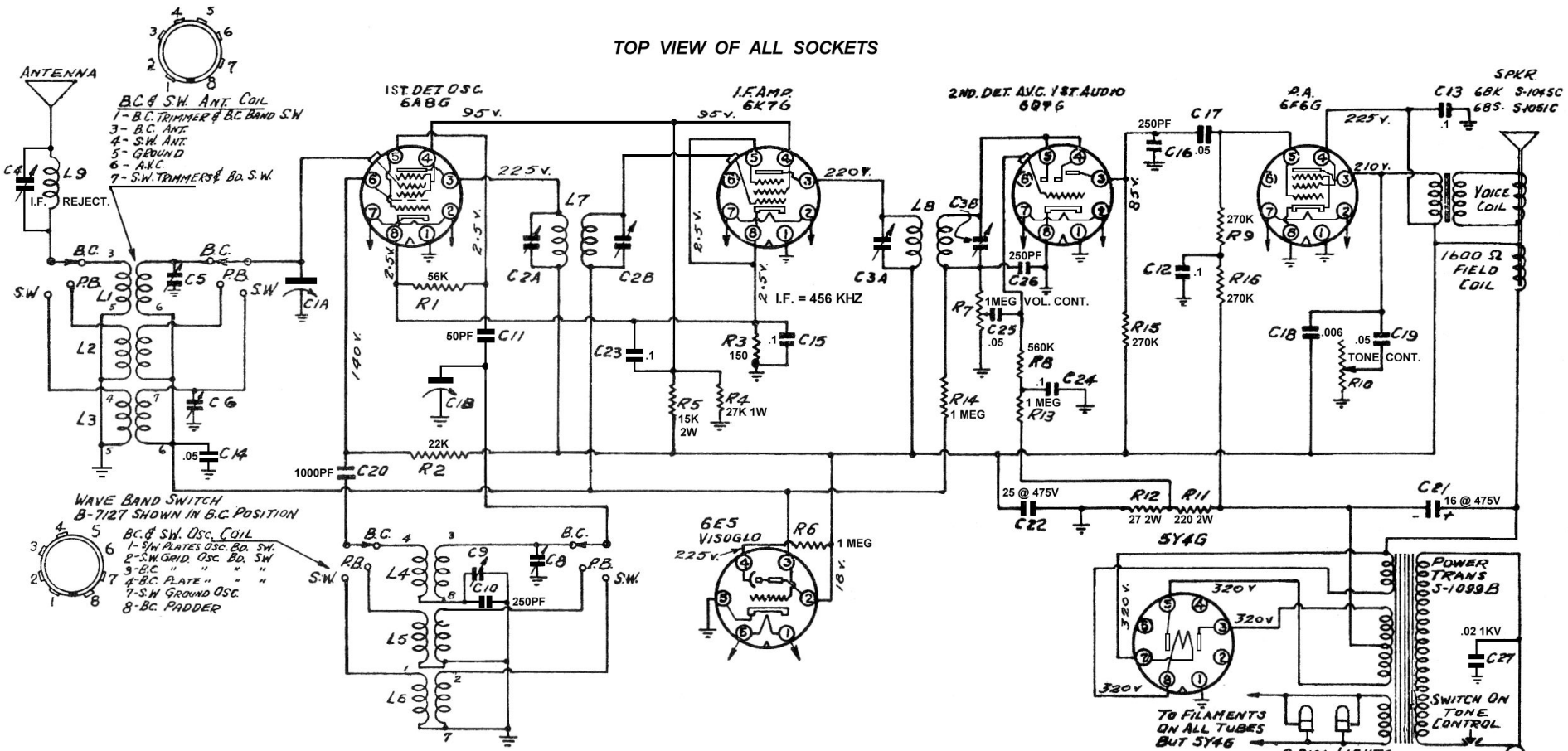
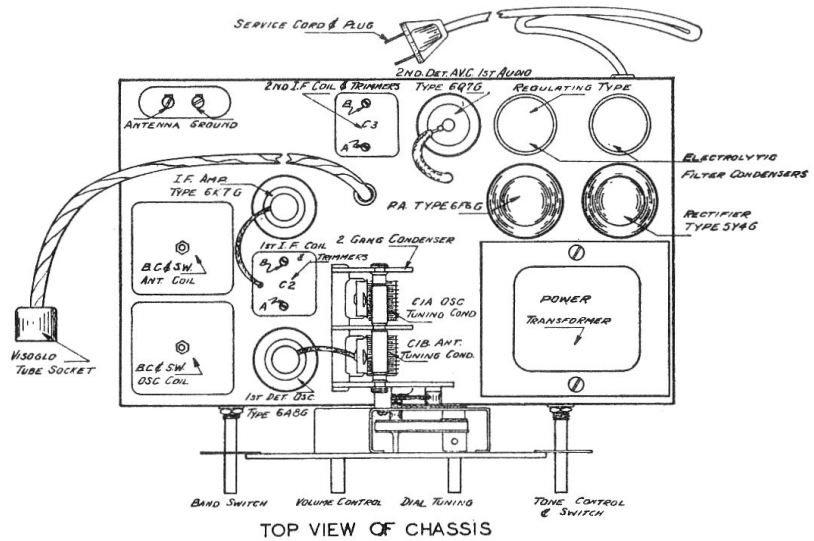
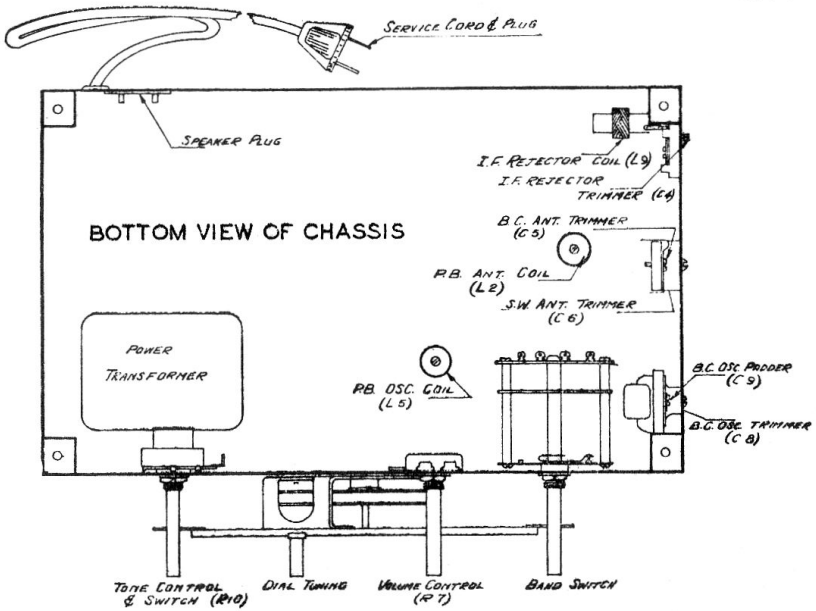


Sparton Model 68 A.C. Receiver





Sparton Model 68 Alignment Procedure

ALIGNMENT DATA—

This set differs from the usual type of superheterodyne when operating on the S.W. band. In the usual superheterodyne set, the I.F. signal is obtained by beating with the incoming signal, a signal generated by the set oscillator and being higher in frequency by the amount of the I.F. For example, if the incoming signal is 10,000 K.C., then for an I.F. of 456 K.C. the oscillator would be automatically tuned to 10,000 plus 456 or 10,456 K.C. This, beating with the incoming signal, would produce an I.F. of 456. In this machine the oscillator tunes to a lower frequency. A 10,000 K.C. signal would result in an oscillator frequency of 9544 K.C. The I.F. of course would be the same.

The only place this will be noticed is in aligning the set. When a short wave superheterodyne is fed directly from a service oscillator, two signals are heard separated by twice the I.F., the lower in frequency being known as the image, the higher being used to align the set to. In this model, these conditions are reversed and the higher frequency signal becomes the "image." The one lower in frequency is used.

I.F. ALIGNMENT—

With the service oscillator set at 456 K.C. and oscillator lead connected to the 6A8G grid cap, adjust trimmers C2 and C3 for maximum output.

I.F. REJECTOR

With the oscillator set at 456 K.C. and its output lead attached to the aerial of the chassis adjust trimmer C4 for minimum output. Caution—make sure the set is not tuned to a harmonic of 465.

R.F. ALIGNMENT:

1. B.C. OSCILLATOR TRIMMER—

With the band switch in the B.C. position and the service oscillator tuned to 1500 K.C., adjust trimmer C8 until with set dial turned to 1500 signal is tuned in.

2. B.C. OSCILLATOR PADDER—

With service oscillator tuned to 600 K.C., adjust padder C9 until with set turned to 600 signal is tuned in. Re-check at 1500 K.C., as above in section one.

3. B.C. ANTENNAE TRIMMER—

With service oscillator set at 1500 K.C., adjust C5 for maximum output.

4. S.W. ANTENNAE TRIMMER—

Turn to 15 M.C. on second S.W. band and with service oscillator set at 15,000 K.C., adjust trimmer C6 while rocking selector knob for maximum output.

Note: There is no adjustment for the intermediate S.W. band nor the third band oscillator.

By rocking selector knob we mean to follow the signal while adjusting the S.W. Ant. trimmer. This is a dual operation and characteristic procedure in all S.W. alignment.