

EKCO**CAR RADIO****Model CRI 17**

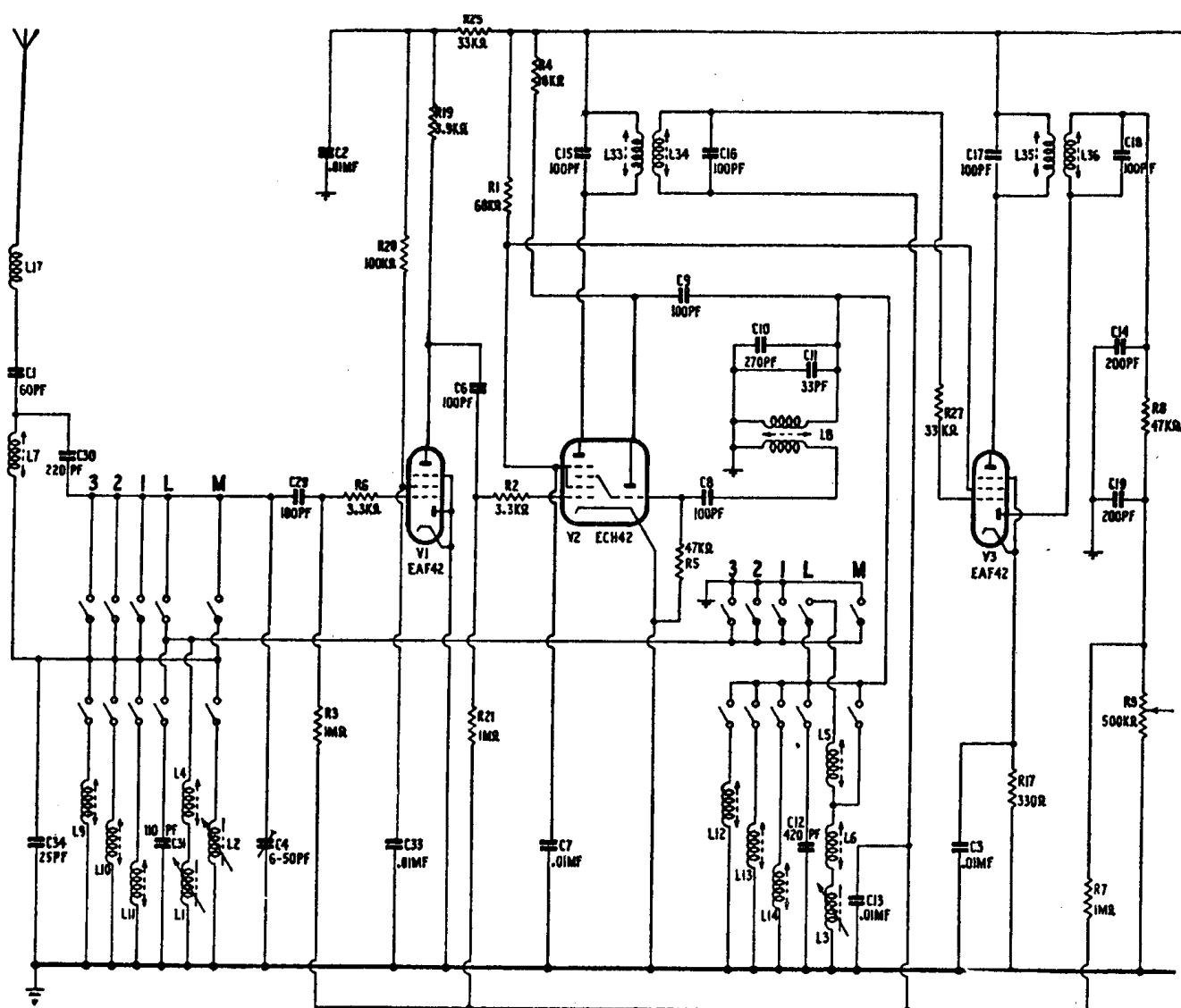
General Description : Six-valve (including rectifier), two wave-band superheterodyne receiver with non-synchronous vibrator power unit. Three pre-set M.W. positions are provided, and free tuning utilises permeability control.

Power Supply : Separate models are available for 12- and 6-volt supplies. Consumption, 12 volts, 2.7 amps., 6 volts, 4.5 amps.

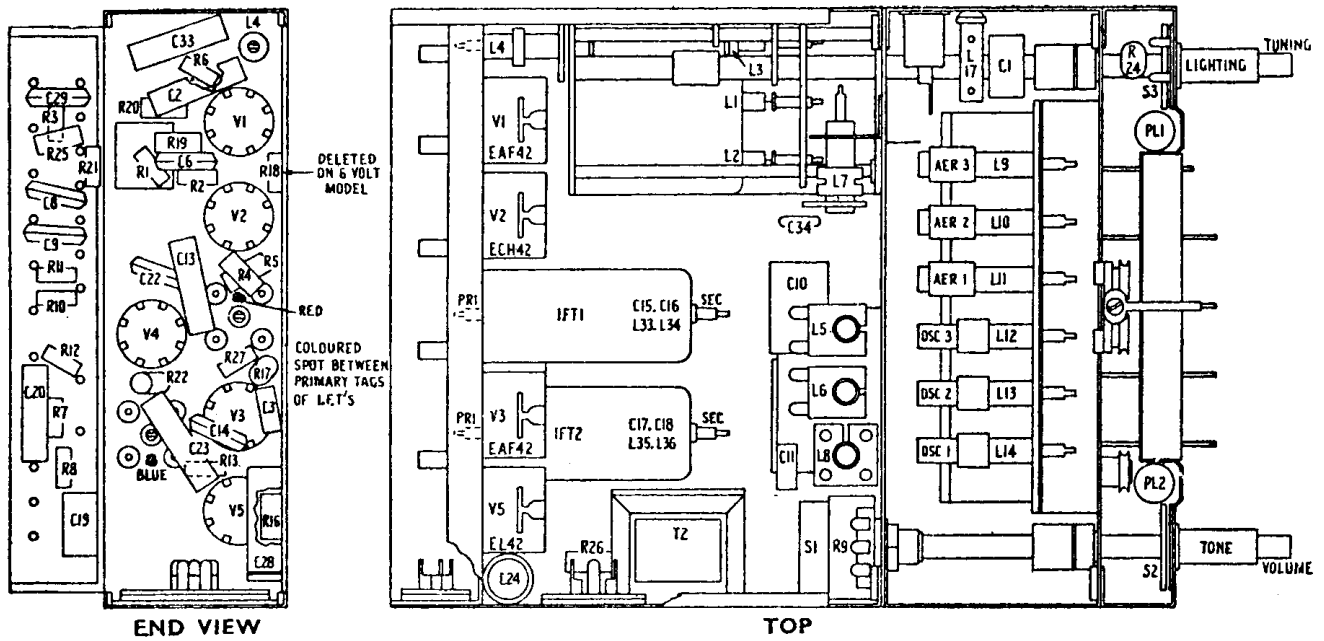
Wavebands : M.W. 190-550 m.; L.W. 1000-2000 m.; Preset 1, 325-485 m.; Preset 2, 245-485 m.; Preset 3, 200-300 m.

Intermediate Frequency : 465 kc/s.

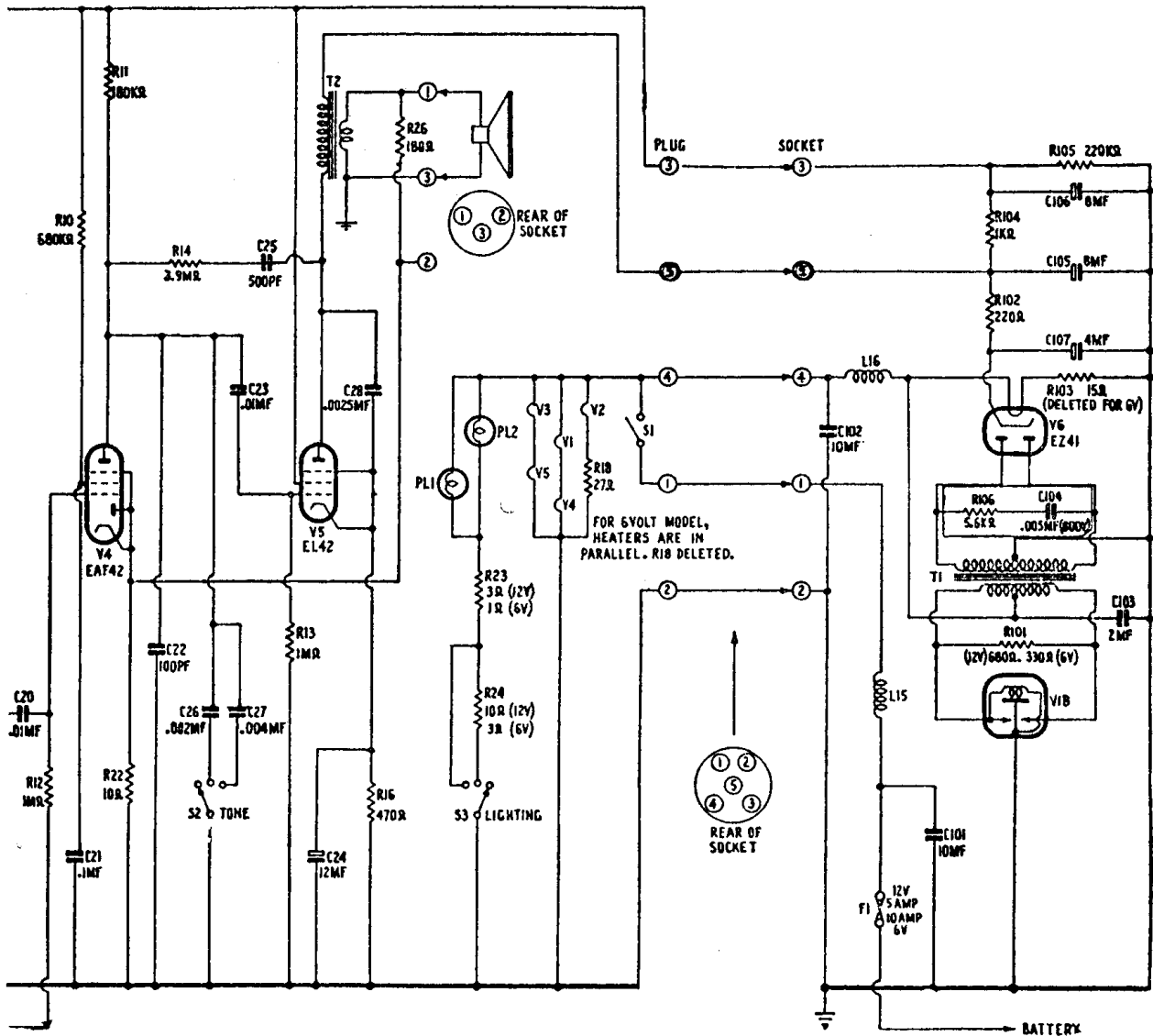
Valve Analysis : Measured with Avo Model 7. Set tuned to 550 m. under no-signal conditions.



CIRCUIT DIAGRAM—



CHASSIS LAYOUT VIEWS



EKCO CAR RADIO MODEL CR117

		V_a	I_a	V_{g2}	I_{g2}	V_k	I_k
V ₁	EF41	125	2.5	64	0.8	—	3.3
V ₂	ECH42	258	2.75	77	2.0	—	10.85
V ₂	(osc.)	137	6.1	—	—	—	—
V ₃	EAF42	258	2.0	77	0.2	0.7	2.2
V ₄	EAF42	60	5.5	32	0.2	—	5.7
V ₅	EL42	270	26.0	258	3.1	13.7	29.1
V ₆	EZ41	310 A.C.	—	—	—	280	45.0

Notes : The tuning variometer for free tuning on M.W. and L.W. comprises separate M.W. and L.W. aerial coils and a common oscillator coil which is loaded by L₅ when used on L.W. The cores are mechanically coupled so that they move in tandem.

12-volt models : fuses, 5 amp.; pilot lamps, 12 volts, 2.2 W.; vibrator, Part No. C19878.

6-volt models : fuses, 10 amp.; pilot lamps, 6 volts, 0.3 amp.; vibrator, Part No. C19940.

Alignment Procedure : To assist alignment a flexible trimming tool should be made from a length of spring curtain-rod with a tip formed from $\frac{1}{8}$ -in. tubing partly flattened. I.F. alignment follows conventional practice.

M.W.: Check that the variometer cores are $\frac{3}{8}$ in. from carrier plate. Set to 6 turns from fully clockwise of tuning knob, then inject 590-kc/s. signal to grid of V₂ via 0.1- μ F. and adjust core of L₈. Set to $\frac{1}{2}$ turn and adjust core of L₆ at 1525 kc/s. Set to $2\frac{1}{2}$ turns and adjust core of L₃ at 1015 kc/s. Repeat these operations until no further improvement occurs. Inject 590-kc/s. signal to aerial socket via 60-pF. capacitor. Set knob to 6 turns and adjust C₄. Set to $2\frac{1}{2}$ turns and adjust core of L₂ at 1015 kc/s. Set to $2\frac{1}{2}$ turns, inject 465-kc/s. signal and adjust core of I.F. filter (L₇) for minimum output.

L.W.: Inject 260-kc/s. signal to grid of V₂, set knob to 2 turns and adjust core of L₅. Inject 260-kc/s. signal to aerial socket via 60-pF. capacitor and adjust core of L₄. Tune to and inject 180-kc/s. signal, adjust core of L₁.

Note : To ensure correct tracking when the receiver is assembled into its case, it is necessary to fit a screening plate on the underside of the chassis during alignment.

Circuit Variations : In later models C₄ is 4-40 pF. (12-volt and 6-volt receivers) and C₁₀₂ is 2 μ F. (12-volt receiver only).

D.C. Resistance of Components : L₁, 22 ohms; L₂, 10.5 ohms; L₃, 1.4 ohms; L₄, 17 ohms; L₅, 4.5 ohms; L₆, 0.6 ohms; L₇, 24 ohms; L₈, 7.7 + 6.8 ohms; L₉, 7.5 ohms; L₁₀, 9 ohms; L₁₁, 21.5 ohms; L₁₂, 1.0 ohm; L₁₃, 1.4 ohms; L₁₄, 1.6 ohms; L₁₅, 0.04 ohms; L₁₆, 0.03 ohms; L₁₇, 2.7 ohms; L₃₃, 14.65 ohms; L₃₄, 14.65 ohms; L₃₅, 14.65 ohms; L₃₆, 14.65 ohms; T₁, 12-volt models, primary, 0.56 + 0.56 ohms; secondary, 330 + 520 ohms; T₁, 6-volt models, primary, 0.14 + 0.15 ohms; secondary, 330 + 520 ohms; T₂, primary, 404 ohms; T₂, secondary, 0.172 ohms.