g GE Industrial Systems	**Functional Testing Specification**
Renewal Services ***Louisville, KY.***	**LOU–GED-DS3820FEDx**

Test Procedure for DS3820FEDx

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

REV.	DESCRIPTION	SIGNATURE	REV. DATE
A	Initial release	DWB	7/12//2002
B			
C			

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DATE	**DATE**	**DATE**	**DATE**
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Functional test procedure for DS3820FEDX

1. SCOPE

1.1 This is a functional testing procedure for a DS3820FEDX.

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

4. ENGINEERING REQUIREMENTS

4.1 Equipment Cleaning
- **4.1.1** 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.

4.2 Equipment Inspection
- **4.2.1** Equipment should be visually inspected for any defects prior to applying power. This inspection should include the following as a minimum:
  - **4.2.1.1** Wires broken or cracked
  - **4.2.1.2** Terminal strips / connectors broken or cracked
  - **4.2.1.3** Loose wires
  - **4.2.1.4** Components visually damaged
  - **4.2.1.5** Capacitors leaking
  - **4.2.1.6** Solder joints damaged or cold
  - **4.2.1.7** Circuit board burned or de-laminated
  - **4.2.1.8** 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	MC#10557	TRANSFORMER
1	POWER SUPPLY	CAP#H033614
1	POWER SUPPLY	0-30VDC POWER SUPPLY
1		SWITCH BOX
1		LAMP LOAD

6. TESTING PROCESS

6.1 Setup

6.1.1 Determine what input voltage unit is being tested. DS3820FED----

FORM	INPUTS ---- AC	OUTPUT --- DC
A	300VAC	25 TO 70 AMPS
B	415VAC	25 TO 70 AMPS
C	300VAC	25 TO 85 AMPS
D	415VAC	25 TO 85 AMPS
E	300VAC	10 TO 30 AMPS
F	415VAC	10 TO 30 AMPS

6.2 Testing Procedure

6.2.1 Connect incoming power and load connections to proper terminals of UUT.

6.2.2 Connect the DC power supplies to proper connections on the switch box.

6.2.3 Apply power to unit.

6.2.4 Unit should have yellow IMOK led and red LOCK led ON.

6.2.5 Turn switch JE10 on. FORWARD led will come on as well as the light bulb load. Connect a Digital Volt meter across the load and read approx. +125VDC. Leave voltmeter connected across the load.

6.2.6 Turn switch JE7 on. FORWARD and REVC leds should be ON and positive voltage is across the output load.

6.2.7 Turn switch JE5 ON. RECV, PERM, and REVERSE leds should all be lit and the output voltage should change polarity (approx. –125VDC)

6.2.8 Turn OFF JE5 switch. The output voltage polarity should remain negative and the REVC and REVERSE leds are ON.

6.2.9 Turn OFF JE7 switch. Output voltage remains negative and the REVERSE led is the only led ON.

6.2.10 Turn switch JE5 ON. PERM and FORWARD should light and the output voltage should become positive.

6.2.11 Turn JE5 OFF. The FORWARD led is the only led ON and output voltage remains Positive.

6.2.12 Turn ON JE8 switch. Output voltage should switch to negative voltage and REGN and REVERSE leds are ON.

6.2.13 Turn OFF JE8 switch. FORWARD led is the only led ON. The voltage flips back to positive volts output.

6.2.14 Turn OFF JE10 switch. Unit should light yellow IMOK and red LOCK leds only.

6.2.15 Turn ON JD12 switch ON. FORWARD led is lit and positive output voltage is present across the load.

6.2.16 Turn JD11 switch ON. Output voltage remains positive and the RECV and FORWARD leds are lit.

6.2.17 Turn ON switch JD10. The output voltage should now be negative. The RECV, PERM and REVERSE leds should all be lit.

6.2.18 Turn OFF JD10. Output voltage remains negative and the RECV and REVERSE leds are lit.

6.2.19 Turn OFF JD11 switch. The REVERSE led is the only led ON and output voltage remains negative.

6.2.20 Turn OFF JD12 switch and unit should light the yellow IMOK and the red LOCK led.

6.3 ***TEST COMPLETE ***

7. NOTES