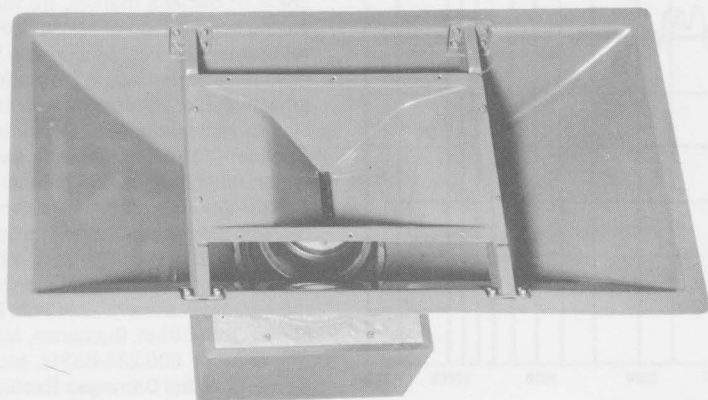




EJ1 Above-Screen Speaker System

- Designed for cinema use
- Hi-fidelity in a compact coaxial design
- Premium components including the DL12X mid-bass reproducer and the DH1A high-frequency driver
- Very-high output capability for the dynamics of digital audio

SPECIFICATIONS:

Frequency Response (1 watt at 1 meter on axis, swept one-third-octave pink noise, anechoic environment; see Figure 1):

160-20,000 Hz

Low-Frequency 3-dB-Down Point:

160 Hz

Long-Term Average Power Handling Capacity per ANSI/EIA RS-426-A 1980 (see Power Handling section):

LF:

300 watts

HF:

50 watts

Sensitivity (SPL at 1 meter, 1 watt (2.83 volts) input, anechoic environment, band-limited pink-noise signal),

LF:

103 dB

HF:

110 dB

Dispersion Angle Included by 6-dB-Down Points on Polar Responses, Indicated One-Third-Octave Bands of Pink Noise (see Figure 3),

500-20,000 Hz Horizontal:

90° (+20°, -10°)

1,200-20,000 Hz Vertical:

40° (+20°, -10°)

Directivity Factor R_0 (Q),

Median over Indicated Range, (see Figure 4), 1,250-20,000 Hz:

11.8

Directivity Index D_i (10 log R_0)

1,250-20,000 Hz:

10.7 dB

Transducer Complement,

High-Frequency:

DH1A, 2-inch exit driver, mounted to a HP940 constant directivity horn

Low-Frequency:

DL12X, 12-inch woofer, mounted to a special 90° x 40° horn

Impedance, HF/LF:

8 / 8 ohms

Input Connectors:

Screw terminals (#10) on barrier strip

Enclosure Materials and Finish:

0.62 in. (1.6 cm) medium density fiberboard (MDF) covered with refinishable black vinyl

Dimensions,

Low-Frequency Horn,

Height:

58.4 cm (23.0 in.)

Width:

119.4 cm (47.0 in.)

Depth:

42.7 cm (16.8 in.)

Mid-Bass Enclosure;

Height:

44.5 cm (17.5 in.)

Width:

44.5 cm (17.5 in.)

Depth:

30.0 cm (11.8 in.)

Overall System,

Height:

58.4 cm (23.0 in.)

Width:

119.4 cm (47.0 in.)

Depth:

72.4 cm (28.5 in.)

Net Weight:

59.1 kg (130 lb)

Shipping Weight:

69.1 kg (152 lb)

DESCRIPTION

The Electro-Voice EJ1 above screen speaker system is a two-way active factory assembled cinema system that consists of two coaxially mounted horns. The low/mid horn is loaded with a DL12X woofer enclosed within a 1.0 ft³

sealed chamber. The high-frequency section features a DH1A compression driver mounted to a HP940 constant-directivity horn. Crossover is accomplished by using an AMCX-1 electronic crossover module in conjunction with an AP2600A amplifier. The enclosure is constructed of 5/8-inch (1.6-cm) medium density fiberboard (MDF) covered in a black vinyl which can be painted to complement any interior. The horns are constructed from polyester resin and glass fiber laminate and finished with a dark grey gelcoat. Four mounting points are provided to aid in hanging the system in a permanent installation. The intended use of the EJ1 is within medium to large movie theaters where an above-screen sound system can provide superior fidelity.

CONNECTIONS

The EJ1 must be biamplified. Connections are made via a terminal block able to take up to 10 AWG wire.

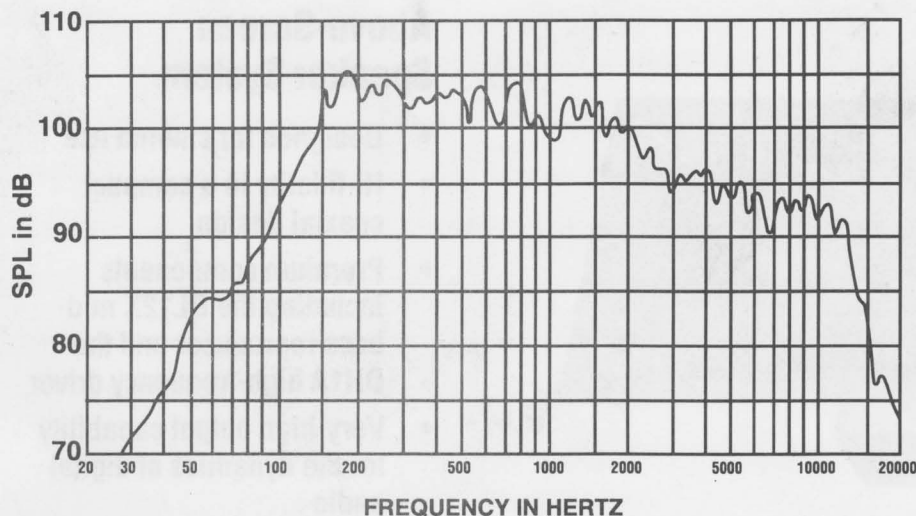
SENSITIVITY

Sensitivity was measured with a 1-watt input (2.83 volts into an 8-ohm load) from a distance of 1 meter, and resulted in a high-frequency output of 110 dB, and a low-frequency output of 103 dB.

POWER HANDLING

Electro-Voice, Inc., determines the long-term and short-term power handling based upon the standard provided by the EIA (specifically, ANSI/EIA RS-426-A 1980). The EJ1 high-frequency section passes this EIA specification with a long-term power-handling capacity of 50 watts and a short-term power-handling capacity of 300 watts; the low-frequency section passes with a long-term power-handling capacity of 300 watts, and a short-term power-handling capacity of 1,200 watts.

FIGURE 1 — EJ1 Frequency Response



RECOMMENDED CROSSOVER POINTS

The EJ1 is designed to be crossed over at 500 Hz using a device capable of Linkwitz-Riley 4th order (24-dB-per-octave) slopes. In cases where the user intends to use a low-frequency device, it is recommended to cross the low frequency at 160 Hz.

ARCHITECTS' AND ENGINEERS' SPECIFICATIONS

The loudspeaker system shall be a two-way active all horn-loaded coaxial loudspeaker system. The system shall comprise of a 12-inch low/mid-frequency loudspeaker with a coaxially mounted 2.0-inch compression driver and 90° by 40° constant-directivity horn. Crossover shall be achieved using an AMCX-1 electronic crossover module in conjunction with an AP2600A amplifier. The loudspeaker system shall meet the following performance criteria. Power handling, 300 watts of pink noise with 6-dB crest factor, band limited from 200 Hz to 1,500 Hz (12-inch driver) and 50 watts of pink noise with a 6-dB crest factor, band limited from 500 Hz to 20,000 Hz (2.0-inch compression driver). Frequency response, smooth and uniformly usable from 200 Hz to 20 kHz. Pressure sensitivity, 103 dB SPL when measured at one meter on axis with one watt of band-limited pink noise

from 200 Hz to 1,000 Hz (low/mid section). Pressure sensitivity, 110 dB SPL when measured at one meter on axis with one watt of band-limited pink noise from 200 Hz to 20 kHz (high section). Nominal impedance, 8.0 ohms. The enclosure shall be of the sealed type, constructed of 5/8-inch (1.6-cm) medium density fiberboard (MDF) lined with sound absorbent wool. The horns are constructed from dark grey polyester resin with a fiberglass core. Four hanging points shall be provided for safe installation. The dimensions shall be 23 inches (58.4 cm) high by 47 inches (119.4 cm) wide by 28.5 inches (72.4 cm) deep at the center. The loudspeaker shall weigh 130 lbs (59.1 kg). The loudspeaker system shall be the Electro-Voice EJ1.

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 pre-

paid. **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 or any of its authorized service representatives. **Obtaining Warranty Service:** To obtain warranty service, a customer must deliver the product, prepaid, to Electro-Voice 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 at 600 Cecil Street, Buchanan, MI 49107 (616/695-6831 or 800/234-6831). **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.

Service and repair address for this product: Electro-Voice, Inc., 600 Cecil Street, Buchanan, Michigan 49107 (616/695-6831 or 800/234-6831).

Specifications subject to change without notice.



ELECTRO-VOICE a MARK IV company **600 Cecil Street, Buchanan, Michigan 49107**

MANUFACTURING PLANTS AT ■ BUCHANAN, MI ■ NEWPORT, TN ■ SEVIERVILLE, TN ■ OKLAHOMA CITY, OK ■ GANANOQUE, ONT.
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