g GE Industrial Systems *Renewal Services* *Louisville,KY*	**Functional Testing Specification** **LOU–GED-44D357965-D**

Test Procedure for a LOU–GED-44D357965-D

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

REV.	DESCRIPTION	SIGNATURE	REV. DATE
A	Initial release	Paul Kelley	9/3/2003
B	Specified application of AC and DC voltage order.	Paul Kelley	9//5/2003
C	Improved directions.	Paul Kelley	9/26/2003
D	Improved directions.	Paul Kelley	12/17/2003

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Paul Kelley	Eric Rouse		Robert Dunlap
DATE	**DATE**	**DATE**	**DATE**
9/3/2003	9/3/2003		9/9/03

Functional test procedure for a 44D357965G01

1. SCOPE

1.1 This is a functional testing procedure for a 44D357965G01.

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

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		Fluke 85 DMM (or Equivalent)
1		125VDC PS
1		44D357965G01Test strip

6. TESTING PROCESS

6.1 Setup

6.1.1 Use the 44D357965G01 test strip with 2 diodes and 5 wires attached and connect the transformer and bulb load as shown in Fig. 1 but do not apply power yet. Connect a 125VDC supply to the UUT as follows – positive to TB3-D and negative to TB3-E but do not power it yet.

Note: There are terminals TB3 and TB3A on the UUT. Read carefully. Colors referred to in connections are the 3 different colored connectors coming from the test terminal strip.

6.2 Testing Procedure

6.2.1 Using the three wires coming from the test terminal strip make the following connections to the UUT terminal strip – RED to TB3-A, YELLOW to TB3-B, BLUE to TB3-C.

6.2.2 Power the AC supply. The light bulb will come on.

6.2.3 Power the DC supply.

6.2.4 Verify the following on the UUT terminal strips:

6.2.5 TB3-M to TB3-N shows a relay contact open. TB3-F to TB3-G shows a relay contact open.

6.2.6 TB3-M to TB3-L shows a good relay contact closure. TB3-F to TB3-H shows a good relay contact closure.

6.2.7 Verify TB3-D to **TB3A-F** (note **TB3A** terminal strip) show 0 VDC.

6.2.8 Being careful not to shock yourself, short out one of the diodes on the test terminal strip (a temporary tap is all that is needed).

6.2.9 Verify the following on the UUT terminal strips:

6.2.10 TB3-M to TB3-N shows a good relay contact closure. TB3-F to TB3-G shows a good relay contact closure.

6.2.11 TB3-M to TB3-L shows a relay contact open. TB3-F to TB3-H shows a relay contact open.

6.2.12 Verify TB3-D to **TB3A-F** (note **TB3A** terminal strip) shows 124 VDC.

6.2.13 Turn off AC and DC power and wait for 30 seconds.

6.2.14 Power the AC supply. The light bulb will come on.

6.2.15 Power the DC supply.

6.2.16 Verify the following on the UUT terminal strips:

6.2.17 TB3-M to TB3-N shows a relay contact open.

6.2.18 Being careful not to shock yourself, short out the other diode on the test terminal strip (a temporary tap is all that is needed).

6.2.19 Verify the following on the UUT terminal strips:

6.2.20 TB3-M to TB3-N shows a good relay contact closure.

6.2.21 Turn off AC and DC power and wait for 30 seconds.

6.2.22 Remove the red, yellow and blue connectors coming from the test strip to TB3 and move them to following UUT terminal strip – RED to TB3-A, YELLOW to TB3-J, BLUE to TB3-K.

6.2.23 Start of section test.

6.2.24 Power the AC supply. The light bulb will come on.

6.2.25 Power the DC supply.

6.2.26 **Section Indicator Test 1:** VerifyTB3-D to **TB3A-E** (note **TB3A** terminal strip) has 0 volts.

6.2.27 Being careful not to shock yourself, short out one of the diodes on the test terminal strip (a temporary tap is all that is needed).

6.2.28 **Section Indicator Test 2:** VerifyTB3-D to **TB3A-E** (note **TB3A** terminal strip) has 124 volts.

6.2.29 Turn off AC and DC power and wait for 30 seconds.

6.2.30 Power the AC supply. The light bulb will come on.

6.2.31 Power the DC supply.

6.2.32 **Section Indicator Test 1:** VerifyTB3-D to **TB3A-E** (note **TB3A** terminal strip) shows 0 volts.

6.2.33 Being careful not to shock yourself, short out the other diode on the test terminal strip (a temporary tap is all that is needed).

6.2.34 **Section Indicator Test 2:** VerifyTB3-D to **TB3A-E** (note **TB3A** terminal strip) shows 124 volts.

6.2.35 Turn off AC and DC power and wait for 30 seconds.

6.2.36 End of section test.

6.2.37 Using the three wires coming from the test terminal strip make the following connections to the UUT terminal strip – RED to TB3-A, YELLOW to TB3-R, BLUE to TB3-P.

6.2.38 Repeat procedure from **Start of section test** to **End of section test** above replacing **TB3A-E** with TB3A-D in the **Section Indicator Test 1 and 2.**

6.2.39 Using the three wires coming from the test terminal strip make the following connections to the UUT terminal strip – RED to TB3-C, YELLOW to TB3-U, BLUE to TB3-V.

6.2.40 Repeat procedure from **Start of section test** to **End of section test** above replacing **TB3A-E** with TB3A-C in the **Section Indicator Test 1 and 2.**

6.2.41 Using the three wires coming from the test terminal strip make the following connections to the UUT terminal strip – RED to TB3-K, YELLOW to TB3-S, BLUE to TB3-V.

6.2.42 Repeat procedure from **Start of section test** to **End of section test** above replacing **TB3A-E** with TB3A-B in the **Section Indicator Test 1 and 2.**

6.2.43 Using the three wires coming from the test terminal strip make the following connections to the UUT terminal strip – RED to TB3-P, YELLOW to TB3-W, BLUE to TB3-V.

6.2.44 Repeat procedure from **Start of section test** to **End of section test** above replacing **TB3A-E** with TB3A-A in the **Section Indicator Test 1 and 2.**

6.3 ***TEST COMPLETE ***

Drawings:

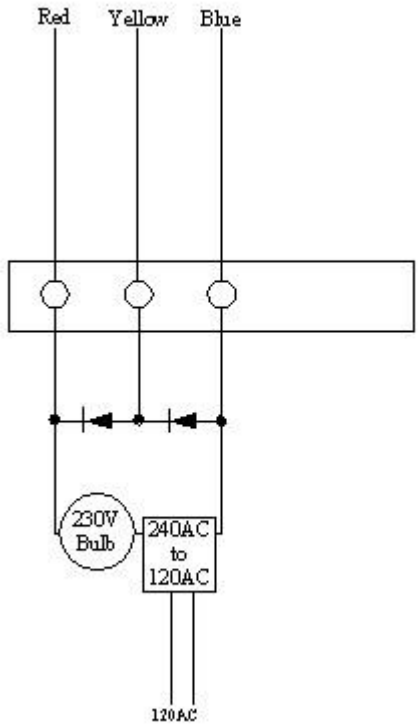

Fig. 1