

General Description : Five-valve (including rectifier), three-waveband superheterodyne radiogramophone receiver. Released January 1950. Price £45 10s. 6d. (plus tax). Record changer Garrard, Model R.C.70A.

Power Supply : A.C. mains, 200-255 volts (three voltage adjustment tappings). Consumption 55 watts.

Wavebands : S.W. 19-5.8 Mc/s. (15.8-51.3 m.); M.W. 1605-520 kc/s. (187-575 m.); L.W. 320-146 kc/s. (940-2050 m.).

Intermediate Frequency : 470 kc/s.

Valves : (V1) 7S7; (V2) 7B7; (V3) 7C6; (V4) 7C5; (V5) 7Y4.

Dial Lamp : 6.5 volts, 0.3 amp. M.E.S. fitting.

Loudspeaker : Speech coil impedance 3 ohms. Undistorted output 3 watts.

Alignment Procedure : The equipment required for alignment of the I.F. and R.F. stages of the receiver are an accurately calibrated modulated signal generator, an output meter to match to 3 ohms impedance and a non-metallic trimming tool.

The output from the receiver should be maintained at 200 mW., by means of the I.F. attenuator, throughout the entire alignment procedure.

All the operations given below should be repeated to ensure absolute accuracy of alignment.

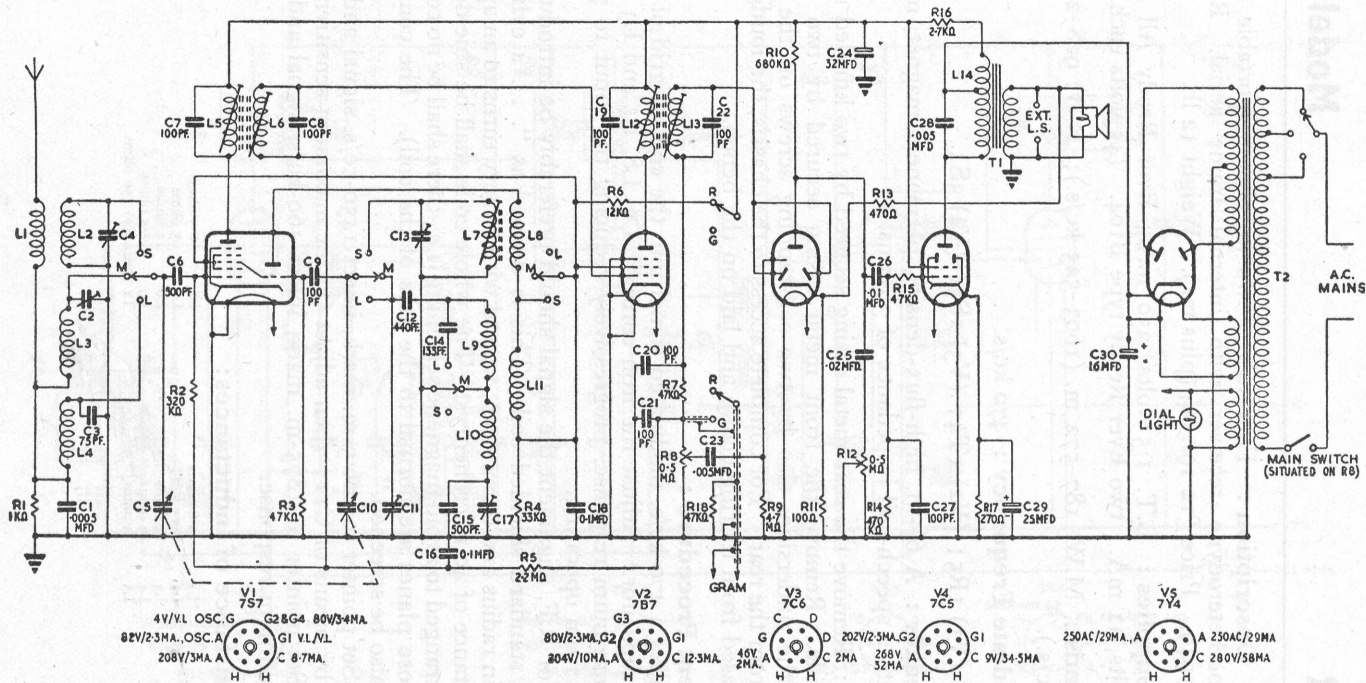
I.F. : Switch to M.W. and set the tuning capacitor at minimum capacity. Set the volume and tone controls fully clockwise. Inject a 470-kc/s. signal into the control grid of V1; via a 0.1- μ F. capacitor. Adjust L13, L12, L6 and L5 for maximum response on the output meter, in the order given.

M.W. : Switch to M.W. and set the tuning capacitor at minimum capacity, adjusting the pointer so that its edge just touches the beginning of the horizontal scale lines. With a standard dummy aerial in circuit, inject a 1550-kc/s. modulated signal via the A and E sockets. Set the tuning pointer to the line marked M* on the top left of scale. Adjust the oscillator trimmer C11 for maximum response. Adjust the aerial trimmer C2 for maximum response. Check calibration and sensitivity at spot frequencies.

L.W. : Switch to L.W. (fully clockwise), set the tuning pointer to the line marked L* on top right of scale and inject a 160-kc/s. signal. Adjust the oscillator padder C17 for maximum response. Check calibration and sensitivity at spot frequencies.

S.W. : Switch to S.W. (fully anti-clockwise), set tuning pointer to line marked S* on top left of scale and inject an 18-Mc/s. signal. Adjust the oscillator trimmer C13 for maximum response. It will be found that there are two positions where this is possible; the correct one will be that which requires the least capacity. Adjust the aerial trimmer C4 for maximum response. Set pointer to line marked S* on top right of scale and inject a 6-Mc/s. signal. Adjust the dust iron core in the oscillator coil L7 for maximum response. Set pointer to line marked S* on top left of scale and retrim C13 and C4. Check calibration and sensitivity at spot frequencies.

* This alignment marking is not visible when the receiver is in the cabinet.



CIRCUIT DIAGRAM—COSSOR MODEL 497