

S E R V I C E N O T E

SUPERSEDES: NONE

E8404A VXI 13-Slot C-Size 1000-Watt Mainframe

Serial Numbers: US38000107 / US38000155

Faulty Heat Sink Clips May Cause Short Circuit In Power Supply

To Be Performed By: Agilent-Qualified Personnel or customer

Parts Required:

P/N	Description	Quantity
E8403-69227	REBUILT 0950-3277 1000W POWER SUPPLY	1

Equipment Required:

Voltmeter capable of measuring voltages between +25VDC and -25VDC with an accuracy of ± .25% of reading.

Situation:

The metal clips that hold the transistors firmly to the heat sinks in the power supply are coming free. This allows the metal clips to move about within the power supply enclosure and possibly causing a short circuit and failure.

Continued

DATE: March 1999

ADMINISTRATIVE INFORMATION

SERVICE NOTE CLASSIFICATION:			
MODIFICATION RECOMMENDED			
ACTION CATEGORY:	<input type="checkbox"/> IMMEDIATELY <input type="checkbox"/> ON SPECIFIED FAILURE <input checked="" type="checkbox"/> AGREEABLE TIME	STANDARDS:	LABOR 1.5 Hours
LOCATION CATEGORY:	<input type="checkbox"/> CUSTOMER INSTALLABLE <input type="checkbox"/> ON-SITE <input checked="" type="checkbox"/> SERVICE CENTER	SERVICE INVENTORY:	<input type="checkbox"/> RETURN <input type="checkbox"/> SCRAP <input type="checkbox"/> SEE TEXT
AVAILABILITY:	PRODUCT'S SUPPORT LIFE	USED PARTS:	<input type="checkbox"/> RETURN <input type="checkbox"/> SCRAP <input type="checkbox"/> SEE TEXT
AUTHOR: DMT	ENTITY: 0960	AGILENT RESPONSIBLE UNTIL: March 2000	
		ADDITIONAL INFORMATION:	



Solution / Action:

The solution is to replace the possibly defective power supplies with known good power supplies. Use the following procedure to replace the supplies and re-calibrate the E8404A Enhanced Monitor Assembly:

Replace the Power Supply

1. Remove electrical power from the E8404A.
2. Remove the E8404A rear panel by removing the 14 screws which secure the rear panel to the mainframe. The rear panel hinges at the top; rotate the panel upward and pull it out from the mainframe.
3. Remove the power supply by reaching up under the power supply shelf with both hands. Place your finger tips on the back of the supply, between the supply and the backplane, and your thumbs on the lip of the shelf. Pry the supply out with your fingers while using your thumbs on the shelf for leverage.
4. Install the exchange power supply. Keep the replacement power supply to the far right in the mainframe. Make sure the supply is firmly seated into the backplane connectors.
5. Replace the rear panel. Be sure that all 14 screws are securely tightened.

Calibrate the Temperature Monitor.**NOTE:**

Since all modules must be removed from the E8404A mainframe, the calibration commands must be issued through the Enhanced Monitor's RS-232 interface. Refer to Chapter 2 of the E8402A, E8404A User and Service Manual if you need more information.

1. Remove all VXI modules from the E8404A mainframe.
2. Connect power. Turn the E8404A ON, set the fan switch to FULL and allow the unit to "warm-up" for at least one-half hour in a constant temperature environment.
3. Enter the command CAL:VAL:TEMP -1. This will use the average temperature of the 39 internal sensors as the temperature reading.
4. Enter the command CAL:TEMP? to complete the calibration. If the command returns a 0 the calibration was successful.

Calibrate the Voltage Monitor.**Note:**

If possible, the E8404A should be calibrated under normal operating conditions (modules installed, rack mounted, etc.). For additional information, refer to Chapter 4 of the E8402A, E8404A User and Service Manual.

1. Use the voltmeter to measure the E8404A +5Vdc supply between pin 1 of the Diagnostic Connector and chassis ground.
2. Enter the measured voltage by executing the CAL:VAL:VOLT <supply>,<value> command. For example, if the +5Vdc supply measured 4.987, you would send the command CAL:VAL:VOLT P5,4.987 where P5 specifies the positive 5Vdc supply.
3. Repeat steps 1 and 2 to enter the values of the
 - 12Vdc at pin 2 of the Connector (CAL:VAL:VOLT N12,<val>),
 - 24Vdc at pin 3 of the Connector (CAL:VAL:VOLT N24,<val>),
 - 2Vdc at pin 4 of the Connector (CAL:VAL:VOLT N2,<val>),
 - +12Vdc at pin 14 of the Connector (CAL:VAL:VOLT P12,<val>),
 - +24Vdc at pin 15 of the Connector (CAL:VAL:VOLT P24,<val>),
 - 5.2Vdc at pin 16 of the Connector (CAL:VAL:VOLT N5PT2,<val>).
4. Enter the command CAL:VOLT? to complete the calibration. If the command returns a 0 the calibration was successful.