TW AUDiO®

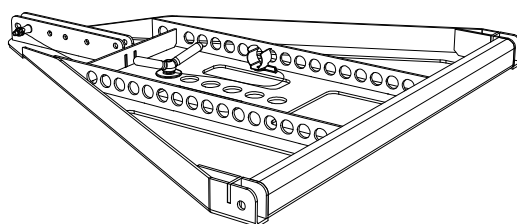# GSP20 | Assembly Instructions

Introduction

Thank you for choosing a high-quality product "MADE IN GERMANY" from the brand TW AUDiO.

The GSP20 ground stack plate is an accessory for the VERA20 loudspeaker.

It 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 TW AUDiO or download them from www.twaudio.de

Instructions in this setup manual

Strictly adhere to the instructions contained in this operating manual that are marked as follows:

⚠️ **WARNING**   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.

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⚠️ **CAUTION**   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.

☞ **NOTE**   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.

💡 **TIP**   This symbol in combination with the signal word "Tip" identifies additional information or notes that will simplify working with TW AUDiO products on the basis of practical experience.

Notes on the products

Read manual before use!

Before using the ground stack plate, carefully read the assembly instructions and keep the instructions in a safe place together with the GSP20 ground stack plate.

General Information

Assembly Guide: OM-GSP20
Version 2.0 d, 11/2022
© by TWAMBO 2022; all rights reserved.

All information contained in this operating manual 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 TWAMBO.

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

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

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1. Safety | Intended use

Please adhere to the following safety instructions to avoid risks when using accessories.

The GSP20 ground stack plate was developed for use in professional sound systems. The ground stack plate may only be used by trained and qualified personnel.

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

Damage caused by improper use is not covered by TWAMBO.

⚠ WARNING

Before each installation, check the integrity of the GSP20 ground stack plate and ensure that all components are in perfect condition.

The scope of delivery includes a specified quick-locking pin and a M20 screw connector. Only use this components.

⚠ WARNING

The GSP20 ground stack plate may only be used with the VERA20 loudspeaker and subwoofers.

These assembly instructions describe how to use the GSP20 ground stack plate. Any other use shall be deemed improper and may result in damage or even injury.

Modifications or alterations to individual parts of the GSP20 ground stack plate are not permitted! Danger to life!

⚠ WARNING

During and after each system setup, check that all quick-locking pins are always completely inserted! All quick-locking pins must always be used!

⚠ CAUTION

The GSP20 is an accessory designed both for indoor and outdoor use.

⚠ WARNING

The GSP20 ground stack plate may only be used by trained and qualified personnel. Personnel must check the GSP20 for its full suitability before each use.

⚠ WARNING

When visible damage to any part of the GSP20 ground stack plate is detected, it must be decommissioned immediately.

WARNING

Before mounting the GSP20 ground stack plate, all attachment points - such as on subwoofers - must be checked for full load capacity and stability.

The GSP20 accessory is specified for a load of not more than eight VERA20 loudspeakers. This load capacity must never be exceeded!

WARNING

When working with heavy loads over 20 kg [44,09 lbs.], use suitable aids (dollies, hoisting slings, etc.). Multiple persons may be required depending on the situation.

WARNING

When moving (mounting, removing, servicing) the GSP20 ground stack plate with VERA20 loudspeakers and subwoofers, ensure that there is enough room to avoid collisions with other objects.

CAUTION

When installing the GSP20 ground stack plate, be careful not to pinch or twist the power cables or other cables of the VERA20 loudspeakers and subwoofers! The respective national electrotechnical regulations apply.

WARNING

Every time you install the GSP20 ground stack plate, check all screw connections. Tighten all loose screws. If this is no longer possible, the screws must be replaced.

2. Overview
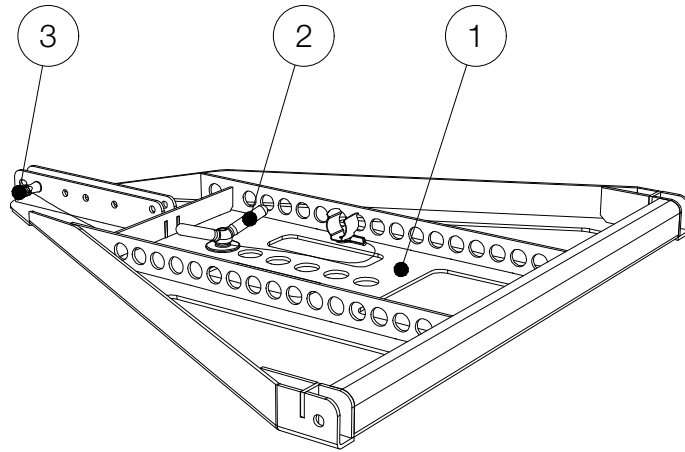
2.1   Components

Figure 2.1 - Overview

1.   GSP20 ground stack plate - Surface powder-coated
2.   Captive M20 screw connector
3.   Captive Quick-locking pin

3. Technical specifications

3.1 Data sheet

maximum load capacity	8 VERA20
Dimensions (h x w x d)	35 x 550 x 555 mm [1.38 x 21.65 x 21.85 in]
Weight	6,2 kg [13.67 lbs.]
Surface	Powder-coated
Maximum length of system setup, without subwoofer	2,40 m [7.87 ft.]

4. Commissioning

4.1 Setup

The GSP20 ground stack plate is designed for groundstack operation.

! WARNING

Please note that setting up the system setups always requires two persons!

! WARNING

Make sure that all system structures are located on a firm, level surface and that the surface can bear the total weight!

☞ NOTE

TW AUDiO recommends using only the accessories specified by TW AUDiO for securing and mounting the ground stack plate.

4.2 Wind load

! WARNING

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

Disassemble your system immediately when wind speeds exceed 8 bft (34 to 40 kn / 62 to 74 kph / 38.5 to 46 mph) and secure the system components!

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

! WARNING

Make sure that the system structures are not operated over the audience at wind speeds in excess of 6 bft (22 to 27 kn / 39 to 49 kph / 24.2 to 30.45 mph) and that there are no persons in the immediate vicinity of the system structure!

4.3 Pitfalls

! WARNING

Make sure that no one can trip over your system structures, or over individual components! This is especially true for all pressure-resistant shims, tripod legs and guy ropes!

4.4   Danger of tipping over

WARNING

With every system setup, make sure that the centre of gravity of the system never extends beyond the outer limits of the base area!

Secure every system setup against falling over!

WARNING

Make sure that no unauthorized persons can access the system structures!

Cordon off the area professionally!

WARNING

Any influences on your system setup, such as leaning against objects (or people) and flying objects around, be refrained from!

4.5   M20 screw connector

M20 screw connector
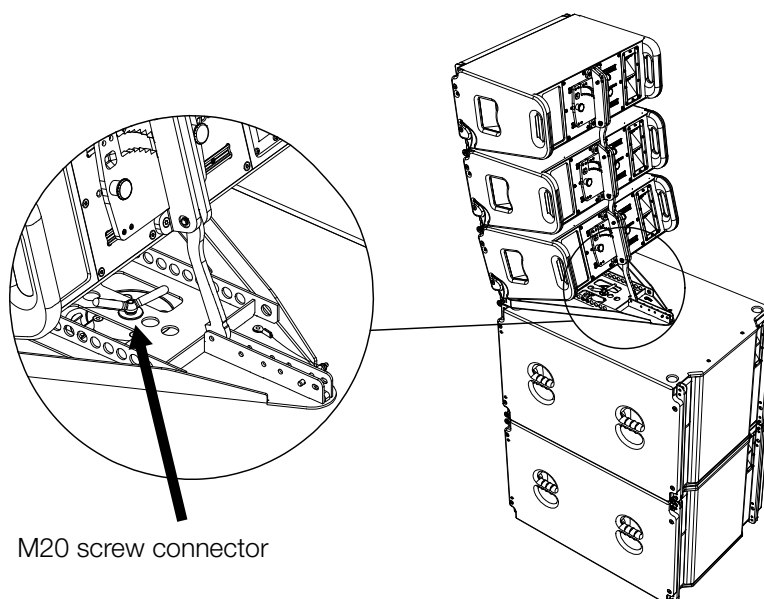
Figure 4.5 - M20 screw connector

WARNING

Please note that in every setup, the M20 screw connector connects the GSP20 ground stack plate to the subwoofer!

Depending on the subwoofer model, use the appropriate mounting hole in the GSP20. Be sure to keep the center of gravity of the VERA20 loudspeaker assembly above the subwoofer. Move the GSP20 ground stack plate backwards as required.

Secure the complete system setup against falling over!

Make sure that the M20 screw connector is scewed tight!

4.6   Ground stack of the VERA20 loudspeaker

The fold-out hook on the rear rigging of the lowest VERA20 loudspeaker is used to set the angle of the assembly:

Follow these steps:

NOTE

1. Loosen the two quick-locking pins at the front of the VERA20 loudspeaker.

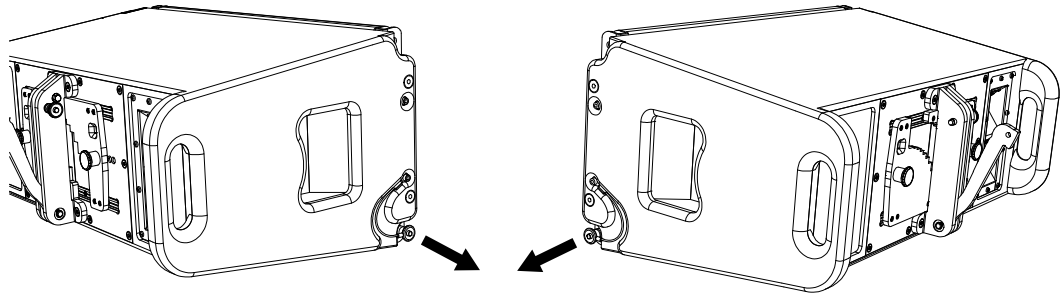2. Both splay links in the front rigging tracks must be extended downwards.

Figure 4.6.1 - Loosen quick-locking pins

NOTE

3. Have two persons place the VERA20 loudspeaker on the GSP20 ground stack plate.

4. Pull back the VERA20 loudspeaker until its splay links align with the recesses of the GSP20 ground stack plate.
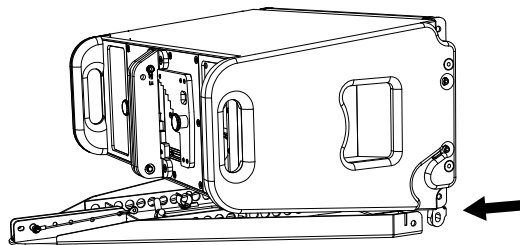
Figure 4.6.2 - Pull back the VERA20 loudspeaker

WARNING

5. Insert the VERA20 loudspeaker´s two front quick-locking pins into the holes of the GSP20 ground stack plate.
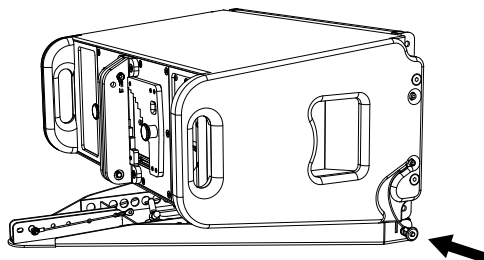
Figure 4.6.3 - Plug quick-locking pins

WARNING

6. Loosen the quick-locking pin on the main carrier of the VERA20 loudspeaker´s rear rigging and fold out the hook by 90°.

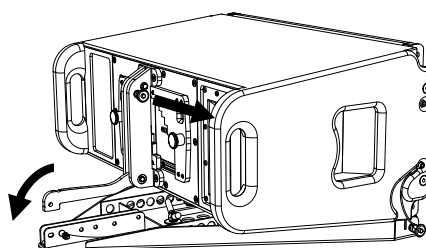7. Lift the VERA20 loudspeaker at the rear and pull the hook all the way down.

Figure 4.6.4 - Pull the hook down

WARNING

8. Select the appropriate level (number of degrees) for your system setup. See figures 4.6.5 to 4.6.10.

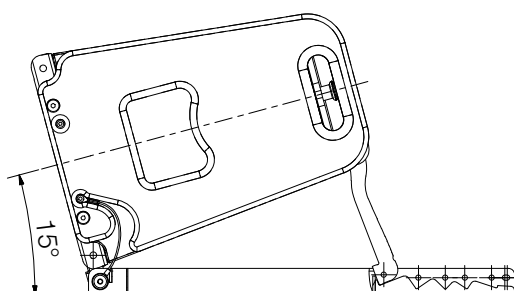9. Attach the hook to the GSP20 ground stack plate using the quick-locking pin on the GSP20.

Variants:

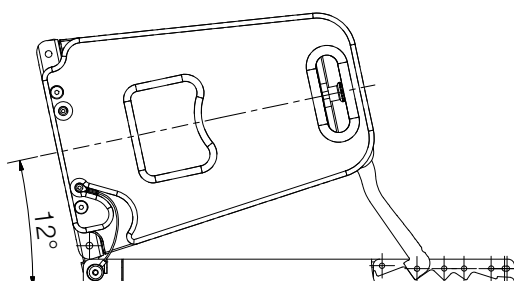**Figure 4.6.5 - Side view VERA20 loudspeaker 15° downtilt**

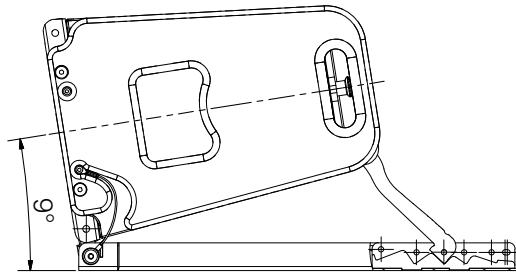**Figure 4.6.6 - Side view VERA20 loudspeaker 12° downtilt**

Figure 4.6.7 - Side view VERA20 loudspeaker 9° downtilt
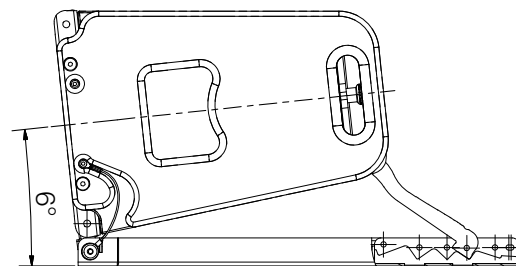

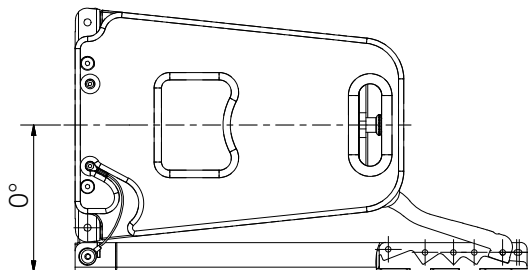**Figure 4.6.8 - Side view VERA20 loudspeaker 6° downtilt**

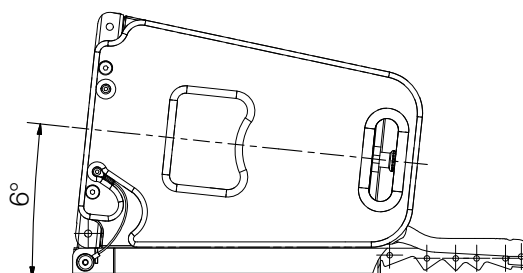**Figure 4.6.9 - Side view VERA20 loudspeaker 0° (horizontal)**

Figure 4.6.10 - Side view VERA20 loudspeaker 6° uptilt

4.7 VERA20 ground stack setup, from the 2nd loudspeaker

To set up the ground stack array, starting from the second VERA20 loudspeaker, proceed as follows:

NOTE

1. Loosen the two quick-locking pins at the front of the VERA20 loudspeaker.

2. Both splay links in the front rigging tracks are now extended.

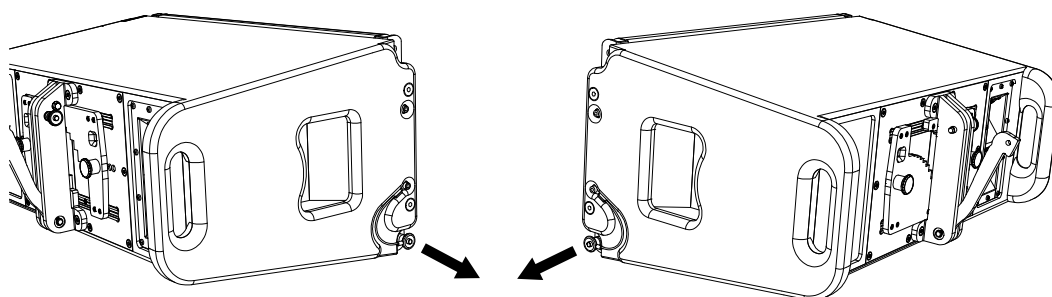**Figure 4.7.1 - Loosen quick-locking pins**

NOTE

3. Have two persons place the VERA20 loudspeaker on the first VERA20 louspeaker.

4. Pull back the VERA20 loudspeaker until its front splay links align with the rigging tracks of the lower loudspeaker.
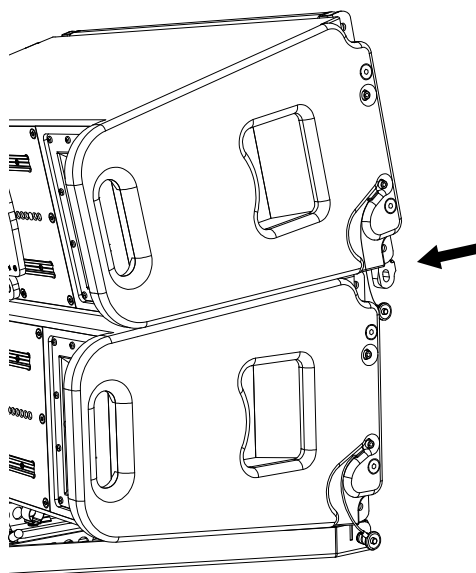

Figure 4.7.2 - Pull back VERA20 loudspeaker

⚠ **WARNING**

5. Insert the VERA20 loudspeaker´s two front quick-locking pins into the holes of the lower loudspeaker.
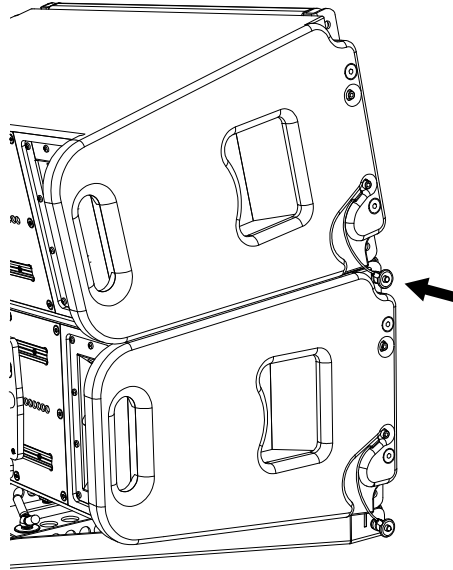

Figure 4.7.3 - Plug quick-locking pins

⚠ **WARNING**

6. Use the left slider on the lower VERA20 loudspeaker´s rear rigging to select the angle for the next upper speaker.
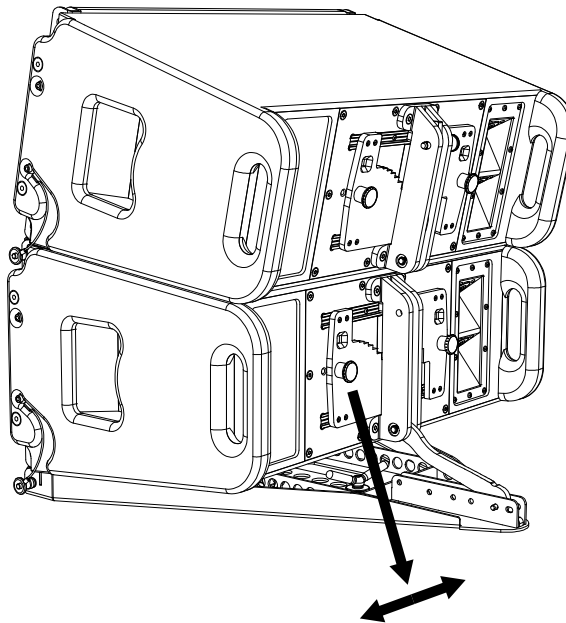

Figure 4.7.4 - Select lower left slider

WARNING

7. Loosen the quick-locking pin on the main carrier of the upper VERA20 loudspeaker´s rear rigging and fold out the hook by 90°.

8. Lift the upper VERA20 loudspeaker at the rear and pull the hook all the way down so that it aligns with the rear rigging of the lower VERA20 loudspeaker.
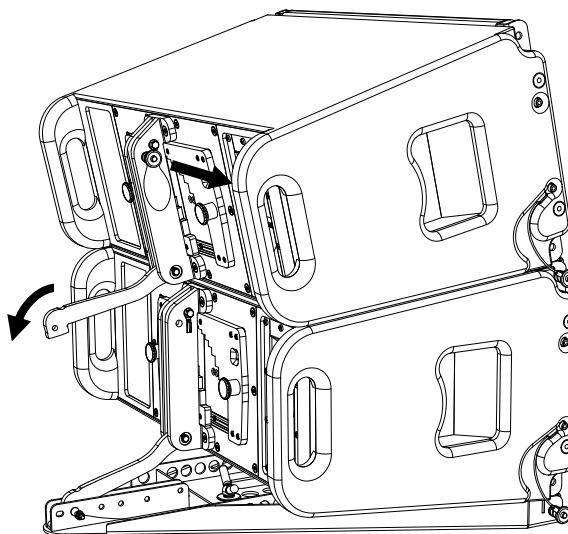

Figure 4.7.5 - Pull the hook down

WARNING

9. Insert the quick-locking pin into the main carrier of the lower VERA20 loudspeaker´s rear rigging to secure it.

10. Lower the VERA20 loudspeaker until the hook comes to rest on the lower left slider.
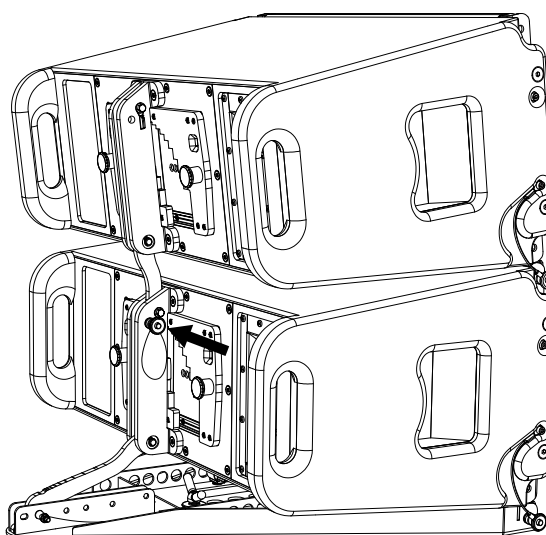

Figure 4.7.6 - Plug quick-locking pin

⚠️
WARNING

11. Move the right slider of the lower loudspeaker to the left until it displays the same number of degrees as the left slider. This fixes the upper loudspeaker.
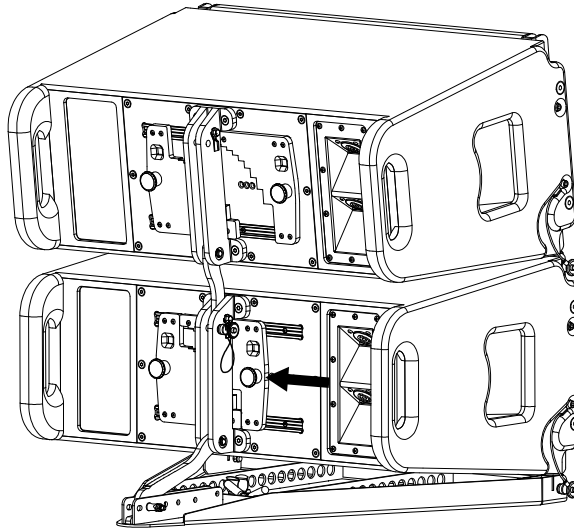

Figure 4.7.7 - Move right slider

⚠️
WARNING

12. Follow the instructions in this section of the manual to connect up to eight VERA20 loudspeakers.

4.8   Usage GSP20 on subwoofers as gound stack for VERA20

⚠ WARNING

Please note that setting up a ground stack of VERA20 loudspeakers on a GSP20 ground stack plate always requires two persons!

⚠ WARNING

Please note that the GSP20 ground stack plate must rest flat on the subwoofer and cover it in full!

⚠ WARNING

Always ensure that the stability of the entire system assembly is guaranteed, especially if it is inclined!

⚠ WARNING

Attach the VERA20 loudspeakers to each other using all three quick-locking pins!

There are two captive quick-locking pins located on the left and right of the front and one on the rear rigging at the back.

Always attach the front quick-locking pins of the VERA20 to the splay links first. Then insert the rear quick-locking pin into the appropriate hole for the desired angle.

⚠ WARNING

To assemble a ground stack of subwoofers and VERA20 loudspeakers (see figure 4.8) place the GSP20 ground stack plate between the upper subwoofer and the VERA20 loudspeakers. Use the captive M20 screw connector (see figure 2.1, pos.2) for assembly!

Connect VERA S18, VERA S32 and VERA S33 subwoofers to each other using the BLS Boxlink connector sets (both front and back). Use all of the BLS set´s quick-locking pins!

⚠ WARNING

Only the VERA S32 or VERA S33 subwoofers or (recumbent) B18, B30 or VERA S18, VERA S30 should be used in this application!

⚠ WARNING

Please note that no more than eight VERA20 loudspeakers may be stacked!
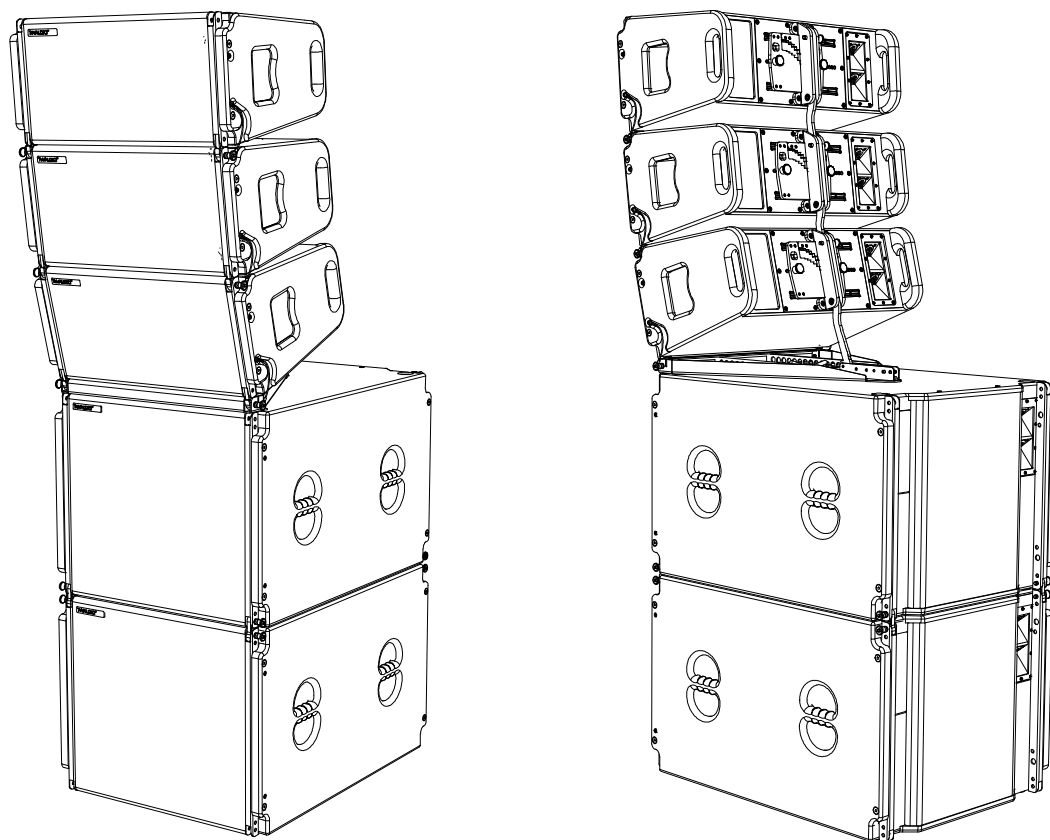
Figure 4.8 - System setup ground stack

5. Transport and Storage

NOTE

Ensure that the surface of the ground stack plate 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 and stored in a safe, careful, dry and largely dust-free manner.

The original packaging is unsuitable as permanent storage and transport packaging.

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

• GSP20

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

Berlin, Germany, January 1st, 2021

Bernhard 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.

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