

DATE: August, 1944

SUBJECT: Model 717B
 Crystal Hand Microphone

MODEL 717B CRYSTAL HAND MICROPHONE

GENERAL: Model 717B is a pressure-actuated diaphragm-type semi-directional crystal microphone with wide range response for high quality reproduction of sound. The crystal used is a grafoil (high capacity) bimorph unit, moisture-sealed to withstand adverse climatic conditions. The microphone is provided with a 7-foot shielded rubber-jacketed cable.

APPLICATIONS: The Model 717B is designed for announcing, home recording and all general purpose use. The frequency response is suitable for either voice or music, and is free from undesirable peaks. The cartridge unit is mounted in rubber to provide mechanical isolation from the case, so that the microphone may be handled or carried about without annoying mechanical noise pickup.

CONNECTIONS: The inner conductor of the cable should be connected to the grid of the first tube in the amplifier across a load resistance of 5 megohms. Input resistances as low as 1 megohm may be used if necessary but higher values are recommended because of the better low-frequency response obtained. The shield should be connected to the chassis.

INSTALLATION: The 717B Microphone is designed to be held in the hand. However, the Microphone may be mounted in the amplifier cabinet through the use of a No. 47-54 clip or it may be fastened in a No. 99-120 stand for table use.

OPERATION: No polarizing voltage is required for crystal microphones.

Crystal microphones may be seriously damaged if accidentally connected to loud speaker or power supply outlets carrying high voltage. Check your connections carefully.

Crystal microphones should not be used or kept in places where the temperature exceeds 125°F. They should not be exposed to the rays of the sun in very hot weather for any considerable length of time - or left in closed automobiles parked in the sun during hot weather, as the temperature inside the automobile may easily build up to over 125° and permanently damage the crystal.

When used near a radio transmitter, use the minimum length of cable consistent with placement requirements. Careful grounding of the cable shield is advisable.

SPECIFICATIONS

Voltage Sensitivity: 2.2 millivolts r.m.s. per bar at the end of a 7-foot cable across, 1 to 5 megohms at 400 cycles. This is equivalent to 53 db below 1 volt per bar at the terminals of the 7-foot cable.

Internal Output Impedance: Equivalent to a 1,500 micro-microfarad condenser.

Recommended Load Impedance: 1 to 5 megohms.



SPECIFICATIONS-Continued

Model	717B
Height, Overall.	6"
Height, Case	2-1/2"
Width	2-1/2"
Thickness	1-1/2"
Finish	Brown
Net Weight	3/8 Lb.
Shipping Weight.	3/4 Lb.
Code Word (7' Cable)	RUDUK

GUARANTEE: Each microphone is guaranteed to be free from electrical and mechanical defects for a period of one year from date of shipment from the factory, provided all instructions are complied with fully. In case of damage, return the microphone to the factory for repairs. Our guarantee is voided if the microphone case is opened.

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