



Electro-Voice®

a MARK IV company

Model RE27N/D

Variable-D®
N/DYM® Dynamic
Cardioid Microphone

SPECIFICATIONS

Generating Element:

Dynamic

Frequency Response (see Figure 1):

45-20,000 Hz

Polar Pattern (see Figures 4 & 5):

Cardioid

Impedance:

150 ohms balanced

Sensitivity,

Open Circuit Voltage:

3.1 mV/Pascal at 1000 Hz

Power Level:

-51 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/DYM® magnet in a non-welded circuit

Phasing:

Pin 2 will be positive referenced to Pin 3
with positive pressure on diaphragm

Case Material:

Steel

Dimensions (see Figure 3),

Length:

216.7 mm (8.53 in.)

Widest Diameter:

54.4 mm (2.14 in.)

Body Diameter:

49.2 mm (1.94 in.)

Finish:

Satin nickel

Net Weight:

709 g (1 lb, 9 oz.) without cable

Shipping Weight:

1446 g (3 lb, 3 oz.)

Cable:

4.6 m (15 ft.) 2-conductor, shielded,
rubber-jacketed, brown broadcast-type
cable, supplied with a Switchcraft A3F-type
connector on the microphone end

Accessories Furnished:

81715 stand clamp

Optional Accessories:

Model 309 shock-mounted stand adapter
for use with floor stand or recording boom

DESCRIPTION

The Electro-Voice model RE27N/D is a professional quality dynamic cardioid microphone designed for broadcast production announce and voice-over, high-quality recording, and sound reinforcement applications. The RE27N/D utilizes a revolutionary neodymium alloy magnet and a reinforced diaphragm dome, a combination offering increased sensitivity (up to 6 dB more output), undistorted output at high sound pressure levels and an extended high-frequency response.

The exceptional sensitivity of the RE27N/D, excellent transient response and inherently low noise of the dynamic transducer, all combine to ensure a superior signal-to-noise ratio, easily comparable to the finest condenser cardioid microphones. To further reduce noise, a highly effective hum-bucking coil is used to attenuate hum from lighting and other sources. The RE27N/D's Continuously Variable-D® design reduces bass-boosting "proximity effect" to maintain a uniform low-frequency response, up-close

or at a distance. Two easily operated bass rolloff switches, offering a sharp low-frequency cut at 200 Hz or a gentle rolloff, are available for special situations where bass attenuation is required. A third switch is available for reducing the high-frequency treble boost. The true, uniform cardioid polar pattern of the RE27N/D offers the greatest rejection at 180° off axis, ensuring superior gain-before-feedback.

An integral blast and wind filter covers each acoustic opening on the RE27N/D, allowing "close-talk" situations with no worry of "P-pop," breath sounds or excessive sibilance. Part of the filter also shock mounts the internal microphone transducer, reducing the transfer of vibration from external sources. This shock-mount system along with the extremely rugged exterior steel casing allows the RE27N/D to withstand all the rigors of professional use.

ARCHITECTS' AND ENGINEERS' SPECIFICATIONS

The microphone shall be a dynamic cardioid type with integral blast filter protecting all acoustic openings. The blast filter shall also serve as a shock mount for the internal microphone transducer. The microphone shall have a wide-range uniform frequency response from 45 to 20,000 Hz.

Integral passive networks, controlled with three recessed slide switches, shall be provided. With switches in the "flat" position, microphone shall be essentially flat from 80 to 2,000 Hz with a 6 dB rise in response

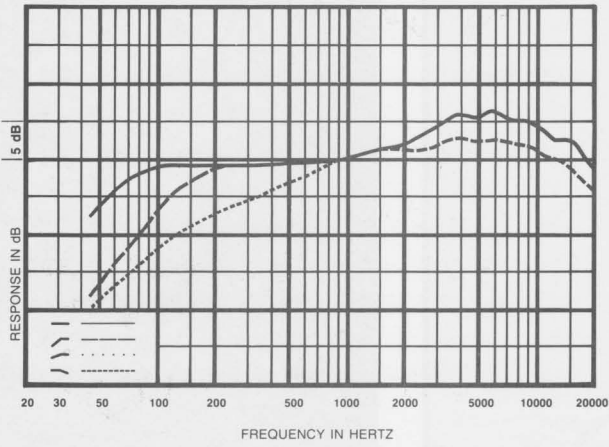


FIGURE 1 — Frequency Response

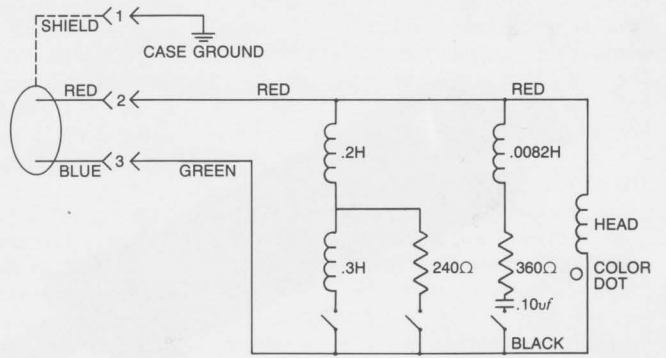


FIGURE 2 — Wiring Diagram

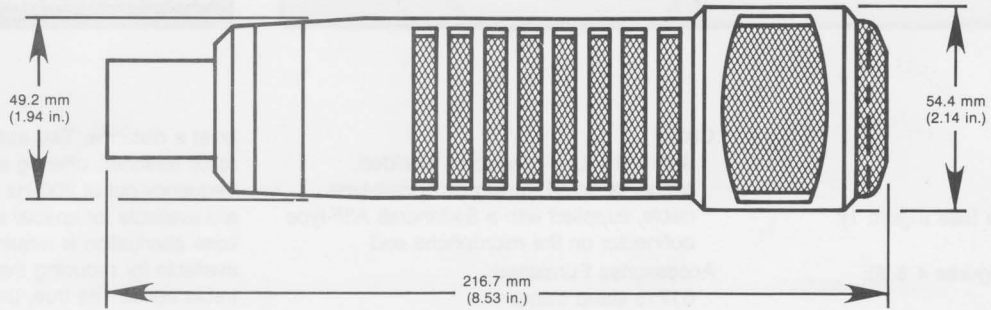


FIGURE 3 — Dimensions

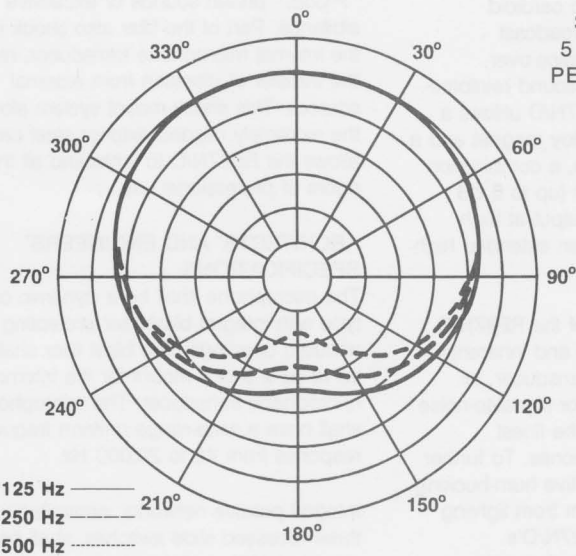


FIGURE 4 — Polar Response

SCALE IS
5 DECIBELS
PER DIVISION

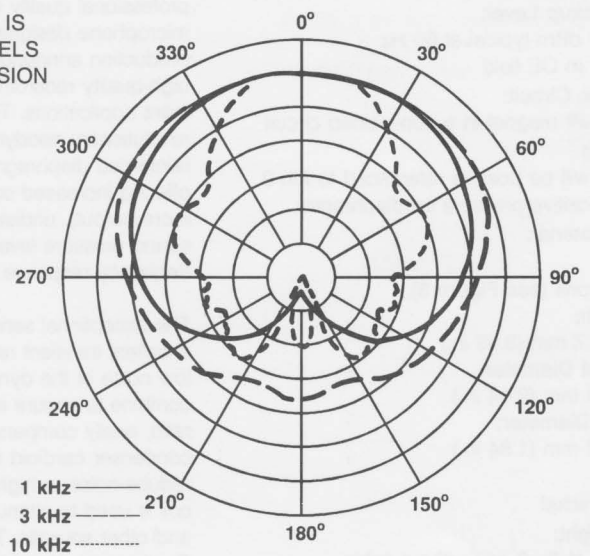


FIGURE 5 — Polar Response

from 2,000 to 16,000 Hz. With one filter switch in the "rolled-off" position, low-frequency response shall tilt down 6 dB from 250 to 100 Hz. A second filter switch, when in the "rolled-off" position, shall have a gentle rolloff of 12 dB from 1,000 to 100 Hz. The third filter switch, when in the "rolled-off" position shall decrease the high-frequency rise by 3 dB.

The open circuit voltage sensitivity shall be 3.1 mV/Pascal at 1,000 Hz and the power level sensitivity shall be -51 dB at 1,000 Hz where 0 dB equals 1 mW per Pascal. The magnetic circuit shall be a nonwelded circuit and employ a neodymium alloy magnet. The transducer shall employ a hum-buck coil with a resulting hum sensitivity of -130 dBm at 60 Hz in a 1 millioersted field and a shield to prevent dust and iron particles from reaching the diaphragm. Rated impedance shall be 150 ohms. Line shall be balanced to ground and phased. Pin 2 shall have a positive voltage with reference to Pin 3 with positive pressure on the diaphragm.

Response at any angular position away from the major axis shall be essentially similar to the response on the major axis, except attenuated uniformly at all frequencies by an amount appropriate to that angular position. Polar characteristics shall be sufficiently uniform in all planes so that it is, effectively, a cardioid of revolution.

The case shall be made of steel. The microphone shall have a maximum diameter of 54.4 mm (2.14 in.), a body diameter of 49.2 mm (1.94 in.), and a length of 216.7 mm (8.53 in.). The finish shall be non-reflecting satin nickel. A 4.6 m (15 ft.), two-conductor, shielded, broadcast-type, synthetic rubber-jacketed cable with a Switchcraft A3F-type connector installed, shall be provided. The microphone shall have a built-in cable connector insert, similar or equivalent to the Switchcraft QG3M. A #81715 stand clamp shall be supplied.

The Electro-Voice Model RE27N/D is specified.

WARRANTY (Limited)

Electro-Voice Professional Microphones are guaranteed 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 material. Any active electronics incorporated in the microphone are guaranteed for three years from date of original purchase for parts and labor against such malfunction. 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 extend to finish, appearance items, cables, cable connectors, switches, or 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.