

# ADJUSTMENTS

**Equipment Required:** DC VTVM, Audio (AC) VTVM  
IM Analyzer,  
4-ohm, non-inductive load resistor  
(minimum 25-watt rating)

## 1 — Bias Adjustment

- a. Set Volume control to minimum.
- b. Connect DC VTVM to Pin 5 of any output tube (V7, V8, V9 or V10).
- c. Adjust "Bias" control for 39.0 volts.

## 2 — Phase Inverter Adjustment

**IMPORTANT:** Note in the schematic that the C (common) speaker terminals are not grounded — the 4-ohm terminals are grounded. Never ground the C terminals either directly or accidentally through test equipment common ground leads.

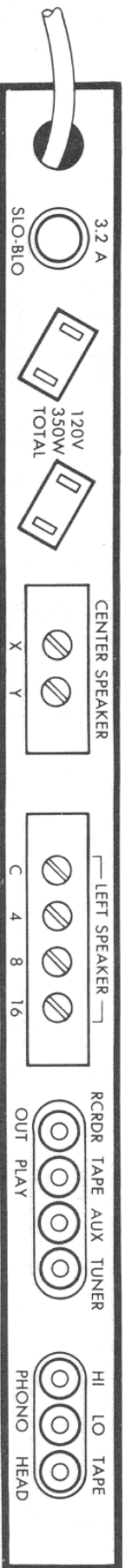
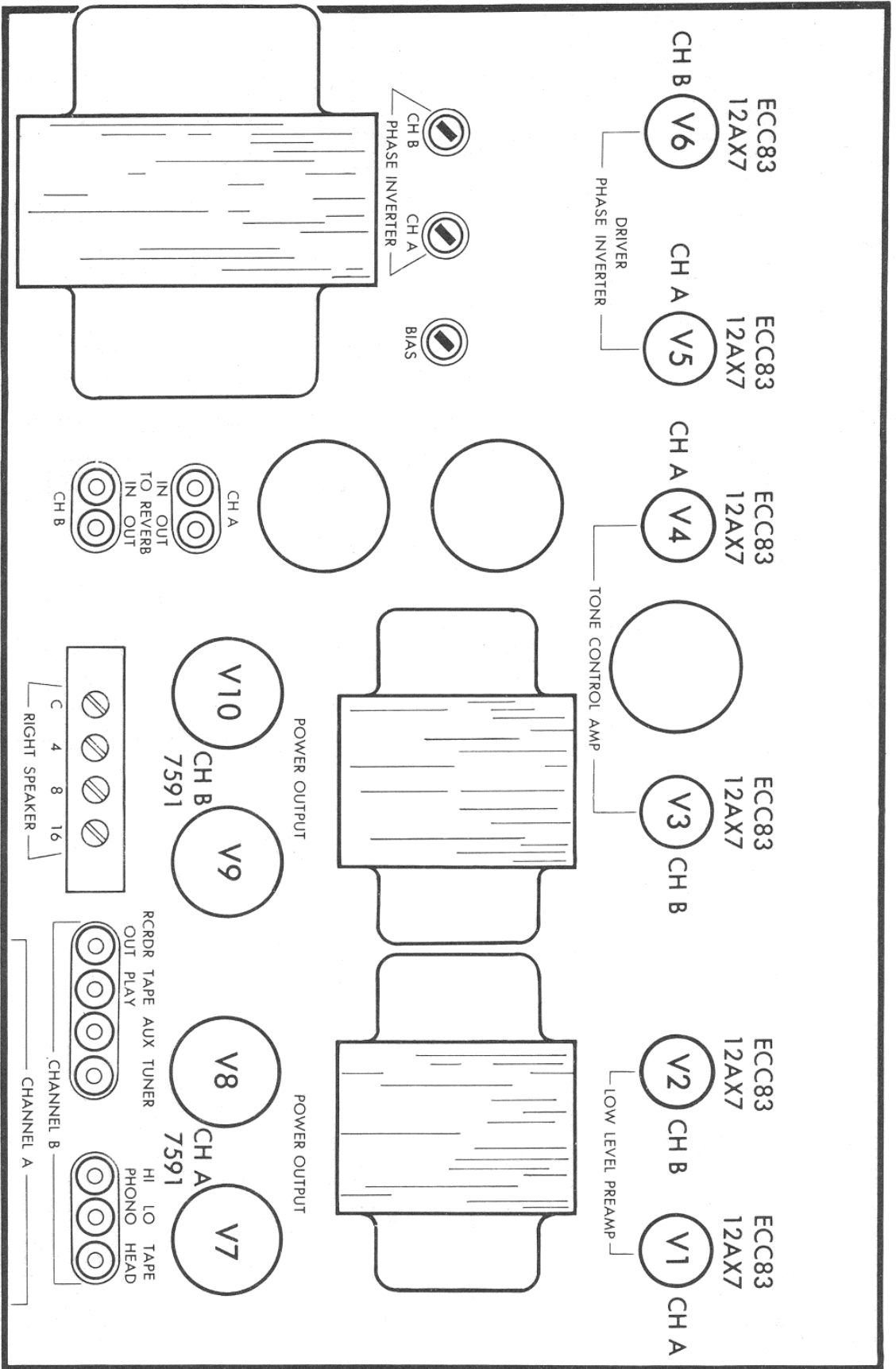
### Channel A

- a. Connect a 4-ohm load between C and 4 left speaker terminals.
- b. Connect IM Distortion Analyzer output to channel A AUX input.
- c. Connect the Analyzer input ground lead to the left speaker 4-ohm terminal.
- d. Connect the Analyzer input hot lead to the left speaker C terminal
- e. Set the Selector switch to AUX, the Mode switch to STEREO, and adjust the Analyzer for 8.0 volts across the 4-ohm load.
- f. Adjust the CH A Phase Inverter control for minimum IM distortion.

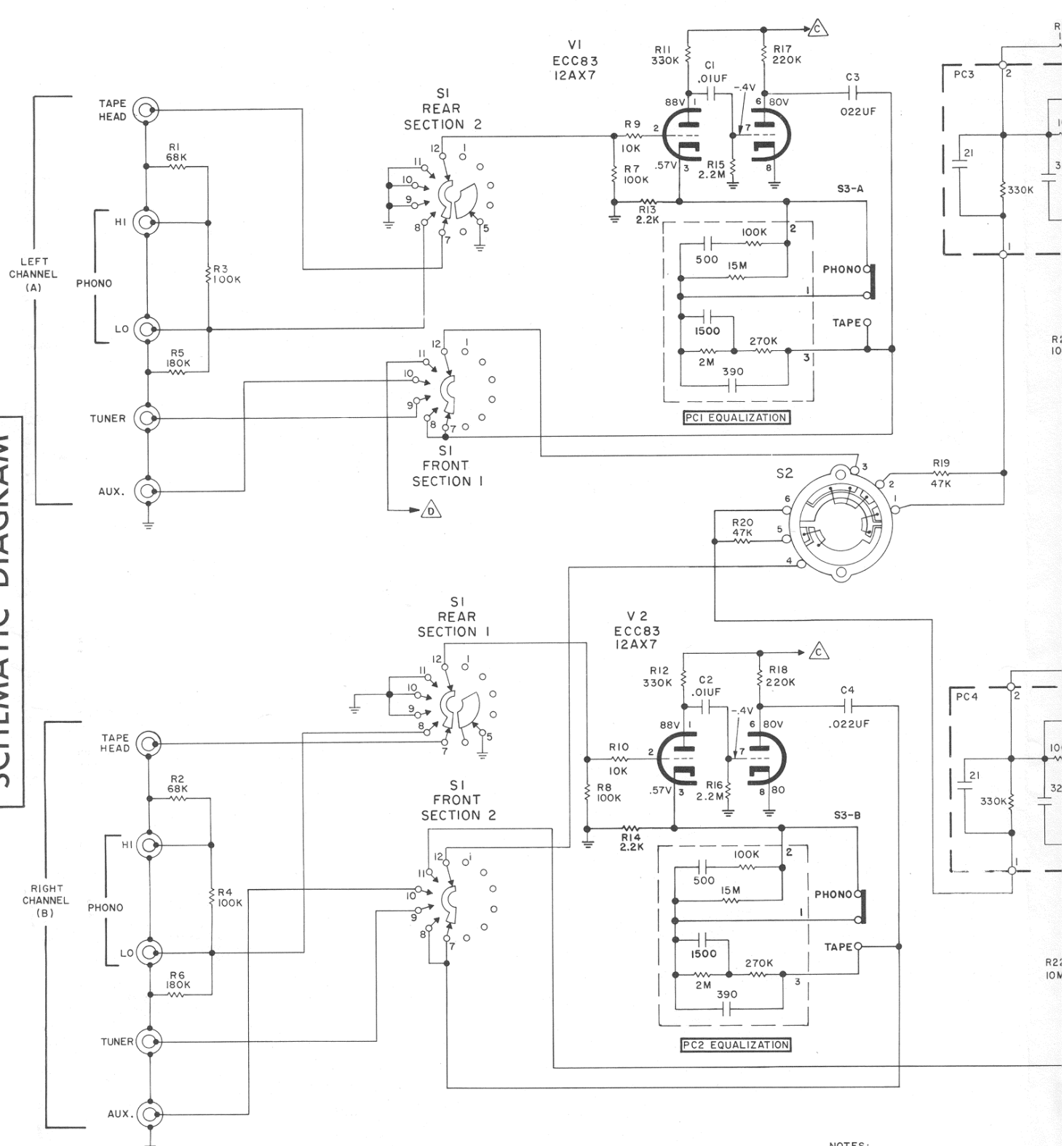
### Channel B

- a. Connect a 4-ohm load between C and 4 right speaker terminals.
- b. Connect IM Distortion Analyzer output to channel B AUX input.
- c. Connect the Analyzer input ground lead to the right speaker 4-ohm terminal.
- d. Connect the Analyzer input hot lead to the right speaker C terminal.
- e. Set the Selector switch to AUX, the Mode switch to STEREO, and adjust the Analyzer for 8.0 volts across the 4-ohm load.
- f. Adjust the CH B Phase Inverter control for minimum IM distortion.

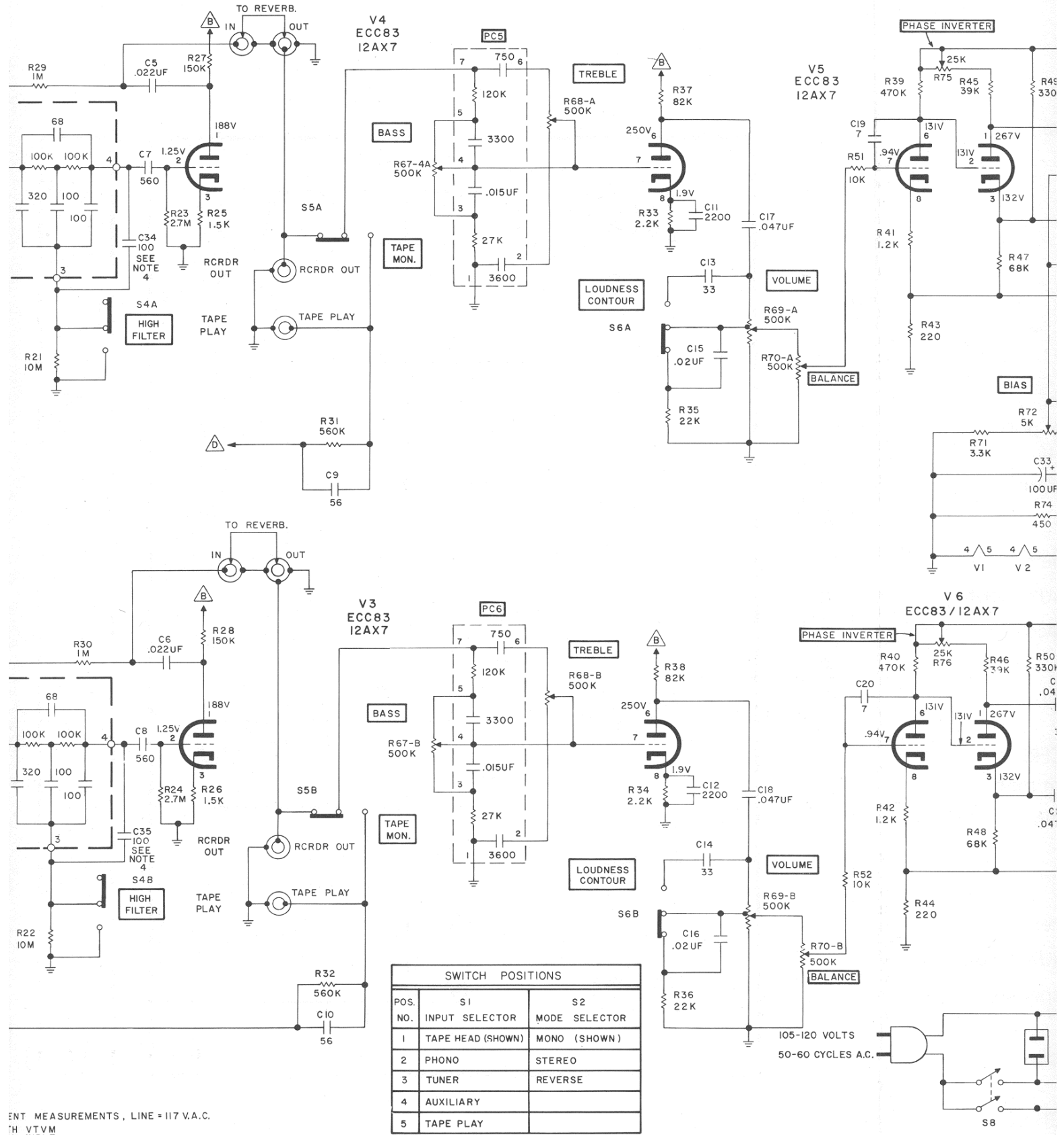
# TUBE LAYOUT



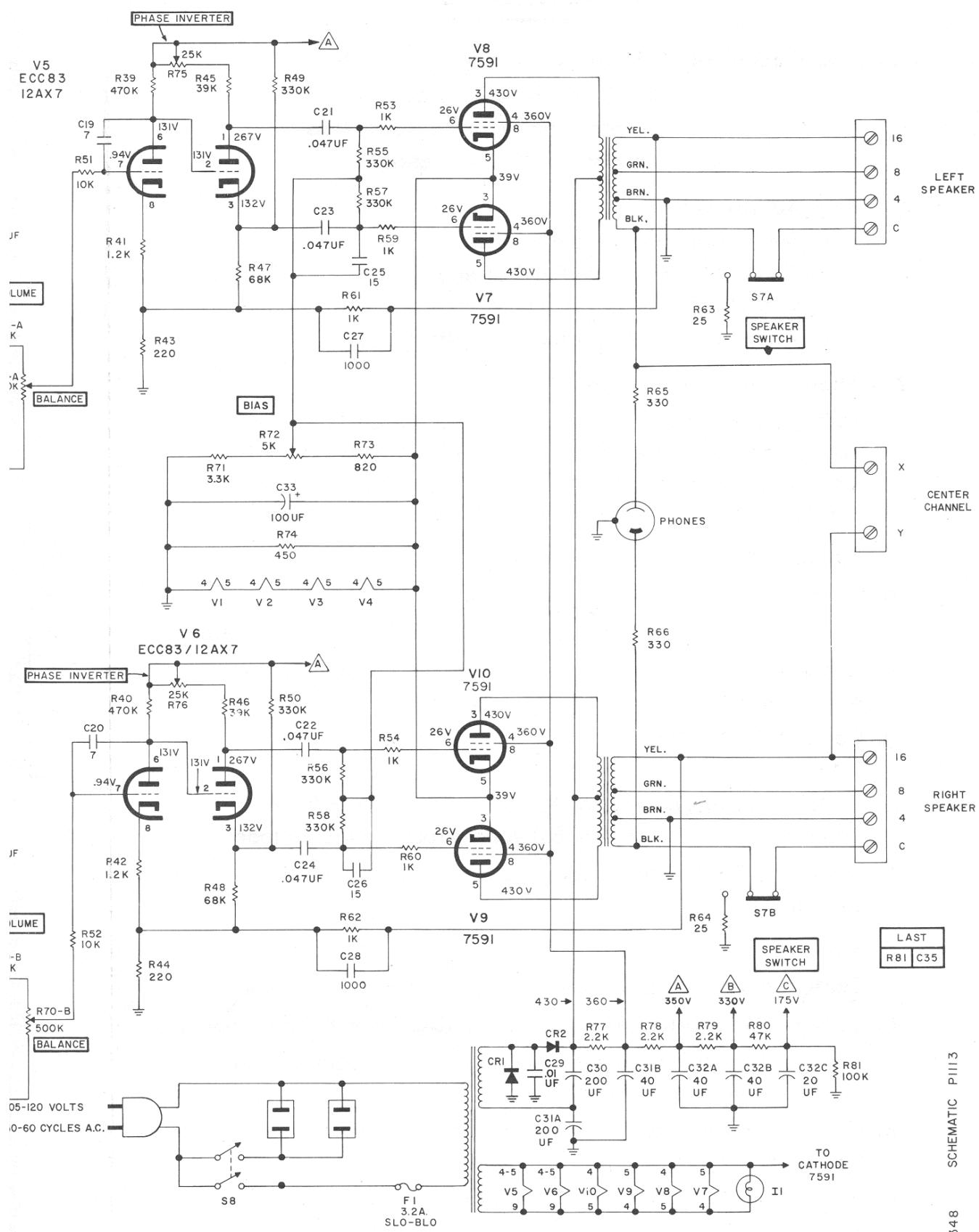
# SCHEMATIC DIAGRAM



- NOTES:**
1. FOR ALL VOLTAGE AND CURRENT
  2. DC VOLTAGE MEASURED WITH V TO CHASSIS WITH NO SIGNAL IN
  3. REAR SECTION OF DUAL CONTROL FRONT SECTION IN RIGHT.
  4. CAPACITORS C34 AND C35 OMITTI



ENT. MEASUREMENTS, LINE = 117 V.A.C.  
 CH. V.T.V.M.  
 (L. INPUT).  
 CONTROLS USED IN LEFT CHANNEL;  
 OMITTED IN SETS SERIALIZED 10001A TO 11000A.



LAST  
R81 C35