



GE Energy

Functional Testing Specification

Parts & Repair Services
Louisville, KY

LOU-GED-PSRG1-3

Test Procedure for a PSRG1-3 Power Supply

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DATE 3/14/2008	DATE	DATE	DATE 3/14/2008

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1. SCOPE

1.1 This is a functional testing procedure for a PSRG1-

2. STANDARDS OF QUALITY

2.1 Refer to the current revision of the IPC-A-610 standard for workmanship standards.

3. APPLICABLE DOCUMENTS

3.1 The following document(s) shall form part of this specification to the extent specified herein. Unless otherwise indicated, the latest issue shall apply.

3.1.1 None at this time.

4. ENGINEERING REQUIREMENTS

4.1 Equipment Cleaning

4.1.1 Equipment should be clean and free of debris prior to applying power unless performing an initial check. Refer to the local documented procedures for cleaning guidelines.

4.2 Equipment Inspection

4.2.1 Equipment should be visually inspected for any defects prior to applying power. This inspection should include the following as a minimum:

4.2.1.1 Wires - broken, cracked, or loosely connected

4.2.1.2 Terminal strips / connectors - broken or cracked

4.2.1.3 Components - visually damaged

4.2.1.4 Capacitors - bloated or leaking

4.2.1.5 Solder joints - damaged or cold

4.2.1.6 Circuit board - burned or de-laminated

4.2.1.7 Printed wire runs / Traces - burned or damaged

5. EQUIPMENT REQUIRED

5.1 The following equipment is required to perform the process requirements. Equipment may be substituted provided that all accuracy's and test ratios are equivalent or better.

Qty	Reference #	Description
1		Fluke 87 DMM (or Equivalent)
1		TENMA Laboratory DC Power Supply
1		Oscilloscope
1		Variable Autotransformer

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6. TESTING PROCESS

6.1 Testing Procedure

- 6.1.1 Connect 18VAC power to UUT at connector PL201-11 and 15.
- 6.1.2 Check for +20VDC output on TB201 A – D.
- 6.1.3 Check for –20VDC on TB201 E – H.
- 6.1.4 Check for +12VDC on TB201 J.
- 6.1.5 Check for –12VDC on TB201 M.
 - 6.1.5.1 If any of these voltages are missing or wrong troubleshoot and fix problem before continuing the tests.
- 6.1.6 Check for continuity through MVR Relay at TB201 L and K and at TB201 N and P.
- 6.1.7 Remove power to UUT.
- 6.1.8 Check for NO CONTINUITY through MVR Relay at TB201 L and K and at TB201 N and P.
- 6.1.9 Verify voltage at TB201 R is approximately 4 VDC (3.7 is normal).
- 6.1.10 Apply 150VDC to PL201 1, PL201 7, and PL202 5 simultaneously.
- 6.1.11 Connect O-scope ground to PL202 10 and probe to PL202 9. Short Q23 Collector to 0V and check for firing pulses. Remove O-scope connections when verified correct.
- 6.1.12 Connect O-scope ground to PL202 15 and probe to PL202 14. Short Q23 Collector to 0V and check for firing pulses. Remove O-scope connections when verified correct.
- 6.1.13 Remove all power and connections to UUT.

6.2 ***TEST COMPLETE***

7. NOTES

- 7.1 None at this time.

8. ATTACHMENTS

- 8.1 None at this time.