

TECHNICAL INFORMATION

BULLETIN No. 118.

(TYPE)

1937

TECHNICAL DATA ON TYPE 5 L.S.

5-VALVE DUAL WAVE VIBRATOR

OPERATED RECEIVER.

RECEIVER

COLLIER & BEALE LTD.

WELLINGTON

Earth speaker frame

TECHNICAL DATA ON TYPE 5 L.S.

5-VALVE DUAL WAVE VIBRATOR

OPERATED RECEIVER.

The new Type 5 L.S. Vibrator Receiver uses the following Valves and arrangement :-

- 1 - Type 1C6 Pentagrid Converter
- 1 - " 1A4 Intermediate Frequency Amplifier
- 1 - " '30 Diode Detector and A.V.C. Supply
- 1 - " 1B4 Pentode Connected Audio Frequency Amplifier
- 1 - " 1F4 Power Amplifier

The circuit generally is conventional, although it is to be noted that in the converter circuit the oscillator plate coil is now parallel fed. This method of connection allows a much higher trans-conductance to be obtained, with consequently greater reliability in the oscillator section in particular. The only other important modification from standard Battery Receiver practice is the special method of splitting up the various valve filaments to obtain a low battery drain, and to provide grid bias for the various stages. Operating power for the entire Receiver is obtained from a separate Vibrator Unit of identical design to that used on the 6-Valve Receiver. The circuit of this particular Unit and the method of connecting it to the Receiver is identical in every respect. The intermediate frequency used is 465-K.c/s.

Alignment, if ever required, should be undertaken in the conventional manner; the various adjusting screws are easily located and no difficulty should be had in obtaining perfect alignment.

A schematic wiring diagram with values of all components is shown on separate leaves attached.

COLLIER & BEALE LIMITED,
66 GHUZNEE STREET,
WELLINGTON, C.2.
24th August, 1937.

TYPE 5 L.S. 5-VALVE DUAL WAVE VIBRATOR

OPERATED RECEIVER.

CONDENSER DETAILS.

- C.1)
-)
- 2)
-)
- 3) 8-mfd. Main High Tension Supply Filter.
-)
- 4)

- 5 4-mfd. Screen By-pass
- 6 .25-mfd. High Frequency Screen By-pass
- 7 .25-mfd. Main High Tension Supply Filter High Frequency By-pass.
- 8 .25-mfd. Audio Filter.

- 9))
-)
- 10) .25-mfd. Vibrator Power Unit Radio Frequency Filter.

- 11 .1-mfd. 1B4 Screen Audio Filter.
- 12 .05-mfd. A.V.C. Filter.

- 13)
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- 14)
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- 15) .05-mfd. Vibrator Power Unit Radio Frequency Filter.
-)
- 16)

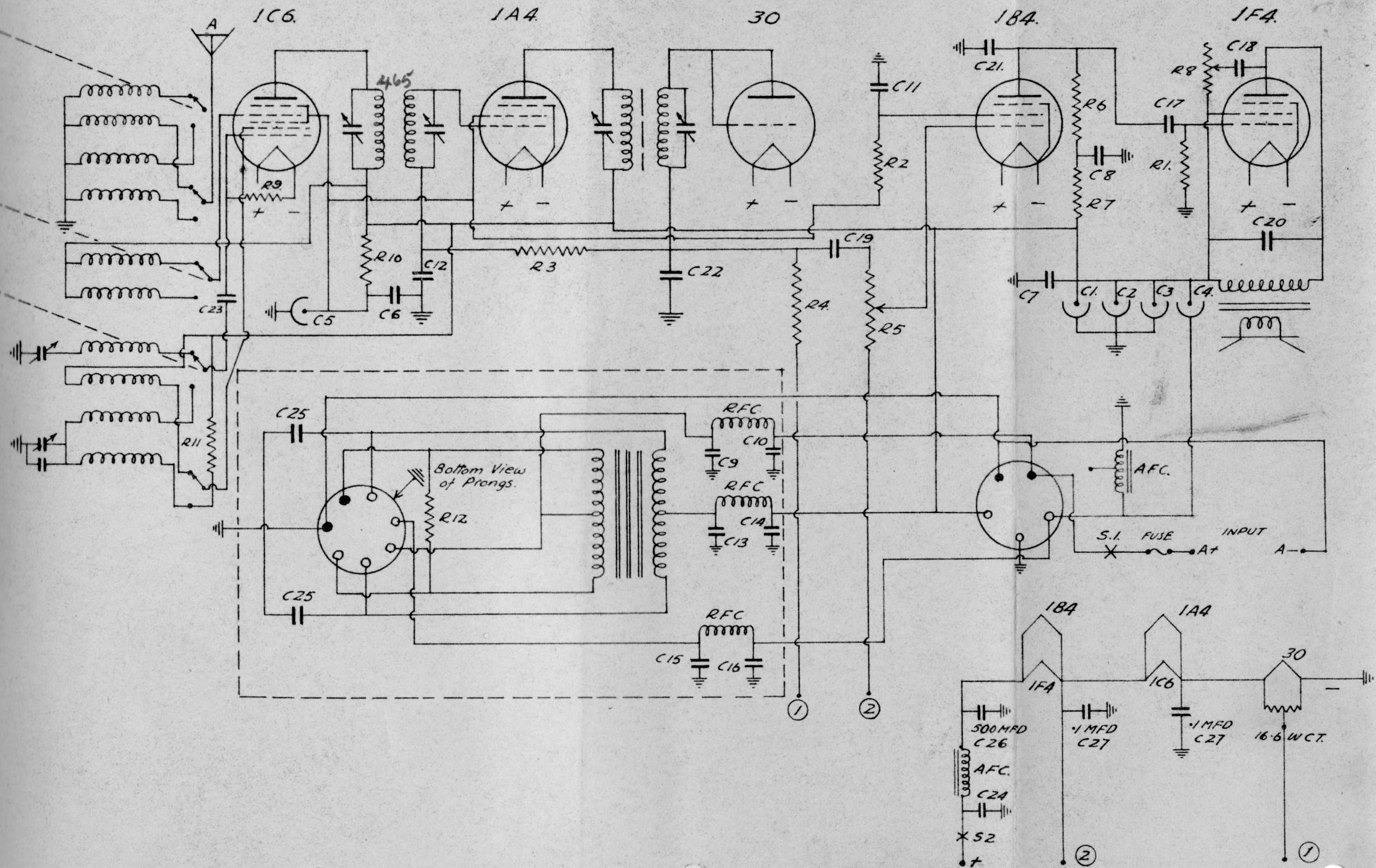
- 17 .01-mfd. Audio Coupling Condenser.
- 18 .01-mfd. Tone Control Condenser.
- 19 .01-mfd. Audio Coupling Condenser.

C.20 .002-mfd. (Mica) High Frequency By-pass Condenser.
21 .00025-mfd. (Mica) High Frequency By-pass Condenser.
22 .0001-mfd. Diode Load By-pass.
23 .0001-mfd. Oscillator Grid Condenser.
24 .02-mfd. Filament Circuit High Frequency By-pass.
25 .01-mfd. Buffer Condensers.
26 500-mfd. Filament Circuit Filter.
27 .1-mfd. Filament Circuit High Frequency By-pass.

RESISTOR DETAILS.

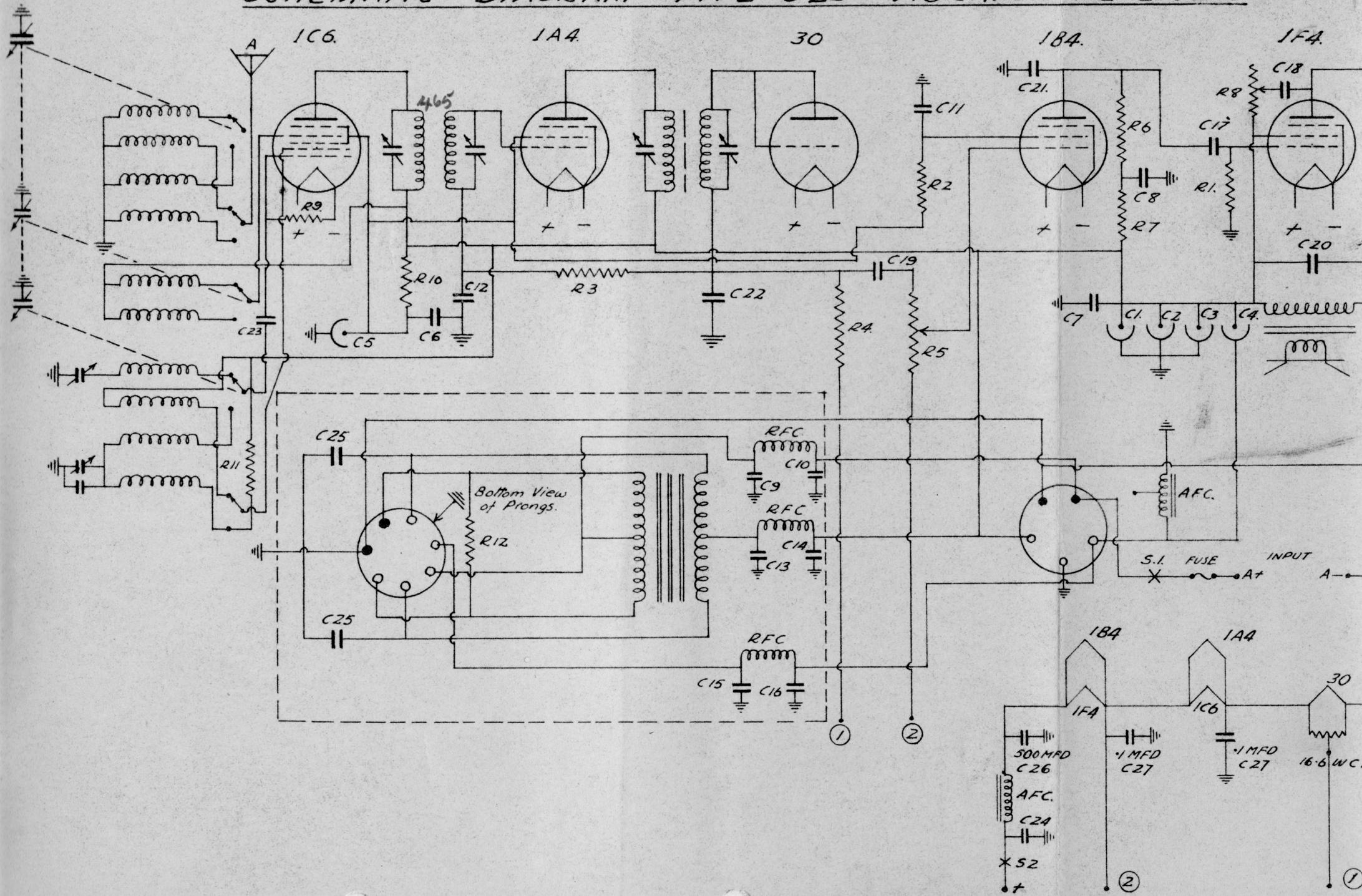
R.1) 1-meg. Grid Leak.
)
 2)
3 1-meg. A.V.C. Filter.
4 500,000-ohm. Diode Load Resistor.
5 500,000-ohm. Volume Control.
6 250,000-ohm. Audio Amplifier Plate Load Resistor.
7 100,000-ohm. Audio Amplifier Plate Decoupling Resistor.
8 100,000-ohm. Tone Control.
9 50,000-ohm. Oscillator Grid Leak.
10 20,000-ohm. Screen Dropping Resistor.
11 10,000-ohm. Oscillator Plate Feed Resistor.
12 300-ohm. Vibrator Power Unit Fixed Load Resistor.

SCHEMATIC DIAGRAM TYPE 5LS VIBRATOR RECEIVER



DETAIL OF FILAMENT CIRCUIT.

SCHEMATIC DIAGRAM TYPE 5LS VIBRATOR RECEIVER



DETAIL OF FILAMENT CIRC