# SERVICE MANUAL FOR TRANSISTOR RADIO RECEIVERS

(540-1600 KC., 455 KC., I-F.)

P910AA-1 **RADIO** MODELS P910AA P911AA P914AA

# SUPERSEDES SERVICE MANUAL P910AA

SPECIFICATIONS	
CABINET:	P910, Blue P911, Black P914, White
ELECTRICAL RATING:	3 Volts D.C.
BATTERIES:	(1) Eveready # 915,1015, Burgess # Z, or equivalent
POWER OUTPUT:	10% Distortion: 95 MW Maximum: 140 MW
OPERATING FREQUENCIES:	Tuning Range: 540-1600 KC I.F. Frequency: 455 KC

### GENERAL INFORMATION

Radio Models P910, P911, and P914 are miniature-transistor radios. Their circuitry includes 6 transistors, a crystal diode, and a speaker.

An earphone jack for private listening is provided at the top of the radio. When the earphone (replacement part catalog no. RS-4529) is plugged in, the speaker is automatically silenced.

### CHASSIS REMOVAL

- Remove the dial knob screw with a small Phillips 1. screw driver and lift off the dial knob.
- Remove cabinet back by inserting a coin in the slot 2 on the bottom of the set, giving it a slight twist.
- Remove two 1/8" Phillips-head screws located un-3. derneath the batteries.
- Remove 1/8" Phillips-head screw located next to the 4. tuning capacitor.
- Slide out the circuit board in the direction of the cabinet bottom and lift out.

### TROUBLESHOOTING

A check of battery condition and total current drain of the receiver should be made first. All current measurements are made at quiescence with the receiver turned on, volume control at minimum, tuning gang closed, and with no-signal conditions.

The total quiescent receiver current drain is 12 to 20 mils. This is measured by inserting a milliammeter in series with the batteries.

If an excessive total quiescent current drain is recorded, the individual collector currents of each transistor should be checked. An excessive current reading may



model P910

### TROUBLESHOOTING (CONT'd)

mean a shorted transistor; no current will indicate that a transistor or associated circuit component is defective.

#### NO RECEPTION:

- Check battery voltage and battery contacts. 1.
- 2. Check on-off switch.
- 3. Check all antenna lead connections.
- 4. Check coil L2.

#### WEAK AUDIO:

- Check battery voltage for 3 volts. 1.
- 2. Check battery current.
- 3. Check transistor collector currents.
- 4. Check alignment.

#### INTERMITTENT:

- Check battery contacts for corrosion.
- Check solder connections on dip-soldered side of circuit board.

Intermittent audio, motorboating, and poor reception are frequently caused by poor battery contact. Remove battery and bend the contact spring to increase spring tension. Oxidation occurring on the ends of the battery will tend to insulate the battery from the battery contact spring bracket, thereby increasing electrical resistance. The terminals on the battery should always be cleaned to insure positive electrical contact.

## REPLACEMENT OF COMPONENTS

After removing a defective part, the mounting holes should be cleaned of all solder. The replacement part can be inserted more easily and a better solder connection can be accomplished. Apply a soldering iron only long enough to heat the terminal to remove the component. Since too much heat may damage a component, a soldering iron of approximately 35 watts maximum is recommended.