



**MITSUBISHI
ELECTRIC**

DIGITAL MONOCHROME PRINTER

MODEL

P93DV

P93DE



HI-SPEED

TIFIE

This digital monochrome printer complies with the requirements of the EC Directive 89/336/EEC, 73/23/EEC, 93/42/EEC and 93/68/EEC.

The electro-magnetic susceptibility has been chosen at a level that gains proper operation in residential areas, on business and light industrial premises and on small-scale enterprises, inside as well as outside of the buildings. All places of operation are characterised by their connection to the public low voltage power supply system.

WARNING:

In the USA or Canada, use the AC power cord according to the recommendations as below, in order to comply with UL2601-1 and CAN/CSA C22.2 No. 601.1.

Case 1. Connect to the 120V receptacle of the room or the host equipment.

The AC power cord should be UL or CSA approved and consist of type SJT, size 16 or 18AWG, length 2.5m or shorter cord with IEC320/C13 type, 125V 10A or higher rating connector and NEMA 5-15 type, 125V 10A or higher rating, Hospital Grade plug.

Case 2. Connect to the 230V receptacle of the room or the host equipment.

The AC power cord should be UL or CSA approved and consist of type SJT, size 16 or 18AWG, length 2.5m or shorter cord with IEC320/C13 type, 250V 10A or higher rating connector and NEMA 6-15 type, 250V 10A or higher rating, Hospital Grade plug.

Case 3. Connect to the 120V receptacle of the host equipment.

The AC power cord should be UL or CSA approved and consist of type SJT, size 16 or 18AWG, length 2.5m or shorter cord with IEC320/C13 type, 125V 10A or higher rating connector and IEC320-2.2/E type, 125V 10A or higher rating plug.

Case 4. Connect to the 230V receptacle of the host equipment.

The AC power cord should be UL or CSA approved and consist of type SJT, size 16 or 18AWG, length 2.5m or shorter cord with IEC320/C13 type, 250V 10A or higher rating connector and IEC320-2.2/E type, 250V 10A or higher rating plug.

CAUTION:

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE:

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 or her own expense.

Information:

This class A digital apparatus complies with Canadian ICES-003.

"CLASSIFIED BY UNDERWRITERS LABORATORIES INC.®
WITH RESPECT TO ELECTRIC SHOCK, FIRE AND MECHANICAL HAZARDS ONLY IN
ACCORDANCE WITH UL2601-1 AND CAN/CSA C22.2 No. 601.1"

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

The "Caution, hot surface" symbol indicates that the marked item may be hot and should not be touched.

The "ON/OFF" symbol indicates connection to or disconnection from the mains, at least for mains switches.

The "Equipotentiality" symbol identifies the terminals connected each other. The potential of various parts of equipment or of a system is equalized.

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WARNING:

Install and use this appliance in accordance with the operation manual for safety and EMC (Electromagnetic Compatibility). If it is not installed and used in accordance with the operation manual, it may cause interference to other equipment and/or other risk.

To prevent fire or shock hazard, do not expose this appliance to rain or moisture.

This appliance must be earthed.

In Europe, use the AC power cord according to the recommendations as below, in order to comply with EN60601-1 and EN60950.

Connect to the 230V receptacle of the room or the host equipment.

The AC power cord should be VDE approved and consist of core size 1mm² or bigger, length 2.5m or shorter cord with IEC320/C13 type, 250V 10A or higher rating connector and CEE(7)VII type or IEC 320-2.2/E type, 250V 10A or higher rating plug.

Use the USB cable according to the recommendations as below, in order to comply with EN60601-1-2.

The USB cable with appropriate plug should be 2 m long or shorter, comply with USB 2.0 standard High speed requirements and USB IF (USB Implementers Forum) approved.

This product is to be employed with medical equipment, just for reference purpose, not for medical diagnostic purpose.

INSTRUCTIONS FOR MEDICAL USE

<according to the Medical Safety/EMC standard IEC/EN 60601-1-2>

MEDICAL ELECTRICAL EQUIPMENT needs special precautions regarding EMC and needs to be installed and put into service according to the EMC information provided in the AC-COMPANYING DOCUMENTS.

Portable and mobile RF communications equipment can affect MEDICAL ELECTRICAL EQUIPMENT.

Technical description

List of all cables and maximum length of the cable and transducers and other ACCECCORIES

AC power cord

USB cable


Thermal paper

Guidance and manufacturer's declaration - electromagnetic emissions		
The Model P93DW/P93DE is intended for use in the electromagnetic environment specified below. The customer or user of the Model P93DW/P93DE should assure that it is used in such an environment.		
Emission test	Compliance	Electromagnetic environment - guidance
RF emissions CISPR 11/EN 55011	Group 1	The Model P93DW/P93DE uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause interference in nearby electronic equipment.
RF emissions CISPR 11/EN 55011	Class B	
Harmonic emissions IEC/EN 61000-3-2	Class A	
Voltage fluctuations / flicker emissions IEC/EN 61000-3-3	Complies	

Guidance and manufacturer's declaration - electromagnetic immunity			
The Model P93DW/P93DE is intended for use in the electromagnetic environment specified below. The customer or user of the Model P93DW/P93DE should assure that it is used in such an environment.			
Immunity test	IEC/EN 60601 test level	Compliance level	Electromagnetic environment - guidance
Electrostatic discharge (ESD) IEC/EN 61000-4-2	±6 kV contact ±8 kV air	±6 kV contact ±8 kV air	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30%.
Electrical fast transient/burst IEC/EN 61000-4-4	±2 kV for power supply lines ±1 kV for input /output lines	±2 kV for power supply lines ±1 kV for input /output lines	Mains power quality should be that of a typical commercial or hospital environment.
Surge IEC/EN 61000-4-5	±1 kV differential mode ±2 kV common mode	±1 kV differential mode ±2 kV common mode	Mains power quality should be that of a typical commercial or hospital environment.
Voltage dips, short interruptions and voltage variations on power supply input lines IEC/EN 61000-4-11	< 5% U_T (> 95% dip in U_T) for 0,5 cycle 40% U_T (60% dip in U_T) for 5 cycles 70% U_T (30% dip in U_T) for 25 cycles < 5% U_T (> 95% dip in U_T) for 5 sec.	< 5% U_T (> 95% dip in U_T) for 0,5 cycle 40% U_T (60% dip in U_T) for 5 cycles 70% U_T (30% dip in U_T) for 25 cycles < 5% U_T (> 95% dip in U_T) for 5 sec.	Mains power quality should be that of a typical commercial or hospital environment. If the user of the Model P93DW/P93DE requires continued operation during power mains interruptions, it is recommended that the Model P93DW/P93DE be powered from an uninterruptible power supply or a battery.
Power frequency (50/60 Hz) magnetic field IEC/EN 61000-4-8	3 A/m	3 A/m	Power frequency magnetic fields should be at levels characteristic of a typical commercial or hospital environment.
NOTE U_T is the a.c. mains voltage prior to application of the test level.			

Guidance and manufacturer's declaration - electromagnetic immunity

The Model P93DW/P93DE is intended for use in the electromagnetic environment specified below. The customer or user of the Model P93DW/P93DE should assure that it is used in such an environment.

Immunity test	IEC/EN 60601 test level	Compliance level	Electromagnetic environment - guidance
Conducted RF IEC/EN 61000-4-6	3 Vrms 150 kHz to 80 MHz	3 Vrms	Portable and mobile RF communications equipment should be used no closer to any part of the Model P93DW/P93DE, including cables, than the recommended separation distance calculated from the equation applicable to frequency of the transmitter. Recommended separation distance $d=1,2\sqrt{P}$
Radiated RF IEC/EN 61000-4-3	3 V/m 80 MHz to 2,5 GHz	3 V/m	$d=1,2\sqrt{P}$ 80 MHz to 800 MHz $d=2,3\sqrt{P}$ 800 MHz to 2,5 GHz where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and d is the recommended separation distance in meters (m). Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey, ^a should be less than the compliance level in each frequency range. ^b Interference may occur in the vicinity of equipment marked with the following symbol: 

NOTE1. At 80 MHz and 800 MHz, the higher frequency range applies.

NOTE2. These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

^a Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the Model P93DW/P93DE is used exceeds the applicable RF compliance level above, the Model P93DW/P93DE should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as reorienting or relocating the Model P93DW/P93DE.

^b Over the frequency range 150 kHz to 80 MHz, field strength should be less than 3 V/m.^{12 1'2na11/m20 28}

Recommended separation distances between
Portable and mobile RF communications equipment and the Model P93DW/P93DE

The Model P93DW/P93DE is intended for use in the electromagnetic environment in which radiated RF disturbances are controlled. The customer or user of the Model P93DW/P93DE can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the Model P93DW/P93DE as recommended below, according to the maximum output power of the communications equipment.

Rated maximum output power of transmitter W	Separation distance according to frequency of transmitter m		
	150 kHz to 80 MHz $d=1,2\sqrt{P}$	80 MHz to 800 MHz $d=1,2\sqrt{P}$	800 MHz to 2,5 GHz $d=2,3\sqrt{P}$
0,01	0,12	0,12	0,23
0,1	0,38	0,38	0,73
1	1,2	1,2	2,3
10	3,8	3,8	7,3
100	12	12	23

For transmitters rated at maximum output power not listed above, the recommended separation distance d in meters (m) can be estimated using the equation applicable to the frequency of the transmitter, where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer.

NOTE1. At 80 MHz and 800 MHz, the separation distance for higher frequency range applies.

NOTE2. These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

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INSTALLATION LOCATIONS

MAINTAIN GOOD VENTILATION

Ventilation slots and holes are provided on sides of this unit.

Place the unit on a hard and level surface and locate at least 4" (10cm) from walls to ensure proper ventilation.

UNSUITABLE LOCATIONS

Avoid shaky places or hot-springs areas where hydrogen sulfide and acidic ions are likely to be generated.

PLACES WITH HIGH HUMIDITY AND DUST

Do not place the unit at locations with high humidity and/or dust. They can cause extensive damage.

Avoid places where the unit is likely to contact oily fumes and vapors.

FOR LONG OPERATING LIFE

UNSUITABLE MATERIALS FOR THE UNIT

Many plastic components are used in the unit. Coat flaking and deformation are likely to occur if the unit is wiped with chemical dusters, benzene, thinner or any other solvent, if rubber or PVC items are left in contact with the unit for extended duration, or if the unit is sprayed with insecticide.

CARE OF THE CABINET

Unplug and clean with a soft cloth slightly moistened with a mild soap and water solution. Allow to dry completely before operating. Never use petroleum base solutions or abrasive cleaners.

HEAD ABRASION

The thermal head, like the video head, wears out. When it is abraded, it becomes hard to print out fine details of the picture. In such a case, it is necessary to replace the thermal head. Consult with the sales dealer for replacing the head.

WHEN A DEFECT IS FOUND

If you detect smoke or other smell from the unit, disconnect immediately the power cord plug from a wall socket and ask the agent for repair. It may be dangerous to operate the unit under these conditions.

CONNECTION DEVICES

Read thoroughly "Operating Precautions" of the instruction booklets for the devices connected with the digital monochrome printer.

Do not disconnect the power cord during printing.

CAUTION ON RELOCATING

When transporting this unit, make sure it is not likely to be subjected to impacts. They can be a prime cause for damage. Further, make sure to disconnect the power cord from the power outlet, and the cables from the connected devices.

UNPLUG THE POWER CORD DURING A LONG ABSENCE

Turn off the MAIN power switch and unplug the power cord during a long absence.

THERMAL PAPER

- Thermal papers listed in the page of SPECIFICATIONS are available.
- When the remaining length of the paper is about 10" (25cm), a color belt appears at the paper end. Prepare for replacement of the paper. If the remaining paper length is less than 10" (25cm), printing becomes uneven due to the uneven paper core surface.
- When the Printed paper is touched by wet hand, the print may be discolored.
- When the paper runs out during printing, the printing operation stops and "EP" is displayed by the indicator on the front panel. Install new paper at this time.
- Store the printed paper in a place with low humidity free from a direct sunlight.
- If the paper absorbs non-volatile organic solvents (alcohol, ester, ketone, etc.) the print may be discolored. Particularly, if the paper comes in contact with soft vinyl chloride such as a transparent tape, it quickens discoloration.
- Do not use paper other than the specified types.
- Immediately after the paper is replaced, 2-3 images may be printed with a blank part due to hand's dust or oil.
- Avoid direct sunlight or places near heaters, etc., and store the paper in a place with 30°C (86°F) or lower temperature and 35-80% RH.
- When the paper is rapidly transferred from a cool place to a hot place, a vapor or a dew is generated on the paper surface causing paper jam or degraded printing quality.
- A finger print or dust on the paper surface may degrade the printing quality.

Note:

Mitsubishi brand thermal paper is specially treated with an anti-static coating against thermal head damage caused by static-electricity discharge.

The use of non-treated paper may cause premature head failure in your product.

SAFETY TECHNICAL CHECKS

Periods: According to the recommendations of the manufacturer of medical device.

- Scope:
- a) Visual check
Housing, cables, operator controls, readout device (displays, LED etc.), labels, accessories, instruction manual.
 - b) Function test
Performance check acc. instruction manual, also unity and applicability of set and accessory test.
 - c) Electrical check
Safety electrical test of the configuration in accordance with EN60601-1.

“ In the interest of safety, avoid the handling of liquids beside the set.”

RESPONSIBILITY OF THE MANUFACTURER

The manufacturer, assembler, installer or importer considers himself responsible for the effects on safety, reliability and performance of the EQUIPMENT only if:

- assembly operations, extensions, re-adjustments, modifications or repairs are carried out by persons authorized by him, and
 - the electrical installation of the relevant room complies with the IEC requirements
 - the EQUIPMENT is used in accordance with the instructions for use.
- Any service after expiration of the warranty period will be chargeable. Consult your dealer for advice.

TECHNICAL DESCRIPTION

The supplier will make available on request such circuit diagrams, component part lists, descriptions, calibration instructions or other information which will assist the USER's appropriately qualified technical personnel to repair those parts of the EQUIPMENT which are classified by the manufacturer as repairable.

The use of ACCESSORY equipment not complying with the equivalent safety requirements of this equipment may lead to a reduced level of safety of the resulting system. Consideration relating to the choice shall include:

- use of the accessory in the PATIENT VICINITY
- evidence that the safety certification of the ACCESSORY has been performed in accordance to the appropriate EN60601-1 and/or EN60601-1-1 harmonized national standard.

The transportation and storage environmental conditions are:

Temperature : -20°C - +60°C (-4°F - +140°F)

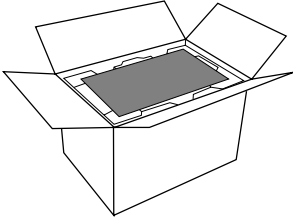
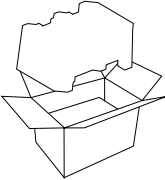
Humidity : 90%RH or less at 40°C (104°F)

Note : The above transportation environmental conditions indicate the storage environmental conditions during transport.

3

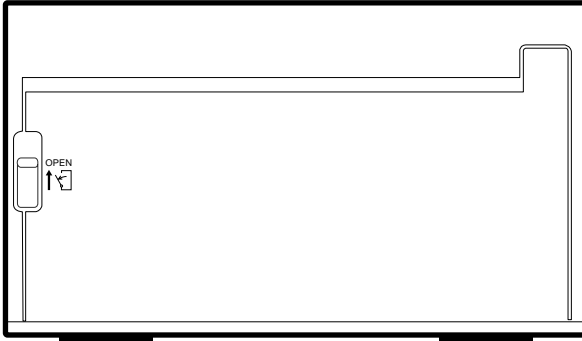
UNPACKING

Take the unit out of the box by the following procedures. Make sure to check the contents.

1 Open the top of the box.	Take the unit out of the box carefully.
	<ul style="list-style-type: none">• Make sure to keep the unit horizontal.
2 Remove the cushion above the unit.	
	

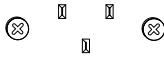
4

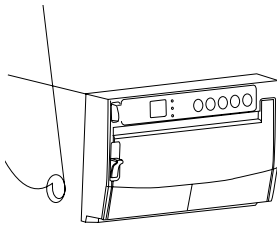
FEATURES AND FUNCTIONS





AC LINE



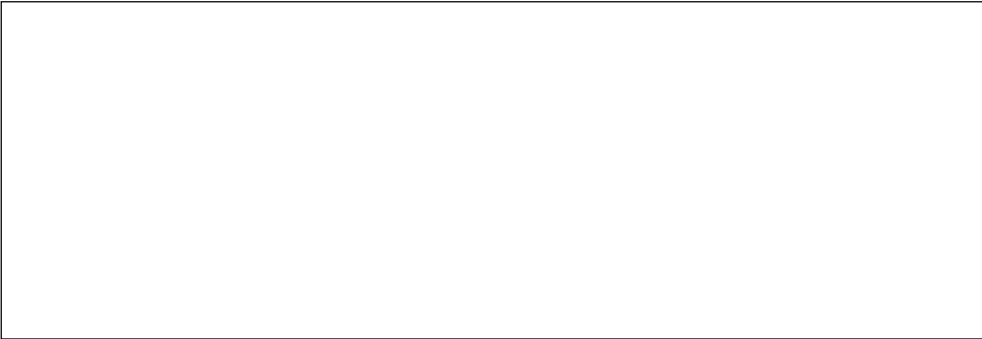




Do not use defective paper.



- Do not use bent or wrinkled paper.



CAUTION

- Keep the high-density paper away from fingerprint, dust or moisture when storing it.
- Do not touch the rubber roller. Do not stain or damage the roller surface.
- Do not touch the thermal head (located behind the cutter). When printing, the thermal head is heated to high temperature.
- Do not touch the cutter blade.

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EXAMPLE OF CONNECTION / SETTING OF SWITCHES

Connecting to various equipment with USB interface such as medical equipment and personal computer.

Connection

**Personal computer or
medical equipment**

Connect the digital monochrome printer with PC or medical equipment through a USB cable.



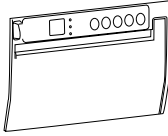
**Connect
Power cord**

Rear panel

Setting of Switches

7

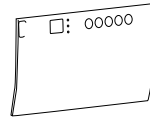
PRINTING



- Print a picture with an application software. The image data is transferred through USB interface.

Paper Feeding

- To feed the paper, press the **FEED** button on the front panel.



Precautions on Printing

- When dark pictures are printed consecutively, the digital monochrome printer may become overheated and the indicator blinks.
In this case, wait for a while until the unit has cooled down.
- Avoid pulling out or holding the paper during printing or copying to prevent paper jam.
Do not touch the paper until printing or copying finishes.

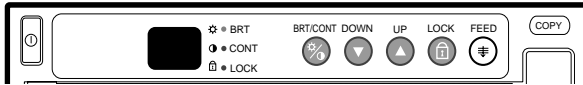
8

ADJUSTMENT OF PRINT PICTURE

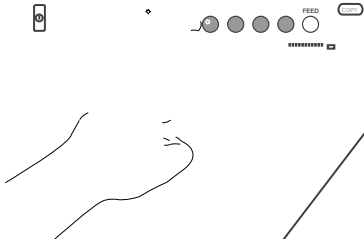
Adjustment of Printer Brightness/Printer Contrast


■ You can make fine adjustment of printer brightness and printer contrast of the printed picture.

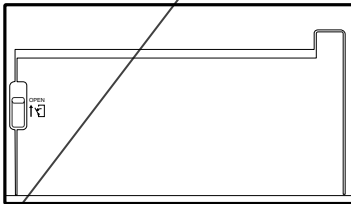
Control panel





• For adjustment, use the **BRT/CONT** button "  ", **UP** button "  "



- Press the **BRT/CONT** button "  " once to adjust the printer brightness.
- The BRT indicator lights up.



- Press the **BRT/CONT** button "  " twice to adjust the contrast.
- The CONT indicator lights up.

Change the setting.	3 Store the set value.
<ul style="list-style-type: none">• Press the UP button to increase the value. • Press the DOWN button to decrease the value.	<ul style="list-style-type: none">■ By pressing the BRT/CONT button again, the setting value is memorized. The memorized value will not be lost even when the power is turned off.
<ul style="list-style-type: none">■ The setting value is displayed by the indicator. (example) 	

Resetting the values


- You can reset the values of printer brightness and printer contrast.


9

ERROR DISPLAY

In case of an error in the unit during operation, you are warned by an alarm tone or the LED indicator.

Cause/Error display	Symptom/Remedy
① Overheat	<p>[Symptom]</p> <ul style="list-style-type: none"> When the head gets overheated, the indicator blinks. When overheat occurs while more than one copy is being processed, printing starts as soon as the error is solved. If some images are waiting to be processed, the following buttons function as described below. <p>COPY button</p> <ul style="list-style-type: none"> Each time the COPY button is pressed, the number displayed by the indicator increases as $\overline{2} \rightarrow \overline{3} \rightarrow \overline{4}$

Cause/Error display	Symptom/Remedy
<p data-bbox="71 193 208 220">② No paper</p> 	<p data-bbox="295 193 412 220">[Symptom]</p> <ul data-bbox="295 225 990 392" style="list-style-type: none"> • When the paper runs out or the paper is not installed, printing becomes impossible and an alarm tone is heard. In this case, all the buttons become invalid. • If this error occurs while more than one copy is being printed or there are images waiting to be processed, printing is cancelled at the occurrence of the error. <p data-bbox="295 427 398 454">[Remedy]</p> <p data-bbox="295 459 958 509">Install a new roll of paper according to "5. INSTALLATION OF PAPER" on page 8.</p> <p data-bbox="295 513 1012 627">When the paper is correctly installed while the printing of more than one copy has been suspended or there are images waiting to be processed, an alarm tone is heard. Then, the paper is fed automatically about 15 cm and printing resumes.</p> <p data-bbox="295 632 997 681">After the error is resolved, the unit resumes printing from the interrupted image and finishes printing all the outstanding images.</p>

Cause/Error display	Symptom/Remedy
<p data-bbox="71 805 250 855">③ Button input error</p> 	<p data-bbox="295 805 412 833">[Symptom]</p> <ul data-bbox="295 837 997 1062" style="list-style-type: none"> • The button becomes invalid and an alarm tone is heard in the following cases. <ul data-bbox="333 895 997 1062" style="list-style-type: none"> • During adjusting the printer brightness or the printer contrast, the UP button is pressed exceeding the upper limit value (LED display : $\uparrow\bar{g}$) or the DOWN button is pressed exceeding the lower limit value (LED display : $\downarrow\bar{g}$) • The UP or DOWN button is pressed when the button functions are locked with the LOCK button or the DIP switch No. 1. <p data-bbox="295 1067 1006 1117">The indicator displays "Eb" for one second and return to the status before the error occurred.</p>

Cause/Error display	
	[Symptom]

Cause/Error display	

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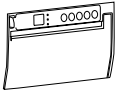
STATUS AND MODES

Set state/Mode	LED display	Contents of LED display
Power off		Power off
Stand-by	00	
During data receiving	00	During data receiving
Print state	'9	Remaining number of copies / number of copies 1 to 99 100 to 199 200 Continuous copy printing
Printer brightness mode		Fine adjustment of the picture brightness
Printer contrast mode		Fine adjustment of the picture contrast
Error detect state	P	No paper
	b	Button input error
	o	Door is open.
	L	Gear lock

11

USE OF CLEANING PAPER

When the thermal head is dirty with dust, etc., white spots or stripes may appear on the print. In this case, clean the thermal head by the following procedure **BY USING THE SUPPLIED CLEANING PAPER**.

<p>1 Turn on the power.</p>  <ul style="list-style-type: none"> ■ Press the POWER switch to turn on the power. 	<p>4 Close the door.</p> <ul style="list-style-type: none"> ■ Close the door without taking out the cleaning paper.
<p>Open the door.</p> <ul style="list-style-type: none"> ■ Switch the left side lever to the OPEN position. ■ The door opens. 	<p>5 Press the FEED button.</p> <ul style="list-style-type: none"> ■ Keep pressing the FEED button until you hear a beep.
<p>3 Insert the cleaning paper.</p> <ul style="list-style-type: none"> ■ Roll the cleaning paper and install into the set. <p style="text-align: center;">Cleaning paper</p> <p>Red mark</p> <ul style="list-style-type: none"> ■ Adjust the red mark on the cleaning paper parallel to the platen roller. <p>Platen roller Cleaning paper</p>	<p>6 Take out the cleaning paper.</p> <ul style="list-style-type: none"> ■ Open the door. ■ Take out the cleaning paper. ■ Do not pull out the cleaning paper while the door is closed. <p>7 Repeat the steps 3-6 by 2 or 3 times, and print 1-2 sheets to verify the cleaning effect.</p>

CAUTION

- It is recommended that after printing 10 rolls of paper the unit be cleaned using the supplied cleaning paper.
- If the symptom of the dirty head is not corrected even after cleaning, your set needs repairing, contact your dealer.
- Do not pull out the sheet and the cleaning paper while the door is closed.
This may cause extensive damage to the unit.
- Never use other cleaning papers. It may cause damage to the thermal head.
- This cleaning paper should be used only for cleaning the thermal head. Do not use it for other purpose.

Turn off the power for maintenance.

Maintenance of Main Unit

Wipe off stains of the front panel with a soft cloth.
When the panel is heavily stained, wipe with a cloth moistened with neutral cleanser diluted by water and finish with a dry cloth.

Maintenance of Rubber Roller

When the rubber roller is dirty with dust, etc., a blank spot may appear on the print.
In this case, eliminate the dust on to the rubber roller with a blower or a brush.
The regular cleaning using a lint-free cloth, etc., which is moistened with ethyl alcohol is recommended.

Rubber roller

Cleaning of Thermal Head

When the thermal head is dirty with dust, etc., white spots or stripes may appear on the print.
In this case, clean the thermal head according to "**11. USE OF CLEANING PAPER**".

Note: After installation of new roll of paper, dust on the paper will generally require 2 to 3 prints to be made before the dust is eliminated.

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SPECIFICATIONS

Type:	Digital Monochrome Printer
Model:	P93DW/P93DE
Power supply and power consumption:	100-240V AC, 50/60Hz, 1.5 - 0.8A
Connection terminal:	USB interface (Series "B" receptacle) Hi-Speed USB (Ver. 2.0) supported
Resolution:	1280 x 1280 pixels (Standard) (Max. 1280 x 5760 pixels)
Gradation:	256 gradations
Printing speed:	5.0 sec (Standard)
Print size:	4" x 4" (100 mm x 100 mm) (Standard) (Max. 4" x 17.7" (100 mm x 450 mm))
Operating conditions:	Temperature 41 - 104°F (5-40°C) Humidity 20 - 80% RH (No dewing)
External dimensions:	6.1" x 3.5" x 10.1" (154mm x 89.5mm x 256mm); W x H x D
Weight:	6.2 lbs (2.8 kg)
Standard accessories:	AC power cord 1 piece Thermal paper KP65HM-CE 1 roll Cleaning paper 1 sheet Printer driver 1 CD-ROM
Optional accessory:	Thermal paper KP65HM-CE, KP65H-CE, KP61S-CE, KP61B-CE, KP91HG-CE

SERVICE INFORMATION

Before requesting service please review this operation manual to correct minor complaints. If you are unable to correct the problem, consult your MITSUBISHI Dealer or MITSUBISHI Service Department.

DO NOT ADJUST ANY CONTROLS NOT DESCRIBED IN THIS OPERATION MANUAL.
DO NOT REMOVE THE PROTECTIVE ENCLOSURE OF THIS UNIT.

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