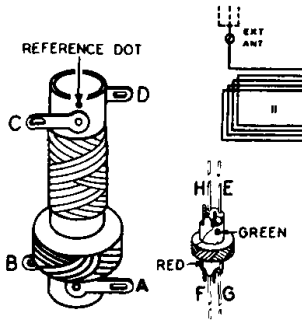
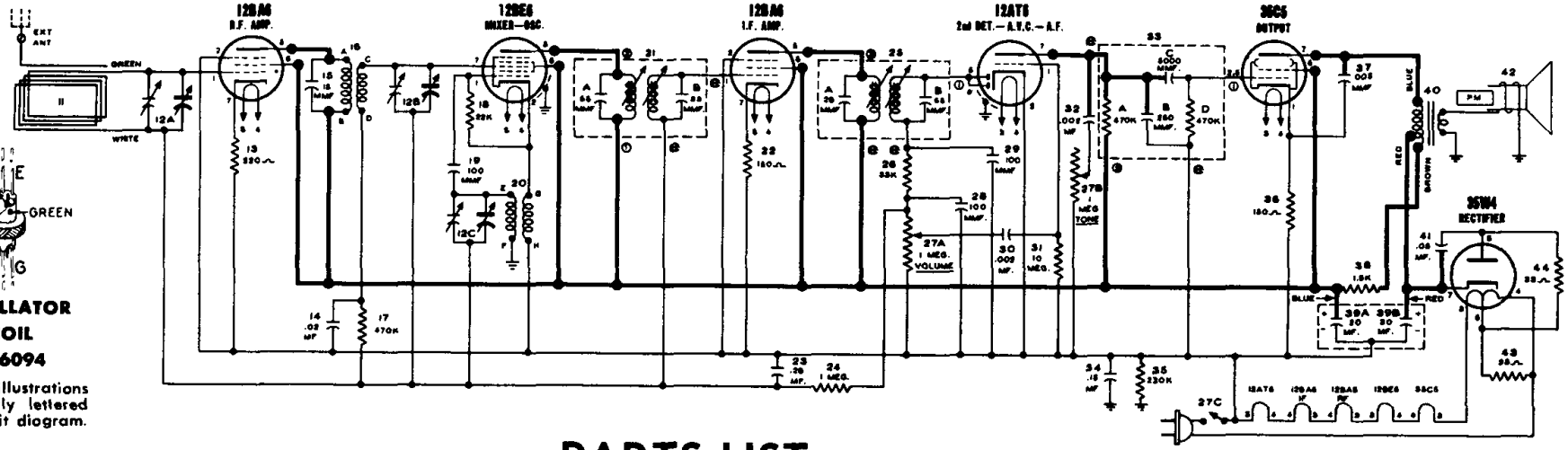


OSCILLATOR

R.F. COIL	COIL
508692	506094

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



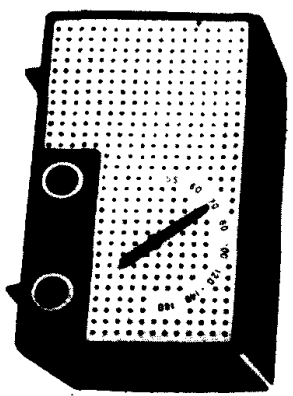
PARTS LIST

DIA-GRAM NO.	PART NO.	DESCRIPTION
		CONDENSERS
12-A,B,C	5203BB	Condenser—variable gang (includes drum)
14	512016	Condenser—.02 Mfd. 400 volt
15	513405	Condenser—ceramic 15 Mmfd. 500 volt (Temperature Compensating)
19	512503	Condenser—mica 100 Mmfd. 500 volt
21-A	505867	Condenser—ceramic 66 Mmfd. (Port of 1st I.F. transformer)
21-B	505B67	Condenser—ceromic B3 Mmfd. (Part of 1st I.F. transformer)
23	512016	Condenser—.02 Mfd. 400 volt
25-A	505867	Condenser—ceramic B3 Mmfd. (Part of 2nd I.F. transformer)
25-B	505867	Condenser—ceramic 66 Mmfd. (Part of 2nd I.F. transformer)
28,29	512503	Condenser—mica 100 Mmfd. 500 volt
30	512002	Condenser—.002 Mfd. 600 volt
32	512002	Condenser—.002 Mfd. 600 volt
33-B	505858	Condenser—ceramic 250 Mmfd. 450 volt (Part of Audio Coupling Unit)
33-C	505858	Condenser—ceramic 5000 Mmfd. 450 volt (Part of Audio Coupling Unit)
34	512040	Condenser—.15 Mfd. 400 volt
37	512006	Condenser—.005 Mfd. 600 volt
39-A,B	508147	Condenser—electrolytic A—20 Mfd. 150 v. B—30 Mfd. 150 v.
41	512030	Condenser—.05 Mfd. 600 volt
		RESISTORS
13	510125	Resistor—carbon 220 Ohms ½ watt
17	5101B5	Resistor—carbon 470,000 Ohms ½ watt
18	510161	Resistor—carbon 22,000 Ohms ½ watt
22	510121	Resistor—carbon 150 Ohms ± 10% ½ watt
24	510191	Resistor—carbon 1 Meg. ½ watt
26	510164	Resistor—carbon 33,000 Ohms ½ watt
27-A,B,C	520390	Volume and Tone control (includes ON-OFF switch) A—Volume control; 1 Meg. B—Tone control; 1 Meg. C—On-Off switch (If this component is mounted on an auxiliary bracket, remove this bracket and mount new control directly to side of chassis.)
11	510197	Resistor—carbon 10 Meg. ½ watt

DIA-GRAM NO.	PART NO.	DESCRIPTION
		RESISTORS—Continued
33-A	505858	Resistor—carbon 470,000 Ohms 1/5 watt (Part of Audio Coupling Unit)
33-D	505858	Resistor—carbon 470,000 Ohms 1/5 watt (Part of Audio Coupling Unit)
35	510179	Resistor—carbon 220,000 Ohms ½ watt
36	510121	Resistor—carbon 150 Ohms ± 10% ½ watt
38	510240	Resistor—carbon 1500 Ohms 1 watt
43,44	510210	Resistor—carbon 33 Ohms 1 watt
		COILS AND TRANSFORMERS
11	508740	Loop antenna
16	508692	Coil—R.F.
20	506094	Coil—oscillator
21	505867	Transformer—1st I.F. (Includes condensers 21-A and 21-B)
25	505867	Transformer—2nd I.F. (Includes condensers 25-A and 25-B)
40	50B146	Transformer—output
		OTHER ELECTRICAL PARTS
33-A to D	505B5B	Audio Coupling Unit A—Resistor—carbon 470,000 Ohms 1/5 w. B—Condenser—ceramic 250 Mmfd. 450 v. C—Condenser—ceramic 5000 Mmfd. 450 v. D—Resistor—carbon 470,000 Ohms 1/5 w.
42	508699	Speaker—P.M. Dynamic (5")
		MISCELLANEOUS
	50B244	Back for cabinet
	505368	Base for tube shield (miniature)
	505165	"C" washer for tuning shaft
	520391	Cabinet (complete) for Model 9165-A (Black and Yellow)
	520392	Cabinet (complete) for Model 9165-B (Rust and Tan)
	520383-A	Cabinet body for Model 9165-A (Black)
	520383-B	Cabinet body for Model 9165-B (Rust)
	520382-A	Cabinet front for Model 9165-A (Black and Yellow)
	520382-B	Cabinet front for Model 9165-B (Rust and Tan)
	505101	Clip for mounting I.F. transformer
	500473	Clip for mounting front panel to cabinet body
	50B149	Clip for mounting loop antenna
	112745	Clip for mounting R.F. coil
	114955	Clip—retainer on end of dial cord

PART NO.	DESCRIPTION
	MISCELLANEOUS—Continued
508235	Clip—retains cabinet back
117057	Cord—dial drive (2 ft. required) per ft.
520387-A	Knob—"TONE" for Model 9165-A (Yellow)
520387-B	Knob—"TONE" for Model 9165-B (Tan)
5203B5-A	Knob—"TUNING" for Model 9165-A (Black and Yellow)
5203B5-B	Knob—"TUNING" for Model 9165-B (Rust and Tan)
520386-A	Knob—"VOLUME ON" for Model 9165-A (Black)
520386-B	Knob—"VOLUME ON" for 9165-B (Rust)
520384-A	Pointer for Model 9165-A (Black)
520384-B	Pointer for Model 9165-B (Rust)
520186	Rubber washer for mounting front panel to cabinet body
18785	Screw—#8 - 7/8" chassis mounting
170B19	Screw—#8 - 32 x 3/8" plastic thread cutting; mounts clip for cabinet back
170B20	Screw—#8 - 32 x ½" plastic thread cutting; retains cabinet back
520389	Shaft—tuning
505367	Shield—tube; miniature
507364	Socket—miniature (7 pin)
505161	Spring—dial cord tension

I.F.
455 K.C.



STEWART-WARNER MODELS 9165-A & 9165-B

ALIGNMENT PROCEDURE

1. During the alignment of this receiver, the pointer will have to be set to a specific frequency. Since the diol scale is an integral part of the cabinet, the receiver chassis must be in the cabinet for correct positioning of the gang condenser and pointer.

   Before setting the pointer to the desired frequency, it will be necessary to check the position of pointer with respect to the gang condenser. To accomplish this, rotate tuning knob fully counter-clockwise until gang condenser is fully meshed. With gang in this position, pointer should be **parallel** with base of cabinet.

   If the pointer is not properly positioned, hold the Tuning Knob steady and move the pointer manually to the proper place.

2. Before removing chassis from cabinet, it will be necessary to take off the Volume Control knob, Tone knob, Tuning knob and cabinet back and to remove the two chassis mounting screws at bottom of cabinet. Then turn the tuning **shaft** until pointer is set to desired frequency for alignment ond taking care not to change this setting, remove pointer.

3. Connect an output meter across the speaker voice coil or from the plate of the 35C5 tube to B— (see voltage chart for convenient connection point) through a 0.1 Mfd. condenser.

4. Connect ground lead of signal generator to B— lug.

   CAUTION: If your signal generator is designed with an AC-DC power supply, connect ground lead to B— lug through a .25 Mfd. condenser. (See voltage chart for convenient B— connection.)

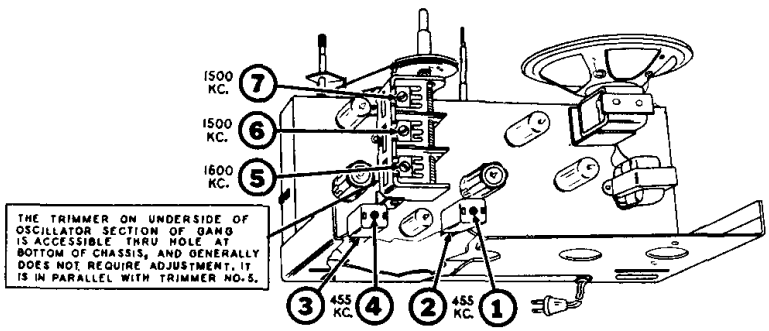
5. Set tone control to its maximum clockwise positian.

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

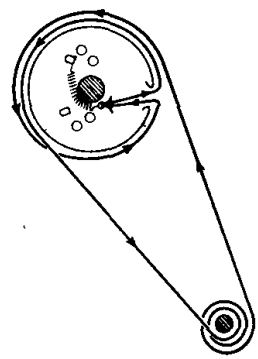
7. After alignment has been completed ond chassis reassembled in cabinet and pointer properly positioned, check calibration over entire dial and should the calibration error be objectionable, repeat procedure, exercising greater precaution in the initial setting of the pointer.

DUMMY ANT. IN SERIES WITH SIGNAL GENERATOR	SIGNAL GENERATOR CONNECTION	SIGNAL GENERATOR FREQUENCY	RECEIVER DIAL SETTING	TRIMMER AND SLUG NUMBER	TRIMMER AND SLUG DESCRIPTION	TYPE OF ADJUSTMENT
0.1 Mfd. Condenser	Lug on R.F. Trimmer #6	**455 KC** 400 cycle Modulation	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 Terminal on Loop Frame	**1600 KC** 400 cycle Modulation	1500 KC	**5**	Broadcast Oscillator	Adjust for maximum output.
200 Mmfd. Mica Condenser	External Antenna Terminal on Loop Frame	**1500 KC** 400 cycle Modulation	Tune to 1500 KC generator signal	**6**	Broadcast R.F.	Adjust for maximum output.
200 Mmfd. Mica Condenser	External Antenna Terminal on Loop Frame	**1500 KC** 400 cycle Modulation	Tune to 1500 KC generator signal	**7**	Broadcast Antenna	Adjust for maximum output.

TRIMMER LOCATION CHART



POINTER AND DRIVE CORD ARRANGEMENT



To string dial cord, turn the main drive drum to maximum counter-clockwise position and use following parts:

114955 Clip on end of cord

117057 Cord (2 feet)

505161 Tension Spring

1. All measurements made with a voltmeter having a sensitivity of 20,000 ohms per volt except where indicated by (*). The (*) symbol designates a vocuum tube voltmeter meosurement.

2. Terminals on loop antenna are shorted together to minimize noise signal pickup.

3. Dial tuned to 540 Kc.

4. Volume control set to maximum with no signal.

5. Tone control set at its maximum clockwise position.

NOTE A: The center stud of this tube must be connected to B— to reduce capacity coupling between pins. Oscillation may result if this connection is omitted.