

Valve	Anode Voltage (V)	Anode Current (mA)	Screen Voltage (V)	Screen Current (mA)
V1 CCH35	187 84	1.65 3.8	77	1.5
V2 EF39	187	4.5	77	1.3
V3 EBC33	97	1.7	—	—
V4 CL33	202	42.5	187	5.1
V5 1D5†	—	—	—	—

† Cathode to chassis, 232 V, D.C.

OTHER COMPONENTS		Approx. Values (ohms)
L1	Aerial S.W. coupling coil ...	0.2
L2	Aerial M.W. coupling coil ...	0.8
L3	Aerial L.W. coupling coil ...	85.0
L4	Aerial S.W. tuning coil ...	0.1
L5	Aerial M.W. tuning coil ...	3.0
L6	Aerial L.W. tuning coil ...	19.5
L7	Osc. S.W. tuning coil ...	0.2
L8	Osc. M.W. tuning coil ...	1.8
L9	Osc. L.W. tuning coil ...	4.8
L10	Osc. S.W. reaction coil ...	0.4
L11	Osc. M.W. reaction coil ...	1.1
L12	Osc. L.W. reaction coil ...	2.4
L13	1st I.F. trans. { Pri. ...	9.0
L14		9.0
L15	2nd I.F. trans. { Pri. ...	6.0
L16		6.0
L17	Speaker speech coil ...	20.0
L18	H.T. Smoothing choke ...	200.0
T1	Output { Pri. ...	370.0
	trans. { Sec. ...	0.25
S1-S14	Waveband switches ...	—
S15	Mains switch, ganged R17	—

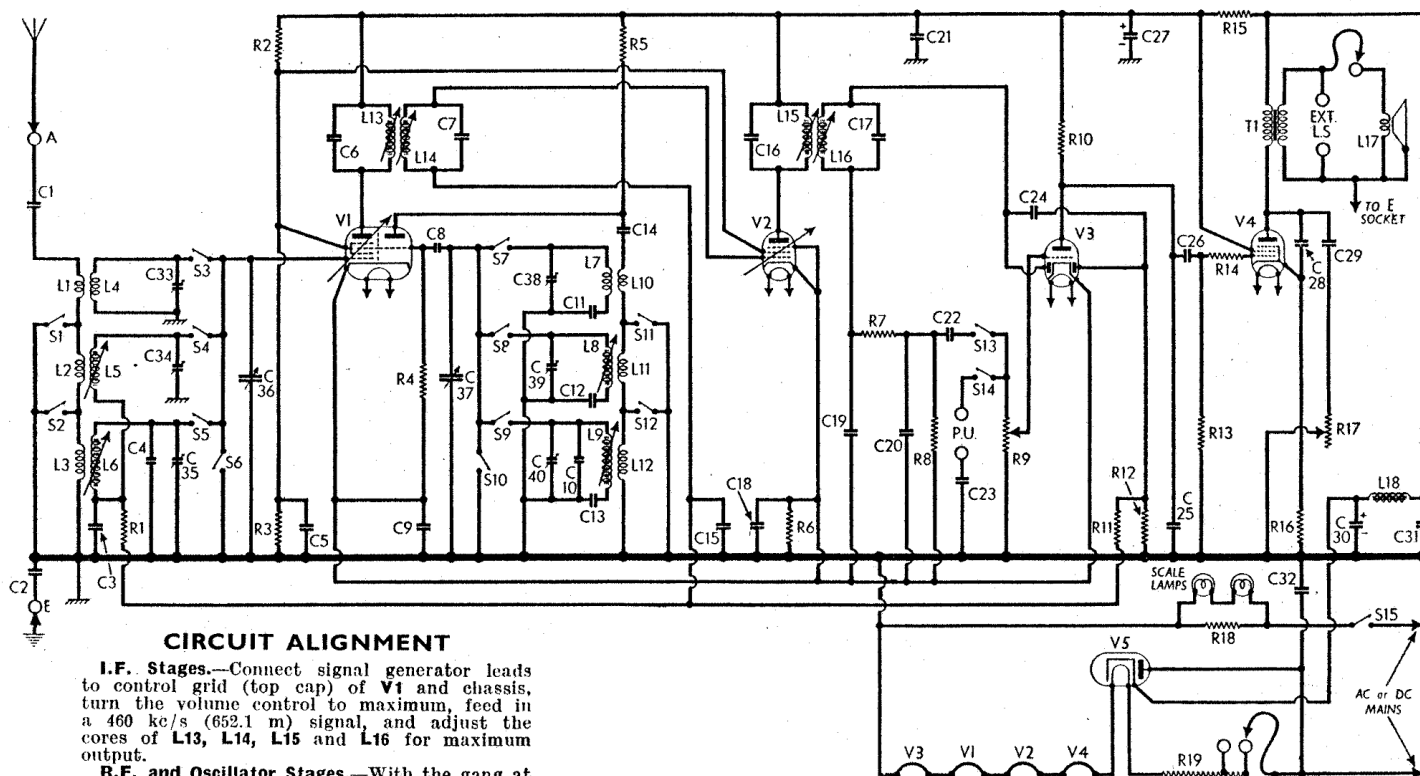
RESISTORS		Values (ohms)
R1	V1 hex. C.G. decoupling ...	250,000
R2	V1, V2 S.G.'s H.T. feed ...	22,000
R3	potential divider { ...	30,000
R4		47,000
R5	V1 osc. C.G. resistor ...	27,000
R6	V1 osc. anode H.T. feed ...	150
R7	V1, V2, V3 fixed G.B. resistor ...	47,000
R8	I.F. stopper ...	470,000
R9	V3 signal diode load ...	1,000,000
R10	Manual volume control ...	47,000
R11	V3 triode anode load ...	1,000,000
R12	A.V.C. line decoupling ...	1,000,000
R13	V3 A.V.C. diode load ...	500,000
R14	V4 C.G. resistor ...	47,000
R15	V4 grid stopper ...	1,500
R16	H.T. smoothing resistor ...	150
R17	V4 G.B. resistor ...	50,000
R18	Variable tone control ...	40
R19	Scale lamp shunt ...	700*

* Tapped at 600 Ω + 100 Ω from V5 heater.

CAPACITORS		Values (μ F)
C1	Aerial series capacitor ...	0.0002
C2	Earth isolator ...	0.05
C3	V1 hex. C.G. decoupling ...	0.05
C4	Aerial L.W. fixed trimmer ...	0.000056
C5	V1, V2 S.G.'s decoupling ...	0.1
C6	1st I.F. transformer fixed { tuning capacitors ...	0.0001
C7		0.0001
C8	V1 osc. C.G. capacitor ...	0.000047
C9	V1 cathode by-pass ...	0.1
C10	Osc. L.W. fixed trimmer ...	0.000056
C11	Osc. circ. S.W. tracker ...	0.0056
C12	Osc. circ. M.W. tracker ...	0.000575
C13	Osc. circ. L.W. tracker ...	0.0002
C14	V1 osc. anode coupling ...	0.0001
C15	A.V.C. line decoupling ...	0.05
C16	2nd I.F. transformer fixed { tuning capacitors ...	0.0001
C17		0.0001
C18	V1, V2, V3 cathode by-pass ...	0.5
C19	I.F. by-pass capacitors { ...	0.0001
C20		0.0001
C21	H.T. circuit R.F. by-pass ...	0.1
C22	A.F. coupling to V3 C.G. ...	0.005
C23	Pick-up isolator ...	0.25
C24	V3 A.V.C. diode coupling ...	0.0002
C25	I.F. by-pass ...	0.0002
C26	A.F. coupling to V4 C.G. ...	0.01
C27*	H.T. smoothing capacitor ...	16.0
C28	Fixed tone corrector ...	0.005
C29	Part variable tone control ...	0.05
C30*	H.T. smoothing capacitors { ...	8.0
C31*		16.0
C32	Mains R.F. by-pass ...	0.05
C33†	Aerial circ. S.W. trimmer ...	0.00005
C34†	Aerial circ. M.W. trimmer ...	0.00005
C35†	Aerial circ. L.W. trimmer ...	0.00005
C36†	Aerial circuit tuning ...	0.0005
C37†	Oscillator circuit tuning ...	0.0005
C38†	Osc. circ. S.W. trimmer ...	0.00005
C39†	Osc. circ. M.W. trimmer ...	0.00005
C40†	Osc. circ. L.W. trimmer ...	0.00005

* Electrolytic. † Variable. ‡ Pre-set.

Intermediate frequency 460 kc/s.



CIRCUIT ALIGNMENT

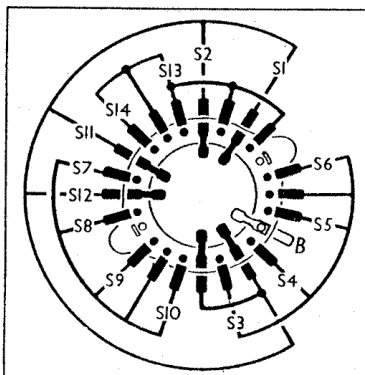
I.F. Stages.—Connect signal generator leads to control grid (top cap) of V1 and chassis, turn the volume control to maximum, feed in a 460 kc/s (652.1 m) signal, and adjust the cores of L13, L14, L15 and L16 for maximum output.

R.F. and Oscillator Stages.—With the gang at maximum, pointer should coincide with the high wavelength ends of the scales. Transfer signal generator leads, via a suitable dummy aerial, to A and E sockets.

M.W.—Switch set to M.W., tune to 215 m on scale, feed in a 215 m (1,396 kc/s) signal, and adjust C39, then C34 for maximum output. Tune to 500 m on scale, feed in a 500 m (600 kc/s) signal, and adjust the cores of L8 and L5 for maximum output. Check L8 at 850 m (857 kc/s) for correct calibration, and repeat the C39, C34 adjustments if necessary.

S.W.—Switch set to S.W., tune to 18 m on scale, feed in an 18 m (16.67 Mc/s) signal, and adjust C38, then C33, for maximum output.

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, then C35, for maximum output. Tune to 1,900 m on scale, feed in a 1,900 m (157.9 kc/s) signal, and adjust the cores of L9 and L6 for maximum output. Check the settings of C40, C35.



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

The switch unit, as seen from the rear.