g GE Industrial Systems	**Functional Testing Specification**
Renewal Services ***Louisville, KY***	**LOU-GED-AC2000**

Test Procedure for a Card

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

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A	Initial release	Lloyd Groves	7-11-02
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Lloyd Groves			Robert Duvall
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Functional test procedure for a AC2000 drive.

1. SCOPE

1.1 This is a functional testing procedure for an AC2000 IGBT Drive.

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		DMM
1	H033761	AC2000 IGBT

6. TESTING PROCESS

6.1 Setup

6.1.1 Unhook and remove test drive H033761, replace with customers unit.

6.2 Testing Procedure

6.2.1 Apply power to UUT and check display for any fault indications, repair any faults before continuing. Note: Flt 179 is a temporary flt and will go away after a few seconds.

6.2.2 Verify power supplies on control panel.

6.2.3 Verify relays 1-6 on control panel.

6.2.4 Verify cooling fan works.

6.2.5 Using the keypad, Execute TEST 12 “SCR TEST”.

6.2.6 This can be done by entering the following in on the programmer: ([set], [drv], [7], [7], [Enter], [Reset], [Reset], [test], [1], [2], [Enter]

6.2.7 LCC will display ”CELL TEST PASSED”.

6.2.8 On control panel, push run switch up, motor should start turning.

6.2.9 Adjust analog input reference up and down from 0 to 90, and verify that motor speed corresponds to reference(ms % on display).

6.2.10 Change the position of the pol switch on control panel and verify motor changes direction.

6.2.11 Push the reset button on control panel, and make sure drive resets.

*6.3 ***TEST COMPLETE ****

7. NOTES