

General Description : Five-valve (including rectifier), three-waveband superheterodyne for A.C./D.C. mains. Released March 1950. Price £13 8s. 2d. (plus tax).

Power Supply : A.C./D.C. mains, 190-250 volts. Consumption 57 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) OM10; (V2) OM6; (V3) OM4; (V4) 332 Pen; (V5) OM1.

Dial Lamp and Fuses : Dial lamp 8 volts, 0.2 amp. M.E.S. fitting. Two 500-mA. cartridge-type fuses are incorporated.

External Loudspeaker : Impedance 3 ohms.

Audio Output : 2 watts.

Alignment Procedure : Adjustment of the I.F. transformer cores should always be followed by complete re-alignment of the R.F. section. The output from the receiver should be maintained at 200 mW. throughout alignment. Set volume and tone controls fully clockwise.

I.F. : Switch to M.W. and set tuning capacitor at minimum capacity. Inject 470-kc/s. signal to grid of V1 via 0.01- μ F. capacitor. The screening of the signal-generator lead should be connected to chassis via a good-quality 0.1- μ F. capacitor. Adjust L13, L12, L6 and L5 for maximum output in the order given. Repeat procedure and check for sensitivity and bandwidth.

M.W. : Switch to M.W., set the tuning capacitor to mechanical minimum. Set the tuning pointer to line marked MIN* on top left of scale. With standard dummy aerial in circuit, inject 1550-kc/s. signal via A and E sockets. Set pointer to line marked M.W. (M on some scales). Adjust C12 and C3 for maximum output. Check calibration and sensitivity at spot frequencies.

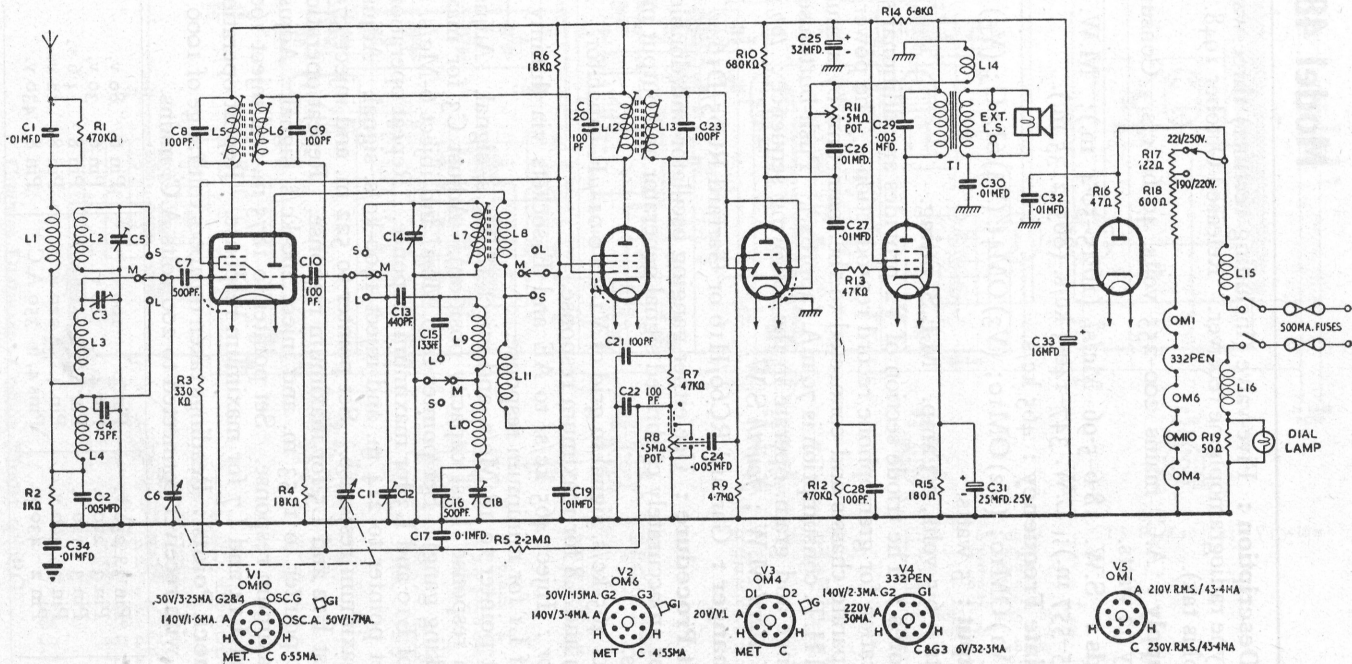
L.W. : Switch to L.W. (fully clockwise), set the tuning pointer to line marked L* on top right of scale and inject 160-kc/s. signal. Adjust C18 for maximum output. Check calibration and sensitivity at spot frequencies.

S.W. : Switch to S.W., set the tuning pointer to line marked S* on top right of scale and inject 18-Mc/s. signal. Adjust C14 for maximum output. It will be found that there are two positions where this condition is obtained; the correct one will be that which requires least capacity. Adjust C5 for maximum output.

Set pointer to line marked S* on top right of scale and inject 6-Mc/s. signal. Adjust core of L7 for maximum output. Set pointer to S* and retrim C14 and C5 (slightly rocking gang). Check calibration and sensitivity at spot frequencies. Finally, the pointer should be checked against the line marked MAX* on top right of scale (on later models only).

Built-in Frame Aerial : The frame aerial, mounted on the cabinet back, is intended only for local station reception.

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



CIRCUIT DIAGRAM—COSSOR MODEL 494U