# INSTRUCTIONS FOR OPERATING

# CITIZEN-SHIP Model CC Transmitter

# DESCRIPTION

Your CITIZEN-SHIP Model CC Transmitter is intended for use with impulsetype radio remote-controlled devices such as are normally encountered in model aircraft, model boats, etc. It operates at a frequency of 465 megacycles and will meet the requirements of the Federal Communications Commission for a Class B transmitter operating in the Citizens Radio Service.

The Model CC uses a single CK-5703 tube as oscillator powered by a self-contained battery power supply. The antenna is a directional type using a folded dipole and reflector. In operation, the transmitter emits an unmodulated carrier at a frequency of 465 mc. plus or minus less than 0.4% as long as the "OPERATE" switch is held down.

The Model CC is intended for use with the CITIZEN-SHIP Model CR receiver.

# ASSEMBLY

The Model CC is shipped less batteries and with the antenna dismounted.

To install batteries, remove the front of the transmitter case and insert two  $67\frac{1}{2}$  Volt Eveready Type 467 "B" batteries (or equivalent) side by side in the bottom of the transmitter case. Insert a 6 volt Eveready Type 744 "A" battery (or equivalent) on top of the "B" batteries. All batteries should be installed so that their connections are toward the open front of the transmitter. Connect the two snaptype connectors to the "B" batteries and the plug-type connector to the "A" battery. Replace the front of the transmitter case.

The antenna is installed by plugging the two prongs at the end of the plastic antenna insulator into the receptacle on the top of the transmitter case. Make certain that the antenna is pushed in as far as it will go until the plastic insulator touches the case.

#### OPERATION

CAUTION: Before this transmitter can be operated, it must be licensed as a Class B station in the Citizens Radio Service. In general, the only requirements for a Citizens Radio Station License with the CITIZEN-SHIP transmitter are that the applicant be 18 years of age or older and a citizen of the United States. After the Citizens Radio Station License has been obtained, anyone may operate the transmitter, as long as the licensee assumes responsibility for the proper operation of the station. It is quite simple to obtain a Citizens Radio License, and complete information is contained in Part 19, FCC Rules and Regulations. This publication may be obtained from the Superintendent of Documents, Government Printing Office, Washington 25, D.C. at a cost of 5¢ per copy (do not send stamps). An application blank, FCC Form 505, is enclosed for your station license. This form should be filled out and sent to your nearest FCC Field Office. Additional forms may be obtained from your FCC Field Office or from the Federal Communications Commission, Washington 25, D.C. Do not operate your transmitter until you have received your Citizens Radio Station License.

To operate the transmitter, the "FILAMENT" switch should be switched to the on position (up) and at least one minute allowed for warm-up before pressing the operate switch which connects the "B" battery.

After the warm-up period, the transmitter will transmit as long as the "OPERATE" switch is depressed. In normal use with the CITIZEN-SHIP Model CR receiver, it will not be necessary to hold down the "OPERATE" switch for more than one second.

In operation, the CITIZEN-SHIP transmitter should be held with both hands so that the antenna rods are in a horizontal position and the thumb of the right hand is near the "OPERATE" switch. This allows the operator to control the "OPERATE" switch with the right thumb and the "FILAMENT" switch with the right index finger.

The radiation from the antenna is directional. The transmitted signal will be in the direction of the axis of the plastic antenna insulator. In order for the receiver to receive the maximum transmitted signal, the transmitter should always be pointed so that the receiver is within 15° of the axis of the plastic antenna insulator. When the transmitter is held in the manner described above, it can easily be pointed toward the receiver even when the receiver is in motion. Keep antenna clear of surrounding objects.

At the conclusion of operation, make certain that the "FILAMENT" switch is in the off position in order to conserve the battery power.

A special neon lamp is provided in the front cover to indicate when the "B" batteries are below usable voltage. In no case should the transmitter ever be operated when this lamp is not glowing. If the bulb should get broken, replace it immediately with a type NE-21.

As soon as the batteries become exhausted, they should be removed immediately. The chemical action that takes place in exhausted dry batteries could cause permanent damage to the transmitter.

WARNING: To comply with FCC regulations the following must be rigidly observed.

- 1. Obtain Citizens Radio Station License before using transmitter.
- 2. Allow one (1) minute warm-up of filaments before pushing "OPERATE" switch.
- 3. Replace "B" batteries when neon light is extinguished. DO NOT operate unless this light is glowing.
- 4. Keep antenna several feet away from surrounding objects, particularly metal.
- 5. No adjustments may be made to any part of the transmitter, except changing batteries.

#### SERV ICE

If the transmitter fails to operate, first check the receiver to see that it is in operating condition. Then replace the batteries in the transmitter with new ones to eliminate the batteries as a possible cause of the trouble. "A" batteries should be replaced when voltage with "FILAMENT" on falls to 4.5 volts. End use of "B" batteries is indicated by neon light. See above.

If the above procedure does not locate the trouble, return the transmitter to your CITIZEN-SHIP dealer. He will either advise you of a reliable service agency in your area or return it to the factory for repairs.

DO NOT ATTEMPT TO MAKE ANY REPAIRS, ADJUSTMENTS, OR ALTERATIONS TO THE TRANSMITTER. Your Citizens Radio Station License prohibits you from tampering with the transmitter unless you hold the proper type of Commercial Radio Operator's License. Such action will void your warranty.

# WARRANTY

Your CITIZEN-SHIP transmitter is warranted by the manufacturer to be free from defects in material and workmanship. Any transmitter failing to operate within thirty 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 transmitter 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 transmitter has been tampered with or received abusive treatment beyond that encountered in normal usage.

VERNON C. MACNABB COMPANY

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