

Eliminator™ - Double

- 2 x 15-inch two-way high-output stage system
- 600-watts continuous power handling
- Ring-Mode Decoupling (RMD™) for improved sound quality and dynamic integrity
- High-Q 60° x 40° Constant-directivity horn with DH2010A driver
- Separate chambers for top and bottom woofers
- Ergonomically shaped handles for ease in lifting and transportation
- No bi-amping required

Description

The Electro-Voice Eliminator™ Double is a high-peak output, high-efficiency two-way stage system. The dual 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™ Double enclosure has a unique design that presents a very minimal frontal cross section while still maintaining substantial internal volume. The top and bottom woofers are isolated from each other to prevent any negative interaction, while 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™ Double'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™ Double's use of RMD™ will control several fundamental mechanical ringing modes. The result is substantially improved vocal range intelligibility and system “openness”.

Two 15 in. drivers provide very high output at the lower frequencies. The low frequency drivers are crossed over at different points to provide a smooth frequency response. When extended high output low-frequency operation is required, performance can be further enhanced by biamping the Eliminator™ Double with 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™ Double should be high-pass filtered to reduce sub sonic material below 40 Hz.

Power Handling

To our knowledge, Electro-Voice was the first U.S. manufacturer to develop and pub-

lish a power test closely related to real-life conditions. First, we use a random-noise input signal because it contains many frequencies simultaneously, just like real voice or instrument program. Second, our signal contains more energy at extremely high and low frequencies than typical actual program, adding an extra measure of reliability. Third, the test signal includes not only the overall “long term average” or “continuous” level—which our ears interpret as loudness—but also short-duration peaks which are many times higher than the average, just like actual program. The long-term average level stresses the speaker thermally (heat). The instantaneous peaks test mechanical reliability (cone and diaphragm excursion). Note that the sine-wave test signals sometimes used have a much less demanding peak value relative to their average level. In actual use, long-term average levels exist from several seconds on up, but we apply the long-term average for several hours, adding another extra measure of reliability.

Specifically, the Eliminator™ Double is designed to withstand the power test described in the ANSI/EIA RS-426-A 1980. The EIA test spectrum is applied for eight hours. To obtain the spectrum, the output of a white-noise generator (white noise is a particular type of random noise

with equal energy per bandwidth in Hz) is fed to a shaping filter with 6-dB-per-octave slopes below 40 Hz and above 318 Hz. When measured with the usual constant-percentage bandwidth analyzer (one-third-octave), this shaping filter produces a spectrum whose 3-dB-down points are at 100 Hz and 1,200 Hz with a 3-dB-per-octave slope above 1,200 Hz.

Amplifier Recommendations

The power-handling rating of the Eliminator™ Double is 600-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™ Double is routinely subjected to peak levels far in excess of its continuous rating of 600 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 300 watts to 600 watts into 8 ohms are suggested.

Architects' and Engineers' Specifications

The loudspeaker system shall consist of two 38.1-cm (15 inch) low-frequency transducers in separated vented enclosures. 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 600 watts (EIA RS-426-A). The system sensitivity shall be 100 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 4 ohms. The system shall have parallel Neutrik NL4MP connectors.

Dimensions will be 116.2 cm (45.8 in.) high x 42.9 cm (16.9 in.) wide x 60.9 cm (24.0 in.) deep and have net weight of 48.1 kg (106.0 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 prod-

uct 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.

Eliminator™-Double

Figure 1—Frequency Response
1 watt at 1 meter

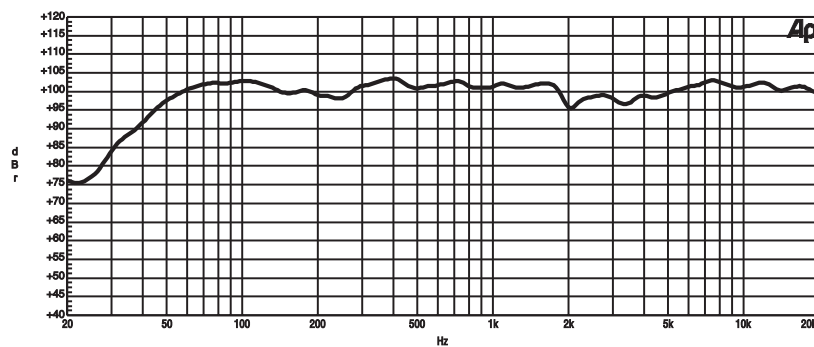


Figure 2—Impedance

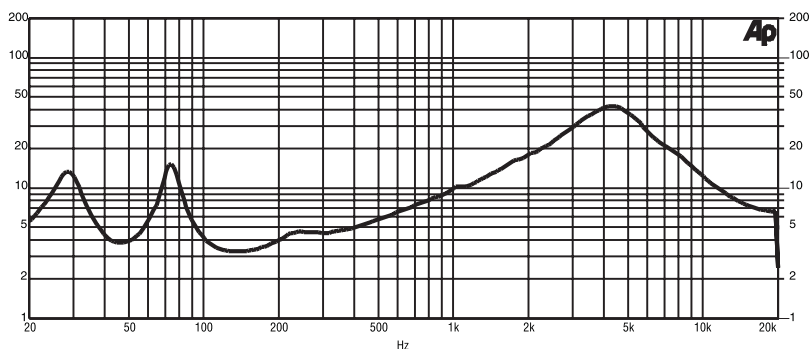
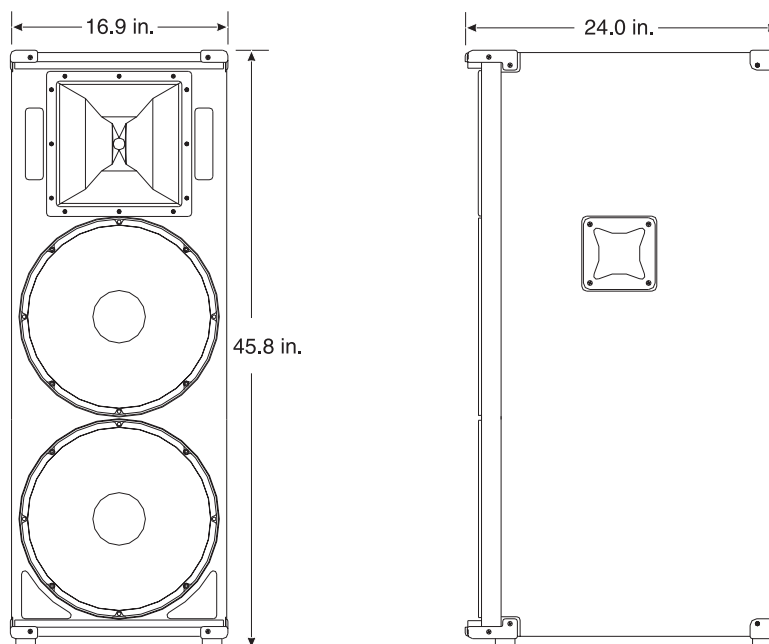


Figure 3—Line Drawing



Eliminator™-Double

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:

600 watts

Sound Pressure level, 1 w/1 m:

100 dB

Dispersion Angle Included by 6-dB-

Down Points:

Horizontal:

60°

Vertical:

40°

Transducer Compliment,

High Frequency

DH2010A

HP64M constant directivity

Low Frequency:

2x DL15BFH

Enclosure Tuning:

50 Hz

Crossover frequency:

Top LF/HF:

1600 Hz

Bottom LF:

700 Hz

Impedance:

Nominal 4 ohms

Minimum 3.3 ohms

Input connectors:

Parallel Neutrik model NL4MP

Enclosure Material/Construction:

Black carpeted Roadwood™

Dimensions,

Height:

116.2 cm (45.8 in.)

Wide:

42.9 cm (16.9 in.)

Depth:

60.9 cm (24.0 in.)

Net Weight

48.1 kg (106.0 lbs)

Shipping Weight

52.6 kg (116.0 lbs)

Supporting Products

Eliminator™ Sub

Eliminator™ Double

Electro-Voice®

600 Cecil Street, Buchanan, MI 49107

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