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GE Energy

Functional Testing Specification

*Inspection & Repair Services
Louisville, KY*

LOU-GEF-1050KYBD

Test Procedure for 1050T&MC KEYBOARD

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DATE 01/02/2009	DATE	DATE	DATE 1/2/2009

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Functional test procedure for 1050T & MC Keyboards

1. SCOPE

- 1.1 This specification provides the Engineering Requirements for testing the 1050T&MC Keyboards. The process applies 1050T 44B294346-G01-G05 and 1050MC 44B294321-G01 Keyboards.

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 **44C285479** **KBLA1** Schematics
- 3.1.2 **44C285863** **ANKB1** Schematics

4. ENGINEERING REQUIREMENTS

- 4.1 Description
The 1050T, MC Keyboard is the manual Data input for 1050T and MC Controls.
- 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	1050T&MC Keyboard Tester	Keyboard tester

6. TESTING PROCESS

6.1 Keyboard Data Test

- 6.1.1 Turn On/Off SW to off and plug in tester.
- 6.1.2 Connect MC or T Keyboard to tester via proper cable to KBAPL connector.
- 6.1.3 Turn on Tester (**Note if it is a 1050T Keyboard all 5-test lamps should come on if not turn off Tester, KBLA board is bad).
- 6.1.4 Check each pushbutton using the coding charts below

Code for 1050 T Keyboard 44B294346-G01 thru G05

Code for 1050 T Keyboard 44B294346-G01					
/	0	1	2-4-8	RS1	2-4-8
N	1	2	1-4-8	RS2	1-4-8
G	1-2	3	4-8	RS3	4-8
X	2	4	1-2-8	RS4	1-2-8
Z	2-4	5	2-8	RS5	2-8
I	1-2-4	6	1-8	RS6	1-8
K	1-4	7	8	RS7	1-2-4
R	4	8	1-2-4	RS8	1-4
F	4-8	9	2-4	RS9	1-2
S	1-4-8	0	1-2-4-8		
T	1-2-4-8	+	4		
H	2-4-8	-	1-4		
M	2-8	.	1-2		
\$	1-2-8				
L	1-8				

Code for 1050 T Keyboard 44B294346-G02

Code for 1050 T Keyboard 44B294346-G02					
/	0	1	2-4-8	RS1	2-4-8
N	1	2	1-4-8	RS2	1-4-8
O	1-2	3	4-8	RS3	4-8
G	1-2-16	4	1-2-8	RS4	1-2-8
X	2-16	5	2-8	RS5	2-8
Z	16	6	1-8	RS6	1-8
U	4-16	7	8	RS7	1-2-4
W	2-4-16	8	1-2-4	RS8	1-4
I	1-2-4-16	9	2-4	RS9	1-2
K	1-4-16	0	1-2-4-8		
R	1-4	+	4		
F	4	-	1-4		
S	4-8	.	1-2		
T	1-4-8				
H	1-2-4-8				
M	1-2-4				
L	2-4				
\$	2-4-8				

Code for 1050 T Keyboard 44B294346-G03

Code for 1050 T Keyboard 44B294346-G03					
/	0	1	2-4-8	RS1	2-4-8
N	1	2	1-4-8	RS2	1-4-8
G	1-2	3	4-8	RS3	4-8
H	1-2-16	4	1-2-8	RS4	1-2-8
X	2-16	5	2-8	RS5	2-8
Z	16	6	1-8	RS6	1-8
U	4-16	7	8	RS7	1-2-4
W	2-4-16	8	1-2-4	RS8	1-4
I	1-2-4-16	9	2-4	RS9	1-2
K	1-4-16	0	1-2-4-8		
P	1-4	+	4		
R	4	-	1-4		
F	4-8	.	1-2		
E	1-4-8				
S	1-2-4-8				
T	1-2-4				
D	2-4				
M	2-4-8				
L	2-8				

\$ 1-2-8

Code for 1050 T Keyboard 44B294346-G05

Code for 1050 T Keyboard 44B294346-G05					
/	0	1	2-4-8	RS1	2-4-8
N	1	2	1-4-8	RS2	1-4-8
G	1-2	3	4-8	RS3	4-8
H	1-2-16	4	1-2-8	RS4	1-2-8
X	2-16	5	2-8	RS5	2-8
Z	16	6	1-8	RS6	1-8
U	4-16	7	8	RS7	1-2-4
W	2-4-16	8	1-2-4	RS8	1-4
I	1-2-4-16	9	2-4	RS9	1-2
K	1-4-16	0	1-2-4-8		
P	1-4	+	4		
R	4	-	1-4		
F	4-8	.	1-2		
E	1-4-8				
S	1-2-4-8				
T	1-2-4				
D	2-4				
M	2-4-8				
L	2-8				
\$/Q	1-2-8				

Code for 1050 MC Keyboard 44B294321-G01

Code for 1050 MC Keyboard 44B294321-G01							
N	1-2-4-8-32	F	1-4-8-16	1	2-4-8	RS1	1-2-4-8
G	2-4-8-32	S	4-8-16	2	1-4-8	RS2	2-4-8
X	1-4-8-32	T	1-2-8-16	3	4-8	RS3	1-4-8
Y	4-8-32	D	2-8-16	4	1-2-8	RS4	4-8
Z	1-2-8-32	E	1-8-16	5	2-8	RS5	1-2-8
R	2-8-32	M	8-16	6	1-8	RS6	2-8
W	1-8-32	U	1-2-32	7	8	RS7	1-8
I	1-2-4-32	/	1-2-4-16	8	1-2-4	RS8	8
J	2-4-32	V	2-32	9	2-4	RS9	1-2-4
K	1-4-32	O	2-4-16	0	1-2-4-8	RS10	2-4
H	8-32	L	1-2-16	+	4	RS11	1-4
A	4-32	\$	1-4-16	-	1-4	RS12	4
B	1-2-4-8-16	;	2-16			RS13	1-2
C	2-4-8-16	.	4-16				

6.2 *TEST COMPLETE*****

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7. REFERENCES

7.1 None at this time