

KEY FEATURES

- Features a built-in LPN module that compensates for inertial dampening losses and system distortion; same module utilized in EV's ACone processor.
- 380 watts per channel at 8 ohms; 600 watts per channel at 4 ohms; and 850 watts per channel at 2 ohms at 1 kHz
- 1,200 watts bridged at 8 ohms; 1,700 watts bridged into 4 ohms at 1 kHz
- State-of-the-art limiters driven by a sophisticated input/output comparator ensure freedom from amplifier clipping
- Designed and built in our state-of-the-art ISO 9000 certified facility in Straubing, Germany
- 3 RU amp
- Active-balanced XLR-type input and paralleled XLR-type output connectors provide easy signal routing
- Low Distortion

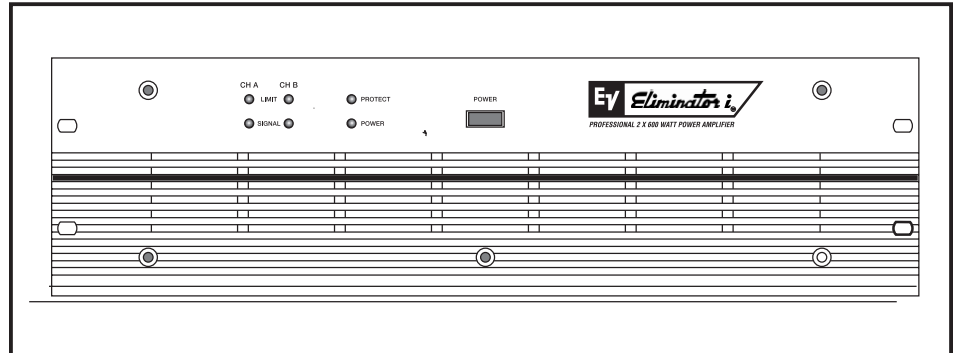
General Product Description

The Electro-Voice Eliminator i™ amplifier is a high-quality power amplifier designed to elicit excellent performance from any speaker system. Its low distortion and substantial headroom ensure that program material will be accurately amplified.

The Eliminator i™ amplifier features a built-in LPN module. Electro-Voice's patented Low Pass Notch (LPN) topology provides the ability to pre-accelerate the electrical signal that is fed to the transducer, thus compensating for the inertial dampening losses of mechanical transducers. Although a leading cause of distortion in typical amplifier/loudspeaker systems, inertial dampening losses can be remedied by Electro-Voice's LPN filters. Unlike parametric filters, shelving filters or Linkwitz-Riley crossovers which cannot replicate EV's unique LPN functions, Electro-Voice's (LPN) signal processing topology improves the 2nd-order characteristics of the system. The result is a complete reproduction of the bass

Eliminator i™ Amplifier

Stereo Power Amplifier



response of any speaker or subwoofer cabinet – a more full and extended bass response when compared to ordinary systems.

Each channel of the Eliminator i™ amplifier delivers more than 380 watts continuous average power into 8 ohms, 600 watts into 4 ohms and 850 watts into 2 ohms over the full audio frequency range. In the bridged mode, the amplifier can deliver more than 1,200 watts into 8 ohms and 1,700 watts into 4 ohms at less than 1% THD. The power supply – with its large toroidal transformer – gives the amplifier impressive headroom and current output capability.

The Eliminator i™ amplifier contains 20 high power output devices with 5,000 watts of dissipation capability. These devices are protected from overheating by two three-speed temperature-sensitive fans. The fans are quiet enough to permit use of the Eliminator i™ amplifier in noise sensitive applications such as recording studios and houses of worship. The output devices are mounted to two large, extruded aluminum heat sinks engineered to minimize thermal gradients and allow the amplifier to operate safely into low impedance loads. The output devices have a maximum junction temperature of 200°C (392°F), so high operational temperatures present no problems. Protection circuits guard against overload, over-temperature, shorted outputs, radio-frequency interference and dc faults. The output devices are mounted directly to the heat sinks without mica insulators to ensure better dissipation of heat.

The Eliminator i™ amplifier has built-in limiters to protect speakers from the deleterious effects of amplifier clipping. The limiter's action is controlled by very sophisticated input/output comparators designed to preserve the sonic integrity of the source. The Eliminator i™ amplifier has electronically balanced XLR-type input and output connectors that allow easy, problem-free connections and signal routing. The amplifier has an input routing switch that allows selection of either normal dual-channel operation or parallel mono operation, which routes an input to both channels but still allows independent level control.

The Eliminator i™ amplifier features professional Neutrik® Speakon® output connectors that provide sturdy, reliable connections and allow use of heavy wire for loss-free signal transmission. There are separate output connectors for channels A and B and for bridge mode. The bridge mode connector is sealed with a plastic cover to prevent connection errors. To prevent ground loops from occurring, the Eliminator i™ amplifier is equipped with a ground-lift switch. When the amplifier is operated in a rack with units of different ground potential, the switch may be adjusted to eliminate hum. Separate potentiometers on the rear panel of the Eliminator i™ amplifier allow easy gain regulation; clear, readable nomenclature ensures easily repeatable control settings.

The Electro-Voice® Eliminator i™ amplifier

is an excellent choice for high-quality professional sound system applications that require excellent sound quality, speaker protection and the highest level of construction quality and long-term reliability.

Architects' and Engineers' Specifications

The power amplifier shall be a dual-channel model of solid-state design, employing high power output devices in a true-complementary-symmetry output circuit. It shall be capable of operating from a 120 V, 60 Hz ac line. The power amplifier shall meet various worldwide safety standards including Underwriter's Laboratories UL-813 standard, Canadian Standards and CE standards. The power amplifier shall contain a limiter circuit driven by a high-quality input/output comparator to protect the load from damage by amplifier clipping. The amplifier shall contain sensing circuitry to provide protection for the output transistors against over temperature, excessive output voltage, shorted loads, excessive phase shift and back-EMF current. The load shall be similarly protected against start-up/shutdown transients, low ac line voltage and dc.

The power amplifier shall contain a signal processing module with LPN filter.

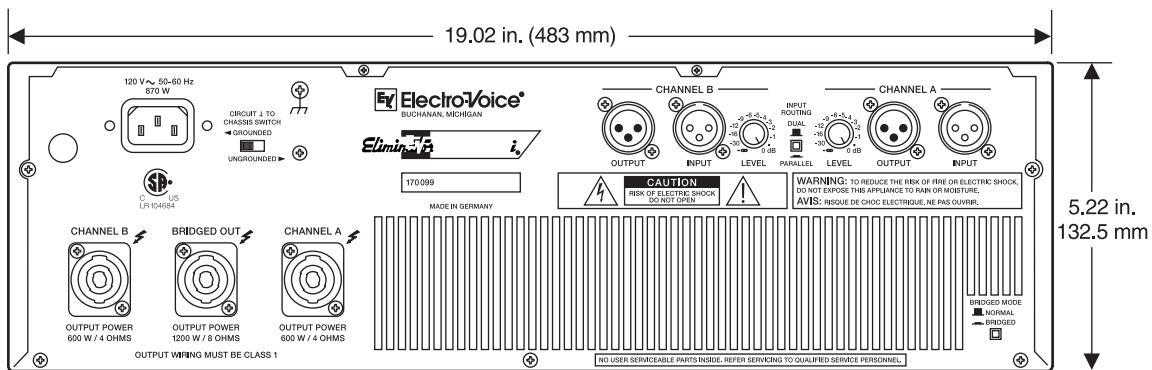
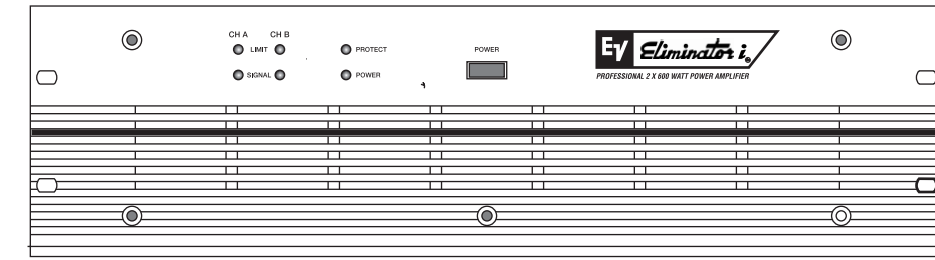
The Electro-Voice® Eliminator i™ amplifier and LPN filter shall be tuned to the critical frequency of the matching Eliminator i™ loudspeaker.

Rear-mounted controls shall include detented level potentiometers for each channel, an input routing switch for selecting dual/stereo or parallel mono operation, a switch for selecting dual/stereo or bridged operation and a chassis groundlift switch. Rear mounted input connectors shall include a 3-pin female XLR-type connector wired in parallel with a male 3-pin XLR-type output connector for signal routing. Output connectors shall be Neutrik® Speakon® NL4MP's for channels A and B and another for bridged operation.

Front-panel indicators shall include power on, a protection indicator and separate signal present and limiter indicators for each channel. Front-panel controls shall include a power on switch.

The power amplifier shall meet the following performance specifications: rated output power from 20-20,000 Hz at less than 0.2% THD, each channel 300 watts into 8 ohms and 1,700 watts into 4 ohms. Hum and noise shall be at least 103 dB (A weighted) below rated output power; damping factor shall be greater than 300 at any frequency up to 1 kHz in any mode with an 8 ohm load; THD (total harmonic distortion) shall be less than 0.05% at 1 kHz at rated output power; crosstalk shall be better than -80 dB at 1 kHz at rated output power; transient intermodulation distortion (DIM 30), shall be less than 0.03%. Dimensions shall be 132.5 mm (5.25 in.) high x 483 mm (19.0 in.) width x 385.5 mm (15.7 in.) deep. Net weight shall be 16 kg (35.2 lb). Color shall be light gray.

The power amplifier shall be the Electro-Voice® Eliminator i™ amplifier.



Dimensions

SPECIFICATIONS:

Conditions:

1. 0 dBu= 0.775 V rms.
2. Dual-mode ratings are for each channel both operating, unless noted.
3. 120-volt ac line voltage maintained throughout testing.

Continuous Rated Output Power (20 - 20,000 Hz at less than 0.2% THD, both channels driven per EIA RS 490),

Dual Mode, 2 ohms: 650 watts

Bridged Mode, 4 ohms: 1,300 watts

Dual Mode, 4 ohms: 500 watts

Bridged Mode, 8 ohms: 1,000 watts

Dual Mode, 8 ohms: 300 watts

Continuous Rated Output Power (1 kHz, 1 % THD, both channels driven per EIA RS-490),

Dual Mode, 2 ohms: 850 watts

Bridged Mode, 4 ohms: 1,700 watts

Dual Mode, 4 ohms: 600 watts

Bridged Mode, 8 ohms: 1,200 watts

Dual Mode, 8 ohms: 380 watts

Maximum Single Channel Output Power (1 kHz burst, 20 ms on, 480 ms off, per IHF-A),

2 ohms: 950 watts

4 ohms: 880 watts

8 ohms: 460 watts

Frequency Response

(+0, -3 dB, reference 1 kHz/1 watt): 13 - 45,000 Hz

Input Sensitivity, 1 kHz, Dual Mode for 500 watts into

4 ohms: 0 dBu (775 mV)

Input Impedance (per channel, 20 - 20,000 Hz),

Balanced: 20,000 ohms

Total Harmonic Distortion (at rated output power, measurement bandwidth 80 kHz): <0.05 %

IMD (SMPTE) (60 Hz/7 kHz, typical, at rated power): <0.08%

DIM 30 (composite square-sine wave bandwidth-limited to 30,000 Hz): <0.03 %

Slew Rate, Any Mode: 30 V/microsecond

Damping Factor, Any Mode, (at 100 Hz / 1 kHz): >300 / >200

Low Pass Notch (LPN) Filter Critical Frequency: 73 Hz

Amplifier Protection:

Audio limiters; over-temperature; dc, excessive hf, excessive back-EMF; inrush current limiters; shorted loads; peak current limiters

Load Protection:

Start-up/shutdown transients; dc fault; low ac line voltage; nonlinear signal limiters

Cooling System:

Front-to-rear airflow with two 3-speed fans

Output Topology:

True complementary symmetry with ungrounded collectors (no mica insulators for better heat transfer)

Controls and Switches,

Rear:

Two calibrated level controls; input routing (Dual/Parallel); chassis ground switch (Grounded/Ungrounded); bridged mode switch (Bridged/Normal)

Front:

Power switch (On/Off)

Front-Panel Indicators:

Two LED's per channel (4 total) for signal present and limiter on, protect indicator and power on

Connections,

Input:

3-pin female XLR-type connectors for each channel in parallel with a 3-pin male XLR-type output connector for easy signal routing; the XLR connectors are wired according to the IEC 268 standard: pin 1 shield, pin 2 positive, pin 3 negative

Output:

Neutrik® Speakon® NL4MP for channels A, B and for bridged mode

Power:

16-gauge 3-wire IEC standard removable power cable

Operating Voltage:

120 V, 60 Hz ac

Power Consumption (both channels operating in dual mode at 1/8 maximum output power at 4 ohms: 870 watts)

Dimensions, (see Figure 1),

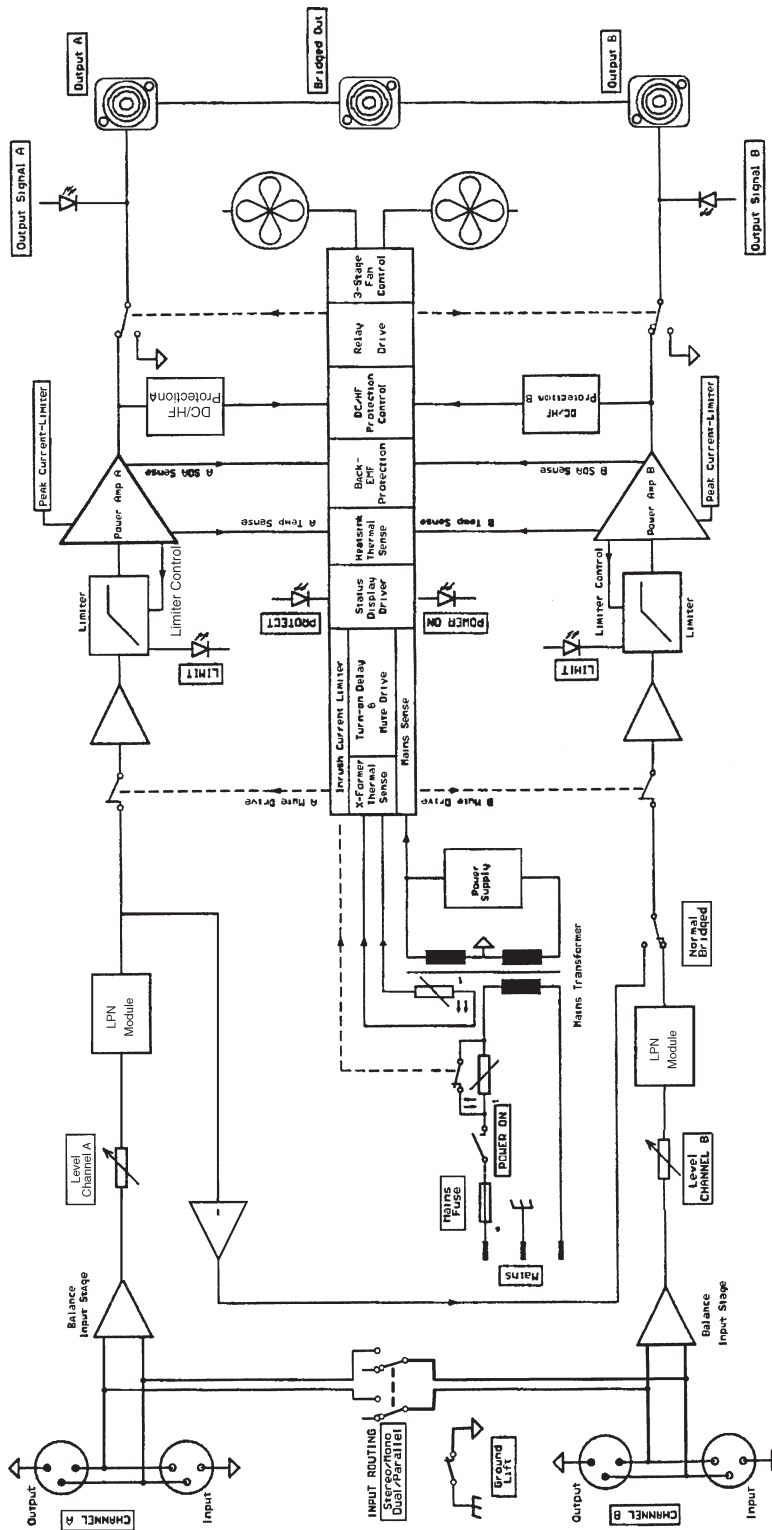
Height: 132.5 mm (5.25 in)

Width: 483 mm (19.0 in)

Depth: 385.5 mm (15.17 in)

Color: Light gray

Net Weight: 35.2 lb (16 kg)



System Block Diagram

USA 12000 Portland Ave South, Burnsville, MN 55337, Phone: 952-884-4051, Fax: 952-884-0043
 Canada 705 Progress Avenue, Unit 46, Scarborough, Ontario, Canada, M1H2X1, Phone: 416-431-4975, 800-881-1685, Fax: 416-431-4588
 Germany Hirschberger Ring 45, D94315, Straubing, Germany, Phone: +49 9421-706 0, Fax: +49 9421-706 287
 France Parc de Courcerin, Allée Lech Walesa, Lognes, 77185 Marne la Vallée, France, Phone: +33 1 6480-0090, Fax: +33 1 6480-4538
 Australia Unit 23, Block C, Slough Business Park, Slough Avenue, Silverwater, N.S.W. 2128, Australia, Phone: +61 2-9648-3455, Fax: +61 2-9648-5585
 Hong Kong Unit E & F, 21/F, Luk Hop Industrial Bldg., 8 Luk Hop St., San PO Kong, Kowloon, Hong Kong, Phone: +852-2351-3628, Fax: +852-2351-3329
 Japan 5-3-8 Funabashi, Setagaya-ku, Tokyo, 156-0055 Japan, Phone: +81 3-5316-5020, Fax: +81 3-5316-5031
 Singapore 3015A Ubi Rd 1, 05-10, Kampong Ubi Industrial Estate, Singapore 408705, Phone: +65-746-8760, Fax: +65-746-1206
 Mexico Av. Parque Chapultepec #66-201, Col. El Parque Edo. De Mexico 53390, Mexico, Phone: +52 5358-5434, Fax: +52 5358-5588
 UK 4, The Willows Centre, Willow Lane, Mitcham, Surrey CR4 4NX, UK, Phone: +44 181 640 9600, Fax: +44 181 646 7084
 Africa/Mid-East Hirschberger Ring 45, D94315, Straubing, Germany, Phone: +49 9421-706 0, Fax: 49 9421-706 287
 Latin America 12000 Portland Ave South, Burnsville, MN 55337, Phone: 952-887-7491, Fax: 952-887-9212

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Electro-Voice®

U.S.A. and Canada only.

For customer orders, contact the Customer Service department at 800/392-3497 Fax: 800/955-6831

For warranty repair or service information, contact the Service Repair department at 800/685-2606

For technical assistance, contact Technical Support at 866/78AUDIO

Please refer to the Engineering Data Sheet for warranty information.

Specifications subject to change without notice.