

K-B**Models FR10, ER10, DR10**

General Description : Five-valve (including rectifier), three-waveband superheterodyne receiver. Released: DR10 October 1948; ER10 May 1949; FR10 June 1950.

Power Supply : A.C. mains, 200–250 volts, 40–100 c/s. Consumption 48 watts.

Wavebands : L.W. 740–2100 m. (410–142 kc/s.); M.W. 187–585 m. (1610–570 kc/s.); S.W. 16.3–51 m. (18.4–5.9 Mc/s.).

Output : 3 watts. Sockets are provided for a 2–4-ohm-impedance external loudspeaker. Internal 8-in. speaker may be disconnected by means of screw switch.

Intermediate Frequency : 465 kc/s.

Valves : Brimar (V₁) 6K8GT; (V₂) 6K7GT; (V₃) 6Q7GT; (V₄) 6V6GT; (V₅) 6X5GT.

Dial Lights : Two 6.5 volts, 0.3 amp. M.E.S. fitting.

Inductor Colour Coding : S.W. aerial—red, blue; S.W. osc.—red, violet; M.W. aerial—red, red; M.W. osc.—red, orange; L.W. aerial—red, yellow; L.W. osc.—red, green.

Alignment Procedure : Operations must be carried out in the order indicated. The tuning pointer should be set to the datum mark with the gang fully in mesh.

Operation	Circuits	Signal Generator Connection	Input Signal	Tuning Pointer*	Adjust for Maximum Response
1	I.F.	Grid of V ₁ via 0.1- μ F. capacitor	465 kc/s.	M.W. datum	L ₁₄ , L ₁₃ , L ₁₂ and L ₁₁
2	M.W.	Aerial socket via dummy aerial	600 k/cs.	500-m. mark	Core L8
3	—	—	1400 kc/s.	214-m. mark	T ₄ , T ₂
4	L.W.	—	175 kc/s.	1714-m. mark	Cores L ₉ , L ₄
5	S.W.	—	6 Mc/s.	50-m. mark	Core L ₇
6	—	—	15 Mc/s.	20-m. mark	T ₃ , T ₁

* Calibration lines are marked on the scale back-plate; only the centre pointer is used in reference to these marks.

Notes : The gang should be rocked slightly whilst finally adjusting the aerial trimmers. The operations for each waveband should be successively repeated until scale accuracy and maximum sensitivity have been attained. M.W. adjustments should be re-checked after L.W. alignment. The oscillator operates at a higher frequency than the input signal (lesser capacitance position of T₃ on S.W. alignment).

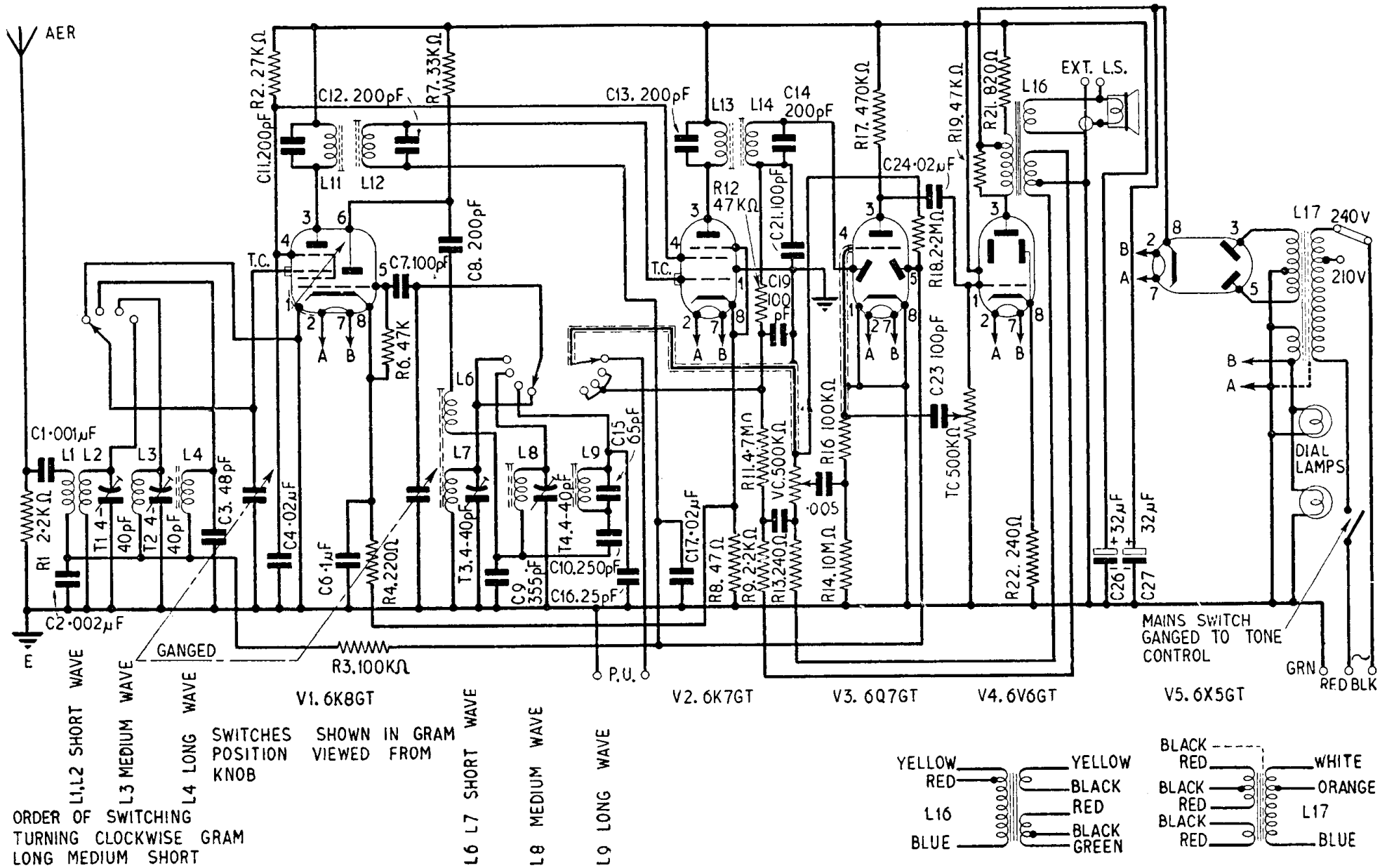
Voltage Chart : The following readings, which should be regarded as approximate, were taken with band switch in M.W. position with volume control at minimum gain. Mains input 225 volts with adjustment tapping at 240 volts. No aerial or earth connected. Total mains current 215 mA.* Total H.T. current 70 mA. Voltage across smoothing resistor, R₂₁, 20 volts.

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K-B—MODELS FR₁₀, ER₁₀, DR₁₀ (continued from page 474).

Valve	Volts Measured between Socket and Chassis							
	Pin 1	2	3	4	5	6	7	8
V ₁	E	E	260	97	—	114	6.3 *	2.5
V ₂	E	E	260	97	0.9	—	6.3 *	0.9
V ₃	E	E	46	—	—	—	6.3 *	E
V ₄	—	E	244	260	—	—	6.3 *	11.5
V ₅	—	6.3 *	265 *	—	265 *	—	—	280

* A.C. measurements.



CIRCUIT DIAGRAMS—K-B MODELS FR10, ER10, DR10