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1- REPLACEMENT PROCEDURE

Manpower Requirements

2 (two) people are needed to lift fan

- Total Fan Assembly Weight: 114 lbs.
- Total Fan Motor/Blower Weight: 48 lbs.

1-1 Tools and Instruments Required

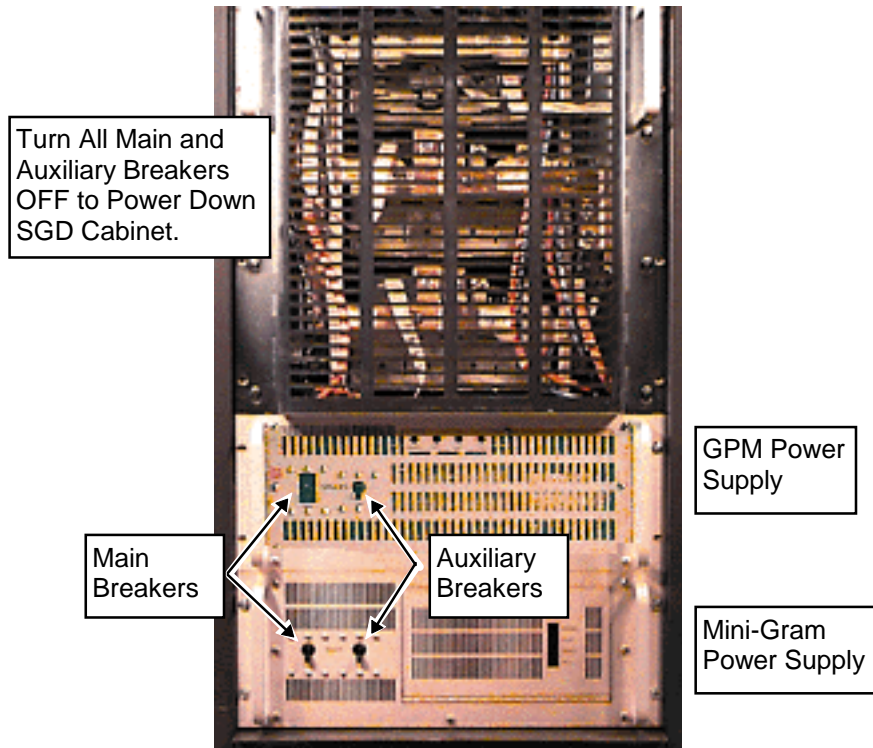
Item	Description	Part Number
1.	Fan Assembly (Motor & Turbine Only)	FRU # 2181131
2.	Ladder	
3.	2- Phillips-head screwdriver (Standard & small sizes)	
4.	Wrench (Metric 14 & small adjustable crescent wrench)	
5.	1 pair of Gloves	
6.	Ty-wrap cutters	
7.	1 Ty-wrap	

1-2 Preliminary Set Up Procedure



FATAL ELECTRIC SHOCK HAZARD!! TO PREVENT FATAL ELECTRIC SHOCK, DISCONNECT POWER FROM THE PDU BEFORE YOU PERFORM THE FOLLOWING PROCEDURES. PERFORM LOCKOUT / TAGOUT PROCEDURE PER GE OSHA LOCKOUT / TAGOUT REQUIREMENTS LISTED IN THE *FIELD SERVICE EHS MANUAL & TRAINING 2000 P/N 2135387-200*.

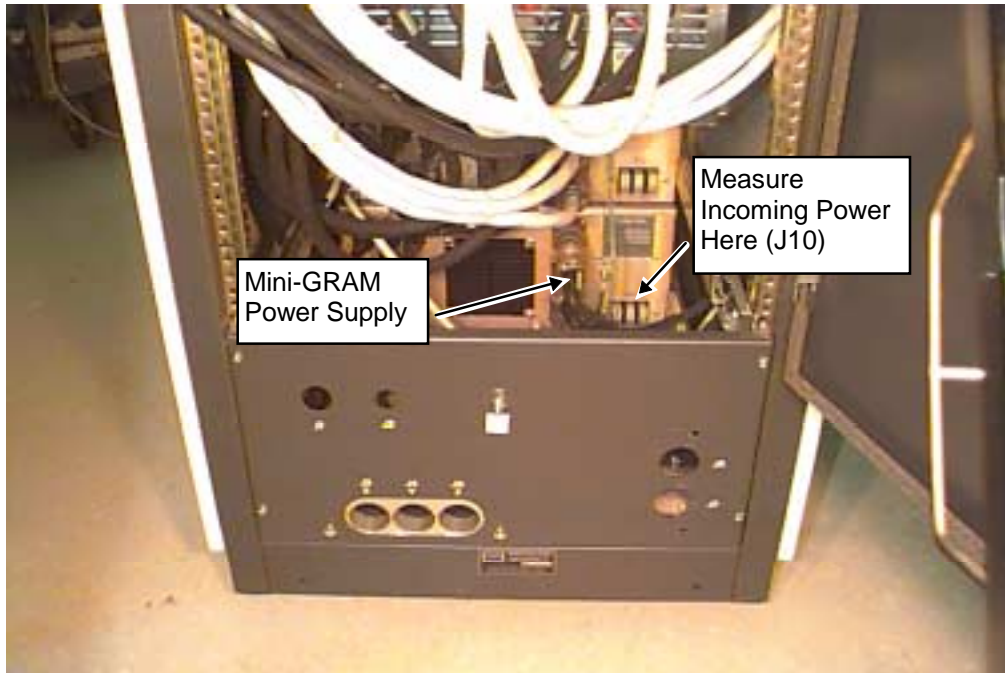
1. Power down the system according to the directions posted in the equipment room.
2. Then power down SGD Cabinet by turning off the Main Breakers and Auxiliary Breakers on the Front Panel of **both** the Mini-GRAM Power Supply and the Gradient Power Module Power Supply. See Illustration 1-1.



SGD HI-SLEW CABINET—LOWER HALF (FRONT COVER REMOVED)
ILLUSTRATION 1-1

3. Turn off the SGD Cabinet Breaker at the Power Distribution Unit. Lock out the Breaker and tag it.
4. After power to the SGD Cabinet has been removed, take a Digital Multimeter and set it to its highest AC voltage range.

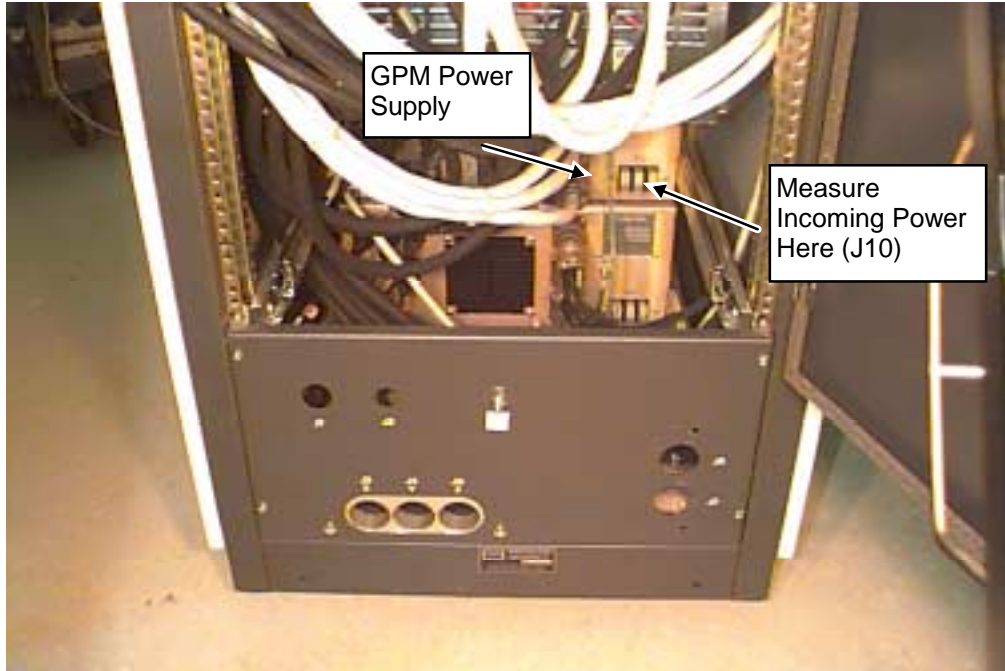
5. Verify that all energy has been dissipated. Measure incoming power to all components of the Scaleable Gradient Cabinet as directed in steps 6 and 7.
6. Measure incoming power to the Mini-GRAM Power Supply as follows:
 - Place the reference probe (black) on the SGD Cabinet Ground.
 - Locate J10. This is the 208V, 3 Phase input to the Mini-GRAM Power Supply.
 - Measure voltage at each of three 208 Volt input terminals. The meter should read 0 Volts AC at each of the three measuring points. See Illustration 1-2.



SGD CABINET—REAR VIEW: INCOMING POWER MEASUREMENT LOCATIONS
ILLUSTRATION 1-2

1-2 Preliminary Setup Procedure (continued)

7. Measure voltage at the GPM Power Supply as follows:
- Place the reference probe (black) on the SGD Cabinet Ground.
 - Locate J-10. This is the 208V, 3 Phase input to the GPM Power Supply.
 - Place the red probe on each of three 208 Volt input terminals: L1, L2, and L3. The meter should read 0 Volts AC at each of the three measuring points. See Illustration 1-3.



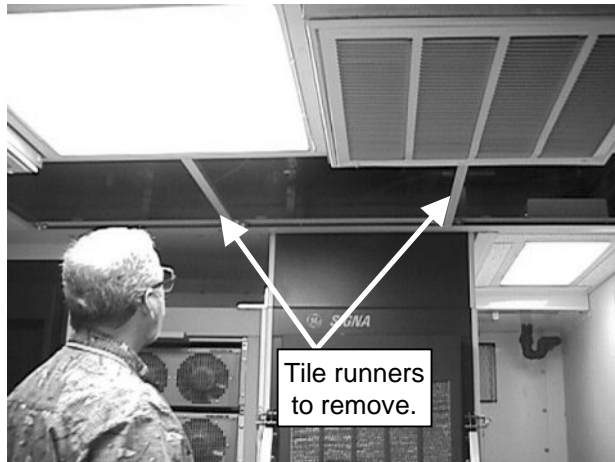
SGD CABINET—REAR VIEW: INCOMING POWER MEASUREMENT LOCATIONS
ILLUSTRATION 1-3

1-3 Fan Removal/Replacement Procedure Steps

Note

The Fan Motor/Blower weighs 48 lbs. The procedure requires two people to remove the fan motor/blower from the cabinet.

1. Using the ladder, remove the 3 (three) ceiling tiles in the front of the SGD Gradient cabinet. See Illustration 1-4.



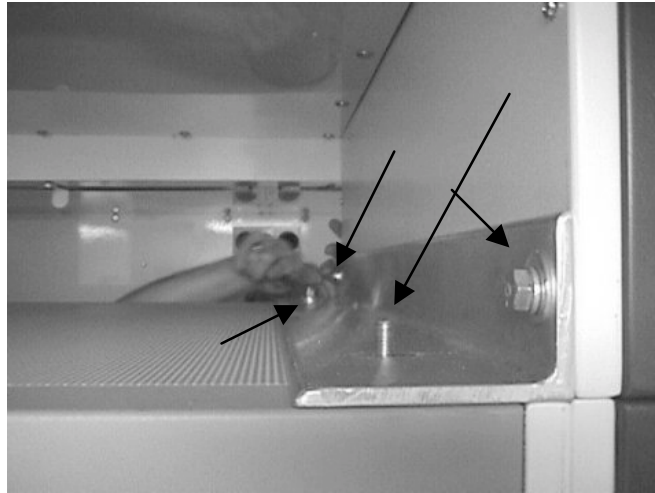
CEILING TILES REMOVED & TILE RUNNER LOCATIONS
ILLUSTRATION 1-4

2. Using a phillips screwdriver, remove two tile runners that are in front of the gradient cabinet. See Illustration 1-4 and 1-5.
3. Remove sensor to avoid damage when removing the fan blower motor. See Illustration 1-5.



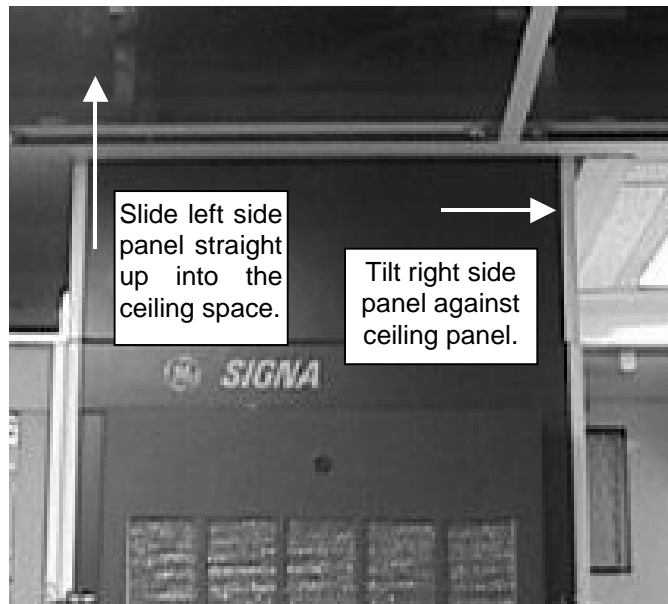
SENSOR LOCATION
ILLUSTRATION 1-5

4. Remove 4 (four) nuts of the holding plate (two in the front and two in the back) using the metric 14 wrench. See Illustration 1-6.



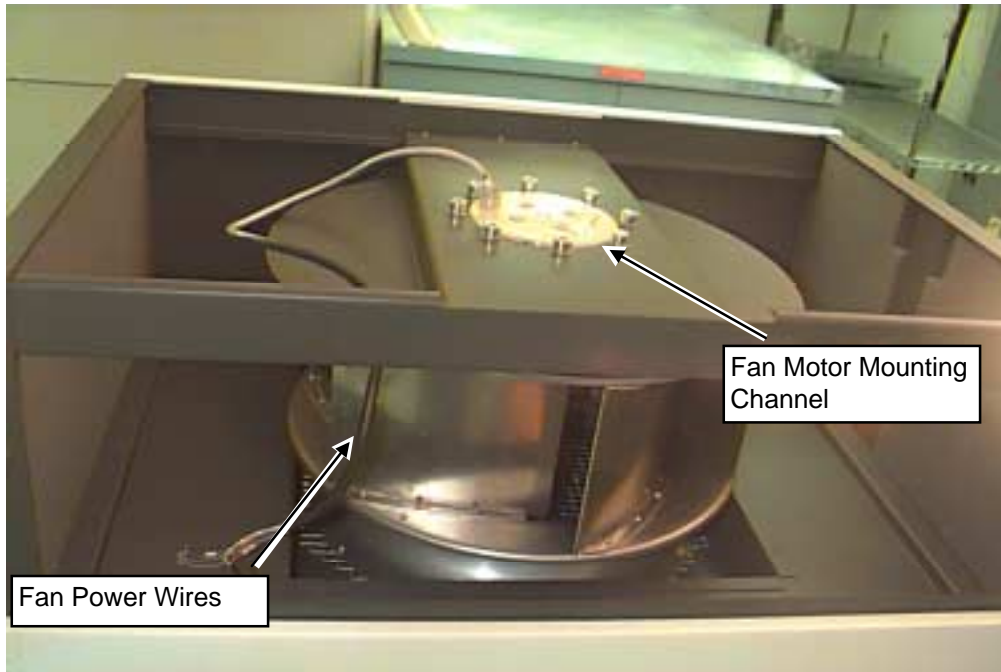
HOLDING PLATE BETWEEN RF AND GRADIENT CABINETS
ILLUSTRATION 1-6

5. Lift and remove holding plate.
6. Remove two (2) phillips-head screws from each fan side panel.
7. Move or tilt the right side panel against the ceiling panel. See Illustration 1-7.



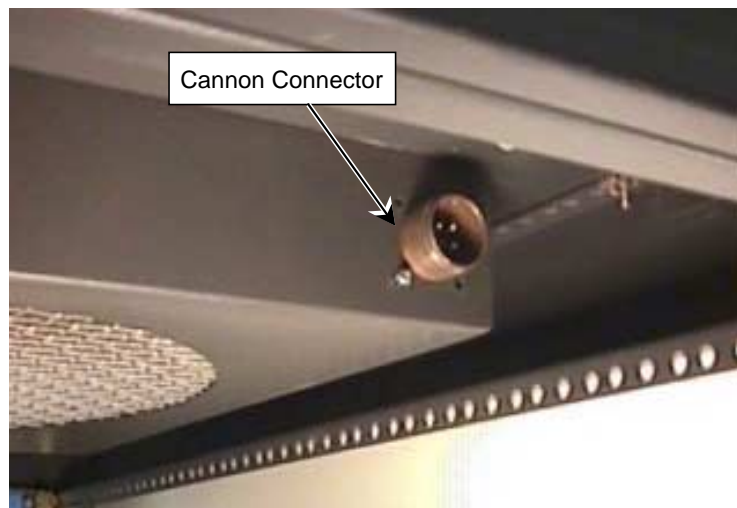
FAN ASSEMBLY SIDE PANEL INSTRUCTIONS
ILLUSTRATION 1-7

- 8. Using ladder to access top of fan assembly, lift the right side of the top grill and pull the left side out of the left side panel.
- 9. Remove the Fan Enclosure Top Grill.
- 10. Locate the cable that contains the power wires leading directly to the Fan Motor. This cable is terminated with a cannon connector. See Illustration 1-8.



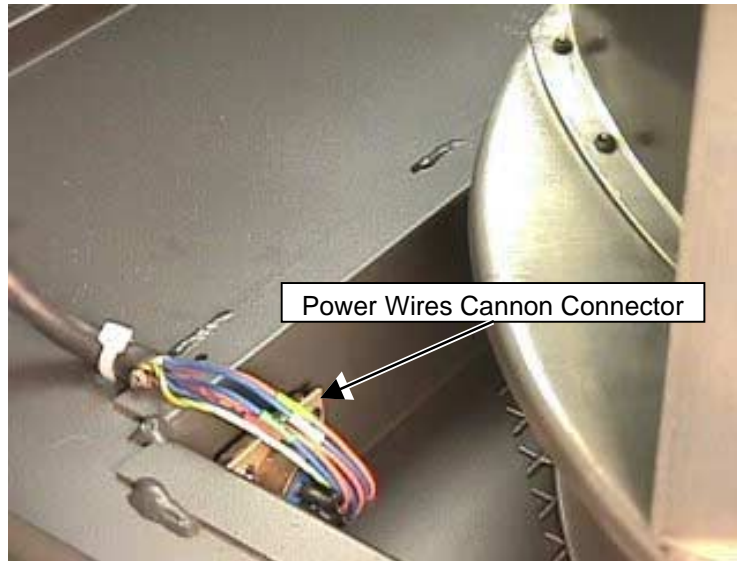
SGD CABINET FAN ENCLOSURE—INSIDE VIEW
ILLUSTRATION 1-8

- 11. Locate the cannon connector from the inside of the Fan Enclosure and remove the power cable. See Illustration 1-9.



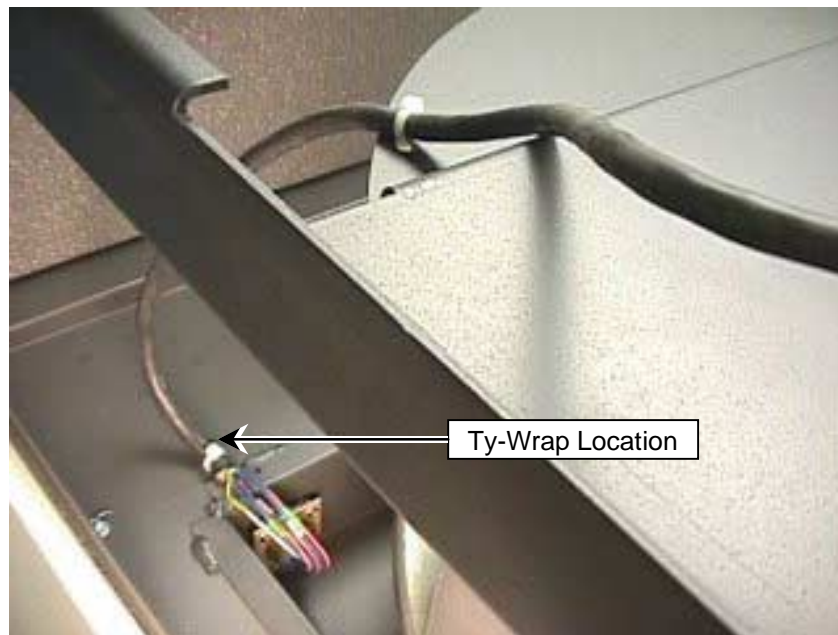
CANNON CONNECTOR LOCATION—REAR INSIDE VIEW OF CABINET
ILLUSTRATION 1-9

- 12. Remove 4 screws, using small phillips screwdriver, holding the connector in place. See Illustration 1-9.
- 13. Remove the fan cannon connector from inside the fan motor/blower assembly. See Illustration 1-10.



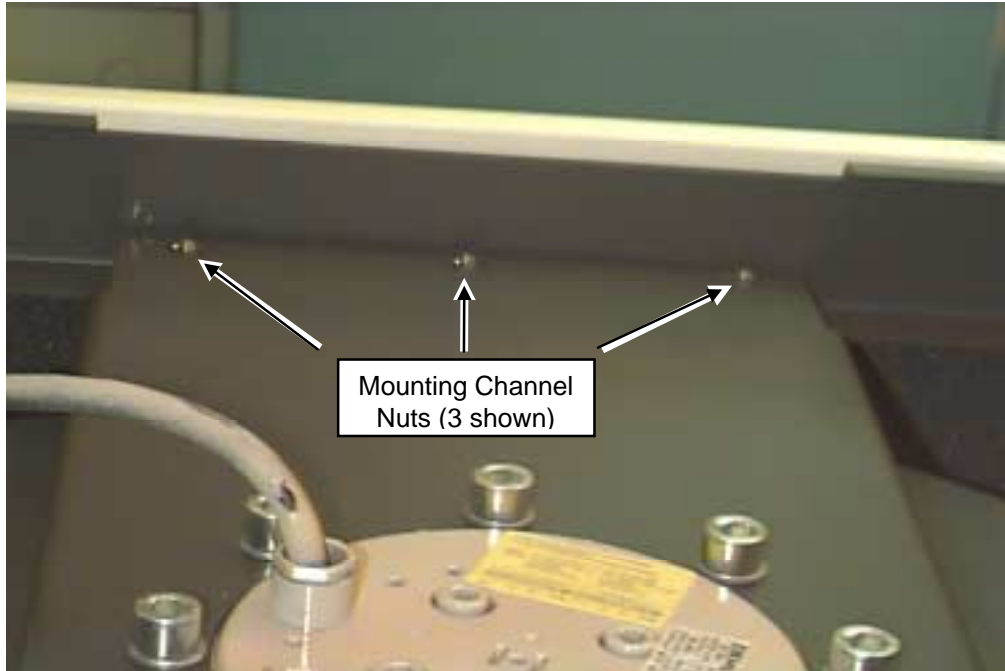
CANNON CONNECTOR LOCATION IN FAN ASSEMBLY
ILLUSTRATION 1-10

- 14. Cut Ty-wraps, see Illustration 1-11.



TY-WRAP LOCATIONS
ILLUSTRATION 1-11

15. Remove the six (6) 11/32" or 9mm hex nuts that secure the Fan Motor Mounting Channel to the Fan Enclosure. See Illustration 1-12.



SGD CABINET FAN MOTOR MOUNTING CHANNEL
ILLUSTRATION 1-12

CAUTION

Personal injury may occur. The fan motor/blower assembly has sharp edges, wear protective gloves to avoid injury when removing from the fan assembly box.

16. Use two people to grasp the Fan Motor Mounting bracket and lift it up and out of the Fan Enclosure.
17. Reverse the order of the above steps to install the fan replacement.

1-4 Functional Tests Required

Power up the SGD cabinet and verify the fan operates. The fan should create enough suction to hold the rear cabinet door closed.

REVISION HISTORY

REV	DATE	AUTHOR	PRIMARY REASONS FOR CHANGE
0	June 19, 2000	K.Keshena	Created procedure specifically for the AK & Associates Van.