PD162 High Output Midbass Array Module Family

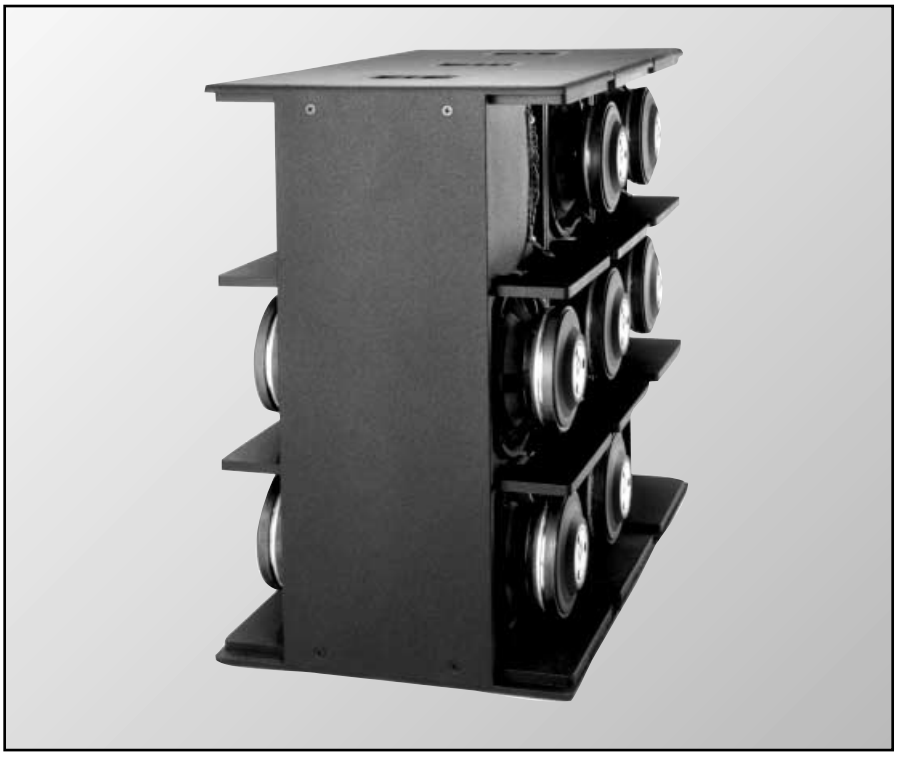
Key Features:

- FSA™ Forward Steered Array enclosure configuration for optimum acoustic performance in arrays of three or more modules
- Up to 15 dB of rear rejection at 200 Hz and 90° of beam steering capability in a typical three module array
- Usable LF reinforcement to 60 Hz
- 2206H 12" VGC (Vented Gap Cooled™) transducers
- Available suspension truss components make array building simple and cost effective

The PD162 family Precision Directivity™ loudspeaker consists of three models: PD162, PD162L4 and PD162U4. The PD162U4 and PD162L4 are specialized beam-steering modules with four transducers each. PD162 is the standard, fully configured version featuring a full complement of six transducers. All three members of the family share common enclosure dimensions and features. This allows for construction of compact, simple to rig, densely packed arrays using simple, cost effective truss components.

The PD162 family are high power midbass modules designed for use in arrays and in conjunction with other PD series sub-bass and mid/high array modules to construct full range systems.

For sound reinforcement systems in which low frequency extension to 60 Hz is sufficient, PD162 modules may be used as the sole low frequency element. When greater low frequency directivity and extension to 30 Hz and below are required, PD128 FSA subwoofer modules may be added.



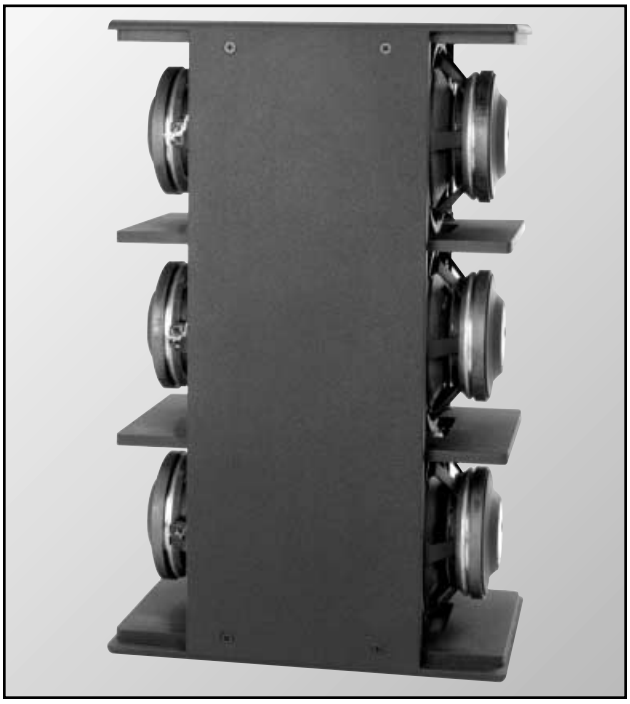
A key advantage of FSA systems is the ability to project a single well-defined energy “lobe” into the audience area. The combination of even response in the seating area and high off-axis attenuation substantially increases the quality of low-frequency reproduction by maximizing the ratio of direct-to-reverberant sound.

FSA arrays are based on end-fired line array principles. In an end-fired configuration, the length of the array determines its useful low-frequency directivity and the spacing of the elements determines the frequency at which beaming occurs. FSA technology improves upon the useful characteristics of the traditional end-fired system through a combination of physically expanding the line array into a three-dimensional array and controlling directivity via the use of digital signal processing. Multi-channel signal processing with amplitude and delay capability and multi-channel amplification is required for implementing FSA array steering. Contact JBL Professional for application details.

The PD162 employs the 2206H 12" transducer, one of JBL’s family of Vented Gap Cooling woofers. Transducers are mounted “magnets-out” for maximum heat transfer, assuring long term reliability and minimum power compression at sustained high power levels. Pairs of transducer are mounted in separate sealed sub-chambers. Each pair is wired in parallel and connected to individual terminals on the input connector.

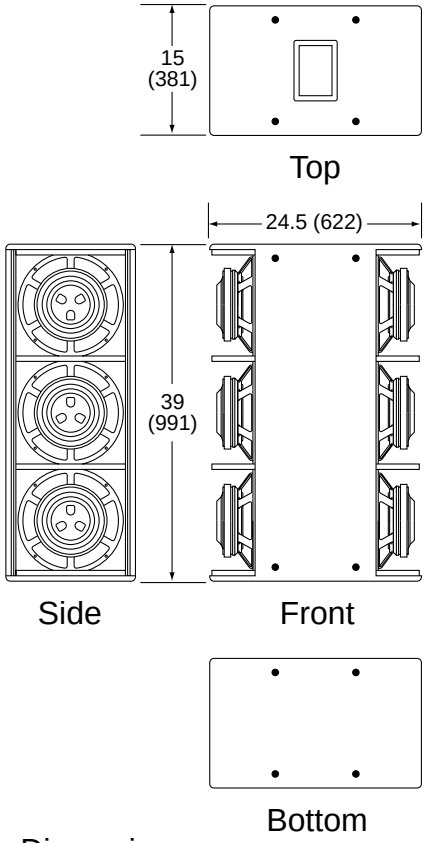
For outdoor applications, several levels of weather resistance are available. Please contact your sales representative or JBL for further information.

PD162 Family – High Output Midbass Array Modules



PD162 Shown without grille

Dimensions



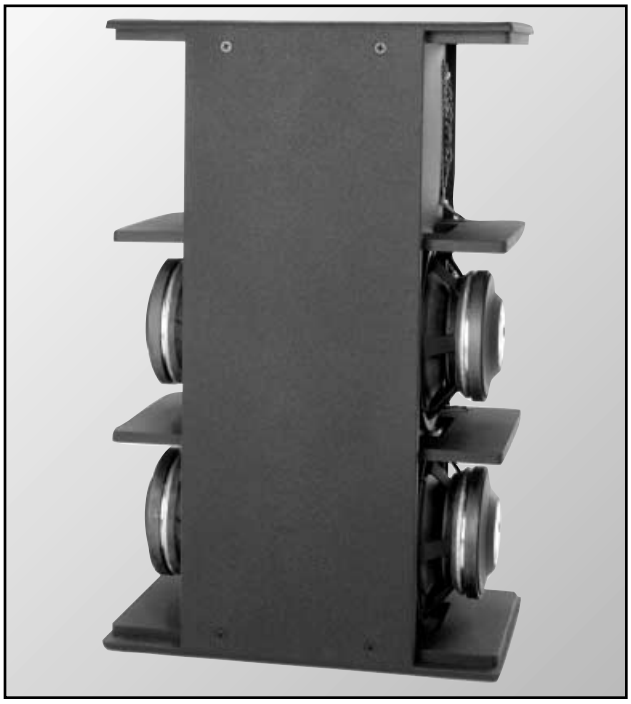
Dimensions
in inches (mm)

PD162
Preliminary Specifications:

System:	
Frequency Range (-10 dB):	60 Hz - 1.7 kHz
Frequency Response (±3 dB):	78 Hz - 900 Hz
Recommended High Pass:	80 - 120 Hz, 48 dB/Octave
Recommended Low Pass:	250 Hz, 48 dB/Octave
Input Power Rating: (100 hour test duration)	3600 W AES; 14,400 W Peak; total system 3 x 1200 W AES; 3x 4800 W Peak; as wired
Sensitivity[1]:	102 dB SPL, 1 W @ 1 m (3.3 ft), 80 Hz - 300 Hz
Calculated Max. SPL (single module)	137 dB Continuous, 143 dB Peak, 80 Hz - 300 Hz
Nominal Impedance:	3 x 4 ohm
Signal Processing:	DSP with amplitude and delay capability required. Contact JBL for application details.
Transducers:	
Low Frequency:	6x 2206H, 300 mm (12 in) dia., 100 mm (4 in) edgewound ribbon voice coil
Physical:	
Enclosure:	rectangular; birch plywood, extensively braced
Suspension Attachment:	16 points; 4 each top, bottom, front & rear; accept M10 threaded hardware
Finish:	Black DuraFlex coating (white or custom color optional)
Grilles:	Black powder coated zinc treated 16 gauge perforated steel grille with foam backing (white or custom color optional)
Input Connector:	2x NL8 Neutrik Speakon
Wiring:	3 parallel-wired driver pairs; wired to NL8 connector as follows: top 2+/-; middle 3+/-; bottom 4+/4-
Dimensions (H x W x D):	39 in x 24.5 in x 15 in 991 mm x 622 mm x 381 mm
Net Weight:	189.5 lb, 86.1 kg

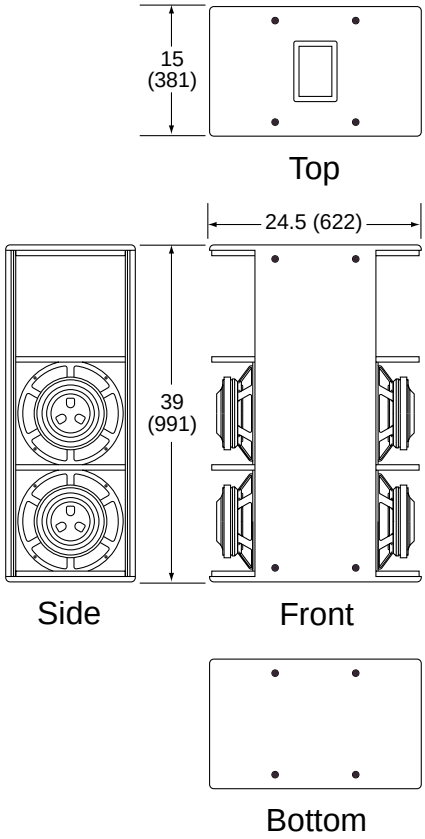
1 Sensitivity is based on a swept test signal with an input of 1 Watt at rated impedance, measured in half-space.

▶ PD162 Family – High Output Midbass Array Modules



PD162L4 Front view, shown without grilles

Dimensions



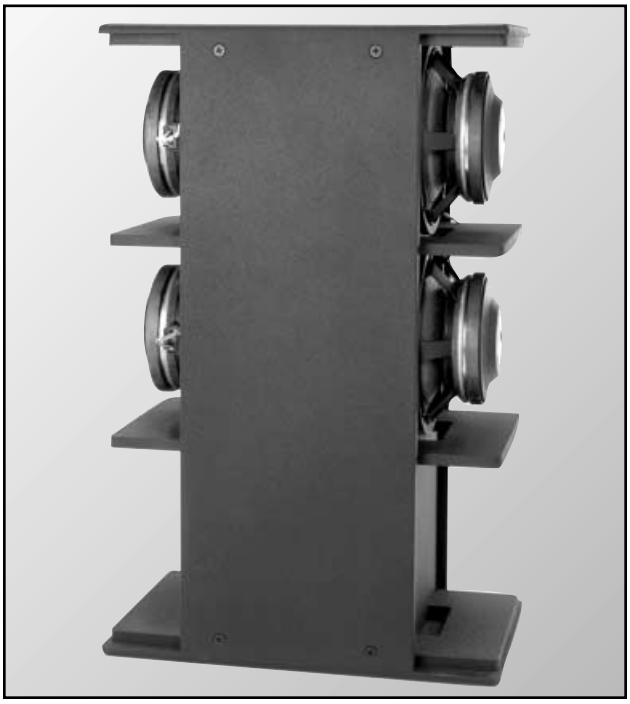
Dimensions
in inches (mm)

PD162L4
Preliminary Specifications:

System:	
Frequency Range (-10 dB):	60 Hz - 1.7 kHz
Frequency Response (±3 dB):	78 Hz - 900 Hz
Recommended High Pass:	80 - 120 Hz, 48 dB/Octave
Recommended Low Pass:	250 Hz, 48 dB/Octave
Input Power Rating: (100 hour test duration)	2400 W AES; 9600 W Peak; total system 2 x 1200 W AES; 2x 4800 W Peak; as wired
Sensitivity[1] (80 Hz - 300 Hz):	101 dB SPL, 1 W @ 1 m (3.3 ft)
Calculated Max. SPL (80 Hz - 300 Hz):	135 dB Continuous, 141 dB Peak (single module) SPL @ 1 m (3.3 ft)
Nominal Impedance:	2 x 4 ohm
Transducers:	
Low Frequency:	4 x 2206H, 300 mm (12 in) dia., 100 mm (4 in) edgewound ribbon voice coil
Physical:	
Enclosure:	rectangular; birch plywood, extensively braced
Suspension Attachment:	16 points; 4 each top, bottom, front & rear; accept M10 threaded hardware
Finish:	Black DuraFlex coating (white or custom color optional)
Grilles:	Black powder coated zinc treated 16 gauge perforated steel grille with foam backing (white or custom color optional)
Input Connector:	2x NL8 Neutrik Speakon connector
Wiring:	2 parallel-wired driver pairs; wired to NL8 connector as follows: middle 3+/-; bottom 4+/4-
Dimensions (H x W x D):	39 in x 24.5 in x 15 in 991 mm x 622 mm x 381 mm
Net Weight:	155.5 lb, 70.7 kg

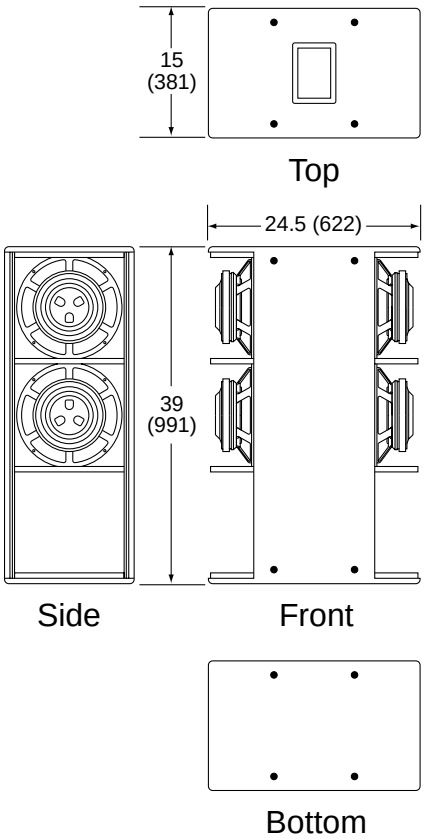
1 Sensitivity is based on a swept test signal with an input of 1 Watt at rated impedance, measured in half-space.

PD162 Family – High Output Midbass Array Modules



PD162U4 Front view, shown without grilles

Dimensions



Dimensions
in inches (mm)

PD162U4
Preliminary Specifications:

System:	
Frequency Range (-10 dB):	60 Hz - 1.7 kHz
Frequency Response (±3 dB):	78 Hz - 900 Hz
Recommended High Pass:	80 - 120 Hz, 48 dB/Octave
Recommended Low Pass:	250 Hz, 48 dB/Octave
Input Power Rating:	2400 W AES; 9600 W Peak; total system
(100 hour test duration)	2 x 1200 W AES; 2x 4800 W Peak; as wired
Sensitivity[1] (80 Hz - 300 Hz):	101 dB SPL, 1 W @ 1 m (3.3 ft)
Calculated Max. SPL	135 dB Continuous, 141 dB Peak (80 Hz - 300 Hz): (single module) SPL @ 1 m (3.3 ft)
Nominal Impedance:	2 x 4 ohm
Transducers:	
Low Frequency:	4 x 2206H, 300 mm (12 in) dia., 100 mm (4 in) edgewound ribbon voice coil
Physical:	
Enclosure:	rectangular; birch plywood, extensively braced
Suspension Attachment:	16 points; 4 each top, bottom, front & rear; accept M10 threaded hardware
Finish:	Black DuraFlex coating (white or custom color optional)
Grilles:	Black powder coated zinc treated 16 gauge perforated steel grille with foam backing (white or custom color optional)
Input Connector:	2x NL8 Neutrik Speakon connector
Wiring:	2 parallel-wired driver pairs; wired to NL8 connector as follows: top 2+/-; middle 3+/-
Dimensions (H x W x D):	39 in x 24.5 in x 15 in 991 mm x 622 mm x 381 mm
Net Weight:	155.5 lb, 70.7 kg

1 Sensitivity is based on a swept test signal with an input of 1 Watt at rated impedance, measured in half-space.

JBL PROFESSIONAL

JBL continually engages in research related to product improvement. Some 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.

JBL Professional
8500 Balboa Boulevard, P.O. Box 2200
Northridge, California 91329 U.S.A.

A Harman International Company

SS PD162
CRP 15M
8/01