



GE Energy

Functional Testing Specification

Parts & Repair Services
Louisville, KY

LOU-GEF-IO128

Test Procedure for IO128A Printed Circuit Board

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Functional test procedure for IO12A Printed Circuit Board

1. SCOPE

- 1.1 This specification provides the Engineering Requirements for testing the IO128A 44A297024-G021 printed circuit board.

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 | GEK-25317 | Diagnostic Software for 1050MCCM Controls |
| 3.1.2 | GEK-45668 | Computer Access Panel |
| 3.1.3 | 44C297114 | Schematics |

4. ENGINEERING REQUIREMENTS

- 4.1 Description
IO128A is an optional Input/Output board for the 1050MCCM Control.
- 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 1050MCCM Control	CPU3 Model
1	GE Computer Access Panel	External Interface
1	Diagnostic Tape Specific to Control	Diagnostic Tape
1	ProTrackI 1/CPU Tester	Board Component Tester

6. TESTING PROCESS

6.1 PROTRACT TEST

- 6.1.1 Power Up Huntron ProTrack 1 and Start HUNTRON Program on Test CPU.
- 6.1.2 Select Test: System 1050MCCM and Board 44A297024-G01 IO128A.
- 6.1.3 Scan Test all components in the Component List.

6.2 DIAGNOSTIC TEST

- 6.2.1 Install the IO128A to be tested in the 1050MCCM Board Rack labeled IOC128.
- 6.2.2 Turn on Control.
- 6.2.3 Load the Diagnostic.
 - 6.2.3.1 Once the tape is fully loaded it will rewind back to the beginning (Before Test No. 1). The Display should show: Depress "Control OFF", then ON, follow this instruction at this time. If the Computer Access Panel is hooked up you will also have to hit the RUN switch to start the control's Diagnostic program.
- 6.2.4 Setup the control for testing.
 - 6.2.4.1 Depress "**Option Stop**" button (Cycle Start and Option Stop push button will quit flashing).
 - 6.2.4.2 Test All Board Test; depress "**Cycle Start**" to run test. If all pass go on to Mode One Test (Depress "**Next**" than enter 1 from keyboard. Run for 1 to 2 hours.

***TEST COMPLETE ***

7. REFERENCES

- 7.1 None at this time