

Polar Response Charts

General Product Description

The Electro-Voice® 950-8B series Duplex® loudspeaker system is a two-way loudspeaker featuring a rectangular-coverage 90° x 90° horn driven by a 1-inch compression driver coaxially mounted to a 15-inch low frequency cone and high temperature voice-coil assembly. The 950-8B utilizes a dual section crossover network with a self-resetting protection circuit for the compression driver. An aluminum plate is utilized to mount the Electro-Voice® 15732 matching transformer in order to operate the loudspeaker from 70.7V/100V distribution lines.

The 950-8B Duplex® loudspeaker system provides a square coverage pattern, high efficiency, high maximum output, ease of installation and wide-range reproduction of music and voice for different venues such as churches, auditoriums, hotels and civic centers.

The 950-32T utilizes a 15732 transformer to offer a selection of 4, 8, 16 and 32 watts to the loudspeaker system using either 70-V or 100-V lines.

Selecting a Transformer Tap for Transformer Models

The transformer tap of choice can be made by making connection between the ground lead and any of the wattage taps indicated on the transformer label. Also refer to the label to determine the appropriate wattage for the line voltage used.

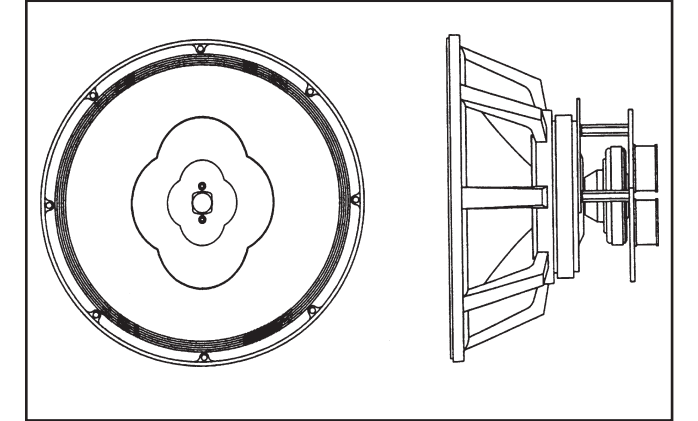
Architects' and Engineers' Specifications

The loudspeaker system shall be of the ceiling Duplex® type consisting of a single high frequency compression driver coaxially mounted to a single 381-mm (15-in.) high power woofer using a 90° x 90° coverage pattern horn. The system shall be

950-8B

950-32T

Duplex® Ceiling Loudspeaker System



capable of using an optional transformer if so desired. The loudspeaker system shall meet the following performance criteria: Power handling shall be 300 Watts of pink noise with 6-dB crest factor. Frequency response shall be smooth and uniformly usable from 60 Hz to 20 kHz. Pressure sensitivity shall be 99 dB SPL when measured at one meter on axis with one watt of pink noise. The loudspeaker system shall weigh 10.7 kg (23.5 lb).

The loudspeaker system shall be the 950-8B with no transformer; 950-32T with 15732 70.7/100-V transformer.

Specifications:

Frequency Response (see Figure 1):	60-20 kHz
Pressure Sensitivity, 60-20 kHz:	99 dB SPL
Beamwidth, 500-20 kHz:	
Horizontal:	90° (+15°, -40°)
Vertical:	90° (+15°, -10°)
Directivity Factor, R_0 (Q), 500-20 kHz:	10.4 (+7.4, -6.2)
Directivity Index, D_i , 500-20 kHz:	10.2 dB (+2.3 dB, -3.9 dB)
Power Handling:	300 watts
Maximum Long-Term Output:	122 dB SPL
LF (60-20 kHz, 250 watts input):	
Impedance:	
Minimum	7.0 ohms
Nominal	8.0 ohms
Components,	
LF:	381-mm (15 in.), high efficiency woofer
Thiele-Small LF Driver Parameters	
f_s (free-air resonance frequency):	40 Hz
Q_{ES} (electromagnetic Q at f_s):	0.285
Q_{MS} (mechanical Q at f_s):	7.35
Q_{TS} (total Q at f_s):	0.275

V_{AS} (volume of air having same acoustic compliance as driver suspension):	251.45 liters (8.88 ft ³)
η_0 (half-space reference efficiency):	5.38%
V_D (peak displacement volume of diaphragm: $S_D \times X_{MAX}$):	0.368 liters (0.013 ft ³)
S_D (effective diaphragm area):	0.369 m ² (143.1 in. ²)
X_{MAX} (peak linear displacement of diaphragm):	4.06 mm (0.16 in.)
R_0 (dc resistance of voice coil):	6.0 ohms $\pm 10\%$
HF:	25.4-mm (1-in.) exit high-frequency driver

Input Terminals:

Dual 0.205-series spade terminals

Replacement LF: 812-2841

Replacement HF: 833-990

Dimensions:

Diameter: 381 mm (15 in.)

Depth: 254 mm (10 in.)

Net Weight: 10.7 kg (23.5 lb)

Shipping Weight: 13.8 kg (30.4 lb)

Finish: Gray

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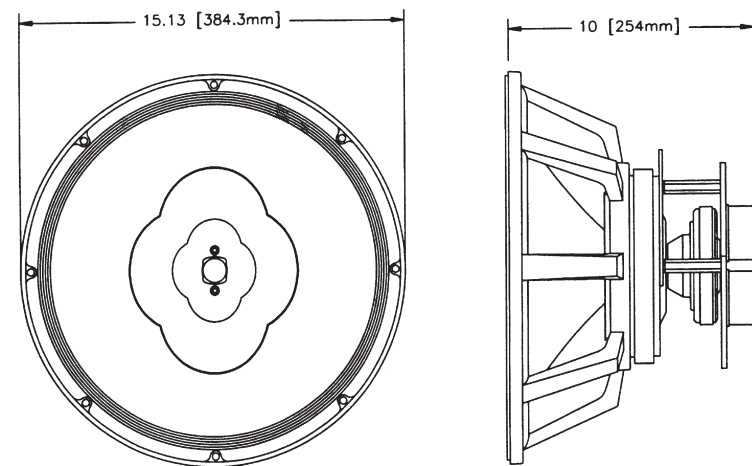
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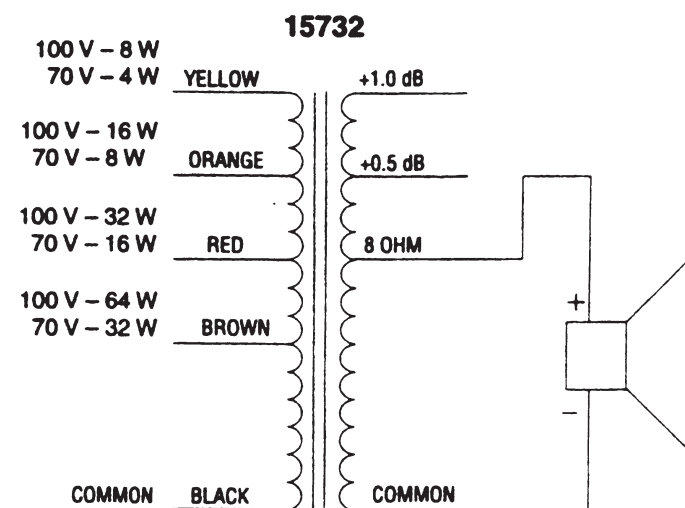


U.S.A. and Canada only.
For customer orders, contact the Customer Service department at 800/392-3497 Fax: 800/955-6831
For warranty repair or service information, contact the Service Repair department at 800/685-2606
For technical assistance, contact Technical Support at 866/78 AUDIO
Please refer to the Engineering Data Sheet for warranty information.
Specifications subject to change without notice.

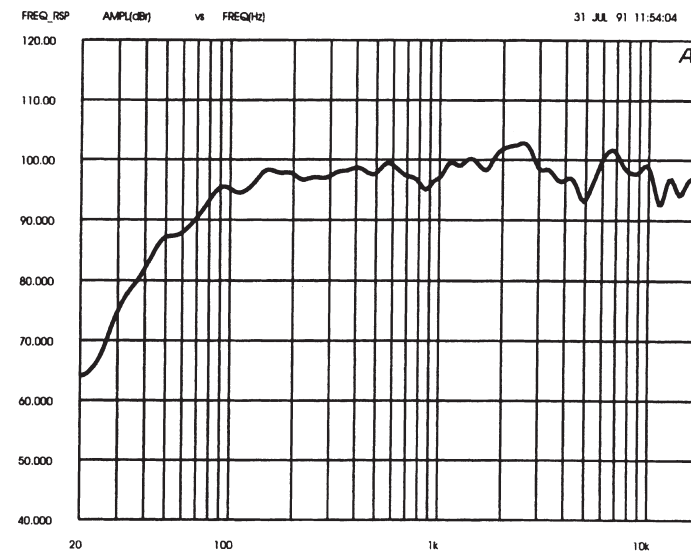
Electro-Voice®



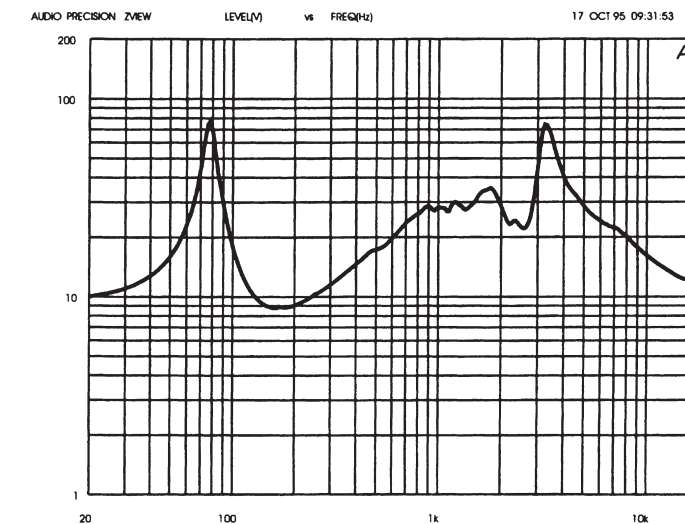
Dimensions



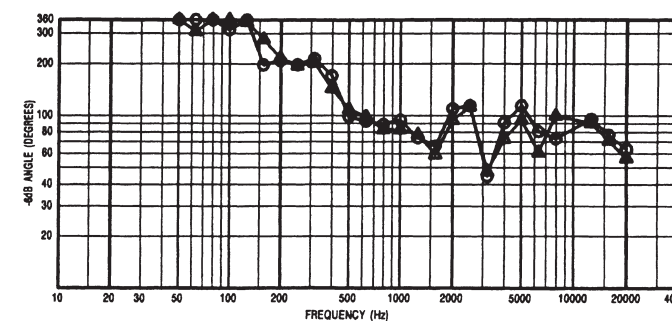
Wiring Diagrams



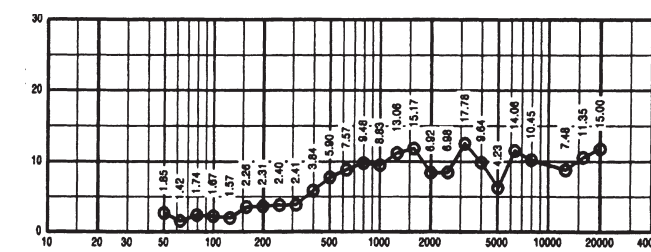
950-8B Frequency Response
(On axis, 1 watt/1 meter, anechoic environment)



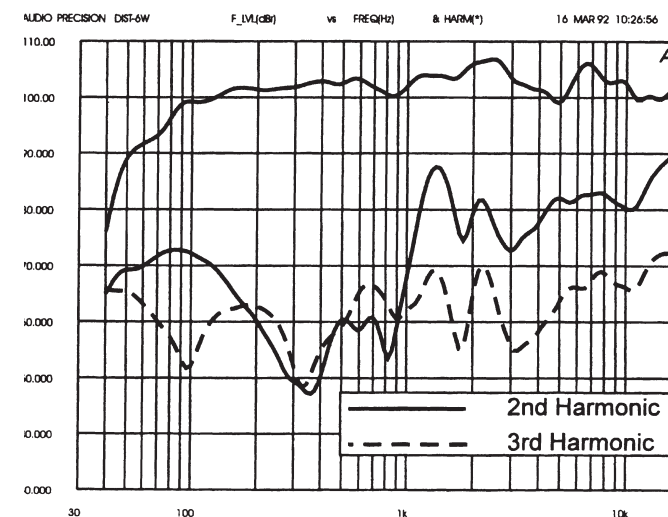
950-8B Impedance (log scale)



950-8B Beamwidth



950-8B Directivity



950-8B Harmonic Distortion
at 0.1 rated power (25W)²