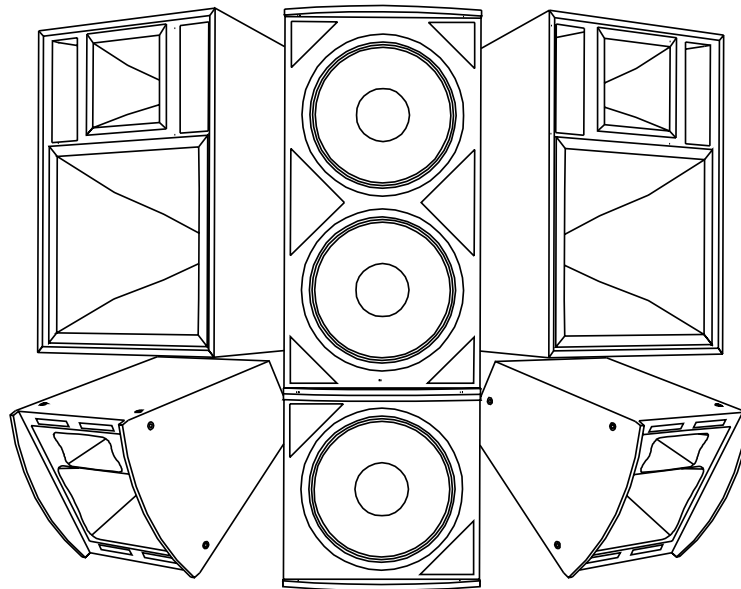


The JBL logo is displayed in a bold, white, sans-serif font against a black rectangular background.The word "PROFESSIONAL" is written in a white, sans-serif font on a black rectangular background, positioned directly below the JBL logo.

Array Application Guide

A Guide to Assist in the Specifying of JBL Installed Sound Products
Featuring 33 Pre-Designed Arrays of Application Engineered™ Series
and Precision Directivity™ Series Products With Array Optimization Tips

The logo for the Application Engineered Series. It features the letters "AF" in a large, bold, white font with a slight 3D effect. To the right of "AF", the words "APPLICATION ENGINEERED" are stacked vertically in a smaller, white, sans-serif font. Below this, the word "SERIES™" is written in a very small, white, sans-serif font.The logo for the Precision Directivity Series. It features the letters "PD" in a large, bold, white font with a slight 3D effect. To the right of "PD", the words "PRECISION DIRECTIVITY" are stacked vertically in a smaller, white, sans-serif font. Below this, the word "SERIES™" is written in a very small, white, sans-serif font.

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Introduction

This array guide illustrates how Application Engineered™ and Precision Directivity™ Series loudspeakers can provide the building blocks to construct arrays that fit almost any room size or application.

The arrays are categorized by configuration. These configurations help emphasize the scalability of the AE and PD Series loudspeakers as the arrays are upgraded in terms of power handling, bandwidth, and pattern control. General performance information including frequency range, nominal coverage, SPL capability, size, and weight are provided for each array.

Many of the arrays take advantage of the available hardware developed to rig some of the more popular arrays. This includes the PAF Planar Array Frames. A further description of this hardware can be found in the JBL publication: *AE Series Bracket and Array Frame Handbook* available on the JBL Professional website.

Also included in this guide is a section that describes some typical array applications examples, as they might be used in some typical rooms given various program requirements. The guide provides notes that can assist in the final optimization of the arrays and provides references to additional resources.

Although each room and project has its own demanding set of circumstances, we hope that this Array Guide provides some footing for understanding the wide variety of effective solutions that are possible with the AE and PD series of loudspeakers.



Suspending Loudspeaker Arrays

IMPORTANT SAFETY WARNING!

The information in this section has been assembled from recognized engineering data and is intended for informational purposes only. None of the information in this section should be used without first obtaining competent advice with respect to applicability to a given circumstance. None of the information presented herein is intended as a representation or warranty on the part of JBL. Anyone making use of this information assumes all liability arising from such use.

All information presented herein is based upon materials and practices common to North America and may not directly apply to other countries because of differing material dimensions, specifications, and/or local regulations. Users in other countries should consult with appropriate engineering and regulatory authorities for specific guidelines.

Correct use of all rigging hardware is required for secure system suspension. Careful calculations should always be performed to ensure that all components are used within their working load limits before the array is suspended. Never exceed the maximum recommended load ratings.

Before suspending any speaker system always inspect all components (enclosure, rigging frames, pins, eyebolts, track fittings, etc.) for cracks, deformations, corrosion, missing, loose or damaged parts that could reduce strength and safety of the array. Do not suspend the speaker until the proper corrective action has been taken. Use only load-rated hardware when suspending Application Engineered™ Series and Precision Directivity™ Series loudspeakers.

Are You New to Rigging?

If you are new to rigging, you should do the following:

- Read and study JBL Technical Note Volume 1, Number 14: Basic Principles for Suspending Loudspeaker Systems (available at http://www.jblpro.com/pub/technote/tn_v1n14.pdf).
- Know the rules for safe rigging.
- Attend a safe rigging seminar, such as that presented by professionals like Rigging Seminars™ (www.riggingseminars.com) or by Chain Motor Hoist manufacturers like Columbus McKinnon Corp. (manufacturers of the C/M Lodestar).
- Meet and establish a relationship with a licensed mechanical or structural engineer. Get in the habit of asking them questions instead of guessing about their answers. Learn from what they tell you.
- Meet and discuss this aspect of your business with your Insurance Agent.
- Research and understand the codes, practices, and requirements in the venues where you intend to install and operate sound systems.

General Hardware Information

Any hardware used in an overhead suspension application must be load rated for the intended use. Generally, this type of hardware is available from rigging supply houses, industrial supply catalogs and specialized rigging distributors. Local hardware stores do not usually stock these products. Hardware that is intended for overhead suspension will comply with ASME B30.20 and will be manufactured under product traceability controls. Compliant hardware will be referenced with a working load limit (WLL) and a traceability code.

Attachment to Structures

A licensed Professional Engineer must approve the placement and method of attachment to the structure prior to the installation of any overhead object. The following performance standards should be

provided to the Professional Engineer for design purposes; Uniform Building Code as applicable, Municipal Building Code as applicable, and Seismic Code as applicable.

The installation of the hardware and method of attachment must be carried out in the manner specified by the Professional Engineer. Improper installation may result in damage, injury or death.

Inspection & Maintenance

Suspension systems are comprised of mechanical devices and, as such, they require regular inspection and routine maintenance to insure proper function ability. JBL AE Series and PD Series loudspeakers must be inspected for fatigue at least annually. The inspection shall include a visual survey of all corners and load bearing surfaces for signs of cracking, water damage, de-lamination, or any other condition that may decrease the strength of the loudspeaker enclosure. Accessory rigging hardware provided with or for the JBL AE Series and PD Series loudspeakers must be inspected for fatigue at least annually. The inspection shall include a visual survey of the material for signs of corrosion, bending or any other condition that may decrease the strength of the fastener. Additionally, any eyebolts shall be checked for possible spin-out from the enclosure. For all other hardware and fittings, refer to the hardware manufacturer's inspection and maintenance guidelines for process.

JBL is not responsible for the application of its products for any purpose or the misuse of this information for any purpose. Furthermore, JBL is not responsible for the abuse of its products caused by avoiding compliance with inspection and maintenance procedures or any other abuse.

Prior to suspending the system, an expert, trained and experienced in flying speaker systems should inspect all rigging parts and components.

Safe Rigging

The JBL AE Series and PD Series are supplied with built-in internal brackets. The system is designed to facilitate the suspension of the loudspeaker by a qualified person familiar with rigging hardware and industry practices. Improper installation may result in damage, injury or death.



Array Applications

The arrays described in this guide are developed to meet the performance goals of a wide variety of applications. Array recommendations are largely dictated by the intended function of the sound system along with the size and shape of the room. For this discussion, we will divide the function of the sound system into three broad categories: Speech, Speech & Music, and High-Impact Music, and describe some typical solutions to three common room types. Referenced array types begin on page 13.

Speech Systems

A speech-only system's primary function is to provide good intelligibility throughout the room. For these systems, there is more of a tendency to use a center cluster system or a more distributed approach since cost and evenness of coverage are generally driving factors in the design. Center clusters provide good localization to the talker. Delay fills improve gain before feedback and coverage, but at an increased cost.

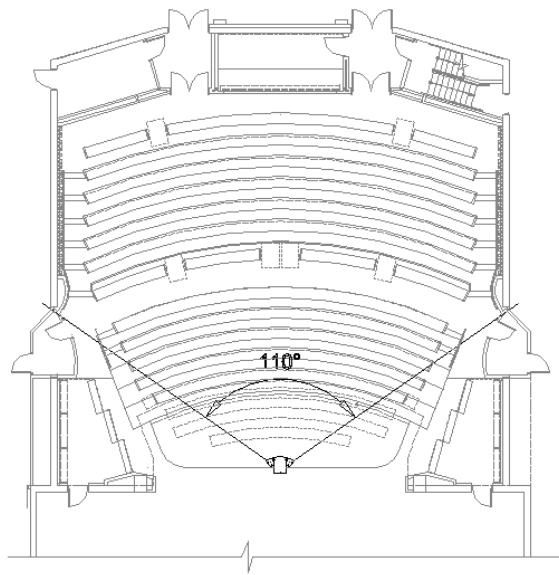


Figure 1: Array B3 (p. 19) as Center Cluster in small theater

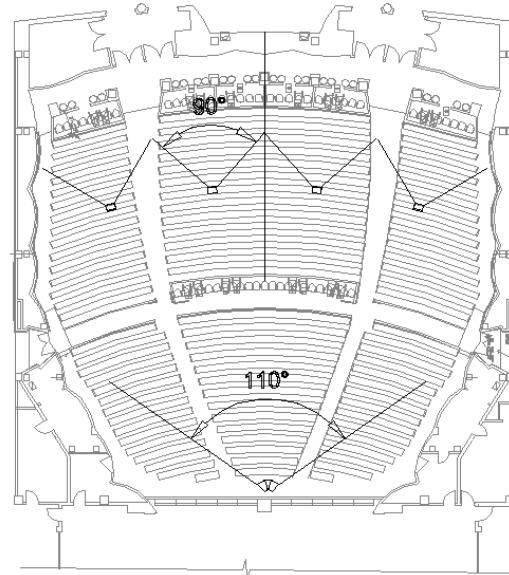


Figure 2: Array E4 (p. 26) as Center Cluster with AM4212 fill speakers in large auditorium

For small to medium sized rooms, Application Engineered™ two and three-way arrays are most appropriate. A simple single-tier solution such as array types B or C may be appropriate if the vertical coverage requirement is less than 50 degrees (see Figure 1). Larger rooms require higher SPL levels, better directivity, and usually a two-tiered array. In these cases, clusters that include the AM6340 or the PD5322 will provide the levels and broadband directivity to make these systems successful (see Figure 2).

For fan-shaped rooms or larger auditoriums, a three- or four-cluster system provides more consistent horizontal coverage and better localization to the stage. These systems can also improve coverage close to the stage (see Figures 3, 4 & 5).

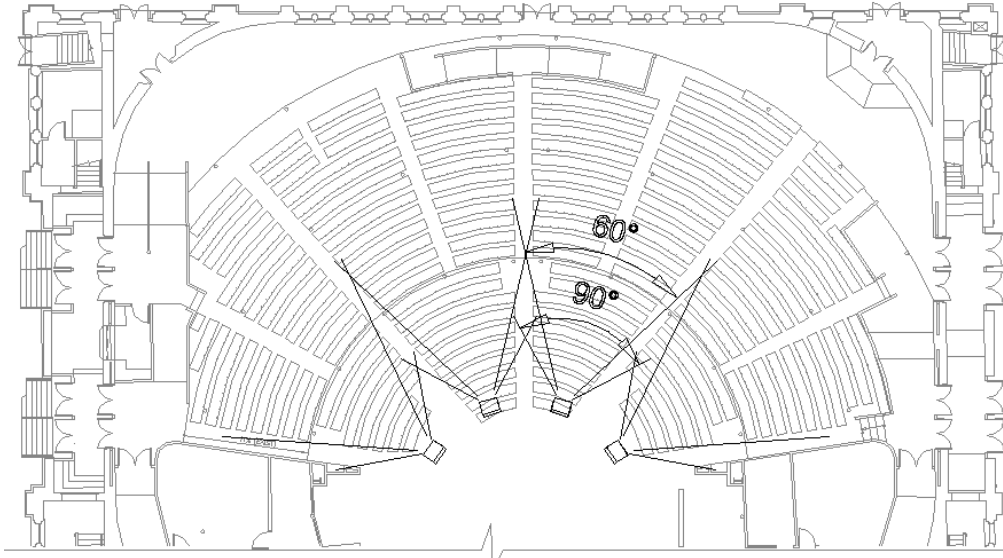


Figure 3: Array G4 (p. 34) used as an exploded cluster in a fan-shaped room

For larger center clusters, consider the D or E series of arrays. For three- and four-cluster systems as described above (see Figure 3), the G series of arrays are particularly useful given their low profile and excellent polar characteristics. The stacked LF drivers of these arrays combine to increase LF power and directivity, improving gain before feedback. They are also very simple to rig.

Combination Speech & Music Systems

A majority of sound reinforcement projects fall into this category. Here, all the elements associated with a successful speech system (evenness of coverage, consistent pattern control, and good intelligibility) need to be combined with a system that goes lower in frequency and gets louder. These systems require a strong proscenium system to provide source localization and solid low-frequency support.

The preferred configuration of these systems is often a L/C/R arrangement, although other building constraints or preferences may dictate otherwise (see Figures 4 & 5). Clusters must provide good directivity to lower frequencies in order to provide evenness of coverage and improved system gain before feedback.

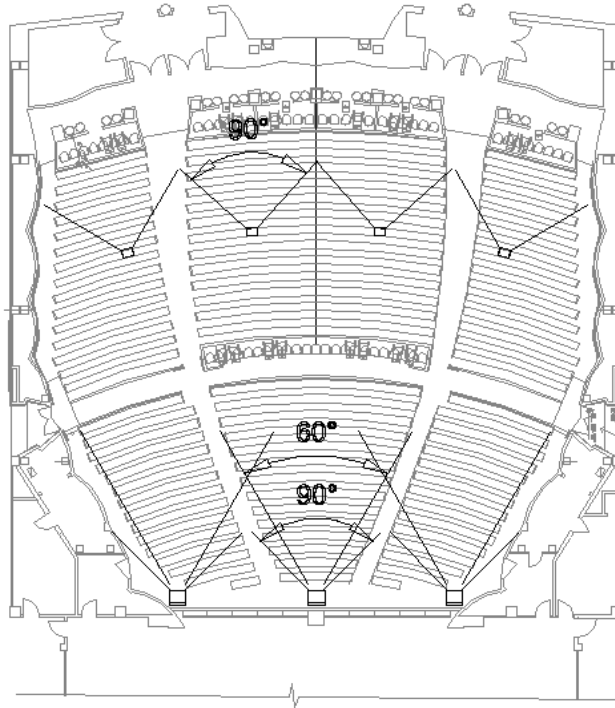


Figure 4: Array G4 (p. 34) used in a Left-Center-Right configuration in an auditorium

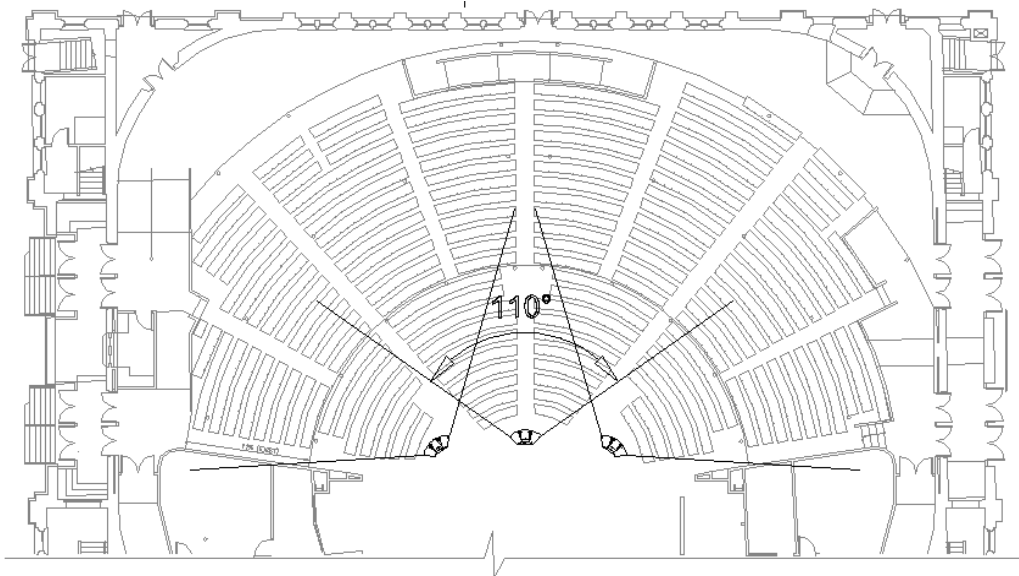


Figure 5: Array E3 (p. 25) used in a Left-Center-Right configuration in a fan-shaped room

Some of the array types described have subwoofers integrated into the array; others do not. Of course, subwoofers are often a requirement for this kind of system and can always be flown adjacent to the arrays or ground supported.

High-Impact Music Systems

While these systems are also sometimes used for speech, their primary purpose indicates that the arrays must produce high SPL Levels and have extended bandwidth by integrating subwoofers – whether flown or ground supported – into the system. Rectangular and auditorium shapes can have enhanced L/R only systems or L/C/R systems – the center channel sometimes being optimized for speech. Fan-shaped rooms once again must use three- or four-cluster systems to provide proper coverage and localization to the stage.

Many of the Speech-only or Speech & Music scenarios described above may be used as a basis for a high-impact music system provided the SPL levels are high enough (>110dB in the seating area) and subwoofers are included in the system. Similarly, the array types described will generally be appropriate for this use if sized correctly for the room and properly augmented with subwoofers.

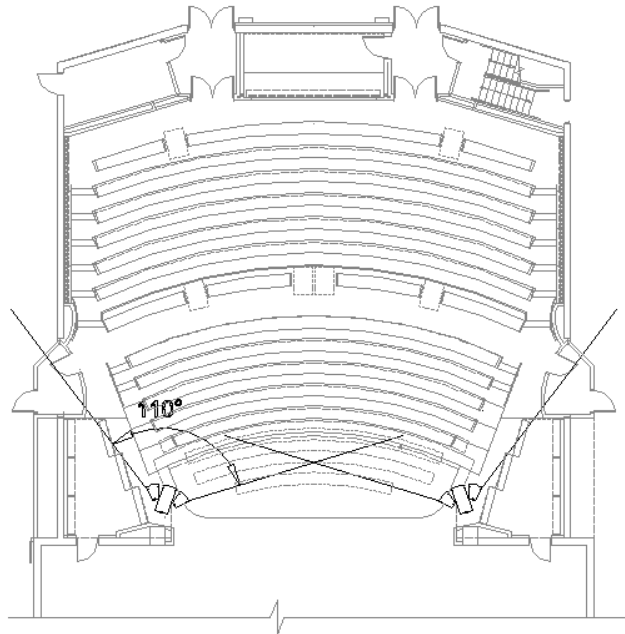


Figure 6: Array D1 (p. 21) used in a Right-Left configuration in a small theater

Summary

These are only some examples of the uses of the array types that follow. These arrays may be modified or augmented to meet the particular needs of the project. Hopefully, they are useful in providing a starting point for configurations you can consider for your project.

ARRAY TIPS

Modeling Arrays in Rooms

The arrays included in this array guide have been developed to provide good coverage consistency throughout their specified range and balanced power response throughout their bandwidth. They are arranged to produce systems that are easy to rig and meet common coverage and performance needs.

To better understand how these arrays will work in a particular room, it is always preferred to model the room with EASE™ or a similar type of predictive analysis tool. With these tools, array orientation and angles can be adjusted to optimize their use in the room. It is also a good way to determine how different elements of the system – multiple arrays and fills – combine to produce the complete solution.

EASE models for selected arrays are available on the JBL web site.

Optimizing Long-throw/Short-throw Loudspeaker Systems

Many sound reinforcement applications call for loudspeakers to be arranged in a “long-throw/short-throw” configuration. To set-up a system like this, we recommend the following procedure:

- 1) First, optimize the long-throw loudspeaker or system by itself (including separate LF). Store your optimized trace for later reference.
- 2) Optimize the short-throw (down-fill) speaker by itself (with long-throw off).

Note: When using a full-range downfill device, use the same high-pass as the long-throw device. For a mid-high downfill device, use the same high-pass as the long-throw M/H high-pass. This is important since using different crossover points is detrimental to how the loudspeakers interact due to phase mismatches through the crossover regions.

- 3) Level balance the downfill on-axis measurement to match the long-throw loudspeaker's on-axis measurement. This should be done above 1 kHz, where both devices are clearly in the effective range of the waveguide. This may be done by matching traces on an analysis system such as Smart™ or TEF™; or by simply using an SPL meter.
- 4) With both long-throw and short-throw sections on, analyze the downfill region again. The additional energy in this region, that results from the combined contribution of the long-throw device(s) and the downfill device, may be reduced by adding broad parametric EQ cuts to the downfill loudspeaker.

Note: The use of parametric filters introduces less phase shift between the long-throw and downfill devices than raising the high-pass crossover point of the downfill loudspeaker. This ultimately creates a smoother transition between the devices.

5) If both loudspeakers are full-range devices, the addition of the down-fill device will affect the long-throw response by increasing level in the LF region. This is usually beneficial since the overall array will provide greater LF levels, producing a more balanced system and better LF polar characteristics. However, this means that the final low-frequency EQ must be done with all devices on.

Note: Below 250 Hz, treat all components of the array as one device with the same EQ filters.

This proven procedure provides very good, consistent results for this common arrangement.

Signal Processing

Loudspeakers shown in this array guide are described in their most passive configuration; the number of DSP channels required and amplifier recommendations shown for each array type reflect this.

A separate DSP channel is required for the downfill loudspeakers. With the exception of the AM4315, the low-frequency section of a three-way system or separate LF enclosure will require an additional DSP channel, as will the subwoofers.

DSP signals for each individual array may be paralleled symmetrically. For instance, where two loudspeakers are side by side horizontally, there is no benefit to providing independent DSP. Level differences may be done at the amplifier if required.

Loudspeaker DSP settings may be found on the JBL web site. For the crossover between the subwoofers and the low-frequency section, a 24 dB/octave L-R crossover slope on each side is recommended. Also, it is good practice to use as a minimum an 18 dB/octave high-pass on the system with the corner frequency somewhere between the -10dB and -3dB down point of the loudspeaker reproducing the lowest frequency. Refer to the loudspeaker specifications for this data.

Low Frequency Pattern Control

Most of the arrays described in this guide have integral to them low-frequency devices that are arranged to provide improved directivity. No special DSP techniques are required to realize these benefits.

It is generally better to arrange LF devices vertically rather than horizontally, as the vertical arrangement tends to collapse the vertical polar pattern, which is beneficial in keeping energy off of the stage and projecting it into the room. Where it is important to limit the LF energy on the stage and to gain additional level and impact, look for solutions that stack two or more LF drivers vertically.

To further explore low-frequency arraying please refer to the following JBL white papers:

- 1) *Basic PD5322 and PD5122 Array Applications; Technical Notes Volume 1, Number 32.*

- 2) *Forward Steered Arrays in Precision Directivity™ Speaker Systems; Technical Notes Volume 1, Number 28.*
- 3) *Loudspeaker Array Low-Frequency Pattern Control using Filtered Array Technology™; JBL Professional Application Note.*
- 4) *JBL Audio Engineering for Sound Reinforcement* by John Eargle and Chris Foreman (*Hal Leonard Publications, 2002*).

These papers describe some of the most popular and effective low-frequency arraying techniques for performance systems including:

- Frequency-shaded or “Bi-polar” arrays
- Gradient or Cardioid arrays
- Filtered Array Technology™ (FAT) arrays
- Forward Steered arrays

Each of these arrays may be realized using product from the AE™ and PD™ series of loudspeakers. For additional information on the use of these arrays please contact the JBL application support staff.

Planar Array Frames

Planar Array Frames (PAFs) provide a pre-engineered solution to rig many of the arrays found in this guide. Please refer to the *AE Series Bracket and Array Frame Handbook* for more details.

When tilting an array that utilizes a PAF frame downward at angles greater than about 35 degrees, understand that the center section of the array will end up with more down-tilt than the outside sections. If this is undesirable, consider changing the rigging to a spherical array, where each box is aimed down independently. Spherical arrays can require more complex rigging, but have the benefit of independent adjustment of speakers on each axis.

Often the top tier of a multi-tiered array is aimed downward together at a shallower angle and the downfill boxes are aimed independently below that. This is how the two-tiered arrays in this guide are shown.

MORE INFORMATION

For more information on designing loudspeaker system arrays, refer to *JBL Audio Engineering for Sound Reinforcement* by John Eargle and Chris Foreman (*Hal Leonard Publications, 2002*) Additional system design information, including advanced design concepts, can be found at the "Technical Library" available on the JBL Professional's website.

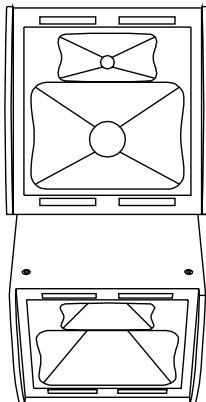
Information on amplifier recommendations found in this guide can be obtained at the Crown website: <http://www.crownaudio.com/>

Information on dsp hardware recommendations found in this guide can be obtained at the BSS Audio, Crown and dbx websites. All websites are accessible from: <http://jblpro.com/> .

Array A1

Two-element Vertical Array in Long-Throw/Short-Throw Configuration

Application Engineered 2-way Mid-High loudspeakers vertically splayed



ARRAY OVERVIEW

- This array is a good choice for small to medium-sized rooms as part of Single Point, Left/Right or L/C/R systems. The configuration is particularly appropriate for use as a Left/Right system flanking a proscenium opening as a speech only system.

Array Specifications

- Loudspeakers: (1) AM6200/64, (1) AM6200/95 downfill
Medium Power Solution: (1) AM4200/64, (1) AM4200/95 downfill
- Overall Coverage: 60°/90° horizontal x 85° vertical
- Downfill enclosure vertical splay angle: -50°
- Frequency range: 200 Hz – 19 kHz (*350 Hz – 23 kHz for Medium Power*)
- Maximum SPL (1 meter equivalent): 133 dB-SPL continuous average (*127 dB-SPL for Medium Power*)
- Total Power Capacity: 700W continuous pink noise (*250W for Medium Power*)
- Overall Dimensions: 45" H x 21.5" W x 34" D (1143 x 548 x 864mm)
- Total Loudspeaker Weight: 128 lbs. (59kg)

Recommended Amplification:

- AM6200 x 2: 2 ch. 600W [Crown CTs1200]
Medium Power Solution: 2 ch. 300W [Crown CTs600]

Recommended DSP:

- 2 channels required (*2 channels for medium power*). [Crown PIP-USP3, dbx Driverack 260, BSS FDS-334, BSS FDS-366, BSS SoundWeb]

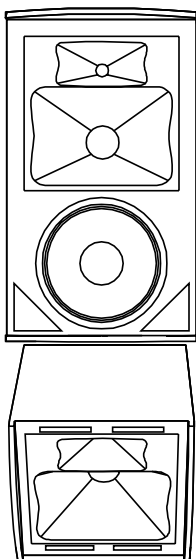
Available Accessories

- 3 pc. M10 x 35mm Forged Shouldered Eye-Bolt Kit (JBL part #229-00009-01)

Array A2

Two-element Vertical Array in Long-Throw/Short-Throw Configuration

Application Engineered 3-way 15" and Mid-High loudspeakers oriented and splayed vertically



ARRAY OVERVIEW

- This array is a good choice for small to medium-sized rooms as part of Left/Right or L/C/R systems. The configuration is particularly appropriate for use left and right of the proscenium opening for speech or speech + music program requirements.
- This system may be augmented with ground supported subwoofers. (e.g. ASB6128)

Array Specifications

- Loudspeakers: (1) AM6315/64, (1) AM6200/95 downfill
Medium Power Solution: (1) AM4315/64, (1) AM4200/95 downfill
- Overall Coverage: 60°/90° horizontal x 85° vertical
- Downfill enclosure vertical splay angle: -5°
- Frequency range: 38 Hz – 19 kHz (*40 Hz – 23 kHz for Medium Power*)
- Maximum SPL (1 meter equivalent): 133 dB-SPL continuous average MF/HF, [LF: 125 dB]
124 dB-SPL continuous average for Medium Power
- Total Power Capacity: 1700W continuous pink noise (*475W for Medium Power*)
- Overall Dimensions: 65.5" H x 22.1" W x 31" D (1664 x 562 x 788mm)
- Total Loudspeaker Weight: 171 lbs. (77.5kg) (*165 lbs. (75kg) for Medium Power*)

Recommended Amplification:

- AM6315: LF: 1 ch. 1250W [Crown CTs3000], AM6315 M/H: 1 ch. 600W [Crown CTs1200]
AM6200: 1 ch. 600W [Crown CTs1200]
Medium Power Solution: AM4315: 1 ch. 600W [Crown CTs1200], AM4200: 1 ch. 300W [Crown CTs600]

Recommended DSP:

- 3 channels required (*2 channels for Medium Power*). [Crown PIP-USP3, dbx Driverack, BSS FDS-334, BSS FDS-366, BSS SoundWeb]

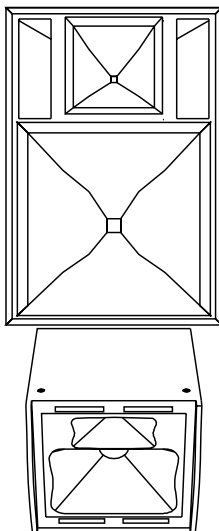
Available Accessories

- 3 pc. M10 x 35mm Forged Shouldered Eye-Bolt Kit (JBL part #229-00009-01)

Array A3

Two-element Vertical Array in Long-Throw/Short-Throw Configuration

Precision Directivity 3-way loudspeaker with Application Engineered vertically splayed mid-high downfill



ARRAY OVERVIEW

- This array is a good choice for medium to large rooms as part of a Left/Right or L/C/R music system.
- A PD5122 LF system may be added below the PD5322 to improve LF directivity for applications that have demanding gain before feedback issues. (see array A4) (see JBL Technote Volume 1, No. 32 for more information about PD5322/PD5122 LF steering)
- This system may be augmented with ground supported subwoofers. (e.g. ASB6128V)

Array Specifications

- Loudspeakers: (1) PD5322/64, (1) AM6200/95 downfill
- Overall Coverage: 85° vertical x 60°/90° horizontal
- Downfill enclosure vertical splay angle: -50°
- Frequency range: 41 Hz – 19 kHz
- Maximum SPL (1 meter equivalent): 134 dB-SPL continuous average MF/HF, [LF: 128 dB]
- Total Power Capacity: 2300W continuous pink noise
- Overall Dimensions: 67" H x 26.5" W x 29" D (1702 x 673 x 737mm)
- Total Loudspeaker Weight: 234 lbs. (106.2kg)

Recommended Amplification:

- PD5322: LF: 1 ch. 2000W [Crown I-T4000], PD5322 M/H: 1 ch. 600W [Crown CTs1200]
AM6200: 1 ch. 600W [Crown CTs1200]

Recommended DSP:

- 3 channels required. [Crown PIP-USP3, dbx Driverack 260, BSS FDS-334, BSS FDS-366, BSS SoundWeb]

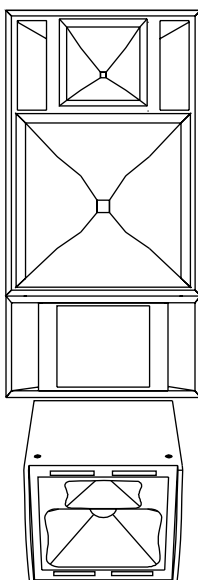
Available Accessories

- 3 pc. M10 x 35mm Forged Shouldered Eye-Bolt Kit (JBL part #229-00009-01)

Array A4

Full Range array with Integrated Space-Source, 'Bipole' Low Frequency

Precision Directivity 3-way loudspeaker with
Application Engineered vertically splayed mid-high downfill



ARRAY OVERVIEW

- This array is a good choice for larger rooms as part of Left/Right or L/C/R high impact music system where high SPL levels and excellent gain before feedback is required.
- Bipole Spaced-source low-frequency driver arrays combine with the large mid-frequency waveguide to maintain pattern control through 125Hz. (*see JBL Technote Volume 1, No. 32 for more information about PD5322/PD5122 LF steering*)
- This system may be augmented with ground supported subwoofers. (e.g. ASB6128V)

Array Specifications

- Loudspeakers: (1) PD5322/64 or /95, (1) PD5122, (1) AM6200/95 downfill
- Overall Coverage: 60°/90° horizontal x 85° vertical
- Downfill enclosure vertical splay angle: -50°
- Frequency range: 41 Hz – 19 kHz
- Maximum SPL (1 meter equivalent): 134 dB-SPL continuous average MF/HF, [LF: 134 dB]
- Total Power Capacity: 3900W continuous pink noise
- Overall Dimensions: 82" H x 26.5" W x 29" D (2077 x 673 x 737mm)
- Total Loudspeaker Weight: 314 lbs. (142.5kg)

Recommended Amplification:

- PD5322 LF 1 ch. 2000W [Crown I-T4000], PD5322 M/H: 1 ch. 600W [Crown CTs1200], PD5122: 1 ch. 2000W [Crown I-T4000], AM6200: 1 ch. 600W [Crown CTs1200]

Recommended DSP:

- 3 channels required. [Crown PIP-USP3, Crown I-Tech, dbx Driverack 260, BSS FDS-334, BSS FDS-366 BSS SoundWeb]

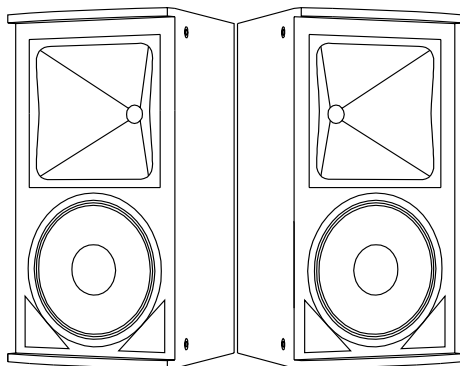
Available Accessories

- 3 pc. M10 x 35mm Forged Shouldered Eye-Bolt Kit (JBL part #229-00009-01)

Array B1

Two-element Horizontal Array

Application Engineered 2-way 12" loudspeakers horizontally splayed



ARRAY OVERVIEW

- This array is a good solution for a simple Center or Left/Right cluster in small to medium-sized rooms for both speech and speech + music systems.

Array Specifications

- Loudspeakers: (2) AM6212/64
Medium Power Solution: (2) AM4212/64
- Overall Coverage: 110° horizontal x 40° vertical
- Enclosure splay angle: 60°
- Frequency range: 40 Hz – 19 kHz (*55 Hz – 20 kHz for Medium Power*)
- Maximum SPL (1 meter equivalent): 130 dB-SPL continuous average (*126 dB-SPL for Medium Power*)
- Total Power Capacity: 1200W continuous pink noise (*700W for Medium Power*)
- Overall Dimensions: 28.1" H x 35.25" W x 20" D (713 x 896 x 508mm)
- Total Loudspeaker Weight: 118 lbs. (54kg) (*114 lbs (52kg) for Medium Power*)

Recommended Amplification:

- AM6212/64 x 2: 2 ch. 1250W [Crown CTs3000]
Medium Power Solution: AM4212/64 x 2: 2 ch. 600W [Crown CTs1200] or 1 ch. 1000W [Crown CTs2000]

Recommended DSP:

- 1 channel required (*1 channel for Medium Power*). [Crown PIP-USP3, dbx Driverack 260, BSS FDS-334, BSS FDS-366, BSS SoundWeb]

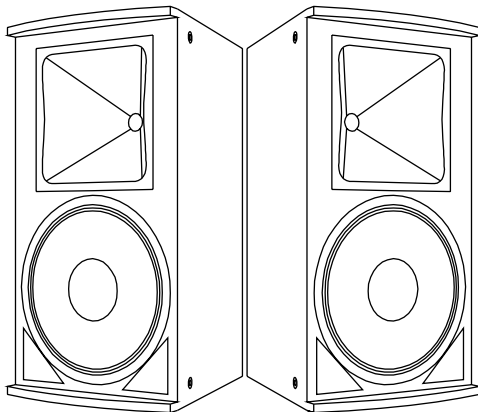
Available Accessories

- 3 pc. M10 x 35mm Forged Shouldered Eye-Bolt Kit (JBL part #229-00009-01)

Array B2

Two-element Horizontal Array

Application Engineered 2-way 15" loudspeakers horizontally splayed



ARRAY OVERVIEW

- This array is a good solution for a simple Center or Left/Right cluster in small to medium-sized rooms for both speech and speech + music systems.

Array Specifications

- Loudspeakers: (2) AM6215/64
Medium Power Solution: (2) AM4215/64
- Overall Coverage: 110° horizontal x 40° vertical
- Enclosure splay angle: 60°
- Frequency range: 35 Hz – 19 kHz (*40 Hz – 20 kHz for Medium Power*)
- Maximum SPL (1 meter equivalent): 133 dB-SPL continuous average (*130 dB-SPL for Medium Power*)
- Total Power Capacity: 1200W continuous pink noise (*700W for Medium Power*)
- Overall Dimensions: 30.8" H x 39.7" W x 22.1" D (783 x 1009 x 562mm)
- Total Loudspeaker Weight: 135 lbs. (62kg) (*130 lbs (59kg) for Medium Power*)

Recommended Amplification:

- AM6215/64 x 2: 2 ch. 1250W [Crown CTs3000]
Medium Power Solution: 2 ch. 600W [Crown CTs1200] or 1 ch. 1000W [Crown CTs2000]

Recommended DSP:

- 1 channel required (*1 channel for Medium Power*). [Crown PIP-USP3, dbx Driverack 260, BSS FDS-334, BSS FDS-366, BSS SoundWeb]

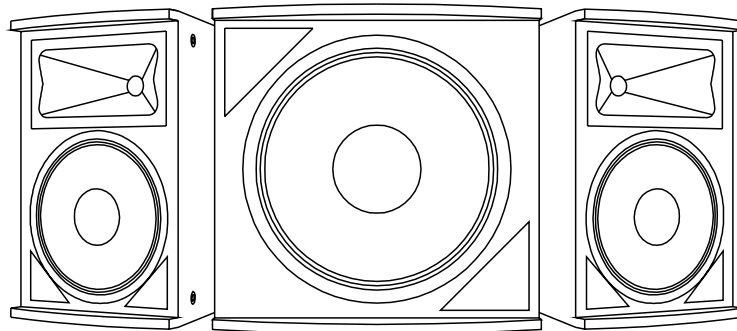
Available Accessories

- 3 pc. M10 x 35mm Forged Shouldered Eye-Bolt Kit (JBL part #229-00009-01)

Array B3

Two-element Horizontal Array with Subwoofer

Application Engineered 2-way 12" loudspeakers horizontally splayed plus subwoofer



ARRAY OVERVIEW

- This array is a great choice for small to medium-sized rooms as a center cluster.
- Provides a cost-effective center cluster solution with excellent coverage at medium SPL levels for speech and fullrange program material.

Array Specifications

- Loudspeakers: (2) AC2212/64, (1) ASB6118 Subwoofer
- Overall Coverage: 110° horizontal x 40° vertical
- Splay angle between AC2212/64 enclosures: 50°
- Frequency range: 28 Hz – 19 kHz
- Maximum SPL (1 meter equivalent): 126 dB-SPL continuous average LF/HF, [Sub: 129 dB]
- Total Power Capacity: 1700W continuous pink noise
- Overall Dimensions: 22" H x 54.5" W x 33" D (559 x 1368 x 817mm)
- Total Loudspeaker Weight: 144 lbs. (65.3kg)

Recommended Amplification:

- AC2212/64 x 2: 1 ch. 1000W [Crown CTs2000], ASB6118: 1 ch. 1000W [Crown CTs2000]

Recommended DSP:

- 2 channels required. [Crown PIP-USP3, dbx Driverack 260, BSS FDS-334, BSS FDS-366, BSS SoundWeb]

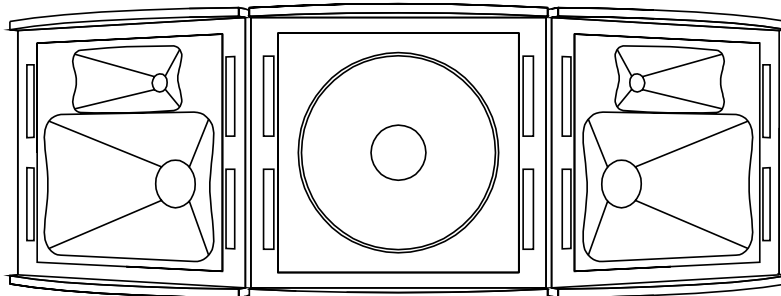
Available Accessories

- PAF-1 Planar Array Frame Kit

Array C1

Three-element Horizontal Array in a Wide Coverage Configuration

Application Engineered Mid/High loudspeakers horizontally splayed with Low Frequency Enclosure



ARRAY OVERVIEW

- This array is a great choice for small to medium-large rooms as a center speech cluster system offering very high intelligibility, yet maintaining a low vertical profile.
- Provides a cost-effective center cluster solution for good coverage and full-range program. Alternate 4000 Series Medium Power devices can be substituted where pattern control is still critical but maximum SPL requirements are lower.

Array Specifications

- Loudspeakers: (2) AM6200/64, (1) AL6115 Low Frequency Enclosure
Medium Power Solution: (2) AM4200/64, (1) AL6115
- Overall Coverage: 110° horizontal x 55° vertical
- Splay angle between AM6200/64 enclosures: 60°
- Frequency range: 40 Hz – 19 kHz (*40 Hz – 23 kHz for Medium Power*)
- Maximum SPL (1 meter equivalent): 133 dB-SPL continuous average MF/HF, [LF: 129 dB]
127 dB-SPL continuous average for Medium Power MF/HF, [LF: 129 dB]
- Total Power Capacity: 1700W continuous pink noise (*1250W for Medium Power*)
- Overall Dimensions: 22.1" H x 63.75" W x 31" D (562 x 1620 x 788 mm)
- Total Loudspeaker Weight: 192 lbs. (87 kg) (*188 lbs. (85 kg) for Medium Power*)

Recommended Amplification:

- AM6200/64 x 2: 1 ch. 1000W [Crown CTs2000], AL6115: 1 ch. 1000W [Crown CTs2000]
Medium Power Solution: AM4200/64 x 2: 1 ch. 600W [Crown CTs1200], AL6115: 1 ch. 600W [Crown CTs1200]

Recommended DSP:

- 2 channels required (*2 channels for Medium Power*). [Crown PIP-USP3, dbx Driverack 260, BSS FDS-334, BSS FDS-366, BSS SoundWeb]

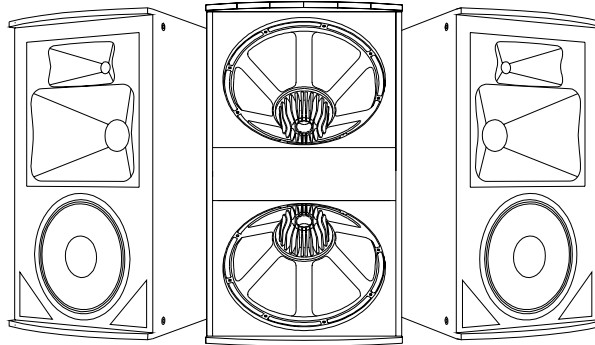
Available Accessories:

- PAF-3 Planar Array Frame kit

Array D1

Two-element Horizontal Array with Subwoofer

Application Engineered 3-way 15" loudspeakers horizontally splayed plus Subwoofer



ARRAY OVERVIEW

- This array is a good choice for medium to large rooms as a center cluster or as part of a Left/Right or L/C/R music system.
- Full bandwidth 4-way system is excellent for high-impact musical program requirements.
- Flown subwoofer rigged with available PAF-2K array frame allows for an easy to install, pre-engineered system.

Array Specifications

- Loudspeakers: (2) AM6315/64, (1) ASB6128V Subwoofer
Medium Power Solution: (2) AM4315/64, (1) ASB6128V
- Overall Coverage: 110° horizontal x 40° vertical
- Splay angle between AM6315/64 enclosures: 60°
- Frequency range: 22 Hz – 19 kHz (*22 Hz – 23 kHz for Medium Power*)
- Maximum SPL (1 meter equivalent): 133 dB-SPL continuous average MF/HF, [Sub: 132 dB, LF: 131 dB]
127 dB-SPL continuous average for Medium Power LF/MF/HF, [Sub: 132 dB]
- Total Power Capacity: 5100W continuous pink noise (*3100W for Medium Power*)
- Overall Dimensions: 38.1" H. x 74.25" W. x 48" D. (968 x 1886 x 1220 mm)
- Total Loudspeaker Weight: 412 lbs. (187 kg) (*404 lbs. (186 kg) for Medium Power*)

Recommended Amplification:

- AM6315 LF x 2: 2 ch. 1250W [Crown CTs3000], AM6315 M/H x 2: 2 ch. 600W [Crown CTs1200]
ASB6128V: 2 ch. 1250W [Crown CTs3000] or 1 ch. 3000W [Crown I-T6000]
- *Medium Power Solution: AM4315 x 2 : 2 ch. 600W [Crown CTs1200], ASB6128V: 2 ch. 1500W [Crown CTs3000] or 1 ch. 3000W [Crown I-T6000]*

Recommended DSP:

- 3 channels required (*2 channels for Medium Power*). [Crown PIP-USP3, Crown I-Tech, dbx Driverack 260, BSS FDS-334, BSS SoundWeb]

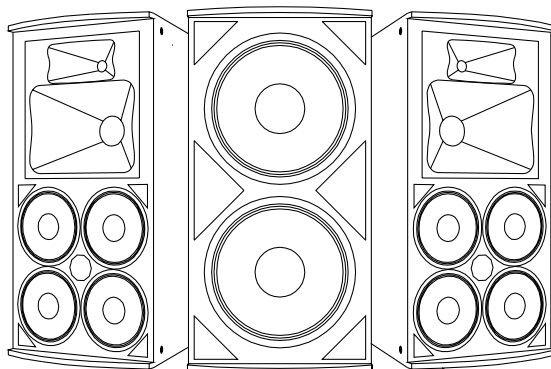
Available Accessories:

- PAF-2K Planar Array Frame kit

Array D2

Two-element Horizontal Array with Subwoofer

Application Engineered 3-way Quad 10" loudspeakers
horizontally splayed plus Subwoofer



ARRAY OVERVIEW

- This array is a good choice for medium to large rooms as a center cluster or as part of a Left/Right or L/C/R music system.
- Full bandwidth 4-way system is excellent for high-impact musical program requirements.
- Stacked 10" drivers improve vertical directivity in the low-frequency band to improve gain before feedback.
- Flown subwoofer rigged with available PAF-2K array frame allows for a convenient, pre-engineered system.

Array Specifications

- Loudspeakers: (2) AM6340/64, (1) ASB6128 Subwoofer
- Overall Coverage: 110° horizontal x 40° vertical
- Splay angle between AM6340/64 enclosures: 60°
- Frequency range: 28 Hz – 19 kHz
- Maximum SPL (1 meter equivalent): 133 dB-SPL continuous average MF/HF, [Sub: 136 dB, LF: 136 dB]
- Total Power Capacity: 5500W continuous pink noise
- Overall Dimensions: 43.1" H x 71.75" W x 32.2" D (1095 x 1880 x 839 mm)
- Total Loudspeaker Weight: 411 lbs. (187 kg)

Recommended Amplification:

- AM6340 x 2 LF: 2 ch. 1250W [Crown CTs3000], AM6340 M/H x 2: 2 ch. 600W [Crown CTs1200]
ASB6128: 2 ch. 1250W [Crown CTs3000] or 1 ch. 3000w [Crown I-T6000]

Recommended DSP:

- 3 channels required. [Crown PIP-USP3, Crown I-Tech, dbx Driverack 260, BSS FDS-334, BSS FDS-366, BSS SoundWeb]

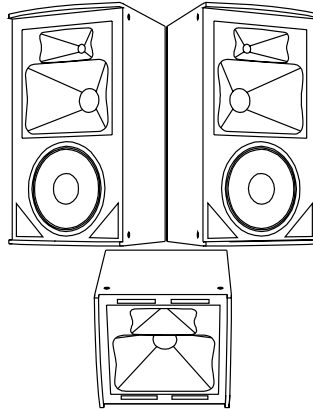
Available Accessories:

- PAF-2K Planar Array Frame kit

Array E1

Two-element Horizontal Array with Downfill

Application Engineered 3-way 15" loudspeakers horizontally splayed with vertically splayed Application Engineered mid-high downfill



ARRAY OVERVIEW

- This array is an excellent choice for medium-sized rooms as a center cluster or as part of a Left/Right or L/C/R system.
- High-powered three-way system provides a full-bandwidth music system.
- Array may be augmented with flown or ground stacked ASB6128V subwoofers (see Array D1).

Array Specifications

- Loudspeakers: (2) AM6315/64, (1) AM6200/95 downfill.
Medium Power Solution: (2) AM4315/64, (1) AM4200/95 downfill.
- Overall Coverage: 110° horizontal x 85° vertical
- Splay angle between AM6315/64 (or AM4315/64) enclosures: 60°
- Downfill enclosure vertical splay angle: -50°
- Frequency range: 38 Hz – 19 kHz (*40 Hz – 23 kHz for Medium Power*)
- Maximum SPL (1 meter equivalent): 133 dB-SPL continuous average MF/HF, [LF: 131 dB]
127 dB-SPL continuous average for Medium Power
- Total Power Capacity: 3050W continuous pink noise (*825W for Medium Power*)
- Overall Dimensions: 65" H x 52" W x 29.5" D (1651 x 1321 x 750 mm)
- Total Loudspeaker Weight: 280 lbs. (127 kg) (*275 lbs. (125 kg) for Medium Power*)

Recommended Amplification:

- AM6315 LF x 2: 2 ch. 1250W [Crown CTs3000], AM6315 M/H x 2: 2 ch. 600W [Crown CTs1200]
AM6200/95: 1 ch. 600W [Crown CTs1200]
- *Medium Power: AM4315 x 2: 2 ch. 600W [Crown CTs1200], AM4200/95: 1 ch. 300W [Crown CTs600]*

Recommended DSP:

- 3 channels required (*2 channels for Medium Power*). [Crown PIP-USP3, dbx Driverack 260, BSS FDS-334, BSS SoundWeb]

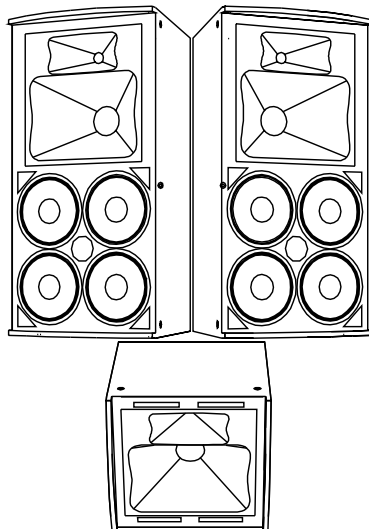
Available Accessories:

- 3 pc. Eye-bolt kit (part # 229-00009-01)

Array E2

Two-element Horizontal Array with Downfill

Application Engineered 3-way Quad-10" loudspeakers horizontally splayed with vertically splayed Application Engineered mid-high downfill



ARRAY OVERVIEW

- This array is a good choice for medium-sized rooms as a center cluster or as part of Left/Right or L/C/R speech or music systems.
- Quad 10" LF drivers improve vertical directivity and increase LF SPL.
- System may be augmented with flown or ground stacked ASB6128 subwoofers (see Array D2).

Array Specifications

- Loudspeakers: (2) AM6340/64, (1) AM6200/95 downfill.
- Overall Coverage 110° horizontal x 85° vertical
- Splay angle between AM6340/64 enclosures: 60°
- Downfill enclosure vertical splay angle: -50°
- Frequency range: 50 Hz – 19 kHz
- Maximum SPL (1 meter equivalent): 133 dB-SPL continuous average MF/HF, [LF: 136 dB]
- Total Power Capacity: 3450W continuous pink noise
- Overall Dimensions: 70" H x 49.5" W x 30" D (1778 x 1258 x 762 mm)
- Total Loudspeaker Weight: 315 lbs. (143 kg)

Recommended Amplification:

- AM6340 LF x 2: 2 ch. 1250W [Crown CTs3000], AM6340 M/H x 2: 2 ch. 600W [Crown CTs1200], AM6200/95: 1 ch. 600W [Crown CTs1200]

Recommended DSP:

- 3 channels required. [Crown PIP-USP3, dbx Driverack 260, BSS FDS-334, BSS FDS-366, BSS SoundWeb]

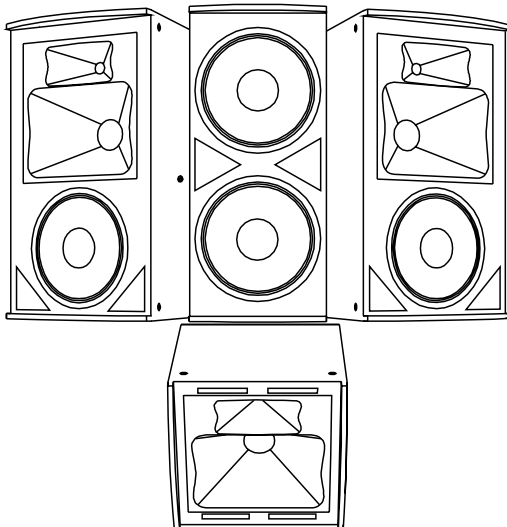
Available Accessories:

- 3 pc. Eye-bolt kit (part # 229-00009-01)

Array E3

Two-element Horizontal Array with Additional LF and Downfill

Application Engineered loudspeakers horizontally splayed with vertically splayed Application Engineered mid-high downfill



ARRAY OVERVIEW

- This array is a good choice for medium-sized rooms as a center cluster or as part of Left/Right or L/C/R music system.
- Additional dual 15" low frequency enclosure increases bass output and impact for improved musical performance, and also improves vertical directivity in the low-frequency bandpass.
- Array may be augmented ground stacked subwoofers such as the ASB6128V.

Array Specifications

- Loudspeakers: (2) AM6315/64, (1) AL6125, (1) AM6200/95 downfill
- Overall Coverage: 110° horizontal x 85° vertical
- Splay angle between AM6315/64 enclosures: 60°
- Downfill enclosure vertical splay angle: -50°
- Frequency range: 40 Hz – 19 kHz
- Maximum SPL (1 meter equivalent): 133 dB-SPL continuous average MF/HF, [LF: 136 dB]
- Total Power Capacity: 5050W continuous pink noise
- Overall Dimensions: 65" H x 65.25" W x 32" D (1651 x 1658 x 813 mm)
- Total Loudspeaker Weight: 376 lbs. (171 kg)

Recommended Amplification:

- AM6315 LF x 2: 2 ch. 1250W [Crown CTs3000], AM6315 M/H x 2: 2 ch. 600W [Crown CTs1200], AL6125 2 ch. 1250W [Crown CTs3000] or 1 ch. 2000W [Crown I-T4000], AM6200/95: 1 ch. 600W [Crown CTs1200]

Recommended DSP:

- 3 channels required. [Crown PIP-USP3, Crown I-Tech, dbx Driverack 260, BSS FDS-334, BSS FDS-366, BSS SoundWeb]

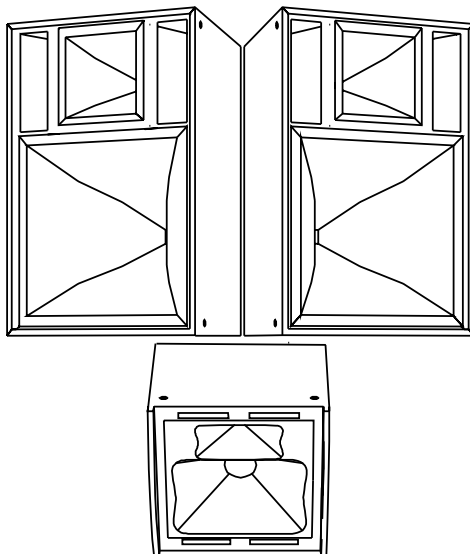
Available Accessories:

- 3 pc. Eye-bolt kit (part # 229-00009-01)

Array E4

Two-element Horizontal Array with Downfill

Precision Directivity 3-way loudspeakers horizontally splayed with vertically splayed Application Engineered mid-high downfill



ARRAY OVERVIEW

- This array is a great choice for medium to large rooms as a center cluster or as part of a high impact Left/Right or L/C/R system.
- The four 12" low frequency drivers combine to provide solid LF response and improve horizontal directivity.
- Array may be augmented ground stacked ASB6128V subwoofers to create a system with optimized pattern control for high impact music reinforcement.

Array Specifications

- Loudspeakers: (2) PD5322/64, (1) AM6200/95 downfill.
- Overall Coverage: 110° horizontal x 85° vertical
- Splay angle between PD5322 enclosures: 60°
- Downfill enclosure vertical splay angle: -50°
- Frequency range: 41 Hz – 19 kHz
- Maximum SPL (1 meter equivalent): 134 dB-SPL continuous average MF/HF, [LF: 134 dB]
- Total Power Capacity: 4150W continuous pink noise
- Overall Dimensions: 66" H. x 58.5" W. x 33" D. (1677 x 1486 x 839 mm)
- Total Loudspeaker Weight: 404 lbs. (184 kg)

Recommended Amplification:

- PD5322 LF x 2: 2 ch. 2000W [Crown I-T4000], PD5322 M/H x 2: 2 ch. 600W [Crown CTs1200], AM6200/95: 1 ch. 600W [Crown CTs1200]

Recommended DSP:

- 3 channels required. [Crown PIP-USP3, Crown I-Tech, dbx Driverack 260, BSS FDS-334, BSS FDS-366, BSS SoundWeb]

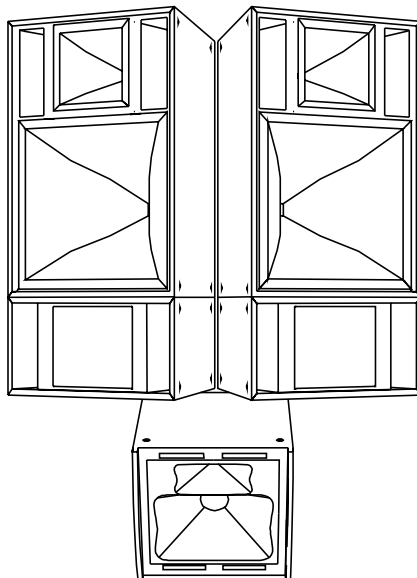
Available Accessories:

- 3 pc. Eye-bolt kit (part # 229-00009-01)

Array E5

Two-element Horizontal Array with Downfill

Precision Directivity 3-way loudspeakers horizontally splayed with integral low frequency shaded array and downfill



ARRAY OVERVIEW

- This array is a good choice for medium to large rooms as a center cluster or as part of a high impact Left/Right or L/C/R system.
- Spaced source 12" drivers (PD5322 + PD5122) create directivity through 125 Hz to improve gain before feedback and optimize evenness of coverage.
- Array may be augmented ground stacked subwoofers such as the ASB6128V to create a system with optimized pattern control and high impact music reinforcement.

Array Specifications

- Loudspeakers: (2) PD5322/64, (2) PD5122, (1) AM6200/95 downfill.
- Overall Coverage: 110° horizontal x 85° vertical
- Splay angle between PD5322/5122 enclosures: 60°
- Downfill enclosure vertical splay angle: -50°
- Frequency range: 41 Hz – 19 kHz
- Maximum SPL (1 meter equivalent): 134 dB-SPL continuous average MF/HF, [LF: 140 dB]
- Total Power Capacity: 7350W continuous pink noise
- Overall Dimensions: 80" H x 58.5" W x 35" D (2032 x 1486 x 889 mm)
- Total Loudspeaker Weight: 630 lbs. (286 kg)

Recommended Amplification:

- PD5322 LF x 2: 2 ch. 2000W [Crown I-T4000], PD5322 M/H x 2: 2 ch. 600W [Crown CTs1200]
PD5122 x 2: 2 ch. 2000W [Crown I-T4000], AM6200/95: 1 ch. 600W [Crown CTs1200]

Recommended DSP:

- 3 channels required. [Crown PIP-USP3, Crown I-Tech, dbx Driverack 260, BSS FDS-334, BSS FDS-366, BSS SoundWeb]

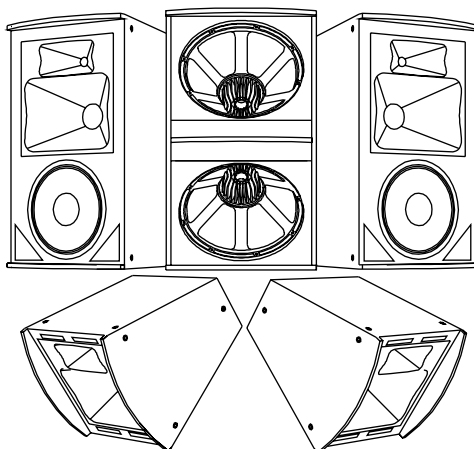
Available Accessories:

- 3 pc. Eye-bolt kit (part # 229-00009-01)

Array F1

Two-element Horizontal Array with Subwoofer and Downfill

Application Engineered 3-way 15" loudspeakers horizontally splayed plus subwoofer and horizontally splayed mid/high downfills



ARRAY OVERVIEW

- This array is a good choice for medium to large rooms as a center cluster or as part of Left/Right or L/C/R music systems.
- Full bandwidth 4-way system is excellent for high-impact music program.
- Flown subwoofer rigged with available PAK-2K array frame allows for a convenient, pre-engineered system.

Array Specifications

- Loudspeakers: (2) AM6315/64, (1) ASB6128V Subwoofer, (2) AM6200/95
Medium Power Solution: (2) AM4315/64, (1) ASB6128V, (2) AM4200/95
- Overall Coverage: 110° horizontal x 85° vertical
- Splay angle between AM6315/64 (or AM4315/64) enclosures: 60°
- Downfill enclosure vertical splay angle: -50°, horizontal splay angle: 70°
- Frequency range: 22 Hz – 19 kHz (*22 Hz – 23 kHz for Medium Power*)
- Maximum SPL (1 meter equivalent): 133 dB-SPL continuous average MF/HF, [Sub: 132 dB, LF: 131 dB]
127 dB-SPL continuous average for Medium Power LF/MF/HF, [Sub: 132 dB]
- Total Power Capacity: 5800W continuous pink noise (*3350 W for Medium Power*)
- Overall Dimensions: 67" H x 76" W x 48" D (1702 x 1930 x 1219 mm)
- Total Loudspeaker Weight: 540 lbs. (245 kg). (*Medium-Power Solution: 530 lbs. (241 kg)*)

Recommended Amplification:

- AM6315 x 2 LF: 2 ch. 1250W [Crown CTs3000], AM6315 M/H x 2: 2 ch. 600W [Crown CTs1200]
ASB6128V: 2 ch. 1250W [Crown CTs3000] or 1 ch. 3000W [Crown I-T6000], AM6200/95: 1 ch. 600W [Crown CTs1200]
- *Medium Power Solution: AM4315 x 2: 2 ch. 600W [Crown CTs1200], ASB6128V: 2 ch. 1500W [Crown CTs3000] or 1 ch. 3000W [Crown IT8000], AM4200/95 x 2: 1 ch. 300W [Crown CTs600]*

Recommended DSP:

- 4 channels required (*3 channels for Medium Power*). [Crown PIP-USP3, Crown I-Tech, dbx Driverack 260, BSS FDS-334, BSS FDS-366]

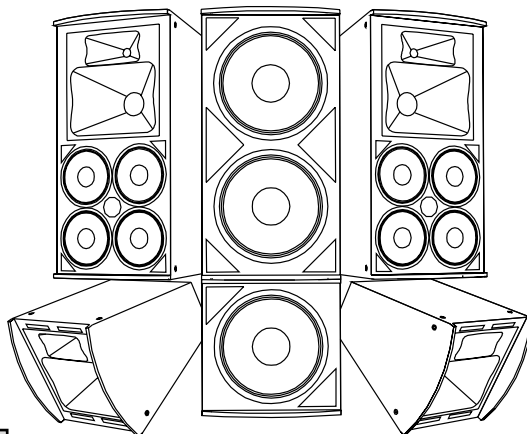
Available Accessories:

- PAF-2K Planar Array Frame kit

Array F2

Two-element Horizontal Array with Subwoofers and Downfill

Application Engineered 3-way Quad-10" loudspeakers horizontally splayed plus subwoofer and horizontally splayed mid/high downfills



ARRAY OVERVIEW

- This array is a good choice for larger rooms as a center cluster or as part of high-impact Left/Right or L/C/R systems.
- Three matched 18" subwoofer drivers are cleanly incorporated into the array to extend bandwidth and bass impact.
- Stacked 10" drivers improve vertical directivity in the low-frequency band.

Array Specifications

- Loudspeakers: (2) AM6340/64, (1) ASB6128, (1) ASB6118, (2) AM6200/64 downfill
- Overall Coverage: 110° horizontal x 85° vertical
- Splay angle between AM6340/64 enclosures: 60°
- Downfill enclosure vertical splay angle: -50°, horizontal splay angle: 70°
- Frequency range: 22 Hz – 19 kHz
- Maximum SPL (1 meter equivalent): 133 dB-SPL continuous average MF/HF, [Sub: 138 dB, LF: 136 dB]
- Total Power Capacity: 7400W continuous pink noise
- Overall Dimensions: 72" H x 94" W x 38" D (1828 x 2387 x 965mm)
- Total Loudspeaker Weight: 640 lbs. (290kg)

Recommended Amplification:

- AM6340 LF x 2: 2 ch. 1250W [Crown CTs3000], AM6340 M/H x 2: 2 ch. 600W [Crown CTs1200]
ASB6128: 1 ch. 3000W [Crown I-T6000], ASB6118: 1 ch. 1500W [Crown I-T6000]
AM6200 x 2: 2 ch. 600W [Crown CTs1200]

Recommended DSP:

- 4 channels required. [Crown PIP-USP3, Crown I-Tech, dbx Driverack 260, BSS FDS-334, BSS FDS-366, BSS SoundWeb]

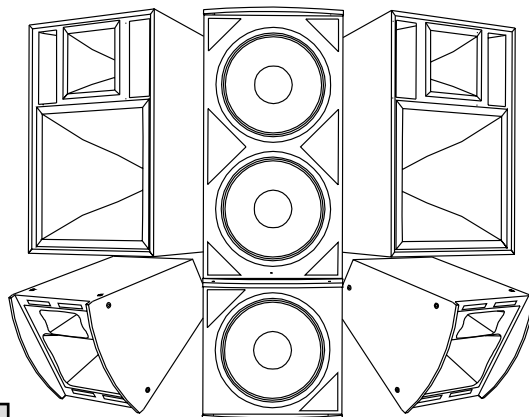
Available Accessories:

- The PAF-2K Array Frame may be used to rig the top tier. Refer to the "AE Series Bracket and Array Frame Handbook".
- 3 pc. M10 x 35mm Forged Shouldered Eye-Bolt Kit (JBL part #229-00009-01)

Array F3

Two-element Horizontal Array with Subwoofers and Downfill

Precision Directivity 3-way loudspeakers horizontally splayed plus subwoofer and horizontally splayed mid/high downfills



ARRAY OVERVIEW

- This array is a good choice for medium to large rooms as a center cluster or as part of high-impact Left/Right or L/C/R systems.
- This cluster provides an excellent combination of power and directivity for highly intelligible speech and high-impact music.
- PD5122's may be added under the PD5322's to improve LF directivity where difficult gain before feedback issues exist.

Array Specifications

- Loudspeakers: (2) PD5322/64, (1) ASB6128, (1) ASB6118, (2) AM6200/64 downfill
- Overall Coverage: 110° horizontal x 85° vertical
- Splay angle between PD5322/64 enclosures: 60°
- Downfill enclosure vertical splay angle: -50°, horizontal splay angle: 70°
- Frequency range: 22 Hz – 19 kHz
- Maximum SPL (1 meter equivalent): 133 dB-SPL continuous average MF/HF, [Sub: 138 dB, LF: 134 dB]
- Total Power Capacity: 8100W continuous pink noise
- Overall Dimensions: 68" H x 95" W x 43" D (1727 x 2413 x 1092mm)
- Total Loudspeaker Weight: 730 lbs. (332kg)

Recommended Amplification:

- PD5322 x 2: LF: 2 ch. 2000W [Crown I-T4000], PD5322 M/H x 2: 2 ch. 600W [Crown CTs1200]
- ASB6128: 1 ch. 3000W [Crown I-T6000], ASB6118: 1 ch. 1500W [Crown I-T6000]
- AM6200 x 2: 2 ch. 600W [Crown CTs1200]

Recommended DSP:

- 4 channels required. [Crown PIP-USP3, Crown I-Tech, dbx Driverack 260, BSS FDS-366, BSS FDS-334, BSS SoundWeb]

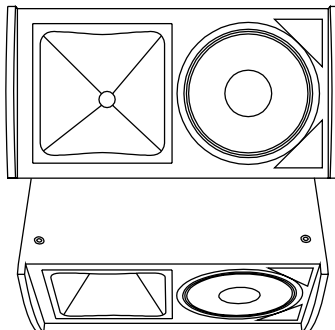
Available Accessories:

- The PAF-2K Array Frame may be used to rig the top tier. Refer to the "AE Series Bracket and Array Frame Handbook".
- 3 pc. M10 x 35mm Forged Shouldered Eye-Bolt Kit (JBL part #229-00009-01)

Array G1

Two-element Vertical Array in a Long-Throw/Short-Throw Configuration

Application Engineered 2-way 12" loudspeakers horizontally configured and vertically splayed



ARRAY OVERVIEW

- This low-profile array is a good choice for smaller L/R or L/C/R systems.
- The stacked low-frequency drivers provide additional vertical pattern control to increase gain before feedback.
- H.F. waveguides are rotated 90° from standard. A 60° x 40° waveguide is used for the upper enclosure and a 90° x 50° waveguide for the lower.

Array Specifications

- Loudspeakers: (1) AM6212/64, (1) AM6212/95
Medium Power Solution: (1) AM4212/64, (1) AM4212/95
- Overall Coverage: 60°/90° horizontal x 100° vertical
- Vertical splay angle: 60°
- Frequency range: 40 Hz – 19 kHz (*55 Hz – 20 kHz for Medium Power*)
- Maximum SPL (1 meter equivalent): 130 dB-SPL continuous average (*126 dB-SPL for Medium Power*)
- Total Power Capacity: 1200W continuous pink noise (*700W for Medium Power*)
- Overall Dimensions: 31" H x 28" W x 24" D (788 x 712 x 610mm)
- Total Loudspeaker Weight: 118lbs. (54kg) (*114 lbs (52kg) for Medium Power Solution*)

Recommended Amplification:

- AM6212 x 2: 2 ch. 1000W [Crown CTs2000]
- *Medium Power Solution: AM4212 x 2: 2 ch. 600W [Crown CTs1200]*

Recommended DSP:

- 2 channels required (*2 channels for Medium Power*). [Crown PIP-USP3, dbx Driverack 260, BSS FDS-334, BSS FDS-366, BSS SoundWeb]

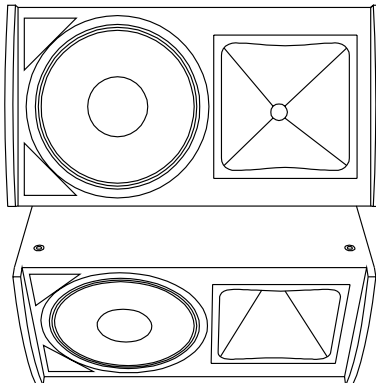
Available Accessories

- 3 pc. M10 x 35mm Forged Shouldered Eye-Bolt Kit (JBL part #229-00009-01)

Array G2

Two-element Vertical Array in a Long-Throw/Short-Throw Configuration

Application Engineered 2-way 15" loudspeakers horizontally configured and vertically splayed



ARRAY OVERVIEW

- This low-profile array is a good choice for smaller L/R or L/C/ speech or speech + music systems.
- The stacked low-frequency drivers provide additional vertical pattern control to increase gain before feedback.
- H.F. waveguides are rotated 90° from standard. The upper enclosure contains a 60° x 40° waveguide and the lower a 90° x 50° waveguide.

Array Specifications

- Loudspeakers: (1) AM6215/64, (1) AM6215/95
Medium Power Solution: (1) AM4215/64, (1) AM4215/95
- Overall Coverage: 60°/90° horizontal x 85° vertical
- Vertical splay angle: 60°
- Frequency response: 35 Hz – 19 kHz (40 Hz – 20 kHz for Medium Power)
- Maximum SPL (1 meter equivalent): 133 dB-SPL continuous average (130 dB-SPL for Medium Power)
- Total Power Capacity: 1200W continuous pink noise (700W for Medium Power)
- Overall Dimensions: 35" H x 31" W x 26" D (889 x 787 x 660mm)
- Total Loudspeaker Weight: 135lbs. (62kg) (130 lbs (59kg) for Medium Power Solution)

Recommended Amplification:

- AM6215 x 2: 2 ch. 1000W [Crown CTs2000]
- *Medium Power Solution: AM4215 x 2: 2 ch. 600W [Crown CTs1200]*

Recommended DSP:

- 2 channels required (2 channels for Medium Power). [Crown PIP-USP3, dbx Driverack 260, BSS FDS-334, BSS FDS-366, BSS SoundWeb]

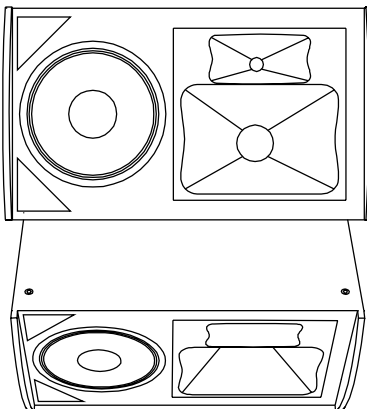
Available Accessories

- 3 pc. M10 x 35mm Forged Shouldered Eye-Bolt Kit (JBL part #229-00009-01)

Array G3

Two-element Vertical Array in a Long-Throw/Short-Throw Configuration

Application Engineered 3-way 15" loudspeakers horizontally configured and vertically splayed



ARRAY OVERVIEW

- This low-profile array is a good choice for mid to large L/R or L/C/R speech or speech + music systems.
- The stacked low-frequency drivers provide additional vertical pattern control to increase gain before feedback.
- H.F. waveguides are rotated 90° from standard. The upper enclosure contains a 60° x 40° waveguide and the lower a 90° x 50° waveguide.

Array Specifications

- Loudspeakers: (1) AM6315/64, (1) AM6315/95
Medium Power Solution: (1) AM4315/64, (1) AM4315/95
- Overall Coverage: 60°/90° horizontal x 90° vertical
- Vertical splay angle: 55°
- Frequency response: 38 Hz – 19 kHz (*40 Hz – 23 kHz for Medium Power*)
- Maximum SPL (1 meter equivalent): 133 dB-SPL continuous average MF/HF, [LF: 131 dB]
127 dB-SPL continuous average for Medium Power
- Total Power Capacity: 2700W continuous pink noise (*700W for Medium Power*)
- Overall Dimensions: 44.5" H x 38.1" W x 34" D (1131 x 968 x 864mm)
- Total Loudspeaker Weight: 215lbs. (98kg) (*210 lbs (96kg) for Medium Power*)

Recommended Amplification:

- AM6315 LF x 2: 2 ch. 1250W [Crown CTs3000], AM6315 M/H x 2: 2 ch. 600W [Crown CTs1200]
- *Medium Power Solution: AM4315 x 2: 2 ch. 600W [Crown CTs1200]*

Recommended DSP:

- 4 channels required (*2 channels for Medium Power*). [Crown PIP-USP3, dbx Driverack 260, BSS FDS-334, BSS FDS-366, BSS SoundWeb]

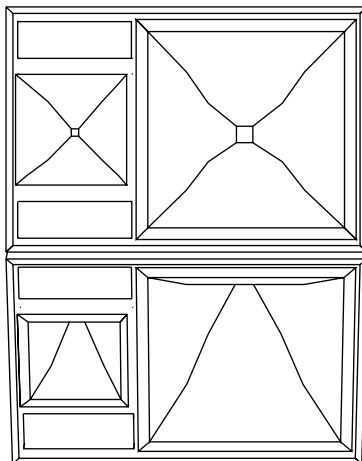
Available Accessories

- 3 pc. M10 x 35mm Forged Shouldered Eye-Bolt Kit (JBL part #229-00009-01)

Array G4

Two-element Vertical Array in a Long-Throw/Short-Throw Configuration

Precision Directivity 3-way loudspeakers horizontally configured and vertically splayed



ARRAY OVERVIEW

- This low-profile array is a good choice for larger L/R or L/C/R music systems.
- The four, stacked low-frequency drivers provide useful pattern control through 200Hz to increase gain before feedback and provide even room coverage.
- H.F. waveguides are rotated 90° from standard. The upper enclosure contains a 60° x 40° waveguide and the lower a 90° x 50° waveguide.

Array Specifications

- Loudspeakers: (1) PD5322/64, (1) PD5322/95
- Overall Coverage: 60°/90° horizontal x 85° vertical
- Vertical splay angle: 45°
- Frequency response: 41 Hz – 17 kHz
- Maximum SPL (1 meter equivalent): 134 dB-SPL continuous average MF/HF, [LF: 134 dB]
- Total Power Capacity: 3800W continuous pink noise
- Overall Dimensions: 53" H x 39" W x 36" D (1347 x 991 x 915mm)
- Total Loudspeaker Weight: 340lbs. (155kg)

Recommended Amplification:

- PD5322 LF x 2: 2 ch. 2000W [Crown I-T4000], PD5322 M/H x 2: 2 ch. 600W [Crown CTs1200]

Recommended DSP:

- 4 channels required. [Crown PIP-USP3, Crown I-Tech, dbx Driverack 260, BSS FDS-334, BSS FDS-366, BSS SoundWeb]

Available Accessories

- 3 pc. M10 x 35mm Forged Shouldered Eye-Bolt Kit (JBL part #229-00009-01)



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