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GP REPLACEMENT

1- REPLACEMENT PROCEDURE

Note

Download time can be up to 10 minutes on a replacement GP module. If the software loaded on the Signa system does not match the firmware loaded on the replacement GP Board, there will be a **one-time** lengthy download of current firmware to the GP. This will happen either after the first boot or after the first TPS Reset following GP Module replacement. During this download the IPG will read “GP Load” and the Heartbeat LED on the front of the GP Module will remain dark and not flash. Please be patient during this time.

1-1 Tools and Instruments Required

Item	Description	Part Number
1.	Gradient Processor (GP) Assembly	FRU# 2248992-2
2.	Phillips-head screwdriver	
3.	Flat Blade screwdriver	

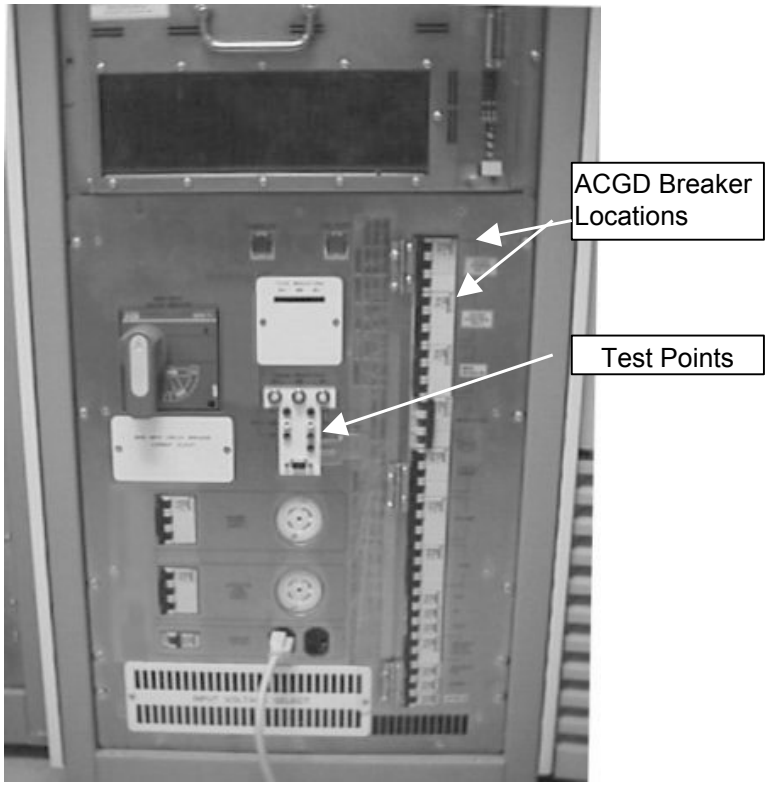
1-2 Preliminary Set Up Procedure

DANGER!!

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 Preliminary Setup Procedure (Continued)

1. Power down the ACGD Cabinet by turning off the ACGD 208V Control Power and the ACGD 420 V Power on the Front Panel of the PDU. See Illustration 1-1.



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

2. Lock out the breaker panel and tag it.

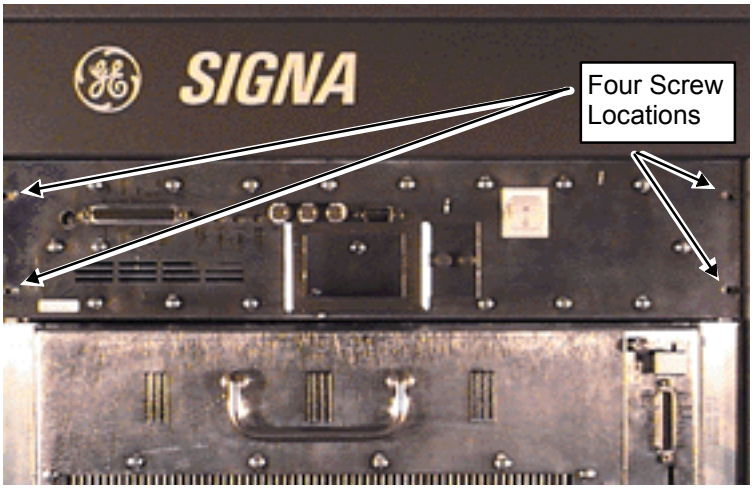
3. After power to the ACGD Cabinet has been removed, take a Digital Multimeter and set it to its highest AC voltage range.

4. Verify that all energy has been dissipated. Measure power at the 420 and 208 test points on the front of the PDU.

1-3 Replacement Procedure Steps

1. Disconnect all cables from the rear of the GP module.

2. Remove four (4) Phillips head screws from the outer corners of the GP front panel. See Illustration 1-2.



ACGD GP ASSEMBLY SHOWING SCREW LOCATIONS
ILLUSTRATION 1-2

4. Pull out the GP 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 GP module.

1-4 Functional Checks Required

Note

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1. Run the appropriate procedure for Grafidy.

2. Check gradient calibration using procedure *System Level Procedures: SetUp & Calibration: Gradient Calibration (DQA Version)* or alternate proprietary procedure *System Level Procedures: SetUp & Calibration: SPT Head Quick Check*. Calibrate if necessary.

3. Check shim using procedure *System Level Procedures: Functional Checks: LVshim Check*. Shim if necessary.

2- TROUBLESHOOTING

Use this section if, after installing the GP Module, it does not appear to be working correctly.

Note

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1. Check that the Power LED on the front of the GP Module is on.

2. Verify that the GP Heartbeat LED is flashing. If not, make certain that the circumstance described in the **Note** above does **not** exist.

3. Remove the MDS fiber from the grey J6 connector on the rear of the GP Module and confirm that the transmit LED is flashing red. The light may be dim.

4. Check the voltage on these test points located on the front of the GP Module at J12 if the unit does not appear to be functioning:

    a. **VCC:** This should always read 5.15VDC. If not remove the top cover and adjust *V1 ADJ* on the power supply until it reads 5.15VDC.

    b. **+12:** This should read 12.00VDC +/- 0.10VDC

    c. **–12:** This should read –12.00VDC +/- 0.10VDC

    d. **+15:** This should read 15.00VDC +/- 0.10VDC

    e. **3V3:** This should read 3.3VDC +/- 0.10VDC

5. Errors such as **GP…MDS Link Failure**, or **GP…voltage out of range**, or **GP…voltage supply is out of range** may occur if the measurements in the previous step are out of tolerance. If any of the voltages other than **VCC** is out of tolerance, replace the GP Module.

REVISION HISTORY

REV	DATE	AUTHOR	PRIMARY REASONS FOR CHANGE
A	August 16, 2000	K. Keshena	Preliminary version.
0	October 23, 2000	K. Keshena	Initial release.
1	July 18, 2003	D. Thome	Added section 2 and added more comments to **Note** per MRIge78144.