

COSSOR - 464

OTHER COMPONENTS		Approx. Values (ohms)
L1	Aerial L.F. rejector coil ...	4.5
L2	Aerial S.W. coupling coil ...	Very low
L3	Aerial S.W. tuning coil ...	Very low
L4	Aerial M.W. tuning (frame) ...	1.0
L5	Aerial L.W. tuning coil ...	29.0
L6	Osc. S.W. tuning coil ...	Very low
L7	Osc. M.W. tuning coil ...	2.1
L8	Osc. L.W. tuning coil ...	14.3
L9	Osc. S.W. reaction coil ...	29.5
L10	Osc. M.W. reaction coil ...	1.1
L11	Osc. L.W. reaction coil ...	7.8
L12	1st I.F. trans. { Pri. ...	9.5
L13	{ Sec. ...	9.5
L14	2nd I.F. trans. { Pri. ...	9.5
L15	{ Sec. ...	9.5
L16	Speaker speech coil ...	2.5
T1	Output trans. { Pri. ...	354.0
	{ Sec. ...	0.5
T2	Mains { Pri., total ...	470.0
	Heater sec. ...	0.2
	Rect. heat. sec. ...	0.5
S1-S10	H.L.T. sec., total ...	1,400.0
S11	Waveband switches ...	—
S11	Mains switch, ganged R8	—

RESISTORS			Values (ohms)
R1	V1 hex. C.G. resistor	...	330,000
R2	V1 S.G. H.T. feed	...	2,200
R3	V1 osc. C.G. resistor	...	12,000
R4	V2 fixed G.B. resistor	...	1,000
R5	A.V.C. line decoupling	...	2,200,000
R6	H.T. feed resistor	...	10,000
R7	I.F. stopper	...	47,000
R8	Manual volume control; V3 diode load	...	500,000
R9	V3 triode C.G. resistor	...	4,700,000
R10	V3 triode anode load	...	100,000
R11	V4 C.G. resistor	...	470,000
R12	V4 grid stopper	...	100,000
R13	V4 G.B. resistor	...	270
R14	Feed-back pot. divider and {	...	220
R15	{ V3 G.B. resistor	...	100
R16	H.T. feed resistor	...	3,900
R17	H.T. smoothing resistor	...	1,500

Intermediate frequency 465 kc/s.

CAPACITORS		Values (μF)
C1	Aerial L.F. rejector tuning	0.0002
C2	Aerial series coupling ca-	0.0005
C3	pacitors	0.00005
C4	V1 hex. C.G. capacitor	0.0003
C5	V1 S.G. decoupling	0.01
C6	1st I.F. transformer tuning	0.0001
C7	capacitors	0.0001
C8	V1 osc. C.G. capacitor	0.0001
C9	A.V.C. line decoupling	0.1
C10	Osc. L.W. fixed trimmer	0.00005
C11	Osc. S.W. tracker	0.005
C12	Osc. M.W. tracker	0.00057
C13	Osc. L.W. tracker	0.000185
C14	H.T. feed R.F. by-pass	0.1
C15	2nd I.F. transformer tun-	0.0001
C16	ing capacitors	0.0001
C17	V2 cathode by-pass	0.01
C18	I.F. by-pass capacitors	0.0001
C19	0.0001	—
C20	A.F. coupling to V3	0.005
C21*	H.T. smoothing capacitor	8.0
C22*	A.F. coupling to V4	0.01
C23*	V4 cathode by-pass	25.0
C24*	H.T. smoothing capacitors	8.0
C25*	Aerial circ. L.W. trimmer	—
C26†	M.W. frame aerial trimmer	—
C27†	Aerial circ. S.W. trimmer	—
C28†	Aerial circuit tuning	—
C29†	Oscillator circuit tuning	—
C30†	Osc. circ. S.W. trimmer	—
C31†	Osc. circ. M.W. trimmer	—
C32†	Osc. circ. L.W. trimmer	—
C33†	Osc. circ. L.W. trimmer	—

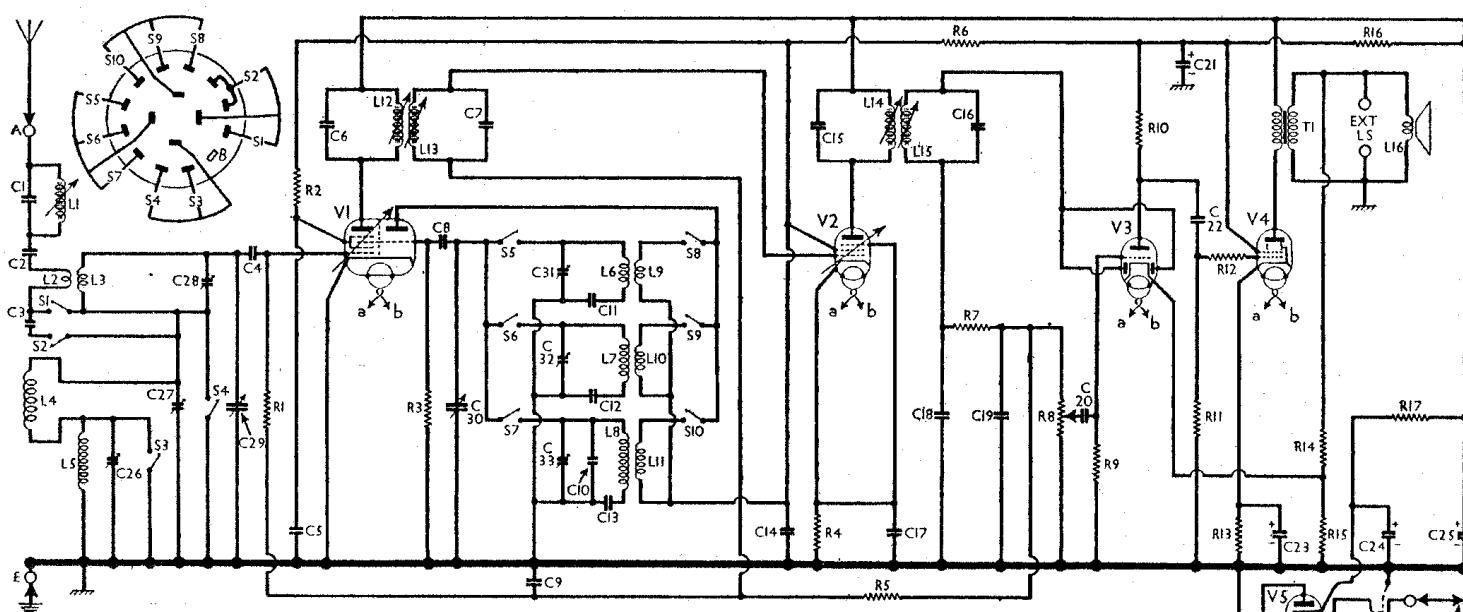
VALVE ANALYSIS

Valve	Anode Voltage (V)	Anode Current (mA)	Screen Voltage (V)	Screen Current (mA)
V1 OM10	{ 280 103	{ 3.6 6.0	95	1.5
V2 OM6	280	3.0	103	1.0
V3 OM4	53	1.5	—	—
V4 6V6G	266	35.0	220	2.4
V5 6X5G	350†	—	—	—

† Each anode, A.C.

* Electrolytic. † Variable.

‡ Pre-set.



CIRCUIT ALIGNMENT

I.F. Stages.—Connect signal generator to control grid (top cap) of **V1** and chassis, short-circuit **C30**, and turn volume control to maximum. Feed in a 465 kc/s (645.16 m) signal, and adjust the cores of **L15**, **L14**, **L13** and **L12** in that order for maximum output. Swing oscillator either side of resonance and check that output rises and falls steeply, is flat-topped, and is centred on 465 kc/s. Remove short-circuit from **C30**.

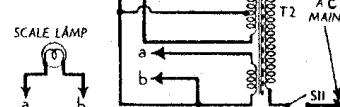
R.F. and Oscillator Stages.—Transfer signal generator leads, via a suitable dummy aerial, to **A** and **E** sockets. With the gang at maximum, the pointer should cover the two thin white lines at the right-hand ends of the outer scales.

I.F. Rejection.—Switch set to M.W., turn the gang to maximum, feed in a 465 kc/s signal, and adjust the core of **L1** for minimum output.

S.W.—Switch set to S.W., tune to 18 Mc/s on scale, feed in an 18 Mc/s (16.67 m) signal, and adjust **C31**, then **C28**, for maximum output.

M.W.—Switch set to M.W., tune to 214 m on scale, feed in a 214 m (1,400 kc/s) signal, and adjust **C32**, then **C27**, for maximum output.

L.W.—Switch set to L.W., tune to 1,000 m on scale, feed in a 1,000 m (300 kc/s) signal, and adjust **C33**, then **C26**, for maximum output.



Chassis Divergencies.—As stated under "Coils," the I.F. core adjustments may be arranged so that primaries or secondaries are at the top. Also, a 0.01 μF capacitor might be connected as a fixed tone corrector between **V4** anode and chassis, and **C21** and **C25** may be in separate containers instead of a dual unit.