



GE Energy

Functional Testing Specification

Parts & Repair Services
Louisville, KY

LOU-GED-IS200TRTDH1C

Test Procedure for component testing an IS200TRTDH1C card.

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Functional test procedure for IS200TRTD card

1. SCOPE

1.1 This is a functional testing procedure for an IS200TRTDH1C.

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. This inspection should include the following as a minimum:

4.2.1.1 Terminal strips / connectors broken or cracked

4.2.1.2 Components visually damaged

4.2.1.3 Capacitors leaking

4.2.1.4 Solder joints damaged or cold

4.2.1.5 Circuit board burned or de-laminated

4.2.1.6 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	N/A	Mark VI Simplex Test Rack

6. TESTING PROCESS

NOTE: If any step of this test fails, troubleshoot and repair unit under test, then proceed with testing.

6.1 Testing Procedure

- 6.1.1 Make sure Mark VI Simplex Test Rack is powered off.
- 6.1.2 Install unit under test into Mark VI Simplex Test Rack system.
- 6.1.3 Apply power to Mark VI Simplex Test Rack.
- 6.1.4 After Mark VI Simplex Test Rack has booted completely, using Toolbox open SIM70 to check VRTD card points. The IS200TRTDH1CBB card connects to the VRTD in the Mark VI Simplex Test Rack. They should read as follows:
 - 6.1.4.1 RTD's 1 – 8 should read 10 counts +/-1 count.
 - 6.1.4.2 RTD's 9 – 16 should read 0 counts +/-1 count.
- 6.1.5 Let unit run in Mark VI Simplex Test Rack overnight.

6.2 Turbine Cards Only - Chip ID Check

- 6.2.1 **Background information** - ID chips need to be read to confirm that they have all been programmed properly. Any blank or mis-programmed ID chips leaving the factory and seeing service out in the field is higher than you might think. This can cause some problems with equipment, maybe even hard failures, even when nothing else is wrong with the card depending on how the customer's software is set up.
- 6.2.2 **Special Note for moving around in the program.** Use F10 to back out of whatever screen is presently displayed. If you would like to return to the main menu, for example to test or program a different model number. Press F10 to back out one screen at a time until the main menu is displayed. Then select *ID PROM Programmer* from the menu list and select the new model number. If you happen to press the F10 button too many times, you will see the DOS prompt C:\JOBS\MENU. To get back to the main menu simply type CD\ then hit enter. You should now see C:\ prompt; Now type MENU and press the enter key.

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6.2.3 Process - Simply take the card over to the CHIP ID Computer located in the MARK VI area of the shop and select the correct model from the menu and follow the instructions given to you by the PC. When selecting which model to use, you may see a 5G or 7G next to the number. This refers to the serial number and whether it has 5 or 7 digits in it. Select the proper one, as you will be expected to type this number into the system at a given point. When entering this data, be sure to use all CAPITAL LETTERS as lower case might cause it not to agree with what's programmed in the chip. If the particular revision you need to select doesn't have a 5G or 7G next to it, then get with Monte Starling to have it added before proceeding. **A trick to remember about chip ID serial numbers:** If for some reason your serial number is a 6 digit one, like the R##### numbers given out to units that arrive in our Receiving Dept. without serial number labels, you'll only need to type in some sort of gibberish to get the system to spit out an error when it compares it to what's in the chip, at which point it will tell you what serial number it found, then it'll ask you if you want to change it to the one you typed in. Your answer will be NO, to let it fail the test and quit programming. Be sure to jot down what the number was found in the chip and print off this number in a barcode label to place on the card instead of the in-house serial number that Receiving stuck on it. Then go back and re-try the test with the correct serial number. This trick works for boards with un-readable or marred up serial number labels, too.

6.2.4 *TEST COMPLETE *****

7. Notes

7.1 None at this time.

8. Attachments

8.1 None at this time.