g GE Energy	**Functional Testing Specification**
Inspection & Repair Services ***Louisville, KY***	**LOU-GEF-ADC71B-A**

Test Procedure for ADC71B Printed Circuit Board

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

REV.	DESCRIPTION	SIGNATURE	REV. DATE
A	Initial release	C. Wade	6/23/2008
B			
C			

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DATE	**DATE**	**DATE**	**DATE**
6/23/2008			6/23/2008

Functional test procedure for ADC71B Printed Circuit Board

1. SCOPE

1.1 This specification provides the Engineering Requirements for testing the ADC71B 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-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

EQUIPMENT REQUIRED

4.4 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
1	Part Program	Exercise Tape
1	Axis Cart	Motion Cart for Control
1	Fluke 87	Multimeter

5. TESTING PROCESS

5.1 Diagnostic Test

5.1.1 Load ADC71 Test Tape. The readout will display the pots being tested. All counts should vary smoothly and when adjustment stops, the count should not vary more than + or – 1 count. Count can increase by 2 counts.
5.1.2 Adjust P1, P1 should vary from 67 to F5; leave at F5. (MFO=120%) ????
5.1.3 Press next pushbutton three (3) times. Readout says P6.
5.1.4 Adjust P6 CW to F0.
5.1.5 Press next
5.1.6 Adjust P5 to F0 (Fully CW) leave at F0.
5.1.7 Press next.
5.1.8 Adjust P4 same as step 7.
5.1.9 Press next.
5.1.10 Adjust P3 same as step 7.
5.1.11 Press next.
5.1.12 Adjust P2 same as step 7.
5.1.13 Press next two (2) times.
5.1.14 Adjust MFO pot fully CW to CCW. Readings should go from F5 to 00 and to F5 respectfully.
5.1.15 Press Next.
5.1.16 Press red button – reading should be F0 or greater. Remove test jig.
5.1.17 Press Next.
5.1.18 Adjust P6 to 00 (CCW).
5.1.19 Press Next.
5.1.20 Repeat steps 6-12 except to 00 (CCW).
5.1.21 Test complete.

Note: Make sure count does not vary more than one count.

5.2 ******TEST COMPLETE ******