g GE Energy	**Functional Testing Specification**
Parts & Repair Operations ***Louisville, KY***	**LOU-GEF-IC600LR/LX**

Test Procedure for Series Six LX624 and LR624 memory cards

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1. SCOPE

1.1 This is a functional testing procedure for Series Six LX/LR memory cards.

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, 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		Fluke 87 DMM (or Equivalent)
1	CPU-4	Main Rack
1	WM6	The Workmaster Computer

6. Test Process

6.1 Setup

6.1.1 Ensure that the customer's card has a battery installed.

6.1.2 Measure the battery's voltage.

6.1.3 If the battery measures below 3.0VDC, replace it.

6.1.4 Turn off the power of CPU-4.

6.1.5 Turn the Stop/Run key switch of CPU-4 to the Stop position.

6.1.6 To identify the slot # count the slots from left to right.

6.1.7 The I/O control card resides in slot # 11 of CPU-4.

6.1.8 Port A is the top port of the I/O Control card.

6.1.9 Connect the data cable from the Workmaster to Port A of the I/O Control card.

6.1.10 Remove the shop Memory card from slot # 8.

6.1.11 Install the customer's Memory card into slot # 8.

6.2 Testing

6.2.1 Turn on the power of CPU-4.

6.2.2 Verify that LED 2 of the Arithmetic Control card (slot # 9) lights up.

6.2.3 Enter the Logic-Master 6 program of the Workmaster.

6.2.4 Press F8 to enter the Utility Function menu.

6.2.5 Press F7 for the Clear Parity function.

6.2.6 Press CTRL-E to clear the parity.

6.2.7 Press ESC to return to the main menu.

6.2.8 Press F6 to enter the Load/Store/Verify menu.

6.2.9 Press F5 to enter the Clear Program function.

6.2.10 Press CTRL-E to clear the program.

6.2.11 Press F2 to enter the Store Program function.

6.2.12 By storing the "program" at this particular point, what is being stored is a blank. This step is for the purpose of testing the card's ability to accept the Store command.

6.2.13 Press CTRL-E to store the aforementioned blank.

6.2.14 Turn the Stop/Run key switch to the Run position.

6.2.15 Verify that LED 1 and 2 of both the Memory and Arithmetic Control cards light up.

6.2.16 Turn the Stop/Run key switch to the Stop position.

6.2.17 Press F5 to enter the Clear Program function.

6.2.18 Press CTRL-E to clear the program.

6.2.19 Press F1 to enter the Load Program Function.

6.2.20 Select drive C by typing "C" in the "Select Drive" prompt.

6.2.21 Arrow down to the "Program Name" prompt.

6.2.22 In the Program Name prompt, type "CPU4".

6.2.23 Press F2 to enter the Store Program function.

6.2.24 Press CTRL-E to store the CPU4 program into memory.

6.2.25 Turn the Stop/Run key switch to the Run position.

6.2.26 Verify that the lights, which are located in slot # 1, light up one by one in a scrolling fashion.

6.2.27 If the lights light up as previously mentioned, allow the card to continue running for at least 15 minutes (burn-in).

6.2.28 If the customer's card passes the 15-minute burn-in period, turn the Stop/Run key switch to the Stop position.

6.2.29 Press F5 to enter the Clear Program function.

6.2.30 Press CTRL-E to clear the program.

6.2.31 Press F2 to enter the Store Program function.

6.2.32 Like the earlier Store Program function test, by storing the "program" at this particular point, what is being stored is a blank. This particular step is for the purpose ensuring that the CPU4 program is NOT stored into the customers Memory card when the card gets shipped back to the customer.

6.2.33 Press CTRL-E to store the aforementioned blank.

6.2.34 Turn off the power of CPU-4.

6.2.35 Remove the customer's card.

6.2.36 Reinstall the shop card.

6.2.37 Turn on the power of CPU-4.

6.2.38 Turn the Stop/Run key switch to the Run position.

6.2.39 Disconnect the Battery from the input connector of the customer's card.

6.2.40 When filling out the Service Failure Report, add in a note for the installer technician, indicating that he/she will have to reconnect the battery before attempting to load any programs.

6.3 End of test.

7. NOTES

7.1 None at this time

8. ATTACHMENTS

8.1 None at this time