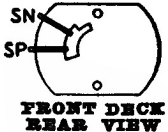
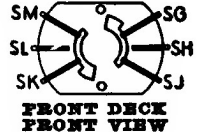


Lettered terminals in illustrations correspond to similarly lettered terminals on the circuit diagram.

I.F. 455 KC.

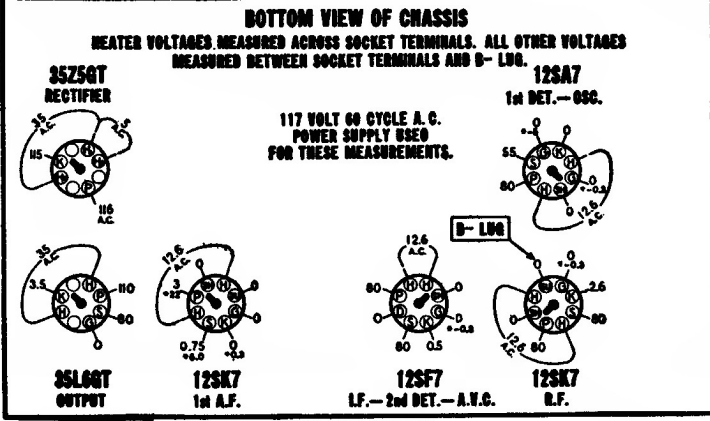
BC. OSC. COIL
502198



BAND AND TONE SWITCH

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

VOLUME ON FULL WITH NO SIGNAL DIAL TUNED TO 540 KC.

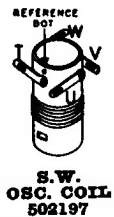
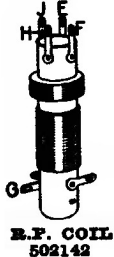
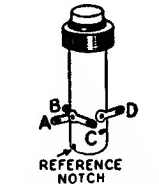


CONDENSERS

3	502172	Condenser—trimmer; 25 to 100 Mmfd.
5A-5B-5C	502123	Condenser—variable gang (with drum).
9	502162	Condenser—315 Mmfd. 500 volt.
11	502159	Condenser—mica—50 Mmfd. 500 volt.
12	502155	Condenser—.1 Mfd. 200 volt.
13	502158	Condenser—.2 Mfd. 200 volt.
14	502172	Condenser—trimmer; 25 to 100 Mmfd.
18	502282	Condenser—.25 Mfd. 200 volt.
26	502470	Condenser—.0008 Mfd. 400 volt.
27	502453	Condenser—.002 Mfd. 400 volt.
28	502160	Condenser—mica—110 Mmfd. 500 volt.
32	502160	Condenser—mica—110 Mmfd. 500 volt.
33	502153	Condenser—.05 Mfd. 200 volt.
34	502156	Condenser—.004 Mfd. 400 volt.
39	502151	Condenser—.01 Mfd. 400 volt.
40A-40B	500256	Condenser—electrolytic A-40 Mfd. 150 volt B-20 Mfd. 400 volt
43	502152	Condenser—.02 Mfd. 400 volt.
46	502157	Condenser—.05 Mfd. 400 volt.

RESISTORS

6	502140	Resistor—carbon 390 ohms 1/4 watt.
10	502130	Resistor—carbon 22,000 ohms 1/4 watt.
15	502133	Resistor—carbon 220,000 ohms 1/4 watt.
19	502291	Resistor—carbon 4700 ohms 1/4 watt.
21	502269	Resistor—carbon 3.3 Meg. 1/4 watt.
22	502264	Resistor—carbon 47 ohms 1/4 watt.
24	502131	Resistor—carbon 47,000 ohms 1/4 watt.
25A-25B	502145	Volume control 500,000 ohms (with switch)
29	502136	Resistor—carbon 10 Meg. 1/4 watt.
30	502128	Resistor—carbon 2200 ohms 1/4 watt.
31	502135	Resistor—carbon 2.2 Meg. 1/4 watt.
35-36	502133	Resistor—carbon 220,000 ohms 1/4 watt.
37	502134	Resistor—carbon 470,000 ohms 1/4 watt.
38	502138	Resistor—carbon 130 ohms 1/4 watt.
42	502469	Resistor—carbon 1500 ohms 1 watt.
48	502574	Resistor—carbon 33 ohms 1/2 watt.



*—Measured with vacuum tube voltmeter

Stewart-Warner Alignment Procedure for Model 9014-E

Note that there are four calibrating lines stamped into the metal dial frame. When gang condenser is fully meshed, dial pointer should be in the position indicated by first line at the left. If it is set incorrectly, release pointer clip on dial cord and reposition pointer.

Connect an output meter across the speaker voice coil or from plate of 35L6GT tube to B— through a .1 Mfd. condenser (see voltage chart for convenient B— connection).

Connect ground lead from signal generator to B— through a .25 Mfd. condenser.

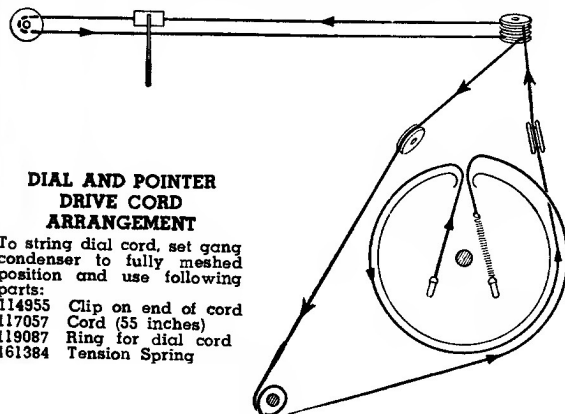
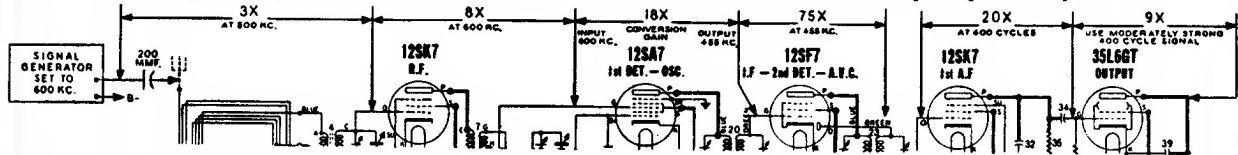
DUMMY ANT. IN SERIES WITH SIGNAL GENERATOR	CONNECT HIGH SIDE OF GENERATOR TO	SIGNAL GENERATOR FREQUENCY	BAND SWITCH POSITION	RECEIVER DIAL SETTING	TRIMMER NUMBER	TRIMMER DESCRIPTION	TYPE OF ADJUSTMENT
200 MMFD. Mica Condenser	Control Grid of 12SA7	455 KC	Broadcast	Any point where it does not affect the 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 Frame	1500 KC	Broadcast	Set pointer to 1500 KC reference line stamped into metal dial plate (first line at the right)	5	Broadcast Oscillator (Shunt)	Adjust for maximum output.
200 MMFD. Mica Condenser	External Antenna Clip on Loop Frame	1500 KC	Broadcast	Tune to 1500 KC generator signal	6	Broadcast R.F.	Adjust for maximum output.
200 MMFD. Mica Condenser	External Antenna Clip on Loop Frame	1500 KC	Broadcast	Tune to 1500 KC generator signal	7	Broadcast Antenna	Adjust for maximum output.
400 OHM Resistor	External Antenna Clip on Loop Frame	12 MC	Short Wave	Set pointer to 12 MC. Reference line stamped into metal dial plate (second line from the right)	8	Short Wave Oscillator	Adjust to bring in signal. Check to see if proper peak was obtained by tuning in image at approx. 11.1 MC. If image does not appear, realign at 12 MC. with trimmer screw farther out. Recheck image.
400 OHM Resistor	External Antenna Clip on Loop Frame	12 MC	Short Wave	Tune to 12 MC generator signal	9	Short Wave Antenna	Adjust for maximum output. Try to increase output by detuning trimmer and retuning receiver dial until maximum output is obtained.

APPROXIMATE STAGE GAIN DATA

A vacuum tube voltmeter may be used for audio gain measurements. R.F. gains can be measured with a "channel" type instrument containing a tuned and calibrated R.F. amplifier. Observe following precautions:

- For all gain measurements connect signal generator as shown. Use 600 KC. 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 B—. 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.



DIAL AND POINTER DRIVE CORD ARRANGEMENT
 To string dial cord, set gang condenser to fully meshed position and use following parts:
 114955 Clip on end of cord
 117057 Cord (55 inches)
 119087 Ring for dial cord
 161384 Tension Spring

