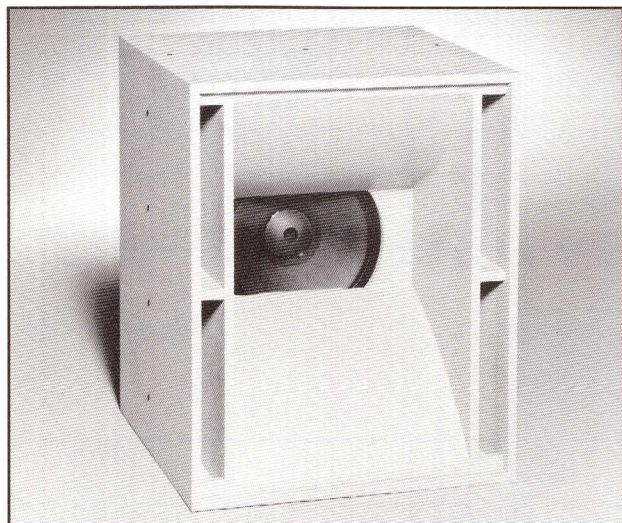




# 816VIX Horn Loaded Low Frequency Enclosure



## KEY FEATURES

- ★ Vented Bass Horn
- ★ Superior Low-Frequency Directivity Control
- ★ High Output Capability

The Altec Lansing **816VIX** combines the control and sensitivity of a horn with the low frequency performance of a bass reflex enclosure. When used with a 515-G series driver you can expect high level output and excellent directivity control down to 200 Hz. The nominal coverage at 500Hz is 80° horizontal by 60° vertical. The bass-reflex porting extends the low frequency response to below 65 Hz, or lower if multiple units are used. This highly efficient low frequency enclosure is ideal for sound reinforcement and musical reproduction in houses of worship, auditoriums, hotels and civic centers. Threaded mounting points are provided on the sides, top and bottom of the enclosure to conveniently attach the appropriate Altec Lansing suspension kit. The system may then be easily hung

## PRIMARY SPECIFICATIONS

- System Type:** Vented bass horn type low-frequency loudspeaker enclosure.
- Pressure sensitivity:** 515-8G (102dB)  
515-8GHP (103.5dB)  
515-16G (103dB)  
Band-limited pink-noise  
100Hz-1kHz.  
(1W, 100Hz - 1kHz,  
re:20 $\mu$ Pa, see note 1).
- Frequency Response:** 65 Hz - 3 kHz  
(see Figure 1, Note 2)
- Power Handling:** 515-8G, 515-8GHP, 515-16G
- AES method (see note 2):** 75 watts 200 watts 75 watts
- Continuous program (see note 3):** 150 watts 400 watts 150 watts
- Peak power. (see note 4):** 300 watts 800 watts 300 watts

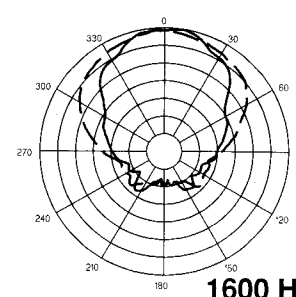
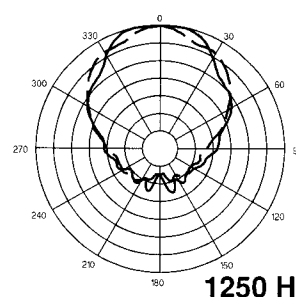
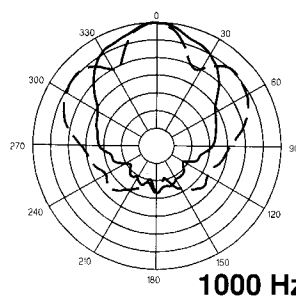
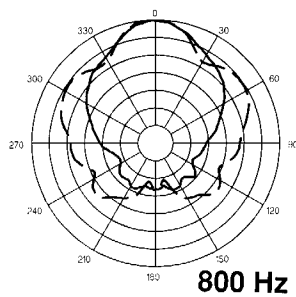
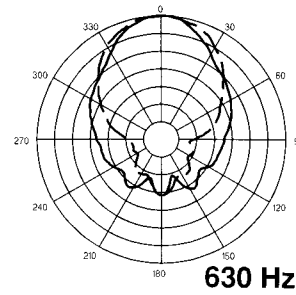
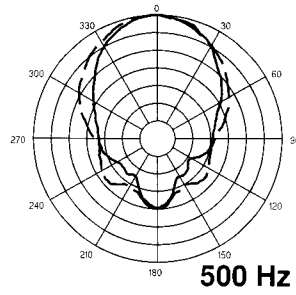
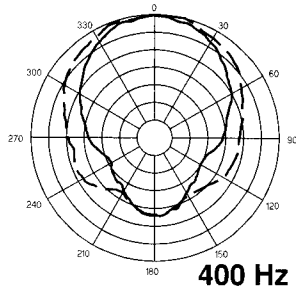
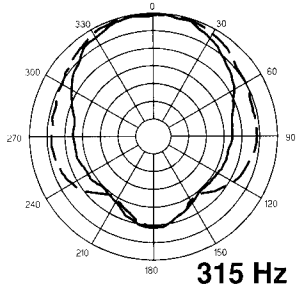
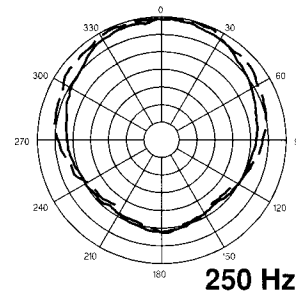
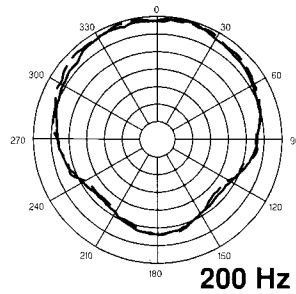
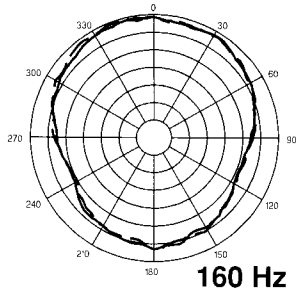
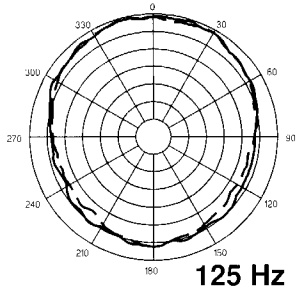
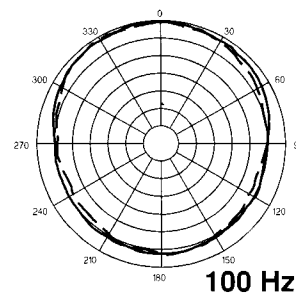
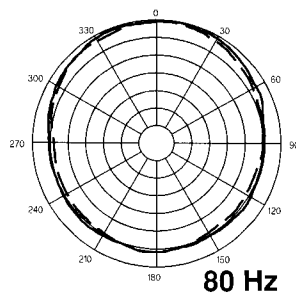
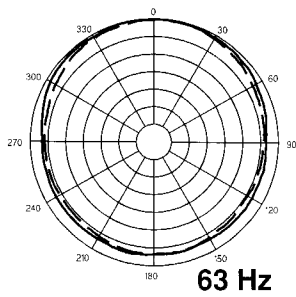
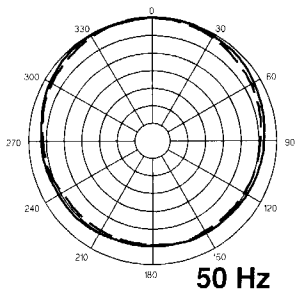
## DESCRIPTION

as a single unit or as a part of a loudspeaker cluster.

A factory installed input connection plate with large screw terminals able to accept up to 10 gauge wire is provided. The finish is texture painted Acousta-beige and includes a matching beige cloth grille that is fastened to the enclosure with six screws. The **816VIX** is constructed of thoroughly braced 3/4-inch (1.9 cm) 7-ply birch plywood and lined with sound absorbent glass wool. When the **816VIX** is used in conjunction with other Altec Lansing horns and loudspeakers, it offers the user a predictable, well behaved coverage at crossover while assuring smooth frequency response and low distortion at all sound pressure levels.

## 816VIX Specifications (continued)

<b>Impedance:</b>	515-8G 8-ohms (7-ohms minimum) 515-8GHP 8-ohms (7-ohms minimum) 515-16G 16-ohms (14-ohms minimum)	<b>Dimensions:</b>	31.5in (80.0cm) high 25.3in (64.3cm) wide 25.5in (64.8cm) deep
<b>Directivity:</b>	80° horizontal by 60° vertical at 500Hz.	<b>Net Weight:</b>	80.0 lbs (36.4 kg)
<b>Crossover Frequency:</b>	2500Hz maximum	<b>Shipping Weight:</b>	88.0 lbs (40.0 kg)
<b>Input Terminals:</b>	Large screw terminals	<b>Finish:</b>	Acousta-beige, texture finish, polyurethane paint, beige grille cloth.
<b>Replacement Grille:</b>	Model RG816VI	<b>Accessories:</b>	Altec Lansing 816VI-SK suspension kit, N1285-8B passive network. Altec Lansing 515-8G, 515-GHP and 515-16G low-frequency drivers. In special applications the Altec 3156 may be used.
<b>Enclosure:</b>	Vented bass horn type, built of 3/4 - inch (1.9cm) birch plywood with appropriate bracing, lined with glass wool. Includes mounting points for accessory 816VI-SK suspension kit.		



**HORIZONTAL** ———  
**VERTICAL** - - - - -

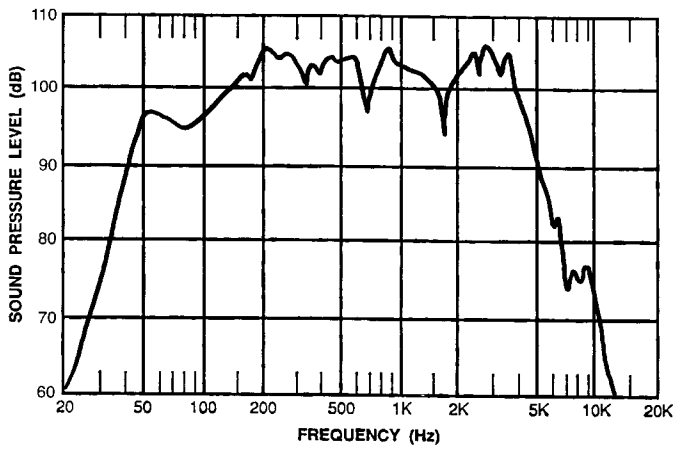


Figure 2. Frequency Response

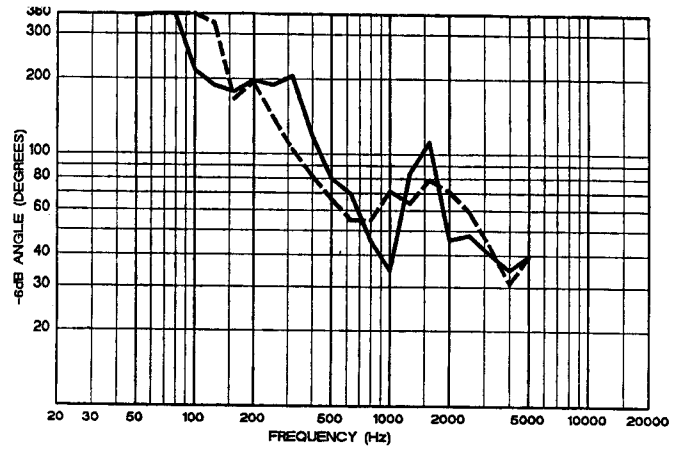


Figure 3. Dispersion Angle

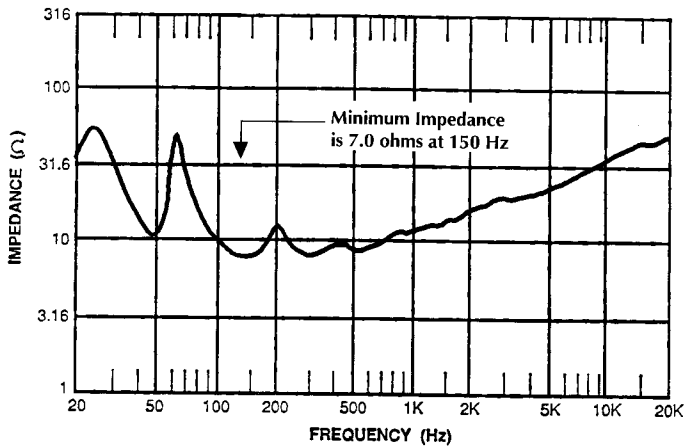


Figure 4. Magnitude of Impedance

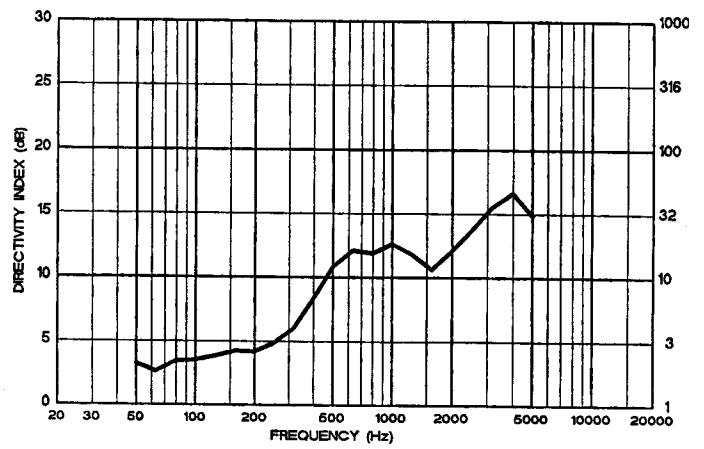


Figure 5. Q and Directivity Index

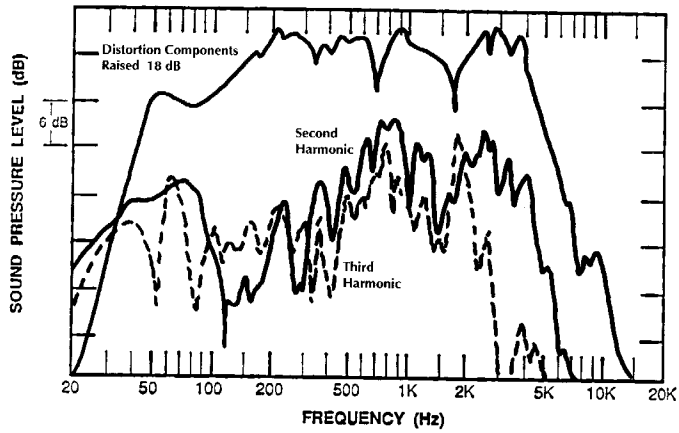


Figure 6. Harmonic Distortion at 0.01 Rated Power

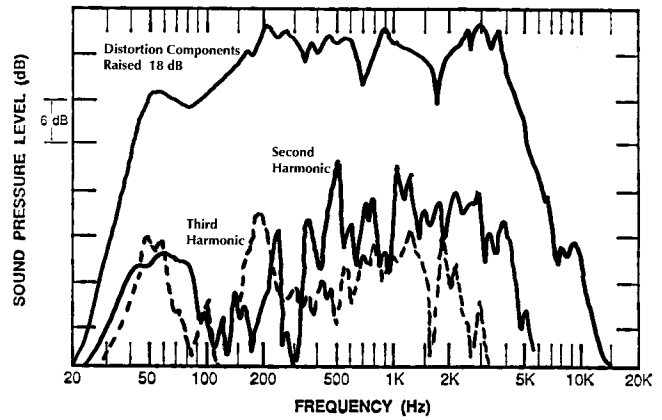
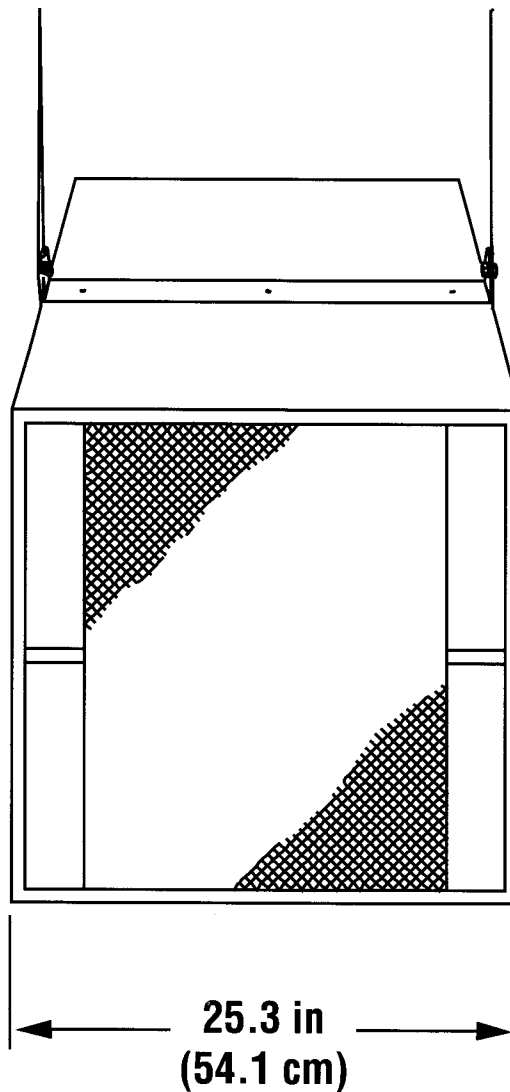


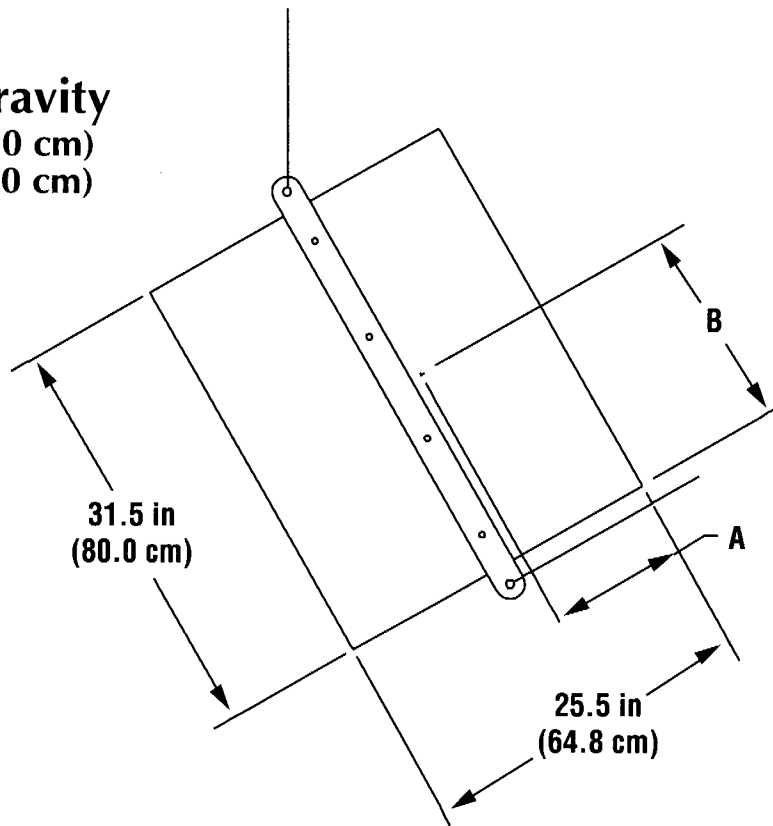
Figure 7. Harmonic Distortion at 0.1 Rated Power



## 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. This system rating patterned after the A.E.S. method for individual driver, where the rest signal is pink noise with a 6dB crest factor over the bandwidth of the system with power calculated using the  $E^2/Z_{min}$ , for two hours.
3. Continuous program is defined as 3dB greater than the AES power rating.
4. Peak power is defined as 6dB greater than the AES power rating and equivalent to the crest factor used in this test.

**816VIX**  
**Center Of Gravity**  
**A: 10.3 in (26.0 cm)**  
**B: 15.8 in (40.0 cm)**



**ARCHITECT'S AND ENGINEER'S SPECIFICATIONS**

The low-frequency loudspeaker enclosure shall be a combination front-loaded horn and bass reflex type providing for a 16-inch (40.6cm) low frequency driver. The loudspeaker shall meet the following performance criteria. Power handling, \_\_\_ watts of pink noise with 6 dB crest factor, band limited from \_\_\_ Hz-\_\_\_ kHz with Altec model\_\_\_ L.F. speaker. Frequency response, 65Hz - 3kHz with Altec model\_\_\_ L.F. speaker. Pressure sensitivity, \_\_\_ dB at one watt, \_\_\_ Hz-\_\_\_ kHz, at one meter on axis with Altec model\_\_\_ L.F. speaker. Impedance, \_ ohms minimum with Altec model\_\_\_L.F. speaker. The horn directivity pattern shall be

80° horizontally by 60° vertically at 500Hz. The enclosure shall be constructed of 3/4-inch (1.9cm) 7-ply birch plywood and shall be heavily braced and lined with sound absorbent glass wool. The finish of the enclosure shall be texture painted Acousta-beige, a removable grille shall be provided. The dimensions of the enclosure shall be 31.5-inches (80cm) high by 25.3-inches (64.3cm) wide by 25.5-inches (64.8cm) deep. The loudspeaker system shall weigh 80.0 lbs (36.4 kg).

The loudspeaker enclosure shall be the Altec Lansing **816VIX**.



a MARK IV company

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