

**VIDOR****Model CN429**

**General Description :** Four-valve, two-waveband "all-dry" battery attaché receiver with 25-mA. filament valves and two high-impedance frame aerials. Weight with batteries  $6\frac{1}{4}$  lb.

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

**Wavebands :** L.W. 1086-1986 m.; M.W. 187-571 m.

**Intermediate Frequency :** 470 kc/s.

**Valve Analysis :** Set on M.W. under no-signal conditions. Measurements taken with 500-ohms/volt meter with rated battery voltages. Variations of  $\pm 15$  per cent. may be anticipated between models.

Valve	Va	Ia	Vg2	Ig2	Miscellaneous
V <sub>1</sub> DK96	83.6	0.24 mA.	25	1.67 mA.	Vg <sub>4</sub> 47.7; Ig <sub>4</sub> 0.06 mA.
V <sub>2</sub> DF96	83.6	1.41 mA.	47.7	0.47 mA.	
V <sub>3</sub> DAF96	—	60 $\mu$ A.	—	18 $\mu$ A.	
V <sub>4</sub> DL96	80.5	4.13 mA.	83.6	0.81 mA.	Vg <sub>1</sub> 6.1

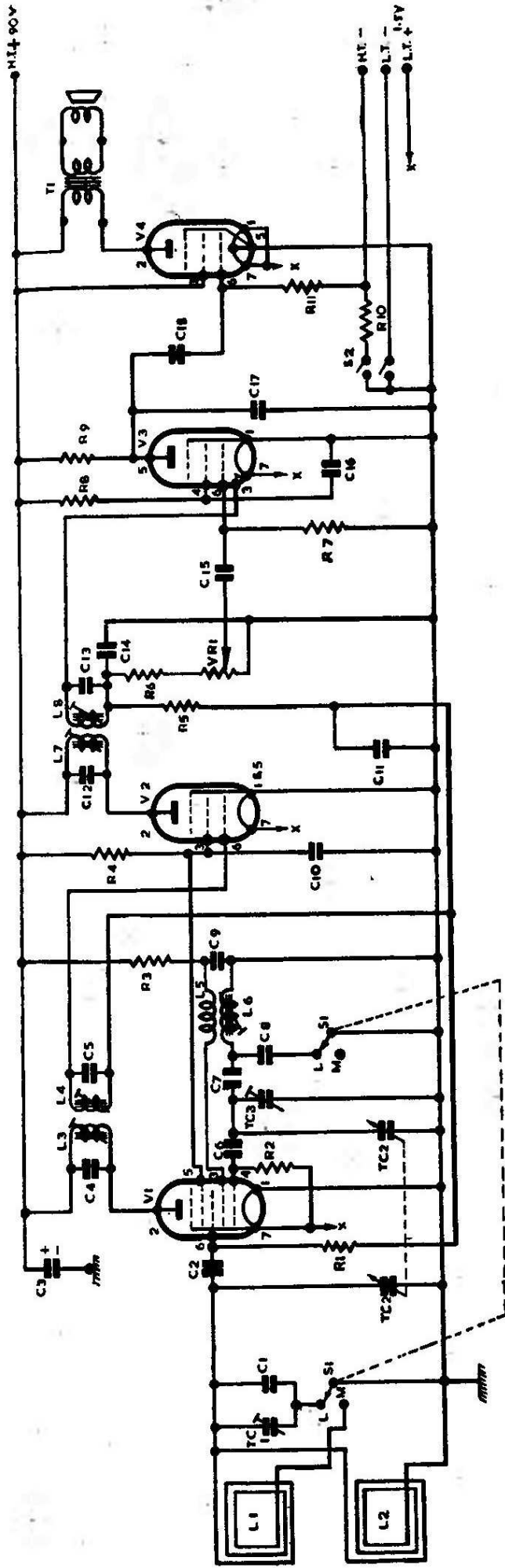
**Alignment Procedure :** If the I.F. circuits have been disturbed, complete I.F. and R.F. alignment must follow. During alignment output should not exceed 50 mW. For R.F. alignment the batteries should be in their normal position, the lid open and the panel raised to the minimum height required to reach the trimmers and oscillator dust core.

**I.F. :** Set to M.W. with tuning gang at minimum. Inject a 470-kc/s. signal between rear section of tuning gang and chassis. Adjust cores of L<sub>8</sub>, L<sub>7</sub>, L<sub>4</sub>, L<sub>3</sub>, in that order, for maximum output. Repeat for optimum results.

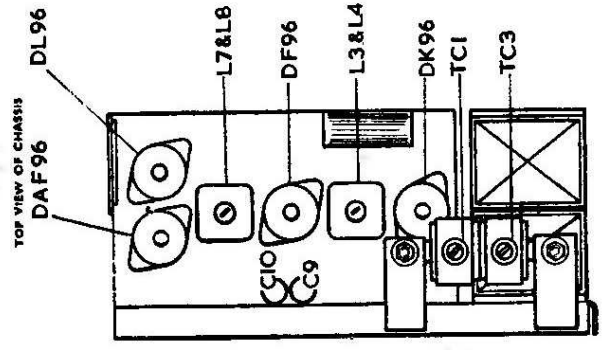
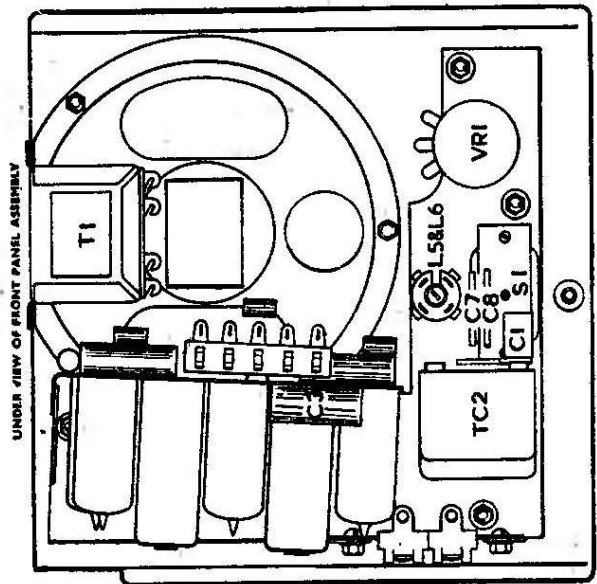
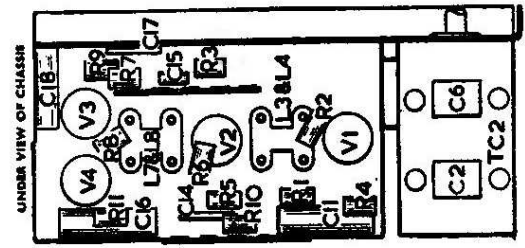
**R.F. :** Set tuning gang to maximum, and check that the line separating M.W. and L.W. scales coincides with the elongated dimples on front panel. If adjustment is necessary remove tuning-control knob. Slacken the three gang-fixing screws which are visible through front panel. Rotate gang sufficiently so that when tuning-control knob is replaced the scale is in the correct position. When making R.F. adjustments do not connect generator directly to frames or to tuning gang. Inject modulated signals by clipping "hot" side of generator output to chassis. M.W. should be aligned before L.W. band.

Operation	Pointer Setting	Test Generator	Adjust for Maximum Output
(1) M.W. . . . .	500 m.	600 kc/s.	L <sub>6</sub>
(2) . . . . .	200 m.	1500 kc/s.	TC <sub>3</sub>
(3) . . . . .	1200 m.	Repeat operations (1) and (2)	
(4) L.W. . . . .		250 kc/s.	TC <sub>1</sub>

**Note :** Normally it will be found that this receiver can be serviced without removing the chassis from the front panel.



CIRCUIT DIAGRAM AND LAY-OUT VIEWS—VIDOR MODEL CN429



- Capacitors.**  
 C1 150 pF. (2%)  
 C2 100 pF.  
 C3 2 (200 v.)  
 C4 65 pF. (3%)  
 C5 65 pF. (3%)  
 C6 100 pF.  
 C7 532 pF. (2%)  
 C8 470 pF. (1%)  
 C9 0.05  
 C10 0.05  
 C11 0.05  
 C12 65 pF. (3%)  
 C13 65 pF. (3%)  
 C14 100 pF.  
 C15 0.001  
 C16 0.05  
 C17 200 pF.  
 C18 0.01

- TC1 4-50 pF.  
 TC2 523 pF. (Swing)  
 TC3 4-50 pF.

- Resistors.**  
 R1 470k  
 R2 27k  
 R3 33k  
 R4 33k (10%)  
 R5 2.2M  
 R6 100k  
 R7 10M  
 R8 2.7M  
 R9 1M  
 R10 680 (10%)  
 R11 1.8M  
 VR1 0.5M (Log law)