g GE Energy	**Functional Testing Specification**
Parts & Repair Services ***Louisville, KY***	**LOU-GED-DS3820WCRx**

Test Procedure for a DS3820WCRx

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

REV.	DESCRIPTION	SIGNATURE	REV. DATE
A	Initial release	M. Starling	07/15/2011
B	Changed pressure test procedure	M. Starling	07/19/2011
C			

PREPARED BY	REVIEWED BY	REVIEWED BY	QUALITY APPROVAL
M. Starling			Charlie Wade
DATE	**DATE**	**DATE**	**DATE**
7/15/2011			7/15/2011

1. SCOPE

1.1 This is a functional testing procedure for a DS3820WCRx Water Cooled Resistor 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 Multi-meter
1		Pressure Testing Station

6. Testing

6.1 Testing Procedure

6.1.1 Verify that springs are compressed to 1.6 inches +/- .03 about 1-5/8”

6.1.2 Measure resistance across assembly bus plates. Resistance should measure combined total of installed resistors +/- 10%. Number of resistors and their value is determined by the model number.

6.1.3 Pressure Test – Prior to performing pressure testing, check the condition and routing of all coolant hoses. Verify all clamps are compressed and in good condition. Place unit in wash booth, with unit positioned so that any debris or liquid will be blown into the wash booth and away from you. Make sure you are wearing proper PPE(face-shield). Blow compressed air into the source and return fittings and verify that passages are clear.

6.1.4 Place unit on bench at pressure testing station, make sure that the yellow and green handled ball valves are in the closed position. Open the red handled supply valve and check pressure as indicated on the regulator gauge. Adjust regulator for 100 PSI. Attach supply line to the source fitting and the test gauge to the return fitting on UUT and tighten clamps. *Put on a face shield at this point!*

6.1.5 Slowly open yellow valve and watch the test gauge. Test gauge should now read 100 PSI. Close yellow handled valve and watch the test gauge. If reading drops quickly a leak is indicated. If there is a leak, this would be a good time to find it, while there is still some pressure on the lines (soapy water and a small brush works well).

6.1.6 Allow unit to set for 2 minutes and check test gauge. Reading should be near 100 PSI although it is not unusual to see a slight pressure drop of around 3-5 PSI due to the rubber hoses expanding. Open the yellow valve again to bring the pressure back up to 100 PSI, then close it again.

6.1.7 Allow unit to stand for 5 minutes. Pressure after 5 minutes should be very close to 100 PSI. Any significant pressure drop indicates a leak that must be found and repaired.

6.1.8 If pressure test is good or you need to remove the UUT for any reason. Make sure yellow handled valve is closed and slowly open the green handled valve to relieve the pressure on the UUT. Make sure reading on test gauge is at 0 PSI and close the green valve. Remove the test gauge and supply line from the UUT.

6.2 ***TEST COMPLETE ***

7. Notes

7.1 None at this time.

8. Attachments

8.1 None at this time.