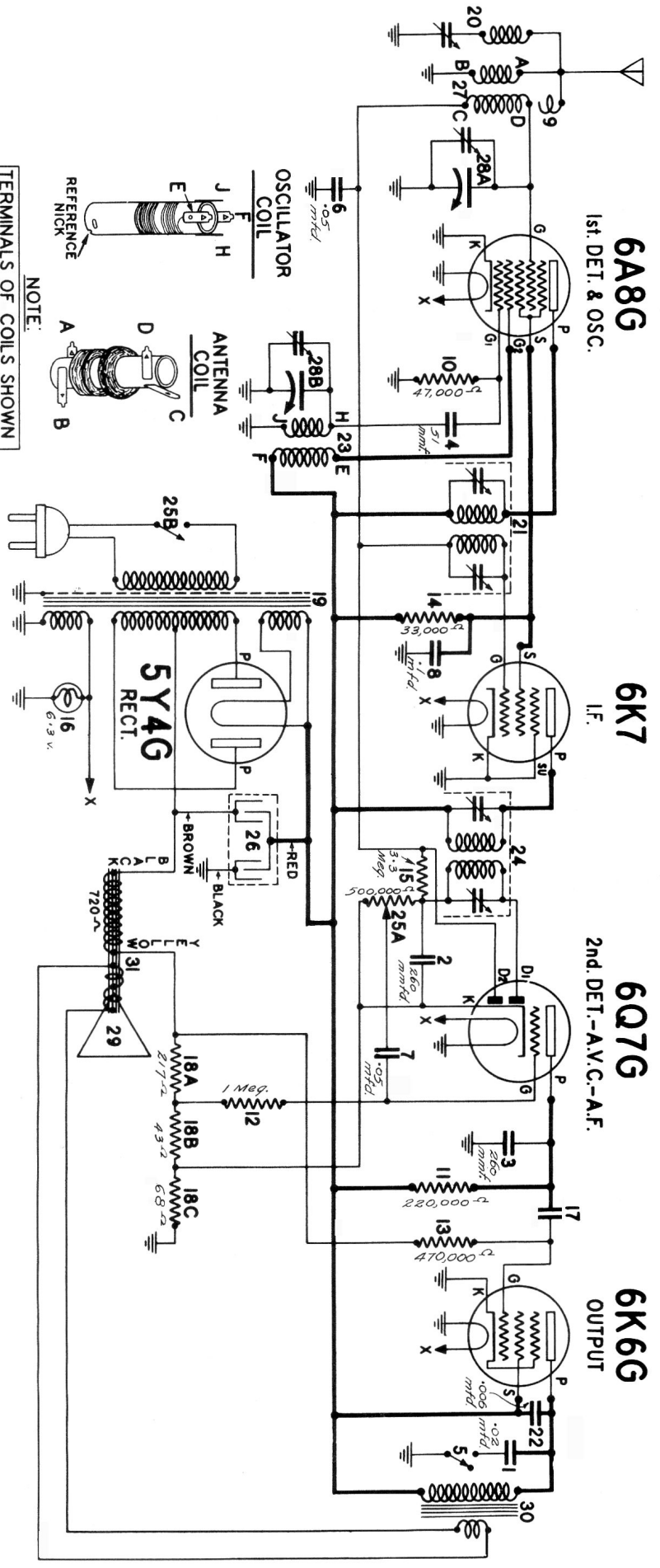


6A8G
1st. DET. & OSC.

6K7
I.F.

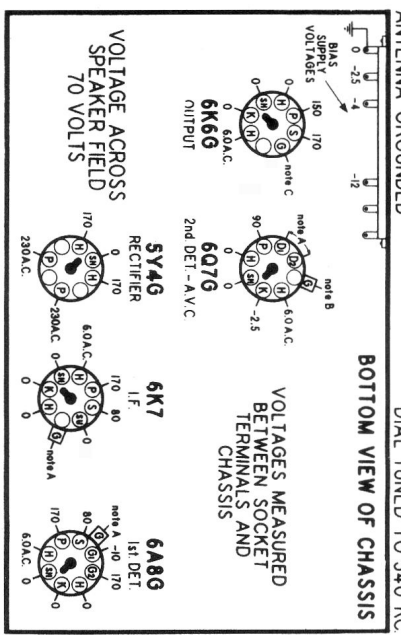
6Q7G
2nd DET.-AV.C.-A.F.

6K6G
OUTPUT



NOTE:
TERMINALS OF COILS SHOWN IN PICTORIAL VIEWS ABOVE ARE LETTERED TO CORRESPOND TO SIMILARLY LETTERED TERMINALS ON THE CIRCUIT DIAGRAM.

SOCKET VOLTAGES

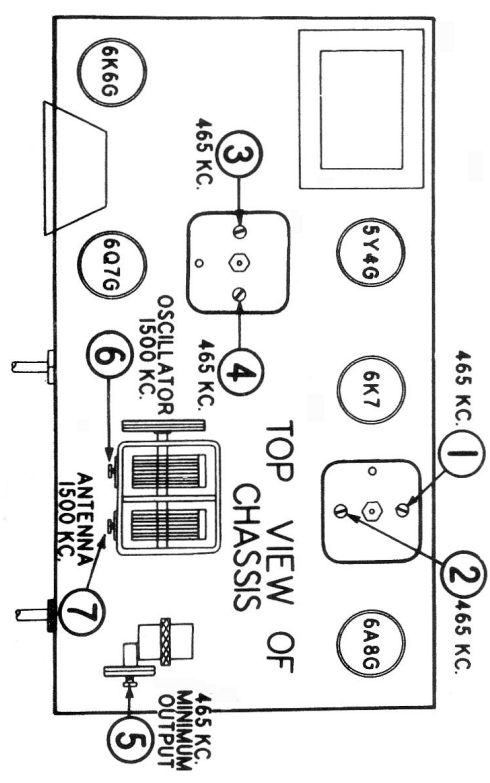


MODEL-R-4291
Alignment Data and Pushbutton
Set up on Data Sheet-68

STEWART-WARNER-67

1938-39

Use a high resistance voltmeter of 1000 ohms per volt.
NOTE A: The bias for the control grids of the 6A8-G, 6K7, and the diode plates of the 6Q7-G tubes is -2.5 volts measured across resistor 18C.
NOTE B: The bias for the control grid of the triode section of the 6Q7-G is -4 volts measured across resistors 18B and 18C.
NOTE C: The bias for the control grid of the 6K6-G output tubes is -12 volts measured across resistors 18A, 18B and 18C.



DATA SHEET

ALIGNMENT EQUIPMENT & PROCEDURE

FOR ALIGNMENT: An output meter and an accurately calibrated signal generator with a tuning range from 465 KC to 1500 KC are required.

1. Connect the output meter across the voice coil or between the 6F6-G output 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 black (ground) wire or the chassis.
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 to the last mark on the right end of the dial scale. If the pointer is only slightly off calibration, loosen the set-screw in the dial drive drum at the left side of the gang condenser and set the pointer to the last mark on the right end of the dial when the gang condenser is in full mesh. If the pointer is off calibration on several dial divisions, release it from the pointer drive cord by spreading the clip on the right end of the dial. Holding it in place check to see if the gang condenser is in full mesh, and tighten the pointer clip, being careful not to cut the cord. Place a drop of household or speaker cement on the cord and pointer clip to prevent the pointer from slipping.

DUPLEX ANT. IN SERIES WITH SIG. GEN.	CONNECTION OR OUTPUT TO RECEIVER	SIGNAL GENERATOR FREQUENCY	RECEIVER DIAL SETTING	TRIMMER NUMBER	TRIMMER DESCRIPTION	TYPE OF ADJUSTMENT
1 MFD CONDENSER	CONTROL GRID OF 6A8-G TUBE	465 KC	ANY POINT WHERE IT DOES NOT AFFECT THE SIGNAL	1-2	1st I.F.	ADJUST FOR MAXIMUM OUTPUT. THEN REPEAT ADJUSTMENT.
400 OHM CARBON RESISTOR	ANTENNA LEAD (Blue Wire)	465 KC	ANY POINT WHERE IT DOES NOT AFFECT THE SIGNAL	3-4	2nd I.F.	ADJUST FOR MAXIMUM OUTPUT. THEN REPEAT ADJUSTMENT.
400 OHM CARBON RESISTOR	ANTENNA LEAD (Blue Wire)	1500 KC	1500 KC	6	BROADCAST OSCILLATOR (Shunt)	ADJUST TRIMMER TO BRING IN SIGNAL.
400 OHM CARBON RESISTOR	ANTENNA LEAD (Blue Wire)	1500 KC	TUNE TO 1500 KC GENERATOR SIGNAL	7	BROADCAST ANTENNA (Shunt)	ADJUST FOR MAXIMUM OUTPUT.
				5	WAVE TRAP	ADJUST FOR MINIMUM OUTPUT USING A STRONG GENERATOR SIGNAL.

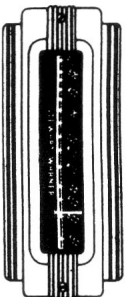
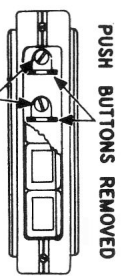
MODEL-R.4201

Circuit, Chassis Layout and Socket Voltages on Data Sheet-67

1938-39

- #### HOW TO SET UP THE PUSH-BUTTON TUNER
1. Be sure that your set is connected to a good antenna system.
 2. Turn on the set and allow it to operate at least one-quarter hour before setting up the push buttons.
 3. Select the four nearby stations to which you wish to set up the buttons. Be sure to select nearby, powerful stations, since weak signals will generally give poor results. Any button may be set to any desired station.
 4. Pull off the entire button cap by grasping the button and pulling outward on it. When the button is removed, a round head adjusting screw will be exposed to view.

5. Insert a screw-driver in this screw and loosen it (about one turn counter-clockwise will be sufficient).
 6. Keeping the screw-driver in the screw slot, **RISH ADJUST THE SCREW-DRIVER UNTIL THE PUSH-BUTTON SHAFT IS FORGED ALL THE WAY IN.** While the button is held in this position, grasp the tuning knob and tune in the desired station. Then retighten the adjusting screw, turning clockwise until reasonably tight.
- WARNING:** Do not attempt to turn the screw until it reaches a definite stop. Merely turn until you meet with appreciable resistance. To turn further may result in damage to the mechanism.
7. The set-up for this button is now complete. Replace the push button by pushing it on firmly.



8. Set up the three remaining buttons in a similar manner.

9. Label each button with the call letters of the stations you have selected, using the call letter tabs and the celluloid covers packed with your receiver. The printed paper tabs should be inserted in the button by holding the ends and flexing it slightly, allowing it to snap into place. The celluloid cover tab should be flexed in a similar manner and placed on top of the paper tab.

10. To use your push-button tuner it is only necessary for you to push in the button labeled with the call-letters of the desired station. Be sure that you push the button all the way in.

HOW TO REPLACE THE DIAL CORD

TO THREAD THE GANG CONDENSER DRIVE CORD PROCEED AS FOLLOWS:

1. Close the gang condenser. The set screw in the drum, Fig. 1, must be on the top side.
2. Take 18 inches of cord, double it in the middle and stick the loop end through eyelet A, Fig. 1, on the drum. Tie the tension spring L to this loop end, inside of the drum.
3. Take one of the free ends of the cord; carry it down around the back of the drum and over the front of pulley B.
4. Thread the end of the cord down through hole C in the tuning shaft and pull through the slack in the cord. Tying the knot around the shaft clockwise when facing the unit.
5. Thread the end of the cord down through hole D in the tuning shaft and pull through the slack in the cord. Place an eyelet (part number 86324B) on the end of the cord, close to the shaft, and squeeze it on so that the cord is taut. Then tie a large knot in the cord up close to the eyelet.
6. Take the other end of the cord, run it down the front of the drum and to the shaft. Make six turns clockwise around and the tuning shaft. These six turns should be placed on the shaft between holes C and E.
7. Thread the end of the cord down through hole E and up through hole F in the tuning shaft and pull through the slack.
8. Place a small weight on the end of the cord and squeeze as in Fig. 1. Then tie a large knot in the cord up close to the shaft so the cord cannot slip back through the hole.
9. Hook the tension spring in place in the drum. This will take up any remaining slack in the cord.

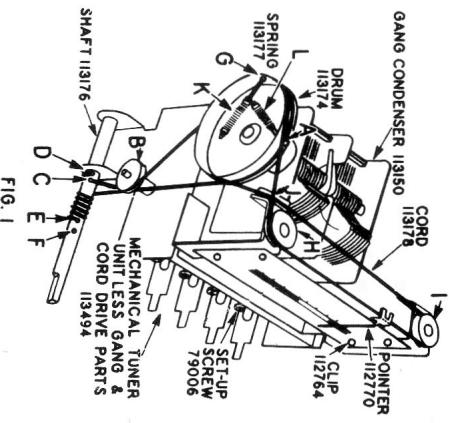


FIG. 1

- TO THREAD THE DIAL POINTER DRIVE CORD PROCEED AS FOLLOWS
1. Close the gang condenser and thread one end of the cord through eyelet A and through hole C in the front around pulley B and then across to pulley I and counter-clockwise around it.
 2. Continue back to pulley J and down the front of the drum.
 3. Thread eyelet G.
 4. The both ends extending through eyelet G to tension spring K. In so doing, allow enough slack in the cord so that when spring K is hooked in place in the drum, it will be extended only a very little. If the spring is extended too much, it will tend to make the push-button operate too hard because of overloading.
 5. Pull the dial pointer to the last dial division mark on the right and clip it to the cord. (Be sure the gang condenser is closed before clipping the pointer to the cord.)