

**EKCO****Model UI99**

**General Description :** Five-valve (including rectifier), two-waveband, transportable A.C./D.C. receiver with built-in frame aerials and provision for three pre-selected frequencies.

**Power Supply :** A.C./D.C. mains, 110-120 and 200-250 volts (three adjustment positions).

**Wavebands :** L.W. 1000-2000 m.; M.W. 184-561 m. The three pre-selected stations may be within the following ranges : (1) 310-550 m.; (2) 245-435 m.; (3) 188-343 m.

**Intermediate Frequency :** 460 kc/s.

**Valve Analysis :** Voltage measurements taken under no-signal conditions with high-impedance testmeter. Valve-pin numbers given in brackets.

| <i>Valve</i>   | <i>Anode,<br/>Volts</i> | <i>Anode<br/>Current,<br/>mA.</i> | <i>Screen,<br/>Volts</i> | <i>Screen<br/>Current,<br/>mA.</i> |
|--|-------------------------|-----------------------------------|--------------------------|------------------------------------|
| V <sub>1</sub> UCH <sub>42</sub> . . .<br>(osc.) . . . | 135 (2)<br>78 (3)       | 2.2<br>2.1                        | 90 (5)<br>—              | 3.5<br>—                           |
| V <sub>2</sub> UF <sub>41</sub> . . .                  | 130 (2)                 | 5.7                               | 90 (5)                   | 1.7                                |
| V <sub>3</sub> UBC <sub>41</sub> . . .                 | 54 (2)                  | 0.17                              | —                        | —                                  |
| V <sub>4</sub> UL <sub>41</sub> . . .                  | 160 (2)                 | 25                                | 90 (5)                   | 18                                 |
| V <sub>5</sub> UY <sub>41</sub> . . .                  | 162 A.C. (2)            | —                                 | —                        | —                                  |

Unsmoothed H.T. 170 volts.

**Dial Lamp :** Pygmy, 15-watt, 230 volts (15-watt, 110 volts when appropriate).

**Alignment Procedure :** Note that the chassis is directly connected to one side of the mains supply. Align I.F. transformers in conventional manner, with receiver tuned to 561 m., and a 460-kc/s. signal injected between signal grid of V<sub>1</sub> and chassis via isolating capacitors in each lead. Preferably damp winding not being adjusted with 47k resistor.

**R.F. :** Chassis should be in cabinet with frame aerials in usual position relative to the chassis. Inject signals inductively via a dummy frame aerial. The pre-selected frequencies are best aligned on the required stations using the double-ended tool supplied with the receiver. The cores and trimmers are grouped in two vertical groups at the rear of the chassis, corresponding trimmer and core being in the same relative positions.

Alignment frequencies for the manual tuning ranges are :

**M.W. :** Adjust oscillator core at 500 m. (600 kc/s.). Adjust oscillator trimmer at 250 m. (1200 kc/s.).

**L.W. :** Adjust oscillator trimmer (mounted under chassis close to V<sub>1</sub>) at 1200 m. (250 kc/s.).

