FEATURES
• Designed for extraordinary performance in large venues
• Large format, horn-loaded triaxial array maintains pattern control to 400 Hz
• Colinear manifold for HF and MF beamforming
• Indoor or Outdoor weather-resistant models
• EN54-24 and ISO 7240-24 certification

TECHNICAL SPECIFICATIONS

Operating Mode
Multi-Amplifier with FIR DSP Beamforming

Operating Environment
Indoor or Outdoor Direct Exposure

Nominal Beamwidth
Horizontal: 60°
Vertical: 60°, 40°, 20° Symmetrical (user selectable presets)

Nominal Continuous Power Handling
LF (per pair) 87 V (950 W, 8 Ω)
MF 1 | MF 2 26 V (130 W, 5 Ω) | 65 W, 10 Ω
HF (per pair) 23 V, (65 W, 8 Ω)

Nominal Maximum SPL (Processed)

20° pattern 136 dB continuous 142 dB peak
40° pattern 136 dB continuous 142 dB peak
60° pattern 136 dB continuous 142 dB peak

Rated Continuous Voltage
LF 50.1 V (34 dBV)
MF 20.0 V (26 dBV)
HF 15.8 V (24 dBV)

Rated Maximum SPL (Processed)

20° pattern 131 dB continuous 143 dB peak
40° pattern 131 dB continuous 143 dB peak
60° pattern 131 dB continuous 143 dB peak

Recommended Amplifiers
LF & HF: 4 Channels ALC-404D

Crossover Frequencies
530 Hz, 1.84 kHz

PHYSICAL

Input Connection
Lever-actuated wire clamping 4 and 8-position terminal blocks

Mounting Points
(24) M10 rigging inserts

Operation Environment
Indoor and Outdoor
Outdoor: IP56 per IEC 60529 when used with the input panel and seal cup cover plates; Weather resistant to IEC 60068-2-1 Cold, IEC 60068-2-2 Dry Heat, IEC 60068-2-6 Vibration, IEC 60068-2-30 Damp Heat, cyclic, IEC 60068-2-42 S02, and IEC 60068-2-78 Damp Heat, steady state

Dimensions H x W x D
948 mm x 797 mm x 775 mm (37.3” x 31.4” x 30.5”)

Weight
113.4 kg (250 lbs) Indoor model
95.3 kg (210 lbs) Outdoor weather-resistant model

Finish
Refer to the Technical Drawing (page 5)

OPTIONS

Accessories
Splay Bracket: LVH-900SP1 Type 1; LVH-900SP2 Type 2
Indoor Frames: LVH-900AF Array frame; LVH-900PB Pull-back; LVH-900UB U-Bracket (single cabinet only)
LVH-900ASP T: MF/HF Pass-Thru Panel
3rd party rigging: Indoor & outdoor

APPLICATIONS
Stadiums · Houses of Worship · Arenas
Theaters · Ice Rinks · Auditoriums
Large multipurpose outdoor and indoor venues

DESCRIPTION
Biamp’s Community LVH-900/AS Beamforming Venue Horn™, combined with the Amplified Loudspeaker Controllers (ALCs), precisely tailors the directivity of each loudspeaker, or array of loudspeakers, to meet the sound requirements in any application.

Designed for exceptional performance in large venues, each LVH-906/AS (Active Standard) model consists of four 12-inch LF drivers, three Community M200 midrange compression drivers and four 1.5-inch HF compression drivers. Using patent-pending techniques, all drivers integrate into a single triaxial waveguide that fills the entire 36 x 31-inch face of the enclosure, providing pattern control to below 400 Hz. The LVH-906 offers 60° of fixed horizontal dispersion, and has presets for vertical dispersion beamforming in 60°, 40°, 20° configurations. The LVH-900 Active Standard (AS) models allow DSP settings and control of individual driver pairs to provide uniform sound to the audience areas.

Typical applications include music and speech reinforcement for large houses of worship, stadiums, theatres, and much more. Possessing advanced features, highly-focused dispersion patterns, weather-resistant construction, and most importantly sonic excellence, LVH-900 loudspeakers make installations not only fast and simple, but as functionally effective as possible.

Biamp strives to improve its products on a continual basis. Specifications are therefore subject to change without notice.
Community L SERIES  Beamforming Venue Horn
LVH-906/AS  60° HORIZONTAL DISPERSION,
ACTIVE STANDARD, 20°, 40°, 60° VERTICAL DISPERSION,
ARRAYABLE, HIGH OUTPUT LOUDSPEAKER

AXIAL PROCESSED SENSITIVITY (dB SPL)

HORIZONTAL OFF-AXIS RESPONSE (dB SPL)

IMPEDANCE (Ω)

VERTICAL OFF-AXIS RESPONSE (dB SPL)

DIRECTIVITY INDEX (dB)

SPECIFICATIONS FOR EN54-24 (LVH-906/AS-20°)

DIRECTIVITY INDEX (dB)

BEAMWIDTH (degrees)

<table>
<thead>
<tr>
<th>Frequency (Hz)</th>
<th>LF1</th>
<th>LF2</th>
<th>MF 1</th>
<th>MF 2</th>
<th>HF 1</th>
<th>HF 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
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</tbody>
</table>

Min Impedance: (LF) 6.7 Ω @ 140 Hz, (LF2) 6.8 Ω @ 132 Hz
(MF 1) 4.4 Ω @ 1950 Hz, (MF 2) 8.7 Ω @ 1950 Hz
(HF 1) 7.3 Ω @ 5450 Hz, (HF 2) 7.2 Ω @ 5450 Hz

Sensitivity (1 W, 4 m) 90 dB
Maximum SPL (4 m) 118.2 dB
Coverage (-6 dB) 500 Hz: 75°/60°, 2 kHz: 70°/30°, 4 kHz: 50°/20°
Horiz/Vert 1 kHz: 70°/30°
Rated Impedance HF: 8 Ω, MF 1: 5 Ω, MF 2: 10 Ω, LF: 8 Ω
Community L SERIES  Beamforming Venue Horn
LVH-906/AS  60° HORIZONTAL DISPERSION, ACTIVE STANDARD, 20°, 40°, 60° VERTICAL DISPERSION, ARRAYABLE, HIGH OUTPUT LOUDSPEAKER

AXIAL PROCESSED SENSITIVITY (dB SPL)\(^7\)

HORIZONTAL OFF-AXIS RESPONSE (dB SPL)\(^8\)

IMPEDEANCE (Ω)

VERTICAL OFF-AXIS RESPONSE (dB SPL)\(^8\)

DIRECTIVITY INDEX (dB)\(^9\)

SPECIFICATIONS FOR EN54-24 (LVH-906/AS-40°)

BEAMWIDTH (degrees)\(^{10}\)
Community L SERIES  Beamforming Venue Horn
LVH-906/AS  60° HORIZONTAL DISPERSION,
ACTIVE STANDARD, 20°, 40°, 60° VERTICAL DISPERSION,
ARRAYABLE, HIGH OUTPUT LOUDSPEAKER

**Axial Processed Sensitivity** (dB SPL)

<table>
<thead>
<tr>
<th>Frequency (Hz)</th>
<th>On Axis</th>
<th>Half-Coverage Average</th>
<th>Phase</th>
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<td>80</td>
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</table>

**Impedance** (Ω)

- LF 1: 6.7 Ω @ 140 Hz
- LF 2: 6.8 Ω @ 132 Hz
- MF 1: 4.4 Ω @ 1950 Hz
- MF 2: 8.7 Ω @ 1950 Hz
- HF 1: 7.1 Ω @ 5450 Hz
- HF 2: 7.2 Ω @ 5450 Hz

**Directivity Index** (dB)

<table>
<thead>
<tr>
<th>Frequency (Hz)</th>
<th>LF 1</th>
<th>LF 2</th>
<th>MF 1</th>
<th>MF 2</th>
<th>HF 1</th>
<th>HF 2</th>
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**Horizontal Off-Axis Response** (dB SPL)

<table>
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<tr>
<th>Frequency (Hz)</th>
<th>0°</th>
<th>10°</th>
<th>20°</th>
<th>30°</th>
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<tbody>
<tr>
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**Vertical Off-Axis Response** (dB SPL)

<table>
<thead>
<tr>
<th>Frequency (Hz)</th>
<th>0°</th>
<th>10°</th>
<th>20°</th>
<th>30°</th>
<th>40°</th>
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<tr>
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<td>60</td>
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<td>40</td>
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</tbody>
</table>

**Specifications for EN54-24 (LVH-906/AS-60°)**

- Sensitivity (1 W, 4 m): 90 dB
- Maximum SPL (4 m): 117.9 dB
- Coverage (-6 dB): 500 Hz: 70°/60°, 2 kHz: 70°/60°, 4 kHz: 50°/60°
- Rated Impedance: HF: 8 Ω; MF 1: 5 Ω; MF 2: 10 Ω; LF: 8 Ω

**Beamwidth** (degrees)

- Horizontal
- Vertical

---

A: 9300 S.W. Gemini Drive Beaverton, OR 97008 USA  T: +1 503.641.7287  W: www.biamp.com
TECHNICAL DRAWING / DIMENSIONS / FINISH

H x W x D
37.3” x 31.4” x 30.5”
(948 x 797 x 775 mm)

Unit Weight
250 lbs (113.4 kg) (Indoor)
210 lbs (95.3 kg) (Outdoor Weather-resistant)

Shipping Weight (on a pallet)
307 lbs (139.3 kg) (Indoor)
267 lbs (121 kg) (Outdoor Weather-resistant)

Enclosure Finish
Indoor: Powder-coated perforated steel (indoor) grille backed with acoustically transparent woven fabric and coated with Biamp’s robust PolyCoat finish on 15mm Baltic Birch plywood enclosure

Outdoor (WR): Powder-coated marine grade aluminum grille featuring hydrophobically-treated acoustically transparent woven black fabric backing on a 15mm PolyGlas™ enclosure coated with Biamp’s durable PolyCoat finish, rated for both indoor and outdoor use

*Note: Outdoor (WR) versions - There are covers on the seal cups (4) and input panels (2)
Community L SERIES  Beamforming Venue Horn

LVH-906/AS  60° HORIZONTAL DISPERSION, ACTIVE STANDARD, 20°, 40°, 60° VERTICAL DISPERSION, ARRAYABLE, HIGH OUTPUT LOUDSPEAKER

SPLAY BRACKETS / CABINET CONNECTIONS

MODELS and ACCESSORIES

<table>
<thead>
<tr>
<th>Models</th>
<th>Description</th>
<th>Accessories</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>LVH-906/ASB</td>
<td>LVH-900 60DEG ACTIVE-STD BLK</td>
<td>LVH-900AFB</td>
<td>LVH-900 ARRAY FRAME BLK</td>
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<tr>
<td>LVH-906/ASW</td>
<td>LVH-900 60DEG ACTIVE-STD WHT</td>
<td>LVH-900AFW</td>
<td>LVH-900 ARRAY FRAME WHT</td>
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<tr>
<td>LVH-906WR/ASG</td>
<td>LVH-900WR 60DEG ACTIVE-STD GRY</td>
<td>LVH-900PBB</td>
<td>LVH-900 PULL BACK BAR BLK</td>
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<tr>
<td>LVH-906WR/ASB</td>
<td>LVH-900WR 60DEG ACTIVE-STD BLK</td>
<td>LVH-900PBW</td>
<td>LVH-900 PULL BACK BAR WHT</td>
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<tr>
<td>LVH-906WR/ASW</td>
<td>LVH-900WR 60DEG ACTIVE-STD WHT</td>
<td>LVH-900UBB</td>
<td>LVH-900 U-BRACKET BLK</td>
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<tr>
<td>LVH-906C/AS</td>
<td>LVH-900 60DEG ACTIVE-STD CTO</td>
<td>LVH-900UBW</td>
<td>LVH-900 U-BRACKET WHT</td>
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<tr>
<td>LVH-906WRC/AS</td>
<td>LVH-900WR 60DEG ACTIVE-STD CTO</td>
<td>LVH-900SP1B</td>
<td>LVH SPLAY PLATE PAIR TYPE1 BLK</td>
</tr>
<tr>
<td>LVH-909/ASB</td>
<td>LVH-900 90DEG ACTIVE-STD BLK</td>
<td>LVH-900SP1W</td>
<td>LVH SPLAY PLATE PAIR TYPE1 WHT</td>
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<tr>
<td>LVH-909/ASW</td>
<td>LVH-900 90DEG ACTIVE-STD WHT</td>
<td>LVH-900SP1G</td>
<td>LVH SPLAY PLATE PAIR TYPE1 GRY</td>
</tr>
<tr>
<td>LVH-909WR/ASG</td>
<td>LVH-900WR 90DEG ACTIVE-STD GRY</td>
<td>LVH-900SP2B</td>
<td>LVH SPLAY PLATE PAIR TYPE2 BLK</td>
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<tr>
<td>LVH-909WR/ASB</td>
<td>LVH-900WR 90DEG ACTIVE-STD BLK</td>
<td>LVH-900SP2W</td>
<td>LVH SPLAY PLATE PAIR TYPE2 WHT</td>
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<td>LVH-900WR 90DEG ACTIVE-STD WHT</td>
<td>LVH-900SP2G</td>
<td>LVH SPLAY PLATE PAIR TYPE2 GRY</td>
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<tr>
<td>LVH-909C/AS</td>
<td>LVH-900 90DEG ACTIVE-STD CTO</td>
<td>LVH-900ASPTP</td>
<td>LVH MF/HF PASS THRU PANEL</td>
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<tr>
<td>LVH-909WRC/AS</td>
<td>LVH-900WR 90DEG ACTIVE-STD CTO</td>
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</tbody>
</table>
CAUTION: Installation of loudspeakers should only be performed by trained and qualified personnel. It is strongly recommended that a licensed and certified professional structural engineer approve the mounting design.

Connection Diagrams

LVH-900/AS (with ALC-404D & ALC-1604D)

Refer to the LVH Installation and Operation Guide for detailed wiring instructions.

Notes

1. Technical Specifications: All measurements are performed using a time-windowed impulse response to eliminate reflections, approximating an anechoic environment, at a distance of at least 6.0 m. All acoustic specifications are rounded to the nearest whole number. An external DSP using settings provided by Biamp is required to achieve the specified performance; further performance gains can be realized using the FIR loudspeaker optimization presets available in Biamp’s Community Amplified Loudspeaker Controllers (ALCs).

2. Operating Range: The frequency range over which the on-axis equalized/processed response remains within 10 dB of the rated sensitivity, in accordance with IEC 60268-5.

3. Nominal Continuous Power Handling: The maximum continuous input voltage at the stated nominal impedance that the system can withstand for a period of 2 hours using an IEC 60268-5 defined spectrum with recommended signal processing and protection filters.

4. Nominal Maximum SPL: The SPL produced when an IEC 60268-5 signal is applied to the equalized/processed loudspeaker system, at a level which drives at least one subsection to its rated continuous voltage limit. Referenced to a distance of 1 meter. The peak SPL represents the 2:1 (6 dB) crest factor of the program signal.

5. Rated Continuous Voltage: The maximum continuous input voltage for the system that results in no more than a 3 dB change in the system’s response during operation.

6. Rated Maximum SPL: The SPL produced when a typical program material signal is applied to the equalized/processed loudspeaker system, at a level which drives at least one subsection to its rated continuous voltage limit. Referenced to a distance of 1 meter. The peak SPL represents the 4:1 (12 dB) crest factor of the program signal.

7. Axial Processed Sensitivity: The variation in acoustic output level with frequency for a 2.83 V, swept-sine signal using the recommended signal processing. Referenced to 1 meter. The on-axis magnitude and phase responses, as well as the average magnitude response, calculated over one-half of the nominal coverage angles, are shown. The responses have 1/6 octave smoothing applied.

8. Horizontal/Vertical Off-Axis Responses: The loudspeaker’s magnitude response at various off-axis angles using the recommended signal processing in the operating mode which utilizes the largest number of individually amplified pass bands. The responses have 1/3 octave smoothing applied.

9. Directivity Index: The ratio of the on-axis SPL to the mean SPL at the same distance for all points within the measurement sphere for each given frequency; expressed in dB. The responses have 1/3 octave smoothing applied.

10. Beamwidth: The included angle between the -6 dB points in the polar response of the loudspeaker when driven in the operating mode which utilizes the largest number of individually amplified pass bands. The responses have 1/3 octave smoothing applied.

Data presented on this spec sheet represents a selection of the basic performance specifications for the model. These specifications are intended to allow the user to perform a fair, straightforward evaluation and comparison with other loudspeaker spec sheets. For a detailed analysis of this loudspeaker’s performance, please download the GLL file and/or the CLF file from our website. (LVH-900_GLL)