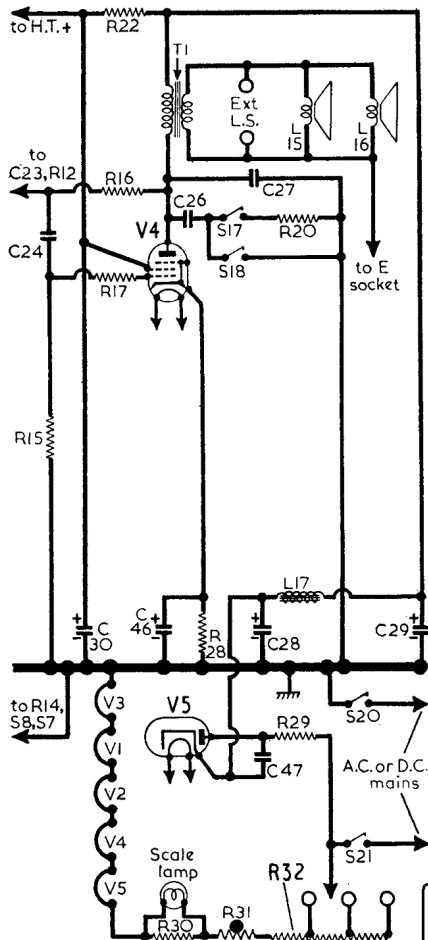
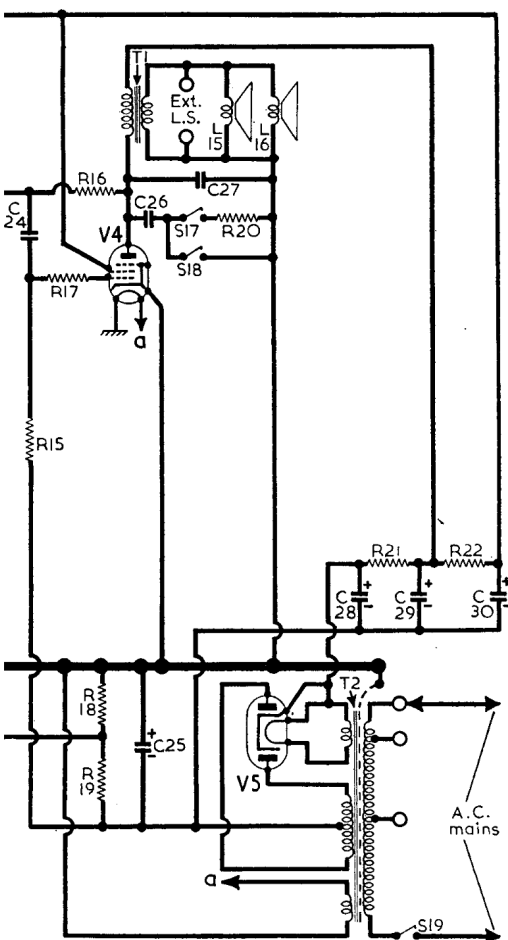


Intermediate frequency 470 kc/s.



A.C. Model

Valve	Anode		Screen		Cath.
	V	mA	V	mA	
V1 ECH42	212	2.5	68	3.5	—
	Oscillator				
	70	5.5			
V2 EF41	212	3.0	68	1.0	—
V3 EBC41	60	0.5	—	—	—
V4 EL41	225	22.0	212	3.0	—
V5 EZ40	255†	—	—	—	270

† A.C. reading.

A.C./D.C. Model

Valve	Anode		Screen		Cath.
	V	mA	V	mA	V
V1 UCH42	190	1.5	92	2.5	2.5
	Oscillator				
	83	3.5			
V2 UF41	190	4.1	92	1.3	1.9
V3 UBC41	63	0.3	—	—	1.0
V4 UL41	196	42.0	190	7.8	5.5
V5 UY41	223†	—	—	—	231

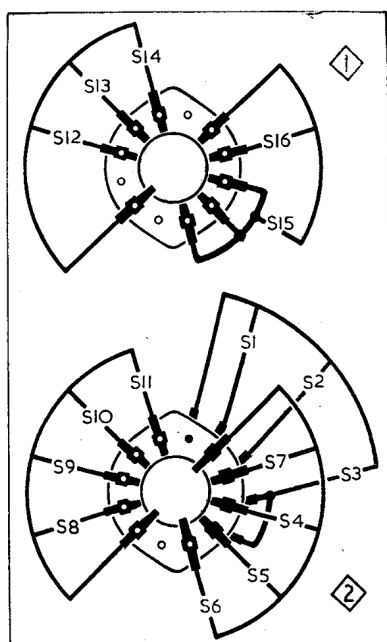
† A.C. reading.

Switches	L.W.	M.W.	S.W.	Gram.
S1	—	—	—	—
S2	—	—	—	—
S3	—	—	—	—
S4	—	—	—	—
S5	—	—	—	—
S6	—	—	—	—
S7	—	—	—	—
S8	—	—	—	—
S9	—	—	—	—
S10	—	—	—	—
S11	—	—	—	—
S12	—	—	—	—
S13	—	—	—	—
S14	—	—	—	—
S15	—	—	—	—
S16	—	—	—	—

REGENTONE - A25, ARG85, ARG90, U25

CAPACITORS		Values	Locations
R1	A.G.C. decoupling	100kΩ	F4
R2	Osc. stabilizer ...	100Ω	F3
R3	V1 osc. C.G. ...	47kΩ	F3
R4	Osc. anode feed ...	27kΩ	F4
R5	S.G. H.T. pot. ...	33kΩ	F4
R6	divider ...	27kΩ	F3
R7	I.F. stopper ...	47kΩ	C2
R8	Diode load ...	330kΩ	E4
R9	Volume control ...	250kΩ	D3
R10	V3 C.G. ...	10MΩ	E4
R11	H.T. decoupling ...	100kΩ	D4
R12	V3 anode load ...	270kΩ	E4
R13	A.G.C. decoupling ...	1.2MΩ	E4
R14	A.G.C. diode load ...	1.2MΩ	E4
R15	V4 C.G. ...	470kΩ	D4
R16	Neg. feed-back ...	2.2MΩ	D4
R17	V4 C.G. stopper ...	10kΩ	D4
R18	V1, V2, V4, G.B. ...	51Ω	E4
R19		100Ω	D4
R20	Part tone control	4.7kΩ	D4
R21	H.T. smoothing	1kΩ	E3
R22		1kΩ	E4
R23*	Aerial shunt ...	1.2MΩ	—
R24*	L.W. aerial shunt ...	100kΩ	—
R25*	V1 G.B. ...	220Ω	—
R26*	V2 G.B. ...	330Ω	—
R27*	V3 G.B. ...	3.9kΩ	—
R28*	V4 G.B. ...	220Ω	—
R29*	V5 surge limiter ...	100Ω	—
R30*	Scale lamp shunt ...	200Ω	—
R31*	Thermistor, CZ1 ...	—	—
R32*	Ballast resistor ...	†1.1kΩ	B1

\* Model U25 only. † Tapped at 700Ω + 200Ω + 200Ω from R31. ‡ 47 kΩ in A.C./D.C. model. § 2-2 MΩ in A.C./D.C. model.



Diagrams of the waveband switch units, drawn as seen in the direction of the arrows in our underside view of the chassis.

CAPACITORS		Values	Locations
C1	I.F. filter tune ...	350pF	F4
C2	Aerial coupling ...	0.01μF	G4
C3		3,750pF	G4
C4	L.W. trimmer ...	50pF	G4
C5	A.G.C. decoupling ...	0.1μF	G4
C6	1st I.F. trans. tuning	100pF	B2
C7		100pF	B2
C8	L.W. trimmer ...	100pF	G3
C9	S.W. osc. tracker ...	3,750pF	G3
C10	M.W. osc. tracker ...	420pF	F3
C11	L.W. osc. tracker ...	125pF	G3
C12	Osc. coupling ...	50pF	G3
C13	S.G. decoupling ...	0.1μF	F3
C14	2nd I.F. trans. tuning	100pF	C2
C15		100pF	C2
C16	I.F. by-passes	100pF	C2
C17		100pF	E4
C18	A.F. coupling ...	0.01μF	E4
C19	A.G.C. coupling ...	35pF	E4
C20	A.F. coupling ...	0.01μF	E4
C21	H.T. decoupling	0.1μF	E4
C22		0.1μF	E4
C23	I.F. by-pass ...	100pF	D4
C24	A.F. coupling ...	0.01μF	D4
C25*	G.B. decoupling ...	50pF	E3
C26	Part tone control	0.05μF	D4
C27†	Tone corrector	0.005μF	D3
C28*		16μF	C1
C29*	H.T. smoothing	32μF	C1
C30*		8μF	C1
C31‡	S.W. aerial trim. ...	40pF	G4
C32‡	M.W. aerial trim. ...	40pF	F4
C33‡	L.W. aerial trim. ...	40pF	G4
C34†	Aerial tuning ...	501pF	A2
C35†	Oscillator tuning ...	501pF	A2
C36†	S.W. osc. trim. ...	40pF	G3
C37†	M.W. osc. trim. ...	40pF	G3
C38†	L.W. osc. trim. ...	40pF	G3
C39§	Aerial isolator ...	0.01μF	—
C40§	Chassis isolator ...	0.02μF	—
C41§	V1 cath. by-pass ...	0.1μF	—
C42§	V2 cath. by-pass ...	0.1μF	—
C43§	P.U. isolators	0.01μF	—
C44§		0.01μF	—
C45§	V3 cath. by-pass ...	*50μF	—
C46§	V4 cath. by-pass ...	*25μF	—
C47§	Mains R.F. filter	0.01μF	—

\* Electrolytic. † Variable. ‡ Pre-set. § Model U25 only. || 80pF in A.C./D.C. Model. ¶ 0.001μF A.C./D.C. model.

OTHER COMPONENTS		Approx. Values (ohms)	Locations
L1	I.F. filter coil ...	4	F4
L2	Mod. hum filter ...	8	F4
L3	S.W. aerial coup. ...	—	G4
L4	Aerial tuning coils	3	G4
L5		28	G4
L6	Oscillator tuning coils	3	G3
L7		12	G3
L8	S.W. osc. reaction	8	B2
L9		8	B2
L10	1st I.F. trans. { Pri. Sec.	8	B2
L11		8	B2
L12	2nd I.F. trans. { Pri. Sec.	8	C2
L13		8	C2
L14	Speech coils	3	—
L15		3	—
L16	H.T. choke, (U25)	300	C1
L17		—	D3
T1	O.P. trans. { Pri. Sec.	35	—
T2	H.T. sec. total ...	640	F3
	Rect. htr. ...	—	—
	Valve htr. ...	—	—
S1-S16	Waveband switches	—	G4
S17, S18	Tone switches	—	D4
S19-S21	Mains sw., ...	—	D3
	g'd R9	—	—

## REGENTONE - A25, ARG85, ARG90, U25

### CIRCUIT ALIGNMENT

All the following adjustments, with the exception of I.F. filter **L1**, are accessible with the chassis in its cabinet. Connect output of signal generator, via an 0.05μF capacitor in "live" lead, to control grid (pin 6) of **V1** and chassis.

**I.F. Stages.**—Switch set to M.W., turn gang to minimum, feed in a 470 kc/s (638.3m) signal and adjust the cores of **L14**, **L13** (location reference C2) and **L12**, **L11** (B2) for maximum output. Repeat these adjustments.

**I.F. Filter.**—Transfer signal generator leads, via a dummy aerial, to **A** and **E** sockets and, feeding in a 470 kc/s signal, adjust the core of **L1** (F4) for minimum output.

**R.F. and Oscillator Stages.**—As the tuning scale is fixed to the cabinet, and a substitute tuning scale is not provided on the chassis, the following adjustments should be made with the chassis in its cabinet. Check that with the gang at minimum the cursor coincides with the dots at the short wavelength ends of the S.W. and M.W. tuning scales.

**S.W.**—Switch set to S.W., tune to 18 Mc/s on scale, feed in an 18 Mc/s (16.67m) signal, and screw up **C36** (A1) to its maximum capacitance. 18 Mc/s is in the centre of the calibration mark "18.0," approximately where the decimal point appears. Now unscrew **C36** carefully until the first peak is reached, careful adjustment being necessary because several closely spaced peaks may occur. Then adjust **C31** (G4) for maximum output. Tune to 6 Mc/s on scale, feed in a 6 Mc/s (50m) signal and adjust the cores of **L7** (A1) and **L4** (A2) for maximum output. Repeat these adjustments until no further improvement results.

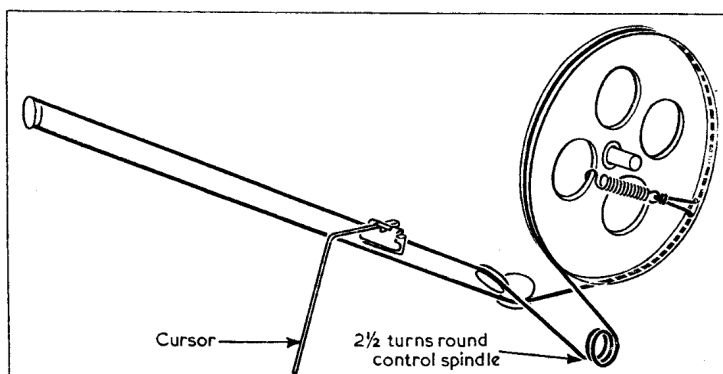
**M.W.**—Switch set to M.W., tune to 200m, feed in a 200m (1,500 kc/s) signal and adjust **C37** (A1) and **C32** (F4) for maximum output. Tune set to 500m, feed in a 500m (600 kc/s) signal and adjust the cores of **L8** (A1) and **L5** (B2) for maximum output. Repeat these adjustments.

**L.W.**—Switch set to L.W., tune to 1,000m, feed in a 1,000m (300 kc/s) signal and adjust **C38** (A1) and **C33** (G4) for maximum output. Tune set to 1,800m, feed in a 1,800m (166.7 kc/s) signal and adjust the cores of **L9** (A1) and **L6** (A2) for maximum output. Repeat these adjustments.

### DRIVE CORD REPLACEMENT

Six feet of high-grade flax fishing line, plaited and waxed, is required for a new drive cord, this length providing an ample margin for tying off. It should be run as shown in the accompanying sketch, where the tuning drive system is drawn as seen when viewed from the front right-hand corner of the chassis, with the gang at maximum capacitance.

Both ends of the cord are tied to the tension spring, but the simplest method of running it is first to tie on one end with a non-slip knot, thread the cord through the hole in the rim of the drum, then start the first anti-clockwise run for claws. It should be so adjusted that with the gang at minimum capacitance the cursor coincides with the dots at the left-hand ends of the top and bottom tuning scales.



Sketch of the tuning drive system, drawn as seen from the front right-hand corner of the chassis when the gang is at maximum capacitance.