g GE Energy	**Functional Testing Specification**
Parts & Repair Operations ***Louisville, KY***	**LOU-GEF-IC600xx948**

Test Procedure for a Series Six I/O Communications Control card

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1. SCOPE

1.1 This is a functional testing procedure for a Series Six IC600xx948 I/O CCM card.

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		Series Six CPU-1 Local Rack
1		Series Six Work-Master computer
1		Series Six Operator Interface Terminal

6. Testing

6.1 Setup

6.1.1 Ensure that the power to the CPU-1 LOCAL rack is off.

6.1.2 On the I/O CCM card, there are 3 sets of dipswitches, which are labeled A, B and C. The following chart illustrates the positions to which these dipswitches are to be set.

X=Opened, L **=Closed**									
A	**X**	L	L	**X**	**X**	L	**X**	L	
B	**X**	L	**X**	**X**	L	**X**	L	**X**	**X**
C	**X**	**X**							

Chart 1

6.1.3 In the C: prompt of the Work-Master, type “2” and press enter.

6.1.4 Follow the instructions of the Work-Master until you get to the “Basic-Master 6” supervisor menu.

6.2 TEST PROCESS

6.2.1 After ensuring dipswitch settings are set in accordance with section 6, insert the card into slot 6.

6.2.2 Connect the communications cable labeled “Top” to port 1 (the top port) of the card.

6.2.3 Connect the communications cable labeled “Bottom” to port 2 (the bottom port) of the card.

6.2.4 Turn on the power to the CPU-1 LOCAL rack.

6.2.5 Allow the card approximately 5-10 seconds to perform the “self-test” function.

6.2.6 Press “F6” to enter the Load/Store/Verify screen.

6.2.7 Press “F5” to enter the clear function.

6.2.8 Press “Y” to clear the memory of the ASCII/BASIC card. Once the memory is cleared, “Memory cleared” should show up in the bottom left corner of the screen.

6.2.9 Press “F1” to enter the load function.

6.2.10 Type “C:\ABM\1” and press enter. It should take approximately 1 minute for the ABM program 1 to load. Once program 1 is loaded, the Work-Master should beep.

6.2.11 After the beep, press the escape key to enter the supervisor menu.

6.2.12 Press “F2” to enter the “Smart Terminal” screen.

6.2.13 Press “F2” again to run program 1. Program 1should begin drawing screens on the Operator Interface Terminal. This should take approximately 2 minutes. It will then be recommended by the Operator Interface Terminal to clear the memory then load and run the “C:\ABM\2” file.

6.2.14 Press the escape key to enter the supervisor menu.

6.2.15 Press “F6” to enter the Load/Store/Verify screen.

6.2.16 Press “F5” to enter the clear function.

6.2.17 Press “Y” to clear the memory of the ASCII/BASIC card. Once the memory is cleared, “Memory cleared” should show up in the bottom left corner of the screen.

6.2.18 Press “F1” to enter the load function.

6.2.19 Type “C:\ABM\2” and press enter. It should take approximately 1 minute for program 2 to load. Once program 2 is loaded, the Work-Master should beep.

6.2.20 After the beep, press the escape key to enter the supervisor menu.

6.2.21 Press “F2” to enter the “Smart Terminal” screen.

6.2.22 Press “F2” again to run program 2.

6.2.23 Identify the orange “F” keys on the Operator Interface Terminal.

6.2.24 Press “F” key 3 of the OIT to see the I/O CCM data page.

6.2.25 Ensure that both ports A and B are having “good conversations” and no “bad conversations” or “header retries”.

6.2.26 Let card run for at least one hour with good conversations.

6.2.27 Press the escape key to enter the supervisor menu.

6.2.28 Press “F6” to enter the Load/Store/Verify screen.

6.2.29 Press “F5” to enter the clear function.

6.2.30 Press “Y” to clear the memory of the ASCII/BASIC card.

6.2.31 Turn off the power to the CPU-1 LOCAL rack.

6.3 ***TEST COMPLETE***

7. NOTES

7.1 None at this time

8. ATTACHMENTS

8.1 None at this time