



Stewart-Warner Corp.

	Model: R-172 Chassis	Chassis:	Year: Pre October 1937
	Power:	Circuit:	IF:
	Tubes:		
	Bands:		
Resources			
Riders 8 (VIII) STEW WAR 8-11			
Riders 8 (VIII) STEW WAR 8-12			

MODELS 1691 to 1695
Chassis R-169
Models 1721 to 1729
Chassis R-172
Alignment Parts

STEWART-WARNER CORP.

CALIBRATION AND ALIGNMENT

ALIGNING EQUIPMENT: For proper alignment, an output meter and an accurately calibrated oscillator with a tuning range from 262 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 the 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 6A8 control grid and chassis with a .1 mf. condenser in series with the oscillator output. Set the oscillator to exactly 262 KC. Set the receiver dial at any point where there is 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. If it does not, hold the dial gear and turn the pointer to the correct position.

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.

Tune in the 1500 KC. oscillator signal for 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 the calibration is correct, do not adjust the broadcast oscillator shunt trimmer No. 5. If the calibration is incorrect, adjust trimmer No. 5 to give proper calibration.

Carefully tune the receiver to the signal and adjust trimmers 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 retuning the dial. If the output meter continues to decrease 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.

POLICE BAND CALIBRATION AND ALIGNMENT

Turn the range switch to the center position. Adjust the test oscillator to exactly 5.0 MC. 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 police band oscillator shunt trimmer No. 9. If the calibration is incorrect, set the dial pointer to 5 MC. on the dial, and adjust the oscillator shunt trimmer No. 9 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. 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 retuning the receiver dial. Continue detuning No. 10 and retuning the dial until the output meter deflection is a maximum.

SHORT WAVE BAND CALIBRATION AND ALIGNMENT

Turn the range switch to the extreme counter-clockwise position. Set the test oscillator to 16 MC. Tune in the 16 MC. oscillator signal at 16 MC. on the receiver dial to determine whether the receiver dial calibration is correct at 16 MC. If it is, do not adjust the short wave band oscillator shunt trimmer No. 11. If the calibration is incorrect, set the receiver dial pointer exactly at 16 MC. and adjust the oscillator shunt trimmer No. 11 until the oscillator signal comes in at this point.

Check to see that it has been adjusted to the proper peak by tuning the receiver to approximately 15.5 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. 11 to the proper peak with the trimmer screw farthest 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 retuning the dial until a maximum output meter deflection is secured. Check the adjustment by tuning the receiver to the image at about 15.5 MC. The image should be much weaker than the 16 MC. signal. If the signal at 15.5 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.

Diagram Number	Part Number	Description	List Price
2-3	38841	Fuse, 1 amp., 250 volt.	\$0.10
4	83072	510,000 ohm $\frac{1}{4}$ watt carbon resistor.	.12
5-6	83080	51,000 ohm $\frac{1}{4}$ watt carbon resistor.	.12
7-8	83278	Dial lamps	.15
9	83539	260 mmfd. mica condenser.	.20
9	83783	110 mmfd. mica condenser.	.20
10	83976	.012 mfd. 1000 volt shielded condenser.	.40
11-12	84235	1.1 megohm $\frac{1}{2}$ watt carbon resistor.	.12
13	85061	.51 mmfd. mica condenser.	.15
14	85442	21,000 ohm $\frac{1}{2}$ watt carbon resistor.	.15
15	85454	11 mmfd. mica condenser.	.15
16	86026	.02 mfd. 400 volt paper condenser.	.25
17	86030	.01 mfd. 400 volt paper condenser.	.25
18	86046	.1 mfd. 150 volt paper condenser.	.25
19	86189	.05 mfd. 200 volt paper condenser.	.25
20	86463	270 ohm 1 watt carbon resistor.	.15
21	86464	26,000 ohm 1 watt carbon resistor.	.15
22	86478	Fading condenser	.30
23	86481	Power transformer (115 volt—60 cycle)	5.00
24	86488	Tone control—500,000 ohm	.40
25	86511	16 mfd. 300 volt electrolytic condenser.	1.10
26	86512	16 mfd. 400 volt electrolytic condenser.	1.10
27	86532	210,000 ohm $\frac{1}{2}$ watt carbon resistor.	.12
28, 29	86534	.05 mfd. 150 volt condenser (low loss).	.25
30A to D	86543	Antenna and preselector coil assembly.	2.50
31A-31B	86604	Dial trimmer condenser	.30
32	86606	Oscillator coil (BC)	.50
34	86681	.00255 mfd. mica condenser.	.30
35	86686	200 mmfd. mica condenser.	\$0.14
36-7	86688	Trimmer condenser	.12
38-39	86796	Output transformer for R-248 spkr.	2.50
40	86912	Output transformer for R-247-A spkr.	2.00
41	86920	35 ohm $\frac{1}{2}$ watt wire wound resistor.	.12
42	86916	20 ohm $\frac{1}{2}$ watt wire wound resistor.	.15
43A	86906	Volume control—250,000 ohm	1.20
43B	86907	A.C. line switch	1.25
44	86908	Range switch	2.35
45	89607	1st I.F. transformer.	2.40
46	89608	2nd I.F. transformer.	2.40
47	89613	Oscillator coil (S.W.)	.75
48	89625	.00495 mfd. mica condenser.	5.00
49A to C	89649	Cong. condenser	5.00
50	89658	.262 KC. wave trap (apl. for service only)	1.50
51	89626	.004 mfd. 750 volt paper condenser.	9.00
52A & 52B	82434	Photograph legible switch.	\$1.10
1	86055	Fuse, $\frac{1}{2}$ amp., used for line voltages of 200 to 240 volts.	.12
23	89216	Power transformer (100-240 volts, 25-ohm, 133 cycles)	11.50
53	89709	Photograph terminal strip	.15

MODEL R-172-X PARTS

52A & 52B	84404	Photograph toggle switch	\$1.10
1	88055	Fuse, $\frac{1}{2}$ amp., used for line voltages of 200 to 240 volts	.12
23	89216	Power transformer (100-240 volts, 25-133 cycles)	11.50
53	89709	Photograph terminal strip	.15

TUNING DRIVE AND DIAL PARTS

Part Number	Description	List Price
88564	Pointer and stud assembly.	\$0.12
88743	Dial drive shaft	.05
88744	Dial drive shaft retainer spring	.05
88745	Dial ring and bracket assembly (for edge lighting)	.90
88748	Dial disc and bracket assembly	.30
88956	Escutcheon with glass	1.65
89083	Dial lamp socket	.15
89284	Dial lamp shield	.02
89285	Dial background	.12
89600	Dial scale	1.00
89799	Dial scale retaining clip	.02

MISCELLANEOUS PARTS

Part Number	Description	List Price
67032	Felt washer for back of knob—per C.	\$0.35
67590	Enamel washer for 88512 electrolytic condenser.	.08
81428	Plastic mounting bushing for chassis	.01
81603	No. 10 x 1 1/2 chassis mounting screws	.01
84805	Felt washer (used with mounting screw)	.01
84981	Tube shield (plain section)	.01
84982	Tube shield (slotted section)	.01
84983	Spring ring for tube shields	.03
85738	Antenna and ground lead	.15
86056	Fuse mounting strip	.08
86057	Tube cover	.06
86631	Speaker cable plug	.06
86675	Speaker socket	.12
86822	Speaker mounting screw for 1691A (ornamental head)	.01
88958	No. 2 x 3/8 R.H.W. escutcheon screw	.01
88959	No. 10 x 1 1/2 chassis mounting screws	.01
88984	Knob (for range switch)	.20

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