General Description : Four-valve, two-waveband, all-dry battery superheterodyne portable receiver. Released September 1947. Price £13 15*s*. (plus tax).

Power Supplies : Ever Ready Batrymax type B.103. H.T. 90 volts, 9·5 mA. L.T. 1·5 volts, 240 mA.

Wavebands : M.W. 195–560 m.; L.W. 925–1910 m.

Intermediate Frequency : 452 kc/s.

Valves : (V1) 1R5; (V2) 1T4; (V3) 1S5; (V4) 3S4.

Alignment Procedure :

I.F. : Inject 452-kc/s. signal to control grid of V1 via 0·01-μF. capacitor. The frame aerial tag panel provides suitable point. Adjust C16, C14, C8 and C4 for maximum response with non-metallic trimming tool. Adjustment to I.F. trimmers should always be followed by complete re-alignment of R.F. section.

R.F. : For R.F. alignment the signal should preferably be introduced via an R.M.A. standard shielded coil (see page 310).

M.W. : Set pointer to 214 m., inject 1400-kc/s. signal and adjust calibration by means of C7; then adjust C2 for maximum sensitivity. Set pointer to 500 m., inject 600-kc/s. signal and adjust calibration by means of C11. Repeat these operations until no further improvement can be obtained.

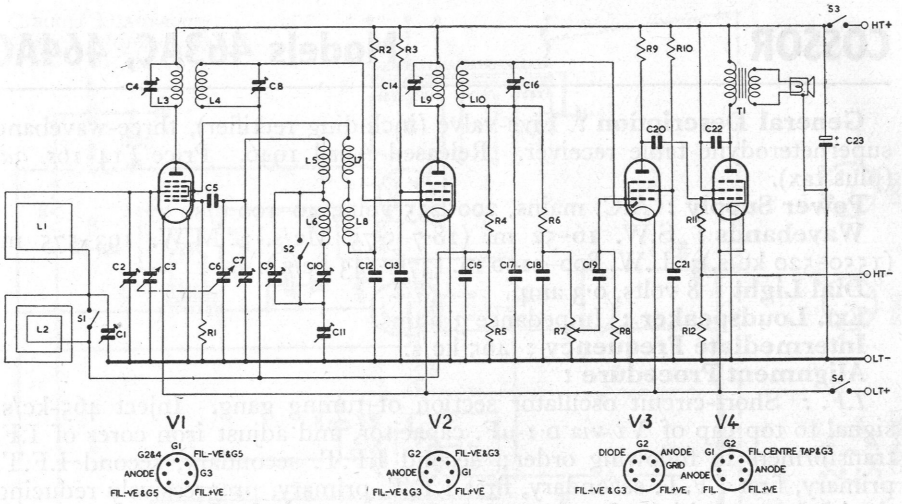
L.W. : Set pointer to 1000 m., inject 300-kc/s. signal and adjust calibration by means of C9; then adjust C1 for maximum sensitivity. Set pointer to 1700 m., inject 176·5-kc/s. signal and adjust calibration by means of C10. Repeat these operations until no further improvement can be obtained.

Valve Analysis : Measurements taken with 1000 ohms/volt testmeter with respect to chassis under no-signal conditions.

		Pin 1	*Pin* 2	*Pin* 3	*Pin* 4	*Pin* 5	*Pin* 6	*Pin* 7
V1	volts	0	80	45	−5	NC	0	1·5
	mA.	50	0·32	1·3	0·09	—	0	50
V2	volts	0	80	30	NC	NC	0	1·5
	mA.	50	0·55	0·24	—	—	0	50
V3	volts	0	NC	0	10	10	0	1·5
	mA.	50	—	0	0·02	0·08	0	50
V4	volts	0	NC	−3	80	0	80	1·5
	mA.	50	—	0	1·3	100	1·5	50

D.C. Resistance of Inductances :

L1	M.W. aerial coil (frame)	1·4 ohms
L2	L.W. aerial coil (frame)	20 ohms
L5	M.W. osc. grid coil	1·4 ohms
L6	L.W. osc. grid coil	5·5 ohms
L7	M.W. osc. anode coil	3·5 ohm
L8	L.W. osc. anode coil	7·5 ohms
L3–L4	First I.F. transformer	25 + 25 ohms
L9–L10	Second I.F. transformer	25 + 25 ohms
T1	Output transformer:	
	Primary	650 ohms
	Secondary	2·5 ohms



CIRCUIT DIAGRAM—COSSOR MODEL 469

Capacitors.

C1	100 pF.
C2	50 pF.
C3, C6	444 pF. Gang
C4, C5	100 pF.
C7	50 pF.
C8, C9	100 pF.
C10, C11	600 pF.
C12, C13	0·1
C14	100 pF.
C15	0·05
C16	100 pF.
C17, C18	50 pF.
C19, C20	0·001
C21	0·1
C22	0·002
C23	8 (150 v.)

Resistors.

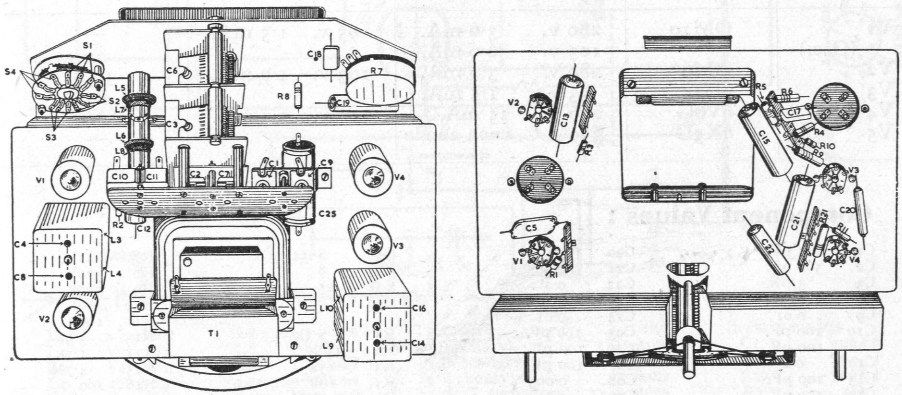
R1	100k
R2	22k
R3	180k
R4	10M
R5	4·7M
R6	47k
R7	680k
R8	10M
R9	1M
R10	3·3M
R11	3·3M
R12	1·2k

All ¼W.

D.C. Resistance of Inductors.

L1	1·4 ohms
L2	20 ohms
L3, L4	25 ohms
L5	1·4 ohms
L6	5·5 ohms
L7	3·5 ohms
L8	7·5 ohms
L9, L10	25 ohms

T1 (primary) 650 ohms
T1 (secondary) 2·5 ohms



CHASSIS LAY-OUT