DYNAMIC MICROPHONE

for

SOUND SYSTEMS

and

RADIO BROADCASTING

RUGGEDNESS, dependability, price, high quality and either non-directional or semi-directional performance are features which have contributed to the popularity of the Western Electric 633A Dynamic Microphone.

This microphone has found general application in public address, announcing and sound distribution systems as well as in radio broadcasting. Having an impedance of approximately 20 ohms, the microphone is intended for use with amplifiers nominally rated at 30 ohms input. Because of this low impedance the microphone may be used at considerable distances from associated amplifying equipment.

For sound arriving at an angle of 90° to the front of the diaphragm the 633A has a uniform response over the frequency range of 50 to 10,000 cycles. Because of the symmetry of the microphone this response holds for all angles in the horizontal (90°) plane and when desired sounds originate in this plane, the microphone will perform effectively as a non-directional type. When used for this purpose the microphone is mounted vertically on a stand or suspended by its cordage.

For sounds arriving at other angles, the response varies until at 0°, the response rises gradually 10 db from 1500 to 8000 cycles. The “in-between” characteristics or directional effects may be utilized by tilting the microphone at the desired
angle. The 9A Swivel Joint is available for this purpose. The directional effect may be further accentuated by the use of the 8B Baffle, a disc 3-1/4” in diameter which fits snugly over the face of the microphone and increases its sensitivity for sounds arriving at 0° over the range from 1000 to 5000 cycles. This feature is useful in helping speech sounds override surrounding noises.

The 22A Floor Stand and 23A Table Stand, 8B Baffle, 9A Swivel Joint and KS-7133 Cordage should be ordered separately. They are not supplied with the 633A Microphone. Unless otherwise specified, the cordage will be furnished in 20’ lengths.

ARCHITECTS’ AND ENGINEERS’ SPECIFICATIONS

The microphone shall be of the moving coil dynamic type practically unaffected by humidity and temperature changes and relatively free from the effects of wind when used outdoors. It shall be no larger than 3” long and 2” in diameter and shall be finished with an aluminum gray lacquer.

The microphone shall have a smooth frequency response characteristic and shall not deviate from the average more than ± 4 db from 40 to 10,000 cycles. The voice coil impedance shall be 20 ± 2 ohms.

The sensitivity shall be — open circuit terminal voltage 90 db below 1 volt/dyne/sq. cm. which is equivalent to 70 db below 1 volt/10 dynes/sq. cm. — when terminated by a resistance of 20 ohms, the power output level is —82 vu (0 level calibration 1 milliwatt). The microphone shall be capable of being mounted on either a Western Electric 22A Floor Stand, or 23A Table Stand, or equivalents, as required, by means of an adjustable locking type coupling (Western Electric 9A Transmitter Attachment) and equipped with at least 10 feet of KS-7133 two-conductor shielded rubber covered cable or equivalent.