g GE Energy	**Functional Testing Specification**
Inspection & Repair Services ***Louisville, KY***	**LOU-GEF-1050x** **Diagnostics**

Test Procedure for running diagnostics in a 1050x control

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

REV.	DESCRIPTION	SIGNATURE	REV. DATE
A	Initial release	C. Wade	4/8/2008
B			
C			

PREPARED BY	REVIEWED BY	REVIEWED BY	QUALITY APPROVAL
Rick Diercks			Charlie Wade
DATE	**DATE**	**DATE**	**DATE**
4/8/2008			4/8/2008

Functional test procedure for 1050x diagnostics

1. SCOPE

1.1 This specification provides the operation of running diagnostics in a 1050 T or MC control.

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/MC	CPU3 Model
1	GE Computer Access Panel	External Interface
1	Diagnostic Tape Specific to Control	Diagnostic Tape

5. TESTING PROCESS

5.1 Diagnostic Test

5.1.1 Ensure that control has the appropriate number of cards installed.
5.1.2 Be sure Computer Access Panel is hook up.
5.1.3 Load proper diagnostics tape into tape reader, specific to 1050MC or 1050T.
5.1.4 Turn control on and press load tape on CAP Panel.
5.1.5 Tape should stop at the end of the first test section and display should read CPU Test Complete.
5.1.6 Press load tape on CAP Panel.
5.1.7 The next time the tape stops the display should read the available memory in the control. Press control to begin test. Test will keep repeating itself until you move on to next and final section.
5.1.8 Press load tape on CAP Panel to load final section of test. Once the tape reader gets to the end of the tape, it should automatically rewind the tape.
5.1.9 Once tape has been rewinded, the display should say Turn control off and then control on. Press RUN on the CAP Panel. Follow instructions in diagnostics section to test cards.

5.2 ***TEST COMPLETE ***