



GE Energy

Functional Testing Specification

Parts & Repair Services
Louisville, KY

LOU-GED-DS3800NFIA

Test Procedure for a DS3800NFIA

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| REV. | DESCRIPTION | SIGNATURE | REV. DATE |
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1. SCOPE

1.1 This is a functional testing procedure for a DS3800NFIA.

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 | | Tenma DC Power Supply |
| 2 | | 28VDC Lamps (68A7803P10C) (On 32A05E) |

6. Testing Process

6.1 Setup

6.1.1 Set power supply for 28VDC

6.2 Testing Procedure

6.2.1 Verify continuity between the following points

| From | To |
|-------|-------|
| JA19 | JA20 |
| JA20 | JB3 |
| JA17 | JB2 |
| JA22 | JB5 |
| JA23 | JB6 |
| JA24 | JB7 |
| JA25 | JB8 |
| JA26 | JB9 |
| JA18 | JB1 |
| I/O 1 | I/O 2 |
| I/O 4 | I/O 5 |

6.2.2 Verify infinite resistance between the following points

| From | To |
|-------|-------|
| I/O 2 | I/O 3 |
| I/O 5 | I/O 6 |

6.2.3 Connect positive output from power supply to JB1

6.2.4 Connect Com from power supply to JA20

6.2.5 Verify the following

| From | To | Measurement |
|-------|-------|-------------|
| I/O 1 | I/O 2 | Open |
| I/O 4 | I/O 5 | Open |
| I/O 2 | I/O 3 | Short |
| I/O 5 | I/O 6 | Short |

6.2.6 Remove the positive connection from JB1 but leave Com connected

- 6.2.7** Install the two lamps into the sockets at A
- 6.2.8** Connect the positive lead from power supply to JA1
- 6.2.9** Verify both lamps illuminate
- 6.2.10** Move lamps to sockets at B
- 6.2.11** Move lead from JA1 to JA2
- 6.2.12** Verify both lamps illuminate
- 6.2.13** Continue checking the remaining circuits using the table below

| Lamp Position | + from power supply |
|---------------|---------------------|
| C | JA3 |
| D | JA4 |
| E | JA5 |
| F | JA6 |
| G | JA7 |
| H | JA8 |
| J | JA9 |
| K | JA10 |
| L | JA11 |
| M | JA12 |
| N | JA13 |
| P | JA14 |
| R | JA15 |
| S | JA16 |

6.3 *TEST COMPLETE*****

7. NOTES

7.1 None at this time.

8. ATTACHEMENTS

8.1 None at this time.