

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.
- ▶ 90° x 40° Bi-Radial® horn for wide, smooth coverage.
- ▶ 100° x 100° Ultra-high frequency ring radiator for broad coverage above 6 kHz.
- ▶ 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 AS4732 is a three-way system that provides exceptionally uniform high frequency power response and is intended primarily for music applications.

Components

The AS4732 has been designed with JBL's most rugged transducers. The two 2206H 300 mm (12 in) low frequency transducers incorporate 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. JBL's continuing research in cone, surround, and suspension materials has made the 2206H an extremely smooth and predictable performer.



The 2446J compression driver used in the AS4732 incorporates a pure titanium diaphragm that is both light and strong. It has a three dimensional embossed pattern which controls high frequency resonances and results in usable response to 18 kHz.

The 2404 Bi-Radial® ultra-high frequency ring radiator provides broad coverage of the top musical octave with power output capability that is a match for the mid and low frequency components.

Enclosure

The model AS4732 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 AS4732-STD system is intended for bi-amplification and for this purpose comes with a standard barrier strip input connector. The recommended crossover frequency range is 800 to 1200 Hz. The AS4732NW includes a passive dividing network with 1/4 inch phone jack input connectors.

Options

The AS4732 system may be tailored to specific applications in terms of finish, horn type, 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 loudspeaker'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.

▶ AS4732-STD, AS4732NW, AS4732-SP64, AS4732NW-SP64 Three-Way Loudspeaker Systems With Dual 12 in Transducers

Architects and Engineers Specifications:

The loudspeaker shall consist of two 300 mm (12 in) low frequency transducers, a high frequency horn with 90° x 40° coverage above 1 kHz, and a ring radiator with 100° x 100° coverage above 6 kHz. 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 300 mm (12 in), and the voice coil shall be 100 mm (4 in) in diameter and made of edgewound aluminum ribbon wire. The low frequency transducers shall be capable of handling 1200 watts input power and have a combined axial sensitivity no less than 98 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 1200 watts (600 per transducer).

The high frequency section shall be driven by a compression driver capable of 150 watts power input above 1 kHz. The voice coil shall be no less than 100 mm (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 ultra-high frequency section shall consist of a ring radiator with nominal coverage of 100° x 100° in the range above 6 kHz and input power rating of 40 watts. The ring radiator shall be capable of producing output levels of 121 dB, referred to a distance of one meter.

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 1060 mm H x 603 mm W x 438 mm D (41-3/4 in x 23-3/4 in x 17-1/4 in).

The system shall be configured for bi-amplification, with electrical terminals to accommodate this. There shall be an internal dc blocking capacitor to protect the high frequency driver.

The system shall be the JBL model AS4732 (AS4732NW), 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):	40 Hz to 20 kHz
Sensitivity ¹ :	LF: 98 dB SPL, 1 W @ 1 m (3.3 ft) HF: 110 dB, 1 W @ 1 m (3.3 ft) UHF: 105 dB, 1 W @ 1 m (3.3 ft)
Power Rating ¹ :	LF: 1200 W; HF: 150 W above 1 kHz; UHF: 40 W
Rated Impedance:	LF: 4 ohms; HF: 16 ohms; UHF: 8 ohms
Minimum Impedance:	LF: 3.4 ohms; HF: 12 ohms; UHF: 7.2 ohms
LOW FREQUENCY SECTION: 2 - 2206H	
Nominal Diameter:	300 mm (12 in)
Input Power Rating:	1200 watts, continuous pink noise (600 watts per transducer)
Sensitivity ¹ :	98 dB, 1 W @ 1 m (3.3 ft)
Voice Coil:	100 mm (4 in) edgewound aluminum ribbon
HIGH FREQUENCY SECTION: 2446J	
Horn:	See Below
Throat diameter:	49 mm (2 in)
Input Power Rating ¹ :	100 W, @ 500 Hz; 150 W above 1 kHz, continuous program
ULTRA-HIGH FREQUENCY SECTION 2404H-1	
Sensitivity ¹ :	105 dB, 1 W @ 1 m (3.3 ft)
Input Power Rating ¹ :	40 W continuous program
Crossover Frequency:	6 kHz
ENCLOSURE:	
Shape:	Trapezoidal, 15° taper per side
Material:	High grade birch plywood
Attachment:	12 points; accepts 3/8 in - 24 x 1-1/2 in forged shoulder steel eye bolts
Finish:	Black textured paint
Grille:	Black, fire retardant on hardwood frame
Connector:	Barrier strip
Dimensions (H x W x D):	1060 x 603 x 438 mm (41-3/4 x 23-3/4 x 17-1/4 in)
Net Weight:	59 kg (130 lb)
Shipping Weight:	68 kg (150 lb)
CAUTION:	Suspending this system should only be done by qualified persons following safe rigging standards.
SYSTEM SPECIFICATIONS FOR	
HORN OPTIONS:	
Model:	AS4732-STD AS4732-SP64
HF Horn:	2380A (90° x 40°) 2385A (60° x 40°)
Sensitivity:	112 dB, 1 W @ 1 m 114 dB, 1 W @ 1 m
Directivity Index (DI):	10.3 dB (+1, -1.4 dB) 12.8 dB (+2, -2 dB)
Directivity Factor (Q):	10.7 (+1.3, -2.5) 19 (+6, -7)
ADDITIONAL SPECIFICATIONS, AS4732NW and AS4732NW-SP64: Passive Crossover Network Included.	
Input Connectors:	1/4 in phone jacks
NOTE:	In all other regards, the specifications of the AS4732-STD and AS4732-SP64 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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