g GE Energy	**Functional Testing Specification**
Parts & Repair Services ***Louisville, KY***	**LOU-GED-44B337336G01**

Test Procedure for a power supply card.

DOCUMENT REVISION STATUS: Determined by the last entry in the "REV" and "DATE" column

REV.	DESCRIPTION	SIGNATURE	REV. DATE
A	Initial release	J Archibald	02/15/13
B	Changed format of procedure	J Archibald	02/16/13

PREPARED BY	REVIEWED BY	REVIEWED BY	QUALITY APPROVAL
J Archibald			Charlie Wade
DATE	**DATE**	**DATE**	**DATE**
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1. SCOPE

1.1 This is a functional testing procedure for a power supply.

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 Check board's electronic folder for more information

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 site specific SRA's 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 or cracked
4.2.1.2 Terminal strips / connectors broken or cracked
4.2.1.3 Loose wires
4.2.1.4 Components visually damaged
4.2.1.5 Capacitors leaking
4.2.1.6 Solder joints damaged or cold
4.2.1.7 Circuit board burned or de-laminated
4.2.1.8 Printed wire runs 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	H188947	220/480 Transformer
1		120VAC Variac
1		DVM (Fluke 87 or equivalent)
1		Amp meter (Fluke 87 or equivalent)

5.2 Testing Procedure

5.2.1 Set Variac to 0 VAC and plug in the variable transformer.

5.2.2 Set 220/480 Transformer to off position

5.2.3 Plug the 220/480 transformer into the output of the VARAC

5.2.4 Wire 220/480 transformer for 480 volt setting (Jumper H3 to H2).

5.2.5 Turn VARAC and 220/480 transformer.

5.2.6 Adjust VARAC for 45 volts AC between H1 and H4 of 220/480 transformer.

5.2.7 Turn off 220/480 transformer.

5.2.8 Hook center tap of 220/480 transformer to pin 3com of test fixture

5.2.9 Hook H1 to pin 27 of test fixture, hook H4 to pin 29 of test fixture

5.2.10 Turn on 220/480 transformer and measure 45 volts ac between pin 27 and 29 of fixture.

5.2.11 Hook a DVM between pin 3com and 5 of fixture it should read -15 VDC +/-.75.

5.2.12 Hook a 42 ohm 10W resistor from pin 3 com to 5 of fixture DVM should read same as 5.2.11 +/-.05 VDC.

5.2.13 Turn 220/480 transformer off.

5.2.14 Remove 42 ohm resistor.

5.2.15 Hook a mA meter in series with a 23 ohm 10W resistor between pins 3 com and 5 of fixture and a DVM across 3 and 5.

5.2.16 Turn 220/480 transformer on.

5.2.17 DVM should read -13.85 VDC +/-.5v and .6 amp +/-.05 amp.

5.2.18 Turn off 220/480 transformer.

5.2.19 Remove 23 ohm resistor.

5.2.20 Hook DVM across pin 1 and 3 of fixture, turn on 220/480 transformer and verify 45 VAC still across pin 27 and 29 of fixture.

5.2.21 Verify voltage at pin 1 and 3com is +15 VDC +/- .75v

5.2.22 Turn off 220/480 transformer.

5.2.23 Hook a 71 ohm 10w resistor across pin 1 and 3com of fixture

5.2.24 Turn on 220/480 transformer and verify voltage is within +/-.05 of 5.2.21.

5.2.25 Turn off 220/480 transformer.

5.2.26 Remove 71 ohm resistor.

5.2.27 Hook a mA meter in series with a 26.7 ohm 10w resistor between pins 1 and 3 com of fixture and a DVM across 1 and 3 com of fixture.

5.2.28 Turn on 220/480 transformer.

5.2.29 Verify voltage between pin1 and 3 is 8.9 to 10.2 volts and .34 amp +/- .05a.

5.2.30 Return all supplies and variac to zero.

5.3 ***TEST COMPLETE ***

7. NOTE

7.1 None at this time.