

RE45N/D

Cardiline N/DYM® Dynamic Shotgun Microphone

- Highly directional above 1500 Hz
- High sensitivity—5mV/Pn
- 250 Hz high pass filter
- Cardoid polar pattern below 1500 Hz
- Complete with windscreen and warm-grip™

Description

The Model RE45N/D is a highly directional microphone utilizing a combination of characteristics of cardioid and distributed front opening designs. The microphone incorporates a revolutionary neodymium alloy magnet to provide high sensitivity and low weight. The exceptional sensitivity of the RE45N/D combined with the inherent low noise of a dynamic transducer insures a high signal-to-noise ratio necessary for those long reach applications. The transducer and integral high pass filtering have been designed to reduce most low frequency handling noises found in handheld applications.

The cardioid action gives the microphone uniform characteristics for frequencies up to 1,500 Hz. For frequencies above 1,500 Hz the distributed front openings take effect providing narrower directional characteristics as illustrated in the polar pattern, Figure 3. Extra care has been taken in adjusting the directional pattern of this microphone to provide smooth off-axis frequency response. Older design wave-interference microphones often have large peaks and dips in the off-axis response. The irregular off-axis response of the older designs can create problems as the rejection varies widely as the microphone

is moved only slightly due to the lobing of the polar pattern. The smooth RE45N/D polar pattern makes the aiming of the microphone at the desired sound source less critical than those older design shotgun microphones while still providing better directivity than that of conventional unidirectional microphones.

Benefits derived from this new design include wide range response, smooth polar response, high sensitivity and high directivity. These features make possible a working distance which is two to three times that of conventional directional microphones. The RE45N/D has been especially designed for handheld use and includes a switchable 250-Hz high-pass filter to further reduce wind and handling noise. The removable Warm-Grip™ handle is designed to fit over the microphone connector and the short handle of the microphone.

Applications Notes

The RE45N/D is shipped with a windscreen. If the microphone is to be used outdoors it is recommended that the supplied windscreen be used. This windscreen comes with a self-adhesive ring for attaching to the RE45N/D microphone for better shielding. The windscreen will only have to be removed for occasional cleaning or special mounting appli-

cations.

The RE45N/D may also be used with the supplied model 323 stand clamp for fixed applications such as podiums. Here the higher directivity will reduce the chance of feedback and the shape of the low frequency response prevents boominess. The tube and handle, less the Warm-Grip™ fit in most standard 3/4-inch stand clamps such as Electro-Voice model 312. Without the windscreen, the RE45N/D can be used with the model 307 shock mount. For more secure permanent mounting the 310 clamp fits over the handle portion of the RE45N/D.

Architects' and Engineers' Specifications

The microphone shall be a highly directional dynamic type with a combination cardioid and distributed front opening principles and with a frequency response from 150 to 15,000 Hz. From the sides, above 2,000 Hz, the microphone shall exceed cancellation of 10 dB.

Sensitivity shall be 5 mV/Pascal or greater. The transducer shall employ a hum-buck coil with a resulting -130 dBm at 60 Hz in a 1 m Oe field.

The diaphragm shall be nonmetallic Acoustalloy and shall have a shield to pre-

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vent dust and iron particles from reaching the diaphragm. Impedance shall be 600 ohms. Line shall be balanced to ground and phased.

The output level shall be - 50 dB with 0 dB=1mW/Pascal. The magnet circuit shall be a nonwelded circuit and employ a neodymium alloy magnet.

Case parts shall be made of aluminum, steel and high performance engineering plastics. The microphone shall be a maximum length of 11.50 in. (292 mm) with a maximum diameter of 1.87 in. (48 mm) without wind-screen and without cable. Finish shall be black, non-reflecting. The microphone shall have a built-in cable connector similar or equivalent to the Switchcraft A3M, which will mate with the connector similar or equivalent to the Switchcraft A3F. The Electro-Voice Model RE45N/D is specified.

Limited 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 Telex Communications, Inc. Service or any of its authorized service representatives. **Obtaining Warranty Service:** To obtain warranty service, a customer must deliver the product, prepaid, to Telex Communications, Inc. Service 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 Telex Communications, Inc. Service at 600 Cecil Street, Buchanan, MI 49107 (800/234-6831 or FAX 616/695-4743). **Incidental and Consequential Damages Excluded:** Product repair or replacement and return to the customer are the 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.

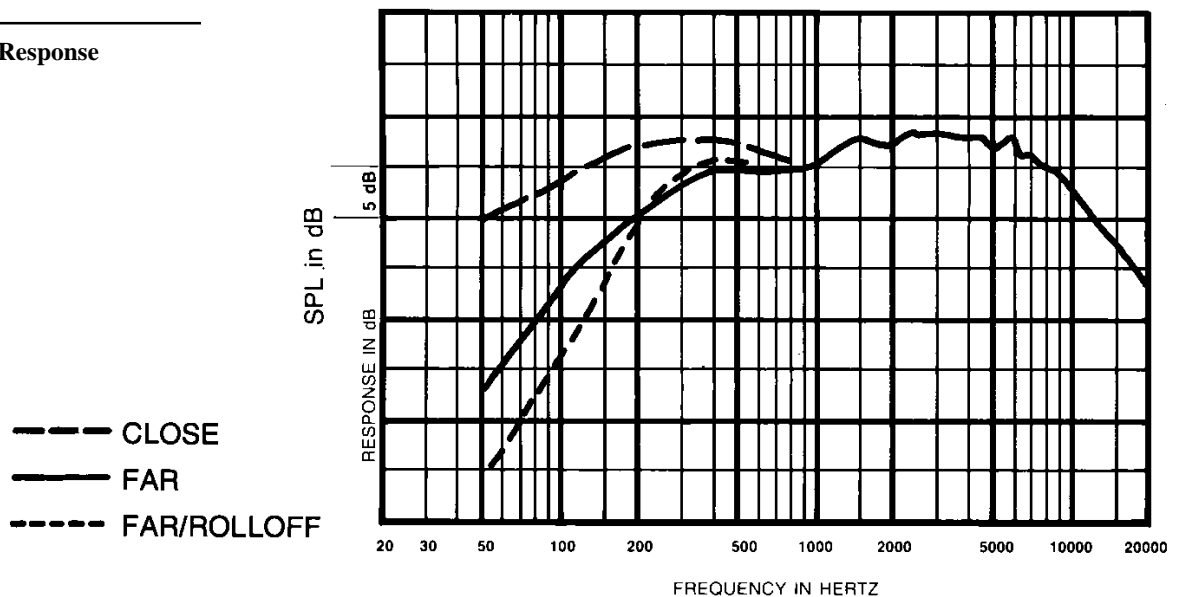
Electro-Voice Wired Microphones are guaranteed against malfunction from any cause for two (2) years from the date of original purchase. In addition, the Limited Warranty for the acoustic system contained in these microphones shall apply for the life of the product, defined as a period of ten (10) years 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.

For warranty repair or service information, contact the service repair department at: 616/695-6831 or 800/685-2606.

For technical assistance, contact Technical Support at 800/234-6831 or 616/695-6831, M-F, 8:00 a.m. to 5:00 p.m. Eastern Standard Time.

Specifications subject to change without notice.

Figure 1—Frequency Response



RE45N/D Cardiline N/DYM[®] Dynamic Shotgun Microphone

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Figure 2—Dimensions

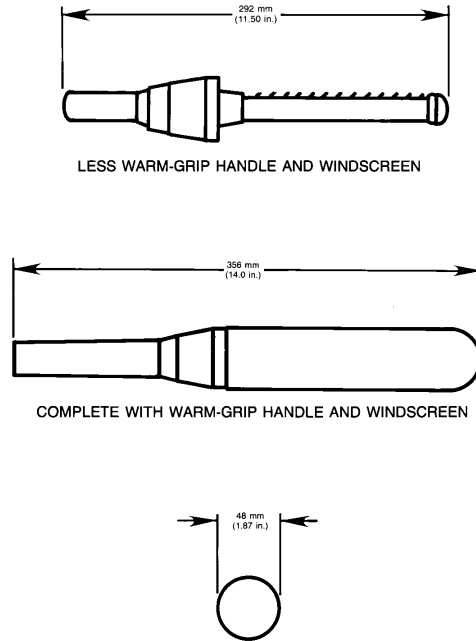


Figure 3—Polar Response

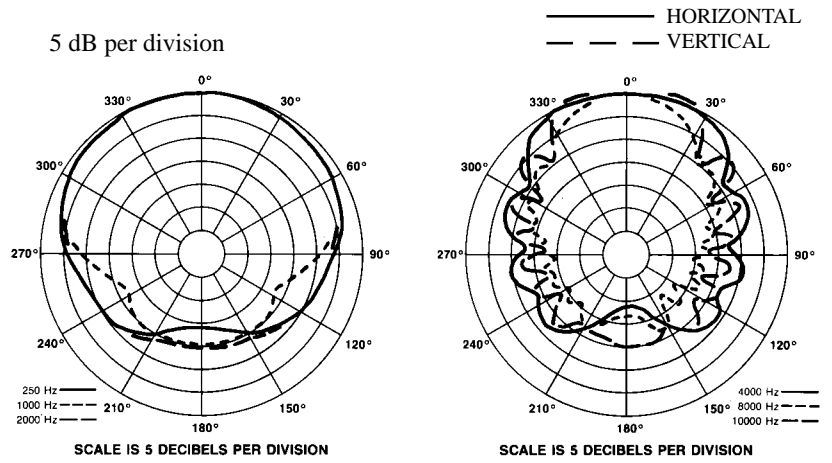
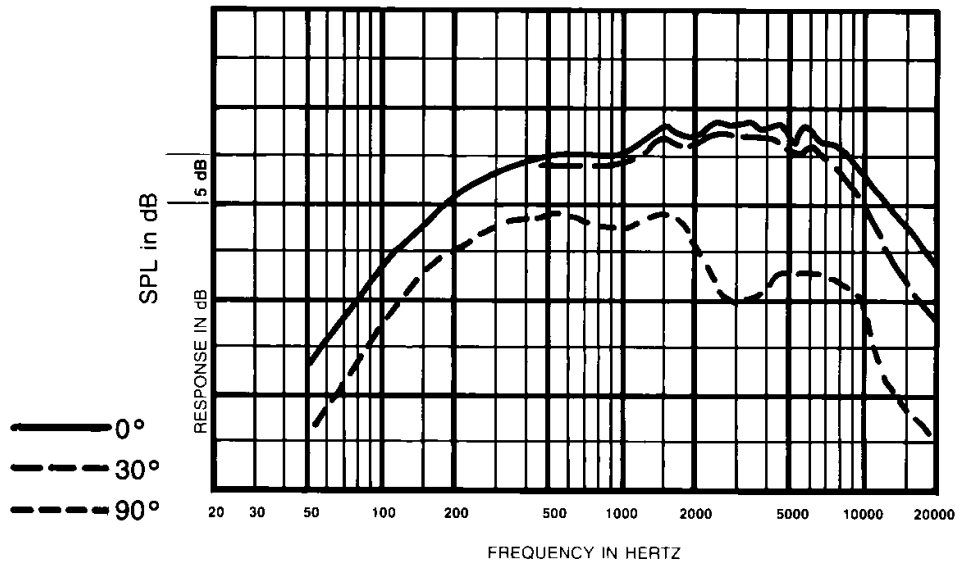
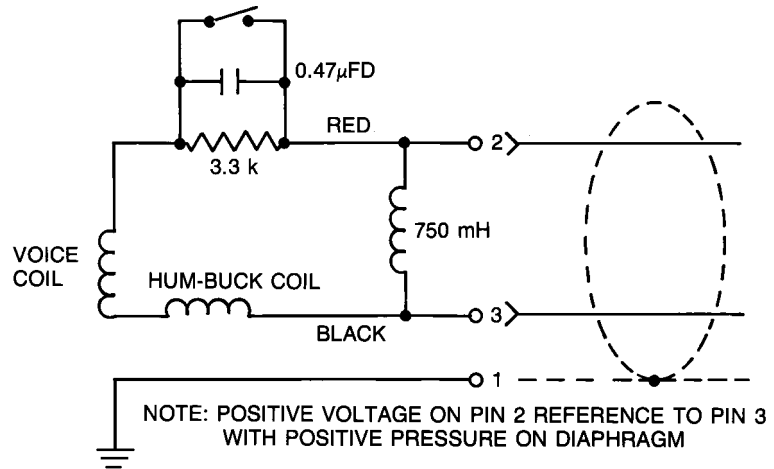


Figure 4—Off-Axis Frequency Response



RE45N/D Cardiline N/DYM[®] Dynamic Shotgun Microphone

Figure 5—Wiring Diagram



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Specifications

Generating Element:

Dynamic

Frequency Response:

150 to 15,000 Hz (Far)
50 to 15,000 Hz (Close)
(See Figure 1)

Polar Pattern:

Cardioid-line
(See Figure 3)

Impedance:

600 ohms (nominal)

Output Level:

5 mV/Pascal at 1,000 Hz

Sensitivity:

-50 dB at 1,000 Hz
(0 dB = 1mW/Pascal)

Hum Pickup Level:

-130 dBm typical at 60 Hz
in a 1 m Oe field

Magnetic Circuit:

N/DYMT[®] magnet in a non-welded circuit

Case Material:

Aluminum, steel and high performance engineering plastics

Dimensions:

292 mm (11.50 in.) long
48 mm (1.87 in.) diameter

Finish:

Black, non-reflecting

Net Weight:

212 g. (7.5 oz.)

Microphone Connector:

A3M

Accessories Included:

Warm-Grip[™] handle
323 stand clamp
Zippered vinyl carrying case
Windscreen

Optional Accessories:

307A shock mount
312 microphone clamp

Electro-Voice[®]

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