General Description : Five-valve (including rectifier), three-waveband superheterodyne table receiver with push-button waveband selectors and flywheel tuning. Released January 1948. Price £26 19*s.* 1*d.* (plus tax).

Power Supply : A.C. mains, 200–255 volts. Consumption 57 watts.

Wavebands : S.W. 18·6–5·96 Mc/s. (16·2–50·4 m.); M.W. 1540–538 kc/s. (195–557 m.); L.W. 347–140 kc/s. (865–2135 m.).

Intermediate Frequency : 465 kc/s.

Valve Analysis : Measured with 1000-ohms/volt testmeter with receiver tuned to 600 kc/s. connected to 200-volt mains with correct voltage tap.

Valve	*Anode*	*Screen*	*Cathode*
V1 OM10	240 v. 1 mA.	60 v. 2 mA.	—
(osc.)	50 v. 3 mA.		
V2 OM6	250 v. 6·5 mA.	90 v. 2 mA.	—
V3 OM4	75 v. 2·6 mA.	—	—
V4 6V6G	240 v. 41 mA.	210 v. 3 mA.	10 v.
V5 6X5G	330 A.C. each	—	340 v.

Dial Light : 6·5 volts, 0·3 amp.

Loudspeaker : This is an 8-in. moving-coil unit with high-flux-density permanent magnet, and speech-coil impedance of 3 ohms. Provision is made for external loudspeaker, which should have a similar impedance.

Alignment Procedure : Use either ganging oscillator and double-beam oscillograph or an accurately calibrated signal generator and output meter to match 3 ohms. Allow receiver to reach normal working temperature before commencing operations.

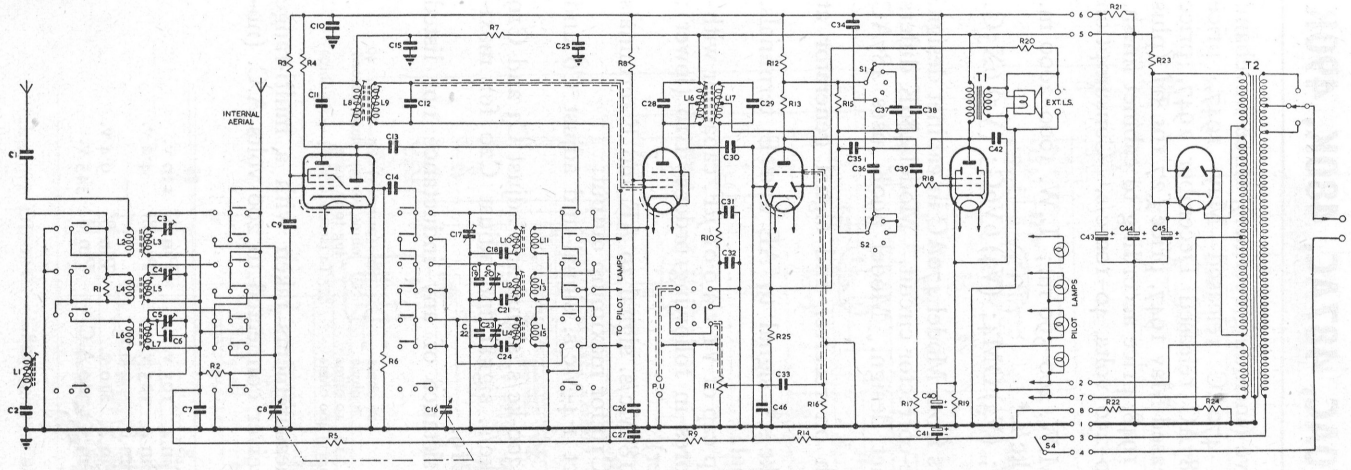
I.F.: Inject a 465-kc/s. signal to grid of V1 via 0·01 μF. capacitor. Adjust cores of L17, L16, L9 and L8, in that order, to give maximum response, using a non-metallic trimming tool.

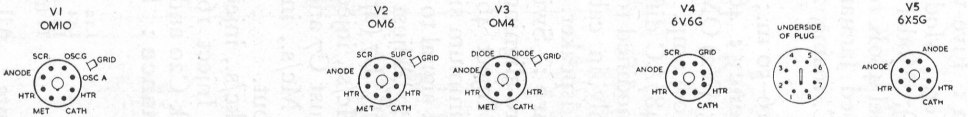
I.F. Rejector: Inject a 465-kc/s. signal to AE. and E. sockets via dummy aerial. Adjust core of L1 for minimum response.

S.W.: Set pointer to 18-Mc/s. and inject signal at that frequency. Adjust C17 for maximum response, choosing peak requiring least capacitance. Then adjust C3 for maximum response whilst rocking gang. Set pointer to 6 Mc/s. and inject signal at that frequency. Adjust cores of L10 and then L3 for maximum response. Repeat all operations.

M.W.: Set pointer to 214 m. and inject a 1400-kc/s. signal. Adjust C20 and then C4 for maximum response. Set pointer to 522 m. and inject a 575-kc/s. signal. Adjust cores of L12 and then L5 for maximum response. Repeat all operations.

L.W.: Set pointer to 1153 m. and inject a 260-kc/s. signal. Adjust C23 and then C25 for maximum response. Set pointer to 1875 m. and inject a 160-kc/s. signal. Adjust cores of L14 and then L7 for maximum response. Repeat all operations.





Circuit Diagram—Cossor Model 474AC

Capacitors.

C1	470 pF.
C2	100 pF.
C3	5–50 pF.
C4	5–50 pF.
C5	5–50 pF.
C6	15 pF.
C7	0·1
C8	gang
C9	0·1
C10	0·1
C11	225 pF.
C12	225 pF.
C13	200 pF.
C14	100 pF.
C15	0·1
C16	gang
C17	5–50 pF.
C18	6750 pF.
C19	15 pF.
C20	5–50 pF.
C21	750 pF.
C22	68 pF.
C23	5–50 pF.
C24	185 pF.
C25	0·1
C26	0·1
C27	0·05
C28	60 pF.
C29	75 pF.
C30	47 pF.
C31	100 pF.
C32	100 pF.
C33	0·01
C34	0·01
C35	0·01
C36	0·5
C37	0·002
C38	0·01
C39	0·01
C40	25
C41	20
C42	0·005
C43	16
C44	16
C45	8
C46	47 pF.

Resistors.

R1	6·8k
R2	470k
R3	82k
R4	56k
R5	470k
R6	18k
R7	10k
R8	68k
R9	1M
R10	47k
R11	500k
R12	22k
R13	39k
R14	1M
R15	82k
R16	4·7M
R17	470k
R18	1k
R19	220
R20	220
R21	3·9k
R22	10k
R23	1·5k
R24	22
R25	27

D.C. Resistances (ohms).

L1	6·8
L2	0·75
L3	Very low
L4	15
L5	2
L6	68
L7	27
L8	3·75
L9	4
L10	Very low
L11	0·75
L12	2·5
L13	2·25
L14	6·5
L15	3·25
L16	8 + 9·5
L17	8
T1	600
T2 (primary)	46 (total)
T2 (secondary)	70 + 70