g GE Industrial Systems *Renewal Services* *Louisville,KY*	**Functional Testing Specification** **LOU–GED-AFTROL_II**

Test Procedure for a

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

REV.	DESCRIPTION	SIGNATURE	REV. DATE
A	Initial release		
B			
C			

PREPARED BY	REVIEWED BY	REVIEWED BY	QUALITY APPROVAL
DATE	DATE	DATE	DATE

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

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)

6. TESTING PROCESS

6.1 Setup

6.1.1

Note:

6.2 Testing Procedure

6.2.1 Turn speed pot on the control station to zero.

6.2.2

6.2.3 Apply correct input voltage to controller.

6.2.4 Green Leds RPS, CPS (regulator card), and Red Led IPS(inverter card) SHOULD BE ON.

6.2.5 Three Red Leds out of the six should be on; (T11, T21, T31, T41, T51 and T61). ALL LEDS DO NOT COME ON.

6.2.6

6.2.7 Set the MIN SPD and VOLT BOOST pots CCW.

6.2.8 If the load monitor card is installed, set the IR Comp pot fully CCW if it has not been present.

6.2.9

6.2.10 Press the start button on the control station.

6.2.11 Run Led (Red), on regulator card; should be on.

6.2.12 Red Leds G1, G2, and G3 on regulator card, should glow dimly.

6.2.13 Leds T11, T21, T31, T41, T51, and T61 should start cycling on and off.

6.2.14

6.2.15 VOLT/HZ , MAX SPD POTS, and the MF1-MF2 jumpers should be set using the Regulator Card Adjustments.

6.2.16 Slowly increase the speed pot on the control station.

6.2.17 Leds T11-T61 should increase blinking frequency and the motor should begin to rotate.

6.2.18

6.2.19 Check the AC motor current with a clamp on ammeter.

6.2.20

6.2.21 Check the output voltage for balance.

6.2.22

6.2.23 MAKE SURE YOU CHECK ALL OPTION CARDS FOR PROPER

6.2.24 OPERATION. USE ALL THE CONTROLS ON THE CONTROL STATION TO VERIFY PROPER OPERATION.

6.3 Post Testing Burn-in **Required** ___ **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