

FEDERAL COMMUNICATIONS COMMISSION  
Field Engineering Bureau  
Washington, D. C. 20554

May 14, 1969

Project XT-18

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TO ENGINEERS IN CHARGE (FOD)

Project Title: New Code Keyers for Examination Use

Subject: Audio Tone Frequency

The Engineer in Charge at the Buffalo, New York, Field Office advises that he has noted considerable difference in audio tones of the two ATKO Model 10F code test keyers in that office. Measured audio tone frequencies were 870 Hz and 1050 Hz. The Washington originated purchase request for these keyers specified 750 Hz  $\pm$  10% for the audio output frequency. If complaints have been received from examinees about the audio frequency used in testing, it is suggested that those offices measure the tone frequency of their keyers to determine if they are within  $\pm$  10% of 750 Hz.

The Buffalo office has found that the tone can be easily adjusted within certain limits by replacing the 7500 ohm fixed resistor connected across the primary winding of transformer T3 as shown in the schematic diagram for this unit. This resistor can easily be located for changing by removing the keyer from its plastic case. The resistor is mounted on the bottom circuit board. The Buffalo district office found it necessary to use replacement resistor values of approximately 12 k or 13 k to obtain a 750 Hz tone for their two units. They further indicate that there is sufficient space within the keyer to mount a small variable potentiometer to facilitate tone frequency adjustment. Field offices are authorized to install either a fixed or variable resistor to adjust the tone frequency to the 750 Hz specification, if they so desire.

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