Stewart-Warner Corp.

	Model: 1812	**Chassis:**	**Year:** Pre October 1938
	Power:	**Circuit:**	**IF:**
	Tubes:		
	Bands:		

Resources

- Riders Volume 9 - STEW WAR 9-9
- Riders Volume 9 - STEW WAR 9-10

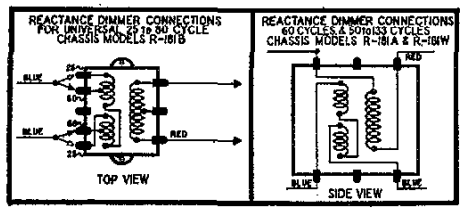
Chassis R-181W
Phono.Schematic
Chassis R-181A,R-181B Data

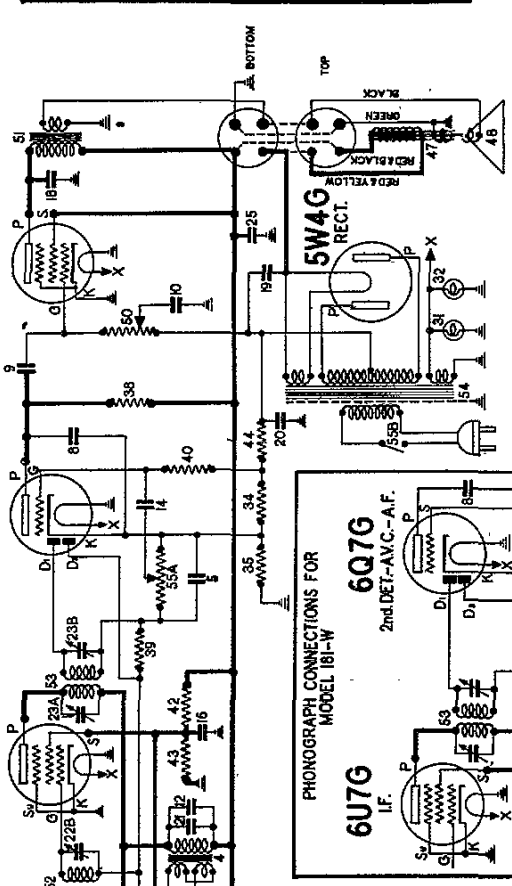
STEWART-WARNER CORP.

MODELS 1811-1819 incl.
Chassis R-181
Schematic,Socket,Voltage
Parts

STEWART-WARNER R-181 CHASSIS

(RECEIVER MODELS 1811 to 1819)





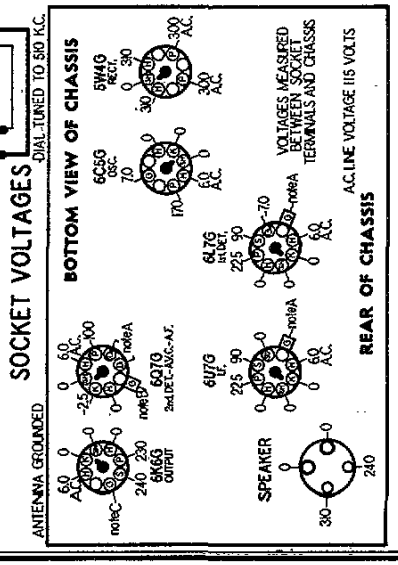


DIAGRAM NUMBER	PART NUMBER	DESCRIPTION	LIST PRICE
24A to C-	110743	Condenser - variable gang	4.50
25	110768	Condenser - elect. 8 mfd. 450 volt	1.25
25	112108	Condenser - electrolytic 8 mfd. 450 volt (Model 181-W only)	1.30
26	110850	Condenser - wire 7 mmf.	.18
27A to C-	110859	Condenser - trimmer (3 section for osc. coil)	.65
28A to B-	110882	Condenser - trimmer (2 section for ant. coil)	.44
29	110906	Condenser - mica .00332 mfd. (3%)	.40
30	110907	Condenser - mica 980 mmfd. (3%)	.30
31-32	110629	Lamp - dial: 6.3 volt - .25 amps	.15
33	110911	Lamp - dim. reactor 2.5 V., .5 amp.	.15
34	58485	Resistor - wire wd. 25 ohm ½ watt	.15
35	110534	Resistor - wire wd. 40 ohm ½ watt	.12
36	110550	Resistor - carbon 10000 ohm ½ watt	.15
37	110552	Resistor - carbon 47,000 ohm ½ watt	.12
38	110553	Resistor - carbon 220,000 ohm ½ W.	.12
39-40	110554	Resistor - carbon 1 megohm ½ watt	.12
41	110560	Resistor - carbon 100 ohm ½ watt	.12
42	110561	Resistor - carbon 15,000 ohm 2 W.	.30
43	110562	Resistor - carbon 22,000 ohm ½ W.	.12
44	110872	Resistor - wire wd. 160 ohm 1 watt	.12
45A to B-	84404	Switch - phono toggle (model 181-W)	1.10
46A to B-	110856	Switch - range	1.20
47	R-276-A	Speaker -dyn. 6" (models 1812-1811)	6.00
	R-279-A	Speaker - dynamic 10" (model 1815)	8.00
48	110942	Cone - Spkr. & voice coil assem. for R-276 spkr.)	1.20
	110945	Cone - and voice coil assem. (for R-279-A spkr.)	1.80
49	89709	Terminal strip - phono (model 181W)	.15
50	110767	Tone control - (500,000 ohm)	.80
51	110789	Transformer - output (model 181-A or 181-B)	1.65
	112105	Transformer - output (Model 181-W)	1.65
52	110851	Transformer - 1st I.F.	1.85
53	110853	Transformer - 2nd I.F.	1.65
54	110862	Transformer - power (115 V. 60 C)	5.00
	112076	Transformer - power (115 V. 25 C)	7.50
	112119	Transformer-Power 100-240 V. 50-133	7.75
55A to B-	110786	Volume control - 1 megohm (with on-off switch)	.90
56	110864	Condenser - trimmer (single section for antenna coil)	.24
1	110536	Coil - antenna trap	$1.02
2	110860	Coil - Osc. (Less trimmers)	1.40
3	110861	Coil - assembly (antenna & preselector) with trimmer	3.00
4	110786	Coil - dimmer reactor (60 cycle)	2.25
	110995	Coil - reactance dimmer (25 to 60 cycle) (Model 181-B only)	3.00
	112152	Coil - reactance dimmer (for 181-W only)(50 to 133 cycle)	2.50
5	83539	Condenser - mica 260 mmfd.	.20
6	85061	Condenser - mica 51 mmfd.	.15
7	85285	Condenser - padding	.40
8	85394	Condenser - mica 510 mmf.	.25
9	88026	Condenser - paper .02 mfd.-400 V.	.25
10-11	88030	Condenser - paper .01 mfd.-400 V.	.25
12-13	88046	Condenser - paper .1 mfd. 150 V.	.25
14	88189	Condenser - paper .05 mfd.-200 V.	.25
15	88534	Condenser - paper .05 mfd.-150 V.	.25
16	89421	Condenser - paper .1 mfd.-200 V.	.25
17	89564	Condenser - mica 345 mmfd. (3%)	.40
18	89825	Condenser - paper .004 mfd. - 750 volt (used in early production	.24
	111214	Condenser - paper .01 mfd. 600 volt (used in late production	.24
19	89937	Condenser - elect. 30 mfd.-450 V.	1.80
20-21	110377	Condenser - elect 10 mfd.-25 volt	.80
	112113	Condenser - elect. 10 mfd. 50 volt (for model 181-W only)	.85
22A to B	110516	Condenser - trimmer strip (for I.F. transformer)	.58
23A to B			

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

NOTE A: The bias for the control grids of the 6L7G, 6U7G, and the diode plates of the 6Q7G is -2.5 volts measured across resistor number 35.

NOTE B: The bias for the control grid of the 6Q7G is -4 volts measured across resistors 34 and 35.

NOTE C: The bias for the control grid of the 6K6G output tube is -16 volts measured across resistors 34, 35, and 44.

PRICES ARE SUBJECT TO CHANGE WITHOUT NOTICE

MODELS 1811-1819 incl.
Chassis R-181
Alignment, Trimmers, Parts
Dial Data

STEWART-WARNER CORP.

MODEL R-181 CHASSIS (RECEIVER MODELS 1811 to 1819)

ALIGNMENT EQUIPMENT & PROCEDURE

For alignment, an output meter and an accurately calibrated signal generator with a tuning range from 465 KC. to 6.0 MC. are required.

① Connect the output meter across the voice coil or between the plate of the 6K6G tube and ground, depending on the type of meter. (The more sensitive type should be connected across the voice coil.)

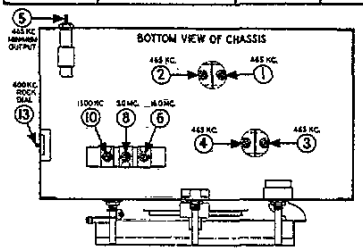
② Connect the ground lead of the signal generator to the chassis of the receiver.

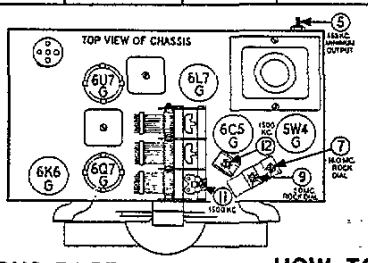
③ Turn the volume control to the maximum volume position and keep it in this position throughout the entire alignment procedure.

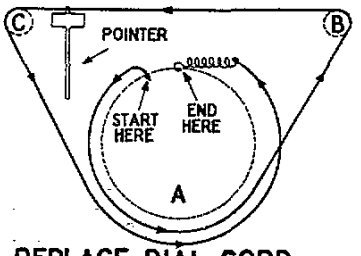
④ With the gang condenser in full mesh set the pointer on the last scale division on the low frequency end of the dial. This may be accomplished by releasing the clip on the pointer slider; where it attaches to the dial cord.

IMPORTANT:—THE BROADCAST BAND MUST BE ALIGNED AFTER THE SHORT-WAVE BAND.

DUMMY ANT. IN SERIES WITH SIG. GEN.	CONNECTION OF SIG. GENERATOR OUTPUT TO RECEIVER	SIGNAL GENERATOR FREQUENCY	RANGE SWITCH POSITION	RECEIVER DIAL SETTING	TRIMMER NUMBER	TRIMMER DESCRIPTION	TYPE OF ADJUSTMENT
.1 MFD CONDENSER	CONTROL GRID OF 6L7G TUBE	465 KC.	BROADCAST (Clockwise)	ANY POINT WHERE IT DOES NOT AFFECT THE SIGNAL	1 - 2	1ST I.F.	ADJUST FOR MAXIUM OUTPUT. THEN REPEAT ADJUSTMENT.
					3 - 4	2ND I.F.	
400 OHM CARBON RESISTOR.	ANTENNA TERMINAL	465 KC.	BROADCAST (Clockwise)	ANY POINT WHERE IT DOES NOT AFFECT THE SIGNAL	5	WAVE TRAP	ADJUST FOR MINIMUM OUTPUT USING A STRONG GENERATOR SIGNAL.
400 OHM CARBON RESISTOR	ANTENNA TERMINAL	16 MC.	SHORT-WAVE (Counter-clockwise)	16 MC.	6	SHORT-WAVE OSCILLATOR	ADJUST TO BRING IN SIGNAL. CHECK TO SEE IF PROPER PEAK WAS OBTAINED BY TUNING IN IMAGE AT APPROX. 15.1 KC. IF IMAGE DOES NOT APPEAR REALIGN AT 16 MC. WITH TRIMMER SCREW FARTHER OUT. RECHECK IMAGE.
400 OHM CARBON RESISTOR	ANTENNA TERMINAL	16 MC.	SHORT-WAVE (Counter-clockwise)	TUNE TO 16 MC. GENERATOR SIGNAL	7	SHORT-WAVE ANTENNA	ADJUST FOR MAXIMUM OUTPUT. TRY TO INCREASE OUTPUT BY DETUNING TRIMMER AND RETUNING RECEIVER DIAL UNTIL MAXIMUM OUTPUT IS OBTAINED.
400 OHM CARBON RESISTOR	ANTENNA TERMINAL	5.0 MC.	POLICE (Center)	5.0 MC.	8	POLICE OSCILLATOR	ADJUST TO BRING IN SIGNAL. CHECK TO SEE IF PROPER PEAK WAS OBTAINED BY TUNING IN IMAGE AT APPROX. 4.1 MC. IF IMAGE DOES NOT APPEAR REALIGN AT 5.0 MC. WITH TRIMMER SCREW FARTHER OUT. RECHECK IMAGE
400 OHM CARBON RESISTOR	ANTENNA TERMINAL	5.0 MC.	POLICE (Center)	TUNE TO 5.0 MC. GENERATOR SIGNAL	9	POLICE ANTENNA	ADJUST FOR MAXIMUM OUTPUT. TRY TO INCREASE OUTPUT BY DETUNING TRIMMER AND RETUNING RECEIVER DIAL UNTIL MAXIMUM OUTPUT IS OBTAINED.
400 OHM CARBON RESISTOR	ANTENNA TERMINAL	1500 KC.	BROADCAST (Clockwise)	1500 KC.	10	BROADCAST OSCILLATOR (Shunt)	ADJUST TRIMMER TO BRING IN SIGNAL.
400 OHM CARBON RESISTOR	ANTENNA TERMINAL	1500 KC.	BROADCAST (Clockwise)	TUNE TO 1500 KC. GEN.SIG.	11	ANTENNA	ADJUST FOR MAXIMUM OUTPUT.
					12	DETECTOR	
400 OHM CARBON RESISTOR	ANTENNA TERMINAL	600 KC.	BROADCAST (Clockwise)	TUNE TO 600 KC. GENERATOR SIGNAL	13	BROADCAST OSCILLATOR (Series Pad)	ADJUST FOR MAXIMUM OUTPUT. TRY TO INCREASE OUTPUT BY DETUNING TRIMMER AND RETUNING RECEIVER DIAL UNTIL MAXIMUM OUTPUT IS OBTAINED.







DIAL DRIVE & MISCELLANEOUS PARTS

PART NUMBER	DESCRIPTION	LIST PRICE
110712	Band Indicator - assembly	$ .35
110663	Bracket - dial assembly (right hand)	.25
110654	Bracket - dial assembly (left hand)	.25
88810	Bushing - rubber for chassis mtg.	.03
89912	Clip - tube grounding	.02
81068	Cord - dial drive (35" lengths) Per Ft.	.05
110782	Cord - for band indicator (2 ft.)	.10
110715	Drive shaft - bracket & indicator assem.	1.00
110690	Drum - and disc assembly	.48
111030	Escutcheon - & glass window(model 1815&1811)	1.30
111850	Escutcheon - & glass window(model R-1812-A)	1.75
110707	Frame - dial, with scale complete	1.70
110879	Knob - (model 1815 all controls)(model 1811 tuning control only)	.20
111254	Knob - tuning (model 1812 only)	.25
111255	Knob - tone,volume & range(model 1812 only)	.25
111125	Knob - tone,volume & range(model 1811 only)	.18
110784	Lever - assembly for band indicator	.12
110498	Plug - speaker (4 prong)	.12
36437	Pin - escutcheon mtg. (no. 18 X 5/16") Per C	.10
110785	Pointer - dial	.14
110711	Scale - dial	.85
87449	Screw - SX3/8" self tapping(for dial brkts)	.03
110718	Screw - band indicator pivot	.03
110803	Screw - #10 x 1 for chassis mtg.	.03
88161	Shield - tube, short section	.08
88162	Shield - tube, long section	.08

HOW TO REPLACE DIAL CORD

Before attempting to replace the dial cord, fully mesh the gang condenser. The holes in drum A should be in the top position as shown in the diagram above.

The pointer drive cord should be 33 inches or more in length. Place one end of the cord through the left hole in drum; then knot the end. Run the free end of the cord down around the drum and up to pulley B. Continue over pulley B to pulley C, then down to drum A. Bring the cord up around drum D. Tie the cord to the end of the tension spring so that the spring will be extended to about 1-1/8 inches, when hooked to the slot in the drum. Now place the pointer on its track so that it points to the last scale division on the low frequency end of the dial, then clip it to the cord.

PART NUMBER	DESCRIPTION	LIST PRICE
88164	Shield - tube cap	.08
89911	Shield - tube base	.04
85427	Socket - octal base	.15
110501	Socket - 4 prong (for spkr.)	.16
110827	Socket - dial lamp	.12
110910	Socket - assembly for dimmer light	.25
110817	Speed nut - retainer for escu. to cabinet	.01
81009	Spring - for tightening drive rope	.10
110719	Spring - for band indicator	.05
85785	Terminal strip - (G.-A.)	.15
97588	Washer - embossed (for mtg. 89937 elect.)	.05
29746	Washer - (paper) for back of knobs	.005
110839	Washer - flat steel, for mtg. chassis	.01

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