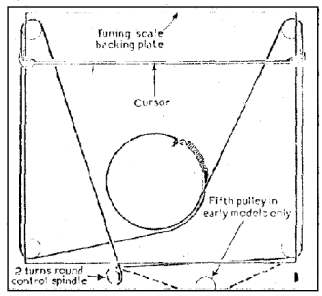
Valve	Anode		Screen		Cath.
	V	mA	V	mA	V
V1 6BE6	186	3·4	100	7·2	—
V2 9D6	176	4·0	100	1·0	1·0
V3 6Q7GT	112	0·3	—	—	1·8
V4 6V6GT	213	27·0	186	2·5	8·4
V5 6X5GT	228†	—	—	—	265·0

† A.C. reading.

OTHER COMPONENTS		Approx. Values (ohms)	Locations
L1	Aerial coupling coils	0·4	H3
L2		0·1	A2
L3		6·0	A2
L4	Aerial tuning coils	Very low	H3
L5		1·0	A2
L6		24·0	A2
L7	S.W. osc. tuning	Very low	H4
L8	S.W. reaction coil	Very low	H4
L9	M.W. osc. tuning	2·5	H4
L10	M.W. reaction coil	0·2	H4
L11	L.W. osc. tuning	12·0	H4
L12	L.W. reaction coil	0·6	H4
L13	1st I.F. trans. Pri.	7·0	B2
L14	1st I.F. trans. Sec.	7·0	B2
L15	2nd I.F. trans Pri.	7·0	C2
L16	2nd I.F. trans Sec.	7·0	C2
L17	Speech coil	2·8	—
T1	Primary	0·5	—
	Secondary	430·0	—
T2	Primary, total	160·0	D2
	Secondary	0·3	D2
S1-S16	Waveband switches	—	H3
S17, S18	Tone switches	—	H3
S19, S20	Mains sw., g'd R9	—	E3

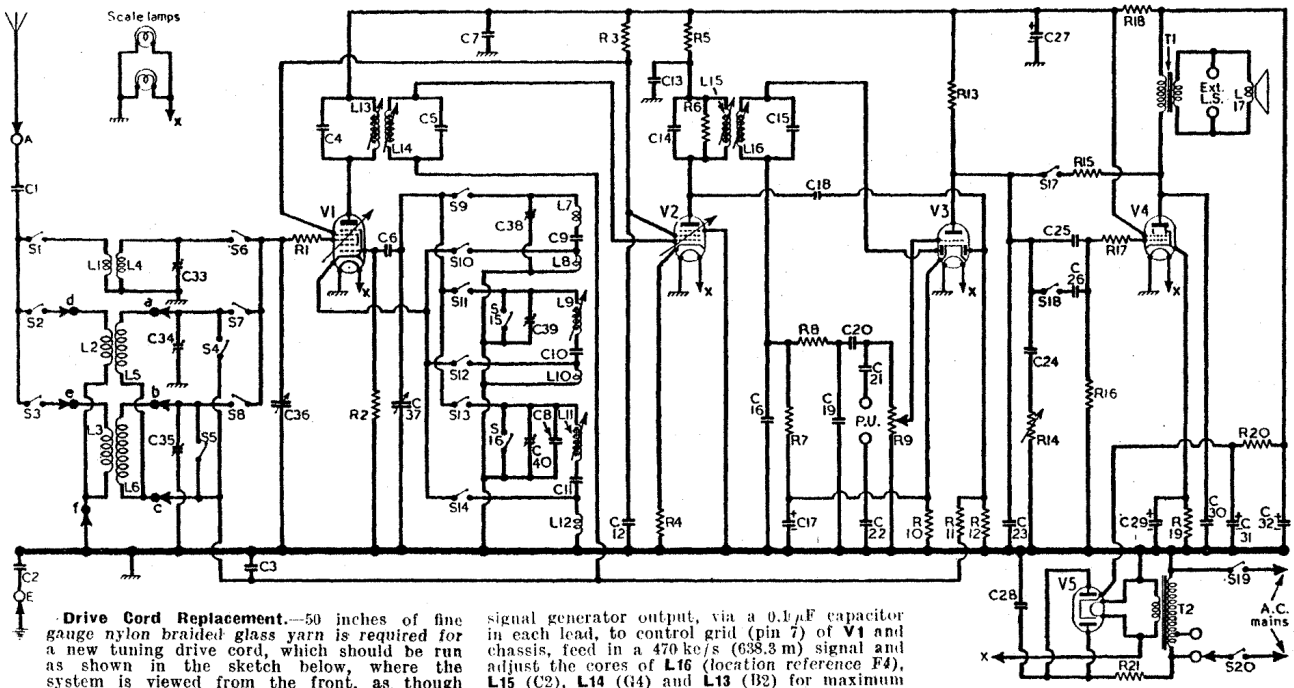


The tuning drive, as seen from the front.

RESISTORS		Values	Locations
R1	V1 C.G. stopper	33Ω	G3
R2	V1 osc. C.G.	22kΩ	H4
R3	S.G. H.T. feed	10kΩ	G4
R4	V2 G.B.	180Ω	G4
R5	V2 H.T. decoup.	2·2kΩ	F4
R6	L15 shunt	470kΩ	G4
R7	Diode load	270kΩ	F4
R8	I.F. stopper	47kΩ	F4
R9	Volume control	1MΩ	E3
R10	V3 G.B.	4·7kΩ	F3
R11	A.G.C. decoup.	1MΩ	F4
R12	A.G.C. diode load	1MΩ	F4
R13	V3 anode load	270kΩ	F4
R14	Tone control	1MΩ	E3
R15	Tone corrector	1·5MΩ	F3
R16	V4 C.G.	470kΩ	F3
R17	Grid stopper	4·7kΩ	F3
R18	H.T. smoothing	2·2kΩ	F3
R19	V4 G.B.	270Ω	F3
R20	H.T. smoothing	680Ω	E4
R21	Surge limiter	100Ω	E4

CAPACITORS		Values	Locations
C1	Aerial series	500pF	H3
C2	Chassis isolator	0·002μF	H3
C3	A.G.C. decoupler	0·1μF	G4
C4	1st I.F. trans. tuning	100pF	B2
C5		100pF	B2
C6	V1 osc. C.G.	100pF	H4
C7	H.T. by-pass	0·1μF	G4
C8	L.W. osc. trimmer	150pF	H4
C9	S.W. osc. tracker	0·006μF	H4
C10	M.W. osc. tracker	530pF	H4
C11	L.W. osc. tracker	225pF	H4
C12	S.G. decoup.	0·1μF	G4
C13	V2 anode decoup.	0·1μF	G4
C14	2nd I.F. trans. tuning	100pF	C2
C15		180pF	C2
C16	I.F. by-pass	100pF	F4
C17*	V3 cath. by-pass	25μF	F4
C18	A.G.C. coupling	20pF	F4
C19	I.F. by-pass	100pF	F4
C20	A.F.coupling	0·005μF	F4
C21	P.U. isolators	0·02μF	F4
C22		0·02μF	F4
C23	I.F. by-pass	500pF	F3
C24	Part tone control	0·01μF	F3
C25	A.F. coupling	0·001μF	F3
C26	Tone corrector	0·01μF	G3
C27*	H.T. smoothing	8μF	G3
C28	Mains R.F. filter	0·05μF	E4
C29*	V4 cath. by-pass	25μF	E3
C30	Tone corrector	0·002μF	G3
C31*	H.T. smoothing	32μF	D1
C32*		32μF	D1
C33‡	S.W. aerial trim	50pF	H3
C34‡	M.W. aerial trim	50pF	H3
C35‡	L.W. aerial trim	50pF	H3
C36†	Aerial tuning	§528pF	B1
C37†	Oscillator tuning	§528pF	B2
C38‡	S.W. osc. trimmer	50pF	H4
C39‡	M.W. osc. trimmer	50pF	H4
C40‡	L.W. osc. trimmer	50pF	H4

* Electrolytic. † Variable. ‡ Pre-set. § "Swing" value, min. to max.



Drive Cord Replacement.—50 inches of fine *gauge nylon braided glass yarn is required for* a new tuning drive cord, which should be run as shown in the sketch below, where the system is viewed from the front, as though seen through the scale assembly upon the back of which it is mounted, with the **gang at** maximum capacitance. The cursor can be slipped on afterwards.

CIRCUIT ALIGNMENT

All the adjustments may be made with the chassis in the cabinet, the cores of **L14, L16** being made accessible by removing the cabinet base cover, secured by six round-head screws. Before aligning the I.F. stages, the cores should be freed by melting the wax seals.

I.F. Stages.—Switch set to L.W., turn gang and volume control to maximum. Connect signal generator output, via a 0.1μF capacitor in each lead, to control grid (pin 7) of **V1** and chassis, feed in a 470 kc/s (638.3 m) signal and adjust the cores of **L16** (*location reference F4*), **L15** (C2), **L14** (G4) and **L13** (B2) for maximum output, reducing the input as the circuits come into line. Re-seal cores.

R.F. and Oscillator Stages.—Check that with the gang at maximum capacitance the cursor coincides with the highest wavelength ends of the tuning scale. The position of the cursor *may be adjusted* by sliding it up or down the drive cord. Transfer the signal generator leads, via a dummy aerial, to **A** and **E** sockets.

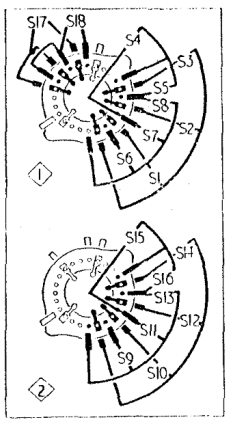
S.W.—Switch set to S.W., tune to 13.4 m on scale, feed in a 13.4 m (23 Mc/s) signal and adjust **C38** (A2) and **C33** (A1) for maximum output. Repeat these adjustments.

M.W.—Switch set to M.W., tune to 200 m on scale, feed in a 200 m (1,500 kc/s) signal and adjust **C39** (A2) and **C34** (A1) for maximum output. Tune to 500 m on scale, feed in a 500 m (600 kc/s) signal and adjust the core of **L9** (H4) for maximum output. Repeat these adjustments.

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 **C40** (A2) and **C35** (A2) for maximum output. Tune to 2,000 m on scale, feed in a 2,000 m (150 kc/s) signal and adjust the core of **L11** (H4) for maximum output. Repeat these adjustments.

Switch	S.W.	M.W.	L.W.
S1	C	—	—
S2	—	C	—
S3	—	—	C
S4	C	—	—
S5	C	C	—
S6	C	—	—
S7	—	C	—
S8	—	—	C
S9	C	—	—
S10	C	—	—
S11	—	C	—
S12	—	C	—
S13	—	—	C
S14	—	—	C
S15	C	—	—
S16	C	C	—
S17	—	C	C
S18	—	C	C

switch table.



Left: Diagrams of the waveband switch units.

PILOT - JACK (T42)