

EVER READY - SKY CAPTAIN

Valve Table

Valve	Anode		Screen	
	(V)	(mA)	(V)	(mA)
V1 DK96†	84	0.38	68*	0.1
V2 DF96	84	1.45	67*	0.52
V3 DAF96	42*	0.04	28*	0.01
V4 DL96	82	5.3	84	1.0

†V1 oscillator voltage (pin 3) 32.5V, measured with a high impedance electronic voltmeter. Oscillator current 1.4 mA.

*Measured with a high input impedance electronic voltmeter.

Resistors

R1	150kΩ	B2
R2	27kΩ	C2
R3	2.2MΩ	B1
R4	47kΩ	C2
R5	33kΩ	C2
R6	1MΩ	B2
R7	39kΩ	B2
R8	47kΩ	B2
R9	2.2MΩ	B2
R10	500kΩ	A1
R11	10MΩ	B1
R12	5.6MΩ	B2
R13	1.2MΩ	B2
R14	2.2MΩ	A1
R15	560Ω	A1

Capacitors

C1	0.04μF	B2
C2	200pF	C2

C3	60pF	C2
C4	—	B1
C5	0.04μF	C2
C6	80pF	C2
C7	80pF	C2
C8	80pF	C2
C9	—	B2
C10	60pF	C2
C11	200pF	C1
C12	350pF	C2
C13	575pF	C1
C14	0.04μF	C1
C15	0.01μF	B2
C16	0.04μF	B1
C17	80pF	A2
C18	80pF	A2
C19	100pF	A2
C20	100pF	B2
C21	0.01μF	B1
C22	0.04μF	B2
C23	100pF	B2

C24	8μF	A2
C25	0.01μF	A1

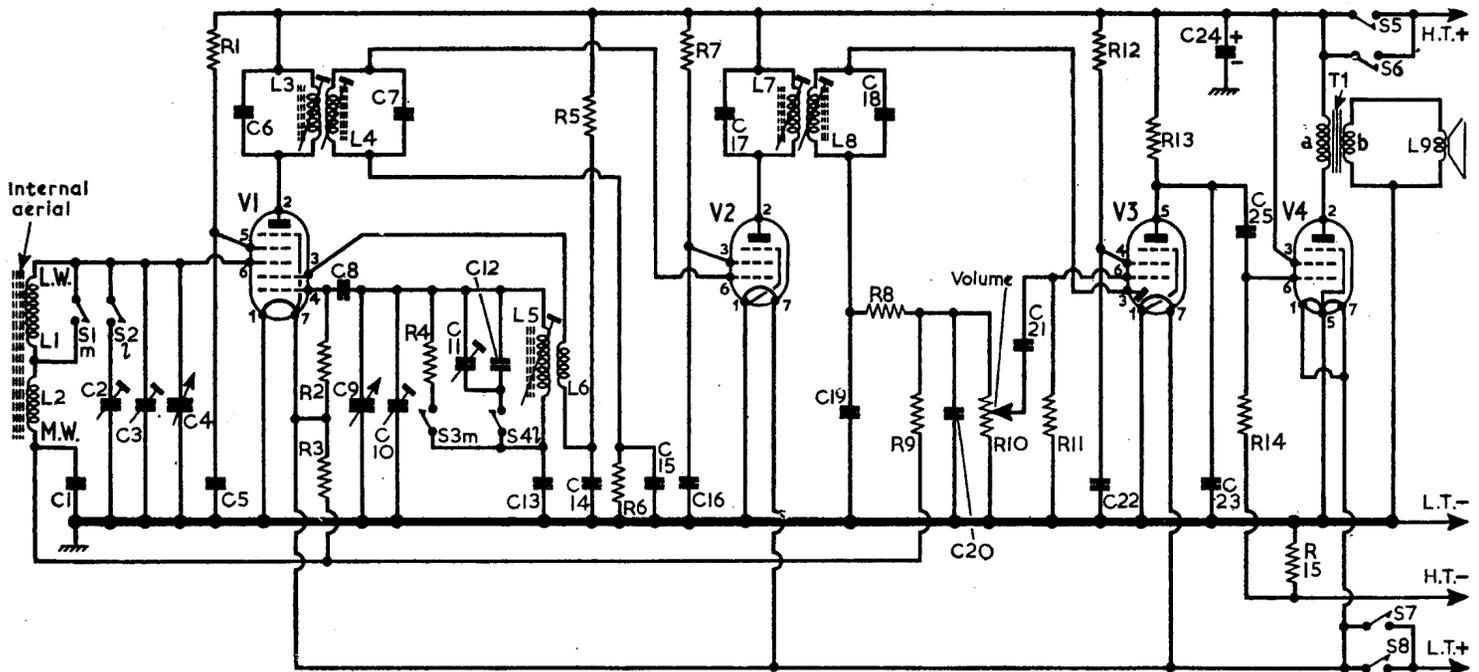
Coils*

L1	8.5	C2
L2	—	B2
L3	17.0	C2
L4	12.0	C2
L5	4.0	C1
L6	—	C1
L7	17.0	A2
L8	12.0	A2
L9	3.0	—

Miscellaneous*

T1	600-0	—
S1-S8	—	C1

*Approximate D.C. resistance in ohms.



CIRCUIT ALIGNMENT

Equipment Required.—An accurately calibrated signal generator; an audio output meter or a model 8 Avometer set to its 2.5V A.C. range; an aerial coupling coil (constructed by winding 20 turns of 24 S.W.G. wire to make a coil 2½ in long on a 4 in-diameter former), and a screwdriver-type trimming tool.

- 1.—Switch to M.W., set volume control to maximum and tuning capacitor to its fully meshed position.
- 2.—Connect the output meter (or Avometer, leaving the speaker connected or replaced by a 30hm dummy load) across the output transformer secondary winding. Connect the signal generator between the signal grid of V1 (pin 6) and chassis.
- 3.—Feed in a modulated 470kc/s signal and adjust the cores of L8, L7 (location reference A2) and L3, L4 (C2) for maximum output, reducing the input signal to the lowest convenient working level as each circuit comes into line. Where two peaks occur the one which is obtained with the core nearer the outer of the former is correct.
- 4.—Re-adjust cores for absolute maximum output.

R.F. Circuits.—It is essential that M.W. alignment is carried out before that of L.W., since the M.W. coils and trimming capacitors are also in circuit on L.W., relating L.W. adjustment to the setting of the M.W. circuits.

- 5.—Disconnect the signal generator from the receiver and connect its output leads across the coupling coil. Lay the coupling coil about two feet away from the receiver, coaxial with the ferrite rod aerial.
- 6.—Switch to M.W. and tune to 500m on scale. Feed in a 600kc/s signal and adjust L5 (C1) for maximum output.
- 7.—Tune receiver to 214m by setting the scale to the small unnumbered square on the L.F. side of 200m. Feed in a 1,400kc/s signal and adjust C10 and C3 (C2) for maximum output.
- 8.—Re-tune receiver to 500m and feed in a 600kc/s signal. Rock the tuning capacitor about the 500m mark, at the same time adjusting L5 for maximum output at 500m.
- 9.—Re-tune to 214m. Feed in a 1,400kc/s signal and re-adjust C10

and C3 for maximum output.

- 10.—Switch to L.W. and tune to the small unnumbered square on the H.F. side of 1,100m. Feed in a 280kc/s signal and adjust C11 (C2) for maximum output.
- 11.—Tune to 1,400m and feed in a 214kc/s signal. Rock the tuning capacitor about the 1,400m mark at the same time adjusting C2 (C2) for maximum output at 1,400m.

Switches.—S1-S4 are the waveband switches; S5-S8 are battery on/off switches. They are combined in a 4 pole 3 way rotary unit shown in location reference C1. A diagram of the switch contacts is shown in this column below.

Where a switch number is followed with a letter m or l, that switch closes on M.W. or L.W. respectively.

Diagram of the switch wafer as seen when looking into the rear of the receiver.

