

# **VENIA-8sp DDA**

Multifunctional Loudspeaker



Herzlichen Dank,  
dass Sie ein Voice-Acoustic Produkt gekauft haben.  
Seit dem Jahr 2006 entwickeln wir unsere Produkte  
in der Überzeugung, dass es auf die Details ankommt.  
Wir wünschen Ihnen viel Freude mit diesem Produkt.

Thank you very much,  
for purchasing a Voice-Acoustic product.  
Since 2006 we have been developing our  
products in the firm belief that details matter.  
May we wish you a lot of pleasure with this product.

Muchas gracias  
por haber comprado un producto de Voice-Acoustic.  
Desde el año 2006 estamos desarrollando nuestros productos  
estando convencidos, que son los detalles que cuentan.  
Le(s) deseamos mucha alegría usando este producto.

Merci beaucoup  
d'avoir acheté un produit Voice-Acoustic.  
Depuis 2006, nous développons des produits  
avec la ferme conviction que les détails comptent.  
Nous vous souhaitons beaucoup de plaisir à utiliser ce produit.



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## Working with VENIA-8sp DDA

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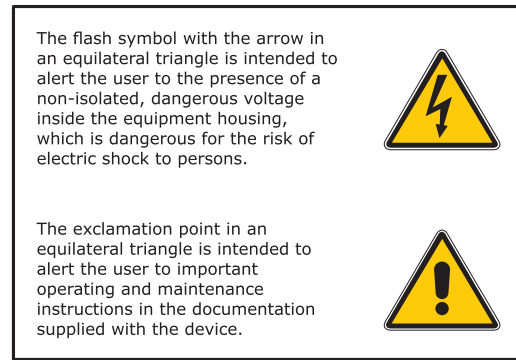
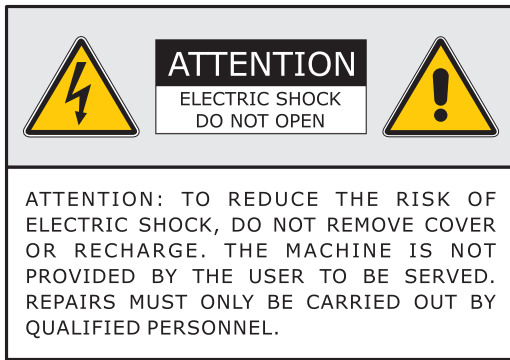
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## Safety Instructions Active Electronics



Read these instructions.

Observe all warning instructions.

Follow all operating instructions.

To prevent fire hazard or risk of electric shock, do not use this device in the rain or in moist environments. Do not operate the unit nearby the water.

Clean the unit only with a dry cloth.

Observe the instructions from the manufacturer for the mounting of the unit.

Do not mount the unit in the proximity of heat sources, such as heating units, herds or other heat radiation devices.

Install the power cable at places where it cannot be damaged, especially at the sites of the socket, extension cables and where it leaves the unit.

Never remove the safety device from the two terminal or grounding-type plug. A two-pin plug has two different plug contact widths. An earth plug has two plug contacts and a third contact for earthing. The wider plug contact or additional earth contact is for your safety. If the supplied plug size does not fit in your socket box, please consult an electrician for exchanging the socket box.

Only use additional devices/accessory parts, that meet the manufacturer's instructions.

Pull the power plug out in case of storm or when you do not use your device for a longer period.

All maintenance works must be performed by qualified service staff. Maintenance is required when the unit has been damaged, objects or fluids have leaked or fallen inside, when the unit was exposed to rain or humidity, or in case of malfunctioning or when it has fallen on the floor.

## General Safety Instructions:

Loudspeakers produce a static magnetic field even if they are not connected or are not in use. Therefore make sure when erecting and transporting loudspeakers that they are nowhere near equipment and objects which may be impaired or damaged by an external magnetic field. Persons with cardiac pacemakers must maintain a safe distance.

The minimum recommended safety clearance is 1 m.

Never stand in the immediate vicinity of loudspeakers driven at a high level. Professional loudspeaker systems are capable of causing a sound pressure level detrimental to human health. Seemingly non-critical sound levels (from approx. 90 dB SPL) can cause hearing damage if people are exposed to it over a long period.

All connected cables must be laid in such a way that they cannot be crushed by objects and that nobody can step on them! Replace damaged cables immediately and do not use them!

Use only accessory parts specified by Voice-Acoustic or original accessory parts from Voice-Acoustic. Check all cabinets and accessories regularly for wear and replace them if necessary.

Do not set up the loudspeakers in places where they are permanently exposed to moisture, dust, dirt or direct sunlight.

## Care

Wipe the surface of loudspeakers only with a damp cloth and pure water. In case of heavy pollution, repeat the above procedure several times if necessary. Do not use any chemical additives or aggressive detergents, as these may harm and damage the surfaces.

## Transport and storage

When transporting and storing the unit, it is important to ensure that the surface and front grill of the loudspeaker are not damaged. Moisture can penetrate through exposed wood surfaces and cause the wood to swell. A bent or broken front grill will no longer adequately protect the sensitive speaker membranes. In addition, appreciable dust deposits may considerably impair the functionality of a loudspeaker membrane. For this reason, the loudspeakers should be transported and stored in a safe, careful, dry and largely dust-free manner.

The following accessory parts for transport and storage are available from Voice-Acoustic:

- Carrying bag for 1 x VENIA-8 or 1 x X-Tension Kit VENIA-6 and VENIA-8 (Art.-Nr. 504802000)
- Heavy-duty flightcase for up to two VENIA-8 or two X-Tension kits (Art.-Nr. 504803000)

**Note:** *The original packaging is unsuitable as permanent storage and transport packaging!*

## Warranty

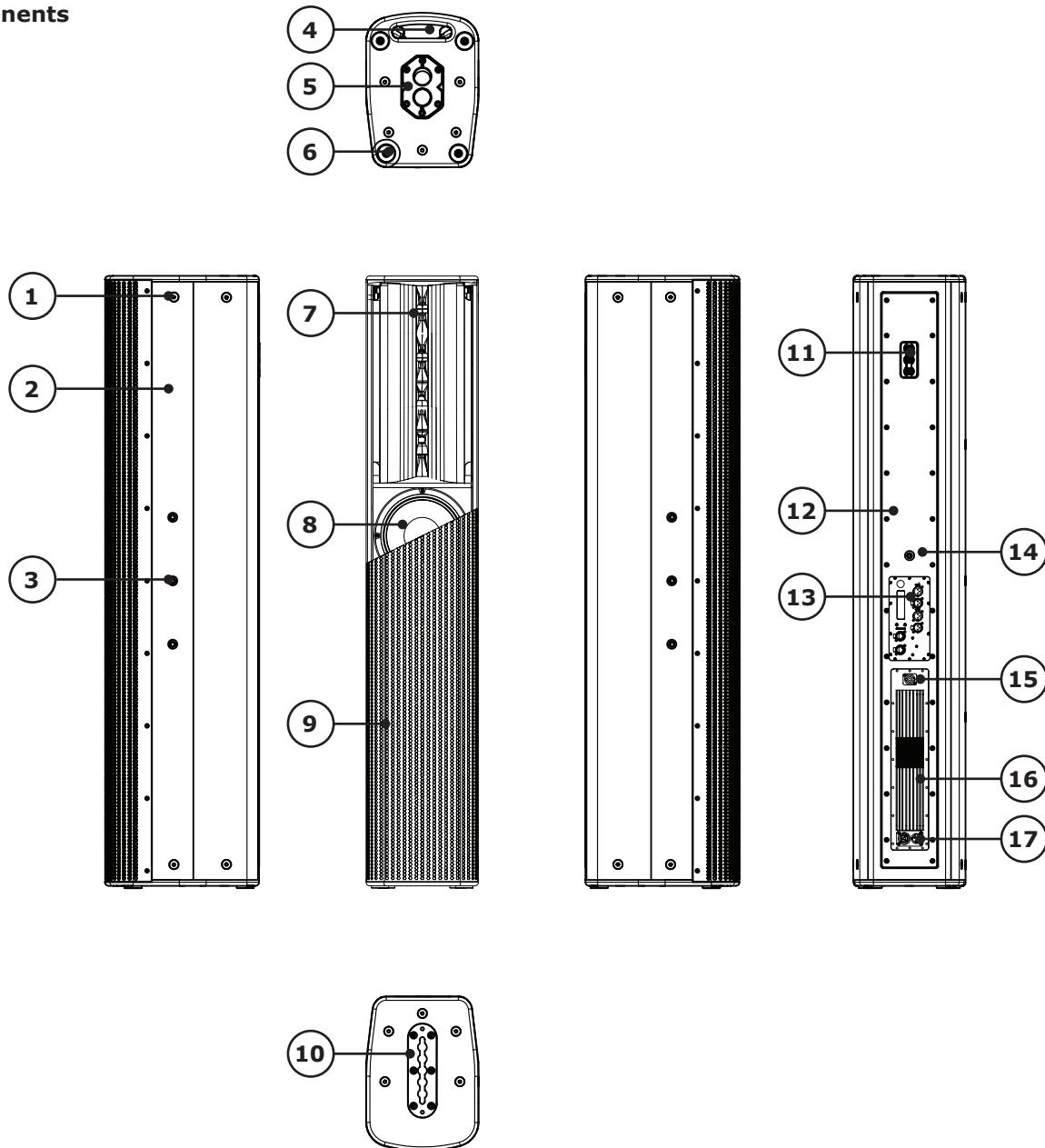
The warranty period is 24 months from date of delivery.

On our choice we will eliminate any lack of conformity with repair or with replacement of the faulty goods. The place of performance for warranty services is Voice-Acoustic headquarters in Dörverden. In case of remedy of defects, the buyer shall bear all costs resulting from transportation of the goods to Voice-Acoustic headquarters in Dörverden.

The ordering party is not entitled to remedy the defect by itself or to organise a replacement and to charge such activities to Voice-Acoustic. In case of self remedy by the ordering party the warranty given by Voice-Acoustic becomes void.

Warranty doesn't apply to parts of wear and tear, such as threaded points, such as threaded points, flying tracks, tilting pole socket, rubber feet and the SpeakON® connectors.

## Components



1. 20 x M10 mounting points with internal steel brackets
2. 15 and 12 mm multiplex cabinet, Surface with moisture resistant polyurea coating
3. 6 x M10 mounting point for U-bracket
4. Recessed grip on the underside
5. Dual-Tilt socket 0° and 5°
6. 4 x rubber feet on the underside
7. 1" Neodym compression driver with 1,75" voice coil
8. 6,5" Neodym woofer with 1,8" voice coil
9. Front grille 1 mm with 5 mm acoustic foam
10. Easyfly flying track for vertical suspension
11. Safety point for safety rope with Single-Stud
12. Threaded points in the back wall for mounting bracket handle
13. Control element\* with type plate and serial number
14. M10 threaded point in the rear wall
15. SpeakON® connector
16. Amplifier module with cooling fins and fan
17. powerCON TRUE1 connectors

\*For equipment and functions see Voice-Acoustic-Control operating manual.

## Connections Control element



### 01. Dante Network-Switch

Dante (Digital Audio Network Through Ethernet) for network connection.

### 02. Peak Level LEDs

Displays the current PEAK level in 5 levels: -18 dB, -12 dB, -6 dB (green), -3 dB (yellow), Limit (red).

### 03. Button top

To enter the system menu and browse between the configuration functions.

### 04. Button bottom

To leave the system menu or the configuration functions.

### 05. LCD Display

Background lit double-space 16-Segment LCD Display, for all important edition parameters.

### 06. Encoder wheel

You can change the parameter values with the encoder wheel. You can select different parameter values by pressing and set them by turning.

### 07. Analog input

1 x Separate 3-pin connector for audio input. The input is a symmetric XLR-connector.

### 08. Analog output

1 x Separate 3-pin connector for audio output. The output is a symmetric XLR-connector.

### 09. Analog or Digital AES/EBU input

1 x Separate 3-pin connector for audio input.

### 10. Analog or Digital AES/EBU output

1 x Separate 3-pin connector for audio output.

## Technical data

<b>Components</b>	LF: 4 x 8" Neodym woofer with 2,5" voice coil HF: 4 x 1" Neodym compression driver with 1,75" voice coil
<b>Frequency response</b>	56 Hz - 19 kHz (- 10 dB) 72 Hz - 16 kHz (+/- 3 dB)
<b>Coverage range (h x v)</b>	100° x 0°/ -20°
<b>Powerhandling</b>	LF: 1.000 W AES / 2.000 W program / 4.000 W peak at 8 Ω HF: 110 W AES / 220 W program / 440 W peak at 8 Ω
<b>Sound pressure</b>	133 dB SPL AES / 136 dB SPL program / 139 dB SPL peak
<b>Dimensions / Weight</b>	1.336 (H) x 245 (W) x 336 (D) mm / 40,0 kg
<b>Finish</b>	Polyurea coating in RAL 9005

## Integrated 2-Way Amplifier Modul

<b>Power output CH1</b>	2.400 W/4 Ω, 1.580 W/8 Ω, 800 W/16 Ω
<b>Power output CH2</b>	800 W/4 Ω, 450 W/8 Ω, 200 W/16 Ω
<b>Amplifier gain</b>	CH1 32 dB, CH2/3 26 dB
<b>Signal-to-noise ratio</b>	>120 dB (20 - 20.000 Hz, 8 Ω)
<b>Damping factor</b>	>1.000 (8 Ω, 1 kHz)
<b>Distortion</b>	THD+N < 0,05 % (20 - 20.000 Hz, 8 Ω )

## Integrated Loudspeaker Management System

<b>Manual hand operation</b>	2 button and 1 x digital encoder-wheel
<b>Operable language</b>	Selectable between English, German, France, Spain
<b>Software connection</b>	Bi-directional connection in real time via USB, Ethernet
<b>Controllable units</b>	Up to 128 self-powered Speaker & HDSP-amplifier in one network
<b>DSP preset memory quantity</b>	120 Presets
<b>Processor</b>	64 bit, 96 kHz sample rate
<b>Dynamic range input</b>	120 dB
<b>Maximum input level</b>	+ 23 dB
<b>Latency</b>	0,5 ms
<b>Routing</b>	2-input signals can mix together in one loudspeaker
<b>EQ filter</b>	10 parametric filter each In- and Output
<b>X-Over</b>	Butterworth, Bessel, Linkwitz-Riley
<b>Limiter</b>	In each Input and Output



## Setup

The VENIA-8sp DDA loudspeaker is designed for standing, vertical operation. A variety of accessories is available from Voice-Acoustic to securely attach the loudspeaker safely on tripods, distance rods or hanging it from on trusses, ceilings and walls. Ensure that the loudspeakers are securely attached to prevent personal injury and damage of property.

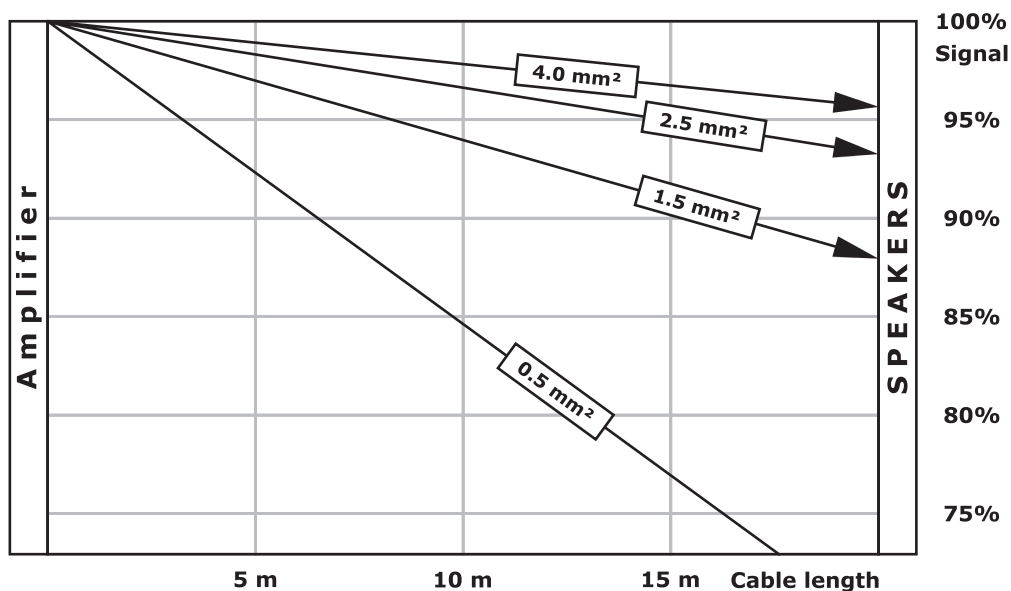
## Connecting cables

When connecting the cables to the loudspeaker, ensure that the polarity (+/-) and pin assignment (1/2) is correct. Incorrect connection results in a significant change in the loudspeaker sound characteristics and may damage the compression driver.

The two connection sockets on the back of the loudspeaker can be used to link multiple loudspeakers on a single amplifier. Note that parallel connection reduces the total impedance ( $\Omega$ ) seen by the amplifier. The total impedance of loudspeakers connected in parallel must not drop below the minimum operating impedance of the amplifier.

Voice-Acoustic recommends to use the available 4 x 4 mm<sup>2</sup> Speakon cables for mobile use.

We recommend wiring the basses with at least 4 mm<sup>2</sup> in installations. The cables of the tops in installations must be sufficiently dimensioned according to impedance, power and cable length.



Simplified display without consideration of loudspeaker impedances

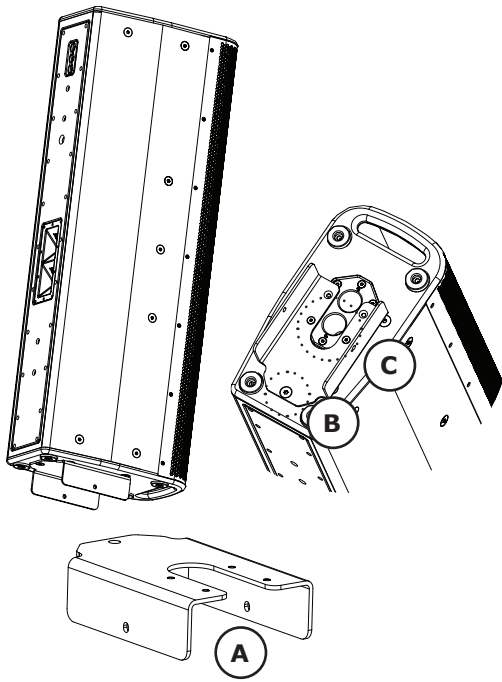
## Operation

A VENIA-8sp DDA can feed a VENIA-8 bi-amp via a 4 pin cable.

The woofers and compression drivers are designed in 8  $\Omega$ .

Make sure the appropriate preset has been selected before connecting the speaker to the system power amp or self-powered subwoofer.

Using the wrong preset can damage parts of the loudspeaker.

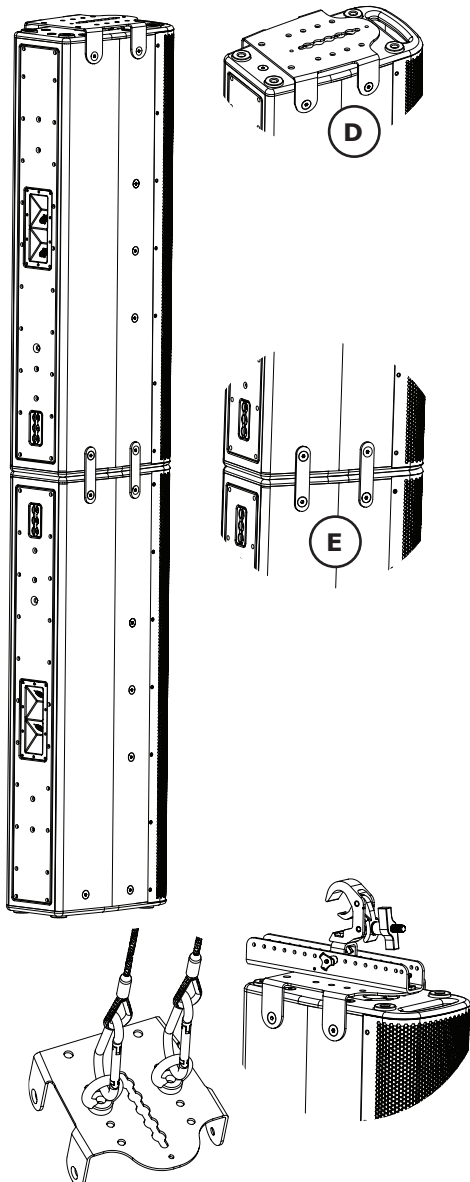


## Mounting X-Tension Kit

The X-Tension Kit can be mounted on any subwoofer or steel base plate with M20 threaded mounting.

1. To connect the X-Tension Kit to the VENIA column line array, mount the stacking adapter (A) to the bottom of the speaker.
2. Use the M10 countersunk screw (B) at the rear and two M6 countersunk screws (C) of the dual-tilt flange.
3. Place the column line array with the stacking adapter on the X-Tension Kit and secure it with the two locking pins inside the X-Tension Kit.

**Note:** Make sure that both locking pins are engaged to prevent the column line array from tipping down.

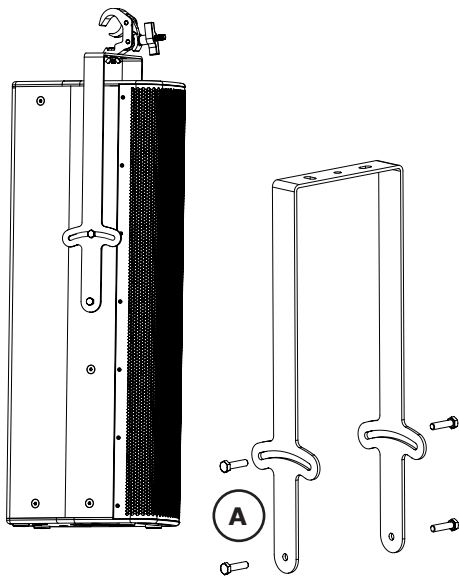


## Headstacking flying equipment mounting

The headstacking flying equipment allows the installation of two VENIA column line arrays connected at the top using the EasyFly mechanism, ring eyes and self-lock hooks.

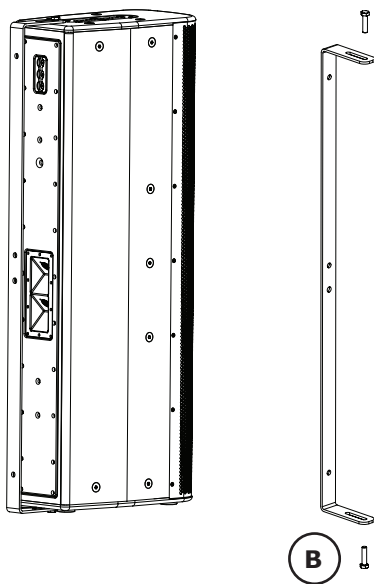
1. Rotate a column line array 180°.
2. Mount the headstacking flying equipment to the bottom of the rotated column line array using the four M10 countersunk screws (D) on the sides.
3. Place the rotated column line array on top of the other column line array so that they sit flush head to head.
4. Connect the column line arrays using the four headstacking connectors (E). Again, use the M10 countersunk screws on the sides of the column line arrays.

**Note:** Please note that the column line arrays only have rubber feet on the underside. To avoid damaging the housing, you should use underlays when mounting.



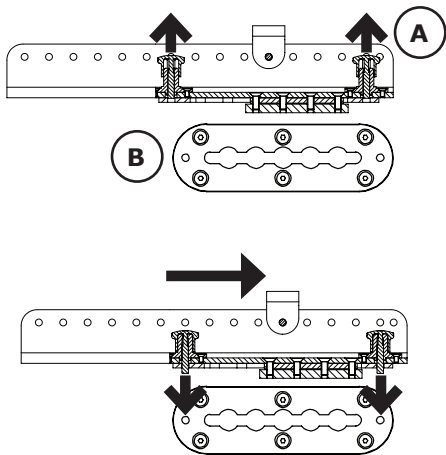
## Mounting the U-bracket

1. Remove the M10 countersunk screws on both sides of the column line array.
2. Use the supplied M10 hexagon head screws (A) including plastic washers to mount the U-bracket.
3. To protect the coatings, place the plastic washers between the hex bolt, U-bracket and the column line array.



## Mounting the C-bracket

1. On the top and bottom of the column line array, remove the two M10 countersunk screws in the rear area.
2. Use the supplied M10 hexagon head screws (B) including plastic washers to mount the C-bracket.
3. To protect the coatings, place the plastic washers between the hex bolt, C-bracket and the column line array.

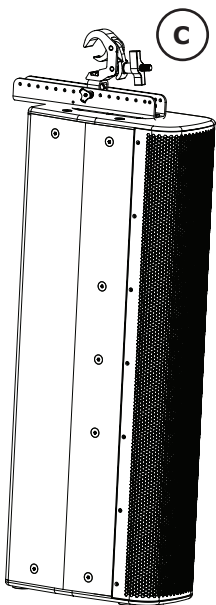


## Easyfly mechanics

Tool-less flight mechanism for clicking in and exact alignment of the loudspeaker in the horizontal and vertical axis.

1. Pull the two locking bolts (A) upwards and let them engage by turning them slightly.
2. Insert the Easyfly mechanics into the flying track (B).
3. Slide the mechanics backwards as far as it will go.
4. Let the two locking bolts snap into the intended holes on the flying track.

**Note:** Notice that the two locking pins (A) are engaged to prevent the Easyfly-Mechanics from slipping out.



## Installations with Easyfly mechanics

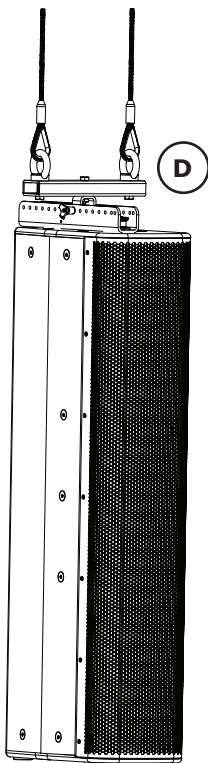
Installation with self-lock clamp (C) on trusses.

1. Mount the self-lock clamp to the Easyfly mechanics using an M10 threaded screw and lock nut.
2. Hang the clamp and holder into the mechanics using ball lock bolts.
3. Hang the loudspeaker into the truss.
4. Adjust the inclination by fixing the holder on the top hole rail with the ball locking pin.

Installation with universal suspension arrangement for flight mechanics (D) on high ceilings

1. Mount the universal suspension arrangement for flight mechanics with an M10 threaded screw and lock nut to the mounting of the Easyfly mechanics.
2. Hang the suspension device and holder into the mechanics using ball locking bolts.
3. Hang the loudspeaker into the installed chains.
4. Adjust the inclination by fixing the holder on the top hole rail with the ball locking pin.

**Note:** The inclination depends on the hole in which you fix the Easyfly mount on the hole rail!



## Overview Accessories

	Carrying bag for VENIA-8 or X-Tension Kit (Art.-Nr. 504802000)
	Heavy-duty flightcase for up to two VENIA-8 or two X-Tension kits (Art.-Nr. 504803000)
	C-bracket for VENIA-8 (Art.-Nr. 404803000)
	U-bracket for VENIA-8 (Art.-Nr. 404801000)
	Headstacking connector for VENIA series (Art.-Nr. 409999001)
	Headstacking flying equipment for VENIA-8 (Art.-Nr. 404807001)
	X-Tension Kit for VENIA-8 (Art.-Nr. 504807000)
	Aluminum bracket handle (Art.-Nr. 999995651)
	Easyfly mechanics (Art.-Nr. 409991001)
	Carrying bag for up to two Easyfly mechanisms with accessories (Art.-Nr. 409992000)
	Self lock clamp for pipe 48-51mm, 30mm wide, max. 250 kg (Art.-Nr. 999950731)
	Universal suspension arrangement for flight mechanics (Art.-Nr. 409992001)
	Multifunctional rotating ceiling bracket (Art.-Nr. 409998001)



Wall console for flight hardware (Art.-Nr. 409994901)



Wall bracket, max. 50 kg, slewable and 22° tiltable (Art.-Nr. 999924120)



Wall- and truss holder, max. 50 kg, slewable (Art.-Nr. 999924150)



M10 x 40 mm eyebolt (Art.-Nr. 999917370)



Safety 6/1000 mm (Art.-Nr. 999963100)



Single stud fitting (Art.-Nr. 999957450)

## **Imprint**

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All specifications in this manual are based on information available at the time of publishing for the features and safety guidelines of the described products. Technical specifications, measurements, weights and properties are not guaranteed.

The manufacturer reserves the right to make technical modifications according to legal regulations stipulating the continual improvement of product features. For the safe operation of the unit, this manual and all other required information must be available to all users at the time of assembly and disassembly of the unit, and during operation. Assemble or operate the unit only after reading and understanding this manual, and keeping it at hand at all times at the site.

We are happy to receive your suggestions and proposals for the enhancement of this manual.

Please send us your ideas to the following address:

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