

950-8B

950-32T

Duplex® Ceiling Loudspeaker System



COMMERCIAL

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.

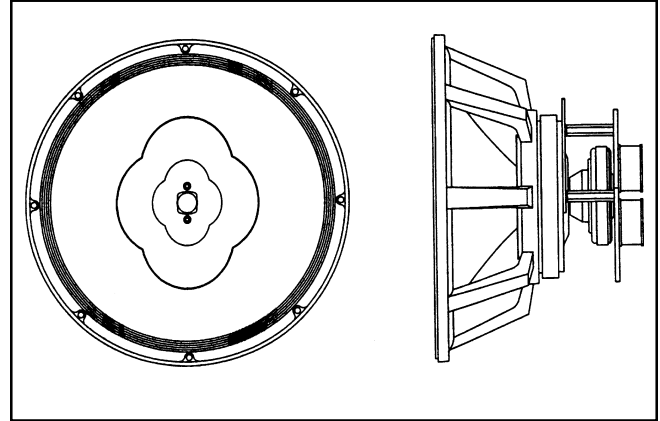
The **950-32T** utilizes a 15732 transformer to offer a selection of 4, 8, 16 and 32 watts to the loudspeaker system using either 70-V or 100-V lines.

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 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, $R_q(Q)$, 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 ft³)

h_o (half-space reference efficiency): 5.38%

V_D (peak displacement volume of diaphragm: $S_D \times X_{MAX}$): 0.368 liters (0.013 ft³)

S_{D_e} (effective diaphragm area): 0.369 m² (143.1 in.²)

X_{MAX} (peak linear displacement of diaphragm): 4.06 mm (0.16 in.)

R_q (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.)

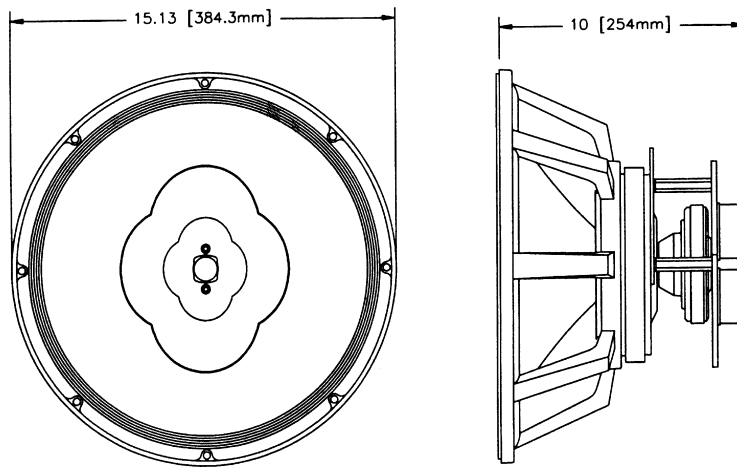
Depth: 254 mm (10 in.)

Net Weight: 10.7 kg (23.5 lb)

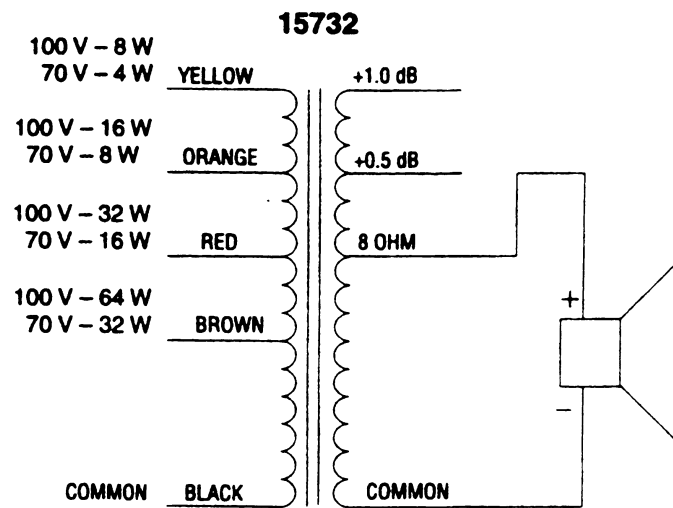
Shipping Weight: 13.8 kg (30.4 lb)

Finish: Gray

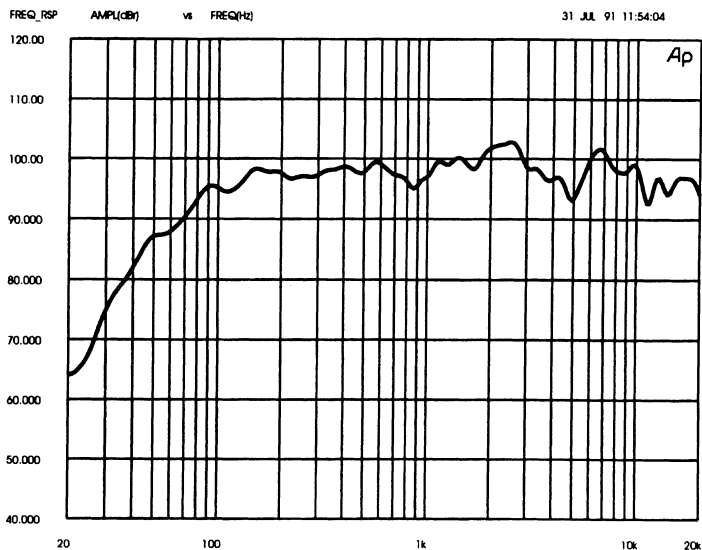
Electro-Voice®



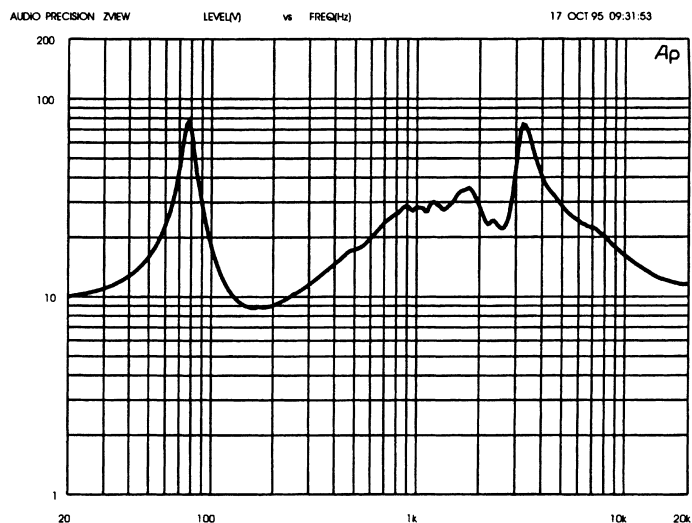
Dimensions



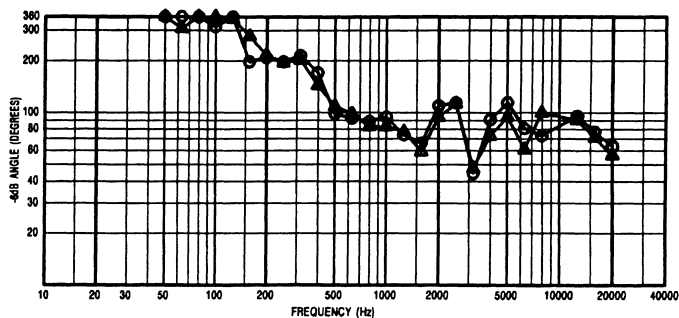
Wiring Diagrams



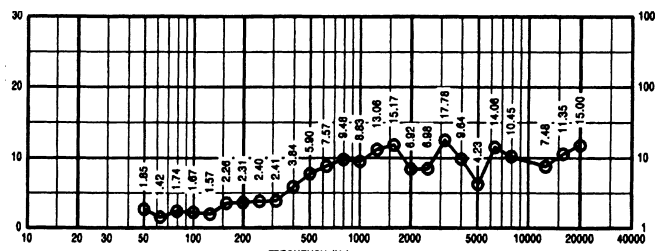
950-8B Frequency Response
(On axis, 1 watt/1 meter, anechoic environment)



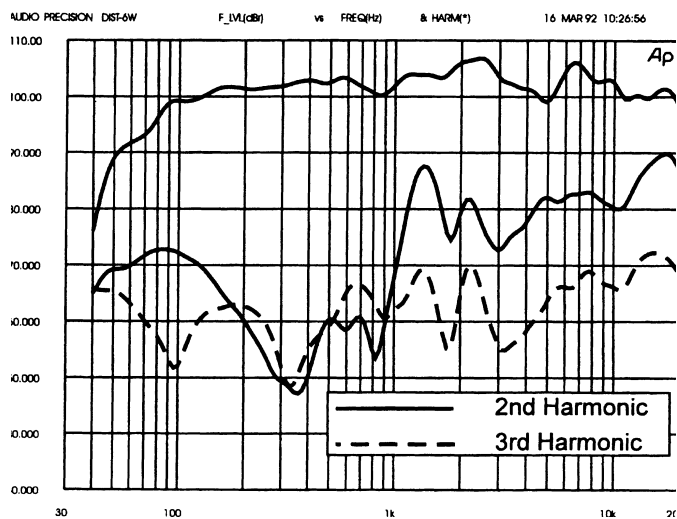
950-8B Impedance (log scale)



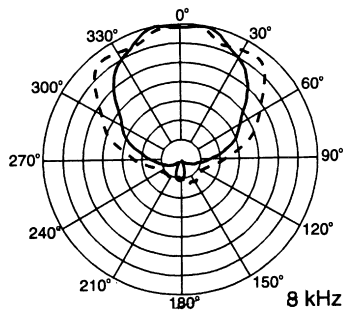
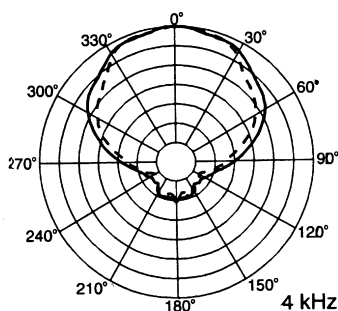
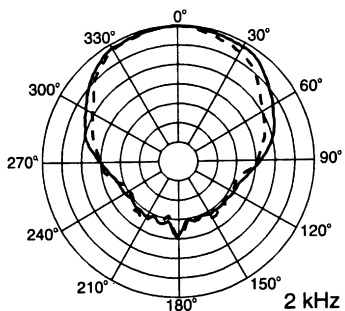
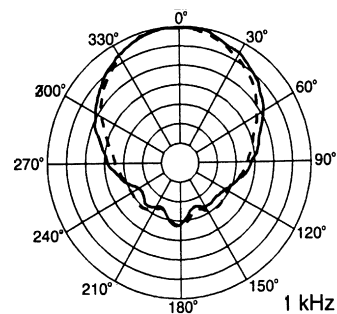
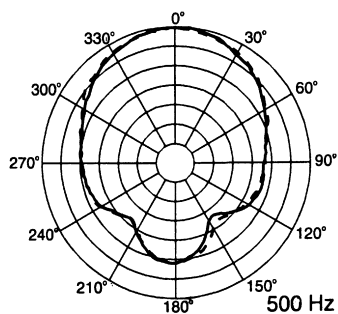
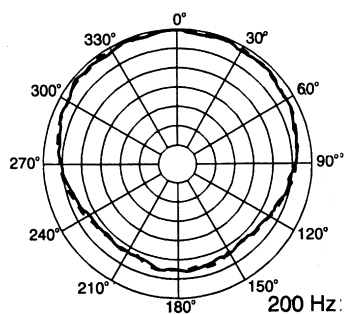
950-8B Beamwidth



950-8B Directivity



950-8B Harmonic Distortion
at 0.1 rated power (25W)⁵



Polar Response Charts

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
Switzerland Keltenstrasse 11, CH-2563 IPSACH, Switzerland, Phone: 41/32-331-6833, FAX: 41/32-331-1221
Germany Hirschberger Ring 45, D94315, Straubing, Germany, Phone: 49 9421-706 392, FAX: 49 9421-706 287
France Parc de Courcerin, Alle Lech Walesa, Lognes, 77185 Marne La Vallee, 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 2-5-60 Izumi, Suginami-ku, Tokyo, Japan 168, Phone: 81-3-3325-7900, FAX: 81-3-3325-7789
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. Mex. 53390, 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 12000 Portland Ave South, Burnsville, MN 55337, Phone: 952-887-7424, FAX: 952-887-9212
Latin America 12000 Portland Ave South, Burnsville, MN 55337, Phone: 952-887-7491, FAX: 952-887-9212

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Part Number 38109-929 Rev A



Electro-Voice®

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 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.