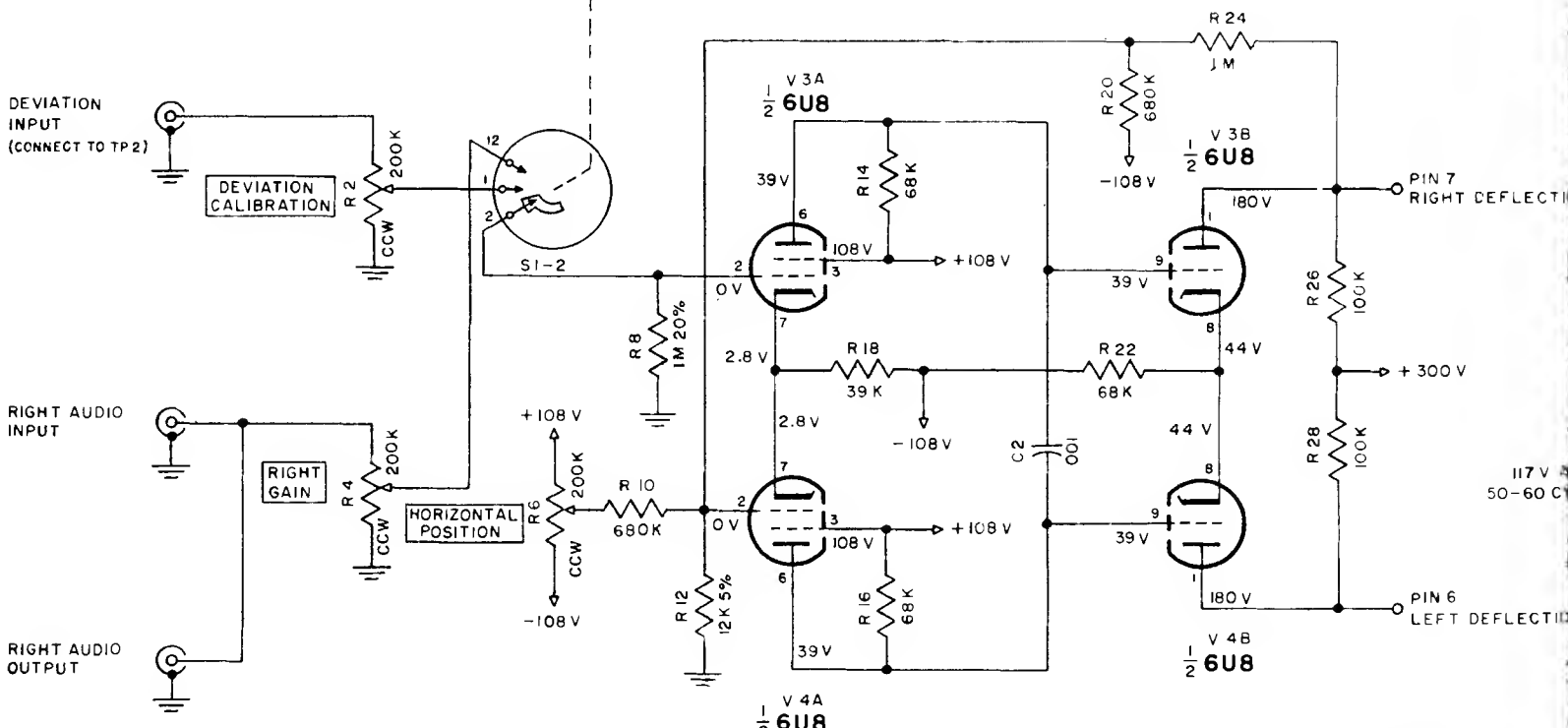
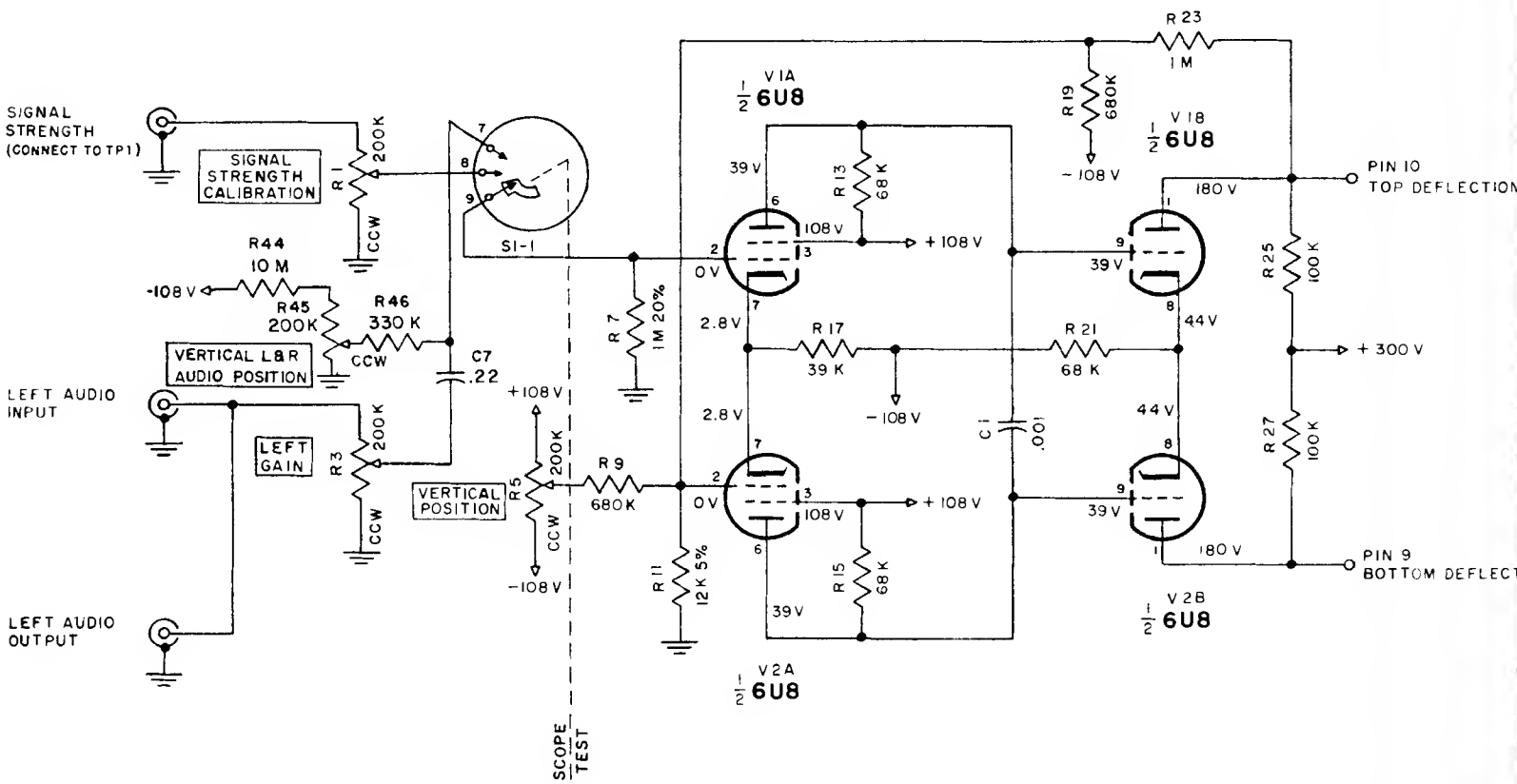


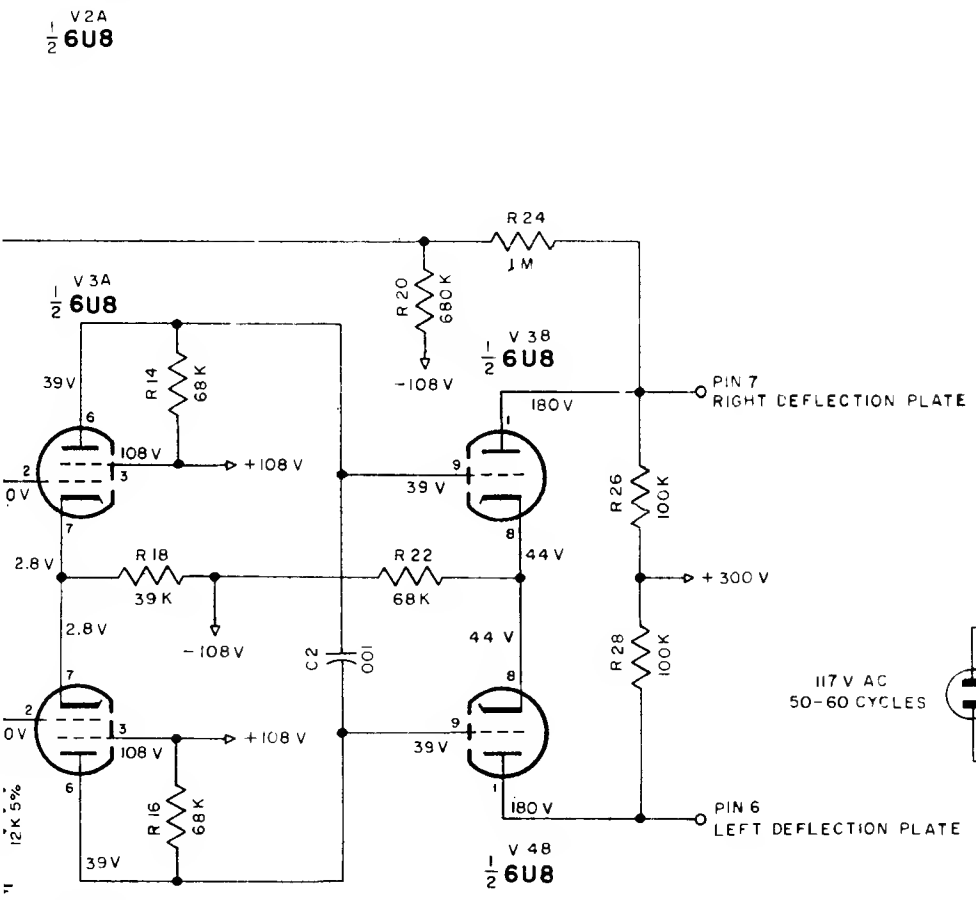
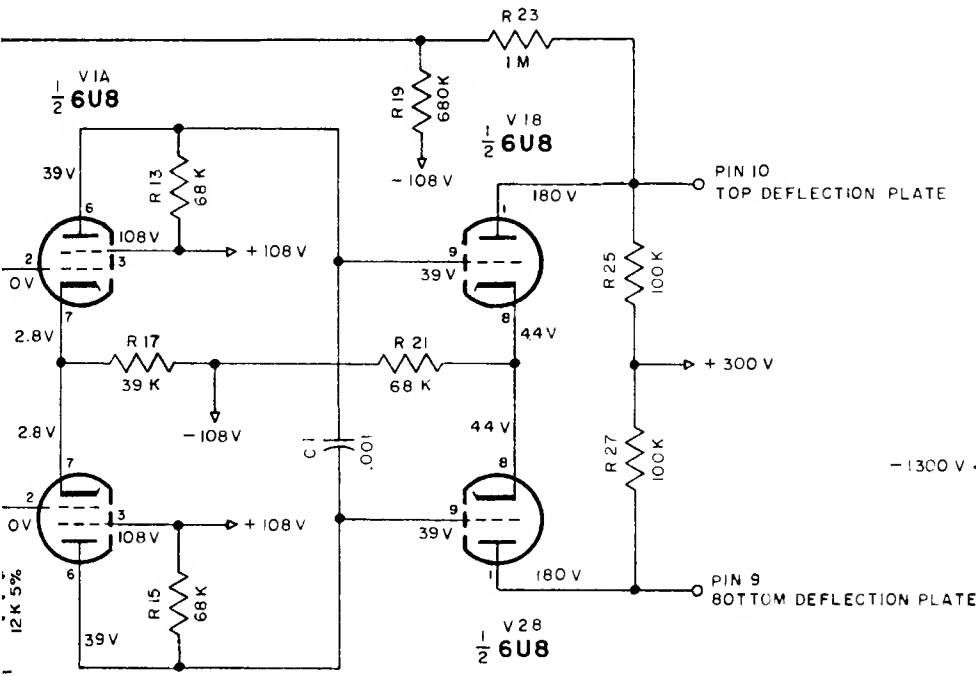
# VERTICAL AMPLIFIER



# HORIZONTAL AMPLIFIER

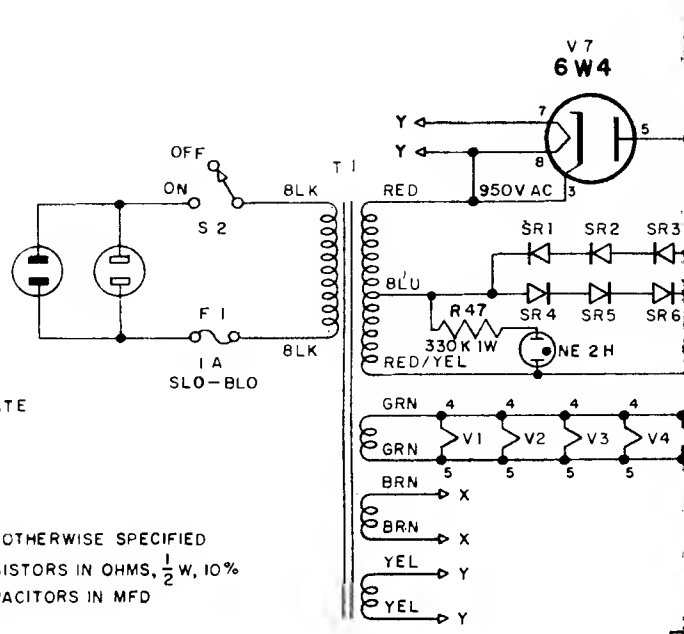
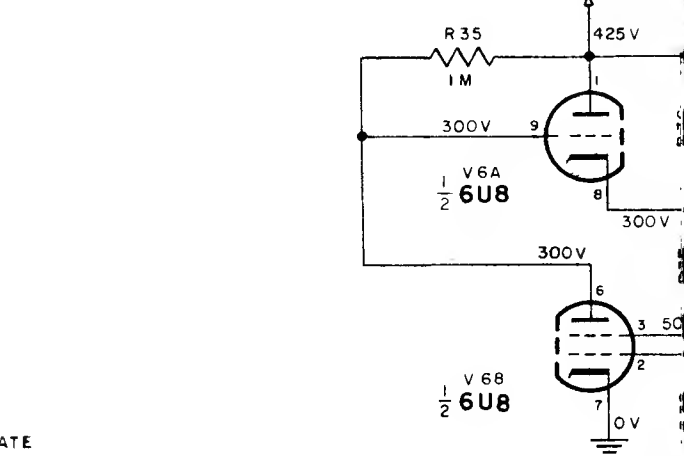
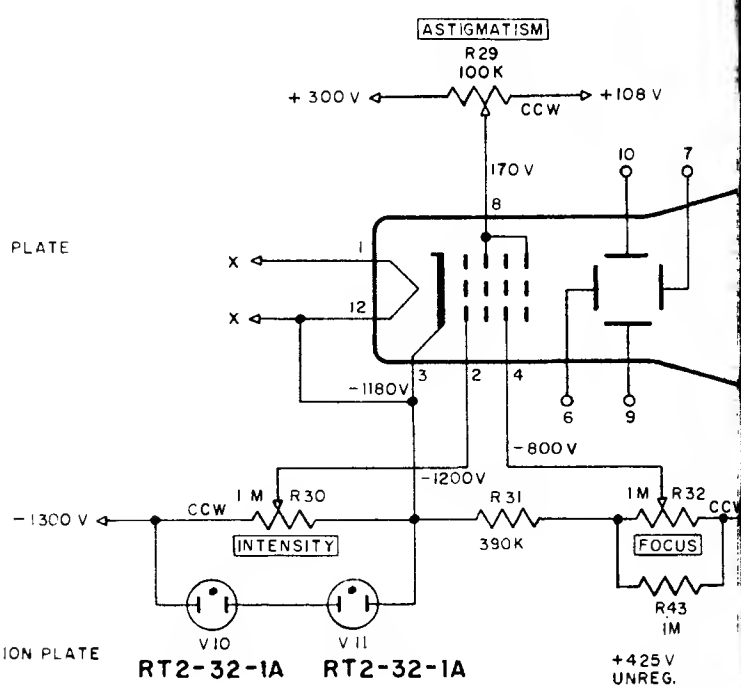
ALL VOLTAGES MEASURED UNDER FOLLOWING CONDITIONS.  
 1- USE OF 11 MEGOHMS INPUT IMPEDANCE VTVM VOLT-METER.  
 2- ALL VOLTAGES  $\pm 10\%$ , WITH RESPECT TO GROUND  
 3- A.C. INPUT AT 117 V 50-60 CPS.  
 4- NO SIGNAL AT INPUT TERMINALS.  
 5- MODE SELECTOR AT TEST POSITION

LIFIER



AMPLIFIER

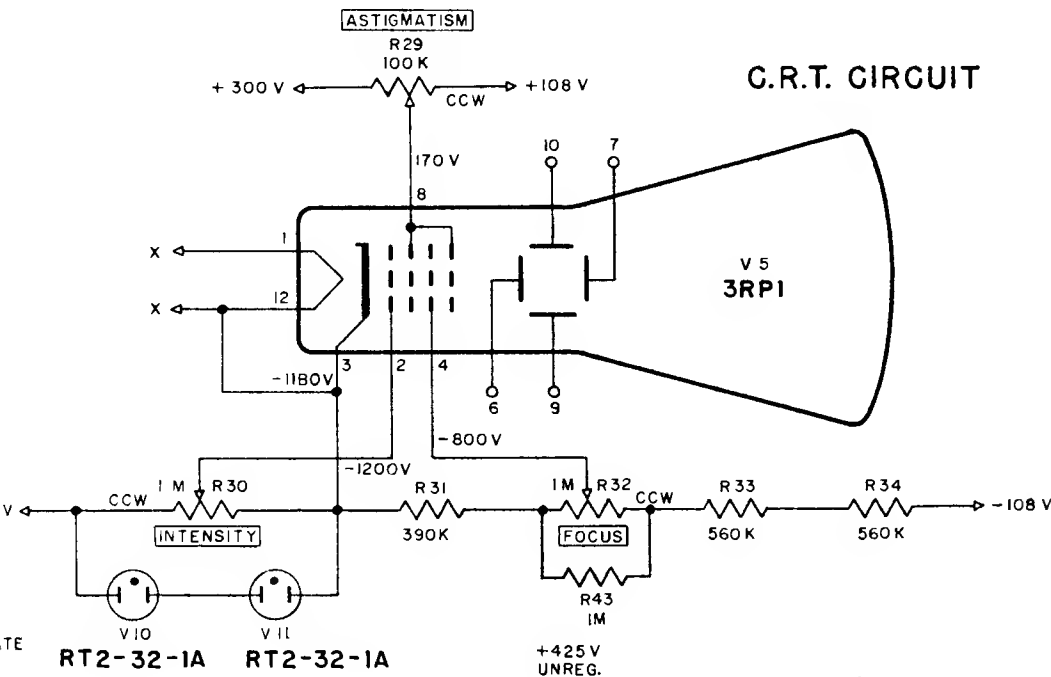
ALL VOLTAGES MEASURED UNDER FOLLOWING CONDITIONS:  
 1- USE OF 11 MEGOHMS INPUT IMPEDANCE VTVM VOLTMETER.  
 2- ALL VOLTAGES  $\pm 10\%$ , WITH RESPECT TO GROUND  
 3- A.C. INPUT AT 117 V 50-60 CPS.  
 4- NO SIGNAL AT INPUT TERMINALS.  
 5- MODE SELECTOR AT TEST POSITION



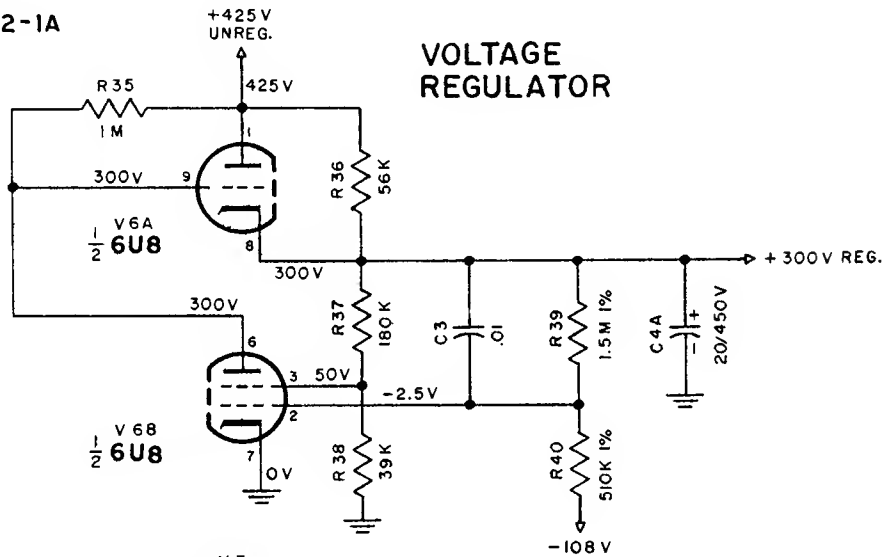
UNLESS OTHERWISE SPECIFIED  
 ALL RESISTORS IN OHMS,  $\frac{1}{2}$  W, 10%  
 ALL CAPACITORS IN MFD  
 S1 SHOWN IN CCW POSITION

REV	C N	REVISION	DATE	BY	CHKD	APPD
A						
B						
C						

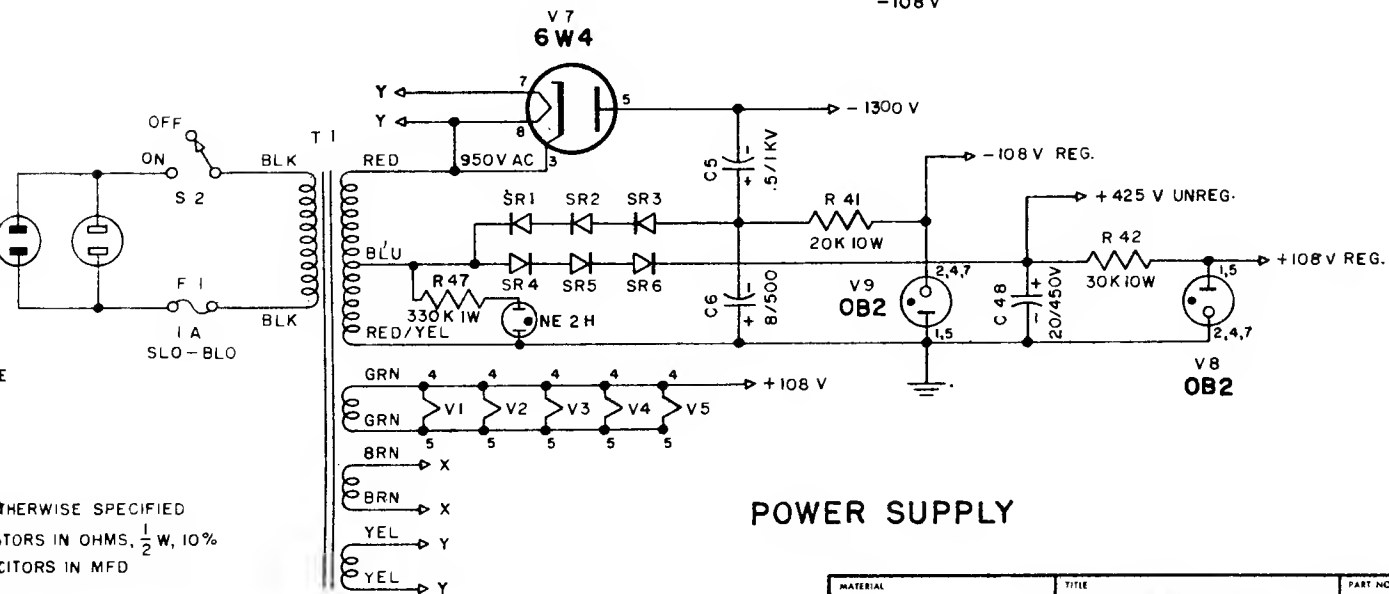
### G.R.T. CIRCUIT



### VOLTAGE REGULATOR



### POWER SUPPLY



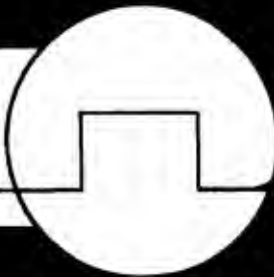
UNLESS OTHERWISE SPECIFIED  
RESISTORS IN OHMS, 1/2 W, 10%  
CAPACITORS IN MFD

SWITCH IN CCW POSITION

SC 141-118  
ON DWG

MATERIAL	TITLE	PART NO
	SCHEMATIC, MI-2	
FINISH	McInosh LABORATORY INC. 2 Chambers St. Binghamton, N.Y.	USED ON
TOLERANCES - Unless otherwise specified - Angles - Fractions - Decimals	SCALE	DRN BY V6
	DATE 3.8.63	DWG NO
	CHKD /	APPD <i>afj</i>
		REV
		SC141-118

# McIntosh



**MODEL NUMBER:** MI 2

**DATE:** MARCH 1965

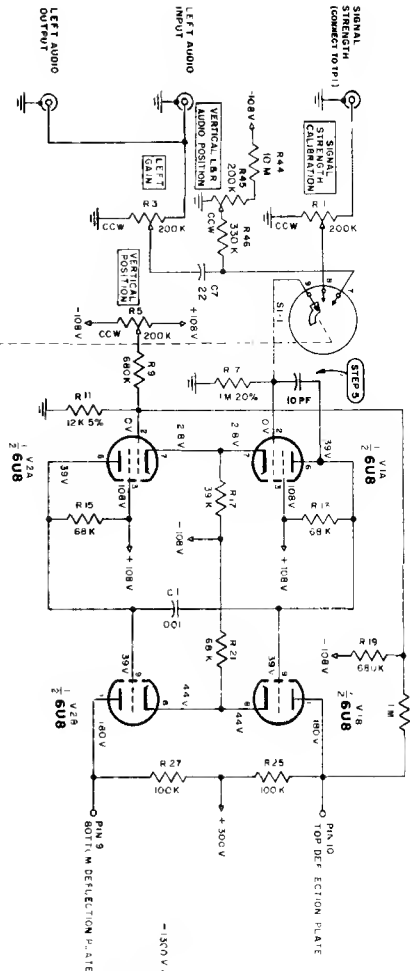
**MODIFICATION:** To eliminate any shape other than a dot when in the "TEST" position.

**DESCRIPTION:** This modification can be made to all MI 2's. If a configuration other than a sharply defined spot occurs this indicates possible oscillation in the deflection amplifier. Noise in the deflection amplifier can also cause this condition. Oscillation is caused by coupling between pins 1 and 2 of tubes V1 and V3. Noise can be caused by parasitic oscillations of intensity control neon bulbs and by coupling of power line noise into the + 108 volt supply via the filament winding on the power transformer. These modifications have been made to all MI 3's.

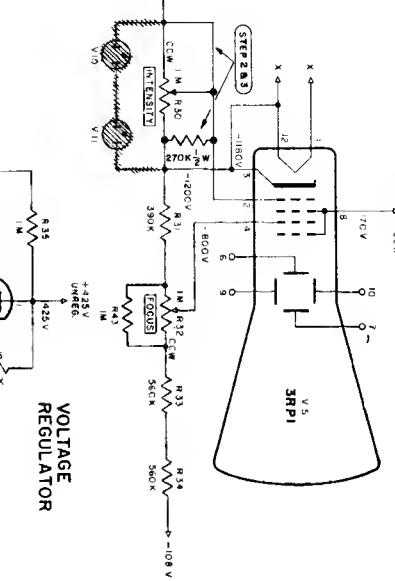
**PROCEDURE:**

1. There are two 10 w resistors under the chassis, parallel each of these with a 56K 2 w resistor.
2. Remove the neon bulb from the intensity control.
3. Add a 270K ½ w resistor from the center lug of the intensity control to the side lug (at junction of yellow/white wire and 390 K resistor). Add a jumper wire from the center lug of the control to the other lug (junction of orange/white wires).
4. Remove the red/white wire from pin 5 of the 6U8 (6) to pin 1 of the OB 2 (V8). Replace the wire with a 47K ½ w resistor.
5. Add a 10pf capacitor from pin 2 to pin 6 of tubes V1 and V3. Bend the tube socket of pins of tubes V1 and V3 so that pin 1 is as far away from pin 2 as possible. Dress the leads connecting to these pins for maximum separation.

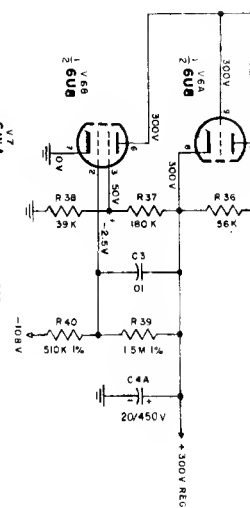
VERTICAL AMPLIFIER



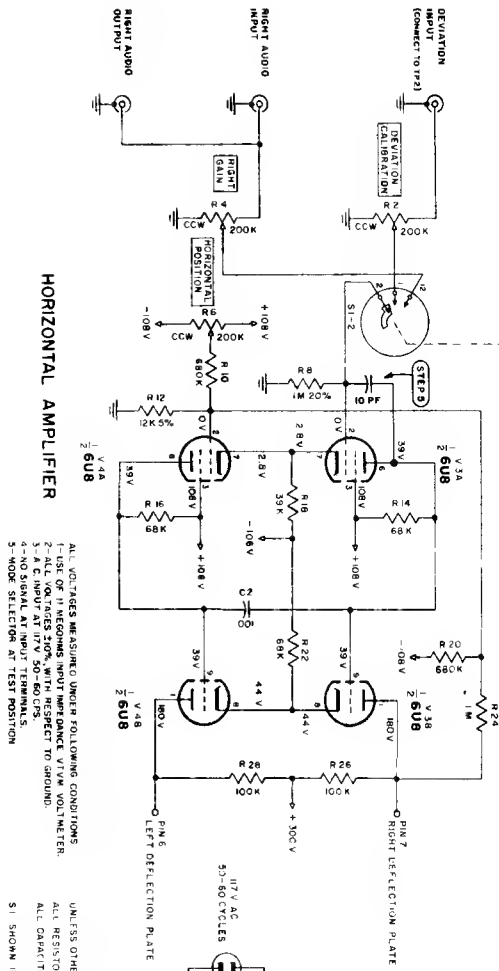
C.R.T. CIRCUIT



VOLTAGE REGULATOR



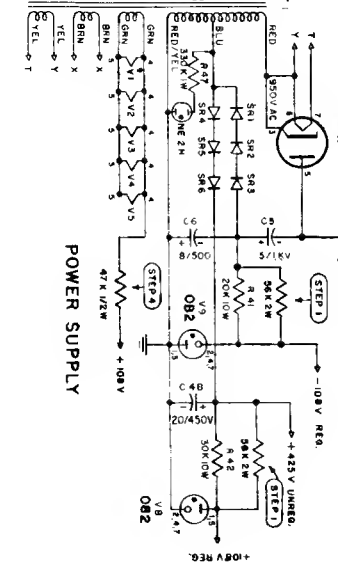
HORIZONTAL AMPLIFIER



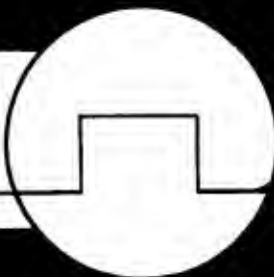
- 1- USE OF 11 TUBES UNDER FOLLOWING CONDITIONS
- 2- ALL VOLTAGES 50% WITH RESPECT TO GROUND
- 3- A.C. INPUT AT 17V 50-60 CPS
- 4- ALL CAPACITORS IN MFD
- 5- MODE SELECTION AT TEST POSITION

- UNLESS OTHERWISE SPECIFIED
- ALL RESISTORS IN OHMS, 1/2 W, 10%
- ALL CAPACITORS IN MFD
- S1 SHOWN IN CCW POSITION

POWER SUPPLY



# McIntosh



**MODEL NUMBER:** MI 2

**DATE:** MARCH 1965

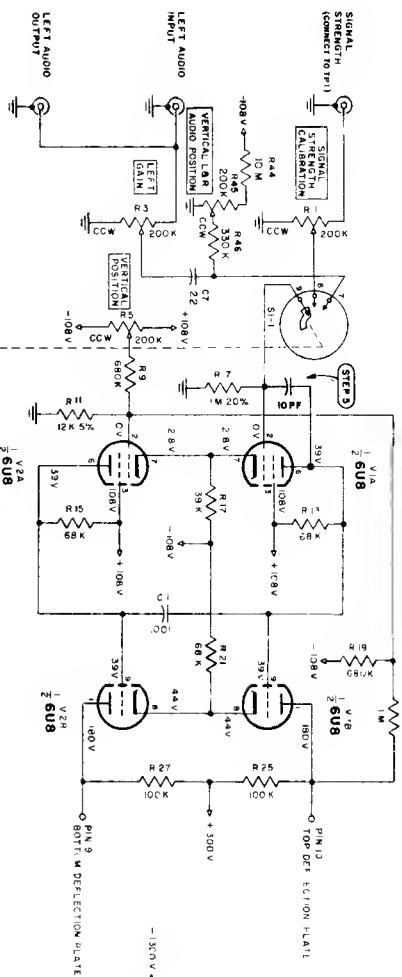
**MODIFICATION:** To eliminate any shape other than a dot when in the "TEST" position.

**DESCRIPTION:** This modification can be made to all MI 2's. If a configuration other than a sharply defined spot occurs this indicates possible oscillation in the deflection amplifier. Noise in the deflection amplifier can also cause this condition. Oscillation is caused by coupling between pins 1 and 2 of tubes V1 and V3. Noise can be caused by parasitic oscillations of intensity control neon bulbs and by coupling of power line noise into the + 108 volt supply via the filament winding on the power transformer. These modifications have been made to all MI 3's.

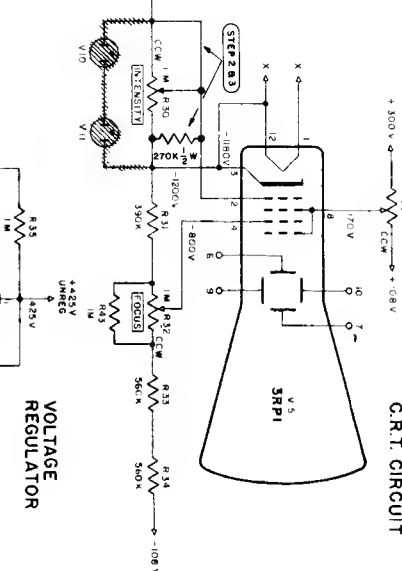
**PROCEDURE:**

1. There are two 10 w resistors under the chassis, parallel each of these with a 56K 2 w resistor.
2. Remove the neon bulb from the intensity control.
3. Add a 270K ½ w resistor from the center lug of the intensity control to the side lug (at junction of yellow/white wire and 390 K resistor). Add a jumper wire from the center lug of the control to the other lug (junction of orange/white wires).
4. Remove the red/white wire from pin 5 of the 6U8 (6) to pin 1 of the OB 2 (V8). Replace the wire with a 47K ½ w resistor.
5. Add a 10pf capacitor from pin 2 to pin 6 of tubes V1 and V3. Bend the tube socket of pins of tubes V1 and V3 so that pin 1 is as far away from pin 2 as possible. Dress the leads connecting to these pins for maximum separation.

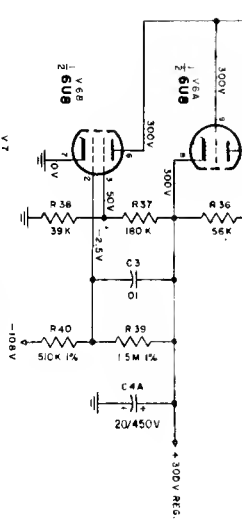
VERTICAL AMPLIFIER



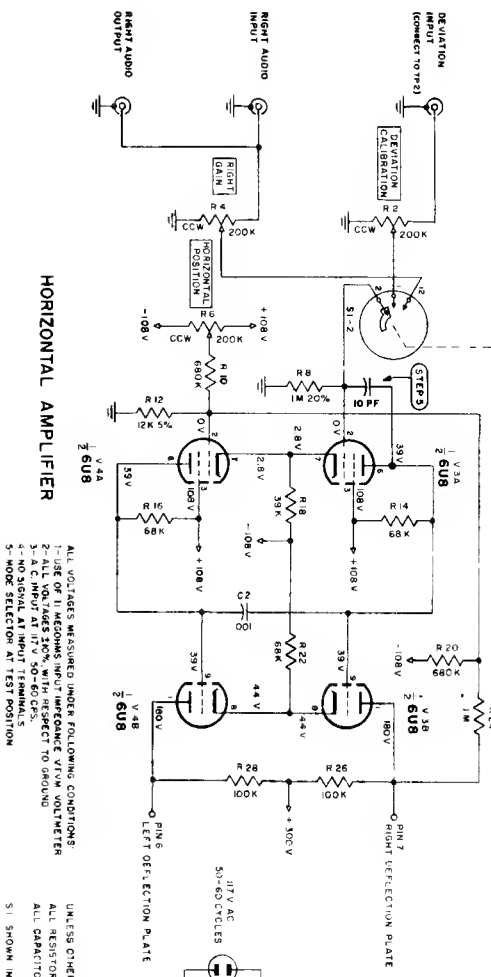
CRT CIRCUIT



VOLTAGE REGULATOR

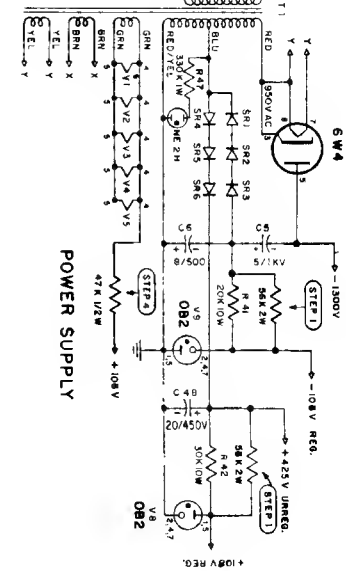


HORIZONTAL AMPLIFIER



- ALL VOLTAGES MEASURED UNDER FOLLOWING CONDITIONS:  
 1- ALL VOLTAGES MEASURED WITH RESPECT TO GROUND  
 2- ALL VOLTAGES 10% WITH RESPECT TO GROUND  
 3- A.C. INPUT AT 1V, 50-60 CFS.  
 4- NO SIGNAL AT INPUT TERMINALS  
 5- MODE SELECTION AT TEST POSITION
- UNLESS OTHERWISE SPECIFIED:  
 ALL RESISTORS IN OHMS, 2% TOL.  
 ALL CAPACITORS IN MFD  
 S1 SHOWN IN CCW POSITION

POWER SUPPLY



# McIntosh

**PRODUCT:** MI-2/MI-3

**MODIFICATION:** CIRCUIT CHANGE TO PREVENT POWER TRANSFORMER FAILURE.

**DESCRIPTION:** Power transformers have failed in some MI-2/MI-3 units due to intermittent shorts in the 6W4 HV rectifier tube. These shorts are caused by cathode flaking in the 6W4. The problem can be eliminated by replacing the 6W4 with a 3000 volt 3MA semiconductor rectifier. This modification reduces the amount of heat generated within the MI-2/MI-3 and increases the life and reliability of the unit.

**PROCEDURE:**

1. Remove the MI-2/MI-3 top cover. Remove the 6W4 tube and place an octal plug (Part #127-006) in the socket.
2. Remove the MI-2/MI-3 bottom cover. Cut and remove the jumper wire connecting pin 8 to pin 3 on the 6W4 socket.  
Connect the 3000 PIV rectifier (Part #070-026) to pin 5 and pin 3 of the 6W4 socket. The RED end of the rectifier should connect to pin 3 and the BLACK end to pin 5. This part of the circuit operates at -1300V; therefore, be sure to locate the rectifier and its leads to provide adequate insulation. Use spaghetti on the rectifier leads. Keep the rectifier leads short to avoid rectifier vibration problems.
3. This completes the modifications. Service bulletin 104 also relates to this product. If trouble has been experienced this modification should be installed at this time.