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GE Industrial Systems

Functional Testing Specification

*Renewal Services
Louisville, KY*

LOU-GED-193X735xx-A

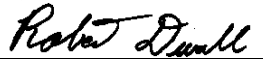
Test Procedure for a 193X735ACG01 Card

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

REV.	DESCRIPTION	SIGNATURE	REV. DATE
A	Initial release	D. Laemmle	6/02/03
B			
C			

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DATE 6/02/2003	DATE	DATE	DATE 6/27/03

Functional test procedure for 193X735ACG01

1. SCOPE

1.1 This is a functional testing procedure for a.

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.

2.1.1

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	H188547	Lamp Load
1		Firing Box

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6. TESTING PROCESS

6.1 Setup

- 6.1.1 This test connects the Lamp Load in series with each of the 4 SCRs individually and applies the AC 120v line across them. The pulse control on the firing box varies the amount of current flow and lamp brilliance, which will be at about half brilliance at full on due to the half wave rectification. A full brilliance lamp with no pulses applied indicates a shorted SCR.
- 6.1.2 Check connections from lettered terminals on card to terminal tabs for continuity, burned tabs, etc.
- 6.1.3 Component test the 4 resistors and capacitors and card circuit integrity.

6.2 Testing Procedure

- 6.2.1 **SCR 781 (#1 Forward)** Connect red test fixture lead to Terminal A & B. (A & B are electrically the same tab). Connect black test lead to Terminal L & M. (L & M are electrically the same tab). Connect **"ISOLATED PULSES"** from firing box: Cathode to M (along with black lead) and Gate to Terminal G. Turn power switches on test fixture and firing box to on and rotate control to vary lamp brilliance. Lamp should be out when control is completely counterclockwise. Switch off fixture.
- 6.2.2 **SCR 783 (#2 Forward)** Leave red lead connected to A & B and move black lead and firing box cathode lead to J & K. Move firing box lead to Terminal E. Turn on fixture and rotate firing control to see lamp brilliance change as in previous step. Turn off fixture.
- 6.2.3 **SCR 782 (#1 Forward)** Move red test lead to L & M and black lead along with firing box cathode lead to C & D. Move firing box Gate lead to Terminal H. Turn on fixture and rotate firing control to see lamp brilliance change. Turn off fixture.
- 6.2.4 **SCR 784 (#2 Reverse)** Leave black fixture lead and firing box cathode lead on C & D. Move red fixture lead to J & K and Gate lead to Terminal F. Turn on fixture and rotate firing control to see lamp brilliance change. Turn off fixture.

6.3 *****TEST COMPLETE*****

7. NOTES

- 7.1 None at this time