

Eliminator®

- 15-inch two-way high-output stage system
- 350-watts continuous
- Ring-Mode Decoupling (RMD™) for improved sound quality and dynamic integrity
- High-Q 60° x 40° Constant-directivity horn with DH2010A driver
- Integral 1 3/8-inch stand mount
- Ergonomically shaped handles for ease in lifting and transportation
- Choice of paralleled 1/4-inch or Neutrik Speakon® (Eliminator E) connectors
- Optional performance-matched Eliminator® Sub available

Description

The Electro-Voice Eliminator® is high-peak output, high-efficiency two-way stage system. The 15-in. low-frequency/horn-loaded constant-directivity high-frequency system incorporates elements of Ring-Mode Decoupling (RMD™). RMD™ techniques substantially improve vocal fundamental intelligibility and produce an “up front” tonality capable of cutting through even difficult acoustic environments.

The Eliminator® enclosure has a unique design that presents a very minimal frontal cross section while still maintaining substantial internal volume. A newly developed handle concept allows for extremely comfortable transportation from any orientation. The design is light weight, but very rugged and features a heavy metal grill and highly stylized corner protection.

The heart of the Eliminator’s high performance design is the combination of a high-excursion low-frequency suspension system with Electro-Voice’s unique Ring-Mode Decoupling. All loudspeaker drivers exhibit mechanical resonance modes that add their own time-domain or ringing-mode colorations. These colorations limit and reduce overall system intelligibility. The

Eliminator’s use of RMD™ will control several fundamental mechanical ringing modes. The result is substantially improved vocal range intelligibility and system “openness”. When extended low-frequency operation is required, the performance can be further enhanced with the use of the Eliminator® Sub. System operation can either be in biamp mode or full-range passive mode because of the high-pass filtered output in the Eliminator Sub. Vented enclosures offer excellent power handling and low distortion in the lowest octave of rated operation. It is always advisable however to filter material below enclosure tuning to further improve system output and headroom. The eliminator should be high-pass filtered to reduce sub sonic material below 40 Hz.

Power-Handling Capacity

Electro-Voice components and systems are manufactured to exacting standards, ensuring they will hold up, not only through the most rigorous of power tests, but also through continued use in arduous, real-life conditions. The EIA Loudspeaker Power Rating Full Range (ANSI/EIA RS-426-A 1980) uses a noise spectrum which mimics typical music and tests the thermal and mechanical capabilities of the components. Electro-Voice

will support relevant additional standards as and when they become available. Extreme, in-house power tests, which push the performance boundaries of the woofers, are also performed and passed to ensure years of trouble-free service.

Specifically, the Eliminator passes ANSI/EIA RS-426-A 1980 with the following values:

$$R_{SR} = 5.175 \text{ ohms } (1.15 \times R_E)$$

$$P_{E(MAX)} = 350 \text{ watts}$$

$$\text{Test voltage} = 42.55 \text{ volts rms,}$$

$$85.10 \text{ volts peak (+6dB)}$$

The “peak” power-handling capacity of a woofer is determined by the peak test voltage amount. For the Eliminator Monitor, a 85.10-volt-peak-test voltage translates into 1,400-watts short-term peak power-handling capacity. This is the equivalent of four times the “average” power-handling capacity, and is a peak that can be sustained for only a few milliseconds. However, this sort of short duration peak is very typical in speech and music. Provided the amplifier can reproduce the signal accurately, without clipping, the woofer will also perform accurately and reliably, even at these levels.

Amplifier Recommendations

The power-handling rating of the Eliminator® Monitor is 350-watts continuous. The specific tests used employ a crest factor (ratio of peak energy to continuous energy) of at least 6 dB. During extended testing, the Eliminator® Monitor is routinely subjected to peak levels far in excess of its continuous rating of 350 watts. Many amplifier designs are capable of producing peak power levels in excess of their ratings as well, so exact “pairing” of loudspeaker rating and amplifier ratings is not necessary. Amplifier continuous ratings of 250 watts to 400 watts are suggested. Larger amplifier ratings are recommended for maximum dynamic range, but it should be recommended that amplifier continuous levels (as opposed to peak levels) be within the range quoted for the Eliminator® Monitor long-term average power-handling rating.

Stand Mounting

The Eliminator® is equipped with an internal stand-mount adapter that will accommodate standard 1 3/8-in. diameter speaker stands.

Architects' and Engineers' Specifications

The loudspeaker system shall consist of a 38.1-cm (15-inch) low-frequency transducer in a vented enclosure. The high-frequency section shall be a compression driver with a pure titanium diaphragm coupled to a 1-inch throat diameter to a constant-directivity horn having a horizontal included angle (as referenced to -6 dB) of 60° and a vertical included angle of 40° nominal. The loudspeaker shall have a rated frequency response of 50 Hz to 20 kHz ± 3 dB and a long-term rated average power handling of 350 watts (EIA RS-426-A). The system sensitivity shall be 99 dB when measured in an anechoic environment with a 1-watt input with a calibrated measurement microphone located 1 meter from the system axis. The nominal impedance shall be 8 ohms. The system shall have either parallel 1/4-in. phone jacks or (parallel Neutrik NL4MP on specific E models). The system shall include a 1 3/8-in. standmount adapter.

Dimensions will be 76.8 cm (30.25-in.) high x 42.9 cm (16.9-in.) wide x 60.9 cm (24-in.) deep and have net weight of 29.9 kg (66 lbs).

Uniform 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 Electro-Voice Service or any of its authorized service representatives. **Obtaining Warranty Service:** To obtain warranty service, a customer must deliver the product, prepaid, to Electro-Voice 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 Electro-Voice 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 Speakers and Speaker Systems are guaranteed against malfunction due to defects in materials or workmanship for a period of five (5) years from the date of original purchase. The Limited Warranty does not apply to burned voice coils or malfunctions such as cone and/or coil damage resulting from improperly designed enclosures. Electro-Voice active electronics associated with the speaker systems are guaranteed for three (3) years from the date of original purchase. Additional details are included in the Uniform Limited Warranty statement.

For warranty repair, service information, or a listing of the repair facilities nearest you, 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—Polars

5 dB per division

— HORIZONTAL
- - VERTICAL

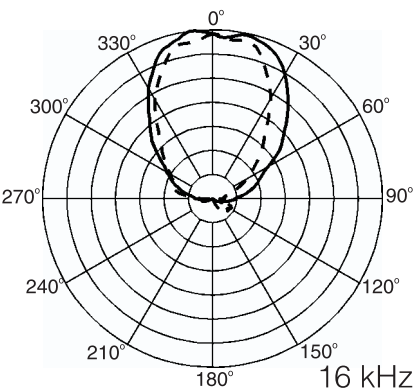
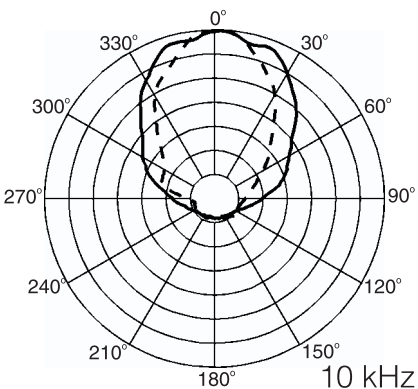
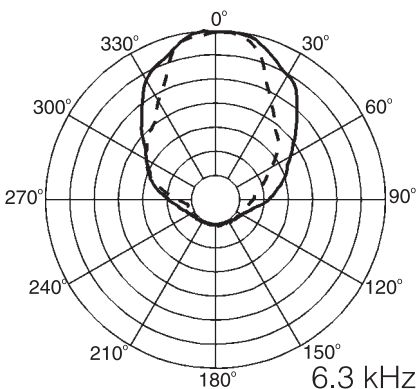
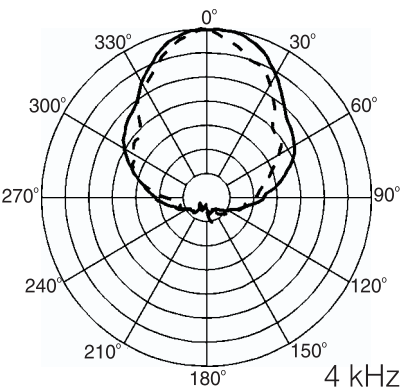
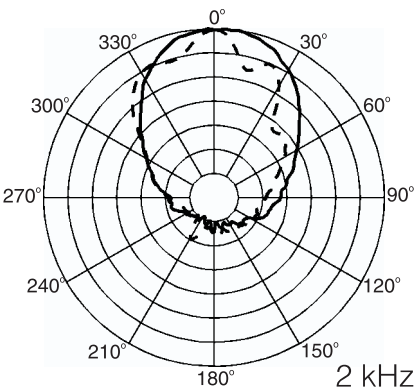
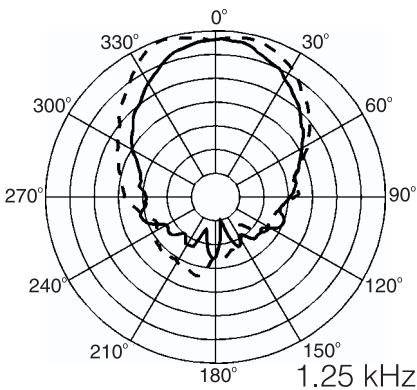
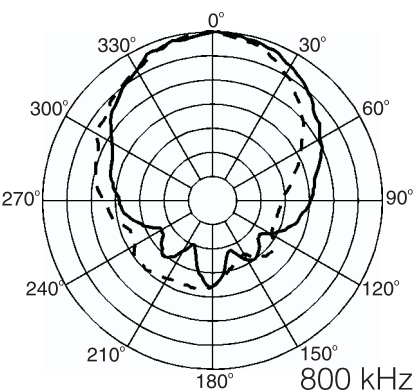
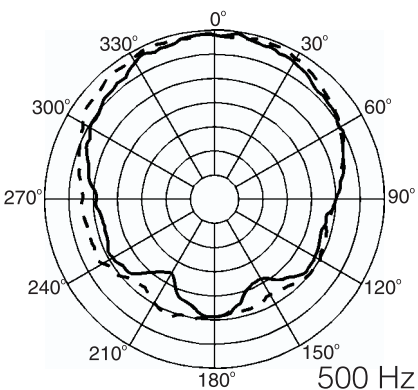
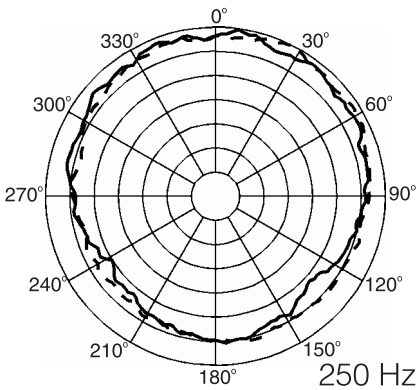


Figure 2—Frequency Response

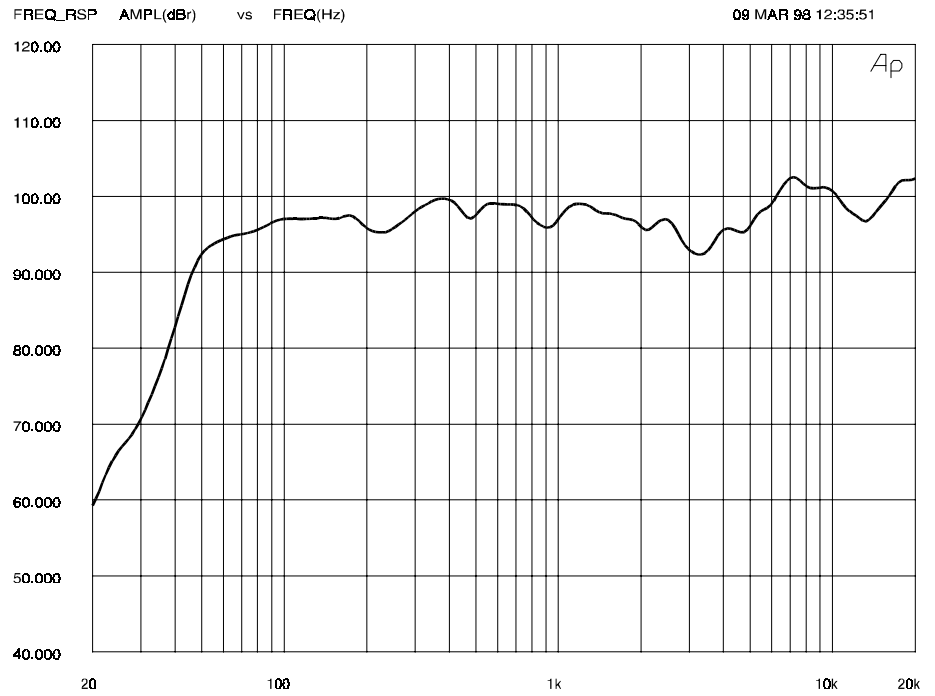


Figure 3—Beamwidth Response
(anechoic environment)

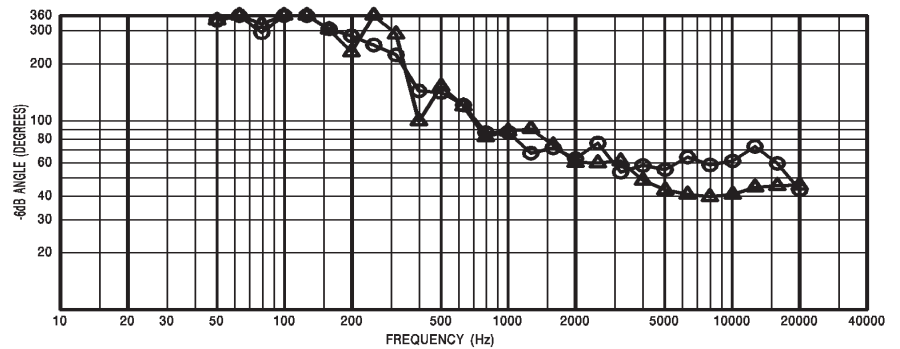


Figure 4—Directivity
(anechoic environment)

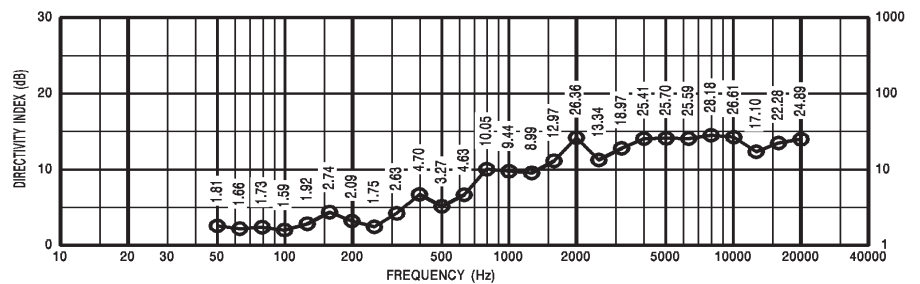


Figure 5—Impedance

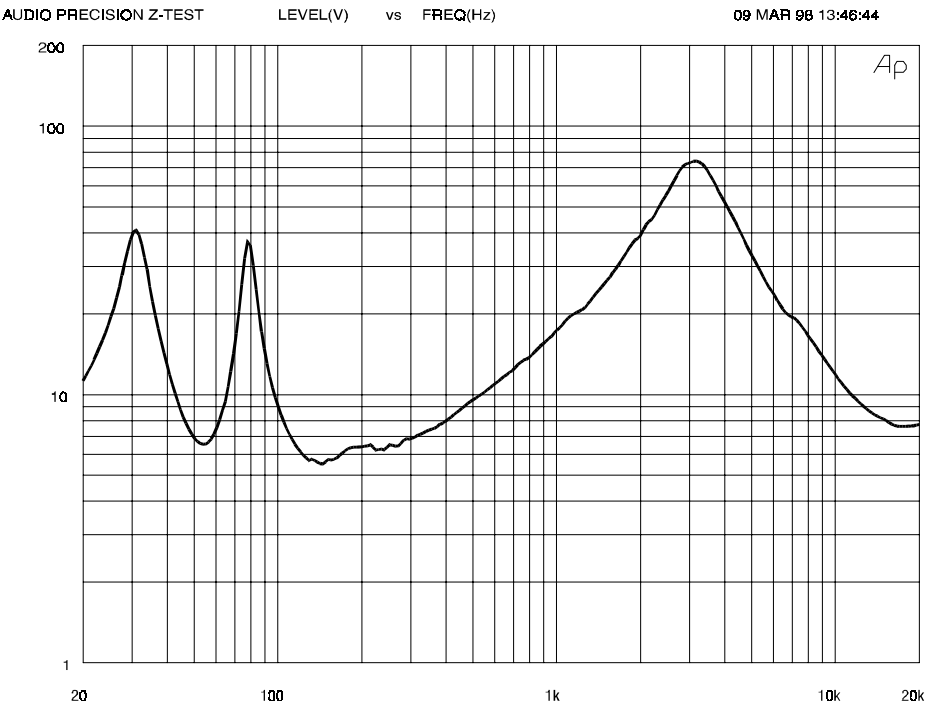
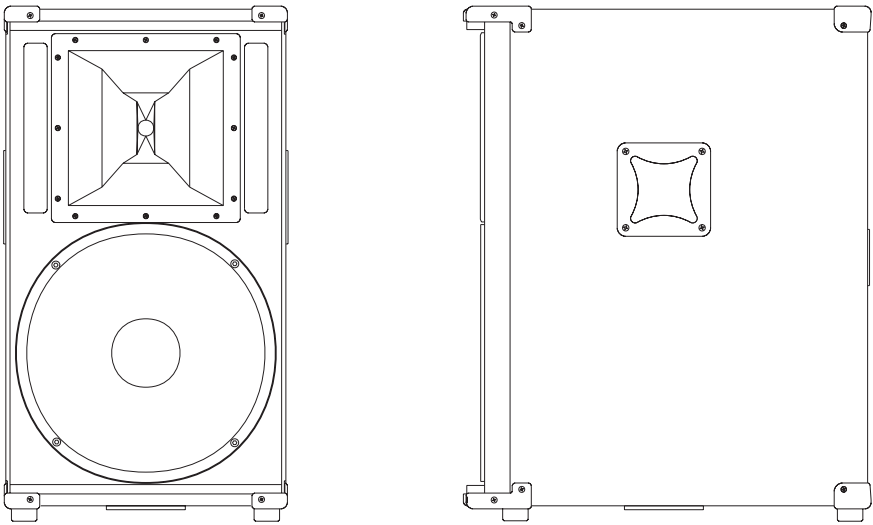


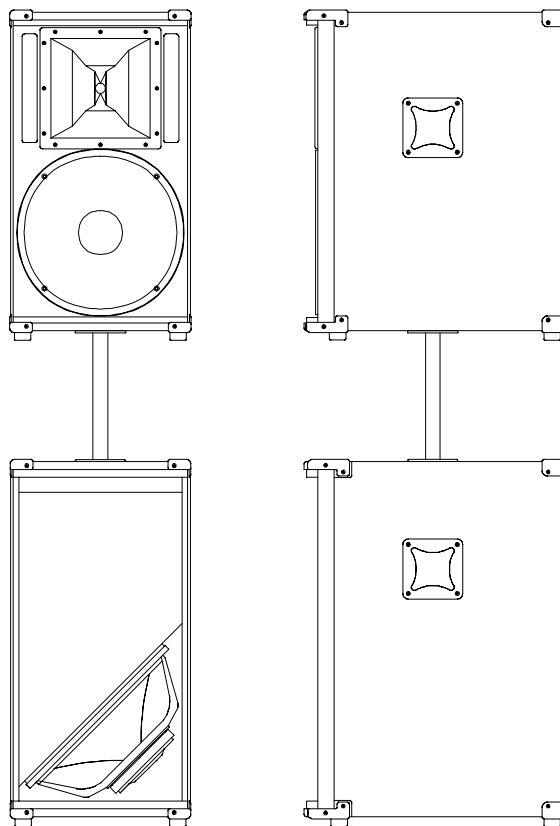
Figure 6—Line Drawing



Eliminator®

Figure 6a—Eliminator with Eliminator Sub

Eliminator®



Specifications

Frequency Response, Measured at 10 feet on axis (normalized to 1 watt/1 meter):

50 Hz-20 kHz ± 3 dB

Long-Term Average Power Handling, EIA Standard RS-426-A:

350 watts

Sound Pressure level, 1 w/1 m:

99 dB

Dispersion Angle Included by 6-dB-Down Points on Polar Responses, Indicate One-Third-Octave Bands of Pink Noise,

2,500-20,000 Hz, Horizontal:

60° (+14°, -25°)

2,500-20,000 Hz, Vertical:

40° (+12°, -0°)

Transducer Compliment, High Frequency

DH2010A

HP64M constant directivity

Low Frequency:

DL15BFH

Enclosure Tuning:

50 Hz

Crossover frequency:

1600 Hz

Impedance:

Nominal 8 ohms

Minimum 5.3 ohms

Input connectors:

Parallel 1/4-inch phone jacks

Parallel Neutrik model NL4MP

(E-version only)

Enclosure Material/Construction:

Black carpeted Roadwood™

Dimensions,

Height:

76.8 cm (30.25 in.)

Wide:

42.9 cm (16.9 in.)

Depth:

60.9 cm (24 in.)

Net Weight

29.9 kg (66 lbs)

Shipping Weight

33.6 kg (74 lbs)

Supporting Products

100BK speaker stand

Eliminator® Sub

Electro-Voice®

600 Cecil Street, Buchanan, MI 49107

616/695-6831, 616/695-1304 Fax