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GE Industrial Systems

**Functional Testing Specification**

*Renewal Services  
Louisville, KY*

**LOU-GED-193X701AR**

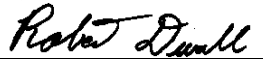
**Test Procedure for a Card**

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REV.	DESCRIPTION	SIGNATURE	REV. DATE
A	Initial release	Steve Pharris	07/16/02
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<b>PREPARED BY</b> Steve Pharris	<b>REVIEWED BY</b>	<b>REVIEWED BY</b>	<b>QUALITY APPROVAL</b> 
<b>DATE</b> 07/16/02	<b>DATE</b>	<b>DATE</b>	<b>DATE</b> 08/09/02

## Functional test procedure for a Discriminator Card

### 1. SCOPE

1.1 This is a functional testing procedure for a 193X701AR Discriminator Card.

### 2. STANDARDS OF QUALITY

2.1 Refer to the current revision of the IPC-A-610 standard for workmanship standards.

### 3. APPLICABLE DOCUMENTS

3.1 The following document(s) shall form part of this specification to the extent specified herein. Unless otherwise indicated, the latest issue shall apply.

3.1.1 **193X701AR Documentation Folder**

3.1.2 **QSI # 2150, Factory Test instruction**

3.1.3 **36C759242AA, Schematic**

### 4. ENGINEERING REQUIREMENTS

#### 4.1 Equipment Cleaning

4.1.1 Equipment should be clean and free of debris prior to applying power unless performing an initial check. Refer to the local documented procedures for cleaning guidelines.

#### 4.2 Equipment Inspection

4.2.1 Equipment should be visually inspected for any defects prior to applying power. This inspection should include the following as a minimum:

4.2.1.1 Wires broken or cracked

4.2.1.2 Terminal strips / connectors broken or cracked

4.2.1.3 Loose wires

4.2.1.4 Components visually damaged

4.2.1.5 Capacitors leaking

4.2.1.6 Solder joints damaged or cold

4.2.1.7 Circuit board burned or de-laminated

4.2.1.8 Printed wire runs burned or damaged

### 5. EQUIPMENT REQUIRED

5.1 The following equipment is required to perform the process requirements. Equipment may be substituted provided that all accuracy's and test ratios are equivalent or better.

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Qty	Reference #	Description
1		Fluke 85 DMM (or Equivalent)
1	H033960	193X701AR Test Fixture

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## 6. TESTING PROCESS

### 6.1 Setup


#### 6.1.1



**Note:**

### 6.2 Testing Procedure

#### 6.2.1 See Following Sheets

 <b>GENERAL ELECTRIC</b>	<b>QUALITY STANDARD INSTRUCTION</b> <b>SPEED VARIATOR DEPARTMENT</b>	#2150
	<b>TITLE</b> DISCRIMINATOR - 193X701ARG01	<b>REVISION</b> #2

1.0 Applicable Documents  
Diagram 36C759242AA and Parts List

2.0 Equipment  
Test Stand and Program Board (193X701ARG01) ✓

3.0 Procedure  
Place the ~~meter on VDC~~ *LINE SYNC 5MSEC - DC*  
*meter on VDC, all switches on test fixture should be in up position*

4.0 Test Procedure

4.1 Insert card and energize test stand. *in test fixture*

4.2 Rotate zero adjust pot from max. CCW to max. CW. The voltmeter reading should change by at least 1 volt.

4.3 Place S2 down. The voltmeter should change ~~negative reading~~ *By placing S2 up and down and adjusting zero adjust pot, it should be possible to have the voltages nearly equal, for each position of S2.* *FU6 has to be good*

4.4 Place S1 down. Output should increase to approximately ~~36 volts~~ *36.00*

4.5 Place S3 and S4 down. The voltmeter should show approximately ~~6.0 volts~~ *6.00*

4.6 If the card passes all the steps, place the component acceptance stamps on it. *unplug unit*

5.0 Scope of test

5.1 Step 4.1 sets the supply voltage.

5.2 Step 4.2 checks the range of the zero adjust.

5.3 Step 4.3 reverses the phase of the 6.3 vac input and adjusts for zero output.

5.4 Step 4.4 changes the input from 6.3 vac to 110 VAC input. This checks for proper phasing.

5.5 Step 4.5 changes from 4-5-6 secondary of TX386 and TX388 to 7-8-9 (see diagram) check phasing.

\*Change or Addition

DISTRIBUTION	
Mr. Eng.	
Mr. Mfg.	
Mr. Prod. Eng.	
Mr. Mat.	
Mr. Sys. Eng.	
Eng. Supv.	
Foreman-Test	
Foreman-Inst.	
Mr. -Dev. Eng.	

SV-100 (2-68)

*step 4.2 fails check of the two black wire in right*

PREPARED BY  
W R Laurensen  
1/14/69 W.R.L.

APPROVED BY  
J. D. Campbell

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**6.3 \*\*\*TEST COMPLETE \*\*\***

**7. NOTES**

**8. Oscilloscope Verification Examples:**

**Fig. 1**

**Fig. 2**