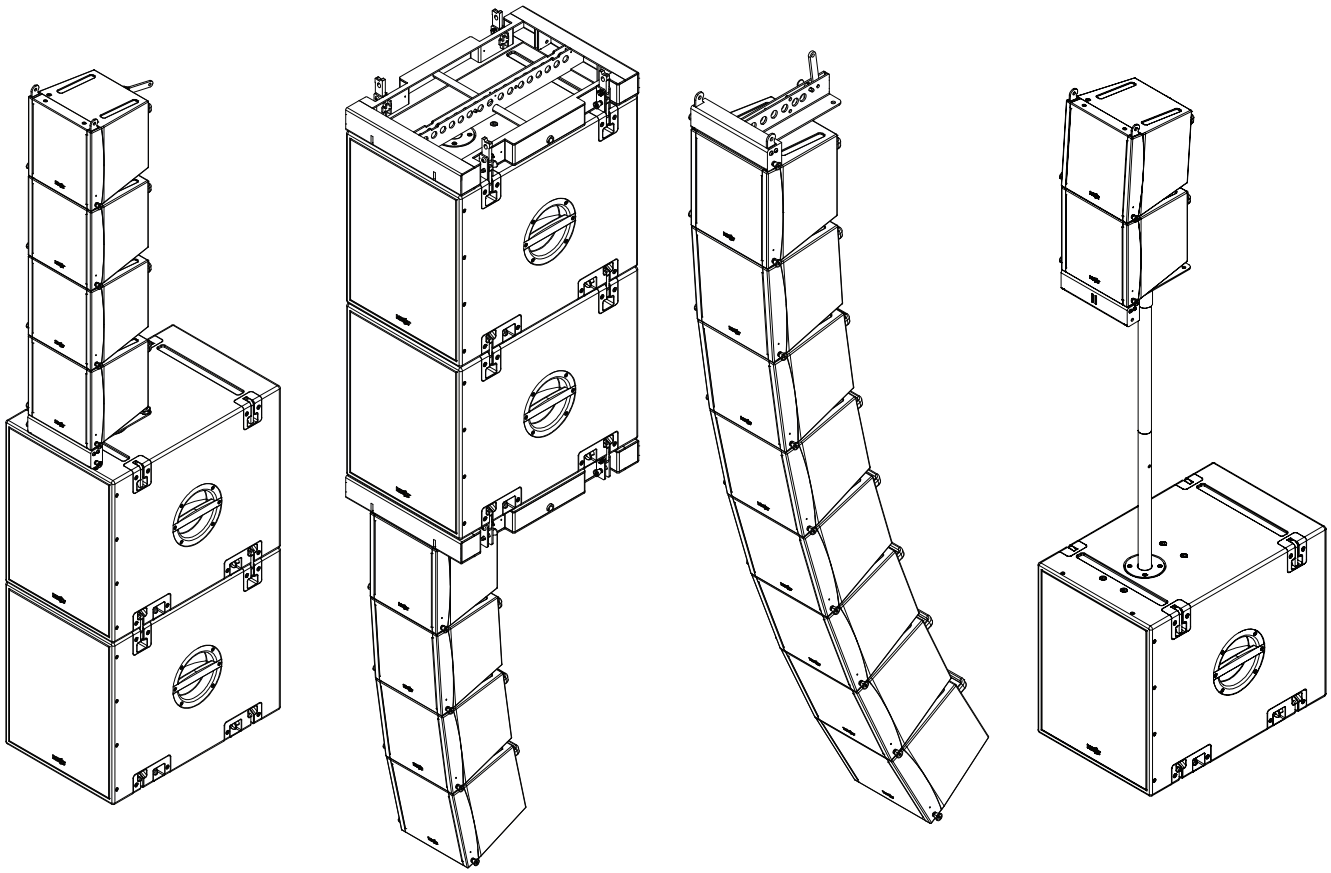
audiocom

MOKA
SYSTEM
User Guide



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US10101-1.0

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1 Safety and Warnings

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 a risk of electrical shock.

The exclamation mark within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance instructions

- Read these instructions
- Keep these instructions
- Heed all warnings
- Follow all instructions
- Use the equipment only for its intended purpose as instructed in this manual
- Before installing, observe the applicable safety regulations for your country
- Always check if the equipment is installed securely and will not fall
- Never install close to ignition or heat sources such as radiators, ovens or any other apparatus that produce heat.
- Do not use or install the equipment near water or exposed to rain
- If the equipment is not functioning properly or has been damaged in any way, switch it off immediately
- Do not open or try to service the equipment. It may only be repaired by authorized, qualified personnel
- Clean the equipment using only a clean dry cloth
- Do not operate the unit for an extended period with the sound distorting
- Never remove the cover, because otherwise there may be a risk of electric shock. There are no user serviceable parts inside. Have repairs carried out only by qualified service personnel.

This equipment is intended for professional use. Therefore, commercial use of this equipment is subject to the respectively applicable national accident prevention rules and regulations. As a manufacturer, NEXT Audiocom is obligated to notify you formally about the existence of potential health risks. Hearing damage due to high volume and prolonged exposure: When in use, this product is capable of producing high sound-pressure levels (SPL) that can lead to irreversible hearing damage in performers, employees, and audience members.
For this reason, avoid prolonged exposure to volumes in excess of 90dB.

ATTENTION! Because of the continuous evolution of techniques and standards, NEXT Audiocom reserves the right to change the specifications of its products without warning. For the most updated version of this manual and general information about this and other products, please visit our website www.nextaudiogroup.com.

1.1 Certificates of Conformity

Certificates of conformity can be found at:

https://www.nextaudiogroup.com/en/apoio-ao-cliente/downloads

1.2 Warranty

Warranty details can be found at:

www.nextaudiogroup.com/en/apoio-ao-cliente/warranty

1.3 End of Life

When to be definitively put out of operation, take the product to a local recycling plant for a disposal which is not harmful to the environment.
Devices marked with this symbol must not be disposed of as household waste. Contact your retailer or local authorities for more information.

2 Overview

2.1 Introduction

Thank you for purchasing a NEXT MOKA System. This manual will provide you with useful and important information about your NEXT MOKA System. Please devote some time to reading this manual and keep it at hand for future reference. NEXT Audiocom is concerned with your safety and well-being so please follow all instructions and heed all warning. A better understanding of specific features of the MOKA System will help you to operate your system to its full potential. With a continuous evolution of techniques and standards NEXT Audiocom reserves the right to change the specifications of its products without warning. For the latest information please visit: www.nextaudiogroup.com.

2.2 Unpacking

When unpacking your MOKA System please examine it carefully for any signs of transit damage and inform your dealer immediately if any is found.

NEXT Audiocom recommends that you retain the original packaging so that the system can be repackaged in future if necessary. Please note that NEXT Audiocom and its authorized distributors cannot accept any responsibility for damage to any returned product using non-approved packaging.

2.3 Overview

The MOKA System is an ultra-compact plug´n´play line array system optimized for flexible, high power and modular array configurations to fit a diverse range of sound reinforcement applications.

MOKA seamlessly integrates cutting-edge concepts in sound reinforcement technology into a singular system, comprising 3 fundamental elements – the MOKA Array, the MOKA Sub and the MOKA Sub A.

Its capabilities span from a small to large event, extending all the way to flown line array systems for professional live sound reinforcement at concerts and festivals, complete with adaptable subwoofer arrangements on the ground, or flown if needed.

Beyond its system flexibility, MOKA stands out with its sophisticated features and technologies designed to streamline the life of every installer, rental company or band.

2 Overview

The MOKA Array speaker, encased in a polyurea painted multi-laminate birch plywood enclosure, serves as a line array element. It accommodates a 9" neodymium woofer with a 3" neodymium driver coaxially mounted. The wave guide ensures minimal interference among the arrays, creating a classic line array dispersion pattern with remarkable throw and energy density.

The MOKA SUB A is a 15" active bass-reflex subwoofer powered by a 4x2300w Class D amplifier module with DSP. This professional active subwoofer was engineered for high-level and extended low frequency output. Each Moka Sub A can power up to another Moka Sub (passive) and 4 Moka Arrays.

NEXT Audiocom presents MOKA in 4 different configurations: MOKA Small (4 Moka Array + 1 Moka Sub + 1 Moka Sub A), MOKA Medium (8 Moka Array + 2 Moka Sub + 2 Moka Sub A), MOKA Large (16 Moka Array + 4 Moka Sub + 4 Moka Sub A), and MOKA Giant (24 Moka Array + 6 Moka Sub + 6 Moka Sub A).

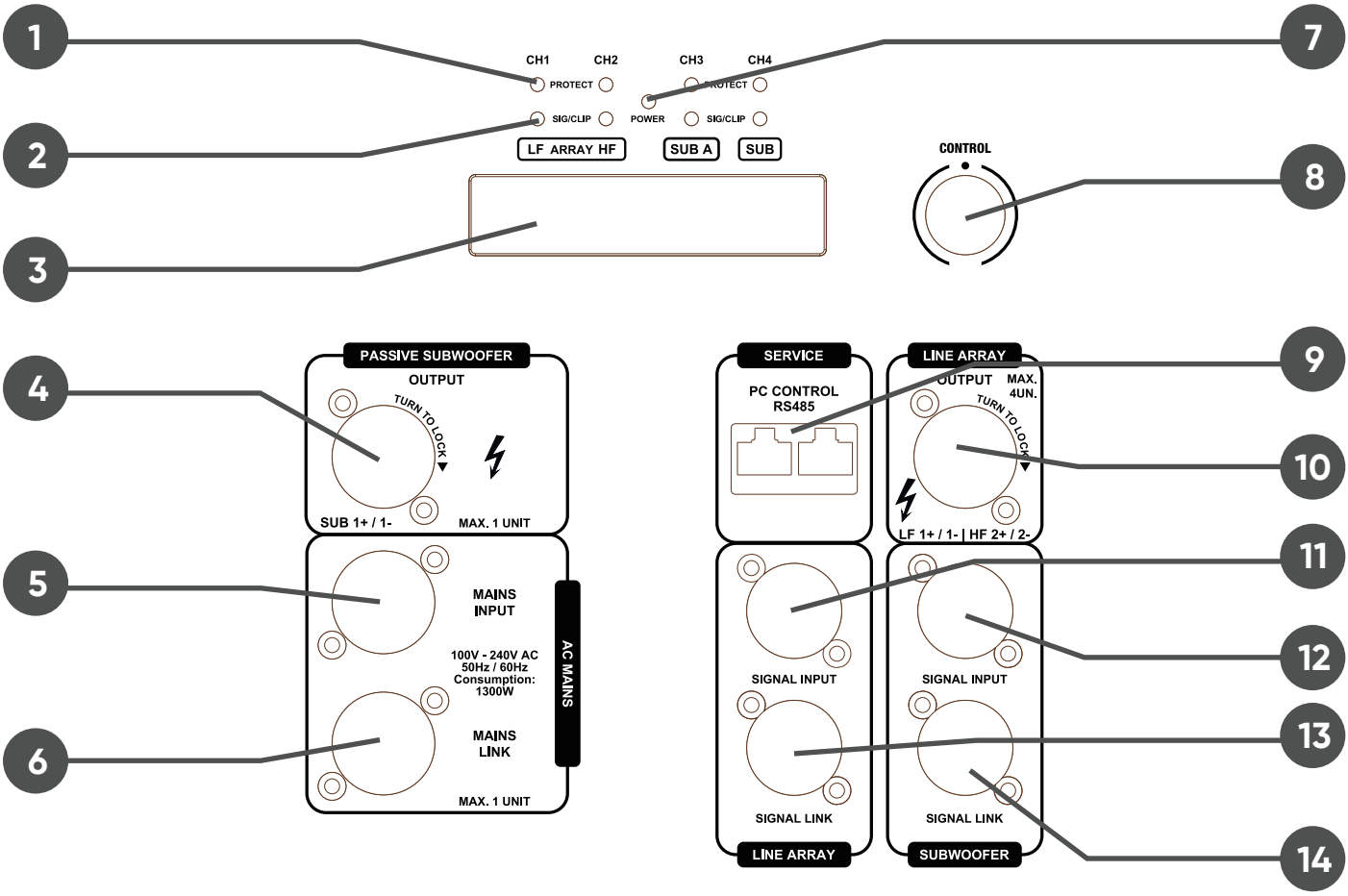
2 Overview

2.4 Specifications

	Line Array Element	Sub	Active Sub
Frequency Response	100 Hz - 19 kHz (-6 dB)	35 Hz - 120 Hz (-6 dB)	35 Hz - 120 Hz (-6 dB)
Sensitivity	HF: 108 dB, LF: 96 dB	96 dB	96 dB
Nominal Impedance	HF: 16 Ω, LF: 16 Ω	8 Ω	N/A
Power Rating	HF: 90 W, LF: 450 W	700 W	700 W
LF Driver	1x9" (75 mm voice coil) neodymium	1x15" (75mm voice coil) ferrite	1x15" (75mm voice coil) ferrite
HF Driver	1x3" (1.4" exit) neodymium	N/A	N/A
Nominal dispersion	H: 100°, V: 10°	Omnidirectional	Omnidirectional
Max SPL	134 dB	125 dB	125 dB
Dimensions	300 x 248 x 266 mm (11.8" x 9.8" x 10.5")	556 x 426 x 660 mm (21.9" x 16.8" x 26")	556 x 426 x 660 mm (21.9" x 16.8" x 26")
Weight	10.2 kg (22.5 lbs)	39.5 kg (87 lbs)	50.8 kg (112 lbs)
Connector	2 x Neutrik NL4MP	2 x Neutrik NL4MP	
Connection	LF: 1+1-, HF: 2+2-	1+1-	
Enclosure	15mm multilayer birch ply	15mm multilayer birch ply	15mm multilayer birch ply
Finish	Black polyurethane paint	Black polyurethane paint	Black polyurethane paint
Amplifier type	N/A	N/A	D class
Power			4 x 2300 W, 4 Ω
Power supply			PFC Switching Power Supply (SMPS)
Power input			AC 100V - 240V 50Hz/60Hz
DSP			32 bit 192 kHz audio processor
AD/DA			24 bit/96 kHz
THD (1kHz, 4 Ω)			≤1%
SNR			103dB
Signal			Full range: 1 x XLR (M); 1 x XLR (F)
			Sub: 1 x XLR (M); 1 x XLR (F)
Output			Full range: 1 x NL4 Sub: 1 x NL4
Socket			1 x PowerCON input
Presets			10 presets

3 Cabling and Amplification

3.1 Amplifier Layout

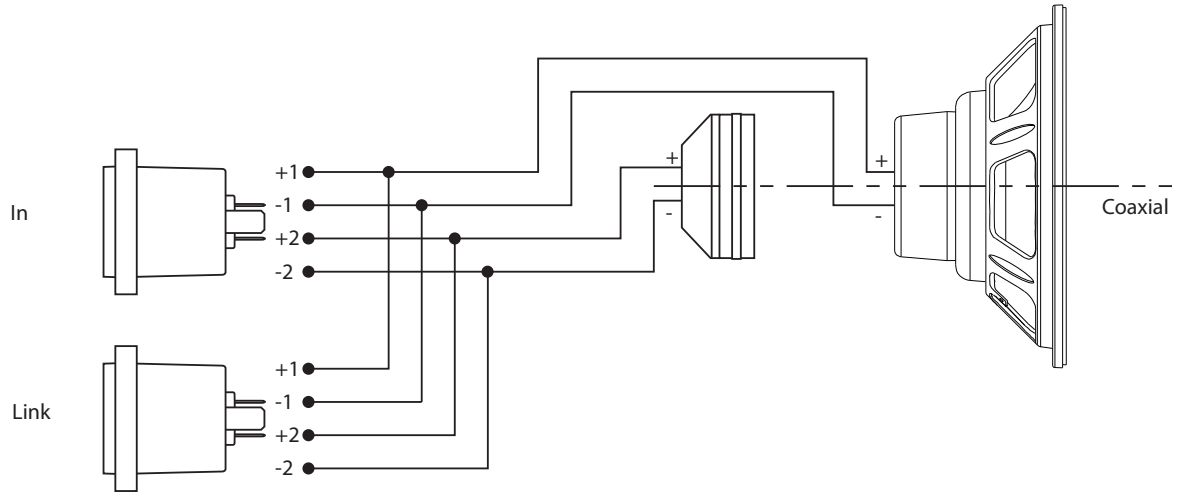


1. Protection LED
2. Signal/Clip LED
3. LCD Screen
4. Passive Subwoofer Output (NL4)
5. Mains Input (PowerCON)
6. Mains Link (PowerCON)
7. Power LED
8. Encoder
9. Service connection (RS485)
10. Line array output NL4 (max 4 units)
11. Line array signal input (XLR - F)
12. Subwoofer signal input (XLR - F)
13. Line array signal output (XLR - M)
14. Subwoofer signal output (XLR - M)

3 Cabling and Amplification

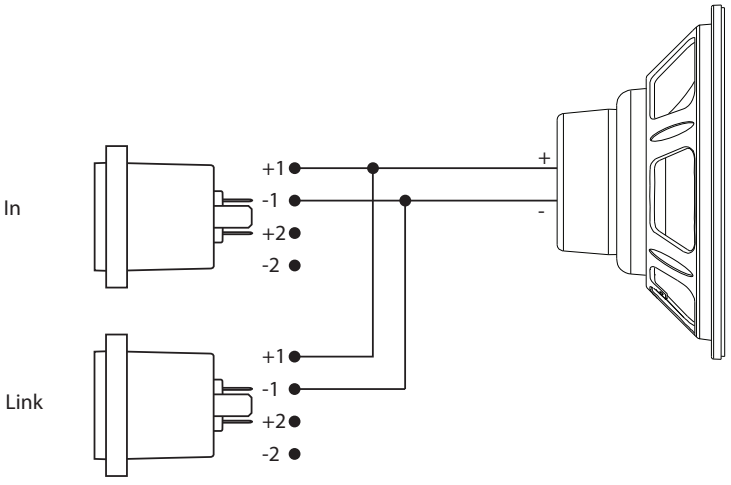
3.2 Wiring Diagram

3.2.1 MOKA Array



	speakON pins 1+,1-	speakON pins 2+,2-
In	9" LF	3" HF
Link	LF link out	HF link out

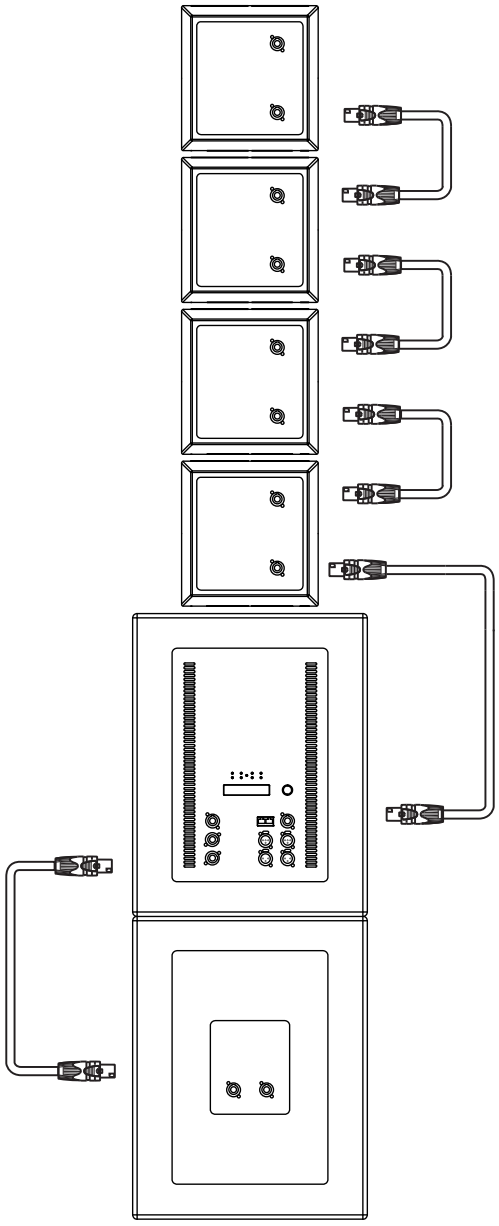
3.2.2 MOKA Sub



	speakON pins 1+,1-	speakON pins 2+,2-
In	15" LF	Not connected
Link	LF link out	Not connected

3 Cabling and Amplification

3.3 System Configuration



The MOKA Sub A can power up to a maximum of 1 MOKA Sub and a maximum of 4 MOKA Array units.

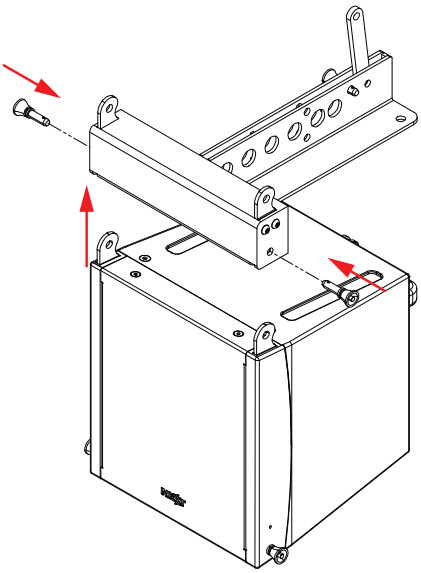
4 Rigging Systems

4.1 Rigging and Suspension Safety

- Before rigging or suspending NEXT MOKA systems, inspect all components and all hardware for any signs of damage or missing parts.
- If you find any damaged, corroded or deformed parts, do not use them, replace them immediately.
- Do not use hardware that isn't load rated or that its' rating is not enough to handle the system's weight with a good safety factor (4 minimum). Don't forget that the hardware won't just hold the systems weight. It must be sturdy enough to handle dynamic forces like winds and other, without any part deformation. NEXT Audiocom advises customers to contact a licensed, professional engineer regarding equipment installation.
- NEXT MOKA system installation should only be carried out by qualified personnel.
- Always use adequate protective clothing and equipment to prevent possible injuries.
- Only install the systems on solid, levelled ground and isolate the surrounding area during installation and operation, to prevent general public presence near the systems.
- Be sure you understand all local and national regulations regarding equipment installation.
- Failure to comply with these instructions may result on injury or death.

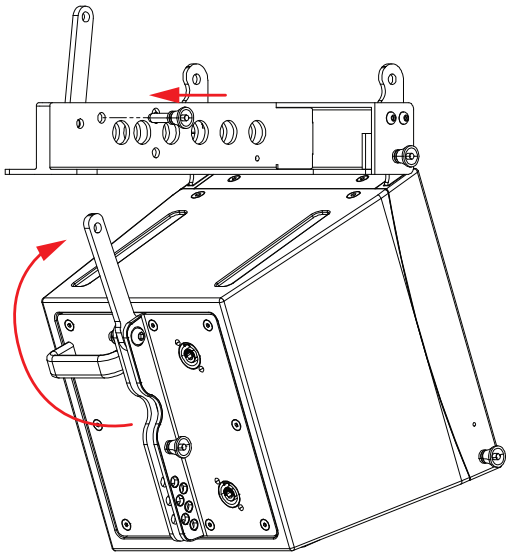
4 Rigging Systems

4.2 MOKA Array Bumper

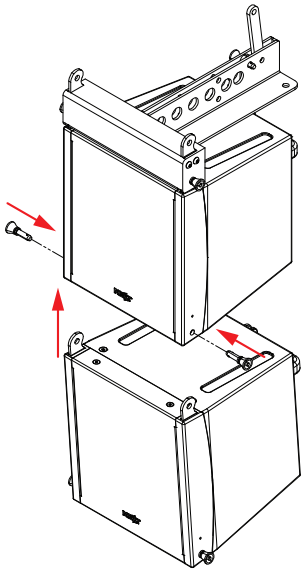


Step 1:
With the fly frame suspended raise the cabinet into position and fix to the front rigging assemblies with the pins on the fly frame.

Note: Lanyards for the pins have been hidden for clarity.

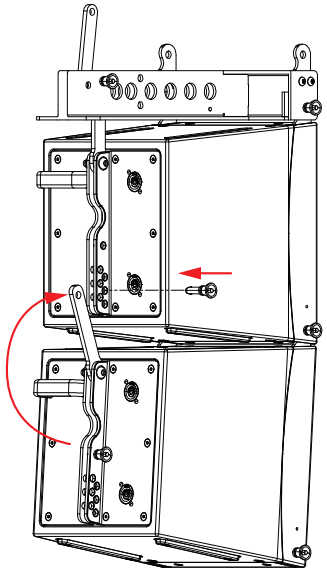


Step 2:
Move the rear link into position as shown and fix into place with the pin from the fly frame.

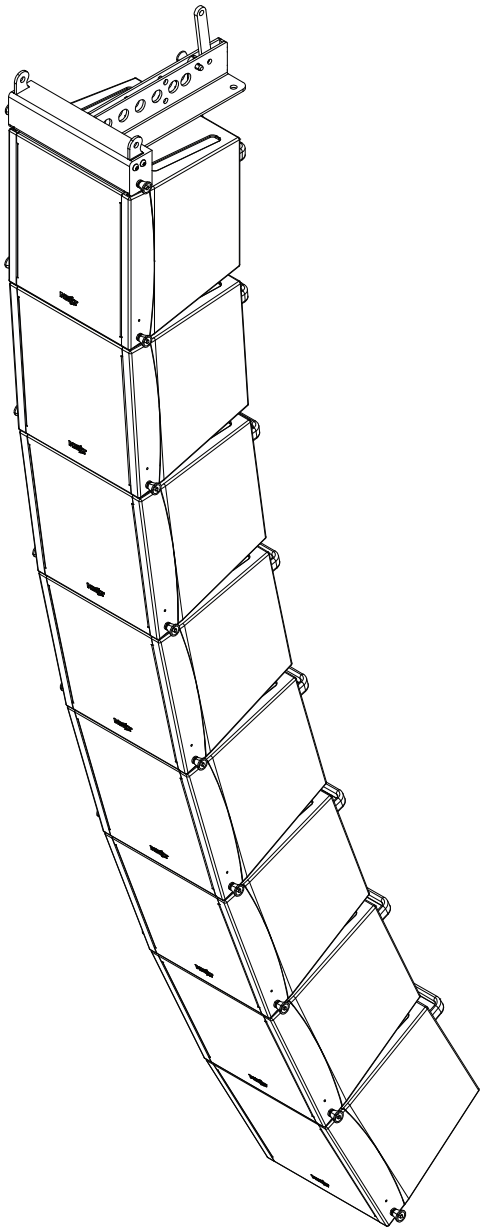


Step 3:
Raise the next cabinet into position and fix using the two front pins of the first cabinet.

4 Rigging Systems



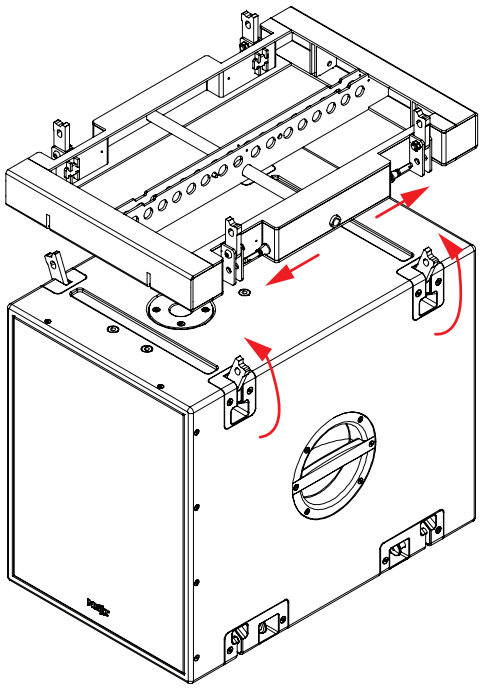
Step 4:
Rotate the rear link from the cabinet into position and fix using the pin from the top cabinet in the hole labelled with the desired angle.



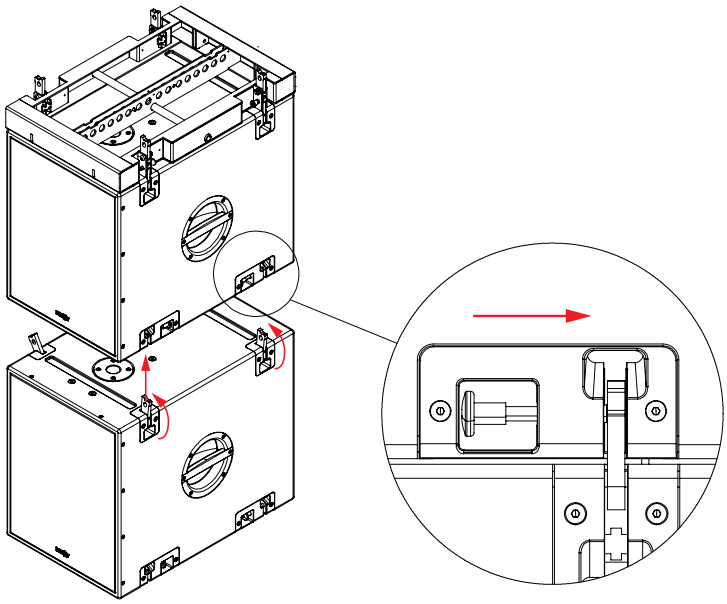
Step 5:
Repeat steps 3 and 4 for as many cabinets as required up to a maximum of eight cabinets.

4 Rigging Systems

4.3 MOKA Sub Bumper

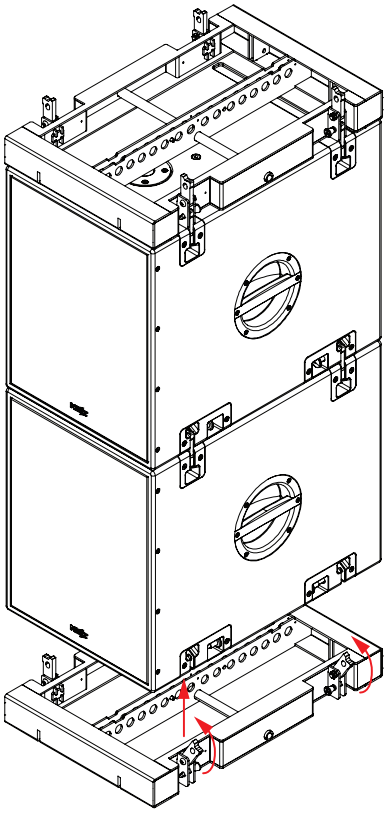


Step 1:
Rotate the links on the side of the subwoofer and raise it into position with the fly frame. Fix the cabinet in position with the pins from the fly frame.

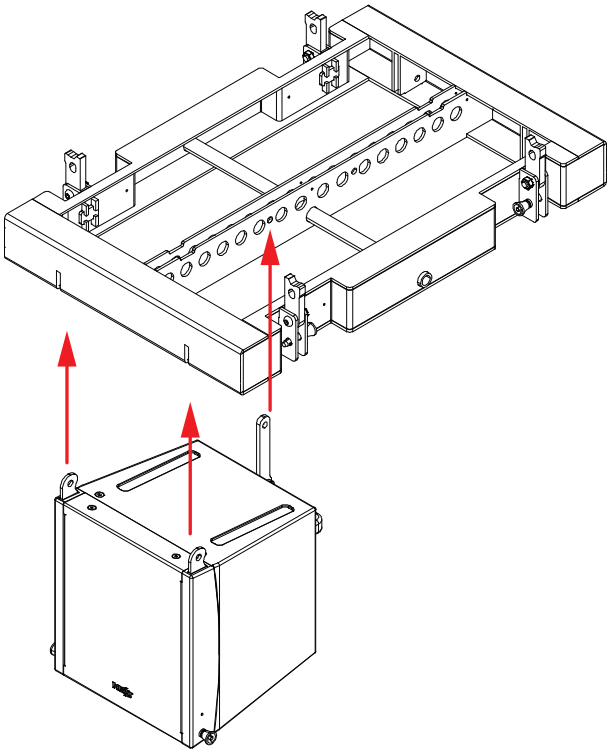


Step 2:
It is possible to fix a second sub woofer cabinet but this is optional. Rotate the links on the cabinet and fix with the internal pins within the sub woofer cabinet assembly.

4 Rigging Systems

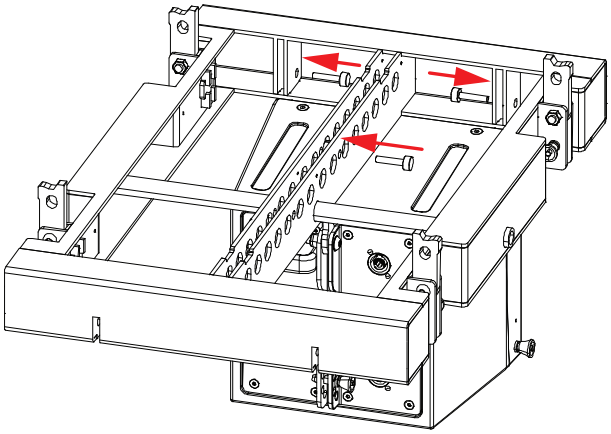


Step 3:
Rotate the links on the next fly and fix to the cabinet using the pins internal to the cabinet assembly.

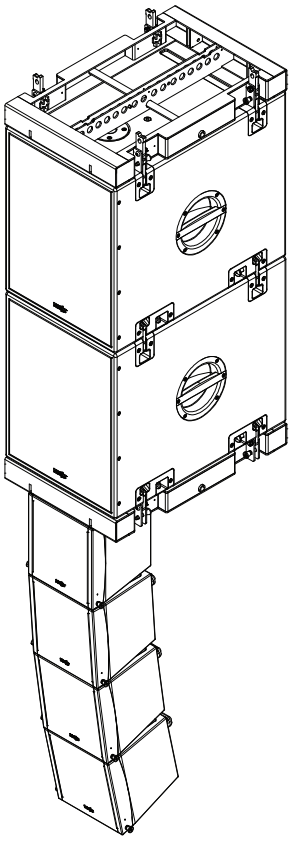


Step 4:
Align the links on the line array cabinet with the holes on the fly frame.
Note: MOKA Subs have been hidden for clarity

4 Rigging Systems



Step 5:
Fix the line array cabinet in position using the pins provided with the fly frame assembly.



Step 6:
Fix additional line array cabinets following steps 3 and 4 in section 4.2.

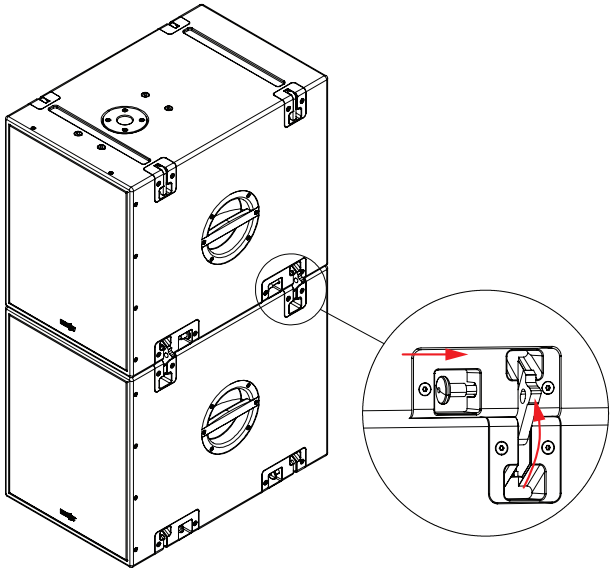
4 Rigging Systems

4.4 Ground Stack Safety

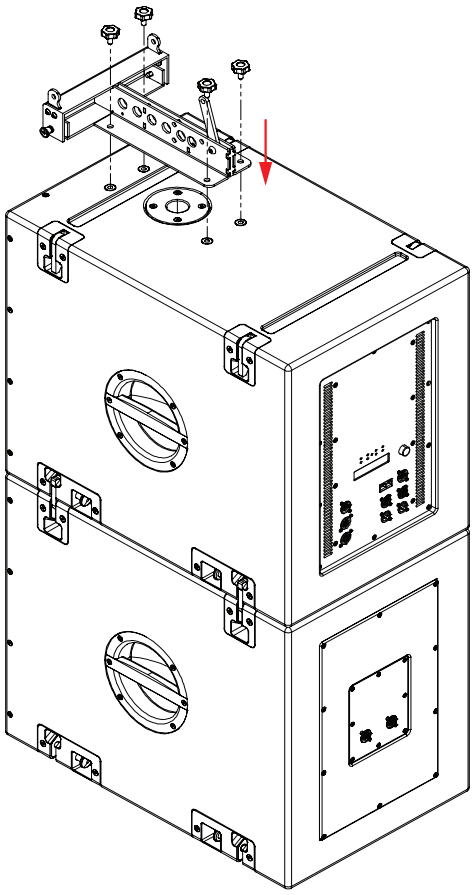
- Always ensure that the floor or structure where the stack will be placed is even and can withstand the weight of the complete stack.
- Do not stack speakers too high, especially outdoors where winds could topple the stack.
- Place cables in a way that they do not present a trip hazard.
- Do not place any objects on top of the stack, they can fall accidentally and cause injuries.
- Do not attempt to move the enclosures while connected.
- Do not expose the systems to extreme heat or cold conditions to prevent component damage.

4 Rigging Systems

4.5 Ground Stack

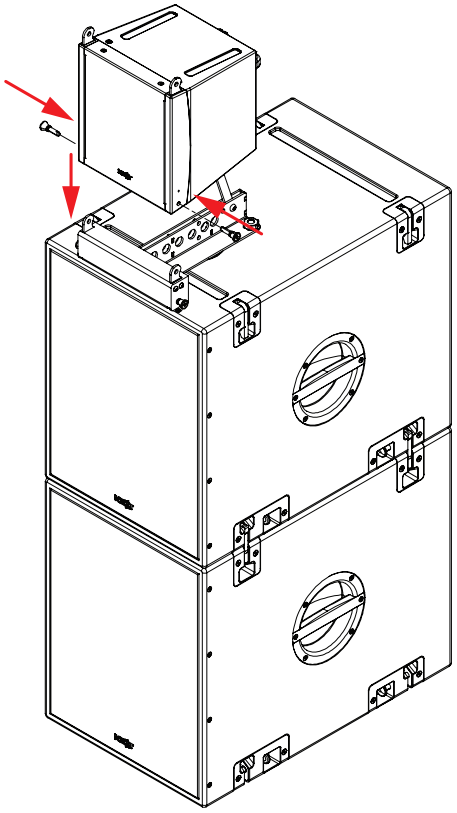


Step 1:
Fix two subwoofer cabinets together by rotating the links on the lower cabinet and fixing them into place with the pins within the cabinet assembly.

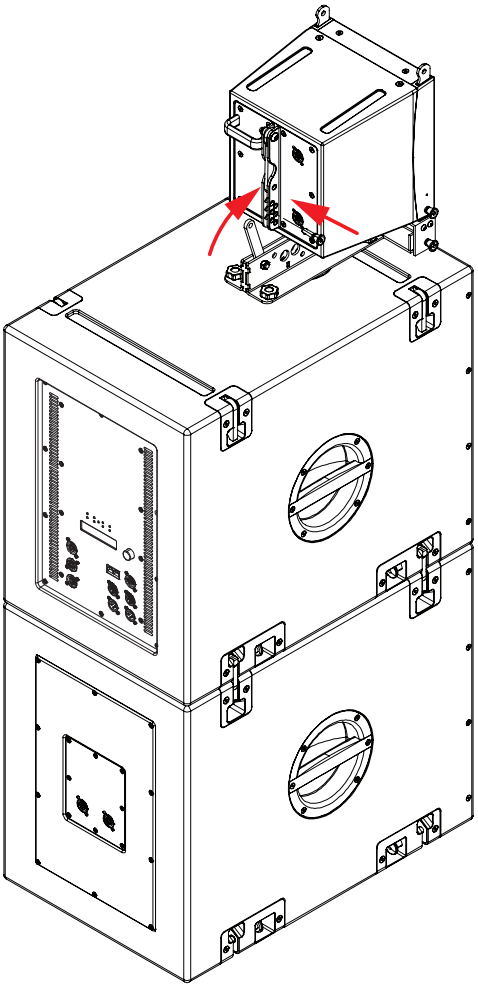


Step 2:
Locate the fly frame on the top of the sub woofer and fix it in place using all four fasteners provided.

4 Rigging Systems

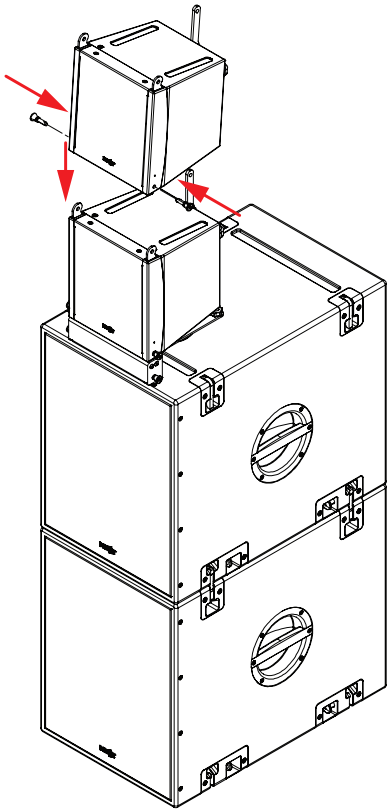


Step 3:
Lower the line array cabinet into position and fix into place with the two pins at the front of the cabinet.

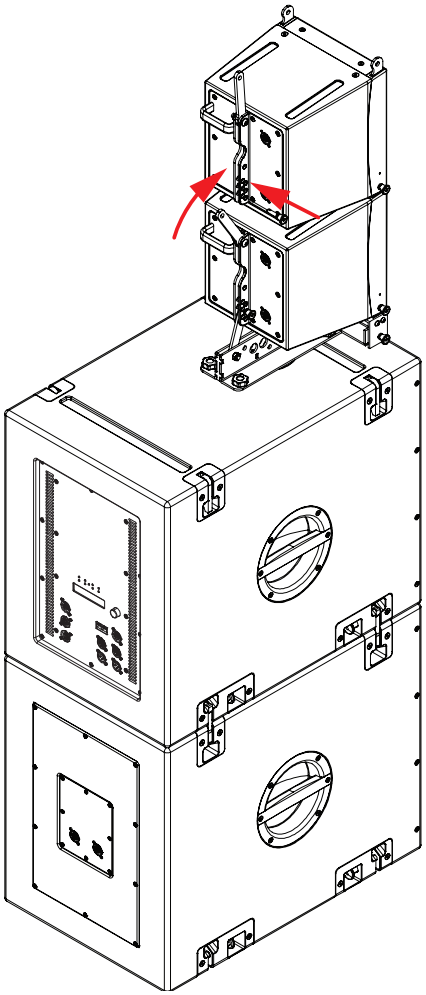


Step 4:
Rotate the rear link from the fly frame into position and fix using the pin from the cabinet in the hole labelled 4°. This will result in the cabinet being parallel with the subwoofer cabinets below. Any angle lower than 4° will result in forward tilt, greater than 4° will result in rear tilt.

4 Rigging Systems

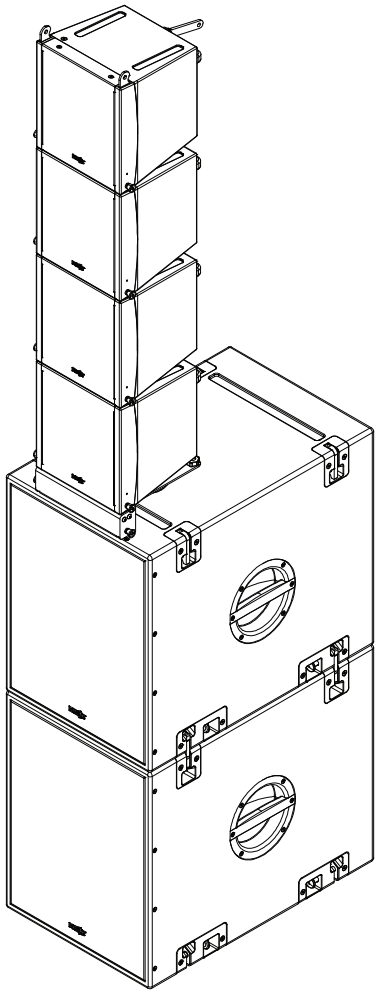


Step 5:
Lower the second cabinet into position and fix into place use the two pins at the front of the cabinet.



Step 6:
Rotate the rear link from the first cabinet into position and fix using the pin from the cabinet in the hole labelled 0°.

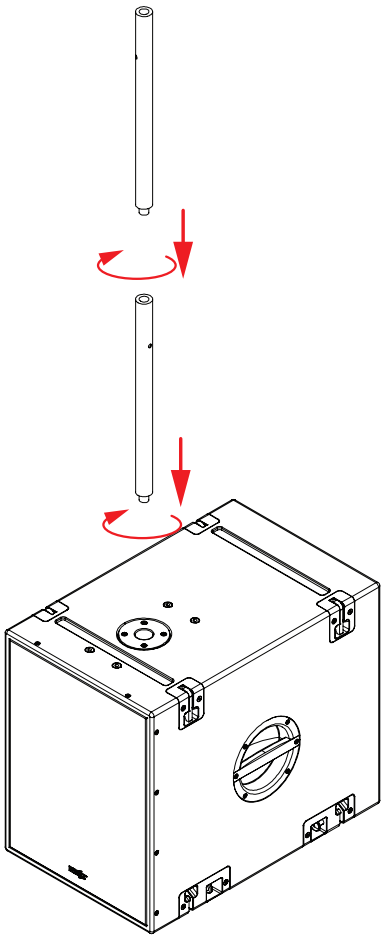
4 Rigging Systems



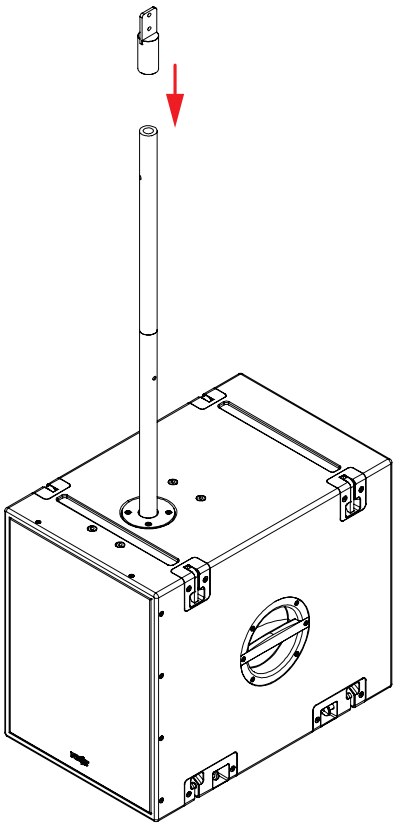
Step 7:
Repeat steps 5 and 6 for additional cabinets as required until a maximum of four units.

4 Rigging Systems

4.6 Pole Mount

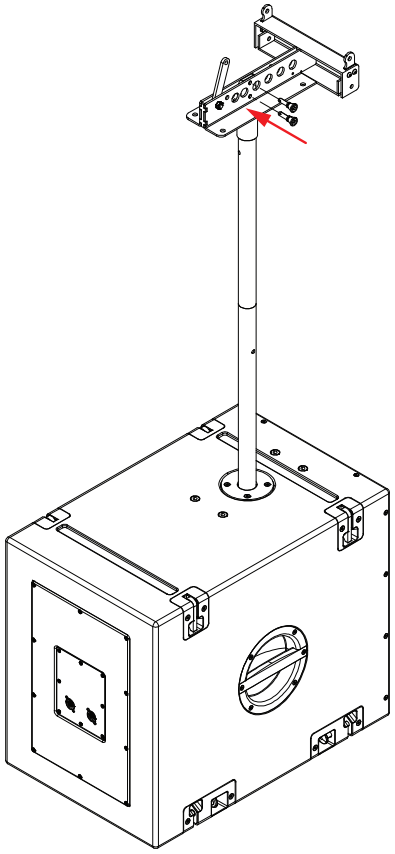


Step 1:
Fix both pole in position by screwing the M20 fasteners.

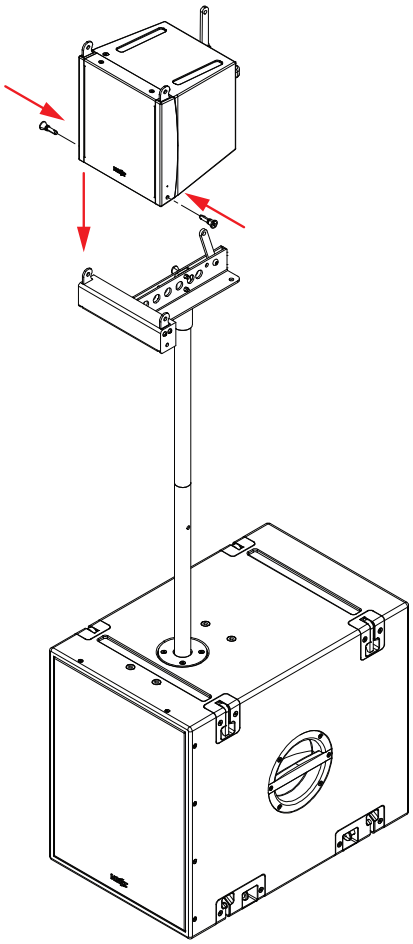


Step 2:
Place the pole mount adapter on top of the pole.

4 Rigging Systems

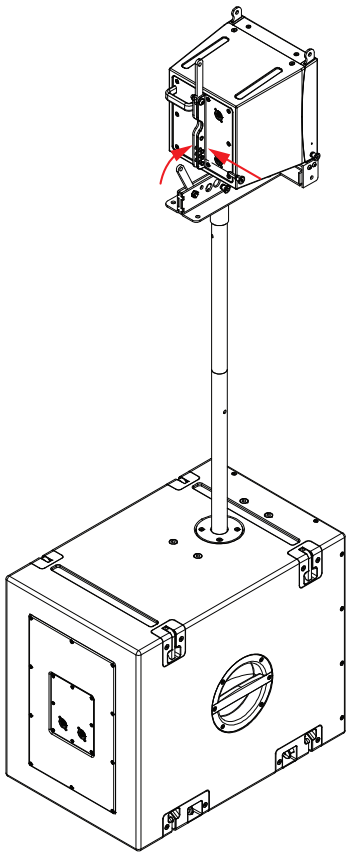


Step 3:
Fix the fly frame into position using two pins provided.

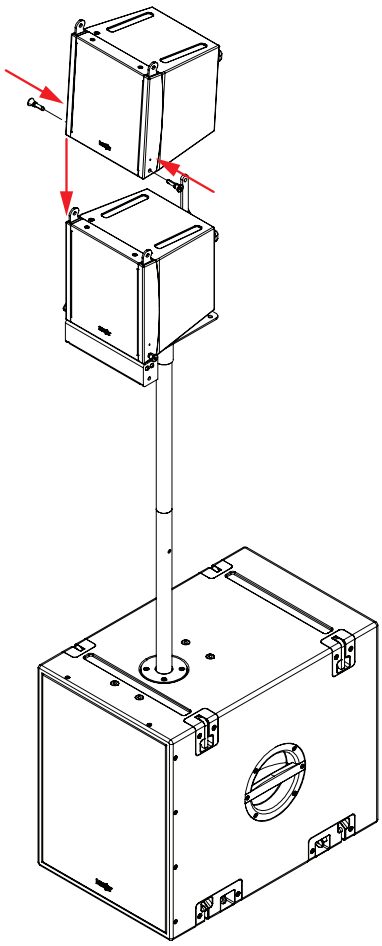


Step 4:
Lower the line array cabinet into position and fix into place with the two pins at the front of the cabinet rigging assembly.

4 Rigging Systems

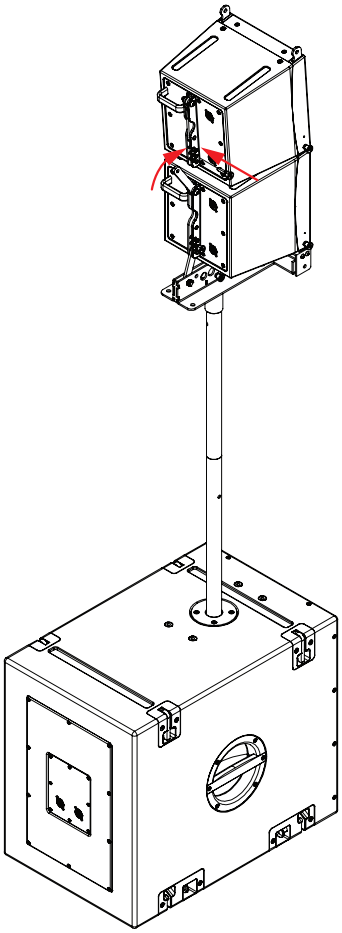


Step 5:
Rotate the rear link on the cabinet into position and fix using the pin from the cabinet in the hole labelled 4°. This will result in the cabinet being parallel with the subwoofer cabinets below. Any angle lower than 4° will result in forward tilt, greater than 4° will result in rear tilt.



Step 6:
Lower the second line array cabinet into position and fix into place with the two pins at the front of the cabinet rigging assembly.

4 Rigging Systems

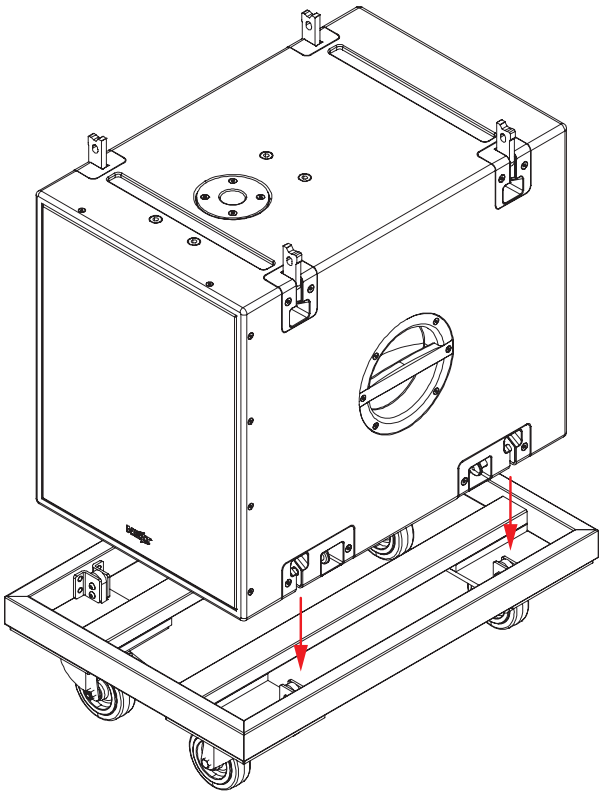


Step 7:
Rotate the rear link on the cabinet into position and fix using the pin from the cabinet in the hole labelled 0°.

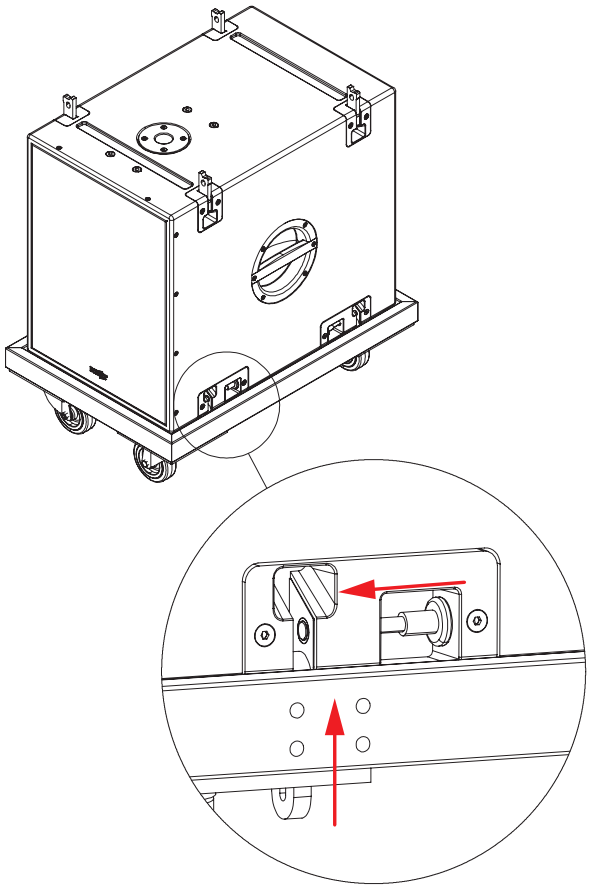
Maximum of 2 MOKA Array units on the pole mount assembly.

4 Rigging Systems

4.7 Subwoofer Dolly

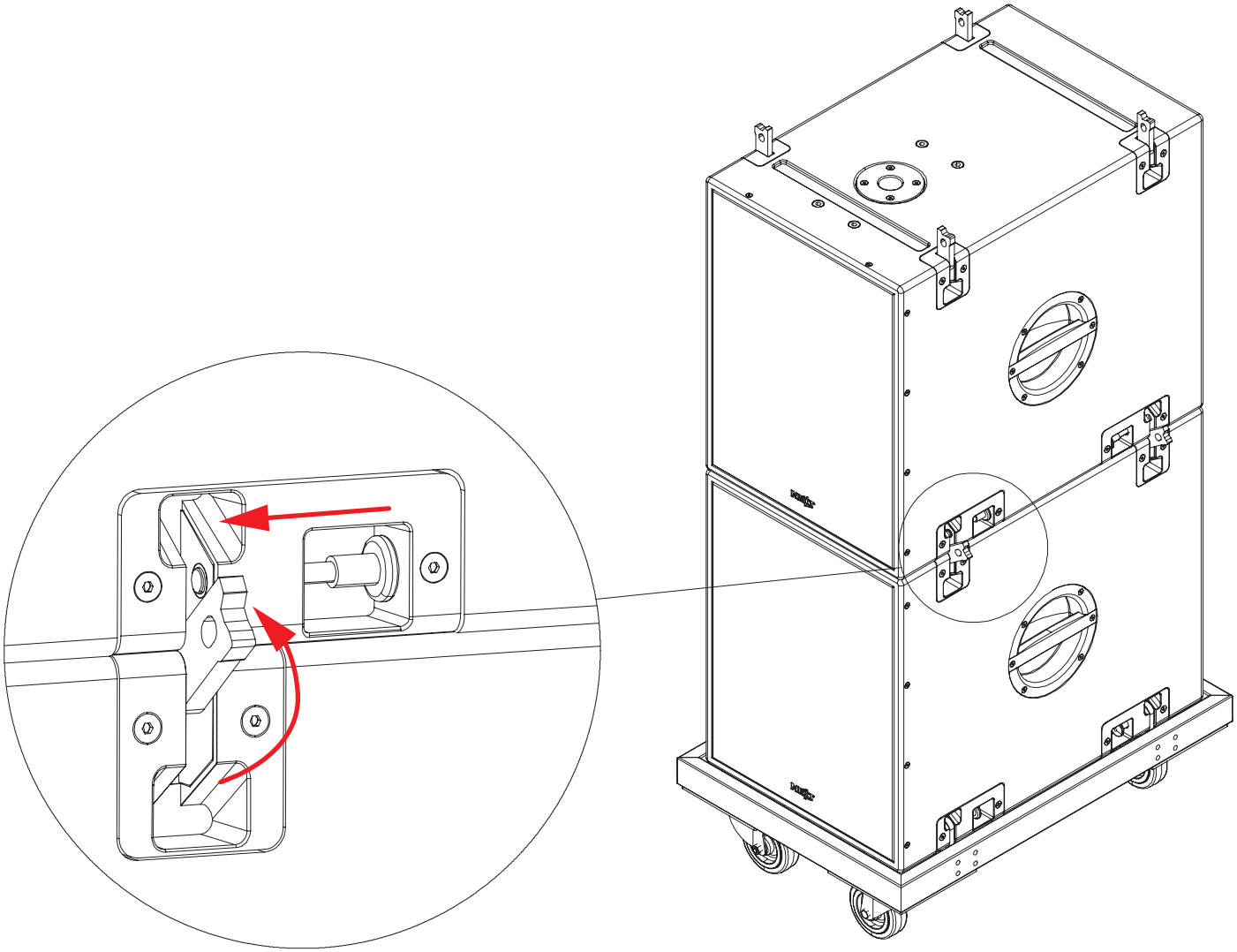


Step 1:
Lower the cabinet into position as shown.



Step 2:
Raise the links from beneath the dolly and fix into position with the pins with the cabinet assembly.

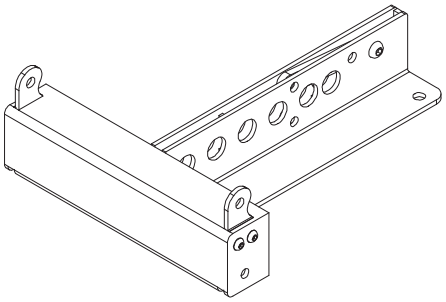
4 Rigging Systems



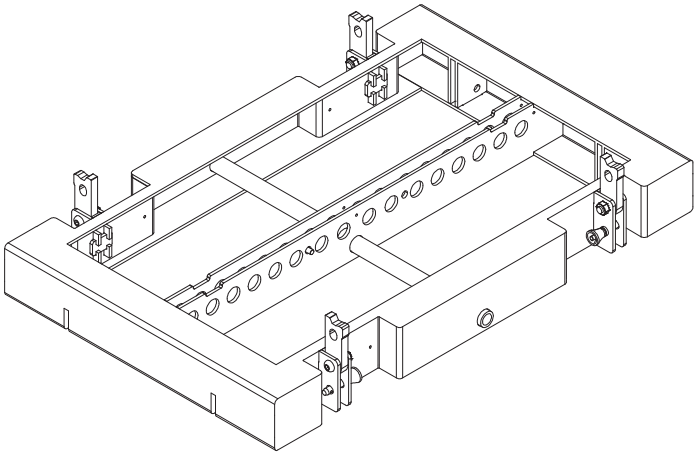
Step 3:
Move the second cabinet into position. Rotate the link from the lower cabinet and fix into place using the pin with the upper cabinet assembly.

5 Accessories

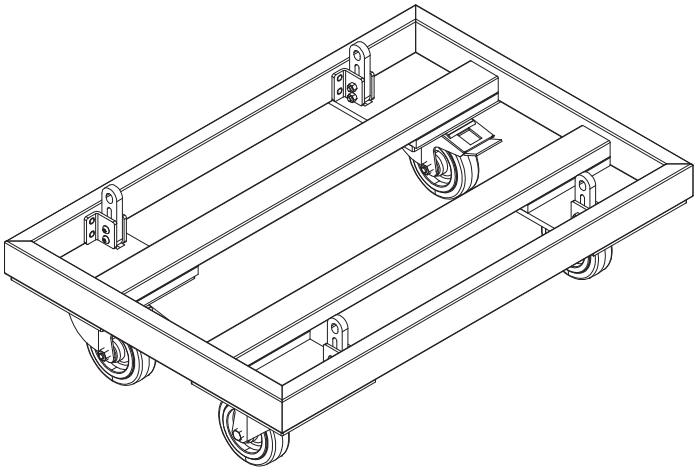
NEXT Audiocom MOKA Mini Bumper
Part number: ACP01982



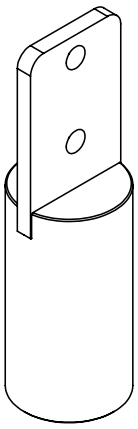
NEXT Audiocom MOKA Bumper
Part number: ACP01983



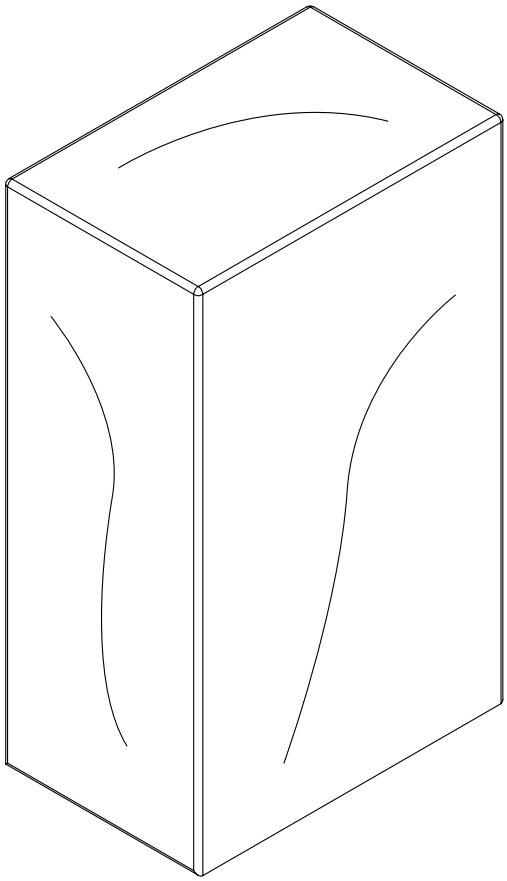
NEXT Audiocom MOKA Dolly
Part number: ACP01984



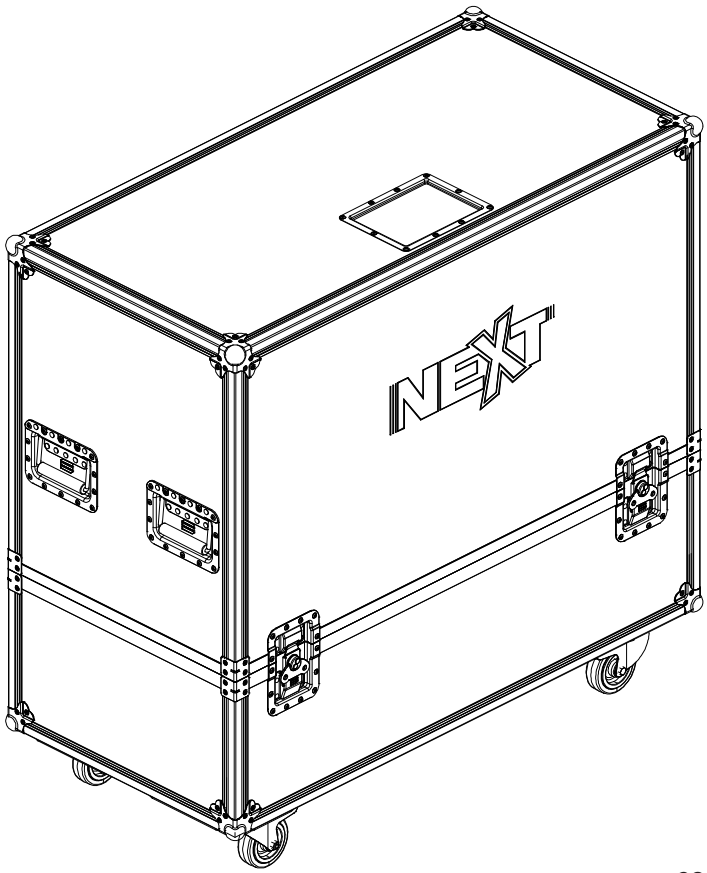
NEXT Audiocom MOKA Pole Mount
Part number: ACP01985



NEXT Audiocom Cover 2 x Moka Sub
Part number: ACP01986



NEXT Audiocom MOKA Flight-Case
4 x Moka Array
Part number: ACP01987



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