

ROBERTS - R55

CAPACITORS		Values	Locations
C1	V1 C.G. ...	100pF	D2
C2	V1 S.G. decoupling	0.1μF	D2
C3	1st I.F. trans	100pF	C1
C4	tuning ...	100pF	C1
C5	V1 osc. C.G.	100pF	D2
C6	A.G.C. decoupling	0.1μF	E2
C7	L.W. osc. tracker	195pF	C1
C8	M.W. osc. tracker	575pF	C1
C9	Osc. anode decoupling	0.1μF	D3
C10	V2 S.G. decoupling	0.1μF	D2
C11	2nd I.F. trans.	100pF	B1
C12	tuning ...	100pF	B1
C13	I.F. by-pass	100pF	E2
C14	A.F. coupling	0.002μF	F2
C15	V3 S.G. decoupling	0.1μF	F3
C16	H.T. R.F. by-pass	0.1μF	F3
C17	A.F. coupling	0.002μF	F3
C18	I.F. by-pass	100pF	F3
C19*	V4 G.B. by-pass	20μF	F3
C20*	Battery reservoir	8μF	F3
C21	Tone corrector	0.001μF	A1
C22†	L.W. aerial trim.	60pF	C1
C23†	M.W. aerial trim.	30pF	C1
C24†	Aerial tuning	523pF	E2
C25†	Oscillator tuning	523pF	F3
C26†	M.W. osc. trim.	30pF	C1
C27†	L.W. osc. trim.	60pF	C1

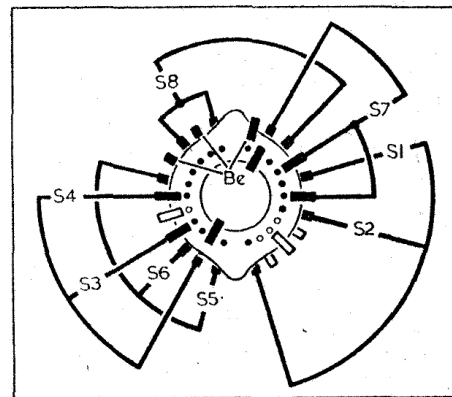
* Electrolytic. † Variable. ‡ Pre-set.

RESISTORS		Values	Locations
R1	V1 C.G. ...	1MΩ	D2
R2	V1 S.G. feed	120kΩ	D3
R3	V1 osc. C.G.	27kΩ	D3
R4	Osc. anode feed	33kΩ	D3
R5	V2 S.G. feed	39kΩ	D3
R6	A.G.C. decoupling	2.2MΩ	E2
R7	Volume control	500kΩ	F2
R8	V3 C.G. ...	10MΩ	F2
R9	V3 S.G. feed	2.7MΩ	F2
R10	V3 anode load	1MΩ	F2
R11	V4 C.G. ...	2.2MΩ	F3
R12	V4 G.B. ...	510Ω	F3

OTHER COMPONENTS		Approx. Values (ohms)	Locations
L1	Internal aerial coils	0.25	C1
L2		5.5	A1
L3	Oscillator tuning coils	2.7	C1
L4		9.0	C1
L5	Oscillator reaction coils	1.5	C1
L6		5.0	C1
L7	1st I.F. trans. { Pri.	10.5	C1
L8		10.5	C1
L9	2nd I.F. trans. { Pri.	10.5	B1
L10		10.5	B1
L11	Speech coil	2.8	—
T1	O.P. trans. { Pri.	490.0	A2
		0.5	D2
S1-S8	Waveband/batt. sw.	—	D2

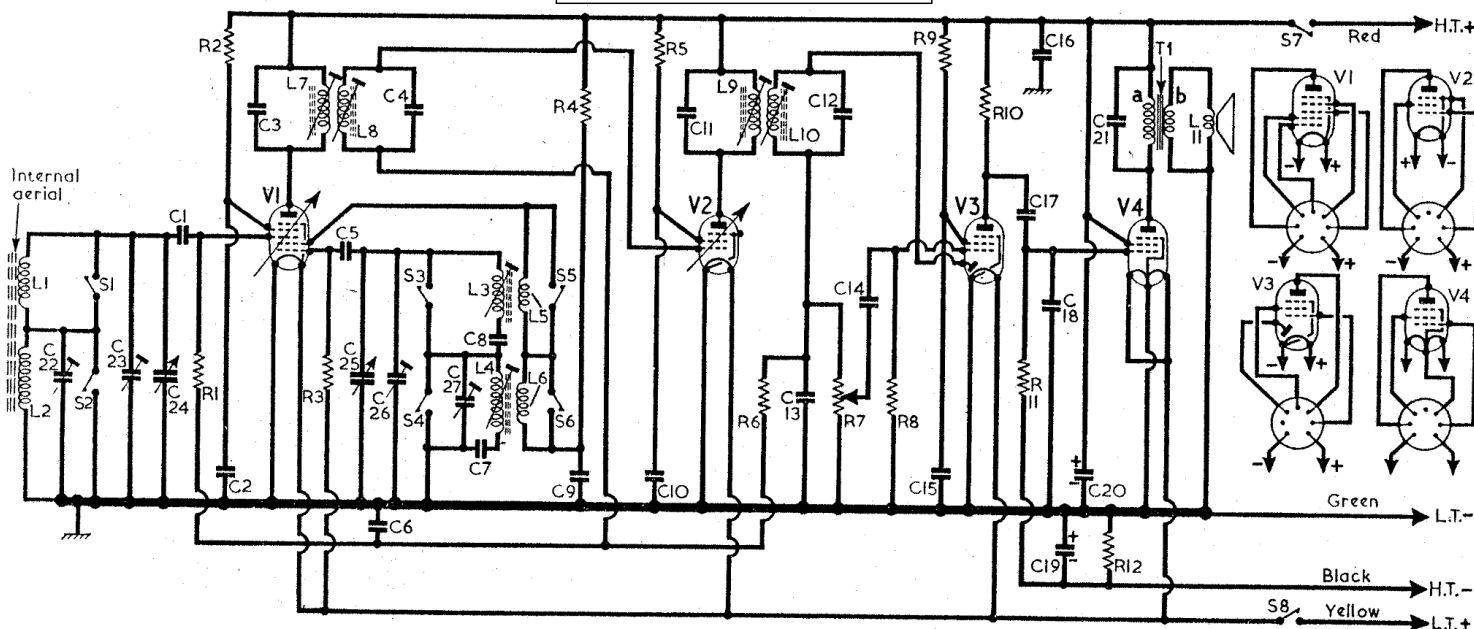
Switch Table

Switches	Off	M.W.	L.W.
S1	—	—	●
S2	—	—	—
S3	—	—	—
S4	—	—	—
S5	—	—	—
S6	—	—	—
S7	—	—	—
S8	—	—	—



Intermediate frequency 470 kc/s.

waveband/battery switch



CIRCUIT ALIGNMENT

The chassis should be removed from its carrying case to make the following adjustments accessible.

I.F. Stages.—Switch receiver to M.W. and turn gang to minimum capacitance. Connect output of signal generator to junction of C24, C1 and to chassis. Feed in a 470 kc/s (638.3m) signal and adjust the cores of L10 (location reference B1), L9 (E2), L8 (C1) and L7 (D3) for maximum output. Repeat these adjustments until no further improvement results.

R.F. and Oscillator Stages.—Check that with the gang at maximum capacitance, the cursor coincides with the high wavelength ends of the M.W. and L.W. scales. Lay the signal generator output leads close to the ferrite rod internal aerial.

M.W.—Switch receiver to M.W., tune to 550m, feed in a 550m (545.4 kc/s) signal and adjust the core of L3 (D3) for maximum output. The internal aerial coil L1 (C1) should be adjusted for maximum output at this frequency by sliding it along the ferrite rod. Tune receiver to 200m, feed in a 200m (1,500 kc/s) signal and adjust C26 (C1) and C23 (C1) for maximum output. Repeat these adjustments until no further improvement results.

L.W.—Switch receiver to L.W., tune to "Paris" on the L.W. tuning scale, feed in a 1,829m (164 kc/s) signal and adjust the core of L4 (C1) for maximum output. The internal aerial coil L2 (A1) should be adjusted for maximum output at this frequency by sliding it along the ferrite rod. Tune receiver to "Kalundborg" on L.W. tuning scale, feed in a 1,224m (245 kc/s) signal and adjust C27 (C1) and C22 (C1) for maximum output. Repeat these adjustments until no further improvement results.

Valve		Anode		Screen	
		V	mA	V	mA
V1	DK96 ...	85	0.35	73	0.2
V2	DF96 ...	31	1.55	69	0.45
V3	DAF96 ...	85	1.35	31	0.02
V4	DL96 ...	16	0.06	85	1.1