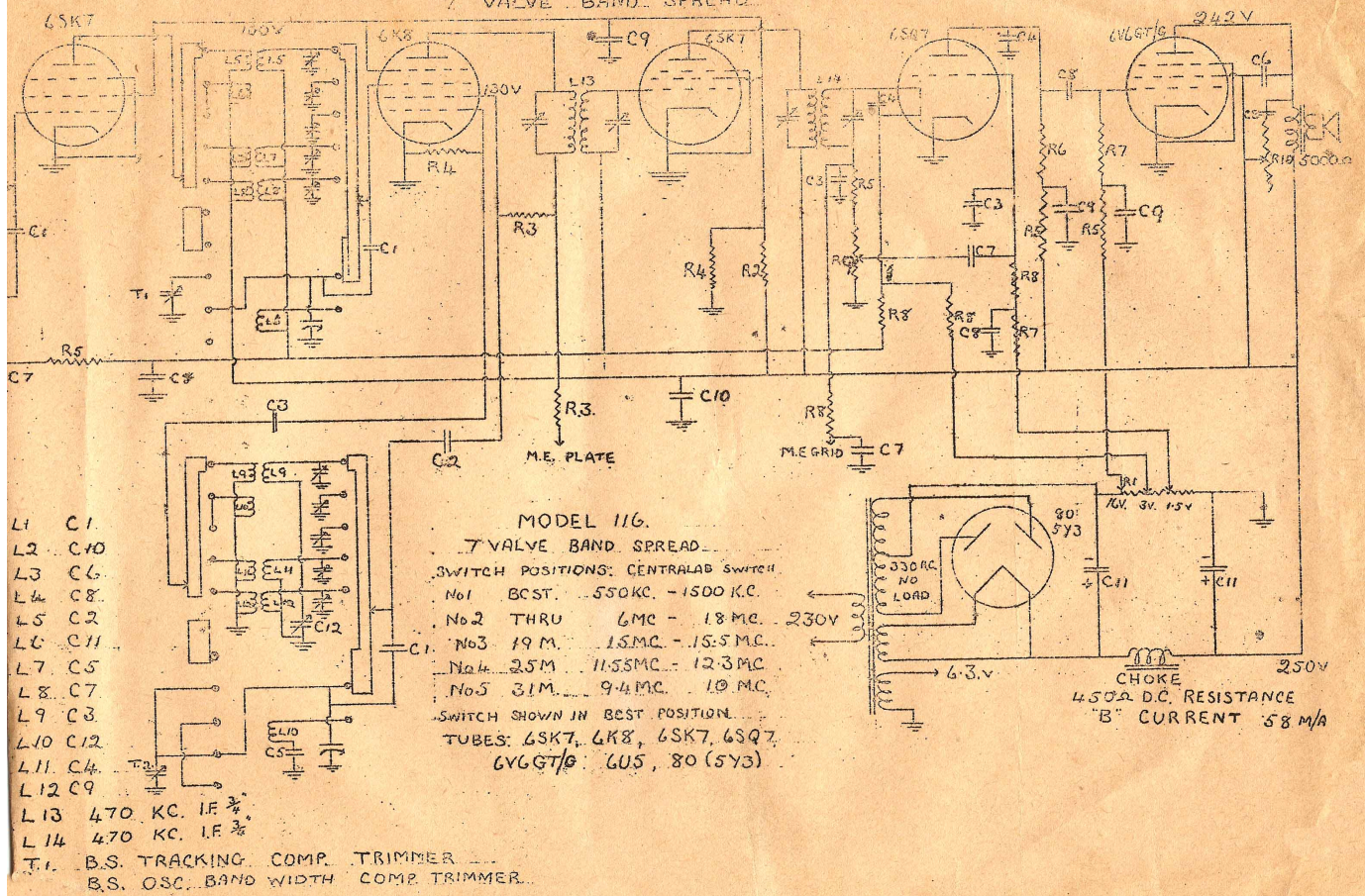


WESTONHOUSE RADIO LTD.
7 VALVE BAND SPREAD



MODEL 116 WESTCO RECEIVER.

This receiver is a 6 Tube Bandspread Superheterodyne with Electron Ray Tuning Indicator. The tube layout is as follows:- 6SK7 R.F. Amplifier, 6K8 Converter, 6SK7 Intermediate frequency Amplifier, 6SQ7 Second Detector, and first audio amplifier, 6V6GT Beam Power Output, 80 Rectifier, 6U5/6G5 tuning Indicator. The tuning ranges consists of a conventional broadcast band from 550 K.C. to 1600 K.C., a short wave band from 6 m.c. to 18m.c. plus three spread short wave bands from 15 to 15.5, 11.55 to 12.3, 9.4. to 10m.c. respectively. All voltages and circuit constants are shown in the schematic diagram.

The Bandspread section incorporate oscillator bandwidth compensation and tracking compensation, which are brought into play when the 15-15.5m.c. band is being aligned. The sequence of aligning the receiver as shown must be followed:-

To align the receiver connect a 30% modulator signal generator set at 470 K.C. to the grid of the 6K8 tube, and a suitable output meter to the loudspeaker voice coil. The trimmers on the I.F. transformers can then be adjusted for maximum output on the meter. (it is advisable to stop the oscillator when carrying out this operation).

Broadcast Band (550 K.C.- 1600 K.C.).

- (1) Set signal generator at 600 K.C. and adjust padding condenser for Maximum response at that point on dial.
- (2) Set signal generator at 1400 K.C., tune set to 1400 K.C., and adjust Trimmer T17 to maximum response.
- (3) Adjust T16 and T15 for maximum response.
- (4) Repeat above procedure two or three times.

6- 18 M.C. BAND.

Set signal generator and Receiver dial to 17 m.c., adjust trimmer T5 for maximum response, then adjust trimmers T4 and T3 for best response. Check at 6 m.c. (Care must be taken to see that T5 is set on the signal that occurs when the trimmer is in the out position (if 2 responses are found), and that T4 and T3 are set in the in positions. (this precaution must be taken on all S.W. Bands.)

15-15.5 m.c. BAND

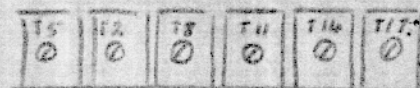
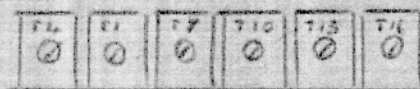
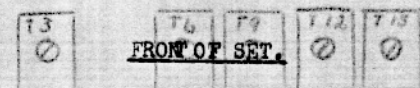
- (1) Set signal Generator and Receiver dial to 15.1 m.c. Adjust Trimmer T8 for maximum response.
- (2) Set signal generator and dial to 15.5 m.c., adjust trimmer T2 to resonance.
- (3) Repeat until dial reading is correct at both ends. Adjust trimmer T7 and T6 for maximum response at 15.1m.c. then adjust T1 for maximum response at 15.4 m.c.
- (4) Repeat for best results.

11.55 TO 12.3. M.C. BAND.

- (1) Set signal generator and Receiver to 12 m.c. and adjust trimmer T11 for maximum response, then set trimmers T10 and T9 for best results.
- (2) Recheck.

9.4. TO 10.m.c. BAND.

- (1) Set signal generator and receiver to 9.9m.c. and adjust trimmer T14 for maximum response, then set trimmers T13 and T12 for best results.
- (2) Recheck.



T1	B.S. Tracking	Comp. Trimmer.
T2	B.S. Osc. Band	Width Comp. Trimmer
T3	Thru Band	Ant.
T4	Thru Band	R.F.
T5	Thru Band	Osc.
T6	19M. Band	Amp.
T7	19 M. Band	R.F.
T8	19M. Band	Osc.
T9	25M. Band	Ant.
T10	25M. Band	R.F.
T11	25M. Band	Osc.
T12	31M. Band	Ant.
T13	31M. Band	R.F.
T14	31M. Band	Osc.
T15	B.C.S.T.	Ant.
T16	BCST	R.F.
T17	BCST	Osc.

MODEL 116 WESTCO RECEIVER.

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The Bandspread sections incorporate oscillator bandwidth compensation and tracking compensation, which are brought into play when the 15-15.5 m.c. band is being aligned. The sequence of aligning the receiver as shown must be followed:-

To align the Receiver connect a 30% modulator signal generator set at 470 K.C. to the grid of the 6K8 tube, and a suitable out-put meter to the loudspeaker voice coil. The trimmers on the I.F. transformers can then be adjusted for maximum output on the meter. (It is advisable to stop the oscillator when carrying out this operation).

Broadcast Band (550 K.C. - 1600 K.C.)

- (1) Set Signal Generator at 600 K.C. and adjust padding condenser for Maximum response at that point on dial.
- (2) Set Signal Generator at 1400 K.C., tune set to 1400 K.C., and adjust Trimmer T17 to maximum response.
- (3) Adjust T16 and T15 for maximum response.
- (4) Repeat above procedure two or three times.

6-18 M.C. Band.

Set Signal Generator and Receiver dial to 17 m.c., adjust trimmer T5 for maximum response, then adjust trimmers T4 and T3 for best response. Check at 6 m.c. (Care must be taken to see that T5 is set on the signal that occurs when the trimmer is in the out position (if 2 responses are found), and that T4 and T3 are set in the in positions. (This precaution must be taken on all S.W. Bands).

15-15.5 M.C. Band.

- (1) Set Signal Generator and Receiver Dial to 15.1 m.c. Adjust Trimmer T8 for maximum response.
- (2) Set Signal Generator and dial to 15.5 m.c. adjust trimmer T2 to resonance
- (3) Repeat until dial reading is correct at both ends. Adjust trimmer T7 and T6 for maximum response at 15.1 m.c. then adjust T1 for maximum response at 15.4 m.c.
- (4) Repeat for best results.

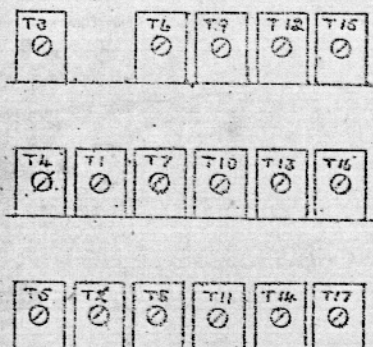
11.55 to 12.3 M.C. Band.

- (1) Set Signal Generator and Receiver to 12 m.c. and adjust trimmer T11 for maximum response, then set Trimmers T10 and T9 for best results.
- (2) Recheck.

9.4. to 10 m.c. Band.

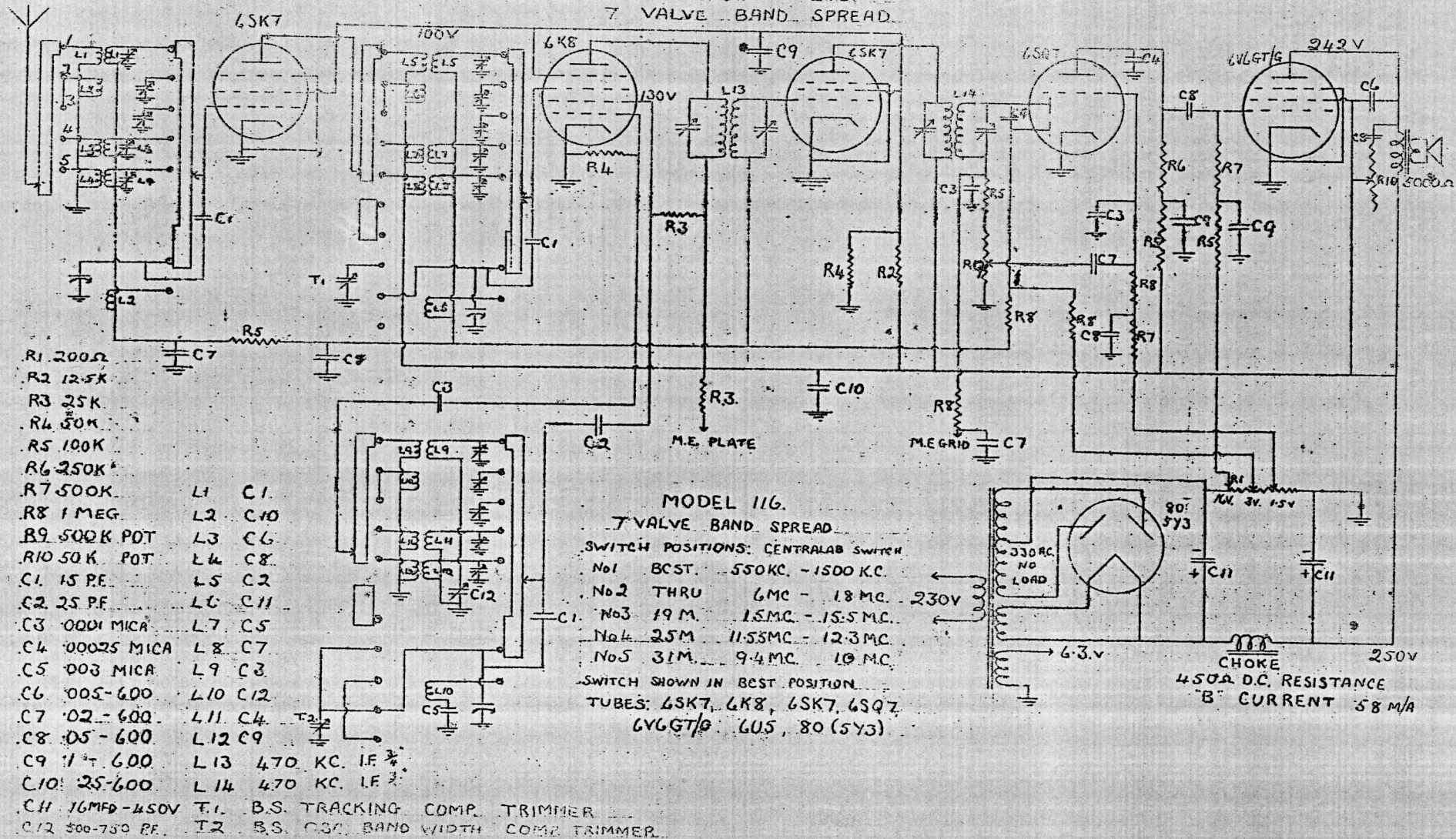
- (1) Set Signal Generator and Receiver to 9.9 m.c. and adjust trimmer T14 for maximum response, then set trimmers T13 and T12 for best results.
- (2) Recheck.

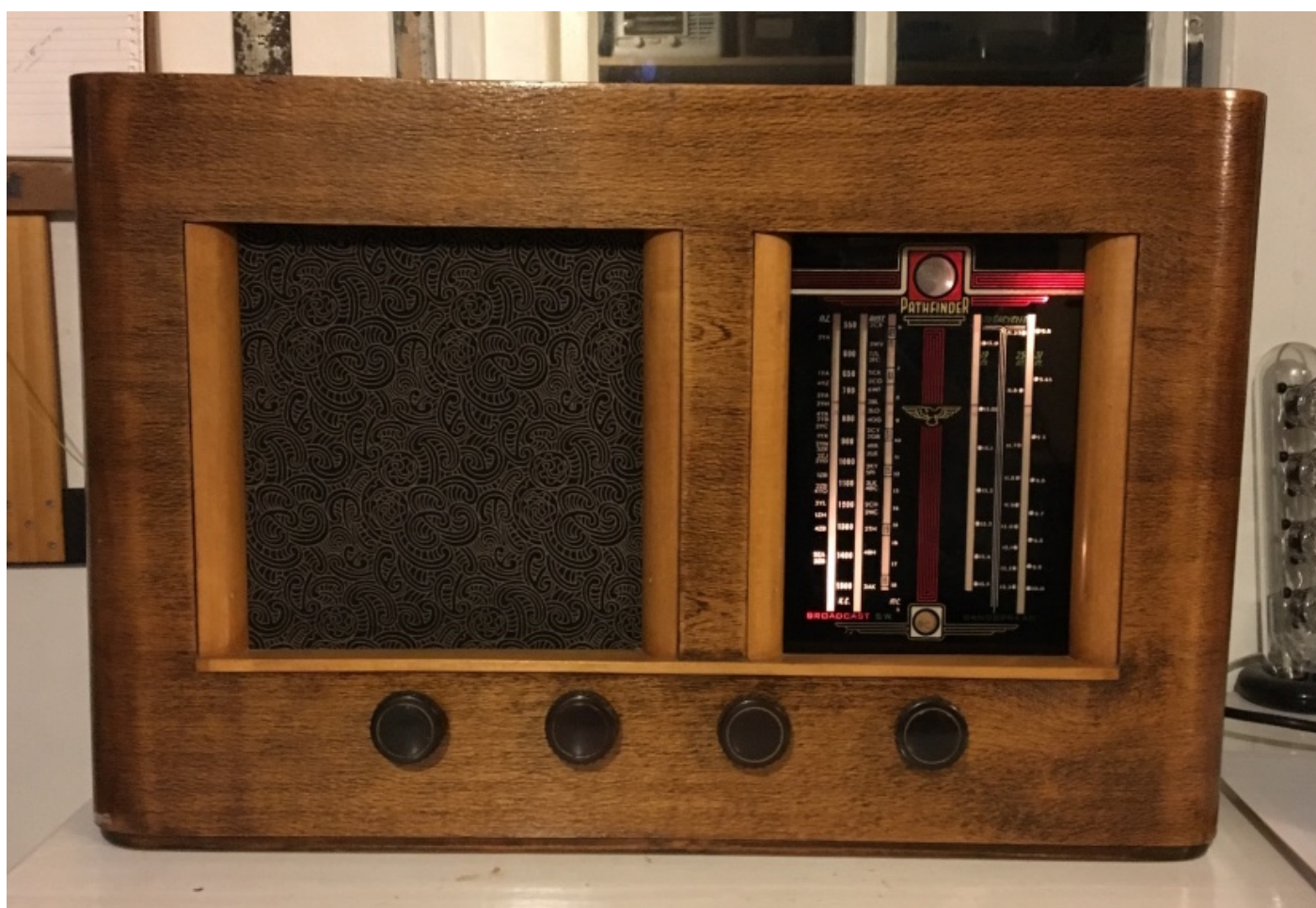
FRONT OF SET



T1	BS. TRACKING COMP. TRIMMER.
T2	BS. OSC. BAND WIDTH COMP. TRIMMER
T3	THRU BAND ANT.
T4	" " R.F.
T5	" " OSC.
T6	19M " ANT
T7	" " R.F.
T8	" " OSC.
T9	25M " ANT.
T10	" " R.F.
T11	" " OSC.
T12	31M " ANT
T13	" " R.F.
T14	" " OSC.
T15	BCST ANT.
T16	" R.F.
T17	" OSC.

WESTONHOUSE RADIO LTD.
7 VALVE BAND SPREAD.





Pathfinder (Westco) model 116. SN 1399

photo: James Davidson