

# CHASSIS MODEL

## R-145

Receiver  
Models

1451-1459

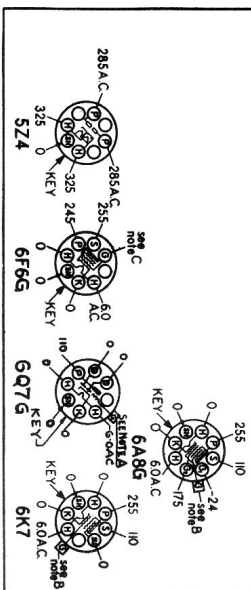
I.F.

456 Kc.

### SOCKET VOLTAGES

VOLUME CONTROL ON FULL RANGE SWITCH SET ON BROADCAST POSITION DIAL TUNED TO 535 KC.

**BOTTOM VIEW OF CHASSIS VOLTAGES MEASURED BETWEEN SOCKET TERMINALS AND CHASSIS AC LINE VOLTAGE 115 VOLTS**



### REAR OF CHASSIS

**IMPORTANT:** Use a high resistance voltmeter of 1000 ohms per volt.  
**NOTE A:** The grid bias for 6Q7G is—1.5 volts measured across resistor 29.  
**NOTE B:** The grid bias for the 6A8G, 6K7, and the anode voltage of the A.V.C. section of the 6Q7G is—3.5 volts, measured across resistors 29 and 54.  
**NOTE C:** The grid bias for the 6F6G output tube is—19.5 volts measured across resistors 29, 54 and 27.

### CALIBRATION AND ALIGNMENT

## For Models R-145 & R-146

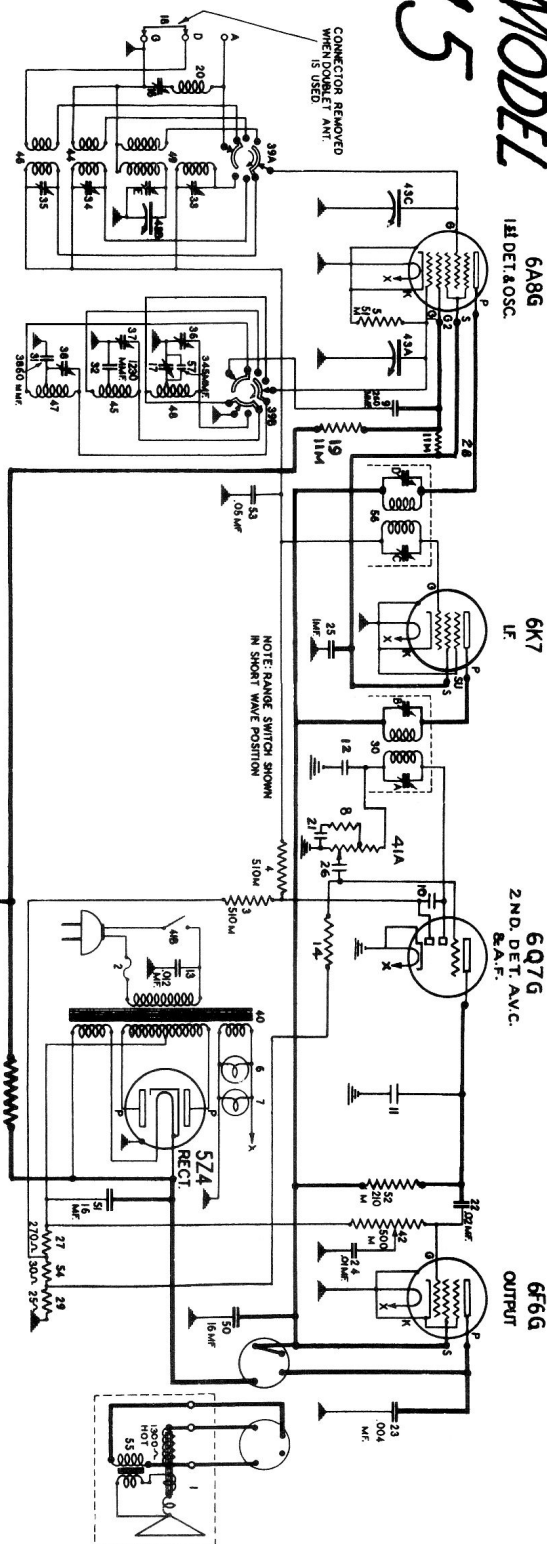
**ALIGNING THE I. F. AMPLIFIER:** Turn the volume control to maximum volume position and keep it in this position throughout the entire alignment procedure. Turn the range switch to the broadcast position (fully clockwise).

Connect the test oscillator output leads to the 6A8 control grid and chassis with a .1 mfd. condenser in series with the oscillator output. Set the oscillator to exactly 456 Kc. Set the receiver dial at any point where it has no tuning effect on the oscillator signal.

Adjust the four I.F. trimmers, Nos. 1, 2, 3 and 4, for maximum output meter deflection, then repeat the trimmer adjustment.

### BROADCAST BAND CALIBRATION AND ALIGNMENT:

With the gang condenser in full mesh, the dial pointer should be on the white horizontal line below 530 Kc. on the dial scale.



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Turn the range switch to the extreme clockwise position and connect the test oscillator output to the A and G terminals of the receiver with a 400 ohm carbon resistor in series with the A terminal and the oscillator output.

Adjust the test oscillator to exactly 1500 Kc. and turn the receiver dial pointer to 1500 Kc. on the tuning dial. To calibrate the dial, adjust trimmer No. 3 for maximum output. Nos. 6 and 7 for maximum output.

Adjust the test oscillator to 600 Kc. and tune the receiver to the signal. Adjust trimmer No. 8 for maximum output. Then try to increase the output meter reading by detuning No. 8 slightly and returning the receiver dial. If the output goes down, detune the trimmer in the opposite direction. Continue detuning the trimmer and returning the receiver dial until maximum output meter deflection is secured. This operation is commonly known as "rocking" and when performed as described will give maximum selectivity and sensitivity even though the dial may be slightly off calibration at 600 Kc.

### WAVE-TRAP ADJUSTMENT:

(included only in chassis stamped "S") The wave-trap adjusting trimmer, No. 13, is located on the back of the chassis. Leave the test oscillator connected to the A and G terminals through a 400 ohm resistor and set the oscillator at 456 Kc. Then adjust the wave-trap trimmer, No. 13 for minimum output. If some code interference, it may be desirable to adjust the wave-trap on the actual frequency of the interfering station. Check the adjustment of trimmers 5, 6, and 7 at 1500 Kc.

### BAND NO. 2 CALIBRATION AND ALIGNMENT:

Turn the range switch to the center position. Adjust the test oscillator to exactly 5.0 Mc. and turn the receiver dial pointer to exactly 5.0 Mc. on the tuning dial. To calibrate the dial, adjust trimmer No. 9 for maximum output. If two peaks are found, the proper one is that with the trimmer screw farthest out.

Carefully tune the receiver to the signal and adjust trimmer No. 10 for maximum output. Then try to increase the output by detuning No. 10 slightly and returning the receiver dial. Continue detuning No. 10 and returning the dial until the output meter deflection is a maximum.

### BAND NO. 3 CALIBRATION AND ALIGNMENT:

Turn the range switch to the extreme counter-clockwise position. Be sure the D and C terminals on the antenna terminal strip are connected together.

Set the test oscillator to 16 Mc. and turn the receiver dial pointer to exactly 16 Mc. on the tuning dial.

To calibrate the dial, adjust trimmer No. 11 for maximum output. Check to see that it has been adjusted to the proper peak by tuning the receiver to approximately 15.1 Mc. A repeat signal should be heard at this point. If none is present, even with greatly increased oscillator output, return the receiver to 16 Mc. and adjust trimmer No. 11 to the proper peak with the trimmer screw farther out.

Carefully tune the receiver to the signal and adjust trimmer No. 12 to a peak. Then try to increase the output by detuning the trimmer slightly and returning the dial until a maximum output meter deflection is secured. Check the adjustment by tuning the receiver to the image at about 15.1 Mc. The image should be much weaker than the 16 Mc. signal. If the signal at 15.1 Mc. dial setting is equal to or stronger than the 16 Mc. signal, trimmer No. 12 is not set to the proper peak. Turn the trimmer in a turn or so, then readjust as above.

