PRINTREX

MP200

User Guide

Table of Contents

Package Contents

- MP200 Chart Recorder
- Power Cord
- Parallel Interface Cable
- This User Guide

Unpacking

Locate and remove the Power Cord and Parallel Interface Cable.

Remove the protective end caps and plastic bag. The Recorder can now be placed on the desired surface. Note that there is a cardboard insert that holds the Writing Surface in place during shipment. This insert should be removed now.

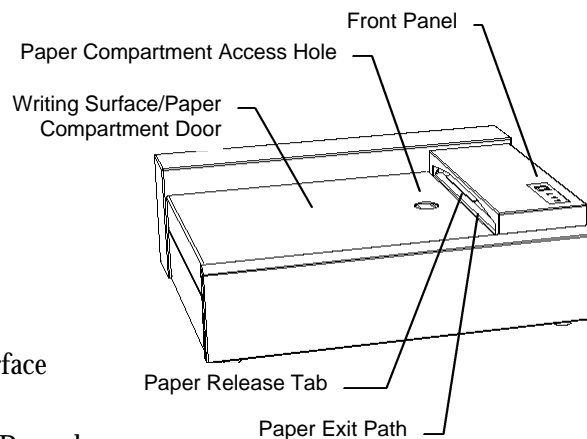The packaging material is not required beyond this point.

Getting Familiar

Review Figure 1 through Figure 3 to become familiar with the names and locations of the various features of the Recorder. These names are used throughout this Operators Guide.
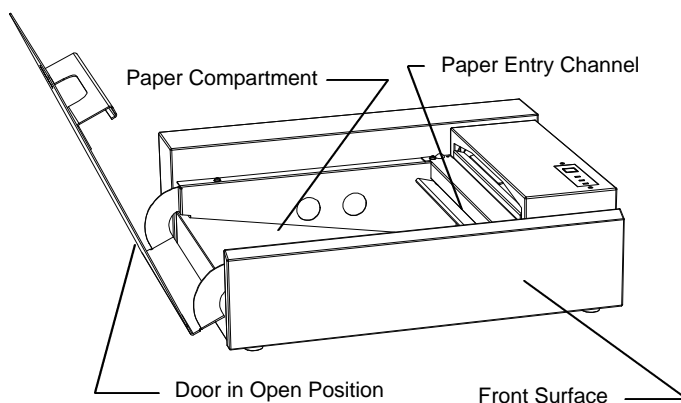
Front Panel

Paper Compartment Access Hole

Writing Surface/Paper Compartment Door

Paper Release Tab

Paper Exit Path

Figure-1

Power Switch

Interface Connector

Power Entry Module

Figure-2

Paper Compartment

Paper Entry Channel

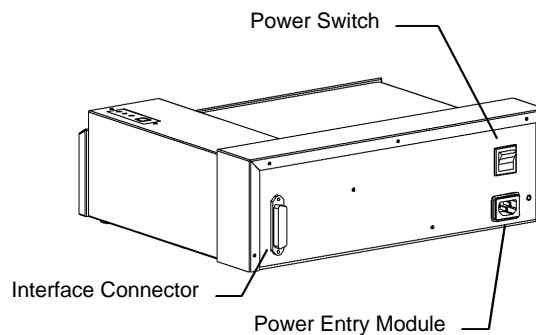Door in Open Position

Front Surface

Figure-3

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Setting the Paper Size

The Recorder is factory set for A-size (8 ½ by 11 inch) media. It is required to adjust the Recorder for use with A4-size (210 by 297 mm) media. A Number 1 Phillips screwdriver is recommended to make the adjustment.

The adjustment can be made by placing the Recorder on its Front Surface (a cloth or towel can be used to protect the Recorder and table top from scratches). Locate and loosen (do NOT remove) the five Paper Size Adjustment screws, see Figures 4 and 5. Slide the Paper Adjustment Plate inward towards the center of the Paper Compartment until it stops. There are two holes in the Paper Adjustment Plate that can be used to maneuver the Paper Adjustment Plate into position. Tighten the adjustment screws while holding the adjustment plate in position.

The Recorder can be reset to accommodate A-sized media by using the above procedure except sliding the Paper Adjustment Plate away from the Paper Compartment then re-tightening the adjustment screws.
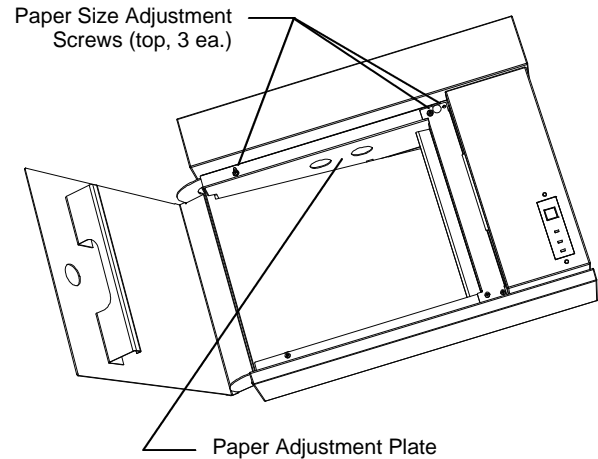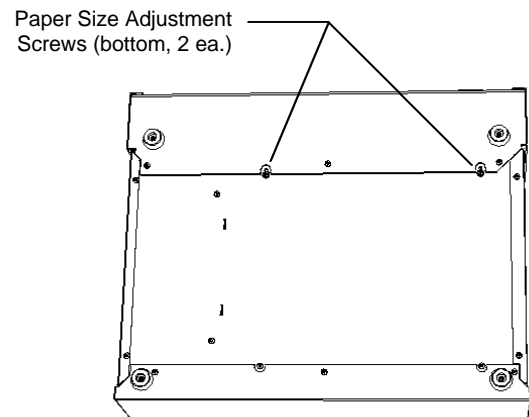
Connecting the Parallel Interface Cable

Locate the Parallel Interface Cable and insert the end that mates with the Recorder Interface Connector (Figure-2). Insert the other end of the Parallel Interface Cable to the Instrument Parallel Port Connector (refer to the Instrument User Guide/Service Manual to locate the Parallel Port Connector).

Accessories equipment connected to the analog and digital interfaces must be certified to the respective IEC standards (i.e. IEC 950 for data processing equipment and IEC 601-1 for medical equipment.) Furthermore all configurations shall comply with the system standard IEC 601-1-1. Everybody who connects additional equipment to the signal input part or signal output part configures a medical system, and is therefore, responsible that the system complies with the requirements of the system standard IEC 601-1-1. If in doubt, consult the technical services department or your local representative.

Connecting the Power Cord

Locate the Power Cord and insert the end that mates with the Recorder Power Entry Module (Figure-2). Plug the other end of the Power Cord to the receptacle location described in the User Guide/Service Manual of the Instrument the Recorder is connected to.

Paper Size Adjustment Screws (top, 3 ea.)

Paper Adjustment Plate

Figure-4

Paper Size Adjustment Screws (bottom, 2 ea.)

Figure-5

Loading Paper

To load the paper, first clear any paper from the previous supply by using the Paper Advance button or the Paper Release Tab.

Open the Paper Compartment Door and place the new stack of paper in the Paper Compartment. Note: The orientation of the paper is such that the first sheet entering the Paper Entry Channel has the NON-PRINTING side of the paper facing up AND the form marker (small black rectangle) towards the rear of the Recorder.

Position the leading edge of the paper into the Paper Entry Channel and manually feed the paper into the channel until it comes to a complete stop (approximately 3 inches). Note: Feeding the paper with one hand, in the center of the paper yields best results.

Press and hold the Paper Advance button until the paper can be seen exiting the Paper Exit Path.

Close the Paper Compartment Door while being sure the paper exiting the Paper Exit Path is on top of the Writing Surface. The paper is now loaded.

Running Self-Test

Before operating the Recorder, perform the self-test by turning the power switch to the "On" position while holding down the Paper Feed Button. Release the Paper Feed Button after the self-test begins. The Recorder will perform various internal electronics tests as well as electromechanical tests.

The Recorder is ready to operate.

Operation

Operation

Use the Recorder for general charting and reporting. There are no special controls or modes of operation to be set on the Recorder for normal operation. Refer to the Instrument User Guide/Service Manual for the various output options of the Recorder.

Feeding Paper

A Paper Advance button is located on the Front Panel. Press the Paper Advance button to advance the paper until the button is released or the paper advances to the Top of Form. To continue advancing paper after the Top of Form is reached, release and then re-press the Paper Advance button.

Paper Empty Indication

The Paper Empty Indicator shows that paper is not loaded and remains lit while paper is not loaded. When loading paper, the indicator remains on for approximately four seconds after there is no activity on the Paper Advance button.

The indicator illuminates briefly when power is applied as a test of the indicator itself.

Power Indication

The Power Indicator indicates that power is on and remains lit while power is on.

Error Indication

The Error Indicator indicates an error condition with a series of long and short flashes. The number of long flashes corresponds to the tens digit of the error code and the number of short flashes corresponds to the ones digit of the error code. The following is a list of error codes with their description:

11 – Paper Empty
21 – Under Voltage
22 – Over Voltage
23 – Under Temperature
24 – Over Temperature
43 – System Error

Refer to the trouble shooting section on page 7 for appropriate action in the event of an error condition.

The Error Indicator illuminates briefly when power is first applied as a test of the indicator itself.

Clearing a Paper Jam

In the event of a paper jam, lift the Paper Release Tab and gently pull the remaining paper clear of the print head and platen. Do NOT use any sharp objects or tools near the platen or print head or damage may result.

Care and Cleaning

There is no regular cleaning required for proper operation of the Recorder, however the Recorder surfaces are designed and manufactured to permit cleaning with the following cleaning agents:

Isopropyl alcohol
Ammonia
Chlorine bleach (1:10 concentration with water)
Hexachlorophene (PhisoHex)
Glutaradehyde (Cidex)

It is recommended that a soft cloth dampened with the cleaning agent be used to clean the surfaces of the Recorder. Do NOT submerse or allow spills onto or in the product.

Restriction on Use

Use this equipment only for its intended use as described in this guide.

- Do not use power supplied outside the specified voltage/hertz range.
- Do not block any openings on the equipment.
- Do not use corrosive chemicals or vapors on the equipment.
- Do not expose equipment to rain spills or moisture.

Grounding

This equipment must be grounded. Connect only to a properly grounded outlet.

Power Cord

The power cord supplied with the equipment is a hospital grade power cord.

- Do not operate the equipment if it has a damaged power cord or plug.
- Do not immerse power cord or plug in water.
- Do not use a power cord other than that supplied with the equipment.

Serviceability

There are no user-serviceable parts inside the equipment. Refer all service to a qualified service technician.

FCC Compliance

This unit 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.

Troubleshooting

Your chart recorder is designed and manufactured to provide consistent and reliable service. However, in the event of a problem, consult the chart below.

SYMPTOM	POSSIBLE CAUSE	WHAT TO DO
No power in unit	1. Power cord is not plugged into outlet.	1. Verify power cord is firmly plugged into outlet.
	2. Power cord is not plugged into recorder power entry module.	2. Verify power cord is securely connected to the recorder Power Entry Module.
	3. Power switch is in the OFF position.	3. Verify the switch is in the correct position.
	4. Outlet is not providing power.	4. Plug another device into the outlet to check for power.
	5. Power cord is defective.	5. Plug another device onto power cord to check for power.
No recorder output	1. Power switch is off.	1. Turn on power.
	2. Paper is out.	2. Reload paper.
	3. Paper is jammed.	3. Clear the paper jam.
	4. Interface cable is unplugged.	4. Check that the interface cable is securely attached at both ends.
	5. Interface cable is defective.	5. Try the interface cable on another working system.
Cannot load paper	1. Power switch is off.	1. Turn on power.
	2. Paper is not inserted far enough into recorder.	2. Gently hand feed paper into recorder Paper Entry Channel until it stops firmly against the platen (approximately 3 inches), then press Paper Advance button.
Paper skews and causes a paper jam	1. Paper is mis-aligned.	1. Raise the Paper Release tab and align paper parallel to recorder.

Service

How to Obtain Service

Refer to the User Guide/Service Manual of the Instrument the Recorder is connected to for contact information regarding servicing this Recorder.

The model and serial number of the Recorder is located on the rear of the unit. Please have this information available when service is required.

Technical Specifications

Dimensions
152mm (6") H
406mm (16") W
305mm (12") D

Weight
6.4kg (14lb)

Power Requirements
100-240VAC, 50-60Hz, 90VA

Data Interface
IEEE 1284 Parallel

Chart Speed
5, 25, 50, 100mm/sec

Chart Resolution
8 dots/mm (Y-axis)
20 dots/mm (X-axis) at 5, 25 and 50 mm/sec.
10 dots/mm (X-axis) at 100 mm/sec.

Media Compatibility
A Size (8 ½ by 11 inch)
A4 Size (210 by 297 mm)

Storage Temperature
-20°C (-4°F) to 75°C (167°F)

Fuse
3.0 Amp, 250V Slo-Blo

CAUTION: For continued protection against risk of fire, replace only with same type and rating fuse.

ATTENTION: Utiliser un fusible de rechange de meme type.

Usage

Class 1, No Applied Part Protection against harmful ingress of water: ordinary

Not suitable for use in the presence of flammable Anesthetics or oxygen

Continuous mode of operation

Accessories and Supplies
Please refer to the Instrument User Guide/Service Manual for information on the available accessories and supplies for this Recorder.