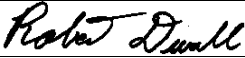
 <div style="text-align: right;">GE Energy</div>		Functional Testing Specification	
Parts & Repair Services Louisville, KY		LOU-GED-DS2020FEC	
Test Procedure for a DS2020FEC Module			
DOCUMENT REVISION STATUS: Determined by the last entry in the "REV" and "DATE" column			
REV.	DESCRIPTION	SIGNATURE	REV. DATE
A	Initial release	L. Groves	6/29/02
B	Changed header and removed AC power Converter from test, redundant step.	L. Groves	8/18/2009
C	Added second asset number 6.1.3	L Groves	10/26/2009
D	Added resistance table 1 to step 6.2.5 and listed asset number of the DS2020FECNR tester to this instruction.	S. Cash	1/31/2013
E	Remove step 6.2.5, did not pertain to instruction. Revision D was archived, C. Wade	L Groves	10/30/2013
F	Added visual inspection steps 7.1 & 7.2 – L. Groves	L. Groves	11/3/2015
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PREPARED BY	REVIEWED BY	REVIEWED BY	QUALITY APPROVAL
LLOYD F. GROVES	DAVID BUSH	L Groves	
DATE	DATE	DATE	DATE
6-29-2002	6-29-2002	8/18/2009	07/01/02

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Functional test procedure for a DS2020FEC Module

1. **SCOPE**

1.1 This is a functional testing procedure for a DS2020FEC Module.

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.

3.2 Reference GEH-6330B

3.3 Check assembly'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 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
1	H033814	INDUCTIVE LOAD
1	H188740	DS2020FECNR Tester
1		DMM
1		O-SCOPE W/ X100 PROBES
1		SCR FIRING BOX

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6. TESTING PROCESS

6.1 Setup

- 6.1.1 Static check SCR packs for shorts.
- 6.1.2 Connect single phase ac voltage wires (typically 220/440/575 VAC, 50/60 Hz) to FU2-1 & FU3-1. ****do not apply power****
- 6.1.3 Connect inductive load "H033814 or H033963" to FP (input) and FN (42 ohms).
- 6.1.4 Connect x100 o-scope probes to FP & FN.
- 6.1.5 Connect output of firing box (com and positive) to connector FPL.

6.2 Testing Procedure

- 6.2.1 Apply input power to FU2-1 and FU3-1.
- 6.2.2 Turn firing box switch on and slowly increase firing pulses from 0 to 100%.
- 6.2.3 Monitor output with scope and ensure output increases and decreases smoothly.
- 6.2.4 Monitor shunt output by measuring DC mV across SP & SN as you increase and decrease firing. DC mV should smoothly go from 0-50mV (100mV on some models).

6.3 ***TEST COMPLETE ***

7. NOTES - Visually inspect the unit for the following:

7.1 Silicon must be added to screws on Shunt.



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GE Title or job number
11/3/2015

7.2 Verify Shunt wires are correct.

Good card

