

<b>g</b> <b>GE Industrial Systems</b>	<b>Test and Operating Procedure</b>	
	<b>DATE : 01/22/01</b>	<b>PAGE 1 OF 5</b>
<b>QUALITY REP:</b>		
<b>TITLE:</b> <b>DS3800NVAA Test Instructions</b>		<b>PROCEDURE:</b> <b>LOU – GED – DS3800NVAA - B</b>

## **1. INTRODUCTORY DESCRIPTION**

- A. This procedure establishes the methods for testing a DS3800NVAA.
- B. Environmental ranges: 70 +/- 10 Deg. F. with 20-75% R.H.
- C. Unit warm-up/stabilization period requirement: 5 MINUTES
- D. Personnel using this procedure are expected to have a high degree of confidence and expertise in related testing and calibration procedures.
- E. Procedures not explained here are considered to be understood as common practice.

## **2. TEST EQUIPMENT VERIFICATION**

- A. Verify the accuracy of the standard(s) used in the repair/calibration process by evidence of recent calibration labeling affixed to the test equipment.
- B. All measurement standards used in this procedure shall be traceable to the NATIONAL INSTITUTE of STANDARDS and TECHNOLOGY (N.I.S.T.) and shall have the accuracy, stability, range and resolution required for the intended use.
- C. Unless otherwise specified, the collective uncertainty of the Measurement Standard(s) shall not exceed twenty five percent of the acceptable tolerance for each characteristic being calibrated.
- D. All deviations shall be documented.

## **3. EQUIPMENT CLEANING**

- A. All equipment clean will be performed as instructed in the GE IS SOP Sec. 14.0

## **4. EQUIPMENT INSPECTION**

- A. The following criteria should be used as a guideline or basis for the inspection process of the this unit:
  - 1. Wires broken or cracked.
  - 2. Terminal strips / connectors broken or cracked.
  - 3. Loose wires.
  - 4. Components visually damaged.
  - 5. Capacitors leaking.
  - 6. Solder joint, cold or otherwise inadequate.
  - 7. Circuit board discolored or burned.
  - 8. Printed wire runs burned or damaged.

<b>g</b> <i>GE Industrial Systems</i>	<b>Test and Operating Procedure</b>	
	<b>DATE : 01/22/01</b>	<b>PAGE 2 OF 5</b>
<b>QUALITY REP:</b>		
<b>TITLE:</b> DS3800NVAA Test Instructions		<b>PROCEDURE:</b> LOU – GED – DS3800NVAA - B

## 5. REVISION HISTORY

Revision	Date	Reason for Revision
A	11/30/99	Rewrite from Initial Procedure with unknown author
B	01/22/01	Changed specs on PA 10, 13, 20 and 28
C		
D		
E		
F		
G		
H		
I		
J		
K		

<b>g</b> <i>GE Industrial Systems</i>	<b>Test and Operating Procedure</b>	
	<b>DATE : 01/22/01</b>	<b>PAGE 3 OF 5</b>
<b>QUALITY REP:</b>		
<b>TITLE:</b> DS3800NVAA Test Instructions		<b>PROCEDURE:</b> LOU – GED – DS3800NVAA - B

## 6. REFERENCE DOCUMENTATION

- Reference:

## 7. THEORY OF OPERATION

DS3800NVAA DOCUMENTATION SECTION 2AA

## 8. TEST EQUIPMENT TO BE USED

- DS3800 RAINBOW BOX POWER SUPPLY (H033772) OR EQUIVALENT
- FLUKE 5500ACALIBRATOR (H188505) OR EQUIVALENT
- RAINBOW BOX
- DS3800 CARD EDGE ADAPTER (H033767)
- MULTIMETER FLUKE 85 OR EQUIVALENT
- BANANA TO BANANA JUMPERS
- BANANA TO MINI-GRABBER JUMPERS

## 9. FINAL TEST AND OPERATION PROCESS

- CONNECT ALL BOXES TOGETHER
- TIE PA67 TO PA1 ON RAINBOW BOX
- TURN ON DS3800 POWER SUPPLY
- THE IMOK LED WILL NOT BE ON AT THIS TIME
- USING THE MULTIMETER PLACE NEGATIVE CLIP ON TP6. PLACE THE POSITIVE CLIP ON TP3. ADJUST R2 FOR –2.5VDC.
- REMOVE CLIPS.
- USING THE MULTIMETER PLACE POSITIVE CLIP ON TP5. PLACE THE NEGATIVE CLIP ON TP11. ADJUST R3 FOR –2.5VDC.
- REMOVE CLIPS.

<b>g</b> <i>GE Industrial Systems</i>	<b>Test and Operating Procedure</b>	
	<b>DATE : 01/22/01</b>	<b>PAGE 4 OF 5</b>
<b>QUALITY REP:</b>		
<b>TITLE:</b> <b>DS3800NVAA Test Instructions</b>		<b>PROCEDURE:</b> <b>LOU – GED – DS3800NVAA - B</b>

***VERIFYING POWER CUBE VOLTAGE SECTION***

- USING CLIP LEADS ON MULTIMETER PLACE THE COM CLIP ON TP6 AND THE POSITIVE CLIP ON TP10, METER SHOULD READ APPROXIMATELY 15.00VDC.
- REMOVE POSITIVE CLIP AND PLACE IT ON TP9, METER SHOULD READ APPROXIMATELY –15.00VDC. REMOVE CLIP LEADS.
- 

**USING FLUKE 5500A CALIBRATOR/NORMAL OUTPUT SIDE (CALIBRATING V TO I CONVERSION)**

**CHANNEL 1**

- PLACE NEGATIVE OF DC TO PA2 AND PLACE POSITIVE TO PA4
- SET DC SUPPLY TO ZERO VOLTS
- SET MULTIMETER FOR MEASURING CURRENT (MA)
- PLACE NEGATIVE LEAD TO PA24
- PLACE POSITIVE LEAD TO PA26
- METER SHOULD READ APPROXIMATELY 4.0 MA. IF OUTPUT NEEDS CALIBRATING ADJUST R4
- SET DC SUPPLY TO 10VDC
- MULTIMETER SHOULD READ APPROXIMATELY 20.0 MA, ALSO CHECK PA36 FOR 10.00VDC AND PA10 FOR APPROXIMATELY 1.00VDC

***Using the following table, repeat Channel 1 steps for Channels 2,3 & 4.***

CHANNEL 2 (R5)	CHANNEL 3 (R6)	CHANNEL 4 (R7)
INPUT DC (+)PA16 & (-)PA29	INPUT DC (+)PA12 & (-)P6	INPUT DC (+)PA30 & (-)PA32
OUTPUT MA (+)PA22 & (-)PA23	OUTPUT MA (+)PA14 & (-)PA15	OUTPUT MA (+)PA27 & (-)PA25
PA20 = 1.00VDC	PA13 = 1.00VDC	PA 28 = 1.00VDC
PA36 = 10.00VDC	PA18 = 10.00VDC	PA60 = 10.00VDC

<b>g</b> <i>GE Industrial Systems</i>	<b>Test and Operating Procedure</b>	
	<b>DATE : 01/22/01</b>	<b>PAGE 5 OF 5</b>
<b>QUALITY REP:</b>		
<b>TITLE:</b> <b>DS3800NVAA Test Instructions</b>		<b>PROCEDURE:</b> <b>LOU – GED – DS3800NVAA - B</b>

- REMOVE ALL WIRES FROM TEST FIXTURE EXCEPT THE TIE BETWEEN PA1 AND PA67
- USING THE FLUKE 5500A CALIBRATOR (AUX OUTPUT SIDE) APPLY 4MA TO PA40(+) AND PA54(-). CONNECT THE POSITIVE LEAD OF MULTIMETER TO TP8 AND THE NEGATIVE TO TP11. ADJUST R8 FOR 0VDC.
- SET INPUT TO 20MA. OUTPUT SHOULD NOW BE 10.00VDC
- REMOVE ALL WIRES FROM TEST FIXTURE EXCEPT THE TIE BETWEEN PA1 AND PA67
- CONNECT THE FOLLOWING:
  - PA14 TO PA15    PA24 TO PA26
  - PA22 TO PA23    PA25 TO PA27
- THE IMOK LED SHOULD NOW BE LIT
- ***END OF TEST***

## 10. SPECIAL INFORMATION

**TEST WRITTEN BY: DARREN E. JOHNSON**

**DATE: November 30, 1999**

**TEST VERIFIED BY: David Smith**

**DATE: 01-22-2001**