g GE Energy *Renewal Services* *Louisville, KY.*	**Functional Testing Specification** **LOU-GEF-IC610CPUxxx**

Test Procedure for: IC610CPUXXX

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

REV.	DESCRIPTION	SIGNATURE	REV. DATE
A	Initial release	*Charlie Wade*	*7/20/2005*
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PREPARED BY **Charlie Wade**	REVIEWED BY	REVIEWED BY	QUALITY APPROVAL Charlie Wade
DATE **7/20/2005**	DATE	DATE	DATE 7/20/2005

Functional test procedure for: IC610CPUXXX

1. SCOPE

1.1 This is a functional testing procedure for a: Test Procedure.doc

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.
2.1.1

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		Series One I/O Panel
1		Portable Programmer

6. TESTING PROCESS

6.1 Setup

6.1.1 Replaced RAM and battery.

6.1.2 Install CPU into Series One Rack and install programmer onto CPU.

6.1.3 Turn power on and turn key switch on programmer panel to Program.

6.1.4 Flip all switches to the down position.

6.1.5 Install the following program into CPU using the portable programmer. Clear memory first then start with the 1st Bit

Clear Shift 348 Delete Next THIS CLEARS THE MEMORY

1st Bit	Next	STR	Shift	0	Enter	Timer	Shift	600	Enter	Shift	1	Enter
	STR	Timer	Shift	600	Enter	Out	Shift	10	Enter			
2nd Bit	Next	STR	Shift	1	Enter	Timer	Shift	601	Enter	Shift	1	Enter
	STR	Timer	Shift	601	Enter	Out	Shift	11	Enter			
3rd Bit	Next	STR	Shift	2	Enter	Timer	Shift	602	Enter	Shift	1	Enter
	STR	Timer	Shift	602	Enter	Out	Shift	12	Enter			
4th Bit	Next	STR	Shift	3	Enter	Timer	Shift	603	Enter	Shift	1	Enter
	STR	Timer	Shift	603	Enter	Out	Shift	13	Enter			
5th Bit	Next	STR	Shift	4	Enter	Timer	Shift	604	Enter	Shift	1	Enter
	STR	Timer	Shift	604	Enter	Out	Shift	14	Enter			
6th Bit	Next	STR	Shift	5	Enter	Timer	Shift	605	Enter	Shift	1	Enter
	STR	Timer	Shift	605	Enter	Out	Shift	15	Enter			
7th Bit	Next	STR	Shift	6	Enter	Timer	Shift	606	Enter	Shift	1	Enter
	STR	Timer	Shift	606	Enter	Out	Shift	16	Enter			
8th Bit	Next	STR	Shift	7	Enter	Timer	Shift	607	Enter	Shift	1	Enter
	STR	Timer	Shift	607	Enter	Out	Shift	17	Enter			
9th Bit	Next	STR	Shift	100	Enter	Timer	Shift	610	Enter	Shift	1	Enter
	STR	Timer	Shift	610	Enter	Out	Shift	20	Enter			
10th Bit	Next	STR	Shift	101	Enter	Timer	Shift	611	Enter	Shift	1	Enter
	STR	Timer	Shift	611	Enter	Out	Shift	21	Enter			

11th Bit Next STR Shift 102 Enter Timer Shift 612 Enter Shift 1 Enter
STR Timer Shift 612 Enter Out Shift 22 Enter

12th Bit Next STR Shift 103 Enter Timer Shift 613 Enter Shift 1 Enter
STR Timer Shift 613 Enter Out Shift 23 Enter

13th Bit Next STR Shift 104 Enter Timer Shift 614 Enter Shift 1 Enter
STR Timer Shift 614 Enter Out Shift 24 Enter

14th Bit Next STR Shift 105 Enter Timer Shift 615 Enter Shift 1 Enter
STR Timer Shift 615 Enter Out Shift 25 Enter

15th Bit Next STR Shift 106 Enter Timer Shift 616 Enter Shift 1 Enter
STR Timer Shift 616 Enter Out Shift 26 Enter

16th Bit Next STR Shift 107 Enter Timer Shift 617 Enter Shift 1 Enter
STR Timer Shift 617 Enter Out Shift 27 Enter Next

6.2 Testing Procedure

6.2.1 Once done you should see a End of Program statement.

6.2.2 Turn key switch to RUN.

6.2.3 Flip switch 000 up and approximately 1-second later light 010 should come on. The other switches should follow this same pattern.

6.2.4 If unit passes test, power down and remove card.

6.2.5 Reinstall master CPU, End of Test

6.3 ***TEST COMPLETE ***

7. NOTES:

8.