TABLE OF CONTENTS

1- POWER SUPPLY UNIT (PSU) REPLACEMENT

This procedure applies to Signa Open*Speed* 0.7T Power Cabinet and the required steps to remove and replace Power Supply Unit (PSU) (2176108).

1-1 Required Tools

- Digital Multimeter
- Philips Screwdriver
- Standard Screwdriver
- Wrench

2- REMOVAL/REPLACEMENT OF PSU

2-1 Lock Out Tag Out

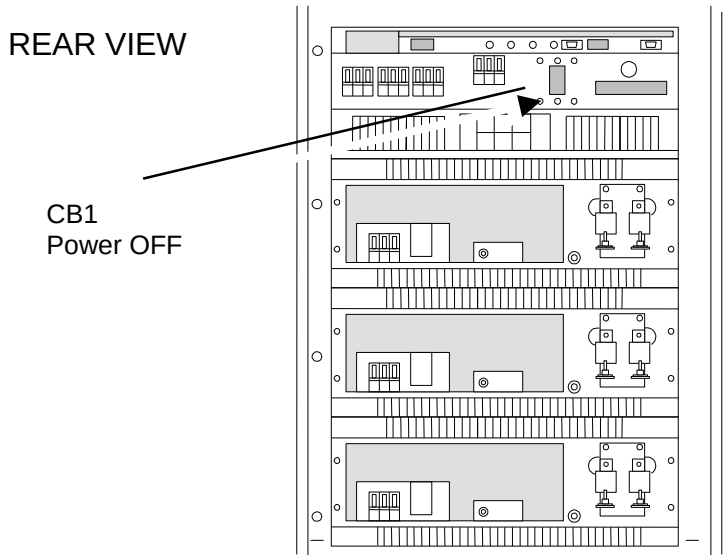
DANGER!!

FATAL ELECTRIC SHOCK HAZARD! TO PREVENT FATAL ELECTRIC SHOCK, DISCONNECT POWER FROM THE PDU BEFORE YOU PERFORM THE REMOVAL/REPLACEMENT PROCEDURES. PERFORM LOCKOUT/TAGOUT PROCEDURE PER GE OSHA LOCKOUT/TAGOUT REQUIREMENTS 29 CFR 1910.147. DO THIS BY SECURING THE PDU CIRCUIT BREAKER FOR THE GRADIENTS.

1. Turn AC power OFF at service panel.

2. Remove front and rear covers.

3. Turn power OFF at Power Supply Unit (PSU) at rear of cabinet. See Illustration 2-1 for circuit breaker location.



PSU CIRCUIT BREAKER LOCATION
ILLUSTRATION 2-1

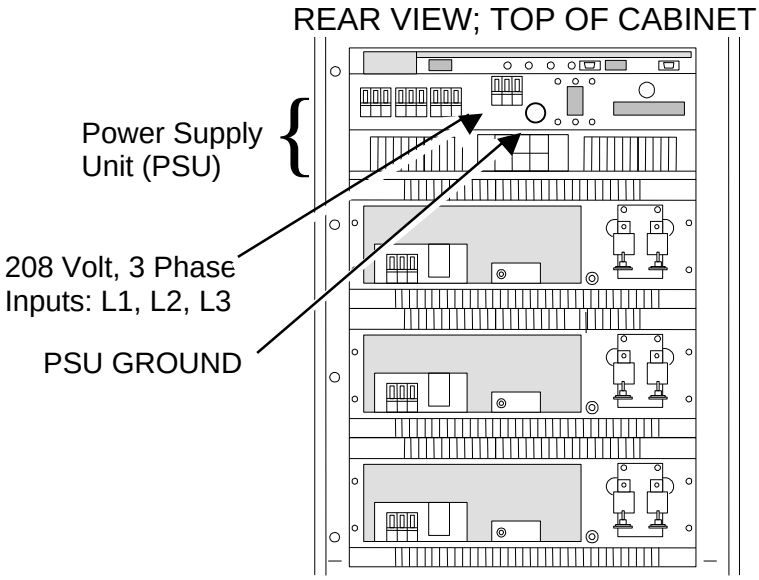
4. Verify all LEDs are OFF on front of PSU.

5. Wait *5* minutes for power to dissipate.

6. Turn off the Gradient Breaker at the Power Distribution Unit (PDU). Lock out the Breaker and tag it.

7. After power to the Gradient Amplifiers has had sufficient time to dissipate take a Digital Multimeter and set it to its highest AC voltage range.

8. Verify that measuring incoming power to all components of the Gradients have dissipated all energy. See Illustration 2-2.
   - Place the reference probe (black) on the PSU Ground.
   - Locate L1, L2, and L3. These are the 208V, 3 Phase inputs to the PSU.

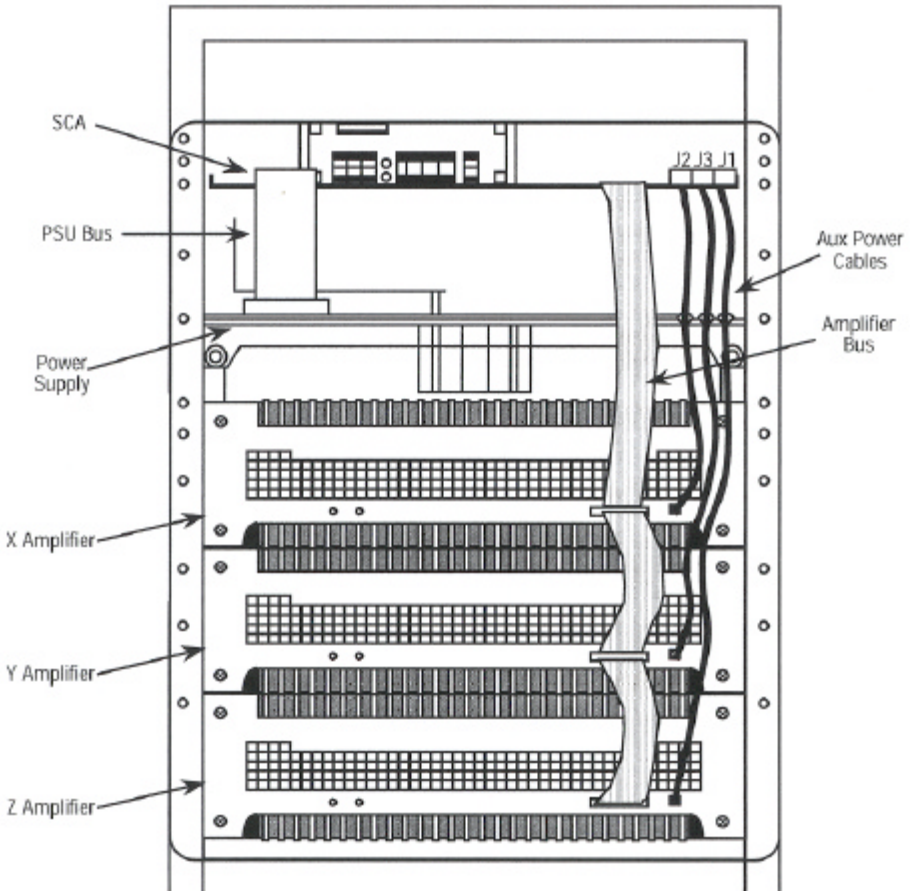


INCOMING POWER MEASUREMENT LOCATIONS
ILLUSTRATION 2-2

9. Measure voltage at each of three 208 volt input terminals. The meter should read 0 volts AC at each of the three measuring points.

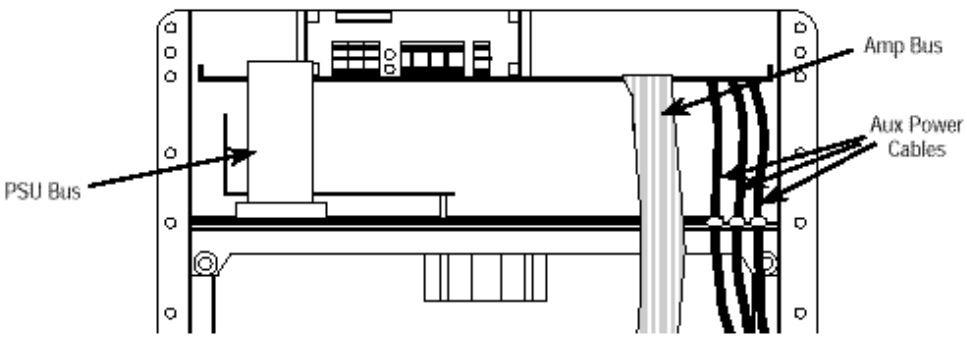
2-2 Remove PSU

1. Disconnect auxiliary power cables (3) from front of SCA. Disconnect amplifier bus cable from all 3 amps and drape carefully to avoid damage. See Illustration 2-3.



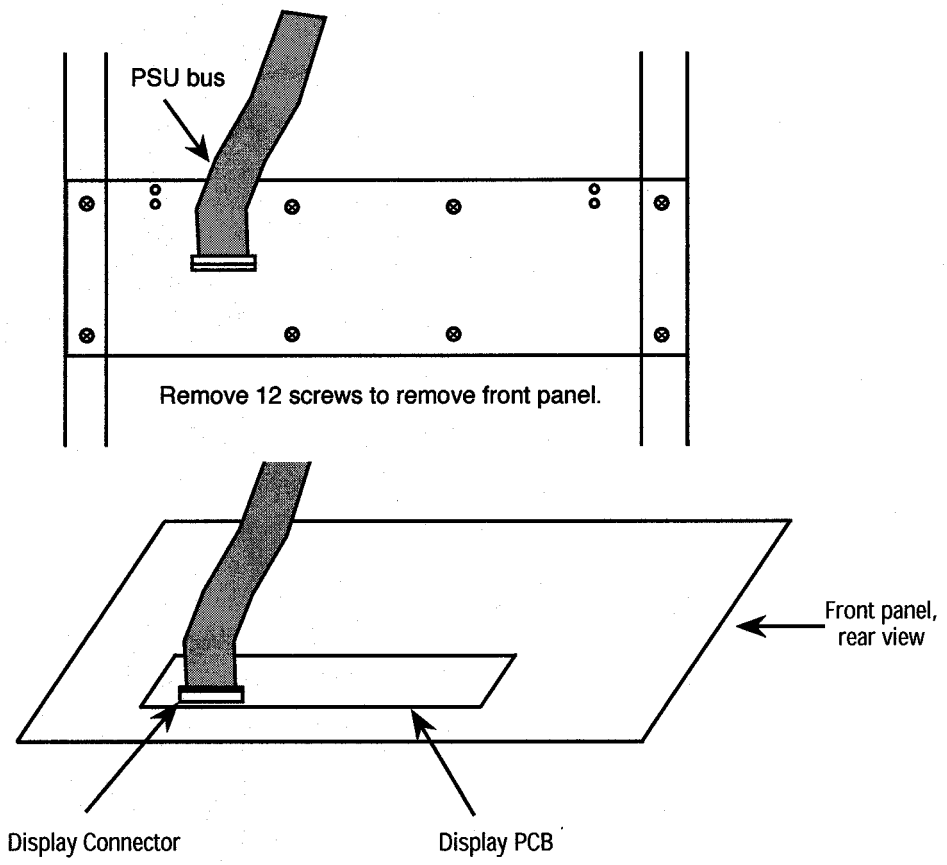
FRONT CABLE CONNECTIONS
ILLUSTRATION 2-3

2. Disconnect PSU bus at front of PSU, amp bus and aux power cables to amplifiers and drape over top of cabinet. See Illustration 2-4.



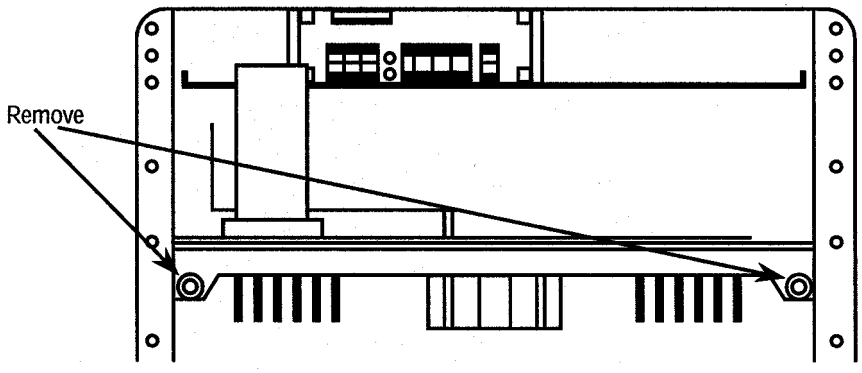
REAR CABLE CONNECTIONS
ILLUSTRATION 2-4

3. Remove PSU/SCA common front panel and disconnect display connector at display card. See Illustration 2-5.



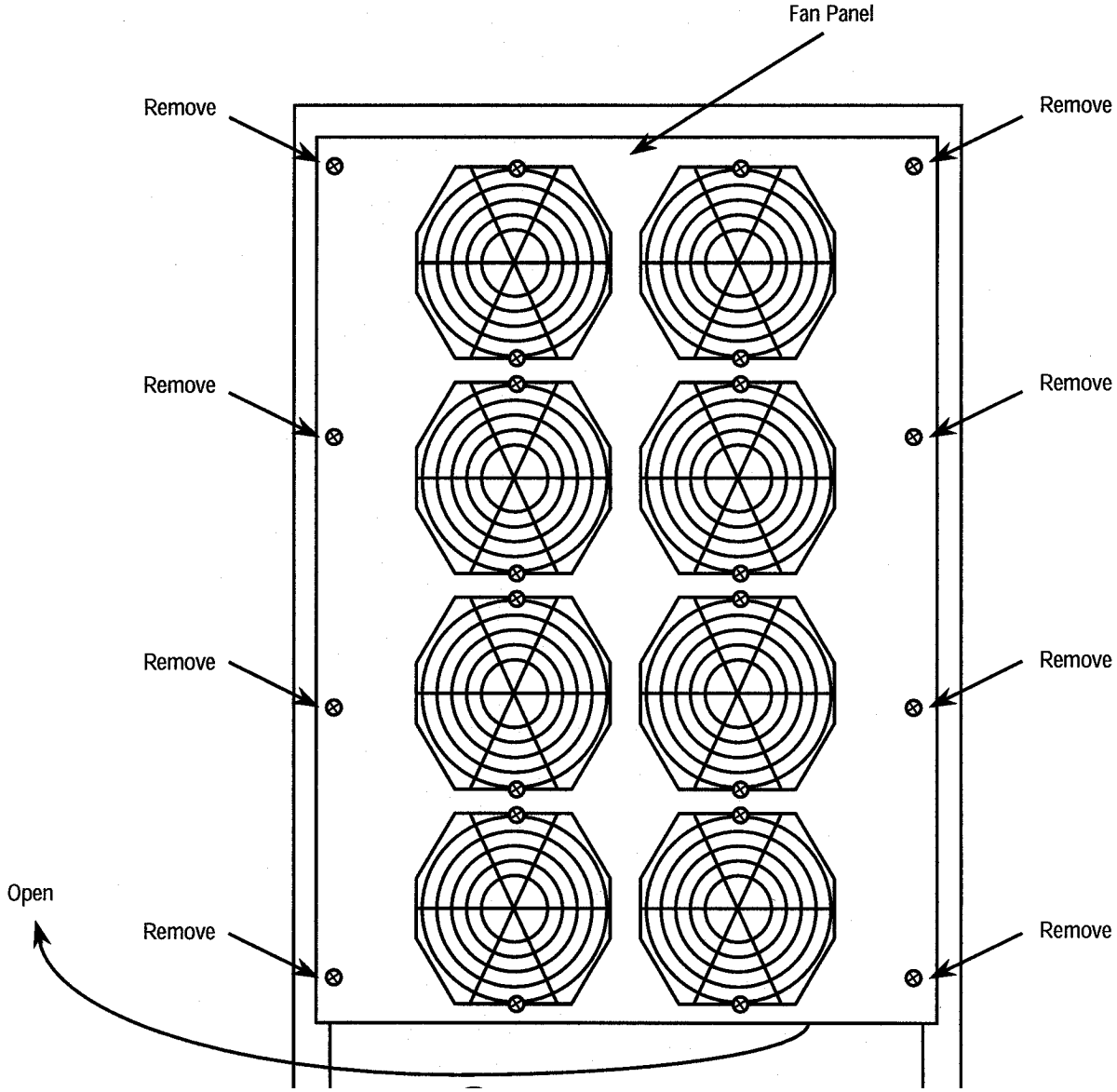
FRONT PANEL SCREW LOCATIONS
ILLUSTRATION 2-5

4. Loosen captive screws (2) at front, holding PSU to sleeve. See Illustration 2-6.



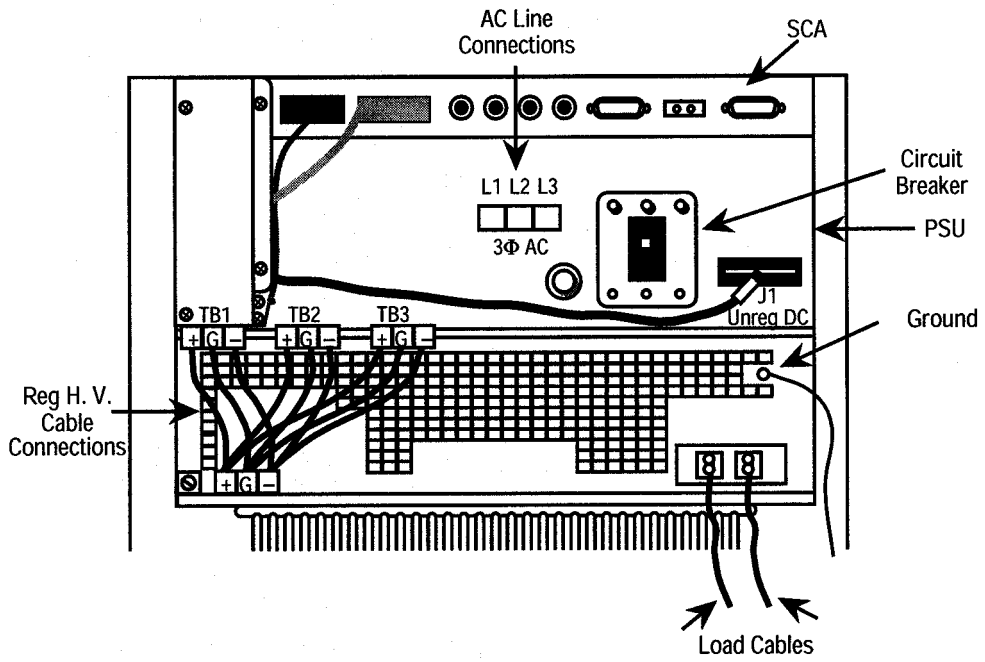
CAPTIVE SCREW LOCATIONS
ILLUSTRATION 2-6

5. At rear of cabinet, remove screws (8) and open fan panel. See Illustration 2-7.



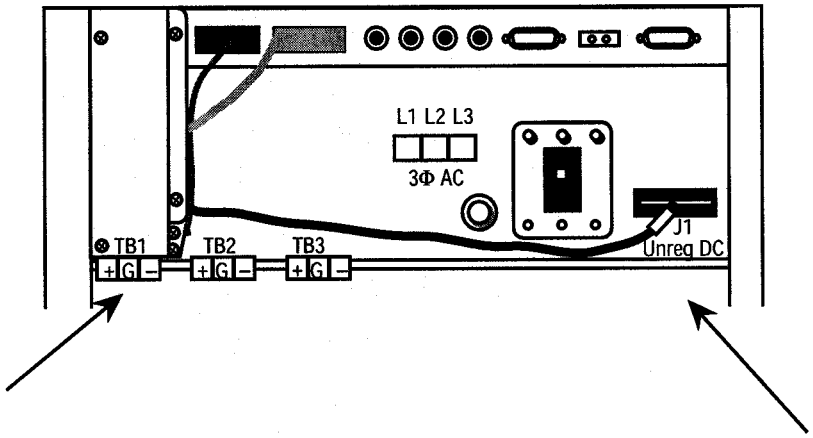
FAN PANEL SCREW LOCATIONS
ILLUSTRATION 2-7

6. Disconnect reg H.V. DC cables (3), unreg H.V. DC and remove 200 VAC line from rear of PSU. Use offset screwdriver provided in rear of cabinet. See Illustration 2-8.



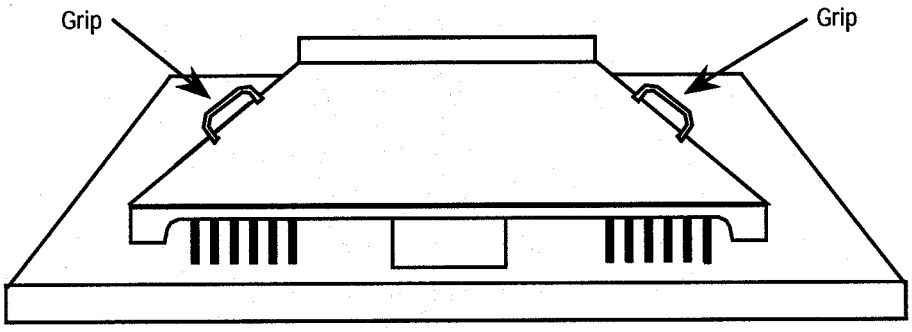
POWER CABLE LOCATIONS
ILLUSTRATION 2-8

7. Push PSU forward in cabinet 5 cm by pushing on rear of PSU. See Illustration 2-9.



PSU PUSH
ILLUSTRATION 2-9

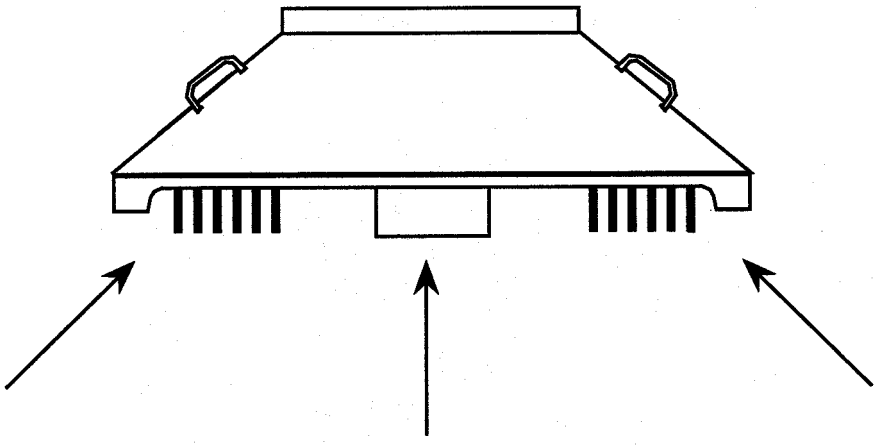
8. Remove PSU from front. See Illustration 2-10.
   - Carry by handles. Be careful to avoid damage to PSU.



PSU REMOVED
ILLUSTRATION 2-10

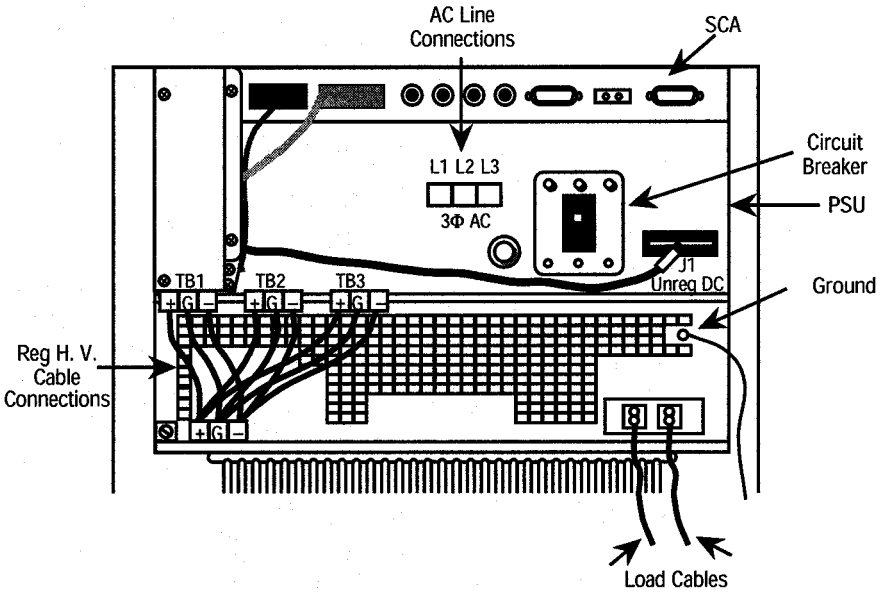
2-3 PSU Replacement

1. Place new PSU in sleeve and slide in from front to back. Engage alignment pins. See Illustration 2-11.



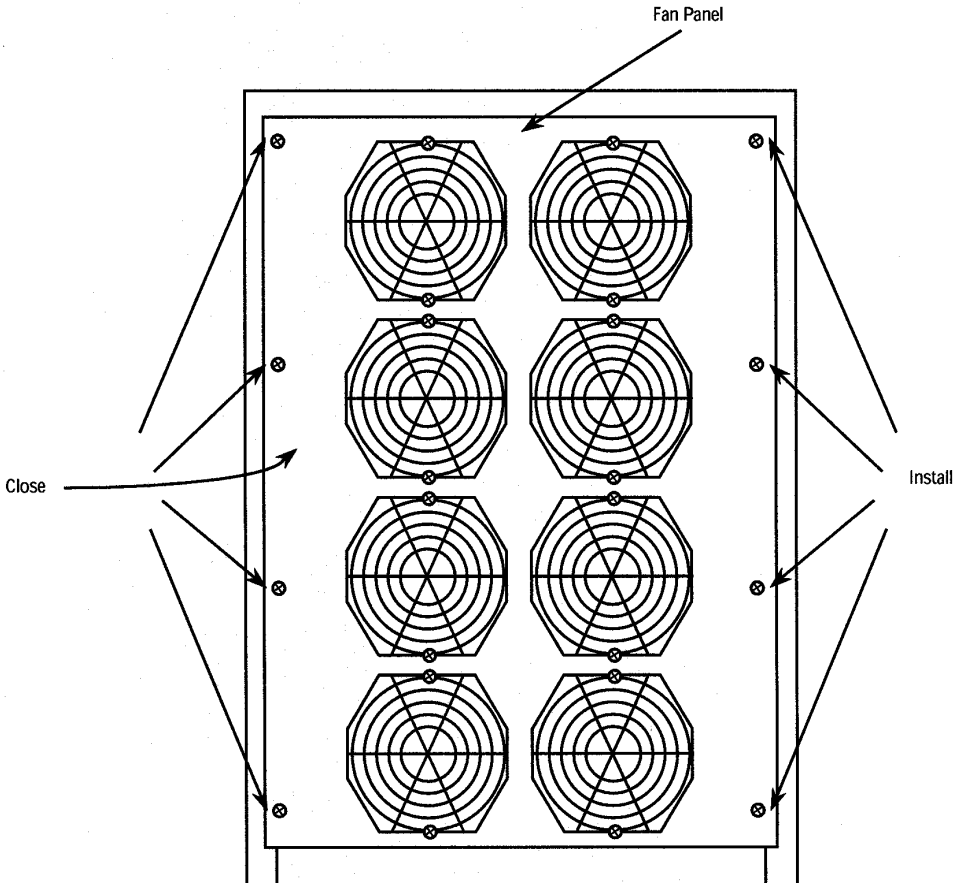
PSU PLACEMENT
ILLUSTRATION 2-11

2. Install cables in PSU terminals and connectors. Use offset screwdriver provided. Turn circuit breaker ON. See Illustration 2-12.



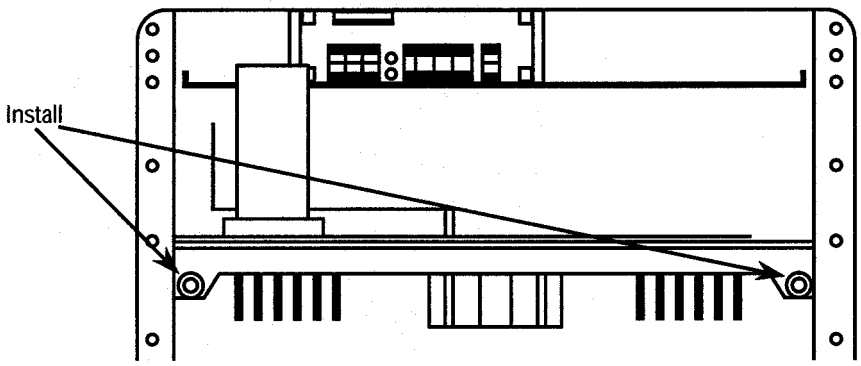
CABLE CONNECTIONS
ILLUSTRATION 2-12

3. Close fan panel and install 8 screws. See Illustration 2-13.



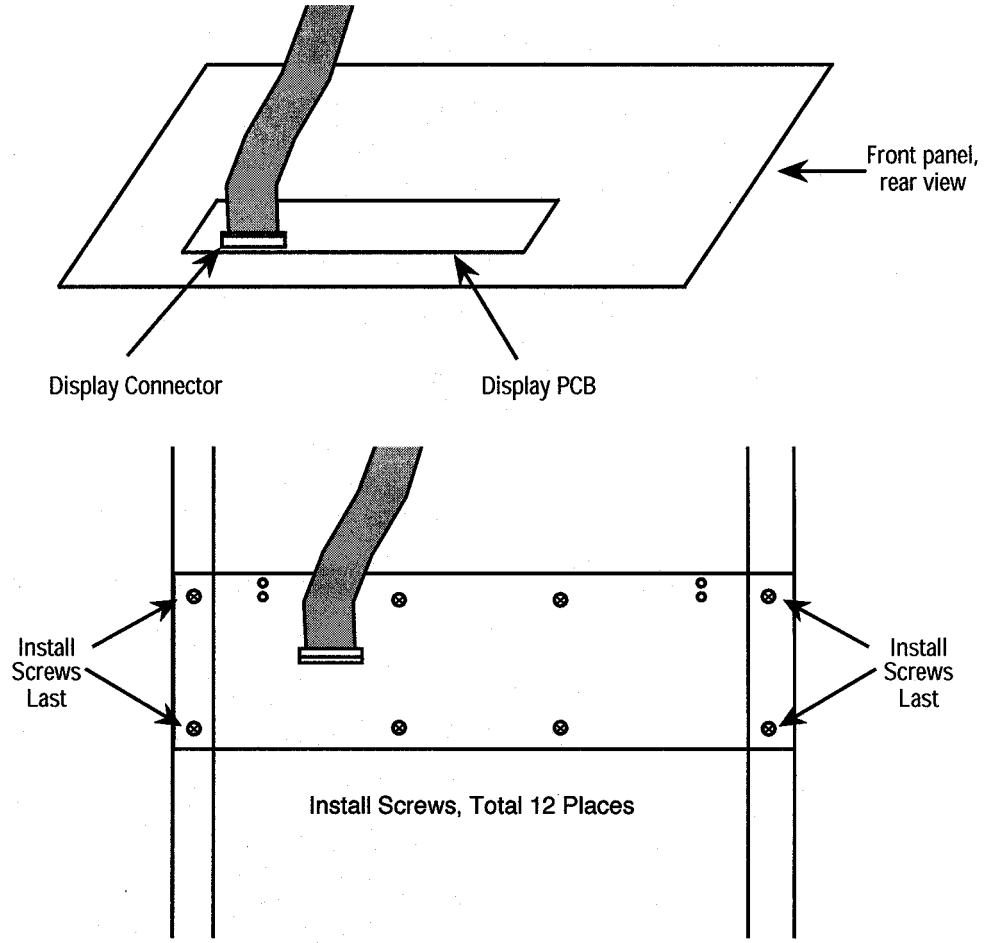
FAN PANEL SCREW LOCATIONS
ILLUSTRATION 2-13

4. Install front panel screws holding PSU to sleeve. See Illustration 2-14.



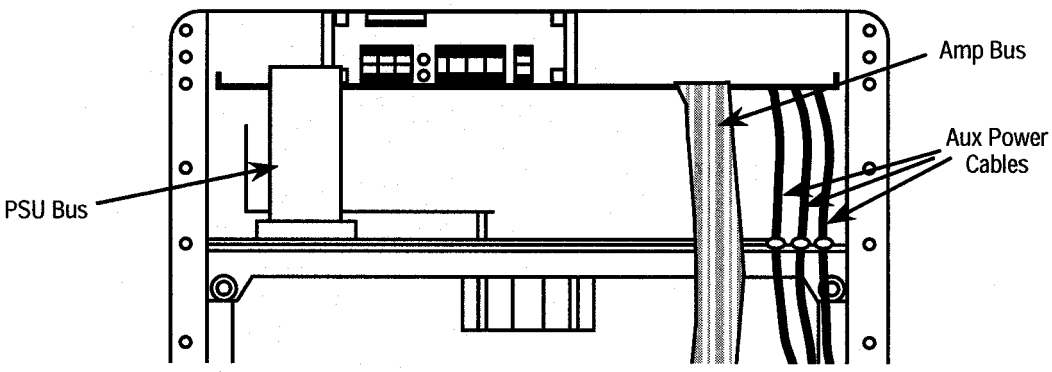
CAPTIVE SCREW LOCATIONS
ILLUSTRATION 2-14

5. Install display connectors on rear of front panel display PCB, observing polarization key. Then install front panel of PSU/SCA. See Illustration 2-15.



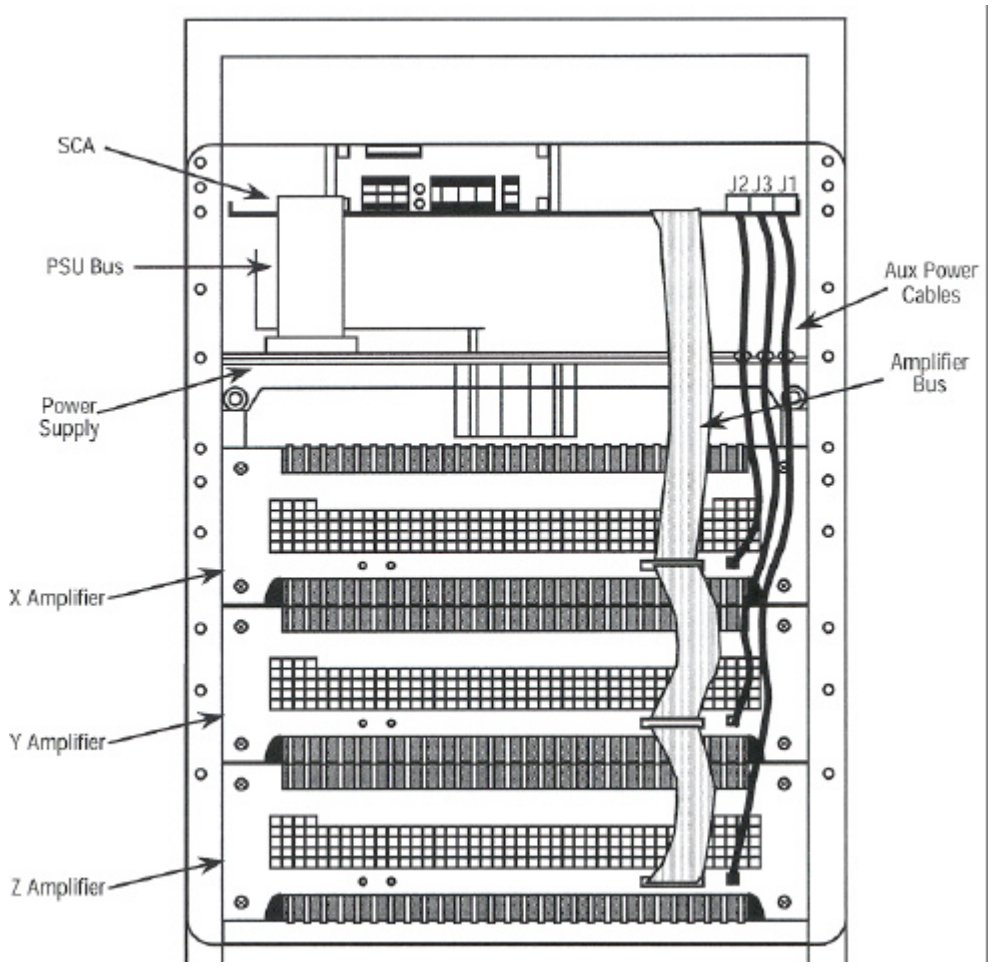
FRONT PANEL CONNECTOR AND SCREW LOCATIONS
ILLUSTRATION 2-15

6. Install PSU bus cable. See Illustration 2-16.
   - Reconnect amp bus cable and aux power cables to all amplifiers. Be sure connectors are latched.



FRONT CABLE CONNECTIONS
ILLUSTRATION 2-16

7. Connect aux power cables (3) on front of SCA. Connect amp bus cable to all 3 amps. See Illustration 2-17.



CABLE CONNECTIONS
ILLUSTRATION 2-17

8. Inspect unit prior to turn-on.
   - Install front and rear doors.
   - Turn AC power ON at service panel.
   - Verify proper power-up sequence.

3- FUNCTIONAL CHECKS

No calibrations required; power up the cabinet and perform a scan to verify functionality.

REVISION HISTORY

REV	DATE	AUTHOR	PRIMARY REASONS FOR CHANGE
A	November 29, 1999	Analogic (K. Keshena)	Modified procedure to Open*Speed* Power Cabinet--Preliminary release.