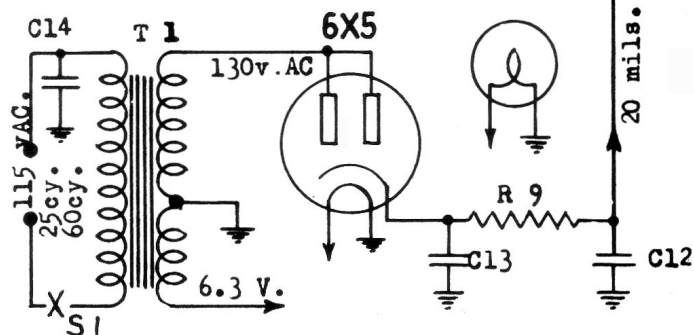


# MODEL R-432 "MAGIC TUNER" 1938-39

## Alignment Data



## I.F. 1570 Kc.

1. Tune a radio receiver, with output meter, to exactly 1570 kc. Use the 1570 kc. frequency of an accurately calibrated signal generator.

2. Now feed this 1570 kc. signal into the antenna of the Tunemaster. The output of the Tunemaster is picked up on a short piece of wire hooked to the antenna post of the radio receiver. An output meter is used on the receiver. This piece of wire may be laid across, or twisted around, the output coil of the Tunemaster to increase the pick-up.

3. Set the variable condenser of the Tunemaster at approximately 1200 kc. Turn the antenna trimmer in tight and then back it out approximately  $\frac{1}{2}$  turn.

4. Adjust the I.F. and output coil trimmers for maximum reading of output meter. Turn down the input as necessary to keep meter needle on the scale.

5. Take antenna wire (to receiver) away from the output coil—place at a fixed distance from output coil (about 1 foot).

6. Now carefully re-adjust the I.F. and output trimmers for maximum gain. Lastly—adjust the antenna trap for minimum reading.

7. With antenna wire to receiver in its fixed position, set the signal generator at 1500 kc. and the variable condenser at minimum. Adjust the oscillator trimmer so that the variable condenser will tune-in the 1500 kc. signal and go past it approximately 5 kc. Now adjust the antenna trimmer of the variable condenser to maximum output.

8. Should instability occur, adjust the antenna trimmer toward maximum capacity position until oscillation stops.

9. Set the signal generator at 600 kc. and "rock" the variable condenser back and forth while adjusting the oscillator padding condenser for maximum gain.

10. Go back and check the 1500 kc. adjustment again, as the padder adjustment upsets the trimmer adjustment. Repeat this procedure several times until certain that both 600 kc. and 1500 kc. adjustments are correct.

11. Tune-in a 1000 kc. signal and check the alignment. If the variable condenser plates have to be bent it should be done on the first two (small) sections of the antenna tuning portion of the variable condenser only. The 600 kc. padder should be re-checked if much bending was done. As a rule, the antenna section of the variable will require bending out slightly at 1000 kc.