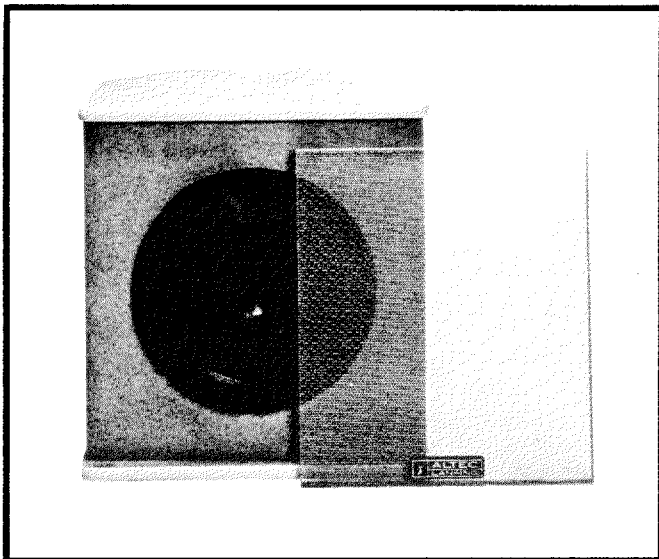




9850-8B 15" Duplex® Loudspeaker System



KEY FEATURES

- ★ High-Output Capability
- ★ Auto-Reset Circuit Breakers
- ★ Enclosure Allows Refinishing
- ★ Unique 5-Sided Enclosure

PRIMARY SPECIFICATIONS

System Type: Two-way, sealed-type full-range loudspeaker system.

Pressure Sensitivity: 98.0 dB SPL.
(1W, 60 Hz to 20 kHz,
re: 20 μ Pa, see note 1)

Frequency Response: 60 Hz to 20 kHz.
(see Figure 1, note 2)

Power Handling: 200 watts, AES method.
(60 Hz to 20 kHz, 400 watts, continuous program.
see note 3) 800 watts, peak power.

Maximum Output: 121 dB SPL, AES method.
(see note 4) 124 dB SPL, continuous program.
127 dB SPL, peak power.

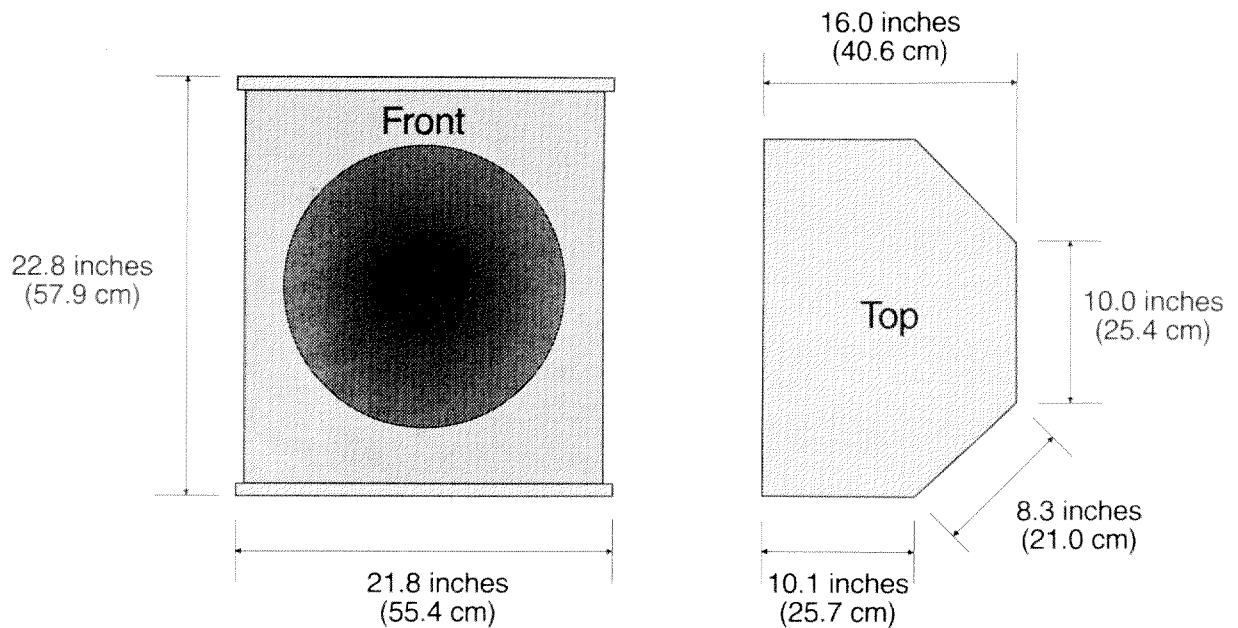
Impedance: 7.0 ohms minimum
8.0 ohms nominal.

DESCRIPTION

The Altec Lansing **9850-8B** loudspeaker is a two-way, factory assembled system. The system features a 15.0 inch (38.1 cm) Duplex® low frequency driver with a coaxially mounted 1.0 inch (2.5 cm) compression driver utilizing a 90° x 90° constant-directivity horn. Smooth transition at crossover is accomplished by a dual-section 12 dB/octave crossover network centered at 1.8 kHz. Both the L.F. and H.F. sections of the system are protected using a self-resetting protection circuit which will not allow the inexperienced user to damage the system's components. The enclosure is constructed of 0.75 inch (1.9 cm) Enviro-board™ covered in a new and unique wood-grained vinyl which can be painted or

stained to complement any interior. The enclosure is also supplied with a removable metal grille which is fastened to the front of the enclosure with four wood screws. Because of its compact size and unique cabinet design, it allows for easy and creative positioning to optimize dispersion patterns in difficult rooms. In addition, convenient tee-nut mounting points are provided to aid in hanging the system in a permanent installation.

The intended use of the **9850-8B** is in medium to large main sound reinforcement systems and would be ideal for houses of worship, audio-visual presentations, conference rooms or other acoustic environments.



9850-8B SPECIFICATIONS (continued)

Components:	15.0 inch (38.1 cm) duplex® loud-speaker with a coaxially mounted, 1.0 inch (2.5 cm) compression driver and rectangular coverage 90° by 90° horn.	Enclosure:	Sealed-type, built of 0.75 inch (1.9 cm) Enviro-board™ lined with glass wool.
Crossover Network:	Two-way at 1800 Hz with a 12 dB per octave slope for both sections. Self resetting protection circuits for both woofer and tweeter.	Finish:	Acousta-beige wood-grained vinyl with beige metal grille.
Input Terminals:	Two 1/4 inch phone jacks and screw terminals.	Dimensions:	Height: 22.8 in (57.9 cm). Width: 21.8 in (55.4 cm). Depth: 16.0 in (40.6 cm).
Replacement H.F. Diaphragm:	R950-8AHF.	Weight:	Net: 58.0 lbs (26.3 kg). Shipping: 65.0 lbs (29.5 kg).
Replacement L.F. Recone:	R950-8ALF.	Accessories:	Altec Lansing AMK-1 stand mount kit.
Replacement Grille:	Model RG9850B.		

Altec Lansing continually strives to improve products and performance. Therefore, specifications are subject to change without notice.

NOTES ON MEASUREMENT CONDITIONS

1. Pink noise signal, one Watt calculated using E^2/Z_{min} , 3.16 meter-measurement distance referred to one meter.
2. On-axis, one Watt calculated using E^2/Z_{min} , 3.16 meter-measurement distance referred to one meter, low frequencies corrected for anechoic chamber error.
3. This system rating patterned after the AES method for individual driver, where the test signal is pink noise with a 6 dB crest factor over the bandwidth of the system, with power calculated using the E^2/Z_{min} , for two hours.
4. This measurement made under the same conditions as Pressure Sensitivity, but at rated power, and takes into account any power compression effects due to non-linearities in the system.
5. Distortion components invalid above 10 kHz. The distortion at any given frequency may be found by graphically taking the difference between the fundamental and harmonic, and adding the number of Decibels which the harmonic has been raised on the graph and apply the formula:

$$\% \text{ distortion} = 100 \times 10^{(\text{difference in dB}/20)}$$

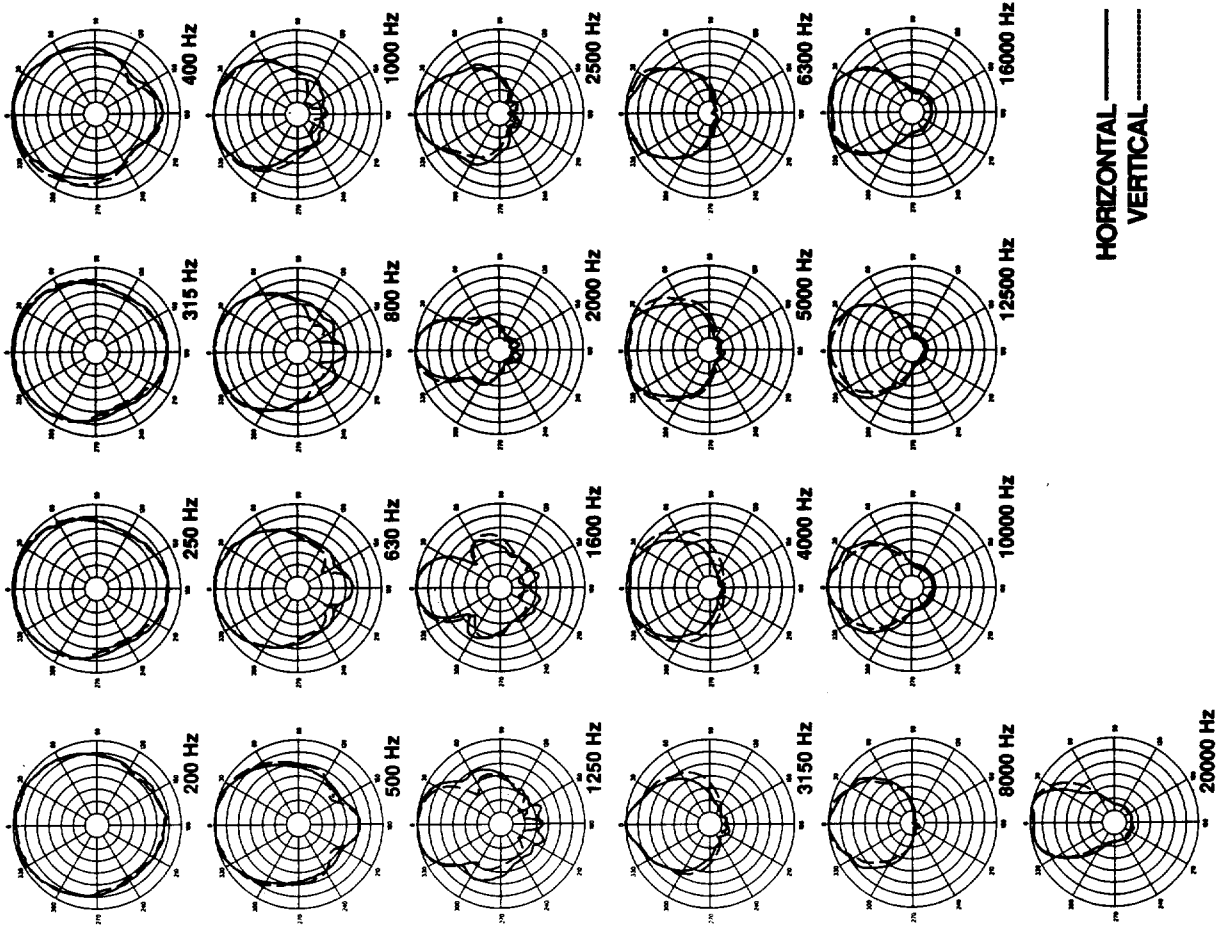


Figure 1 1/3-Octave Polar Response

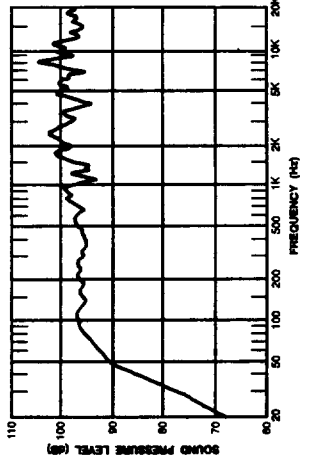


Figure 2. Frequency Response

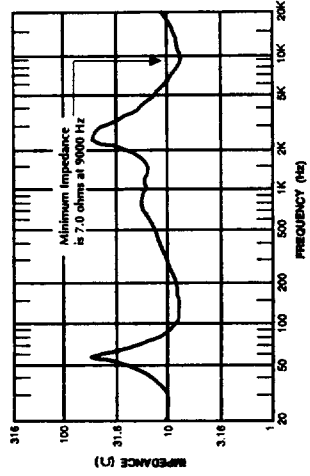


Figure 3. Dispersion Angle

Figure 4. Magnitude of Impedance

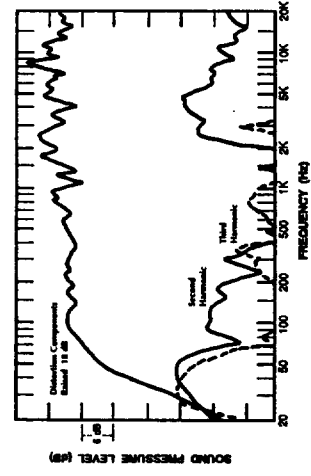


Figure 5. Q and Directivity Index

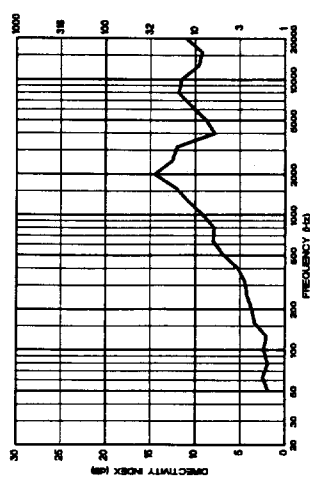


Figure 6. Harmonic Distortion at 0.01 Rated Power

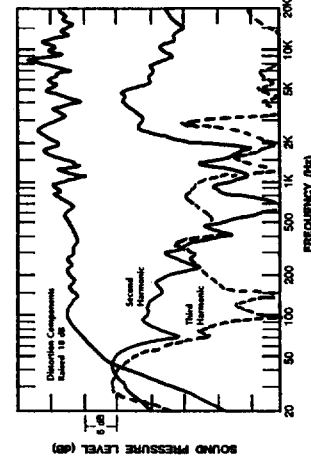
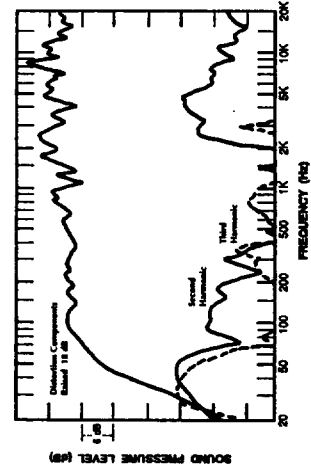
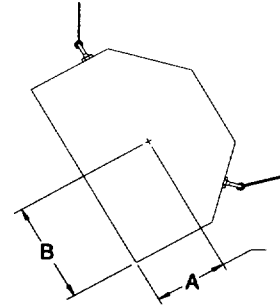
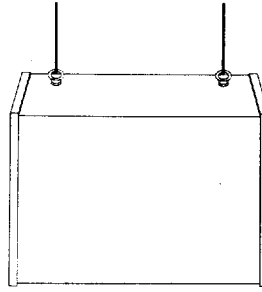


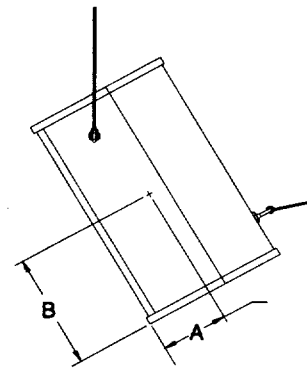
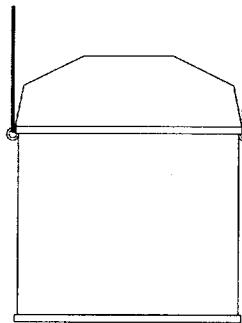
Figure 7. Harmonic Distortion at 0.1 Rated Power



(Horizontal)
Center of Gravity
 A: 8.5 inches (21.6 cm)
 B: 11.0 inches (27.9 cm)



(Vertical)
Center of Gravity
 A: 8.5 inches (21.6 cm)
 B: 11.5 inches (29.2 cm)



ARCHITECT'S AND ENGINEER'S SPECIFICATIONS

The loudspeaker system shall be a two-way multipurpose type consisting of a 15.0 inch (38.1 cm) duplex® loudspeaker with a coaxially mounted 1.0 inch (2.5 cm) compression driver loaded with a 90° by 90° constant-directivity horn. The dividing network is a dual-section type 12 db/octave slope on both L.F. and H.F. sections with a crossover center frequency of 1.8 kHz. The loudspeaker system shall meet the following performance criteria: Power handling, 200 watts of pink noise with 6 dB crest factor, band limited from 60 Hz to 20 kHz. Frequency response, smooth and uniformly usable from 60 Hz to 20 kHz. Pressure sensitivity, 98 dB spl when

measured at one meter on axis with one watt of band-limited pink noise from 60 Hz to 20 kHz. Minimum impedance, 7.0 ohms.

The enclosure shall be of the sealed-type, constructed of 0.75 inch (1.9 cm) Enviro-board™ lined with sound absorbent glass wool. The finish shall be a beige wood-grained vinyl that is paintable or stainable and shall have a beige metal grille. The dimensions shall be 22.8 inches (57.9 cm) high by 21.8 inches (55.4 cm) wide by 16.0 inches (40.6 cm) deep. The loudspeaker shall weigh 58.0 lbs (26.3 kg).

The loudspeaker system shall be the Altec Lansing 9850-8B.



a MARK IV company

P.O. BOX 26105 • OKLAHOMA CITY, OK 73126-0105 • U.S.A.

Phone: 405/324-5311 or FAX: 405/324-8981

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