Manual

Score-5

Multifunctional loudspeaker

VOICE ACOUSTIC

professional german loudspeaker systems

success through quality

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.
Desdel 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 Score-5

Manufacturer‘s declaration

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 up to 2 x Score-5 (Art.-Nr. 505002000)
- Heavy duty flightcase for up to 4 x Score-5 (Art.-Nr. 505003000)

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

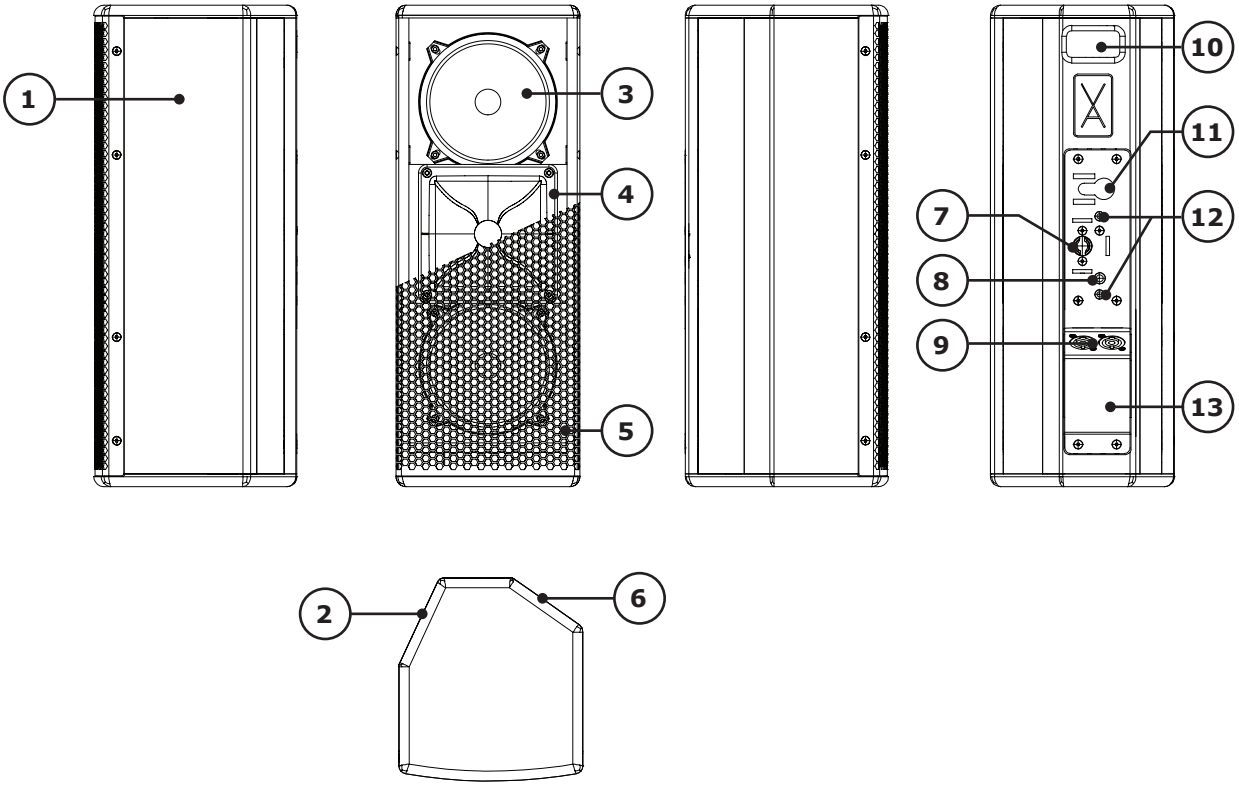
Warranty
The warranty period is 24 months from date of delivery.

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, Camlock connectors and the SpeakON® connectors.

Components



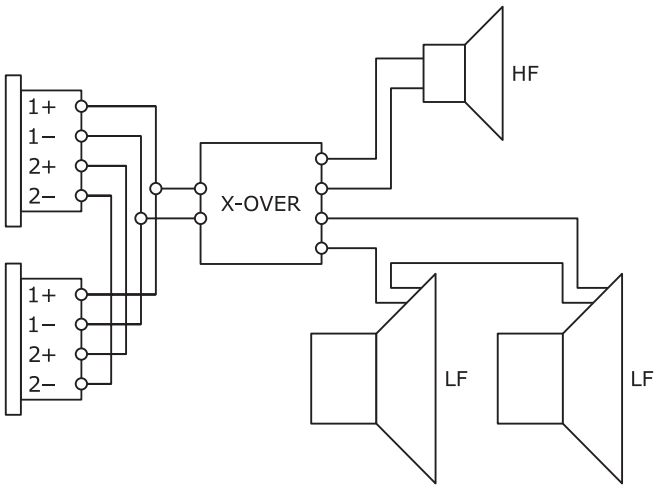
1. 15 and 12 mm multiplex cabinet, Warnex textured paint finish
2. Monitor slant 25°
3. 5" Neodym woofer
4. 1" Ferrit compression driver with horn 70° x 55°
5. Front grille 1 mm with 5 mm acoustic foam
6. Monitor slant 55°
7. Camlock for tool-free bracket mounting
8. M8 threaded points for mounting accessories, e.g. truss clamp
9. Connector panel with two SpeakON® connectors
10. Rear recessed grip
11. Safety point for safety rope with Single-Stud
12. M6 threaded points for mounting a wall or ceiling bracket
13. Type plate with serial number

Technical data

Components	2 x 5" Neodym woofer with 32 mm (1,25") voice coil 1 x 1" Ferrit compression driver with 3" voice coil
Frequency response	71 Hz - 19 kHz (- 10 dB) 139 Hz - 15,7 kHz (+/- 3 dB)
Coverage range (h x v)	70° x 55°
Monitor angles	55° and 25°, 90° for Nearfill
Powerhandling	200 W AES / 400 W program / 800 W peak at 12 Ω
Sound pressure	114 dB SPL AES / 117 dB SPL program / 120 dB SPL peak
Dimensions / Weight	450,5 (h) x 172 (w) x 190 (d) mm / 6,1 kg
Finish	Polyurea coating in RAL 9005, Special colors in Warnex textured paint

Connections

The speaker has two loop-through Neutrik NL4 SpeakON® IN/OUT connectors. They use the 1+/1- connection pins. Additional loudspeakers can be looped through via the second connector.



Setup

The Score-5 loudspeaker is designed for standing, vertical and horizontal 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.

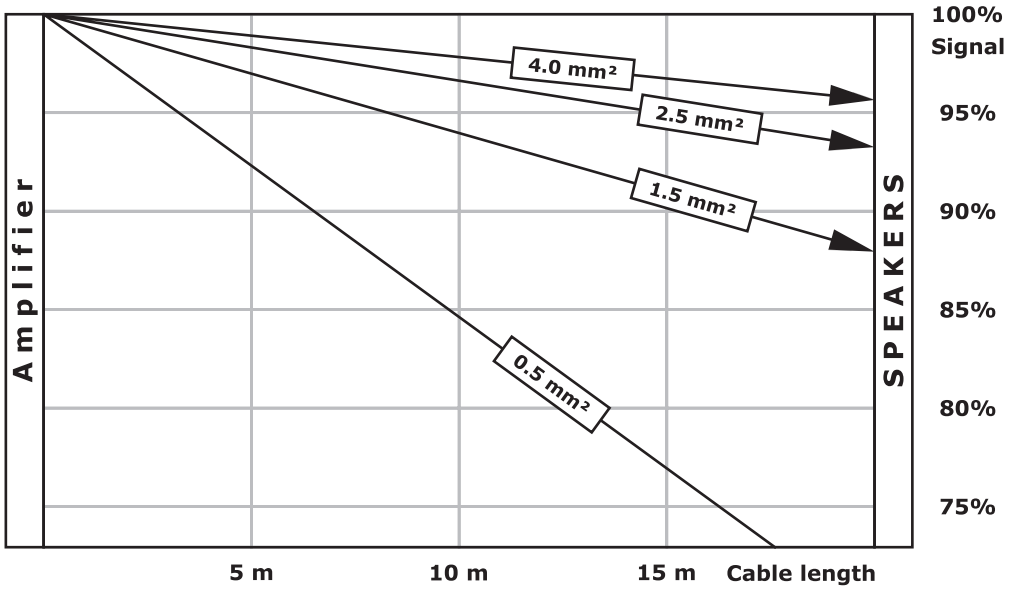
Connecting cables

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 (Ω) 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 mm² Speakon cables for mobile use.

We recommend wiring the basses with at least 4 mm² 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

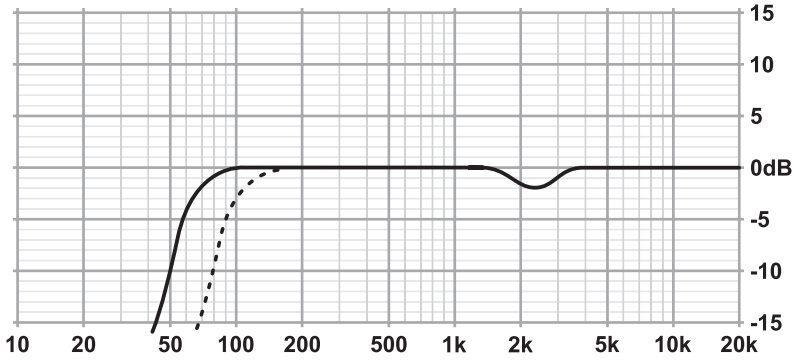
Operation

The Score-5 is intended (not exclusively) for operation with Voice-Acoustic system electronics with internal DSP controller: the HDSP power amplifiers or powered by the free 800 W amplifier channels of the self-powered sub-woofers.

When working with the Voice-Acoustic system electronics, make sure the appropriate preset has been selected before connecting the loudspeaker to the system power amplifier or self-powered subwoofer. Using the wrong preset can damage parts of the loudspeaker.

Adaptation to amplifier electronics of other manufacturers

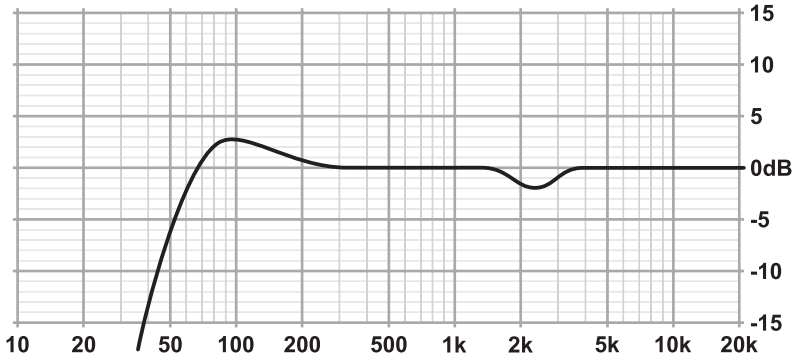
Because of its internal passive linearization of the frequency response, the Score-5 can also be operated on any other amplifier electronics. To protect the 5" drivers at higher volumes from too much excursion by low frequencies, it is necessary to set a lower crossover frequency: High-Pass filter: 65 Hz, Characteristic: Butterworth 24 dB/Okt. In addition, the sound image can be minimally improved by a Bell filter: Center frequency 2.36 kHz, Quality 6.0 and Gain: -2.00 dB.



Type	Freq	Q	Gain
Bell	2.36 kHz	6.0	-2.00
HPF	65 Hz	Butterworth 24 dB/Okt	
HPF	114 Hz	Butterworth 24 dB/Okt	

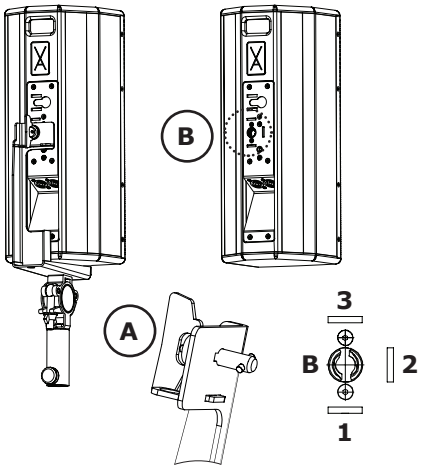
For an optimal sound result when operating with a subwoofer, the lower cut-off frequency must be adapted to the Score-5 accordingly (e.g. HPF 114 Hz) or, with overlapping frequency ranges, the phase position must be metrologically adjusted to each other.

If the Score-5 is used for music transmission without bass support, the lower frequencies can be slightly increased by means of a Low-Shelf filter: Center frequency 155 Hz, Quality 14.1 and Gain: 3.00 dB. When operating the Score-5 as a stage monitor, the Low-Shelf filter is not recommended, because the low frequencies gain energy through the ground coupling.



Type	Freq	Q	Gain
Low Shelf	155 Hz	14.1	3.00
Bell	2.36 kHz	6.0	-2.00
HPF	65 Hz	Butterworth 24 dB/Okt	

Note: *Overdriven signals must be avoided throughout the entire transmission chain. They generate considerable thermal and mechanical stresses that can destroy loudspeakers. This is especially true when loudspeakers are powered by amplifiers that can deliver less than twice the AES power of the loudspeaker. Only professional power amplifiers with clip limiters should be used for safe operation.*

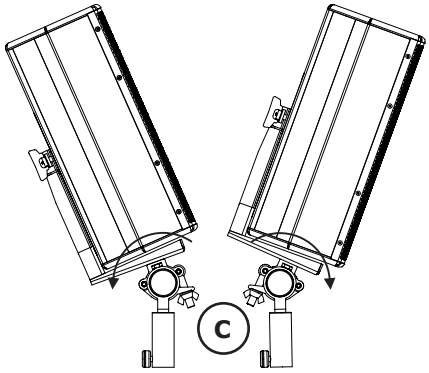


Mounting the L-bracket

1. To hold the L-bracket in a desired position, select one of the fixing points (1) to (3).
2. Insert the L-bracket with the camlock connector (A) into the holding cam (B) and turn it around until it engages.

> ***Note:*** *The Camlock connector must be turned and locked correctly to prevent the loudspeaker from falling off!*

Fixing points:
(1) L-bracket bottom, Score-5 in tripod mode
(2) L-bracket sideward, Score-5 in horizontal operation
(3) L-bracket top, Score-5 in flight operations

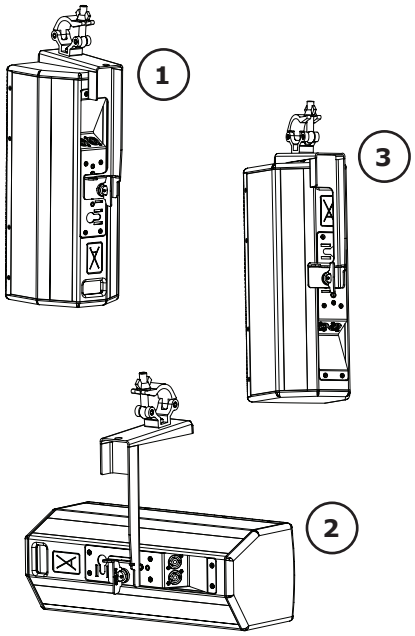


Adjust the tilt

Mount the truss clamp to the L-bracket in such a way that the wing nut (C) does not hinder tilting.

1. Secure the loudspeaker against tipping by hand.
2. Slightly unscrew the wing nut (C) on the clamp.
3. Adjust the tilt.
4. Tighten the wing nut (C) again to fix it.

> ***Note:*** *The wing nut of the clamp must always be tightened, otherwise there is a risk that it will come loose due to vibrations and the loudspeaker could tilt uncontrollably!*



Flight operation with L-bracket on truss

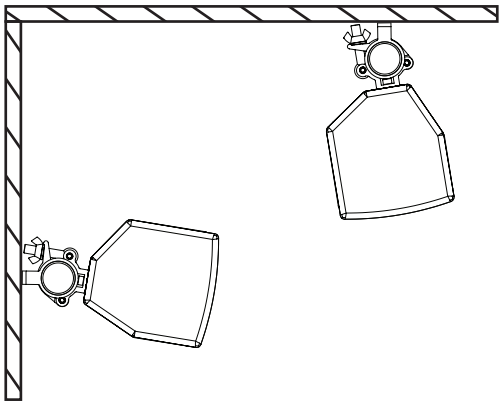
Without truss clamp adapter, the L-bracket with its clamp can be used on all common truss with 48 - 51 mm belt tubes. The three fixing points are also used here.

Fixing points:
(1) Connection panel at the top (cables are routed upwards)
(2) L-bracket sideward, Score-5 in horizontal operation
(3) Connection panel at the bottom (cables are routed downwards)

> ***Note:*** *If you use the fixing point (3) for flight operation, you must first insert the single-stud fitting into the intended securing point. Since then the L-bracket sits in front of it!*

1. Hang the loudspeaker and L-bracket with clamp into the truss.
2. Adjusting the tilt.
3. Tighten the wing nut (C) again to fix it.

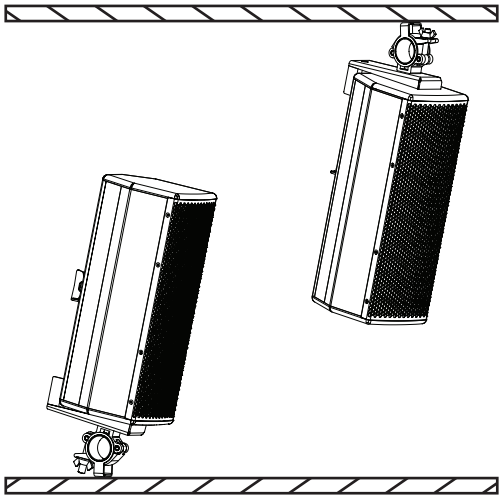
> ***Note:*** *If speakers are suspended with detachable connections, they require a second, independent, non-combustible connection (secondary fuse), usually an appropriately dimensioned steel safety rope. Please observe the currently applicable standards and regulations.*



Installations with truss clamp adapter
Attach the truss clamp adapter to the wall, ceiling or floor using suitable fixing materials.

Installation with truss clamp at the rear and adapter horizontally on the wall, or upside down on the ceiling.

1. Use an M8 x 15 mm threaded screw and washer to mount the truss clamp to the M8 threaded point on the rear of the loudspeaker.
2. Hang the loudspeaker into the adapter.
3. Adjust the tilt.
4. Tighten the wing nut again to fix it.

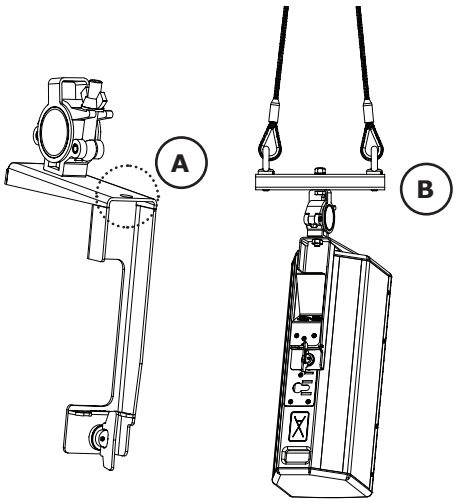


Installation with L-bracket with truss clamp and adapter on the ceiling or standing.

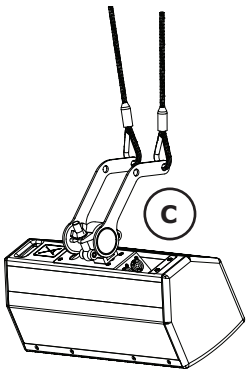
1. Hang loudspeakers with L-bracket into the adapter.
2. Adjust the tilt.
3. Tighten the wing nut again to fix it.

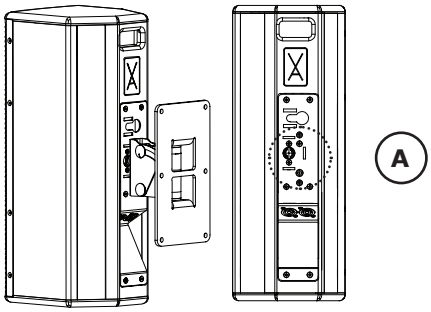
Installation using universal suspension device for flight mechanisms, L-bracket with truss clamp and adapter on high ceilings.

1. Mount the truss clamp at point (A) of the L-bracket.
2. Attach the truss clamp adapter to the universal suspension device (B) using suitable fastening material.
3. Hang loudspeakers with L-bracket into the adapter.
4. Adjust the tilt.
5. Tighten the wing nut again to fix it.



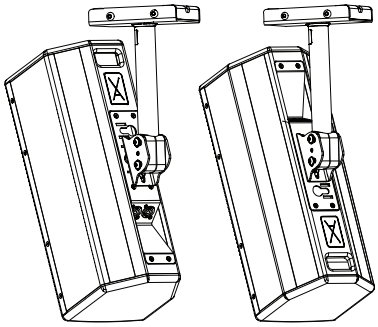
Flight operation with suspension arrangement
1. Use an M8 x 15 mm threaded screw and washer to mount the truss clamp to the M8 threaded point on the rear of the loudspeaker.
2. Hang the loudspeaker with the clamp into the suspension device (C).
3. Adjust the tilt.
4. Tighten the wing nut again to fix it.





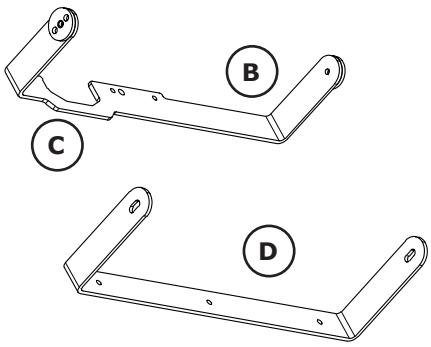
Mounting the tilting and swivelling wall bracket

1. When mounting the bracket to the wall, follow the manufacturer's operating instructions.
2. Remove the swivel bracket on the wall bracket.
3. Use two M6 x 15 mm threaded screws and washers to fix the swivel bracket to the two M6 threaded points (A) on the rear of the loudspeaker.
4. Hang the swivel bracket (with mounted speaker) into the bracket attached to the wall.
5. Screw parts together using the lower carriage bolt, washer and lock nut.
6. Adjust and fix the tilt.



Mounting the ceiling bracket

1. When mounting the ceiling plate of the bracket, follow the manufacturer's operating instructions.
2. Fix the ceiling mount with two M6 x 15 mm threaded screws and washers to the two M6 threaded points (A) on the back of the speaker.
3. Attach ceiling bracket (with mounted loudspeaker) to the ceiling panel.
4. Adjusting and fixing tilt and direction.

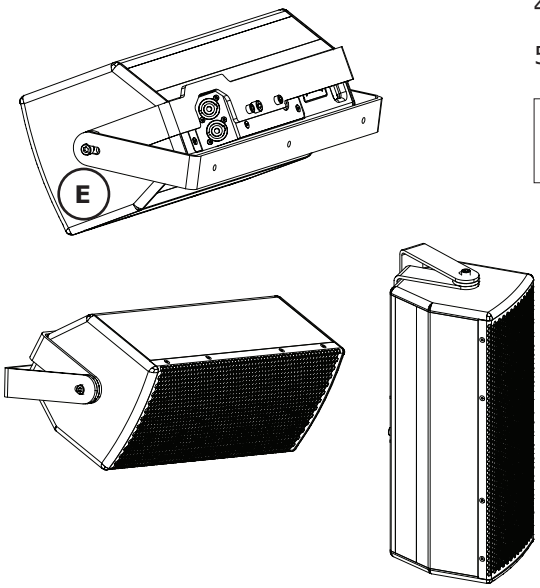


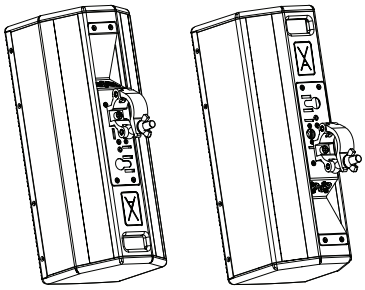
Mounting the C-bracket

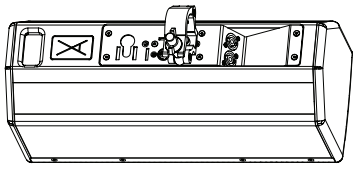
The bracket consists of two different brackets and connected by two M8 screws.

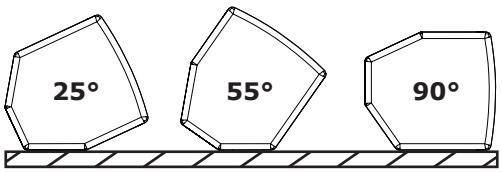
1. Mount the C-bracket (B) with two M6, one M8 x 15 mm threaded screw and washers firmly to the three threaded points (A) on the rear of the speaker.
2. Observe the recess (C) for the cable feed on the bracket.
3. Mount the second bracket (D) horizontally or vertically to the wall using the appropriate fixing material.
4. Connect the brackets with the two M8 screws (E).
5. Adjust and fix the tilt or direction.

Note: *Since the cabinet wall lies benneath the rear threaded points, the threaded screws must not exceed 15 mm in length!*









Flight operation at truss clamp

1. Use an M8 x 15 mm threaded screw and washer to mount the crosshead clamp to the M8 threaded point (A) on the back of the loudspeaker..
2. Turn the truss clamp to the desired position for horizontal or vertical alignment.
3. Hang up the loudspeaker with the truss clamp.
4. Adjust tilt, tighten and fix wing nut firmly.

Note: *Since the cabinet wall lies benneath the rear threaded points, the threaded screws must not exceed 15 mm in length!*

Monitoring with Score-5

For monitor operation, two housing slopes, 25° and 55°, are available for Score-5. At 90°, due to the side wall running to the baffle and flat design, the Score-5 is ideal as an inconspicuous nearfill on the front edge of the stage or installed in staircases.

Overview Accessories

L-bracket Score-5 (Art.-Nr. 405001001)
L-bracket Score-5, white (Art.-Nr. 405001002)

Truss clamp black, Global Truss, incl. M10 screw (Art.-Nr. 999981201)
Truss clamp silver, Global Truss, incl. M10 screw (Art.-Nr. 999981200)

Truss clamp adapter for Score-5 (Art.-Nr. 405001101)
Truss clamp adapter for Score-5, white (Art.-Nr. 405001102)

Tripod transducer with M10 x 12 mm bolt (Art.-Nr. 999924521)
Tripod transducer with M10 x 12 mm bold, withe (Art.-Nr. 999224521)

C-bracket for Score-5 (Art.-Nr. 405003001)
C-bracket for Score-5, white (Art.-Nr. 405003002)

Score-5 suspension arrangement (Art.-Nr. 405001301)
Score-5 suspension Arrangement, white (Art.-Nr. 405001301)

Carrying bag for up to 2 x Score-5 (Art.-Nr. 505002000)

Heavy duty flightcase for up to 4 x Score-5 (Art.-Nr. 505003000)

Universal suspension arrangement for flight mechanics (Art.-Nr. 409992001)

Speaker ceiling mount (Art.-Nr. 999924496)
Speaker ceiling mount, white (Art.-Nr. 999224496)

Wall bracket, slewable and 30° tiltable (Art.-Nr. 999924481)
Wall bracket, slewable and 30° tiltable, white (Art.-Nr. 999224481)

Single-Stud (Art.-Nr. 999957450)

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

Imprint

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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