

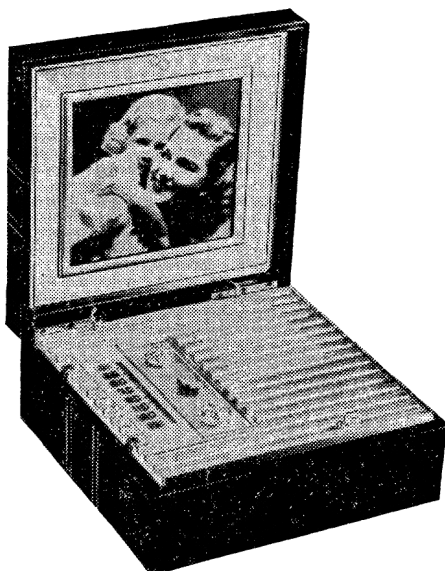
Emerson Radio

SERVICE NOTES

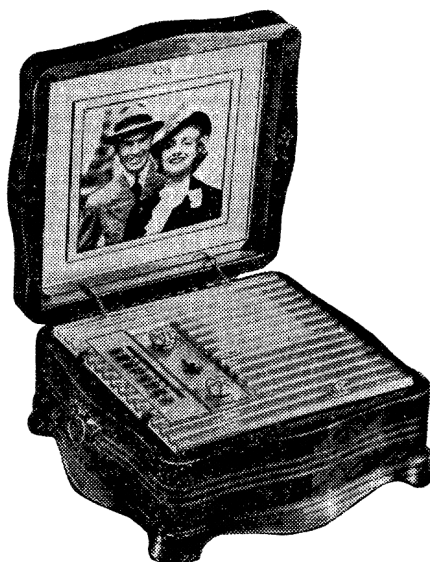
MODELS: 570 - 574 - 580

CHASSIS MODEL: 120064

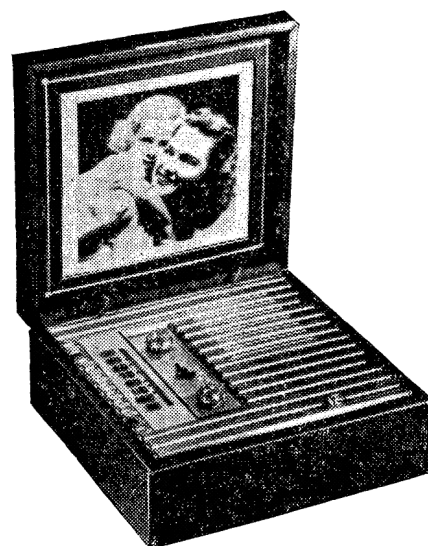
**570
574
580**



MODEL 570



MODEL 574



MODEL 580

DESCRIPTION

DESIGNATION: "Memento."

TYPE: Battery-operated superheterodyne.

FREQUENCY RANGE: 540-1600 kc.

TYPE OF TUBES:

- 1—1S5, 2nd detector, a.v.c, a-f amplifier
- 1—1R5, oscillator-modulator
- 1—1T4, i-f amplifier
- 1—3S4, pentode output

POWER SUPPLY: "A" and "B" batteries.

VOLTAGE RATING:

- "A" Battery—1.5 volts
- "B" Battery—67.5 volts

CURRENT DRAIN:

- "A" Battery—0.25 amp.
- "B" Battery—0.0075 amp.

GENERAL NOTES

1. If replacements are made in the r-f section of the circuit, the receiver should be carefully realigned.
2. The receiver has a self-contained antenna and does not require additional antenna or ground connections.
3. The self-contained loop antenna has directional properties. It is important, therefore, once the station is tuned in, to rotate the cabinet back and forth through a quarter of a circle (90 degrees), leaving it at the position where the station is received with maximum volume.
4. The receiver is turned on when the lid is open and the switch button is pulled up. The receiver is automatically turned off when the lid is closed or when the button is pushed down.
5. Remove batteries as soon as they are exhausted, or if the receiver is to be stored for several weeks.
6. Replace the 1.5-volt "A" batteries with standard D-size flashlight cells (1-5/16" dia.). Replace the 67.5-volt "B" battery with Eveready Minimax No. 467 or equivalent.

VOLTAGE ANALYSIS

The following voltage readings are d-c measurements taken from B— (chassis) to the indicated tube-socket pin. A 1000 ohms-per-volt meter should be used for all readings except those indicated by an asterisk (*), which should be taken with a d-c vacuum-tube voltmeter. Take readings with the volume control set at minimum and the variable condenser closed. Use fresh batteries.

TUBE	PIN NUMBER						
	1	2	3	4	5	6	7
1R5		60	35	*-8		*-0.2	1.5
1T4		60	35			*-0.2	1.5
1S5			*-0.2	*17	*25	*-0.1	1.5
3S4	1.5	59	*-6.5	60		59	1.5

ADJUSTMENTS

An oscillator with frequencies of 455, 600, 1420, and 1620 kc is required.

An output meter should be connected across the primary or secondary of the output transformer for observing maximum response.

Always use as weak a test signal as possible, turning down the output of the test oscillator as the alignment of the receiver progresses.

Turn the volume control on full.

Location of Coils and Trimmer Adjustments

The first i-f transformer is located next to the 1R5 tube. The trimmers are accessible through holes in the top of the can.

The second i-f transformer is located between the 1T4 and 1S5 tubes. Trimmers are accessible through holes in the top of the can.

The oscillator coil is located behind the on-off switch. The trimmer for the oscillator is located on the smaller variable condenser section. The 600 kc oscillator core adjustment is the brass screw protruding from the end of the oscillator coil.

The loop antenna acts as the antenna coil. The trimmer for the loop is located on the larger section of the variable condenser.

I-f Alignment

1. Rotate the variable condenser to the minimum capacity position.
2. Feed 455 kc to the grid (pin 6) of the 1R5 tube through a 0.01 mfd. condenser.
3. Adjust the four i-f trimmer screws for maximum response. (Clip the test signal lead to the stator of the larger capacity section of the variable condenser.)

R-f Alignment

1. Connect the test oscillator to a coil composed of three or four turns of wire wound in a circle approximately 12 inches in diameter. This coil should be placed parallel to and in line with the receiver loop at a distance of approximately 15 to 20 inches.
2. Radiate a signal at 1620 kc, rotate the variable condenser to minimum capacity, and adjust the oscillator trimmer, on the smaller section of the variable condenser, for maximum response.
3. Radiate a signal at 1420 kc, tune in the 1420 kc signal, and adjust the antenna trimmer, on the larger section of the variable condenser, for maximum response.
4. Radiate a signal at 600 kc, set the dial indicator to 60, and adjust the oscillator coil core trimmer while rocking the variable condenser for maximum response.
5. Return to 1620 kc and check alignment. If readjustment is necessary, repeat Steps 2 to 4 until no further improvement is noted.

For best results replacements should be made with genuine Emerson parts and genuine Emerson tubes.

FOR REPLACEMENT PARTS — SEE YOUR NEAREST EMERSON DISTRIBUTOR OR WRITE DIRECTLY TO



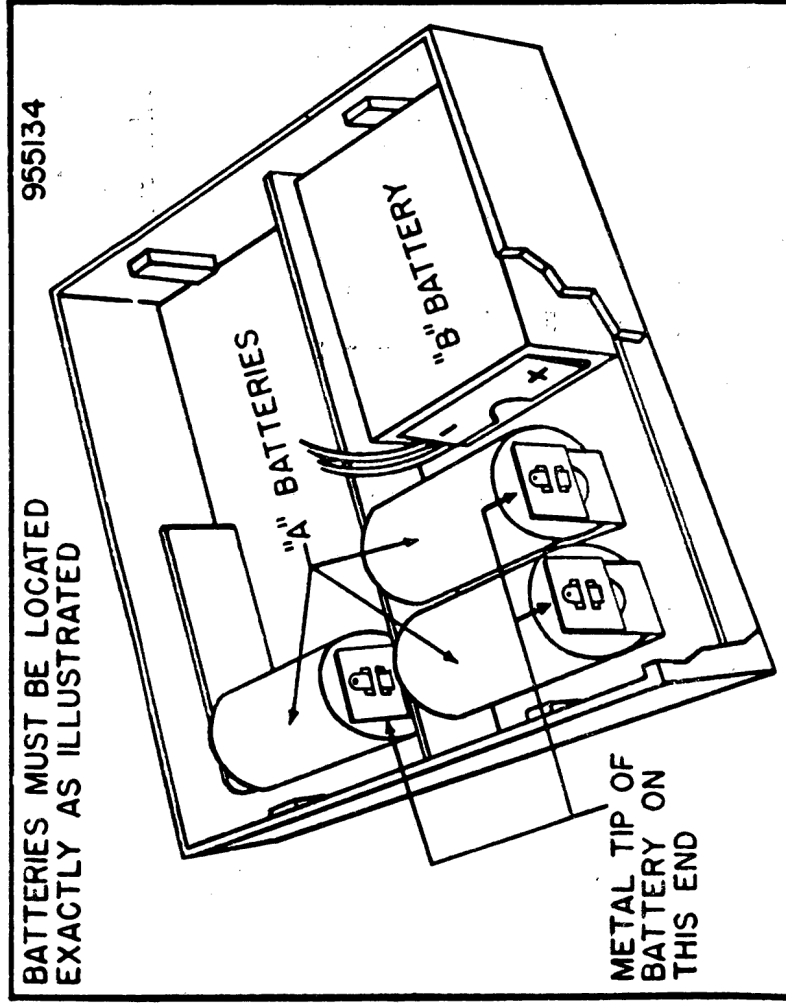
EMERSON RADIO & PHONOGRAPH CORPORATION

111 EIGHTH AVENUE

NEW YORK 11, N. Y., U. S. A.



BATTERY REPLACEMENT



TO REPLACE BATTERIES: Close cover and turn set over. Unscrew large screw in center of base and remove bottom panel. This makes batteries accessible. Replace batteries as shown in illustration. Replace bottom panel and tighten screw.

TO REPLACE PICTURE: Pull button on picture frame at top of cover. This removes frame. Mount picture in center of mat board. Place frame over picture and press the four corners in until they snap into grooves. Press the two lower corners first.

REPLACEMENT PARTS LIST

Schematic Symbol	†Part No.	DESCRIPTION	Schematic Symbol	†Part No.	DESCRIPTION
C1, C2	900022	Two-gang variable condenser	R5	351330	3.3 meg., ½ watt resistor
*C3	Part of C1	Trimmer	R6	351130	470,000 ohms, ½ watt resistor
*C4	Part of C2	Trimmer	R7	351250	1.5 meg., ½ watt resistor
*C5, C6	Part of T1	Trimmer	R8	340730	10,000 ohms, ½ watt resistor
*C7, C8	Part of T2	Trimmer	R9	351330	3.3 meg., ½ watt resistor
C9	928013	0.0001 mfd. ceramic condenser	SP1	180029	3-inch P.M. dynamic speaker
C10	920497	0.001 mfd., 200 volt condenser	T1	720028	First i-f transformer
C11	920496	0.005 mfd., 200 volt condenser	T2	720028	Second i-f transformer (alternate part 720035)
C12	928104	212 mmfd., ceramic condenser	T3	734011	Output transformer
C13	920497	0.001 mfd., 200 volt condenser	T4	716011	Oscillator coil
C14	928010	0.0001 mfd., ceramic condenser (Alternate part 928013)			
C15	920494	0.05 mfd., 200 volt condenser			
C16	920120	0.02 mfd., 100 volt condenser			
C17	925063	16 mfd., 100 volt electrolytic condenser			
C18	920485	0.01 mfd., 100 volt condenser			
L1	700019	Loop antenna			
L2	708007	Loading coil			
R1	340970	100,00 ohms, ½ watt resistor			
R2	340470	820 ohms, ½ watt resistor		510017	Lid switch
R3	390025	1 meg., volume control		585007	"B" battery cable
R4	351450	10 meg., ½ watt resistor			

CABINET AND DIAL PARTS

†Part No.	DESCRIPTION	†Part No.	DESCRIPTION
140142	Cabinet, black catalin, with hinges (Model 570)	520056	Picture crystal
140156	Cabinet, walnut wood, with hinges (Model 574)	460065	Plastic button, for picture frame
140172	Cabinet, red leather, with hinges (Model 580)	260151	Drive pin, for plastic button
140129	Cabinet, black leather, with hinges (Model 580)	460057	Grille front, plastic
560043	Bottom cover, masonite	460062	Knob, on-off switch
265800	Captivated mounting screw	460063	Knob, tuning
630073	Loop cover	541170	Knob retaining clip
575193	Mat board, for picture frame	520057	Dial backplate
		525025	Dial pointer
		280038	Drive shaft
		587326	Dial drive spring

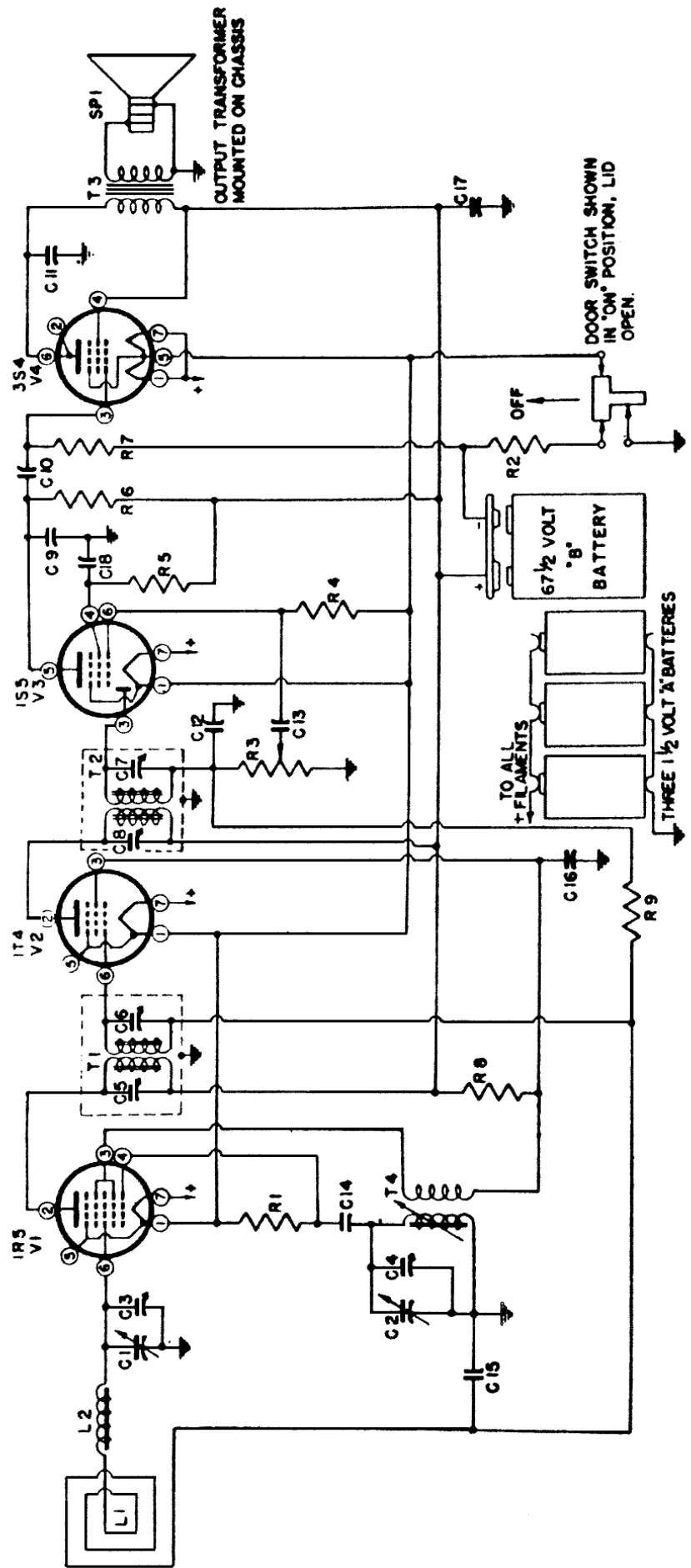
† Specify part numbers when ordering.

* Not supplied separately.

MANUAL OF 1949 MOST-OFTEN-NEEDED RADIO DIAGRAMS

EMERSON RADIO MODELS: 570 - 574 - 580 CHASSIS MODEL: 120064

PIN NUMBER						
TUBE	1	2	3	4	5	6
1R5		60	35	*.8		*.0.2
1T4		60	35			*.0.2
1S5				*.17	*.25	*.0.1
3S4	1.5	59	*.6.5	60		59
						1.5



MANUAL OF 1949 MOST-OFTEN-NEEDED RADIO DIAGRAMS

EMERSON RADIO

MODELS: 570 - 574 - 580

CHASSIS MODEL: 120064

I-f Alignment

1. Rotate the variable condenser to the minimum capacity position.
2. Feed 455 kc to the grid (pin 6) of the 1R5 tube through a 0.01 mfd. condenser.
3. Adjust the four i-f trimmer screws for maximum response. (Clip the test signal lead to the stator of the larger capacity section of the variable condenser.)

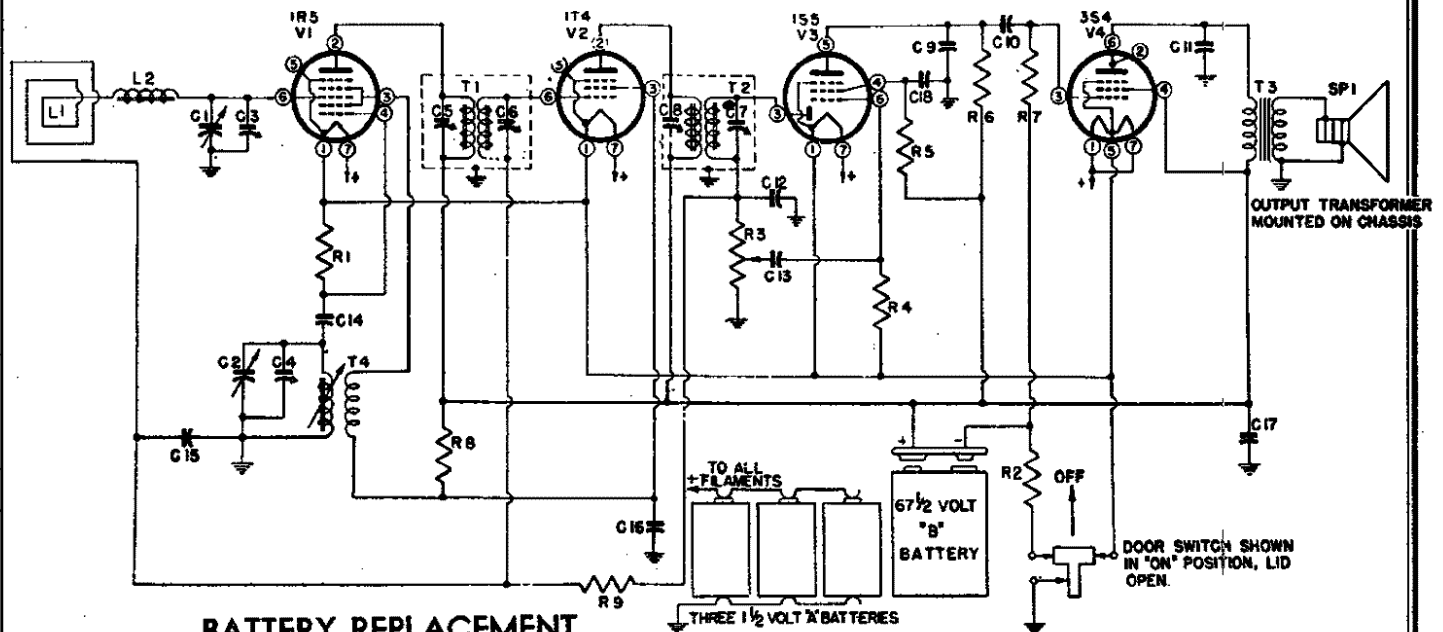
R-f Alignment

1. Connect the test oscillator to a coil composed of three or four turns of wire wound in a circle approximately 12 inches in diameter. This coil should be placed parallel to and in line with the receiver loop at a distance of approximately 15 to 20 inches.
2. Radiate a signal at 1620 kc, rotate the variable condenser to minimum capacity, and adjust the oscillator trimmer, on the smaller section of the variable condenser, for maximum response.
3. Radiate a signal at 1420 kc, tune in the 1420 kc signal, and adjust the antenna trimmer, on the larger section of the variable condenser, for maximum response.
4. Radiate a signal at 600 kc, set the dial indicator to 60, and adjust the oscillator coil core trimmer while rocking the variable condenser for maximum response.
5. Return to 1620 kc and check alignment. If readjustment is necessary, repeat Steps 2 to 4 until no further improvement is noted.

Schematic Symbol	†Part No.	DESCRIPTION
C1, C2	900022	Two-gang variable condenser
*C3	Part of C1	Trimmer
*C4	Part of C2	Trimmer
*C5, C6	Part of T1	Trimmer
*C7, C8	Part of T2	Trimmer
C9	928013	0.0001 mfd. ceramic condenser
C10	920497	0.001 mfd., 200 volt condenser
C11	920496	0.005 mfd., 200 volt condenser
C12	928104	212 mmfd., ceramic condenser
C13	920497	0.001 mfd., 200 volt condenser
C14	928010	0.0001 mfd., ceramic condenser (Alternate part 928013)
C15	920494	0.05 mfd., 200 volt condenser
C16	920120	0.02 mfd., 100 volt condenser
C17	925063	16 mfd., 100 volt electrolytic condenser
C18	920485	0.01 mfd., 100 volt condenser
L1	700019	Loop antenna
L2	708007	Loading coil
R1	340970	100,00 ohms, ½ watt resistor
R2	340470	820 ohms, ½ watt resistor
R3	390025	1 meg., volume control
R4	351450	10 meg., ½ watt resistor
R5	351330	3.3 meg., ½ watt resistor
R6	351130	470,000 ohms, ½ watt resistor
R7	351250	1.5 meg., ½ watt resistor
R8	340730	10,000 ohms, ½ watt resistor
R9	351330	3.3 meg., ½ watt resistor

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MODELS 570, 574, EMERSON RADIO AND PHONO. CORP.
580, CHASSIS 120064

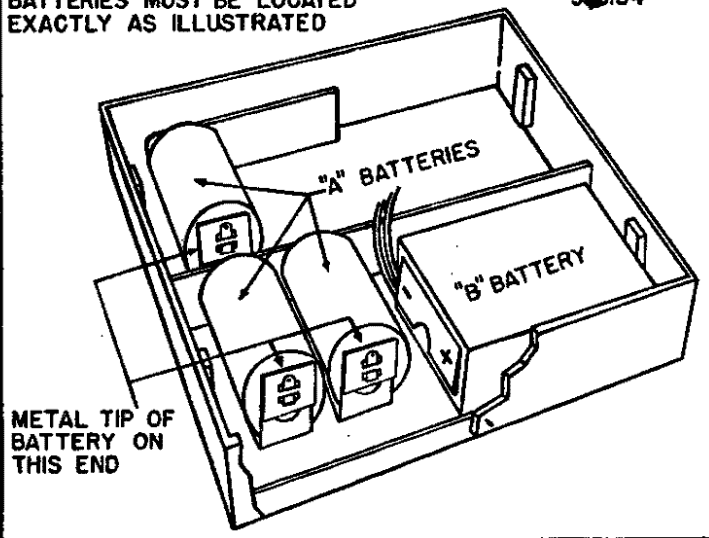


BATTERY REPLACEMENT

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BATTERIES MUST BE LOCATED
EXACTLY AS ILLUSTRATED

955134



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TYPE: Battery-operated superheterodyne.

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- 1—1S5, 2nd detector, a.v.c., a-f amplifier
- 1—1R5, oscillator-modulator
- 1—1T4, i-f amplifier
- 1—3S4, pentode output

POWER SUPPLY: "A" and "B" batteries.

VOLTAGE RATING:

- "A" Battery—1.5 volts
- "B" Battery—67.5 volts

CURRENT DRAIN:

- "A" Battery—0.25 amp.
- "B" Battery—0.0075 amp.



MODEL 570



MODEL 574



MODEL 580

EMERSON RADIO AND PHONO. CORP.

MODELS 570,
574, 580

ADJUSTMENTS

An oscillator with frequencies of 455, 600, 1420, and 1620 kc is required.

An output meter should be connected across the primary or secondary of the output transformer for observing maximum response.

Always use as weak a test signal as possible, turning down the output of the test oscillator as the alignment of the receiver progresses.

Turn the volume control on full.

Location of Coils and Trimmer Adjustments

The first i-f transformer is located next to the 1R5 tube. The trimmers are accessible through holes in the top of the can.

The second i-f transformer is located between the 1T4 and 1S5 tubes. Trimmers are accessible through holes in the top of the can.

The oscillator coil is located behind the on-off switch. The trimmer for the oscillator is located on the smaller variable condenser section. The 600 kc oscillator core adjustment is the brass screw protruding from the end of the oscillator coil.

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C11	920496	0.005 mfd., 200 volt condenser	T2	720028	Second i-f transformer (alternate part 720035)
C12	928104	212 mmfd., ceramic condenser	T3	734011	Output transformer
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