



# GE Canada

# Electronic Products Repair

## Test Instructions for

**4006L4107 G001 & 2**

*Device Number*

**Silco V GPA 33 & 53 MM**

*Description of Device*

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Typed Name

Date: August 07 2013  
mm/dd/yy

Approved By: Charlie Wade  
Signature

Approval Date: 8/19/2013  
mm/dd/yy

**TEST INSTRUCTIONS**

## PREVIOUS REVISION SHEET

4006L4107 G001 & 2  
Device Number  
Silco V GPA 33 & 53 MM  
Description of Device

[illegible]

1. PURPOSE:

- a. Static test procedures for Silco V GPA 33 & 53 MM 4006L4107 G001 & 2

2. ELEMENTARY:

- a. S&C data book 5428 section 4107 drawing number 0316A5609AA

3. EQUIPMENT:

- a. 51 pin universal jig TL# 00199 or equivalent
- b. 16-pin ribbon cable jig TL# 00953 or equivalent
- c. Power supply For 0V to 125VDC
- d. Power supply 0 to 15VDC
- e. Test JIG # RD001
- f. Function generator HP 8116A or equivalent.
- g. Oscilloscope TEK 460A or equivalent.
- h. Multi meter Fluke 77 or equivalent.
- i. Six Diode loads in JIG Bag #RD001
- j. Six Resistor loads in JIG Bag #RD001

4. SET UP:

- a. Connect the 16-pin ribbon cable to JG of the UUT.
- b. Insert the 51-pin card into the 51-pin universal jig Test Card Slot..
- c. Connect the 0 to 125VDC between 1TB01 (+) & 1TB04 (-).
- d. Connect the 0 to 15VDC between JG1 (Jack1) (+) & Jack 37 COMM (-).
- e. Connect Test JIG #RD001 into Test JIG Slot
- f. Connect the function generator input to Jack 41.
- g. Insert the six Diode loads on the 6 output Connector CPX/CPY.
- h. Set the 125VDC power supply to 90 volts.
- i. Set the 0 to 15VDC power supply to zero volts.
- j. Set the function generator to
  - FRQ. 60Hz
  - WID 5.50ms pulse width.
  - AMP 700mV (input Pulse Amplitude)
  - OFS 0 (dc offset)

## 5. PROCEDURE:

### a. Static

#### i. Power supply

1. Power up the 90-volt power supply.
2. Note that only the LED1 is illuminated.
3. Check the voltage across Z1 for 12.0 to 15.7 volts.
4. Check the voltage across Z30, Z40, Z50, Z60, Z70 & Z80 is 8.2 volts  $\pm$  400 MV.
5. Increase the 90-volt input to 125 volts.
6. Verify waveform at U2 pin 15 with Figure 1.

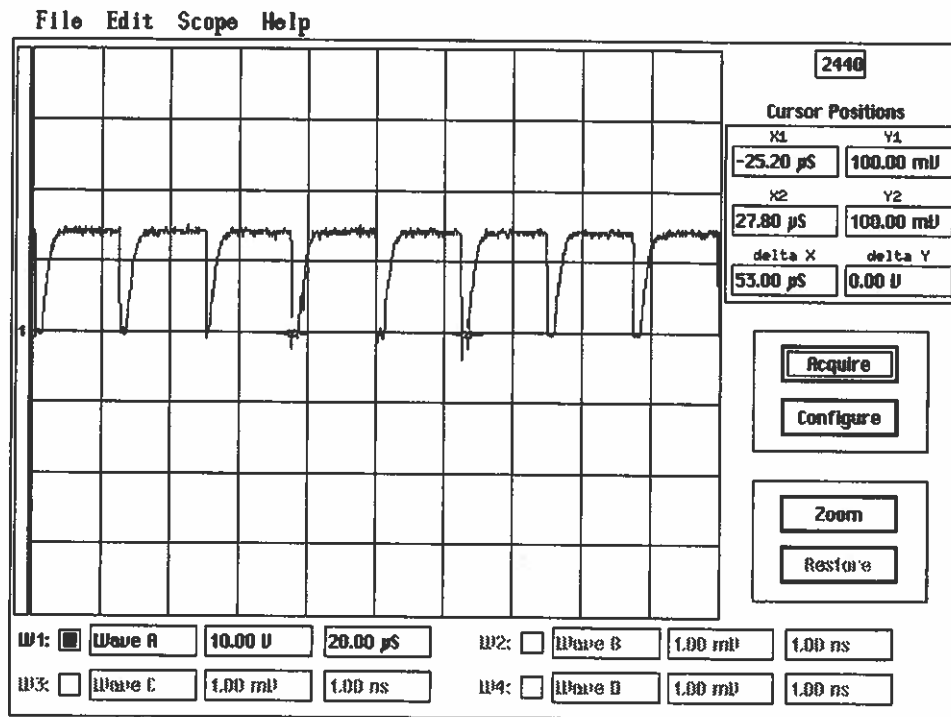
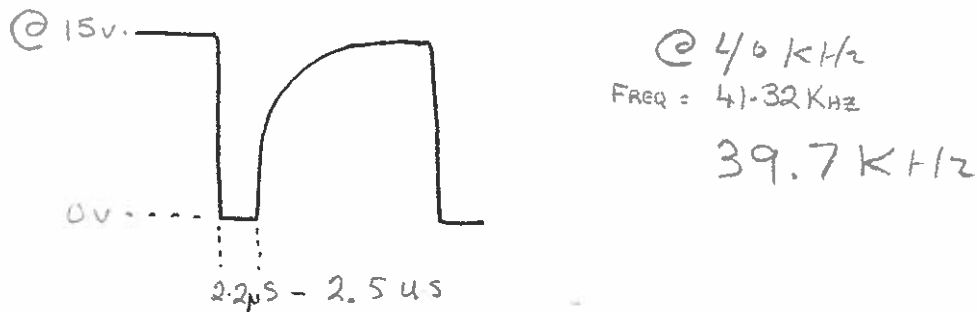


Figure 1



7. Verify waveform at anode of D1 with Figure 2.

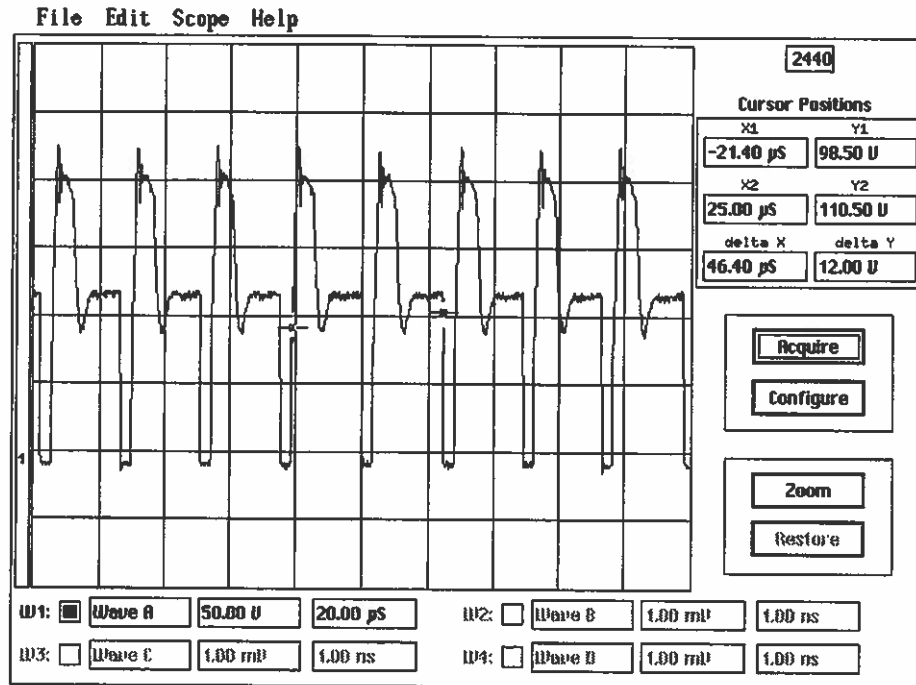


Figure 2

CHECK ANODE OF D1 FOR THE FOLLOWING:

@ 240V PK PK

@ 123V...

0V...

FREQ = 40.6 KHz

39.5 KHz

3.3  $\mu$ s - 3.5  $\mu$ s

8. Verify waveform at cathode of D3 with Figure 3.

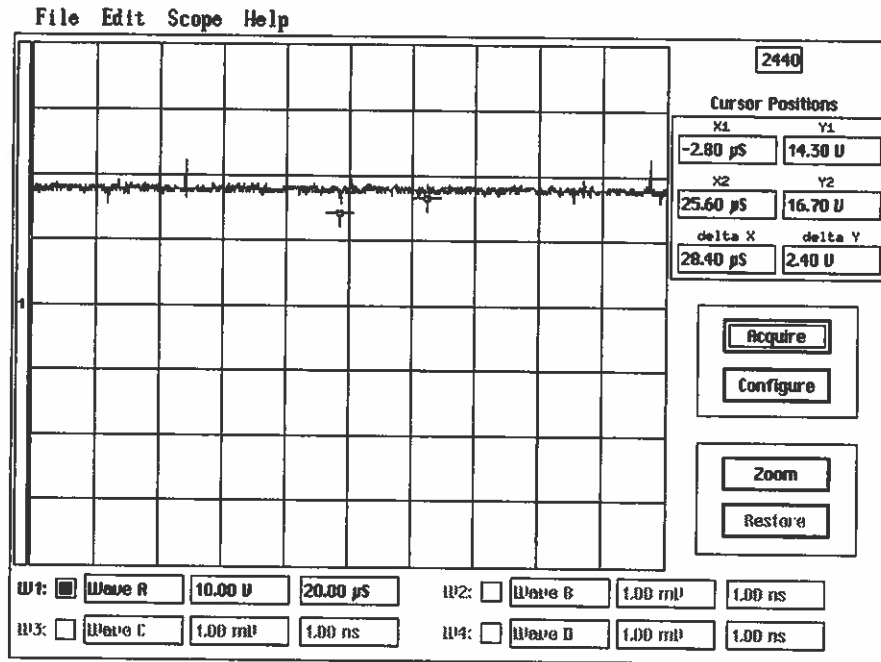
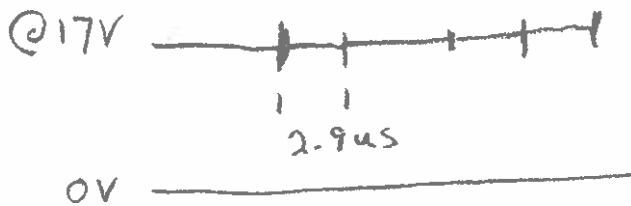


Figure 3



9. Verify waveform at all the anodes of D30, D40, D50, D60, D70, and D80 with Figure 4.

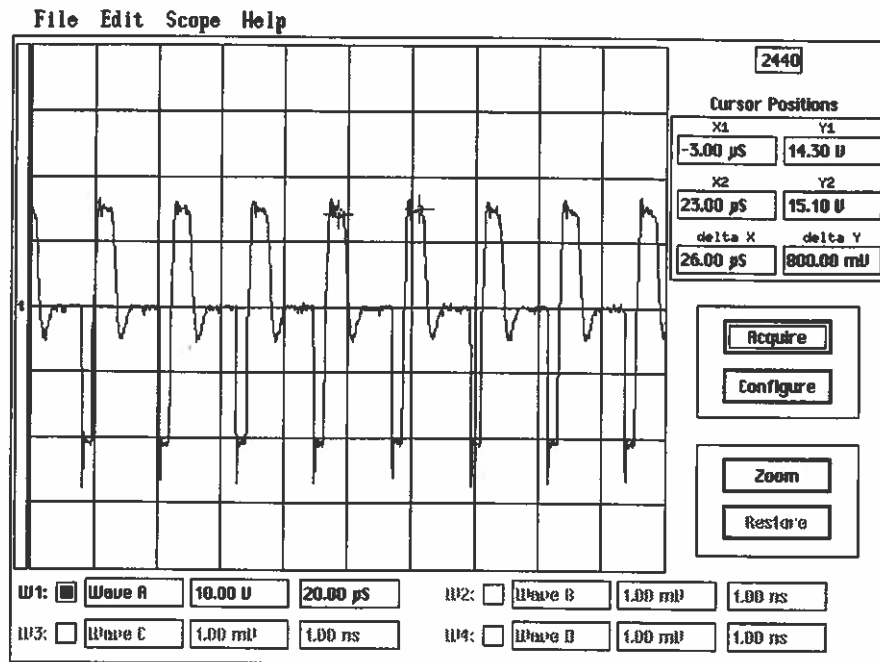
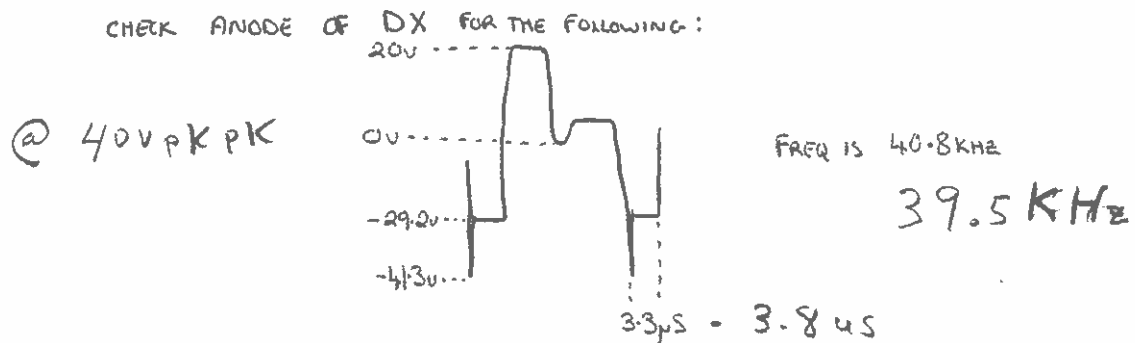


Figure 4



### **Output Pulse Test.**

10. Turn on the function generator.
11. Turn on 15V Power Supply.
12. All 6 LEDs will light dimly.
13. Measure a 5.5ms pulse at @16V $\pm$ 1V peak 60Hz across each CP "x" & Cp "y" pin.
14. Turn off the function generator and 15V Power Supply.
15. Replaced Diode Loads with 50 ohm Resistor Loads.
16. Turn on the function generator and 15V Power Supply
17. All 6 LEADs will light brighter.
18. Measure a 5.5ms pulse at @12V $\pm$ 1V peak 60Hz across each CP "x" & Cp "y" pin.
19. Turn off the function generator and 15V Power Supply.
20. Turn Off 125V Power Supply.
21. **Test complete.**