

<b>g</b> <i>GE Electronic Services</i>	<b>TEST and OPERATING PROCEDURE</b>	
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<b>DISTRICT MGR:</b> _____ <b>QUALITY REP:</b> _____		
<b>TITLE:</b> <b>193X270AAG01 TEST PROCEDURE</b>		<b>PROCEDURE:</b> <b>LOU-GED-193X270AAG01-B</b>

## **1. INTRODUCTORY DESCRIPTION**

- A. This procedure establishes the methods for testing a 193270AAG01 Quadrant control 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 GEES 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.
  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	11/04/94	JDS	Initial Procedure – After Verification
B	06/07/02	RKD	Added section 5 & 6, Changed procedure number
C			
D			
E			
F			
G			
H			
I			
J			
K			

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## 6. REFERENCE DOCUMENTATION

- Reference: GEK
- Factory Procedure #


## 7. THEORY OF OPERATION

This card receives inputs from the driver coordination card # 193X260BAG01 and controls what SCR conversion module receives firing signals from the gate control card # 193X262AAG01.

## 8. TEST EQUIPMENT TO BE USED

- 193X270AAG01 test fixture # H033534
- $\pm 20$  volt power supply
- Digital Multimeter
- Oscilloscope
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## 9. FINAL TEST AND OPERATION PROCESS

 Be sure to follow the sequence of steps in the exact order listed. Any deviations and the test must be restarted.

- Plug UUT into top of test fixture with the solder side forward.
- Place switches 1-6 as follows; and line pot on board to mid point

SW1= + 10 V	SW2= OPEN	SW3= CENTER
SW4= 28	SW5= OPEN	SW6= OFF
- Apply +20 volts, Com, & -20 volts to marked inputs.

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- Connect common of meter to common on front of test fixture and verify the following measurements within  $\pm 5\%$  by probing card tabs.

Tab #	Reading	Tab #	Reading	Tab #	Reading
3	0	5	+20	20	0
21	0	22	0	23	0
19	0	9	0	25	+5
26	0	6	0	7	0
29	0	30	+5		

- Verify that pcr on front panel = 8V
- Verify +5V at test post OFE on component side of UUT
- Toggle SW2 to com and SW1 to -10V
- Verify the following measurements

Tab #	Reading	Tab #	Reading	Test point	Reading
29	0			PCR	0
30	+5			OFE	0
9	-20				

- Set SW2 to open and verify the following measurements

Tab #	Reading	Tab #	Reading	Test point	Reading
29	+5			PCR	+8
30	0				

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- Set SW3 to +1V and verify the following measurements

Tab #	Reading	Tab #	Reading	Test point	Reading
6	+1	7	-1		
26	+5				

- Set SW5 to -1V and verify the following measurements.

Tab #	Reading	Tab #	Reading	Test point	Reading
6	-1	7	+1		

- Set SW1 to +10V and verify the following measurements.

Tab #	Reading	Tab #	Reading	Test point	Reading
29	+5			PCR	0
30	0				

- Set SW2 to COM and verify 0V at tab 25.
- Set SW3 to center and verify 0V at tab 25.
- Set SW2 to open and SW3 to +10V.
- Adjust line pot on UUT fully CW and verify the following measurements.

Tab #	Reading	Tab #	Reading	Test point	Reading
19	4.5	14	7.5		

- Adjust line pot on UUT fully CCW and verify the following measurements.

Tab #	Reading	Tab #	Reading	Test point	Reading
19	1.9	14	3.1		

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- Set SW6 to SIG and connect the scope common to the base of T734 and verify the following signals.

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DISTRICT MGR:

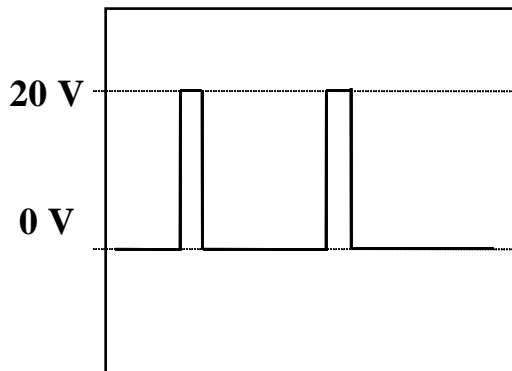
QUALITY REP:

TITLE:

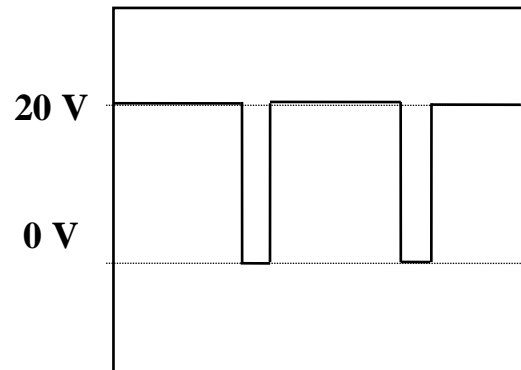
193X270AAG01 TEST PROCEDURE

PROCEDURE:

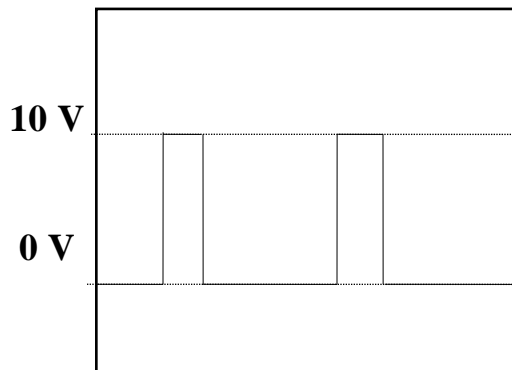
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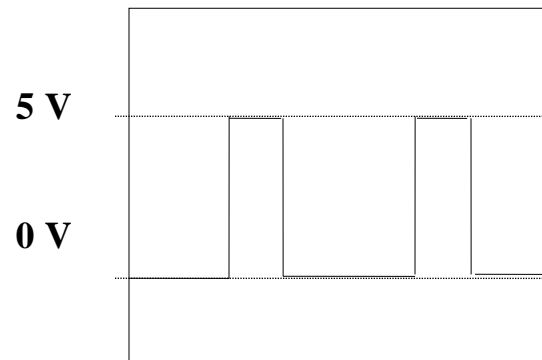
**Tabs # 20,21,22**



**Tab # 5**

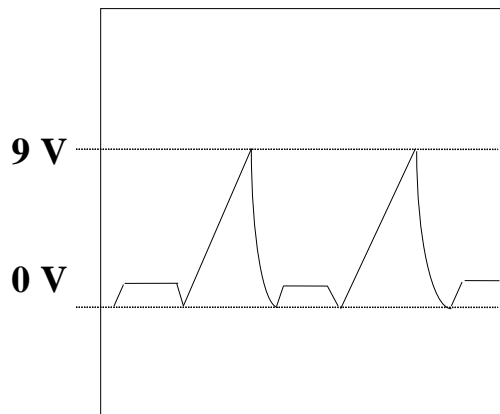


**Tab # 3**



**Tab # 23**

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**Test point VR**

- Using the DMM verify +5V at tab 26.
- Set SW4 to the 28 & 24 position and using the O-scope verify that the signal at Tab # 20 stops. Toggle SW4 several times to verify it stops & starts the signal.

# 10. SPECIAL INFORMATION

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**TEST WRITTEN BY:** David Smith

**DATE:** 11/04/94

**TEST VERIFIED BY:** \_\_\_\_\_

**DATE:** \_\_\_\_\_