

# SP212-9 Two-Way Full Range Loudspeaker System For Permanent Installation

## Sound Power Series

### Key Features:

- ▶ VGC (Vented Gap Cooled™) LF transducer
- ▶ Optimized Aperture HF horn with 1.5" exit compression driver
- ▶ Unique enclosure profile for multiple applications
- ▶ DuraFlex finish, tough, weather resistant and paintable
- ▶ Internal tamper resistant Bi-Amped/Passive selector
- ▶ 12 Suspension points (M10 Thread)
- ▶ Advanced Network Topologies for smooth power response and stable amplifier loading

The model SP212-9 is a true, full range system that provides unprecedented bandwidth and maximum SPL in a single system package. With nominal 90° coverage pattern, systems can be splayed together for additional coverage and/or SPL requirements. The powerful 12" VGC (Vented Gap Cooled™) LF transducer provides powerful transient bass. The proven Optimized Aperture™ HF horn coupled to a 2447J, 1.5" exit compression driver delivers a precise, clear and controlled high frequency response.

The SP212-9 is equipped with a passive crossover that can be switched to bi-amplified use via an easily accessible internal tamper resistant selector. Bi-amplified mode, utilizing the DSC260 digital controller for crossover, signal alignment, and equalization functions, provides optimum system performance.

The SP212-9 is part of the JBL Sound Power Series, a family of modular loudspeaker systems designed for fixed installation applications ranging from speech reinforcement to large scale music productions. All models are fitted with suspension points that accept M10 threads. The enclosures are finished with a hard wearing, weather resistant, textured finish DuraFlex. Premium 13 ply wood and an 18 gauge steel, foam-backed grille enable Sound Power systems to comply with environment test specifications.

### Components:

The SP212-9 utilizes one of JBL's finest cone transducers, the 2206H. The 12" 2206H is part of JBL's family of Vented Gap Cooled woofers and carries an AES power rating of 600 watts with minimal power compression. The cone has been treated for weather resistance.

The 38mm (1.5 in) exit 2447J large format compression driver is coupled to an Optimized Aperture Bi-Radial® horn providing smooth even coverage. The Optimized Aperture horn provides lower throat distortion than its earlier predecessors while extending frequency response to nearly 20 kHz.



### Specifications:

#### System:

Freq. Range (-10 dB):	37 Hz - 20 kHz
Freq. Response (-3 dB):	60 Hz - 18 kHz
Horz. Coverage Angle (-6 dB):	95° averaged 500 Hz to 16 kHz
Vert. Coverage Angle (-6 dB):	70° averaged 500 Hz to 16 kHz
Directivity Factor (Q):	9.0 averaged 500 Hz to 16 kHz
Directivity Index (DI):	9 dB averaged 500 Hz to 16 kHz
System Sensitivity <sup>1</sup> :	95 dB, 1 W @ 1 m (3.3 ft)
Rated Maximum SPL:	129 dB, @ 1 m (3.3 ft)
System Nominal Impedance:	8 Ohms
System Input Power Rating <sup>2</sup> :	600 W, IEC; 2400 W Peak
Recommended Amplifier <sup>3</sup> :	800 W
Recommended Controller:	DSC260
Passive Crossover:	1.2 kHz

#### Transducers:

<b>Low Frequency:</b>	2206H, 300 mm (12 in) dia., 100 mm (4 in) edgewound ribbon voice coil
Nominal Impedance:	8 Ohms
Input Power Rating:	600 W, AES; 2400 W Peak
Sensitivity <sup>1</sup> :	95 dB, 1 W, @ 1 m (3.3 ft)
Calculated Maximum SPL:	129 dB, @ 1 m (3.3 ft)
Recommended Amplifier <sup>3</sup> :	800 W
<b>High Frequency:</b>	2447J; 100 mm (4") diaphragm and voice coil dia., 76 mm (1.5") throat dia.
Nominal Impedance:	16 Ohms
Input Power Rating:	75 W, AES; 300 W Peak
Sensitivity <sup>1</sup> :	111 dB, 1 W, @ 1 m (3.3 ft)
Calculated Maximum SPL:	136 dB, @ 1 m (3.3 ft)
Recommended Amplifier <sup>3</sup> :	200 W

#### Physical:

<b>Enclosure:</b>	Asymmetrical, 47° and 67° side angles, birch plywood
<b>Environmental Specifications:</b>	Mil-Std 810, IPX4 per IEC 529
<b>Suspension Attachment:</b>	12 points; accepts M10 threaded hardware
<b>Finish:</b>	Black DuraFlex coating
<b>Grille:</b>	Black powder coated zinc treated 18 gauge perforated steel grille with foam backing
<b>Input Connectors:</b>	2 x NL4 Neutrik Speakon connectors
<b>Dimensions:</b>	585 mm x 387 mm x 403 mm (23.05 in x 15.25 in x 15.87 in)
<b>Net Weight:</b>	31.8 kg (70 lbs.)

<sup>1</sup>Measured on axis in the far field with 1 watt (2.83 V RMS, 8 ohms) input and referenced to 1 meter distance using the inverse square law. Listed sound pressure represents an average from 300 Hz to 16 kHz.

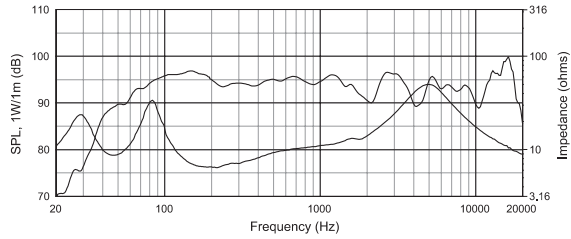
<sup>2</sup>IEC Spectrum for 2 hours with +6 dB crest factor.

<sup>3</sup>Recommended Amplifier is a power capability value that should be taken as a guide.

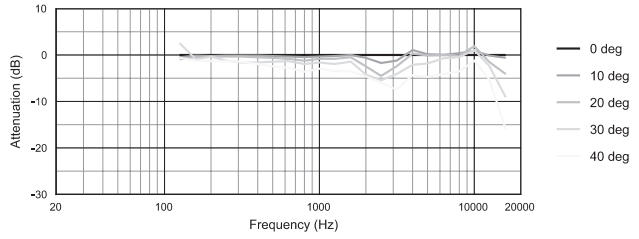
JBL continually engages in research related to product improvement. New materials, production methods, and design refinements are introduced into existing products without notice as a routine expression of that philosophy. For this reason, any current JBL product may differ in some respect from its published description, but will always equal or exceed the original design specifications unless otherwise stated.

# SP212-9 2 way System

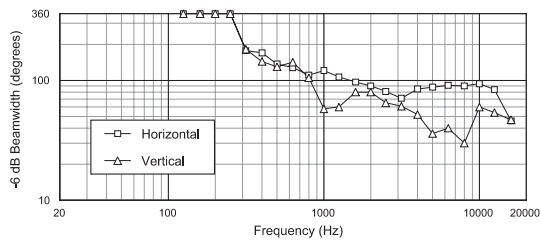
Frequency Response is measured on-axis at a distance referenced to 1 meter at 1 watt (2.83 V rms) input, shown as a half-space ( $2\pi$ ) environment.



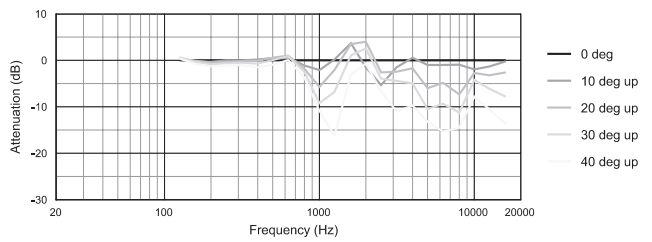
Horizontal Off Axis Frequency Response



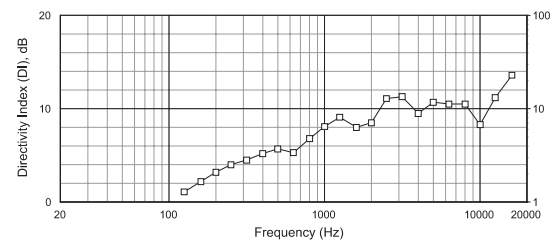
Beamwidth vs. Frequency



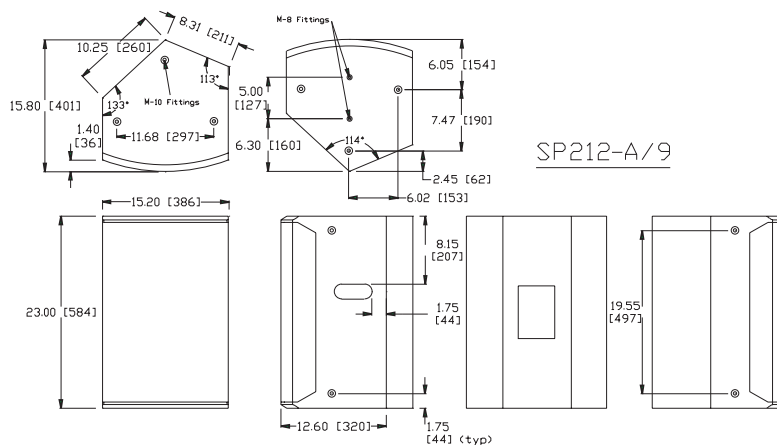
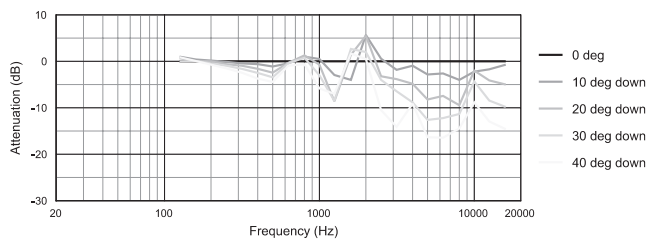
Vertical Off Axis Frequency Response (up)



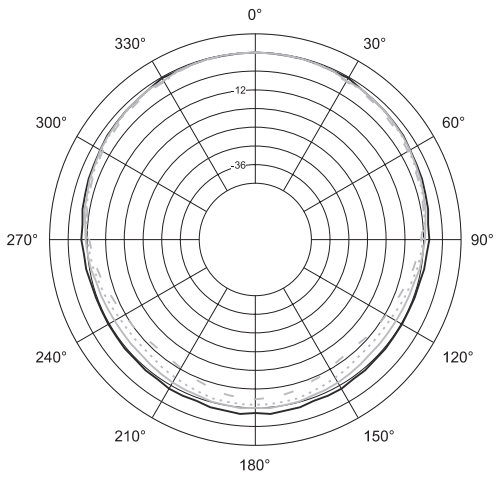
Directivity vs. Frequency



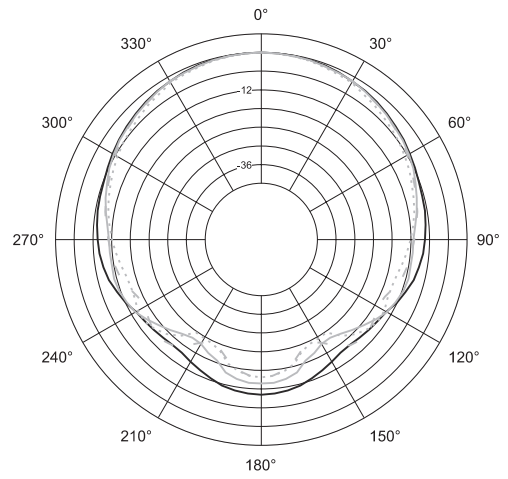
Vertical Off Axis Frequency Response (down)



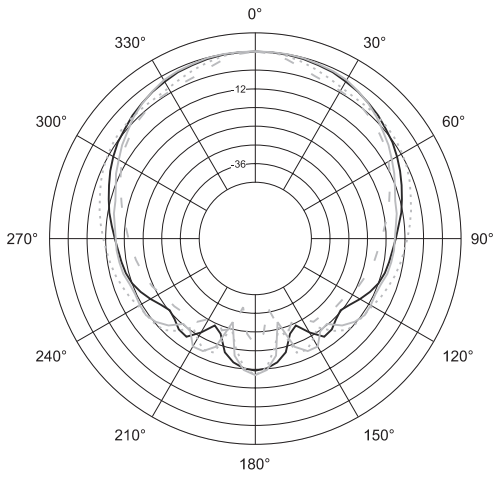
## Horizontal 1/3 Octave Polars



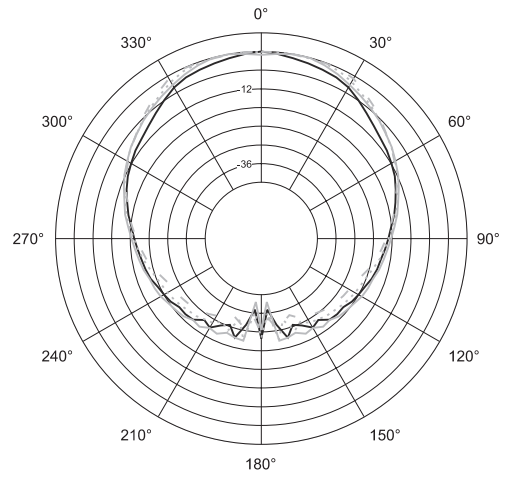
— 200Hz  
— 250Hz  
- - - 315Hz  
- - - 400Hz



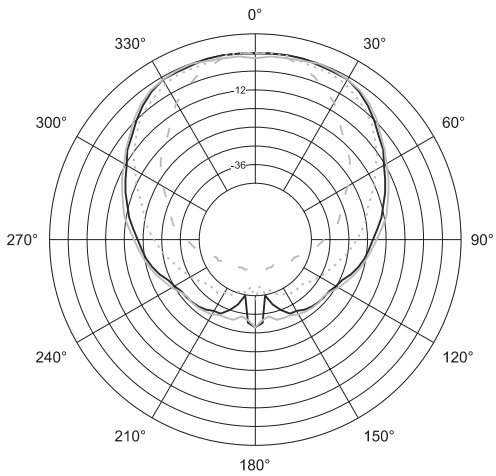
— 500Hz  
— 630Hz  
- - - 800Hz  
- - - 1kHz



— 1.25kHz  
— 1.6kHz  
- - - 2kHz  
- - - 2.5kHz



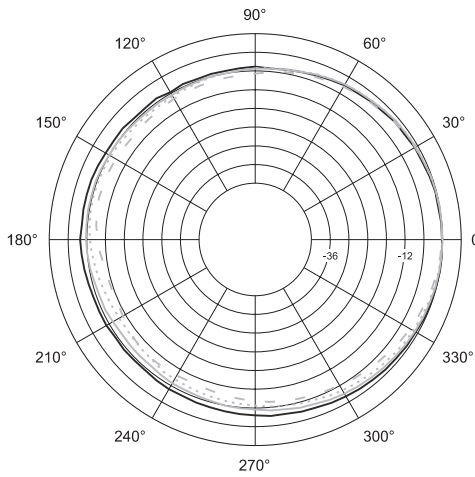
— 3.15kHz  
— 4kHz  
- - - 5kHz  
- - - 6.3kHz



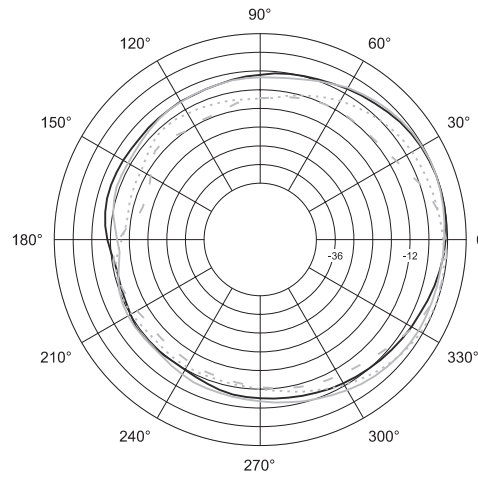
— 8kHz  
— 10kHz  
- - - 12.5kHz  
- - - 16kHz

# ▶ SP212-9 2 way System

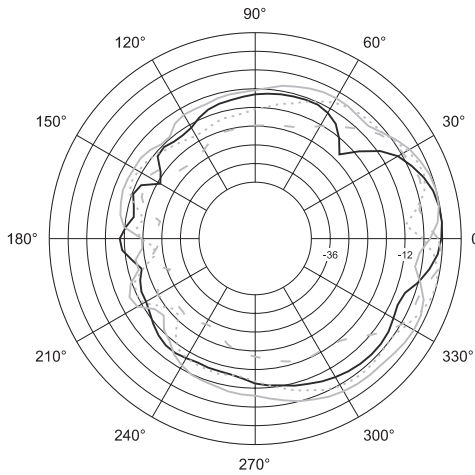
## Vertical 1/3 Octave Polars



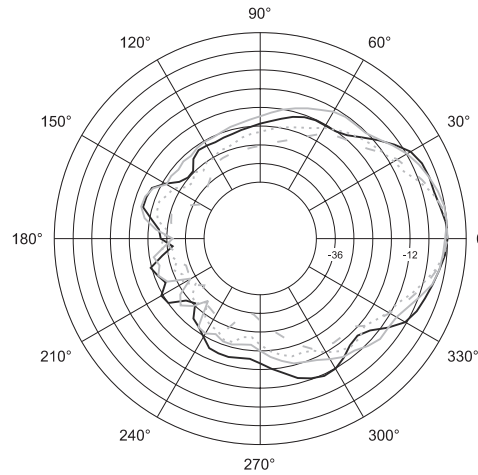
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- 250Hz
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- - - 400Hz



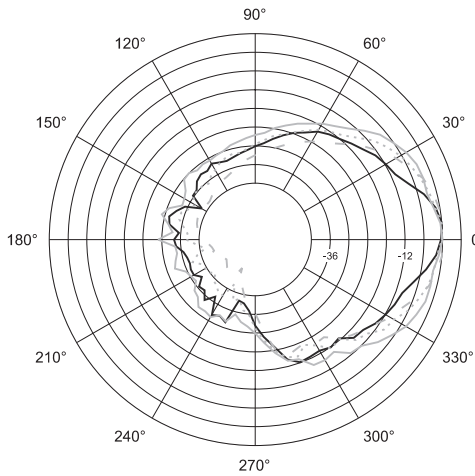
- 500Hz
- 630Hz
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- 1.25kHz
- 1.6kHz
- 2kHz
- - - 2.5kHz



- 3.15kHz
- 4kHz
- 5kHz
- - - 6.3kHz



- 8kHz
- 10kHz
- 12.5kHz
- - - 16kHz



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