

TABLE OF CONTENTS

TABLE OF CONTENTS	1
1- REPLACEMENT PROCEDURE	2
1-1 Tools and Instruments Required	2
1-2 Lock out Tag out the ACGD Lite Cabinet	2
1-3 ACGD Lite SGA Assembly Removal Procedure	5
1-4 SGA-Lite Assembly Replacement	18
1-5 Functional Checks Required	22
REVISION HISTORY	23

1- REPLACEMENT PROCEDURE

1-1 Tools and Instruments Required

Item	Description	Part Number
1.	SGA Assembly (weighs 120 lbs/60 kg)	FRU# 2363414
2.	Phillips-head screwdriver	
3.	Standard flat head screwdriver	
4.	Universal Lift Hoist Kit with ACGD Attachments	46-317266G4, G5 or G6
5.	Medium Crescent Wrench	
6.	Digital Multimeter with high voltage probes	

1-2 Lock out Tag out the ACGD Lite Cabinet



FATAL ELECTRIC SHOCK HAZARD!! POSSIBLE 800 VOLTS ON CAPACITORS. WAIT AT LEAST 5 MINUTES AFTER UNIT HAS BEEN TURNED OFF BEFORE SERVICING. 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*.

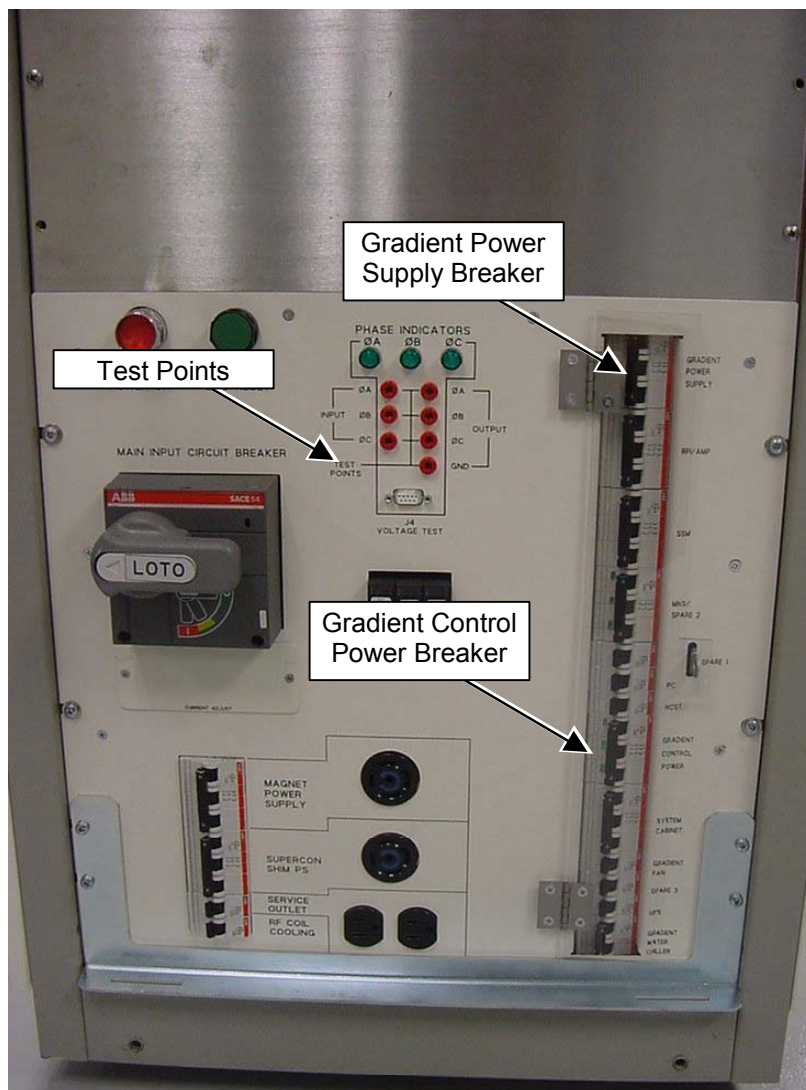
1-2 Lock out Tag out the ACGD Lite Cabinet (Continued)

1. Remove the ACGD Lite cabinet front cover.



FATAL ELECTRIC SHOCK HAZARD!! THE SGA MODULES ARE DUAL POWER SOURCED. BOTH THE GRADIENT POWER SUPPLY BREAKER AND THE GRADIENT CONTROL BREAKER MUST BE PLACED IN THE OFF POSITION BEFORE SERVICING THE SGA MODULES.

2. Power down the ACGD Lite cabinet by turning off the Gradient Control Power and the Gradient Power Supply on the Front Panel of the PDU. See Illustration 1-1.



**ACGD LITE CABINET—PDU (FRONT COVER REMOVED)
ILLUSTRATION 1-1**

1-2 Lock out Tag out the ACGD Lite Cabinet (Continued)

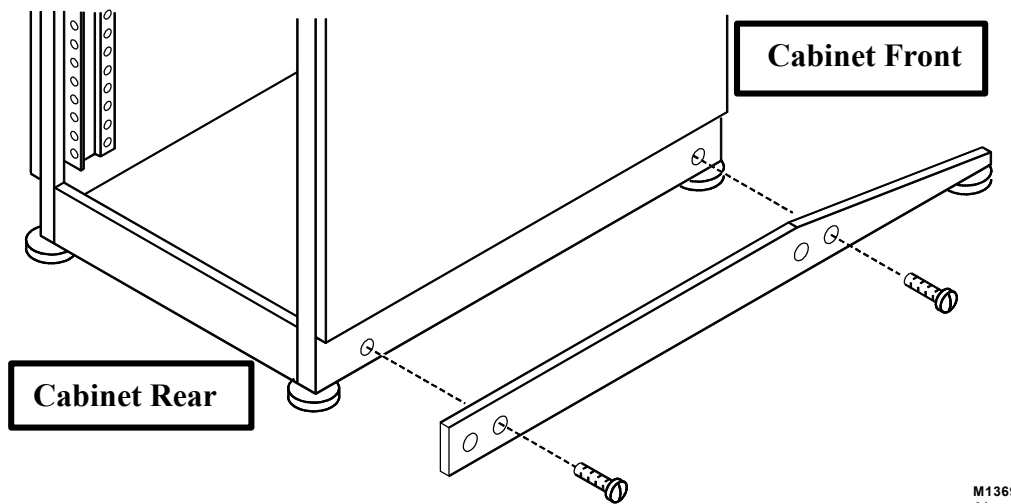
2. Lock out the breaker panel and tag it.
3. After power to the ACGD Cabinet has been removed, take a Digital Multimeter and set it to its highest AC voltage range.
4. Verify that all energy has been dissipated. Measure power at the test points on the front of the PDU. See Illustration 1-1 for test point locations.

1-3 ACGD Lite SGA Assembly Removal Procedure



CABINET TIP HAZARD! POSSIBLE PERSONAL INJURY! CONFIRM THAT THE ALUMINUM ANTI-TIP LEGS STORED IN THE REAR OF THE CABINET ARE INSTALLED ON EITHER SIDE OF THE BASE OF THE CABINET BEFORE ATTEMPTING TO REMOVE AN SGA LITE.

1. Using the screws included with the anti-tip legs, secure the aluminum anti-tip legs to the threaded holes on each side of the base of the ACGD Lite Cabinet. See Illustration 1-2.



INSTALLING ANTI-TIP LEGS ON SIDES OF CABINET
ILLUSTRATION 1-2

2. Remove the rear cover from the ACGD Lite cabinet.



PERSONAL INJURY OR PROPERTY DAMAGE. THE ACGD SGA LITE MODULE WEIGHS 120 LBS~60 KG. THE UNIVERSAL HOIST KIT IS REQUIRED TO REMOVE/REPLACE THE MODULE FROM THE CABINET.

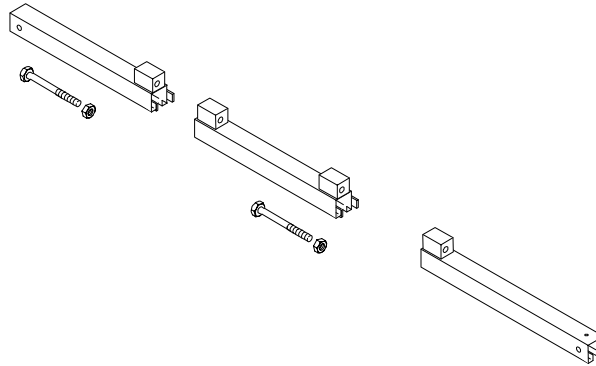
3. Locate and open the Universal Lift Hoist Kit.

Note

The Universal Lift Hoist is assembled from parts stored in the Universal Lift Hoist Kit. Lift brackets specially designed for the SGA-Lite are located in the FRU Case of the replacement module.

1-3 ACGD Lite SGA Assembly Removal Procedure (Continued)

4. Locate the three (3) large Steel Rail sections and place them on a flat surface for assembly.
See Illustration 1-3.

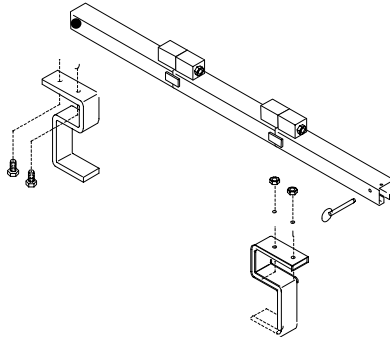


STEEL RAIL SECTIONS, HEX BOLTS, AND HEX NUTS
ILLUSTRATION 1-3

5. Arrange the rail sections in the proper order (rear, center, then front) and fasten them together with 4.75" X 1/2" caps crews and hex nuts.
6. Use the crescent wrenches to tighten the cap screws.

1-3 ACGD Lite SGA Assembly Removal Procedure (Continued)

7. Assemble and fasten the elevating brackets to the rail assembly. See Illustration 1-4.



HOIST TOP RAIL PARTS WITH ELEVATING BRACKETS
ILLUSTRATION 1-4

8. Center the Steel Rail and elevating bracket assembly at the top of ACGD Lite Cabinet, so the hoist assembly will face the front of the cabinet. See Illustration 1-5.



HOIST INSTALLED ON ACGD LITE CABINET
ILLUSTRATION 1-5

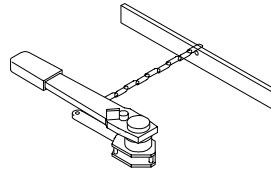
9. Tighten the bolts on the Steel Rail to secure it to the top of the cabinet.

1-3 ACGD Lite SGA Assembly Removal Procedure (Continued)



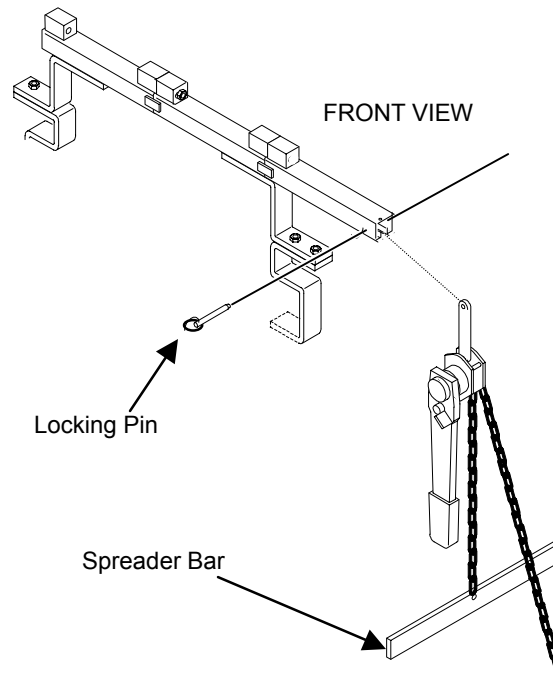
POSSIBLE PERSONAL AND/OR PROPERTY DAMAGE! VERIFY THAT ALL HARDWARE IS SECURELY FASTENED; ALL BOLTS AND NUTS MUST BE TIGHT PRIOR TO ATTACHING THE HOIST ASSEMBLY TO THE LIFT KIT.

10. Locate the Hoist Assembly in the Lift Kit. See Illustration 1-6.



HOIST ASSEMBLY
ILLUSTRATION 1-6

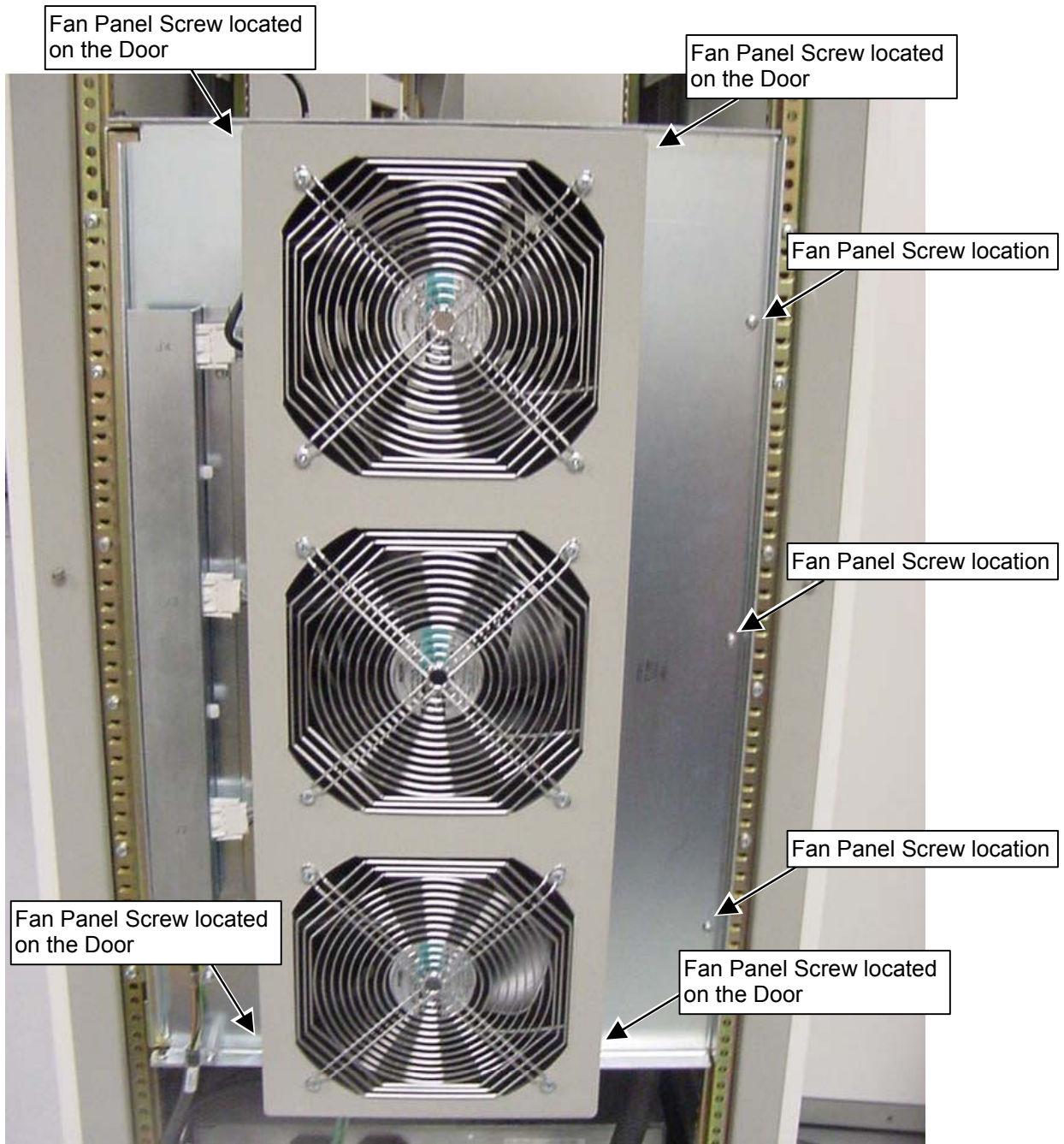
11. Insert the Hoist Assembly into the open end of the front rail. Insert a locking pin into the holes near the front edge of the front rail. This locking pin prevents the Hoist Assembly from sliding out of the rails. See Illustration 1-7.



PLACEMENT OF HOIST ASSEMBLY INTO FRONT END OF STEEL RAIL ASSEMBLY
ILLUSTRATION 1-7

1-3 ACGD Lite SGA Assembly Removal Procedure (Continued)

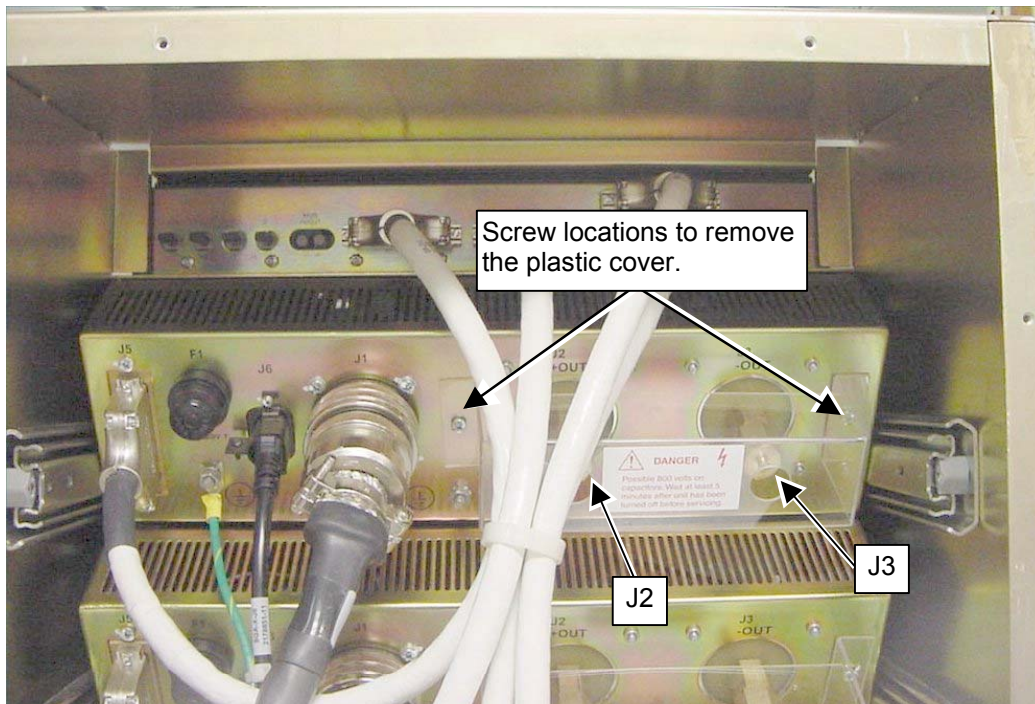
12. Remove the 7 (seven) screws on the Fan panel. See Illustration 1-8.



LOCATION OF SCREWS TO OPEN FAN PANEL
ILLUSTRATION 1-8

1-3 ACGD Lite SGA Assembly Removal Procedure (continued)

13. Remove two (2) Phillips-head screws that secure the clear plastic shields covering the high voltage cables at the rear of the SG-Lite Assembly. See Illustration 1-9.

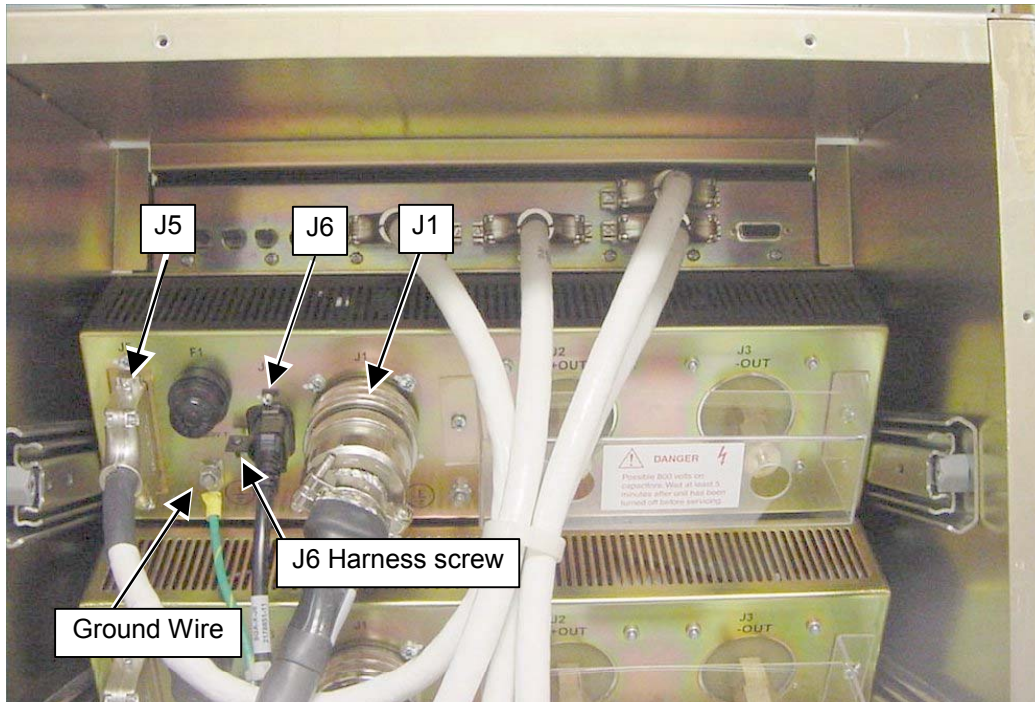


SCREW LOCATIONS FOR REMOVING PLASTIC COVER
ILLUSTRATION 1-9

14. Use a medium crescent wrench to loosen and remove the brass colored 6/8" hex bolts. The two far right bolts have a knob for the attachment of meter probes. See Illustration 1-3 for the J2 & J3 connections.
15. Remove the two (2) SGA cables (J2 & J3). Replace the brass colored bolts to avoid misplacing them. See Illustration 1-9.

1-3 ACGD Lite SGA Assembly Removal Procedure (continued)

16. Remove the J5 data connection and the J1 military connector from the rear of the SGA. See Illustration 1-10 for J connection locations.

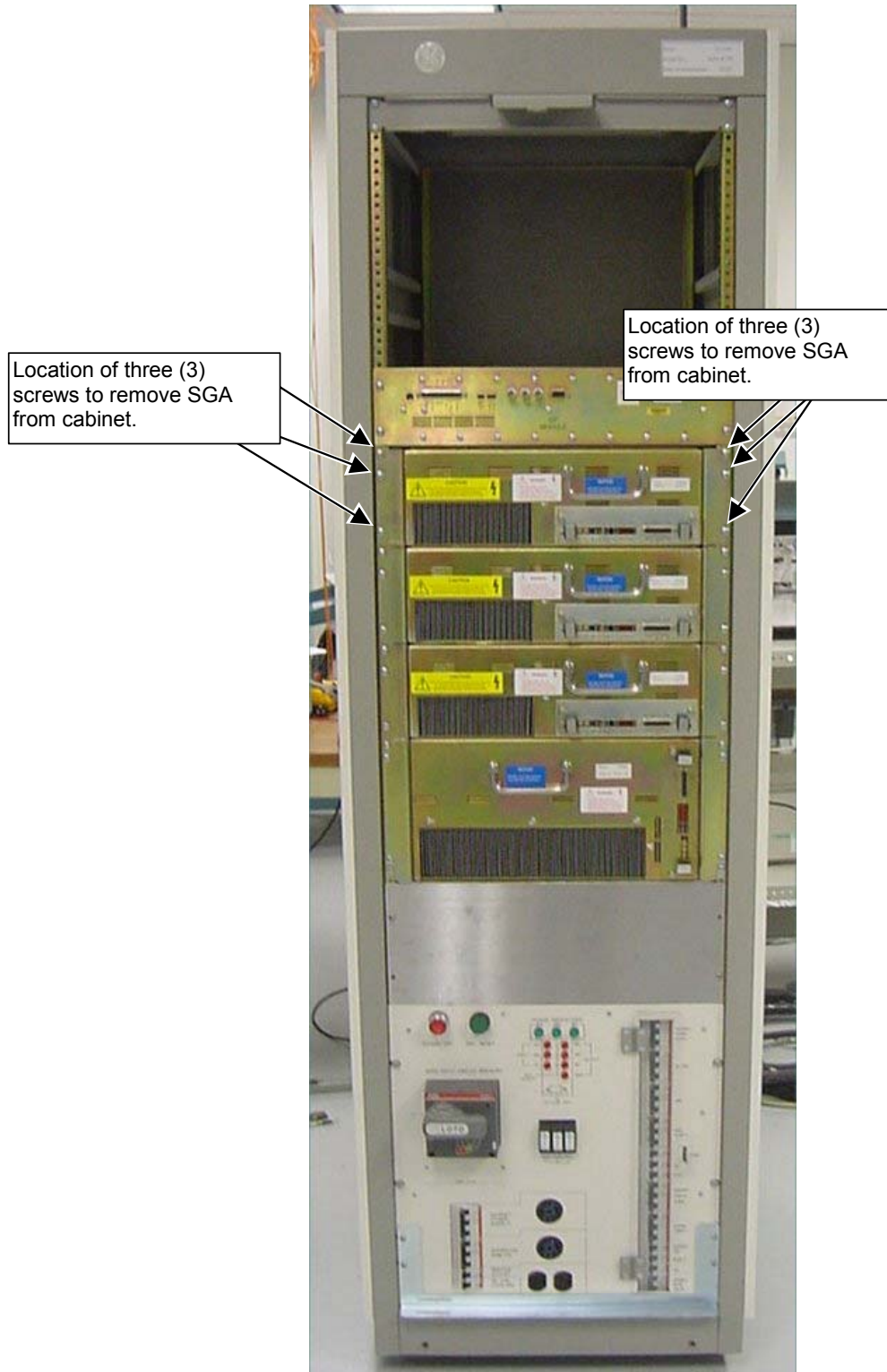


J CONNECTION LOCATION
ILLUSTRATION 1-10

17. Remove the AC power cord (J6) by loosening the screw on the side of the harness as shown in Illustration 1-10.
18. Remove Ground Wire. See Illustration 1-10 for location.

1-3 ACGD Lite SGA Assembly Removal Procedure (continued)

- 19. Remove the six (6) Phillips-head screws and washers from the SGA front panel, which secure the SGA to the ACGD Lite cabinet. See Illustration 1-11.



SCREWS ON SGA FRONT PANEL
ILLUSTRATION 1-11

1-3 ACGD Lite SGA Assembly Removal Procedure (continued)

20. Carefully pull out the ACGD Lite SGA on its slide and allow the catch to engage.
21. Attach the Hoist Brackets from the FRU case onto the spreader bar (one on each side). See Illustration 1-12. Brackets have captive screws, which attach the brackets to the SGA-Lite Module.



Left side of SGA Lite

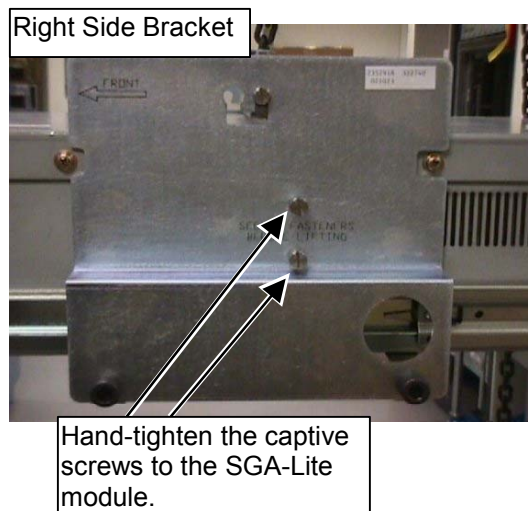
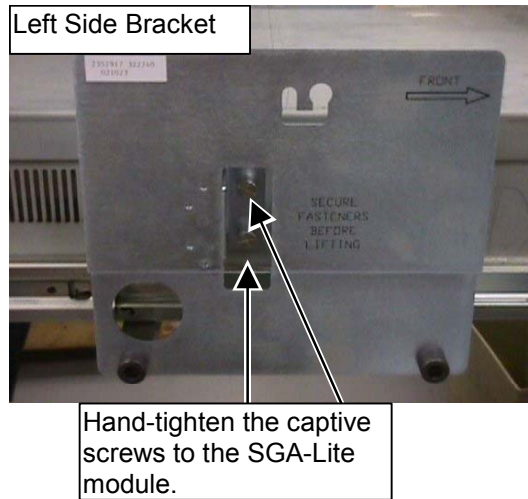


Right side of SGA Lite

SGA- LITE WITH HOIST BRACKETS ATTACHED TO SPREADER BAR
ILLUSTRATION 1-12

1-3 ACGD Lite SGA Assembly Removal Procedure (continued)

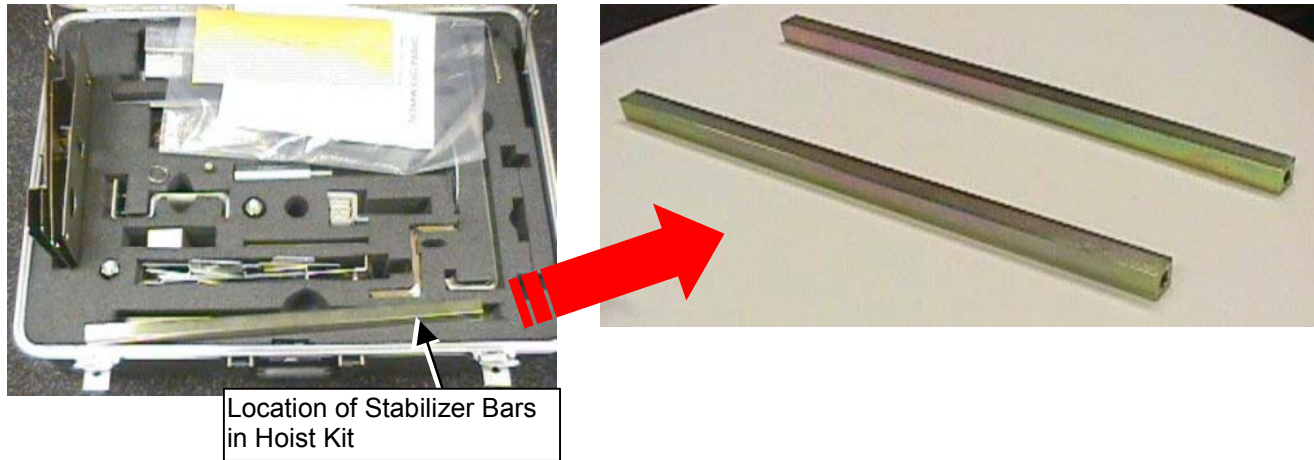
22. Secure the lift bracket to the module by tightening the captive screws. See Illustration 1-13.



ATTACHING THE HOIST BRACKET TO THE SGA- LITE
ILLUSTRATION 1-13

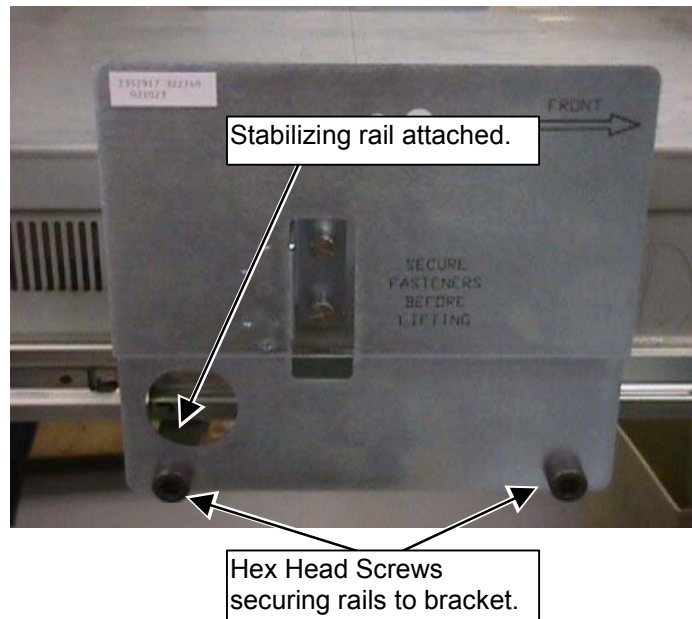
1-3 ACGD Lite SGA Assembly Removal Procedure (continued)

23. Locate the stabilizing rails in the Hoist Kit. See Illustration 1-14.



LOCATION OF STABILIZER BARS IN HOIST KIT
ILLUSTRATION 1-14

24. Place the stabilizing rails under the SGA- Lite module and secure to the Hoist Brackets using the four (4) Hex head screws. See Illustration 1-15.

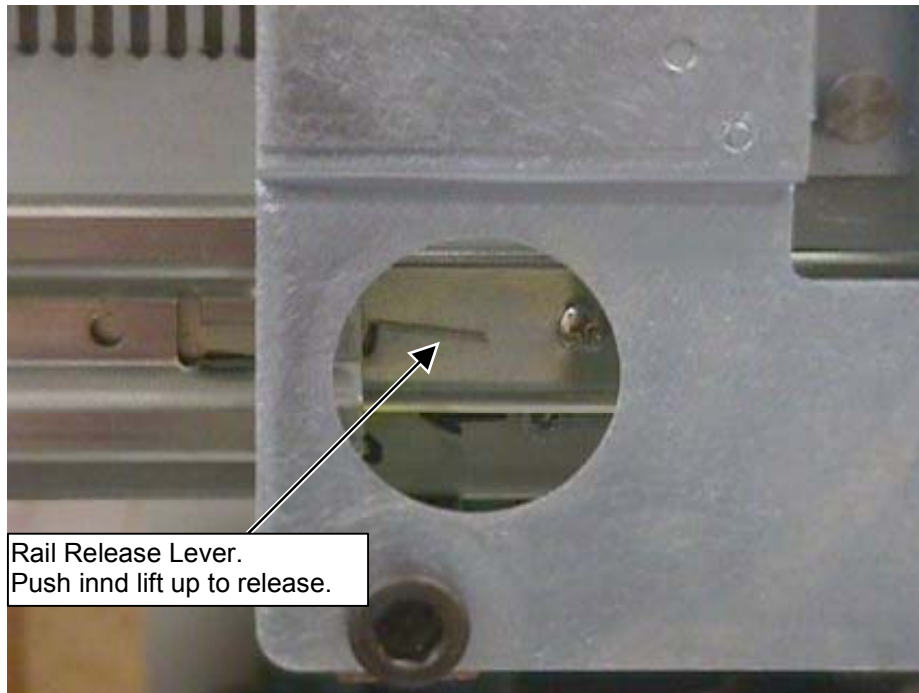


STABILIZING RAILS ATTACHED TO HOIST BRACKETS
ILLUSTRATION 1-15

25. Tighten the captive screws on the hoist brackets to the module with a flat head screw driver.

1-3 ACGD Lite SGA Assembly Removal Procedure (continued)

26. Push the rail lever in the UP position on both sides of the module. See Illustration 1-16 for location of lever.



RAIL LEVER LOCATION
ILLUSTRATION 1-16

27. Slide the module out and remove it from the rail that attaches it to the cabinet.

1-3 ACGD Lite SGA Assembly Removal Procedure (continued)

28. All weight of the module is now supported by the Hoist; turn the module so when lowering the module to the FRU Case base the module is in the correct orientation. See Illustration 1-17.



TURNING MODULE TO THE SIDE TO LOWER FROM CABINET
ILLUSTRATION 1-17

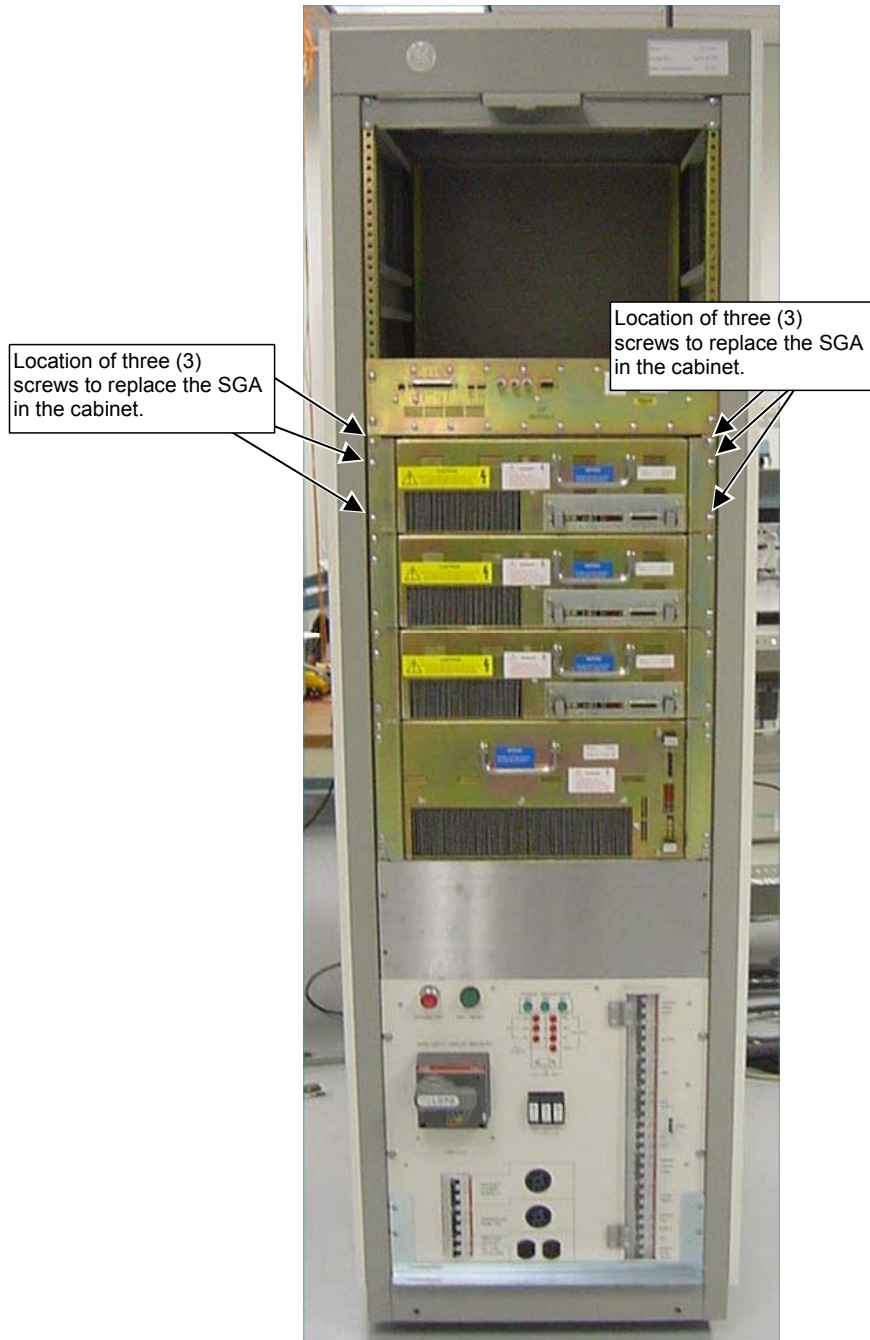
29. Remove stabilizer bars and hoist brackets from module.
30. Remove rails from module.
31. Move failed module on FRU case base so replacement module can be place at foot of cabinet.

1-4 SGA-Lite Assembly Replacement

1. Install the rails on the replacement SGA-Lite.
2. Connect the Hoist Brackets to the replacement SGA-Lite.
3. Connect the spreader bar of the hoist to the Hoist Brackets.
4. Install the stabilizer bars. Space has been provided for the stabilizer bars to be slid under the SGA-Lite module while sitting on the FRU case base.
5. Tighten the captive screws with a flat head screw driver.
6. Raise the replacement SGA-Lite module to line up with the slides from where the failed module was taken.
7. Turn the module to insert rails into slides.
8. Lock the rails into the slides.
9. Push the SGA assembly all the way into the cabinet.

1-4 SGA-Lite Assembly Replacement (Continued)

- Secure the assembly to the front panel by replacing the six (6) Phillips-head screws and washers from the SGA front panel. See Illustration 1-18.



SCREWS ON SGA FRONT PANEL
ILLUSTRATION 1-18

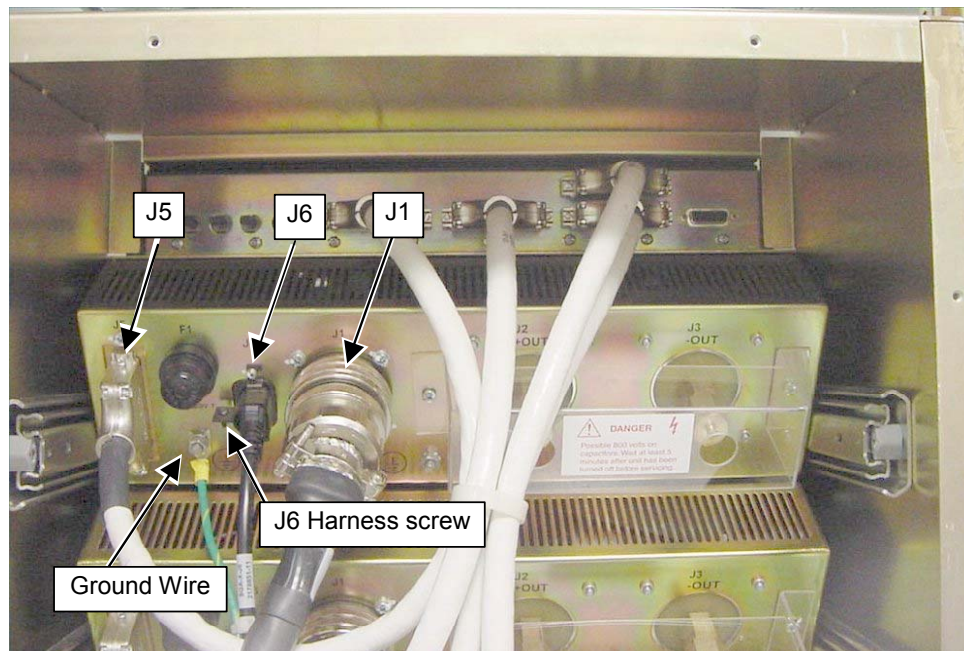
1-4 SGA-Lite Assembly Replacement (Continued)

11. Replace the AC power cord (J6) and secure by tightening the screw on the side of the harness as shown in Illustration 1-19.



SECURING AC POWER CORD
ILLUSTRATION 1-19

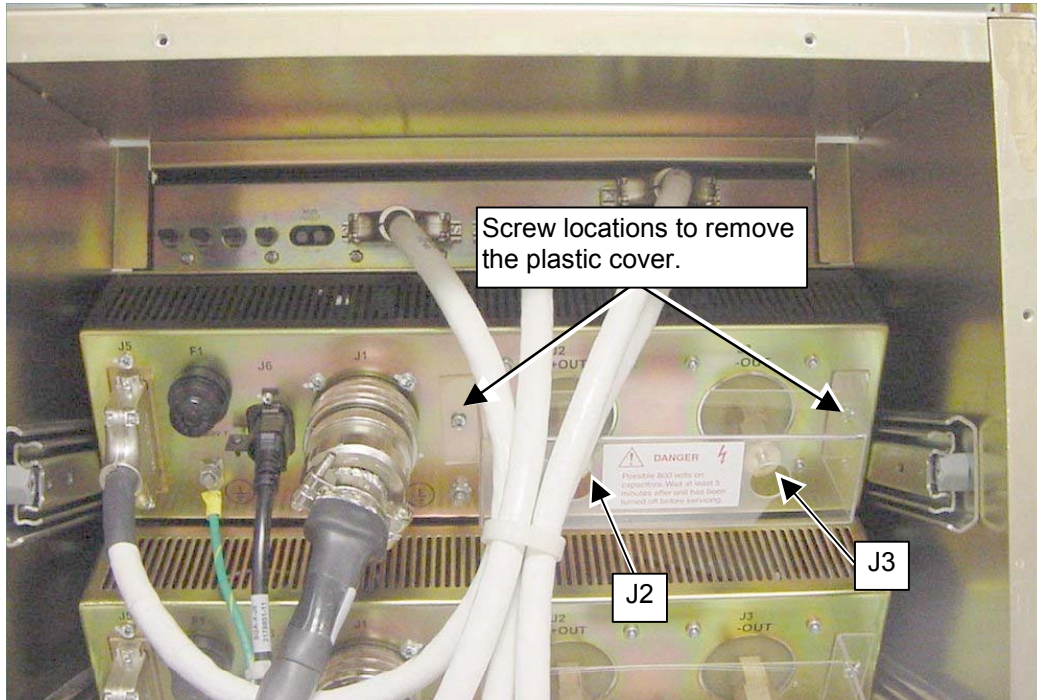
12. Replace the J5 data connection and the J1 military connector to the rear of the SGA. See Illustration 1-20 for J connection locations.



J CONNECTION LOCATION
ILLUSTRATION 1-20

1-4 SGA-Lite Assembly Replacement (Continued)

13. Replace the Ground Wire. See Illustration 1-20 for location.
14. Replace the clear plastic shields covering the high voltage cables at the rear of the SGA Assembly and secure with two (2) Phillips-head screws. See Illustration 1-21.



SCREW LOCATIONS FOR REMOVING PLASTIC COVER
ILLUSTRATION 1-21

15. Remove the power lock out tag out to the ACGD Lite Cabinet and restore power.

1-5 Functional Checks Required

1. Check Digital DC offsets with procedure for DC Offsets Adjustment.
 - A. Select [**Diagnostics**] from the Service Desktop and select [**Start**].
 - B. Select [**IPG**], [**Manual**], [**Digital DC Offset**], then [**Close**].
 - C. Click [**Close**] on the *IPG*_window. Select [**Run Diagnostics**] ←TPS should download and you should observe the words “DC OFFSET” on IPG boards with a display.
 - D. When one pass of diagnostics is complete (3-4 min) exit Diagnostics by closing the *Results* window, then selecting [**Quit**] on the *Diagnostics* window. TPS will download.
 - E. The calibration values are stored in the */usr/g/caldir/gram_tune.dat*. file. (DO NOT touch the offset pots on the SGA).
2. Check gradient calibration using procedure for Gradient Calibration (DQA Version) or alternate proprietary procedure for SPT Quick Head Check; calibrate if necessary.

REVISION HISTORY

REV	DATE	AUTHOR	PRIMARY REASONS FOR CHANGE
A	May 1, 2003	K. Keshena	Preliminary version.
0	August 15, 2003	K.Keshena	Initial Release.