g GE Energy	**Functional Testing Specification**
Parts & Repair Services ***Louisville, KY***	**LOU-GED-DS3820SFEA**

Test Procedure for an Synch Field Exciter assembly

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A	Initial release	G. Chandler	2/8/2013
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PREPARED BY	REVIEWED BY	REVIEWED BY	QUALITY APPROVAL
G. Chandler			Charlie Wade
DATE	**DATE**	**DATE**	**DATE**
2/8/2013			2/8/2013

1. SCOPE

1.1 This is a functional testing procedure for a Test Procedure for an Synch Field Exciter assembly.

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)
1		120VAC Variac
1		O-scope
2		X100 Probes
1		SCR Firing Box
1		Light Bulb

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6. Testing Process

6.1 Perform the test on the NHVL card to verify proper operation of the card.

6.2 After successful completion on the NHVL test, re-install the card in the unit.

6.3 Connect the unit as in figure 1 using 120VAC source

6.4 Connect scope in the differential mode using X100 Probes

6.5 Using the same firing circuit test used to test the NHVL card, we will now fire each SCR circuit, one at a time, in both FWD and REV directions.

6.6 Use the chart below to fire each SCR.

6.6.1 Phase 1 – Positive waveform = connector JJ.

6.6.2 Phase 1 – Negative waveform = connector JF.

6.6.3 Phase 2 – Positive waveform = connector JH.

6.6.4 Phase 2 – Negative waveform = connector JE

6.6.5 Phase 3 – Positive waveform = connector JG.

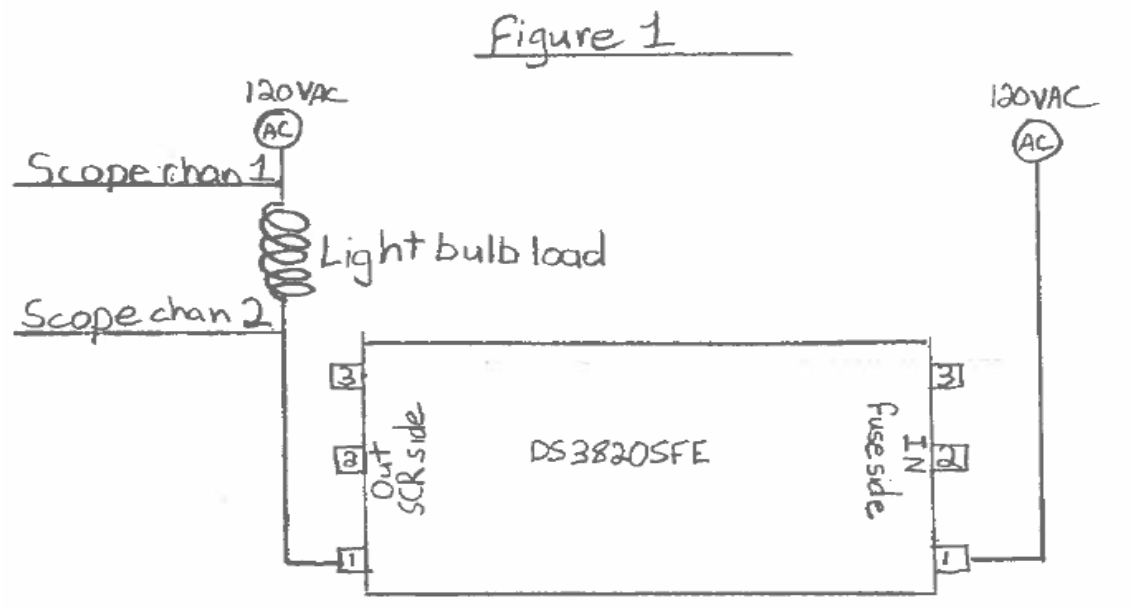
6.6.6 Phase 3 – Negative waveform = connector JD.

6.7 Verify each circuit has a half wave, 60Hz, 200V peak sine wave, which is variable with the SCR firing box.

6.8 ***TEST COMPLETE ***

7. Notes

Figure 1



7.1

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