g GE Energy	**Functional Testing Specification**
Parts & Repair Services ***Louisville, KY***	**LOU-GED-DS3820DPMx**

Test Procedure for a field exciter.

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David Bush			Charlie Wade
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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 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	H033953	Bench fixture for DS3800NPVA board
1	H188521	FEX Firing Box

6. TESTING PROCESS

6.1 Setup

6.1.1 This unit has multiple test procedures for the boards that make up this unit, as well as a final power application to the entire assembly as a whole.

Note: The tests required for this unit will be: ATE, Stand Alone, Pin-Point, and Fluke.

6.2 Testing Procedure

6.2.1 Disassemble the unit. The three boards in the rack on top of unit are to be tested as follows.

6.2.1.1 The DS3800HFXE/DFXE on the ATE.

6.2.1.2 The DS3800HFPC/DFPC on the Fluke Test.

6.2.1.3 The DS3800HFXD/DFXD on the Pin-Point System.

6.2.2 The Field Exciter assembly mounted on the side of the unit will be tested as follows:

6.2.2.1 DS3800NEPD board on ATE. After this board is repaired or found to be good it will be re-installed into the FEX unit and tested on the bench by firing the SCR's with special FEX Test Fixture box.

6.2.2.2 The power supply board(DS3800NPVA) on the bottom of the unit is to be tested on a Bench Fixture with or without the DS3800DPVA Daughter card(The daughter card is only an option card for LVSL).

6.2.3 After all boards listed above have been tested and found to be in good working order, they are to be re-installed on the DS3820DPMx assembly. Follow all wiring diagrams and apply 230VAC or 460VAC to unit. Note: A/C voltage is single phase.

6.2.4 Verify various LEDs are lit on the top three DS3800 Series Boards. Check for proper DC voltages on the back portion of the assembly.

6.2.5 All testing is complete. Remove power to Unit.

6.3 ***TEST COMPLETE ***

7. NOTES

7.1 None at this time.

8. ATTACHMENTS

8.1 None at this time.