

ROBERTS - R66

Valve	Anode		Screen	
	V	mA	V	mA
V1 DK96 ...	{ 86 0.39 Oscillator 26 1.61 }		75	0.12
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
C2	30pF
C3	523pF
C4	100pF
C5	0.01μF
C6	100pF
C7	100pF
C8	100pF
C9	523pF
C10	30pF
C11	575pF
C12	60pF
C13	195pF
C14	0.05μF
C15	0.01μF
C16	0.01μF
C17	100pF
C18	100pF
C19	100pF
C20	0.01μF
C21	0.01μF
C22	0.01μF
C23	0.01μF
C24	100pF

C25	20μF
C26	0.001μF
C27	40μF
C28	40μF
C29	2,500μF
C30	2,500μF
C31	2,500μF

Resistors

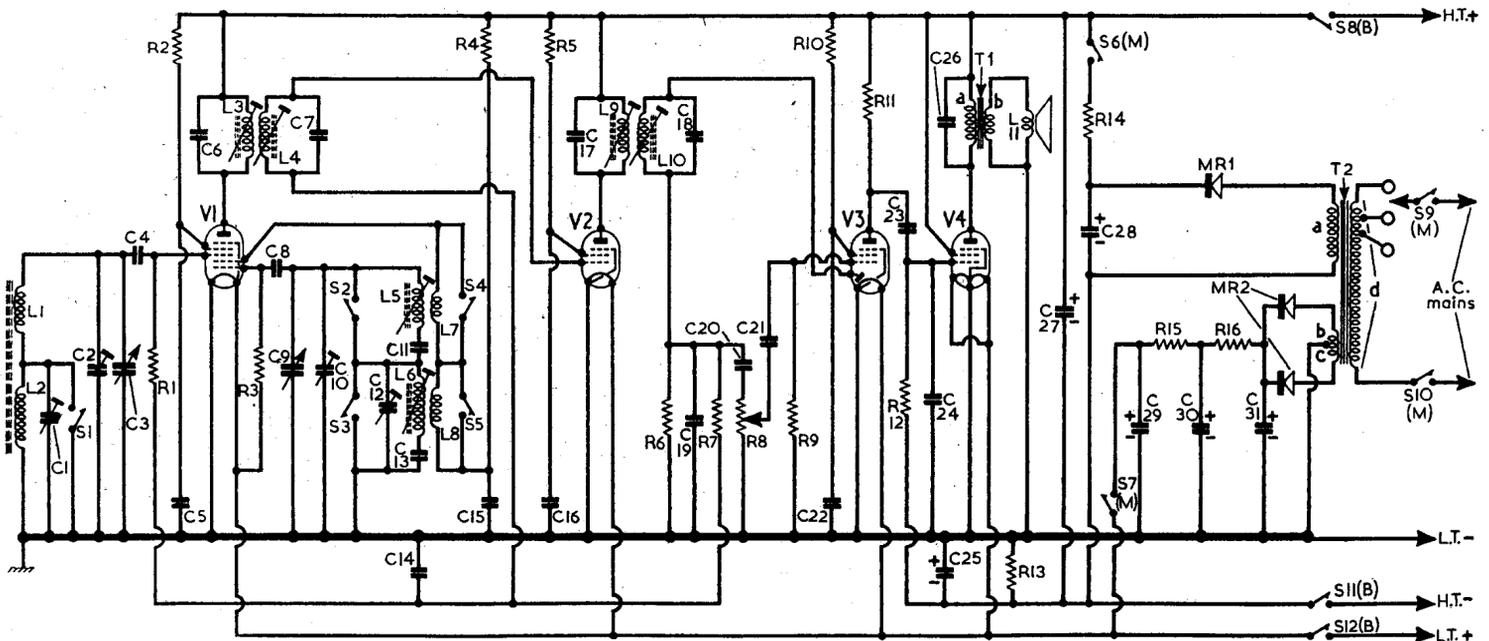
R1	1MΩ
R2	120kΩ
R3	27kΩ
R4	33kΩ
R5	39kΩ
R6	1MΩ
R7	2.2MΩ
R8	500kΩ
R9	10MΩ
R10	2.7MΩ
R11	1MΩ
R12	2.2MΩ
R13	560Ω
R14	3.9kΩ
R15	3.9kΩ
R16†	5.4Ω

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

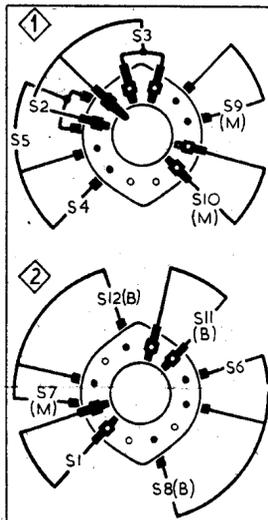
Intermediate frequency 470 kc/s.



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 G10 (C1) and G2 (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.