g GE Energy	**Functional Testing Specification**
Inspection & Repair Services ***Louisville, KY***	**LOU–GEF** **MAUU1-3**

Test Procedure for MAUU1 & MAUU3 Printed Circuit Board

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Functional test procedure for MAUU1 & MAUU3 Printed Circuit Board

1. SCOPE

1.1 This specification provides the Engineering Requirements for testing the MAUU1/3 printed circuit board. The process applies only to MAUU1/3 boards model number 44A398722-G01/G03.

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-36093** Diagnostic Software for 1050T Controls
3.1.2 **GEK-71632** Diagnostic Software for 1050MC Controls
3.1.3 **GEK-45668** Computer Access Panel

4. ENGINEERING REQUIREMENTS

4.1 Description

4.1.1 The 1050 Control is a solid-state, integrated circuit controller/processor system using LSI circuits for data processing and control. The static logic circuits are arranged on modular, plug in, printed circuit boards, clearly identified by type. The circuit boards are mounted with functional grouping. In addition, a board identification number marks each rack slot. The backplane consists of printed conductors arranged in a busing structure so that each slot is universal and can accept any board type. The 1050 control uses the AXIS2 board for controlling two or more axis drives.

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	CPU2 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

6.1.1 Remove existing board from control and insert BUT (Board Under Test).

6.1.2 Turn control ON and check CAP Panel, if FFFE does not register on panel with the Display Selector Switch in the "Prog Cntr" position, do not go any further, troubleshoot board.

6.1.3 Load diagnostic tape by holding in the "LOAD TAPE" button and pressing the "CONTROL ON" push button. Tape should begin to load.

6.1.4 When the first portion of the tape has finished loading the display should read "**CPU TEST COMPLETE".** Let test cycle for 1 hour.

6.1.5 Turn Off Control. Remove CPSI1 board and then Press Store Program and Control On at the same time, this runs the next test. When tape stops at Memory Test, run test for 1 hour.

6.1.6 Load third portion of the diagnostic tape, by toggling "Load Tape" switch. When tape finishes loading, it should rewind back to the beginning of tape. When displays reads "**TURN CONTROL OFF, THEN CONTROL ON"**. Turn off control. Turn control on and start the last part of the diagnostic program, let it cycle for 1 hour.

6.2 ***TEST COMPLETE ***

7. NOTES

7.1 Cheap sockets have been known to cause intermittent problems and will keep the control from initializing, FFFE.

8. REFERENCES

8.1.1 Prom Chip Set for MAUU1 & 3.

Location	Checksum	GE #	Chip type	Chip type
C2	0B71	997-077A	74S387	
C3	0C34	997-079A	74S387	
C4	0834	997-078B	74S387	
C5	0C79	997-076A	74S387	
J3	0B91	997-081A	74S387	
J5	0AA4	997-085A	74S387	
M3	0BF4	997-082A	74S387	
M4	06FB	997-083A	74S387	
M5	0C58	997-086A	74S387	
M6	0A9D	997-084A	74S387	
B11	0B8A	997-090A	74S387	
B12	0E60	997-088A	74S387	
B13	0D73	997-089A	74S387	
B14	0DE7	997-087A	74S387	
B15	0DA2	997-091A	74S387	
A9			74S474?	
C9			74S474?	