



UNITED MOTORS SERVICE, INC.

MODEL R673 Delco Schematic

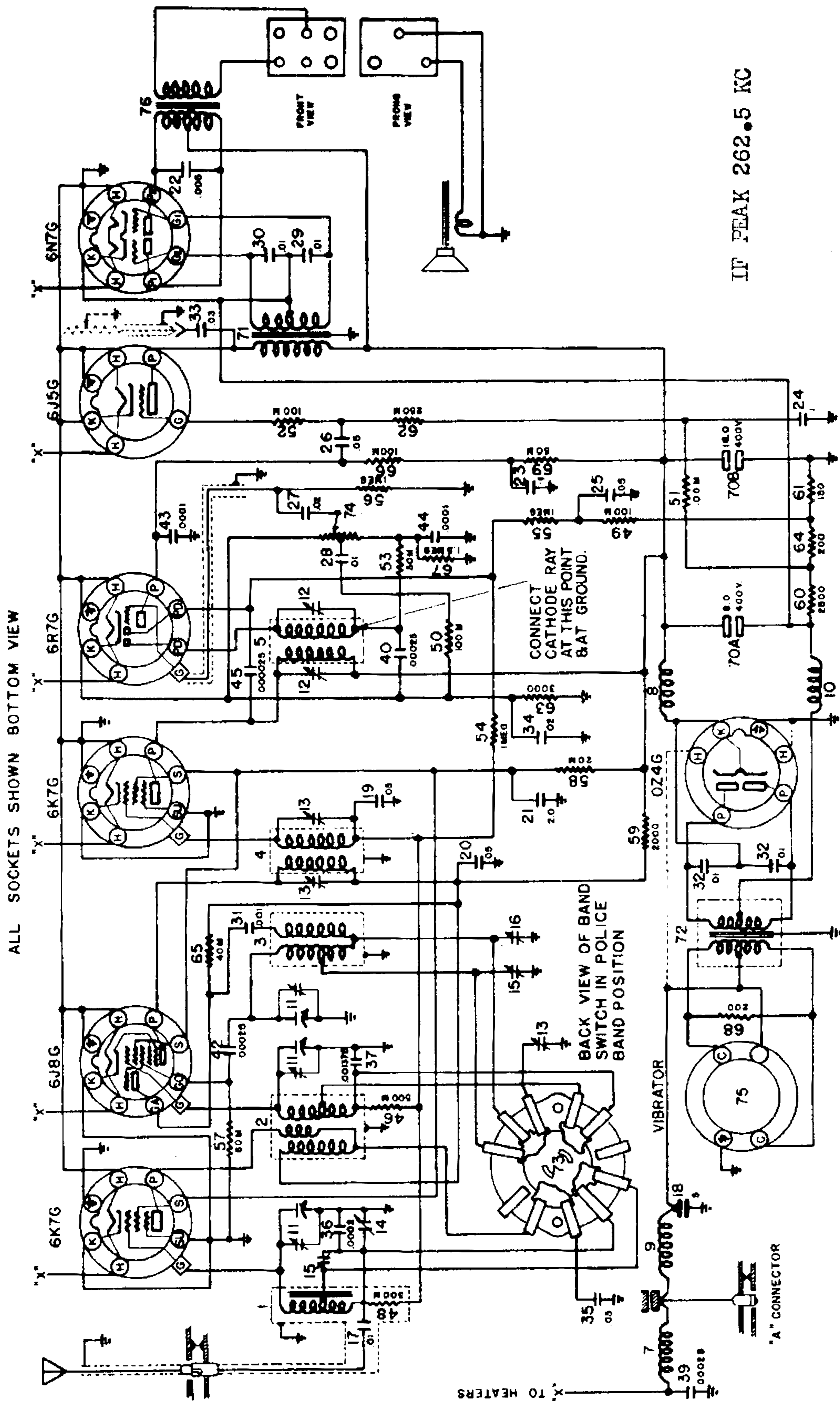


FIG. 3--DELCO MODEL R-673 CIRCUIT DIAGRAM

GENERAL: The Delco Model R-673 is a seven tube two unit receiver with short wave and broadcast band. Coverage of short wave band from 5000 kilocycles to 1600 kilocycles, broadcast 1530 kilocycles to 540 kilocycles. Special features such as base compensation, tone control and 6N7G push pull output.

MODEL R673 Delco
Voltage, Socket
Trimmers, Chassis

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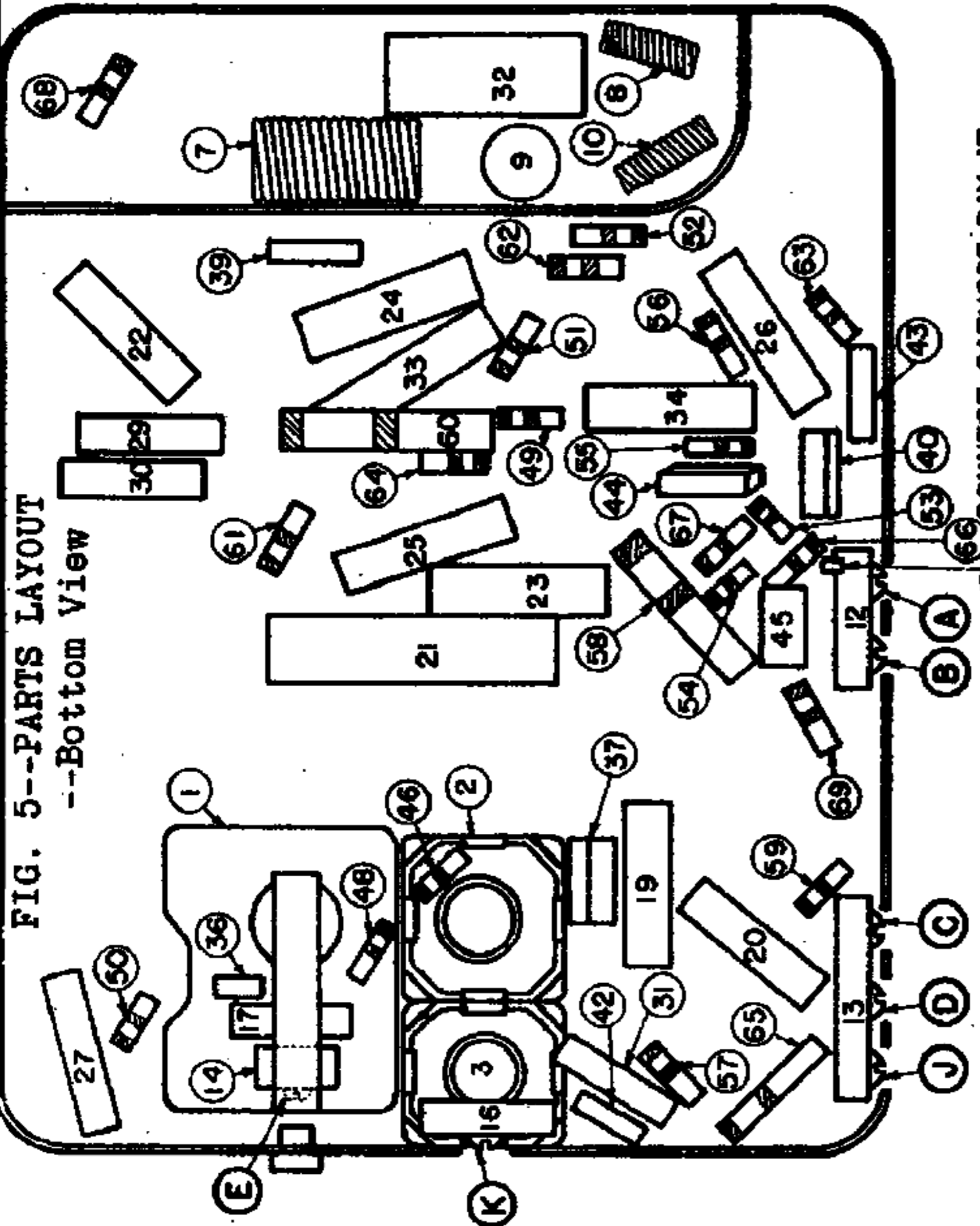


FIG. 5--PARTS LAYOUT
--Bottom View

CONNECT CATHODE RAY AT THIS POINT & AT GROUND.

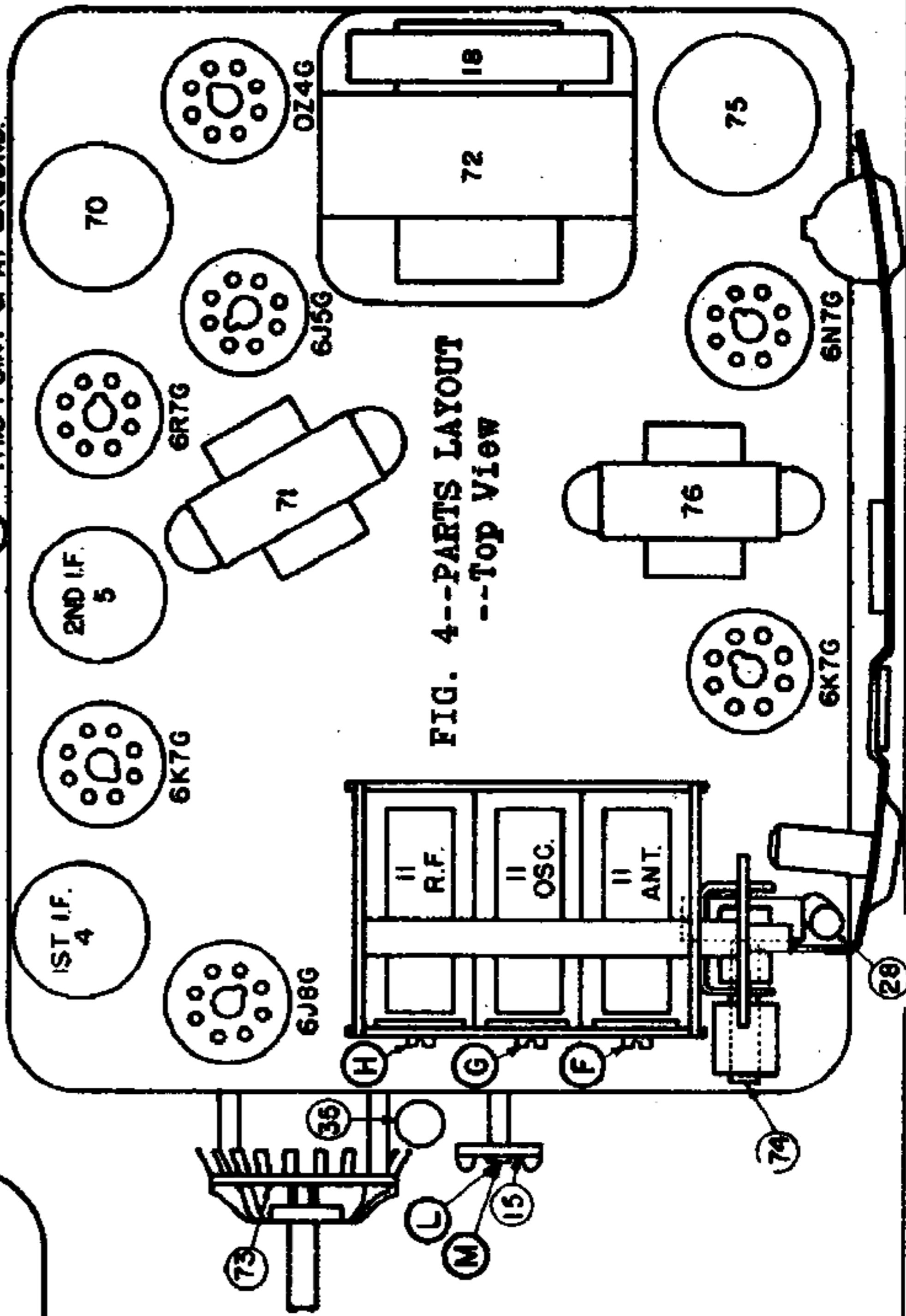
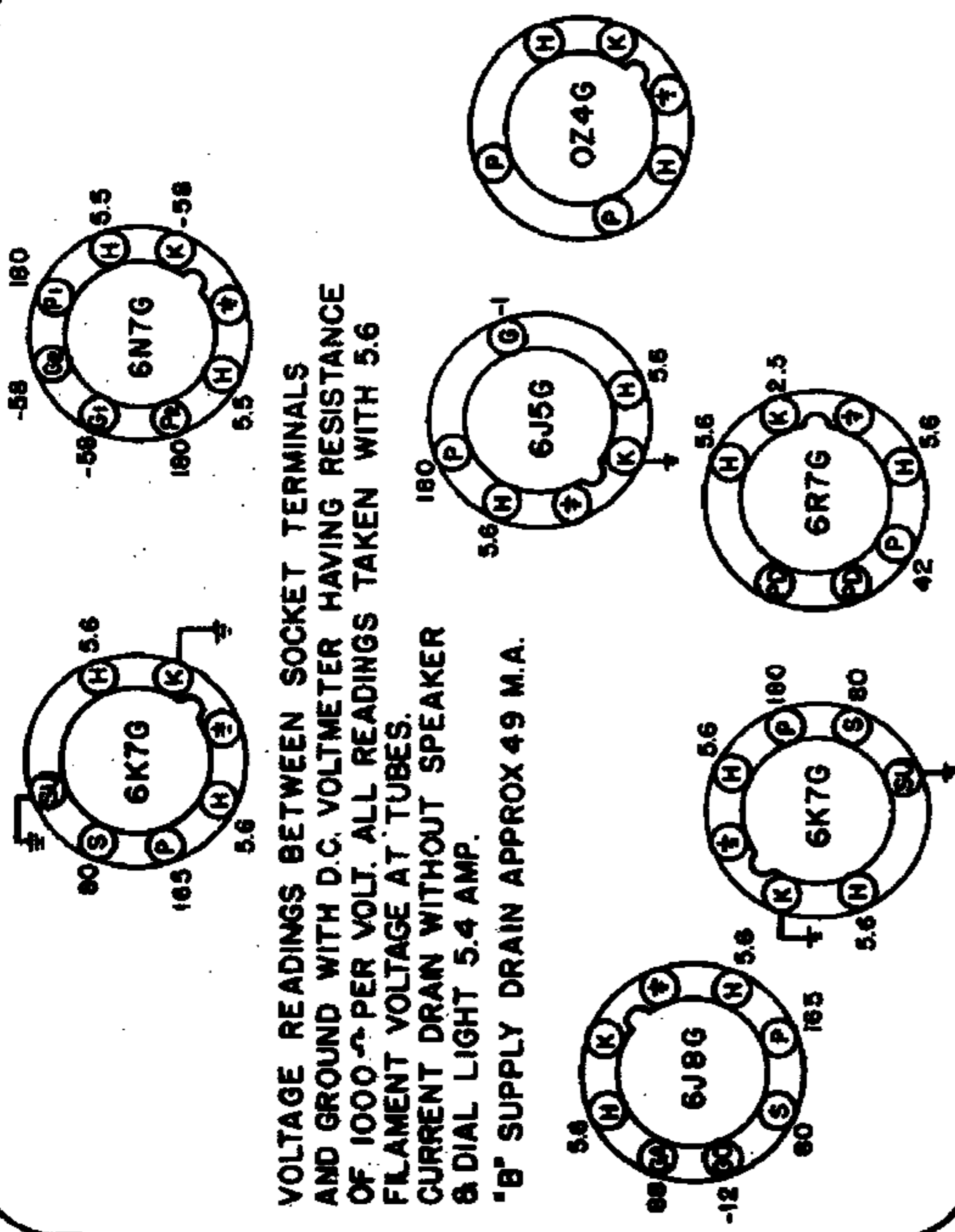


FIG. 4--PARTS LAYOUT
--Top View



VOLTAGE READINGS BETWEEN SOCKET TERMINALS AND GROUND WITH D.C. VOLTMETER HAVING RESISTANCE OF 1000 Ω PER VOL. ALL READINGS TAKEN WITH 5.6 FILAMENT VOLTAGE AT TUBES. CURRENT DRAIN WITHOUT SPEAKER & DIAL LIGHT 5.4 AMP. 'B' SUPPLY DRAIN APPROX 49 M.A.

FIG. 1--TUBE SOCKET VOLTAGES

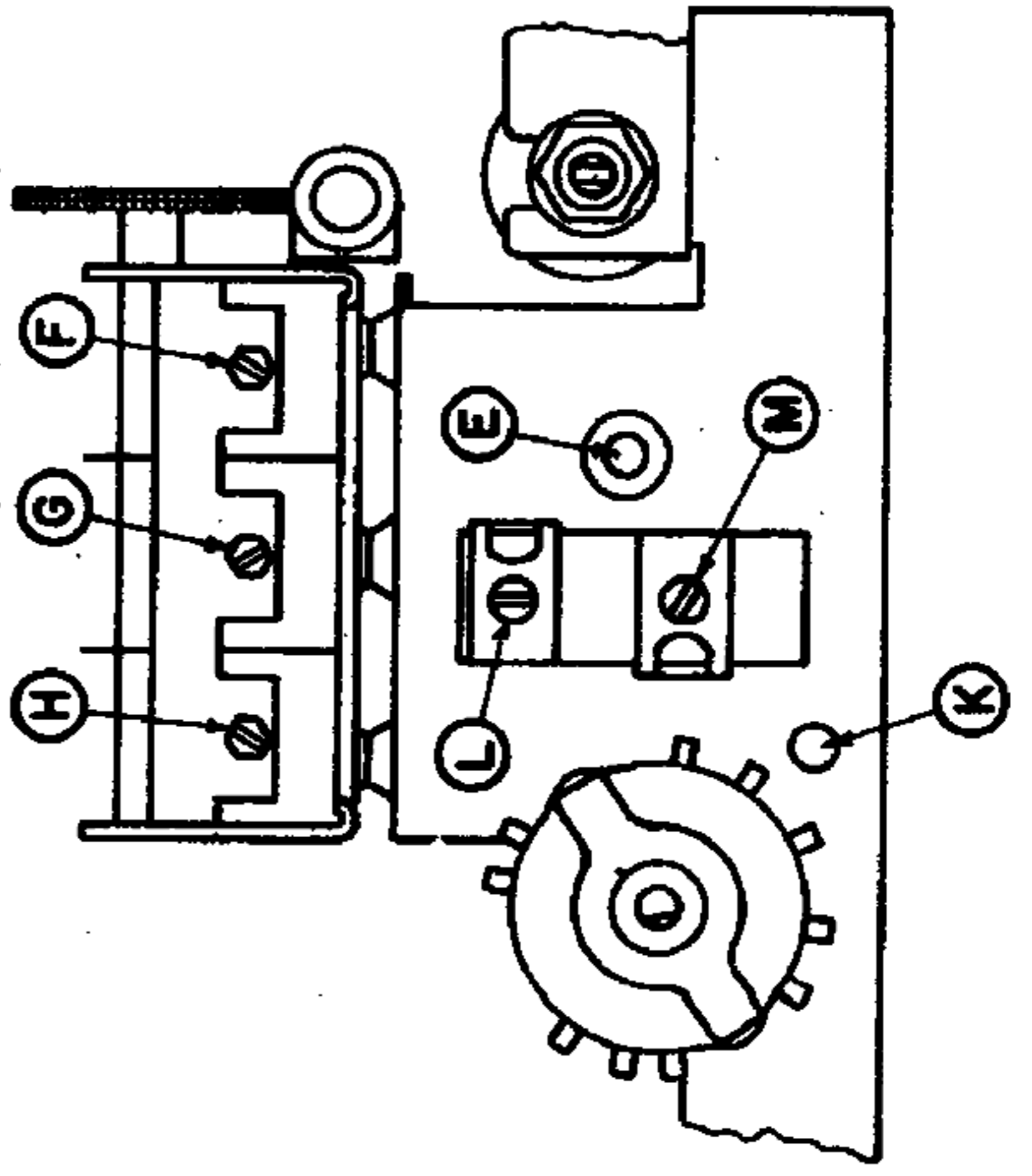


FIG. 2--TRIMMER LOCATIONS

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Alignment

1. Aligning I-F Stages at 262.5 Kilocycles
 - (a) Connect the ground lead of the Signal Generator to the chassis case. Connect the signal lead of the Signal Generator to the grid cap of the 6J5G tube, through a .1 mfd. condenser, leaving the tube's grid clip in place.
 - (b) Connect output meter across plates of 6N7G tube.
 - (c) Set Signal Generator to exactly 262.5 kilocycles and turn volume control on full.
 - (d) Turn condenser gang to a position where no squeals or beat notes can be noticed, also so that when the tuning condenser is rotated within narrow limits there is no appreciable change in output.
 - (e) Adjust trimmers A, B, C & D through the cut-outs on the side of the chassis (illus. 12 & 13, Fig. 5) carefully for maximum output.
 - (f) Repeat adjustments of I-F trimmers A, B, C & D with as low an output from the Signal Generator as possible, for more accurate alignment.
 2. Aligning at 5000 Kilocycles
 - (a) Turn band switch to police band (clockwise).
 - (b) Leave Signal Generator leads connected the same as for I-F adjustments.
 - (c) Turn tuning condenser plates all the way out and against high frequency stop.
 - (d) Set Signal Generator to exactly 5000 kilocycles and adjust oscillator trimmer "G" (Fig. 4) carefully for maximum output, being careful to peak the signal received with trimmer screw out at minimum capacity.
 3. Aligning at 1530 Kilocycles
 - (a) Turn band switch to broadcast band (counter clockwise).
 - (b) Set Signal Generator to 1530 kilocycles and leave the tuning condenser against high frequency stop.
 - (c) Adjust oscillator trimmer "L" (Fig. 4) for maximum output.
 4. Aligning at 600 Kilocycles
 - (a) Connect Signal Generator leads to 6K7G, R-F grid, leaving the grid clip in place.
 - (b) Set Signal Generator to 600 kilocycles and tune the receiver to this signal.
 - (c) Adjust oscillator padder condenser "K" (Fig. 5) rocking gang condenser plates back and forth through the signal until maximum output is obtained.
 - (d) Remove signal generator lead from 6K7G tube clip and connect to the antenna terminal through a .0002 mfd. condenser.
 - (e) Adjust antenna series condenser "E" (Fig. 5) for maximum output.
5. Aligning at 1400 Kilocycles
 - (a) Set Signal Generator at 1400 kilocycles.
 - (b) Tune set to this signal and adjust R-F trimmer "H" (Fig. 4) and antenna trimmer "M" (Fig. 4) to maximum output.
 6. Aligning at 4000 Kilocycles
 - (a) Turn band switch to police band.
 - (b) Set Signal Generator to 4000 kilocycles and tune receiver to this signal.
 - (c) Adjust police band antenna trimmer "P" (Fig. 4) for maximum output.
 7. Aligning at 1800 Kilocycles
 - (a) Set Signal Generator at 1800 kilocycles and tune receiver to this signal.
 - (b) Adjust oscillator padder condenser "J" (Fig. 5) rocking gang condenser plates back and forth through the signal until maximum output is obtained.
 - (c) Close gang and check to see if tuning range extends to 1600 kilocycles.
 8. Realigning at 1400 Kilocycles
 - (a) Turn band switch to broadcast band.
 - (b) Set Signal Generator to 1400 kilocycles.
 - (c) Tune set to this signal and adjust R-F trimmer "H" and antenna trimmer "M" to maximum output (Fig. 4).
 9. Realigning at 600 Kilocycles
 - (a) Check alignment of antenna series condenser "E" (Fig. 5) for maximum output.
 10. Checking I-F Band Spread

The Model 165 Cathode Ray Oscillograph should be used to check the I-F band spread after completing the "Alignment Procedure". Slight adjustment of the I-F stages may be found necessary in order to obtain a symmetrical selectivity curve. Connect Cathode Ray from connection "I" (Fig. 5) to ground.