g GE Energy	**Functional Testing Specification**
Parts & Repair Services ***Louisville, KY***	**LOU-GED-DS3800DFXJ**

Test Procedure for a DS3800DFXJ

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

REV.	DESCRIPTION	SIGNATURE	REV. DATE
A	Initial release	Steve Pharris	4/6/2011
B	Added measurements for 1B1A Rev.	Steve Pharris	10/27/2012
C			

© COPYRIGHT GENERAL ELECTRIC COMPANY
Hard copies are uncontrolled and are for reference only.
PROPRIETARY INFORMATION – THIS DOCUMENT CONTAINS PROPRIETARY INFORMATION OF GENERAL ELECTRIC COMPANY AND MAY NOT BE USED OR DISCLOSED TO OTHERS, EXCEPT WITH THE WRITTEN PERMISSION OF GENERAL ELECTRIC COMPANY.

PREPARED BY	REVIEWED BY	REVIEWED BY	QUALITY APPROVAL
Steve Pharris			Charlie Wade
DATE	**DATE**	**DATE**	**DATE**
4/6/2011			4/13/2011

1. SCOPE

1.1 This is a functional testing procedure for a DS3800DFXJ.

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		Millivolt Source
1	H033772	DS3800 Power Supply

© COPYRIGHT GENERAL ELECTRIC COMPANY
Hard copies are uncontrolled and are for reference only.
PROPRIETARY INFORMATION – THIS DOCUMENT CONTAINS PROPRIETARY INFORMATION OF GENERAL ELECTRIC COMPANY AND MAY NOT BE USED OR DISCLOSED TO OTHERS, EXCEPT WITH THE WRITTEN PERMISSION OF GENERAL ELECTRIC COMPANY.

6. TESTING PROCESS

6.1 Setup

6.1.1 **NOTE: 1B1A rev. voltages are in parenthesis next to appropriate step**

6.1.2 Using DS3800 Power Supply connect the following.

6.1.3 Connect +15VDC to JD12

6.1.4 Connect –15VDC to JD14

6.1.5 Connect +5VDC to JD15

6.1.6 Connect +28VDC to JD19

6.1.7 Connect JD13, JD17, and JD20 to Common

6.1.8 Connect output of Millivolt Source to JD6

6.1.9 Connect common of Millivolt Source to Common of DS3800 Power Supply

6.2 Testing Procedure

6.2.1 Apply power

6.2.2 Verify 0VDC at JA1

6.2.3 Connect JD3 to Com

6.2.4 Increase millivolt source to 4VDC

6.2.5 Verify JA1 = 28VDC

6.2.6 Verify JA3 = 0VDC

6.2.7 Connect JD1 to Com

6.2.8 Verify JA3 = 28VDC

6.2.9 Verify JA4 = 28VDC

6.2.10 Connect JD5 to Com

6.2.11 Verify JA4 = 0VDC

6.2.12 Connect JD2 to Com

6.2.13 Verify JA4 = 28VDC

6.2.14 Verify JA5 = 28VDC

6.2.15 Remove connection at JD2

6.2.16 Verify JA5 = 28VDC

6.2.17 Connect JD5 to Com

6.2.18 Verify JA6 = 0VDC

6.2.19 Verify JD9 = 1

6.2.20 Connect JA15 to com

6.2.21 Verify JD9 = 0

© COPYRIGHT GENERAL ELECTRIC COMPANY
Hard copies are uncontrolled and are for reference only.
PROPRIETARY INFORMATION – THIS DOCUMENT CONTAINS PROPRIETARY INFORMATION OF GENERAL ELECTRIC COMPANY AND MAY NOT BE USED OR DISCLOSED TO OTHERS, EXCEPT WITH THE WRITTEN PERMISSION OF GENERAL ELECTRIC COMPANY.

6.2.22 Remove connections from millivolt source

6.2.23 Using millivolt source apply 1VDC to JA16

6.2.24 Verify JC6 = 1V

6.2.25 Increase millivolt source at JA16 in 1VDC increments to 5VDC and verify JC6 follows

6.2.26 Using millivolt source apply 5VDC to JA17

6.2.27 Verify JC4 = approx. 9V

6.2.28 Increase millivolt source at JA17 in 1VDC increments to 9VDC and verify JC4 decreases by 1VDC increments

6.2.29 Using millivolt source apply 5VDC to JA18

6.2.30 Verify JC4 = approx. 9V **(-9VDC)**

6.2.31 Increase millivolt source at JA18 in 1VDC increments to 9VDC and verify JC4 decreases by 1VDC increments

6.2.32 Using millivolt source apply 5VDC to JA19

6.2.33 Verify JC1 = approx. 5.8VDC (if wrong adjust R83)

6.2.34 Increase millivolt source at JA19 to 6VDC

6.2.35 Verify JC1 = approx. 7VDC

6.2.36 Increase millivolt source at JA19 to 7VDC

6.2.37 Verify JC1 = approx. 8.2VDC

6.2.38 Using millivolt source apply 5VDC to JA20

6.2.39 Verify JC1 = approx. –5.8VDC

6.2.40 Increase millivolt source at JA20 to 6VDC

6.2.41 Verify JC1 = approx. –7VDC

6.2.42 Increase millivolt source at JA20 to 7VDC

6.2.43 Verify JC1 = approx. –8.2VDC

6.2.44 Apply 5VDC to JA19

6.2.45 Using millivolt source apply –5.5VDC to JA20

6.2.46 Set jumper to “100”

6.2.47 Verify JD23 = 2.5VDC **(-1.25VDC)**

6.2.48 Move jumper to “500/250”

6.2.49 Verify JD23 = 2VDC **(-1.00VDC)**

6.2.50 Move jumper to “550”

6.2.51 Verify JD23 = 1.9VDC **(-0.9VDC)**

6.2.52 Move jumper to “600/150”

6.2.53 Verify JD23 = 1.7VDC **(-0.82VDC)**

© COPYRIGHT GENERAL ELECTRIC COMPANY
Hard copies are uncontrolled and are for reference only.
PROPRIETARY INFORMATION – THIS DOCUMENT CONTAINS PROPRIETARY INFORMATION OF GENERAL ELECTRIC COMPANY AND MAY NOT BE USED OR DISCLOSED TO OTHERS, EXCEPT WITH THE WRITTEN PERMISSION OF GENERAL ELECTRIC COMPANY.

6.2.54 Move jumper to “315”

6.2.55 Verify JD23 = 1.6VDC **(-0.79VDC)**

6.2.56 Move jumper to “700”

6.2.57 Verify JD23 = 1.4VDC **(-0.66VDC)**

6.2.58 Move jumper to “750”

6.2.59 Verify JD23 = 1.5VDC **(-0.71VDC)**

6.2.60 Move jumper to “100”

6.2.61 Verify JD24 = approx. 2.5VDC **(1.2VDC)**

6.3 ***TEST COMPLETE ***

7. NOTES

7.1 See 6.1.1

8. ATTACHMENTS

8.1 None at this time

© COPYRIGHT GENERAL ELECTRIC COMPANY
Hard copies are uncontrolled and are for reference only.
PROPRIETARY INFORMATION – THIS DOCUMENT CONTAINS PROPRIETARY INFORMATION OF GENERAL ELECTRIC COMPANY AND MAY NOT BE USED OR DISCLOSED TO OTHERS, EXCEPT WITH THE WRITTEN PERMISSION OF GENERAL ELECTRIC COMPANY.