g GE Industrial Systems *Renewal Services* *Louisville,KY*	**Functional Testing Specification** **LOU–GED-145D4753**

Test Procedure for an Auxiliary Relay Card 145D4753G0001

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Functional test procedure for 145D4753G0001. Auxiliary Relay Card.

1. SCOPE

1.1 This is a functional testing procedure for a 145D4753G0001 Auxiliary Relay Card.

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 P3K-AL-0623-A01

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 Equiv.
1		125 VDC Supply
1		24 VDC Supply

6. TESTING PROCESS

6.1 Setup

6.1.1

6.2 Testing Procedure

6.2.1 Connect +24VDC to Pin 38, Com to Pin 40. Note that DS1 lights. Measure at TP50 for +5.1 VDC +/- 5%. (4.845 to 5.355V).

6.2.2 K1 TEST. Connect + 24VDC to Pin 2. Check Pin 3-5 for 0 ohms, Pin 3-4 open, Pin 13-15 for 0 ohms, Pin 13-33 open. Remove +24VDC from Pin 2. Check Pin 3-5 for open, Pin 3-4 for 0 ohms, Pin 13-15 for open, Pin 13-33 for 0 ohms.

6.2.3 K2 TEST. Connect + 24VDC to Pin 12. Check Pin 8-7 for 0 ohms, Pin 8-31 for open, Pin 30-6 for 0 ohms, Pin 30-32 for open. Remove + 24VDC from Pin 12. Check Pin 8-7 for open, Pin 8-31 for 0 ohms, Pin 30-6 open, Pin 30-32 for 0 ohms.

6.2.4 K3 TEST. Connect + 24VDC to Pin 11. Check for Pin 26-10 for 0 ohms, Pin 26-28 for open, Pin 27-9 for 0 ohms, Pin 27-29 for open. Remove +24 VDC from Pin 11. Check Pin 26-10 for open, Pin 26-28 for 0 ohms, Pin 27-9 for open, Pin 27-29 for 0 ohms.

6.2.5 K4 TEST. Connect +24VDC to Pin 14. Check for Pin 23-18 for open. Remove 24 VDC from Pin 14. Check Pin 23-18 for 0 ohms. Jumper TP-1 to TP-4. Check Pin 23-18 for open. Remove jumper TP-1 to TP –3. Check Pin 23-18 for 0 ohms.

6.2.6 K5 TEST. Connect 125VDC common to Pin 36. Connect + 125VDC to Pin 20. Check Pin 23-18 for open. Remove 125VDC from Pin 20. Check Pin 23-18 for 0 ohms. Jumper TP1 to TP4. Check Pin 23-18 for open. Remove jumper TP1-TP4. Check Pin 23-18 for 0 ohms.

6.3 ***TEST COMPLETE ***

7. NOTES