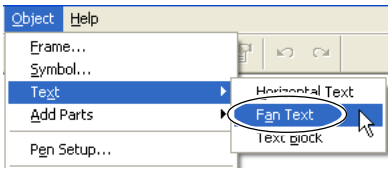
❹ 

Click [OK].
The typeface of the on-screen text changes.

2. Arranging in the Shape of a Fan

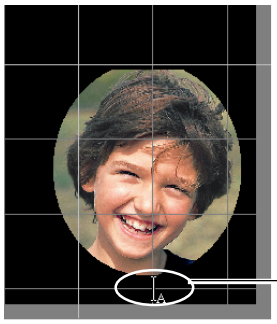
Procedure

❶



Go to [Object] menu, click [Text].
Select [Fan Text].

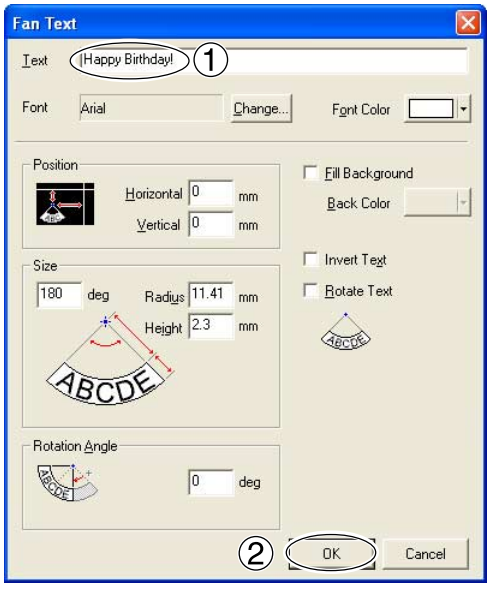
❷



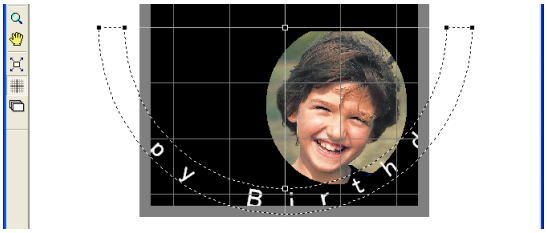
Click the location where you want to insert text.
The [Fan Text] dialog box appears.

Line up the pointer with the location where you want to insert.

❸



①Go to [Text] and enter the text.
②Click [OK].
The text appears in the window.



You can adjust the size and layout of the entered text, and change the typeface.

☞p 49 "Adjusting the Layout and Size of Text"
☞p 50 "Changing the Font Style"

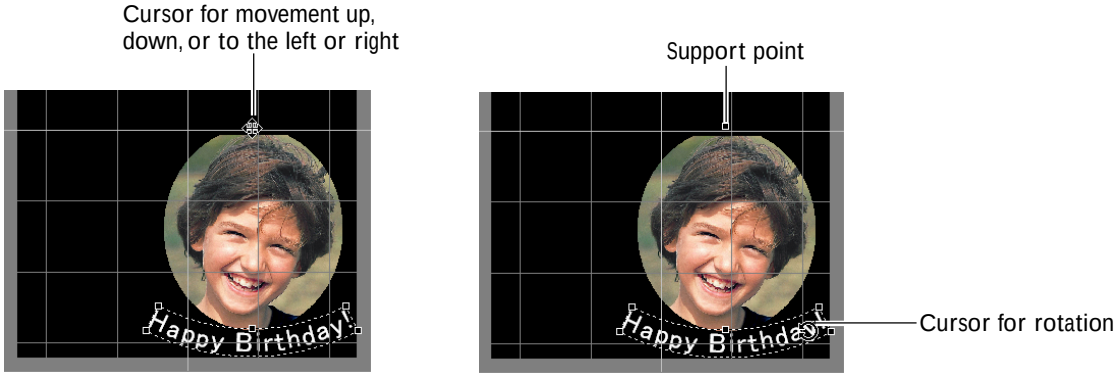
Adjusting the Layout and Size of Text

Changing the Size

Dragging the pointers (■) of the text box changes the size.

Changing the Layout

Dragging the support point moves up, down, or to the left or right.
Dragging inside the text box rotates the support point around the reference.

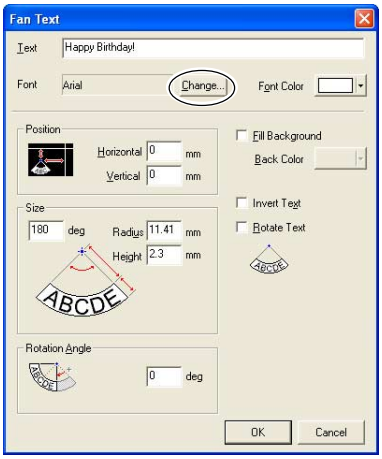


Changing the Font Style

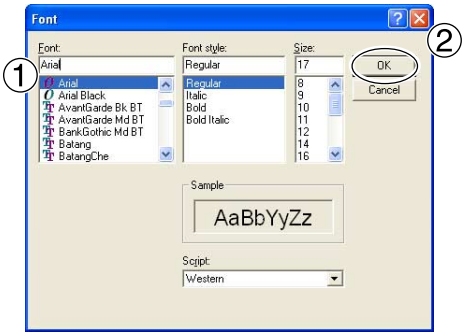
Procedure

❶

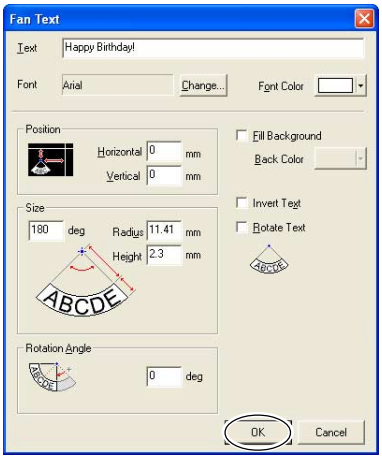
Double-click the text string.
The [Fan Text] dialog box appears.

❷ 

Click [Change].
The [Font] dialog box appears.

❸ 

①Make the selections for the font, style, and size.
②Click [OK].
The [Fan Text] dialog box appears again.

❹ 

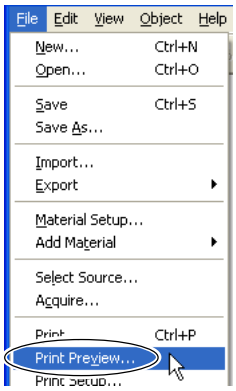
Click [OK].
The typeface of the on-screen text changes.

4-3 Adjusting Brightness and Contrast

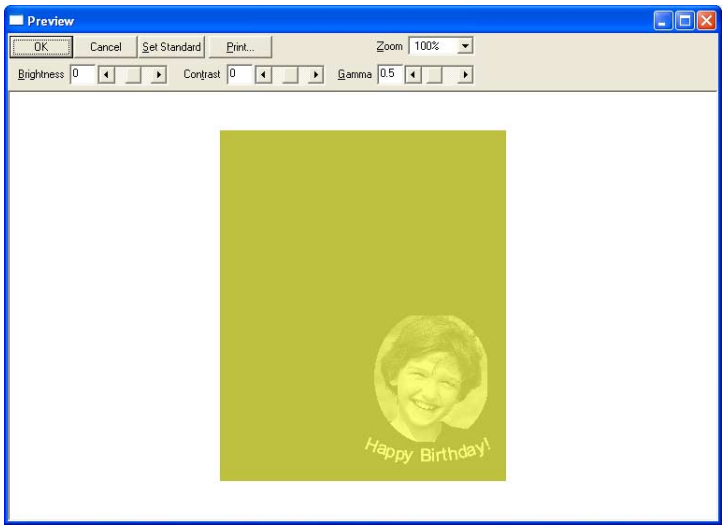
Checking the Finished Results in the Preview Window

At the preview window, you can adjust the brightness, contrast, and gamma correction. An image with clearly defined light and dark areas produces attractive printed results. Adjust to match the image.

Procedure



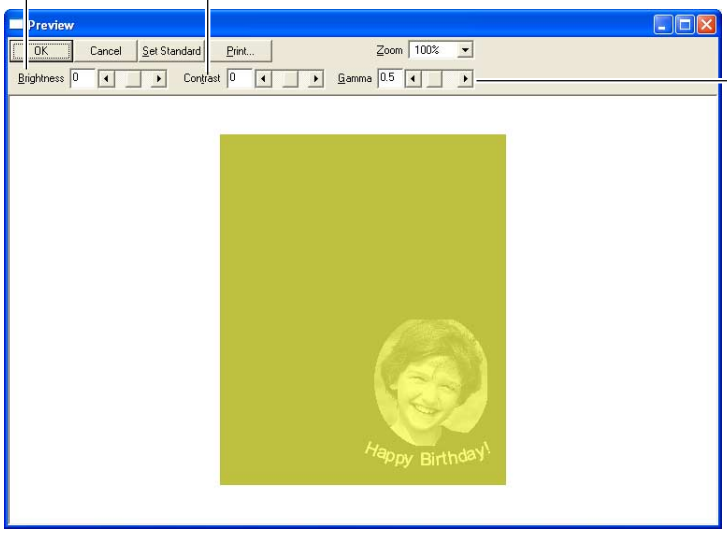
Go to the [File] menu and click [Print Preview].



Preview screen

Tips and Tricks for Image Adjustment

What You Can Do in the Preview Window

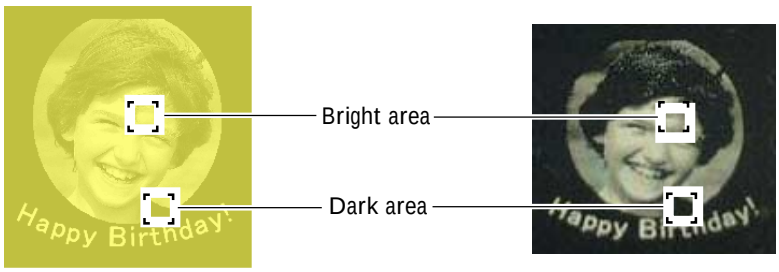


Brightness
This adjusts the overall brightness. Making the value too large can destroy the balance, so it may be a good idea to adjust it to the absolute minimum necessary.

Contrast
This mainly adjusts highlights (the brightest areas) and shadows (the darkest areas). Using this can be effective when you want to achieve a sense of tension with a good balance of light and dark.

Gamma
This mainly adjusts the brightness of tones of intermediate brightness between bright and dark areas. Using it is effective in adjusting the overall brightness.

The dark and bright areas are printed as shown in the figure.
Dark-color areas are not struck, and light-color areas are struck forcefully.



Also, the printing results before and after adjustment are as shown below.

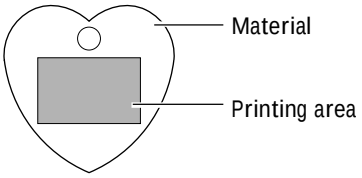
Before adjusting

After adjusting

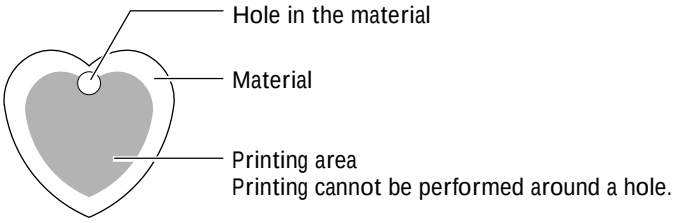
Gamma adjusted to 0.4.
The brightness of the face is reduced, making the expression clearly defined.

About the Size and Shape of the Printing Area

The size of the image to print must always fit within the size of the material. Printing an image that is larger than the material may cause the marking pin to strike the edge of the material and break.
Dr. METAZA2 comes preset with quadrilateral, round, and diamond material shapes. When you select one of these materials, the image is displayed matched to the shape of the material, with an appropriate margin.
For example, when you want to print material whose shape is not registered in Dr. METAZA2, like that shown in the figure, you must set the area printed to be smaller than the material.



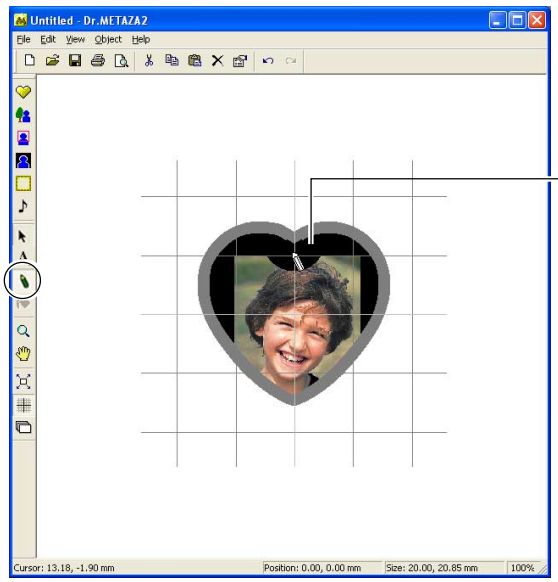
Registering the shape of the material with Dr. METAZA2 makes it possible to expand the printing area.
☞p 54 "Adding a Material Shape"

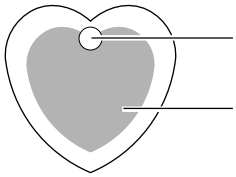


Avoiding Holes in the Material When Printing

When you use the pen feature to black-fill an area in the data by drawing freehand, the filled area is not printed. When you want to perform printing that avoids a hole in the material, use the pen to fill an area in the data whose size and location is matched to the hole. You can make the settings for the width of the pen and the like in the [Pen Setup] dialog box.
☞ For detailed information, refer to the online help.

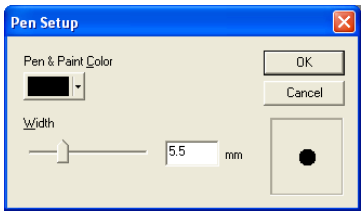
Dr.METAZA2 Screen





Be sure to specify black as the color.
In the Pen Setup dialog box, set the width of the pen to match the diameter of the hole in the material.

[Pen Setup] dialog box



Adding a Material Shape

When you want to use material of a shape other than a circle (ellipse), quadrilateral, or diamond, add the shape.

Creating a Shape Using a Third-party Program

You can use a commercial paint-type program to create a shape, then register it with Dr. METAZA2. Vector data cannot be used. Prepare bitmap data that meets the following conditions.
Number of colors : Binary (black and white -- Fill the interior of the shape with black, and make other portions white or uncolored.)
File format : BMP or JPEG format

Alternatively, you can acquire (import) the shape of the material using a scanner. You acquire the shape by scanning the material directly, or by making a paper copy of the shape of the material and then scanning the paper.

☞For detailed information, refer to the documentation for the scanner you're using.

4-5 Other Handy Features

A Wide Variety of Operations You Can Accomplish with Dr. METAZA2

Dr. METAZA2 offers a wide variety of features for editing imported images and creating printing data. For more information on how to operate Dr. METAZA2, refer to the online help for the program.

☞ p 13 "Included Documentation"

Inserting a Frame

You can use frames to decorate images.
You can select the shape and color you want from among the registered frames.
How to display the editing screen : At the toolbar, click (Frame). Alternatively, at the [Object] menu, click [Frame].

Registering a Custom-made Frame

You can use a commercial paint-type program to create a shape yourself, then register it with Dr. METAZA2.
How to display the editing screen : At the [Object] menu, click [Add Parts], then click [Frame].

Rotating an Image

You can take an image imported into Dr. METAZA2 and rotate it in increments of 90 degrees.
How to display the editing screen : At the [Object] menu, click [Rotate Image].

Cropping an Image

You can crop just the necessary portion of an image. This lets you extract and print the image of a specific person, for example, or a background image.
How to display the editing screen : At the [Object] menu, click [Crop Image].

Registering a General-use Image

You can register often-used logos and other images as symbols, which lets you call them to the screen simply and easily. Registering as a symbol an image that allows wide use can shorten editing times. You can also import your own original images into Dr. METAZA2 and register them as symbols.
How to display the editing screen : At the [Object] menu, click [Add Parts], then click [Symbol].

Importing a General-use Image

You can import an image registered as a symbol.
How to display the editing screen : At the [Object] menu, click [Symbol].

Importing an Image Using a Scanner

If you have a TWAIN 32-compliant scanner, you can call up the scanner driver from Dr. METAZA2. This lets you import and print your own original images.
How to display the editing screen : At the [File] menu, click [Select Source].
How to display the editing screen : At the [File] menu, click [Acquire].

Inverting Gradations

This inverts the gradations of all images displayed in Dr. METAZA2. You use this when you want to insert a logo or text and print it with black and white reversed.

How to display the editing screen : At the [Edit] menu, click [Invert].

Adding Handwritten Text and Hand-drawn Images

You can use the pen tool to add hand-drawn figures and handwritten text to an image.

How to display the editing screen : At the toolbar, click [ ] (Pen).

When you display the setting window for the pen, you can specify the pen width and color.

How to display the editing screen : At the [Object] menu, click [Pen Setup].

4-6 Items You Can Set Using the Driver

A Wide Variety Settings You Can Make with the Driver

At the setting window for the driver, you can make the settings for a wide variety of items, including the size of the material and the method used for printing.

Displaying the Setting Window

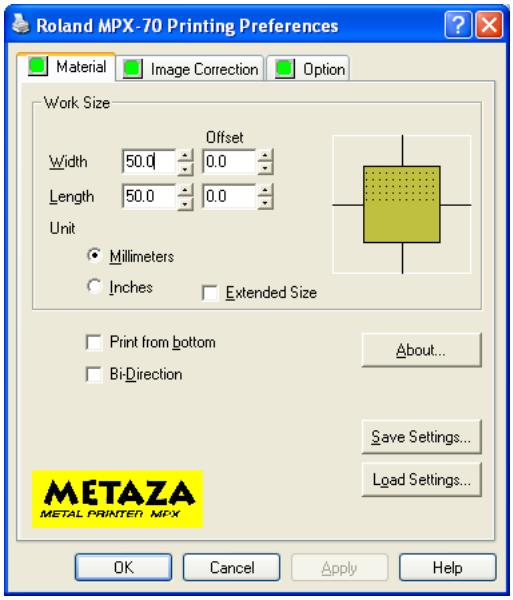
Any changes you make at this window (the window displayed by using the procedure described here) remain in effect even after you restart Dr. METAZA2. To continue operations with the changes applied, follow the procedure below to display the setting window.

Procedure

❶ **Windows XP**
Click [Start], then click [Control Panel].
Click [Printers and Other Hardware], then click [Printers and Faxes].
Windows 98 SE/Me/2000
Click [Start].
Click [Settings], then click [Printers].

❷

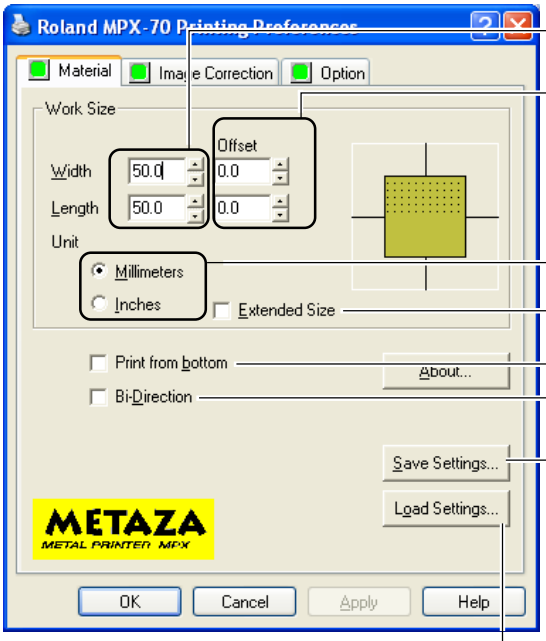
Right-click [Roland MPX-70].
If you're using Windows XP/2000, click [Printing Preferences].
If you're using Windows 98SE/Me, click [Properties].
The setting window appears.



About the Setting Window

Going to the Dr. METAZA2 [File] menu and clicking [Print Setup], then, in the [Print Setup] window, clicking [Properties], displays the same window as the one that appears using "Displaying the Setting Window," described above.
Any changes you make while at this window disappear when you restart Dr. METAZA2. When you want to make temporary changes in driver settings, display the setting window from Dr. METAZA2.

Material Tab



Enter the size of the printing area.

This corrects misalignment of the center point.

☞p 70 "Adjusting the Location of the Machine's Origin Point"

This chooses the units of measurement for the width and length.

This expands the printing area (this can be set up to a maximum of 80 x 80 mm (3-1/8 x 3-1/8 in.).
However, note that when printing is performed in an expanded area (that is, outside an area of 50 x 50 mm (1-15/16 x 1-15/16 in.)), then depending on the material and the image, unevenness in darkness may occur.

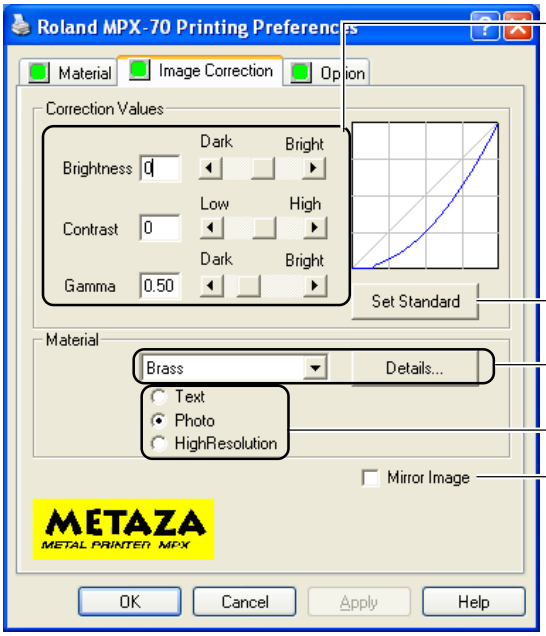
To view the image during printing while printing is in progress, make sure this is selected.

Select this when you want to speed up printing times. Note, however, that printing quality may be slightly reduced.

This saves the driver settings in a file.

This loads driver settings saved in a file.

Image Correction Tab



This performs adjustment when the printing results are not what you intended.

☞p 74 "The image is unattractive."

This returns the corrected image values to the initial values before correction (brightness = 0, contrast = 0, and gamma = 0.5).

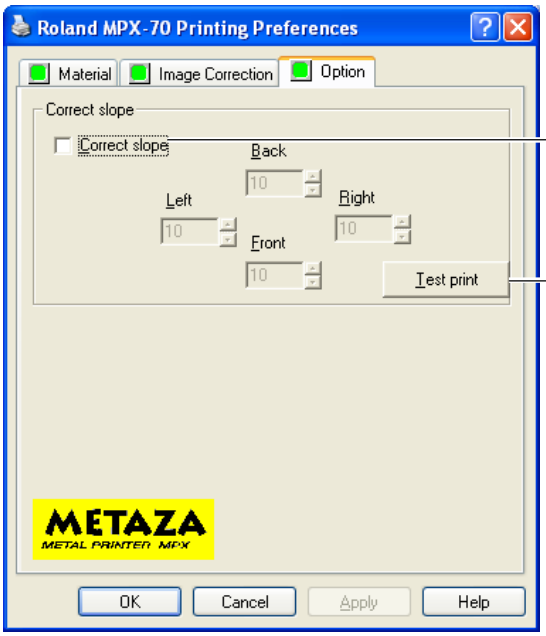
This chooses the composition of the material to print. The optimal striking force for printing the composition is set.
To fine-tune the striking force, click [Details].

☞p 72 "Adjusting the Striking Force to Match the Material"

This selects the printing mode.
When you're printing an image with clearly defined outlines, such as text, then select [Text]. When you're printing an image that contains gradations, such as a photograph, then select [Photo]. When you want to cut even small text and intricate patterns attractively, choose [High Resolution]. Note that the printing time when you select [High Resolution] takes approximately twice as long as with [Photo].

This prints a mirror image of the printing image.

Option Tab



This adjusts the tilt of the table.
Enter the values taken from the results of printing the test pattern.

This prints the test pattern for adjusting tilt using the machine.

☞p 75 "The image is always faint at the same location."

Chapter 5
Maintenance and Adjustment

5-1 Daily Care

Daily Care

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

⚠CAUTION **Never touch the heads immediately after printing has finished.**
Doing so may cause burns.

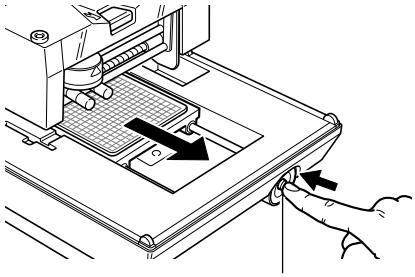
➢This machine is a precision device, and is sensitive to dust and dirt. Be sure to carry out day-to-day cleaning.
➢Never use solvents such as thinner, benzine, or alcohol.
➢Never attempt to oil or lubricate the machine.

Cleaning the Adhesive Sheet

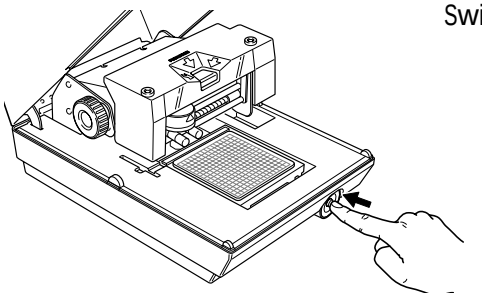
If the adhesive force of the adhesive sheet declines, then wash the sheet.

➢Never scrub the adhesive sheet using a scrubbing pad or sponge.
➢Never stretch or bend the adhesive sheet when washing it.

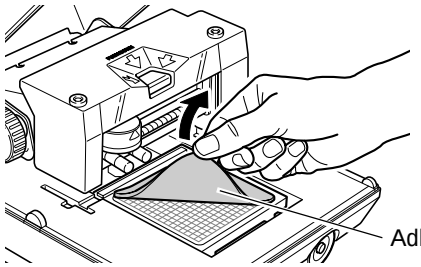
Procedure

❶ 

Press the Power/Movement button to move the table to the front of the machine.

❷ 

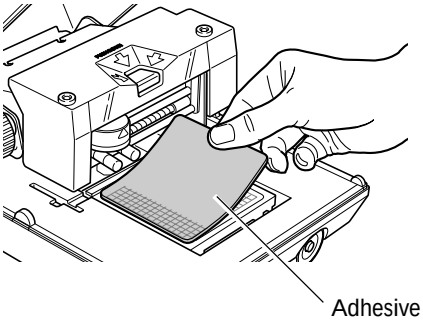
Switch off the power.

❸ 

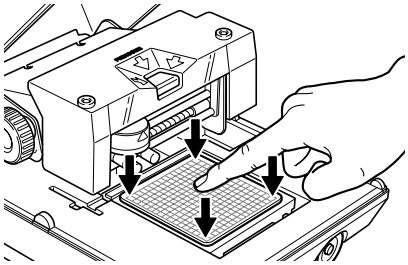
Peel off the adhesive sheet from the table.
Grasp the edges of the adhesive sheet and peel it off slowly.

❹ While submersing the adhesive sheet in water, gently stroke the surface of the sheet with your fingers.

❺ Allow the adhesive sheet to dry.
Allow to dry completely, out of direct sunlight. It must not be mounted on the table while wet.

❻ 

Place the adhesive sheet on the table.

❼ 

Press down gently on the adhesive sheet at the center and the four corners.

Mounting the Adhesive Sheet

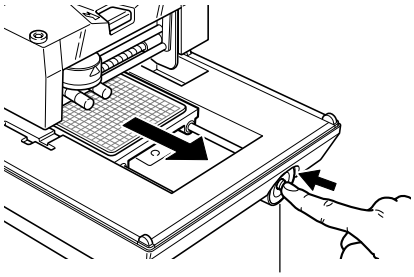
➢Place it straight, aligned with the scale marks on the table.
➢Place inside the table frame.
➢Be careful not to allow any air bubbles to form between the adhesive sheet and the table.

If the Adhesive Sheet Gets Extremely Dirty

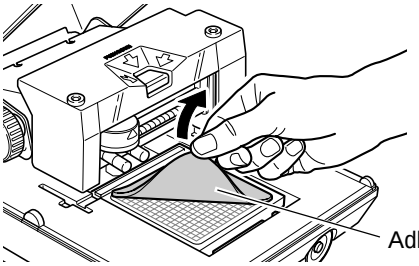
If the soiling of the adhesive sheet is severe, wash it using diluted neutral detergent. Rinse thoroughly with water to remove all detergent completely.

Head Cleaning

Clean away any fine grime around the head. Perform cleaning periodically.

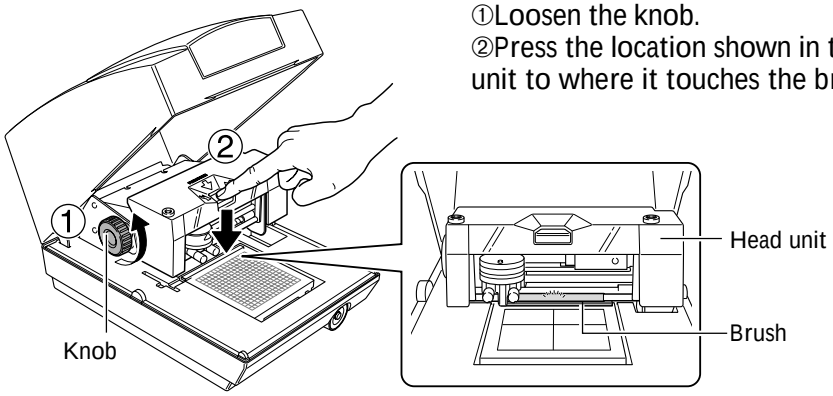
❶ 

Press the Power/Movement button to move the table to the front of the machine.

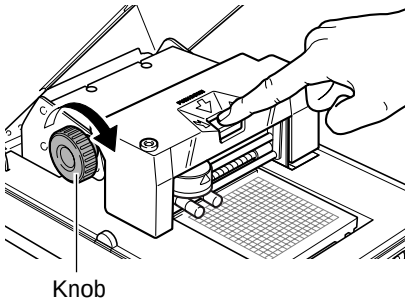
❷ 

Remove the adhesive sheet.

❸ Switch off the power.

❹ 

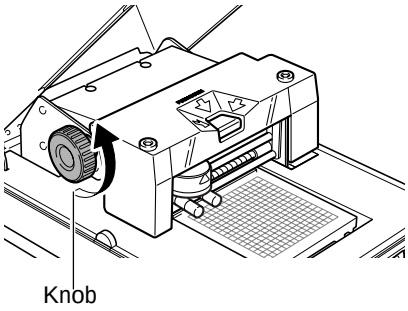
①Loosen the knob.
②Press the location shown in the figure to lower the head unit to where it touches the brush.

❺ 

Keeping the area shown in the figure clamped, turn the knob to secure in place.

❻ Press the Power/Movement button to switch on the power.
The head moves and cleaning is performed.

❼ After cleaning has finished, loosen the knob.



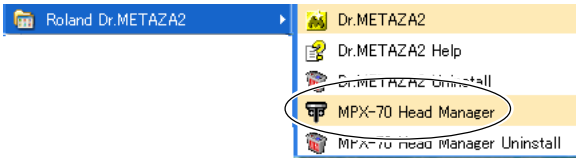
Cleaning the Body and Cover

Use a cloth moistened with water then wrung well, and wipe gently to clean.
The surface of the cover is easily scratched, so use a soft cloth.

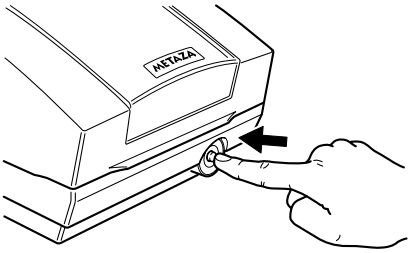
5-2 Maintenance of the Marking Pins

The machine's head has nine pins. Printing is performed using these pins one at a time. If the tip of the pin in use becomes worn, you can change the pin used for printing. You can also perform adjustment to ensure that each pin uses the same striking force.
You carry out all of these maintenance activities using the included [MPX-70 Head Manager] program.

Starting MPX-70 Head Manager

❶ 

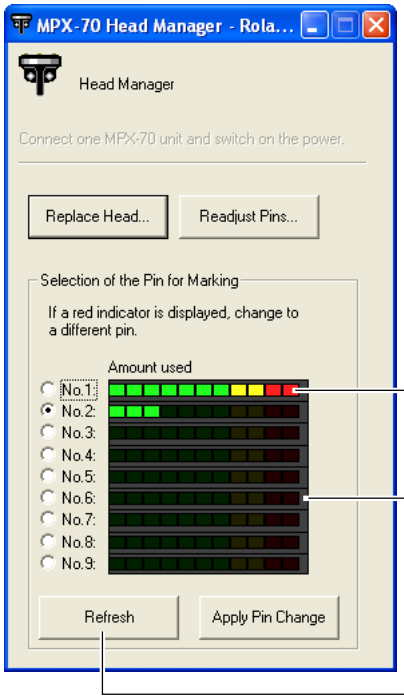
Click [Start], then click [All Programs] (or [Programs]).
Click [Roland Dr. METAZA2], then click [MPX-70 Head Manager].

❷ 

Switch on the power to the machine.

Checking the State of the Marking Pins

The state of each pin is shown.
If the indicator for the pin you're using is red, then replace it with a new pin.
If attractive printing is impossible or printed images are uneven even though the scale is not red, then change to a new pin.



A pin needs to be replaced when it is shown in red.

This indicates the amount of pin usage. The indicator display increases a little at a time as striking is performed. The rate of increase varies according to the material printed.
Pins for which nothing is displayed are unused.

This refreshes the screen to display the latest information.

Changing the Pin Used for Marking

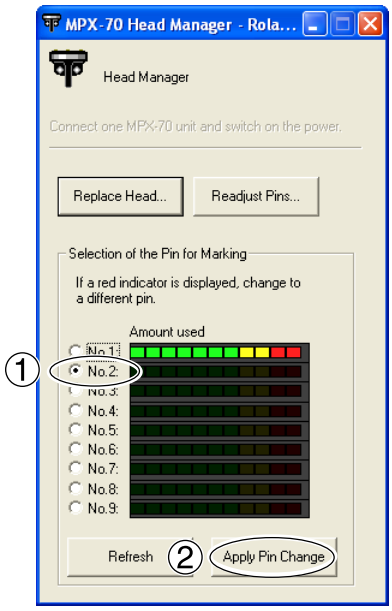
Follow the steps below to change the marking pin.

Procedure

❶ Start MPX-70 Head Manager.

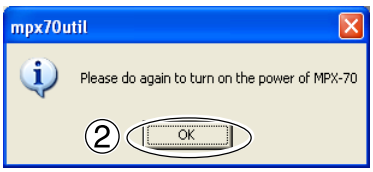
☞ p 66 "Starting MPX-70 Head Manager"

❷



①Choose the number of the pin to use next.
②Click [Apply Pin Change].

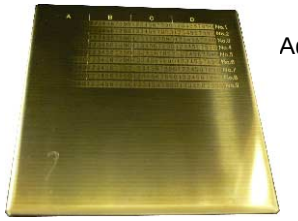
❸



①Follow the on-screen instructions to reset the power.
②Click [OK].

Adjusting the Striking Force of the Pins

You can individually adjust the striking force of each separate pin. Pin adjustment involves striking the pattern shown in the figure. Prepare a piece of test-use printing material (brass) or other material measuring about 60 mm (2-3/8 in.) by 60 mm(2-3/8 in.) .



Adjustment pattern

Procedure

❶ Start MPX-70 Head Manager.

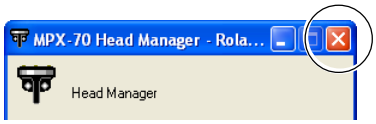
☞ p 66 "Starting MPX-70 Head Manager"

❷

Click [Readjust Pins].

Follow the on-screen instructions to perform adjustment for the pins.

❸

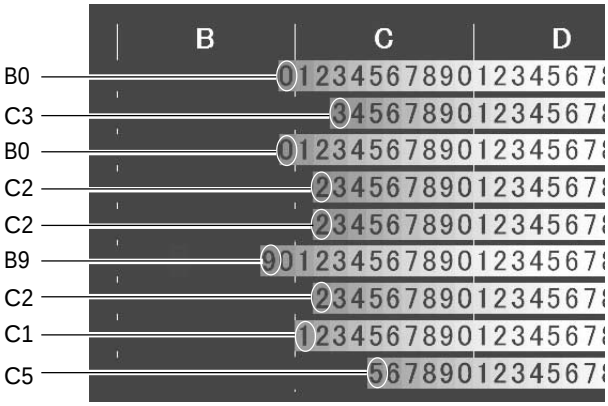


When you have finished, click [X].

The window closes.

How to Determine the Adjustment Values

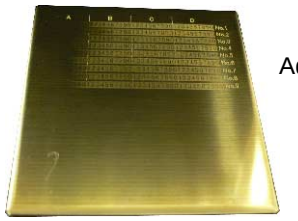
Type in the letter and number of the location where the value that can be read is lightest. If this is difficult to determine, decide on an appearance (darkness) to serve as a reference, and select a location having the same appearance. For instance, if the situation is like that shown in the figure, then enter the following values.



5-3 Head Replacement

Replacing the Head

When all nine marking pins wear out, replace the head. During replacement, you strike the pattern shown in the figure. Prepare a piece of test-use printing material (brass) included with the replacement head (MPH-70), or another piece of material measuring about 60 mm (2-3/8 in.) by 60 mm (2-3/8 in.).
The replacement head is sold separately. Consult your authorized Roland DG Corp. dealer or Call Center.



Adjustment pattern

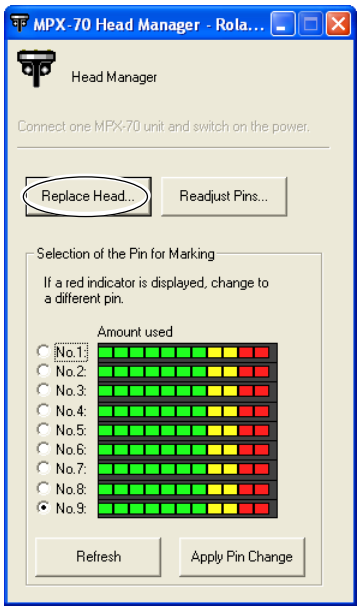
Procedure

➢Never quit the replacement operation while partway through.
➢The head is a consumable part. Never use a head whose marking pins are all worn out.
➢Never reuse a head once it has been removed. Never use it a second time, even if it contains unused pins.

❶ Start MPX-70 Head Manager.

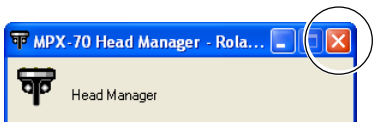
☞ p 66 "Starting MPX-70 Head Manager"

❷



Click [Replace Head].
Follow the on-screen instructions to carry out head replacement.

❸



When you have finished, click [X].
The window closes.

After you have finished the head-replacement operation, click [Readjust Pins] to check the state of the marking pins.

☞ p 68 "Adjusting the Striking Force of the Pins"

5-4 Adjustment of the Origin-point Location

Adjusting the Location of the Machine's Origin Point

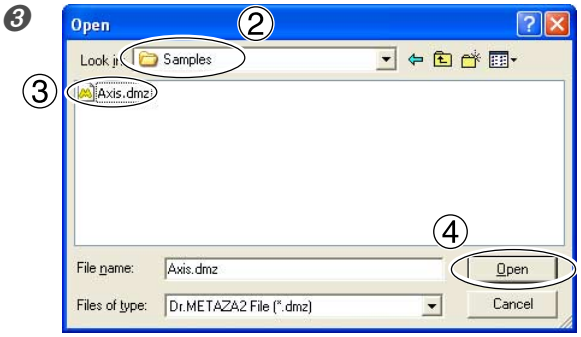
The machine's printing origin point is at the center of the table's scale. When you want to adjust the origin-point location, output calibration data to verify the location of the origin point.

1. Print calibration data.

❶ Mount material on the center of the table.
Prepare material measuring at least 20 mm square.
☞ p 30 "Mounting Material on the Table"

❷ Start Dr. METAZA2.

❸

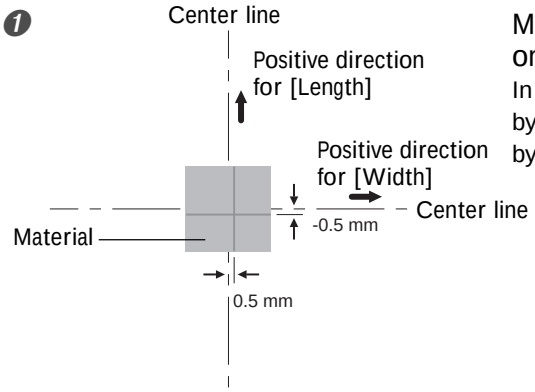


①Go to the [File] menu and click [Open].
②For [Look in], select the [Samples] folder.
③Select [Axis.dmz].
√ Click [Open].

❹ Start printing.

2. Measure and type in the correction values.

❶



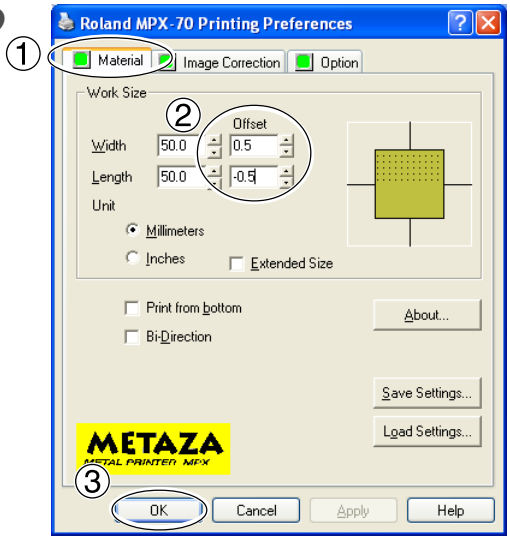
Measure and note down the offset between the centerline on the table scale and the crossed lines on the material.
In the example shown in the figure, the [Width] value is displaced by 0.5 mm in the positive direction and the [Length] value is offset by 0.5 mm in the negative direction.

❷ **Windows XP**
Click [Start], then click [Control Panel].
Click [Printers and Other Hardware], then click [Printers and Faxes].
Windows 98 SE/Me/2000
Click [Start].
Click [Settings], then click [Printers].
The [Printers] folder opens.

❸

Right-click [Roland MPX-70].
If you're using Windows XP/2000, click [Printing Preferences].
If you're using Windows 98SE/Me, click [Properties].
The setting window appears.

❹



①Click the [Material] tab.
②In the width and length fields for [Offset], enter the displacement values you noted in step 1.
③Click [OK].
The window closes.

Entry of Correction Values

When the setting window for Dr. METAZA2 is displayed, the values for any settings made there are temporary, and are not saved.
To save the values in the setting window, go into the [Printers] folder and display the setting window for the driver.

☞ p 57 "A Wide Variety Settings You Can Make with the Driver"

5-5 Registration of Custom Material

Adjusting the Striking Force to Match the Material

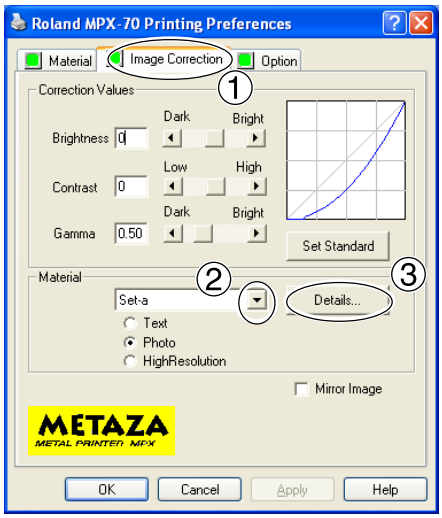
Here you register a material and adjust the striking force to match the material's hardness and other parameters.

Procedure

❶ **Windows XP**
Click [Start], then click [Control Panel].
Click [Printers and Other Hardware], then click [Printers and Faxes].
Windows 98 SE/Me/2000
Click [Start].
Point to [Settings], then click [Printers].

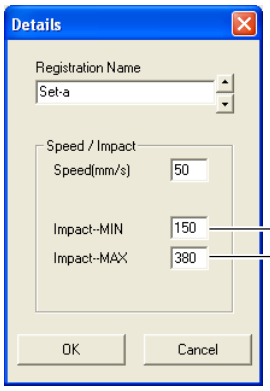
❷ Right-click [Roland MPX-70].
If you're using Windows XP/2000, click [Printing Preferences].
If you're using Windows 98SE/Me, click [Properties].

❸



①Click the [Image Correction] tab.
②For [Material], select a custom material (settings a through d).
③Click [Details].
The [Details] window appears.

❹



Adjust the impact values.
The printing results vary according to the hardness of the material. Adjust to match the material.

Raise
- When dark areas of the image are not struck

Lower
- When dark areas of the image are whitish (too bright)
- When overall striking is too forceful

Raise
- When bright areas of the image are struck with too little force (too dark)
- When overall striking is too weak

Lower
- When white areas of the image are struck with too much force

❺ Click [OK].
The [Details] window closes.

❻ Click [OK].
The setting window closes.

Chapter 6
Appendix

6-1 What to Do If

The machine doesn't run even when printing data is sent.

Is the power switched on?
Make sure the Power/Movement button light is on. If it is dark, press the Power/Movement button to switch on the power.

Is the power cord connected correctly?
If it is not connected correctly, refer to the page indicated below and connect it properly.

☞ p 18 "Connecting the Power Cord"

Is the cable used for the connection to the computer connected correctly?
If it is not connected correctly, refer to the page indicated below and connect it properly.

☞ p 19 "Connecting to the Computer"

Striking is performed, but nothing is printed.

Has the height of the head been adjusted to match the thickness of the material?
Check whether the head is at a height that matches the thickness of the material and whether the head is fixed in place at that height. Printing cannot be performed if the height of the head doesn't match the thickness of the material. Align the head height and fix the head in place securely using the knob.

Is the material loaded at the correct location?
If empty printing is being performed at a location other than where the material is loaded, then reload the material.

Is the material to be printed in line with the parameters for printable material?
Prepare and use printable material.

☞ p 28 "Preparing Material to Print"

Was printing performed at a location such as the edge of the material?
Printing at the edge of material may bend or break the marking pin. If nothing is printed, the marking pin may be bent or broken. Printing cannot be performed if the marking pin is bent or broken. Change the pin.

☞ p 67 "Changing the Pin Used for Marking"

The image is unattractive.

Are the settings for the material in the driver's setting window correct?
Choose the composition of the loaded material.
Even if the composition of the material is the same, the hardness of the printed surface may vary greatly depending on the casting method, the composition of impurities, the presence of plating, and so on. In such cases, perform fine adjustment of the striking force to match the material.

☞ p 72 "Adjusting the Striking Force to Match the Material"

Is the image printed clearly?
If the image is not printed clearly, adjust the brightness of the image. Perform printing while increasing the brightness of [Gamma] or [Brightness] in the driver's setting window a little at a time.
At this time, leave the material loaded and perform overstriking at the same location. Continue changing settings and performing printing until you obtain the darkness you want.

☞ p 57 "A Wide Variety Settings You Can Make with the Driver"

Are grayscale tones printed clearly?
If the grayscale tones is not printed clearly, adjust the force of striking. Perform printing while leaving the value for [Impact--MAX] unchanged and increasing the value for [Impact--MIN] a little at a time.
At this time, leave the material loaded and perform overstriking at the same location. Continue changing the settings in the driver's setting window and performing printing until you obtain the darkness you want.

☞ p 57 "A Wide Variety Settings You Can Make with the Driver"

More Information about Overstriking
The various setting values determined with overstriking are effective only when performing overstriking under identical conditions. The same results are not necessarily obtained when printing is performed with a new piece of material with only the conditions made the same, without performing overstriking.

Is the marking pin worn?
Attractive printing may be impossible if the marking pin becomes worn.
Adjust the pin or change it to a new one.

☞ p 66 "5-2 Maintenance of the Marking Pins"

The image is uneven.

Is the printed surface slightly uneven?
Replace with material having a level printing surface.

☞ p 28 "Preparing Material to Print"

Is the printed surface at an angle?
Replace with material having a level printing surface.

☞ p 28 "Preparing Material to Print"

Is the image darkness uneven?
Performing overstriking with the material left loaded at the same location may improve the image quality. Try performing overstriking with different settings for [Gamma], [Bright-

ness], or [Contrast] in the driver's setting window.

☞ p 57 "A Wide Variety Settings You Can Make with the Driver"

Was bidirectional printing performed?

Bidirectional printing can shorten the printing time, but the image quality may suffer. If this happens, go to the driver's setting window and clear the selection for [Bidirection], then redo printing.

☞ p 57 "A Wide Variety Settings You Can Make with the Driver"

Is the marking pin worn?

Attractive printing may be impossible if the marking pin becomes worn.

Adjust the pin or change it to a new one.

☞ p 66 "5-2 Maintenance of the Marking Pins"

The image is always faint at the same location.

If the image is often faint at the same location, such as near the front right area of the table, then adjusting the levelness of the machine may improve the image quality.

Please note that this is not effective when unevenness in the image is unrelated to the printing location, such as when uneven areas vary from one piece of material or image to another.

1.Load a piece of included test-use printing material at the center of the table.

If the included material has been used up, then prepare a piece of material that is larger than 60 mm and has a smoothness of 0.05 mm or less.

☞ p 30 "Mounting Material on the Table"

2.Go into the [Printers] folder. Right-click the [Roland MPX-70] and open the setting screen for the METAZA driver.

If you are using Windows XP/2000, click [Printing Preferences].

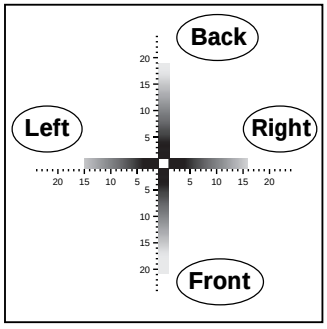
If you are using Windows 98 SE/Me, click [Properties].

3.Click the [Option] tab.

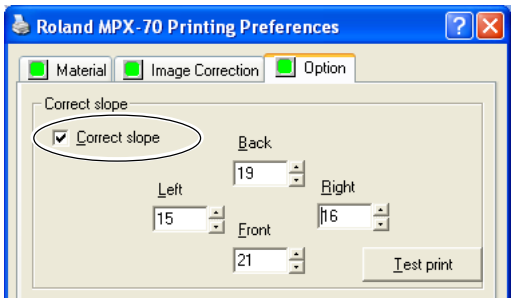
4.Click [Test print].

The test pattern is printed on the material.

5.Use the scale to read and note down locations where the test pattern is not continuous or not visible. Note down the values in all four directions (front, back, left, and right).



6.Select [Correct slope] and enter the scale values you noted into the driver.



The printed location isn't where desired

The center of the table scale may not coincide with the machine's printing origin point.

To correct displacement between the scale center and the printing origin point.

☞ p 70 "Adjusting the Location of the Machine's Origin Point"

What to Do If Installation Is Impossible

If installation quits partway through, or if the wizard does not appear when you make the connection with a USB cable, take action as follows.

Windows XP/2000

1.If the [Found New Hardware Wizard] appears, click [Finish] to close it.

2.Display [System Properties].

Windows XP

Click the [Start] menu, then right-click [My Computer]. Click [Properties].

Windows 2000

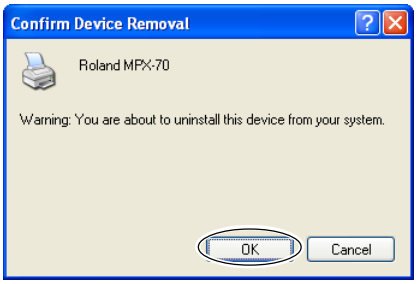
Right-click [My Computer] on the desktop. Click [Properties].

3.Click the [Hardware] tab, then click [Device Manager].

The [Device Manager] appears.

4.At the [View] menu, click [Show hidden devices].
5.In the list, find [Printers] or [Other device], then double-click it.
When [Roland MPX-70] or [Unknown device] appears below the item you selected, click it to choose it.

6.Go to the [Action] menu, and click [Uninstall].
7.The screen shown in the figure appears.
Click [OK].



8.Close the [Device Manager] and click [OK].
9.Unplug the USB cable from your computer.
10.Restart Windows, then uninstall the driver.

☞ p 76 "Uninstalling the Driver"

11.Redo the installation from the beginning.

☞ p 21 "Installing the Driver"

Windows 98 SE/Me

1.Refer to "Uninstalling the Driver" on the following page and uninstall the driver.

☞ p 76 "Uninstalling the Driver"

2.Redo the installation from the beginning.

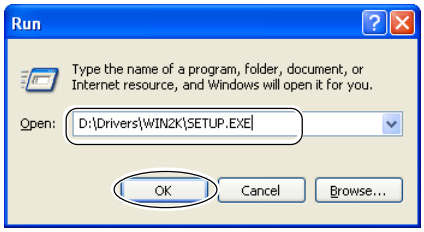
☞ p 21 "Installing the Driver"

Uninstalling the Driver

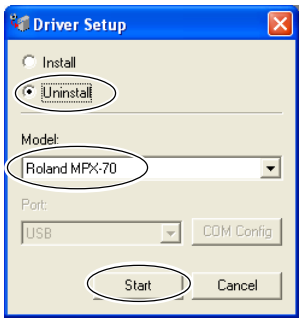
When uninstalling the driver, perform following operation.

1.Before you start uninstallation of the driver, unplug the USB cables from your computer.
2.Log on to Windows. If you are installing under Windows XP/2000, log on as “Administrators” right.
3.Insert the included CD-ROM into the CD-ROM drive.
The setup menu appears.
Go to the upper right and click the [X] to close the setup menu.
4.From the [Start] menu, click [Run].

5.For [Open], type in the information shown below, then click [OK].
Windows XP/2000
(CD-ROM drive letter):\Drivers\WIN2K\SETUP.EXE
Windows 98 SE/Me
(CD-ROM drive letter):\Drivers\WIN9X\SETUP.EXE
The Setup program starts and the [Driver Setup] window appears.



6.Select [Uninstall], then choose [Roland MPX-70].
Click [Start].



7.Click [Yes] to restart the computer

6-2 When Moving the Machine

When moving the machine, be sure to attach the protective material. Moving the machine without attaching the protective material may result in damage to the machine.

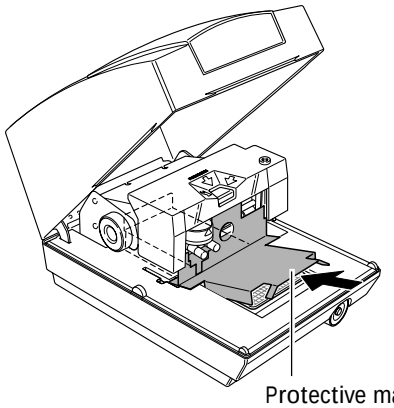
Procedure

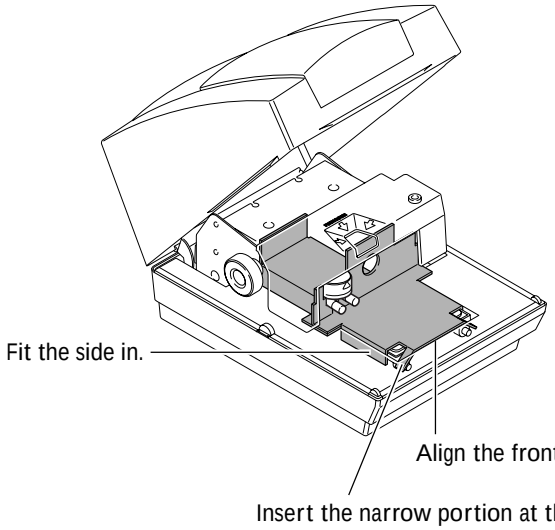
❶ Loosen the knob.
Loosen just enough for the head unit to rise.

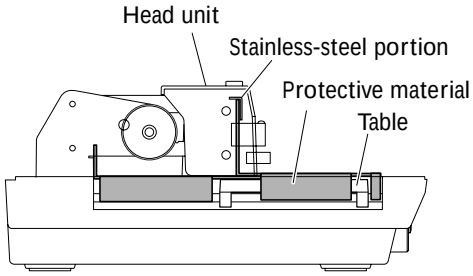
❷ Press the Power/Movement button to move the table to the front of the machine.

❸ Switch off the power.

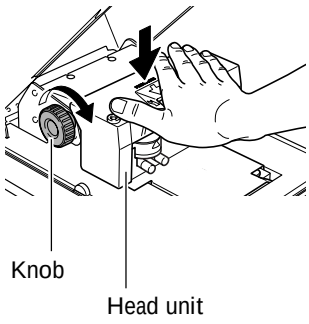
❹ Attach the protective material.







❺ Lower the head unit and use the knob to secure it in place.
Press down on the entire head unit with your hand.



❻ Repack the machine in its original packing carton.

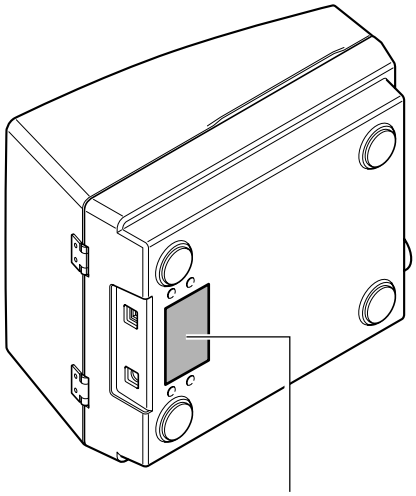
6-3 Head Life

The head used in this machine is a consumable part.
As a general guide to its useful life, about 3,600 plates can be printed under the following conditions.

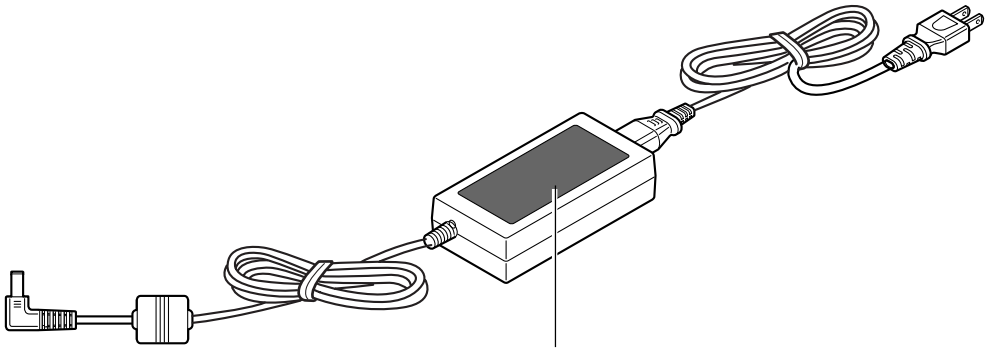
Conditions of Use

Material used : MD-NI (Roland nickel-plated plate)
Printing area : 30 mm (1-3/16 in.) X 23 mm (15/16 in.)
Print Mode : Photo
Printing rate : 35% (25,000 dots per plate)

6-4 Locations of the Power Rating and Serial Number Labels



Serial Number
This is require when you seek maintenance, servicing, or support. Never peel off the label or let it get dirty.



Power Rating
Use an electrical outlet that meets the requirements for voltage, frequency, and amperage given here.

6-5 Main Unit Specifications

	MPX-70
Printable material	Gold, silver, copper, platinum, brass, aluminium, iron, stainless steel, etc. (Vickers hardness [HV] of the printing surface must be 200 or less.)
Loadable material size	Maximum 90 mm (width) x 90 mm (height) x 20 mm (thickness) (3-1/2 in. x 3-1/2 in. x 3/4 in.)
Printing area	80 mm x 80 mm (3-1/8 in. x 3-1/8 in.)
Resolution	529 dpi(High resolution), 353 dpi (Photo), 265 dpi (Text)
Printing direction	Unidirectional printing or bidirectional printing (Selectable with Windows driver)
Printing speed (Default)	50 mm/sec (1-15/16 in./sec)(Photo), 33 mm/sec (1-5/16 in./sec)(High resolution/Text)
Interface	USB interface (compliant with Universal Serial Bus Specification Revision 1.1)
Power supply	Dedicated AC adapter Input : AC 100 to 240V ± 10% 50/60Hz 1.7A Output : DC 19V 2.1A
Power consumption	Approx. 15W
Acoustic noise level	Under 70 dB (A) (According to ISO 7779)
Operation temperature	10 to 30˚C (50 to 86˚F)
Operation humidity	35 to 80% (no condensation)
External dimensions	226 mm (W) x 321 mm (D) x 200 mm (H) (8-15/16 in. (W) x 12-11/16 in. (D) x 7-7/8 in. (H))
Weight	4.0 kg (8.8 lb.)
Packed dimensions	350 mm (W) x 440 mm (D) x 350 mm (H) (13-7/8 in. (W) x 17-3/8 in. (D) x 13-7/8 in. (H))
Packed weight	6.5 kg (15 lb.)
Accessories	AC adapter, power cord, test-use printing material, USB cable, CD-ROM, user's manual

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