g GE Industrial Systems	Test and Operating Procedure	
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QUALITY REP:		
TITLE: Test Instructions for 07556D26G2 Servo Power Amplifier Board		PROCEDURE: LOU – GED-7556D26G0002-B

1. INTRODUCTORY DESCRIPTION

A. This procedure establishes the methods for testing a 07556D260002 Servo Amp 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.

5. REVISION HISTORY

Revision	Date	Initials	Reason for Revision
A	05/17/99	DAL	Initial Procedure – After Verification
B	06/10/02	RKD	Added initial column to section 5, Changed procedure number.
C	12/15/08	CW	Change picture on last page
D			
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6. REFERENCE DOCUMENTATION

- Factory Procedure # A-1077J13 5.2.1.2.01

7. THEORY OF OPERATION

- This Card is used to amplify converted valve position signals from 7486D57G1 function board, and to drive the valve position servo torque motor coils and the position indication meter. DC Voltages from a variable supply are used to simulate the control signals in this test.

8. TEST EQUIPMENT TO BE USED

- Oscilloscope – Tektronix 2215A or equivalent
- Two Milliamp meters capable of +/- 1ma and +/- 100ma
- Digital Voltmeter – Fluke 85 or equivalent
- Rainbow box with turbine card adapter box
- Misc.: 130 ohm 1 watt resistor

9. FINAL TEST AND OPERATION PROCESS

- Since the three sections of the board are tested separately, only 1 variable supply card and 2 milliamp meters are necessary. Wire the circuit as shown in the drawing, connecting meters as needed for specific test.

INITIAL CONDITIONS

- R108 Center

SERVO VALVE TORQUE MOTOR COIL DRIVE

- Adjust variable supply to pin 25 for 0 volts on pin 25
- Adjust R113 for fidelity meter on pin 13 to read 0ma
- Adjust pin 25 for –5 V DC
- Adjust R102 for motor coil current to =+36ma
- Read voltage TP1(+) to TP2(-) =+4.2V to +4.9V
- Vary pin 25 volts per table below and check servo motor coil current to be within range listed
- Adjust R108 if necessary

Pin 25	V	+5	+3	+1	0	-1	-3	-5
Servo Current MA	Max	-37	-22.7	-8.3	+1	+8.3	+22.7	+37.8
	Min	-35	-20.5	-6.1	-1	+6.1	+20.5	+34.2

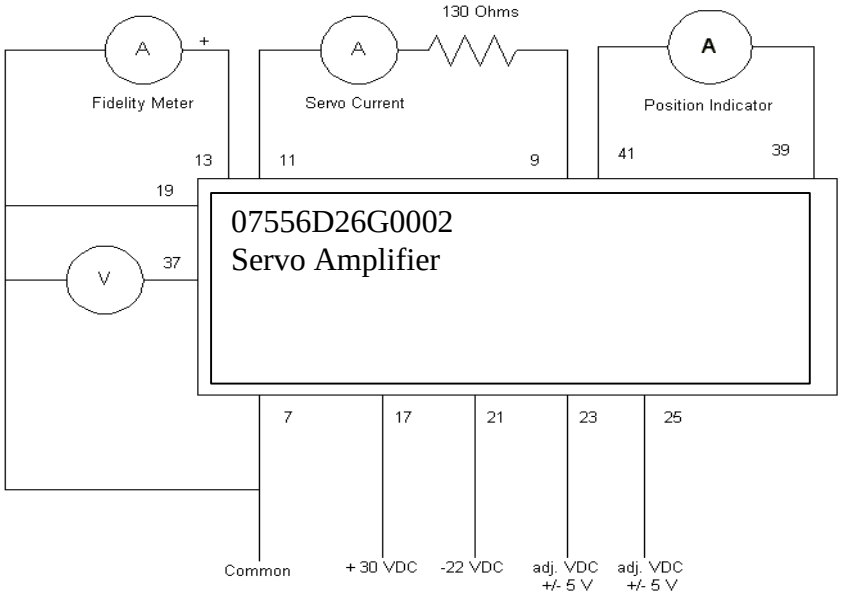
POSITION INDICATOR DRIVE

- Adjust variable supply on pin 23 for +5V
- Adjust R131 for 0ma on position indicator meter
- Adjust pin 23 volts to 0V
- Adjust R125 for 1ma on position indicator meter

POSITION FEEDBACK VOLTAGE

- Check pin 37 for –5.5 V DC with R121 CW
- Check pin 37 for –3.3 V DC with R121 CCW
- Set R121 for –4.5 V DC at pin 37

10. SPECIAL INFORMATION



TEST WRITTEN BY: Dan Laemmle **DATE: 05/17/99**

TEST VERIFIED BY: _____ **DATE: _____**