



# BRX 300

S E R I E S

**BRX308-LA**

**BRX325SP**

**BRX308-ACC**

**BRX308-AF**

**BRX308-PM**

## SYSTEM DEPLOYMENT GUIDE

**12.2021**

# SYSTEM DEPLOYMENT GUIDE



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# SYSTEM DEPLOYMENT GUIDE



## SAFETY

Before using a JBL BRX Series system, please review the following for important information on safety and protection of your investment.

### 2.1 - SAFETY INSTRUCTIONS

1. 1. Read these instructions
2. Keep these instructions
3. Heed all warnings
4. Follow all instructions
5. Do not expose the product to direct rain or sea spray
6. Clean only with a dry cloth
7. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus that produce heat
8. Only use attachments / accessories specified by the manufacturer
9. Use only with a cart, stand, tripod, bracket, or table specified by the manufacturer or sold with the apparatus. When a cart is used, use caution when moving the cart / apparatus combination to avoid injury from tip-over
10. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped
11. Contact JBL Professional for advanced servicing issues
12. CAUTION- DO NOT PERFORM ANY SERVICING UNLESS YOU ARE QUALIFIED TO DO SO
13. Prolonged exposure to excessive SPL can cause hearing damage: the loudspeaker is easily capable of generating sound pressure levels (SPL) sufficient to cause permanent hearing damage to performers, production crew and audience members. Caution should be taken to avoid prolonged exposure to SPL in excess of 90 dB
14. Read the System Rigging Manual before installation and use of the product.
15. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
16. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide one is for replacement of the obsolete outlet.
17. Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
18. Unplug this apparatus during lightning storms or when unused for long periods of time.
19. To completely disconnect this apparatus from the AC mains, disconnect the power supply cord plug from the AC receptacle.
20. "WARNING – TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPARATUS TO RAIN OR MOISTURE."
21. Do not expose this equipment to dripping or splashing and ensure that no objects filled with liquids such as vases, are placed on the equipment.
22. The main plug of the power supply cord shall remain readily operable.

## 2.2 - 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.

## 2.3 - 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.

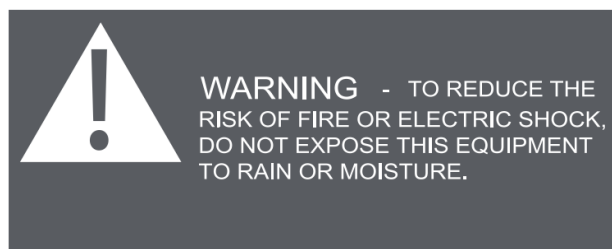
All information presented herein is based upon materials and practices common to North America and may not directly apply to other countries because of differing material dimensions, specifications and/or local regulations. Users in other countries should consult with appropriate engineering and regulatory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

Correct use of all included 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.

**THIS APPARATUS CONTAINS POTENTIALLY LETHAL VOLTAGES. TO PREVENT ELECTRIC SHOCK OR HAZARD, DO NOT REMOVE CHASSIS, INPUT MODULE OR AC INPUT COVERS. NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.**



The lightning flash with Arrowhead Symbol within an equilateral triangle, is intended to alert the user to the presence of uninsulated "Dangerous Voltage" within the product's enclosure that may be of sufficient magnitude to constitute risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) information in the literature accompanying the product.

## 2.4 - INSPECTION AND MAINTENANCE

Before suspending any speaker system always inspect all components (enclosure, rigging frames, pins, eyebolts, track fittings, etc.) for cracks, deformations, corrosion or missing/loose/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 JBL suspend able loudspeaker models.

Suspension systems are comprised of mechanical devices and, as such, they require regular inspection and routine maintenance to ensure proper functionality. Before suspending or pole mounting any speaker system, always inspect all components (enclosure, suspension frames or brackets, pins, eyebolts, etc.) for cracks, deformations, corrosion or missing/loose/damaged parts that could reduce strength and safety of the array.

Do not suspend or pole mount the speaker until the proper corrective action has been taken.

Installed systems should be inspected 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 suspension hardware provided with or for BRX systems must be inspected for fatigue at least annually or as required by local ordinance. 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 of 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 suspending speaker systems, should inspect all parts and components.

## 2.5 - 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.

# SYSTEM DEPLOYMENT GUIDE



## ORDERING INFORMATION



MODEL NUMBER	DESCRIPTION
BRX308- LA	Dual 8" Line Array Element
BRX325SP	Dual 15" Subwoofer with Power Amplifier and DSP for entire system
BRX308-ACC	Accessory Kit - Transport cart for 4 x BRX308-LA, Soft cover for Cart, Soft cover for Subwoofer, Speaker cables for system
BRX308-AF	Array Frame for suspending up to 8 x BRX308-LA <b>Note: 5/8" Shackles for hoist attachment must be ordered seperately.</b>
BRX308-PM	Pole Mount + Adapter kit

# SYSTEM DEPLOYMENT GUIDE



## BRX 300 SYSTEM

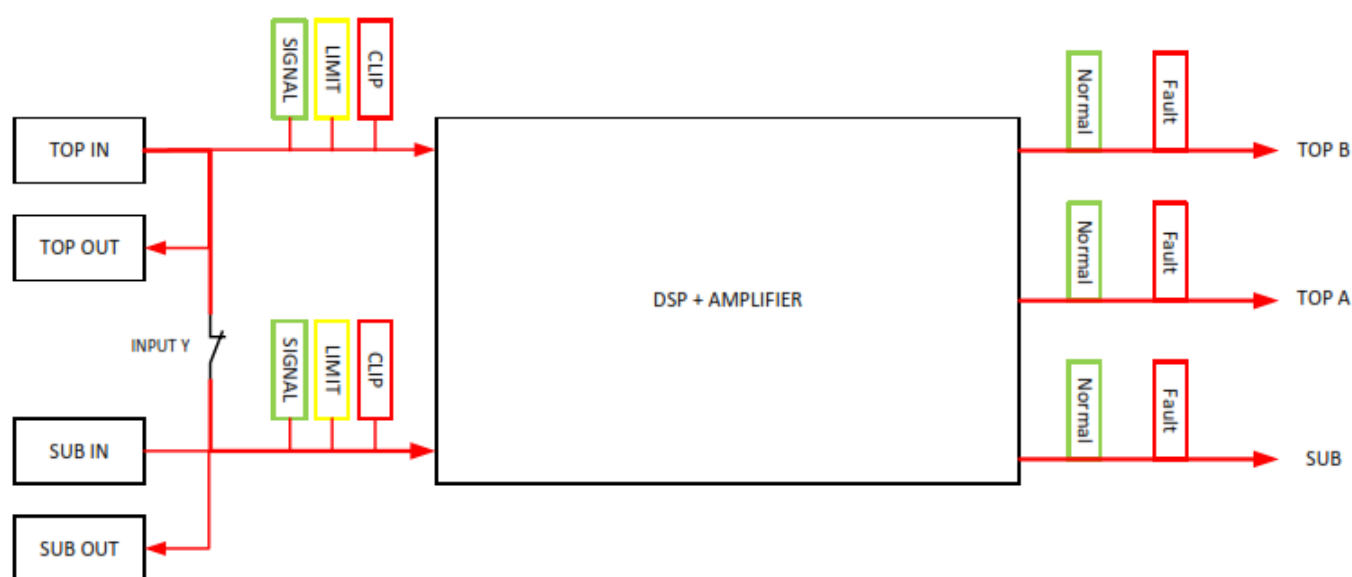
The BRX300 System is a true plug and play solution that features a combination of the BRX308-LA Dual 8" 2 Way Line array Element and the BRX325SP Dual 15" Subwoofer that also houses a 6 Channel High Power Amplifier along with a 48kHz/24 bit DSP for Loudspeaker tuning. All the components are packaged to maximize use of space and ease of handling and Set-up.

The power and processing Module features BSS Audio Processing for the Subwoofer and 2 circuits of 2 x BRX08LA each including linear phase FIR Filters and dbx limiter suite for Loudspeaker protection. As such, no external processing is required.

**NOTE: BRX Speakers used with other Amplification and DSP will VOID the WARRANTY of the system.**

This System is primarily intended for Ground stack use ( 4 x BRX308-LA + 1 x BRX25SP) and Pole stacked ( 2 x BRX308-LA + 1 x BRX325SP with the BRX308-PM Pole and Adapter kit).

There is a third option of use as a Flown System ( Up to 8 x BRX308-LA suspended from 1 x BRX308-AF). The subwoofers either remain stacked on the ground or 1 x BRX325SP Subwoofer may be flown on its own Array Frame. Each Subwoofer can power up to 4 x BRX308-LA using the built in Power Module.

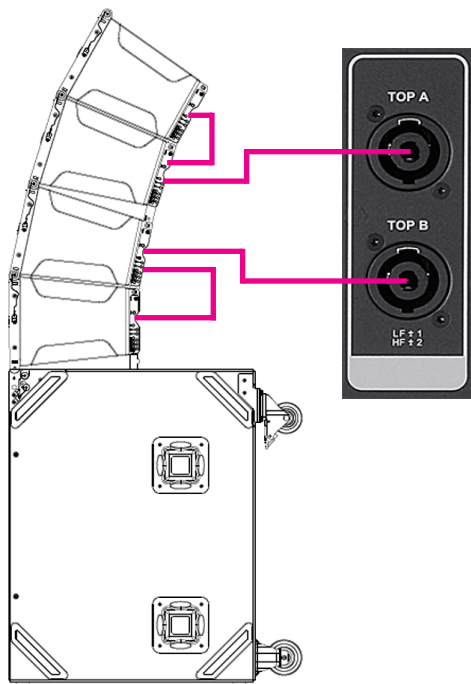


# SYSTEM DEPLOYMENT GUIDE



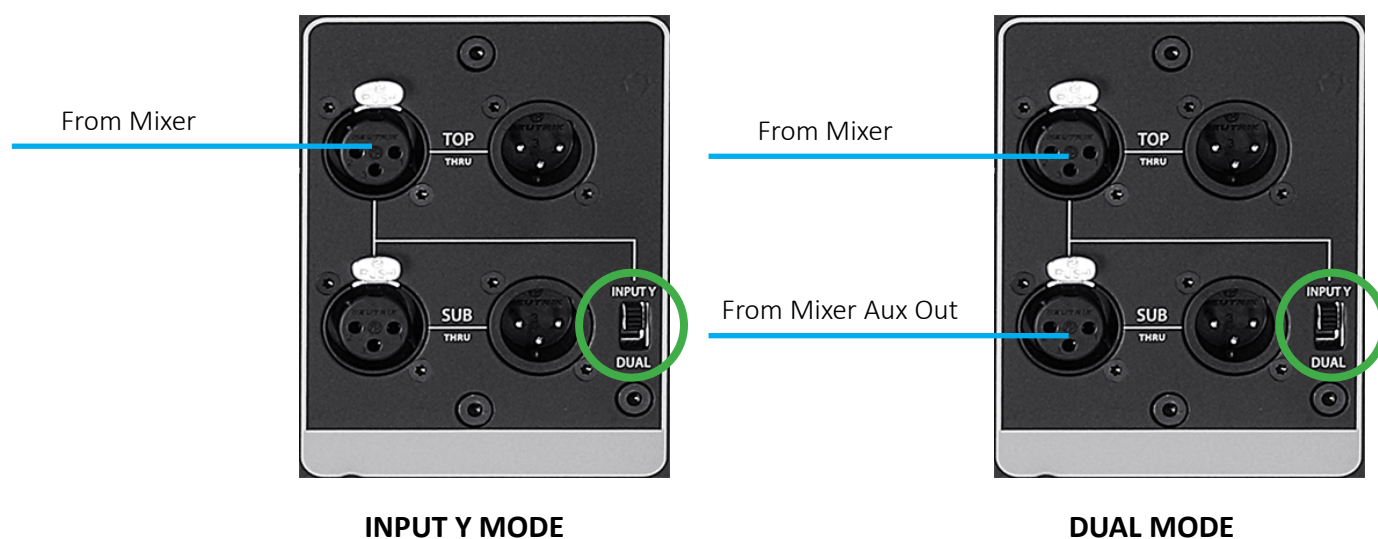
**NOTE: BRX Speakers used with other Amplification and DSP will VOID the WARRANTY of the system.**

The below image shows the connection diagram for the BRX308-LA Tops from the Amplifier and DSP Module. Each output on the Power Amplifier module can drive up to 2 x BRX308-LA Tops.



The system can be driven in 2 Modes:

1. **INPUT Y MODE** : In this mode, A single output from the mixer feeds the entire system to drive both the Sub + Tops.
2. **DUAL MODE** : In this mode, both the Sub and Tops can be driven from different outputs of the Mixer to enable additional control over the Sub + Top Balance of the system.

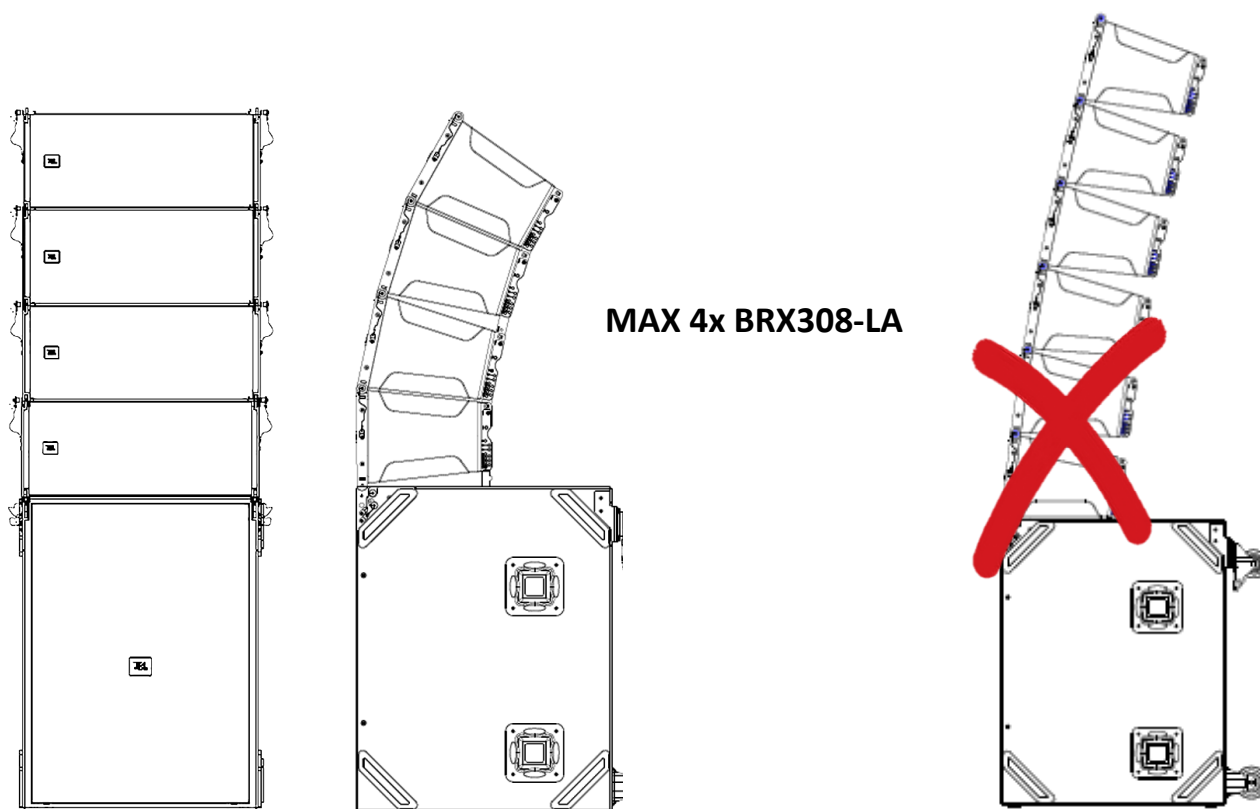




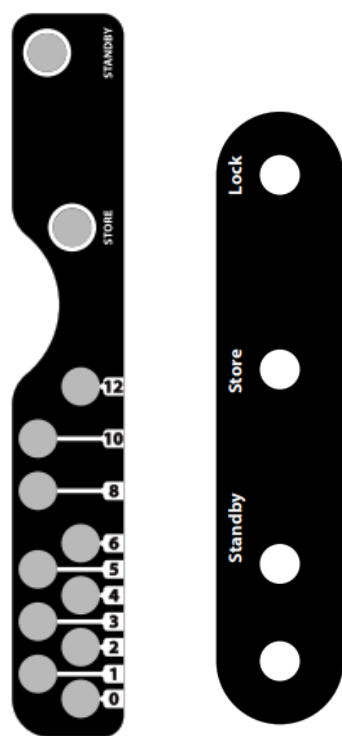
# SYSTEM DEPLOYMENT GUIDE



## SYSTEM APPLICATION GUIDE - GROUND STACKED MODE



The most common use case for the BRX308 System is the ground Stacked mode as shown above. It is advised to use an inter-box angle of at least 2° between each BRX308-LA to allow for wide enough vertical coverage of the High Frequency.



Angle Bar

The BRX308-LA has captive rigging hardware that allows for inter box angles of 0,1,2,3,4,5,6,8,10 and 12°.

To set the inter box angle to either of the values mentioned above, align the Bottom box Angle Bar 'Lock' hole to match with the desired angle value on the Top Box and lock it in place with the Quick release pin.

When setting inter box angles of 8° and above, the angle bar of the upper box may obstruct the angle bar from the below box from aligning with the desired value. In such cases, the angle bar of the upper box must be stored using the Quick release pin in the 'Standby' hole.

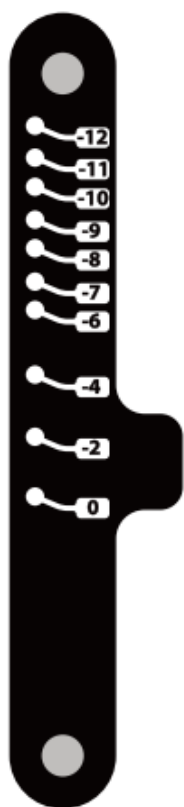
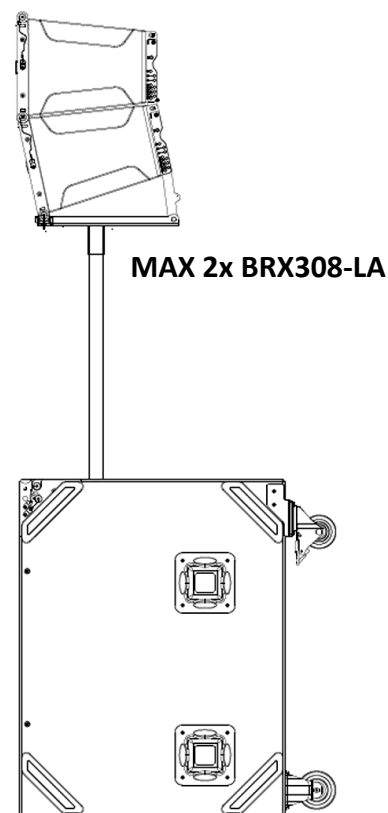
# SYSTEM DEPLOYMENT GUIDE



## SYSTEM APPLICATION GUIDE - POLE MOUNT MODE

A Maximum of 2 x BRX308-LA may be mounted on the Pole + Adapter kit that is available for purchase as part of the BRX308-ACC Kit

It is advised to use an inter-box angle of at least 2° between each BRX308-LA to allow for wide enough vertical coverage of the High Frequency.



The Pole Mount adapter bar allows for the following angles 0,-2,-3,-4,-5,-6,-8,-9,-10,-11,-12° for the first box mounted on it. The negative angles allow the first box to aim downwards and cover audience that is closer to the array.

To set the first box at the desired –ve angle value, Align the desired value on the Adapter bar to the bottom of the box and lock in place with the quick release pin in the matching hole.

We recommend an inter-box Angle of 10 or 12° for the second Speaker. This allows for more uniform coverage from front to back.

**Adapter Bar**

# SYSTEM DEPLOYMENT GUIDE



## SYSTEM APPLICATION GUIDE - FLOWN MODE

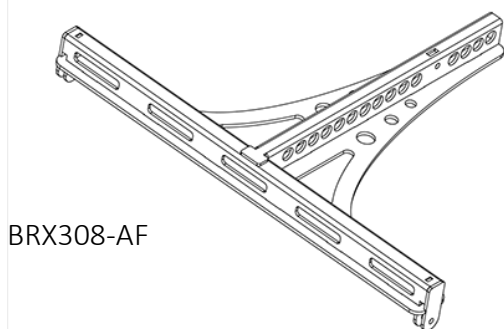
**Note: A system *MUST* only be flown by a qualified Rigger.**

A Maximum of 8 x BRX308-LA may be flown from the BRX308-AF Array frame.

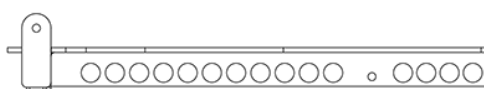
A Maximum on 1 x BRX325-SP Subwoofer may be flown from a BRX308-AF Array Frame.

The BRX308-AF accepts standard 5/8" Shackles for attachment to hoists.

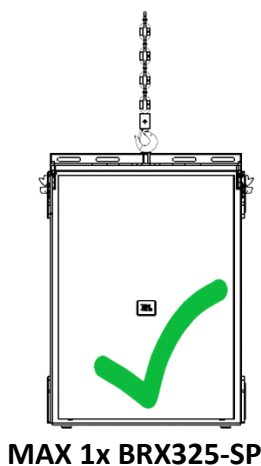
**Note: The BRX308-AF does *NOT* ship with the shackles. These must be procured seperately.**



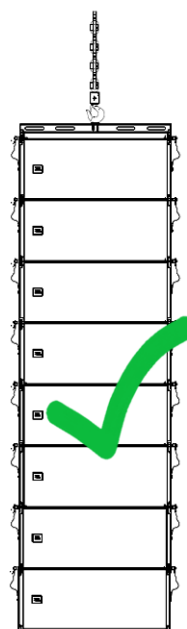
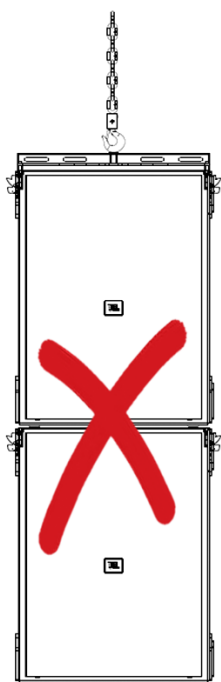
BRX308-AF



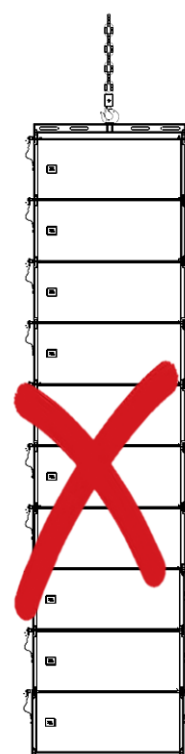
BRX308-AF side view



MAX 1x BRX325-SP



MAX 8x BRX308LA



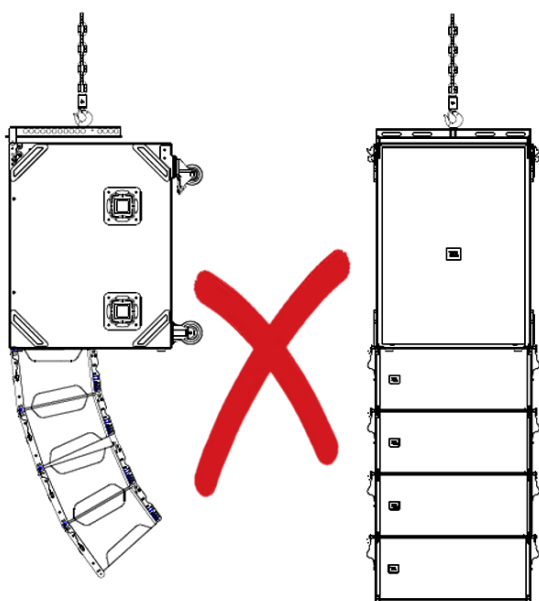
> 8x BRX308LA

# SYSTEM DEPLOYMENT GUIDE

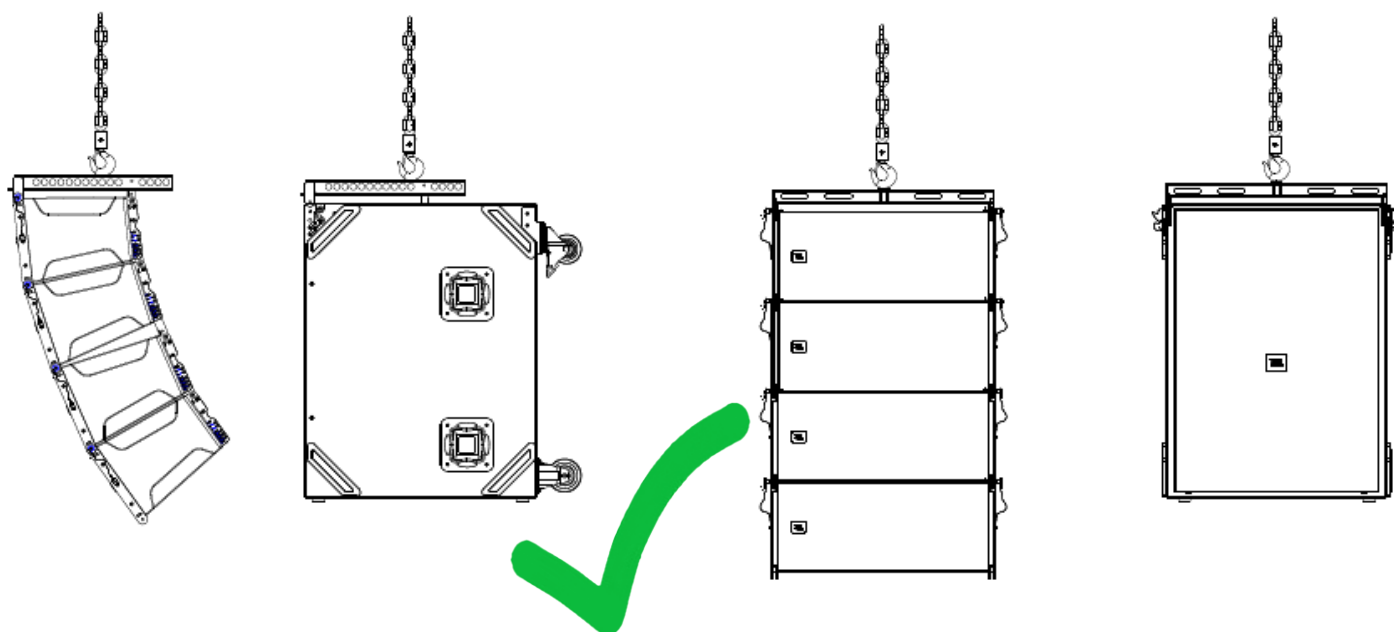


Note: It is not possible to fly a hybrid system including Sub and Tops in a single array from a single Array Frame.

If the Subwoofer must be flown to minimize cabling or due to aesthetic reasons, the sub must be flown next to the tops. If flying the sub next to the tops is not possible, you may fly the subwoofer behind the tops. In this case, an external signal processor will be needed to add delay to the tops so that the Front grills of the sub and tops are virtually aligned in distance.



**No Hybrid Flown Array**



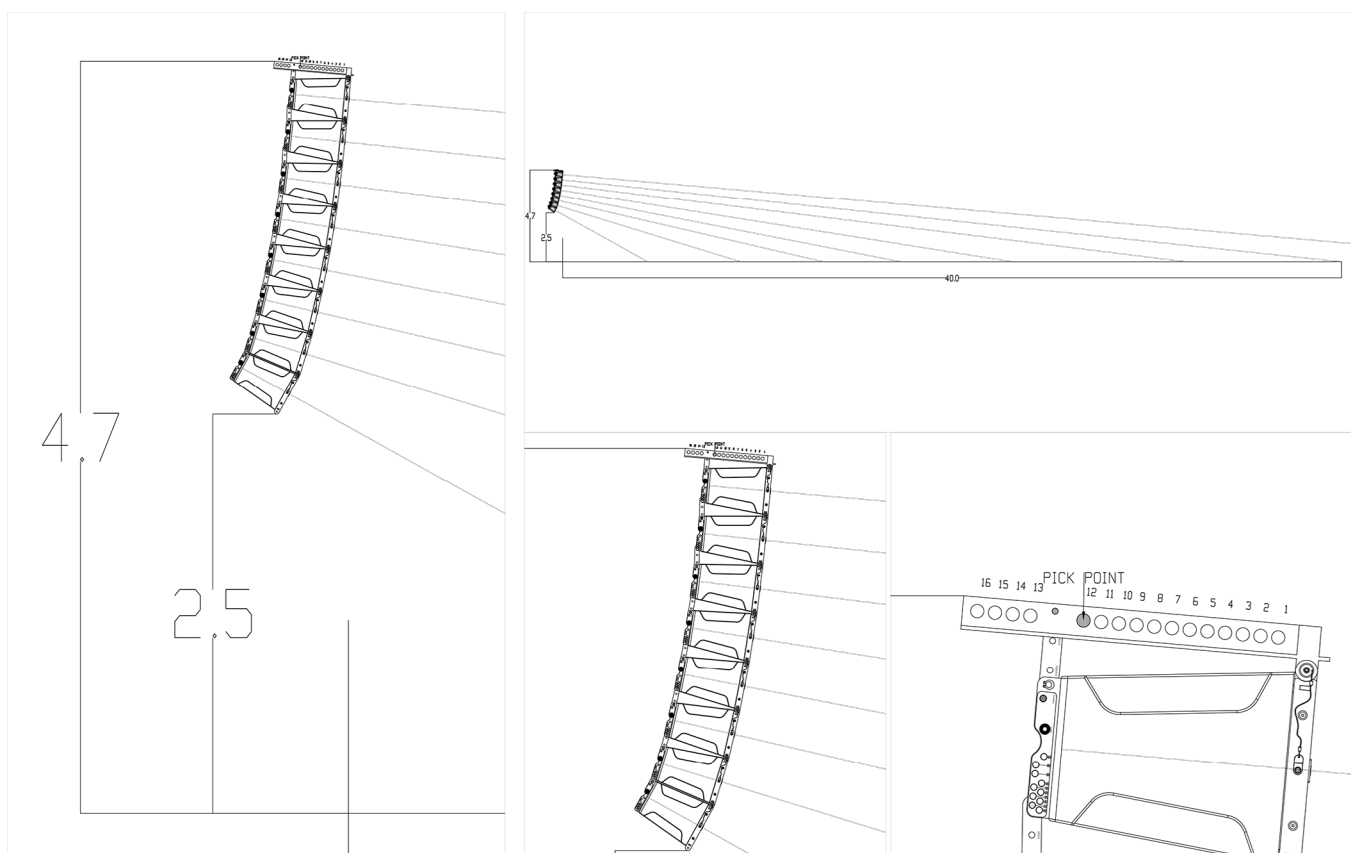
# SYSTEM DEPLOYMENT GUIDE



AF Angle	Top angle of the array frame. This is usually a -ve angle for speakers aimed downward.
Box 1	This angle is always '0' as this is attached to the array frame.
Box 2	This is the inter box angle between Box 1 and Box 2
Box 3	This is the inter box angle between Box 2 and Box 3
Box 4...8	As above

Below are 2 templates for flown systems:

1. 8x BRX308-LA for a 40m(131 ft.) deep venue flown at a height of 5m(16 ft.)

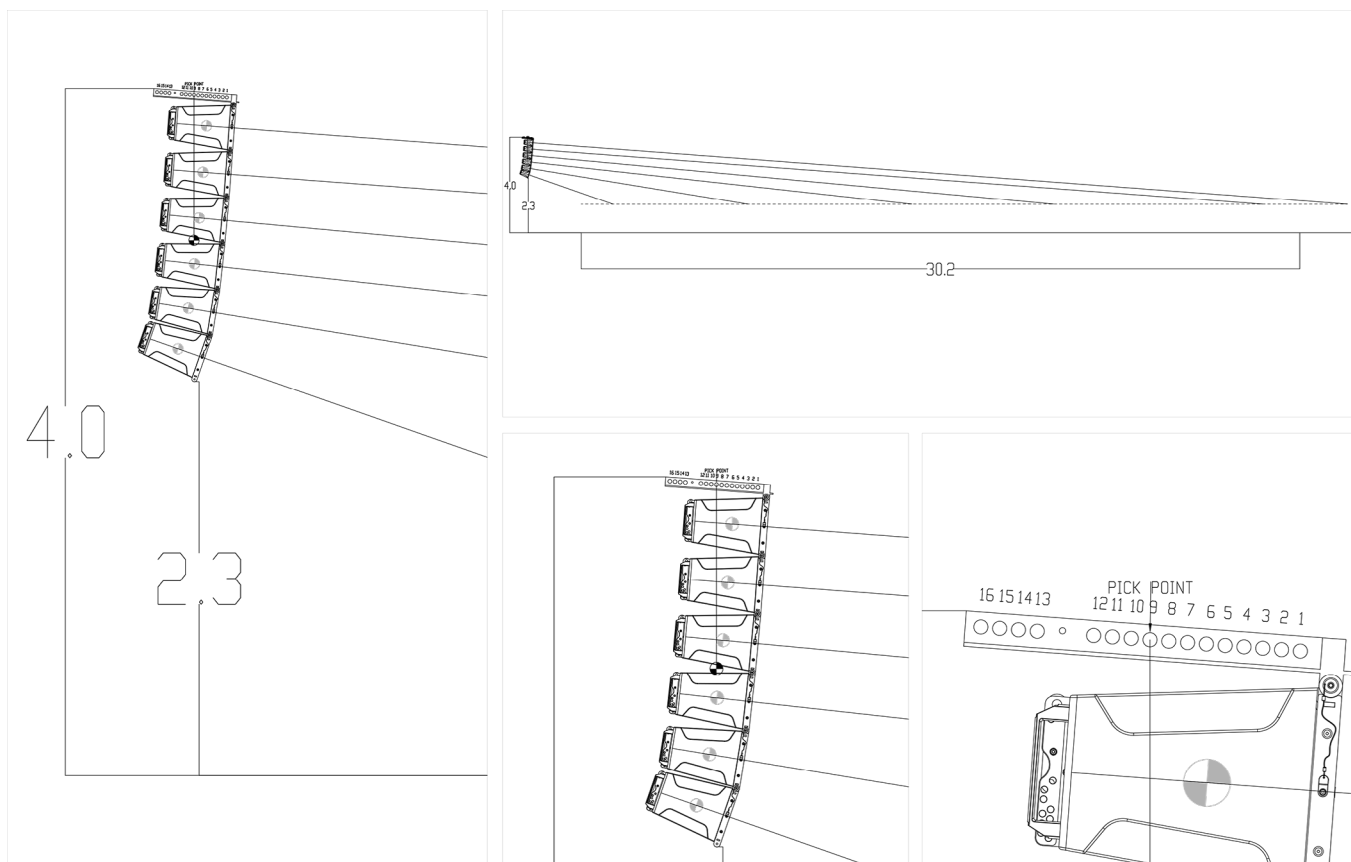


<b>No. of Boxes</b>	<b>8</b>
<b>AF Pick Point</b>	<b>Hole 12</b>
<b>AF Angle</b>	<b>-5 Degrees</b>
Box 1	0
Box 2	1
Box 3	1
Box 4	2
Box 5	1
Box 6	3
Box 7	4
Box 8	12

# SYSTEM DEPLOYMENT GUIDE



2. 6x BRX308-LA for a 25~30m(82~98 ft.) deep venue flown at a height of 4m(13 ft.)



<b>No. of Boxes</b>	<b>6</b>
<b>AF Pick Point</b>	<b>Hole 9</b>
<b>AF Angle</b>	<b>-4.3 Degrees</b>
Box 1	0
Box 2	0
Box 3	1
Box 4	1
Box 5	3
Box 6	10

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