AIR-GROUND RADIO PRIVATE SYSTEMS ERCO 361-TB TRANSMITTER GENERAL

1. GENERAL

1.01 This practice covers the Erco Radio Laboratories, Incorporated, type 361-TB radio transmitter usually used in military radio systems. The transmitter is generally associated with the Erco type 362-R radio receiver. Space is provided in the transmitter cabinet for the receiver.

1.02 This practice is reissued to provide information on options and modifications and to correct information on levels and percentage of modulation. Marginal arrows have not been used to indicate changes.

1.03 ***CAUTION: THE TYPE 361-TB TRANSMITTER USES VOLTAGES WHICH CAN BE FATAL. THE SAFETY PRECAUTIONS IN SECTION 010-110-001 MUST BE FOLLOWED DURING INSTALLATION AND MAINTENANCE.***

1.04 The Model 361-TB transmitter is a single-frequency, crystal-controlled, amplitude-modulated unit with a carrier power of 100 watts. It is designed to operate in the frequency range of 225 to 400 megacycles. The output impedance is a nominal 50 ohms.

1.05 The Model 361-TB transmitter and Model 362-R receiver are used in conjunction with VHF FM equipment and carrier systems in certain installations where relay service is required. The interface connections and levels in such installations are engineered locally.

1.06 In military applications, the transmitter is to be available for service on a twenty-four hour stand-by basis. Release must be obtained from the control location before performing maintenance or testing routines. Most installations provide duplicate equipment operating on the same frequency which may be used by the control location while maintenance is being performed on the alternate equipment.

1.07 The Model 361-TB transmitter is generally associated with a broadband discone antenna. However, gain antennas have been provided in certain installations.

1.08 All tuning adjustments on this transmitter must be made by qualified personnel.

2. UNDESIRABLE RADIATION

2.01 If difficulties are experienced due to undesirable radiation, low pass filters and cavity filters are available which will reduce it to a satisfactory level.

3. RECORDS

3.01 A record of meter readings and dial settings should be kept at the transmitter. Common troubles can be quickly localized by comparing stage-by-stage readings with previous readings.

4. ACCESSORIES

4.01 A type 1027 protective half-door, measuring approximately 39 by 20 inches, is available for use where the transmitter is installed in aisles or exposed areas. This door covers all knobs and controls, but leaves the meters exposed and visible at the top.

4.02 A carrier-on monitor which provides means for indication at the control location that the RF output is within normal limits is described in Section 406-102-000.

4.03 A time-out relay, designed to prevent continuous radiation of carrier with a defective line facility, is available as an optional modification.