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SGD HI SLEW FAN REPLACEMENT

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 & Tubine Only)	FRU # 2181131
2.	Ladder	
3.	2- Phillips-head screwdriver (Standard & small sizes)	
4.	11/32” or 9mm socket wrench	
5.	1 pair of Gloves	
6.	Ty-wrap cutters	
7.	1 Ty-wrap	

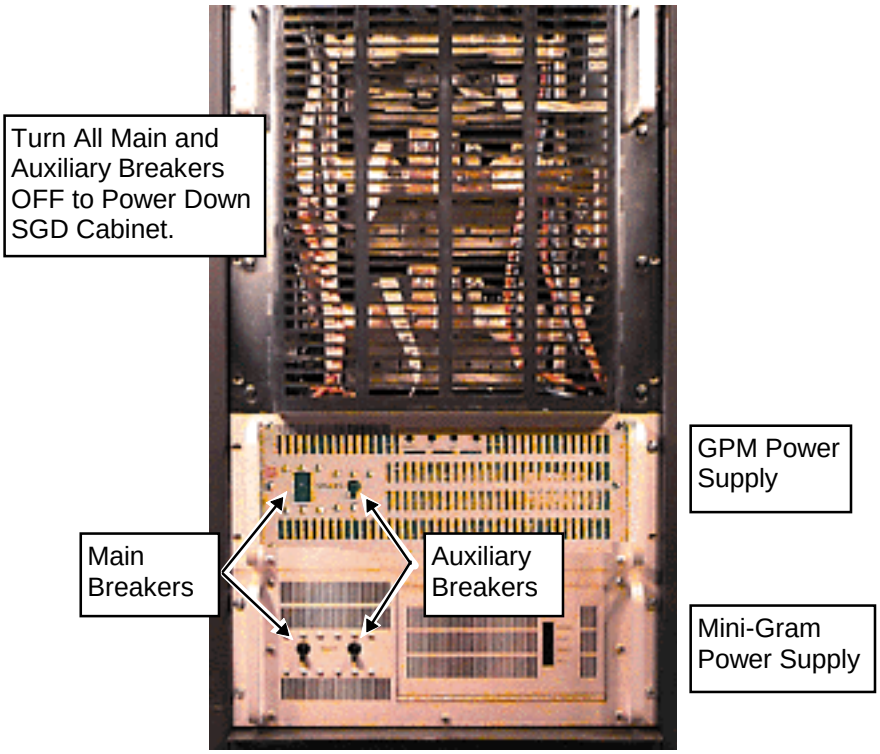
1-2 Preliminary Set Up Procedure

DANGER!!

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 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.

1-2 Preliminary Setup Procedure (Continued)



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

2. Turn off the SGD Cabinet Breaker at the Power Distribution Unit. Lock out the Breaker and tag it.

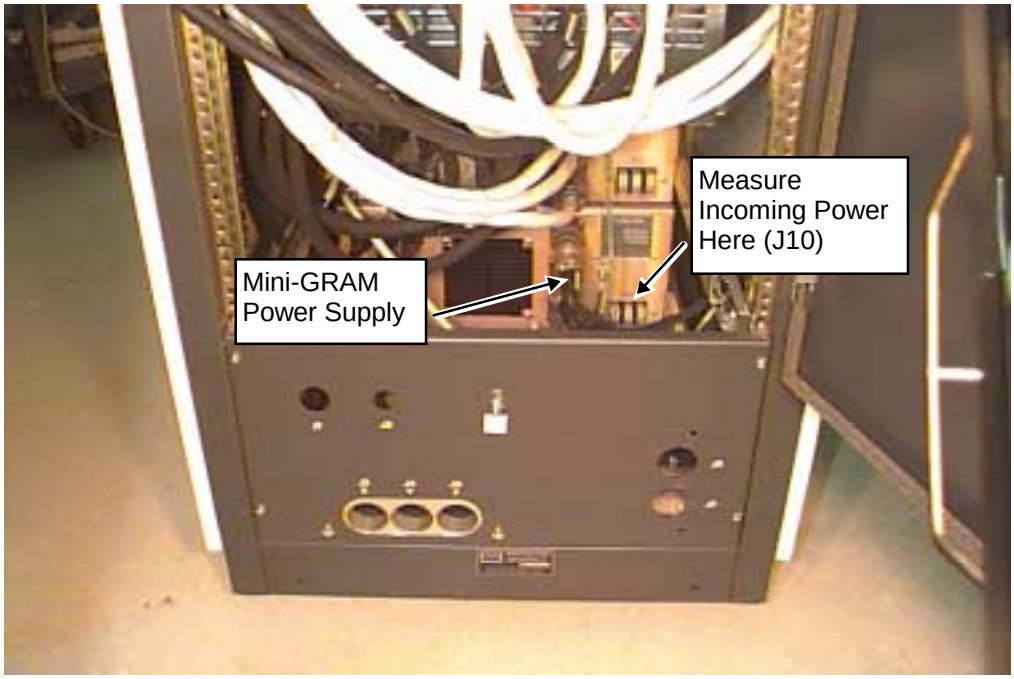
3. After power to the SGD Cabinet has been removed, take a Digital Multimeter and set it to its highest AC voltage range.

4. Verify that all energy has been dissipated. Measure incoming power to all components of the Scaleable Gradient Cabinet as directed in steps 5 and 6.

1-2 Preliminary Setup Procedure (continued)

5. Measure incoming power to the Mini-GRAM Power Supply as follows:

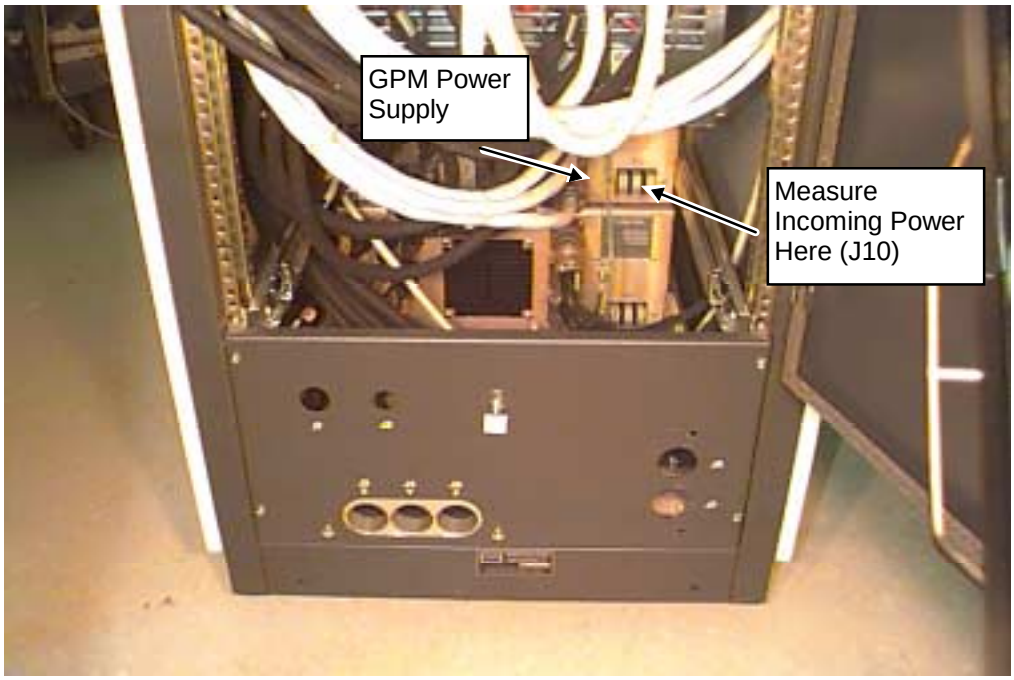
   - Place the reference probe (black) on the SGD Cabinet Ground.
   - Locate J10. This is the 208V, 3 Phase input to the Mini-GRAM Power Supply.
   - Measure voltage at each of three 208 Volt input terminals. The meter should read 0 Volts AC at each of the three measuring points. See Illustration 1-2.



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

1-2 Preliminary Setup Procedure (continued)

6. 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 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. Locate the Fan Enclosure at the top of the Scaleable Gradient Driver (SGD) cabinet. If working in the mobile environment, see Ellis & Watts (GD2REA2A.doc) or A.K & Associates (GD2REA2B.doc) procedure to remove fan motor/blower.

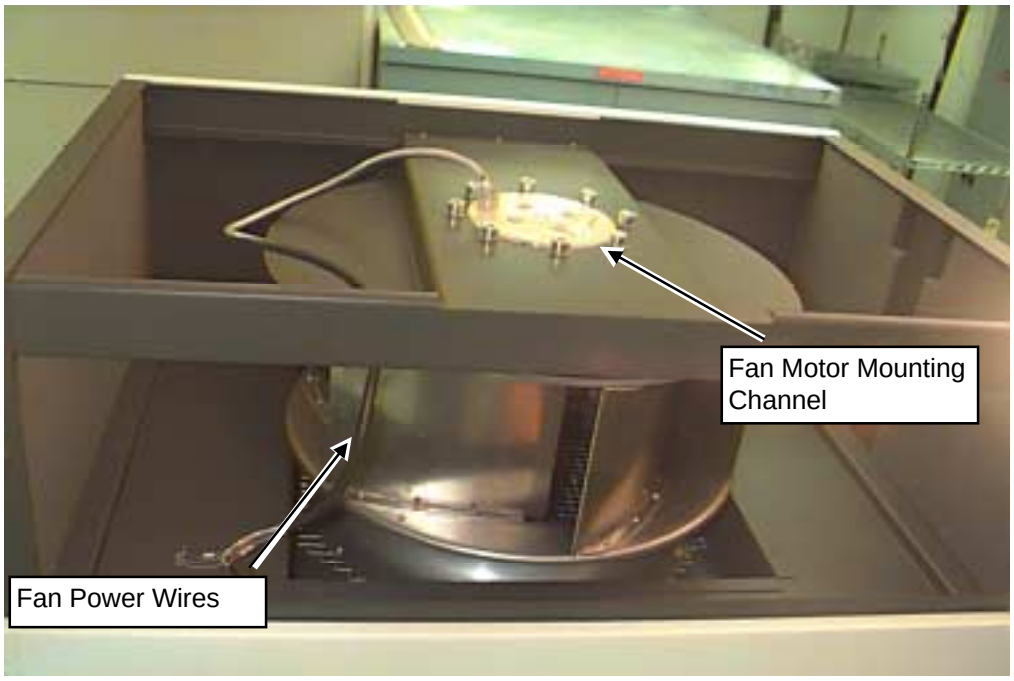
2. Remove two (2) phillips-head screws from each side panel.

3. Either tilt or remove the side covers to provide access to the top grill for removal.

4. Remove the Fan Enclosure Top Grill.

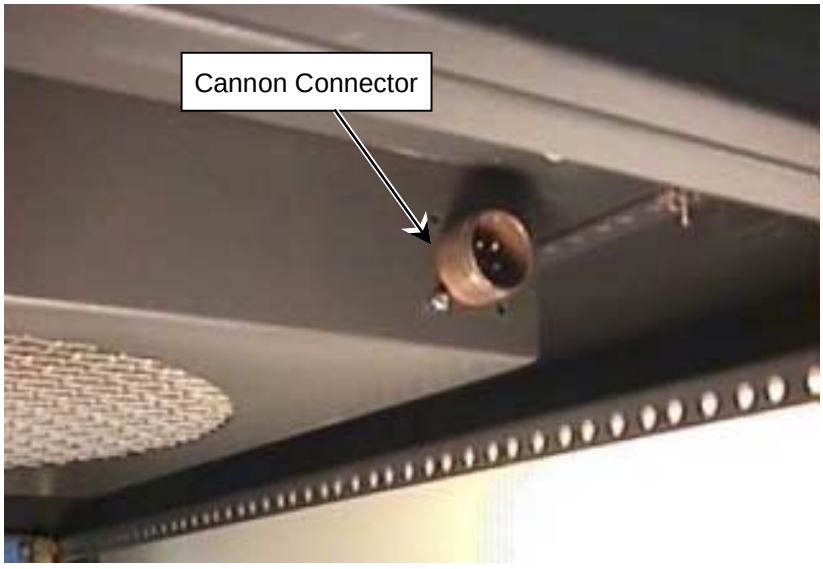
1-3 SGD Fan Motor Replacement Procedure (continued)

5. Locate the cable that contains the power wires leading directly to the Fan Motor. This cable is terminated with a cannon connector. See Illustration 1-4



SGD CABINET FAN ENCLOSURE—INSIDE VIEW
ILLUSTRATION 1-4

6. Locate the cannon connector from the inside of the Fan Enclosure. See Illustration 1-5.

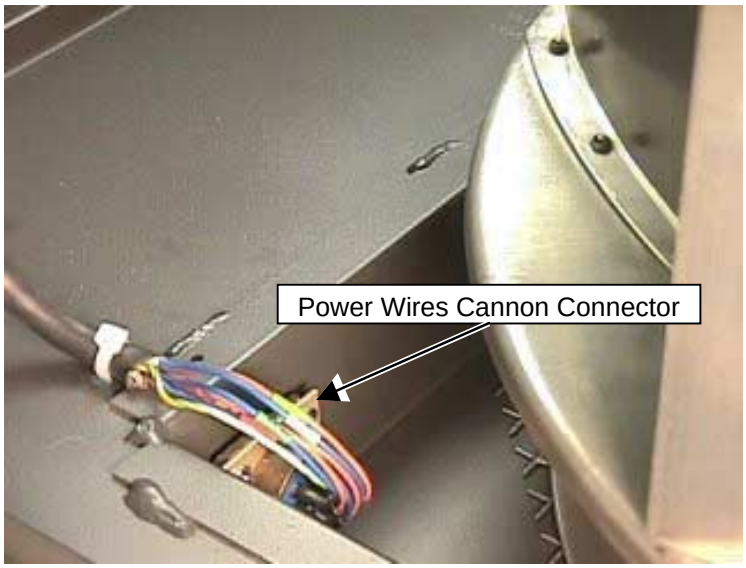


CANNON CONNECTOR LOCATION–REAR INSIDE VIEW OF CABINET
ILLUSTRATION 1-5

7. Remove 4 screws, using small phillips screwdriver, holding the connector in place. See Illustration 1-5.

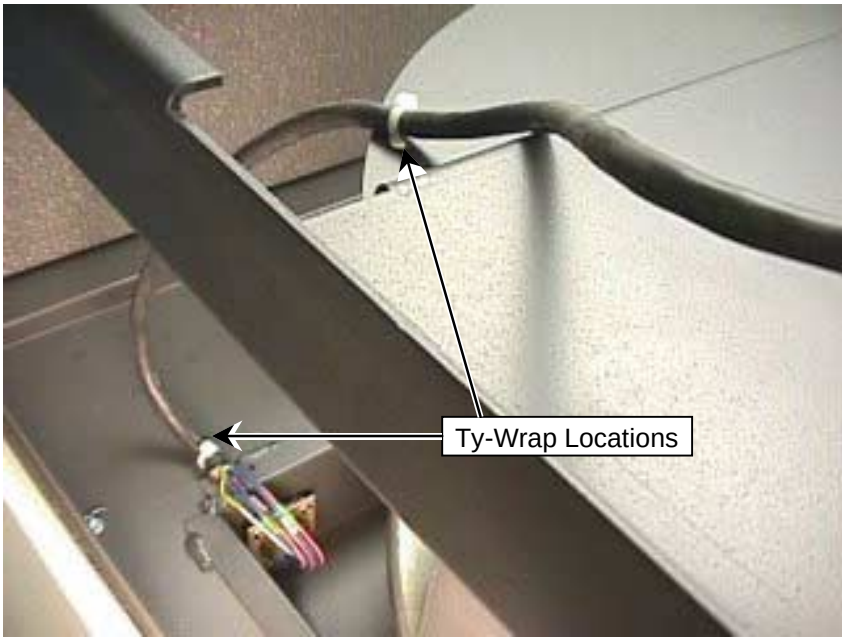
1-3 SGD Fan Motor Replacement Procedure (continued)

8. Remove the fan cannon connector from inside the fan motor/blower assembly. See Illustration 1-6.



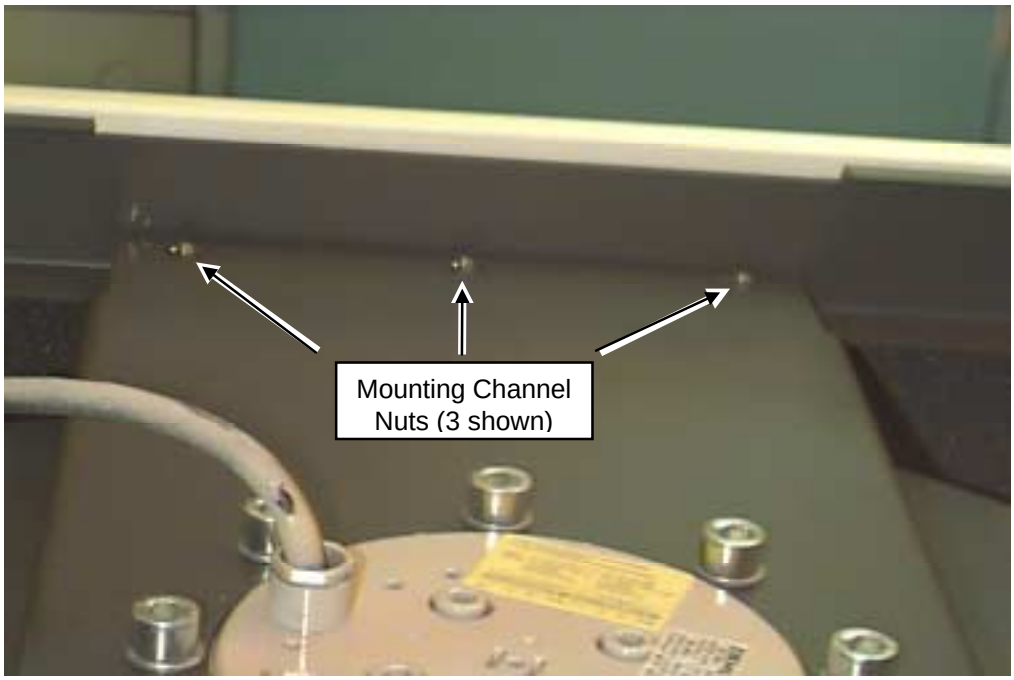
CANNON CONNECTOR LOCATION IN FAN ASSEMBLY
ILLUSTRATION 1-6

9. Cut Ty-wraps, see Illustration 1-7.



TY-WRAP LOCATIONS
ILLUSTRATION 1-7

10. Remove the six (6) 11/32” or 9mm hex nuts that secure the Fan Motor Mounting Channel to the Fan Enclosure. See Illustration 1-8.



SGD CABINET FAN MOTOR MOUNTING CHANNEL
ILLUSTRATION 1-8

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.

11. Use two people to grasp the Fan Motor Mounting bracket and lift it up and out of the Fan Enclosure.

12. 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
A	08/11/97	F. Fiore	Initial draft of document completed
B	09/06/97	F. Fiore	Enter original draft in MR template for Microsoft Word documents.
C	09/11/97	F. Fiore	Incorporate illustrations and call outs
0	10/03/97	F. Fiore	Initial release for SGD
1	06/1900	K.Keshena	Updated instructions to include additional tools and steps to remove side panels, reference to mobile specific procedures and power wire cannon connector.