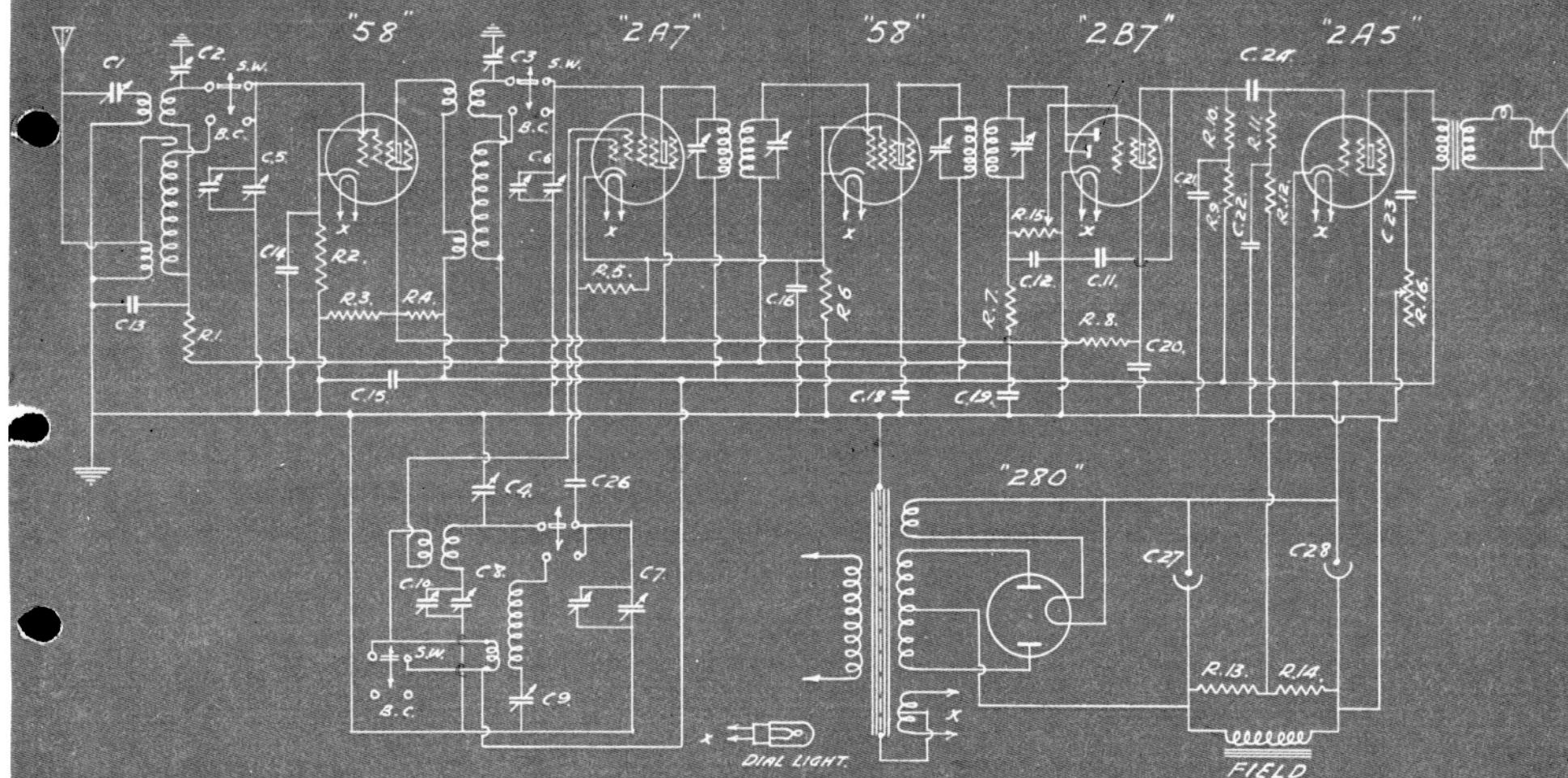


TYPE 6.L.S. RECEIVER.



TF 225 K.C.

TYPE 6 L.S. BROADCAST & SHORT WAVE RECEIVER.

Technical Details.

Type 6 L.S. Receiver uses 6 valves in the following arrangement. :-

One type 58	R.F. Amplifier.
One type 2A7	Oscillator & 1st. Detector.
One type 58	I.F. Amplifier.
One type 2B7	Diode Detector & Audio Amplifier.
One type 2A5	Power Amplifier.
One type '80	Power Supply Rectifier.

In this receiver, use is made of the R.F. stage on both Broadcast and Short Wave Bands, with the result that excellent Short Wave reception is now possible under almost any conditions of aerial effectiveness.

The Intermediate Frequency used, is 225 K.C. This has been chosen as representing a sufficiently great difference between Oscillator and R.F. sections to provide for a good image ratio, without unduly increasing the band width of the I.F. amplifier. Higher Intermediate Frequencies give greater image ratios, but usually in domestic receivers show a very broad amplifier characteristic. Adjustment of the I.F. amplifier should under no conditions, be altered from 225 K.C.

Alignment. Separate H.F. Trimming condensers are provided for both bands. Those for the Broadcast Band are the usual type on the gang condenser, while the Short Wave adjustments are located underneath the chassis. It should be noted that any adjustments made to the gang condenser trimmers will have a very great effect on the alignment of the short wave section. Normally these adjustments should not require alteration, and unless a full knowledge of the operation of these is available it is advisable to leave them entirely alone.

There is a further variable capacity located above the Aerial coil. This is the Short Wave Aerial Coupling Condenser. No adjustment of this should be necessary unless the receiver is to be used on a particularly long aerial, when the capacity could, with care be reduced. Under no conditions should this capacity be increased.

Any irregularity in sensitivity will usually be caused through defective valves, and replacement should be made before attempting adjustment.

COLLIER & BEALE LTD.

WELLINGTON. 3/7/34.

COMPONENT DATA ON TYPE 6 L.S. RECEIVER.

Condensers.

C. 1	S.W. Aerial Coupling Condenser.	30 - 50 mmfd.
C. 2	R.F. Section S.W. Trimmer.	30 - 50 mmfd.
C. 3	Interstage S.W. Trimmer.	30 - 50 mmfd.
C. 4	Oscillator S.W. Trimmer.	30 - 50 mmfd.
C. 5)		
C. 6)	3 Gang Tuning Condenser.	.00037 mfd.
C. 7)		
C. 8)		
C. 10)	S.W. Padding Condenser.	
C. 9	Broadcast Padding Condenser.	
C. 11	2B7 R.F. Plate Filter.	.00025 mfd.
C. 12	Diode Load by-pass.	.00025 mfd.
C. 13	A.V.C. Filter.	.01 - .02 mfd.
C. 14	R.F. Cathode by-pass.	.1 mfd.
C. 15	Main H.T. to ground.	.1 mfd.
C. 16	Oscillator & 1st. Detector Cathode by-pass.	.25 mfd.
C. 18	Screens to ground.	.25 mfd.
C. 19	A.V.C. Filter	.01 - .02 mfd.
C. 20	2B7 Screen by-pass.	.05 mfd.
C. 21	2B7 Audio Plate Filter.	.25 mfd.
C. 22	Grid Bias Filter.	.1 mfd.
C. 23	Tone Control.	.05 mfd.
C. 24	Coupling Condenser.	.01 mfd.
C. 26	Oscillator Grid Condenser.	.00025 mfd.
C. 27	Dry Electrolytic Condenser.	8 mfd.
C. 28	Wet Electrolytic Condenser.	8 mfd.

Resistances.

R. 1 .5 Megohm A.V.C. Bias Filter.

R. 2 600 ohm. R.F. Bias Resistance.

R. 3 15,000 ohms. } Screen Voltage Potentiometer.

R. 4 15,000 ohms. }

R. 5 75 - 100,000 ohm Grid Leak.

R. 6 300 ohm Bias Resistance.

R. 7 1 megohm A.V.C. Bias Filter.

R. 8 1 megohm 2B7 Screen Resistance.

R. 9 Audio Plate Filter 1 megohm.

R. 10 .25 megohm 2B7 Plate Load resistance.

R. 11 1 megohm Grid Leak.

R. 12 .5 megohm Grid Bias Filter.

R. 13 75,000 ohm Grid Bias Potentiometer.

R. 14 .5 megohm Grid Bias Potentiometer.

R. 15 .5 megohm Volume Control. Diode Load Resistance.

R. 16 .1 megohm Tone Control.

VOLTAGE DETAILS.

Measured with .25 megohm Voltmeter.

Line Voltage, 230v. 50 cycle.

Speaker field, 130.v.

Main H. T. 240 v.

R.F., I.F., & 1st. Detector Screens, 90v.

2B7 Screen 8 v.

2B7 Plate, 50v.

R.F. Cathode 3.8 v.

I.F. & 1st. Detector Cathode 3.8 v.