

A. HENRY. RADIO RESTORATIONS

C.B.B.
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TECHNICAL INFORMATION

BULLETIN No. ?

TYPE C & B

Feb. 1935

4 valve S.W. Converter

~~RECEIVER~~

COLLIER & BEALE LTD.

WELLINGTON

TECHNICAL DATA.

SUPERHETERODYNE SHORT WAVE CONVERTER.

This converter is a self-powered unit, utilising four tubes in the following arrangement;

- 1 58 Signal Frequency Amplifier.
- 1 2A7 Oscillator & 1st. Detector.
- 1 2B7 I.F. Amplifier, and A.V.C. Tube.
- 1 '80 Power Supply Rectifier.

The filter system is a Resistance-Capacity type, and is made up of R 8, & R 9, C 16 & C 17.

Maximum D.C. Anode voltage available is approximately 150 volts.

The Intermediate Frequency Amplifier is adjusted to 550 K.C.

The only possible irregularities that may exist in these converters, is the possibility, through temperature variations or through vibration, of the Intermediate Frequency amplifier going out of adjustment. If the performance is at any time considered below average, these adjustments should be gone over with the aid of a calibrated oscillator.

Any other irregularity in performance can generally be traced to tubes; the 2A7 being the most likely offender.

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19-2-35.

COMPONENT DATA ON SHORT-WAVE CONVERTER.

CONDENSERS.

C. 1)		
C. 2)	3 Gang Tuning Condenser.	.00037 mfd.
C. 3)		
C. 4	Interstage H.F. Trimmer.	30-50 mmfd.
C. 5	R.F. H.F. Trimmer.	30-50 mmfd.
C. 6	H.F. Antennae Coupling	30-50 mmfd.
C. 7	Oscillator H.F. Trimmer	30-50 mmfd.
C. 8	80 Metre Padder	{ 1000 mmfd. .00025 mfd.
C. 9	20 Metre Padder.	.004 mfd.
C. 10	Oscillator Grid Cond.	.00025 mfd.
C. 11	Diode Coupling Cond.	.0001 mfd.
C. 12	A.V.C. Filter	.02 mfd.
C. 13	R.F. Cathode By-pass.	.1 mfd.
C. 14	A.V.C. Filter.	.02 mfd.
C. 15	1st Detector and I.F. Cathode By-pass.	.25 mfd.
C. 16)		
C. 17)	Electrolytic Filter.	8.0 mfd.
C. 18	Screens By-pass.	.25 mfd.
C. 19	R.F. By-pass.	.1 mfd.

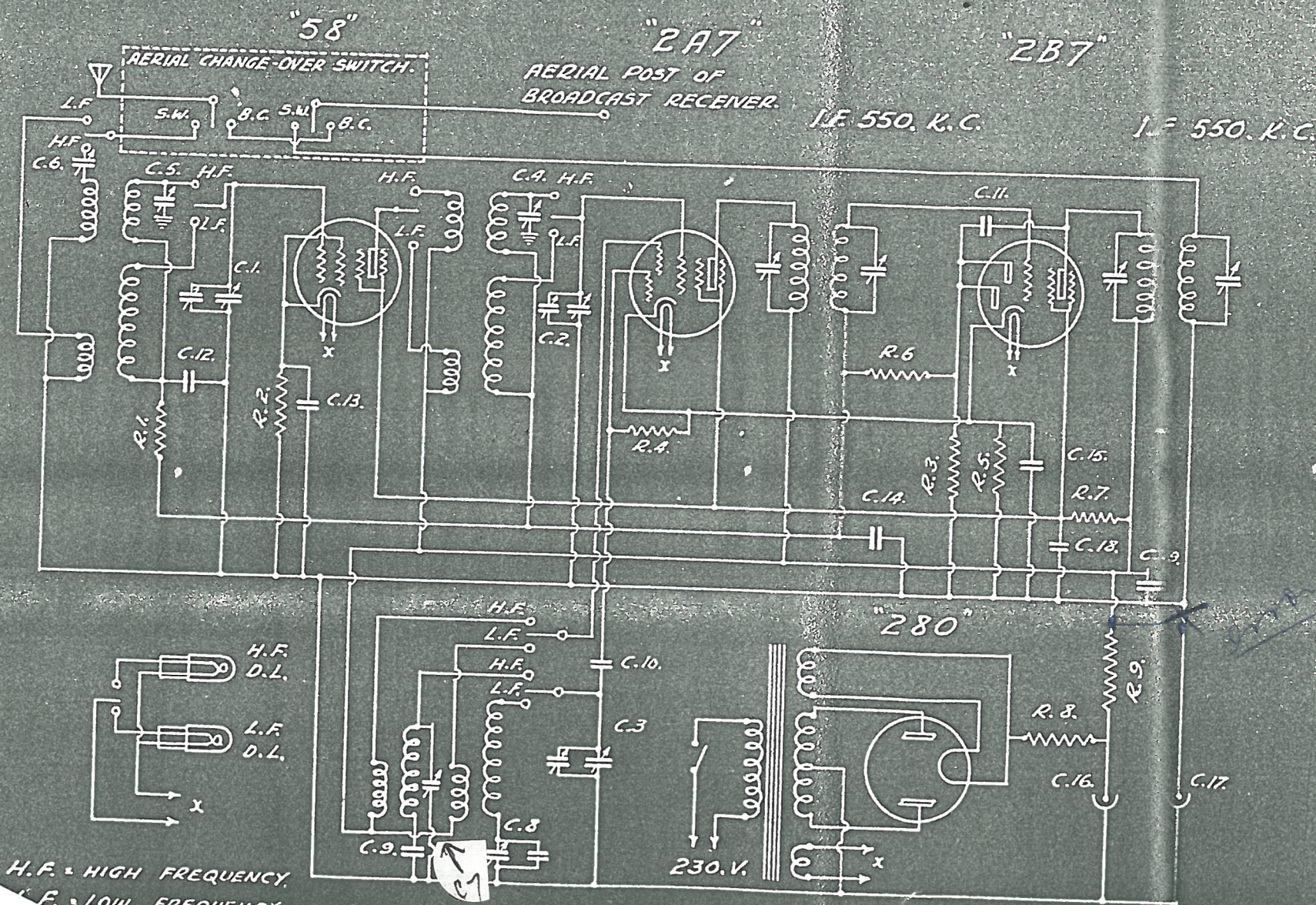
RESISTANCES.

R. 1	A.V.C. Filter.	1 megohm.
R. 2	R.F. Bias Resistor	600 ohms.
R. 3	Diode Load	$\frac{1}{2}$ megohm
R. 4	Oscillator Grid Leak	75,000 ohms.
R. 5	1st. Detector and I.F. Bias	300 ohms.
R. 6	A.V.C. Bias Filter	1 megohm.
R. 7	'Screen Resistance.	15,000 ohms.
R. 8	Resistance input to Filter.	10,000 ohms.
R. 9	Filter Resistance.	5,000 ohms.

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16-2-35.

SHORT WAVE CONVERTER



Note error in connection of pos. side of C.17.