g GE Energy Services	**Functional Testing Specification**
Inspection & Repair Services ***Louisville, KY***	**LOU–GED-118D1346G0001**

Test Procedure for a 118D1346G0001

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1. SCOPE

1.1 This is a functional testing procedure for a 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 P3K-AL-0466-A01

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)
4		Regulated power supplies
1		Adjustable supply 0 –10v

6. TESTING PROCESS

6.1 Setup

6.1.1

Note: This test is written from P3K-AL-0466-A01. This card has two isolated grounds, the isolation being from the input of an IC to its output. A caution given is that the voltage between the common pin 25 and the zero volt bus Pin 39 (com) should not exceed 15V peak.

6.2 Testing Procedure

6.2.1 Apply +22v to Pin 37, Apply –22v to Pin 41, common to Pin 39.

6.2.2 Using another supply, apply +15v to Pin 21, -15v to Pin 20, common to Pin 25.

6.2.3 Connect a 2.2K resistor between Pin 31 and Pin 16.

6.2.4 Meter TP1 = +15.7 +/- 1.0 VDC. Meter TP2 = -15.7 +/- 1.0 VDC.

6.2.5 Short Pin 8 to Pin 10. Meter TP8 with meter common at Pin 25. Adjust VR50 for 0mv +/- 1mv at TP8.

6.2.6 Move meter to TP50 and meter common to Pin 16. Ground TP8 to Pin 25. Adjust VR51 for 0 v +/- 1mv.

6.2.7 Move meter to TP 9 with meter common still at Pin 16. Remove ground from TP8 and ground TP50 to Pin 16. Adjust VR52 for 0mv +/- 1mv at TP9.

6.2.8 Remove ground from TP50. Remove short Pin 8 to Pin 10. Apply +10.00v to Pin 8, com to Pin 10. Measure –10.00v +/- .05v at Pin 31 to Pin 16 com. Adjust VR1 for -10.00v if necessary. Reverse input at Pin 8 and Pin 10. Output at Pin 31 should be +10.00v.

6.2.9 Lower input volts to –5.00v. Output should be +5.00. Reverse input polarity and output should be –5.00.

6.3 Post Testing Burn-in **Required _X__ Yes ___ No**

Note: All MARK I, II, & III Turbine related cards require a post testing burn-in of 100 hours.

6.3.1 Apply BUS or Operational power to the card for a period of 100 hours.

6.3.2 Re-test card while warm using the above procedure.

6.4 ***TEST COMPLETE ***

7. NOTES

7.1

8. ATTACHMENTS

8.1