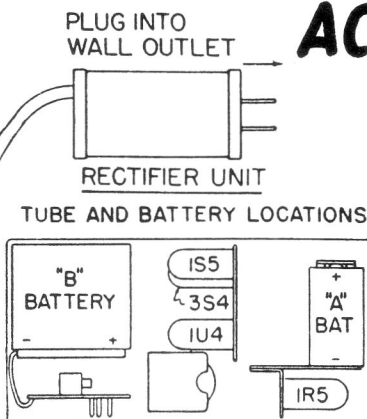


**POWER SUPPLY PLUG**  
 PLUG INTO RECEPTACLE IN  
 RECEIVER. INSERT PLUG  
 ALL THE WAY.  
 FOR BATTERY OPERATION  
 REMOVE PLUG.



### BATTERY REPLACEMENT

1. Remove power supply plug from set.
2. Slide the button on the release catch near the handle in the direction of the arrow. This loosens the bottom shell and permits it to be swung open on the hinge, making the batteries accessible.
3. Insert the batteries as shown in the diagram.
4. To reassemble, hold the chassis face down with the batteries in place. Close the bottom shell over the chassis and press the handle end of the shell so that it snaps into place.

## AC-DC BATTERY PORTABLE MODEL 569

### BATTERIES USED IN THIS RECEIVER

TYPE	MANUFACTURER'S NUMBER	
6 Volt "A"	Olin No. 4919	Eveready No. 724
67½ Volt "B"	Olin No. 1712	Eveready No. 457

**A.C.-D.C. OPERATION**—Insert three-prong plug into socket on side of receiver. Plug Rectifier Unit into 105-125 volt wall outlet. Rectifier Unit will normally operate warm. Keep unit free from dust and in a well ventilated location. **OPERATE RECTIFIER UNIT IN HORIZONTAL POSITION ONLY.** If set is inoperative on D.C., reverse plug in wall outlet.

**BATTERY OPERATION** — Remove the three-prong plug from the receiver; the self-contained batteries will then supply power. Removal of Rectifier Unit from wall outlet is desirable.

## INSTRUCTIONS FOR VOLTAGE AND RESISTANCE READINGS

- 1—DC Voltage measurements are at 20,000 ohms per volt; AC voltages measured at 1,000 ohms.
- 2—Socket connections are shown as bottom views.
- 3—Measured values are from socket pin to common negative.
- 4—Line voltage maintained at 117 volts for voltage readings.
- 5—Nominal tolerance on component values makes possible a variation of  $\pm 15\%$  in voltage and resistance readings.
- 6—Volume control at maximum; no signal applied for voltage measurements

### VOLTAGE READINGS

SYMBOL	TUBE	PIN 1	PIN 2	PIN 3	PIN 4	PIN 5	PIN 6	PIN 7
1	1R5	OV	78VDC	50VDC	†3.2VDC	OV	OV	1.3VDC
2	1U4	2.5VDC	78VDC	50VDC	50VDC	2.5VDC	OV	3.8VDC
3	1S5	1.3VDC	78VDC	.2VDC	17VDC	26VDC	OV	2.5VDC
4	3S4	3.8VDC	75VDC	OV	78VDC	5.2VDC	75VDC	5.2VDC

† Taken with vacuum tube voltmeter.  
NOTE: OV equivalent to zero volts.

### RESISTANCE READINGS

SYMBOL	TUBE	PIN 1	PIN 2	PIN 3	PIN 4	PIN 5	PIN 6	PIN 7
1	1R5	0 ohm	5400 ohm	20K ohm	100K ohm	0 ohm	4.3 meg.	*
2	1U4	*	5400 ohm	5400 ohm	20K ohm	*	2 meg.	*
3	1S5	*	5400 ohm	1 meg.	3.3 meg.	470K ohm	10 meg.	*
4	3S4	*	6000 ohm	1.5 meg.	5400 ohm	*	6000 ohm	*

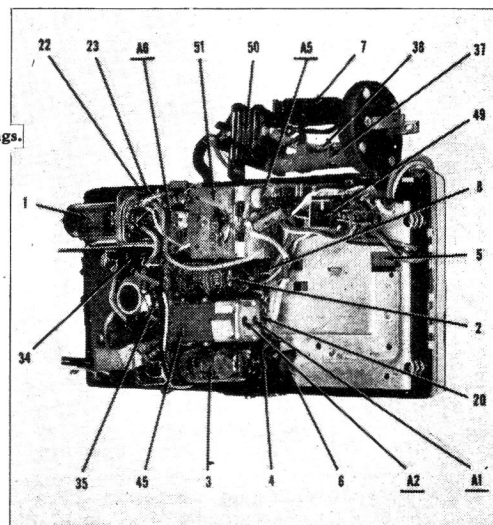
\* Do not use ohmmeter to measure filament resistance.

### ALIGNMENT INSTRUCTIONS

Use battery power when available. If AC power is used, use an isolation transformer when available. If not, connect a .1 mfd. capacitor in series with low side of the signal generator and B—.

Volume control should be at maximum position; output of signal generator should be no higher than necessary to obtain an output reading. Use an insulated alignment screwdriver for adjusting.

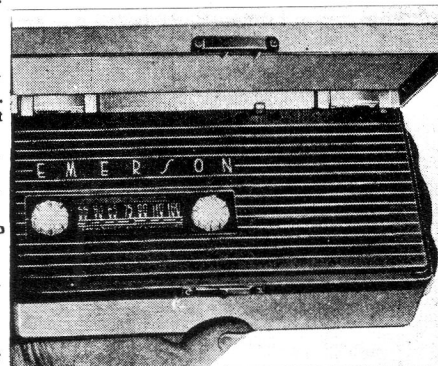
	DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
1	.1 mfd.	High side to Pin 6 (grid) of 1R5. Low side to B—.	455KC	Tuning cap. fully open.	Across voice coil.	A1, A2, A3, A4	Adjust for maximum output. If AC power is used without an isolation transformer reduce dummy ant. to 200 mmf. to reduce hum modulation.
2		Loop	1620KC	"	"	A5	Fashion loop of several turns of wire and radiate signal into loop of receiver. Adjust for maximum output.
3		"	600KC	Tune for maximum output.	"	A6	Rock tuning cap. and adjust for maximum output. Repeat Steps 2 and 3 until no further improvement can be made



**IF = 455 KC.**

**1947-48**

**CIRCUIT DATA ON SHEET 14**



## AC-DC BATTERY PORTABLE INSTRUCTIONS

### 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 turned off when the lid is closed. Always close the lid when the set is not in use.
5. Remove batteries as soon as they are exhausted. The "A" battery will require more frequent replacement than the "B" battery.

### DESCRIPTION

TYPE: Three-way pocket portable superhet  
FREQUENCY RANGE: 540-1600 kc.

#### TYPE OF TUBES:

- 1—1R5, oscillator-modulator
- 1—1U4, i-f amplifier
- 1—1S5, 2nd detector, a.v.c., a-f amplifier
- 1—3S4, pentode output

POWER SUPPLY: A.C.-D.C. (105-125 volts) or batteries

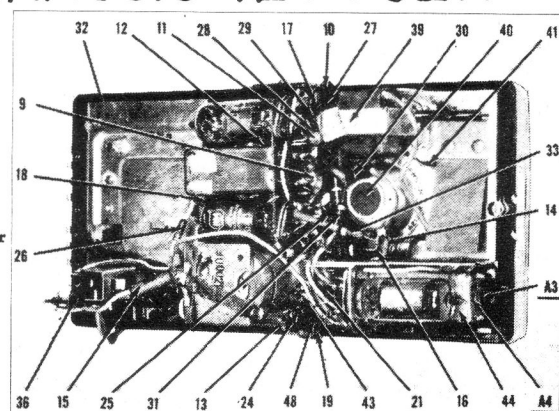
#### VOLTAGE RATING:

- "A" Battery—6 volts
- "B" Battery—67.5 volts

POWER CONSUMPTION: 11 watts

#### CURRENT DRAIN:

- "A" Battery—60 ma.
- "B" Battery—8 ma.



**MODEL 569**  
**CHASSIS 120062A**

**EMERSON**

**DATA SHEET**

**15**