

CIRCUIT ALIGNMENT

I.F. Stages.—Remove chassis from cabinet. Disconnect green lead from frame aerial tags and connect the output of the signal generator, via an 0.1 μ F capacitor in the "live" lead, to green lead and to chassis. Switch receiver to L.W., feed in a 470 kc/s (688.3 m) signal and adjust the cores of L11 (location reference C2), L10 (D4), L9 (B2) and L5 (F4) for maximum output, reducing the input as the circuits come into line to avoid A.G.C. action. Repeat these adjustments until no further improvement results.

R.F. and Oscillator Stages.—Reconnect the green frame aerial lead. The following adjustments may be made with the chassis in or out of its cabinet, provided that the H.T. battery is placed in each case in its normal position relative to the frame aerial. Check that with the gang at maximum capacitance, the cursor coincides with the horizontal datum lines on the tuning scales. Transfer signal generator leads to A and E sockets on back cover, placing the cover about 12 inches from the frame aerial winding.

M.W.—Switch receiver to M.W., tune to un-numbered black calibration dot between 200 and 250 m marks, feed in a 214.3 m (1,400 kc/s) signal and adjust C21 (A1) and C18 (A1) for maximum output. Tune receiver to 500 m, feed in a 500 m (600 kc/s) signal and adjust C24 (A2) for maximum output. Repeat these adjustments, rocking the gang while adjusting C24 for optimum results.

L.W.—Switch receiver to L.W., tune to 1,700 m, feed in a 1,700 m (176.5 kc/s) signal and adjust C23 (A2) for maximum output. Tune receiver to 1,000 m, feed in a 1,000 m (300 kc/s) signal and adjust C22 (A2) and C17 (A1) for maximum output. Repeat these adjustments, rocking the gang while adjusting C23 for optimum results. Any further adjustments to M.W. should be followed by L.W. re-alignment.

EVER READY - T, K

Valve	Anode		Screen	
	V	mA	V	mA
Early Model				
V1 DK91	80	0.5	40	1.5
V2 DF91	80	2.3	47	1.0
V3 DAF91	25	<90 μ A	20	<20 μ A
V4 DL92	78	5.5	80	1.6
Late Model				
V1 DK92	84	0.5	74	0.14
	41	1.6		
V2 DF91	84	2.1	50	0.7
V3 DAF91	13	60 μ A	19	15 μ A
V4 DL94	79	6.2	84	1.3

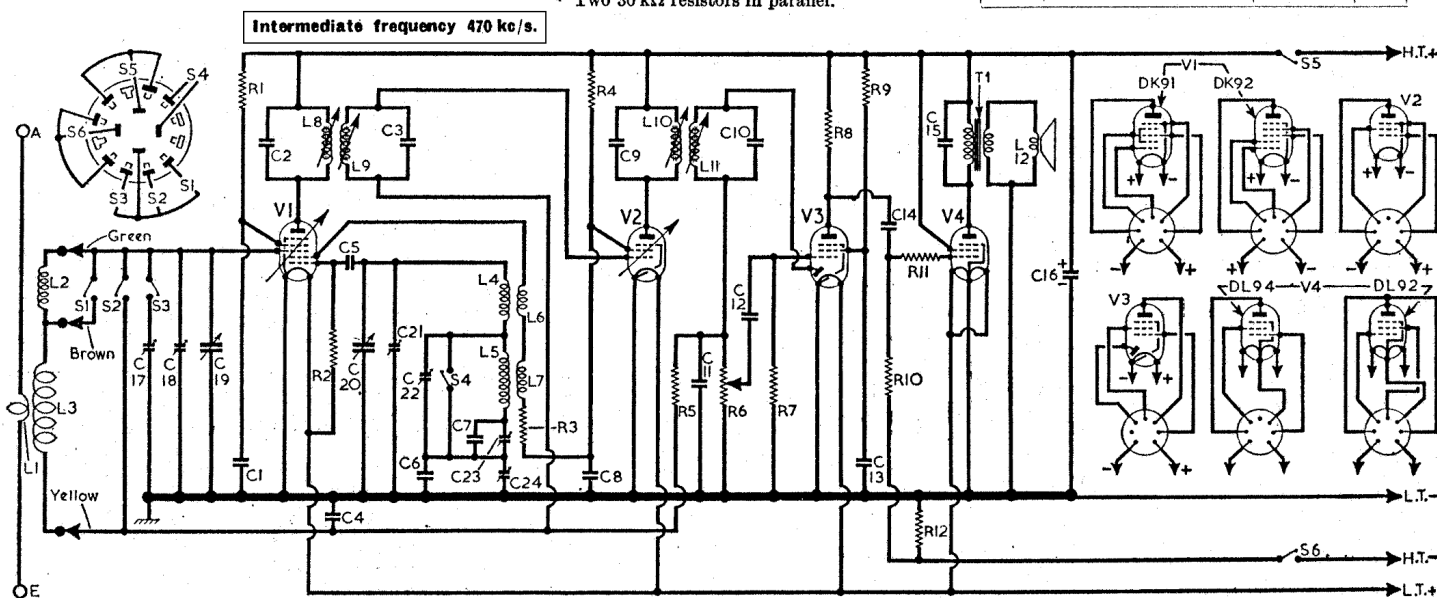
RESISTORS		Values	Locations
R1	V1 S.G. feed ...	68k Ω	F4
R2	V1 osc. C.G. ...	100k Ω	F3
R3	Osc. stabilizer ...	2.2k Ω	E4
R4	H.T. feed ...	*15k Ω	E4
R5	A.G.C. decoupling ...	2.2M Ω	E3
R6	Volume control ...	500k Ω	E3
R7	V8 C.G. ...	10M Ω	D3
R8	V3 anode load ...	1M Ω	D3
R9	V3 S.G. feed ...	4.7M Ω	D4
R10	V4 C.G. ...	4.7M Ω	D3
R11	V4 C.G. stopper ...	2.2M Ω	D3
R12	V4 G.B. ...	470 Ω	D4

* Two 30 k Ω resistors in parallel.

CAPACITORS		Values	Locations
C1	V1 S.G. decoupling	0.1 μ F	E3
C2	1st I.F. trans. {	100pF	B2
C3	tuning ...	100pF	B2
C4	A.G.C. decoupling	0.05 μ F	F4
C5	V1 osc. C.G. ...	100pF	F4
C6	M.W. osc. tracker...	450pF	G4
C7	L.W. osc. tracker...	100pF	G4
C8	S.G. and osc. decoup. ...	0.1 μ F	E4
C9	2nd I.F. trans. {	100pF	C2
C10	tuning ...	100pF	C2
C11	I.F. by-pass ...	100pF	E3
C12	A.F. coupling ...	0.001 μ F	D3
C13	V3 S.G. decoupling	0.1 μ F	D4
C14	A.F. coupling ...	0.001 μ F	D4
C15	Tone corrector ...	0.001 μ F	D3
C16*	H.T. reservoir ...	5 μ F	F3
C17†	L.W. aerial trimmer	120pF	A1
C18†	M.W. aerial trimmer	60pF	A1
C19†	Aerial tuning ...	523pF	A1
C20†	Oscillator tuning ...	523pF	A2
C21†	M.W. osc. trimmer	60pF	A1
C22†	L.W. osc. trimmer	120pF	A2
C23†	L.W. osc. tracker...	200pF	A2
C24†	M.W. osc. tracker...	200pF	A2

* Electrolytic. † Variable. ‡ Pre-set.
§ "Swing" value, min. to max.

OTHER COMPONENTS		Approx. Values (ohms)	Locations
L1	Frame aerial coup.	—	—
L2	L.W. loading coil...	8.0	—
L3	Frame aerial ...	1.5	—
L4	Oscillator tuning {	2.0	F3
L5	coils ...	4.0	F4
L6	Oscillator reaction {	3.0	F3
L7	coils ...	8.0	F4
L8	1st I.F. trans. {Pri.	8.5	B2
L9	Sec. ...	8.5	B2
L10	2nd I.F. trans. {Pri.	8.5	C2
L11	Sec. ...	8.5	C2
L12	Speech coil ...	2.5	—
T1	O.P. trans. {Pri.	480.0	B1
S1-S6	Waveband, batt. sw.	0.5	F3



Switches.—S1-S4 are the waveband switches, and S5, S6 are the battery switches, ganged in a single 3-position unit beneath the chassis. This is indicated in our underside view of the chassis and it is shown in detail inset in the circuit diagram overleaf, where it is drawn as seen from the rear of an inverted chassis.

The table below gives the switch positions for the three control settings, starting from the fully anti-clockwise position of the control knob. A dash indicates open, and C, closed.

Switches	L.W.	Off	M.W.
S1	—	—	C
S2	—	C	—
S3	—	—	—
S4	—	—	—
S5	—	—	—
S6	C	—	C

Model K was a portable receiver, but except for a small mechanical re-arrangement, the chassis and circuit are identical with those in this *Service Sheet*. Like the T, however, it has had newer valves introduced as they became available, and the modifications described for model T apply equally to it. Originally the intermediate frequency was 452 kc/s, but it has since been changed to 470 kc/s.

In this receiver, the chassis is held in position by springs and pressure from the back cover. To remove the chassis, pull the chassis from beneath with the fingers while pressing the output transformer with the thumb. The chassis will then come away complete with escutcheon and control knobs. It might be necessary to ease the frame aerial slightly (both sides) to give it a start.

Model S.Q.—This receiver uses a chassis like the latest type T receiver, including all the modifications quoted above, and is fitted with a new range of valves with low-consumption filaments (25 mA). These are Ever Ready DK96, DF96, DAF96 and DL96, and their base connections are the same as DK92, DF91, DAF91 and DL94 respectively.