COSSOR Models 463AC, 464AC

General Description : Five-valve (including rectifier), three-waveband superheterodyne table receiver. Released April 1946. Price £14 16*s.* 3*d.* (plus tax).

Power Supply : A.C. mains, 200–255 volts, 40–100 c/s.

Wavebands : S.W. 16–52 m. (18·7–5·75 Mc/s.); M.W. 193–575 m. (1550–520 kc/s.); L.W. 800–2100 m. (376–143 kc/s.).

Dial Light : 8 volts, 0·3 amp.

Ext. Loudspeaker : Impedance 3 ohms.

Intermediate Frequency : 465 kc/s.

Alignment Procedure :

I.F. : Short-circuit oscillator section of tuning gang. Inject 465-kc/s. signal to top cap of V1 via 0·1-μF. capacitor, and adjust iron cores of I.F. transformers in following order; second I.F.T. secondary, second I.F.T. primary, first I.F.T. secondary, first I.F.T. primary, progressively reducing the input as sensitivity increases.

I.F. filter : Inject strong 465-kc/s. signal to aerial and earth sockets via dummy aerial and adjust core of L1 for minimum response.

S.W. : Set pointer to 18 Mc/s. and inject signal of that frequency; adjust C17 and C4 for maximum response.

M.W. : Set pointer to 213 m., inject 1400-kc/s. signal and adjust C18 then C5 for maximum response.

L.W. : Set pointer to 1000 m., inject 300-kc/s. signal and adjust C19 then C6 for maximum response.

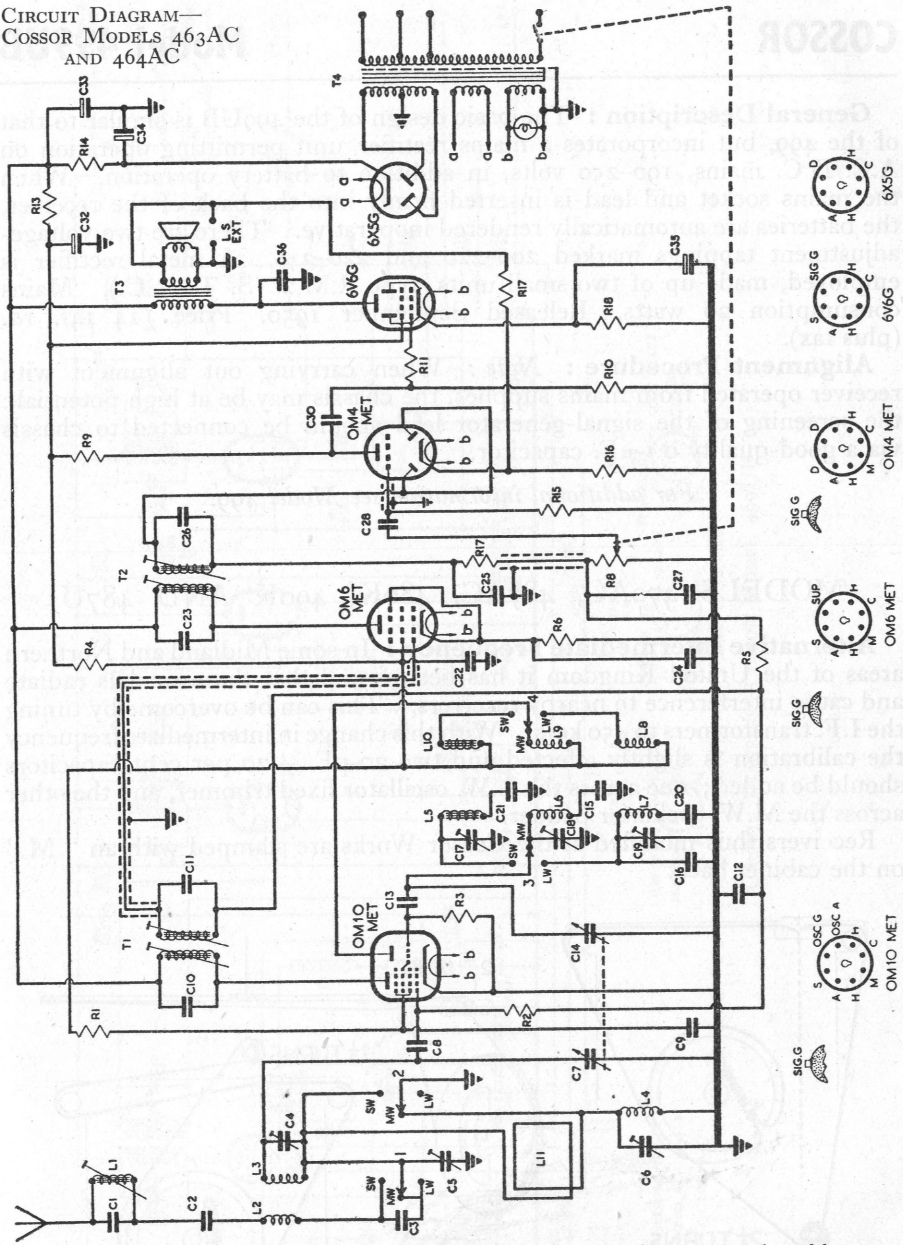
Valve Analysis : Measurements taken with popular testmeter and should be considered as approximate. Receiver tuned to 320 m. with no-signal conditions. Chassis negative. Unsmoothed H.T. 370 volts, smoothed H.T. 290 volts, total H.T. current 57 mA.

		Anode	*Screen*	*Cathode*
V1	OM10	280 v. 3·6 mA.	95 v. 1·5 mA.	—
(Osc.)	—	103 v. 6·0 mA.	—	—
V2	OM6	280 v. 3·0 mA.	103 v. 1·0 mA.	3·5 v.
V3	OM4	53 v. 1·5 mA.	—	—
V4	6V6G	266 v. 35 mA.	220 v. 2·4 mA.	10 v.
V5	6X5G	350 A.C. each anode	—	—

Component Values :

C1	225 pF.	C20	185 pF.	C33	8	R7	47k
C2	500 pF.	C21	0·005	C34	8	R8	500k
C3	5 pF.	C22	0·1	C35	25	R9	100k
C8	300 pF.	C23	100 pF.	C36	0·01	R10	470k
C9	0·01	C24	0·01			R11	100k
C10	100 pF.	C25	100 pF.	R1	2·2k	R13	3·9k
C11	100 pF.	C26	100 pF.	R2	330k	R14	1·5k
C12	0·1	C27	100 pF.	R3	15k	R15	4·7M
C13	100 pF.	C28	0·005	R4	10k	R16	100
C15	570 pF.	C30	0·01	R5	2·2M	R17	220
C16	50 pF.	C32	8	R6	1k	R18	270

Circuit Diagram— Cossor Models 463AC and 464AC



L1	4·5 ohms	L7	14·3 ohms	T1 and T2	9·5 ohms	In early models	
L2	Very low	L8	7·8 ohms	T3 (primary)	354 ohms	C1	200 pF.
L3	Very low	L9	1·1 ohms	T3 (secondary	Very low	C25	500 pF.
L4	29 ohms	L10	29·5 ohms	T4 (primary)	47 ohms	C27	500 pF.
L5	Very low	L11	Very low	T4 (H.T. secondary)	1400 ohms	R3	15k
L6	2·1 ohms					R6	470