



RESISTORS		Values	Locations
R1	S.W. aerial shunt	3.3Ω	D1
R2	V1 C.G. ...	1MΩ	G2
R3	S.G. H.T. pot.	18kΩ	G2
R4	divider	47kΩ	G2
R5	Osc. stabilizer	100Ω	F2
R6	V1 osc. C.G.	47kΩ	F2
R7	L.W. osc. stabilizer	680Ω	D1
R8	Osc. anode feed	18kΩ	G2
R9	V2 G.B. ...	270Ω	G2
R10	I.F. stopper	47kΩ	H2
R11	Signal diode load	470kΩ	H2
R12	Volume control	2MΩ	D1
R13	V3 C.G. ...	10MΩ	H2
R14	V3 anode load	390kΩ	H2
R15	A.G.C. decoupling	1MΩ	G2
R16	A.G.C. diode load	1MΩ	H2
R17	Tone control	500kΩ	A1
R18	V4 C.G. stopper	100kΩ	H2
R19	V4 G.B. ...	390Ω	H2
R20	Neg. feed-back	680Ω	H2
R21		33Ω	H2
R22	H.T. smoothing	750Ω	J3
R23		1kΩ	J3
R24	V5 surge limiters	100Ω	J3
R25		100Ω	J3
R26	P.U. tone corrector	680kΩ	—
R27	(Gram. model)	220kΩ	—

CAPACITORS		Values	Locations
C1	I.F. filter tune ...	500pF	D1
C2	S.W. aerial shunt...	0.002μF	D1
C3	M.W. aerial shunt	250pF	D1
C4	L.W. aerial shunt...	0.001μF	D1
C5	L.W. aerial trim ...	20pF	D1
C6	V1 C.G. ...	100pF	F2
C7	V1 S.G. decoup.	0.1μF	G2
C8	1st I.F. trans tun-	100pF	B1
C9	ing	100pF	B1
C10	V1 osc. C.G. ...	100pF	D1
C11	A.G.C. decoupling	0.1μF	G2
C12	S.W. osc. tracker ...	6,770pF	C1
C13	M.W. osc. tracker...	503pF	C1
C14	L.W. osc. tracker...	150pF	D1
C15	M.W. osc. trimmer	10pF	C1
C16	L.W. osc. trimmer	60pF	D1
C17	Osc. reaction coup.	100pF	F2
C18	2nd I.F. trans tun-	100pF	A1
C19	ing	180pF	A1
C20	H.T. by-pass	0.1μF	G2
C21	V2 cath. by-pass	0.1μF	G2
C22	I.F. by-passes	100pF	H2
C23		100pF	H2
C24	A.G.C. coupling	50pF	H2
C25		0.01μF	H2
C26	A.F. coupling	0.01μF	H2
C27		80.1μF	H2
C28	Tone corrector	0.001μF	B1
C29	Part tone control...	500pF	B1
C30*	V4 cath. by-pass	25pF	H2
C31*		16μF	J3
C32*	H.T. smoothing	32μF	J3
C33*		8μF	J3
C34†	S.W. aerial trim ...	40pF	E2
C35†	M.W. aerial trim...	40pF	E2
C36†	L.W. aerial trim...	40pF	E2
C37†	Aerial tuning	528pF	C1
C38†	S.W. osc. trim.	40pF	C1
C39†	M.W. osc. trim.	40pF	C1
C40†	L.W. osc. trim.	40pF	D1
C41†	Oscillator tuning	528pF	C1
C42	P.U. tone correctors	100pF	—
C43	(Gram. model) ...	0.001μF	—

OTHER COMPONENTS		Approx. Values (ohms)	Locations
L1	I.F. filter	3.5	D1
L2	Aerial coupling	13.0	D1
L3	coils	19.0	D1
L4		19.0	D1
L5	Aerial tuning coils	3.0	D1
L6		17.0	D1
L7		3.0	C1
L8	Oscillator reaction	3.0	C1
L9	coils	3.0	D1
L10		—	C1
L11	Oscillator tuning	2.0	C1
L12	coils	7.0	D1
L13		12.0	B1
L14	1st I.F. trans. {Pri.	12.0	B1
L15	{Sec.	12.0	B1
L16	2nd I.F. trans. {Pri.	12.0	A1
L17	{Sec.	8.5	A1
L18	Speech coil	2.6	—
T1	O.P. trans. {a	400.0	B1
	{b	—	—
	{c	—	—
	{d	—	—
	{e, total	48.0	—
T2	Mains trans.	300.0	J3
		300.0	—
S1-S20	Waveband switches	—	D1
S21	Speaker switch	—	—
S22, S23	Mains sw., g'd R17	—	A1

Valves	Anode		Screen		Cath.
	V	mA	V	mA	
V1 7S7 ...	225	2.4	80	3.8	—
	Oscillator	4.1	—	—	—
V2 7B7 ...	225	6.5	80	1.5	2
V3 7C6 ...	65	0.4	—	—	—
V4 7C5 ...	230	30.0	245	5.0	13
V5 7Y4 ...	280*	—	—	—	290†

* A.C., each anode. † Cathode current 55 mA.

CIRCUIT ALIGNMENT

I.F. Stages.—Switch receiver to M.W. and tune to about 300 m. Connect output of signal generator via an 0.01μF capacitor in the "live" lead to control grid (pin 6) of V1 and chassis, feed in a 470 kc/s (638.3 m) signal and adjust the cores of L17 (location reference A1), L16 (H2), L15 (B1) and L14 (G2) for maximum output. Repeat these adjustments.

I.F. Filter.—Transfer signal generator leads, via a dummy aerial to A and E sockets. Feed in a 470 kc/s signal, and adjust the core of L1 (E2) for minimum output.

R.F. and Oscillator Stages.—Check that with the gang at maximum capacitance, the cursor coincides with the high wavelength ends of the tuning scales. With the signal generator con-

nected via a dummy aerial to the A and E sockets, carry out the following adjustments.

S.W.—Switch receiver to S.W., tune to 15 m, feed in a 15 m (20 Mc/s) signal and adjust C38 (C1) and C34 (D1) for maximum output, rocking the gang while adjusting the latter for optimum results. C38 should be adjusted to the peak involving the greater capacitance. Tune receiver to 50 m, feed in a 50 m (6 Mc/s) signal and adjust the cores of L11 (F2) and L5 (E2) for maximum output. Repeat these adjustments.

M.W.—Switch receiver to M.W., tune to 190 m, feed in a 190 m (1,580 kc/s) signal and adjust C39 (C1) and C35 (D1) for maximum output. C39 should be adjusted to the peak involving the greater capacitance. Tune receiver to 500 m, feed in a 500 m (600 kc/s) signal and adjust the cores of L12 (F2) and L6 (E2) for maximum output. Repeat these adjustments.

L.W.—Switch receiver to L.W., tune to 900 m, feed in a 900 m (333 kc/s) signal and adjust C40 (D1) and C36 (D1) for maximum output. C40 should be adjusted to the peak involving the greater capacitance. Tune receiver to 2,000 m, feed in a 2,000 m (150 kc/s) signal and adjust the cores of L13 (E2) and L7 (E2) for maximum output. Repeat these adjustments.

Diagrams of the waveband switch units, drawn as seen from the rear of the chassis, as indicated by the arrows in our rear chassis illustration below.

