



# VRX928LA

## 8" Two-Way Line Array Loudspeaker System

### Key Features:

- ▶ JBL's exclusive neodymium magnet Differential Drive® woofer for high-power capacity and lightweight.
- ▶ Two patent-pending neodymium HF compression drivers.
- ▶ Constant Curvature waveguide for unprecedented array coherence
- ▶ Fly combinations of VRX928LA and Subwoofers (VRX915S) with optional array frame (VRX-SMAF)
- ▶ Integral rigging hardware for simple connection of enclosures and optional array frame. Arrays of up to six enclosures may be flown.
- ▶ Dual angle pole socket for aiming flexibility. One or two speakers may be mounted to a 35 mm pole or tripod stand.
- ▶ Array Configuration Selector permits "array shading" in passive mode.

### Application:

- ▶ Music playback and sound reinforcement in small to mid-size venues.
- ▶ Entertainers, corporate A/V professionals and sound system hire companies.
- ▶ Permanent installations.

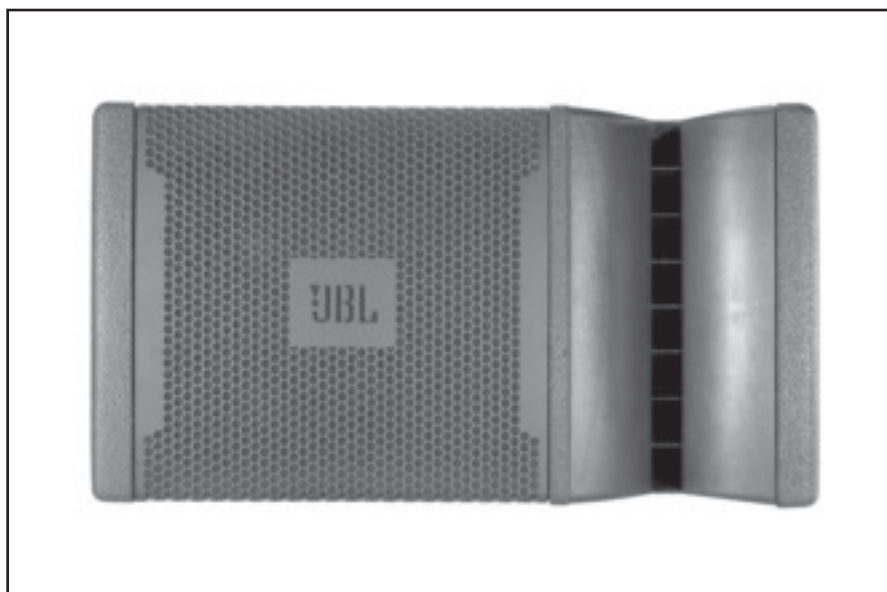
## VRX928LA 8" Two-Way Line Array Loudspeaker System

The VRX928LA is a lightweight (28 lb / 13 kg) compact 8" two-way line-array speaker system designed for use in arrays of up to six units. VRX928LA is the ideal choice when line-array performance is needed but the venue size doesn't call for the very long-throw characteristics of larger line-arrays such as JBL's VERTec or VRX932LA.

The Constant Curvature waveguide mounts two compression drivers on a continuous arc. When additional VRX928LA speakers are added to the array the uninterrupted arc continues. In effect, all the drivers work together as if they were a single driver on a very long waveguide. Since there are two HF drivers in each VRX928LA, the combined power handling and acoustic output of the system is far greater than a single driver could achieve.

VRX928LA uses "amplitude shading" to shape the coverage of the array. Switches on the input plate allow, for example, the upper box in an array to reach the distant rear of a room while the lower box is shaded back to reduce excessive level at the front of the listening area.

One or two VRX928LAs may also be used on a tripod or over the VRX915S



subwoofer. The integral rigging hardware is used to securely lock the array together.

As many as six VRX928LA speaker systems may be suspended in a single array for a nominal vertical coverage of up to 90°. Suspended applications require the JBL VRX928LA-SMAF array frame (available separately). For applications in which the array must be aimed sharply down, a second Array Frame may be installed to the bottom of the array serving as a pull-back.

The VRX928LA is manufactured and sold under U.S. patents 5,748,760; 6,112,847; 6,394,223; 6,847,726, and D483,744.

### Specifications:

|                                   |                                                                                                                                                                                          |
|-----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Frequency Range (-10 dB):         | 70 Hz -20 kHz                                                                                                                                                                            |
| Frequency Response (±3 dB):       | 87 Hz - 19 kHz                                                                                                                                                                           |
| Coverage Pattern:                 | 100° x 15° nominal (horizontal x vertical), single unit                                                                                                                                  |
| Crossover Modes:                  | Bi-amp / passive, externally switchable                                                                                                                                                  |
| Crossover Frequency:              | 2.0 kHz                                                                                                                                                                                  |
| Power Rating <sup>1</sup> :       | 400 W / 800 W / 1600 W                                                                                                                                                                   |
| (Continuous / Program / Peak):    | Bi-amp LF: 400 W / 800 W / 1600 W<br>Bi-amp HF: 30 W / 60 W / 120 W                                                                                                                      |
| System Maximum SPL <sup>2</sup> : | 122 dB SPL peak (passive mode)<br>LF: 122 dB (bi-amp mode)<br>HF: 128 dB (bi-amp mode)                                                                                                   |
| System Sensitivity (1w @ 1m):     | 90 dB SPL (passive mode)<br>LF: 90 dB (bi-amp mode)<br>HF: 108 dB (bi-amp mode)                                                                                                          |
| LF Driver:                        | 1 x JBL 2168H-1, 200 mm (8 in) Differential Drive® woofer                                                                                                                                |
| HF Driver:                        | 2 x JBL 2414H, 25 mm (1.0 in) neodymium compression driver                                                                                                                               |
| Nominal Impedance:                | Passive: 8 ohms<br>Bi-amp LF: 8 ohms<br>Bi-amp HF: 16 ohms                                                                                                                               |
| Active Tunings:                   | Tunings available at <a href="http://www.jblpro.com">www.jblpro.com</a>                                                                                                                  |
| Enclosure:                        | 15 mm - 25 mm, multi-ply birch plywood                                                                                                                                                   |
| Suspension / Mounting:            | Dual 36 mm pole socket included. Suspension requires optional VRX-SMAF line array frame kit or M10 eyebolts.                                                                             |
| Transport:                        | Integrated handle with backing cup                                                                                                                                                       |
| Finish:                           | Black DuraFlex™ finish                                                                                                                                                                   |
| Grille:                           | Powder coated, black, 18 gauge perforated steel with acoustically transparent black foam backing.                                                                                        |
| Input Connectors:                 | Neutrik® Speakon NL-4 (x2)                                                                                                                                                               |
| Dimensions (H x W x D):           | 230 mm x 419 mm x 267 mm<br>(9.0 in x 16.5 in x 10.5 in)                                                                                                                                 |
| Net Weight:                       | 12.7 kg (28 lb)                                                                                                                                                                          |
| Optional Accessories:             | VRX928LA-SMAF: Suspension Array Frame<br>SS2-BK: Tripod Speaker Stand<br>SS3-BK: Satellite Speaker Pole<br>SS4-BK: Adjustable satellite speaker pole to be used with VRX915S or VRX918S. |

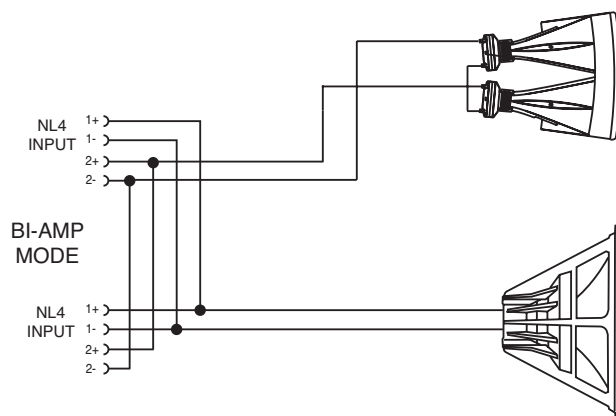
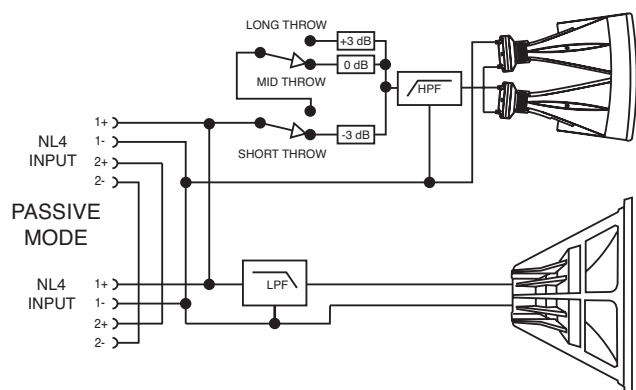
<sup>1</sup> IEC filtered noise with 6 dB crest factor, 2 hours.

<sup>2</sup> Calculated, based on power rating and sensitivity.

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.

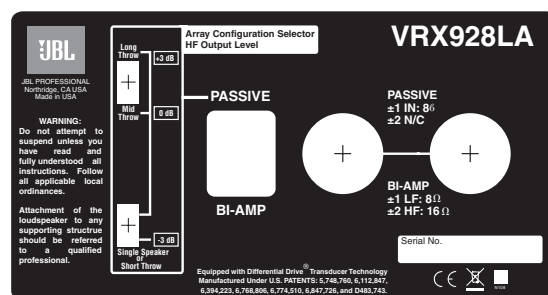
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## Block Diagram



## Array Configuration Selector (ACS)

Amplitude shading is a technique that allows the coverage pattern of a loudspeaker array to be shaped by adjusting the relative acoustic output of some of the devices in the array. Most often, array shading involves only the mid and high-frequency sections of the array. In a simple system consisting of three VRX928LAs, the lower speaker (which covers the nearest listeners) may have its high-frequency output reduced. At the same time, the upper speaker may have its high frequency output increased. The overall sound-power in the room is unchanged but the distribution of acoustic energy to the audience is far more uniform.



Amplitude shading of a VRX928LA array may be accomplished in passive or bi-amplified systems.

In passive mode, the Array Configuration Selector may be used. The -3 dB position will typically be used for the speaker(s) in an array that are covering the nearest listening area. The +3 dB position will be used for the speaker(s) covering the more distant areas, or to compensate for the low-frequency build-up resulting from mutual coupling of multiple woofers in an array. In bi-amp mode the amplifier output needs to be adjusted accordingly.

## VRX928LA-SMAF Array Frame Accessory

The VRX928LA-SMAF is an array frame kit designed to be used for suspension of the VRX928LA line array loudspeaker. The optional array frame kit includes an array frame, two quick release pins, a pair of forged 3/8" shackles, and a pair of drop levers.

The following table defines the maximum number of speakers that may be suspended using the VRX-SMAF frame. A minimum design factor of 7:1 is maintained for all speaker configurations at or below those indicated in the table.

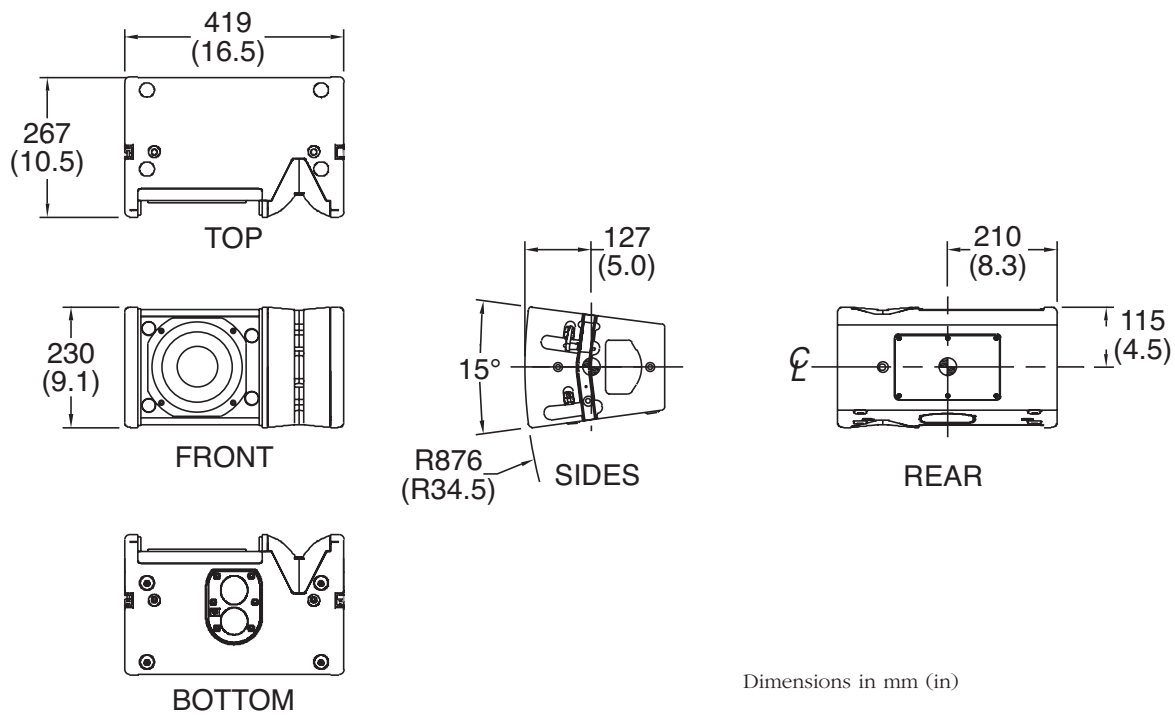
|                                     |   |   |   |   |   |   |
|-------------------------------------|---|---|---|---|---|---|
| Maximum number of VRX928LA in array | 6 | 5 | 4 | 3 | 2 | 0 |
| Maximum number of VRX915S in array  | 0 | 2 | 2 | 2 | 3 | 4 |

For some applications, it may be necessary to pull back the array from the bottom in order to achieve the desired coverage. Every VRX-SMAF is supplied with a spare set of quick release pins and a pair of spare drop levers that are used to adapt a second array frame to the bottom of a VRX928LA array. Once these are installed on the bottom enclosure, the array frame may be attached as previously described.

Ground-Stacked, Upward Firing Arrays: Applications may be addressed by installing the VRX-SMAF array frame to the bottom of the array as described above. Up to four VRX928LA loudspeakers may be locked together and ground stacked using the VRX-SMAF array frame kit.



# Dimensions

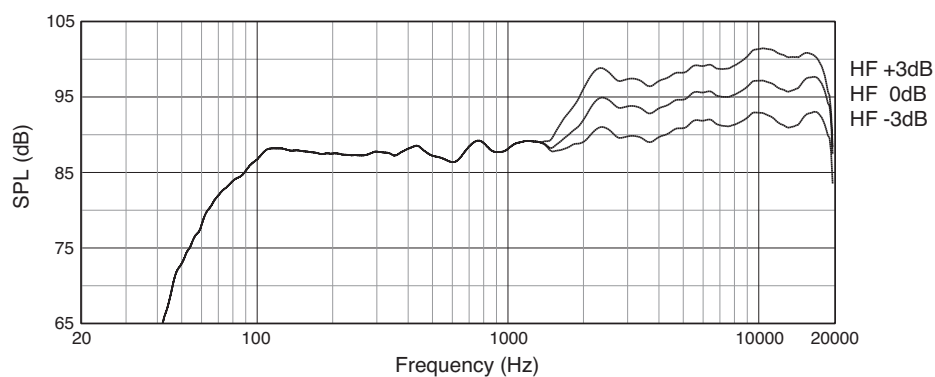


# System Configurations

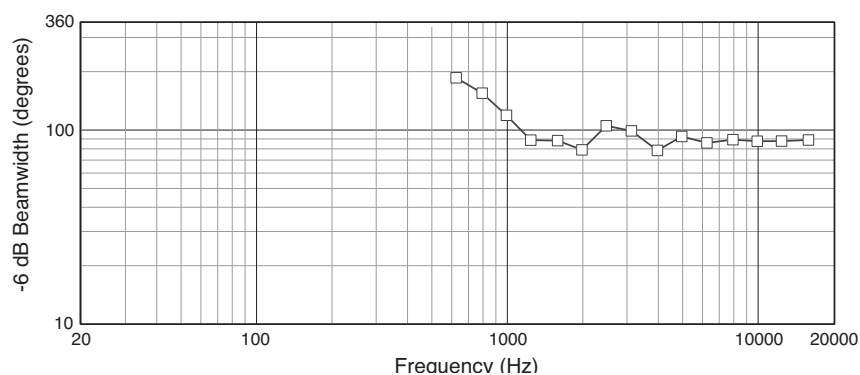


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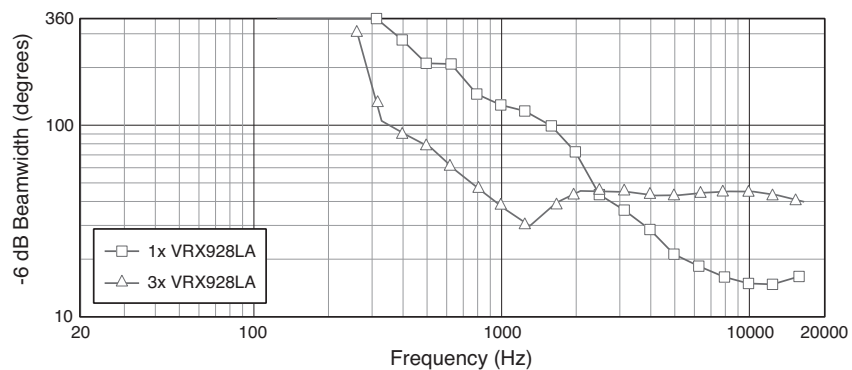
### Frequency Response



### Horizontal Beamwidth



### Vertical Beamwidth



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