



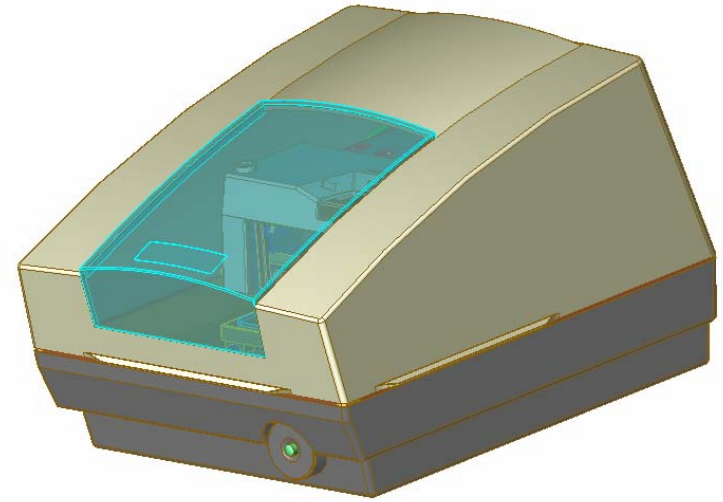
METAZA

Photo Impact Printer

MPX-70

Product Guide

General Information:



- MPX-70 prints images on flat metal plates/tags/pendants, Zippo, Acrylics, etc. Very easy to produce good quality gift items.
- MPX-70 is the 3rd Generation in the Metaza product line (MPX-50, MPX-60 and now MPX-70). Speed, print quality, and usability have been improved over the previous models.

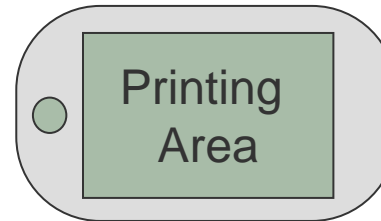
Features

Characteristics:

- High Speed: 1.5 to 3 times faster than the MPX-60.
- High quality printing : The MPX-70 has 3 high quality print modes: Text (265dpi), Photo (353dpi) and High Resolution (529dpi).
- Easy to use : Easy material loading, software and driver settings.
- Head maintenance: User replaceable / adjustable print head cartridge.

High Speed Printing:

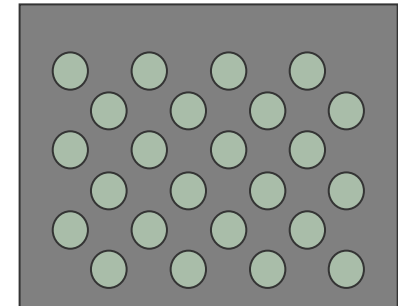
- Printing Speed:
15mm/s (MPX-60) >>> 50mm/s (MPX-70)
- Actual Printing Time
 - Metal Plate 1
 - Material Size: 40mm x 25mm
 - Printing Area: 28mm x 21mm
 - Metal Plate 2
 - Material Size: 50mm x 30mm
 - Printing Area: 33mm x 25mm



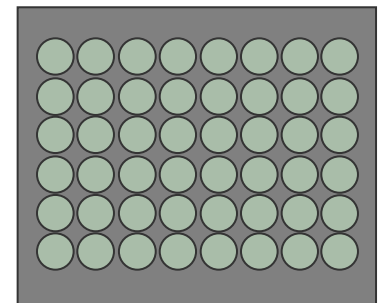
	MPX-70				MPX-60	
	Photo:353dpi		High Resolution:535dpi		Photo:265dpi	
	Uni-Direction	Bi-Direction	Uni-Direction	Bi-Direction	Uni-Direction	Bi-Direction
Metal Plate 1	5m17s	3m25s	9m57s	7m03s	8m53s	7m28s
Metal Plate 2	7m05s	4m34s	12m32s	9m46s	12m07s	10m14s

High Quality Printing:

- Resolution of Photo mode:
265dpi (MPX-60)>>353dpi (MPX-70)
- Resolution of Text mode:
212dpi (MPX-60)>>265dpi (MPX-70)
- High Resolution mode:
529dpi (MPX-70 only - New Function)



Photo/
High Resolution

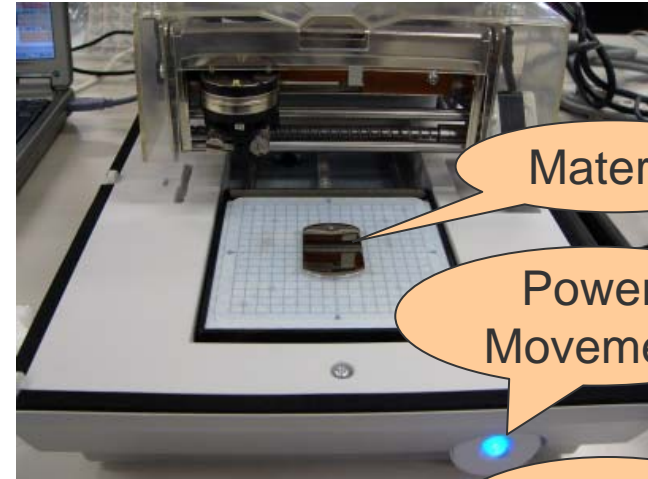


Text

Easy Material Setting:

- Press the Power/Movement button to move the table to the front of the machine.
- Place the material at the center of the table.
- Press and release the Power/Movement button to move the table to the center of the machine.
- Loosen the knob on the left side of the carriage.
- Press “PUSH DOWN” slowly to touch the material.
- Tighten the knob.

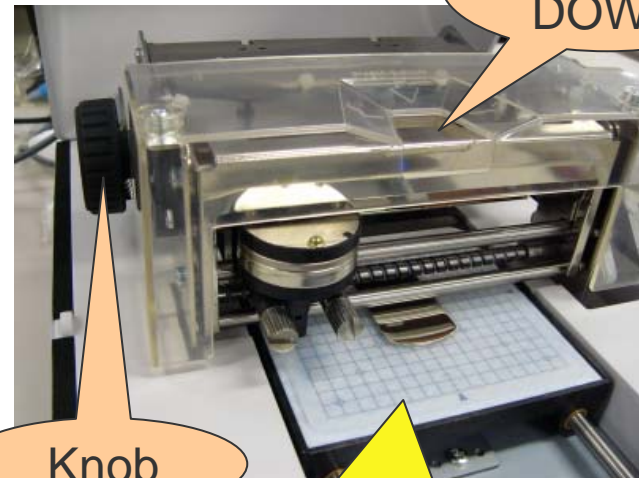
Ready to Go!!



Material

Power/
Movement

PUSH
DOWN

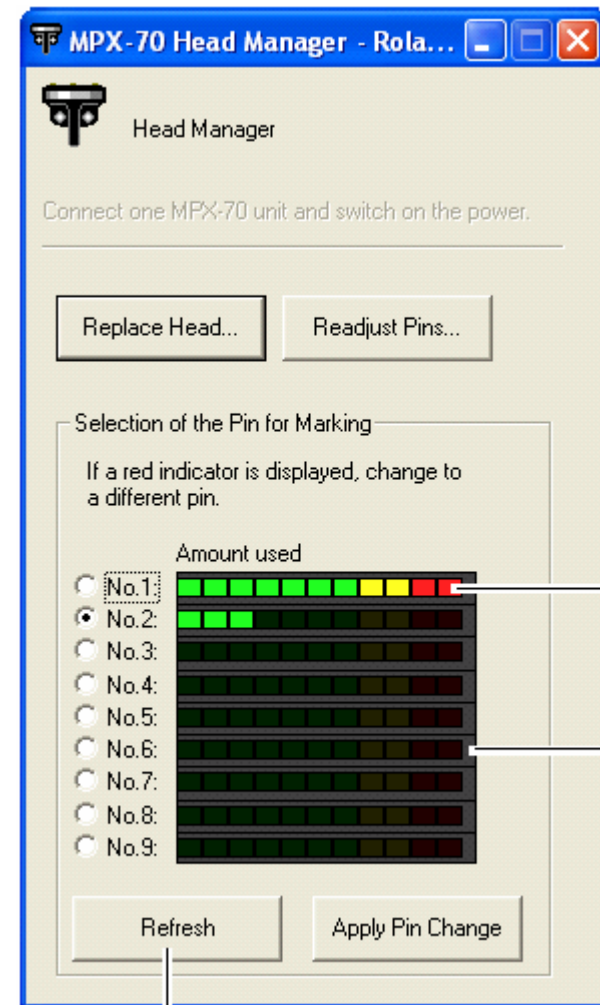


Knob

Black Grid on White Table

Head Maintenance:

- Head maintenance software, “Head Manager” is bundled.
 - Displays the status of each of the 9 pins.
 - Easy to select/change the appropriate pin.
 - Easy to use Replace Head Wizard for print head replacement by the user.
 - You can readjust the striking force of each pin, printing test pattern on the test material (60x60 brass plate or equivalent).



Materials for Printing

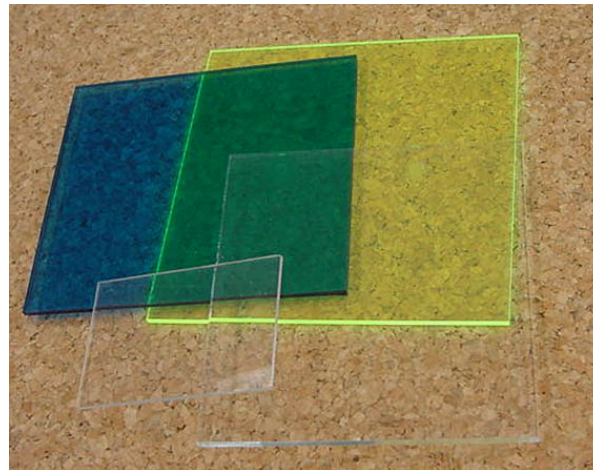
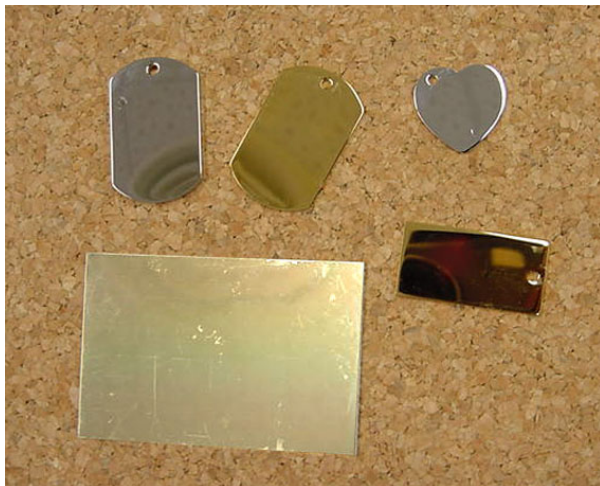
Recommended Materials:

- Metals: (Gold, Silver, Brass, Stainless, Aluminum, etc)

Shiny or Brushed material works the best

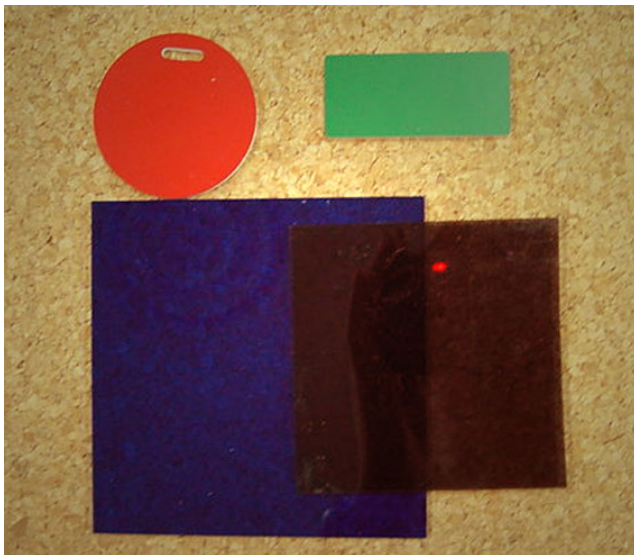
- Acrylic, Plastic.

Achromromatic or pale color transparent material



Materials NOT recommended:

- Matte Surface Metals
 - Dark Colored Plastics
 - Matte Surface Plastics
- It is possible to print on these materials, but the printed images will not be as visible as with shinier materials.



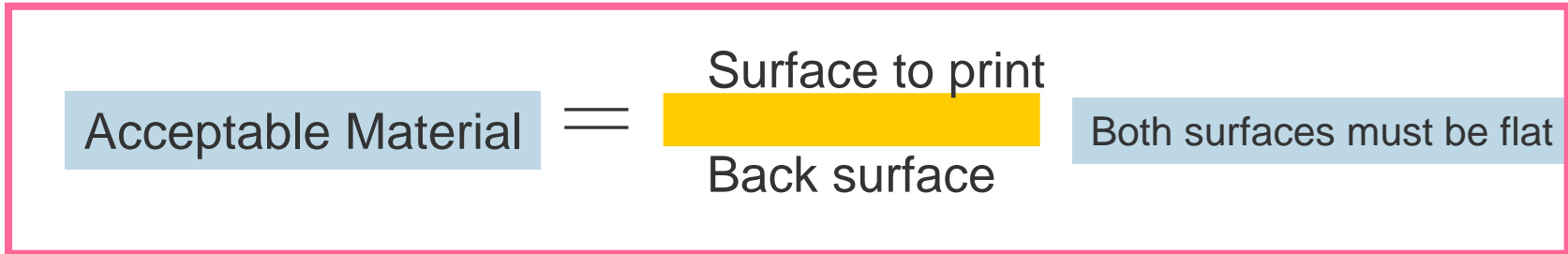
Materials to not print on at all:

- Glass, Ceramic, Stone
Material will either crack or Pin will break.
- Wax, Rubber and Soft Plastics
The material will not show image.



Acceptable Material Shapes and Sizes

Material surface MUST be flat.



Unacceptable Material

Surface to print
Back surface



Maximum Printable Area: 80mm x 80mm

Maximum loadable Material Size: 90mm x 90mm. Thickness of 20mm

Printing with Image Data for the MPX-60

Printing with image data for the MPX-60:

- The MPX-70 has higher resolution and improved Metaza driver that can print more natural tones. When printing at the higher resolutions (Photo / Hi-Resolution) you will not see the same results as you would with an MPX-60 with same data. You should see more details in the image.
- For improved print quality, when printing images/files that are adjusted for the MPX-50/60, you should adjust the **Gamma** to **0.6** or below in the Print Preview within the Dr. Metaza2 software.

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 \pm 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

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.

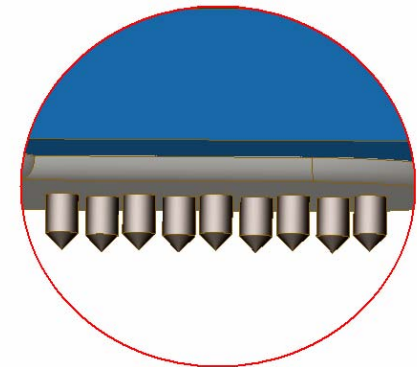
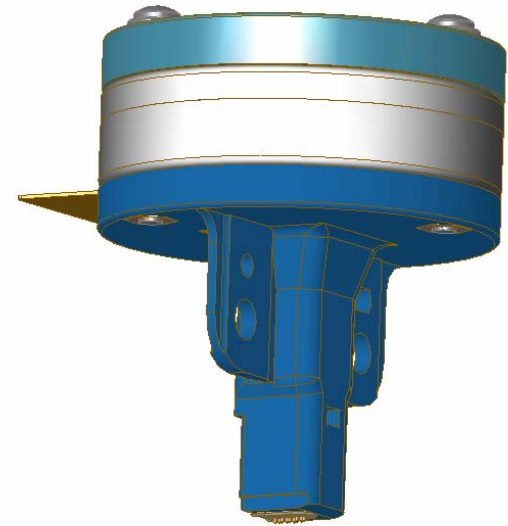
Operating system	Windows 98 SE (Second Edition)/Me/2000/XP
Computer	1) Computers preinstalled with Windows 98 SE/Me/2000/XP at the time of purchase (This includes such computers later upgraded to Windows Me/2000/XP.) 2) Computers on which USB operation is assured by the manufacturer of computers

Appendix

-----Head Replacement-----

Head for the MPX-70 (MPH-70)

- The head has 9 pins:
 - Uses only one pin for printing at a time.
 - Once pin reaches it's life, it will automatically switch to the next pin in line.
 - User can also manually change/select pins.
 - This part is considered a consumable, not a service item.
- Material of the pin:
 - MPX-60: Diamond tipped Stylus
 - MPX-70: Cemented Carbide Tip
- Shape of the pin:
 - Cone shape, 90 degree, tip angle. (same as MPX-60's).

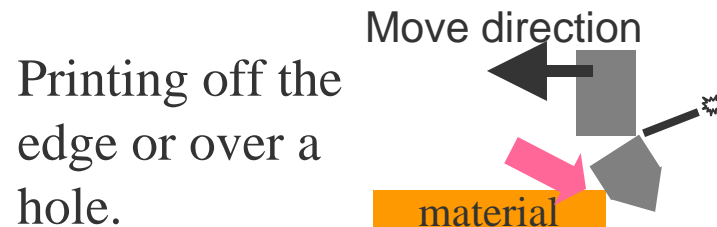


Life of the Print Head (MPH-70)

- Head (MPH-70) is a consumable part and is user replaceable.
- Length of life : 10 million dots/pin (based on plated brass material)
 - The machine will automatically switch pins once it reaches it's useful life.
 - You can print approx. 3600 plates per head. (Printing area: 30mm x 23mm, Duty Cycle: 35%)
 - You can check the status of each pin using the MPX-70 Head Manager.

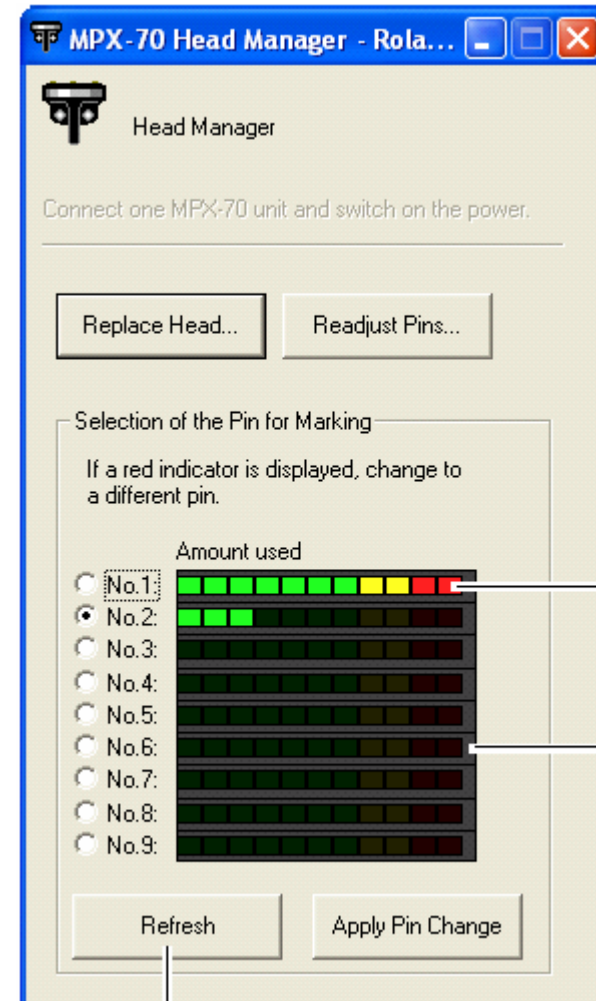
Note: Life of the pins depend on the hardness of the material.

- Pin breakage:
 - Printing off the edge of the material can cause the pin to break.
 - We recommend using templates or adding a margin of 1mm or more to the material.



Head Replacement (1/5):

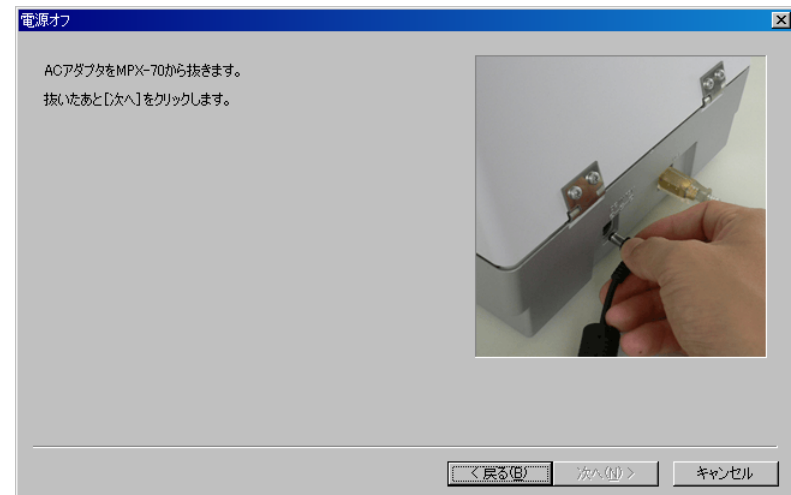
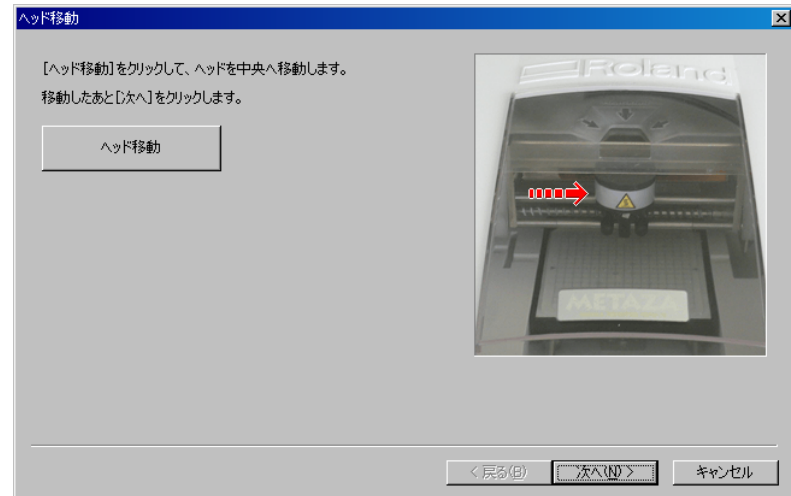
- Start “MPX-70 Head Manager”. This will be located in the Dr. Metaza2 program group.
- Click [Replace Head]



Head Replacement (2/5):

- Click, Move the head
 - The head will move to the center of the machine for replacement.

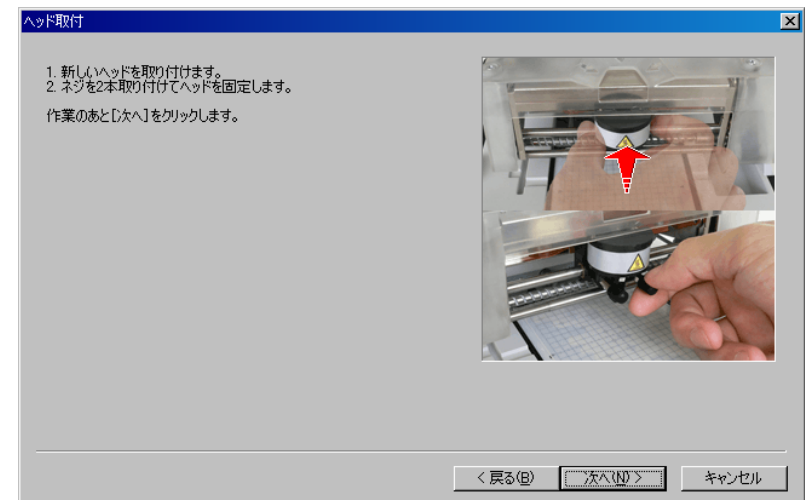
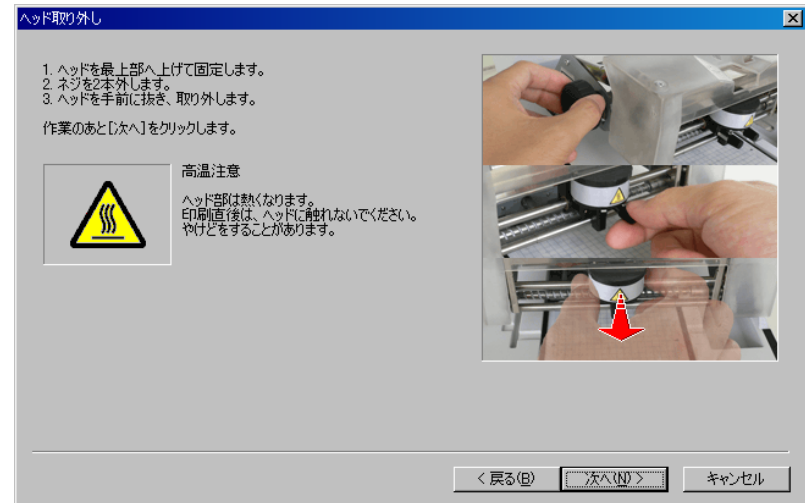
- Disconnect the AC adapter from the machine.



Head Replacement (3/5):

- Remove the head
 - Follow the on-screen instructions for head removal.

- Attach the new head
 - Follow the on-screen instruction for the installation procedure.



Head Replacement (5/5):

- Input the adjustment value that is shown on printed test pattern.
- Power the unit off and back on to write the adjustment value to the EEROM.
- At this point the head replacement is complete.

