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GE Energy Services

**Functional Testing Specification***Parts & Repair Services  
Louisville, KY***LOU-GED-DS3820WCSx****Test Procedure for a Water Cooled Assembly****DOCUMENT REVISION STATUS:** Determined by the last entry in the "REV" and "DATE" column

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A	Initial release	J. Archibald	11/22/2004
B	Added special note on U-channel supports, page 3	C. Wade	9/10/2007
C	Added special note on Stab On connectors	C. Wade	11/19/2008

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JAMES ARCHIBALD**REVIEWED BY****REVIEWED BY****QUALITY APPROVAL****DATE**  
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## Test Procedure for a Water Cooled Assembly

### 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

### 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 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		TESTER H188547
1		+ 70 VOLT DC POWER SUPPLY
1		+ 28 VOLT POWER SUPPLY
1		FIRING BOX

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## 6. TESTING PROCESS

### 6.1 Setup

**Special Note: Stab on connectors on both DS3800NTDL and DS3800NPTK cards should have their solder removed and resoldered to insure good connections.**

**Per D. Smith & C. Wade**

### 6.2 Testing Procedure

**6.2.1** TIE PCOM (PCI), DCOM (JA2), AND GND TOGETHER

**6.2.2** CONNECT NEGATIVE OF 70 VDC TO PCI

**6.2.3** CONNECT POS OUTPUT OF 70VDC SUPPLY TO P70

**6.2.4** CONNECT NEGATIVE OUTPUT OF 28VDC SUPPLY TO PCI

**6.2.5** CONNECT POSITIVE OUTPUT OF 28VDC TOJA4 (P28)

**6.2.6** CONNECT FIRING BOX OUTPUT (GND) TO TP3

**6.2.7** CONNECT FIRING BOX OUTPUT NEG TO TP1

**6.2.8** CONNECT TESTER H188548 ACROSS TA AND TC ON SCR UNIT.

**6.2.9** TURN ON 70VDC SUPPLY.

**6.2.10** TURN ON 28VDC SUPPLY.

**6.2.11** TURN ON TESTED H188547 TESTER.

**6.2.12** TURN ON FIRING BOX.

**6.2.13** INCREASE FIRING PULSES AND LIGHT SHOULD LIGHT AND BE LENIER

**6.2.14**

### 6.3 **\*\*\*TEST COMPLETE \*\*\***

## 7. NOTES

**7.1 Special Note: When prepping this unit for shipping, install U-channel supports to the water-cooled components to keep them from slipping or moving.**