626 DYNAMIC CARDIOID MICROPHONE

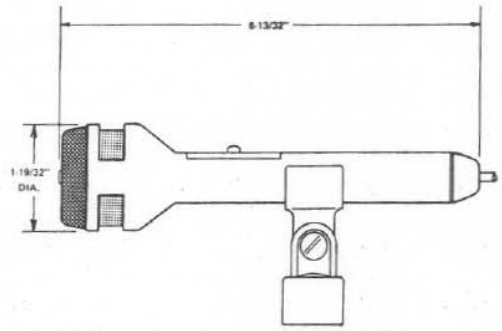

Figure 1 – Dimensions

DESCRIPTION

The Electro-Voice Model 626 is a "single-D" dynamic cardioid microphone that emphasizes low frequencies when used "close up." Created especially for those public address and recording applications where this specialized low-frequency characteristic is desired, performance characteristics are similar to those of the 627A, but for less exacting applications.

The 626 features the exclusive non-metallic Electro-Voice Acoustalloy® diaphragm that assures smooth frequency response, yet will not be damaged by extremes of temperature and humidity. The transducer assembly utilizes a mechanical nesting design concept. The internal parts are nested, one within another, resulting in a nearly solid mechanical structure that is highly resistant to damage from mechanical shock. As part of this assembly, an integral shock absorber isolates the transducer assembly from mechanical noises to reduce transmission of these noises to the microphone signal. An internal Acoustifoam filter allows close talking without excessive "breath popping" and prevents dirt and magnetic particles from accumulating on the diaphragm.

The case, finished in non-reflecting fawn beige Micomatte, is constructed of high-strength, pressure die-cast zinc, and is designed for balanced and unobtrusive hand-or-stand use.

SPECIFICATIONS

Element:	Dynamic
Frequency Response:	70 to 12,000 Hz (see Figure 3)
Polar Pattern:	Cardioid
Impedance:	150 ohms and high impedance, selectable at equipment end of microphone cable (low- and high-impedance connections unbalanced to ground).
Output Level,	
Low Impedance:	−58 db (0 db = 1 mw/10 dynes/cm²)
High Impedance:	−58 db (0 db = 1 volt/dyne/cm²)
EIA Sensitivity Rating:	−151 db for 150 ohms −153 db for Hi-Z
Diaphragm:	Electro-Voice Acoustalloy®
Switch:	On/Off
Case:	Pressure die-cast zinc
Finish:	Fawn Beige Micomatte
Accessories Included:	310 stand adapter
Dimensions:	1-19/32" dia., 6-13/32" long, ¾" shank diameter
Net Weight:	8.5 oz., (including cable)
Cable:	15-foot, vinyl-jacketed two-conductor shielded.
Optional Accessories:	311 Snap-Out stand adapter

APPLICATIONS

GENERAL: The cardioid directional characteristic of the 626, with reduced pickup at the sides and rear of the microphone, decreases the likelihood of feedback in public address applications. Radiation of sound-system loudspeakers should strike the 626 from its relatively "dead" rear in order to take maximum advantage of the cardioid directional pattern. Speaker radiation striking the front of the 626 will not be cancelled, and feedback is more likely to result.

USING THE VARIABLE LOW-FREQUENCY RESPONSE: The 626's low-frequency response varies with distance from sound to the microphone as shown in the response curve (Figure 3). Maximum bass response is produced in close-up use with the microphone one-quarter inch from the sound source (Figure 3/A). Minimum bass response is experienced at distances greater than 24 inches (Figure 3/C).

Useful special effects can be created by imaginative application of the variable low-frequency response:

1. By working closer to the microphone than might otherwise be natural, the human voice will sound more robust, although intelligibility may be adversely affected.

2. Feedback in a public address system is sustained by reflection of sound back into the microphone. For all microphones, as the artist moves closer, the level of his voice (at the microphone) increases and the microphone's signal to the amplifier is increased. For a constant volume of sound from the system, the amplifier gain setting must be proportionately reduced. This results in a reduction of system's sensitivity to reflected sound, hence a reduction of the tendency to feedback.

   The variable low-frequency response of the 626 provides a further feedback-reducing advantage in close-talking applications. At one-quarter inch, low-frequency response is greatly enhanced, while response to distant sound (as from sound system loudspeakers) is unaffected. The result is a reduced tendency to feedback, over and above that provided by the cardioid directional characteristic alone.

   In short, system sensitivity reduction because of close-working, added to the advantage resulting from the bass-boosting low-frequency characteristic of the 626, make this instrument an exceptionally effective tool for stage and night club use.
3. For musical pickup, the variable bass response can be utilized to achieve "clean" bass pickup at distances of twelve inches or more. By moving the 626 to a few inches from the instrument, bass will be increased.

CAUTION NOTES

With the sound source (lips) closer than two inches, bass response is increased dramatically (as shown in Figure 3/A/B). If too much signal is generated at the microphone, overloading in the amplifier input circuits may occur, causing severe distortion.

ARCHITECTS' AND ENGINEERS' SPECIFICATIONS

The microphone shall be a cardioid dynamic type. Response shall be 70 – 12,000 Hz, specially shaped above 1000 Hz to maintain presence for vocal and musical pickups, and, below 1000 Hz, shall vary inversely with distance. 100 Hz response with sound source 24" from microphone shall be nominally 14 db lower than response with sound source one-quarter inch from microphone. Response at front of microphone at 1,000 Hz shall be nominally 18 db greater than response at rear.

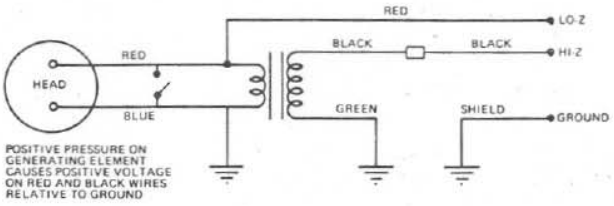

Figure 2 – Wiring Diagram

The microphone shall be available in high impedance or low (150 ohms) impedance, unbalanced to ground. Output level for high impedance shall be –58 db and EIA sensitivity rating shall be –153 db (0 db = 1 volt/dyne/cm^2). Output level for low impedance shall be –58 db and EIA sensitivity rating shall be –151 db (0 db = 1 mw/10 dynes/cm^2). The microphone shall have a non-metallic Acoustalloy diaphragm. An "On/Off" switch shall be provided, so connected that transducer is "shorted" when switch is in "Off" position. A 15-foot, vinyl-jacketed two-conductor shielded cable, integral to the microphone, shall be provided. Impedance shall be selectable at the equipment end of the cable.

The case shall be pressure-cast zinc. Dimensions shall be 1-19/32" diameter (major), 6-13/32" long, with shank diameter ¾". Net weight, including cable, shall be 8.5 ounces. Finish shall be fawn beige Micomatte. An Electro-Voice 310 stand adapter shall be furnished.

The Electro-Voice 626 is specified.

WARRANTY

Each Electro-Voice microphone is guaranteed for the life of the microphone to be free of factory defects in materials and workmanship and will, at our option, be repaired or replaced at no charge if exhibiting malfunction from this cause. Microphones for warranty repair must be shipped prepaid to Electro-Voice, Inc., or its authorized service agency. They will be returned prepaid. This warranty does not cover finish or appearance.

For correct shipping address and instructions on return of Electro-Voice products for repair and locations of authorized service agencies, please write: Service Department, Electro-Voice, Inc., 600 Cecil Street, Buchanan, Michigan 49107 (Phone: 616/695-6831).

Electro-Voice also maintains complete facilities for non-warranty service.

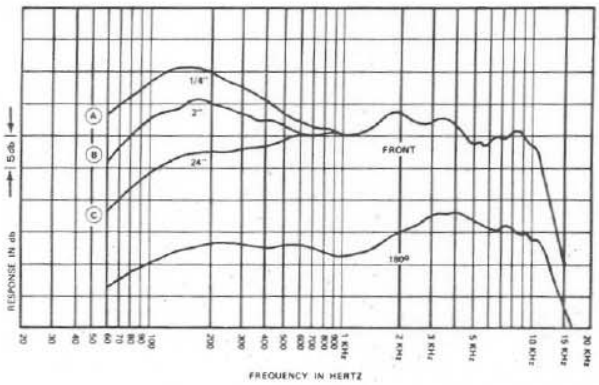

Figure 3 – Frequency Response Characteristics