

N/D 857B

Supercardioid Dynamic Vocal Microphone



SPECIFICATIONS

Frequency Response,
Close Response:
 25 to 22,000 Hz
Far Response:
 (see Figure 1)
 50 to 22,000 Hz

Polar Pattern:
 (see Figure 2)
 Supercardioid

Sensitivity,
Open Circuit Voltage:
 3.5 mV/pascal @ 1,000 Hz

Power Level:
 (measured at 1,000 Hz)
 -50 dB @ 1,000 Hz
 (0 dB = 1mW/pascal)

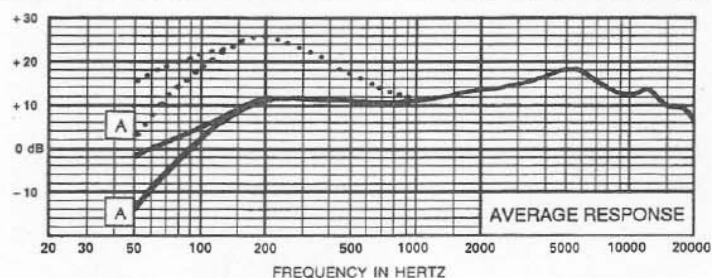
Dynamic Range:
 144 dB

Equivalent Output Noise:
 14 dB
 (0 dB = 0.0002 dynes/cm²)

Impedance:
 (measured at 1,000 Hz)
Rated: 150 ohms balanced (lo-Z)
Actual: 320 ohms

(continued on page 2)

FREQUENCY RESPONSE



See "Certificate of Performance"
 (provided with microphone) for actual response

..... Close Response

A Reduced Bass Position

The Electro-Voice N/D857B is a supercardioid dynamic microphone ideally suited for lead vocalist in live sound reproduction for large and small concert sound venues and studio recording. The N/D857B utilizes a revolutionary neodymium alloy to form the EV-exclusive N/DYM® magnet. With a computer-optimized design, the N/DYM magnetic structure is maximized in the N/D857B to provide 7 dB more output sensitivity over conventional designs. The exceptional sensitivity of the N/D857B combined with the inherently low noise of a dynamic transducer insures superior signal-to-noise ratio ready for digital recording and sampling. To further reduce noise, a highly effective hum-bucking coil is used to cancel hum from lighting and other power sources.

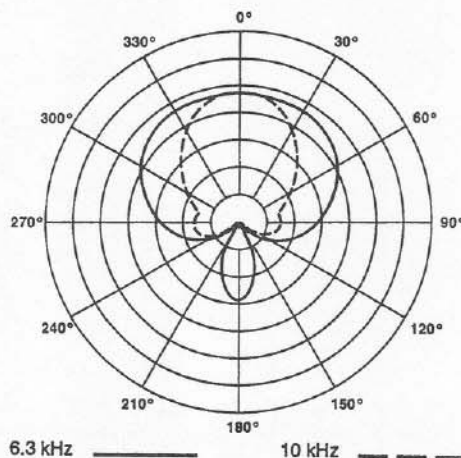
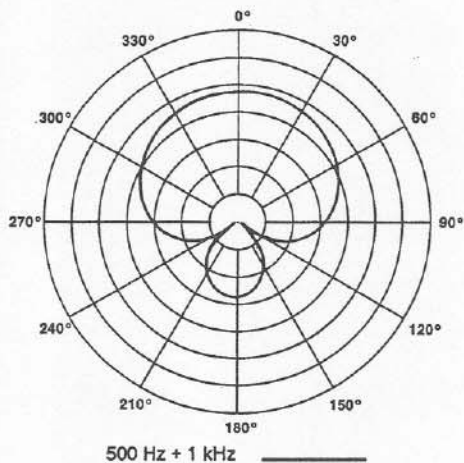
The N/DYM magnet geometry combined with a reinforced diaphragm design forms a smooth, extended frequency response with a warm, open, transparent sound quality only found in studio quality microphones.

The N/D857B microphone features the AcoustiDYM™ shock mount system. This unique vibration-isolation system works as a multistage device. At low frequencies, a rear sound wave cancels the diaphragm motion, while at high frequencies the specially designed rubber shock mount isolates the transducer from motion. To work optimally in concert sound applications, the AcoustiDYM shock mount is tuned to a low resonant frequency. A switchable second-order L-type series high-pass filter (12-dB-per-octave slope) tuned at 80 Hz operates in conjunction with the shock mount to reduce mechanical noise. This combination has been adjusted to preserve the accurate reproduction of the male voice range, while reducing the problems of low-frequency mechanical noise in the vocal inputs. The N/D857B is designed to work with the extended-response woofer systems used in sound for reproducing the instruments, where simpler shock-mounts or filters are not adequate. Combining AcoustiDYM and the high-pass filter with the elastomeric Warm-Grip™ handle and windscreen bumper

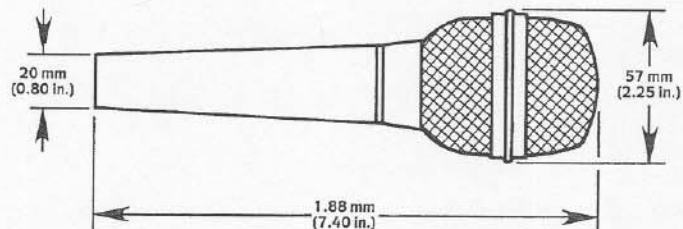
N/DYM® III

N/D 857B

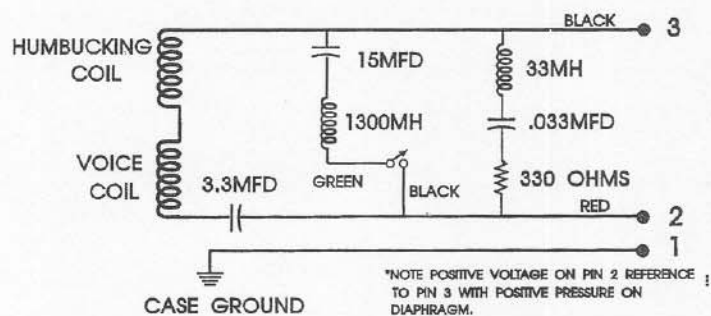
POLARS



DIMENSIONS



WIRING DIAGRAM



SPECIFICATIONS (continued from page 1)

Case,

Grille:

Steel Memraflex

Inner Handle:

Aluminum

Sleeve:

Elastomeric

Dimensions,

(see Figure 3)

Length:

7.40 inches (188 mm)

Diameter:

2.25 inches (57 mm)

Shank:

0.80 inch (20 mm)

Finish:

Non-reflecting black

Weight,

Net:

7.9 ounces (225 grams)

Shipping:

1.41 lbs (620 grams)

Accessories Included:

Warm-Grip™ handle

323S stand clamp

vinyl carrying case

Optional Accessories:

PLC-25X cable

PLC-25P cable

380 attenuator

Replacement Parts:

Warm-Grip™ #72251

Transducer S/A #81963

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forms an advanced technology vibration-isolation system which dramatically reduces all forms of handling noise for the most demanding situations.

The microphone has an extra-large grille screen and two-stage P-pop filter to reduce wind blast noise, a problem especially troublesome where extended-response woofer systems are used. Within the grille screen is a special pop-filter retainer which holds the Acoustifoam™ filter in the optimum position for reducing explosive wind blasts. The retainer makes the cleaning of the grille screen and pop filter a simple task, desirable for on-the-road use where stage makeup and perspiration often enter the microphone.

The N/D857B has a supercardioid polar pattern. Compared to the more traditional, heart-shaped cardioid pattern, a supercardioid pattern rejects more sound at the sides and rear overall. The N/D857B also incorporates a unique acoustical path corrector that provides increased sensitivity and an extremely uniform polar pattern throughout the vocal frequency range. These characteristics tend to reduce feedback under live performance conditions, particularly with typical monitor speaker placements, frequency, insuring superior gain-before-feedback in live applications and superior isolation in the studio.

The N/D857B is derived from the popular N/DYM series of microphones. The transducer is a special modification of the basic N/DYM Series design which increases the sensitivity, and tightens up the polar pattern to increase gain-before-feedback. All the sound quality and performance characteristics of the N/DYM series has been preserved while adding the characteristics required for concert sound application.

The dynamic element of the N/D857B provides reliable operation in humidity and temperature extremes. The handle is made from an aluminum extrusion which is covered with the unique elastomeric Warm-Grip. This design provides the strength, lightweight and comfort wanted for on-stage handheld usage. The Memraflex grille screen is made from a specially hardened material to resist damage. This all metal core construction will provide years of trouble-free on-the-road operation.

The exceptional sensitivity of the N/D857B combined with the inherently low noise of a dynamic transducer insures a superior signal-to-noise ratio ready for high-dynamic-range sound systems. To further reduce noise, a highly effective hum-bucking coil is used to cancel hum from lighting and other sources.

OPERATION

The switch-selected bass response of the N/D857B allow the user the option of inserting a second-order filter to reduce the handling noise significantly with only a small loss of low-frequency response. The normal switch position provides a flat response when the microphone is positioned further than 12 inches from the sound source. Low-frequency response can be extended by positioning the microphone closer the sound source as noted in the specification section. This "proximity effect" occurs when the microphone is placed within 12 inches of the sound source and increases as the working distance is reduced. The rolled-off switch position lowers the extreme bass content to reduce mechanically induced noise. (U.S. Patent Numbers 4,745,020, 4,824,715 and 4,646,873)

CERTIFIED PERFORMANCE

Every N/D857B is inspected by a quality-control tester and subjected to a computer-controlled test system that verifies many different performance parameters. After the performance meets or exceeds our rigorous standards, the actual measured frequency response of the unit tested is plotted on a "Certificate of Performance" and included with the microphone. Certified Performance response may vary from published "Average Response". This certificate guarantees that each N/D857B will perform to the exacting standards established by EV design engineers — **100% quality-assurance testing.**

WARRANTY (Limited) —

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.

Electro-Voice N/D, PL, BK, and Professional 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 are 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.

Specifications subject to change without notice.