g GE Energy	**Functional Testing Specification**
Parts & Repair Services ***Louisville, KY***	**LOU-GEF-550TX** **Print Circuit Boards**

Test Procedure for all 550TX Control's Printed Circuit Boards.

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DATE	**DATE**	**DATE**	**DATE**
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Functional test procedure for all 550TX Control PCBs

1. SCOPE

1.1 This specification provides test requirement for testing of printed circuits boards that are used in GE Mark Century 550TX 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-25242G**	**Diagrams**
3.1.2	**NEC-1029I**	**Schematic**
3.1.3	**ProTrack 1 Model 10/20**	**User's Manual**

4. ENGINEERING REQUIREMENTS

4.1 Description

4.2 This Test is for the Testing of Printed Circuit Boards that are used in 550TX Lathe Control. Each PCB will have its own Schematic Diagram and board description.

4.3 Equipment Cleaning

4.3.1 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.

5. Equipment Inspection

5.1.1 Equipment should be visually inspected for any defects prior to applying power. This inspection should include the following as a minimum:

- **5.1.1.1** Wires broken or cracked
- **5.1.1.2** Terminal strips / connectors broken or cracked
- **5.1.1.3** Loose wires
- **5.1.1.4** Components visually damaged
- **5.1.1.5** Capacitors leaking
- **5.1.1.6** Solder joints damaged or cold
- **5.1.1.7** Circuit board burned or de-laminated
- **5.1.1.8** Printed wire runs burned or damaged

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6. EQUIPMENT REQUIRED

6.1 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	Huntron ProTrack 1	Component Tester.
1	Huntron ProTrack 1 Scanner	Component Scanner
1	Computer with MS Windows	Huntron Software Test Program
1	Multimeter	Fluke 77 or equivalent

7. TESTING PROCESS

7.1 Turn on Huntron ProTrack 1 and Scanner
7.2 Bring up Huntron Workstation for Windows on Computer
7.3 Select 550MC/T in System
7.4 Select the Part Number of the board that is to be tested
7.5 Start at the first component in the list to be tested. **See Note**
7.6 Scan that component if it passes move on through the list, if the component fails analyze fault by using the board's **Schematic** to troubleshoot the fault, then correct the fault (replaced bad component) and rescan the component, if it passes proceed to next Component.
7.7 When all components are scanned and passed the testing of the board is complete.

NOTE ** Not all Component will passed the Huntron Scan Test. You will have to analyze each component that failed to see if is a component failure or if the failure is cause by different type (SN or DM) or a different manufacture's IC in the circuit. This is not a Fail/Pass Test you will have to use you Technical Knowledge to decide if the Component and circuit is good.

******TEST COMPLETE ******

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