

**Electro-Voice®**

a MARK IV company

## Model N/D50 N/DYM® Dynamic Cardioid Vocal Microphone

### SPECIFICATIONS

**Generating Element:**  
Dynamic

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

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

**Impedance:**  
150 ohms, balanced

**Output Level:**  
-54 dB  
(0 dB=1 mW/Pascal)

**Open-Circuit Voltage:**  
2.2 mV/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

The Electro-Voice N/D50 is a dynamic cardioid microphone using the revolutionary neodymium alloy to form the N/DYM® magnet. This magnet, a rare-earth supermagnet, has four times the power of conventional magnets. The N/DYM® magnetic structure boosts output by channeling the magnet's power directly to the voice coil gap and the more uniform magnetic field lowers distortion during peak sound pressure levels.

The N/D50 also features a revolutionary vibration-isolation suspension system employing EV's new dynamic damping material — DynaDamp™. DynaDamp™ is a low-Q elastomeric polymer with extremely high energy absorbing properties. The result is a substantial reduction in handling and cable transmission noise.

The N/D50 has an extended high-frequency response with an open, transparent sound quality due to a large diaphragm that contains 50 percent more surface area than conventional designs and is reinforced to prevent breakup. The N/D50 design also provides the up-close bass boost (proximity effect) preferred by many entertainers.

The N/D50 features a rugged die-cast zinc case, a Memraflex grille screen that retains its shape for years of "on-the-road" use and an on/off switch that locks in the "on" position if desired. The dynamic element will provide years of reliable operation, even in humidity and temperature extremes, and with its exceptional sensitivity combined with its inherent low noise, ensures a superior signal-to-noise ratio ready for digital recording and sampling. An Acoustifoam™ pop-filter, with specially molded retainers, offer maximum rejection of both wind noise and "P-pop"

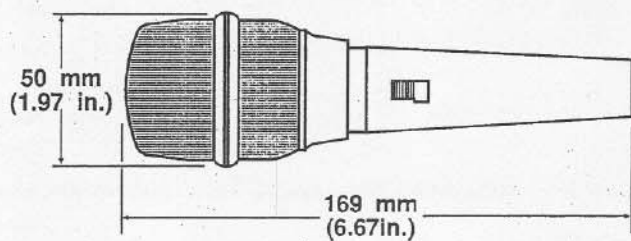
breath sounds. A uniform cardioid polar pattern ensures superior gain-before-feedback in live applications. The polar pattern also provides better isolation in the studio — at all frequencies — compared with other directional microphones with widely varying polar characteristics.

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

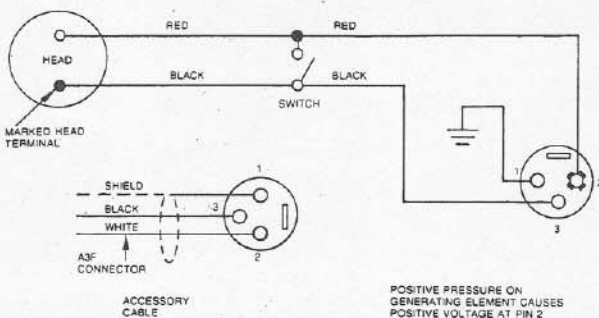
The N/D50's low-frequency response extends by positioning the microphone closer to the sound source as shown in Figure 3. This proximity effect occurs when the microphone is within 12 inches of the sound source. The effect increases as the working distance decreases.

Imaginative application of the N/D50's proximity effect creates useful special effects:

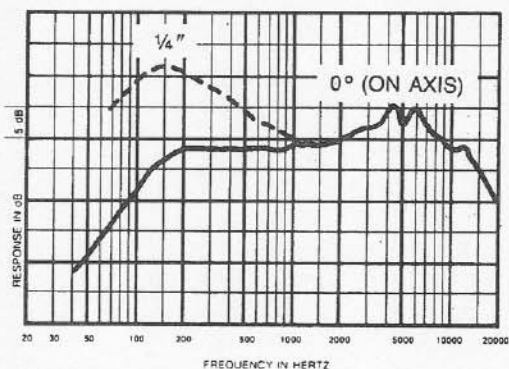
1. By working closer to the microphone, the human voice will sound more robust.
2. Working close to the N/D50 reduces the occurrence of PA system feedback better than using the cardioid directional characteristics alone. When close-talked, the substantial bass boost provides an increase in overall microphone 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 N/D50 a few inches from the instrument, the bass will increase.



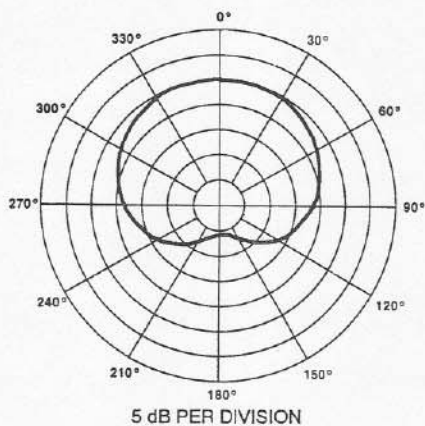
**FIGURE 1 —  
Dimensions**



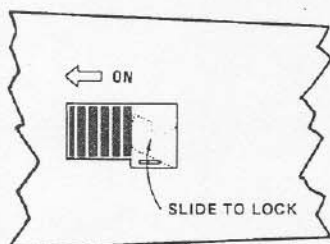
**FIGURE 2 —  
Wiring Diagram**



**FIGURE 3 —  
Frequency Response**



**FIGURE 4 — Polar Response  
at 1,000 Hz**



**FIGURE 5 —  
Locking Feature**

**LOCKABLE ON/OFF SWITCH**

Figure 5 shows the N/D50'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**

Electro-Voice products are guaranteed against malfunction due to defects in materials or workmanship for a specified period, as noted in the individual product-line statement(s) below, or in the individual product data sheet or owner's manual, beginning with the date of original purchase. If such malfunction occurs during the specified period, the product will be repaired or replaced (at our option) without charge. The product will be returned to the customer prepaid. **Exclusions and Limitations:** The Limited Warranty does not apply to: (a) exterior finish or appearance; (b) certain specific items described in the individual product-line statement(s) below, or in the individual product data sheet or owner's manual; (c) malfunction resulting from use or operation of the product other than as specified in the product data sheet or owner's manual; (d) malfunction resulting from misuse or abuse of the product; or (e) malfunction occurring at any time after repairs have been made to the product by anyone other than Electro-Voice or any of its authorized service representatives. **Obtaining Warranty Service:** To obtain warranty service, a customer must deliver the product, prepaid, to Electro-Voice or any of its authorized service representatives together with proof of purchase of the product in the form of a bill of sale or receipted invoice. A list of authorized service representatives is available from Electro-Voice at 600 Cecil Street, Buchanan, MI 49107 (616/695-6831) and/or Electro-Voice West, at 8234 Doe Avenue, Visalia, CA 93291 (209/651-7777). **Incidental and Consequential Damages Excluded:** Product repair or replacement and return to the customer are only remedies provided to the customer. Electro-Voice shall not be liable for any incidental or consequential damages including, without limitation, injury to persons or property or loss of use. Some states do not allow the exclusion or limitation of incidental or consequential damages so the above limitation or exclusion may not apply to you. **Other Rights:** This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

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Electro-Voice N/D Microphones are guaranteed against malfunction from any cause for two (2) years from the date of original purchase. In addition, the Limited Warranty for the acoustic system contained in these microphones shall apply for the life of the product, defined as a period of ten (10) years from the date that the manufacture of the specific microphone has been discontinued. Any and all active electronics incorporated in these microphones is guaranteed against malfunction due to defects in materials or workmanship for a period of three (3) years from the date of original purchase. The Limited Warranty does not extend to cables, cable connectors, or switches. Additional details are included in the Uniform Limited Warranty statement.

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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