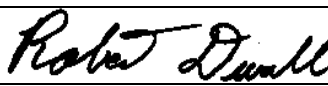


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1. INTRODUCTORY DESCRIPTION

- A. This procedure establishes the methods for testing a **193X532XXG0X**
- 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

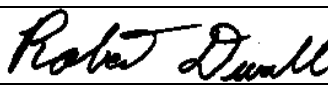
- A. Verify the accuracy of the standard(s) used in the repair/calibration process by evidence of recent calibration labeling affixed to the test equipment.
- B. All measurement standards used in this procedure shall be traceable to the NATIONAL INSTITUTE of STANDARDS and TECHNOLOGY (N.I.S.T.) and shall 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 Renewal Services SOP Sec. 14.0

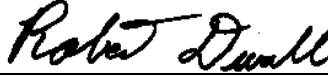
4. EQUIPMENT INSPECTION

- 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	6/12/02	JDB	Initial Procedure – After Verification
B	4/10/2009	C. Wade	Made changes for clarity
C			
D			
E			
F			
G			
H			
I			
J			
K			

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<div style="text-align: center;">  </div> <table border="0" style="width: 100%;"> <tr> <td data-bbox="118 315 941 388"> TITLE: Test Procedure for: 193X532XXG0X – FIELD CONTROL CARD </td> <td data-bbox="941 315 1466 388"> PROCEDURE: LOU - GED-193X532XX-B </td> </tr> </table>			TITLE: Test Procedure for: 193X532XXG0X – FIELD CONTROL CARD	PROCEDURE: LOU - GED-193X532XX-B
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6. REFERENCE DOCUMENTATION

- Reference: GEK-24971

7. THEORY OF OPERATION

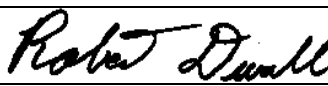
- Reference: GEK-24971

8. TEST EQUIPMENT TO BE USED

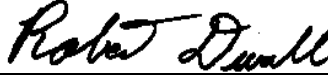
- DMM
- Oscilloscope
- Valutrol Test Drive

9. FINAL TEST AND OPERATION PROCESS

- **1.0**
 - **Setup:**
 - **Half wave:**
 - **G01** – connect jumper YA to YB, use Top & Middle AC input cables
 - **G02** – connect jumper YB to YD
 - Connect Phase “T” and “M” to fuse block only, Phase “B” not needed.
 - **2/3 Wave:**
 - **G04** – connect jumper YA to YB
 - **G06** – connect jumper YB to YD
 - Connect All phases to fuse block
 - **Field Simulator Coil Load**
 - Connect the 2 wires connected to simulator coil load

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- **2.0**
 - **Initial pot settings:**
 - FMAX – CW, Adjust to midrange, will cause “Ready to Run” LED to go off due to Field Max (FMAX) voltage being excessive.
 - CROSS – CCW
 - FMIN – CCW
 - FLOSS – CCW
 - SLIM – CW
 - ALIGN – CW
 - Energize drive by releasing E-STOP
- **3.0**
 - **FMAX TEST**
 - Select Diag. Static Mode on Diag. Station
 - Verify output of LR and CFB are 0v, if not adjust both with Diag. Station Pots
 - Adjust Local Ref pot (diagnostic board) to adjust LR for –1v at LR test point on MCC (Main Control Card)
 - Adjust FMAX for +6.5v at test point FC on MCC
- **4.0**
 - **FMIN Test**
 - Select Diag. Static Mode on Diag. Station
 - Adjust Local Ref pot to adjust LR for –6v at LR test point on MCC (Main Control Card)

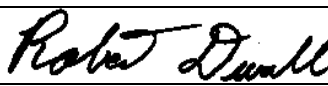
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- Adjust FMIN for +4v at test point FC on MCC. Check 2A & 2B PR Jumper, make sure SURF cross is fully CCW.

- **5.0**
 - **FLOSS Test**
 - Verify SYS wire is connected on test fixture, usually connected on board w/card
 - Reset drive
 - Select Diag. Static Mode on Diag. Station
 - Adjust Local Ref pot to adjust LR for +3v at LR test point on MCC (Main Control Card)
 - SLOWLY adjust FLOSS pot CW until (RTR) Ready To Run LED on MCC goes out
 - Reset Drive and turn FLOSS Pot fully CCW
 - Return Speed Ref pot to adjust LR pot back to 0v at LR on MCC
 - Reset drive
 - Turn FLOSS CCW (Disables FLOSS)

- **6.0**
 - **SLIM Test**
 - Select Diag. Static Mode on Diag. Station
 - Adjust LR pot to +11V at SFB on MCC
 - Slowly adjust SLIM pot CCW until RTR LED goes out
 - Return Speed Ref pot to adjust LR pot back to 0v at LR on MCC
 - Select Diag. Mode to center position on Diag. Station
 - Reset drive


- **7.0**
 - **ALIGN Test**

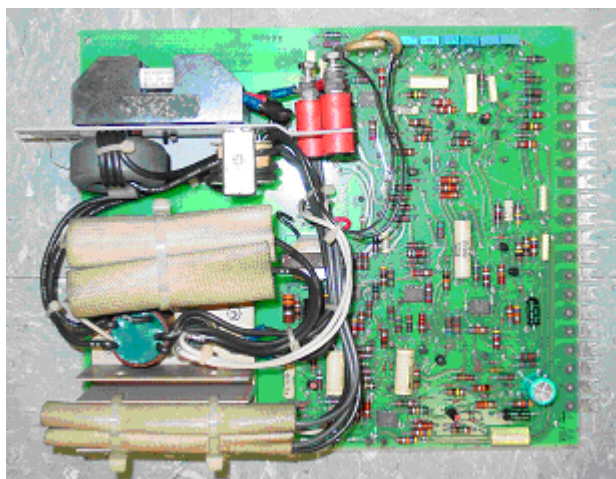
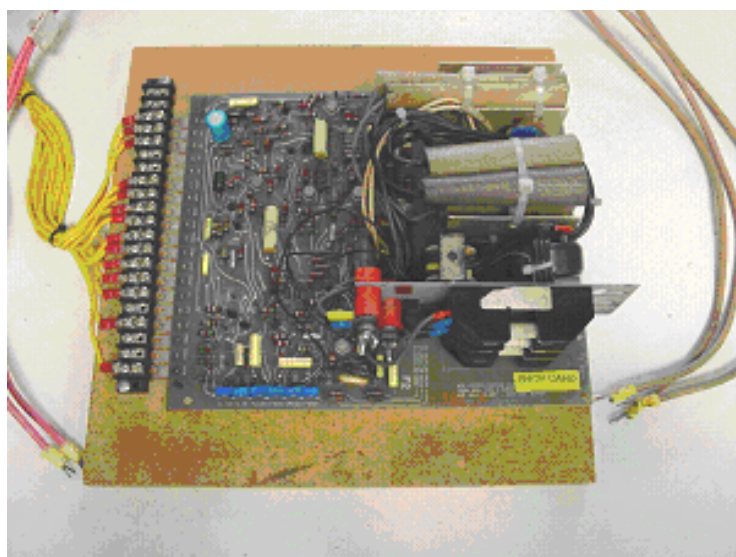
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- Adjust ALIGN pot to approx. 0v at TA on MCC, full CCW at best

- **8.0**
 - **CROSS Test**
 - Select Diag. Static Mode on Diag. Station
 - Turn CROSS fully CW
 - Adjust Local Ref pot to adjust LR for –5.6v at LR test point on MCC (Main Control Card)
 - Monitor FC test point on MCC
 - Slowly adjust the CROSS pot CCW until the FC voltage begins to decrease
 - Return Local Ref pot to adjust LR pot back to 0v at LR on MCC
 - Reset drive

- **9.0**
 - **SCR – Rectifier Test**
 - Connect DMM across F1 and F2
 - Verify Approx. 30v with LR at zeroed position
 - Turn Local Ref pot and verify the following will happen:
 - As Speed Ref pot rotates FWD or REV direction voltage should drop to approx. 40v
 - With Local Ref pot fully FWD the RTR LED should go out
 - Return Local Ref pot to adjust LR pot back to 0v at LR on MCC
 - Press E-Stop button to disconnect power to drive
 - END TEST

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10. SPECIAL INFORMATION

TEST WRITTEN BY: Jeff Barton

DATE: 06/12/02

TEST VERIFIED BY: James Archibald