



# **General information**

Z5778/Z5779 Rigging manual

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# Keep this document with the product or in a safe place so that it is available for future reference.

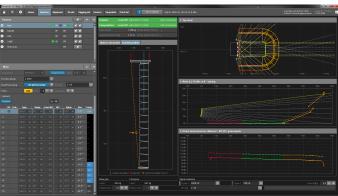
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d&b ArrayCalc

#### 1.1 Intended use

The d&b XSL mounting and adapter frames must only be used in conjunction with d&b XSL loudspeakers, as described in this manual.

# 1.2 d&b ArrayCalc

For both safety and acoustic reasons, d&b line arrays must be designed using the d&b ArrayCalc simulation software. The software is available as a native stand-alone application for both Microsoft Windows and Mac OS X operating systems and can be downloaded at www.dbaudio.com.

Detailed information on how to use and operate ArrayCalc is provided by the Help system of the software. To access the Help system, press F1 or select the Help button ( the ArrayCalc toolbar. This will launch the HelpViewer which provides an overview of the program as well as a search function and direct access to the related topics.

In addition, ArrayCalc will provide you with typical array configurations within the permitted load limits and will help you get familiar with the mechanical load conditions and limitations.

#### d&b TI 385

Further information on line array design can be found in "TI 385 d&b Line array design, ArrayCalc". The TI is supplied with the software or can be downloaded from the d&b website at www.dbaudio.com.

#### d&b Seminar

We also recommend you to attend the regularly hosted d&b Line array training seminars. Further information regarding the d&b seminars and a seminar schedule can also be found on the d&b website at www.dbaudio.com.

# d&b Video tutorials

In addition, d&b provides related video tutorials which can also be found on the d&b website at www.dbaudio.com or www.sl-series.com.

#### 1.3 General safety

- Installation and setup should only be carried out by qualified and authorized personnel observing the valid national Rules for the Prevention of Accidents (RPA).
- It is the responsibility of the person installing the assembly to ensure that the suspension/fixing points are suitable for the intended use.
- Always carry out a visual and functional inspection of the items before use. In case there is any doubt as to the proper functioning and safety of the items, these must be withdrawn from use immediately.

Please also refer to ⇒ Chapter 6 "Care and maintenance" on page 25.

# System components and weights Loudspeaker

Z0770/Z0772 XSL8/XSL12 cabinets	39 kg (86 lb)
Z0774 XSL-SUB cabinet	66 kg (146 lb)
Rigging components	
Z5778 XSL Top mounting frame	10 kg (22 lb)
Z5779 XSL-SUB Mounting frame	11 kg (24 lb)
Z5783 XSL-SUB Adapter frame	14 kg (31 lb)

# 1.4 System components and weights/Load capacity Load capacity

#### **NOTICE!**

#### **Z5778 XSL Top mounting frame**

The Z5778 XSL Top mounting frame is designed to support a total system weight of 500 kg (1100 lb) - SWL including all rigging components.

This allows the suspension of a maximum of 12 x XSL TOP cabinets.

## **Z5779 XSL-SUB Mounting frame**

The Z5779 XSL-SUB Mounting frame is designed to support a total system weight of 500 kg (1100 lb) - SWL including all rigging components.

This allows the suspension of a maximum of 7 x XSL-SUB cabinets.

# **Z5783 XSL-SUB Adapter frame**

Together with the Z5779 XSL-SUB Mounting frame the Adapter frame allows the suspension of mixed array configurations consisting of XSL TOP cabinets underneath XSL-SUB cabinets. However, observe the maximum total system weight of 500 kg (1100 lb) - SWL including all rigging components, when setting up a mixed array configuration.

#### 1.4.1 Wind loads



#### **WARNING!**

# Potential risk of personal injury and material damage!

When setting up fixed outdoor installations, unpredictable wind loads must be taken into account.

- For this reason, arrays must not be suspended using hoisting chains or steel wire ropes.
- The arrays must be firmly attached to the onsite roof construction.













# 1.5 Operational safety

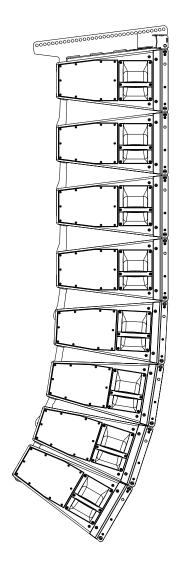
- The assembly should always be carried out by two persons.
- During assembly, pay attention to the possible risk of crushing.
   Wear suitable protective clothing.
- Observe all instructions given on the respective instruction labels of the rigging components, such as load beams, flying and compression frames, touring carts, and loudspeaker cabinets.
- In connection with the d&b Z5711 ArraySight sender unit (laser inclinometer), take precautions to prevent anyone from looking directly into the laser beam, and wear appropriate eye protection.
- Be aware that any object or tool left on the top of the array during setup may fall when the array is operated. Always check that no tools or other objects are left on the array before final hoisting.
- When chain hoists are in operation, ensure that there is nobody directly underneath or in the vicinity of the load.
- Do not under any circumstances climb on the array.

# 9

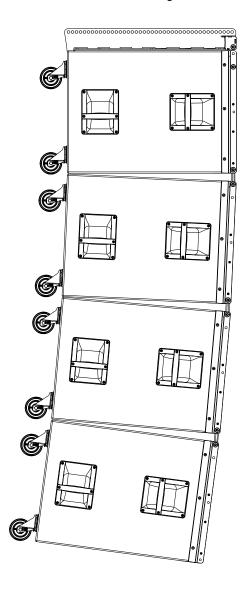
# 2.1 Mounting frames and adapter

The d&b XSL cabinets are supplemented by two dedicated mounting frames (Z5778 XSL Top mounting frame and Z5779 XSL-SUB Mounting frame) and the additional Z5783 XSL-SUB Adapter frame.

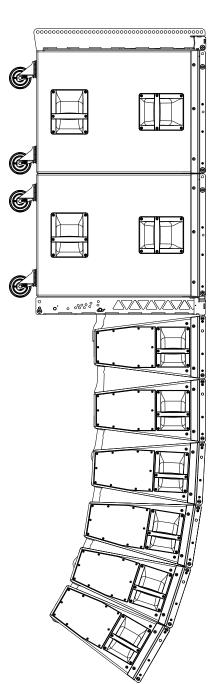
These components allow setting up the following array configurations:



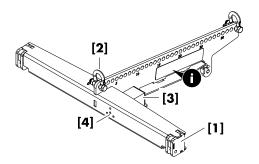
**XSL TOP array, 8-deep with:** Z5778 XSL Top mounting frame



XSL-SUB column, 4-deep, 2.5° splay with: Z5779 XSL-SUB Mounting frame



**Mixed array with:** Z5779 XSL-SUB Mounting frame Z5783 XSL-SUB Adapter frame



# 2.1.1 Z5778 XSL Top mounting frame

# Intended use

The Z5778 XSL Top mounting frame is designed to support a total system weight of 500 kg (1100 lb) - SWL including all rigging components.

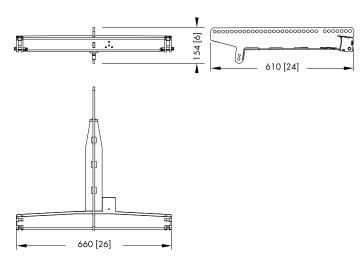
This allows the suspension of a maximum of 12 x XSL TOP cabinets.

# Scope of supply

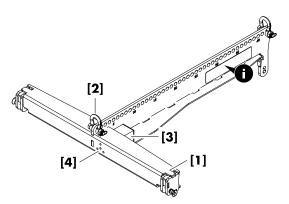
Please verify the shipment for completeness and proper condition of the items.

The Z5778 XSL Top mounting frame is equipped and supplied with the following rigging components:

Pos.	Component	Description
[1]	Z5778	XSL Top mounting frame.
[2]	Shackle	Two 1 t shackles are provided for hoisting purposes.
[3]	Mounting plate	Mounting plate with attached the d&b Z5711 ArraySight sender unit.
[4]		Four dedicated holes are provided at the front of the frame.  The center hole serves as the exit for the laser beam, while the three surrounding holes allow for the adjustment of the ArraySight sender unit, if necessary.
0		Instruction label providing vital safety and rigging instructions.



**Z5778 XSL Top mounting frame dimensions in mm [inch]** 



# 2.1.2 Z5779 XSL-SUB Mounting frame

# Intended use

The Z5779 XSL-SUB Mounting frame is designed to support a total system weight of 500 kg (1100 lb) - SWL including all rigging components.

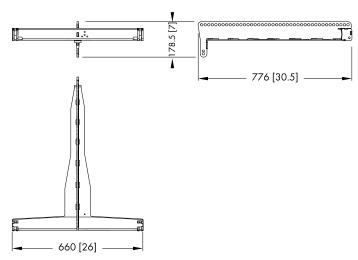
This allows the suspension of a maximum of  $7 \times XSL-SUB$  cabinets.

# Scope of supply

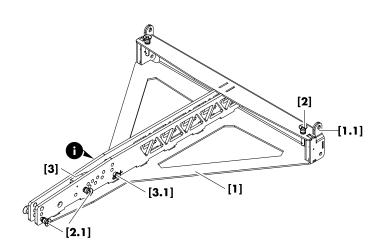
Please verify the shipment for completeness and proper condition of the items.

The Z5779 XSL-SUB Mounting frame is equipped and supplied with the following rigging components:

Pos.	Component	Description
[1]	Z5779	XSL-SUB Mounting frame.
[2]	Shackle	Two 1 t shackles are provided for hoisting purposes.
[3]	Mounting plate	Mounting plate with attached the d&b Z5711 ArraySight sender unit.
[4]		Four dedicated holes are provided at the front of the frame. The center hole serves as the exit for the laser beam, while the three surrounding holes allow for the adjustment of the ArraySight sender unit, if necessary.
•		Instruction label providing vital safety and rigging instructions.



**Z5779 XSL-SUB Mounting frame dimensions in mm [inch]** 



# 2.1.3 Z5783 XSL-SUB Adapter frame

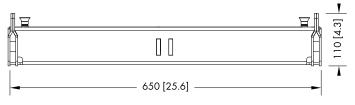
# Intended use

The Z5783 XSL-SUB Adapter frame is intended to suspend mixed array setups consisting of XSL TOP cabinets underneath XSL-SUB cabinets.

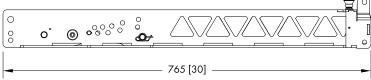
# Scope of supply

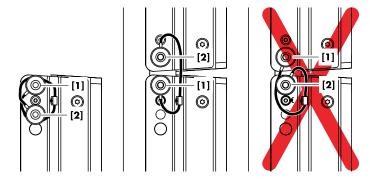
Please verify the shipment for completeness and proper condition of the items.

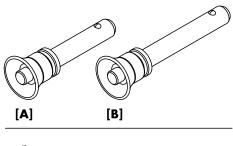
Pos.	Component	Description
[1]	Z5783	XSL-SUB Adapter frame.
[1.1]	Front links	The front tie bar of the frame is equipped with fixed Front links.
[2]	Locking pins	Two Locking pins 9 x 30 mm [2].
[2.1]		Three Locking pins 9 x 40 mm [2.1].
[3]	Splay link	Splay link including fixing bolt [3.1].
	frame	In combination with the Front links of the XSL TOP cabinets, the Splay link of the frame is used to attach the first cabinet underneath XSL-SUB cabinets.
0		Instruction label providing vital safety and rigging instructions.

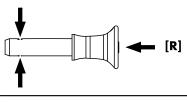


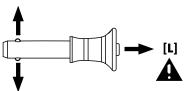
**Z5783 XSL-SUB Adapter frame dimensions in mm [inch]** 











Locking pin functionality

#### 2.2 Locking pins



#### **WARNING!**

# Potential risk of personal injury and/or damage to material!

The steel wires between the Locking pins of the cabinets and rigging components are not intended to carry any load. The cabinet's weight must only be carried by the Front and Splay/Rear links in connection with the front and rear rigging strands of the loudspeaker cabinets and the Flying frame.

Please observe the following:

- The steel wire must run from the upper to the lower Locking pin.
- Do not cross the Locking pins to avoid twisting of the steel wires.
- Ensure all Locking pins are fully inserted and securely locked before lifting any load by briefly pulling the Locking pin towards you.

The XSL loudspeaker cabinets and XSL mounting frames are equipped with two types of Locking pins:

[A] Locking pin 9 x 30 mm.

**[B]** Locking pin  $9 \times 40$  mm.

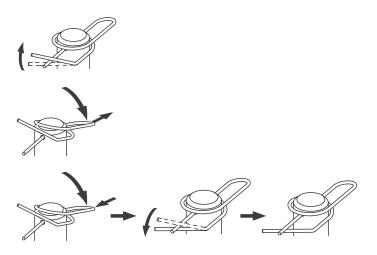
# Functionality (Quick lock mechanism)

The quick lock mechanism applies to all types of Locking pins listed above. Proceed as follows:

- 1. Press the button to **R**elease the locking mechanism (**\( \| R**]).
- 2. Remove the Locking pin through the respective link or socket.
- Insert the Locking pin through the respective link or socket until it is fixed in place.
- Release the button to Lock the pin (→ [L]).
- Recheck the Locking pin is securely locked by briefly pulling the Locking pin towards you.



Ring cotter locked



# 2.3 Ring cotters Function of the ring cotter

By default, the ring cotters are "locked" to prevent them from loosening.

For modification reasons such as altering a position or exchanging a rigging component, it may be necessary to temporarily remove the ring cotter and reattach it afterwards.

For this purpose proceed as follows:

#### 1. Unlock

Unlock the ring cotter by pushing up the front wire loop over the straight wire shaft.

# 2. Release and remove

Push down the rear wire loop until the ring cotter snaps over the edge of the bolt and remove the ring cotter.

# 3. Refit and lock

Refit the ring cotter by pushing the straight wire shaft through the hole and pressing the front wire loop underneath the straight wire shaft.

# 2.4 Rigging mechanism of the cabinets

The cabinets are mechanically connected to the Mounting frames/ Mounting adapter and subsequent loudspeakers using the Front links attached to both sides of the front rigging strands of the cabinets and the central Splay/Rear link on the rear rigging strand of the cabinet.

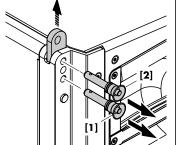
All necessary rigging components are mounted to the cabinets and slide or fold out when needed.

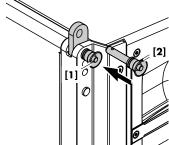
In principle, the Front link mechanism applies to both the TOP and SUB cabinets. The Front links are spring loaded and therefore extend automatically as soon as the respective Locking pins are released and pulled out.

#### 2.4.1 Front link mechanism

#### **TOP** cabinets

- 1. Release both Locking pins.
  - ▶ The Front link extends automatically.
- 2. Reinsert Locking pin [1] into the upper hole.
  - Locking pin [2] is used to connect the first cabinets to the frame and/or to interconnect the cabinets respectively.





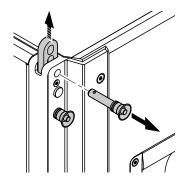
# **SUB** cabinets

- ⇒ Release the upper Locking pin.
  - 4 The Front link extends automatically.

The Front link mechanism of the SUB cabinets provides four different settings:

- 1. SUB to Frame ( $\Rightarrow$  Fig. 1).
- 2. SUB to SUB with  $0^{\circ}$  splay between the cabinets ( $\Rightarrow$  Fig. 2).
- SUB to SUB with 2.5° splay (free) between the cabinets (⇒ Fig. 3).
- SUB to SUB with 2.5° splay (blocked) between the cabinets (⇒ Fig. 4).

This setting is used to prevent the cabinets from folding up.



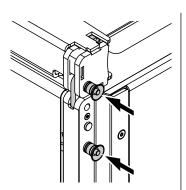


Fig. 1: SUB to Frame

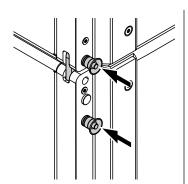


Fig. 2: SUB to SUB, 0° splay

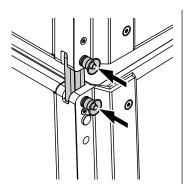


Fig. 3: SUB to SUB, 2.5  $^{\circ}$  splay, free

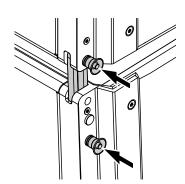
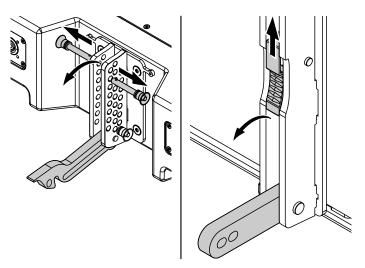
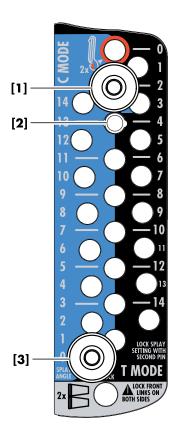


Fig. 4: SUB to SUB, 2.5° splay, blocked



Splay/Rear link mechanism TOP | SUB cabinets



# 2.4.2 Splay/Rear link mechanism

#### **TOP** cabinet

- Release both Locking pins holding the Splay link in its park position.
- 2. Fold out the Splay link.

#### **SUB** cabinet

The Rear link of the cabinet is kept in its park position by a spring loaded fixing device.

⇒ Slide the fixing device upwards to release the link.

# 2.4.3 Setting splay angles for XSL TOP cabinets

#### **Tension mode rigging**

The splay angles are set on the central rear rigging strands of the cabinets. The angles between adjacent cabinets can be set in the range from  $0^{\circ}$  to  $14^{\circ}$  in  $1^{\circ}$  increments.

In connection with the XSL Top mounting frame, the cabinets are interconnected in tension mode.

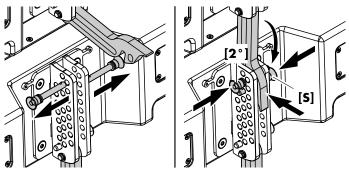
The rear rigging strand of the cabinets provides three hole grid columns.

For tension mode rigging, the center and outer columns are used to set the desired splay angles from top to bottom of the columns, while the center column applies to the *even* and the outer column to the *odd* angle settings.

The following Locking pin convention applies:

- Pin [1] In tension mode, pin [1] is used to preset the splay angle of a certain cabinet on the center and/or outer hole grid of the cabinet itself.
- **Pin [2]** During hoisting, the Splay link of the upper cabinet engages and safety pin **[2]** is inserted in the hole directly below.
- Pin [3] In tension mode, pin [3] is always inserted in the O° hole at the bottom of the inner hole grid to fix the Splay link in place.

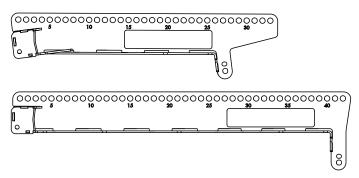
As an example, the graphic opposite shows the pin settings for **2**° splay in tension mode.



Set splay angle (e.g. 2°)

The Splay link of the cabinets is designed as a hook. The hook defines the splay angle while the outer hole is used to insert the second Locking pin (Safety pin **[S]**), as shown in the graphic opposite.

- . First release the Splay links of the cabinets as described in the previous section.
- On the bottom cabinet, first insert one Locking pin into the appropriate hole for the desired splay angle (e.g. 2°).
- 3. Fold the Splay link of the upper cabinet into the rear rigging strand of the bottom cabinet.
- 4. Slightly lift the bottom cabinet until the hook of the upper cabinet has engaged.
- 5. Lower the bottom cabinet and reinsert the second Locking pin (Safety pin [S]).



#### Mounting frame center bar hole grid

- Top mounting frame: 33 holesSUB Mounting frame: 42 holes

The center bars of the mounting frames are equipped with a hole grid allowing either single or dual pickpoint suspension using the enclosed 1 t shackles.

With single pickpoint suspension, the position of the shackle defines the vertical aiming of the entire array.

The corresponding hole position is calculated using ArrayCalc.

# 3.1 Z5147 Rota clamp option

#### **NOTICE!**

# **Load safety information**

A maximum of **12** x TOP cabinets (total system weight of 500 kg/1100 lb - SWL) can be suspended with any splay angle combination according to the ArrayCalc calculation.

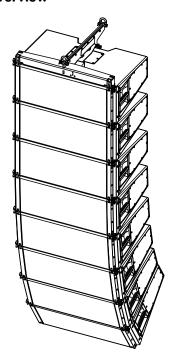
Alternatively, the array can be suspended and horizontally aligned from a single pickpoint using the d&b Z5147 Rota clamp. The clamp allows the load to be attached to overhead bars or truss with a tube diameter of up to 50 mm (2").

#### **Attachment**

Choose the appropriate hole position on the center bar according to the ArrayCalc calculation and attach the clamp correspondingly.

**Note:** Please observe the relevant mounting instructions which are enclosed with the clamp.

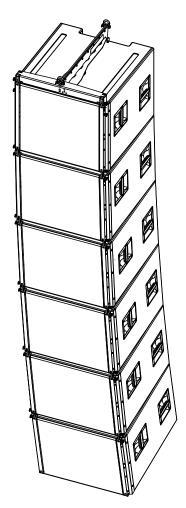
## Overview



**XSL TOP array, 8-deep with:** Z5778 XSL Top mounting frame

Z5778 XSL Top mounting frame Refer to:

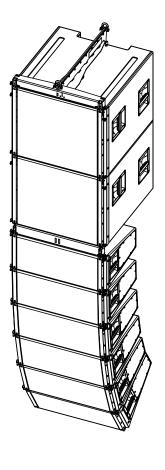
 $\Rightarrow$  Chapter 4.2 "XSL TOP array" on page 18



XSL-SUB column, 6-deep, 2.5° splay with:

Z5779 XSL-SUB Mounting frame

 $\Rightarrow$  Chapter 4.3 "XSL-SUB column" on page 20



# Mixed array configuration with:

Z5779 XSL-SUB Mounting frame Z5783 XSL-SUB Adapter frame Refer to:

 $\Rightarrow$  Chapter 4.4 "Mixed array configuration" on page 22

# 4.1 Setup preparation

Check the acoustical and mechanical setup using ArrayCalc and prepare enough printouts for each array. Alternatively, the ArrayCalc Viewer App can be used for this purpose.

The plan enables the riggers to set up the suspension points, the securing points and the chain hoists.

# When on site first:

- Always carry out the assembly with a second person.
- Clear the working areas and ensure there is enough space to set up and lift the array.
- Check that the hoists are exactly in the specified position.
- Ensure the chains are not twisted.

#### Inspections before setup

Before setting up the array, carry out a visual inspection of all system components for faults. This also includes the loudspeakers and in particular the rigging parts of the cabinets (Front and Splay/Rear links).

Damaged components must be withdrawn from use immediately.

Please follow the instructions given in  $\Rightarrow$  Chapter 6 "Care and maintenance" on page 25.

#### 4.2 XSL TOP array

# 4.2.1 Remarks and limitations

#### **NOTICE!**

In combination with the Z5778 XSL Top mounting frame, a maximum  $12 \times XSL$  TOP cabinets can be flown.

# 4.2.2 Order of assembly

# 1. Attach the Mounting frame to the first TOP cabinet

To attach the frame to the first cabinet, proceed as follows:

- Prepare the Front and Splay links of the first cabinet as described in ⇒ Chapter 2.4 "Rigging mechanism of the cabinets" on page 13.
- 2. Attach the frame onto the cabinet until the Front links of the cabinet fit into the slots at the front of the frame.
- 3. Insert the Locking pins on both sides.



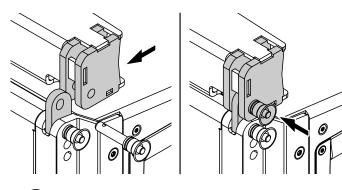
5. Insert the second Locking pin into the [2°] hole.

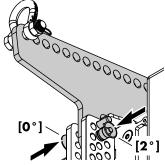
# 2. Suspend the assembly

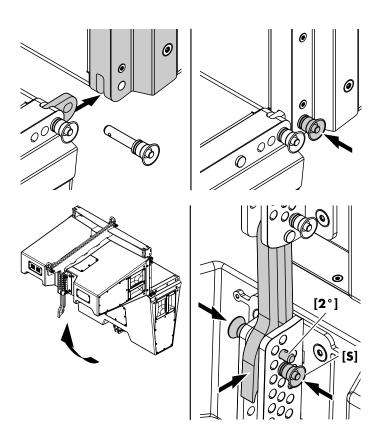
- 1. Suspend the assembly according to your onsite requirements.
- 2. Lift the assembly to a suitable working height.

#### 3. Add further TOP cabinets

- Prepare the Front and Splay links of the next cabinet as described in ⇒ Chapter 2.4 "Rigging mechanism of the cabinets" on page 13.
- Preset the desired splay angle as described in
   ⇒ Chapter 2.4.3 "Setting splay angles for XSL TOP cabinets"
   on page 14.







- With the front grill facing upwards, attach the prepared next cabinet to the corresponding slots at the front of the upper cabinet.
- 4. Insert the Locking pin to the upper cabinet's front rigging strands on both sides.
- 5. Raise the bottom cabinet until the Splay link of the upper cabinet has engaged into the preset Locking pin (e.g. [2°]) of the bottom cabinet.
- 6. Insert the second Locking pin (Safety pin [S]).

To add further cabinets, proceed in the same manner until the assembly is completed.

# 4. Check the assembly

Before hoisting the array to its operating position, recheck the actual status of the entire assembly according to the check list given in  $\Rightarrow$  Chapter 5 "Rechecking, hoisting and secondary safety" on page 24.

# 5. Rig the cabling

Connect the cables and link cables according to the number of amplifier channels and cabinets used.

- If the amplifiers are already wired and powered on, use their System check functions or Channel mute switches and a test signal to check the correct operation and routing of all channels and cabinets.
- Alternatively, check the wiring using the Array verification function in R1.

#### 4.3 XSL-SUB column

# 4.3.1 Remarks and limitations

#### NOTICE!

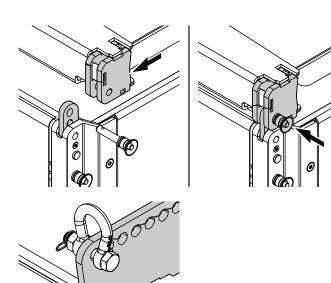
In connection with the Z5779 XSL-SUB Mounting frame, a maximum of 7 x XSL-SUB cabinets can be flown.

# 4.3.2 Order of assembly

# 1. Attach the Mounting frame to the first SUB cabinet

To attach the frame to the first cabinet, proceed as follows:

- Prepare the Front and Rear links of the first cabinet as described in ⇒ Chapter 2.4 "Rigging mechanism of the cabinets" on page 13.
- Attach the frame onto the cabinet until the Front links of the cabinet fit into the slots at the front of the frame.
- 3. Insert the Locking pins on both sides.
- 4. At the rear, insert both Locking pins.

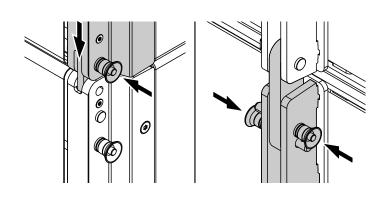


# 2. Suspend the assembly

- 1. Suspend the assembly according to your onsite requirements.
- 2. Lift the assembly to a suitable working height.

# 3. Add further SUB cabinets

- Prepare the Front and Rear links of the next cabinet as described in ⇒ Chapter 2.4 "Rigging mechanism of the cabinets" on page 13.
- 2. Position the next SUB cabinet below the assembly.
- Lower the assembly onto the cabinet until the Front links of the next cabinet fit into the slots on the front rigging strands of the upper cabinet and the Rear link of the upper cabinet fits into the rear rigging strand of the bottom cabinet.
- 4. At the front, insert the Locking pins of the cabinet's front rigging strands on both sides.
- On the bottom cabinet, check the Rear link is properly fitted into the rear rigging strand.
- 6. Insert both Locking pins.



To add further cabinets, proceed in the same manner until the assembly is completed.

# 4. Check the assembly

Before hoisting the array to its operating position, recheck the actual status of the entire assembly according to the check list given in  $\Rightarrow$  Chapter 5 "Rechecking, hoisting and secondary safety" on page 24.

# 5. Rig the cabling

Connect the cables and link cables according to the number of amplifier channels and cabinets used.

- If the amplifiers are already wired and powered on, use their System check functions or Channel mute switches and a test signal to check the correct operation and routing of all channels and cabinets.
- Alternatively, check the wiring using the Array verification function in R1.

# Z5779 Z5783

# 4.4 Mixed array configuration

# 4.4.1 Remarks and limitations

#### **NOTICE!**

For a mixed setup, the Z5779 XSL-SUB Mounting frame must always be used as a suspension device while the Z5783 XSL-SUB Adapter frame is required in addition.

The Z5779 XSL-SUB Mounting frame allows mixed array configurations with a maximum total system weight of 500 kg (1100 lb) - SWL including all rigging components.

# 4.4.2 Order of assembly

Setting up a mixed array configuration is split into four assembly procedures:

- 1. Set up the SUB assembly.
- 2. Attach the Adapter frame.
- 3. Attach the first TOP cabinet to the Adapter frame.
- 4. Add further TOP cabinets.

# 1. Set up the SUB assembly

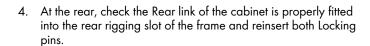
#### **NOTICE!**

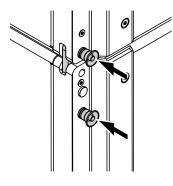
In connection with a mixed array configuration with SUB cabinets at the top of the array, subsequent SUB cabinets must always be connected with **0**° splay.

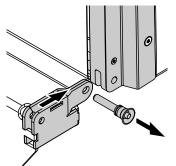
Setting up the SUB assembly is performed in the same manner as described in  $\Rightarrow$  Chapter 4.3 "XSL-SUB column" on page 20 .

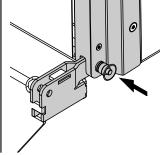
# 2. Attach the Adapter frame

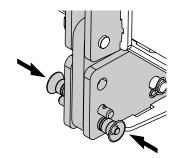
- 1. At the front, release the Locking pins of the Front links on both
- Attache the frame to the slots of the cabinet's front rigging strand.
- 3. Reinsert the Locking pins on both sides.

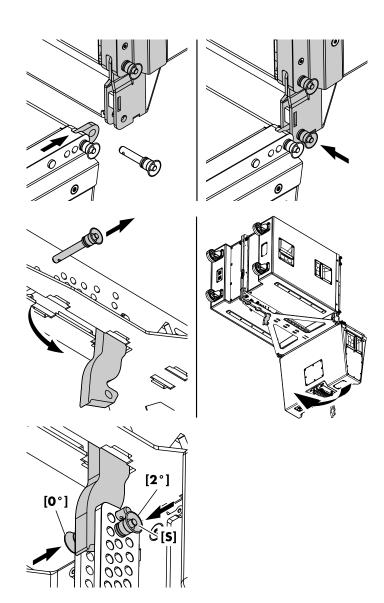












#### 3. Attach the first TOP cabinet to the Adapter frame

To attach the first cabinet to the frame, proceed as follows:

- 1. Lift the assembly to a suitable working height.
- Prepare the Front and Splay links of the first cabinet as described in .
- 3. With the front grill facing upwards, attach the prepared cabinet to the corresponding slots at the front of the frame.
- 4. Reinsert the Locking pins on both sides.
- Release the Rear link of the frame from its park position and reinsert the Locking pin.
- Raise the bottom cabinet until the Splay link of the frame has engaged into the preset Locking pin ([O°] hole) of the cabinet
- Insert the second Locking pin (Safety pin [S]) into the [2°] hole.

#### 4. Add further TOP cabinets

To add further cabinets, proceed in the same manner as described in , until the assembly is completed.

#### 5. Check the assembly

Before hoisting the array to its operating position, recheck the actual status of the entire assembly according to the check list given in .

# 6. Rig the cabling

Connect the cables and link cables according to the number of amplifier channels and cabinets used.

- If the amplifiers are already wired and powered on, use their System check functions or Channel mute switches and a test signal to check the correct operation and routing of all channels and cabinets.
- Alternatively, check the wiring using the Array verification function in R1.

# Safety and system checks

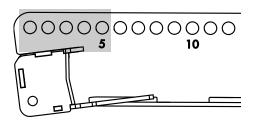
Before hoisting the array to its operating position, recheck the actual status of the assembly as follows:

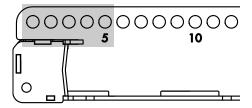
#### **Mechanical setup**

- Check the attachment of the Mounting frame(s) and/or adapter frame to the cabinets:
  - Ensure all Locking pins are fully inserted nad properly locked.
- Check the attachment of all Front links on both sides of the cabinets and all Locking pins are fully inserted nad properly locked.
- Check the splay angles and the attachment of the Splay/Rear links at the rear of the cabinets:
  - Ensure all Locking pins are fully inserted nad properly locked.

#### Wiring

- If the amplifiers are already wired and powered on, use their System check functions or channel mute switches and a test signal to check the correct operation and routing of all channels and cabinets.
- Alternatively, check the wiring using the Array verification function in R1.





#### Hoisting



#### **WARNING!**

# Potential risk of personal injury and/or damage to material!

Always ensure that each of the hoists is able to carry the total weight of the array.

When hoisting the array, unpredictable dynamic forces as well as swinging of the array must be taken into account. This may lead to personal injury and/or damage to the rigging components and loudspeaker cabinets.

Ensure there is nobody directly underneath or in the vicinity of the load who is not involved in the setup.

When all the mechanical adjustments, safety checks and system checks have been made, the array can be hoisted up to its operating position and firmly attached to the onsite construction.

The chain hoist motors must raise the array slowly and evenly so that it does not swing or move from side to side during hoisting.

# 5.1 Secondary safety

Once the array is in its final operating position, the secondary safety device must be applied.



#### **WARNING!**

# Potential risk of personal injury and/or damage to material!

- The secondary safety suspension must be independent of the primary suspension points and capable of carrying the total system weight.
- The additional safety device must be mounted in a way that, if the primary suspension fails, the array is caught by the safety device without any drop or swing.

The secondary safety device must be attached to the front of the frames using one of the first five holes.

#### 6

#### 6.1 Visual and functional inspections



#### **WARNING!**

Potential risk of personal injury and/or damage to material.

To eliminate the risk of accident due to malfunctioning of a component, regularly inspect all system components.

#### **Cabinet enclosure**

- Visual inspection of all fitting plates for obvious damage (e.g. cracks or corrosion).
- Visual inspection of the rear rigging strand for obvious damage (e.g. cracks, deformation or corrosion) including all drilled holes of the component.
- Inspection of all fitting plates including front grills to ensure they are securely attached.

# Front and Splay (Rear) links

Visual inspection regarding deformation and damage (e.g. cracks and corrosion) including all drilled holes of the component.

## **Locking pins**

- Visual inspection for deformation, cracks and corrosion of the component.
- Inspection for missing ball bearings and damage.
- Functional inspection of the release mechanism to ensure it operates properly.
- Regularly lubricate the Locking pins using WD-40<sup>®</sup> or a similar product.

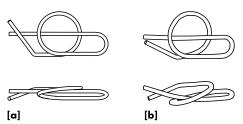
#### Mounting frames and adapter frame

Visual inspection regarding deformation and damage (e.g. cracks and corrosion) including all drilled holes of the component.

#### Ring cotters

- Visual inspection for obvious damage and deformation.
  - Functional test of the locking mechanism as described in ⇒ Chapter 2.3 "Ring cotters" on page 12.

    If a ring cotter can no longer be properly fitted to the fixing bolt and locked, it must be exchanged.



# Condition of the ring cotter

[a]: Ring cotter OK

**[b]:** Exchange the ring cotter



# 7.1 Conformity of rigging components

This declaration applies to:

# d&b XSL loudspeaker cabinets

(with integrated rigging components.)

- Z0770 XSL8
- Z0772 XSL12
- Z0774 XSL-SUB

# d&b XSL rigging components

(including all additional components.)

- Z5778 XSL Top mounting frame
- Z5779 XSL-SUB Mounting frame
- Z5783 XSL-SUB Adapter frame

by d&b audiotechnik GmbH & Co. KG.

All product variants are included, provided they correspond to the original technical version and have not been subject to any later design or electromechanical modifications.

We herewith declare that said products are in conformity with the provisions of the respective directives including all applicable amendments.

Detailed and applicable declarations are available on request and can be ordered from d&b or downloaded from the d&b website at www.dbaudio.com.

# 7.2 Disposal

When out of use the rigging components must be disposed of in accordance with the national environmental regulations.

Ensure that damaged rigging components are disposed of in a way that they cannot be used again.

WEEE-Reg.-Nr. DE: 13421928

