g GE Energy ***Inspection & Repair Services*** ***Louisville, KY***	**Functional Testing Specification** **LOU-GEF-44A719978-G01** **MC2000-DC Converter**

Test Procedure for MC2000 DC-to-DC Converter

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Functional test procedure for MC2000 DC to DC Converter

1. SCOPE

1.1 This specification provides the Engineering Requirements for testing DC-To-DC Converter. The process applies only to models number 44A719978-001

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 **44A719978** **Rev #613015** System Diagrams
3.1.2 **Rev.B & RevE** Board Schematics

4. ENGINEERING REQUIREMENTS

4.1 Description

4.1.1 The DC-To-DC Converter supplies a regulated Voltages of +5, +15, and –15V to the NCB03 and NCS Monitor.

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		Fluke 87 DMM (or Equivalent)
		DC-TO-DC Converter Load
		DC Power Supply HP 6824A

6. TESTING PROCESS

6.1 Pre Test Requirement

6.1.1 Install DC/DC Converter to DC-TO-DC Converter Load:
+5Vto TB1, +15V to TB2, -15V to TB4, Out Com to TB5

6.1.2 Connect Power Supply (set at +24VDC) to +24V to TB6 and +24V Com to TB8.
6.1.3 Connect Volt Meter to TB5 Out Com and TB1 +5V.

6.2 Converter Test
6.2.1 Turn on Power Supply
6.2.2 Meter should be 4.90 to 5.10 Volts
6.2.3 Check output 15 Volt outputs
+15V TB2 should be14.75 to 15.25 Volts
-15V TB4 should be –14.75 to –15.25
6.2.4 Burn in with full load for @ 2 hours Monitoring Output Voltage (voltages should stay with in range).
6.2.5 Turn off Power Supply remove Converter from Load and Power Supply.

6.3 ******TEST COMPLETE ******