

ROBERTS - R66

Valve		Anode		Screen	
		V	mA	V	mA
V1	DK96 ...	86	0.39	75	0.12
		Oscillator			
		26	1.61		
V2	DF96 ...	86	1.5	68	0.56
V3	DAF96 ...	30	0.063	35	0.02
V4	DL96 ...	84	5.2	86	1.0
MR1	RMO ...	116*	—	—	—
MR2	FSW1392A	6.7†	—	—	—

*A.C. reading when operating from 230V mains, using 220-230V tap; "cathode" voltage 130V.

†A.C. reading, anode to anode, when operating from 230V mains; "cathode" voltage 2.6V.

Capacitors

C1	60pF	C1	20μF
C2	30pF	C1	0.001μF
C3	523pF	F3	40μF
C4	100pF	D3	40μF
C5	0.01μF	D3	2,500μF
C6	100pF	C2	2,500μF
C7	100pF	C2	2,500μF
C8	100pF	D3	
C9	523pF	F3	
C10	30pF	C1	
C11	575pF	C2	
C12	60pF	C1	
C13	195pF	C2	
C14	0.05μF	F3	
C15	0.01μF	D3	
C16	0.01μF	E3	
C17	100pF	A1	
C18	100pF	A1	
C19	100pF	F3	
C20	0.01μF	F3	
C21	0.01μF	G3	
C22	0.01μF	G3	
C23	0.01μF	G3	
C24	100pF	G4	

Resistors

R1	1MΩ	D3
R2	120kΩ	D3
R3	27kΩ	D3
R4	33kΩ	D3
R5	39kΩ	E3
R6	1MΩ	F3
R7	2.2MΩ	F3
R8	500kΩ	G3
R9	10MΩ	G3
R10	2.7MΩ	G3
R11	1MΩ	G3
R12	2.2MΩ	G3
R13	560Ω	G3
R14	3.9kΩ	F4
R15	3.9Ω	E4
R16†	5.4Ω	F4

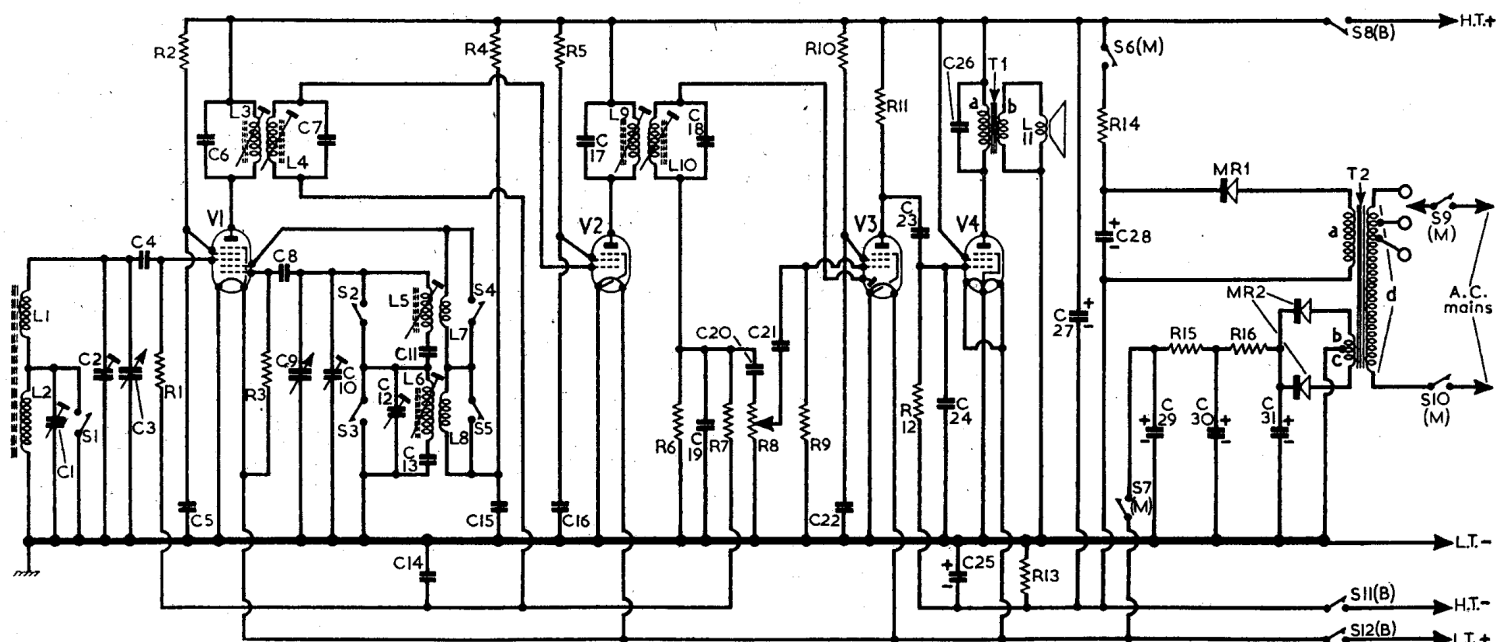
Other Components*

L1	0.65	C1
L2	8.0	A1
L3	10.6	C1
L4	10.6	C1
L5	2.3	C2
L6	7.5	C2
L7	2.0	C2
L8	5.0	C2
L9	10.6	A1
L10	10.6	A1
L11	2.8	—
T1	{ a 460.0 } b 0.4	A1
T2	{ a 195.0 } b 0.5 c 0.5 d 320.0	D4
MR1	RMO†	F4
MR2	FSW1392A†	F4
S1-S12	—	D3

*Approximate D.C. resistance in ohms.

†SenTerCel. ‡3.9-Ω resistor+1.5Ω resistance wire (see "General Notes").

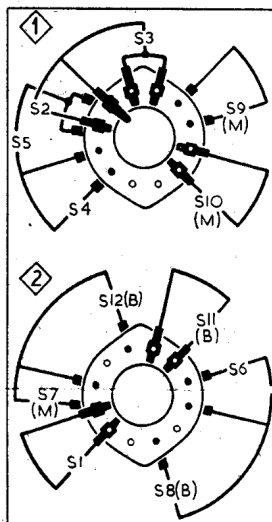
Intermediate frequency 470 kc/s.



CIRCUIT ALIGNMENT

- 1.—Remove chassis from its carrying case. Switch receiver to M.W. and turn gang to minimum capacitance.
- 2.—Connect output of signal generator to junction of C3, C4 and to chassis. Feed in a 470 kc/s signal and adjust the cores of L10 (location reference A1), L9 (F3), L4 (C2) and L3 (E3) for maximum output.
- 3.—Repeat the adjustments in operation 2 until no further improvement results.
- 4.—Check that with the gang at maximum capacitance, the cursor coincides with the high wavelength ends of the M.W. and L.W. scales.
- 5.—Disconnect the signal generator leads and lay them close to the ferrite rod internal aerial. Switch receiver to L.W. and tune it to "Paris" on the L.W. tuning scale.
- 6.—Feed in a 164 kc/s (1,829m) signal and adjust the core of L6 (D3) for maximum output. The internal aerial coil L2 (A1) should be adjusted for maximum output at this frequency by sliding the end section of the coil (location A1) along its ferrite rod.
- 7.—Tune receiver to "Kalundborg" on L.W. tuning scale, feed in a 245 kc/s (1,224m) signal and adjust C12 (C1) and C1 (location C1) for maximum output.

Diagrams of the band switch units as viewed from the rear of an inverted chassis



- 8.—Switch receiver to M.W., tune to 550m, feed in a 545.4 kc/s signal and adjust the core of L5 (C2) 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.
- 9.—Tune receiver to 200m, feed in a 1,500 kc/s signal and adjust C10 (C1) and C2 (C1) for maximum output. Repeat these adjustments, and those in operation 8, until no further improvement results.
- 10.—Switch receiver to L.W. and repeat adjustments in operations 6 and 7.

Modification.—In our sample model R16 consisted of a 3.9Ω resistor connected in series with a length of resistance wire measuring 1.5Ω. In some receivers this length of resistance wire may be omitted.