

ADVANCE TECHNICAL INFORMATION.

K.B. 515 3 VALVE ALL WAVE T.R.F. A.C. RECEIVER.

KB515

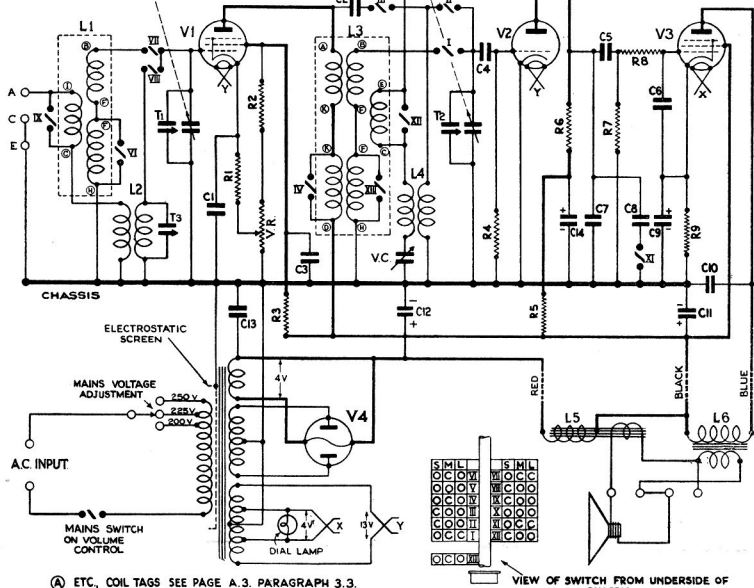
1. GENERAL.

This receiver is designed to operate upon mains supplies between 188 and 265 volts, A.C. ONLY, 40 to 60 c.p.s. The power consumption is approximately 60 watts.

2. CIRCUIT DIAGRAM

3. KEY TO

CIRCUIT DIAGRAM



Resistances

R1.	300 ohms.
R2.	15,000 ohms.
R3.	25,000 ohms.
R4.	2 megohms.
R5.	10,000 ohms.
R6.	25,000 ohms.
R7.	250,000 ohms.
R8.	100,000 ohms.
R9.	150 ohms.
VR	10,000 ohms.

Condensers

C 1.	0.1 microfarad
C 2.	0.00005 "
C 3.	0.1 "
C 4.	0.0001 "
C 5.	0.05 "
C 6.	0.0005 "
C 7.	0.0001 "
C 8.	0.001 "
C 9.	25 " (Elect.)
C10.	0.003 " "
C11.	8 " "
C12.	8 " "
VC.	0.0003 " "

C1 and C3 are in a single block.
R4 and C4 are mounted on L3 coil assembly.
C11, C12 and C14 are in a single block.

(A) ETC, COIL TAGS SEE PAGE A.3. PARAGRAPH 3.3.

VIEW OF SWITCH FROM UNDERSIDE OF CHASSIS.

4. APPROVED VALVES

Type	Brimar
V1	H.F. Pentode 9.D.2
V2	Triode Detector 4.D.1
V3	Output Pentode 7.A.3
V4	Rectifier R.2

5. VOLTAGE AND CURRENTS

Volts measured with a 1,000 ohms per volt instrument.

	Voltage between chassis and :			Current in m.a.	
	Anode	Priming Grid	Cathode	Anode	Priming Grid
V1	212	80	4-48*	11-0*	2-0*
V2	107	—	0	4	—
V3	212	215	5½	34	4½
V4	Voltage across C12. 350				

*Depending upon setting of volume control.

6. RESISTANCES OF COILS

Coil	Winding	Tags	Resistances	
L1	Aerial coupling	I.C.	11 ohms	
		B.F.	3 ohms	
		F.H.	10 ohms	
L3	Anode M.W.	A.K.	7 ohms	
		.. L.W.	K.D.	16 ohms
		Grid M.W.	B.F.	4 ohms
		.. L.W.	F.H.	10 ohms
		Reaction	E.C.	4 ohms
L5	Field	—	1,700 ohms	
L6	Primary	—	400 ohms	
L2 & L4	S.W. Coils		Nearly zero when average ohmmeter is used.	

7. CIRCUIT ALIGNMENT

Adjust, if necessary, the pointer on the gang condenser spindle to line up with the datum mark (horizontally) when the condenser is fully closed. The volume control should be turned fully clockwise and the reaction condenser fully counterclockwise.

Then turn the condenser until the pointer indicates 214 metres (1,400 Kc/s.).

With the aid of a signal generator adjusted to the above frequency, and an output meter, trim T1 and T3 trimmers until maximum output is indicated.

When trimmed in the above manner the calibration is correct for "L" and "M" wavebands.

To trim the S.W. circuits for maximum sensitivity, adjust a signal generator to 20 metres, turn the receiver volume control (VR) to its maximum position and advance the sensitivity control (VC) until the receiver is almost oscillating and tune the receiver so that the signal is indicated on an output meter. Then turn the tuning control a small distance either way, at the same time adjusting T2, until the maximum output is indicated.