

Architectural Series

Key Features:

- ▶ VGC™ (Vented Gap Cooling) low frequency transducer with 100 mm (4 in) diameter edgewound voice coil and SFG™ magnet structure.
- ▶ Compact trapezoidal enclosures for accurate cluster design.
- ▶ Rugged black textured finish.
- ▶ Multiple attachment points for efficient mounting.
- ▶ Options include: finish, input connections, and grilles.

The JBL Architectural Series is a family of modular loudspeaker systems designed for fixed installation applications ranging from speech reinforcement to large scale music reinforcement. All models in the series can be customized to meet specific designer needs in details of finish, mounting, and input wiring, resulting in economy and time saving in the field.

The model AS4735 is a three-way system that provides exceptionally uniform high frequency response and is intended primarily for music and speech applications where the loudspeaker will be placed close to the audience. The use of a cone midrange transducer and small format 90° x 40° Bi-Radial® horn provide a beneficial tradeoff where the greater output capability of a compression driver midrange is not needed.

Components

The AS4735 has been designed with two of JBL's most rugged cone transducers, the 2226H and the 2118H. The 2226H 380 mm (15 in) low frequency transducer incorporates JBL's exclusive VGC™ (Vented Gap Cooling) for efficient removal of heat from the voice coil resulting in a continuous power rating of 600 watts with minimum power compression. Another JBL innovation, SFG™ (Symmetrical Field Geometry), reduces second and third harmonic distortion to extremely low levels, resulting in clean reproduction at the highest drive levels.



The 2118H 200 mm (8 in) midrange cone transducer has been optimized for response over the frequency range from 70 Hz to 3000 Hz and provides an excellent midrange match between JBL's powerful low frequency transducers and small format compression driver high frequency devices. The 2118H carries a continuous power rating of 200 watts.

High frequency response is provided by the 2371 90° x 40° Flat-Front Bi-Radial® horn coupled to the 2416H-1 high frequency driver. The 2416H-1 driver carries a continuous power rating of 50 watts. The internal dividing network in the AS4735NW provides crossover frequencies at 600 and 2800 Hz.

Enclosure

The model AS4735 is a trapezoidal enclosure which facilitates arraying for a wide variety of coverage requirements. The enclosure is made of rugged, high-grade birch plywood, and each joint is either dado or rabbet type. The enclosure is finished in textured black and has twelve internal corner mounted steel plate attachment points which accept only 3/8 inch forged shoulder steel eye bolts for maximum safety. The trapezoidal enclosure is tapered front-to-back at 15° allowing adjacent enclosure splaying at 30°. The enclosure grille is made of black fire retardant and vermin and fade resistant material. The grille cloth is removable from its hardwood frame for replacement to match decor.

The AS4735-STD system is intended for bi-amplification and for this purpose comes with a standard barrier strip input connector. The recommended crossover frequency is 600 Hz. The AS4735NW includes a three-way passive dividing network with 1/4 inch phone jack input connectors.

Options

The AS4735 system may be tailored to specific applications in terms of finish, grille options, and input connections. Optional finishes include a fiberglass covering for increased structural and surface durability, neutral paint which more easily facilitates repainting, and bare wood (premium Finnish birch) which can be stained to meet architectural requirements. Systems can also be ordered without attachment points.

For continued field support and future recognition of the system's configuration, once an option (alternate finish, input connector, etc.) is incorporated into an Architectural Series product, the system is no longer a standard ("STD" suffix) model, but becomes a special ("SP" suffix) model. The list of available options is continually growing. Contact JBL Professional for current Option Code offerings, availability, and pricing.

► AS4735-STD, AS4735NW

Three-Way Loudspeaker Systems With 15 in Transducer And 8 in Midrange

Architects and Engineers Specifications:

The loudspeaker shall consist of a 380 mm (15 in) low frequency transducer, a midrange cone transducer, and a Bi-Radial horn for 90° x 40° coverage above 2800 Hz. The frame of the low frequency transducer shall be made of cast aluminum to avoid warping, and the magnetic assembly shall use a ferrite magnet and an aluminum flux stabilizing ring to reduce distortion. The nominal cone diameter shall be 380 mm (15 in), and the voice coil shall be 100 mm (4 in) in diameter and made of edgewound aluminum ribbon wire. The low frequency transducer shall be capable of handling 600 watts input power and have an axial sensitivity no less than 97 dB (1 W at 1 m). Power compression in the low frequency transducer shall not exceed 3.9 dB at a total input power of 600 watts.

Midrange response shall be provided by a cone transducer with nominal cone diameter of 200 mm (8 in) and a copper voice coil with a diameter of 50 mm (2 in). The midrange transducer shall be capable of power input of 200 watts.

The high frequency section shall be driven by a compression driver capable of 50 watts power input above 2.8 kHz. The voice coil shall be no less than 47 mm (1-3/4 in) in diameter, constructed of edgewound aluminum ribbon wire, and shall operate in a magnetic gap of no less than 1.9 Tesla flux density.

The enclosure shall be of trapezoidal shape with front-to-back tapering of 15° per side. The enclosure shall be constructed of high grade birch plywood, finished with water-resistant paint, and provided with no less than twelve attachment points. Overall dimensions shall not exceed 921 mm H x 635 mm W x 460 mm D (36-1/4 in x 25 in x 18 in).

The system shall be the JBL model AS4735 (AS4735NW), with the pertinent system options. Other loudspeaker systems will be considered as equivalent provided that submitted data from a recognized independent test laboratory verify that the above performance specifications are met.

Specifications:

SYSTEM:	
Frequency Range (-10 dB):	35 Hz to 17 kHz
Sensitivity ¹ :	LF: 97 dB, 1 W @ 1 m (3.3 ft) MF: 97 dB, 1 W @ 1 m (3.3 ft) HF: 109 dB, 1 W @ 1 m (3.3 ft)
Power Rating ¹ :	LF: 600 W; MR: 200 W; HF: 50 W
Rated Impedance:	LF: 8 ohms; MR: 8 ohms; HF: 8 ohms
Minimum Impedance:	LF: 6.8 ohms; MR: 6.2 ohms; HF: 5 ohms
LOW FREQUENCY SECTION:	
Nominal Diameter	380 mm (15 in)
Input Power Rating:	600 watts continuous pink noise
Sensitivity ¹ :	97 dB, 1 W @ 1 m
Voice Coil:	100 mm (4 in) edgewound aluminum ribbon
MIDRANGE SECTION:	
Input Power Rating ¹ :	200 W, continuous program
Sensitivity ¹ :	97 dB, 1 W @ 1 m
Voice Coil:	50 mm (2 in) copper wire
HIGH FREQUENCY SECTION:	
Sensitivity ¹ :	109 dB, 1 W @ 1 m
Input Power Rating ¹ :	50 W continuous program
Crossover Frequency:	2.8 kHz
ENCLOSURE:	
Shape:	Trapezoidal, 15° taper per side
Material:	High grade birch plywood
Attachment:	12 points; accepts 3/8 inch - 24 x 1-1/2 in forged shouldersteel eye bolts
Caution:	Suspending this system should only be done by qualified persons following safe rigging standards.
Finish:	Black textured paint
Grille:	Black, fire retardant on hardwood frame
Connector:	Barrier strip
Dimensions (H x W x D):	921 x 635 x 460 mm (36-1/4 x 25 x 18 in)
Net Weight:	40.4 kg (89 lb)
Shipping Weight:	49.4 kg (109 lb)
ADDITIONAL SPECIFICATIONS,	
AS4735NW:	Passive Crossover Network Included
Input Connectors:	1/4 inch phone jacks
NOTE:	In all other regards, the specifications of the AS4735-STD apply.

¹ See individual driver specification sheets for rating methodology
NOTE: For additional component data, refer to component specification sheet

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.



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