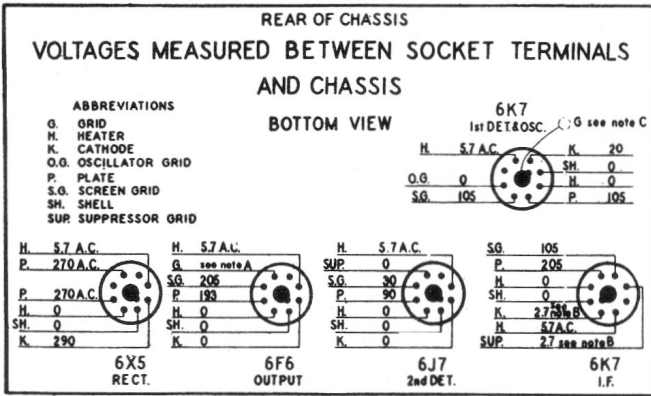


1936-37

SOCKET VOLTAGES

LINE VOLTAGE 115 VOLTS. VOLUME CONTROL ON FULL. ANTENNA GROUNDED
RANGE SWITCH SET ON BROADCAST POSITION. SET TUNED TO 530 KC.

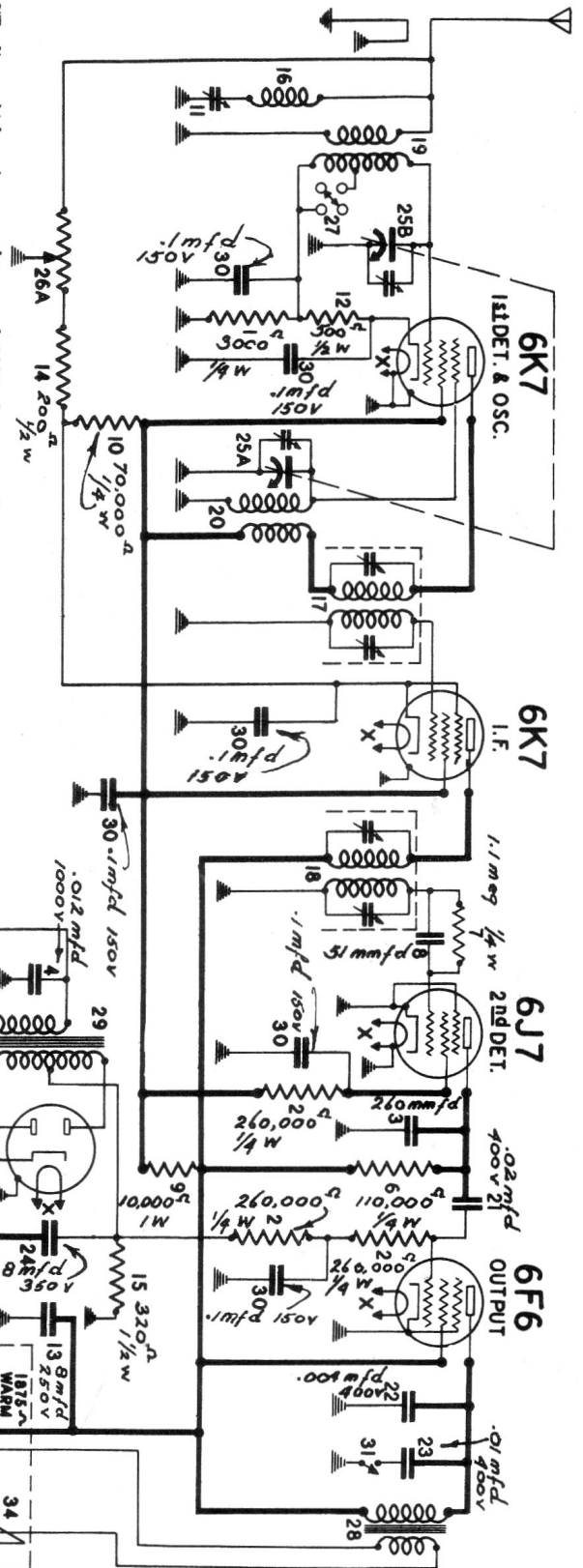


IMPORTANT: Use a high resistance voltmeter of 1000 ohms per volt. Readings will vary depending upon voltage range of meter, being higher for higher range instruments. This variation is most marked for second detector plate voltage.

NOTE A: The bias on the 6F6 output is -14 volts measured across the flexible wire wound resistor No. 15 in the circuit diagram.

NOTE B: The cathode voltage varies with the setting of the volume control, from +2.5 volts for maximum volume to +30 volts for minimum volume.

NOTE C: Grid voltage for the 6K7 first detector is +17 volts measured across resistor No. 1 in the cathode circuit. Grid bias is -3 volts measured across resistor No. 12.



I.F. 456 Kc.

ALIGNING THE I.F. CIRCUIT

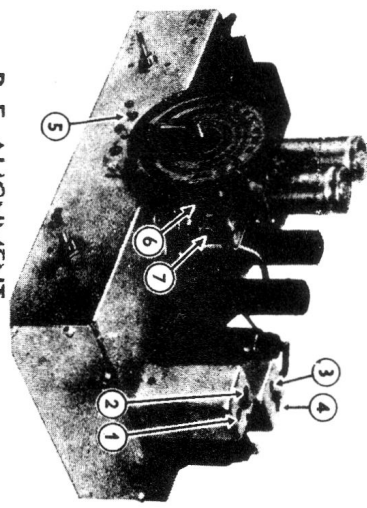
1. Connect the output meter in series with a .25 mfd. condenser between the plate of the 6F6 tube and ground.
2. Turn the volume control to the maximum volume position. (Note: The volume control should be kept in this position throughout the entire alignment procedure.) Ground the antenna lead to the chassis.
3. Turn the range switch to the right (clockwise) to the broadcast position.
4. Adjust the test oscillator to exactly 456 KC. and connect its output to the control grid of the 6K7 first detector tube and the chassis.
5. Align I.F. trimmers No. 1, 2, 3 and 4 for maximum output as indicated on the output meter. No inward or side-ward pressure should be applied to the alignment tool or the condenser may spring back to a different setting as soon as the tool is removed.
6. Repeat all I.F. trimmer adjustments since the changing of each trimmer will affect the others to a certain extent.

456 KC. WAVE TRAP ADJUSTMENT

1. Disconnect the antenna lead from ground.
2. Connect the test oscillator output in series with a 400 ohm carbon resistor to the receiver antenna lead, and connect the test oscillator ground lead to the receiver chassis. Ground the chassis.

3. Without changing the test oscillator from the frequency setting used in aligning the I.F. stage, adjust trimmer No. 5 for **MINIMUM** output. Increase the test oscillator output as a minimum is reached, in order to obtain a clearly defined setting of the trimmer. **NOTE:** If code interference is troublesome on a frequency in the neighborhood of 456 KC., the wave trap should be adjusted for **MINIMUM** output with the test oscillator set to the same frequency as the signal that is causing interference.

Trimmer Locations



R.F. ALIGNMENT

1. Set the test oscillator to 1400 KC. and apply the signal to the receiver antenna lead through a 400 ohm carbon resistor.
2. Tune the receiver to the signal for maximum output.
3. Adjust trimmer No. 7 (detector shunt trimmer) for maximum output.

CHASSIS MODEL R-142 (Receiver Models 1421 + 1425)