

**Electro-Voice®**

a MARK IV company

## Model PL70-N/D

### Dynamic Hypercardioid Vocal Microphone

#### SPECIFICATIONS

**Generating Element:**  
Dynamic

**Frequency Response:**  
60 to 18,000 Hz (see Figure 3)

**Polar Pattern:**  
Hypercardioid (see Figure 4)

**Impedance:**  
150 ohms, balanced

**Output Level:**  
-50 dB  
(0 dB = 1 mW/10 dynes/cm<sup>2</sup>)

**Open-Circuit Voltage:**  
3.1 mW/pascal at 1000 Hz

**Switch:**  
On/off (lockable)

**Pop Filter:**  
Built-in Acoustifoam™

**Grille Screen Material:**  
Memraflex

**Case Material:**  
Die-cast zinc

**Dimensions:**  
169 mm (6.67 in.) long,  
50 mm (1.97 in.) maximum diameter  
(see Figure 1)

**Net Weight:**  
276 g (9.7 ounces)

**Shipping Weight:**  
470 g (16.6 ounces)

**Finish:**  
Non-reflective black

**Accessories Included:**  
323 stand clamp  
Zippered vinyl carrying case

**Optional Accessories:**  
379 windscreen  
380 attenuator  
PLC-25X cable  
PLC-25P cable

#### DESCRIPTION AND APPLICATIONS

The Electro-Voice PL70-N/D hypercardioid dynamic microphone uses a revolutionary neodymium alloy to form the EV-exclusive N/DYM™ magnet. This magnet has four times the power potential of conventional microphone magnets. The N/DYM magnetic structure provides unprecedented sensitivity, while the more uniform magnetic field lowers distortion during peak sound pressure levels.

The PL70-N/D has an extended high-frequency response with an open, transparent sound quality due to the large diaphragm. The diaphragm contains 50 percent more surface area than conventional designs and is reinforced to prevent breakup. The PL70-N/D design provides the up-close bass boost (proximity effect) preferred by many entertainers.

The exceptional sensitivity of the PL70-N/D combined with the inherent low noise of a dynamic transducer ensures a superior signal-to-noise ratio ready for digital recording and sampling. To further reduce noise, the microphone uses a highly effective hum-bucking coil to cancel hum from lighting and other sources.

The dynamic element of the PL70-N/D provides reliable operation in humidity and temperature extremes. An Acoustifoam™ pop filter reduces both wind noise and "P-pop" breath sounds. The PL70-N/D features a rugged die-cast zinc case. The Memraflex grille screen retains its shape for years of "on-the-road" use. The on/off switch locks in the on position if desired.

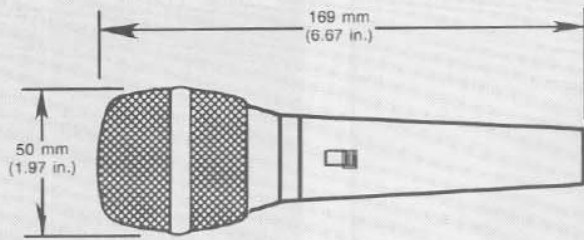
The uniform hypercardioid polar pattern of the PL70-N/D ensures superior gain-before-feedback in live applications. The polar pattern also provides better isolation in the studio — at all frequencies — compared with other directional microphones with widely varying polar characteristics.

#### USING THE VARIABLE FREQUENCY RESPONSE (PROXIMITY EFFECT)

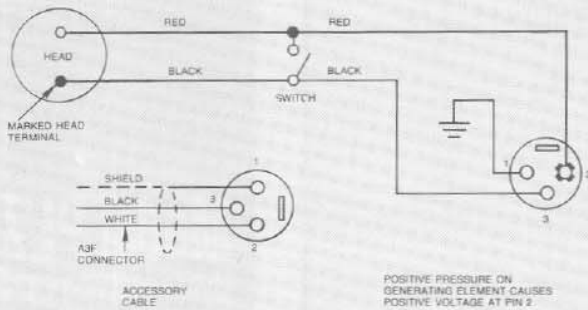
The PL70-N/D's low-frequency response extends by positioning the microphone closer to the sound source as shown in Figure 3. This proximity effect occurs when the microphone is within 12 inches of the sound source. The effect increases as the working distance decreases.

Imaginative application of the PL70-N/D's proximity effect creates useful special effects:

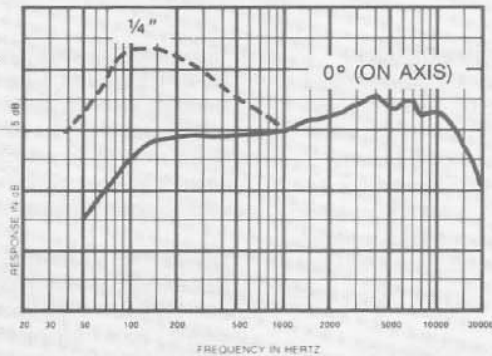
1. By working closer to the microphone, the human voice will sound more robust.
2. Working close to the PL70-N/D reduces the occurrence of PA system feedback better than using the hypercardioid directional characteristics alone. When close-talked, the substantial bass boost provides an increase in overall microphone output level. The mixer gain may be proportionately reduced, resulting in a reduction of the system's sensitivity to feedback caused by sound entering the microphone from the distant loudspeakers.
3. For musical instrument pickup, use the variable bass response to achieve a clean bass pickup at a distance of 12 inches or more. By moving the PL70-N/D a few inches from the instrument, the bass will increase.



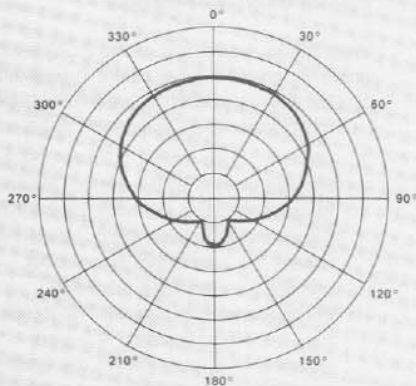
**FIGURE 1 —  
Dimensions**



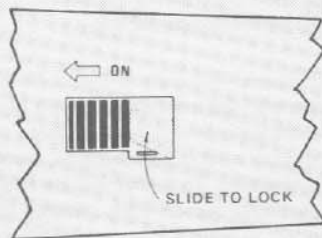
**FIGURE 2 —  
Wiring Diagram**



**FIGURE 3 —  
Frequency Response**



**FIGURE 4 —  
Polar Response**



**FIGURE 5 —  
Locking Feature**

**LOCKABLE ON/OFF SWITCH**

Figure 5 shows the PL70-N/D's lockable on/off switch assembly. To lock the switch in the on position, slide the metal locking tab into the position shown. A small screwdriver is ideal for this purpose.

**WARRANTY (Limited)**

Electro-Voice Professional, Pro-Line Microphones are guaranteed unconditionally against malfunction from any cause for a period of two years from date of original purchase. Also, these microphones are guaranteed without time limit against malfunction in the acoustic system 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. (Any active electronics incorporated in a microphone are guaranteed for three years from the date of the original purchase against such malfunction.) Warranty does not extend to finish, appearance items, cables, cable connectors or switches. Defect guarantee does not cover malfunction due to abuse or operation under other than specified conditions, nor does it extend to incidental or consequential damages. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above exclusion may not apply to you.

Repair by other than Electro-Voice or its authorized warranty service agencies will void this guarantee. A list of authorized warranty service centers is available from Electro-Voice, Inc., 600 Cecil Street, Buchanan, MI 49107 (AC/616-695-6831); or Electro-Voice West, 8234 Doe Avenue, Visalia, CA 93291 (AC/209-651-7777). This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Service and repair address for this product: Electro-Voice, Inc., 600 Cecil Street, Buchanan, Michigan 49107.

Specifications subject to change without notice.



**ELECTRO-VOICE, INC., 600 Cecil Street, Buchanan, Michigan 49107**

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