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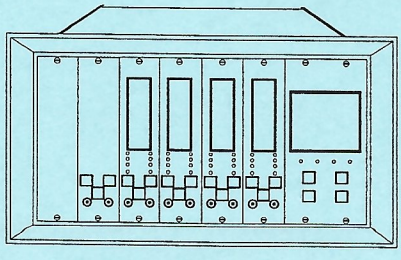
Find the *GE / Bently Nevada 3300/12* at our website: *Click HERE*

PART NO. 89602-01
REVISION K,
JUNE 1998

3300/12 POWER SUPPLY

MANUAL

BENTLY NEVADA®



NOTICE

Bently Nevada Corporation has attempted to identify areas of risk created by improper installation and/or operation of this product. These areas of information are noted as **WARNING** or **CAUTION** for your protection and for the safe and effective operation of this equipment. Read all instructions before installing or operating this product. Pay particular attention to those areas designated by the following symbols.

WARNING

High voltage present. Contact could cause shock, burns, or death.

Do not touch exposed wires or terminals.

CAUTION

Machine protection will be lost.

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FOREWORD

This document is intended for personnel who operate and maintain the 3300 Monitoring System. It presents information about the 3300/12 Power Supply and shows how to disassemble the power supply, set options, test performance, and troubleshoot. The procedures are presented in step-by-step graphic format.

RELATED DOCUMENTS

3300 System Overview, 80171

3300 System Installation Instructions, 80172

3300 System Troubleshooting Guide, 80173

The above three documents are available as part no. 80170-01 or -02.

3300/03 System Monitor, part no. 89604-01

3300/03 Serial Data Interface and Dynamic Data Interface Manual, part no. 89541-01

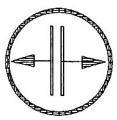
SYMBOLS

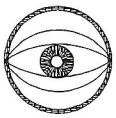
The manual uses the following symbols to indicate actions in the step-by-step processes:


PRESS


FLASHING


CONNECT


DISCONNECT


OBSERVE


SCREWDRIVER

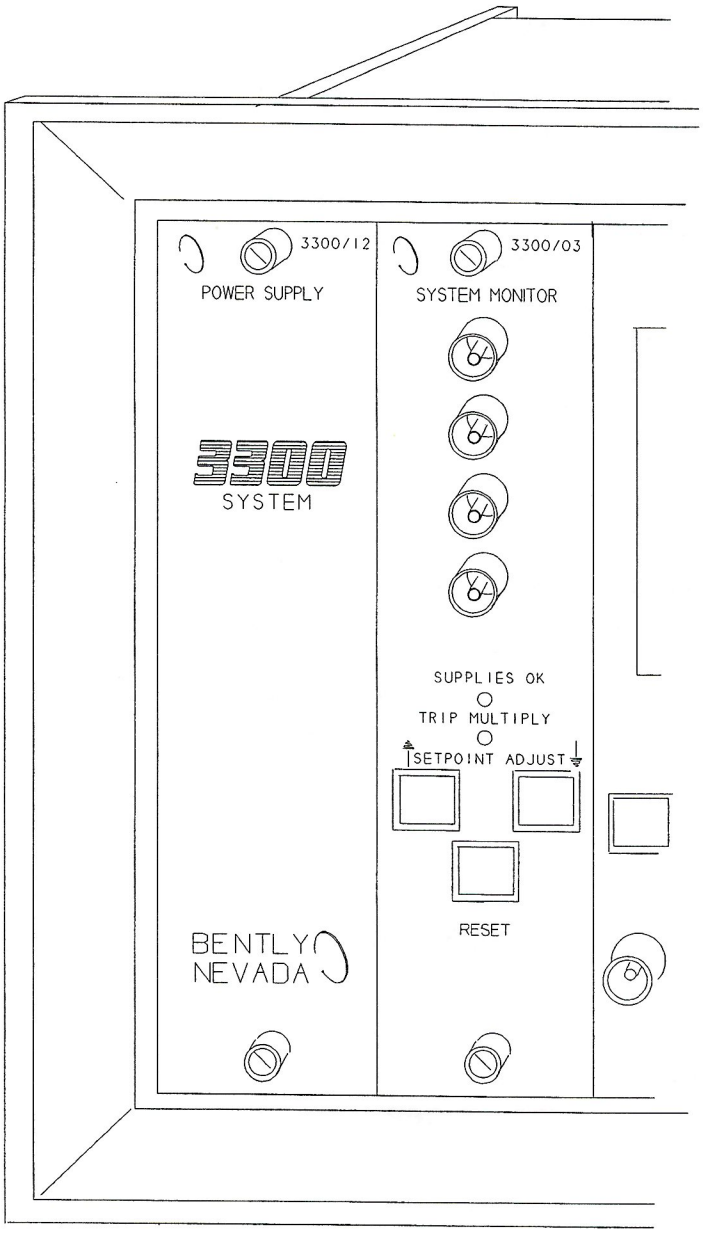
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1 LOCATION OF ASSEMBLIES

This section shows the location of the Power Supply regulator board and the Power Input Module (PIM) assemblies.

The Power Supply regulator board is located in the left most rack position, behind the Power Supply front panel, next to the System Monitor as viewed from the front.



1 LOCATION OF ASSEMBLIES

The Power Input Module (PIM) is located in the two right most rack positions as viewed from the rear, directly behind the Power Supply and System Monitor.

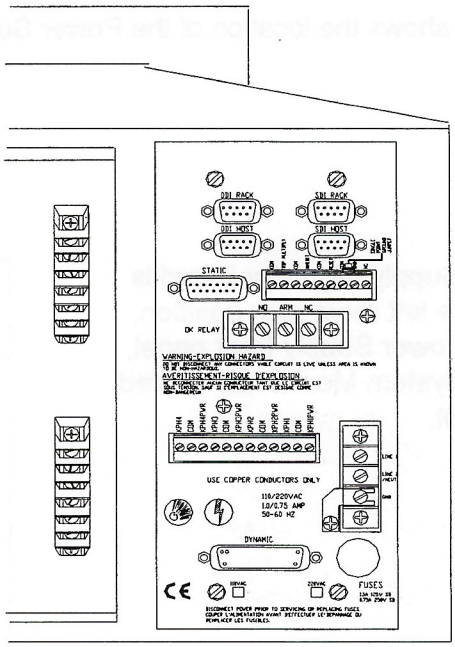
There are two versions of the PIM, a non-barrier version (Standard) and a barrier version. For simplicity, the remainder of the manual will often show only the Standard PIM; however, the information given applies to both versions unless otherwise noted.

The Power Input Module provides terminals for connecting the primary power, Rack Inhibit control, Trip Multiply control, Remote Alarm Reset control and Keyphasor transducers. In addition, the System OK relay and various communications ports are provided on the rear panel.

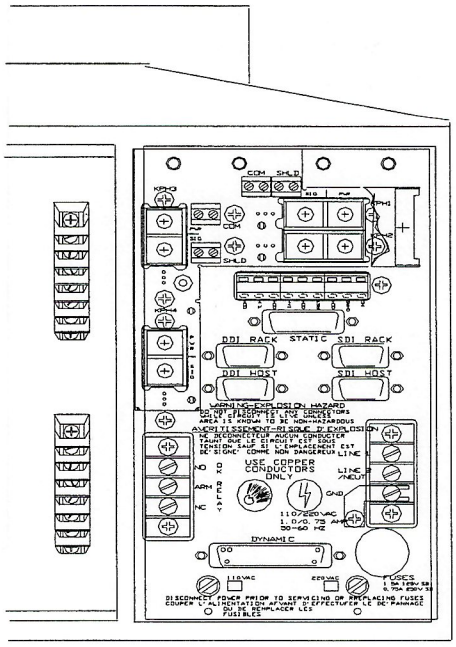
WARNING

High voltage present. Contact could cause shock, burns, or death.

Do not touch exposed wires or terminals.



STANDARD POWER INPUT MODULE



POWER INPUT MODULE WITH BARRIERS

2 OPTIONS

This section describes the catalog and jumper-programmable options for the Power Supply.

Catalog Options

POWER SUPPLY

PART NO.	INPUT VOLTAGE	POWER INPUT MODULE	AGENCY APPROVAL
3300/12 ---------	AA ----------	BB ----------	CC
	01 = 95 to 125 Vac 50 to 60 Hz	20 = Standard	00 = None
	02 = 190 to 250 Vac 50 to 60 Hz	22 = Internal Barrier	01 = CSA
			02 = BASEEFA

Data Communication Interface Options

Data communications can be made via the Serial Data Interface (SDI) and/or the Dynamic Data Interface (DDI). These are catalog options with the 3300/03 System Monitor. The SDI and DDI can be independently configured to use either an RS-232 or RS-422 link. Systems are shipped from the factory with both the SDI and DDI links optioned for RS-232 operation. Section 7 shows how to change these options.

Transducer Voltage Option

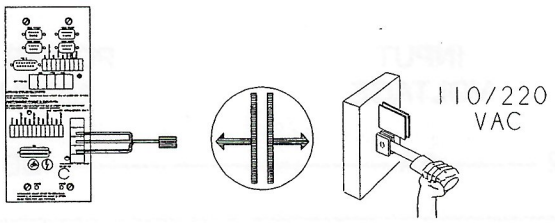
The transducer voltage (-VT) can be set to -24 Vdc or -18 Vdc. Systems are shipped from the factory with this option set for -24 Vdc. Section 8 shows how to change this option.

3 DISASSEMBLY PROCEDURE

This section shows how to access the Power Supply regulator board, Power Input Module, connecting cables, and transformer assembly.

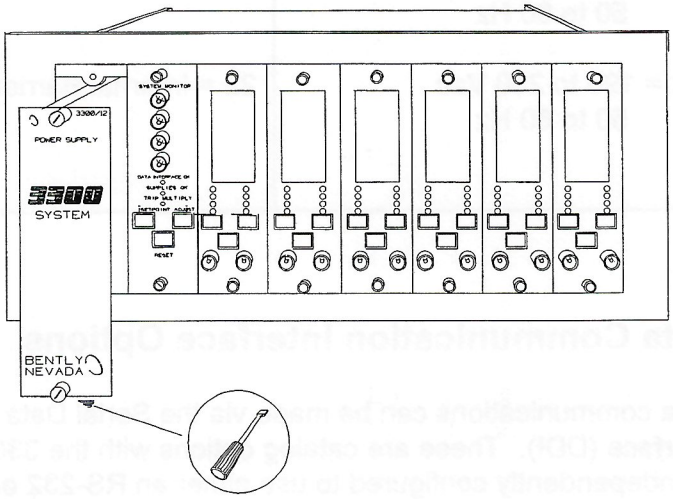
CAUTION

Removing the Power Supply from the rack or disconnecting the primary power source will result in loss of machine protection and may trigger false alarms.



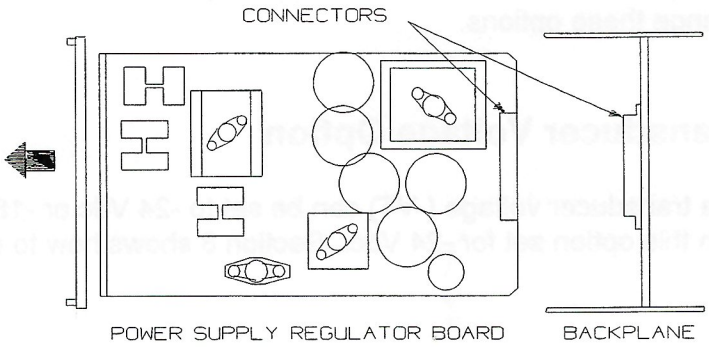
Regulator Board

1. Disconnect the primary power source from the Power Input Module.



2. Loosen the screws on the Power Supply front panel.

3. Pull the assembly out of the rack.

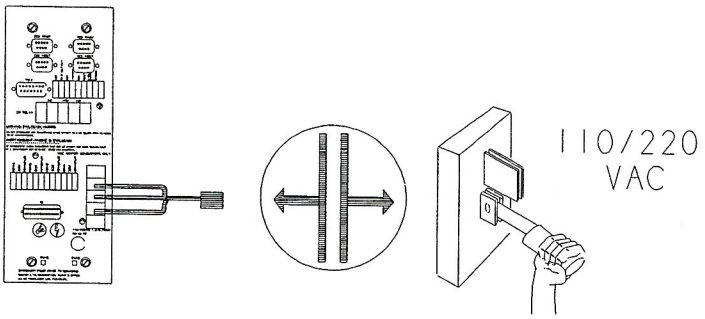


3 DISASSEMBLY PROCEDURE

WARNING

High voltage present. Contact could cause shock, burns, or death.

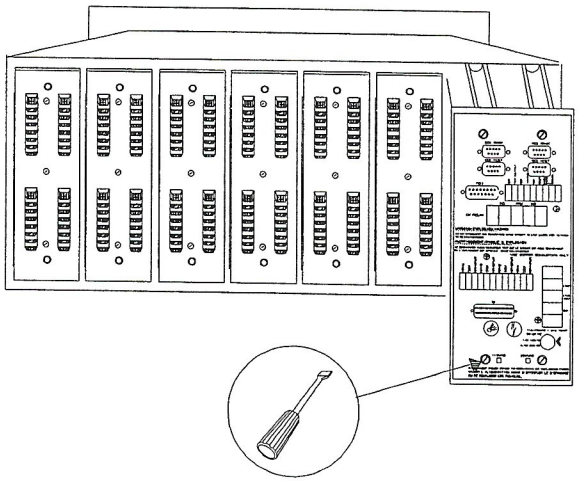
Do not touch exposed wires or terminals.



Power Input Module

4. Disconnect the primary power source from the Power Input Module (unless already done in Step 1).

5. Loosen the screws on the Power Input Module rear panel.

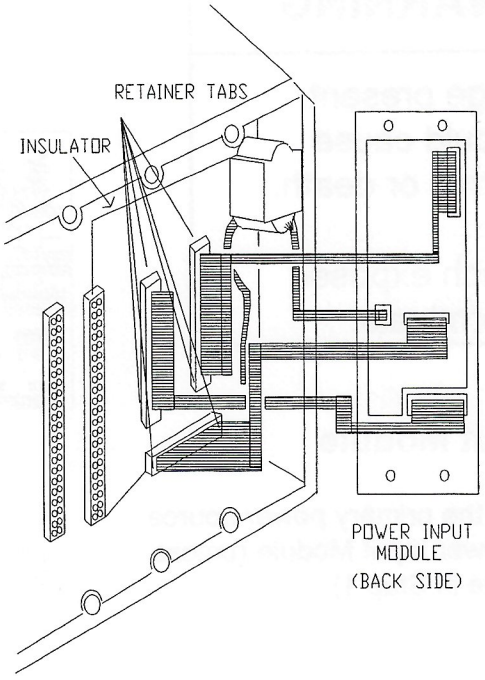


6. Carefully pull the assembly out of the rack, being sure not to stress the connecting cables.

3 DISASSEMBLY PROCEDURE

Connecting Cables

7. Release the retainer tabs on the ends of the cable connectors as required to remove the Power Input Module from the rack. Be sure all of the cables are properly secured when reconnecting the Power Input Module to the rack.



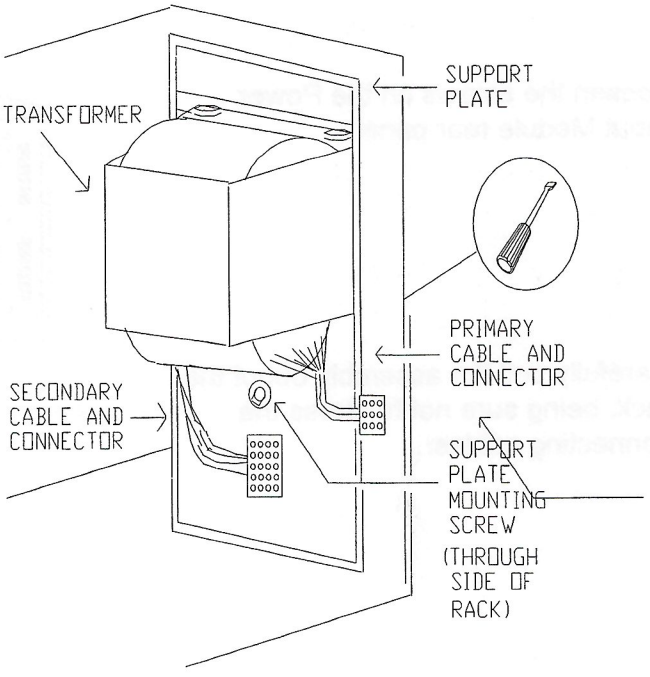
Transformer Assembly

The transformer is secured to a support plate with two bolts. The support plate slides into the rack behind the Power Input Module.

8. Remove the screw that mounts the support plate to the rack side panel.

9. Disconnect the primary and secondary connector plugs from the Power Input Module and backplane.

10. Slide the transformer and support plate assembly out of the rack.



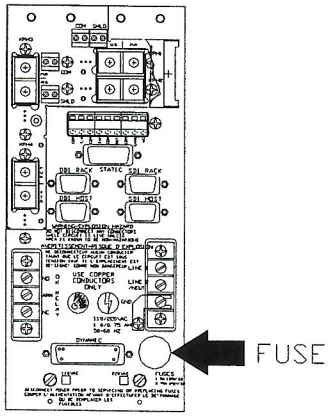
4 FUSES

This section shows where fuses are located and how to replace them.

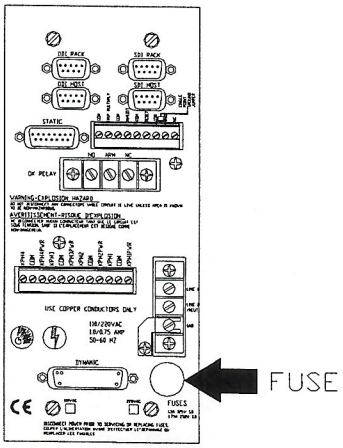
WARNING

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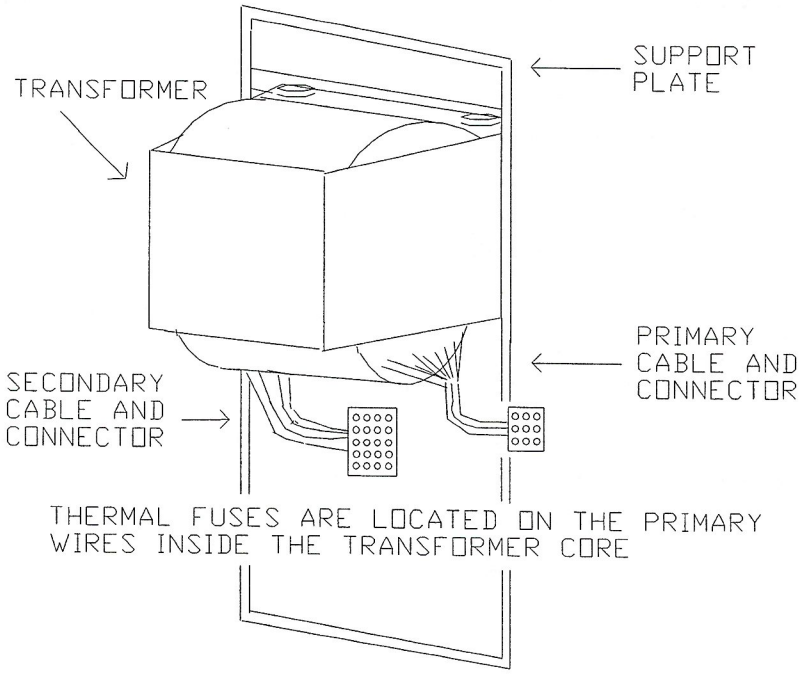
BARRIER PIM



STANDARD PIM

The primary power fuse is located on the Power Input Module as shown. First disconnect the primary power source from the Power Input Module, then unscrew the retainer cap to check or replace the fuse. See Section 9 for information on ordering replacement fuses.

The power transformer has built-in thermal fuses that cannot be serviced. If they open, the transformer must be replaced. See Section 3 for information on accessing the transformer assembly. See Section 9 for information on ordering a replacement transformer.



5 INPUT VOLTAGE OPTION

The Power Supply has two input voltage options, either 95 to 125 Vac or 190 to 250 Vac. In order to change the input voltage option, follow the steps below to configure the Power Input Module and change the primary power fuse.

⚠ WARNING

High voltage present. Contact could cause shock, burns, or death.

Do not touch exposed wires or terminals.

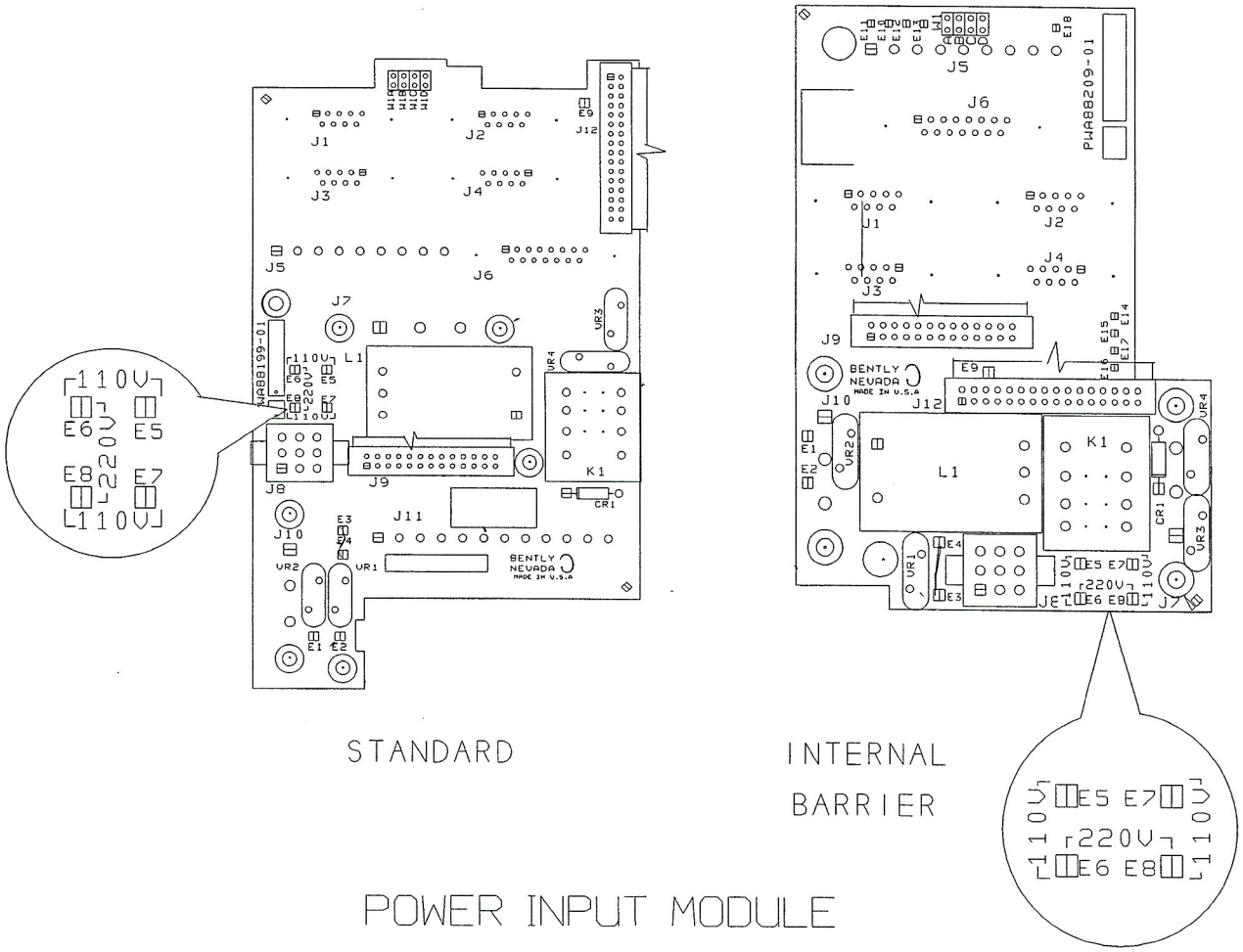
1. Disconnect the primary power source from the Power Input Module.
2. Remove the connections to the primary power input terminals.
3. Remove power and the connections to the OK Relay terminals.
4. Remove the Power Input Module from the rack and disconnect the attached cables (see Section 3, Disassembly Procedure).
5. Remove the primary power fuse (see Section 4, Fuses). Using the table below, select and install the appropriate fuse for the desired input voltage option. Note that systems with BASEEFA approvals require a different fuse.

Desired input voltage option	None or CSA approval (Catalog option CC=00, 01, see Section 2)	BASEEFA approval (Catalog option CC=02, see Section 2)
95 - 125 Vac	01701500	01710512
190 - 250 Vac	01703118	01720007

5 INPUT VOLTAGE OPTION

6. Use the table below to configure jumpers E5-E8 on the Power Input Module for the desired input voltage option. Note that this requires soldering and de-soldering the jumper connections. The drawing at the bottom of the page shows where the jumpers are located on a standard and an internal barrier Power Input Module.

Desired input voltage option	Break these connections on Power Input Module:	Make these connections on Power Input Module:
95 - 125 Vac	E6 to E8	E5 to E6 E7 to E8
190 - 250 Vac	E5 to E6 E7 to E8	E6 to E8



5 INPUT VOLTAGE OPTION

7. Reconnect the cables that were disconnected in step four and re-install the Power Input Module to the rack. Connect the wires to the OK Relay and the primary power input terminals. Apply the OK Relay power and the primary power. Do not apply power to the rack until the Power Input Module is completely installed.

6 TESTING AND TROUBLESHOOTING

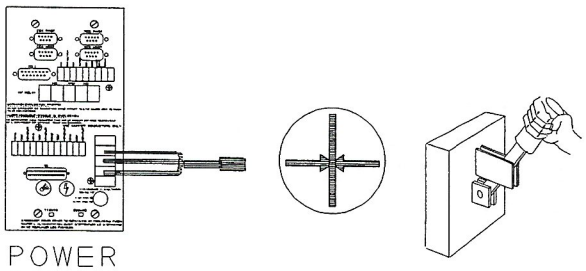
This section shows how to verify that the Power Supply is operating properly and explains what to do if it is not.

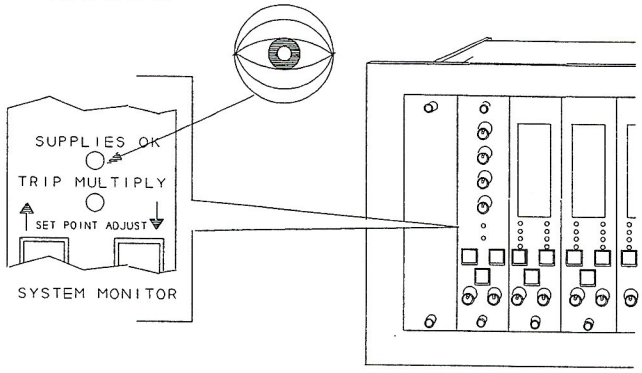
WARNING

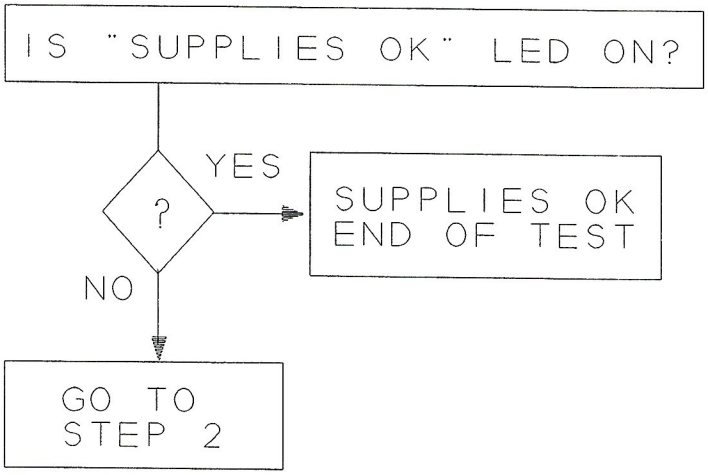
High voltage present. Contact could cause shock, burns, or death.

Do not touch exposed wires or terminals.

1. Apply power to the rack and observe the **SUPPLIES OK** LED on the System Monitor front panel.

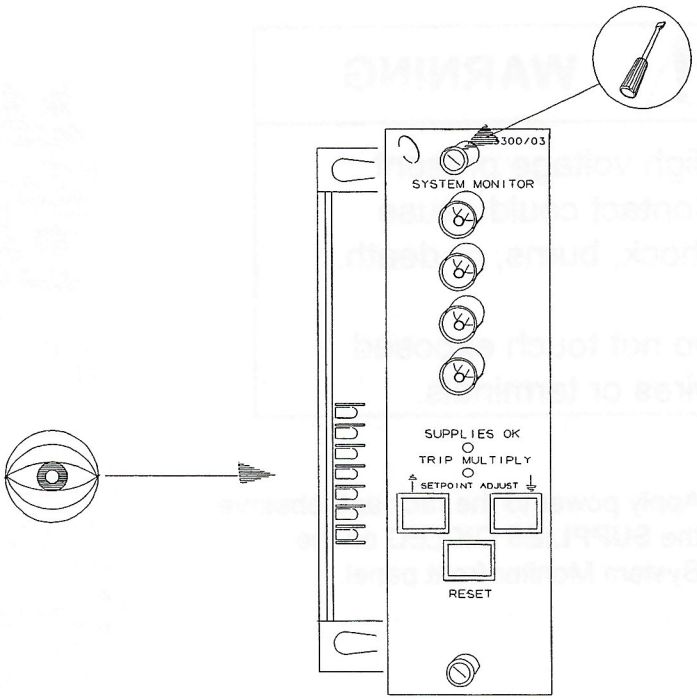


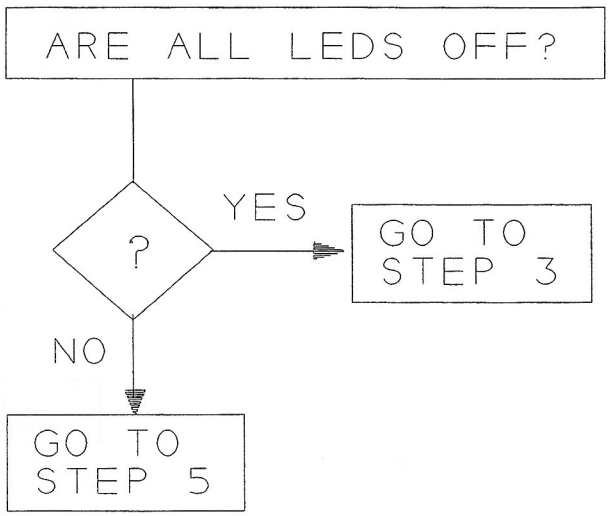




6 TESTING AND TROUBLESHOOTING

2. Loosen the System Monitor front panel screws and move the panel to the right. Observe the seven LEDs on the System Monitor circuit board.





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