

OTHER COMPONENTS		Approx. Values (ohms)	Locations
L1	Frame aerial ...	0.5	—
L2	Aerial S.W. coup....	0.3	A1
L3	Aerial tuning coils	Very low	A1
L4		3.2	A1
L5		13.0	A1
L6	Oscillator tuning coils ...	Very low	J3
L7		5.0	H3
L8	Oscillator reaction coils ...	7.0	H3
L9		25.0	J3
L10	1st I.F. trans. { Pri. ...	2.2	H3
L11		8.5	A2
L12	2nd I.F. trans. { Sec. ...	8.5	A2
L13		8.5	A2
L14	Speech coil ...	8.5	A2
L15		2.25	—
T1	Output trans. { Pri., yellow ...	12.0	B1
		265.0	
		0.5	
		44.0	
T2	Mains trans. { Rect. ...	Very low	B2
		0.2	
		515.0	
		—	
S1-S8	W/and switches ...	—	G3
S9	Mains sw., g'd R8 ...	—	C3

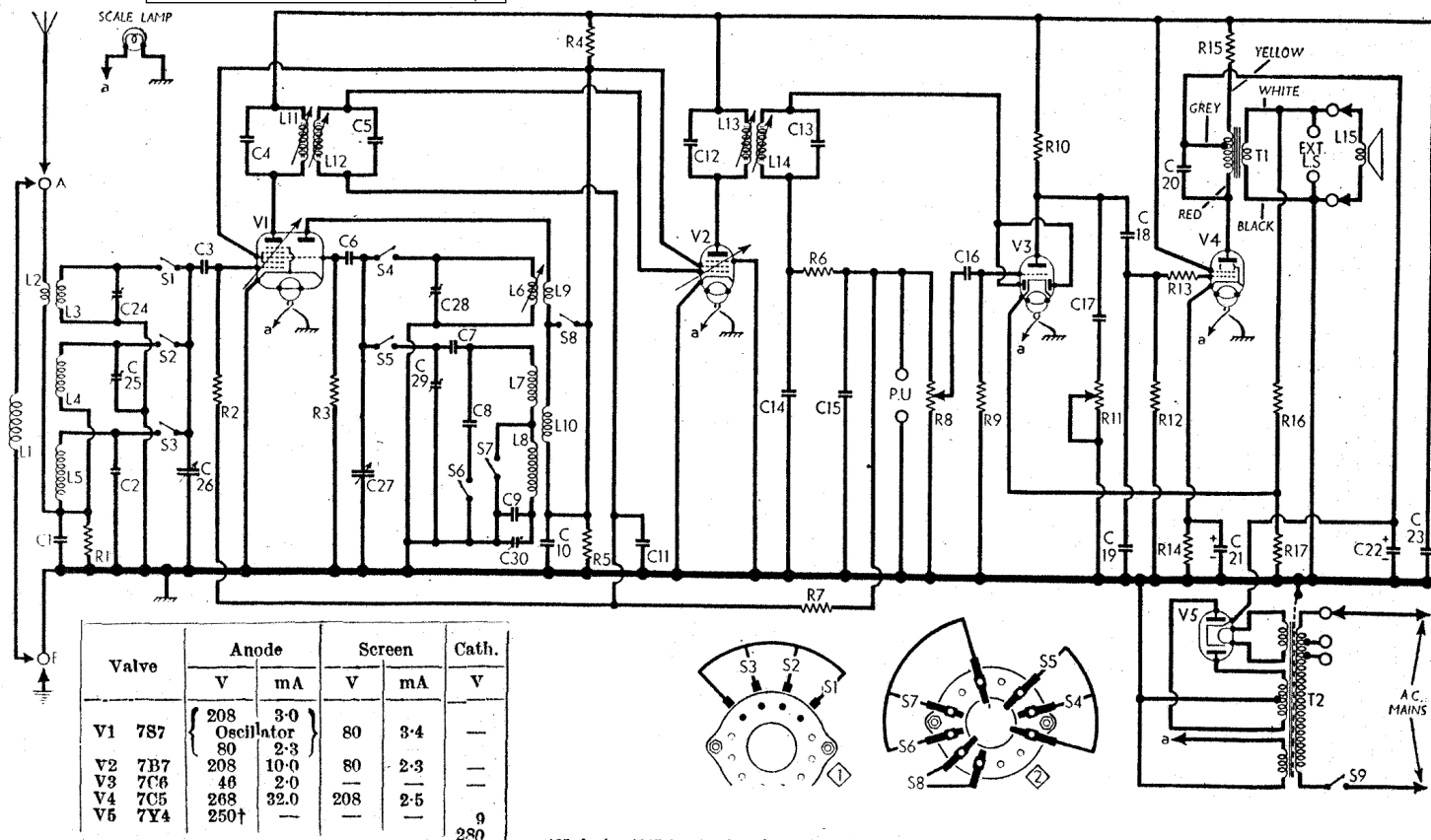
Switch	S.W.	M.W.	L.W.
S1	—	—	—
S2	—	—	—
S3	—	—	—
S4	—	—	—
S5	—	—	—
S6	—	—	—
S7	—	—	—
S8	—	—	—

RESISTORS		Values (ohms)	Locations
R1	Aerial coupling ...	1,000	A2
R2	V1 hept. C.G. ...	330,000	J4
R3	V1 osc. C.G. ...	47,000	J4
R4	H.T. feed potential divider resistors	12,000	H4
R5		33,000	K4
R6	I.F. stopper ...	47,000	G4
R7	A.G.C. decoupling ...	2,200,000	D3
R8	Volume control ...	500,000	D3
R9	V3 C.G. resistor ...	4,700,000	E4
R10	V3 triode load ...	680,000	G4
R11	Tone control ...	500,000	F3
R12	V4 C.G. resistor ...	470,000	E4
R13	V4 C.G. stopper ...	47,000	F4
R14	V4 G.B. resistor ...	270	F5
R15	H.T. smoothing ...	2,700	F3
R16	Feed-back potential divider ...	470	G5
R17		100	G5

CAPACITORS		Values (μF)	Locations
C1	Aerial coupling ...	0.005	A2
C2	Aerial L.W. trim ...	0.000075	G3
C3	V1 hept. C.G. ...	0.0005	J3
C4	1st I.F. transformer tuning ...	0.0001	A2
C5		0.0001	A2
C6	V1 osc. C.G. ...	0.0001	H3
C7	Osc. M.W. tracker ...	0.00044	H3
C8	Osc. L.W. trim ...	0.000133	G3
C9	Osc. L.W. track ...	0.0005	H3
C10	H.T. feed decoupling ...	0.1	H4
C11	A.G.C. decoupling ...	0.1	E3
C12	2nd I.F. transformer tuning ...	0.0001	A2
C13		0.0001	A2
C14	I.F. by-passes ...	0.0001	G5
C15	A.F. coupling ...	0.0001	F4
C16		0.005	E3
C17	Part tone control ...	0.02	F3
C18	A.F. coupling ...	0.1	F4
C19	I.F. by-pass ...	0.0001	E4
C20	Tone corrector ...	0.005	C3
C21*	V4 cath. by-pass ...	25.0	F5
C22*	H.T. smoothing ...	16.0	A2
C23*		32.0	A2
C24†	Aerial S.W. trim ...	0.00006	K3
C25†	Aerial M.W. trim ...	0.00006	J3
C26†	Aerial tuning ...	—	A1
C27†	Oscillator tuning ...	—	A2
C28†	Osc. S.W. trim ...	0.00006	J3
C29†	Osc. M.W. trim ...	0.00006	J3
C30†	Osc. L.W. tracker ...	0.00006	H3

Intermediate frequency 465 kc/s.

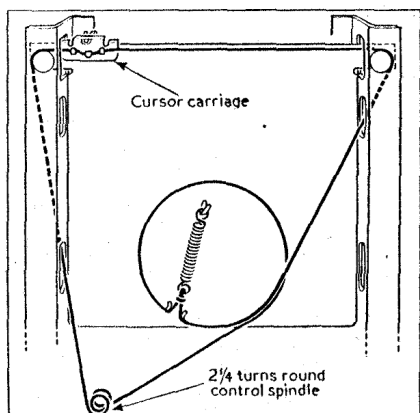
* Electrolytic. † Variable. ‡ Pre-set.



† A.C.

CIRCUIT ALIGNMENT

I.F. Stages.—Switch set to M.W., turn gang to minimum capacitance and volume control to maximum, connect signal generator (via an 0.1μF capacitor in the "live" lead) to control grid (pin 6) of V1 and the E socket, feed in a



Sketch of the tuning drive system, viewed from the rear.

465 kc/s (645.16m) signal, and adjust the cores of L14, L13, L12, L11 (location references H5, A2, J5, A2) for maximum output. Repeat these operations until no improvement results.

R.F. and Oscillator Stages.—With the gang at minimum capacitance the cursor should coincide with the low wavelength ends of the three scales. Transfer "live" signal generator lead to A socket, via a suitable dummy aerial.

M.W.—With set still switched to M.W., tune to the vertical line (M) at the top of the scale, feed in a 193.6 m (1,550 kc/s) signal, and adjust C29 (J3) and C25 (J3) for maximum output. Check calibration at 360 m (833.2 kc/s) and 520 m (576.9 kc/s).

L.W.—Switch set to L.W., tune to vertical line (L) at top of scale, feed in a 1,875 m (160 kc/s) signal, and adjust C30 (H3) for maximum output. Check calibration at 1,200 m (250 kc/s) and 1,600 m (187.5 kc/s).

S.W.—Switch set to S.W., tune to left-hand vertical line (S) at top of scale, feed in a 16.67 m (18 Mc/s) signal, and adjust C28 (J3) and C24 (K3) for maximum output, choosing the peak of C28 involving the lesser capacitance. Tune to right-hand vertical line (S) at top of scale, feed in a 50 m (6 Mc/s) signal, and adjust the core of L6 (A1) for maximum output. Repeat these operations until no improvement results.

Drive Cord Replacement.—Forty inches of high grade flax fishing line is required for a new drive cord. It should be run as shown in the sketch (col. 2), where the drive system is drawn as seen from the rear of the chassis when the gang is at maximum.

COSSOR - 494