g GE Energy ***Parts & Repair Services*** ***Louisville, KY***	**Functional Testing Specification** **LOU-GED-531X137XX-A**

Test Procedure for an 531X137xx terminal board

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

REV.	DESCRIPTION	SIGNATURE	REV. DATE
A	Initial release	James Archibald	6/28/2010
B	Corrected typo in 6.1.5 & 6.1.6	JA	8/8/18
C			
D			
E			
F			
G			

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James Archibald			L. Groves
DATE	**DATE**	**DATE**	**DATE**
6/28/2010			8/8/2018

1. SCOPE

1.1 This is a functional testing procedure for a DC300 terminal 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 Check electronic folder for more information.

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 site specific SRA's 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, cracked, or loosely connected
4.2.1.2 Terminal strips / connectors - broken or cracked
4.2.1.3 Components - visually damaged
4.2.1.4 Capacitors - bloated or leaking
4.2.1.5 Solder joints - damaged or cold
4.2.1.6 Circuit board - burned or de-laminated
4.2.1.7 Printed wire runs / Traces - 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	None	Fluke 87 DMM (or Equivalent)
1	None	115 Volt Variac

6. TESTING PROCESS

6.1 Testing Procedure

6.1.1 Check the traces for the following three tables. Should have less then one-ohm continuity.

From 4TB	To 13PL		From 4TB	To 13PL
1	6		13	13
2	5		14	14
3	4		15	15
4	3		16	16
5	2		17	17
6	1		18	18
7	7		19	19
8	8		20	20
9	9		21	21
10	10		22	22
11	11		23	23
12	12		24	24

Table 1

From 4TB	To 11PL		From 4TB	To 11PL
25	4		36	15
26	5		37	16
27	6		38	17
28	7		39	18
29	8		40	19
30	9		41	20
31	10		42	21
32	11		43	22
33	12		44	23
34	13		45	24
35	14			

Table 2

From 4TB	To 14PL		From 4TB	To 14PL
62	1		70	9
63	2		71	10
64	3		72	11
65	4		73	12
66	5		74	13
67	6		75	14
68	7		76	15
69	8			

Table 3

6.1.2 Jumper pins 46, 55 and 78 together on 4TB

6.1.3 Jumper pins 47,54 and 77 together on 4TB

6.1.4 Hook 115 volt from Variac to pins 46 and 47 but do not turn on at this time.

6.1.5 Check for open and closed contacts between these 4TB pins, see table 4. **Relay not fired**.

Open	Closed
48 to 49	48 to 50
51 to 52	51 to 53
56 to 57	56 to 58
59 to 60	59 to 61
79 to 80	79 to 81
82 to 83	82 to 84

Table 4

6.1.6 Turn Variac on and check for open and closed contacts between these 4TB pins, see table 5. **Relay has now been fired.**

Closed	Open
48 to 49	48 to 50
51 to 52	51 to 53
56 to 57	56 to 58
59 to 60	59 to 61
79 to 80	79 to 81
82 to 83	82 to 84

Table 5

6.2 ***TEST COMPLETE ***

7. NOTES

7.1 None at this time.

8. ATTACHMENTS

8.1 None at this time.