

INSTRUCTIONS FOR OPERATION
OF
CITIZEN-SHIP MODEL LT"3" RECEIVER

CITIZEN-SHIP RADIO CORPORATION
810 EAST 64TH STREET
INDIANAPOLIS, INDIANA

INSTRUCTIONS FOR OPERATING CITIZEN-SHIP MODEL LT"3" RECEIVER

Your CITIZEN-SHIP Model LT"3" Receiver is a completely transistorized, relayless, midget tone receiver. The escapement furnished with the receiver is performance matched for best operation. This low cost pair cannot be excelled in simplicity or reliability. Receiver operation is intended for the 27mc Band of frequencies in conjunction with the CITIZEN-SHIP CTX Transmitter switched to the tone operating position. See transmitter instructions. The CITIZEN-SHIP REX & MST-8 transmitters and others may also give satisfactory results.

The LT"3" Receiver is not Selective and will not sort out any particular one of the 27mc frequencies. CITIZEN-SHIP Receivers type JSH & KV-8 are available for this selective operation.

WIRING THE RECEIVER

Wiring the receiver is very simple as only two pen cell batteries are required. See the paragraph on Battery Requirements.

The red wire is connected to the plus battery terminal and the black wire to minus through an off-on single pole single throw switch. (See Figure 1.)

The white wire connects to one side of the escapement, the other side of the escapement connects to the black receiver wire at the switch. (See Figure 1.)

WARNING - Be sure to check wiring before turning on the receiver. If reverse polarity is applied to set, transistors may be damaged.

BATTERY REQUIREMENTS

The set requires only 3 volts and is intended for operation on two Pen Cell Batteries in lightweight installations or two size "C" Medium cells whenever weight is not so important. See Figure 2 for connecting two batteries in series to obtain 3 volts.

END USE OF BATTERIES

Discard batteries when voltage drops to 2.2 volts with signal being received from transmitter. After batteries drop below 2.2 volts, range may still be very good but escapement may not pull in reliably.

MOUNTING

The CITIZEN-SHIP LT"3" Receiver has two recommended mounting positions, with the printed circuit base Vertical and forward; or Horizontal and downward. The Vertical position is definitely more crash-proof. Sponge rubber with 1/2" to 3/4" thickness or some other shock protection method should be used to secure and protect the receiver. Either glue or rubber bands may be used to secure the receiver to the foam rubber. Do not glue the entire printed circuit base to the sponge rubber as this makes very difficult any repairs to the receiver that might be necessary. Use glue only at the ends of the receiver and possibly one spot in the center. Batteries and receiver must be mounted to give proper balance to the plane but batteries should always be forward of receiver. If Vertical mounting is used it is convenient to mount both receiver and batteries on a removable plywood board.

ESCAPEMENTS

The CITIZEN-SHIP Escapement packaged with this receiver, the PSN-2 or the SE-2 is best suited for proper operation. Other types, however, may also be used. In general, 6 to 9 ohm escapements work best. It is advisable to use the lightest weight escapement rubber possible, a 1/8" loop being recommended. See escapement instructions.

RETUNING AND ADJUSTING

After the previous complete factory testing and tuning of your set, there is probably only a need to check it or slightly re-adjust the tuning slug. A change of over 1/2 turn in either direction should never be necessary. Use a tuning wand of all bakelite or a wood dowel shaped to a wedge. Never use a tuning wand with a metal tip for this adjustment. Connect a voltmeter (0 - 3) or higher range scale across the escapement coil (See Figure 1). Remove transmitter antenna and push operate button with transmitter very near receiver. Adjust tuning slug to give highest voltage rise. Move transmitter farther away until this tuning peak is very sharp and you have the slug adjusted exactly at the peak voltage setting. This voltage will read between 1.5 and 2.8 volts depending on the strength of the signal.

Close-up operation of the set may be erratic with antenna on transmitter. This is due to overloading of the receiver with the strong Carrier signal of the transmitter and may be corrected by resting hand on top of transmitter and tightly grasping the antenna with your fingers. This greatly reduces output and may be necessary at distances to 10 feet or more.

WARRANTY

Your CITIZEN-SHIP Model LT"3" Receiver and escapement are warranted by the manufacturer to be free from defects in material and workmanship. However, the transistors are known to be operative from testing of the set and we cannot guarantee them against damage caused by incorrect voltage.

Any unit failing to operate within 30 days after date of purchase will be repaired or replaced free of charge upon being returned to the factory. This warranty does not apply to failure of operation due to exhausted or improper batteries.

If your receiver or escapement is damaged in shipment, you should file a claim with the carrier immediately upon noting the damage.

This warranty does not apply if, in our judgment, the receiver has been tampered with or received abusive treatment beyond that encountered in normal usage.

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WIRING DIAGRAMS

FIG. 1

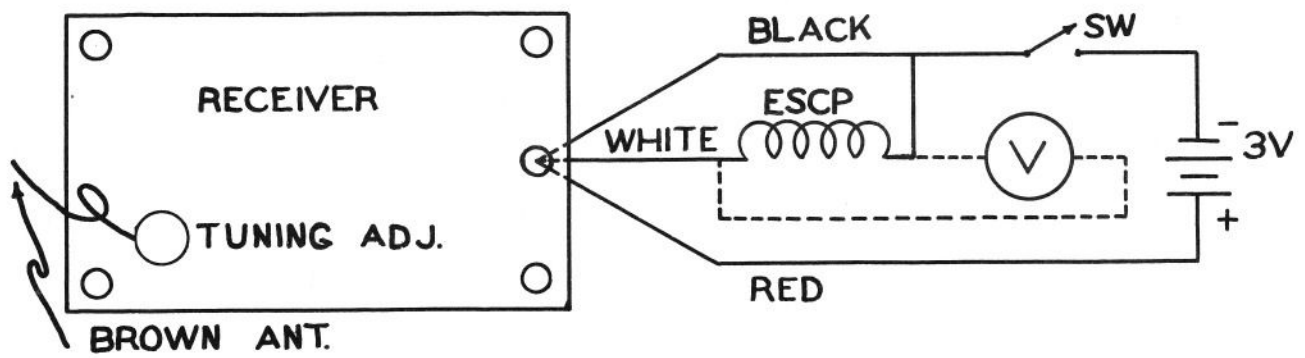


FIG. 2

BATTERIES

