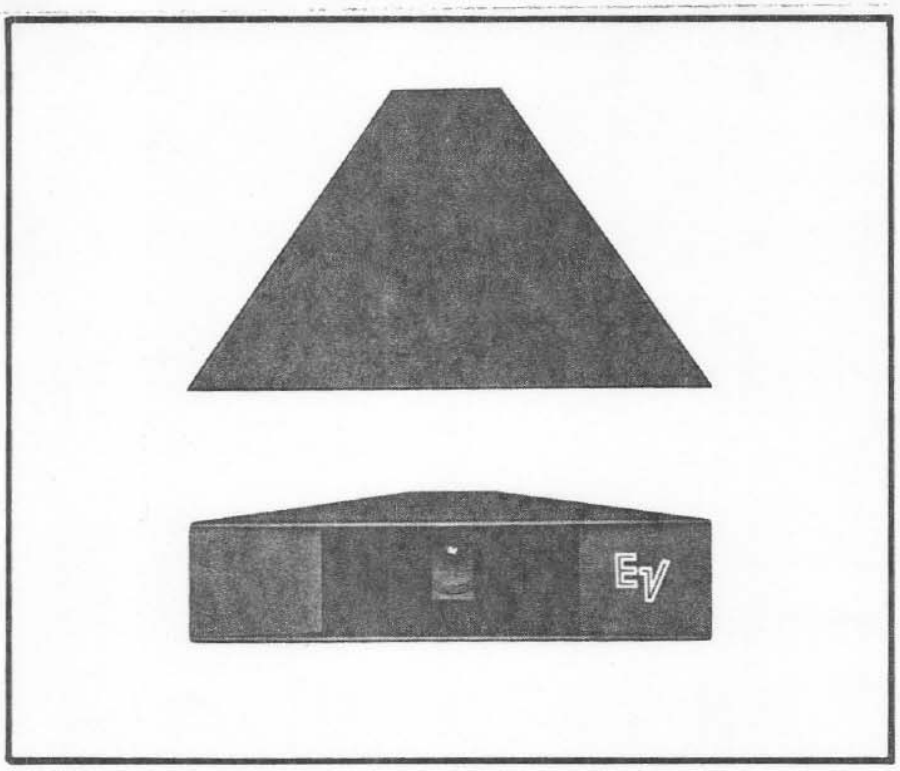

Electro-Voice®
a gulton company

Model TL1225
Horn Loaded Mid-Bass Speaker System

SPECIFICATIONS

Frequency Response:
125 – 1250 Hz

Sound Pressure Level (1 watt at 1 meter):
109 dB

Long-term Average Power Handling Capacity (see Power Handling Section):
300 watts
(per EIA Standard RS-426A)

Maximum SPL at 4 Feet, Full Power:
132 dB

WARNING: EXPOSURE TO SOUND PRESSURES OF THIS MAGNITUDE CAN CAUSE PERMANENT HEARING IMPAIRMENT.

Beamwidth Nominal, (long system axis horizontal):
60 degrees

Driver:
EVM-12S Pro-Line™

Impedance,
Nominal:
8 ohms
Minimum:
7.1 ohms

Dimensions:
35.6 cm (14.00 inches) high
86.4 cm (34.00 inches) deep
152.4 cm (60.00 inches) wide

Material and Finish:
15-ply baltic birch with a black textured epoxy paint

Connection:
1/4-inch phone jack

Net Weight:
50 kg (110 lbs)

DESCRIPTION

The Electro-Voice Model TL1225 is a high efficiency, horn-loaded speaker system designed to be used as a mid-bass component in ultra-high-sound pressure-level music systems. The high efficiency of the horn combined with the 300 watt continuous power capacity of the EVM-12S Pro-Line driver provides the potential for very high sound pressure levels.

The TL1225 is designed to be used with the Electro-Voice TL4025 or TL4050 horn-loaded bass speaker systems and RC60A, HR60 or HR6040A constant directivity high-frequency horns. The resulting systems are high level, wide band, controlled dispersion loudspeaker arrays ideally suited for reproduction of music in larger rooms and out-of-doors.

Designed as a portable music system component the TL1225 is ruggedly constructed with a cabinet of 15-ply baltic birch. All joints are dado cut and the cabinet is finished with a specially formulated textured epoxy coating.

A 1/4-inch phone jack on the rear access panel provides electrical connection to the EVM-12S Pro-Line driver.

APPLICATIONS

Because of its high efficiency and high power handling capacity, the TL1225 is ideal for systems designed to deliver high sound pressures in large rooms. For auditoriums large halls and out-of-doors, the system may include multiple units. A single TL1225, however, with a 300 watt input is capable of producing an RMS sound pressure of 121 dB at a distance of 10 feet. Properly arrayed systems are suggested in Form 2314, Special Application Note – "TL1225/TL4025 Speaker Systems." (available free from Electro-Voice)

The horn design of the TL1225 is based on Electro-Voice constant directivity horn technology, and has a 60 degree horizontal coverage pattern. This angle was chosen to match the angular coverage of EV 60-degree constant-directivity horns RC60A, HR60 or HR6040A. For wider coverage angles the system may be arrayed to create a 120-degree system. (see Form 2314)

The least complex complete system using the TL1225 would consist of a three-way combination of a TL4025, TL1225 and the appropriate 60 degree horn connected to separate amplifiers from low level crossovers as shown in Figure 2.

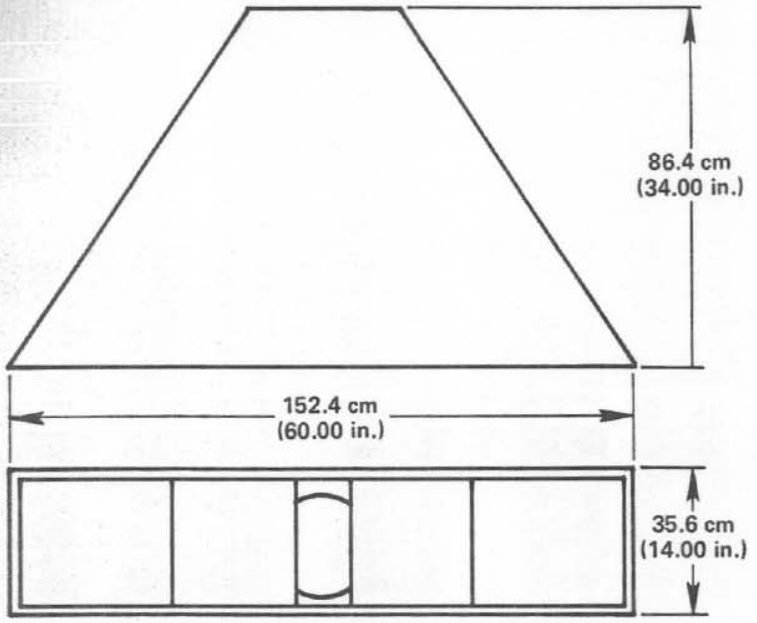

FIGURE 1 – Dimensions

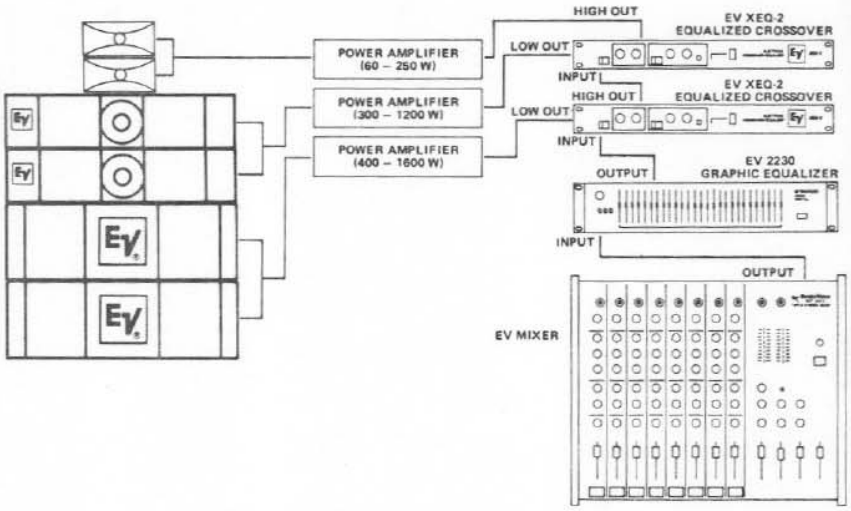

FIGURE 2 – System Connection

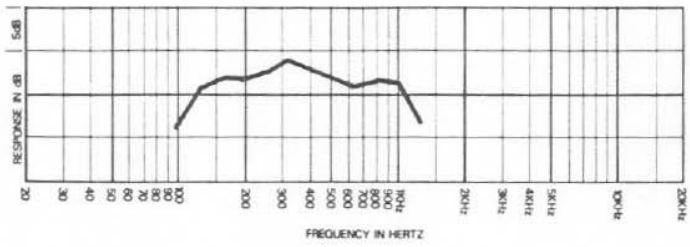

FIGURE 3 – Frequency Response

The EV XEQ-2 crossover should be used with the EQ C equalization module and a 1250 Hz crossover module constructed using the BMK blank supplied with the XEQ-2 and the following resistor values: RL1 = 113 kilo ohms, RL2 = 91 kilo ohms, RL3 = 15 kilo ohms, RH1 = 20 kilo ohms, RH2 = 7.5 kilo ohms and RH3 = 130 kilo ohms.

FREQUENCY RESPONSE

The frequency response of the TL1225 is shown in Figure 3 and is based on 1/3 octave pink-noise measurements.

DISPERSION

The directional characteristics of the TL1225 are described in Figures 4, 5 and 6. The polar responses shown in Figure 4 were run in EV's large anechoic chamber using 1/3 octave pink noise. A plot of the angle included by 6-dB-down points on the polar curves is shown as a function of frequency in Figure 5, and plots of directivity index and directivity factor are shown in Figure 6.

POWER HANDLING

Proper use of the TL1225 requires an understanding of the power test used to determine the 300 watt rating. This rating is based on extensive design testing using the EIA Standard RS-426A procedures. The EIA test spectrum uses equalized white noise applied for a period of 8 hours. The spectrum is filtered to provide a 6-dB per octave rolloff below 40 Hz and above 318 Hz. When measured using a constant percentage bandwidth analyzer (1/3 octave) the spectrum is down 3-dB at 100 Hz and 1200 Hz, with a 3-dB per octave slope above 1200 Hz. The long term average power used is 300 watts with instantaneous peaks limited to 6 dB (1200 watts). Voltages used in the test are based on a 6 ohm EIA equivalent impedance, so that the 300 watts continuous power is produced with an application of 42.5 volts true RMS. The restriction of peaks to 6 dB (85 volts) is important since some sound sources have peak to average ratios much greater than 6-dB. Without a limitation of these higher peaks, speaker damage can result from a 300 watt RMS signal.

Based on the EIA test and rating, peak voltages to the TL1225 should not exceed 85 volts.

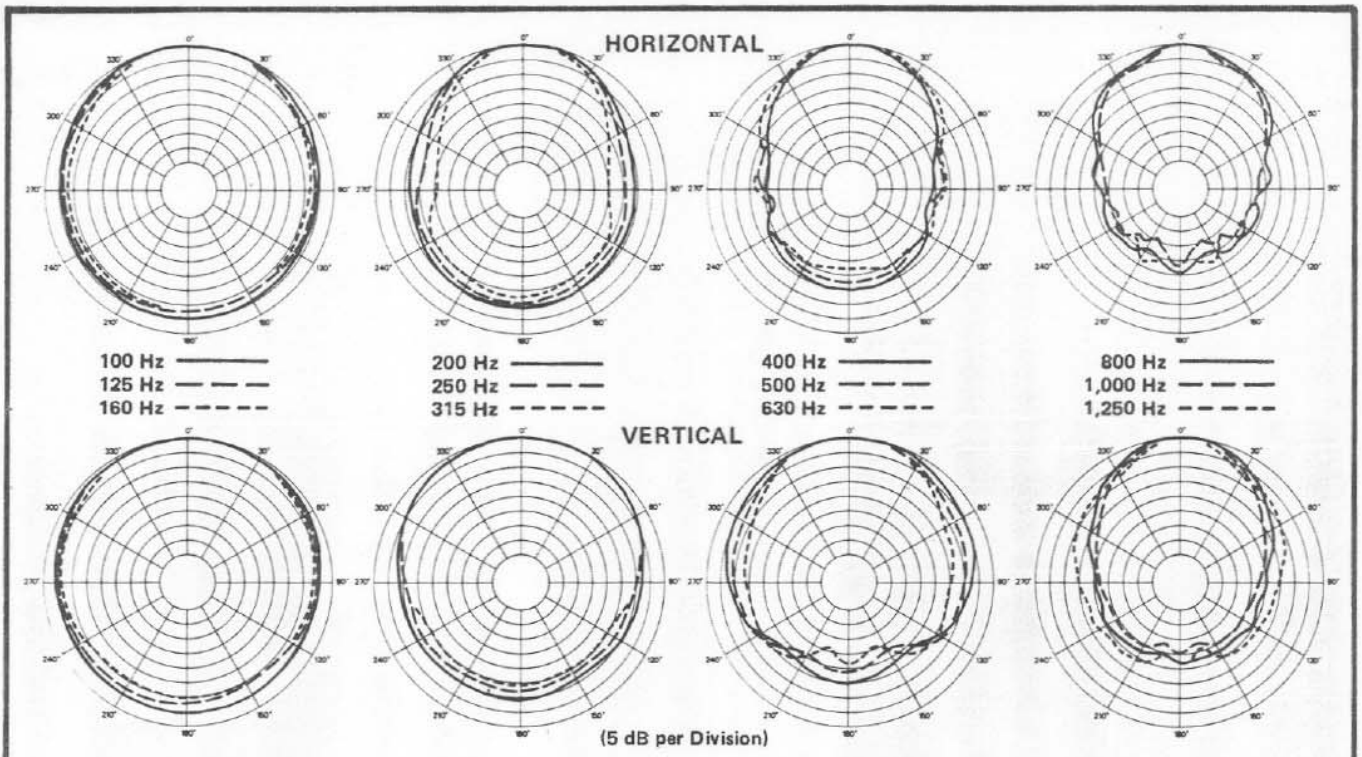

FIGURE 4
TL1225 Polar Response (System Long-Axis Horizontal, 4 V RMS of 1/3 Octave Band Limited Pink Noise in Anechoic Environment 10 ft on Axis)

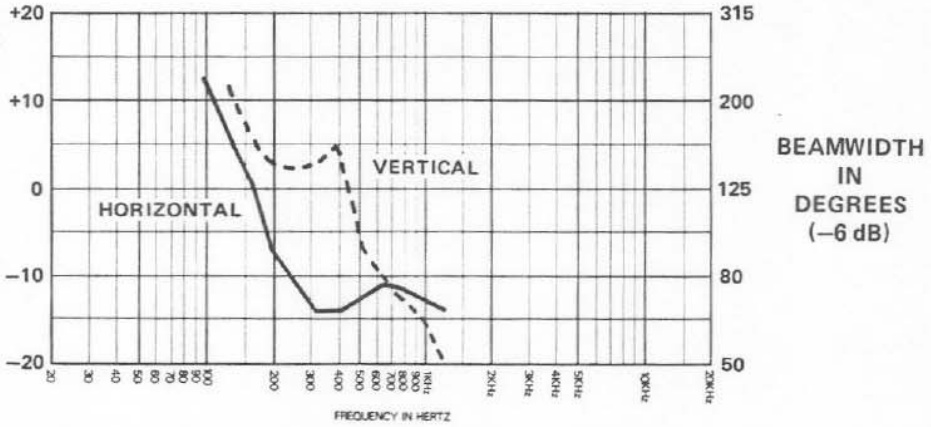

FIGURE 5 – Beamwidth (6 dB down included angle)

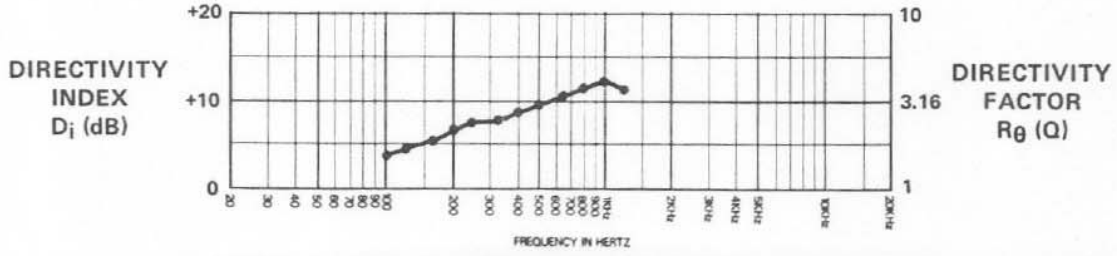

FIGURE 6 – Directivity Index

PLACEMENT

The TL1225 is normally mounted horizontally on a flat surface. Usually

WARRANTY (Limited) –

Electro-Voice loudspeakers are guaranteed for five years from date of

burned coils, or other malfunction due to abuse or operation at other than specified conditions. Repair by other than Electro-Voice or its authorized service agencies will void this guarantee.

For repair information and service locations, please write: Service Dept., EV products.

Specifications subject to change without notice.

Part Number 530356 – 336

a Gulton COMPANY ELECTRO-VOICE, Inc., 600 CECIL ST., BUCHANAN, MICH. 49107

MANUFACTURING PLANTS AT ■ BUCHANAN, MICH. ■ NEWPORT, TENN. ■ SEVIERVILLE, TENN. ■ GANANOQUE, ONT. ■ LITHO IN U.S.A.