



ENGINEERING DATA 627B DYNAMIC CARDIOID MICROPHONE



**DESCRIPTION**

The Electro-Voice Model 627B is a "single-D" dynamic cardioid microphone that *emphasizes* low frequencies when used "close up." The 627B was created especially for those public address and recording applications where this specialized low-frequency characteristic is desired. Compared to its predecessor, the 627A, the 627B features improved response at both frequency extremes and increased output level when used close to the mouth. In addition, the new 627B has greatly strengthened cable connector threads, side port screen, and grille-screen retention.

The 627B features the exclusive non-metallic Electro-Voice Acoustalloy® diaphragm that assures smooth frequency response yet is virtually impervious to damage from extremes of temperature and humidity. The transducer assembly utilizes a mechanical nesting design. 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 satin chrome, is constructed of high-strength, pressure-cast zinc and is designed for balanced and unobtrusive hand-held use. A professional-type 3-pin A3M connector is built into the microphone allowing easy connect and disconnect.

**SPECIFICATIONS**

Element: Dynamic  
 Frequency Response: 60 to 13,000 Hz  
 Polar Pattern: Cardioid  
 Impedance: Available as 150 ohms (balanced to ground) or Hi-Z

**Output Level,**

Low Impedance: -58 dB (0 dB = 1 mw/10 dynes/cm<sup>2</sup>)  
 High Impedance: -58 dB (0 dB = 1 volt/dyne/cm<sup>2</sup>)

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: Satin chrome

Accessories Included: Model 312 stand adapter

Dimensions: 1-19/32" (40.4mm) dia., 6-13/64" (157.5mm) long, (excluding cable connector), 3/4" (19mm) shank diameter

Net Weight: 7.5 ounces (212.6g) - excluding cable

Connector in Mike: Switchcraft A3M Cable,

Low Impedance: 15' (4.56m), 2-conductor, shielded synthetic rubber-jacketed broadcast type with Switchcraft A3F connector at mike end

High Impedance: 15' (4.56m), 1-conductor, shielded synthetic rubber-jacketed broadcast type with Switchcraft A3F connector at mike end

Optional Accessories: Model 312 Snap-Out stand adapter

**APPLICATIONS**

**GENERAL:** The cardioid directional characteristic of the 627B, 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 627B from its relatively "dead" rear in order to take maximum advantage of the

cardioid directional pattern. Speaker radiation striking the front of the 627B will not be cancelled, and feedback is more likely to result.

**USING THE VARIABLE LOW-FREQUENCY RESPONSE:** The 627B'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 627B 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 627B, make this instrument an exceptionally effective tool for stage and nightclub 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 627B 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.

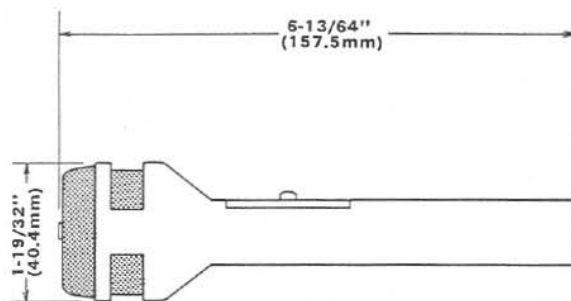


FIGURE 1 - Dimensions

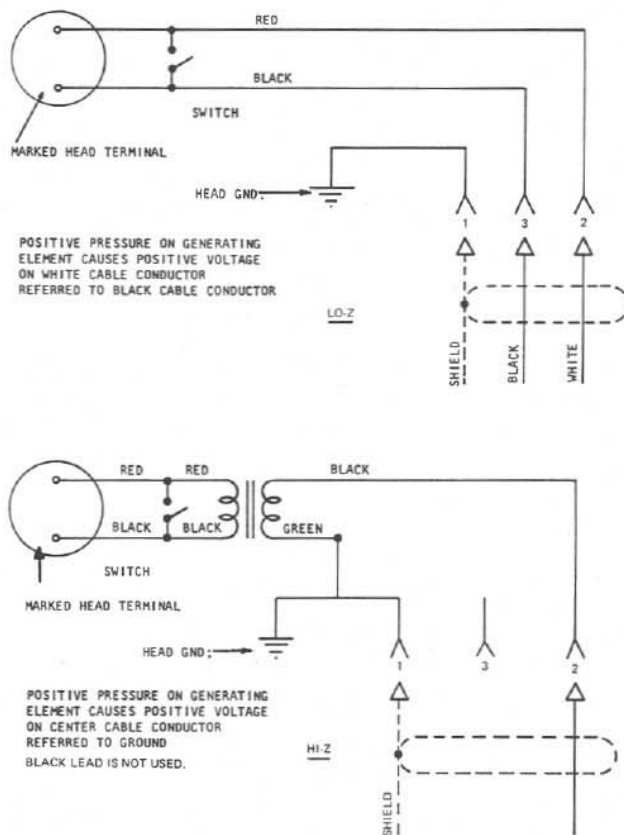


FIGURE 2 - Wiring Diagrams

#### ARCHITECTS' AND ENGINEERS' SPECIFICATIONS

The microphone shall be a cardioid dynamic type. Response shall be 60 to 13,000 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-inches from the 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 20 dB greater than response at rear.

The microphone shall be available in high impedance or low impedance. Output level for high impedance shall be  $-58$  dB and EIA sensitivity rating shall be  $-153$  dB ( $0$  dB =  $1$  volt/dyne/cm<sup>2</sup>). Output level for low impedance shall be  $-58$  dB and EIA sensitivity rating shall be  $-151$  dB ( $0$  dB =  $1$  mw/10 dynes/cm<sup>2</sup>). 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 fifteen-foot (4.56m), one-conductor (on Hi-Z), shielded, synthetic rubber jacketed cable with Switchcraft A3F connector installed at microphone end shall be provided. Low impedance connections shall provide balanced line configuration.

The case shall be pressure-cast zinc. Dimensions shall be:  $1-19/32$ " (40.4mm) diameter (major),  $6-13/64$ " (157.5mm) long, not including cable connector, with a shank diameter of  $3/4$ " (19mm). Net weight (less cable) shall be 7.5 ounces (212.6g). Finish shall be satin chrome. An Electro-Voice Model 312 stand adapter shall be furnished.

The Electro-Voice Model 627B (high or low impedance, specify one) is specified.

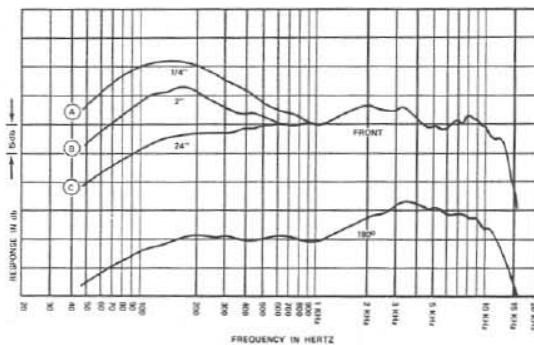


FIGURE 3 — Frequency Response Characteristics

#### WARRANTY

Electro-Voice microphones are guaranteed for the life of the microphone against malfunction due to defects in workmanship and materials. If such malfunction occurs, microphone will be repaired or replaced (at our option) without charge for materials or labor if delivered prepaid to the proper Electro-Voice service facility. Unit will be returned prepaid. Warranty does not cover finish, appearance items, cables, cable connectors, or switches and does not cover malfunction due to abuse or operation at other than specified conditions. Repair by other than Electro-Voice or its authorized service agencies will void this guarantee.

For correct shipping address, 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 of E-V products.

## Free Manuals Download Website

<http://myh66.com>

<http://usermanuals.us>

<http://www.somanuals.com>

<http://www.4manuals.cc>

<http://www.manual-lib.com>

<http://www.404manual.com>

<http://www.luxmanual.com>

<http://aubethermostatmanual.com>

Golf course search by state

<http://golfingnear.com>

Email search by domain

<http://emailbydomain.com>

Auto manuals search

<http://auto.somanuals.com>

TV manuals search

<http://tv.somanuals.com>