

**General Description:** Four-valve, two-waveband battery receiver in small attaché case. Weight, including batteries, 6¼ lb.

**Power Supplies:** H.T. 90 volts (Vidor type L.5512), 8.8 mA.; L.T. 1.5 volts (Vidor type L.5040), 131 mA.

**Wavebands:** M.W. 187–570 m.; L.W. 1086–1986 m.

**Valve Analysis:** Measurements taken on Avo Model 7 on the 1000-volt range under no-signal conditions. Variations of  $\pm 15$  per cent may be anticipated between models.

<i>Valve</i>	<i>Anode, volts</i>	<i>Anode, mA.</i>	<i>Screen, volts</i>	<i>Screen, mA.</i>	<i>Miscellaneous</i>
V1 DK96 .	84	0.58	59 (g4)	0.15	Osc. (g2) 30 v. 1.64 mA.
V2 DF96 .	84	1.38	62	0.47	—
V3 DAF96 .	—	0.06	—	0.02	—
V4 DL96 .	81	4.38	84	0.87	g1, -6.0 v.

**Alignment Procedure:** *I.F.:* Set to M.W. and short-circuit front section of tuning gang. Inject a 470-kc/s. signal between rear section of gang and chassis. Adjust cores L8, L7, L4 and L3, in that order, and repeat for optimum results.

*R.F.:* Set gang to maximum capacitance and check that the line separating M.W. and L.W. scales coincides with the station indicator on front panel. If adjustment is necessary slacken the cleat screw on the tuning-control knob. Rotate knob sufficiently so that the scale is in the correct position. The R.F. adjustments should be carried out with batteries in their correct position, the lid open in its normal position and the panel raised to the minimum height required to reach the trimmers and oscillator-coil core. Do not connect generator directly to frames or tuning gang.

*M.W.:* Set tuning control to 500 m. alignment mark which coincides with station indicator on the front panel. When using "Polar" tuning gang the calibration mark lower than 500 m. should be used. For sets with "Plessey" gang, the calibration mark higher than 500 m. should be used. Inject a 600-kc/s. signal by clipping "hot" side of generator output to chassis. Adjust L6 for maximum output. Set gang to mechanical minimum and inject a 1600-kc/s. signal. Adjust TC2 for maximum output. Repeat these operations for optimum results.

*L.W.:* Set tuning control to 1200 m. Inject a 250-kc/s. signal. Rock gang for maximum output. Adjust TC1 for maximum output.

The circuit used in this model is basically similar to that of Model CN434 described in the 1957-58 volume.

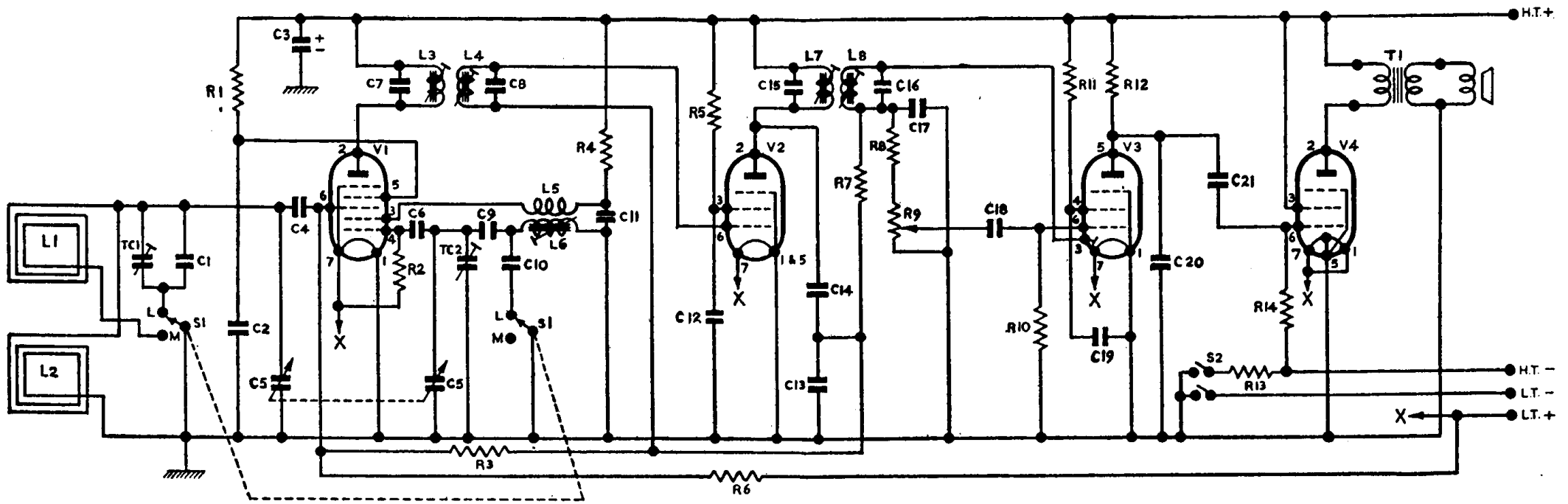
The main differences are:

(1) A single 33k (10 per cent) resistor is used as a screen-grid feed for both V<sub>1</sub> and V<sub>2</sub>, and a single screen decoupling capacitor is used for both valves.

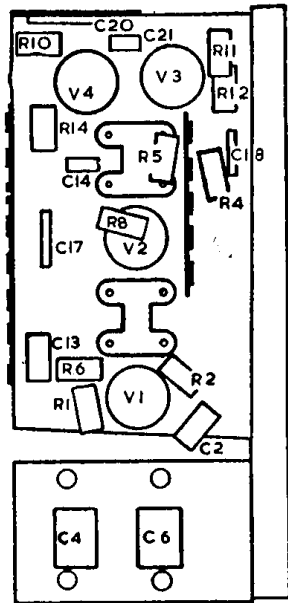
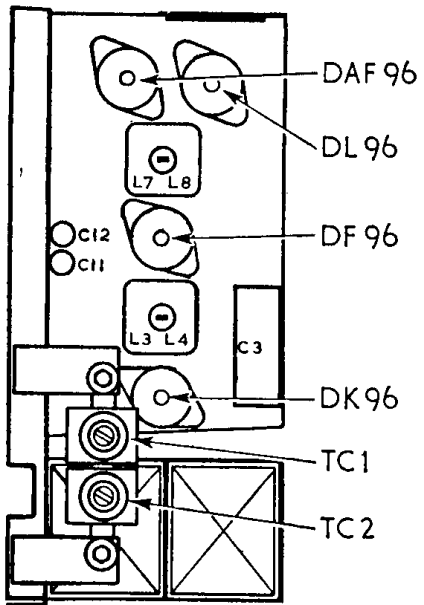
(2) The 4.7-pF. capacitor between the anode of V<sub>2</sub> and the junction of C<sub>11</sub>/R<sub>5</sub> is omitted.

(3) C<sub>3</sub>, the H.T. decoupling capacitor, is 2 μF.

(4) The value of C<sub>21</sub> is 0.01 μF.



CIRCUIT AND LAY-OUT DIAGRAMS—VIDOR MODEL CN434



Capacitors.

C1	130 pF. (2%)
C2	0.01
C3	6 (100 v.)
C4	100 pF.
C5	523 pF. (swing)
C6	100 pF.
C7	65 pF. (3%)
C8	65 pF. (3%)
C9	532 pF. (2%)
C10	470 pF. (1%)
C11	0.01
C12	0.01
C13	0.01
C14	4.7 pF. ( $\pm \frac{1}{2}$ pF)
C15	65 pF. (3%)
C16	65 pF. (3%)
C17	100 pF.
C18	100 pF.
C19	0.01

C20	200 pF.
C21	470 pF.

Resistors.

R1	120k
R2	27k
R3	4.7M
R4	33k
R5	39k
R6	5.6M
R7	1.8M
R8	100k
R9	1M (log.)
R10	10M
R11	2.7M
R12	1M
R13	680 (10%)
R14	1.8M

