

COSSOR - 543

Intermediate frequency 470 kc/s

CAPACITORS		Values	Locations
C1	L.W. aerial trim...	200pF	A1
C2	Aerial tuning ...	—	B1
C3	M.W. aerial trim...	60pF	A1
C4	V1 C.G. ...	100pF	A2
C5	1st I.F.T. tuning ...	*	B2
C6		*	B2
C7	V1 osc. C.G. ...	100pF	A2
C8	M.W. osc. trim. ...	50pF	A2
C9	Oscillator tuning ...	—	B1
C10	L.W. osc. trim. ...	470pF	A2
C11	A.G.C. decoupling	0.05μF	B2
C12	Osc. tracker	560pF	A2
C13	Osc. anode coup. ...	100pF	A2
C14	S.G. decoupling ...	0.1μF	B2
C15	2nd I.F.T. tuning...	*	B2
C16		*	B2
C17	I.F. by-passes	100pF	B2
C18		100pF	C1
C19	A.F. coupling ...	0.01μF	C2
C20	V3 S.G. decoupling	0.01μF	C2
C21	A.F. coupling ...	0.01μF	C2
C22	Tone corrector	0.002μF	—
C23	H.T. decoupling ...	8μF	B1

*Integral part of I.F. transformer.

RESISTORS		Values	Locations
R1	V1 C.G. ...	1MΩ	A2
R2	V1 osc. C.G. ...	27kΩ	A2
R3	V1 osc. anode load	47kΩ	B2
R4	S.G. H.T. feed ...	15kΩ	B2
R5	A.G.C. decoupling	2.2MΩ	B2
R6	I.F. stopper	47kΩ	B2
R7	Volume control ...	500kΩ	C1
R8	V3 C.G. ...	10MΩ	C2
R9	V3 S.G. H.T. feed...	10MΩ	C2
R10	V3 anode load	2.2MΩ	C2
R11	V4 C.G. ...	4.7MΩ	C2
R12	V4 G.B. ...	470Ω	C1

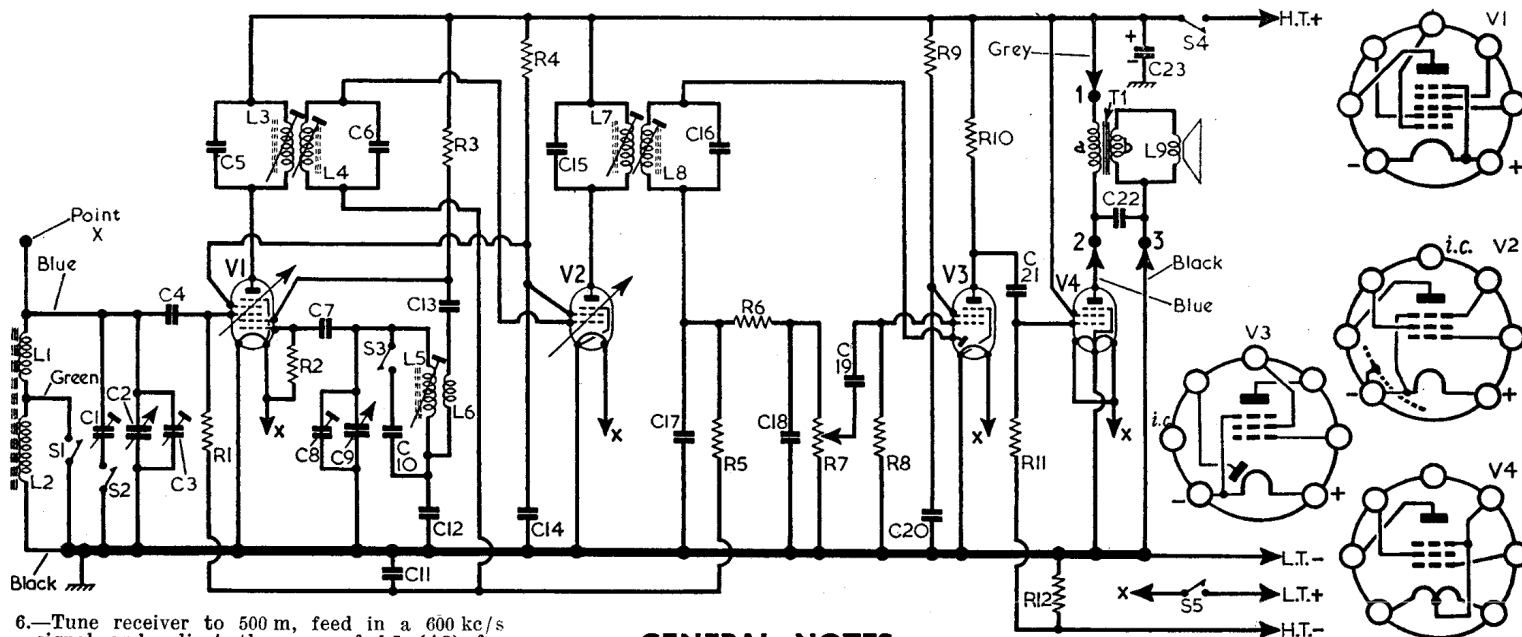
OTHER COMPONENTS		Approx. Values (ohms)	Locations
L1	Internal aerial coils {	2.0	A2
L2		11.0	A2
L3	1st I.F.T. { Pri. ...	8.0	B2
L4		8.0	B2
L5	Osc. tuning coil ...	3.0	A2
L6	Osc. reaction coil ...	1.0	A2
L7	2nd I.F.T. { Pri. ...	8.0	B2
L8		8.0	B2
L9	Speech coil ...	2.5	—
T1	O.P. trans. { a ...	550.0	—
S1-S3	Waveband switches	—	A1
S4, S5	Batt. sw., g'd R7 ...	—	C1

Valve	Anode (V)	Screen (V)	Total Current (mA)
V1 DK96 ...	85	70	2.3
V2 DF96 ...			
V3 DAF96 ...	85	70	2.9
V4 DL96 ...	85	25	0.033
	83	85	9.1

CIRCUIT ALIGNMENT

Equipment Required.—An accurately calibrated signal generator; an output meter with an internal impedance of 3Ω; a non-metallic screw-driver type trimming tool with a $\frac{1}{16}$ in blade width.

- 1.—Switch receiver to M.W. and turn gang to minimum capacitance. Connect output meter across speech coil tags on speaker. Connect signal generator output between chassis (frame of gang) and point X (location reference A2).
- 2.—Feed in a 470 kc/s signal and adjust the cores of L8, L7, L4 and L3 (all in B2) for maximum output.
- 3.—Loosely couple output of signal generator to internal aerial L1, L2 (A2) by placing the live lead close to the ferrite rod.
- 4.—Check that with the gang at maximum, the cursor coincides with the high wavelength ends of the tuning scales.
- 5.—With receiver switched to M.W., tune it to 200 m and feed in a 1,500 kc/s signal. Adjust C8 (A2) and C3 (A1) for maximum output.



GENERAL NOTES

- 6.—Tune receiver to 500 m, feed in a 600 kc/s signal and adjust the core of L5 (A2) for maximum output while rocking gang for optimum results.
- 7.—Repeat the adjustments in operations 5 and 6. It is essential that the adjustment at 500 m is carried out accurately, otherwise difficulty may be experienced in obtaining correct calibration on L.W.
- 8.—Switch receiver to L.W. and tune it to 1,000 m. Feed in a 300 kc/s signal and adjust C1 (A1) for maximum output.

Switches.—S1-S3 are the waveband switches ganged in a single rotary unit on the receiver panel. This unit is indicated in the plan illustration of the chassis (location reference A1).

In the anti-clockwise position of the waveband control knob, switch S1 closes for M.W. operation. In the L.W. position of the control switches S2 and S3 close.

Batteries.—Those specified by the manufacturers are: H.T. (90 V) Ever Ready B126; L.T. (1.5 V) Ever Ready AD35 or AD4.

Divergencies.—In some earlier models than the sample receiver from which this Service Sheet was prepared, the following differences occur. R9 was 4.7 MΩ. R10 was 1 MΩ. C22 was 0.001μF or 0.005μF.