| g GE Energy | **Functional Testing Specification** |
|---|---|
| ***Parts & Repair Operations***<br>***Louisville, KY*** | **LOU-GEF-IC600CB5xx** |

# Test Procedure for a Series Six Communications Control card

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

| REV. | DESCRIPTION | SIGNATURE | REV. DATE |
|---|---|---|---|
| A | Initial release | Cristyn Edlin | 2/4/2010 |
| B | | | |
| C | | | |



| PREPARED BY | REVIEWED BY | REVIEWED BY | QUALITY APPROVAL |
|---|---|---|---|
| Cristyn Edlin | | | Charlie Wade |
| **DATE** | **DATE** | **DATE** | **DATE** |
| 2/4/2010 | | | 2/9/2010 |

## 1. SCOPE

**1.1** This is a functional testing procedure for a Series Six CCM card. This procedure encompasses all of the following models. IC600CB514, IC600CB516, IC600CB517, IC600CB536 and IC600CB537

## 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 CCM card, there are 3 sets of dipswitches, which are labeled SW1, 9 and 17. Chart 1 illustrates the positions to which these dipswitches are to be set.

| X=Opened, L =Closed | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| SW1 | L | L | L | L | L | L | L | L |
| SW9 | L | L | L | L | L | L | L | L |
| SW17 | L | X | X | X | | | | |

**Chart 1**

**6.4.1** There are 12 sets of jumpers, which are labeled T2, T4, T6, T8 and JP1-8. Charts 2 and 3 illustrate the positions to which these jumpers are to be set.

| T2 | T4 | T6 | T8 |
|---|---|---|---|
| 2-3 | 2-3 | 2-3 | 1-2 |

**Chart 2**

| JP1 | JP2 | JP3 | JP4 | JP5 | JP6 | JP7 | JP8 |
|---|---|---|---|---|---|---|---|
| 1-2 | 1-2 | 1-2 | 1-2 | 1-2 | 2-3 | 1-2 | 1-2 |

**Chart 3**

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

**6.4.3** 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 and jumper settings are set in accordance with section 6, insert the card into slot 7.

**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 2 of the OIT to see the 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.

***6.2.32 ***TEST COMPLETE******

## 7. Notes

**7.1** None at this time

## 8. Attachments

**8.1** None at this time