# OPERATING INSTRUCTIONS

## MODEL T109 RADIO CONTROL TRANSMITTER

The T109 TONE MASTER is a long range class "C" tone transmitter, crystal controlled for operation on the citizens frequency of 27.255 mc. It has high radiation and uniformity of output, and will give years of superior performance.

Its audio output of 800 to 1000 cycles is especially designed to operate the DELTRON R109 and other DELTRON tone receivers, but it will also operate most commercially available receivers.

Before operating, remove the back cover and install the following batteries:

A supply—1½ volts
Burgess 4F or Eveready 742

B supply—135 volts
Two Burgess XX45 or Eveready 467

Replace cover and install DELTRON whip antenna through grommett in top of case. Do not force antenna into socket, as excessive pressure can break or damage the circuit board. By twisting antenna slightly, it will seat itself snugly in the socket. To remove, twist in opposite direction. (Note—a 36 inch length of 3/32" music wire, available at your hobby shop, may be substituted as antenna).

TOGGLE SWITCH (upper left) switches on filament and causes a carrier wave to be radiated. This should be in the off position at all times except when flying or testing, as it will operate a carrier wave receiver and may cause someone else to have a crackup.

PUSH BUTTON SWITCH (upper right) is a fast-acting pulsing key. It transmits a tone modulated signal to your receiver, which operates the relay.

INDICATOR LIGHT (top center) has no electrical connection with the transmitter circuit, but glows in response to the transmitter radiation. It will dim slightly when pulsing key is depressed.

This transmitter has been tuned at the factory and will remain on frequency indefinitely. In event tubes or crystal are replaced, it may be necessary to re-tune it. This is accomplished by adjusting the trimming condenser (right hand corner) and the tuning coil slug (left hand corner) for maximum lamp brightness.

THE OWNER OF THIS TRANSMITTER MUST APPLY TO THE F.C.C. FOR A STATION AUTHORIZATION ON THE FORM ENCLOSED. NO EXAMINATION IS REQUIRED, BUT THE FORM MUST BE NOTARIZED. APPLICANT MUST BE A CITIZEN OF 21 YEARS OR OVER, BUT MAY PERMIT A YOUNGER PERSON TO OPERATE THE TRANSMITTER UNDER HIS SUPERVISION.

## FACTORY GUARANTY

This transmitter is guaranteed to be free from defects in workmanship and materials. Misuse or damage are not covered by this warranty. In event of damage, prompt, reasonable factory service is available. Do not ask your dealer to make repairs as he does not have the necessary facilities. Return the transmitter (in original carton if possible) to the DELTRON CO., 1940 Conquista, Long Beach, Calif.

This transmitter has been tested and factory tuned. It will stay on frequency indefinitely if tuning adjustments are not tampered with. DO NOT TRY TO TUNE TRANSMITTER UNLESS YOU HAVE THE PROPER TEST EQUIPMENT.

This transmitter has upward modulation and the indicator lamp will BRIGHTEN when pulsing key is depressed, indicating an increase in power output when carrier wave is modulated.