

ADVANCE TECHNICAL INFORMATION.

K.B. 525 3 VALVE ALL-WAVE T.R.F. D.C./A.C. RECEIVER.

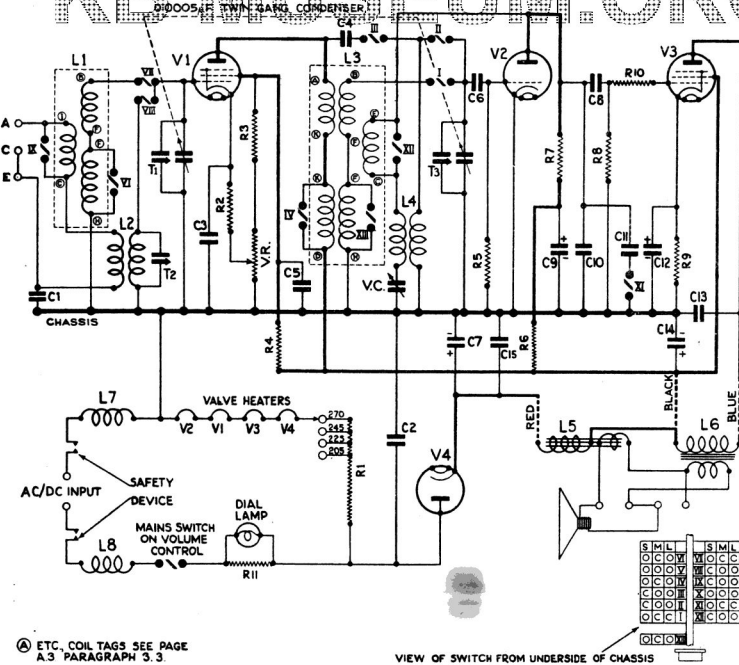
KB 525

1. GENERAL.

This receiver is designed to operate upon mains supplies between 195 and 280 volts, either A.C. or D.C.
The power consumption is approximately 67 watts.

2. CIRCUIT DIAGRAM

3. KEY TO CIRCUIT DIAGRAM



- Condensers**
- C 1. 0.01 microfarad
 - C 2. 0.01 "
 - C 3. 0.1 "
 - C 4. 0.00005 "
 - C 5. 0.1 "
 - C 6. 0.0001 "
 - C 7. 8 "
 - C 8. 0.05 " (Elect.)
 - C 9. 2 "
 - C10. 0.0001 "
 - C11. 0.001 "
 - C12. 25 "
 - C13. 0.003 "
 - C14. 8 "
 - C15. 0.1 "
 - VC. 0.0003 "

- Resistances**
- R1. ... 850 ohms.
 - R2. ... 300 ohms.
 - R3. ... 15,000 ohms.
 - R4. ... 15,000 ohms.
 - R5. ... 2 megohms.
 - R6. ... 10,000 ohms.
 - R7. ... 25,000 ohms.
 - R8. ... 250,000 ohms.
 - R9. ... 150 ohms.
 - R10. ... 100,000 ohms.
 - R11. ... 36 ohms.
 - VR. ... 10,000 ohms.

Note—C6 and R5 are built into coil assembly L3.
C5 and C3 are supplied as a single block. C7, C9 and C14 are supplied as a single block.
R11 is wound on R1 former.

Ⓐ ETC. COIL TAGS SEE PAGE A3 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.D.6
V4	Rectifier	1.D.5

5. VOLTAGE AND CURRENTS

Volts measured with a 1,000 ohms per volt instrument.
225 volts A.C. applied to the 225 volt tapping with volume control in its maximum position.

	Voltage between chassis and :			Current in m.a.	
	Anode	Priming Grid	Cathode	Anode	Priming Grid
V1	170v	70v	1.8v	4.6	1.4
V2	75v	—	0v	3.2	—
V3	160v	175v	4.0v	22.5	4.0
V4	—	—	—	40.0	—

6. COIL RESISTANCES

Coil	Winding	Tags	Resistances
L1	Aerial coupling	I.C.	11 ohms
	M.W.	B.F.	3 ohms
	L.W.	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			1,700 ohms
L6	Primary		400 ohms
L2 & L4	S.W. Coils		Sensibly zero resistance

7. ALIGNMENT OF CIRCUITS

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