g                              GE Energy

**Functional Testing Specification**

*Parts & Repair Services*
*Louisville, KY*

**LOU-GED-DS200ACNA**
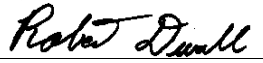
**Test Procedure for a ARCNET interface card**

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

| REV. | DESCRIPTION | SIGNATURE | REV. DATE |
|---|---|---|---|
| A | Initial release | K. Greenwell | 07/15/02 |
| B | Clarified test instructions | P. Kelley | 09/29/2010 |
| C | | | |

| PREPARED BY K. Greenwell | REVIEWED BY R. Duvall | REVIEWED BY P. Kelley | QUALITY APPROVAL *Robert Duvall* |
|---|---|---|---|
| DATE 07/15/02 | DATE 07/31/02 | DATE 09/29/2010 | DATE 07/31/02 |

**Functional test procedure for an ARCNET interface card**

## 1. SCOPE

**1.1** This is a functional testing procedure for an ARCNET interface 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** Check board's electronic folder for more information

## 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 site specific SRA's 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 | H033760 | AC2000 Drive |
| 1 | H033759 | IOS station |
| | | |
| | | |
| | | |

## 6. Testing Process

**6.1** Testing Procedure

    **6.1.1** Power down test drive and remove shop DS200ACNA card.

    **6.1.2** Install card to be tested.

    **6.1.3** Apply power to drive.

    **6.1.4** Verify that IOS station is communicating (RPM on display for drives 1-5).

        **6.1.4.1** Refer to "IOS Loading Instructions" in DC2000 Test Instructions (Section 7, Loading IOS LAN Test Software) if Test Type display doesn't indicate "acrnet".

    **6.1.5** Verify that DRIVE #2 LED on IOS station is blinking.

    **6.1.6** Apply power to test drive # 3 & # 4.

    **6.1.7** Verify that DRIVE #3 & #4 LEDs on IOS station is blinking.

        **6.1.7.1** This verifies that downstream communication is functioning.

    **6.1.8** Press Drive #2 pushbutton on IOS and verify that Drive # 2 jogs the connected motor.

        **6.1.8.1** Repeat for Drive # 3 & Drive # 4 with 3 and 4 pushbuttons on the display.

    **6.1.9** Burn in for 1 hour.

    **6.1.10** Repeat jog test 6.2.8.

    **6.1.11** Turn off power and remove board being tested.

**6.2** *\*\*\*TEST COMPLETE \*\*\**

## 7. Loading IOS LAN Test Software

**7.1 Setup**

    **7.1.1** Change to IOS Cable

    **7.1.2** Plug other end to Drive Under Test

**7.2 Test**

    **7.2.1** IOS is DOS based and must be booted up from DOS prompt

    **7.2.2** T:\enter& CD\Enter then>

    **7.2.3** IOS enter

    **7.2.4** IOS enter

    **7.2.5** Type **IOS "Enter"**

    **7.2.6** **T:\>**Type **IOS2 "Enter"**

    **7.2.7** You should now be in the "IOS Configuration Software"

        **7.2.7.1** Press **Space Bar**

**7.2.8**    The "Main Menu" will appear on the screen with **(deFine system and/or ios configuration.)** highlighted.

    **7.2.8.1**  You can only make this selection at this point so press "**Enter**".

    **7.2.8.2**  **"The IOS to be configured is ->di05"** will appear on screen.

    **7.2.8.3**  Press **F10**

**7.2.9**    The "Main Menu" will again appear on the screen.

    **7.2.9.1**  Arrow down to **"Utilities"**

    **7.2.9.2**  Press **"Enter"**

**7.2.10**   **"Utility selections"** will appear on screen.

    **7.2.10.1**  Arrow down to **"Download configuration file to operator station"**

    **7.2.10.2**  Press **"Enter"**

**7.2.11**   **"DS200 Series IOS/IEI Serial Link Utility"** will appear on screen followed by selections>

    **7.2.11.1**  Select **"Local IOS/IEI <-=File"**

    **7.2.11.2**  Press **"Enter"**

**7.2.12**   **"Download EE File to IOS Local"** will appear under **"DS200 Series IOS/IEI Link Utility"** followed by a selection screen.

    **7.2.12.1**  Arrow down to the specific test you wish to run.

    **7.2.12.2**  Select **"Arcnet.H09"** or **"DLAN.H10"**, then press **"Enter"**

**7.2.13**   **Arcnet.H09** will test the Arcnet communication between all drives (BNC Connector on Drives)

**NOTE:**  You should see scrolling data on the screen and verify that **Arcnet** appears in the **Test Type** display of the IOS panel at the end of the test sequence.

    **7.2.14**   **DLAN.H10** Will appear DLAN-Communications between all Drives (Terminal Strip)

**NOTE:**  You should see scrolling data on the screen and verify that **DLAN** appears in the **Test Type** display of the IOS panel at the end of the test sequence.

    **7.2.15**   To Exit:  Arrow down to **"Exit Program"** and press **"Enter"**

    **7.2.16**  **End**

**8.**   **Notes**

    **8.1**  None at this time

**9.**   **Attachments**

    **9.1**  None at this time