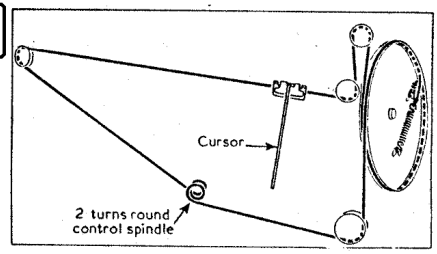
MARCONIPHONE - T26A



Sketch of the tuning drive system.

Intermediate frequency 465 kc/s.

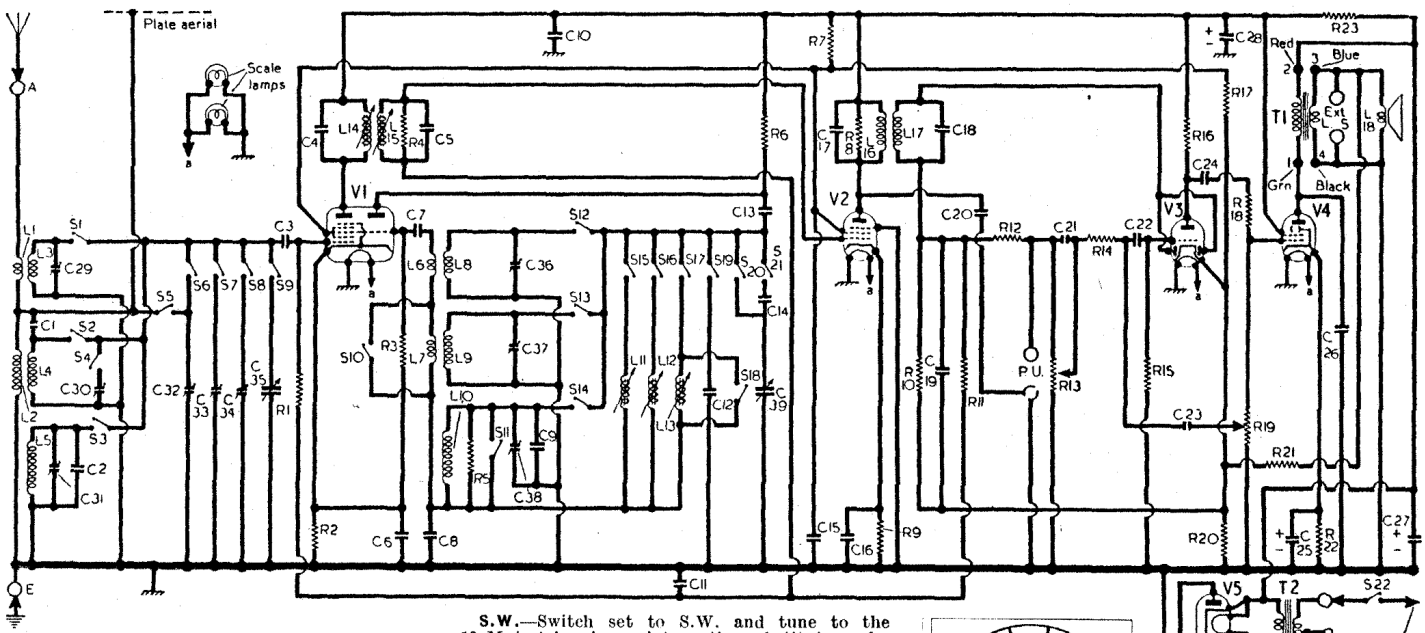
	OTHER COMPONENTS		Approx. Values (ohms)	Locations
L1	Aerial coupling coils		0·2	F3
L2			130·0	G3
L3	Aerial tuning coils		0·1	F3
L4			2·7	G3
L5			25·0	G3
L6	Oscillator reaction coils		0·4	F4
L7			2·4	G4
L8	Oscillator tuning coils		0·1	F4
L9			2·8	G4
L10			6·5	G4
L11	M.W. pre-set oscillator coils		2·0	A2
L12			2·5	A2
L13	L.W. osc. pre-set		5·0	A2
L14	1st I.F. trans.	Pri.	6·0	B2
L15		Sec.	4·0	B2
L16	2nd I.F. trans.	Pri.	6·0	B2
L17		Sec.	4·0	B2
L18	Speech coil		2·5	—
T1	Primary		350·0	B1
	Secondary		0·6	
	Primary, total		40·0	C1
	H.T. sec., total		380·0	
T2	Rect. heat. sec.		0·4	
	Heater sec.		0·1	
S1-S21	Waveband switches		—	G4
S22, S23	Mains sw., g'd R13		—	D3

	RESISTORS	Values	Locations
R1	V1 hex. C.G.	680kΩ	F5
R2	V1 G.B.	220Ω	G5
R3	V1 osc. C.G.	33kΩ	G5
R4	I.F. trans. shunt	330kΩ	F5
R5	L.W. osc. shunt	39kΩ	G4
R6	Osc. anode feed	22kΩ	F5
R7	H.T. decoupling	22kΩ	E4
R8	I.F. trans. shunt	330kΩ	E5
R9	V2 G.B.	330Ω	F5
R10	Diode load	470kΩ	E5
R11	A.G.C. decoup.	2·2MΩ	E4
R12	I.F. filter	100kΩ	E4
R13	Volume control	2MΩ	D3
R14	Feed-back stopper	220kΩ	D4
R15	V3 C.G.	10MΩ	D5
R16	V3 anode load	220kΩ	D5
R17	Part V3 G.B.	47kΩ	E5
R18	A.F. coupling	47kΩ	E4
R19	Tone control	500kΩ	E3
R20	V3 G.B.	100Ω	E5
R21	Neg. feed-back	1kΩ	E5
R22	V4 G.B.	330Ω	D4
R23*	H.T. smoothing	2kΩ	F4

* Two resistors 1k + 1kΩ in series.

	CAPACITORS	Values	Locations
C1	Aerial coupling	5pF	G4
C2	L.W. aerial trim.	30pF	G3
C3	V1 C.G.	100pF	G4
C4	1st I.F. trans.	100pF	B2
C5	tuning	180pF	B2
C6	V1 cath. by-pass	0·02μF	G5
C7	V1 osc. C.G.	100pF	G5
C8	L.W. tracker	270pF	A2
C9	L.W. osc. trim.	100pF	F3
C10	R.F. by-pass	0·05μF	E4
C11	A.G.C. decoup.	0·05μF	E4
C12	Pre-set tuning	350pF	G4
C13	Osc. anode coup.	100pF	G4
C14	M.W., L.W. tracker	590pF	G4
C15	H.T. decoupling	0·05μF	E5
C16	V2 cath. by-pass	0·05μF	F5
C17	2nd I.F. trans.	100pF	B2
C18	tuning	180pF	B2
C19	I.F. by-pass	100pF	E5
C20	Radio muting	0·02μF	E5
C21	Tone compensator	50pF	E3
C22	A.F. coupling	0·01μF	D4
C23	Neg. feed-back	40pF	E3
C24	A.F. coupling	0·02μF	D4
C25*	V4 cath. by-pass	25μF	D3
C26	Tone compensator	0·005μF	E4
C27*	H.T. smoothing	32μF	E4
C28*		32μF	E4
C29†	S.W. aerial trim.	—	A1
C30†	M.W. aerial trim.	—	A1
C31†	L.W. aerial trim.	—	A1
C32†	M.W. pre-set tune	—	A2
C33†	M.W. pre-set tune	—	A2
C34†	L.W. pre-set tune	—	A2
C35†	Aerial tuning	—	A1
C36†	S.W. osc. trimmer	—	F4
C37†	M.W. osc. trimmer	—	B1
C38†	L.W. osc. trimmer	—	B1
C39†	Oscillator tuning	—	A1

*Electrolytic. † Variable. ‡Pre-set.



CIRCUIT ALIGNMENT

In order to make the following adjustments easily accessible, the chassis should be removed from the cabinet.

I.F. Stages.—Switch set to M.W., turn the volume control and gang to maximum, and the tone control fully anti-clockwise. Connect the output of the signal generator, via a 0.1μF capacitor in the "live" lead, to control grid (pin 6) of **V2** and chassis. Feed in a 465 kc/s (645.16m) signal and adjust the cores of **L17, L16** (location reference B2) for maximum output. Transfer signal generator leads to control grid (pin 6) of **V1** and chassis. Adjust the cores of **L15, L14** (B2) for maximum output. Repeat these adjustments.

R.F. and Oscillator Stages.—As the tuning scale remains fixed in the cabinet when the chassis is withdrawn, reference should be made to the substitute scale printed on the side of the tuning drum. This scale is marked to show the trimming frequencies for the three bands, readings being taken against the end of the pointer which is mounted on top of the gang. Check that with the gang at maximum capacitance the cursor coincides with line at the L.F. end of the substitute scale.

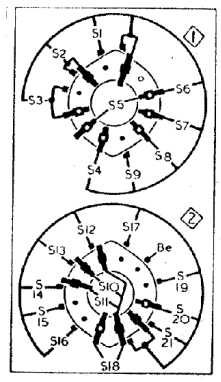
S.W.—Switch set to S.W. and tune to the 18 Mc/s trimming point on the substitute scale. Transfer signal generator leads, via a dummy aerial, to **A** and **E** sockets, feed in an 18.0 Mc/s (16.67m) signal and adjust **C36** (F4) and **C29** (A1) for maximum output. Repeat these adjustments.

M.W.—Switch set to M.W., tune to 1,300 kc/s trimming point on scale, feed in a 1,300 kc/s (230.8m) signal and adjust **C37** (B1) and **C30** (A1) for maximum output. Repeat these adjustments.

L.W.—Switch set to L.W., tune to 300 kc/s trimming point on scale, feed in a 300 kc/s (1,000m) signal and adjust **C38** (B1) and **C31** (A1) for maximum output. Repeat these adjustments.

Pre-set Stations.—A signal generator may be used to set these adjustments roughly, but they should be subsequently adjusted on the stations they are intended to receive. The trimmers and core adjustments for the pre-set stations are accessible through apertures in the back cover. A trimming tool is provided for the core adjustments and is fitted to the rear cabinet member on the right of the voltage adjustment panel.

Numbering from the fully clockwise position of the waveband control, the pre-set station coverages are as follows: 1, 1,250-2,000m; 2, 330-560m; 3, 194-350m. Then follow L.W., M.W. and S.W. manual settings.



Switch	S.W.	M.W.	L.W.	3	2	1
S1	o	o	—	—	—	—
S2	—	—	—	—	—	—
S3	o	o	o	—	—	—
S4	—	—	—	—	—	—
S5	—	—	—	o	—	—
S6	—	—	—	—	—	—
S7	—	—	—	—	o	—
S8	—	—	—	—	—	—
S9	—	—	—	—	—	o
S10	—	—	—	—	o	—
S11	o	o	—	o	—	—
S12	—	—	—	—	—	—
S13	—	—	—	—	—	—
S14	—	—	—	—	—	—
S15	—	—	—	o	—	—
S16	—	—	—	—	—	—
S17	—	—	—	—	o	—
S18	—	—	—	—	—	—
S19	—	—	—	—	—	o
S20	—	—	—	—	o	—
S21	—	o	o	—	—	—

Values	Anode		Screen		Cath.
	V	mA	V	mA	V
V1 X148	260	2·2	96	3·6	2·2
	Oscillator				
	165	4·0			
V2 W148	260	7·0	96	1·3	3·0
V3 DH149	135	0·55	—	—	0·28
V4 N148	300	32·0	260	4·0	12·5
V5 U149	280†	—	—	—	310·0