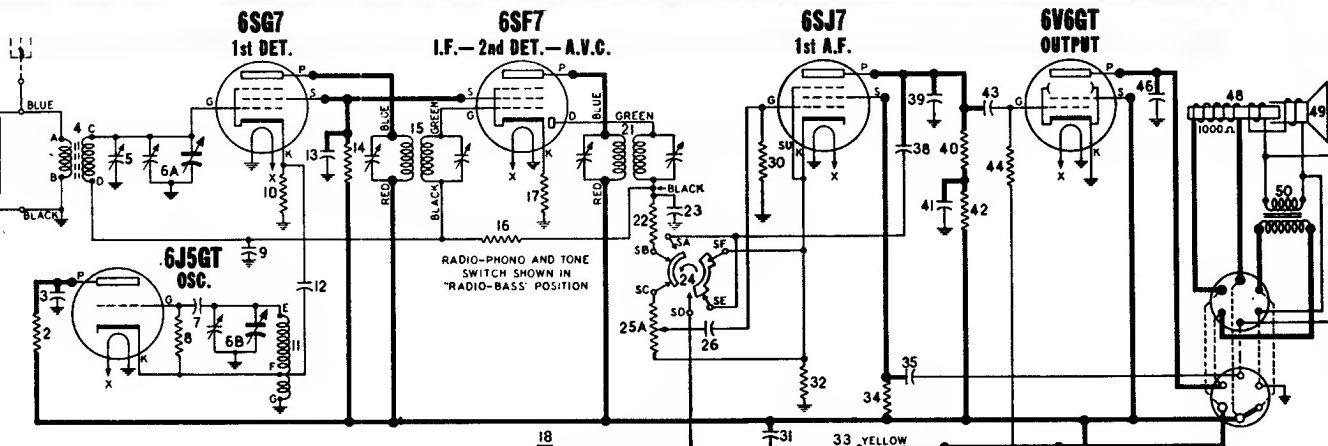


ANTENNA COIL
502649

OSCILLATOR COIL
502650

Lettered terminals in illustrations correspond to similarly lettered terminals on the circuit diagram.



I. F. 455 KC.

MODEL
9009-B

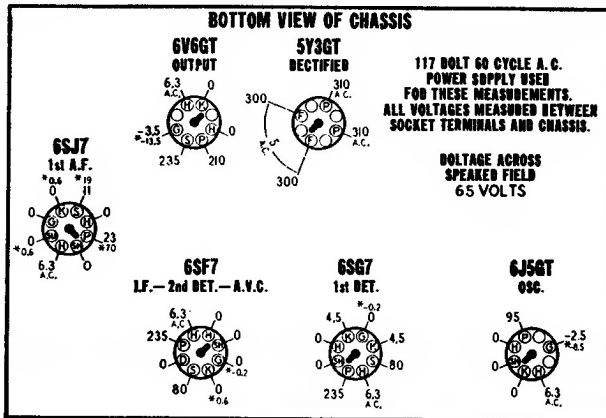
SOCKET VOLTAGES

Measured with voltmeter having sensitivity of 1000 ohms per volt except where indicated by (*).

RADIO-PHONO-TONE SWITCH IN "RADIO-BASS" POSITION
VOLUME ON FULL WITH NO SIGNAL DIAL TUNED TO 540 KC.

CONDENSERS	
3	502151 Condenser—.01 Mfd. 400 volt.....
5	502651 Condenser—trimmer 12 to 18 Mmfd.....
6A, B	502652 Condenser—variable gang and drum.....
7	502160 Condenser—mica—110 Mmfd. 500 volt.....
9	502153 Condenser—.05 Mfd. 200 volt.....
12	502151 Condenser—.01 Mfd. 400 volt.....
13	502157 Condenser—.05 Mfd. 400 volt.....
23	502160 Condenser—mica 110 Mmfd. 500 volt.....
26	502156 Condenser—.004 Mfd. 400 volt.....
28	502479 Condenser—.006 Mfd. 600 volt.....
31	502157 Condenser—.05 Mfd. 400 volt.....
35	502405 Condenser—.25 Mfd. 400 volt.....
38	502150 Condenser—.004 Mfd. 600 volt.....
39	502271 Condenser—mica—260 Mmfd. 500 volt.....
41	502410 Condenser—.1 Mfd. 400 volt.....
43	502152 Condenser—.02 Mfd. 400 volt.....
45A, B, C	502207 Condenser—electrolytic A — 20 Mfd. 400 volt B — 10 Mfd. 400 volt C — 20 Mfd. 75 volt
46	502156 Condenser—.004 Mfd. 400 volt.....

RESISTORS	
2	502466 Resistor—carbon—33,000 ohms 1 watt.....
8	502131 Resistor—carbon—47,000 ohms 1/4 watt.....
10	502514 Resistor—carbon—3,300 ohms 1/4 watt.....
14	502288 Resistor—carbon—47,000 ohms 1 watt.....
16	502269 Resistor—carbon—3.3 Meg. 1/4 watt.....
17	502264 Resistor—carbon—47 ohms 1/4 watt.....
22	502131 Resistor—carbon—47,000 ohms 1/4 watt.....
25A, B	502654 Volume control—with switch; 1 Meg.....
27	502133 Resistor—carbon—220,000 ohms 1/4 watt.....
29	502408 Resistor—carbon—68,000 ohms 1/4 watt.....
30	502468 Resistor—carbon—4.7 Meg. 1/4 watt.....
32	502406 Resistor—carbon—1,500 ohms 1/4 watt.....
34	502135 Resistor—carbon—2.2 Meg. 1/4 watt.....
40	502133 Resistor—carbon—220,000 ohms 1/4 watt.....
42	502133 Resistor—carbon—220,000 ohms 1/4 watt.....
44	502134 Resistor—carbon—470,000 ohms 1/4 watt.....
47	502293 Resistor—wire wound—200 ohms 2 watt.....



REAR OF CHASSIS

*—Measured with vacuum tube voltmeter.

STEWART-WARNER MODEL 9009-B

STEWART-WARNER MODEL 9009-B

Remove chassis and loop antenna (cabinet back) from cabinet. Reconnect loop to chassis and space it approximately same distance from chassis as when installed in cabinet.

With the gang condenser fully meshed, the dial pointer should be in the position indicated by the last mark below 55 on the dial. If it is set incorrectly, release the pointer clip on the dial cord and reposition pointer.

Connect an output meter across the speaker voice coil or from the plate of the 6V6GT tube to chassis through a .1 Mfd. condenser.

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

Set volume control at maximum volume position and use a weak signal from the signal generator.

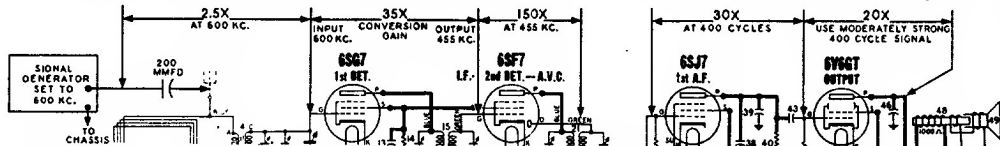
DUMMY ANT. IN SERIES WITH SIGNAL GENERATOR	CONNECT HIGH SIDE OF SIG. GENERATOR TO	SIGNAL GENERATOR FREQUENCY	RECEIVER DIAL SETTING	TRIMMER NUMBER	TRIMMER DESCRIPTION	TYPE OF ADJUSTMENT
.1 MFD. Condenser	Trimmer on top section of gang.	455 KC	Any point where it does not affect the signal	1-2	2nd I.F.	Adjust for maximum output. Then repeat adjustment.
				3-4	1st I.F.	
200 MMFD. Mica Condenser	External Antenna Clip on Loop Antenna	1500 KC	1500 KC	5	Broadcast Oscillator	Adjust for maximum output.
200 MMFD. Mica Condenser	External Antenna Clip on Loop Antenna	1500 KC	Tune to 1500 KC generator signal	6	Broadcast Antenna	Adjust for maximum output.

APPROXIMATE STAGE GAIN DATA

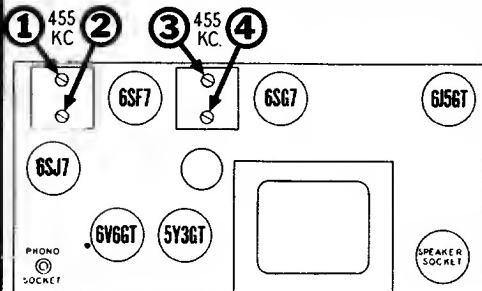
Be sure R.F. and I.F. stages are accurately aligned before measuring gain. R.F. gains can be measured with a "channel" type instrument containing a tuned and calibrated R.F. amplifier. A vacuum tube voltmeter may be used for audio gain measurements. Observe following precautions:

- For all gain measurements connect signal generator as shown. Use 600 K.C. signal with 400 cycle modulation (use nearby frequency if local station interferes.)
- For R.F. and I.F. measurements connect negative terminal of a 3 volt battery (two 1½ volt cells in series) to A.V.C. lead and positive terminal to chassis. This provides a definite operating point. **IMPORTANT:** Disconnect battery when measuring audio stage gains.
- Be sure radio is carefully tuned to generator signal (use weak signal for sharp tuning.)
- When using a "channel" type instrument carefully tune it for maximum output at desired frequency before making measurements.

The R.F. and I.F. stage gains shown below are less than under normal operating conditions due to the use of 3 volts fixed bias in order to establish a definite operating point. Therefore, these values are not intended to indicate the full capability of a stage.



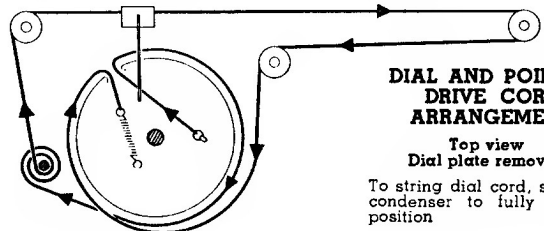
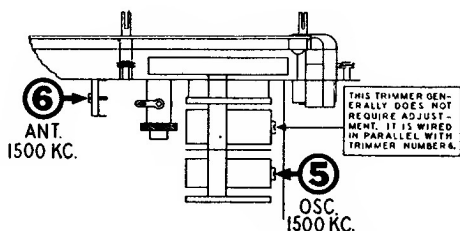
Differences in tube characteristics, tolerance of parts, adjustment of tuned circuits, and variations of line voltage will influence stage gain. Accuracy of measurements is dependent upon careful tuning of receiver to generator signal and experience in using your test equipment. These factors may create considerable variation in gain measurements.



The audio system of this receiver utilizes a two stage type of inverse feed-back arrangement and should it ever be necessary to replace the speaker or output transformer it is important to maintain a definite phase relationship in the feed-back circuit. If the connections to the output transformer are reversed or if the feed-back connection is made to the wrong side of the output transformer secondary, the system will become regenerative instead of degenerative. Under those conditions audio oscillation may result. If that occurs, oscillation may be prevented by reversing the connections to the primary of the output transformer.

IMPORTANCE OF MAINTAINING FIXED POSITIONS FOR LEADS AT TOP OF CHASSIS

The shielded leads which are routed to the "Radio-Phono" switch and volume control should be tied to the upright bracket which supports the dial assembly. Grounded shields on these leads must not be allowed to contact electrolytic condenser case. If case of condenser is grounded it will short out bias voltage for 6V6GT tube.



DIAL AND POINTER DRIVE CORD ARRANGEMENT

Top view
Dial plate removed

To string dial cord, set gang condenser to fully meshed position