

g <i>GE Industrial Systems</i>	Test and Operating Procedure	
	DATE: 03/24/00	PAGE 1 OF 4
QUALITY REP: <i>Robert Duall</i>		
TITLE: Test Instructions for DS200CDAAG		PROCEDURE: LOU – GED-DS200CDAA-B

1. INTRODUCTORY DESCRIPTION

- A. This procedure establishes the methods for testing a DS200CDBAGxx solenoid driver card.
- B. Environmental ranges: 70 +/- 10 Deg. F. with 20-75% R.H.
- C. Unit warm-up/stabilization period requirement: None
- 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 T&IC 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.

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5. REVISION HISTORY

Revision	Date	Initials	Reason for Revision
A	6/13/03	LFG	Initial Procedure
B	12/19/08	CW	Added coil#, Amp-meter, and comment about no leakage voltage
C			
D			
E			
F			
G			
H			
I			
J			
K			

6. REFERENCE DOCUMENTATION

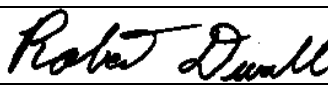
- Reference: GEI-100182B

7. THEORY OF OPERATION

- Reference: GEI- 100182B

8. TEST EQUIPMENT TO BE USED

- Test: Load (36 Volt Coil) Use asset number H188719
- +24VDC Power Supply
- 2 pieces - Multimeter (Fluke 85 or equiv.)
- 115VAC power cord

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9. FINAL TEST AND OPERATION PROCESS

9.1 First Circuit

- 9.1.1 Connect load coil to **MPL-1 & MPL-2** and connect **JPI**, 1-2.
- 9.1.2 Connect a current meter in series with the load and a voltmeter across the load coil.
- 9.1.3 Turn Pot RV1 full counter clockwise.
- 9.1.4 Apply 115VAC to **RMPL-1 & RMPL-2**.
- 9.1.5 There should be no leakage voltage at the coil and no current across amp-meter. If voltage is present correct before moving on.
- 9.1.6 Apply +24VDC to **MACPL-1 (+) & MACPL-2 (-)**.
- 9.1.7 Measure between **ACOMA & PI5A** for +15 VDC (+or- 3V) supply.
- 9.1.8 Check for approx. 16VDC (+or- 10%) across load coil (**MPL-1 & MPL-2**)
- 9.1.9 Current meter should read approx. .6 amps, (+or- .1 amp).
- 9.1.10 Turn Pot RV1 full clockwise
- 9.1.11 Check for approx. 66VDC (+or- 10%) across load coil (**MPL-1 & MPL-2**)
- 9.1.12 Current meter should read approx. 2.6 amps (+or- %10).
- 9.1.13 Turn Pot RV1 until current meter reads 1 amp, voltage should be 26VDC.
- 9.1.14 Shut down 24VDC Power Supply and wait a few seconds.
- 9.1.15 Turn back on 24VDC Power Supply, both voltmeter and current meters should go to maximum output for the circuit and in 250mS seconds both current and voltage should fall back to the holding voltage previously set by RV1. If this does not happen correct.

9.2 Second Circuit

- 9.2.1 Connect load coil to **MPL-3 & MPL-4** and connect **JP2**, 1-2.
- 9.2.2 Connect a current meter in series with the load.
- 9.2.3 Connect a voltage meter across the load coil.
- 9.2.4 Turn Pot RV2 full counter clockwise.
- 9.2.5 Apply 115VAC to **RMPL-3 & RMPL-4**.

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- 9.2.6** There should be no leakage voltage at the coil and no current across amp-meter. If voltage is present correct before moving on.
- 9.2.7** Apply +24VDC to **MACPL-3 (+)** & **MACPL-4 (-)**.
- 9.2.8** Measure between **ACOMB** & **P15B** for +15 VDC (+or- 3V) supply.
- 9.2.9** Check for approx. 16VDC (+or- 10%) across load coil (**MPL-1** & **MPL-2**)
- 9.2.10** Current meter should read approx. .6 amps (+or- .1 amp).
- 9.2.11** Turn Pot RV1 full clockwise
- 9.2.12** Check for approx. 66VDC (+or- 10%) across load coil (**MPL-1** & **MPL-2**)
- 9.2.13** Current meter should read approx. 2.6 amps (+or- %10).
- 9.2.14** Turn Pot RV1 until current meter reads 1 amp, voltage should be 26VDC.
- 9.2.15** Shut down 24VDC Power Supply and wait a few seconds.
- 9.2.16** Turn back on 24VDC Power Supply, both voltmeter and current meters should go to maximum output for the circuit and in 250mS both current and voltage should fall back to the holding voltage previously set by RV1. May need to use the Peak Hold Function of the meter to measure. If this does not happen correct.
- 9.2.17** If all has passed, power down and disconnect everything.

9.3 END OF TESTING

10. SPECIAL INFORMATION

TEST WRITTEN BY: Lloyd F. Groves

DATE: 06/13/03

TEST VERIFIED BY: Glenn Chandler

DATE: 12/18/2008