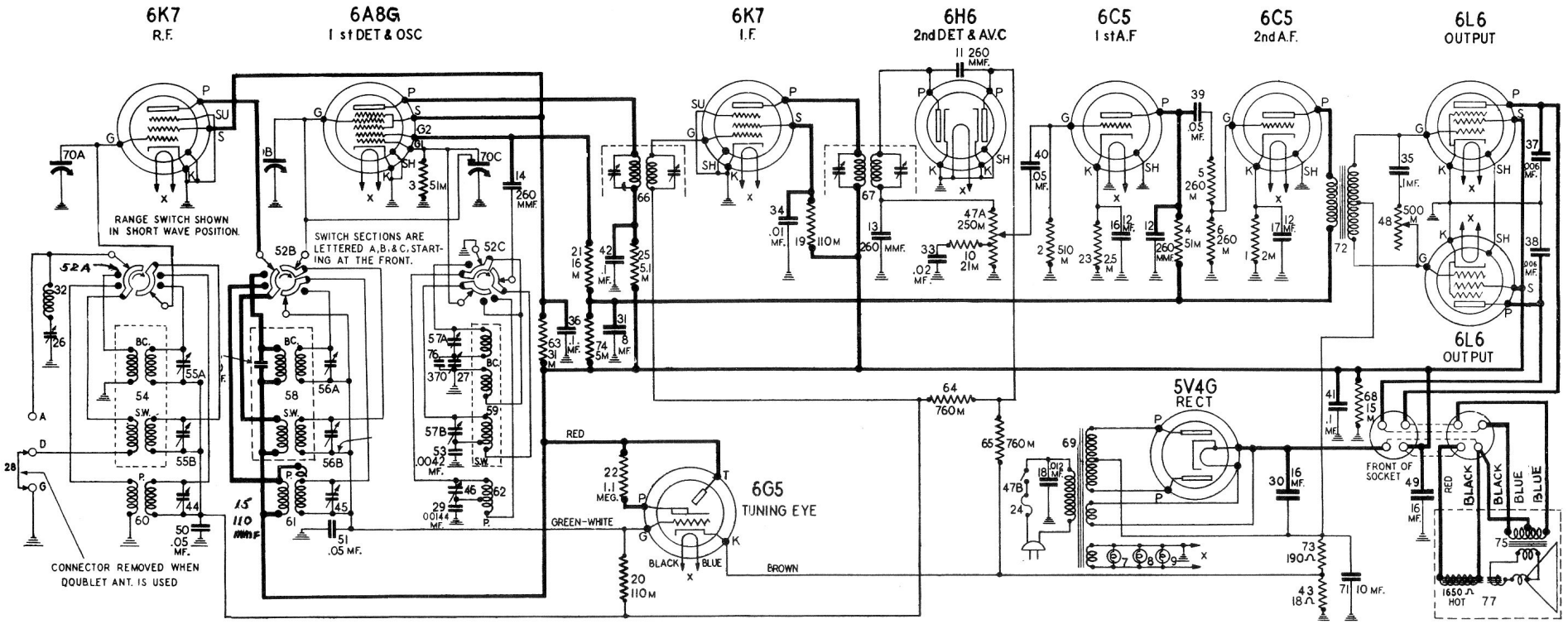
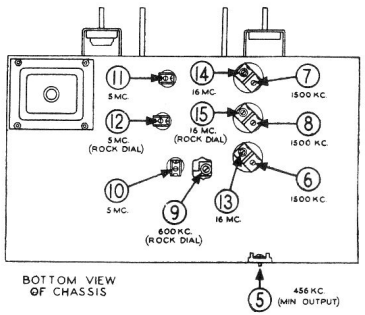
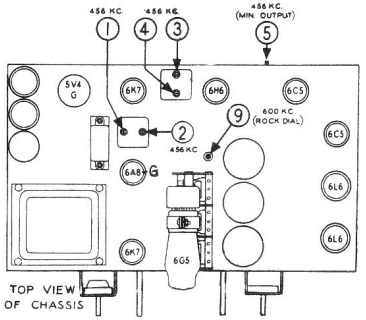






I.F. = 456 K.C.

Alignment Data on Sheet-35a

1936-37

CHASSIS MODEL R-148
RECEIVER MODEL-1485

TRIMMER LOCATIONS

I.F. AMPLIFIER

Trimmer No.	
1, 2	First I.F. transformer trimmers
3, 4	Second I.F. transformer trimmers

WAVE TRAP

5	456 KC. wavetrap trimmer

BAND No. 1 (BROADCAST) (527 to 1750 KC.)

6	Broadcast band oscillator shunt trimmer
7	Broadcast band antenna shunt trimmer
8	Broadcast band detector shunt trimmer
9	Broadcast band oscillator series padder

BAND No. 2 (1720 to 5600 KC.)

10	Band No. 2 oscillator shunt trimmer
11	Band No. 2 antenna shunt trimmer
12	Band No. 2 detector shunt trimmer

BAND No. 3 (5.5 to 18 MC.)

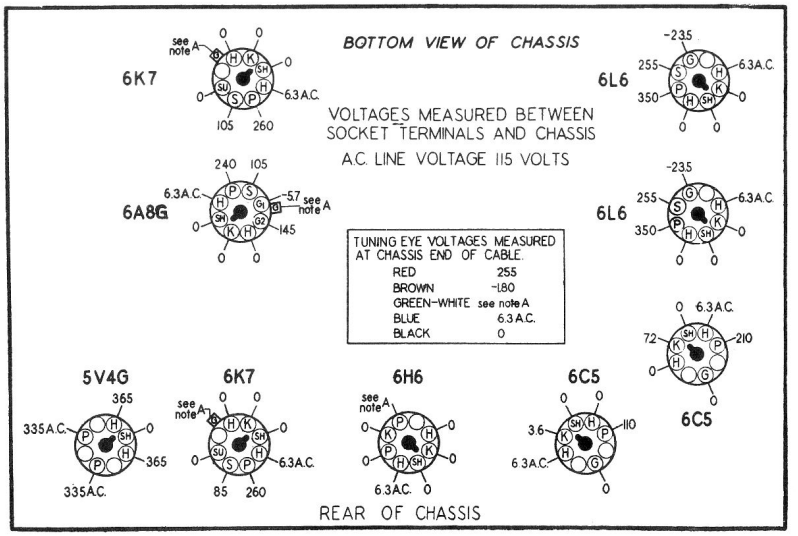
13	Band No. 3 oscillator shunt trimmer
14	Band No. 3 antenna shunt trimmer
15	Band No. 3 detector shunt trimmer

SOCKET VOLTAGES

VOLUME CONTROL ON FULL — ANTENNA GROUNDED
RANGE SWITCH SET ON BROADCAST POSITION — SET TUNED TO 530 K. C.

IMPORTANT: Use a high resistance voltmeter of 1,000 ohms per volt.

NOTE A:—1.8 volts measured across resistor 43.



TUNING EYE VOLTAGES MEASURED AT CHASSIS END OF CABLE.

RED	255
BROWN	-1.80
GREEN-WHITE	see note A
BLUE	6.3 A.C.
BLACK	0

COURTESY STEWART-WARNER ALEMITE CORP. LTD.

STEWART-WARNER-35

DATA SHEET

Alignment Data For Chassis Model R-148

Schematic Diagram on Data Sheet 35

Receiver Model 1485

ALIGNMENT OF THE I.F. AMPLIFIER

1. (a) Turn the volume control to maximum volume position and keep it in this position throughout the entire alignment procedure.

(b) Connect the test oscillator output leads to the 6A8G control grid and the chassis with a **.1 or .25 mfd. condenser in series with the oscillator lead to the 6A8G grid.**

(c) Set the test oscillator to exactly 456 KC. Adjust the output of the test oscillator to give about half scale deflection on the output meter.

(d) Turn the range switch to the extreme clockwise position and set the tuning dial to any point where there is no tuning effect on the oscillator signal.

(e) Adjust the four I.F. transformer trimmers (trimmers No. 1, 2, 3, and 4) for maximum output meter deflection.

(f) Repeat the four trimmer adjustments, since the adjustment of each trimmer has some effect on the others.

ADJUSTMENT OF WAVE TRAP

2. (a) Leave the test oscillator at 456 KC. but connect the oscillator output to the A and G terminals of the receiver with a 400 or 500 ohm carbon resistor in series with the oscillator output and the A terminal.

(b) Adjust trimmer No. 5 for **minimum** output. Increase the oscillator output as necessary to obtain a clearly defined point of minimum output. If some particular station with a frequency slightly different than 456 KC. causes code interference, it may be advisable to adjust trimmer No. 5 on the actual frequency of the interfering station.

BAND NO. 1 (BROADCAST) CALIBRATION

3. (a) Check the position of the dial pointer on its shaft by turning the tuning knob until the rotor plates of the gang condenser are in full mesh. The slow-moving dial pointer should then coincide with the low frequency end of the dial scale. If it does not hold the dial gear and turn the pointer to the correct position.

(b) Turn the range switch control to the extreme right position. (Clockwise).

(c) Connect a 400 or 500 ohm carbon resistor in series with the test oscillator output and the receiver antenna terminal. (Note: This resistor should remain connected for all subsequent adjustments.

(d) Ground the receiver.

(e) Adjust the test oscillator to exactly 1500 KC.

(f) Tune in the 1500 KC. oscillator signal or a station above 1300 KC. on the dial and determine whether the dial calibration is correct at the high frequency end of the dial. If it is not correct, adjust trimmer No. 6 to give proper calibration. Do not adjust this trimmer if the dial calibration is correct at the high frequency end of the dial.

BAND NO. 1 (BROADCAST) ALIGNMENT

4. (a) With the test oscillator set at 1500 KC. tune the receiver to the signal for maximum output.

(b) Adjust trimmers No. 7 and 8 for maximum output. Do not touch trimmer No. 6 as this will change the calibration.

(c) Adjust the test oscillator to exactly 600 KC. and tune the receiver to the signal. Adjust trimmer No. 9 for maximum output. Then try to increase the output by detuning the trimmer and retuning the receiver dial. If this reduces the output, detune the trimmer on the opposite direction. Continue detuning the trimmer and retuning the dial until a maximum output meter deflection is secured. This operation is commonly known as "rocking." The object of this adjustment is to find the combination of trimmer adjustment and tuning condenser position which gives the maximum output. This adjustment should not be changed regardless of whether the dial reads exactly 600 KC. or slightly off 600 KC. for maximum output.

(d) Check the adjustment of trimmers Nos. 6, 7 and 8 at 1500 KC.

BAND NO. 2 CALIBRATION

5. (a) Turn the range switch to the center position.

(b) Adjust the test oscillator to exactly 5.0 MC.

(c) Tune in the 5 MC. oscillator signal at or near 5 MC. on the receiver dial to determine whether the receiver dial calibration is correct at 5 MC. If it is, do not adjust trimmer No. 10. If the calibration is incorrect, set the dial pointer at 5 MC. on the dial, and adjust trimmer No. 10 until the oscillator signal comes in at this point. If there are two peaks, the proper one is that with the trimmer screw farthest **out.**

BAND NO. 2 ALIGNMENT

6. (a) With the test oscillator set at 5.0 MC., tune the receiver for maximum output.

(b) Adjust trimmer No. 11 and 12 for maximum output. After this is done try to increase the output meter reading by detuning No. 12 slightly and retuning the receiver dial. If the output goes down, detune the trimmer in the opposite direction. Continue detuning No. 12 and retuning the set until maximum output meter deflection is secured. Then readjust No. 11.

BAND NO. 3 CALIBRATION

7. (a) Turn the range switch to the extreme left (counter clockwise).

(b) Be sure that the D and G terminals on the antenna terminal strip are connected together.

(c) Adjust the test oscillator to exactly 16 megacycles.

(d) Tune in the 16 MC. oscillator signal at or near 16 MC. on the receiver dial to determine whether the receiver dial calibration is correct at 16 MC. If it is, do not adjust trimmer No. 13. If the calibration is incorrect, set the receiver dial pointer exactly at 16 MC. and adjust trimmer No. 13 until the oscillator signal comes in at this point.

(e) Check to see that trimmer No. 13 is adjusted to the proper peak by tuning the receiver to approximately 15.1 MC. If a repeat signal is not heard at this point, even with greatly increased oscillator output, retune the receiver to 16.0 MC. and adjust trimmer No. 13 to the proper peak with the trimmer screw farther **out.**

BAND NO. 3 ALIGNMENT

8. (a) With the test oscillator set at 16 MC. tune the receiver for maximum output.

(b) Adjust trimmer No. 14 and 15 for maximum output. After this is done, try to increase the output meter deflection by detuning No. 15 slightly and retuning the receiver dial. If this causes the output to drop, detune the trimmer in the opposite direction. Continue detuning No. 15 and retuning the set until the output is at a maximum. Then readjust No. 14.

(c) Check the adjustment of No. 15 by tuning the receiver to the image at 15.1 MC. and noting if the image is 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 in 8 (b).