



GE Energy

Functional Testing Specification

Parts & Repair Services
Louisville, KY

LOU-GED-IC3650SSNC

Test Procedure for a Squirrel protection card

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

REV.	DESCRIPTION	SIGNATURE	REV. DATE
A	Initial release	James Archibald	7/30/2009
B			
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 James Archibald	REVIEWED BY	REVIEWED BY	QUALITY APPROVAL <i>Charlie Wade</i>
DATE 7/30/2009	DATE	DATE	DATE 7/30/2009

<p>LOU-GED-IC3650SSNC REV. A</p>	<p>g</p> <p>GE Energy Parts & Repair Services Louisville, KY</p>	<p>Page 2 of 4</p>
---	--	---------------------------

1. SCOPE

1.1 This is a functional testing procedure for a 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 Test Specifications 55-198887

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, 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

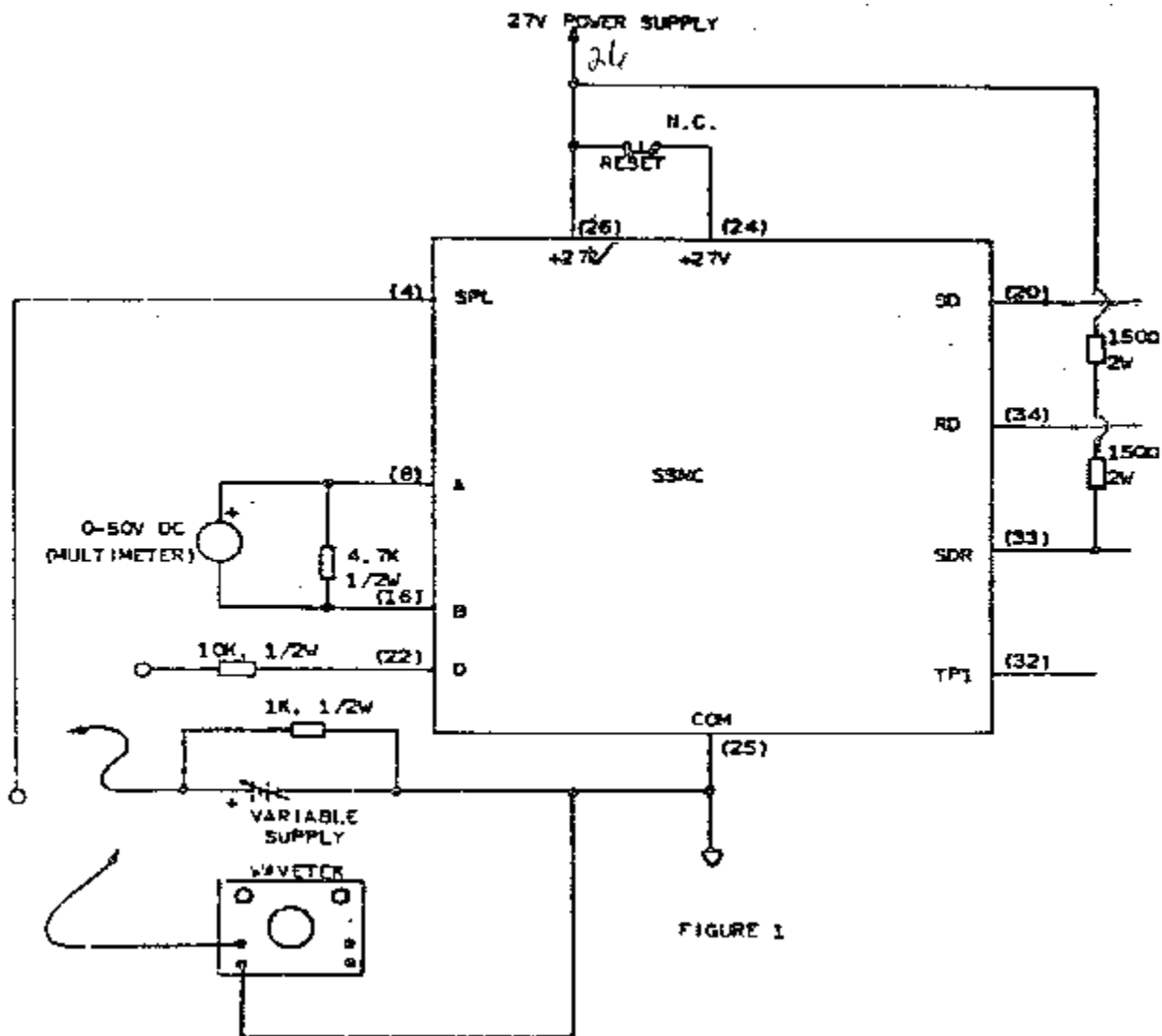
5. EQUIPMENT REQUIRED

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	H188505	Function Generator
2		Variable power supply

6. TESTING PROCESS

6.1 Setup



6.2 Testing Procedure

- 6.2.1 Visually check c6 is a .047MFD capacitor.
- 6.2.2 Connect test circuit Per figure 1.
- 6.2.3 Apply +27 volt.
- 6.2.4 Connect variable power supply to (SPL) pin 4 and adjust for +6 volts.
- 6.2.5 The voltmeter on pins 6 and 16 should read about 26 volts.

<p>LOU-GED-IC3650SSNC REV. A</p>	<p>g</p> <p>GE Energy Parts & Repair Services Louisville, KY</p>	<p>Page 4 of 4</p>
---	--	---------------------------

- 6.2.6** Increase variable power supply to 10 volts. The voltmeter should read 0 volts.
- 6.2.7** Disconnect meter from pin 6 and 16 and connect it to pin SD (20) to Com pin (25).
- 6.2.8** Disconnect the variable power supply from SPL pin (4) and connect it to the loose end of the 10K resistor.
- 6.2.9** Connect the function generator (H188505) to SPL pin (4) and set it to 60HZ at 30 volts p/p Sine wave.
- 6.2.10** Tune R30 to full CW and set variable power supply to 10 volts. Press reset.
- 6.2.11** Voltmeter should read about 27 volts.
- 6.2.12** Slowly turn R30 CCW until voltmeter suddenly drops to 0.
- 6.2.13** Reduce power supply to 9.6 volts.
- 6.2.14** Press reset and voltage should read 27 volts.
- 6.2.15** Very slowly increase power supply voltage until voltmeter again drops to 0, this should
- 6.2.16** Occur at 10 volts \pm 1%. Slight readjustment of R30 may be necessary to achieve the 10 Volt Trip point.
- 6.2.17** Seal R30 with RTV.
- 6.2.18** Jumper SD pin (20) to RD pin (34).
- 6.2.19** Reduce power supply to 9 volts and press reset.
- 6.2.20** Connect meter to SDR pin (33) and COM pin (25).
- 6.2.21** Meter should read 0 volts.
- 6.2.22** Increase voltage to 11 volts and meter should go to 27 volts before reaching 11 volts.
- 6.2.23** Disconnect function generator and connect SPL (4) to COM pin (25).
- 6.2.24** Reduce power supply to 9.6 volts and press reset.
- 6.2.25** Slowly increase power supply until voltage jumps to 27 volts and power supply voltage should be between 10.5 volts but less than 14 volts.
- 6.2.26** Disconnect 150 ohm resistor from SDR pin (33) and connect a milliamp meter between 27 Volt power supply and meter should read between 32 and 39 MA.

6.3 **TEST COMPLETE **

7. NOTES

7.1 None at this time

8. ATTACHMENTS

8.1 None at this time