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AGE 13-2 MISC

MODEL L-65

LAUREHK MFG. CO.

ALIGNMENT PROCEDURE

GENERAL DATA. The alignment of this receiver requires the use I. F. ALIGNMENT. With the gang condenser set at minimum, adof a test oscillator that will cover the frequencies of 456, 600, 1400 just the test oscillator to 456 KC and connect the output to the arid and 1720 KC and an output meter to be connected across the of the first detector tube (12A8GT) through a .05 or .1 mfd. conprimary or secondary of the output transformer. If possible, all denser. The ground on the test oscillator should be connected to alianments should be made with the volume control on maximum the chassis ground. Align all three I.F. trimmers to peak or maxiand the test oscillator output as low as possible to prevent the mum reading on the output meter. AVC from operating and giving false readings.

cabinet and set on a bench taking care that no iron or other metal at 1720 K.C. and adjust the oscillator (or 1720 KC trimmer) on is near the loop. Do not make this setup on a metal bench. The gang condenser. Next—set the test oscillator at 1400 KC, and intermediate frequency (I.F.) stages should be aligned properly tune in the signal on the gang condenser. Adjust the antenna trimmer (or 1400 KC trimmer) for maximum signal. Next set the test as the first step. After the I.F. transformers have been properly oscillator at 600 KC, and tune in signal on condenser to check adjusted and peaked, the broadcast band should be adjusted.

BROADCAST BAND ALIGNMENT. Connect the test oscillator to the CORRECT ALIGNMENT PROCEDURE. Remove the chassis from the the gang condenser set at minimum capacity, set the test oscillator alignment of coils.

Voltages shown on the circuit diagram are from socket terminals to chassis base. In measuring voltages use a voltmeter having a resistance of at least 1000 ohms per volt. Allowances should be made for variations in line voltage.

Lack of sensitivity and poor tone quality may be due to any one or a combination of causes such as weak or defective tubes or speaker, open or grounded bias resistor, bypass condenser, etc. Never attempt to realign set until all other possible sources of trouble have been first thoroughly investigated and definitely proved not to be the cause.

NOTE: IT IS ABSOLUTELY NECESSARY THAT AN ACCURATELY CALIBRATED TEST OSCILLATOR WITH SOME TYPE OF OUTPUT MEASURING DEVICE BE USED WHEN ALIGNING THE RECEIVER AND THAT THE PROCEDURE BE CAREFULLY FOLLOWED, OTHER-WISE THE RECEIVER WILL BE INSENSITIVE AND THE DIAL CALIBRATION WILL BE INCORRECT. THE TRIMMERS WILL BE REFERRED TO BY THEIR FUNCTION AS INDICATED ON THE PARTS DIAGRAM.



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MODELS 463,464,465. 468,469,470,471

MODELS 463, 464, 465 468, 469, 470, 471

These are six tube superheterodyne receivers designed for use on 110-120 volts, 50 or 60 cycles, elternating current. The basic circuit of these models is the same and the following general instructions apply to all above listed models.

INSTALLATION

DESCRIPTION

This receiver may be used with the <u>Built-In</u> antenna where receiving con-ditions are favorable. Where greater distance is required, or where receiving conditions are not satisfactory with the <u>Built-In</u> antenna, an outside antenna should be from Solide antenna Should be from Solide at 100 feet in length and should be connected to the <u>blue</u> wire accessible at the back of the catinet. This antenna should be run in as straight a line as possible and be kept clear of wires or other metal objects. A good ground connection to a water pipe is essential for clearest reception. The ground lead should be connected to the <u>black</u> wire extending from the rear of the chasis. Test of the chassis.

CONTROLS

<u>CONTROLS</u> The control on the left side of the cabinet is the volume control and <u>ON</u> and <u>OF</u> switch when in the extreme left position. Next to the volume control is the tone control which controls the high frequency response. When turned to the left the full tone range of the program is reproduced. Turning the control to the right diminishes the higher frequency response. A position approximately one quarter turn from the left is satisfactory for most programs. On the right of the receiver is located the station selectory or tuning control. On receiver models 485, and 471 s small switch knob below the middle of the due for frequency response is reduced. In this position reproduction of the voice frequencies is generally improved. When the switch is turned to the left the lower frequencies is complexing in the condition is usually more acceptable for mained programs. An operation switch is provided on the control accutcheon. On the back of the relaxist en-antenna switch is provided for changing the connections of the receiver to the <u>Built-in</u> antenna or to the <u>Outside Antenna</u> when one is connected. OFENATOR

OPERATION

With the line cord connected turn the volume control about one half turn to the right and allow about one half minute for the tubes to properly heat. Select the desired station with the tuning control, varying the control until the tuning indicator produces the marrowest stadow. Adjust the volume control to the desired level and the tone control for the most pleasing response. For best quality be certain the station is properly tuned in as indicated by the tuning indicator.

AUTOMATIC PUSH BUTTON NUNING - MODELS 464, 469 and 470

The push buttoms are adjusted for selecting five stations as indicated by the call letters over the outtoms. To receive any one of these stations, turn on the receiver as described above and depress the buttom corresponding to the desired station. Adjust the volume to the intensity required. To use the tuning control for selecting the stations, depress the DLL button. Directions for changing the push buttom station set up are attached to the bottom of the cabinet.

REMLER CO., LTD.

PHONOGRAPH COMBINATION MODEL 465

This model is provided with a record player which reproduces up to 12 inch recordings with the cabinet top closed. To cluance to phonograph operation turn the operation switch to the Phono position and after turning up the volume - ON and OFF switch, start the motor with the motor switch located in the top OF the cabinet. Volume and tone may be adjusted as with the radio operation.

SERVICE DA DA

The antenna switch on the back of the receiver changes the input circuit to either the enclosed loop antenna or to an outside serial. The trimmer for this circuit is on the rear section of the wariable condenser, while the escillator trimmer is on the front section of the variable condenser. Trimmers for the 1.F. circuits are adjustable through holes on the tops of the 1.F. trensformer shields. The intermediate frequency is 455 K.C.

Trimmers for the push button circuits are accessible through an opening in the bottom of the cabinet. The lowest frequency range sections are on the left.

The following tubes are used in this receiver:

6SA7	-	Mixer Oscillator	
6SK7	-	I.F. Amplifier	
6SQ7	-	Detector - A.F. Amplifier	
6V6GT	-	Power Amplifier	
6X5G	-	Rectifier	
605	-	Tuning Indicator	
6J7	-	Microphone Amplifier (Model	471
Type 4	6	dial lamps	

Voltage Readings

Line Heater	10000	120 volts 6 volts
D.C. Vo From Gr	ltages ound to-	935 volta
6160/0	Plate	200 10168
EVECT	FIA CO	035 #
CVDG1	Getd Dies Supple	10 "
6507	Plate	116 "
6527	Grid Bias Supply	1.1 "
6SK7	Plate	235 "
6SK7	Screen	105 "
6SK7	Cathode	1.3 "
6SA7	Plate	235 "
6SA7	Screen	105 "
6.17	Plate	20 "
6.17	Screen	20
637	Cathode	0 1

Readings with 1000 ohm per volt meter.



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MODEL 23A5

ZEPHYR RADIO CO.



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