

# EVER READY C/A, C/E

Valves	Anode		Screen	
	V	mA	V	mA
V1 DK91 ...	80	0.5	35	1.5
V2 DF91 ...	80	2.3	46	1.1
V3 DAF91 ...	*	*	*	*
V4 DL92 ...	78	5.6	80	1.3

\*Very low reading owing to high circuit resistance.

**Switches.**—S1-S5 are the band/battery switches, ganged in a single rotary unit on the control panel. The unit is indicated in the rear chassis illustration, and is shown in detail in the top left corner of the circuit diagram.

**Drive Cord Replacement.**—About sixteen inches of good quality flax fishing line, plaited and waxed, is required for a new tuning drive.

**Battery.**—This is an Ever Ready "Batrymax" type B103, whose H.T. and L.T. sections are rated at 90 V and 1.5 V respectively. A diagram of the connecting plug, as seen from the free ends of the pins, is inset in the top left corner of the circuit diagram to show the polarity of the pins.

Intermediate frequency 452 kc/s.

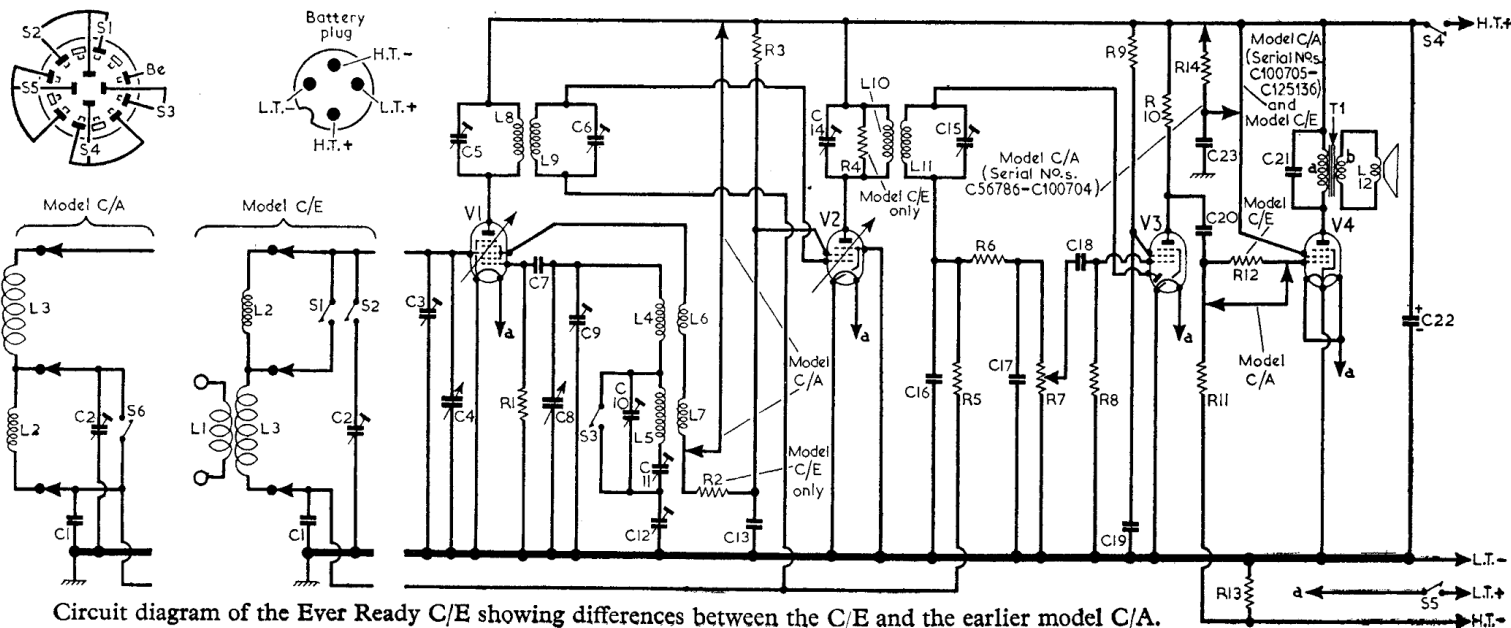
CAPACITORS		Values	Locations
C1	A.G.C. decoupling ...	0.05μF	D3
C2	L.W. aerial trim. ...	100pF	B2
C3	M.W. aerial trim. ...	50pF	A2
C4	Aerial tuning ...	444pF	A1
C5	1st I.F.T. tuning {	100pF	A2
C6		100pF	A2
C7	V1 osc. C.G. ...	100pF	A1
C8	Oscillator tuning ...	444pF	A1
C9	M.W. osc. trim. ...	50pF	B2
C10	L.W. osc. trim. ...	100pF	B2
C11	L.W. osc. tracker ...	600pF	A2
C12	M.W. osc. tracker ...	600pF	A2
C13	H.T. decoupling ...	0.01μF	D4
C14	2nd I.F.T. tuning {	100pF	B2
C15		100pF	B2
C16	I.F. by-passes {	50pF	C4
C17		50pF	C4
C18	A.F. coupling ...	0.001μF	B1
C19	V3 S.G. decoupling ...	0.1μF	C3
C20	A.F. coupling ...	0.005μF	C3
C21*	Tone corrector ...	0.005μF	A2
C22	H.T. battery by-pass ...	8 μF	B1
C23†	V4 S.G. decoupling ...	0.1μF	—

\*0.001μF in model C/A. †Model C/A (serial numbers C56786—C100704) only.

RESISTORS		Values	Locations
R1	V1 osc. C.G. ...	100kΩ	D3
R2*	Osc. anode feed ...	2.2kΩ	D4
R3†	V2 S.G. feed ...	10kΩ	D4
R4	2nd I.F.T. shunt ...	470kΩ	C4
R5	A.G.C. decoupling ...	10MΩ	C4
R6	I.F. filter ...	100kΩ	C4
R7	Volume control ...	500kΩ	B1
R8	V3 C.G. ...	10MΩ	B1
R9	V3 S.G. feed ...	4.7MΩ	C3
R10	V3 pentode load ...	1MΩ	C3
R11	V4 C.G. ...	4.7MΩ	C3
R12*	V4 C.G. stopper ...	2.2MΩ	C3
R13	V4 G.B. ...	820Ω	C3
R14†	V4 S.G. feed ...	33kΩ	—

\*Model C/E only. †68kΩ in model C/A. ‡Model C/A (serial numbers C56786—C100704) only.

OTHER COMPONENTS		Approx. Values (ohms)	Locations
L1	Aerial coupling coil	0.5	—
L2	L.W. loading coil ...	9.0	A1
L3	Frame aerial coil ...	1.0	A2
L4	Oscillator grid coils {	1.5	A1
L5		6.0	A1
L6	Osc. reaction coils {	3.0	A1
L7		9.0	A1
L8	1st I.F.T. { Pri. ...	25.0	A2
L9		25.0	A2
L10	2nd I.F.T. { Pri. ...	25.0	B2
L11		25.0	B2
L12	Speech coil ...	3.0	—
T1	O.P. trans. { a ...	500.0	B2
S1-S5	Band/batt. switches	—	A1



Circuit diagram of the Ever Ready C/E showing differences between the C/E and the earlier model C/A.

## CIRCUIT ALIGNMENT

Alignment of the receiver may be carried out with the chassis either in or out of its carrying case. When making the aerial circuit adjustments, the battery should be placed in its correct position relative to the frame aerial.

### I.F. Stages

- 1.—Connect output meter across T1 secondary winding. Connect output of signal generator between alignment point X (location reference A2) and chassis.
- 2.—Switch receiver to M.W., feed in a 452 kc/s signal and adjust C15 (B2), C14 (B2), C6 (A2) and C5 (A2) for maximum output. Reduce input as circuits come into line to avoid A.G.C. operation.
- 3.—Repeat the adjustments in operation 2 until no further improvement results.

### R.F. and Oscillator Stages

- 4.—Check that with the gang at maximum capacitance, the cursor coincides with the high wavelength ends of the tuning scales. As the alignment adjustments of the two wavebands are inter-dependent, it is important that they be adjusted in the following order.
- 5.—Connect signal generator leads to an injection loop of approximately six inches diameter and consisting of ten turns of insulated wire. Place the loop parallel to, and not less than twelve inches from, the receiver frame aerial coil.
- 6.—Switch receiver to M.W. and tune to 214 m at calibration mark between 200 m and 250 m. Feed in a 1,400 kc/s signal and adjust C9 (B2) and C3 (A2) for maximum output.
- 7.—Tune receiver to 600 m, feed in a 600 kc/s signal and adjust C12 (A2) for maximum output.

- 8.—Repeat operation 6.
- 9.—Repeat operation 7, rocking the gang while adjusting C12 to obtain optimum output.
- 10.—Switch receiver to L.W. and tune to 1,700 m. Feed in a 176.5 kc/s signal and adjust C11 (A2) for maximum output.
- 11.—Tune receiver to 1,000 m, feed in a 300 kc/s signal and adjust C10 (B2) and C2 (B2) for maximum output.
- 12.—Repeat operation 10, rocking the gang while adjusting C11 to obtain optimum results.
- 13.—Repeat operation 11. If more than a slight adjustment is necessary to either trimmer, repeat operations 10 and 11.