

INSTRUCTIONS FOR OPERATING
CITIZEN-SHIP MODEL REX "27" TRANSMITTER

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

INSTRUCTIONS FOR USE OF CITIZEN-SHIP

MODEL REX TRANSMITTER

DESCRIPTION

Your CITIZEN-SHIP Model REX Transmitter is a 27.255mc Crystal Controlled transmitter using a 3V4 tube for an oscillator, a 3V4 tube for a power amplifier output stage which is tone modulated by a 3A5 operating as a multivibrator.

Two different tones can be selected by the operator and when used with a CITIZEN-SHIP RER receiver independent and selective operation of two relays in the receiver is obtained. Therefore, it is called a dual channel system.

ASSEMBLY

Because including the antenna with the transmitter would involve packaging and shipping problems which would add to the expense of the REX, for your economy the antenna for this unit is not included. A standard 36" length of 1/8" piano wire 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.

With the cover of the Transmitter removed, a socket will be seen in line with the rubber grommet in the top of the cabinet. This is the antenna socket and the piece of 1/8" wire that you obtain from your hobby dealer is plugged through the hole in the grommet and into the socket. After the cover is on, the socket cannot be seen but there is no trouble to inserting it by feel.

The batteries are inserted in the bottom compartment of the transmitter lying on their side with the connectors toward your right viewed from the rear of the transmitter. The filament battery should be 1-1/2 Volts Eveready type #742 or Burgess type #4F. The "B" batteries sit on top of the "A" battery and two are used - Eveready type #467 or Burgess type #XX45. A plug inserts into the filament battery and glove fasteners attach to the "B" batteries. After the batteries and antenna are in position, the back should be put back on and self-tapping screws inserted.

OPERATION

To operate the transmitter the off-on switch, which is the center of the three switches, should be pushed to the up or "on" position. This not only turns on the filament but also turns on the radio frequency tubes and a constant 27.255mc signal is now on the air. This, of course, would interfere with anyone flying on simple off-on carrier equipment.

Pushing up the right hand button modulates the carrier with a high audio tone - namely 1200 cycles - and pushing up the left hand button modulates the carrier with a low frequency tone - 240 cycles, and if both buttons are pushed simultaneously, a third tone is made available of approximately 500 cycles.

The proper function of these different tones is for the selective operation of relays in the RER Receiver which is fully described in the instructions for that receiver.

It should be self-evident that since this is a tone-modulated transmitter either tone will probably satisfactorily operate any single channel tone receiver currently on the market operating on 27.255 megacycles.

ADJUSTMENT

The transmitter is properly tuned at the factory and should not need retuning. If, however, you have a good field strength meter and want to be assured that everything is at the peak of tuning, remove the back cover and adjust the screw in the compression type ceramic trimmer in the center of the back of the chassis. The brass screw sticking out of the coil determines the tuning of the oscillator coil and should never be touched. Its adjustment affects the percentage modulation of the transmitter which is set at the factory for best operation.

This transmitter was carefully designed to operate at extremely low voltages but it is recommended that batteries be discarded when the filament battery goes down to 1.1 volts and the two "B" batteries have declined to a total of 90 volts.

WARRANTY

Your CITIZEN-SHIP REX "27" Transmitter is warranted by the manufacturers 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.

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

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:

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 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 Suboffice, U. S. Courthouse & Customhouse, Mobile, Ala. Mobile 2-3341
District No. 9	U. S. Appraisers Bldg., Houston, Tex. Woodcrest 61906 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 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. 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 Suboffice, U. S. Postoffice & Courthouse, Anchorage, Alaska. Main 535.