

INSTRUCTIONS FOR OPERATING

CITIZEN-SHIP MODEL FLX "27" TRANSMITTER.

CITIZEN-SHIP RADIO CORPORATION  
820 EAST 64th STREET  
INDIANAPOLIS, INDIANA

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CITIZEN-SHIP MODEL FLX TRANSMITTER

DESCRIPTION

Your CITIZEN-SHIP Model FLX "27" Transmitter is intended for use with impulse-type radio remote-controlled devices such as are normally encountered in model aircraft, model boats, etc. It is crystal controlled and operates at a frequency of 27.255 megacycles and will meet the requirements of the Federal Communications Commission for a Class C transmitter operating in the Citizens Radio Service.

The Model FLX has been engineered with extreme care to provide the highest possible output with a single tube crystal controlled oscillator on 27.255mc. Extra parts have been added to reduce "B" battery drain without reduction in signal output. (Current saving Feature). All parts have been miniaturized to permit being housed in a case not much larger than a flashlight and to take advantage of the availability of the new Burgess #P45 and Eveready #477 "B" batteries.

A printed circuit chassis of the latest design is used to assure reliable and consistent performance in every unit, and with the build-in resonance indicator its performance is assured.

The Model FLX is intended for use with all CITIZEN-SHIP 27.255mc Single Channel Receivers.

ASSEMBLY

Because including the antenna with the transmitter would involve packaging and shipping problems which would add to the expense of the FLX, for your economy the antenna for this unit is not included. A standard 36" length of 1/8" piano or landing gear wire, available at all hobby shops for approximately 25¢ is used as the antenna. Any different length will reduce efficiency.

The red plastic ball packed inside the Transmitter is for use as a protector on the end of the antenna. File a slight taper on the end of the antenna and insert into the hole in the plastic ball. Tap antenna into ball with hammer.

Remove the cover of the transmitter case and insert the antenna through the rubber grommet in the top of the case panel and into the antenna socket provided. This socket is a small metal part approximately in the center of the chassis board between the two switches. It is recommended that you practice this operation a few times so that you will learn to insert the antenna accurately with the case cover on.

The Model FLX is shipped less batteries. After inserting the antenna, put 2 medium 1-1/2 volt cells in the battery box with  $\neq$  or center terminal to the insulated contacts.

Use the snap fasteners provided to connect the "B" batteries, (Burgess #P45 or Eveready #477) and set the batteries in place below the printed circuit chassis board. USE THE PACKING FILLERS PROVIDED AND MARKED "BATTERY FILLER" TO USE UP THE EXTRA SPACE ON TOP OF "B" BATTERIES. (Keep these fillers away from the coil). Replace the cover of the transmitter case.

OPERATION

To operate the transmitter, the "FILAMENT" switch should be switched to the "on" position. As the tube is instant heating, it is immediately ready for use.

In operation, the CITIZEN-SHIP FLX Transmitter should be held with the right hand so that the antenna is in a vertical position and the thumb of the right hand is near the "OPERATE" switch.

The transmitter will transmit as long as the "OPERATE" switch is held in the "on" position. This position is obtained by sliding the "OPERATE" switch toward the antenna end of the Transmitter.

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

### ADJUSTMENT

Whereas the transmitter should not need retuning, you can use an insulated (bakelite or fiber) screw driver that will fit the coil slot to turn the core in or out until the lamp lights the brightest with both the FILAMENT and OPERATE switches ON. It will not glow brightly, but can be seen except in direct sunlight. When the lamp glows brightest, the transmitter is tuned.

Since the transmitter is crystal controlled, it will hold its frequency even with changes in battery voltage. The end use of the batteries as measured WITH THE FILAMENT SWITCH ON AND THE OPERATE SWITCH ON is 1.1 volts on the "A" batteries and 90 volts total on the "B" batteries. At this low voltage, however, power output will materially be reduced. NOTE: With batteries as low as this the tuning indicator lamp will light very faintly. (A reliable voltmeter should be used in these measurements. See CITIZEN-SHIP Meter in enclosed brochure.)

### WARRANTY

Your CITIZEN-SHIP FLX "27" 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 judgement, the transmitter has been tampered with or received abusive treatment beyond that encountered in normal usage.

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## LICENSING

**CAUTION:** Before this transmitter can be operated, it must be licensed as a Class C 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. If a boy under 18 wishes to purchase and use the Transmitter, he may have his father or another adult file application for the license. 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.

The enclosed license card should be filled in and sent to your nearest Field Engineering Office. A list of the Field Engineering Offices is as follows:

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| District No. 1  | Customhouse, Boston, Mass. Hubbard 2-6200  |
| District No. 2  | Federal Building, New York City, Watkins 4-1000  |
| District No. 3  | U. S. Customhouse, Philadelphia, Pa. Market 7-6000   |
| District No. 4  | Old Town Bank Building, Baltimore, Md. Plaza 2662  |
| District No. 5  | New Post Office Bldg., Norfolk, Virginia Norfolk 24963   |
| District No. 6  | Federal Annex, Atlanta, Ga., Walnut 3396<br>Suboffice, Post Office Bldg., Savannah, Ga. Savannah 7602                            |
| District No. 7  | Federal Bldg., Miami, Florida, Miami 9-5431  |
| District No. 8  | Audubon Bldg., New Orleans, La. Canal 1739<br>Suboffice, U. S. Courthouse & Customhouse, Mobile, Ala.<br>Mobile 2-3341           |
| District No. 9  | U. S. Appraisers Bldg., Houston, Tex. Woodcrest 61906<br>Suboffice, U. S. Post Office Bldg., Beaumont, Tex. Beaumont 401         |
| District No. 10 | U. S. Terminal Annex Bldg., Dallas, Texas. Central 5943  |
| District No. 11 | Post Office & Courthouse Bldg., Los Angeles, Cal. Madison 7411<br>Suboffice, U. S. Customhouse, San Diego, Cal., Franklin 9-4101 |
| District No. 12 | Customhouse, San Francisco, Cal., Yukon 6-4141   |
| District No. 13 | Central Bldg., Portland, Ore. Beacon 0931  |
| District No. 14 | Federal Office Bldg., Seattle, Washington. Seneca 3100   |
| District No. 15 | Customhouse, Denver, Colo. Keystone 4151   |
| District No. 16 | Uptown Post Office & Federal Courts Bldg., St. Paul, Minn.<br>Cedar 8033   |
| District No. 17 | U. S. Courthouse, Kansas City, Mo. Victor 3755   |
| District No. 18 | U. S. Courthouse, Chicago, Ill. Harrison 4700  |
| District No. 19 | New Federal Bldg., Detroit, Mich. Cherry 9330  |
| District No. 20 | U. S. Postoffice, Buffalo, New York. Washington 1744   |
| District No. 21 | Stangenwald Bldg., Honolulu, T. H. Honolulu 56879  |
| District No. 22 | Federal Bldg., San Juan, Puerto Rico, San Juan 2-4562  |
| District No. 23 | Shattuck Bldg., Juneau, Alaska, Juneau 721.<br>Suboffice, U. S. Postoffice & Courthouse, Anchorage, Alaska. Main 535.            |