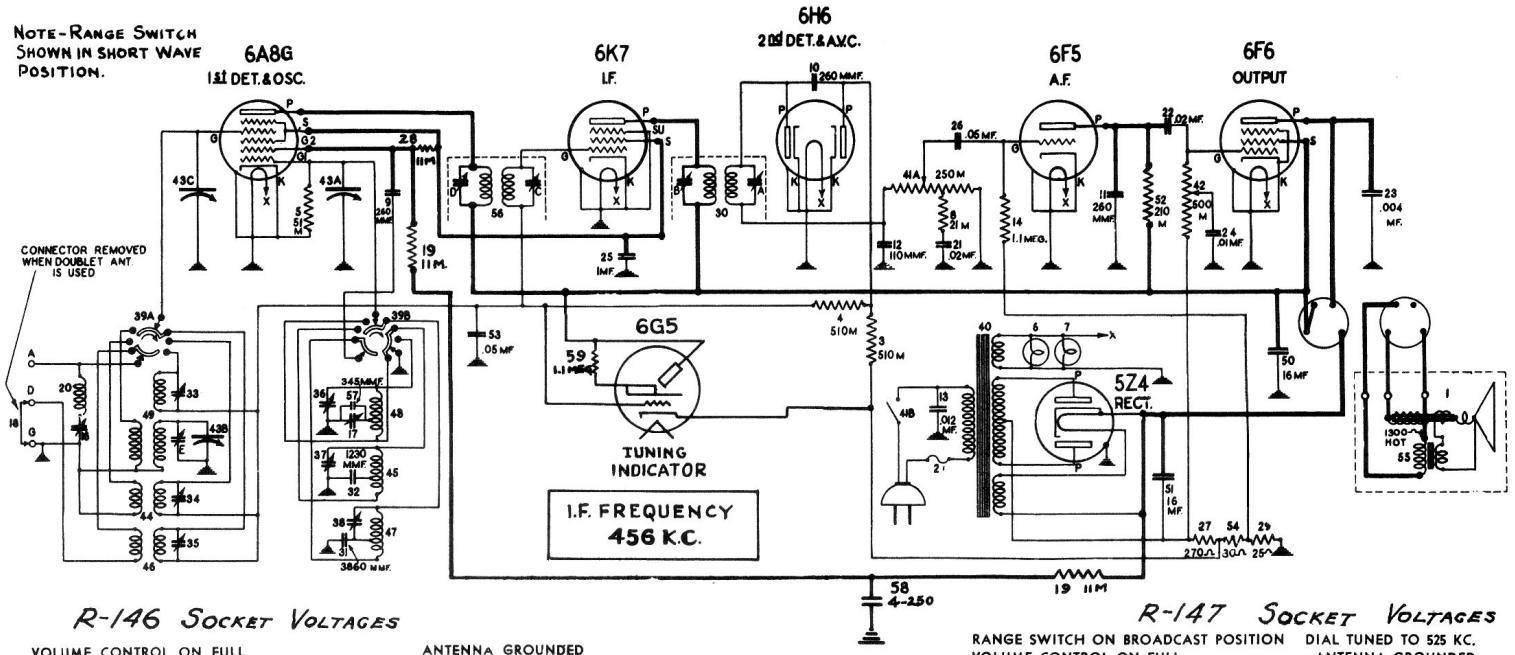
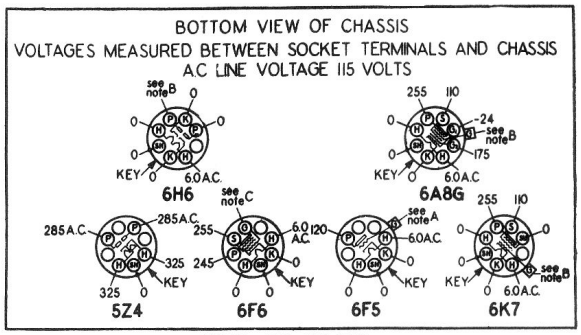


R-146 Socket Voltages

VOLUME CONTROL ON FULL
RANGE SWITCH SET ON BROADCAST POSITION
ANTENNA GROUNDED
DIAL TUNED TO 525 KC.



IMPORTANT: Use a high resistance voltmeter of 1000 ohms per volt.
NOTE A: The grid bias for the 6F5 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 6H6 is—3.5 volts measured across resistors 29 and 54.
NOTE C: The grid bias for the 6F6 output tube is—19.5 volts measured across resistors 29, 54 and 27.

CHASSIS MODEL R-146

ABOVE RECEIVER MODEL 1465

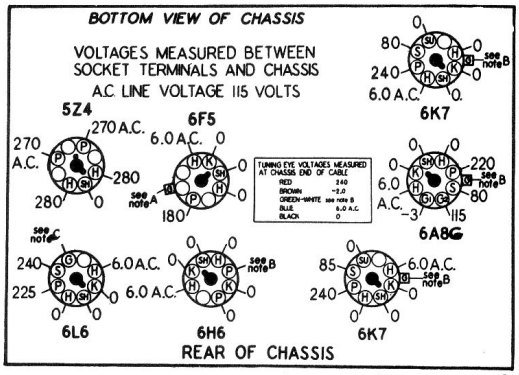
Alignment Data on Data Sheet-33

CHASSIS MODEL R-147

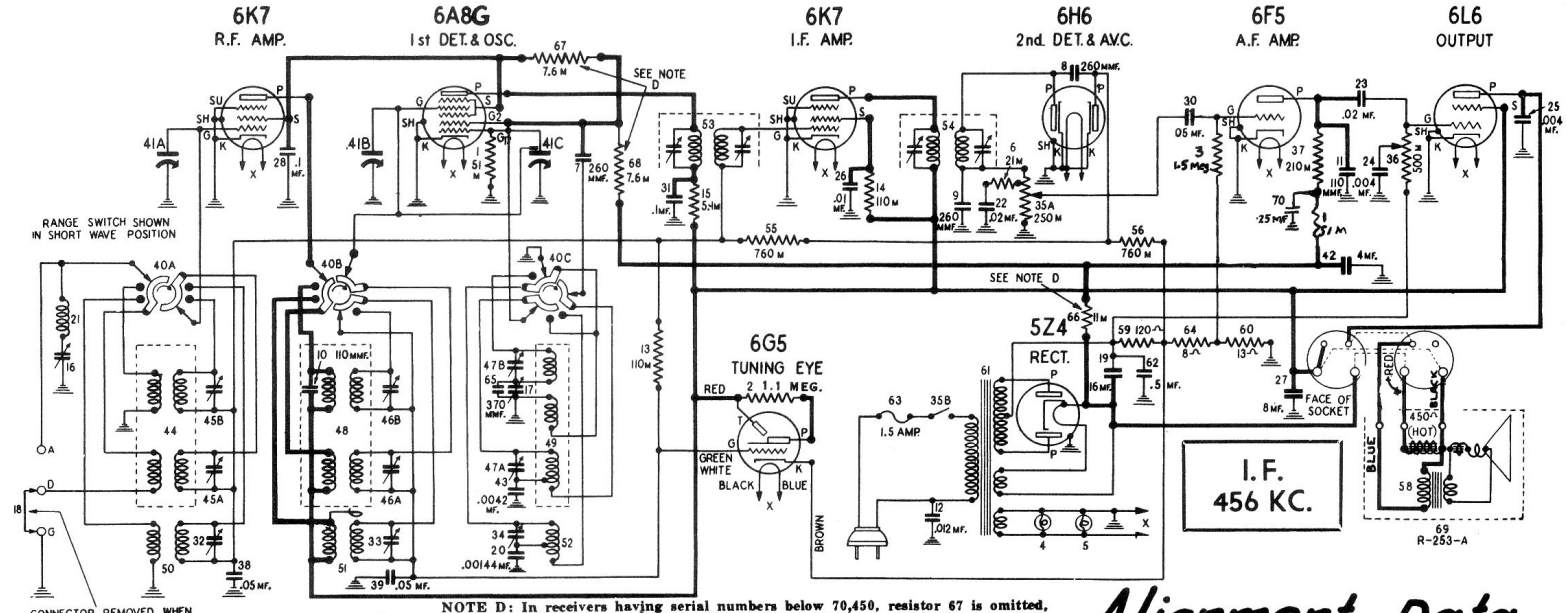
BELOW RECEIVER MODELS 1471 – 1479

R-147 Socket Voltages

RANGE SWITCH ON BROADCAST POSITION
VOLUME CONTROL ON FULL
DIAL TUNED TO 525 KC.
ANTENNA GROUNDED



IMPORTANT: Use a high resistance voltmeter of 1000 ohms per volt.
NOTE A: The grid bias for the 6F5 is—1.3 volts measured across resistor 60.
NOTE B: The grid bias for the 6A8G, 6K7's, and the anode voltage of the A.V.C. section of the 6H6 is—2.0 volts measured across resistors 60 and 64
NOTE C: The grid bias for the 6L6 output tube is —13.0 volts measured across resistor 59, 64 and 60.



NOTE D: In receivers having serial numbers below 70,450, resistor 67 is omitted, and the screen grids of the 6K7, R.F. amplifier and the 6A8G receive their current through a 31,000 ohm, 1 watt carbon resistor which is connected to the screen grid of the 6L6. In addition, resistor 66 has a rating of 30,000 ohms, 1 watt and resistor 68 has a rating of 16,000 ohms, ¼ watt.

1936-37

Alignment Data on Sheet-35a.

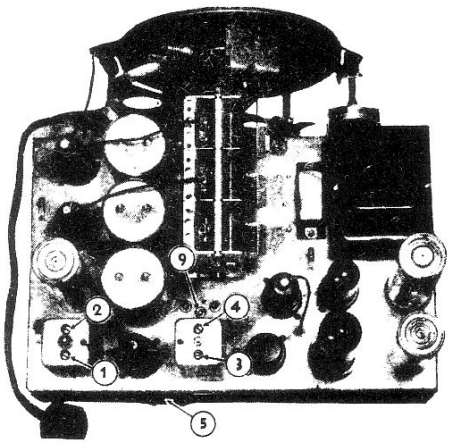
DATA SHEET

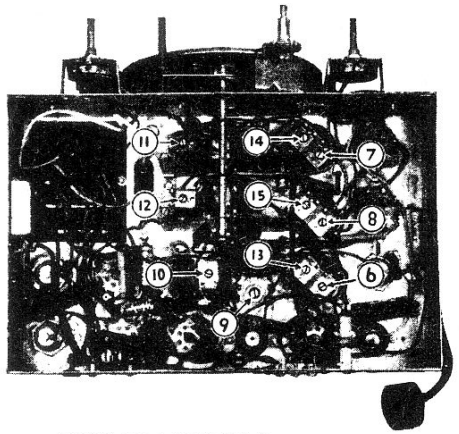
COURTESY—
STEWART-WARNER-34
ALEMITE CORP. LTD.

Alignment Data Chassis Model R-147

Receiver Models 1471 to 1479

Schematic Diagram on Data Sheet 34





CALIBRATION AND ALIGNMENT

ALIGNING EQUIPMENT: For proper alignment, an output meter and an accurately calibrated oscillator with a tuning range from 456 KC. to 16 MC. are required.

Connect the output meter from the plate of the output tube to chassis. A convenient point to make the plate connection is to the yellow wire on speaker socket.

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 6A8G 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.

WAVE-TRAP ADJUSTMENT: The wave-trap adjusting trimmer, No. 5, is located on the back of the chassis. Leave the test oscillator at 456 KC. Connect the oscillator output to the A and G terminals with a 400 ohm resistor in series with the A terminal and oscillator output. Then adjust the wave-trap trimmer No. 5 for **minimum** output. If some particular station with a frequency near 456 KC. causes code interference, it may be desirable to adjust the wave-trap on the actual frequency of the interfering station.

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. Leave the range switch in the extreme clockwise position, and leave the test oscillator connected to the A and G terminals of the receiver through a 400 ohm resistor.

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. 6 for maximum output.

Carefully tune the receiver to the signal and adjust trimmers Nos. 7 and 8 for maximum output.

Adjust the test oscillator to 600 KC. and tune the receiver to the signal. Adjust trimmer No. 9 for maximum output. Then try to increase the output meter reading by detuning No. 9 slightly and retuning the receiver dial. If the output goes down, detune the trimmer in the opposite direction. Continue detuning the trimmer and retuning 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.

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. 10 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 trimmers Nos. 11 and 12 for maximum output. Then try to increase the output by detuning No. 12 slightly and retuning the receiver dial. Continue detuning No. 12 and retuning the dial until the output meter deflection is a maximum. Then readjust No. 11 for maximum output.

BAND NO. 3 CALIBRATION AND ALIGNMENT: Turn the range switch to the extreme counter-clockwise position. Be sure the D and G 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. 13 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, retune the receiver to 16 MC. and adjust trimmer No. 13 to the proper peak with the trimmer screw farther **out.**

Carefully tune the receiver to the signal and adjust trimmers Nos. 14 and 15 to a peak. Then try to increase the output by detuning No. 15 slightly and retuning the dial until a maximum output meter deflection is secured. Then readjust No. 14 for maximum output. 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. 15 is not set to the proper peak. Turn the trimmer in a turn or so, then readjust as above.

TRIMMER LOCATIONS

Trimmer Number		Alignment Frequency
1	1st I.F. transformer trimmer	456 KC.
2	1st I.F. transformer trimmer	456 KC.
3	2nd I.F. tranformer trimmer	456 KC.
4	2nd I.F. tranformer trimmer	456 KC.
5	Wave trap trimmer	456 KC.
6	Broadcast oscillator shunt trimmer	1500 KC.
7	Broadcast antenna shunt trimmer	1500 KC.
8	Broadcast detector shunt trimmer	1500 KC.
9	Broadcast oscillator series padder	600 KC.
10	Police oscillator shunt trimmer	5 MC.
11	Police antenna shunt trimmer	5 MC.
12	Police detector shunt trimmer	5 MC.
13	Short wave oscillator shunt trimmer	16 MC.
14	Short wave antenna shunt trimmer	16 MC.
15	Short wave detector shunt trimmer	16 MC.

Alignment Data Stewart-Warner R-146 (Model 1465) on Data Sheet 33

COURTESY-

DATA SHEET STEWART-WARNER-35a

ALEMITE CORP.

RCC - Stewart-Warner Data Sheet 35A (Lower) - 1936 -37