g GE Energy	**Functional Testing Specification**
Parts & Repair Operations ***Louisville, KY***	**LOU–GED-193X704ABG01**

Test Procedure for a 193X704ABG01

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

REV.	DESCRIPTION	SIGNATURE	REV. DATE
A	Initial release	Glenn Chandler	6/1/2007
B	Added test for G02 card	D. Laemmle	3/5/2009
C			

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DATE	**DATE**	**DATE**	**DATE**
05/31/2007			6/1/2007

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 QSI 2174

3.1.2 GEI-92015C

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
2		Fluke 87 DMM (or Equivalent)
3		30V Power Supplies
2		28 Volt Lamp

6. TESTING PROCESS

6.1 Setup

6.1.1

Note: Remove 193X701CAG01 from UUT and test separately on General Purpose Testing Computer And reinstall on UUT before testing.

6.2 Testing Procedure for testing G01 & G02 units.

6.2.1 Connect +20V to pin 30 and –20V to pin 3, connect commons to pin 13.

6.2.2 Apply + 20V through a 100 ohm resistor to pin 23 and a +20V through a 100 ohm resistor to pin 16 and common to pins 29 and 19.

6.2.3 Connect a 28V lamp between pins 15 and 18 (NC contacts) and another lamp between pins 17 and 20 (NO contacts).

6.2.4 Connect DVM + to pin 2 and common to pin 13.

6.2.5 Turn all cards pots max CCW.

6.2.6 Add jumper to between pins 10 and 2.

6.2.7 DVM should read +0.3V to +0.7V.

6.2.8 Turn pot P627 fully CW. DVM should read +0.75 to +1.2 V.

6.2.9 Turn bias pot fully CW. DVM should read –0.3V to –0.7V.

6.2.10 Turn pot P628 fully CW. DVM should read –0.7V to –1.2V.

6.2.11 Add jumper between pins 29 and 31. DVM should read –1.7V to –2.7V.

6.2.12 Add jumper between pins 28 and 29, 31. DVM should read –9.0V to –13.0V.

6.2.13 Remove jumpers from pins 28, 29 and 31. Turn all pots CW.

6.2.14 Adjust bias pot for zero Volts on DVM.

6.2.15 Apply – volts to pin 9 until DVM reads +5.0V.

6.2.16 Add jumper between pins 8 and 9 and a jumper between pins 5 and 10. DVM should change less than 0.5V.

6.2.17 Add jumper between pins 8 and 11 and a jumper between pins 5 and 6. DVM should change less than 0.5V

6.2.18 Add jumper between pins 11 and 12 and a jumper between pins 6 and 7. DVM should change less than 0.5V.

6.2.19 Move + of DVM to pin 14. Adjust pin 9 volts to zero volts. NC lamp between pins 17 and 20 should be lit.

6.2.20 Adjust pin 9 volts slowly negatively (-) until NC lamp goes out and NO lamp lights. DVM should read +5.3V to +7.3V.

6.2.21 End of test for G01 units.

6.3 G02 units only.

6.3.1 Move lamps from pin-16 to pin-18 and from pin-17 to pin-20 and install lamps from pin 22 to pin-25 and from pin-24 to pin-27.

6.3.2 Reverse polarity of power supply into pin-9 applying + voltage. With supply at zero volts, lamp connected from pin-22 to pin-25 should be on.

6.3.3 Increase voltage (+) on pin-9 until lamp at pin-22 to pin-25 goes out and lamp at pin 24-topin-27 comes on. DVM should read –5.3V to –7.3V at pin-14.

6.3.4 Reduce voltage on pin-9 until NC lamp at pin-22 to pin-25 comes back on and lamp at pin-24 to pin-27 goes out. DVM should read –1.3V to –3.3 volts.

6.4 ***TEST COMPLETE ***

7. NOTES

7.1

8. ATTACHMENTS

8.1