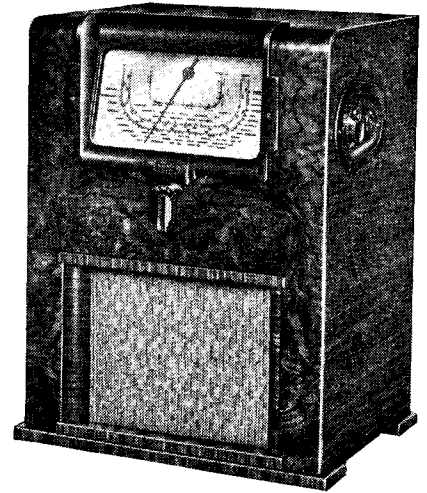


COSSOR 584 ALL-WAVE SUPERHET FIVE



CIRCUIT.—The aerial input circuit provides connections for either an ordinary single wire aerial or an aerial of the doublet type.

The aerial is coupled to the grid of V1, a triode-hexode frequency-changer, via a set of band-pass coils on the medium and long wave bands. On the short wave band the coupling is afforded by a single stage of preselection.

The signal, converted to the IF frequency (465 kc.), then passes to the IF amplifying valve V2, an HF pentode, via an iron-cored IF transformer. This is of the variable-coupling type, thereby allowing the band-width to be altered at will, so that a control of selectivity is obtained.

Another IF iron-cored transformer with fixed coupling provides the connection to the demodulating diode of V3, a double-diode-triode. An iron-cored transformer in the anode circuit of V3 is used to operate a bulb that constitutes a visual tuning device. When a signal is tuned in, the A.V.C. operates, thereby reducing the anode current of the valve, whereby the inductance of the transformer increases and the current of the lamp is reduced, thus indicating the resonance point of the signal.

The other diode of V3 provides a D.C. potential that is utilised by being fed back to the preceding stages for A.V.C.

Coupling arrangements to the grid of the triode section of V3 include a manual volume control that operates so as to vary the input to the grid.

V3 is resistance capacity coupled to V4, an output tetrode, in the anode circuit of which is connected the matching transformer feeding the speaker. Across the primary of the transformer a condenser and resistance are connected in series to effect a modification of the tone. A pentode compensator condenser connected between the anode of the valve and chassis supplements these two components, as also does a variable resistance and condenser connected between the anode of V3 and chassis.

Mains equipment consists of a mains transformer with suitable voltage tapings, a full-wave rectifying valve V5, electrolytic smoothing condensers and smoothing choke (speaker field energising coil).

Chassis Removal.—Remove the back of the cabinet (secured by six bolts) and the three control knobs from the front of the

cabinet. These are of the grub-screw fixing type. The tuning control knob on the side of the cabinet is removed by unscrewing the two grub screws on the control shaft accessible from the rear of the cabinet. The control knob is then rotated until the two projecting screws coincide with two slots in the side of the cabinet. The mains switch, also at the side of the cabinet, is removed by unscrewing the two wood screws holding the small sub-panel, pulling the switch through the side of the cabinet and unscrewing the switch from the panel.

Now remove the four bolts and washers from the underside of the shelf of the cabinet and also the metal bar on the top inside, and unclasp the loudspeaker cable.

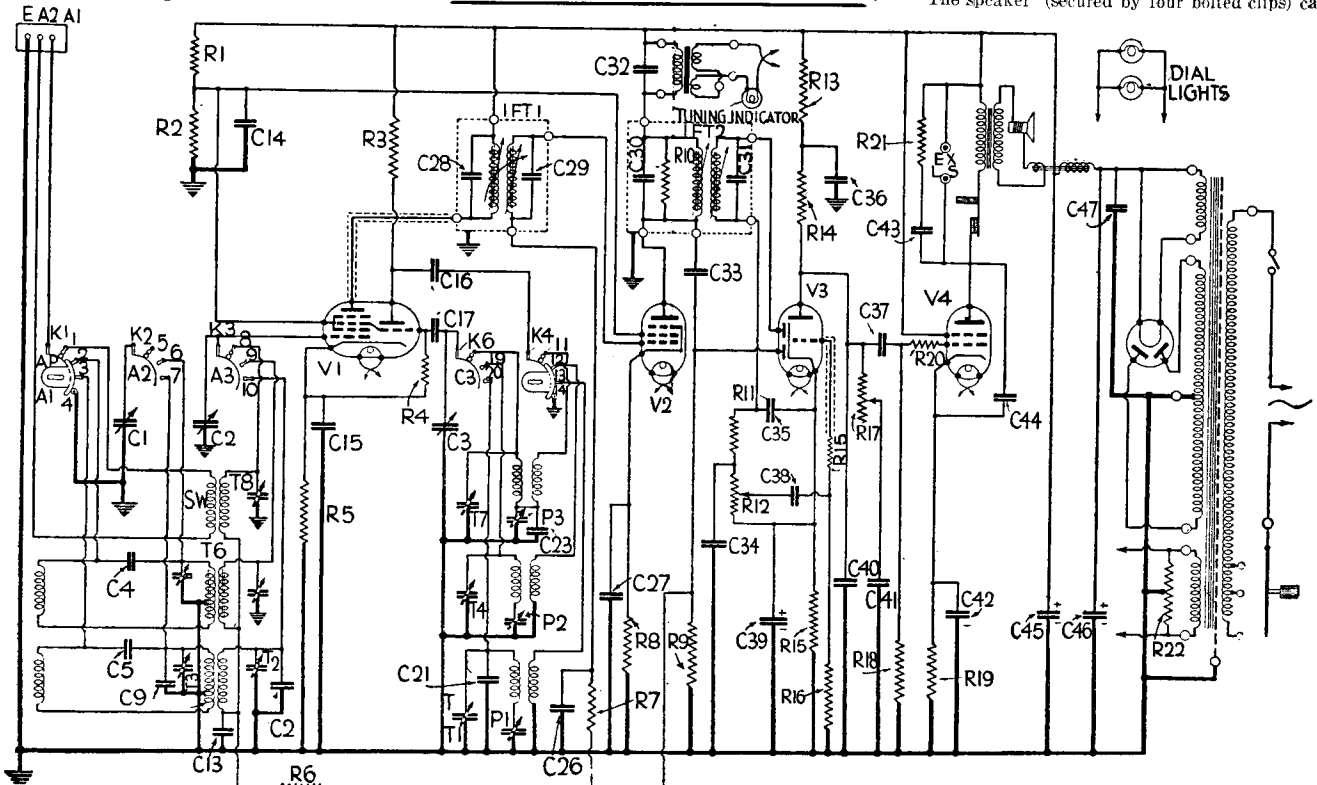
The chassis can then be removed from the cabinet, with the cabinet on its side.

The speaker (secured by four bolted clips) can

VALVE READINGS

No signal. Volume maximum. M.W. band.
200 v. A.C. 1,000 ohms/volt meter.

V.	Type. (All Cossor).	Electrode.	Volts.	Ma.
1	41STH (7) met.	Anode ..	268	2
		Screen ..	100	2.3
		Osc.anode ..	100	6.7
2	MVS/PEN (7) met.	Anode ..	270	5.4
		Screen ..	90	2.1
3	DDT (7 met.)	Anode ..	92	1.2
4	42 O.T. (or 42 MP/Pen) (7)	Anode ..	240	33
		Screen ..	270	7.3
5	442BU .. .	Filament	375	—



Single-wire and doublet aerial connections are available on the Cosmor 584. Input to the mixer is band-pass on medium and long waves and by a single preselector stage on short waves.