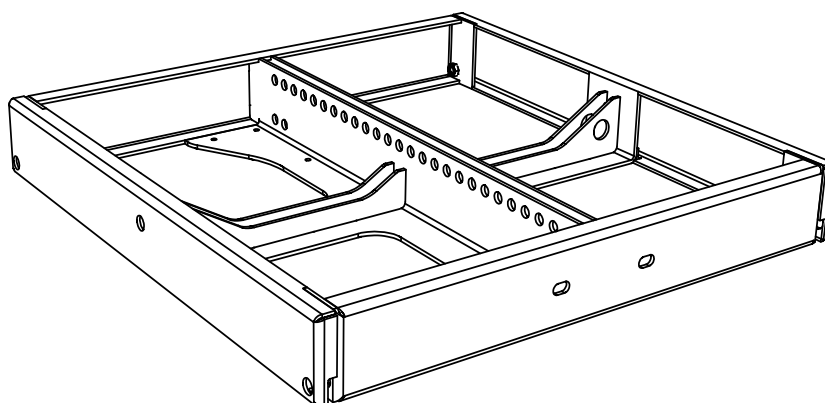


# **VERA RF600i**

## **Assembly Instructions**



## Introduction

Thank you for choosing a high-quality product “MADE IN GERMANY” from TWAUDIÖ.

The VERARF600i rigging frame is an accessory for the VERA20i, VERAS17i and VERAS32i loudspeakers.

This accessory set is characterized by a subtle look, a remarkable size to weight ratio and ease of use.

If you lend your product to another party, inform that party of the safety-related operating procedures and hand over this assembly guide. If you require additional copies of this manual, you can obtain them free of charge from TWAUDIÖ or download them from [www.twaudio.de](http://www.twaudio.de)

### Instructions in this setup manual

Strictly adhere to the instructions contained in this assembly guide that are marked as follows:



This symbol in combination with the signal word “Warning” identifies a potentially hazardous situation. Failure to comply with this safety instruction can lead to serious injury or even death.



This symbol in combination with the signal word “Caution” identifies a potentially hazardous situation. Failure to comply with this safety instruction can lead to light or moderate injury.



This symbol in combination with the signal word “Note” identifies a potentially hazardous situation. Failure to comply with this safety instruction can lead to product damage.



This symbol in combination with the signal word “Tip” identifies additional information or notes that will simplify working with TWAUDIÖ products on the basis of practical experience.

**Notes on the products****Read manual  
before use!**

Before using the rigging frame, carefully read the assembly instructions and keep the instructions in a safe place together with the VERA RF600i rigging frame.

**General information**

Assembly Instructions: AM-VERA RF600i  
Version 1.4 d, 08/2020  
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All information contained in this assembly guide was correct to the best of our knowledge at the time of printing.

Quality warranties or assurance of suitability for a certain type of use based on the technical specifications, dimensions and weights are not granted by TWAUDIÖ.

TWAUDIÖ also shall not assume liability for any secondary damage (property damage and/or personal injury) nor for the failure to comply with this assembly guide!

TWAUDIÖ reserves the right to update this document based on recent developments.

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## 1. Safety | Intended use

To avoid risks please observe the following safety instructions when using accessories.

The VERARF600i rigging frame was developed for professional use in sound systems. The rigging frame may only be used by trained and qualified personnel.

Note the operating modes described in this operating manual. Other uses are not permissible.

Damage caused by improper use is not covered by TWAUDIO.



Before each installation, check the integrity of the VERARF600i rigging frame and ensure that all components are in perfect condition.

The scope of delivery includes a specified load adapter with shackle. Only use this load adapter.



The VERARF600i rigging frame may only be used with the VERA20i and/or subwoofers.

These assembly instructions describe how to use the VERARF600i rigging frame. Any other use shall be deemed improper and may result in damage or even injury.

Modifications or alterations to individual parts of the VERARF600i rigging frame and the VERA LA900i load adapter are not permitted! Danger to life!



The VERARF600i is an accessory designed both for indoor and outdoor use.



The VERARF600i rigging frame may only be used by trained and qualified personnel. Personnel must check the VERARF600i for its full suitability before each use.



When visible damage to any part of the VERARF600i rigging frame is detected, it must be decommissioned immediately.



Before mounting the VERARF600i rigging frame, all attachment points – such as ceilings and crossbeams – must be checked for full load capacity and stability.

The VERARF600i accessory is specified for a load of not more than 24 VERA20i loudspeakers or twelve VERAS17 loudspeakers or ten VERAS32i loudspeakers. This load capacity must never be exceeded!



All screw connections should be checked when the VERARF600i rigging frame is installed. If there are loose screws, tighten them. If this is no longer possible, the screws must be replaced.



Whenever you make changes to the flown system, always use new cylinder screws (Item 2) and lock washers (Item 3) as delivered with the product. These items are available from TWAUDIO.



When working with heavy loads exceeding 20 kg (44 lbs.), use suitable aids (dollies, hoisting slings, etc.). Multiple persons may be required depending on the situation.



When moving (assembling, dismantling, maintaining) the VERARF600i rigging frame with VERA20i and/or Subwoofers, ensure sufficient space to prevent collisions with other objects.



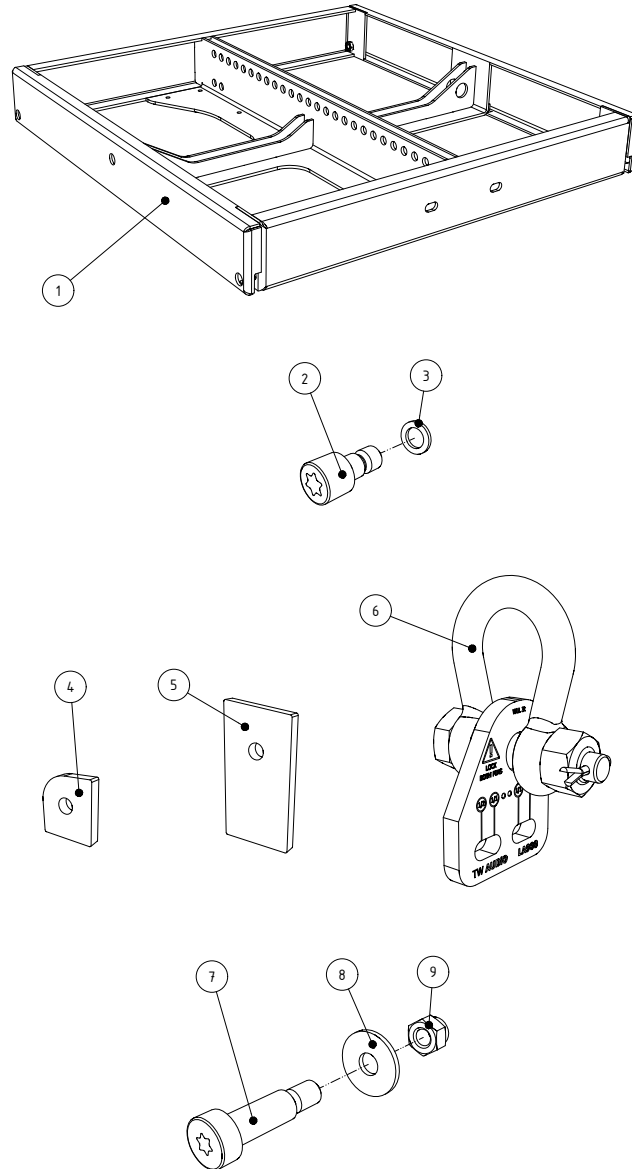
When installing the VERARF600i rigging frame, be careful not to pinch or twist the power cables or other cables attached to the VERA20i and/or subwoofers! The respective national electrotechnical regulations apply.



Please keep all mounting elements away from children! The small parts can easily be swallowed and lead to suffocation!

## 2. Overview

### 2.1 Scope of delivery



**Figure 2.1 – Overview**

- |    |  |       |
|----|--|-------|
| 1. | VERARF600i rigging frame – powder-coated surface ..... | 1 pc  |
| 2. | Cylinder screws M8x 16-12.9 .....                      | 7 pcs |
| 3. | Locking washer VS-8-1.4301 .....                       | 7 pcs |
| 4. | Front rigging end plate – powder-coated surface .....  | 4 pcs |
| 5. | Middle rigging end plate – powder-coated surface ..... | 2 pcs |
| 6. | Load adapter with VERALA900i shackle .....             | 1 pc  |
| 7. | M8x25-12.9 fitting screw .....                         | 2 pcs |
| 8. | Washer D8.4 .....                                      | 2 pcs |
| 9. | Hexagon nut with clamping part M8-8 .....              | 2 pcs |

### 3. Technical specifications

#### 3.1 Data sheet

Maximum load capacity	600 kg, with safety factor 10 against breakage. This corresponds to e.g. 24x VERA20i or 12x VERAS17i or 10x VERAS32i units.
Dimensions (h x w x d)	80 x 600 x 600 mm (3.1 x 23.6 x 23.6 in)
Weight	16,7 kg (36 lbs)
Surface	Powder-coated



Please note that the loudspeakers

- VERAS17i
- VERAS32i

are named as subwoofers in the manual.

Please also note that the VERAS17i loudspeaker is used as an example for all graphics with subwoofer systems.

## 4. Commissioning

### 4.1 Setup

The VERARF600i rigging frame is designed both for hanging operation. TWAUDIÖ provides a wide range of accessories to securely attach the rigging frame.



TWAUDIÖ recommends using only the accessories specified by TWAUDIÖ for securing and mounting the rigging frame.



Whenever you make changes to the flown system, always use new cylinder screws (item 2 on scope of delivery) and lock washers (item 3 on scope of delivery) as delivered with the product.

These items are available from TWAUDIÖ.

### 4.2 Necessary tools for setting up the flown system

Keep the following tools ready for assembling the flown systems:

- Torque wrench
- Bit insert for torque wrench: TX45
- SW13 fork wrench

### 4.3 Using the VERA LA900i load adapter in flown systems

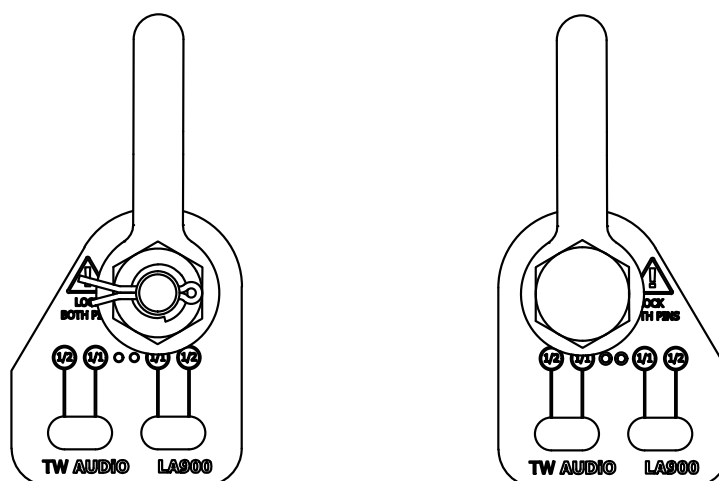


Figure 4.3.1 – VERA LA900i load adapter



Attach the VERA LA900i load adapter to the VERARF600i rigging frame as shown in figure 4.3.2!

Use items 7, 8 and 9 from the scope of delivery (see figure 2.1).

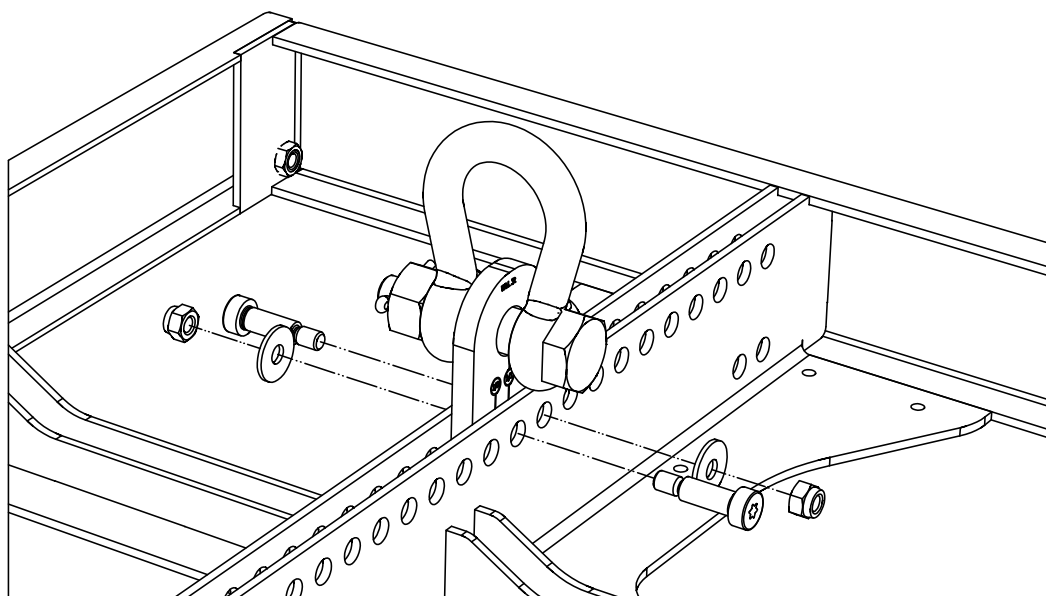


Figure 4.3.2 – Mounting the VERA LA900i load adapter



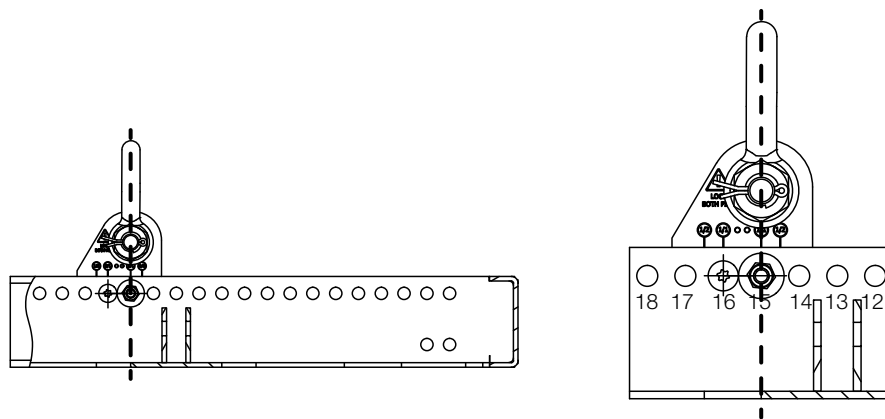
Use the EASE Focus simulation software to design system setups with the VERARF600i rigging frame as well as the associated VERA20i and / or subwoofers. The simulation can be used to determine the correct pin points for your application.

The VERALA900i load adapter's design allows for four different usage scenarios.

The two integrated slots allow both integer and half-integer settings.

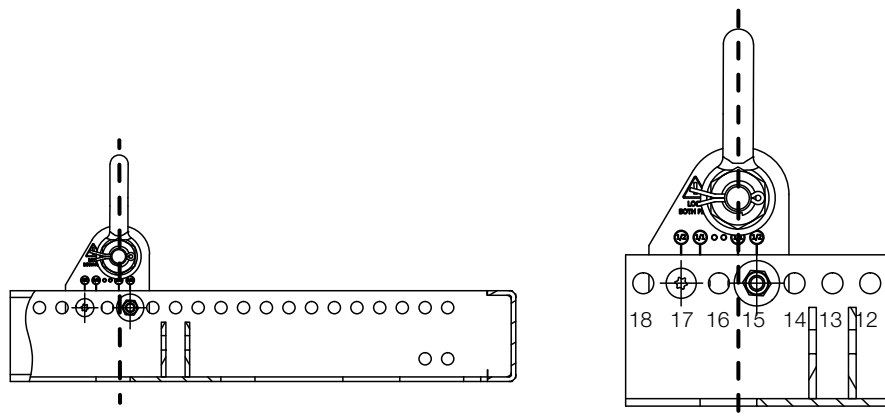
The marker on the shackle on the VERALA900i load adapter indicates the currently selected value. This can be seen in Figures 4.3.3 to 4.3.6.

The following illustrations show the different applications in an example:



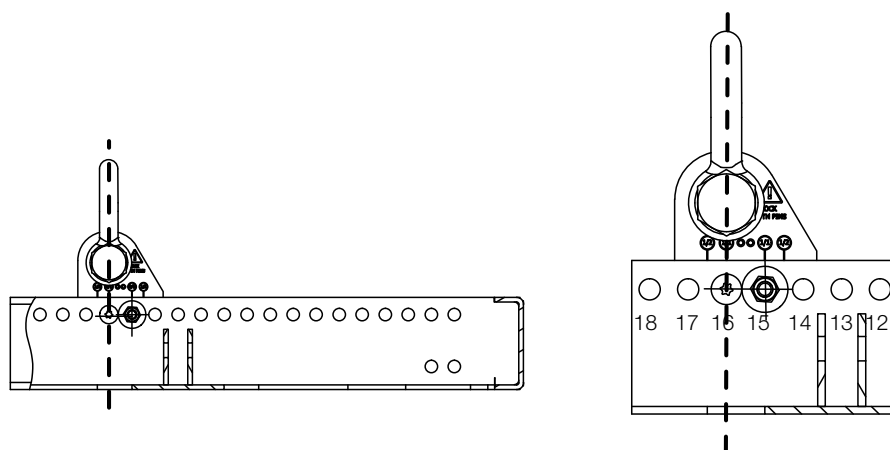
**Figure 4.3.3 - VERALA900i load adapter at pin point 15 – forward orientation**

Inserting the two screws into 15 and 16 will result in 15 as pin point for the forward-facing VERALA900i load adapter.



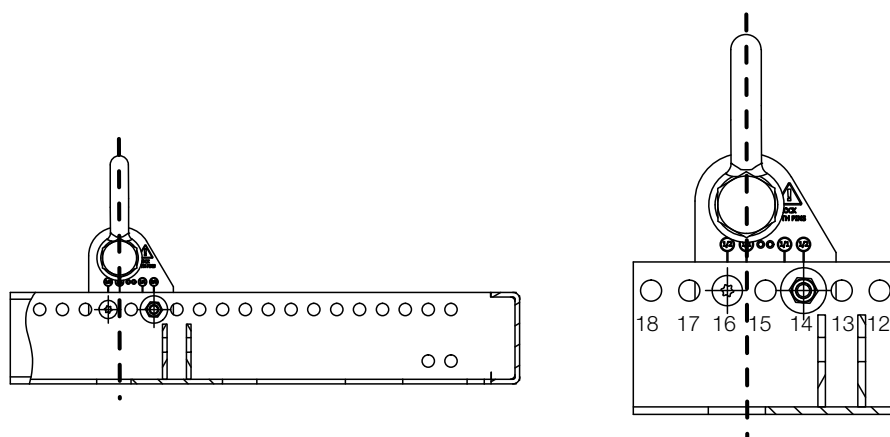
**Figure 4.3.4 - VERALA900i load adapter at pin point 15.5 – forward orientation**

Moving the VERALA900i load adapter from 16 to 17 will result in 15.5 as the new pin point.



**Figure 4.3.5 - VERALA900i load adapter at pin point 16 – reverse orientation**

Inserting the two screws into 15 and 16 will result in 16 as pin point for the backward-facing VERALA900i load adapter.



**Figure 4.3.6 - VERALA900i load adapter at pin point 15.5 – reverse orientation**

Moving the VERALA900i load adapter from 15 to 14 will result in 15.5 as the new pin point.



#### 4.4 Secondary safety component in the flown system

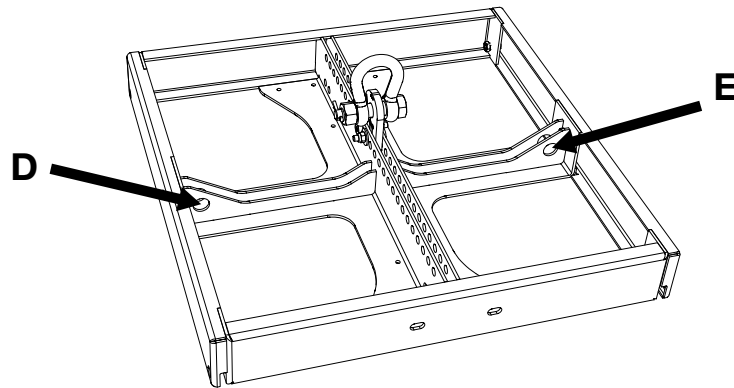


Figure 4.4.1 – Secondary safety component example



**NOTE**

Please obtain about regulations of secondary safety components in the place where you wish to operate the system.



**WARNING**

Attach a second, separate safety component to the “for safety wire” points D and E. This can be safety chains for example.

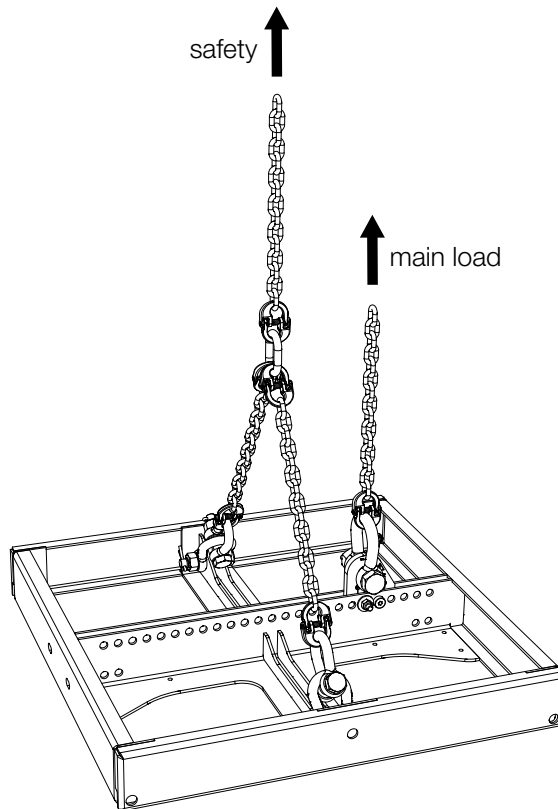


Figure 4.4.2 – Secondary safety component example

## 4.5 Wind load in the flown system



Before setting up the system outdoors, consider unforeseeable wind conditions at the operation site!

Disassemble your system immediately when wind forces exceed 8 bft (34 to 40 kn – 38.5 to 46 mph)!

Make sure that there are no persons in the close proximity of the flown system!



Make sure that your system will not be operated at wind forces over 6 bft (22 to 27 kn – 24.2 to 30.45 mph).

Make sure that there are no persons in the immediate vicinity of the system structure!

## 4.6 Angle settings in a flown system



1. Attach the bracket (see figure 4.6.1) as described in the angle settings table (see figure 4.6.2). The bracket comes with the VERA20i loudspeaker (position 5 of the scope of delivery) and the subwoofers (position 4 of the scope of delivery).
2. When setting up the flown system with VERA20i loudspeakers, please refer to the detailed views for each individual angle setting as seen on the next page.

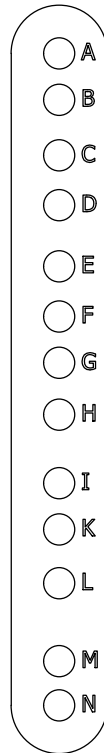


Figure 4.6.1 – bracket

angle settings	
Angle	Combinations
0°	F - N
0,3°	B - I
0,8°	C - K
1,5°	A - H
2,4°	F - M
3,5°	D - K
4,9°	G - M
6,8°	E - K
9,1°	G - L
12°	G - K

Figure 4.6.2 – Angle settings table

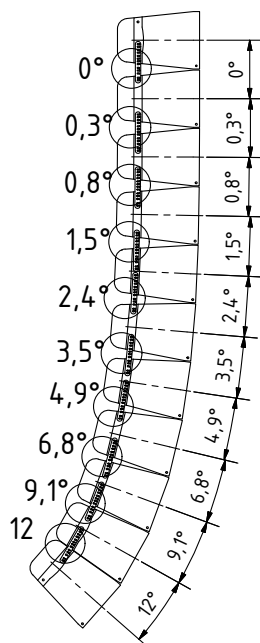


Figure 4.6.3 - Angle settings in the flown system with VERA20i loudspeakers

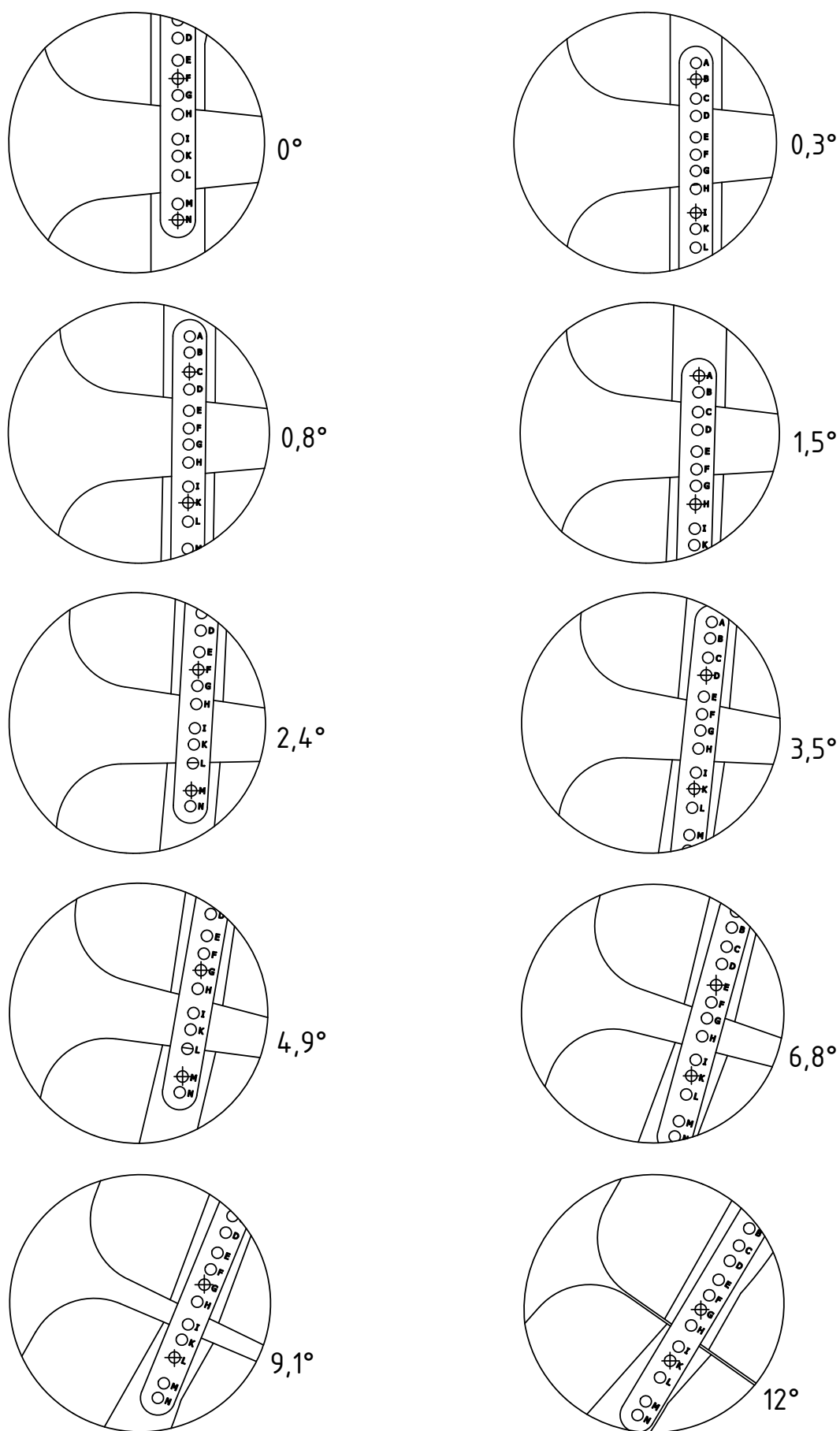
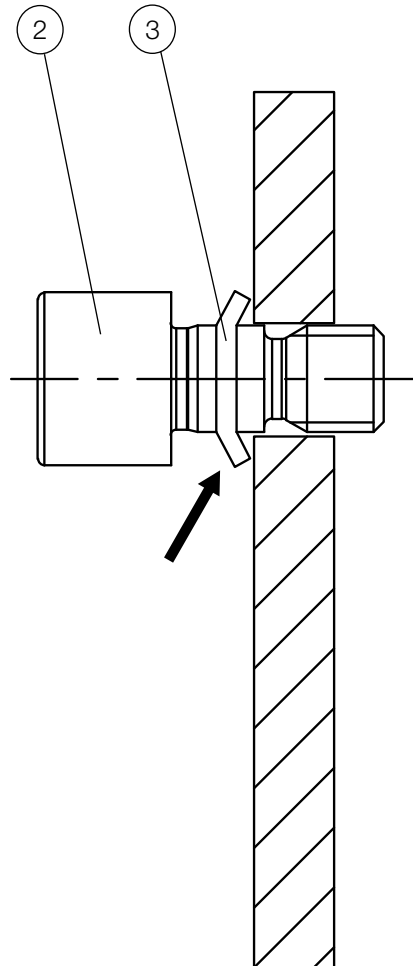


Figure 4.6.4 – Detail views of the angle settings from figure 4.6.3

**4.7 Installation position of the lock washer**

Make sure that the lock washers (item 3 on the scope of delivery) are installed as shown in figure 4.7.1!

Reverse installation of the lock washer would cause the lock washer to have no biasing force and accordingly lose its effect!



**Figure 4.7.1 – Installation position of lock washer (position 3)**

#### 4.8 Preparing the first VERA20i loudspeaker for a flown system



1. Start by attaching splay links on the front top left and right of the VERA20i loudspeaker (item 4 on the scope of delivery).
2. Attach each splay link using one cylinder screw, item 2 and one lock washer, item 3 from the VERA20i loudspeaker scope of delivery.
3. Make sure to properly insert the lock washer as described in section 4.7!
4. Make sure that the screws with the lock washers are only attached and not tightened.

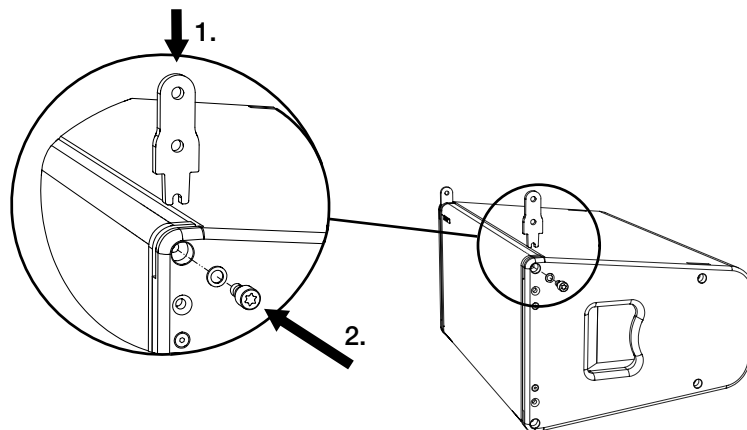


Figure 4.8.1 – Attaching the splay links to the first VERA20i loudspeaker



5. Turn the bracket and attach it to the VERA20i loudspeaker (hole F).
6. Attach the brackets on the rear top left and right of the VERA20i loudspeaker (item 5 on the scope of delivery).
7. Attach each splay link using one cylinder screw, item 2 and one lock washer, item 3 from the VERA20i loudspeaker scope of delivery.
8. Make sure to properly insert the lock washer as described in section 4.7!
9. Make sure that the screws with the lock washers are only attached and not tightened.

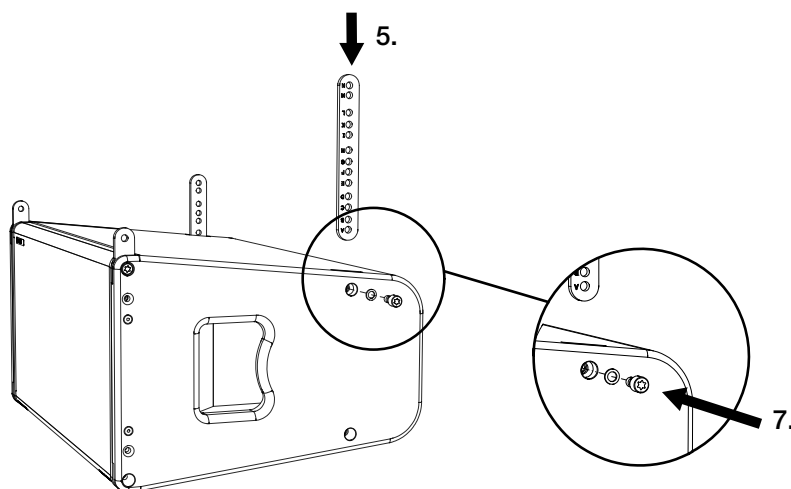
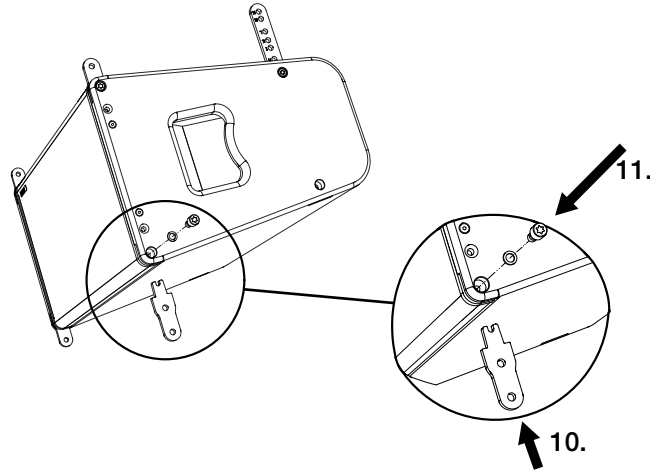


Figure 4.8.2 – Attaching the brackets to the first VERA20i loudspeaker



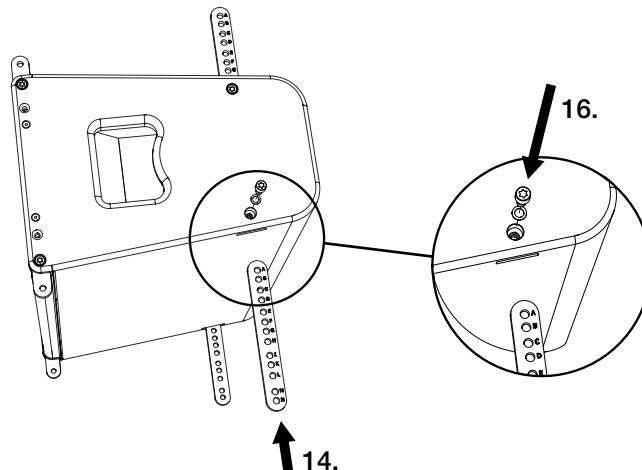
10. Attach splay links on the front bottom left and right of the VERA20i loudspeaker (item 4 on the scope of delivery).
11. Attach each splay link using one cylinder screw, item 2 and one lock washer item 3 from the VERA20i loudspeaker scope of delivery.
12. Make sure to properly insert the lock washer as described in section 4.7!
13. Make sure that the screws with the lock washers are only attached and not tightened.



**Figure 4.8.3 – Attaching the splay links to the first VERA20i loudspeaker**



14. Attach the bracket to the VERA20i loudspeaker at the angle that you previously calculated using the EASE Focus simulation software.
15. Attach the brackets on the rear bottom left and right of the VERA20i loudspeaker (item 5 on the scope of delivery).
16. Attach each splay link using one cylinder screw, item 2 and one lock washer, item 3 from the VERA20i loudspeaker scope of delivery.
17. Make sure to properly insert the lock washer as described in section 4.7!
18. Make sure that the screws with the lock washers are only attached and not tightened.



**Figure 4.8.4 – Attaching the brackets to the first VERA20i loudspeaker**

## 4.9 Setting up the first VERA20i loudspeaker in a flown system

To set up a flown system with the VERA20i loudspeakers, proceed as follows:



1. Please note that setting up the VERARF600i rigging frame always requires two persons!



2. Use the EASE Focus simulation software to determine the amount of loudspeakers and splay angles required for your application.



3. Place the first VERA20i loudspeaker with its back on the floor. Place a pad under the loudspeaker to avoid damage.

4. Insert the splay links of the VERA20i loudspeaker into the openings at the VERARF600i rigging frame.



5. Attach the splay links to the left and right side of the VERARF600i rigging frame using one cylinder screw, item 2 and one lock washer, item 3 from the VERA20i loudspeaker scope of delivery.

6. Make sure to properly insert the lock washer as described in section 4.7!

7. Make sure that the screws with the lock washers are only attached to the VERARF600i rigging frame, but not tightened.

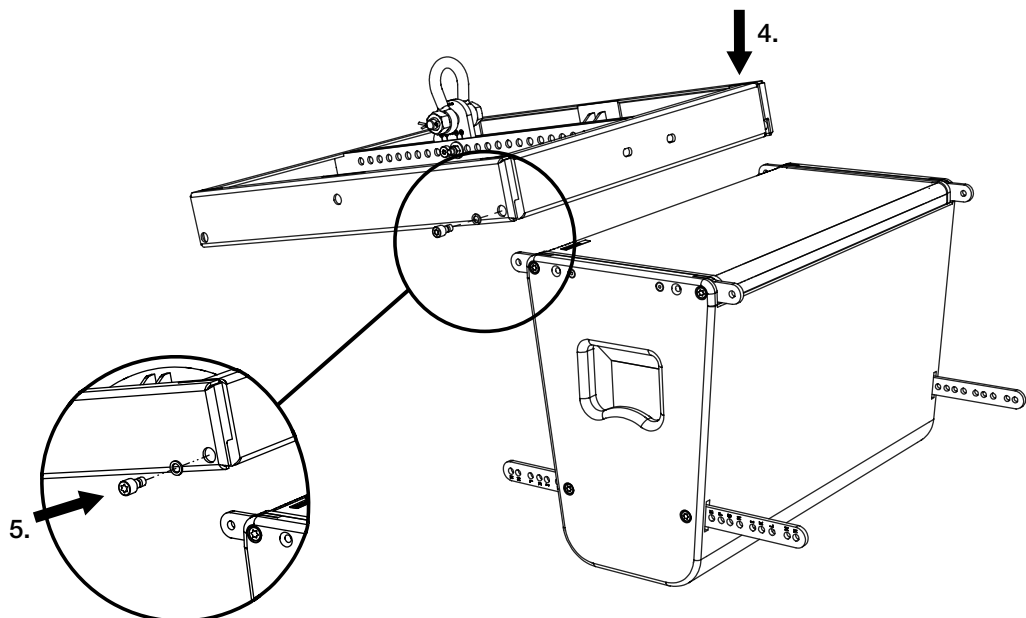


Figure 4.9.1 – Front Mounting of the first VERA20i loudspeaker at the VERARF600i rigging frame





8. Swivel the VERA20i loudspeaker until the brackets meet the rigging frame and you can secure the loudspeaker to the hole marked with N.
9. Use one cylinder screw, item 1 and one lock washer, item 2 from the VERA20i loudspeaker scope of delivery for attaching the brackets to the VERARF600i rigging frame.
10. Make sure to properly insert the lock washer as described in section 4.7!
11. Make sure that the screws with the lock washers are only attached to the VERARF600i rigging frame, but not tightened.

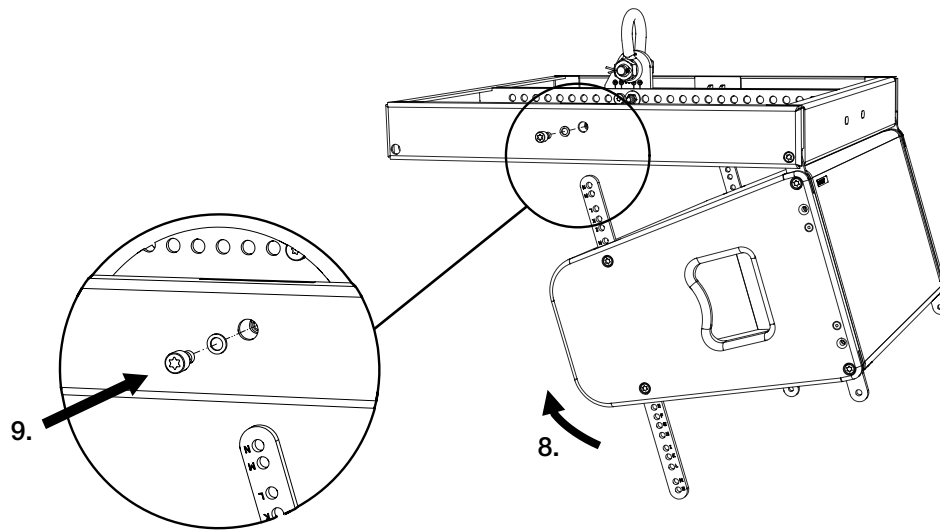


Figure 4.9.2 – Rear mounting of the first VERA20i loudspeaker at the VERARF600i rigging frame



12. Tighten all screws on the left and right side of the VERA20i loudspeaker and the VERARF600i rigging frame. (torque: 20 Nm)

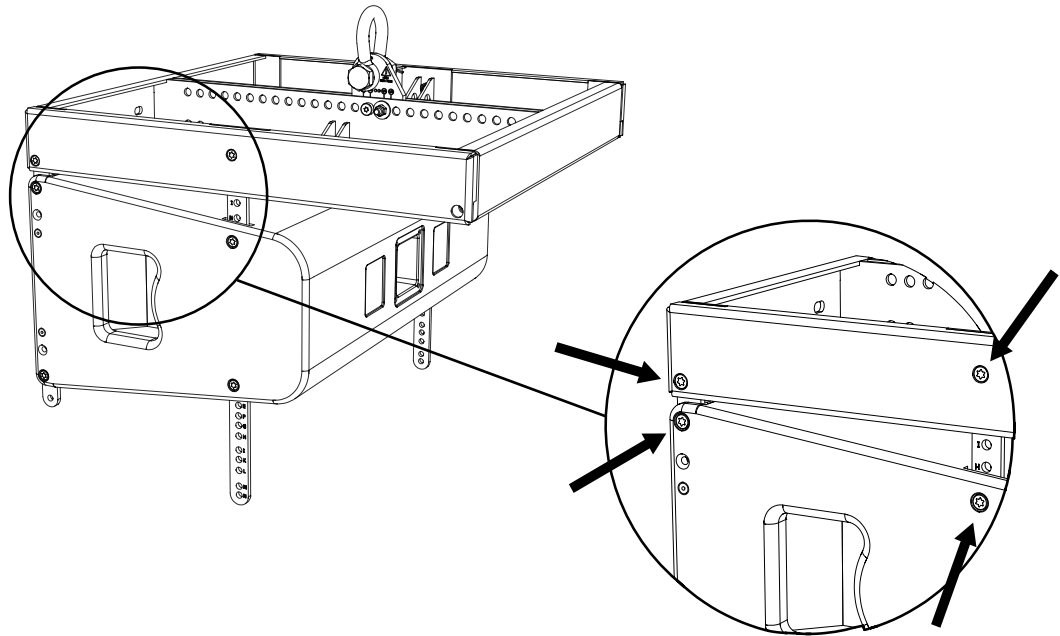


Figure 4.9.3 – Attachment of the first VERA20i loudspeaker at the VERARF600i rigging frame

## 4.10 Preparing the following VERA20i loudspeakers for a flown system



1. Start by attaching splay links on the front bottom left and right of the VERA20i loudspeaker (item 4 on the scope of delivery).
2. Attach each splay link using one cylinder screw, item 2 and one lock washer, item 3 from the VERA20i loudspeaker scope of delivery.
3. Make sure to properly insert the lock washer as described in section 4.7!
4. Make sure that the screws with the lock washers are only attached and not tightened.

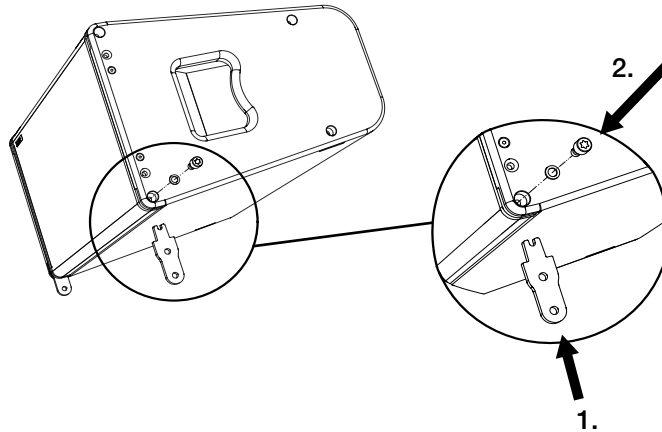


Figure 4.10.1 – Attaching the splay links to the remaining VERA20i loudspeakers



5. Attach the bracket to the VERA20i loudspeaker at the angle that you previously calculated using the EASE Focus simulation software.
6. Attach the brackets on the rear bottom left and right of the VERA20i loudspeaker (item 5 on the scope of delivery).
7. Attach each splay link using one cylinder screw, item 2 and one lock washer, item 3 from the VERA20i loudspeaker scope of delivery.
8. Make sure to properly insert the lock washer as described in section 4.7!
9. Make sure that the screws with the lock washers are only attached and not tightened.

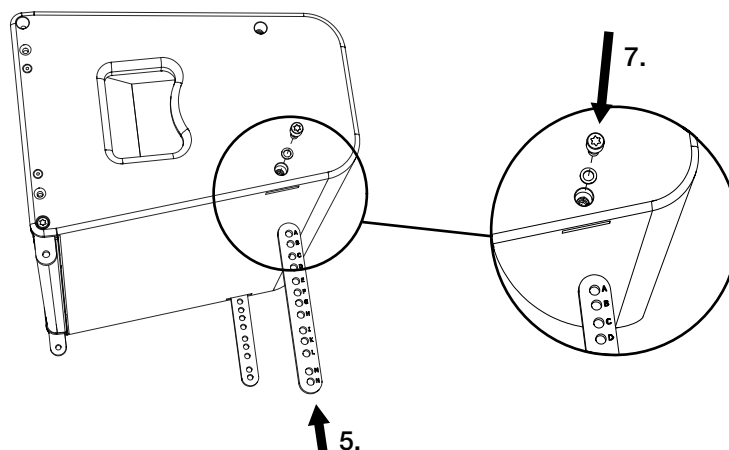


Figure 4.10.2 – Attaching the links to the remaining VERA20i loudspeakers

#### 4.11 Setting up the following VERA20i loudspeakers in a flown system

Continue to set up the VERA20i loudspeaker system for rigging as follows:



1. Please note that setting up the VERARF600i rigging frame always requires two persons!



2. Place all remaining VERA20i loudspeakers with their backs on the floor. Place pads under the loudspeakers to avoid damage.



3. Insert the splay links into the openings at the VERA20i loudspeaker.
4. Attach all loudspeakers to the flown system using two cylinder screws, item 2 and two lock washers, item 3 from the VERA20i loudspeaker scope of delivery.
5. Make sure to properly insert the lock washer as described in section 4.7!
6. Make sure that the screws with the lock washers are attached (but not tightened) to the VERA20i loudspeakers on the left and right side.

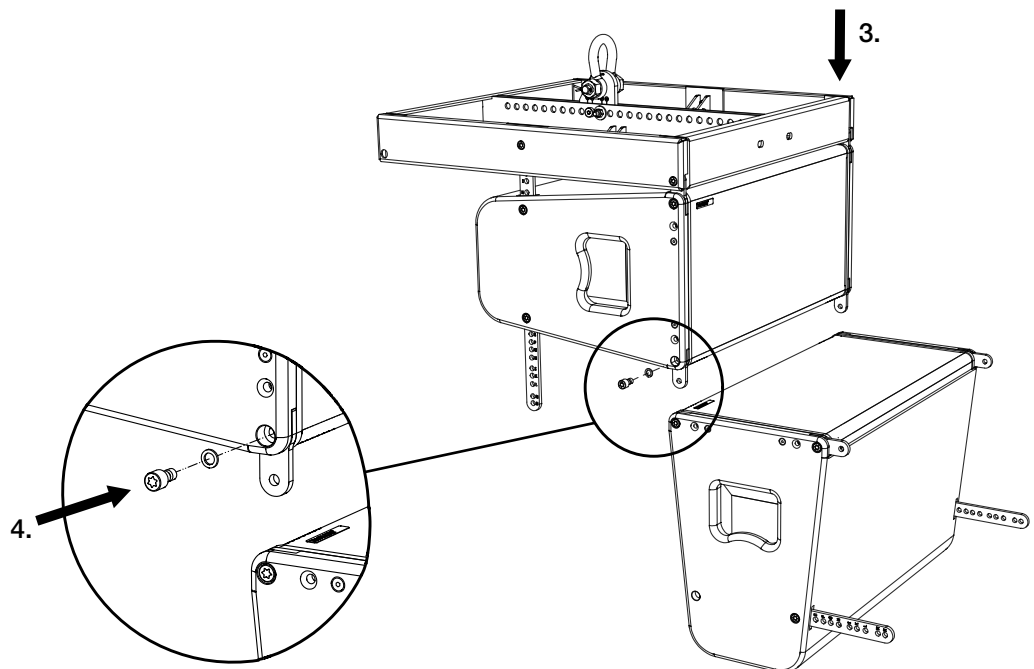


Figure 4.11.1 – Front mounting of the following VERA20i loudspeakers



7. Swivel each VERA20i loudspeaker until the brackets meet the loudspeaker and you can secure the loudspeaker using the hole previously determined in the EASE Focus simulation software.
8. Attach all loudspeakers to the flown system using two cylinder screws, item 2 and two lock washers, item 3 from the VERA20i loudspeaker scope of delivery.
9. Make sure to properly insert the lock washer as described in section 4.7!
10. Make sure that the screws with the lock washers are attached (but not tightened) to the VERA20i loudspeakers on the left and right side.

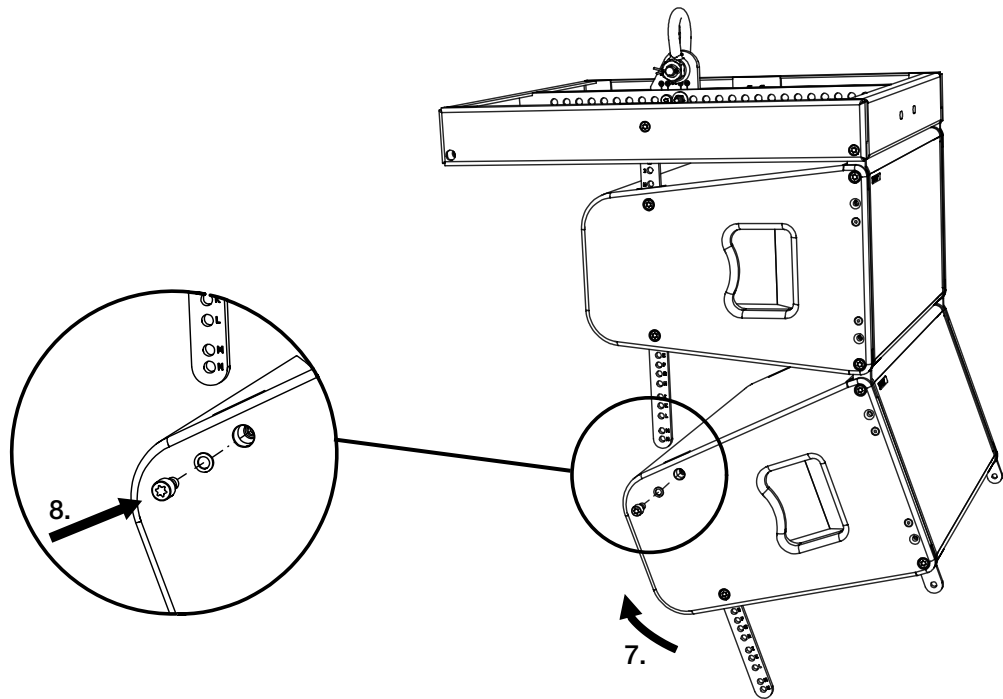


Figure 4.11.2 – Rear mounting of the following VERA20i loudspeakers



11. Tighten all screws on the left and right side of the VERA20i loudspeaker. (torque: 20 Nm)

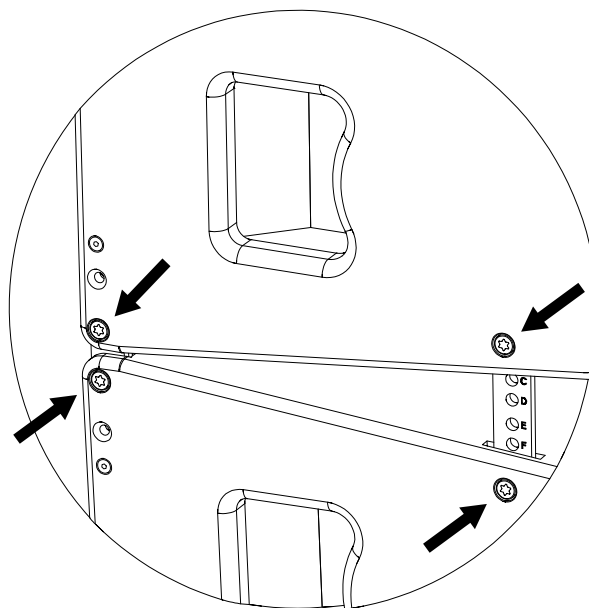


Figure 4.11.3 – Attachment of the following VERA20i loudspeakers



12. Follow the instructions in this section of the manual to connect up to 24 VERA20i loudspeakers.

13. Please note that the last loudspeaker in the flown system has to be mounted as described in section 4.12 and 4.13.

## 4.12 Preparing the last VERA20i loudspeaker for a flown system



1. Start by attaching the rigging end plates (item 4 on the VERARF600i scope of delivery) to the VERA20i loudspeaker on the front bottom left and right.
2. Attach each splay link using one cylinder screw, item 2) and one lock washer, item 3 from the VERA20i loudspeaker scope of delivery.
3. Make sure to properly insert the lock washer as described in section 4.7!
4. Tighten both screws ! (torque: 20Nm)

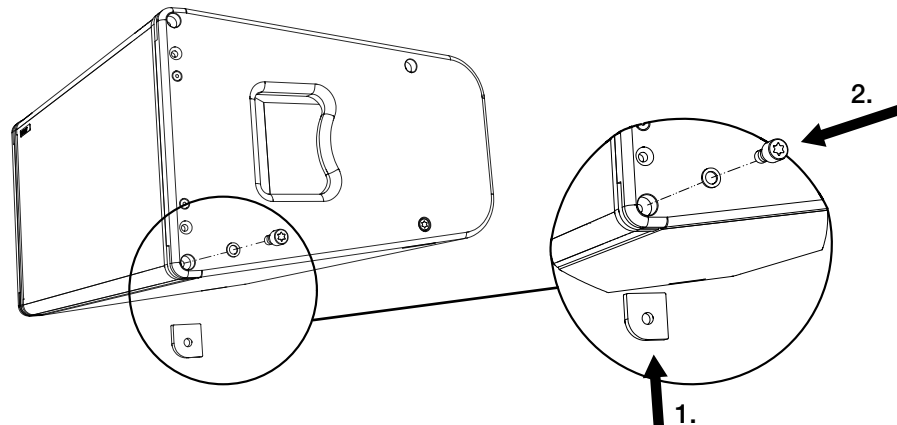


Figure 4.12.1 – Mounting the front rigging end plates at the last VERA20i loudspeaker



5. Attach the middle rigging plates (item 5 on the VERARF600i scope of delivery) to the VERA20i loudspeaker on the rear bottom left and right.
6. Attach each splay link using one cylinder screw, item 2 and one lock washer, item 3 from the VERA20i loudspeaker scope of delivery.
7. Make sure to properly insert the lock washer as described in section 4.7!
8. Tighten both screws! (torque: 20Nm)

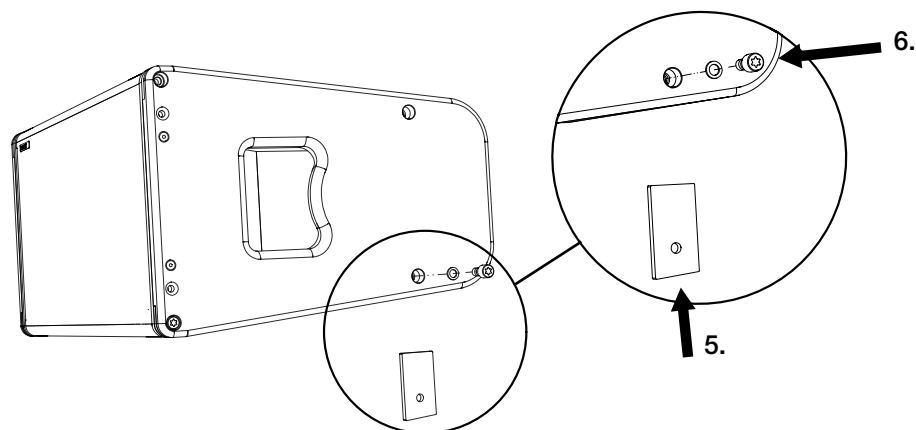


Figure 4.12.2 – Mounting the middle rigging end plates at the last VERA20i loudspeaker

#### 4.13 Setting up the last VERA20i loudspeaker in a flown system

Continue to set up the VERA20i loudspeaker system as follows:



1. Please note that setting up the VERARF600i rigging frame always requires two persons!



2. Place the last VERA20i loudspeaker with its back on the floor.
3. Place a pad under the loudspeaker to avoid damage.



4. Insert the splay links of the VERA20i loudspeaker into the openings at the VERA20i loudspeaker.
5. Attach the last loudspeaker to the flown system using two cylinder screws, item 2 and two lock washers, item 3 from the VERA20i loudspeaker scope of delivery.
6. Make sure to properly insert the lock washer as described in section 4.7!
7. Make sure that the screws with the lock washers are attached (but not tightened) to the VERA20i loudspeakers on the left and right side.

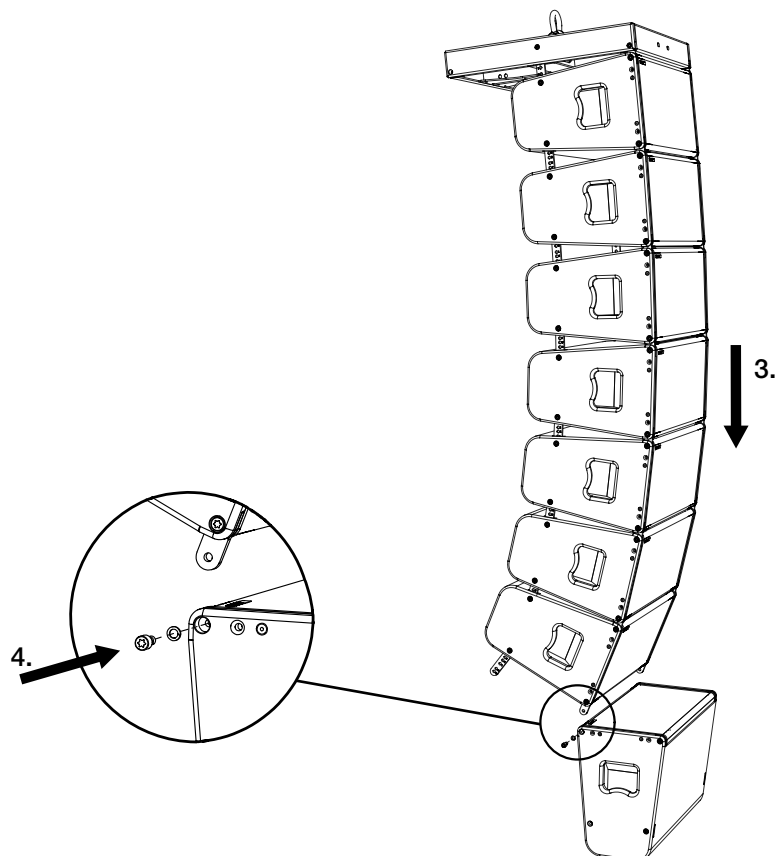


Figure 4.13.1 – Front mounting of the last VERA20i loudspeaker





8. Swivel the last VERA20i loudspeaker until the brackets meet the loudspeaker and you can secure the last loudspeaker using the hole previously determined in the EASE Focus simulation.
9. Attach the loudspeaker to the flown system using two cylinder screws, item 2 and two lock washers, item 3 from the VERA20i loudspeaker scope of delivery.
10. Make sure to properly insert the lock washer as described in section 4.7!
11. Make sure that the screws with the lock washers are attached (but not tightened) to the VERA20i loudspeakers on the left and right side.

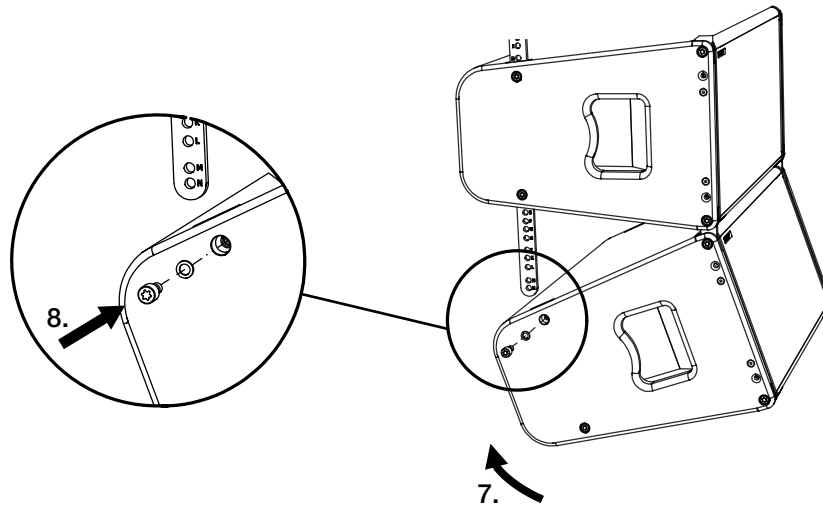


Figure 4.13.2 – Rear mounting of the last VERA20i loudspeaker



12. Tighten all screws on the left and right side of the VERA20i loudspeaker. (torque: 20Nm)

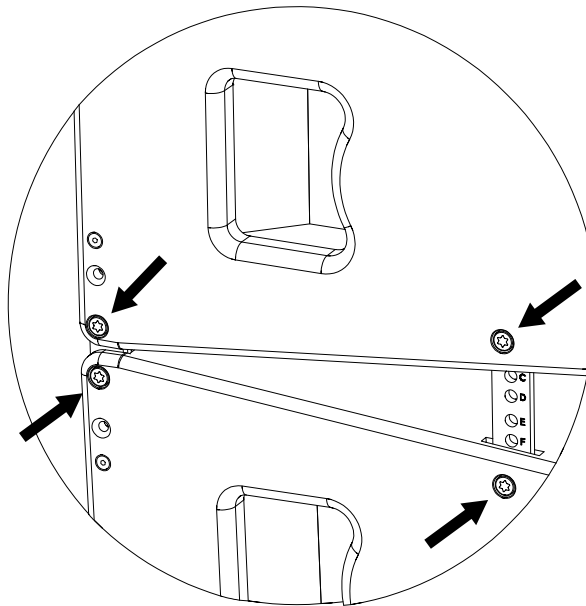


Figure 4.13.3 – Attachment of the last VERA20i loudspeaker

#### 4.14 Preparing a subwoofer for a flown system



1. Start by attaching splay links on the front top left and right of the subwoofer (item 1 on the scope of delivery). Please note that the VERAS17i loudspeakers for the cardioid application have to be according to chapter 4.19.
2. Attach each splay link using one cylinder screw, item 2 and one lock washer, item 3 from the subwoofer scope of delivery.
3. Make sure to properly insert the lock washer as described in section 4.7!
4. Make sure that the screws with the lock washers are attached (but not tightened) to the subwoofer on the left and right side.

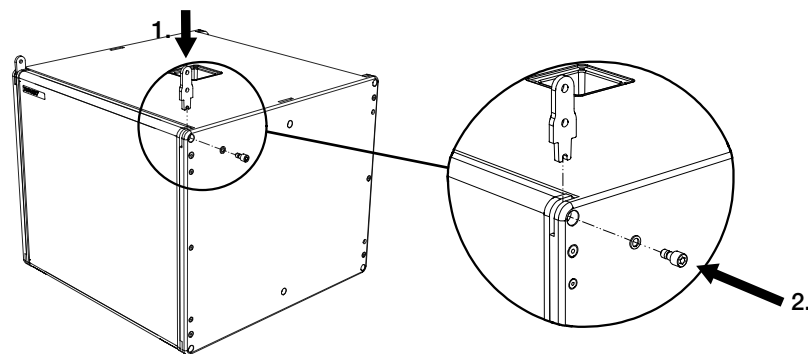


Figure 4.14.1 - Attaching the splay links to the subwoofers



5. Turn the bracket and attach it to the subwoofer (hole F).
6. Attach the brackets to the middle top left and right of the subwoofer (item 4 on the scope of delivery).
7. Attach each brackets using one cylinder screw, item 2 and one lock washer, item 3 from the subwoofer scope of delivery.
8. Make sure to properly insert the lock washer as described in section 4.7!
9. Make sure that the screws with the lock washers are attached (but not tightened) to the subwoofer on the left and right side.

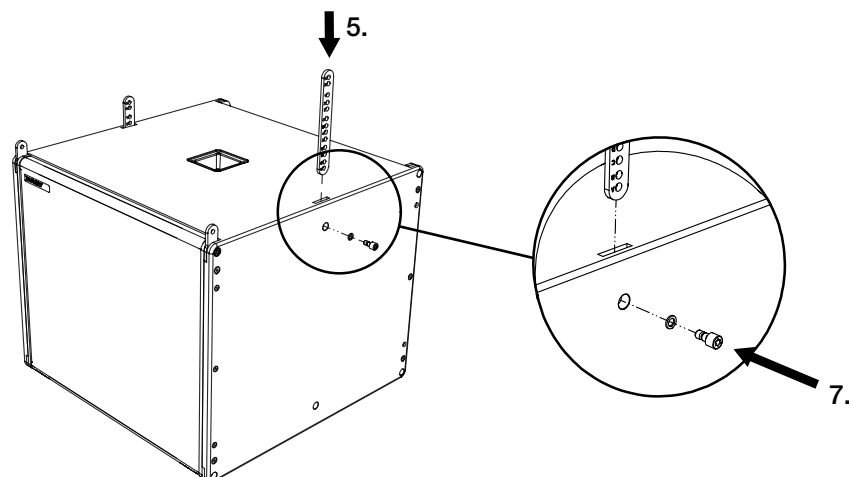


Figure 4.14.2 - Attaching the brackets to the subwoofer

#### 4.15 Setting up the subwoofer in a flown system

To set up the flown system with the subwoofer, proceed as follows:



1. Please note that setting up the subwoofer always requires two persons!



2. Place all subwoofer on the floor, except the last one. Place a pad under all loudspeakers to avoid damage.



3. Use the EASE Focus simulation software to determine the amount of speakers and splay angles required for your application.



4. Insert the splay links of the subwoofer into the openings at the VERA RF600i rigging frame.
5. Attach the splay links and the brackets to the left and right side of the VERA RF600i rigging frame using one cylinder screw, item 2 and one lock washer, item 3 from the subwoofer scope of delivery.
6. Make sure to properly insert the lock washer as described in section 4.7!
7. Make sure that the screws with the lock washers are attached (but not tightened) to the VERA RF600i rigging frame on the left and right side.

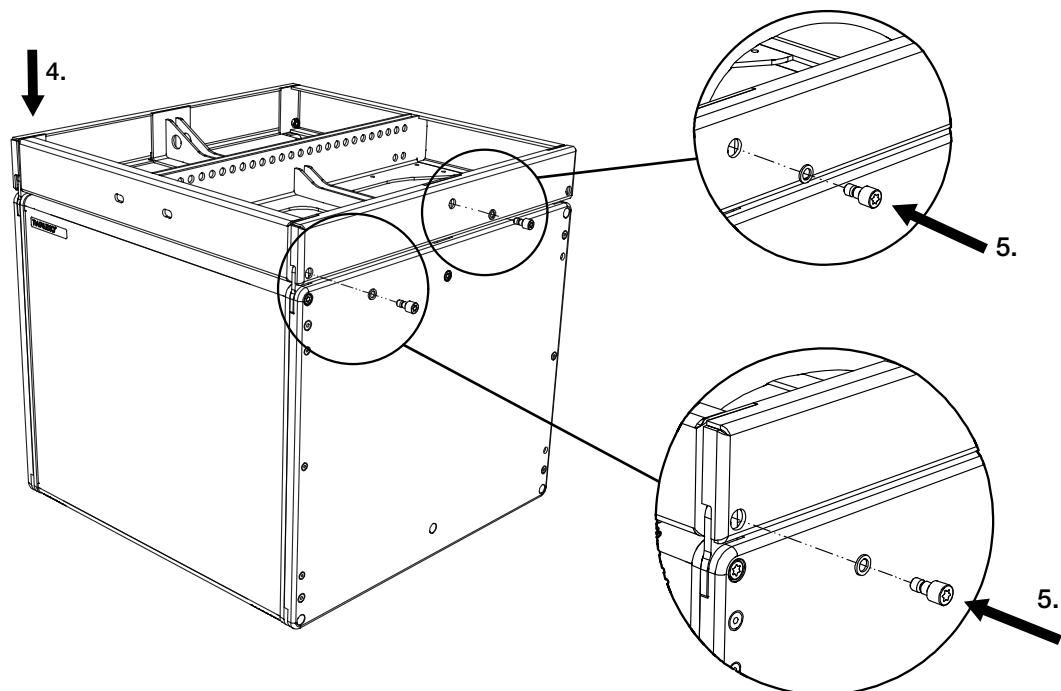
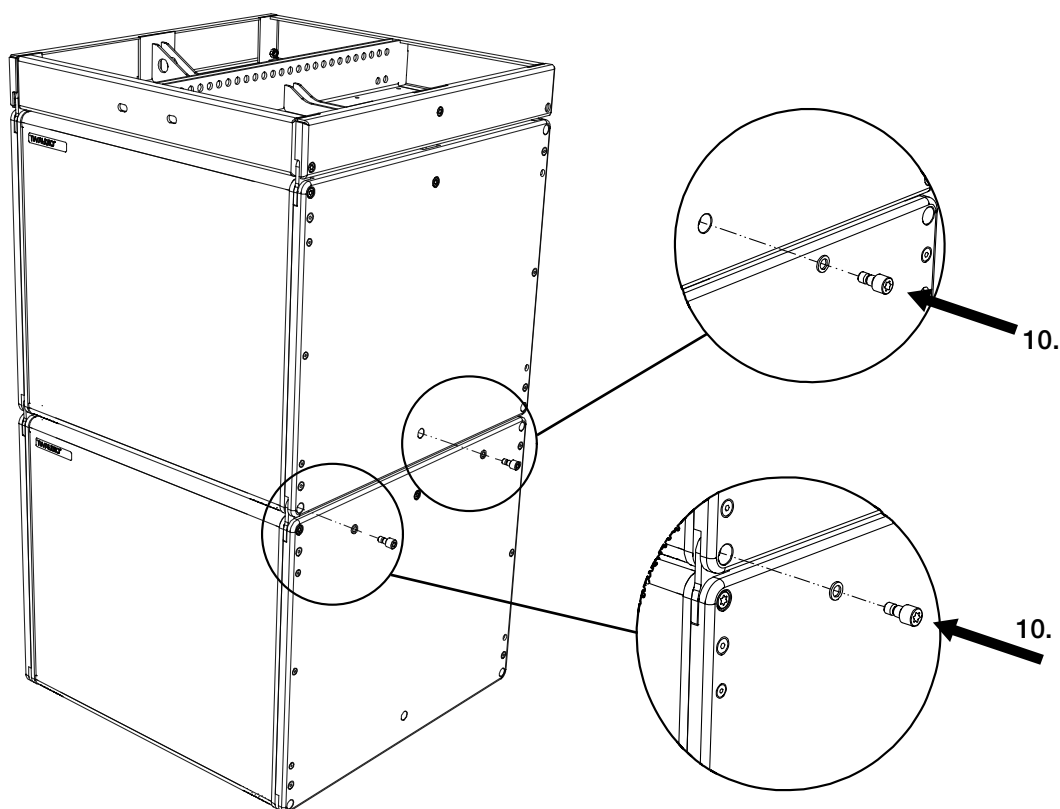


Figure 4.15.1 - Mounting the first subwoofer



1. Place the subwoofer already screwed to the VERARF600i rigging frame at the lower subwoofer.
2. Insert the splay links and the brackets of the lower subwoofer into the openings provided on the upper subwoofer.
3. Attach the splay links and the brackets to the left and right side of the top subwoofer using one cylinder screw, item 2 and one lock washer, item 3 from the subwoofer scope of delivery.
4. Make sure to properly insert the lock washer as described in section 4.7!
5. Make sure that the screws with the lock washers are attached (but not tightened) to the subwoofer on the left and right side.



**Figure 4.15.2 - Mounting the following subwoofer**



1. Tighten all screws on the left and right side of the subwoofer. (torque: 20Nm)

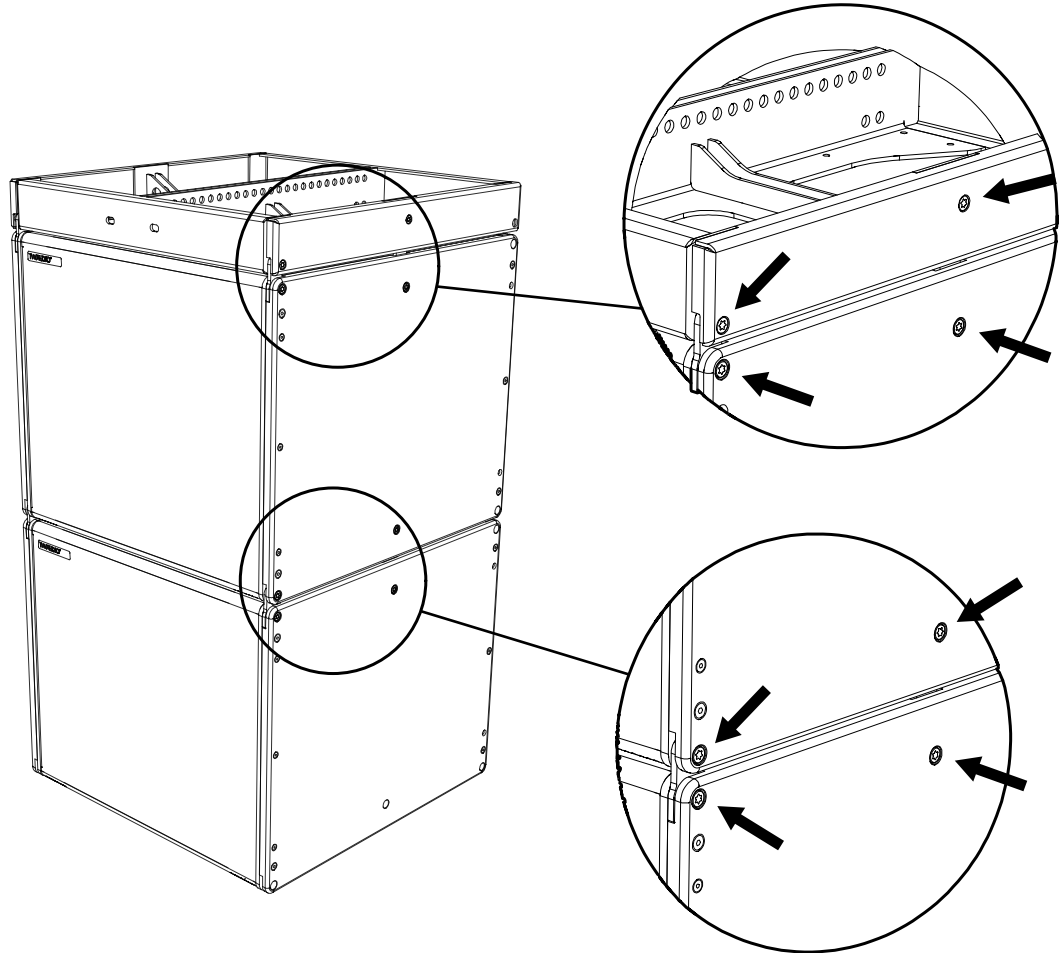


Figure 4.15.3 - Attachment of the following subwoofer



2. Follow the instructions in this section to connect up to twelve VERAS17i loudspeakers or ten VERAS32i loudspeakers.
3. Please note that the last loudspeaker in the flown system has to be mounted as described in section 4.16 and 4.17 .

#### 4.16 Preparing the last subwoofer for a flown system



1. Start by attaching the front rigging end plates at the front left and right of the subwoofer (item 4 on the scope of delivery).
2. Attach each front rigging end plate using one cylinder screw, item 2 and one lock washer, item 3 from the subwoofer scope of delivery.
3. Make sure to properly insert the lock washer as described in section 4.7!
4. Tighten both screws! (torque: 20Nm)

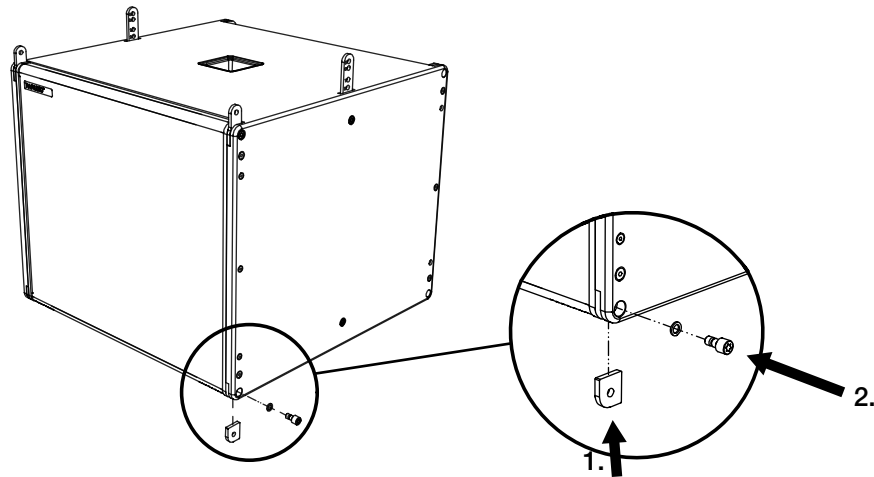


Figure 4.16.1 - Mounting of the front rigging end plates at the last subwoofer



5. Attach the middle rigging end plates at left and right of the subwoofer (item 5 on the scope of delivery).
6. Attach each middle rigging end plate using one cylinder screw, item 2 and one lock washer, item 3 from the subwoofer scope of delivery.
7. Make sure to properly insert the lock washer as described in section 4.7!
8. Tighten both screws! (torque: 20Nm)

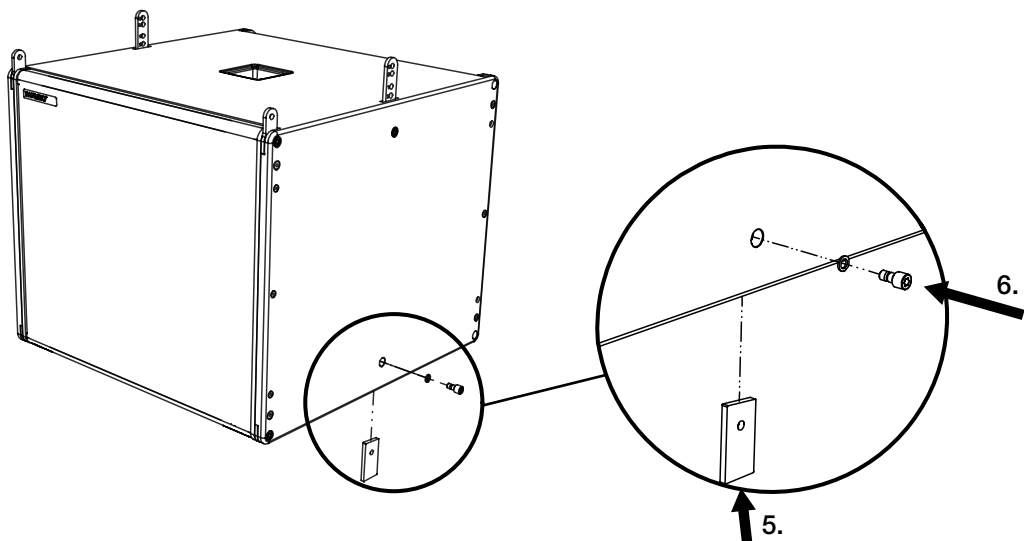


Figure 4.16.2 - Mounting the middle rigging end plates at the last subwoofer

#### 4.17 Setting up the last subwoofer in a flown system

Continue to set up of the subwoofer system as follows:



1. Please note that setting up the subwoofer system always requires two persons!



2. Place the last subwoofer on the floor. Place a pad under the loudspeaker to avoid damage.
3. Insert the splay links and the brackets of the subwoofer into the openings at the top of the subwoofer.



4. Attach the last loudspeaker in the flown system using two cylinder screws, item 2 and two lock washers, item 3 from the subwoofer scope of delivery.
5. Make sure to properly insert the lock washer as described in section 4.7!
6. Make sure that the screws with the lock washers are attached (but not tightened) to the subwoofer on the left and right side.

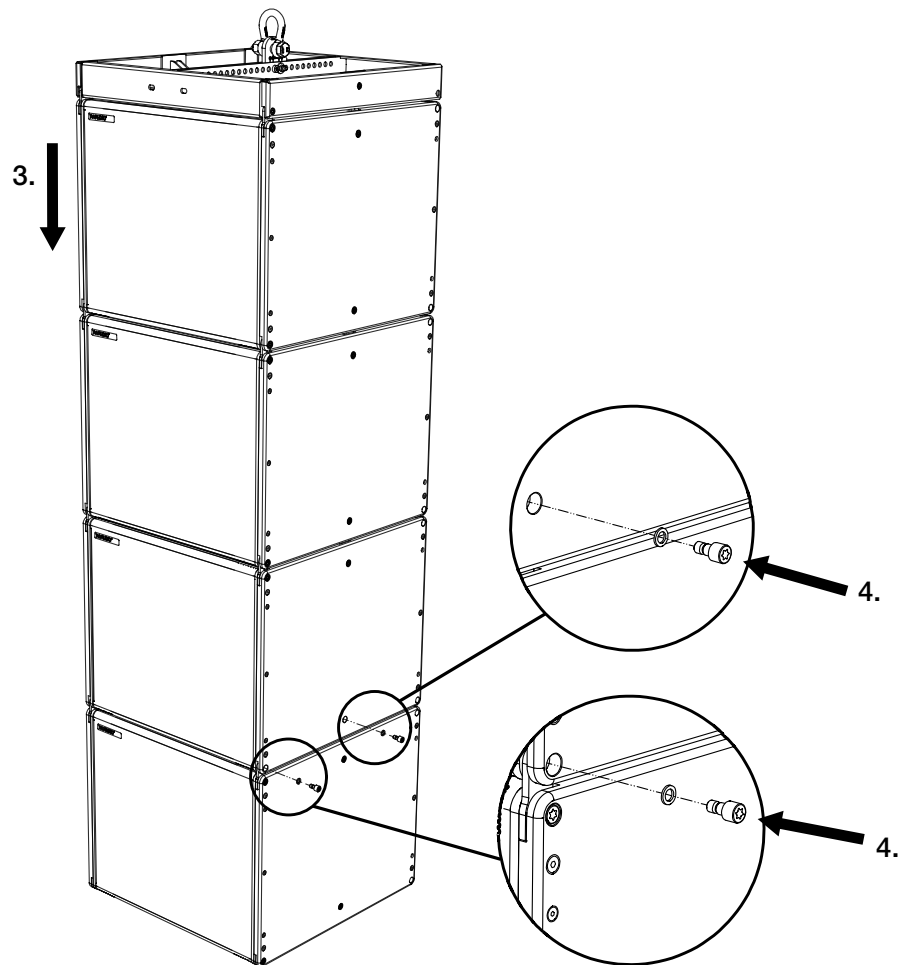


Figure 4.17.1 - Mounting of the last subwoofer



1. Tighten all screws on the left and right side of the subwoofer. (torque: 20Nm)

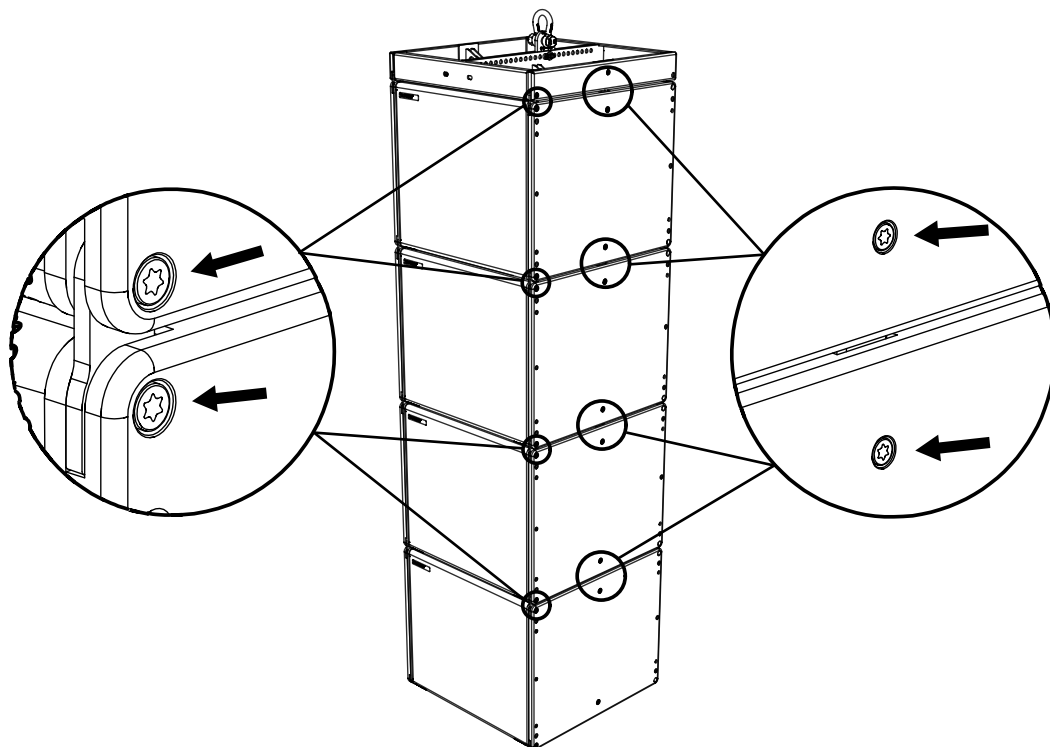


Figure 4.17.2 - Attachment of the last subwoofer



#### 4.18 Setting up the VERA20i and subwoofer in a flown system

To set up the flown system with VERA20i and subwoofer, proceed as follows:



1. Please note that setting up the loudspeaker system always requires two persons!



2. Place all required VERA20i and subwoofer on the floor. Place a pad under all loudspeakers to avoid damage.



3. Use the EASE Focus simulation software to determine the amount of loudspeakers and splay angles required for your application.



4. Follow the instructions in section 4.14 and 4.15 to set up the subwoofer.
5. Also, follow the section 4.8 to 4.13 when setting up the VERA20i loudspeakers.

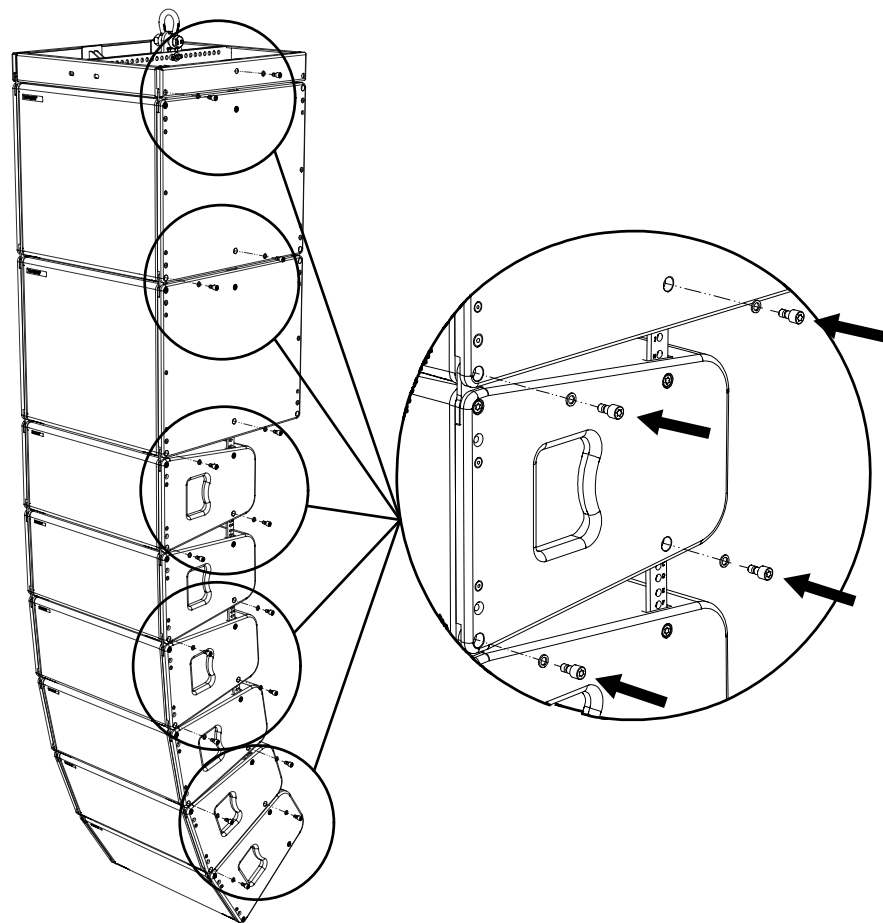


Figure 4.18.1 - Mounting a mixed system setup



1. Tighten all screws on the left and right side of the VERA20i and subwoofer. (torque: 20Nm)

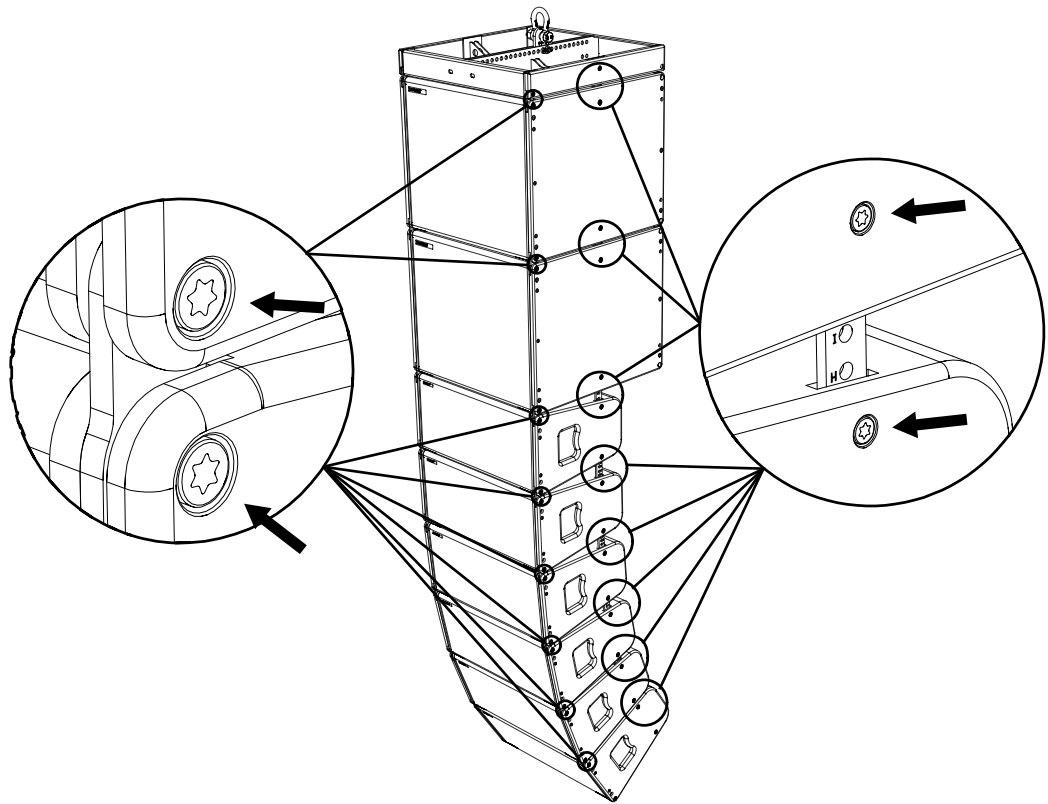


Figure 4.18.2 - Attachment of the mixed system setup

#### 4.19 Cardioid application of the VERAS17i loudspeaker in a flown system

To set up the flown system with the VERAS17i loudspeakers for the cardioid application, proceed as follows:



1. Please note that setting up the VERAS17i loudspeaker system always requires two persons!



2. Place the VERAS17i loudspeakers for the cardioid application on the floor. Place a pad under the loudspeaker to avoid damage.



3. Use the EASE Focus simulation software to determine the amount of loudspeakers and splay angles required for your application.



4. Attach the rear splay links and the brackets on the side using one cylinder screw, item 2 and one lock washer, item 3 from the VERAS17i loudspeaker scope of delivery.
5. Make sure to properly insert the lock washer as described in section 4.7!
6. Make sure that the screws with the lock washers are attached (but not tightened) to the VERAS17i loudspeakers on the left and right side.

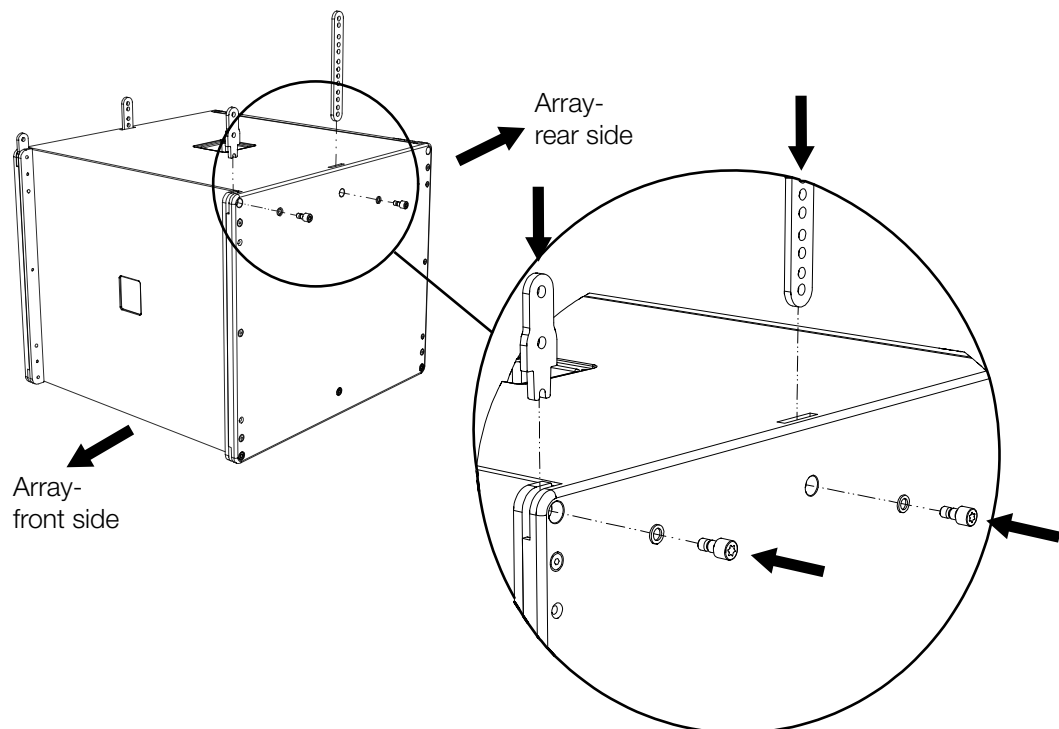


Figure 4.19.1 - Mounting of the splay links and brackets



1. Insert the front splay links and the rear splay links of the twisted VERAS17i loudspeaker to the openings of the VERAS17i loudspeaker.
2. Attach the loudspeaker in the flown cardioid system using for the left and right side two cylinder screws, item 2 and two lock washers, item 3 from the VERAS17i loudspeaker scope of delivery.
3. Make sure to properly insert the lock washer as described in section 4.7!
4. Make sure that the screws with the lock washers are attached (but not tightened) to the VERAS17i loudspeakers on the left and right side.

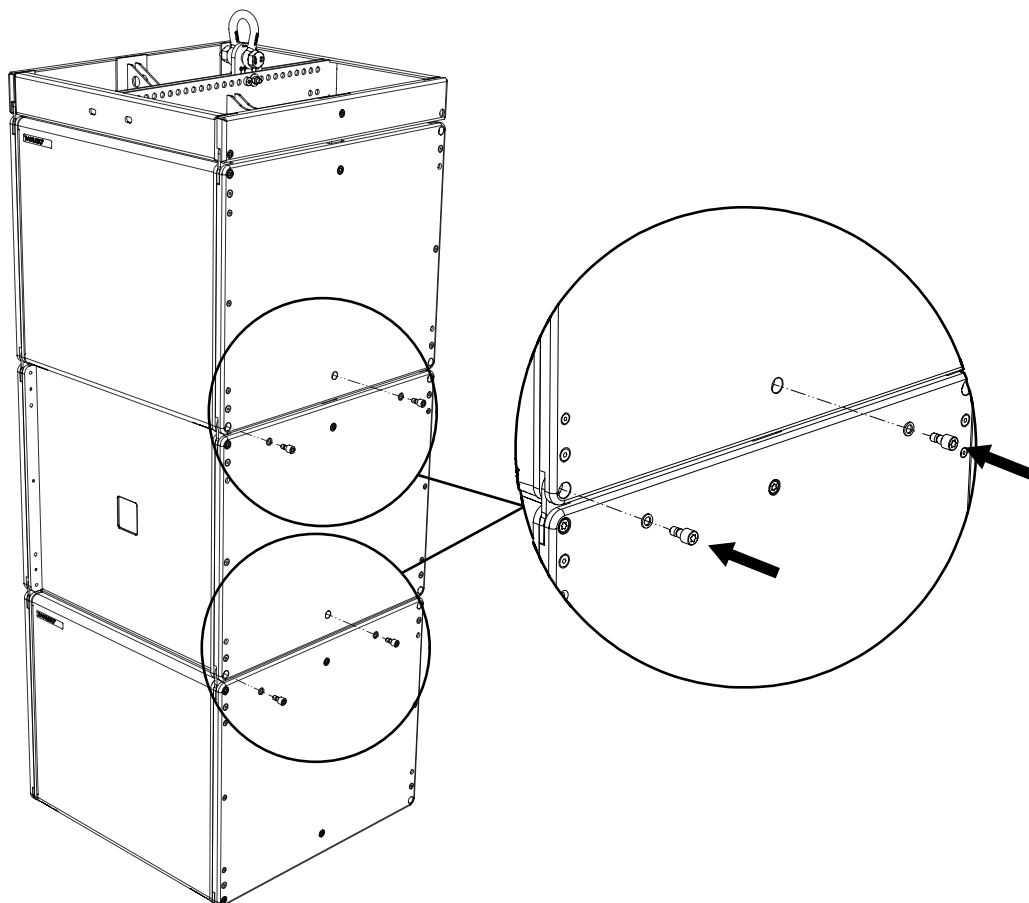


Figure 4.19.2 - Mounting of the cardioid system setup



5. Tighten all screws on the left and right side of the VERA S17i loudspeaker. (torque: 20Nm)

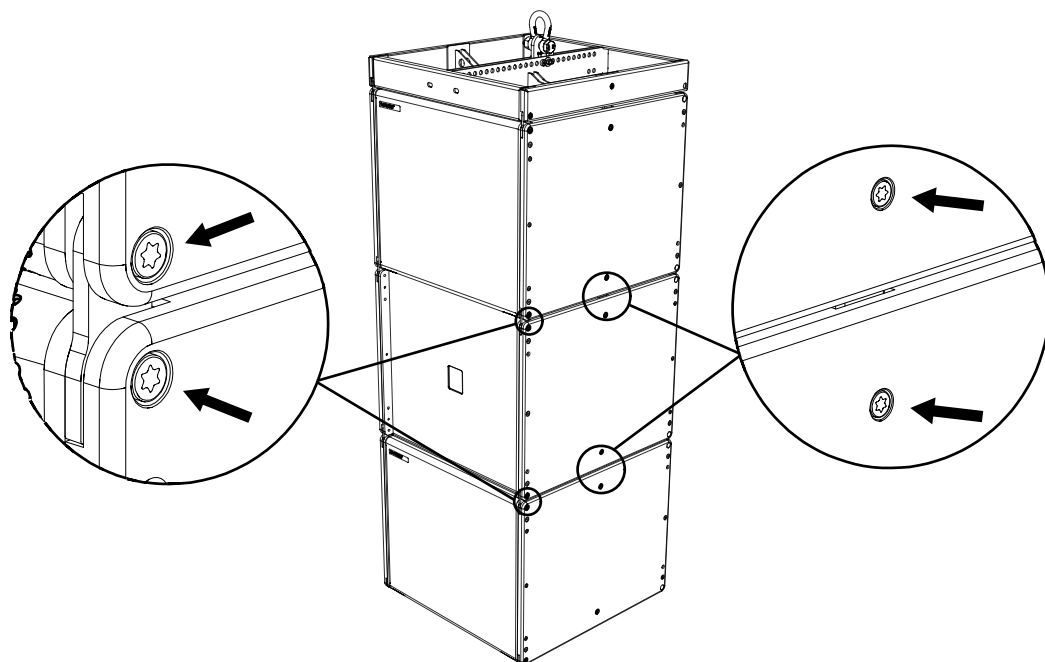


Figure 4.19.3 - Attachment of the cardioid system setup



1. Additional front grills with mounting screws for a uniform appearance of the cardioid system setup with VERAS17i loudspeakers are available at TWAUDIO.

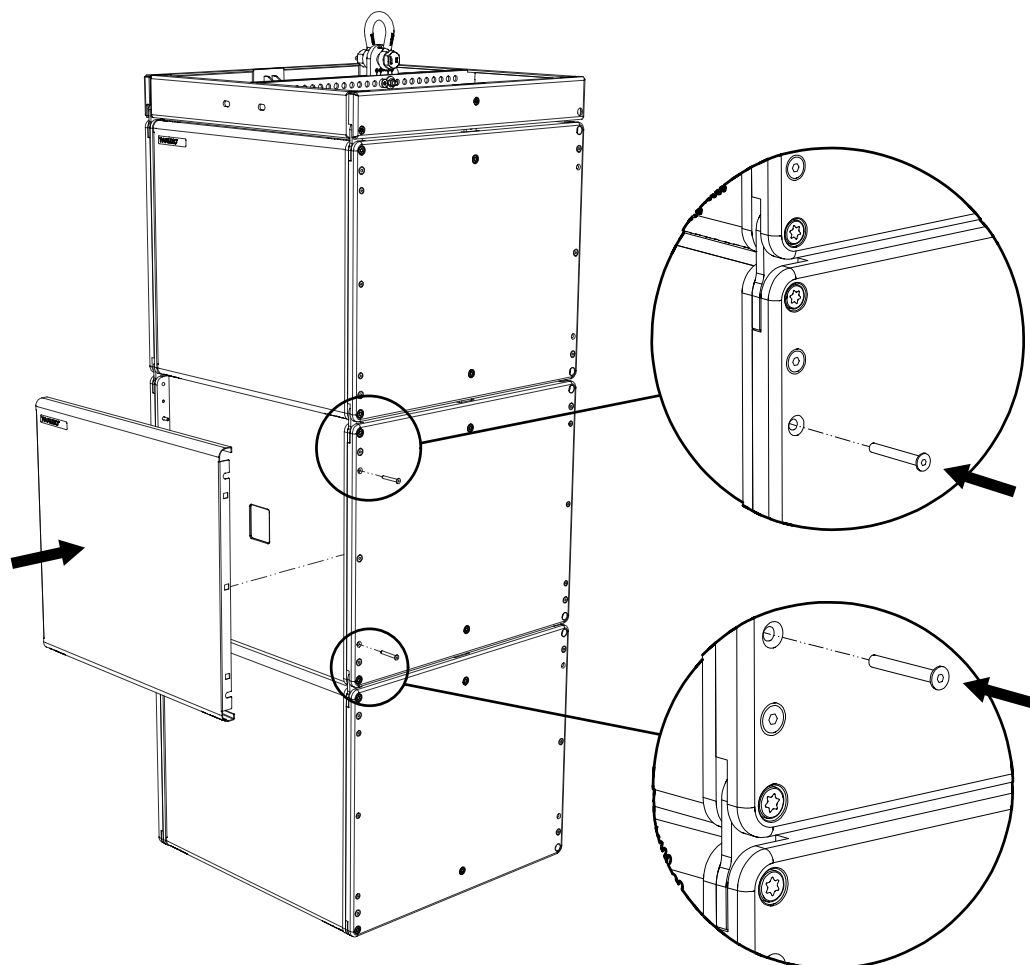


Figure 4.19.4 - Attachment of an optional front grill



2. Follow the instructions in this section to connect up to twelve VERAS17i loudspeakers.
3. Please note that the last loudspeaker in the flown system has to be mounted as described in section 4.16 and 4.17.

## 4.20 Rigging tracks



Only mount the VERA20i loudspeakers when all VERAS17i loudspeakers are mechanically connected to the VERARF600i rigging frame through the front and the middle rigging tracks.

Make sure that the load is never transferred from one rigging track to another rigging track through the speaker enclosure.

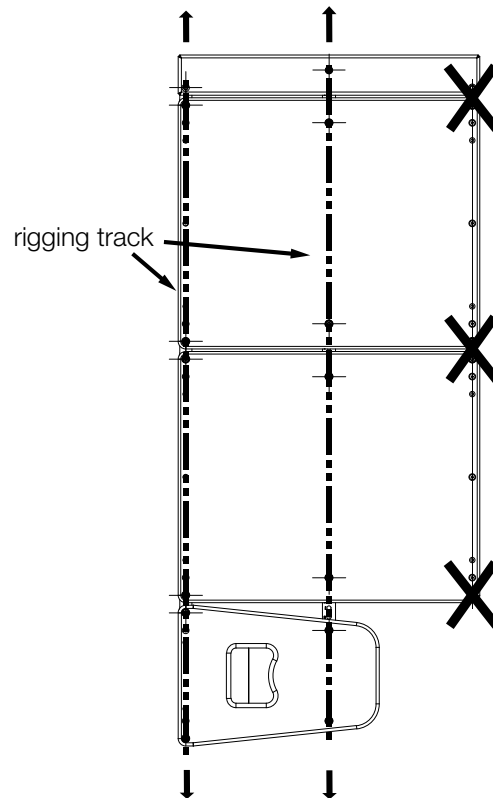


Figure 4.20.1 - side view: system setup VERAS17i with VERA20i



Please note that the following system setup with VERAS17i loudspeakers is not permitted.

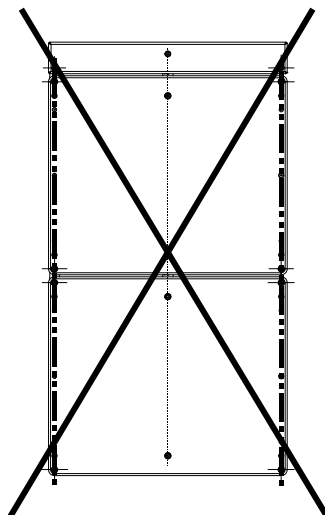


Figure 4.20.2 - side view: improper use of the system setup of VERAS17i

## 5. Transport and Storage



### NOTE

Ensure that the surface of the rigging frame is not damaged during transport and storage. Moisture may penetrate where steel surfaces are exposed by scratches and result in corrosion.

This is why the product should be transported in a safe, careful, dry and largely dust-free manner.



## 6. CE Declaration of Conformity

Copy and translation of the original CE Conformity Declaration:



We hereby declare that the below-referenced components by virtue of their design and construction, and in the configuration placed on the market by us, satisfy the safety and health requirements of the applicable EC directives. This declaration becomes invalid in case of modifications that have not been approved by us.

### **This declaration applies to the following components**

- VERARF600i

as well as all model variants based on these, provided that they correspond to the original factory models and have not been technically modified in any way.

### **Applicable directives:**

- 2001/95/EG

### **Applicable national standards and technical specifications:**

- DIN EN 18 800
- DIN EN ISO 12 100
- DGUV Vorschrift 17 und 18

Ludwigsburg, January 1st 2018

  
 Tobias Wüstner

## 7. Disposal

If you have any question regarding the disposal of used devices, please contact us under the following telephone number:

+49 (0) 71 41 – 48 89 89 0

In countries outside of the European Union, comply with local regulations.

TWAUDIO GmbH  
Osterholzallee 140  
71636 Ludwigsburg  
Germany

Phone : + 49 (0) 71 41-48 89 89 0  
Fax: + 49 (0) 71 41-48 89 89 99  
E-Mail: [info@twaudio.de](mailto:info@twaudio.de)  
WWW: [www.twaudio.de](http://www.twaudio.de)