g GE Energy	**Functional Testing Specification**
Parts & Repair Services ***Louisville, KY***	**LOU-GED-DS200FECBG1A**

Test Procedure for a Field Exciter Crowbar Card

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

REV.	DESCRIPTION	SIGNATURE	REV. DATE
A	Initial release. Transferred a GEDS written test over to our format.	L. Groves	5/17/2010
B			
C			

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L. Groves			Charlie Wade
DATE	**DATE**	**DATE**	**DATE**
5/17/2010			5/17/2010

1. SCOPE

1.1 This is a functional testing procedure for a Field Exciter Crowbar Card.

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, 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)

6. TESTING PROCESS

6.1 Setup

6.1.1 Verify that no shorts exist between adjacent traces.

6.1.2 Using the material list, verify that all parts shown on the silk-screen are present and are assembled per the silk-screen.

6.1.3 Verify that all leads are properly soldered and connections are properly filleted and clipped.

6.1.4 Verify that BJ1 and BJ2 are in the default position.

6.1.5 Verify CR25 and CR35 is mounted with the notch per silk-screen (toward the back of the card).

6.1.6 Verify R21 & R31 are 5.62M (1%) resistors.

6.1.7 Verify R11 & R12 are 33ohm resistors (orange-orange-black-gold).

6.1.8 Verify R15, R16, R17 & R18 are 2.21M (red-red-brown-yellow) resistor.

6.2 Testing Procedure

6.2.1 Apply 5.20VDC between terminals E33 (+ lead) and E42 (- lead).

6.2.2 Using DVM measure 0.00VDC between terminals E51 (+ lead) and E52 (- lead).

6.2.3 Increase power supply to 10.00VDC.

6.2.4 DVM measures 3.20 - 4.00VDC.

6.2.5 If card passes all the above tests apply proper stamps.

6.3 ***TEST COMPLETE ***

7. NOTES

7.1 Scope

7.1.1 Steps 6.2.1 - 6.2.4 verify that CR41 and CR42 are correct, by first applying 5.20VDC (below the zener threshold) between terminal E33 and E42 and checking the resultant voltage drop across R42. Then applying 10.00VDC and checking that the zener is conducting.

8. ATTACHMENTS

8.1 None at this time.