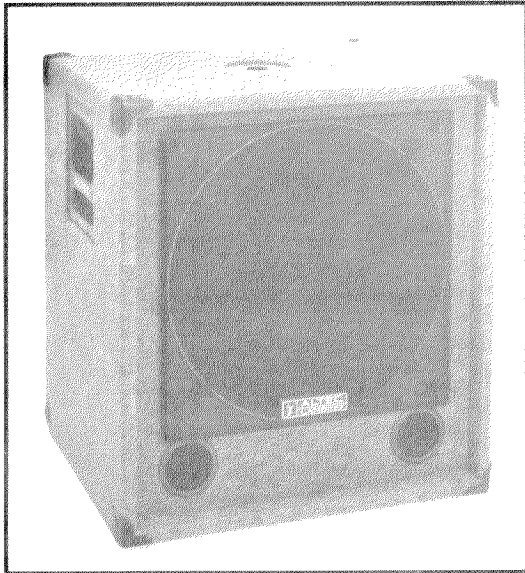




# PS-180 18" Subwoofer Portable Loudspeaker



## KEY FEATURES

- ★ Portable Subwoofer
- ★ High Power Handling
- ★ High Efficiency
- ★ Extended Response
- ★ Pole Mounting For Easy Suspension Of PS-Series Speakers

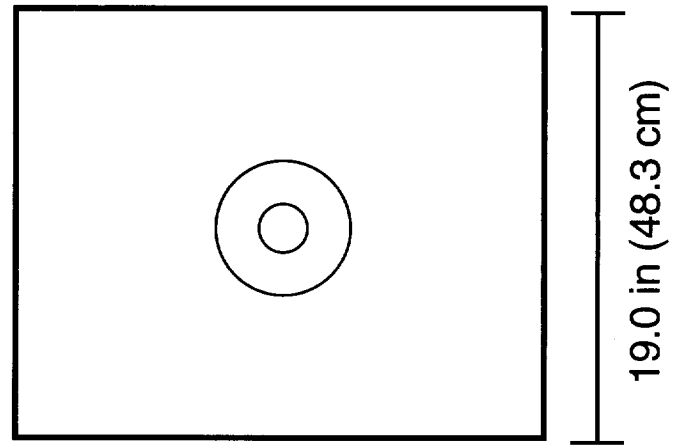
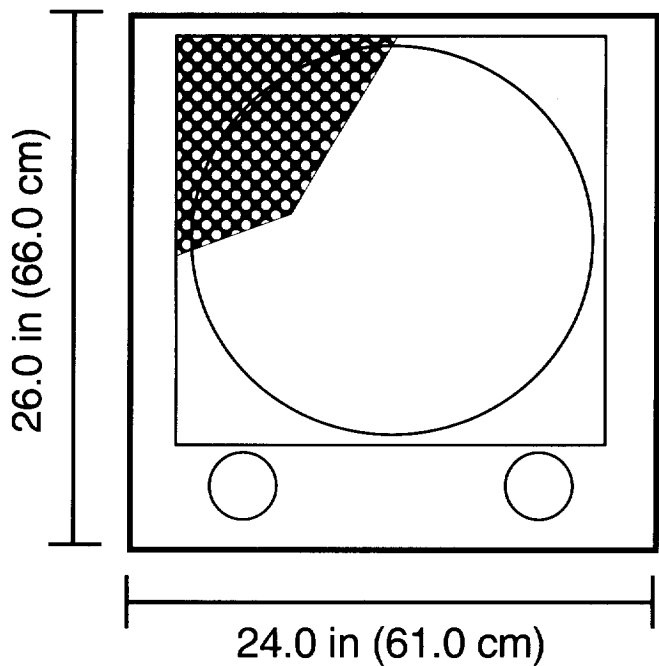
## DESCRIPTION

The **Altec Lansing PS-180** is a direct-radiating, vented design sub-woofer that provides high-efficiency, low distortion and excellent low-frequency performance in a relatively small enclosure. The **PS-180** employs a single long-throw 18 inch (45.7 cm) loudspeaker in a 5.1 ft<sup>3</sup> (144.4 L) enclosure. The enclosures may be stacked for greater output capability or for a narrower vertical beam-width. Every time the number is doubled, approximately 6 dB in output is gained (3 dB for double power handling and 3 dB for the resultant higher Q). Connections are made via 1/4 inch phone jacks or Neutrik Speakon connectors. The enclosure is constructed from 0.75 inch (1.9 cm) orientated strand board, braced appropriately and lined with glass wool. It is covered with a protective light gray

KEY SPECIFICATIONS	
<b>System type:</b>	Direct radiating, vented, low-frequency loudspeaker system.
<b>Pressure Sensitivity:</b> (1 watt, 50 Hz - 200 Hz, re: 20 $\mu$ Pa, see note 1.)	95 dB SPL.
<b>Frequency Response:</b> (see Figure 2, note 2.)	50 Hz - 4,000 Hz.
<b>Power Handling:</b> (50 Hz - 500 Hz, see note 3)	400 watts, AES method. 800 watts, continuous program. 1600 watts, peak power.
<b>Maximum Output:</b> (400 watts input, 1 m, re: 20 $\mu$ Pa, see note 4.)	123.7 dB SPL, AES method. 126.7 dB SPL, continuous program. 129.7 dB SPL, peak power.
<b>Impedance:</b>	8.0 ohms minimum @ 200 Hz. 8.0 ohms nominal.

carpet that is more durable than conventional coverings. The enclosure also features a removable black metal grille which adds to the durability. Inset handles on either side of the unit allow for easy transportation. A pole-mount is factory-installed for suspending PS-series loudspeakers.

The **PS-180** is intended for use as a sub-woofer and can be combined with any Altec Lansing full-range system where additional low-frequency augmentation may be desired. The **PS-180** is ideally suited for any installation where flexible, portable, high-quality low-frequency sound reinforcement is required such as houses of worship, auditoriums, hotels and conference centers, and in rental systems.



**TOP VIEW**

## PS-180 SPECIFICATIONS (continued)

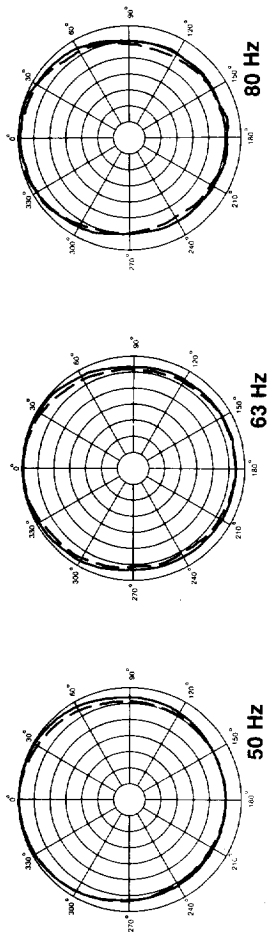
<b>Crossover Frequency:</b>	125 Hz recommended.	<b>Finish:</b>	Light gray carpet covering with black metal grille.
<b>Components:</b>	One 18 inch (45.7 cm) low-frequency loudspeaker.	<b>Pole Mounting Diameter:</b>	1.38 inches (3.49 cm)
<b>Input Terminals:</b>	Two 1/4 inch phone jacks and two Neutrik Speakon connectors.	<b>Dimensions:</b>	26.0 inches (66.0 cm) high. 24.0 inches (61.0 cm) wide. 19.0 inches (48.3 cm) depth.
<b>Recone Kit:</b>	Model R9880.	<b>Net Weight:</b>	72.0 lbs (32.7 kg).
<b>Replacement Grille:</b>	Model RG9880.	<b>Shipping Weight:</b>	80.0 lbs (36.3 kg).
<b>Enclosure:</b>	Vented design for optimum response. Constructed of 0.75 inch (1.9 cm) orientated strand board with appropriate bracing, lined with glass wool. Handles are mounted on either side of the cabinet, and a stand mount is fastened on the top.		

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

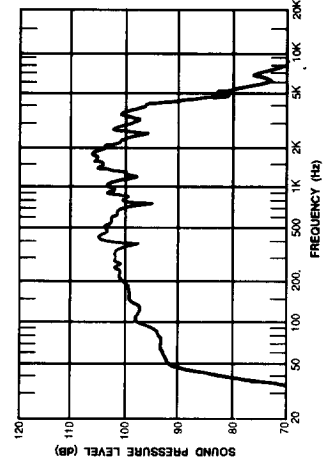
## NOTES ON MEASUREMENT CONDITIONS

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:

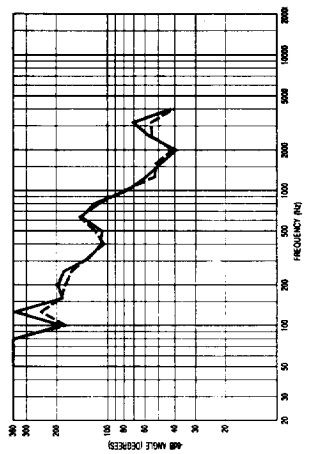
$$\% \text{ distortion} = 100 \times 10^{(\text{difference in dB}/20)}$$



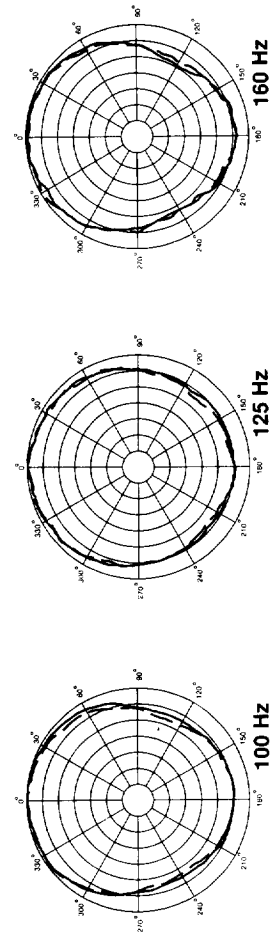
**Figure 1 1/3-Octave Polar Response**



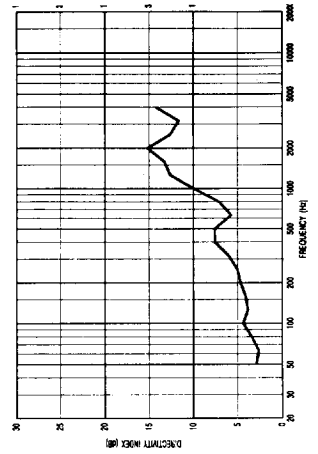
**Figure 2 Frequency Response**



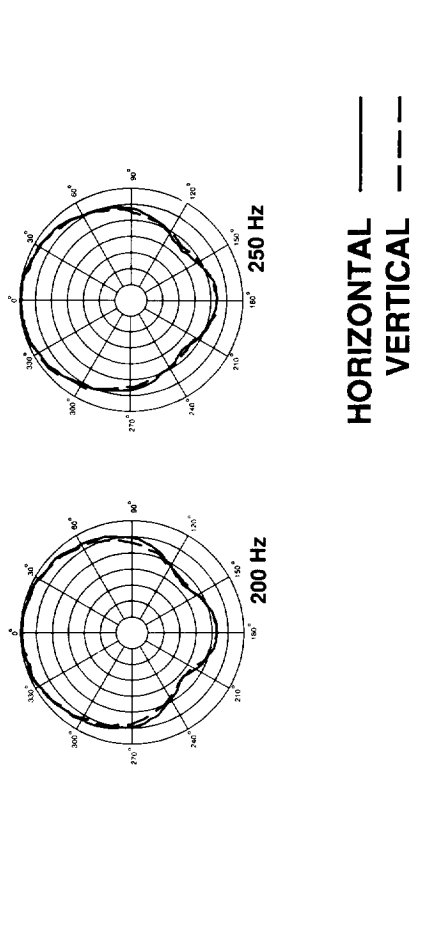
**Figure 3 Dispersion Angle**



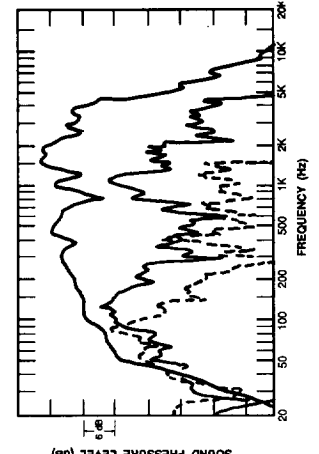
**Figure 4 Magnitude of Impedance**



**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 —  
VERTICAL - - -

## ARCHITECT'S AND ENGINEER'S SPECIFICATIONS

The loudspeaker shall be a low-frequency, bass reflex design, consisting of a single long-throw, high-efficiency 18 inch (45.7 cm) woofer front mounted in a 5.1 ft<sup>3</sup> (144.4 L) enclosure. The loudspeaker shall meet the following design criteria: Power handling, 400 Watts of pink noise with 6 dB crest factor, band width limited from 50 Hz to 500 Hz. Frequency response, smooth and uniformly usable at high output levels from 50 Hz to 4,000 Hz. Pressure sensitivity, 95 dB SPL at one watt, 50 Hz to 200 Hz, measured at a distance of one meter on axis. Impedance 8 ohms nominal, 8 ohms minimum. Directivity pattern shall be 190° horizontal by 180° vertical at 200 Hz. The inputs shall be two 1/4 inch phone jacks and two

Neutrik Speakon connectors.

The enclosure shall be constructed from 0.75 inch orientated strand board and damped with sound absorbing glass wool. The enclosure shall be covered with a gray carpet and feature a black metal grille. There shall be inset handles on either side of the cabinet and a stand mount fastened to the top. The dimensions shall be 26 inches high (66.0 cm) by 24 inches (61.0 cm) wide by 19 inches (48.3 cm) deep. The loudspeaker system shall weigh 72.0 lbs (32.7 kg).

The low-frequency loudspeaker system shall be the Altec Lansing PS-180.



a MARK IV company

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