TABLE OF CONTENTS

GIP REPLACEMENT

1- REPLACEMENT PROCEDURE

Note

Download time can be up to 10 minutes on a replacement GIP module. If the software loaded on the Signa system does not match the firmware loaded on the GIP Board received as a replacement, there will be a **one-time** lengthy download of current firmware to the GIP. During this download the IPG will read "GIP Load". Please be patient.

1-1 Tools and Instruments Required

Item	Description	Part Number
1.	Gradient Interface Processor (GIP) Assembly	FRU# 2169941-2
2.	Phillips-head screwdriver	
3.	Flat Blade screwdriver	

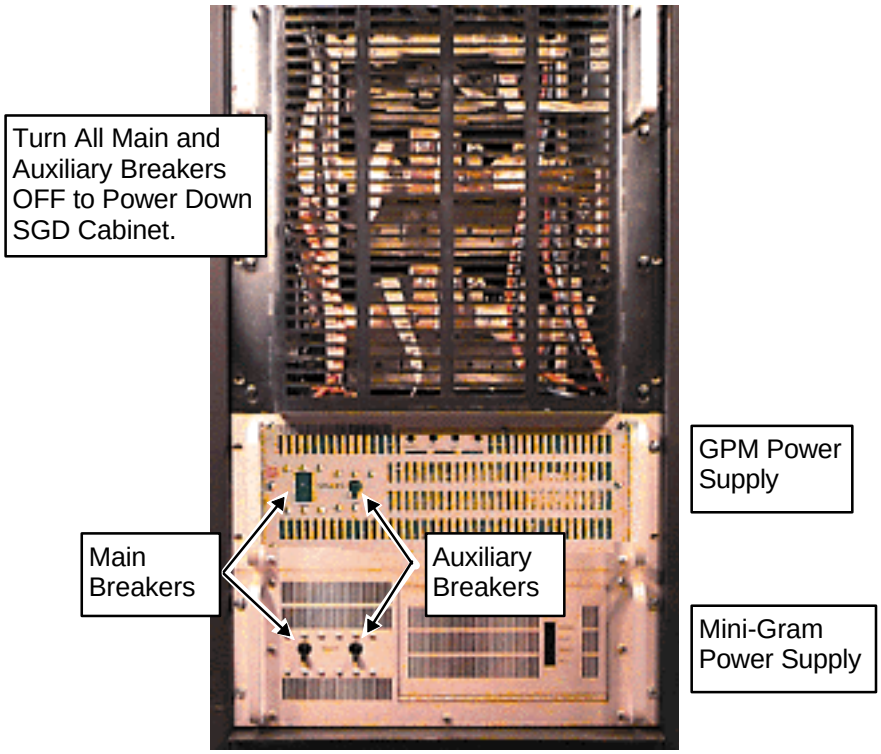
1-2 Preliminary Set Up Procedure

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 29 CFR 1910.147. DO THIS BY SECURING THE PDU CIRCUIT BREAKER FOR THE SCALEABLE GRADIENT CABINET.

1-2 Preliminary Setup Procedure (Continued)

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.



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.

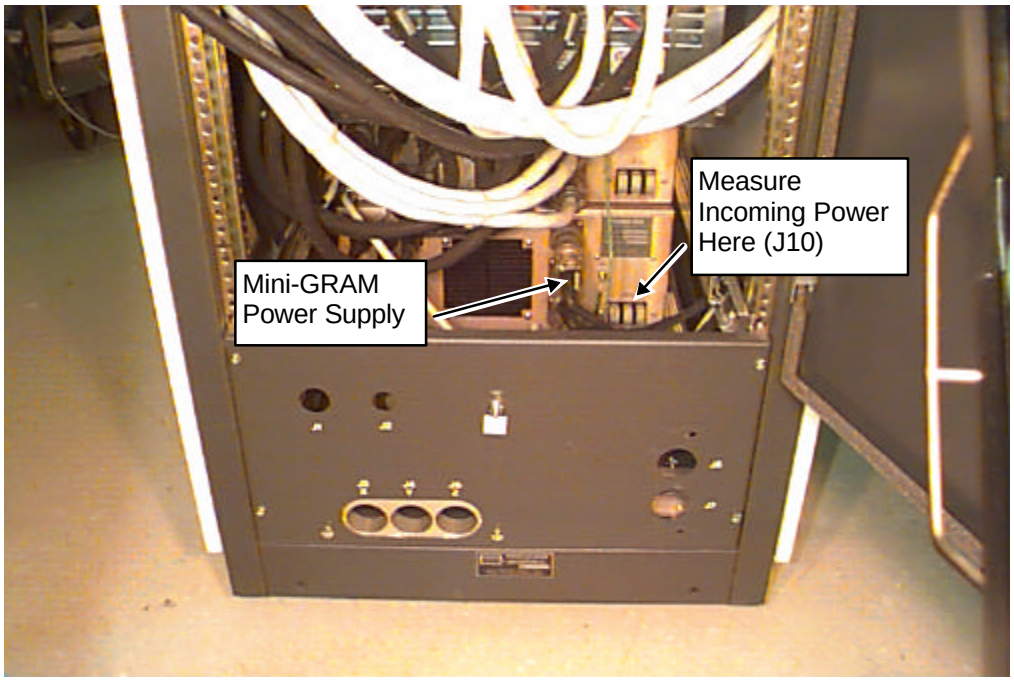
3. After power to the SGD Cabinet has had sufficient time to dissipate, take a Digital Multimeter and set it to its highest AC voltage range.

4. Verify that all energy has been dissipated by measuring incoming power to all components of the Scaleable Gradient Cabinet by following 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.

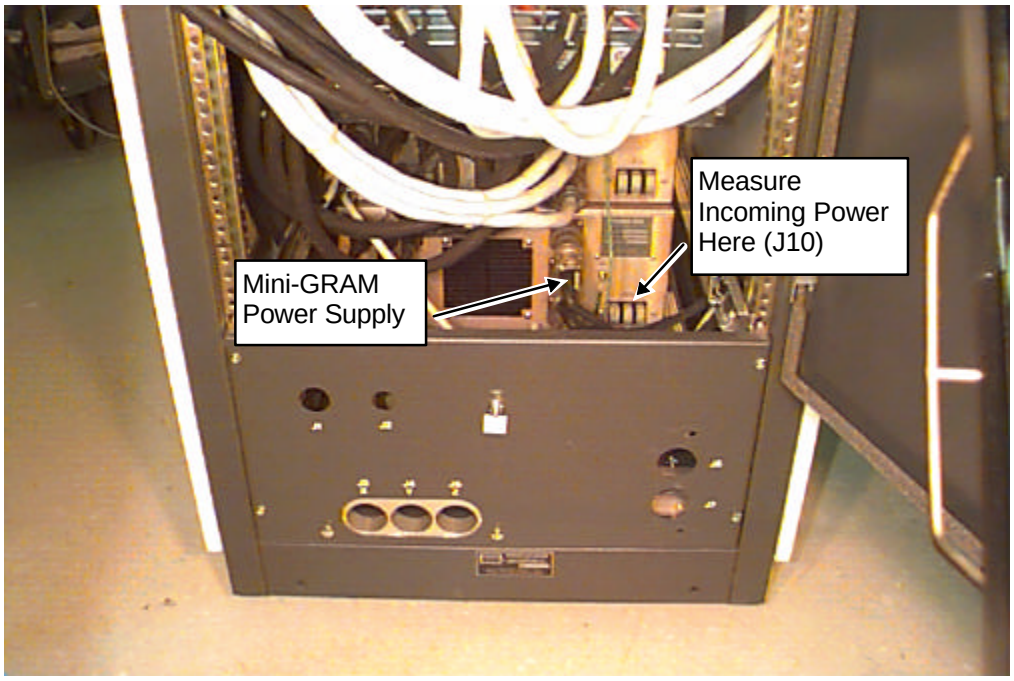


SGD CABINET—REAR VIEW: INCOMING POWER MEASUREMENT LOCATIONS
ILLUSTRATION 1-2

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.



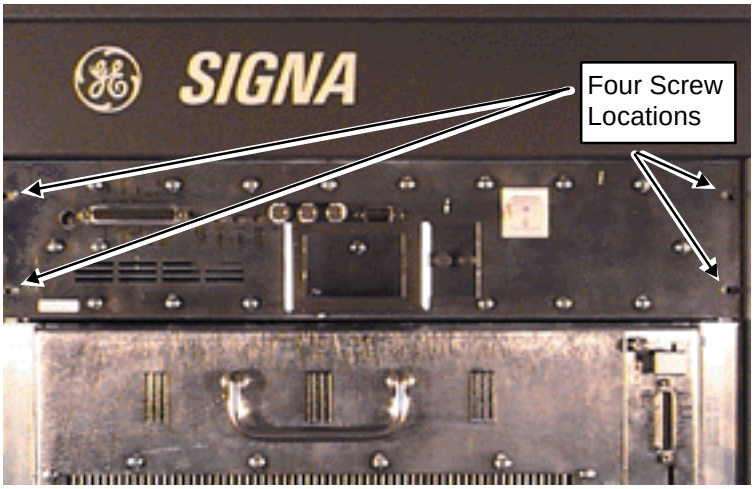
SGD CABINET—REAR VIEW: INCOMING POWER MEASUREMENT LOCATIONS
ILLUSTRATION 1-3

CAUTION

Once the panel screws and rear cables are removed, the GIP module is no longer secured to the cabinet. It can fall out and cause impact injuries and property damage. Leave at least one securing screw in place if you leave the work area.

1-3 Replacement Procedure Steps

1. Remove the Front Cover from the SGD Cabinet.
2. Disconnect all cables from the rear of the GIP module.
3. Remove four (4) Phillips head screws from the outer corners of the GIP front panel. See Illustration 1-4.



SGD GIP ASSEMBLY SHOWING SCREW LOCATIONS
ILLUSTRATION 1-4

4. Pull out the GIP module just far enough to reach in behind the front panel. Reach in to disconnect the AC cord to the module.
5. Remove the module completely from the cabinet.
6. Reverse the above steps to install the GIP module.

1-4 Functional Checks Required

Note

Download time can be up to 10 minutes on a replacement GIP module. If the software loaded on the Signa system does not match the firmware loaded on the GIP Board received as a replacement, there will be a **one-time** lengthy download of current firmware to the GIP. During this download the IPG will read “GIP Load”. Please be patient.

1. Run the procedure *SetUp & Calibration: GRAM Tuning - Release 8.1 with SGD*.
2. Check gradient calibration using procedure *SetUp & Calibration: Gradient Calibration (DQA Version)* or alternate proprietary procedure *SetUp & Calibration: SPT Quick Head Check*. Calibrate if necessary.
3. Check shim using procedure *Functional Checks: LVshim Check*. Shim if necessary.

REVISION HISTORY

REV	DATE	AUTHOR	PRIMARY REASONS FOR CHANGE
A	Aug 11, 1997 Sep 6, 1997	F. Fiore F. Fiore	Initial draft of document completed Enter original draft in MR template for Microsoft Word documents.
B	Sep 23, 1997	F. Fiore	Add Lock out Tag out
0	Oct 3 1997	F. Fiore	Initial release for SGD
1	Apr 7, 1998	J. Wolak	Fixed some Functional Checks references