



GE Energy

Functional Testing Specification

*Parts & Repair Services
Louisville, KY*

LOU-GED-DS200TCQF-PANELTEST

Test Procedure for a DS200TCQFG1A

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

REV.	DESCRIPTION	SIGNATURE	REV. DATE
A	Initial release	J.BARTON	6/4/2015
B			
C			

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PREPARED BY J.BARTON	REVIEWED BY	REVIEWED BY	QUALITY APPROVAL L. Groves
DATE 6/4/2015	DATE	DATE	DATE 6-4-2015

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1. SCOPE

1.1 This is a functional testing procedure for a 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, 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)

6. **Modifications/Upgrades**

6.1 Fill out if applicable.

7. **Testing Process**

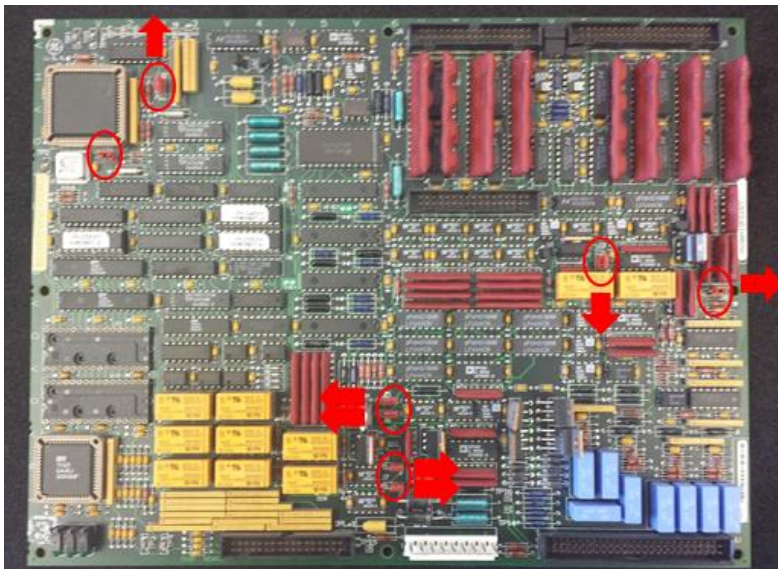
7.1 **Setup**

7.1.1 Install Firmware DS200TCQFF1ADD U8 and U9 into board to be tested.



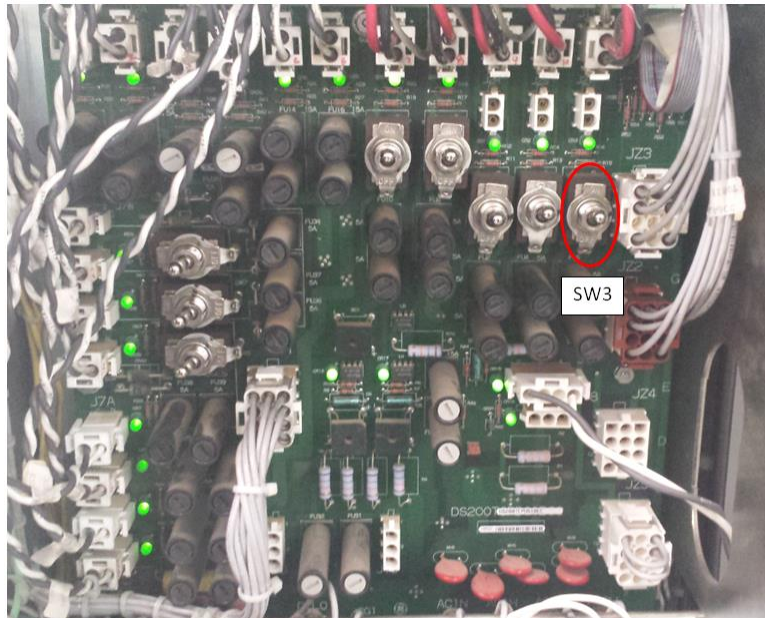
7.1.2

7.1.3 Setup Jumpers on board to be tested using original board as template.



7.1.4

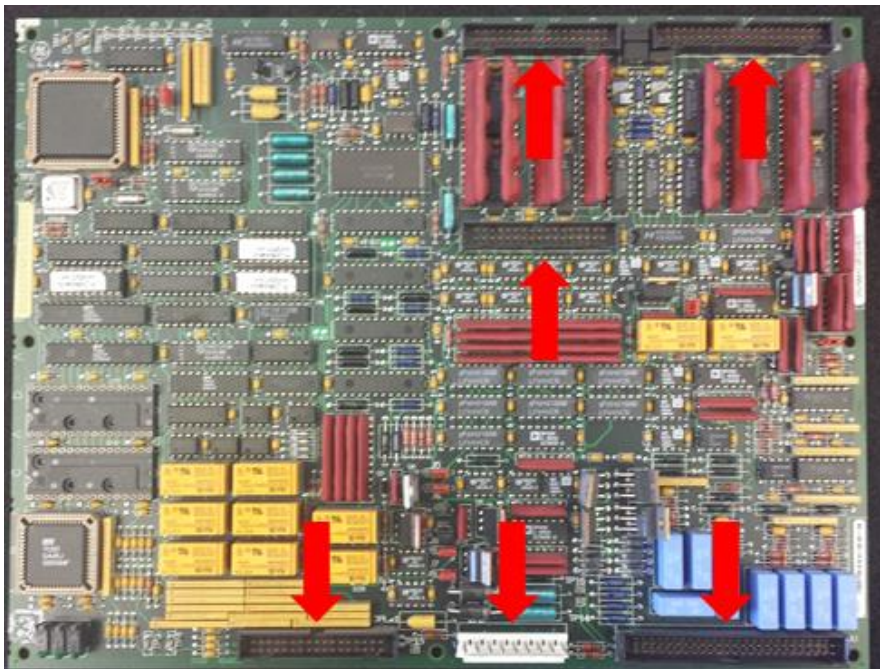
7.1.5 Turn off power to <T> Core using SW3



7.1.6

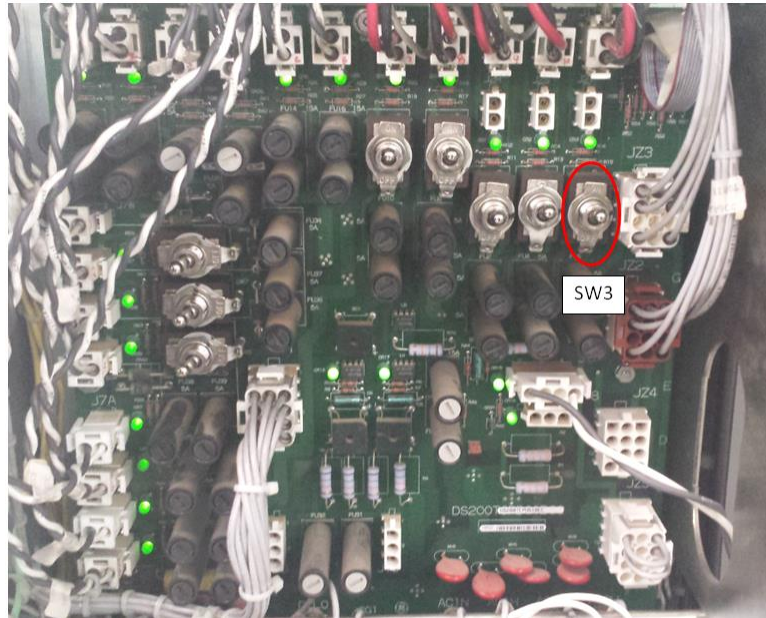
7.1.7 Remove TCQF from <T> Core in Location 3

7.1.8 Install Board to be tested and verify ALL connections are correct.



7.1.9

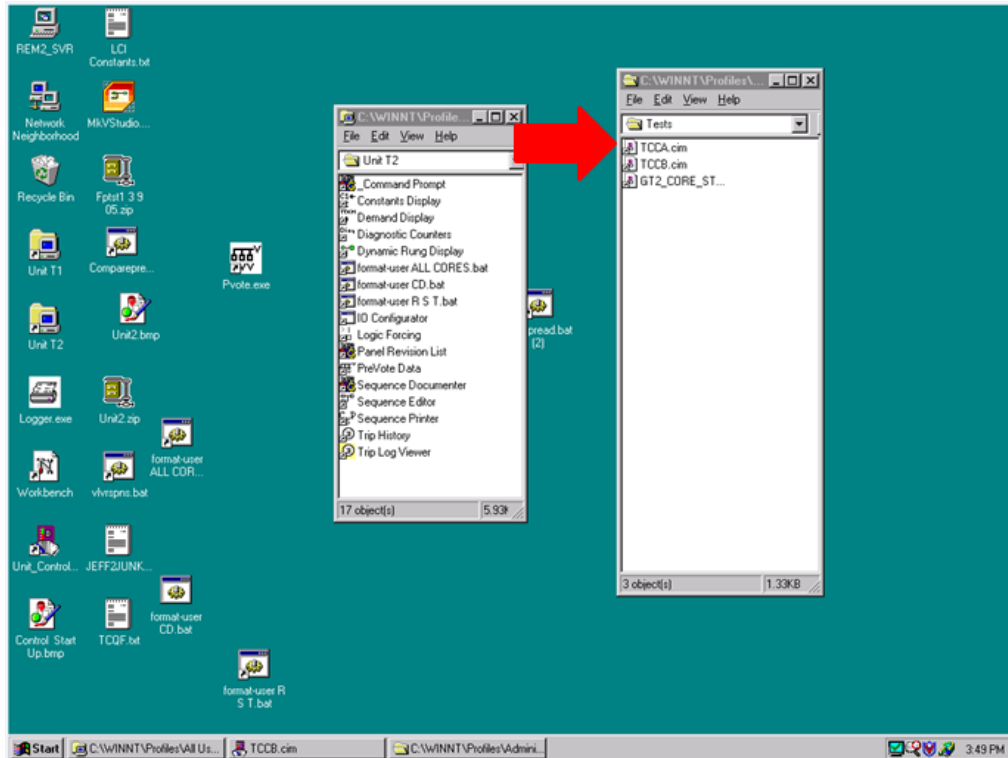
7.1.10 Turn ON power back to <T> Core using SW3



7.1.11

7.1.12 On the HMI find the TEST FOLDER

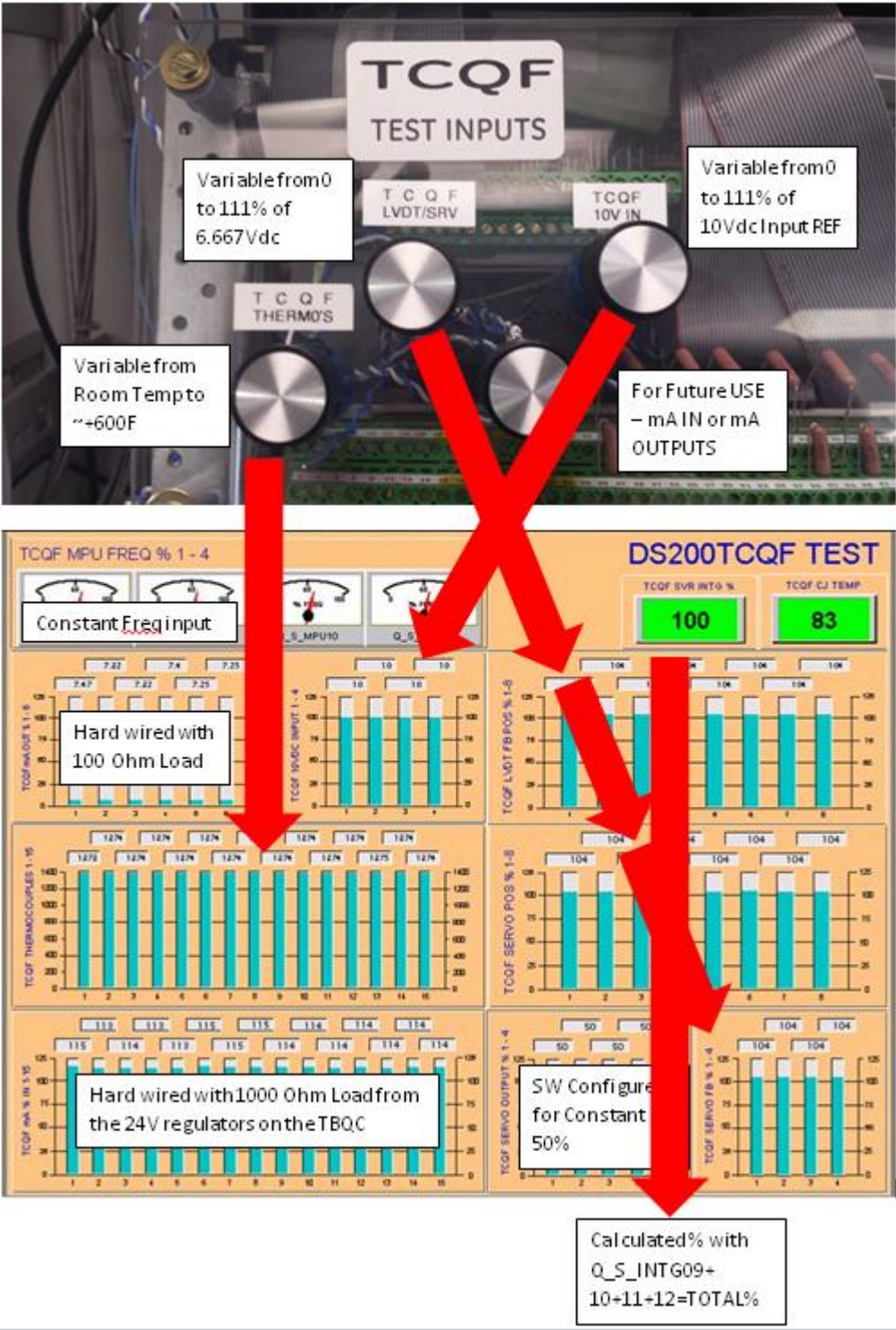
7.1.12.1 Double Click on the TCQF icon



7.1.13

7.1.14 Verify you can adjust various I/O with the knobs as diagramed below.

7.1.14.1 ALL should be UNIFORM in each Block designated.



7.1.14.2

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7.1.14.3 Verify there are **NO RED BLINKING** I/O Points on the screen.

7.1.15 If ALL PASSED, remove UUT and reinstall original board and PROM's using the steps in from 7.1.5 thru 7.1.14.3.



Note:

7.2 Testing Procedure

7.2.1 Fill out.

7.3 Post Testing Burn-in Required ☐ Yes ☐ No



Note: All MARK I, II, & III Turbine related cards require a post testing burn-in of 100 hours.

7.3.1 Apply BUS or Operational power to the card for a period of 100 hours.

7.3.2 Re-test card while warm using the above procedure.

7.4 *TEST COMPLETE *****

8. Notes

8.1 None at this time?

9. Attachments

9.1 None at this time?