

# EVER-READY MODEL C

*Model C All-Dry Portable 4-valve, 2-band superhet in cream plastic cabinet. Internal aerial. Powered by Batrymax B103. Made by Ever-Ready Co. (G.B.), Ltd., Hercules Place, Holloway, London, N7.*

**CIRCUIT** consists of a pentagrid frequency changer V1, followed by an HF pentode V2 used as IF amplifier. A single diode-triode V3 is used as second detector, AVC and AF amplifier. A pentode output valve, V4, provides approximately 240 mW output.

**Aerial circuit:** Frame aerial L1 (MW) and L2 (LW), connected in series; on MW, S1 short-circuits L2. VC1 is aerial tuning capacitor; T1 is MW and T2 is LW trimmer. Aerial is coupled direct to control grid of V1 and AVC is led to grid in series with L1 and L2.

Screen voltage is obtained from R1 and decoupled by C1. Primary L7, T7 of IFT1, is in the anode circuit of V1.

Oscillator is connected in a tuned grid circuit, the windings L3 (MW), L4 (LW) being series connected. On MW, S2 short-circuits L4. VC2 is oscillator tuning capacitor; T3 and T4 are MW and LW trimmers; T5 is MW padder, T6 LW padder.

C2 is grid coupling capacitor, and R2, C2 provide leak-condenser bias for oscillator grid. The oscillator HT is supplied through the series connected anode reaction windings L5 (MW) and L6 (LW).

**IF Amplifier** operates at 452 Kc. Secondary L8, T8 of IFT1 feeds signal to grid of V2, the IF amplifier valve. AVC is fed to grid in series with secondary winding of IFT1. Screen voltage V2 is obtained direct from HT line. L9, T9, the primary of IFT2, is in the anode circuit.

**Second Detector and AVC.**—The single diode of V3 is used for signal rectification and AVC. L10, T10, the secondary of IFT2, feeds the signal to diode anode. R6, the volume control, is the diode load resistor. R5, C4, C5 form an IF filter circuit.

Only part of the rectified signal is used for AVC and R3, R4 form a potential divider for this

purpose. AVC line is taken to junction of R3, R4. C3 is a decoupler.

**AF Amplifier** is the triode section of V3. C6 feeds the signal from volume control R6 to grid of V3. R7 is grid resistor; leak-condenser bias for triode grid is obtained from R7, C6. R8 is anode load resistor and C8 is anode HF by-pass capacitor.

**Output.**—C7 feeds signal to grid V4, pentode output. R9 is grid resistor and negative bias for grid, which is developed across R10, in the HT negative return to chassis, is fed in at bottom of R9. Screen voltage V4 is obtained direct from HT line.

L11, primary of OPI, the output matching transformer, is in the anode circuit of V4. C9 provides a degree of fixed tone connection. C10 is HT bypass capacitor. L12, secondary of OPI, feeds the signal to a 6½-in. permanent magnet speaker L13.

**High Tension**, approximately 82.5V, and grid bias 7.5V, are obtained from a 90V Batrymax B103 battery. S3 is HT on/off switch.

**Low tension** of 1.5V is obtained from the same battery. S4 is the on/off switch and is connected in the LT+ lead.

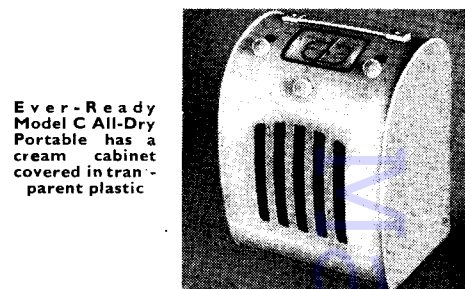
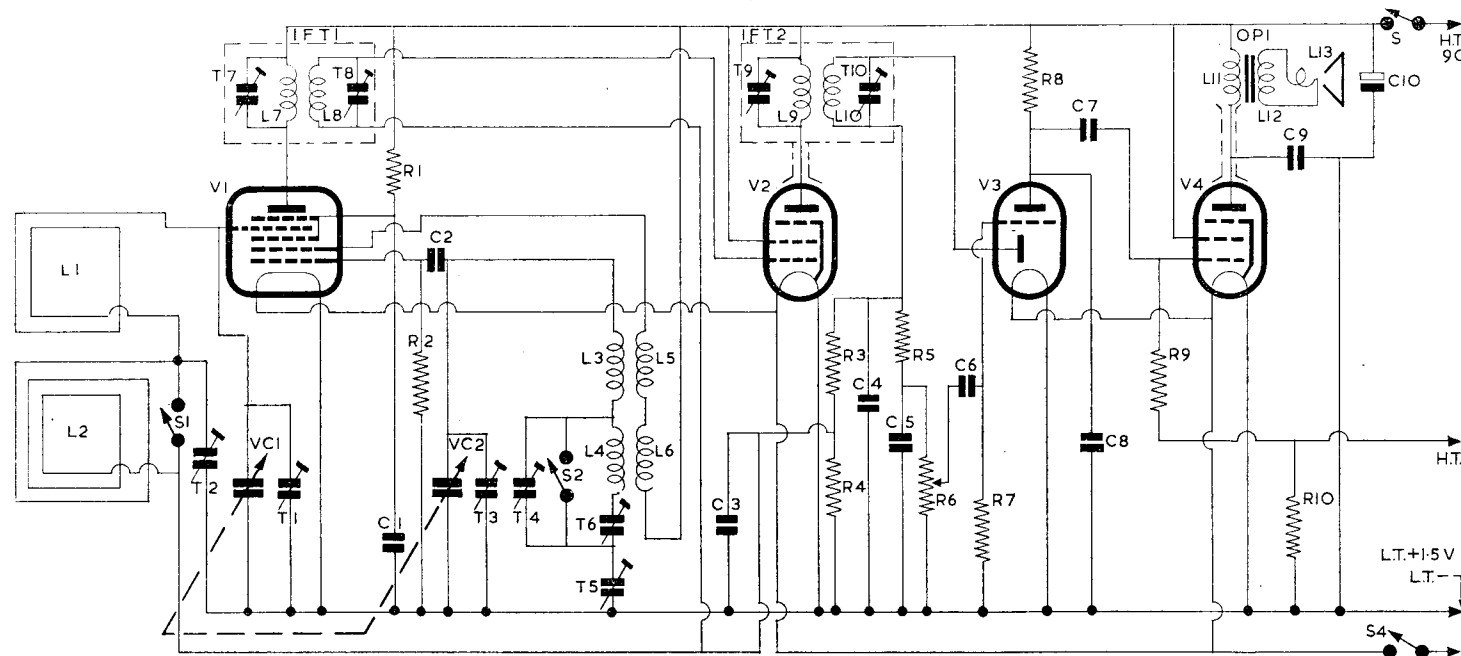
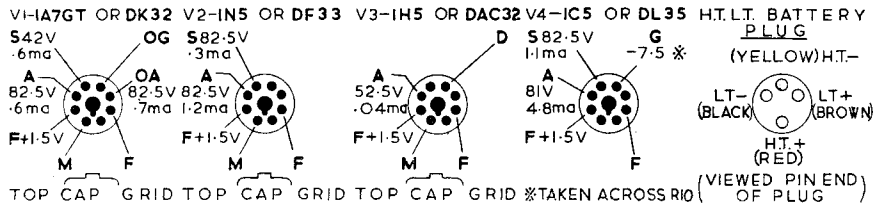
The HT and LT switches, S3 and S4, are ganged to the wave change switches S1 and S2.

**Chassis Removal.**—Remove the three control knobs, back of cabinet and battery.

Remove four wood screws holding chassis to wooden slats on sides of cabinet. (These screws are adjacent to the four frame aerial brackets.)

By holding the output transformer clamping strip the chassis may now be withdrawn. The bottom of the frame aerial must leave the cabinet first.

## CHASSIS LAY-OUT DIAGRAMS OVERLEAF



Ever-Ready Model C All-Dry Portable has a cream cabinet covered in transparent plastic

## TRIMMING INSTRUCTIONS

Apply signal as stated below	Tune set to	Trim in order stated for max. output
1) 452 Kc to top cap V1 via .01 capacitor (Short circuit VC2)	550 metres	T10, T9, T8 and T7
2) See that pointer registers with base position	500 metres	line of scale when x. capacity).
3) 1.410 Mc to frame AE via loop 12 in. from frame	Calibration mark between 200 & 250 metres	T3, T1
4) 600 Kc as above	500 metres	T5 and repeat (3) and (4)
5) 176.5 Kc as above	1700 metres	T6
6) 300 Kc as above	1000 metres	T4, T2 and repeat (5) and (6)

## RESISTORS

R	Ohms
1	68K
2	220K
3	10M
4	4.7M
5	100K
6	500K Potr.
7	10M
8	1M
9	2.2M
10	820

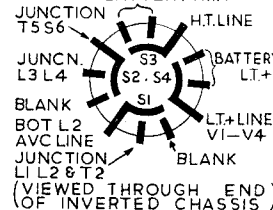
## CAPACITORS

C	Mfd
1	.01 Tubular 1000V
2	100pF Mica
3	.05 Tubular 500V
4	50pF Mica
5	50pF Mica
6	.001 Tubular 1000V
7	.005 Tubular 1000V
8	100pF Mica
9	.001 Tubular 1000V
10	8 Electrolytic 150V

## INDUCTORS

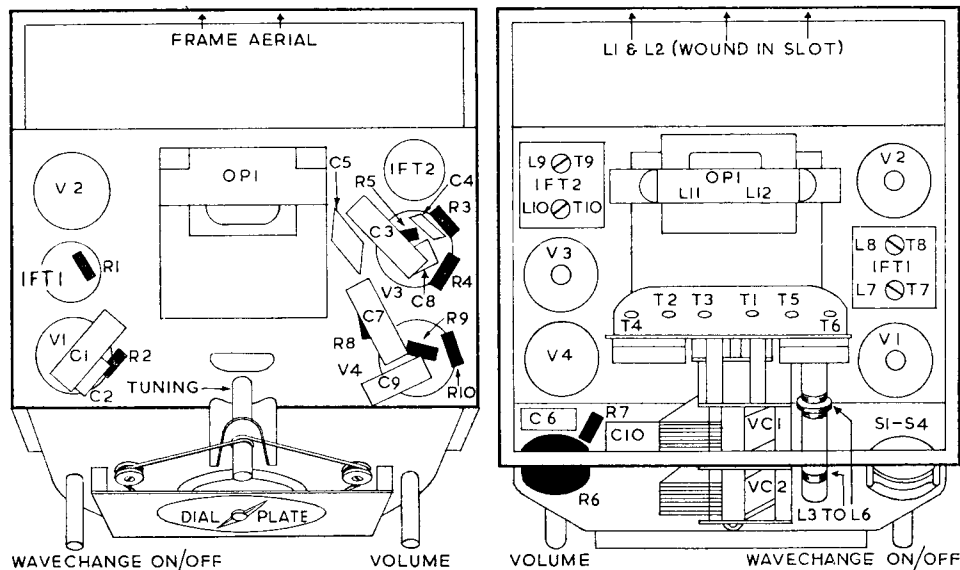
L	Ohms
1	1.4
2	21
3	2
4	5.5
5	11
6	together
7	25
8	26
9	25
10	25
11	640
12	.3
13	.3

## WAVECHANGE ON/OFF BATTERY H.T.+



LEFT: Diagram of Wavechange Switch Connections

## EVER-READY MODEL C—Chassis Layouts



## Tools for Repairing Electric Clocks



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