

COSSOR

Models 551, 552

General Description: Four valve, two-waveband portable receivers with all-dry batteries. These models differ in presentation and in aerial system, but are otherwise basically similar. Model 551 has ferrodyne rod aerial, while Model 552 has loop aerials mounted in the lid, and has lid-operated switch.

Power Supplies: H.T. 90 volts (Ever Ready B126); L.T. 1.5 volts (Ever Ready AD35). Consumption H.T. 10 mA., L.T. 125 mA.

Wavebands: M.W. 188–548 m.; L.W. 1100–1850 m.

Valve Analysis: Since most voltmeters are not sufficiently sensitive to give accurate readings in the high-impedance circuits concerned, only current readings are given: a simple method is to connect the meter in series with a H.T. + lead and remove all but one valve at a time. (V1) DK96 (2.3 mA.); (V2) DF96 (2.93 mA.); (V3) DAF96 (33 μ A.); (V4) DL96 (9.1 mA.). Note that readings taken under these conditions do not give normal operating currents.

Alignment Procedure: Check that dial pointers are at the extremes of the scales when the gang is fully meshed.

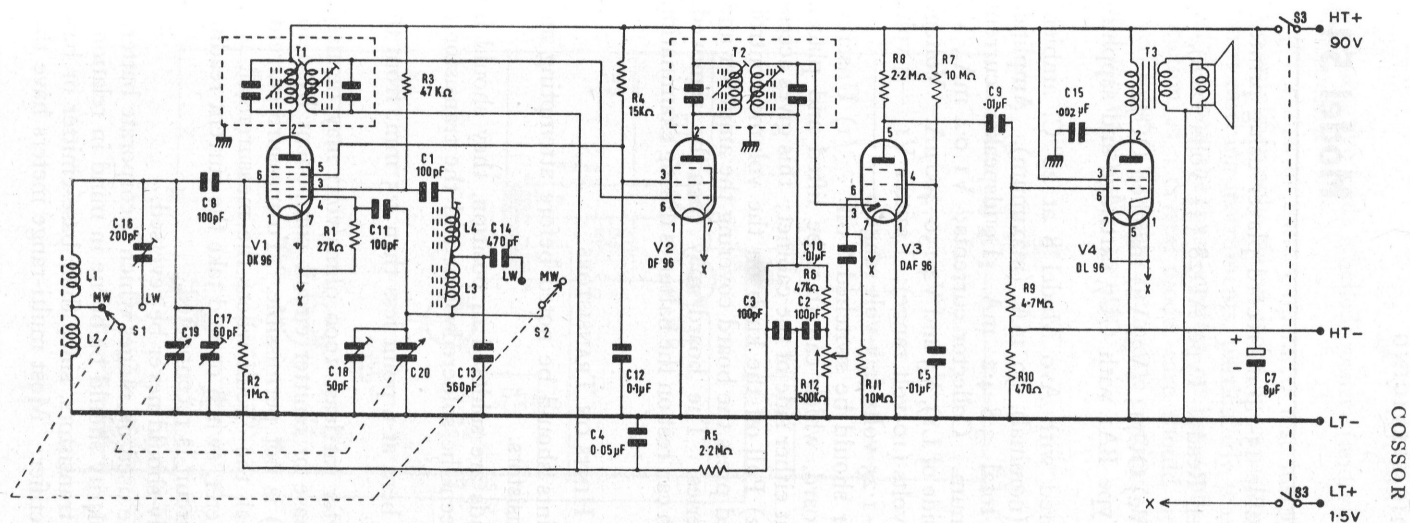
I.F.: With set on M.W. (gang fully open), inject a 470-kc/s. signal to M.W. connection of the aerial coil (tag nearest gang) for Model 551 or to M.W. connection of the aerial coil (lead from frame aerial nearest gang) for Model 552. Adjust cores of T2 and then T1 for maximum output.

M.W.: Loosely couple signal-generator output to aerial coil. Set pointer to 200 m., inject a 1500-kc/s. signal and adjust C18, then C17 for maximum output. Inject a 600-kc/s. signal, set pointer to 500 m. and adjust L3 whilst slightly rocking tuning gang. Repeat above sequence of operations to ensure optimum settings. Note that alignment at 500 m. should be accurate, as otherwise there will be difficulty with L.W. calibration.

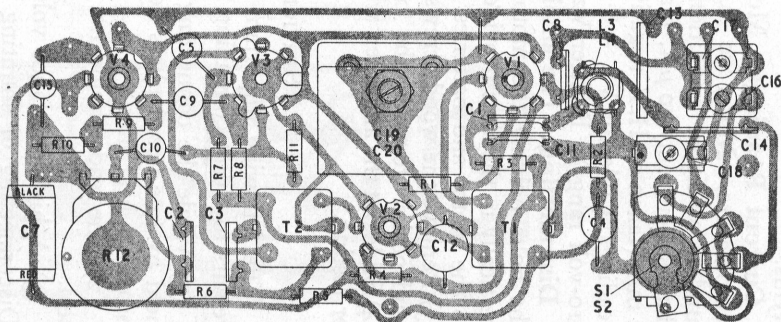
L.W.: Set pointer to 1000 m., inject a 300-kc/s. signal and adjust C16 for maximum output.

Removal of Component Board: *Model 551:* Remove the off/volume and wave-change knobs. Remove receiver back. Withdraw H.T. and L.T. plugs. Free the aerial-rod mounting so that the rod does not foul the cabinet when the board assembly is withdrawn. Unscrew the two nuts holding the panel to the top of the cabinet. Lift out the complete assembly. To replace reverse the above procedure. To change V2 without removing the board unscrew the wing nuts fixing the loudspeaker baffle. Tilt back the baffle so that the valve is accessible from the front.

Model 552: Remove the wave-change knobs. Lift up the top panel by unscrewing the knurled knob below the tuning control. Withdraw battery plugs. Unscrew the two 4 B.A. nuts securing the printed-wiring board to the cabinet and remove the on/off switch. Remove the printed-wiring board.



CIRCUIT DIAGRAM—COSSOR MODELS 551, 552

PRINTED-WIRING BOARD,
VIEWED FROM COMPONENT
SIDE

D.C. Resistance (ohms)

| | |
|-----------|----------|
| L1 | 2 (551) |
| L2 | 12 (551) |
| L3 | 3 (552) |
| L4 | 12 |
| L3 | 3 |
| L4 | 1 |
| T1, T2 | 8 |
| T3 (pri.) | 550 |