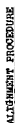




Sears Roebuck & Co.

	Model: 4669	Chassis:	Year: Pre October 1938
	Power:	Circuit:	IF:
	Tubes:		
	Bands:		
Resources			
Riders 9 (IX) SEARS 9-53			
Riders 9 (IX) SEARS 9-54			
Riders 9 (IX) SEARS 9-55			
Riders 10 (X) SEARS 10-25			
Riders 10 (X) SEARS 10-26			
Riders 10 (X) SEARS 10-27			



PRELIMINARY:

..... Output meter connection	 See chart below
..... Across volume control lead	 See chart below
..... Average sensitivity in microvolts for .5 volts output	 1.64 volts
..... Dummy antenna value to be in series with generator output	 See chart below
..... Connection of generator output lead	 See chart below
..... Connection of generator ground lead	 To chassis
..... Generator modulation	 30%, 400 cycles
..... Full operation of Volume Control	 Fully clockwise
..... Position of Tone Control	 Fully clockwise
..... Position of Dial Pointer when Variable is fully meshed	 In center of range
..... Square block at 850 kHz	 Square block at 850 kHz

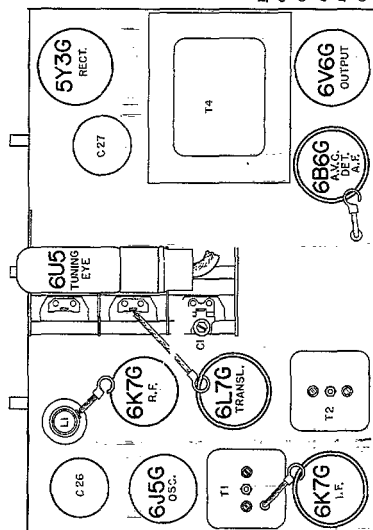
WAVE BAND	POSITION	GENERATOR	DUMMY	OPERATOR	THIMBLES	ADJUSTED	THIMBLES	APPROXIMATE
WAVE BAND	POSITION	ENERGY	ANTENNA	CONNECTION	SHOWN	FUNCTION	FUNCTION	HIGHWAVE
#1	1.8 ms	480 ks	.1 mfd.	6170 ohm	70, 70	IF	Output IF Input	115
#2		1500 ks	.00028 mfd.	Ant. Term.	59, 03, 01	Quc. Term.	35	
#3	800 ks (foot)	500 ks	.00028 mfd.	Ant. Term.	010	Padder	25	
#4	5 ks (foot)	5 ms	400 ohms	Ant. Term.	013, 04	Oscillator Translator	115	
#5	18 ms	10 ms	400 ohms	Ant. Term.	06	Translator	90	

IMPORTANT ALIGNMENT NOTES

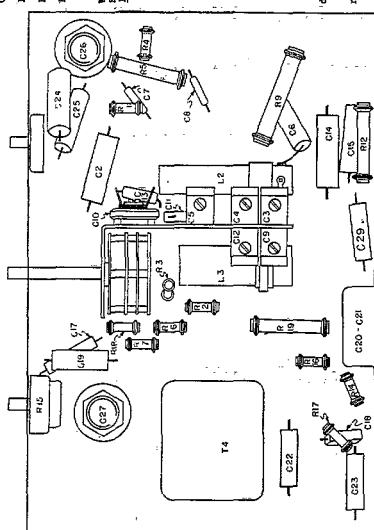
Where indicated by the word, "Root", the variable should be rooted back and forth a degree or two while making the adjustment.

It is advisable to repeat the entire alignment procedure band by band and in the original order to insure greater accuracy.

Values shown under, "Microvolts", are only approximate.



LOCATION OF PARTS TOP OF CHASSIS



LOCATIONS OF PARTS UNDER CHASSIS

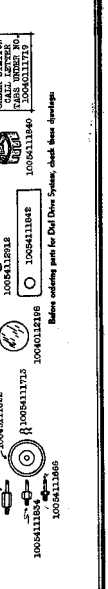
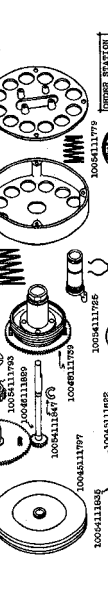
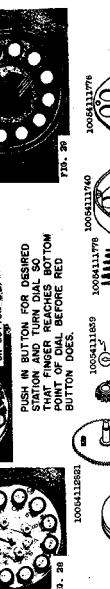
MODEL 4786, Ch. 100, 196
 MODELS 4610, 4669, 4769
 4789, Ch. 101, 482

SEARS-ROEBUCK & CO.

Automatic Tuner Data
 Part 2

When all of the buttons have been adjusted and the cap put on them, the mechanism will appear as in Fig. 28. If you were selected fewer than 11 stations, the dial will be blank for the missing stations. If you were selected more than 11 stations, the dial will be blank for the missing stations. If you were selected fewer than 11 stations, the dial will be blank for the missing stations. If you were selected more than 11 stations, the dial will be blank for the missing stations.

Replace the round AUTOMATIC TUNING dial plate, using the four screws. If there was a dial plate on the radio when you took it apart, it will be found in the same place. Push the dial plate into place. Push the dial plate into place. Push the dial plate into place.



After the AUTOMATIC TUNING dial button has been adjusted accurately and the mechanism loaded as described, you are ready to tune in your selected station. Push the cap with your finger into one of the metal letters of your selected station. Push the cap with your finger into one of the metal letters of your selected station. Push the cap with your finger into one of the metal letters of your selected station.

Push the cap into place on the button for your station. See Fig. 18. Be sure the cap is put on so that the letters are upright and that the dial is to the left as shown by the figure and arrow in Fig. 28. As before, the mechanism must be held firmly with one hand, finger and thumb, while the other hand pushes the cap into place.

When the cap is pushed into place, the AUTOMATIC TUNING dial will be turned to the station you selected. The dial will be turned to the station you selected. The dial will be turned to the station you selected. The dial will be turned to the station you selected.

Insert the key (Fig. 12) into button #1. Push the button #1 in. Push the button #1 in. Push the button #1 in. Push the button #1 in. Push the button #1 in.

Push the button #1 in. Push the button #1 in. Push the button #1 in. Push the button #1 in. Push the button #1 in. Push the button #1 in. Push the button #1 in. Push the button #1 in.

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Push the button #1 in. Push the button #1 in. Push the button #1 in. Push the button #1 in. Push the button #1 in. Push the button #1 in. Push the button #1 in. Push the button #1 in.

Automatic Tuner Data
Part 3

SEARS-ROEBUCK & CO.

MODEL 4786, Ch. 100, 196
MODELS 4610, 4669, 4769
4789, Ch. 101, 482

JULY 15, 1937

SUBJECT: READJUSTING THE AUTOMATIC TUNING DIAL STOP BUTTON TO MAKE IT POSSIBLE TO SET UP DESIRED STATIONS, THAT ARE CLOSE IN FREQUENCY, ON ADJACENT BUTTONS.

By referring to ranges it will be seen that WMAQ, 870 kc. would be set up on button #4. WGN, 730 kc. would be set up on button #4 or #5. WBBM, 770 kc. would be set up on button #5. Since these three stations come within the frequency range of only two of the buttons, the customer would ordinarily have to give up one of the three stations for AUTOMATIC TUNING.

It is possible, however, to change the setting of the "fixed" button and make it possible to set up three such stations, close together in frequency, on three separate buttons. The method of doing this is as follows:

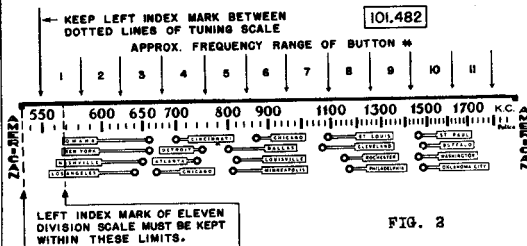


FIG. 2

FIRST:-

Make a full size reproduction of button frequency ranges on a suitable paper or cardboard, - an eleven division scale, one division for each button range as illustrated.

SECOND:-

Likewise make a full size reproduction of the AMERICAN band on suitable paper or cardboard.

Make a light pencil mark on the reproduction of the tuning scale at the frequency of each of the eleven desired stations. Then lay the eleven division scale against the reproduction of the tuning scale and move the eleven division scale to such a position that each of the pencil marked positions for the eleven desired stations will fall within the range of a different button. However, the eleven division scale can only be moved so that its left index mark comes between the dotted lines of the reproduction of the tuning scale, as shown in Fig. 2. In Fig. 2 it will be seen that by moving the eleven division scale to the point shown, WMAQ will be within the range of button #5; WGN will be within the range of button #4; and WBBM will be within the range of button #5.

When a position of the eleven division scale is found that will allow the eleven desired stations to fall within the range of separate buttons, carefully note at what point on the reproduction of the dial scale the left index mark of the eleven division scale comes. In the illustration for stations WMAQ, WGN, and WBBM, the index mark is just about opposite 550 kc on the dial scale. (Fig. 2).

Remove the chassis from its cabinet. Leave the AUTOMATIC TUNING dial escutcheon off.

Turn the AUTOMATIC TUNING dial to its stop so that the variable is fully meshed. Now move the pointer along its drive cable to the point on the dial that corresponds exactly to the position of the left index mark of the eleven division scale, as described in the preceding paragraph. As can be seen by inspection, the pointer is pinched onto the drive cable and it will be necessary to pry this pinching open slightly so that the pointer can be moved along the cable. The AUTOMATIC TUNING dial must be kept turned all the way to the left to its stop during the operation of moving the pointer. After the pointer has been moved to its new position it should be pinched onto the cable again so that it cannot slip.

Loosen the set screw that holds the variable condenser drive drum to the variable condenser shaft.

Unlock the AUTOMATIC TUNING dial mechanism by moving the studs counter-clockwise. Pull out the "hair pin" clip that will be found on the unnumbered stop button. This button can then be pushed in and turned the same as the other eleven numbered buttons. Push in the unnumbered button and turn it to such position that when the AUTOMATIC TUNING dial mechanism is turned to its limit the pointer will be at its original stop at the left end of the dial. Then lock the mechanism by rotating the studs clockwise. Be careful not to push in button #1 while the unnumbered button is pushed in as this may jam the mechanism. If this should happen the mechanism can be freed by pushing in the stop latch, as will be seen by inspection.) Replace the "hair pin" clip on the unnumbered button.

With the mechanism turned all the way to the left to its stop and with the dial pointer at its left limit on the dial, fully mesh the variable condenser by turning the movable plates with the fingers. Then re-tighten the set screw that holds the condenser drive drum to the variable condenser shaft.

The eleven desired stations can then be set up on the eleven adjustable buttons in accordance with the instructions. (See preceding pages.) The new frequency ranges for the buttons will be determined by holding the eleven division scale against the reproduction of the tuning scale, with the left index mark of the eleven division scale at the proper point between the dotted lines on the reproduction of the Tuning dial scale.