

# EKCO

# Models U122, U159

**General Description :** Five-valve (including rectifier), two-waveband, transportable superheterodyne receiver in thermo-plastics cabinet.

**Power Supplies :** A.C./D.C. mains, 200-250 volts (A.C. 25-100 c/s.). An additional tapping screw can be provided for 115-volt supplies. Consumption, A.C. (240 volts) 37 watts; D.C. (222.5 volts) 32 watts.

**Wavebands :** M.W. 1560-532 kc/s.; L.W. 311-142 kc/s.

**Intermediate Frequency :** 470 kc/s.

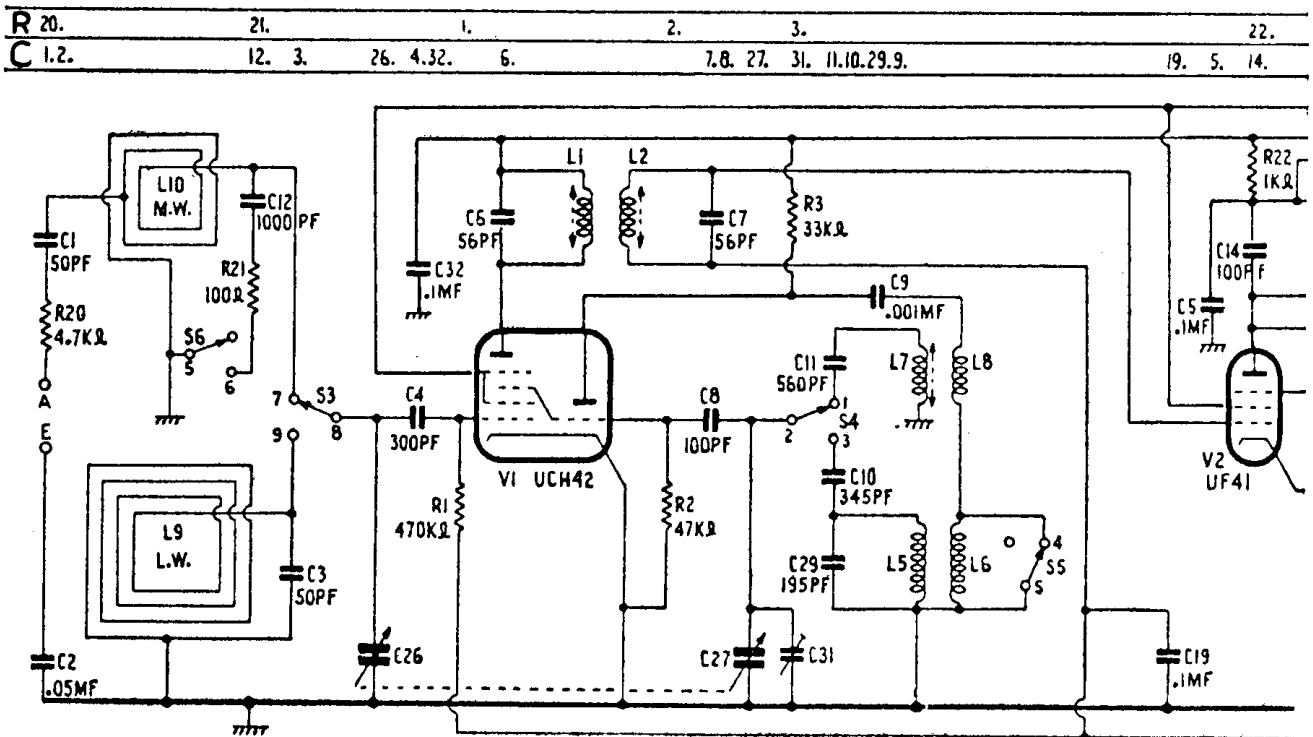
**Valve Analysis :**

**Model U122:** 225 volts A.C. input. Set tuned to 550 m., no-signal conditions. 2000-ohms/volt meter.

	<i>V<sub>a</sub></i>	<i>I<sub>a</sub></i>	<i>V<sub>g2</sub></i>	<i>I<sub>g2</sub></i>	<i>V<sub>k</sub></i>	<i>I<sub>k</sub></i>
V1 UCH42	158	2.1	76	2.0	—	6.7
V1 (osc.)	73	2.6	—	—	—	—
V2 UF41	155	4.5	76	1.25	—	5.75
V3 UBC41	76	0.7	—	—	—	0.7
V4 UL41	213	25.5	76	2.35	—	27.85
V5 UY41	215 A.C.	—	—	—	218	43.75

Bias volts across R7, 1.72; across R17, R18, 4.63.

**Notes :** Pilot lamps are rated at 6 volts, 60 mA., M.E.S. fitting. Loudspeaker impedance 3 ohms at 400 c/s. Where a plastic compound has been used to prevent vibration of the grille, it may be necessary to run a thin-bladed knife between the grille and the escutcheon to open the bond. Chassis may be "Live".

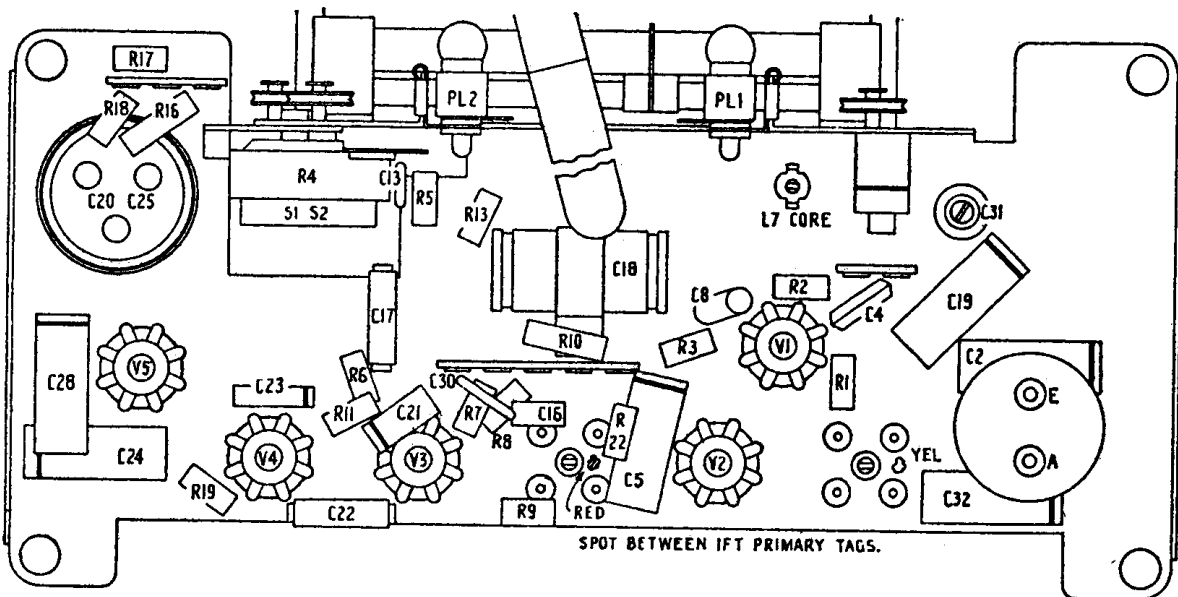


CIRCUIT DIAGRAM—

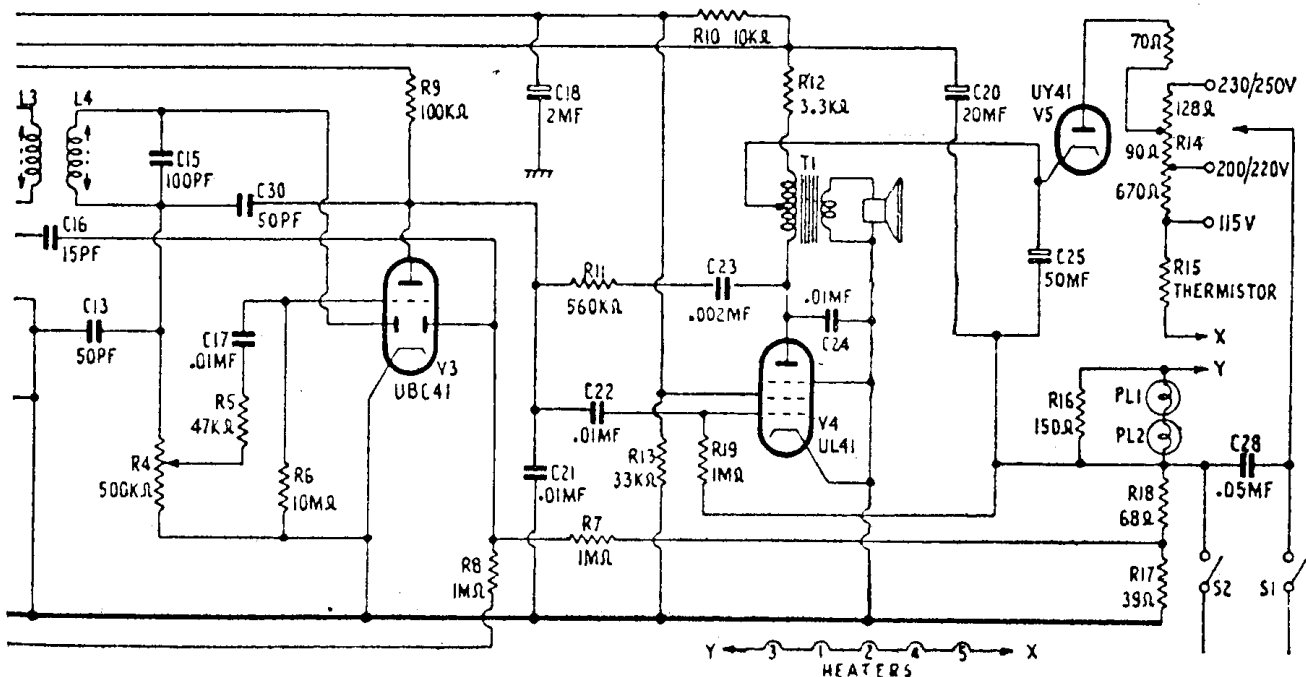
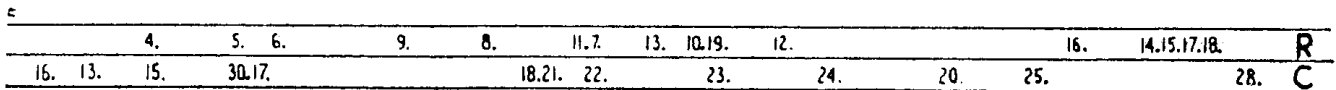
**Alignment Summary :** Correct order for I.F. alignment is : 2nd I.F.T. upper core, then lower core; 1st I.F.T. upper core, then lower core. With gang fully closed, the pointer should coincide with white mark above the "M" of "550M".

**M.W.** Inject 1200 kc/s. and adjust C<sub>31</sub>. Check that Third Programme is received at 1546 kc/s. Inject 850 kc/s. and adjust L7 core, choosing peak where most core stem is exposed. No adjustments should be necessary on L.W.

**D.C. Resistance of Components :** L<sub>1</sub>, 30 ohms; L<sub>2</sub>, 30 ohms; L<sub>3</sub>, 15 ohms; L<sub>4</sub>, 15 ohms; L<sub>5</sub>, 6.5 ohms; L<sub>6</sub>, 3 ohms; L<sub>7</sub>, 2.5 ohms; L<sub>8</sub>, 1.5 ohms; L<sub>9</sub>, 11.5 ohms; L<sub>10</sub>, 2 ohms; T<sub>1</sub> (primary), 170 + 200 ohms; T<sub>1</sub> (secondary), less than 1 ohm.



UNDER-CHASSIS VIEW



EKCO MODEL U122