Stewart-Warner Corp.

	Model: R-134	Chassis:	Year: Pre October 1936
	Power:	Circuit:	IF:
	Tubes:		
	Bands:		

Resources

Riders Volume 7 - STEW WAR 7-3

STEWART-WARNER CORP.

MODELS 1341 to 1349
Chassis R-134
Final schematic note
Trimmers, Alignment

The temporary schematic is the same as the final, except that the fixed condenser that is shunted across the Broadcast Osc. coil (upper coil in No.38) has a value of 11 mmf. The resistance of the speaker field (#11) is 1300 ohms warm.

ALIGNING EQUIPMENT

For the proper alignment of this receiver, an output meter and a high grade modulated service oscillator are essential.

The oscillator should be capable of generating the frequencies of 456 KC., 600 KC., 1400 KC. and a short-wave range extending to 6000 KC. The test oscillator calibration should be checked, using broadcast station signals as standards.

In order that alignment may be carried out without actuating the A.V.C. of the receiver, it must be possible to reduce the output of the test oscillator to a very low value.

For trimmer adjustment, it is advisable to use an all-bakelite screw driver, although one with a small metal tip may be used.

ALIGNING PROCEDURE

The step by step routine given below should be carefully followed. The trimmer numbers referred to are shown in the illustration.

ALIGNING THE I. F. CIRCUIT

1. (a) Connect the output meter across the primary of the output transformer (red and yellow lead terminals on the speaker terminal strip.)
(b) Turn the receiver volume control to 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.
(c) Adjust the test oscillator to exactly 456 KC. and connect its output to the modulator grid of the 6A7 tube and the chassis.
(d) Adjust all four I.F. trimmers (trimmer groups 1 and 2) for maximum output as indicated on the output meter. Adjust the test oscillator output to give about one half full-scale deflection on the output meter.
(e) Repeat all four adjustments since the changing of each I.F. trimmer affects the others to a certain extent, thus necessitating readjustment.

BROADCAST RANGE CALIBRATION

If the set should require calibration, proceed as follows:
2. (a) Turn the gang condenser to full mesh and check to see that the dial pointer indicates 540 KC. If not, remove the dial glass and turn the pointer to the correct position.
(b) Turn the range switch to the clockwise position.
(c) Connect a 400 or 500 ohm carbon resistor in series with the test oscillator output and the receiver antenna terminal, and connect the oscillator ground lead to the chassis.
(d) Adjust the test oscillator to 1400 KC.
(e) Turn the receiver dial pointer to indicate 1400 KC. on the dial.
(f) Adjust trimmer No. 3 (broadcast oscillator shunt trimmer) for maximum output without changing the setting of the main condenser. Maintain the level of the test oscillator output at a value which gives about one half full-scale deflection on the output meter.

BROADCAST RANGE ALIGNMENT

3. (a) Adjust the test oscillator to 1400 KC. and tune the receiver for maximum output.
(b) Adjust trimmers No. 4 and 5 (broadcast detector and antenna shunt trimmers respectively) for maximum output.
4. (a) Adjust the test oscillator to 600 KC. and tune the receiver to the signal.
(b) Adjust trimmer No. 6 (broadcast oscillator series padder) for maximum output.
(c) Retune the condenser gang to a peak and readjust trimmer No. 6 for maximum output.
(d) Continue to readjust trimmer No. 6 and retune until maximum output is obtained.

SHORT WAVE RANGE CALIBRATION

5. (a) Turn the receiver range switch to the counter-clockwise position.
(b) Adjust the test oscillator output to 6 MC.
(c) Turn the receiver dial pointer to indicate 6 MC. on the dial.
(d) Adjust trimmer No. 7 (short wave oscillator shunt trimmer) for maximum output.
(e) To check for possible adjustment of the receiver to the image frequency, turn the dial pointer to approximately 5.1 megacycles where a repeat signal should be heard. If no response is received here even with greatly increased test oscillator output, retune the dial pointer to 6 MC. and readjust trimmer No. 7 to a peak, with the trimmer screw farther out.

SHORT WAVE RANGE ALIGNMENT

1. Adjust the test oscillator to 6 MC. and carefully tune the receiver to the signal.
2. Adjust trimmers No. 8 and 9 (short wave detector and antenna shunt trimmers respectively) for maximum output.