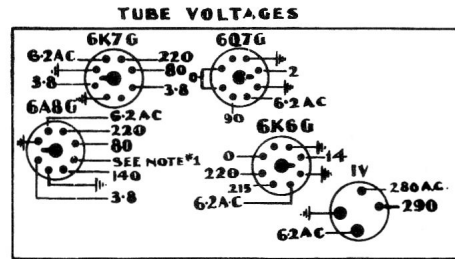


MODEL-R-416

I. F. 456 Kc.

1938-39



FRONT OF SET
BOTTOM

NOTE-1: THE OSCILLATOR BIAS DEVELOPED ON THIS TERMINAL IS NOT READILY MEASURABLE.

NOTE-2: ALL VOLTAGES GIVEN ARE FOR 115 VOLTS ON LINE.

ALIGNING PROCEDURE:

The bottom cover must be on the chassis

1. Intermediate Frequency Alignment.

Turn the gang condenser full out of mesh to the high frequency end and see that the volume and tone controls are full on in which position they should be left for the remainder of the alignment procedure.

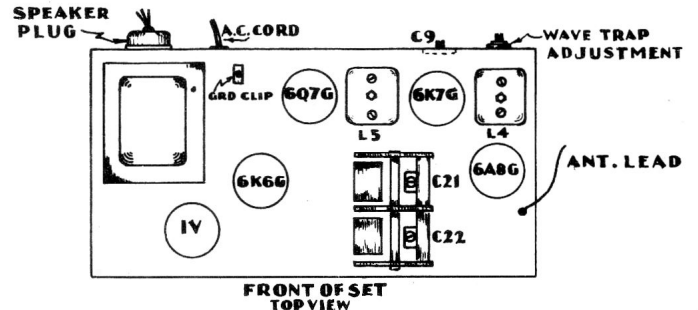
Connect an output meter to the voice coil terminals of the speaker; an A.C. voltmeter with a full scale range of one volt is very satisfactory for this purpose.

Apply a 456 KC signal from a test oscillator to the grid cap of the 6A8G tube and adjust the trimmers on the I.F. transformers L5 and L4 in that order for maximum deflection of the output meter. Use as weak a signal as possible which will give a readable deflection with the volume control on full. If the transformers were much out of alignment repeat this last operation.

2. Wave Trap Adjustment.

Remove the test oscillator lead from the 6A8G grid cap and connect it to the blue antenna wire of the chassis through a standard dummy antenna or alternatively a 200 MMFD Mica condenser. The ground lead of the oscillator should be connected to the chassis as before.

With a strong 456 KC signal input adjust the slotted screw of the wave trap coil at the end of the rear of the chassis with a small screwdriver for **minimum** output. A very strong input signal is necessary for the final adjustment. On some sets there may be a lock nut on this screw instead of a tension spring, in which case the nut should be tightened again after the adjustment is made.



FRONT OF SET
TOPVIEW

3. R.F. Alignment.

First make sure that the pointer coincides with the last scale calibration mark when the condenser is turned in to full mesh at the extreme left of the scale.

Then turn the pointer to 1400 KC and with a 1400 KC signal on the antenna adjust the trimmer condensers C21 and C22 on the gang in that order for maximum output as shown on the output meter. Make sure that the signal is exactly 1400 KC by checking against a master oscillator as broadcast signal or else the dial scale will not calibrate properly. These remarks also apply to the other frequencies used in aligning the set.

Then apply a 600 KC signal to the antenna and while rocking the condenser slowly about the 600 KC point adjust the series pad C9 for maximum output.

If C9 was very much out of adjustment repeat the 1400 KC alignment.