FEATURES

- Designed with individual driver control for extraordinary performance in large venues
- Large format, horn-loaded triaxial array maintains pattern control to 200Hz
- Maximize long-throw SPL level or extend vertical coverage pattern
- Colinear manifold for HF and MF beamforming
- Indoor or Outdoor weather-resistant models

TECHNICAL SPECIFICATIONS

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Mode</td>
<td>Multi-Amplifier with FIR DSP Beamforming</td>
</tr>
<tr>
<td>Operating Environment</td>
<td>Indoor or Outdoor Direct Exposure</td>
</tr>
<tr>
<td>Operating Range (-10dB)</td>
<td>60 Hz to 18 kHz</td>
</tr>
<tr>
<td>Nominal Beamwidth</td>
<td>Horizontal: 90° Vertical: Dual Cabinet 20°, 80°, 100° Patterns (FIR DSP user selectable preset)</td>
</tr>
<tr>
<td>Transducers (Each Cabinet)</td>
<td>LF – 4 x 12” (305mm) with 3” (76mm) CCAW voice coil, inherently weather-resistant cone in cast aluminum chassis</td>
</tr>
<tr>
<td></td>
<td>MF – 3 x M200, 2” (51mm) exit, ketone polymer diaphragm, compression driver</td>
</tr>
<tr>
<td></td>
<td>HF – 4 x 1.5” (38mm) CCAW voice coil, 1” (25mm) exit, ketone polymer diaphragm, compact neodymium compression driver</td>
</tr>
<tr>
<td>Continuous Signal Voltage @ Nominal Impedance</td>
<td>LF1, LF2, LF3, LF4 (each) 89V, 8 ohms (178V peak)</td>
</tr>
<tr>
<td>Crossover Frequencies</td>
<td>550 Hz, 2.5kHz</td>
</tr>
<tr>
<td>Equalized Maximum SPL @ 1m²</td>
<td>Dual 20° Pattern Peak 145 dB Continuous 139 dB</td>
</tr>
<tr>
<td></td>
<td>Dual 80° Pattern Peak 142 dB Continuous 136 dB</td>
</tr>
<tr>
<td></td>
<td>Dual 100° Pattern Peak 141 dB Continuous 135 dB</td>
</tr>
<tr>
<td>Recommended Amplifiers for a Dual Cabinet Pattern</td>
<td>LF1, LF2 (2 Ch.), LF3, LF4 (each) ALC-1604D (Bridged)</td>
</tr>
<tr>
<td></td>
<td>MF 1, MF2, MF3 (each) 26V, 5 ohms (52V peak)</td>
</tr>
<tr>
<td></td>
<td>HF 1, HF2, HF3, HF4 (each) 23V, 8 ohms (46V peak)</td>
</tr>
<tr>
<td>PHYSICAL</td>
<td>Lever-actuated wire clamping 4, 6 and 8-position terminal blocks</td>
</tr>
<tr>
<td>Input Connection</td>
<td>(24) M10 rigging inserts per cabinet</td>
</tr>
<tr>
<td>Mounting Points</td>
<td>Indoor and Outdoor</td>
</tr>
<tr>
<td>Operation Environment</td>
<td>Outdoor. IP56 per IEC 60529 when used with the input panel and seal cup cover plates; Weather resistant to IEC 60068-2-5 Solar Radiation, IEC 60068-2-11 Salt Mist, IEC 60068-42 SO2, IEC 60068-2-60 Chlorine, and IEC 60529 IP56 test conditions</td>
</tr>
<tr>
<td>Dimensions H x W x D</td>
<td>37.3” x 31.4” x 30.5” (948 x 797 x 775 mm)</td>
</tr>
<tr>
<td>Weight (each cabinet)</td>
<td>250 lbs (115.4 kg) Indoor model 210 lbs (95.3 kg) Outdoor weather-resistant model</td>
</tr>
<tr>
<td>Finish</td>
<td>Refer to the Technical Drawing (page 5)</td>
</tr>
</tbody>
</table>

OPTIONS

- Splay Bracket: LVH-900SPI Type 1; LVH-900SP2 Type 2
- Indoor Frames: LVH-900AF Array frame; LVH-900PB Pull-back
- 3 rd party rigging: Indoor & outdoor

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-909/AP
90° HORIZONTAL DISPERSION,
ACTIVE PLUS, 20°, 80°, 100° VERTICAL DISPERSION,
ARRAYABLE, HIGH OUTPUT LOUDSPEAKER  20° DUAL-CAB PATTERN

AXIAL PROCESSED SENSITIVITY (dB)⁵

HORIZONTAL OFF-AXIS RESPONSE (dB)⁶

IMPEDANCE (Ohms)

VERTICAL OFF-AXIS RESPONSE (dB)⁶

DIRECTIVITY INDEX (dB)⁷

BEAMWIDTH (Degrees)⁸

Min Impedance (LF) 6.7 Ω @ 200Hz, (LF2) 6.6 Ω @ 200Hz,
(HF1) 4.6 Ω @ 2 kHz, (MF1) 4.6 Ω @ 2 kHz, (MF2) 4.8 Ω @ 2 kHz,
(HF2) 7.5 Ω @ 10 kHz, (MF2) 7.4 Ω @ 6.3 kHz, (HF3) 7.3 Ω @ 5.6 kHz, (HF4) 7.5 Ω @ 6.3 kHz

Min Impedance (LF) 6.7 Ω @ 200Hz, (LF2) 6.6 Ω @ 200Hz,
(HF1) 4.6 Ω @ 2 kHz, (MF1) 4.6 Ω @ 2 kHz, (MF2) 4.8 Ω @ 2 kHz,
(HF2) 7.5 Ω @ 10 kHz, (MF2) 7.4 Ω @ 6.3 kHz, (HF3) 7.3 Ω @ 5.6 kHz, (HF4) 7.5 Ω @ 6.3 kHz
**Community L SERIES**  
**Beamforming Venue Horn**  
**LVH-909/AP**

90° HORIZONTAL DISPERSION,  
ACTIVE PLUS, 20°, 80°, 100° VERTICAL DISPERSION,  
ARRAYABLE, HIGH OUTPUT LOUDSPEAKER  
80° DUAL-CAB PATTERN

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**AXIAL PROCESSED SENSITIVITY (dB)**

![Graph](image1)

**HORIZONTAL OFF-AXIS RESPONSE (dB)**

![Graph](image2)

**IMPEDANCE (Ohms)**

![Graph](image3)

**VERTICAL OFF-AXIS RESPONSE (dB)**

![Graph](image4)

**DIRECTIVITY INDEX (dB)**

![Graph](image5)

**BEAMWIDTH (Degrees)**

![Graph](image6)

---

Min Impedance (LF1) 6.7 Ω @ 200Hz, (LF2) 6.6 Ω @ 200Hz, (MF1) 4.6 Ω @ 2 kHz, (MF2) 4.8 Ω @ 2 kHz, (MF3) 4.6 Ω @ 2 kHz, (HF1) 7.5 Ω @ 10 kHz, (HF2) 7.4 Ω @ 6.3 kHz, (HF3) 7.3 Ω @ 5.5 kHz, (HF4) 7.5 Ω @ 6.3 kHz
Community L SERIES  Beamforming Venue Horn

LVH-909/AP  90° HORIZONTAL DISPERSION, ACTIVE PLUS, 20°, 80°, 100° VERTICAL DISPERSION, ARRAYABLE, HIGH OUTPUT LOUDSPEAKER  100° DUAL-CAB PATTERN

AXIAL PROCESSED SENSITIVITY (dB)

HORIZONTAL OFF-AXIS RESPONSE (dB)

IMPEDEANCE (Ohms)

VERTICAL OFF-AXIS RESPONSE (dB)

DIRECTIVITY INDEX (dB)

BEAMWIDTH (Degrees)

Min Impedance: (LF1) 6.7 Ω @ 200Hz, (LF2) 6.6 Ω @ 200Hz, (MF 1) 4.8 Ω @ 2 kHz, (MF 2) 4.6 Ω @ 2 kHz, (MF 3) 4.8 Ω @ 2 kHz, (HF 1) 7.5 Ω @ 10 kHz, (HF 2) 7.4 Ω @ 6.3 kHz, (HF 3) 7.3 Ω @ 5.6 kHz, (HF 4) 7.5 Ω @ 6.3 kHz

80 90 100 110 120
20 100 1000 10000
Frequency (Hz)

80 90 100 110 120
20 100 1000 10000
Frequency (Hz)

80 90 100 110 120
20 100 1000 10000
Frequency (Hz)

80 90 100 110 120
20 100 1000 10000
Frequency (Hz)
Community L SERIES
Beamforming Venue Horn

LVH-909/AP
90° HORIZONTAL DISPERSION, ACTIVE PLUS, 21°, 80°, 100° VERTICAL DISPERSION, ARRAYABLE, HIGH OUTPUT LOUDSPEAKER

TECHNICAL DRAWING / DIMENSIONS / FINISH

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

NOTES:
1. DIMENSIONS ARE INCHES (MM)
2. DIMENSIONS SYMMETRICAL ABOUT CENTERLINE
3. CL denotes center of gravity (COG)
4. UNLESS OTHERWISE NOTED, MOUNTING HOLES ARE M10 THREAD
5. WEIGHT (INDOOR) = 250 LBS (113.4 KG)
6. WEIGHT (OUTDOOR WEATHER-RESISTANT) = 210 LBS (95.3 KG)

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

LVH-909/AP

90° HORIZONTAL DISPERSION, ACTIVE PLUS, 20°, 80°, 100° VERTICAL DISPERSION, ARRAYABLE, HIGH OUTPUT LOUDSPEAKER

SPLAY BRACKETS / DUAL CABINET CONFIGURATIONS

Achieves the 20° pattern

Type 2 Splay Bracket

Achieves the 80° pattern

Type 1 Splay Bracket

0° hole set - Back Splay

Achieves the 100° pattern

Type 1 Splay Bracket

10° hole set - Front Splay

Cabinet connection points

(Type 1 bracket)

MODELS and ACCESSORIES

<table>
<thead>
<tr>
<th>Models</th>
<th>Description</th>
<th>Accessories</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>LVH-909/APB</td>
<td>LVH-900 60DEG ACTIVE-STD BLK</td>
<td>LVH-900AFB</td>
<td>LVH-900 ARRAY FRAME BLK</td>
</tr>
<tr>
<td>LVH-909/APW</td>
<td>LVH-900 60DEG ACTIVE-STD WHT</td>
<td>LVH-900AFW</td>
<td>LVH-900 ARRAY FRAME WHT</td>
</tr>
<tr>
<td>LVH-909WR/APG</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-909WR/APB</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-909WR/APW</td>
<td>LVH-900WR 60DEG ACTIVE-STD WHT</td>
<td>LVH-900SPIB</td>
<td>LVH SPLAY PLATE PAIR TYPE1 BLK</td>
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<tr>
<td>LVH-909C/AP</td>
<td>LVH-900 60DEG ACTIVE-STD CTO</td>
<td>LVH-900SPIW</td>
<td>LVH SPLAY PLATE PAIR TYPE1 WHT</td>
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<tr>
<td>LVH-909WRC/AP</td>
<td>LVH-900WR 90DEG ACTIVE-STD BLK</td>
<td>LVH-900SPI1G</td>
<td>LVH SPLAY PLATE PAIR TYPE1 GRY</td>
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<tr>
<td>LVH-909/APB</td>
<td>LVH-900 90DEG ACTIVE-STD BLK</td>
<td>LVH-900SP2B</td>
<td>LVH SPLAY PLATE PAIR TYPE2 BLK</td>
</tr>
<tr>
<td>LVH-909/APW</td>
<td>LVH-900 90DEG ACTIVE-STD WHT</td>
<td>LVH-900SP2W</td>
<td>LVH SPLAY PLATE PAIR TYPE2 WHT</td>
</tr>
<tr>
<td>LVH-909WR/APG</td>
<td>LVH-900WR 90DEG ACTIVE-STD BLK</td>
<td>LVH-900SP2G</td>
<td>LVH SPLAY PLATE PAIR TYPE2 GRY</td>
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<tr>
<td>LVH-909WR/APB</td>
<td>LVH-900WR 90DEG ACTIVE-STD BLK</td>
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<tr>
<td>LVH-909WR/APW</td>
<td>LVH-900WR 90DEG ACTIVE-STD WHT</td>
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<tr>
<td>LVH-909C/AP</td>
<td>LVH-900 90DEG ACTIVE-STD CTO</td>
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<tr>
<td>LVH-909WRC/AP</td>
<td>LVH-900WR 90DEG ACTIVE-STD CTO</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

NOTES

1. PERFORMANCE SPECIFICATIONS  All measurements are taken indoor using a time-windowed and processed signal to eliminate room effects, approximating an anechoic environment, a distance of 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 (ALC SERIES).

2. OPERATING RANGE  The frequency range in which the on-axis processed response remains within 10dB of the average SPL.

3. CONTINUOUS POWER HANDLING  Maximum continuous input voltage at the stated nominal impedance that the system can withstand, without damage, for a period of 2 hours using an EIA-426-B defined spectrum; with recommended signal processing and protection filters.

4. EQUALIZED MAXIMUM SPL  The SPL produced when an EIA-426-B signal is applied to the equalized loudspeaker system, at a level which drives at least one subsection to its rated continuous input voltage limit, referenced to a distance of 1 meter. The peak SPL represents the 2:1 (6dB) crest factor of the EIA-426-B test signal.

5. AXIAL PROCESSED SENSITIVITY  The on-axis variation in acoustic output level with frequency for a 1 Watt sweep sine wave, referenced to 1 meter with recommended signal processing applied.

6. HORIZONTAL / VERTICAL OFF-AXIS RESPONSES  The loudspeaker’s magnitude response at various angles off-axis, with recommended signal processing applied in the operating mode which utilizes the largest number of individually amplified pass bands.

7. DIRECTIONAL INDEX  The ratio of the on-axis SPL squared to the mean squared SPL at the same distance for all points within the measurement sphere for each given frequency; expressed in dB.

8. BEAMWIDTH  The angle between the -6dB points in the polar response of the loudspeaker when driven in the operating mode which utilizes the largest number of individually amplified pass bands.

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 specifications. For a detailed analysis of this loudspeaker’s performance, please download the GLL file and/or the CLF file from our website: (LVH-900/AP data here)