g GE Industrial Systems	**Functional Testing Specification**
Renewal Services ***Louisville,KY***	**LOU–GED-IC3650SPUA**

Test Procedure for a IC3650SPUA

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

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PREPARED BY	REVIEWED BY	REVIEWED BY	QUALITY APPROVAL
Dan Laemmle			Robert Dwall
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Functional test procedure for a IC3650SPUA card

1. SCOPE

1.1 This is a functional testing procedure for a IC3650SPUA Open Phase/ Phase Unbalance 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 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
2		Fluke 85 or equiv.
1	H188515	3 phase generator

6. TESTING PROCESS

6.1 Setup

6.1.1

6.2 Testing Procedure

6.2.1 Apply 120v A.C. to pins 1 and 8. Measure +15v D.C. at pin 27 and –15v D.C.at pin 29.

6.2.2 Connect 3 phase inputs adjusted to 11.25v A.C. each to pins 19,21 and 23. Attach D.C. meters to pins 39 and 49. Attach 4k resistors to both pins 39 and 49 to com. (pins 1,51) Meters should read zero. Push the test button at front edge of card and voltage at pin 39 should go to +8-10V D.C. Pin 49 should follow a second or two later going to the same voltage as pin 39. Release button. After a few seconds delay, voltages should go back to zero.

6.2.3 With scope on pin 24 (5v/div 2ms) waveform with positive peaks should be about 8 v p-p. Set R82 and R85 full CW. Slowly adjust R82 CCW until the rounded peaks of the waveform just begin to flatten at the top.

6.2.4 Set R86 to middle of adjustment. Remove jumper T3-T4. Connect a .25 mfd capacitor between pin 27 and pin 50. Connect A.C. meter to input at pin 19. Connect D.C. meter to pin 49. Adjust input at pins 21 and 23 to 7.5v A.C. Adjust Pin 19 A.C. to 6v A.C.

6.2.5 Monitoring pin 49 adjust R85 slowly CCW until pin 49 goes to 8-10v D.C. Adjust A.C. at pin 19 to 7.5v. Pin 49 should go back to zero. Slowly adjust input at pin 21 towards 6v A.C. Pin 49 should go to 8-10vD.C. with around 6 v input. Adjust pin 21 back to 7.5v A.C. Repeat adjusting pin 23 input back towards 6 v. Readjust R85 if necessary until all three inputs trip at around 6v.

6.2.6 Remove power and inputs and reconnect jumper T3-T4.

6.3 ***TEST COMPLETE ***

7. NOTES