

## Quick Start Guide

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### Suspending the KLA Series Loudspeakers



**WARNING!** Read and follow these instructions carefully. If the loudspeakers are not suspended properly, they could fall, causing personal injury and damage to the equipment.

#### Rules for Suspension

- Consult a professional mechanical or structural engineer, licensed in the jurisdiction of the sound system installation, to review, verify, and approve all attachments to the building or structure.
- Employ the services of a certified professional rigger for hoisting, positioning, and attaching the equipment to the supporting structure.
- Correct use of all suspension hardware and components is imperative in sound system suspension and deployment.
- Always calculate suspended loads before lifting to make sure suspension components and hardware are used within their respective load limits.
- Consult local codes and regulations to fully understand the requirements for suspended loads in the venue in which you will suspend the equipment.
- Use only the KLA AF12 Array Frame or the M10 installation points for suspending the array.
- Be absolutely certain of the integrity of any structural member intended to support suspended loads. Hidden structural members can have hidden structural weakness.
- Never assume anything! Owner or third-party supplied suspension attachment points may not be adequate for suspending the loads.
- Before lifting, always inspect all components (enclosures, suspension brackets, pins, frames, bolts, nuts, slings, shackles, etc.) for cracks, wear, deformation, corrosion, missing, loose, or damaged parts that could reduce the strength of the assembly. Discard any worn, defective, or suspect parts and replace them with new appropriately load-rated parts.

#### Shock Loading

When a load is either moved or stopped, its static weight is magnified. Sudden movements can magnify the static weight several times. This magnification of static weight is called "shock loading". Shock loading poses a danger to equipment and workers. The effects of shock loading can be instantaneous, or may remain undetected unless the equipment is visually damaged. Proper preparation for shock loading requires careful planning and knowledge of equipment, suspension, and lifting practices.

Shock loading of equipment and structures is usually confined to lifting and installation, but natural forces (winds, earthquakes, and so on) can impose shock loads several times the static load. Because of this, structures and suspension equipment must be capable of supporting several times the weight of the suspended equipment.

#### KLA Maximum Suspended Load

The KLA components are engineered for a 10:1 design factor. Use a KLA AF12 Array Frame or the M10 Integrated Suspension points to suspend one KLA Array consisting of one of the following array configuration options. The maximum number of KLA12 Loudspeakers in any array, with or without KLA181 Loudspeakers, is five.

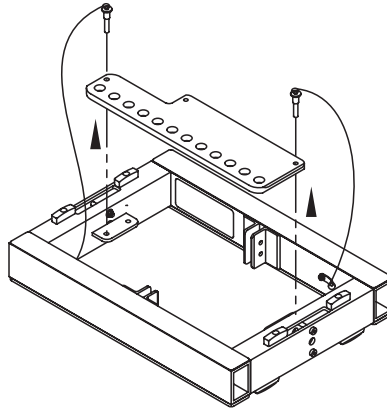
Maximum Suspended Loudspeakers per Array			
Array Configuration Option	A	B	C
Maximum Number of KLA181 Loudspeakers	2	3	4
Maximum Number of KLA12 Loudspeakers	5	3	0

– Table 1 –

TD-000336-00-A

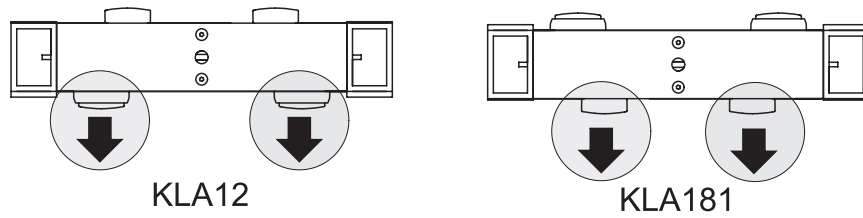


# Assembling the KLA AF12 Array Frame



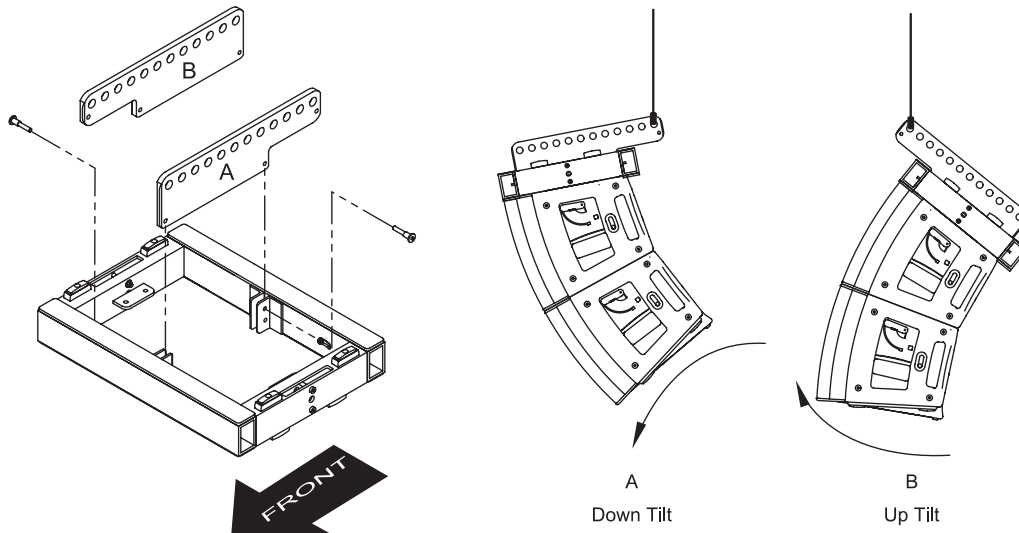
– Figure 1 –

1. Disassemble the Array Frame from it's shipping configuration by removing the rigging pins.



– Figure 2 –

2. Orient the correct feet down for KLA12 or KLA181.



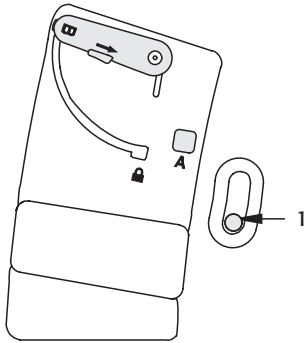
– Figure 3 –

3. Install Extension Bar pointing rearward (A) for down tilt, forward (B) for up tilt.

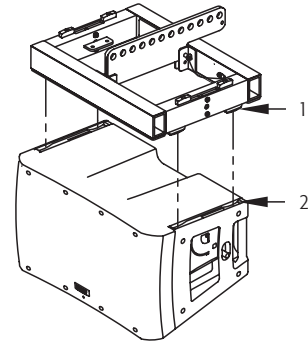
# Attaching to a KLA12 Loudspeaker



**WARNING!** A KLA Array consists of one of the following array configuration options. The maximum number of KLA12 Loudspeakers in any array, with or without KLA181 Loudspeakers, is five.

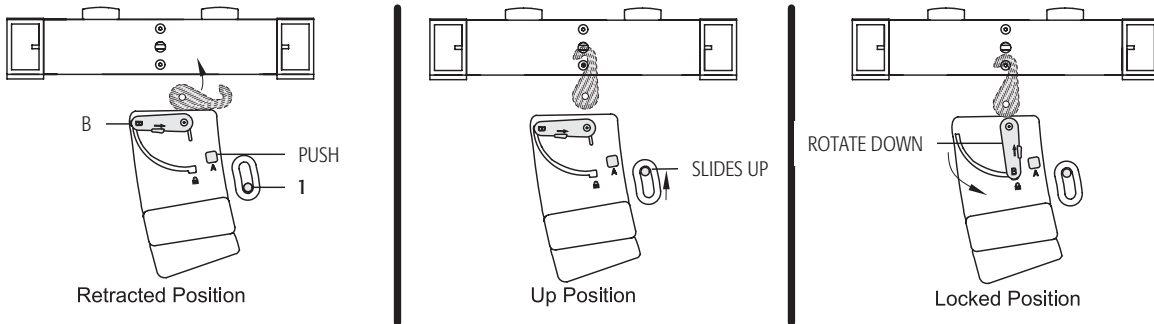


– Figure 4 –



– Figure 5 –

1. Refer to – Figure 4. Make sure that the levers labeled "B" are up, and slides (1) are down on both sides of the loudspeaker.
2. Refer to – Figure 5. Place the assembled KLA AF12 Array Frame, on top a KLA12. Nest the four feet (1) on the array frame into the feet receptacles (2) on the loudspeaker. Make sure that the surfaces are aligned and parallel.



– Figure 6 –

3. On the bottom loudspeaker, push button "A". Slide (1) automatically moves to Up Position.
4. Rotate Lever "B" down to the Locked Position.

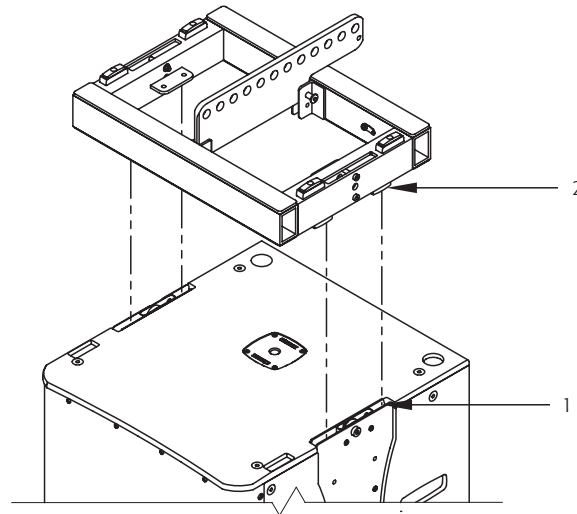


**WARNING!** Make sure the loudspeakers are properly aligned, and that the Lever locks are in the down, locked position. Lift array a small amount to confirm assembly.

## Attaching to a KLA181 Loudspeaker

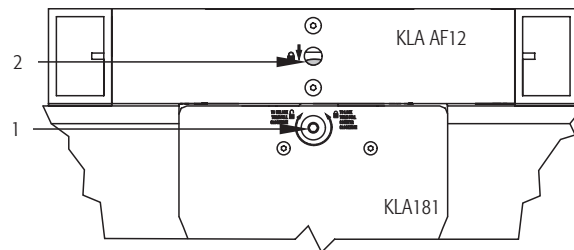


**WARNING!** A KLA Array consists of one of the following array configuration options. The maximum number of KLA12 Loudspeakers in any array, with or without KLA181 Loudspeakers, is five.



– Figure 7 –

1. Insert the 6 mm hex key (supplied) into the hex socket on KLA181 and rotate the key fully to the Unlocked Position. (Both sides of loudspeaker.)
2. Place the KLA AF12 Array Frame on top of the KLA181, nesting the four feet (2) on the array frame into the spaces (1) in front of and behind the attaching hook as shown in – Figure 7. Make sure that the surfaces are aligned and parallel.



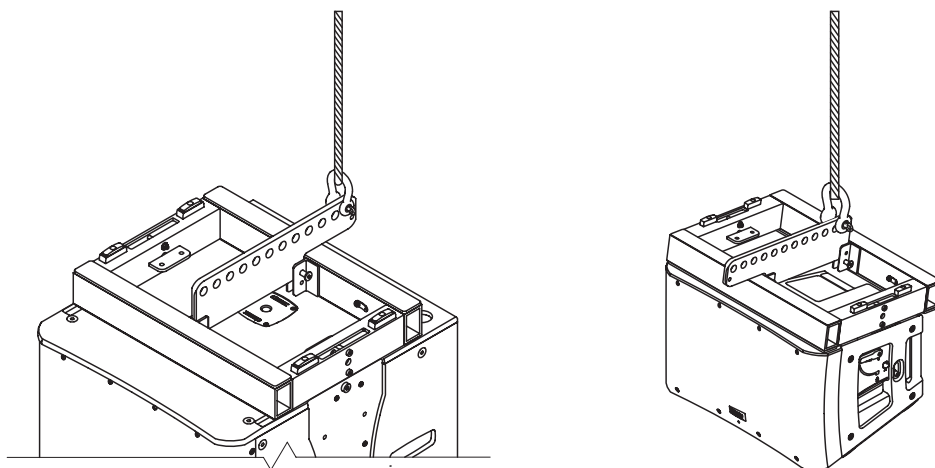
– Figure 8 –

3. Insert the 6 mm hex key into the hex socket (Figure 8, 1) in the KLA181.
4. Turn the key fully to the Locked Position on both sides of the loudspeaker. In the final, Locked Position, you can see a small portion of the hook in the bottom of the view hole (2).
5. Test the assembly by trying to separate the two units.

## Attaching Rigging Cables to the KLA AF12 Array Frame



**WARNING!** A KLA Array can consist of one of the following array configuration options. The maximum number of KLA12 Loudspeakers in any array, with or without KLA181 Loudspeakers, is five.



– Figure 9 –

1. Attach the KLA AF12 Array Frame to the suspension structure using a 5/8" (16 mm) screw pin anchor shackle and appropriate sling, cable, etc. The tilt angle of the array can be adjusted by moving the shackle forwards or backwards.



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