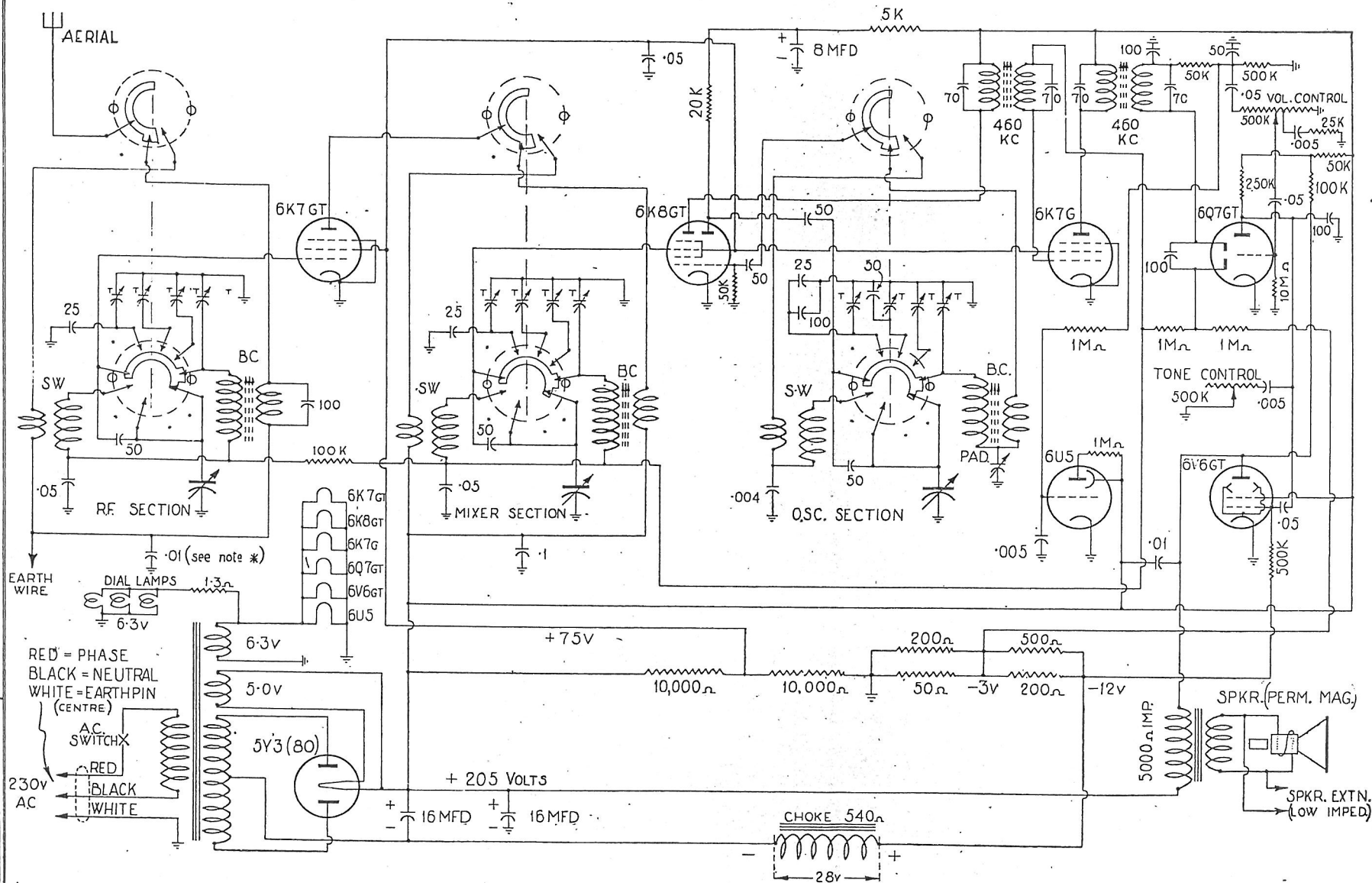


SCHEMATIC DIAGRAM 7 VALVE BANDSPREAD MODEL R.C. 1946

DRAWN BY J. L. R. J. O. L. C.
CHECKED R. J. O. L. C.
APPROVED R. J. O. L. C.



NOTES:— Tone Controls in Early Production have 50K Resistance with .05MFD from Plate of 6V6GT.

*To Use a Balanced Dipole Antenna for S.W., Remove .01 Condenser. If a Good Separate Earth Connection is used, this Condenser may be Omitted to Advantage on all Bands including Broadcast.

The Letter K following a Resistor Value means Thousands. For instance, 500K ~ 500,000 ohms. M Ω — Megohm.

Figures such as 25, 50, 100 against condensers mean M.M.F.

Bandswitches are shown in Broadcast Position & Rotate Counterclockwise from there

If an attempt is made at alignment with the oscillator freq. on the wrong side of the signal the receiver will not track correctly over the scale.

In making the above adjustments without suitable instruments, noise or outside interference is chosen as a ready means of obtaining some "signal" covering the entire waveband. There might be occasions when there is little actual interference available on some of the bands. Under these conditions, the volume control should be turned to the maximum volume position and the valve "hiss" made use of. This may be peaked as above on the mixer trimmer, although more care is necessary in setting the R.F. trimmer by this means.

SERVICING THE TUNING UNIT:

Should it become necessary to service the Tuning Unit, for instance, to remove a coil, it will be found that all parts are readily accessible, as follows:

To examine the coils, the cans on the top of the unit may be removed by unscrewing them approximately one quarter turn anticlockwise.

To remove a coil, access to the soldered connections on the under side may be had by removing the two bolts holding the corresponding trimmer bracket to the base of the Unit, whereupon the whole trimmer assembly may be lifted over out of the way without unsoldering wires to the trimmers.

If it is desired to remove the whole Tuning Unit from the set, this may be done by first disconnecting the few wires joining the unit to the rest of the receiver and then removing the six bolts holding the whole unit into the chassis.

SENSITIVITY READINGS (7-valve):

The following readings are average values for the 7-valve model and may be taken as a guide for those servicemen who possess suitable Signal Generator equipment.

Modulation in every case is 30 per cent. at 400 C.P.S. for an output of 50 milliwatts.

(INTERMEDIATE FREQUENCY 460 kc/s)

Control Grid of 6K8 ... 100 microvolts
Control Grid of 6K7 (I.F.) ... 5000 microvolts

BROADCAST BAND (Generator connected through standard B.C. dummy antenna)

1500 kc/s ... 7 microvolts
900 kc/s ... 5 microvolts
600 kc/s ... 4 microvolts

SHORT WAVES (Generator connected through a non-inductive resistor of 400 ohms)

16 mc/s	..	..	17 microvolts
12 mc/s	..	..	17 microvolts
10 mc/s	..	..	20 microvolts
8 mc/s	..	..	35 microvolts
6 mc/s	..	..	75 microvolts

CIRCUIT VOLTAGES:

Voltages appearing at various parts of the receiver are indicated on the circuit diagrams, as also are resistances of windings where these might be of service.

AERIAL CIRCUIT:

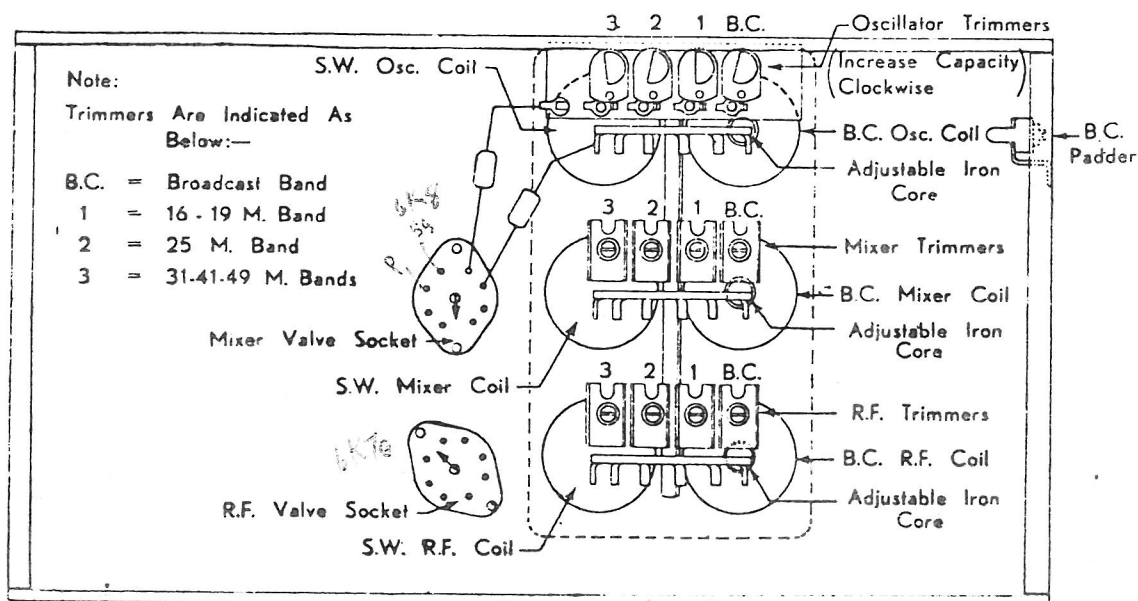
The aerial circuit of the receiver through to earth is completely insulated from the chassis except through a .01 m.f.d. condenser. This is done to prevent any accidental connection causing the aerial to become alive. It should also eliminate possible damage to aerial windings.

EXTENSION SPEAKER:

Extension speaker jacks are fitted to the rear of the receiver and are paralleled on the main speaker voice coil. Care should be taken in fitting extension speakers that the transformer is not left connected into the extension end. Connection is intended to be made directly to the voice coil which may have any common value of resistance. This method ensures less distortion at the extension end. Also, fewer components are required when fitting an extension speaker to the set. Quite long leads may be run, provided the connecting wires are not finer than about 20 gauge S.W.G.

EXAMINING THE CHASSIS:

A word of warning is necessary when the chassis is removed from the cabinet for examination. Do not turn the chassis on its back unless the gang condenser is first fully meshed. Damage to the rear section can result unless this precaution is taken. A prop under the dial support will avoid this possibility.



RC (1946) (Cromwell)
1946-41? Horn model? FA?