# JBL VRX932LA-1WH<sup>12</sup>" Two-Way Constant Curvature Line Array

#### **Professional Series**

#### **Key Features:**

- ▶ JBL's white Duraflex<sup>™</sup> finish
- JBL's exclusive neodymium magnet Differential Drive<sup>®</sup> woofer for high power capacity and light-weight.
- Three neodymium, Annular Ring Diaphragm drivers for high power capacity and high-frequency extension.
- Constant Curvature waveguide for unprecedented array coherence.
- Integral rigging hardware for simple connection of enclosures and optional array frame. Arrays of up to six enclosures may be flown.
- Array Configuration Selector permits "array shading" in passive mode.

#### **Application:**

- Music playback and sound reinforcement in mid-size venues.
- Permanent install version designed for use in houses-of-worship, theaters and nightclubs where existing décor requires white loudspeaker enclosures to be used.

#### VRX932LA-1WH 12" Two-Way Line Array Speaker

The VRX932LA-1WH is a light-weight (46 lb / 21 kg) compact 12" two-way line array speaker system designed for use in arrays of up to six units.

VRX932LA-1WH is painted JBL's white Duraflex<sup>™</sup> making it appropriate for many houses-of-worship, auditoriums or theaters where the existing décor demands an alternative to a black loudspeaker system. The VRX932LA-1WH is optimized for permanent installation with no handles or pole mount attached.

VRX932LA-1WH 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<sup>®</sup>.

The Constant Curvature waveguide mounts three compression drivers on a continuous arc. When additional VRX932LA-1WH 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 three drivers in each VRX932LA-1WH, the combined power handling and acoustic output of the system is far greater than a single driver could achieve. VRX932LA-1WH 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 a distant



balcony while the lower HF section is shaded back to reduce excessive level at the front of the listening area.

As many as six VRX932LA-1WH speaker systems may be suspended in a single array for a nominal vertical coverage of up to 90°. Suspended applications require the JBL VRX-AF 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 VRX932LA-1WH was designed for compatibility with VRX918S-WH subwoofers.

The VRX932LA-1WH is manufactured and sold under U.S. patents 5,748,760; 6,112,847; 6,394,223 and 6,847,726.

#### Specifications:

Frequency Range (-10 dB):	57 Hz - 20 kHz
Frequency Response (±3 dB):	75 Hz - 20 kHz
Coverage Pattern:	100° x 15° nominal
Crossover Modes:	Bi-amp / passive, externally switchable
Crossover Frequency:	1.2 kHz
Power Rating (Continuous/Program Peak) <sup>1</sup> :	Passive: 800 W / 1600 W / 3200 W Bi-amp LF: 800 W / 1600 W / 3200 W Bi-amp HF: 75 W / 150 W / 300 W
System Maximum SPL <sup>2</sup> :	130 dB SPL peak (passive mode) LF: 130 dB HF: 139 dB
System Sensitivity (1w @ 1m):	95 dB SPL (passive mode) LF: 95 dB HF: 114 dB <sup>2</sup>
LF Driver:	1 x JBL 2262H 305 mm (12 in) Differential Drive® woofer with neodymium-magnet, dual voice-coils and magnetic gap.
HF Driver:	3 x JBL 2408J 38 mm (1.5 in) voice-coil, neodymium compression driver
Nominal Impedance:	Passive: 8 ohm Bi-amp LF: 8 ohms Bi-amp HF: 8 ohms
Active Tunings:	Tunings available at www.jblpro.com
Enclosure:	18 mm, 11-ply birch plywood.
Suspension / Mounting:	Optional VRX-AF array frame; M-10 eyebolt kit # 229-00009-01
Finish:	White DuraFlex <sup>™</sup> finish
Grille:	Powder coated, white, 16-gauge perforated steel with acoustically transparent white cloth backing
Input Connectors:	Neutrik® Speakon® NL-4 (x2)
Dimensions (H x W x D):	349 mm x 597 mm x 381 mm (13.75 in x 23.5 in x 15.0 in)
Net Weight:	21.0 kg (46 lb)
Dimensions (H x W x D):	Neutrik* Speakon* NL-4 (x2)       349 mm x 597 mm x 381 mm       (13.75 in x 23.5 in x 15.0 in)

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

 $^{\scriptscriptstyle 2}$  HF driver sensitivity is based on a measurements averaged between 1.5 kHz - 16 kHz

JBL continually engages in research related to product improvement. Changes introduced into existing products without notice are an expression of that philosophy.

#### **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 VRX932LA-1WH's, 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 VRX932LA-1WH 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.



#### **VRX-AF Array Frame Accessory**

The VRX-AF is an array frame kit designed to be used for suspension of the VRX932LA-1WH line array loudspeaker. The optional array frame kit includes an array frame, four 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-AF frame. A minimum design factor of 7:1 is maintained for all speaker configurations at or below thosed indicated in the table.



Maximum number of VRX918S-WH in array	6	5	4	3	2	1	0
Maximum number of VRX932LA-1WH in array	0	1	2	3	4	5	6

For some applications, it may be necessary to pull back the array from the bottom in order to achieve the desired coverage. Every VRX-AF 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 VRX932LA-1WH array. Once these are installed on the bottom enclosure, the array frame may be attached as previously described.



## System Configurations



#### **Frequency Response**



### Horizontal Beamwidth



#### Vertical Beamwidth





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