



GE Energy

## Functional Testing Specification

Inspection & Repair Services  
Louisville, KY

LOU-GEF-AD256x

### Test Procedure for AD256 Printed Circuit Board

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<p><b>LOU-GEF-AD256 REV. A</b></p>	<p><b>g</b></p> <p><b>GE Energy</b> <i>Inspection &amp; Repair Services</i> <i>Louisville, KY</i></p>	<p><b>Page 2 of 3</b></p>
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## Functional test procedure for AD256 Printed Circuit Board

### 1. SCOPE

- 1.1 This specification provides the Engineering Requirements for testing the AD256, AD256A, and AD256B printed circuit boards. The process applies only to AD256 boards model number 44A399759-G01

### 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 | <b>GEK-36093</b> | Diagnostic Software for 1050T Controls  |
| 3.1.2 | <b>GEK-71632</b> | Diagnostic Software for 1050MC Controls |
| 3.1.3 | <b>GEK-45668</b> | Computer Access Panel                   |
| 3.1.4 | <b>44C288517</b> | Schematics                              |

### 4. ENGINEERING REQUIREMENTS

- 4.1 Description: AD256 Board is part of the 256-character Alphanumeric Display System. It is the logic, character generator, and driver output for the Display. It communicates with the Alphanumeric Display System through the PERI Board.
- 4.2 Equipment Cleaning
- 4.2.1 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.
- 4.3 Equipment Inspection
- 4.3.1 Equipment should be visually inspected for any defects prior to applying power. This inspection should include the following as a minimum:
- |         |  |
|---------|--|
| 4.3.1.1 | Wires broken or cracked                        |
| 4.3.1.2 | Terminal strips / connectors broken or cracked |
| 4.3.1.3 | Loose wires                                    |
| 4.3.1.4 | Components visually damaged                    |
| 4.3.1.5 | Capacitors leaking                             |
| 4.3.1.6 | Solder joints damaged or cold                  |
| 4.3.1.7 | Circuit board burned or de-laminated           |
| 4.3.1.8 | 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	GE 1050T	CPU3 Model
1	GE Computer Access Panel	External Interface
1	Diagnostic Tape Specific to Control	Diagnostic Tape
1	Executive Tape Specific to Control	Executive Tape

## 6. TESTING PROCESS

### 6.1 Diagnostic Test

### 6.2 Remove Control's AD256 and install the AD256 to be tested.

#### 6.2.1 Load the Diagnostic Tape.

6.2.1.1 Once the tape is fully loaded it will rewind back to the beginning (Before Test No. 1). The Display should show: Push Control OFF, then ON, follow this instruction at this time. If the Cap Panel is hooked up you will also have to hit the RUN switch to start the control's program

#### 6.2.2 Setup the control for testing.

6.2.2.1 Press NEXT, then 2, then Cycle Start. Alphanumeric characters should scroll on the display and the Option STOP lamp should flash. Run this test for @ 1 hour.

6.2.2.2 Press Cycle Start button until display stops scrolling. Press Cycle Start button again until the Option Stop push button quits flashing. Keep depressing Option Stop until all tests are complete.

6.2.2.3 Load Executive Tape, display should read 44S287840-C5L. Turn Display Switch to Program then back to Status. Characters on Display should be legible. Turn off Control remove AD256 board and replaced Control's AD256 Board.

### 6.3 \*\*\*TEST COMPLETE\*\*\*

## 7. REFERENCES

### 7.1 None at this time