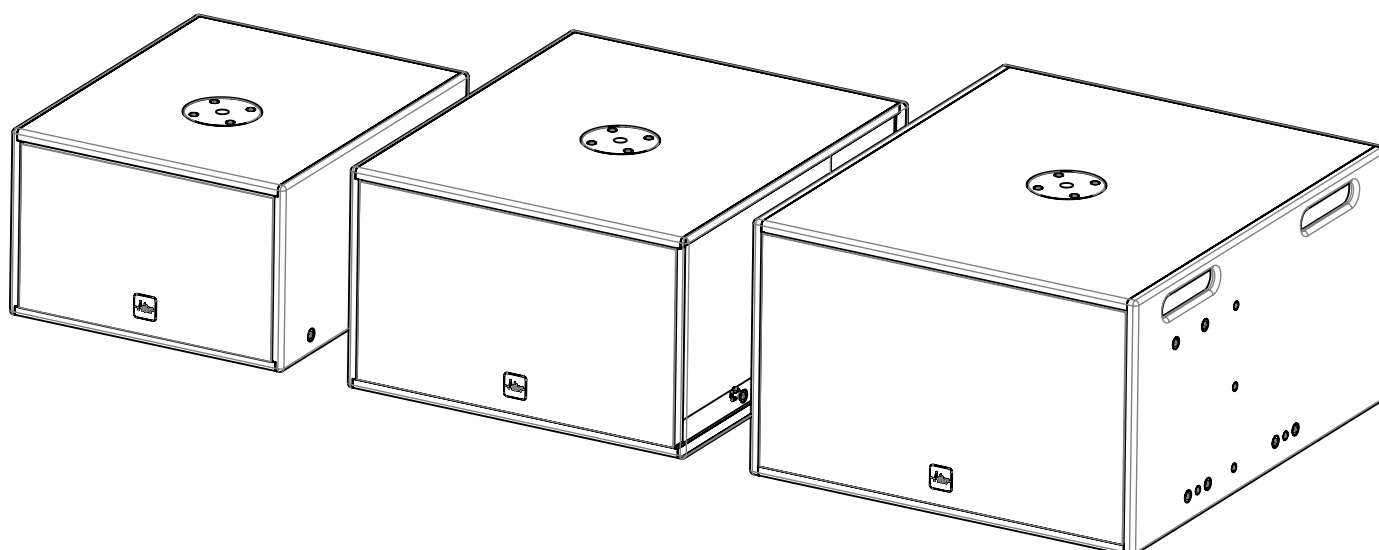


iS AA Series



User manual



General information

iS AA Series - User manual
03/2023

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1. Safety note and general information	5
2. The iS range	7
2.1 Description of the product line	7
2.2 Product description	8
2.3 Connections	11
2.4 Amplifiers	12
2.5 Recommended equalization	13
2.6 Examples of configurations	15
2.7 Rigging	18
2.8 Maintenance - Spare parts	21
2.9 Technical specifications	24

1. Safety note and general information

- Information on the risk of exposure to high sound level
- Active Audio loudspeakers are liable to generate levels of sound pressure hazardous to health, which may cause hearing impairment. It is recommended that you never stand in the immediate vicinity of the loudspeakers in operation and wear hearing protection when necessary. Observe the maximum exposure time to noise according to the noise level and the regulations in force in your country. Pay attention to the hearing protection of listeners when using Active Audio systems.
- Read this manual before use and keep it.
- Read all documents relating to the product to be used before setting up and using it. Please contact Active Audio with any questions relating to the product.
- Obtain the latest version of the user manual from the Active Audio website: www.activeaudio.fr
- Consider all warnings and follow the instructions and recommendations for use.
- Make sure you know the safety rules for hanging, stacking or setting up on a pole or tripod. Failure to follow these rules may expose people to potential injury or death.
- Ensure the safety of operators and spectators.
- Staff must wear personal protective equipment (PPE) during each step of installing the product (helmet, gloves, safety shoes at a minimum).
- Installation of Active Audio products should only be carried out by qualified staff trained in rigging techniques and aware of the safety recommendations set out in this manual.
- Always check the stability, resistance to weight, flatness and horizontality of the support. Prevent access to the spectators around the system, prevent it being possible to push or climb the stack of speakers. Use straps to prevent tipping.
- Do not store the product on an unstable cart, stand, tripod, bracket or table.
- Use the products with the specified accessories by the manufacturer.
- Inspect lifting products and accessories before each use.
- Do not install equipment that is faulty or presents a risk of breakage and have it repaired by qualified personnel or by Active Audio.
- Entrust all repairs to qualified staff or by Active Audio. Repairs are mandatory if the device is damaged in any way, for example: damaged power cord or plug, spilled liquid or object dropped inside the device, exposure of the device rain or moisture for long periods of time, appliance that does not operate normally or that has been dropped.
- Any unauthorized maintenance operation will void the product warranty.
- Perform safety and compliance checks of accessories, enclosures, and third-party accessories periodically at least once a year.
- Respect the maximum load capacity of each configuration.
- Use only with a cart, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. If a cart is used, move the cart-apparatus combination carefully so as not to tip it over, which could cause personal injury.
- Do not install near a heat source such as an open flame, radiator, heat register, stove or any other device that produces heat (including amplifiers).
- Do not expose the product to extreme conditions such as humidity (rain, sea water, condensation, ambient humidity, etc.), excessive heat (sun, heating, etc.) over a long period.
- Take into account the effects of the wind. Flying loudspeakers overhead at wind forces higher than, 16 mph (25km/h) is not recommended. If the wind force exceeds 46 mph (72km/h):
 - Make sure that no person remains in the vicinity of the loudspeaker array.
 - Lower and secure the array.
- During an outdoor performance, it is advisable to find out about the weather conditions and to follow the local weather report and the recommendations of the competent authorities. An anemometer can be used at the top of the system.



- Use a secondary safety system for any Active Audio speaker rigging.
- The product is intended for be used by professionals trained in professional audio work.
- Active Audio declines all responsibility in the event of the use of non-validated accessories or non-compliance with safety instructions and rules.
- Active Audio products are guaranteed for 5 years. The full five-year warranty covers filters and transducers against manufacturing defects under normal product use.
- Active Audio pursues a research and development policy aimed at improving its products. For this reason, new materials, manufacturing methods and changes in principle may be introduced without prior warning. As a result, an Active Audio product may differ in some aspects from its published description, however, unless otherwise indicated, its characteristics will be greater than or equal to those published.
- Disposal of electrical or electronic equipment
- This symbol on the product or on its packaging indicates that it will not be treated as household waste. Instead it will be delivered to the applicable collection point for the recycling of electrical and electronic equipment. By ensuring recycling, you will help prevent potential consequences for the environment and human health. Recycling of materials will help conserve natural resources. For more detailed information on recycling this product, please contact your local office, waste collection agency or dealer.



2. The iS range

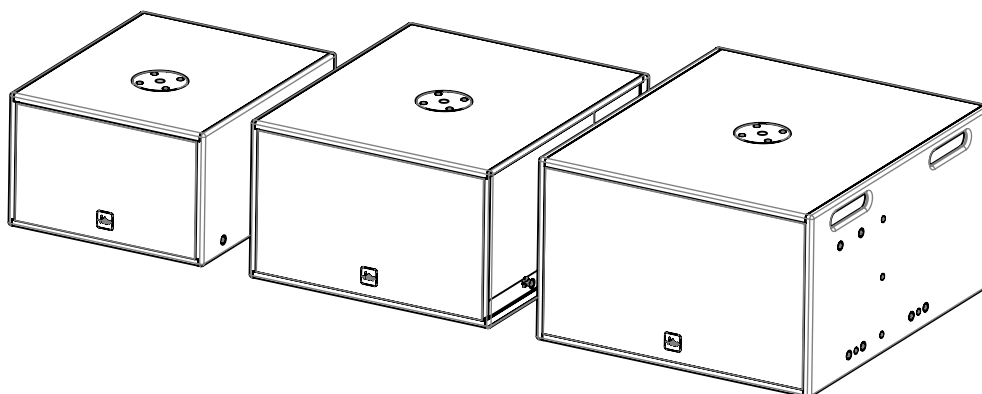
2.1 Description of the product line

The Active Audio iS Series loudspeaker range is a range of subwoofers designed to extend the frequency response of Active Audio column loudspeakers in the bass frequency.

iS Series is a range made up of 3 high quality bass speakers dedicated to professional installations.

Aesthetic and compact, they deliver a high sound level while offering high quality sound reproduction.

Designed for fixed installation, the iS Series loudspeakers have ergonomic options allowing them to be integrated easily and quickly.



2.2 Product description

iS110

The iS110 subwoofer has been designed to discreetly add deep bass extension to the installation range loudspeakers.

The iS110 is equipped with a 10" loudspeaker loaded with bass reflex on an inclined plane. This exclusive acoustic design has the effect of greatly reducing load volumes in order to achieve an optimal {size / low cutoff frequency} ratio while gaining acoustic efficiency.

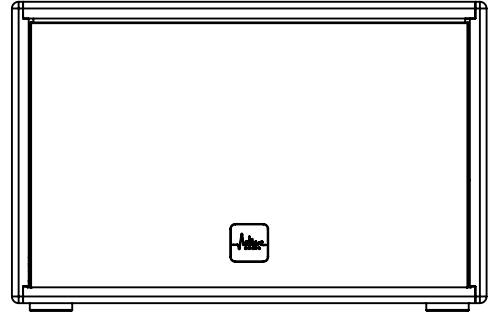
The iS110 is equipped with two SPEAKON NL4 connectors.

The frequency response extends from 45Hz to 180Hz.

It is very compact and can be positioned horizontally and vertically for optimal visual integration. Indeed it is possible to place it or fix it to the wall thanks to an optional fixing bracket (iS110KMV). Embedded in a cutaway, the connectors are protected and allow discreet wiring. It is naturally intended for the bass extension of Ray-On and Step-Array type speakers. The iS110 is available in a white or black version for even more efficient integration.

In fixed installation, the compact dimensions of the iS110 allow a non-obstructive arrangement in restricted environments and can be perfectly integrated under small stages or platforms or even under seats or benches. It is perfect for places like, for example, small theatres, conference venues or themed bars.

To benefit from maximum performance and protection, the iS110 must be used exclusively with the associated loudspeaker preset, via an Active Audio integrated DSP processor or amplifier or validated by the brand.



iS112

The iS112 model is a compact subwoofer dedicated to mobile applications and small fixed installations. It is equipped with a 12" speaker.

Its acoustic design has the effect of significantly reducing load volumes in order to obtain the lowest possible {size / low cutoff frequency} ratio while gaining acoustic efficiency.

This dual loudspeaker loading with forward and reverse volume also provides true mechanical control of diaphragm travel and reduced distortion.

Ergonomically, the iS112 incorporates a screw base for coupling tube, integrated and protected connectors, shock-absorbing and non-slip pads.

The iS112 is equipped with two SPEAKON NL4 connectors.

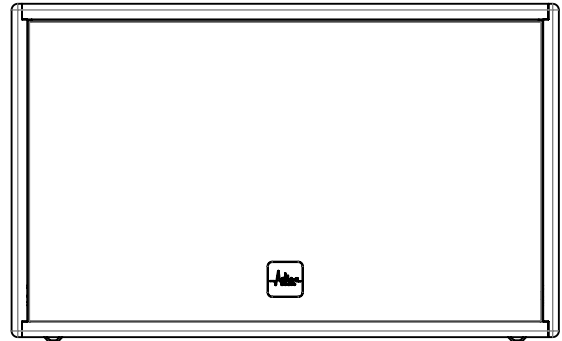
In fixed installation, its reduced dimensions facilitate its integration in restricted spaces, under small stages, platforms or even benches.

The sound reproduction is characterized by a precise bass from 45Hz translated by a beautiful sound impact and a lot of musicality in the bass.

The iS112 combines perfectly with Ray-On and Step-Array type speakers to form effective facade systems in small concert venues, bars and small clubs, in conference rooms. The 'iS112BH' accessory allows the subwoofer to be suspended from the ceiling.

The iS112 will be appreciated by mobile systems in service for its compactness and portability, especially in corporate events. This subwoofer is also suitable for distributed sound systems in installations.

To benefit from maximum performance and protection, the iS112 must be used exclusively with the associated loudspeaker preset, via an Active Audio processor or amplifier with integrated DSP or validated by the brand.



iS115

The iS115 model is a compact format subwoofer serving both in fixed installation and in service.

It is equipped with a 15" Neodymium loudspeaker, the acoustic load being the bass-reflex.

This exclusive acoustic design has the effect of greatly reducing load volumes in order to achieve an optimal {size / low cutoff frequency} ratio while gaining acoustic efficiency. This dual loudspeaker loading with forward and reverse volume also provides true mechanical control of diaphragm travel and reduced distortion.

Ergonomically, the iS115 integrates multiple functions: two integrated handles, protected and discreetly fully recessed connectors, a screw tube base and pads.

The Active Audio iS115 subwoofer is the only one in the range equipped with a metal reinforcement of its M20 screw tube base, which makes it the only one compatible with the SA180PM free-standing accessory.

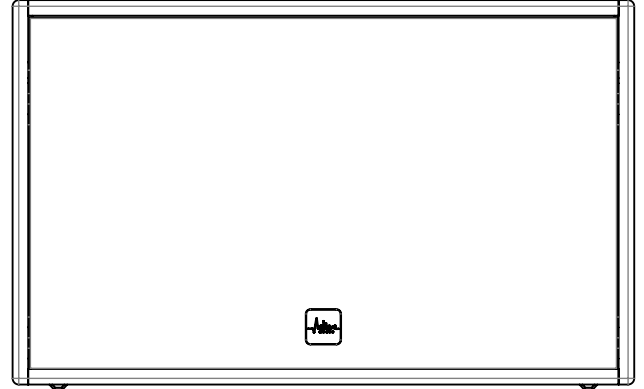
The iS115 is equipped with two SPEAKON NL4 connectors.

The iS115 is ideal in all applications where maximum power is required with regard to its small size. It is naturally intended for the bass extension of Step-Array speakers. In fixed installation, the reduced dimensions of the iS115 allow a non-obstructive arrangement in restricted environments and can be perfectly integrated under small stages or platforms or even under seats or benches. It is perfect for places such as theatres, small concert venues, conference rooms, music bars or even small clubs. As a mobile system, it is suitable for the sound system of small concerts and events, in animation. This subwoofer is also suitable for distributed sound reinforcement in large spaces.

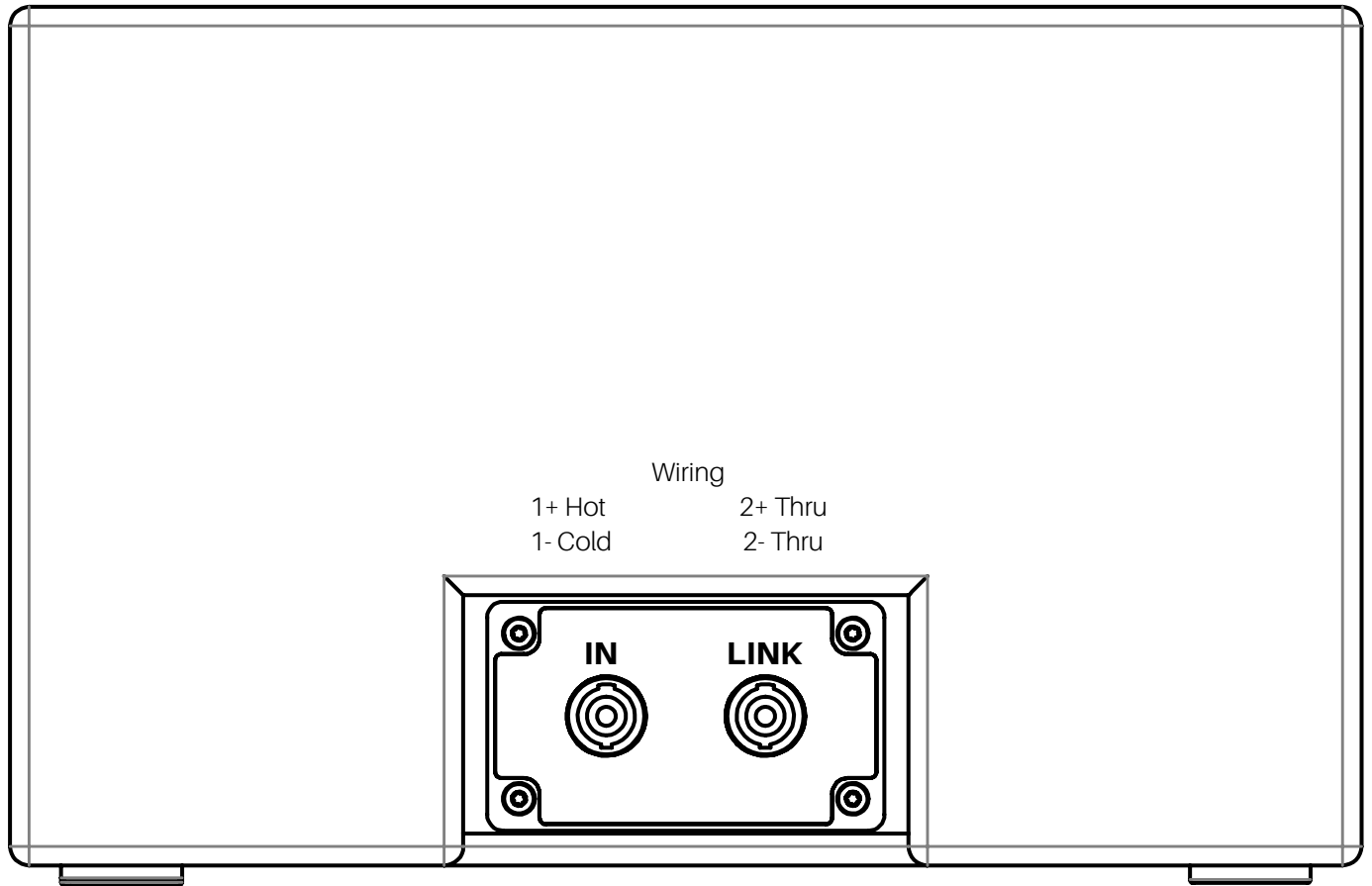
The 'iS115BH' accessory allows the subwoofer to be suspended from the ceiling.

The iS115 works in the low frequencies from 40Hz and provides a bass of great musicality and maximum precision.

For maximum performance and protection, the iS115 should only be used with the associated loudspeaker preset, via an Active Audio or brand-approved integrated DSP processor or amplifier.



2.3 Connections



The rear panel of the iS Series subwoofers are equipped with two NL4 connectors. The four pins of the two connectors are connected in parallel. The speakers occupy points 1 + / 1-.

The IN connector is used to receive the audio signal. The LINK connector allows it to be redistributed to another iS subwoofer connected in parallel.

The internal pinout of the iS subwoofers is shown in the table below.

NL4	1+	1-	2+	2-
Rear panel connectors	Hot (+)	Cold (-)	THRU	THRU

2.4 Amplifiers

WARNING

Active Audio speakers must be powered by Active Audio or Powersoft amplifiers with the corresponding speaker preset. Failure to observe this warning may cause damage to the components of the speakers and the user experience will not be optimal.

	MPA 4350	MPA 4700	MPA 41500
iS110	1/ ch.	1/ ch.	2/ ch.
iS112		1/ ch.	1/ ch. or 2/ ch.
iS115			1/ ch. or 2/ ch.

*Table : Loudspeakers / Amplifiers
parallel wiring recommendations*

In order to maintain sound quality, the wiring will be carried out with flexible deoxyged-copper speaker cable with a minimum 2.5mm² or 4mm² section for lengths of up to 30 maximum for one speaker per channel.

	Rec. minimum cable section [mm ²]	Rec. maximum cable length [m]
iS110	2.5mm ²	35m
iS110 x 2	2.5mm ²	15m
iS112	2.5mm ²	35m
iS112 x 2	2.5mm ²	15m
iS115	4mm ²	35m
iS115 x 2	4mm ²	15m

*Table : Recommended cable section & length depending
on the configuration*

2.5 Recommended equalization

In the event that use with recall of the manufacturer preset is not possible (use of third-party processing and amplification platforms), the filtering values in the table must be entered for each subwoofer.

CAUTION: The following values are for speaker equalization only. There is no protection. The only protection recommended is that supplied with the factory preset. Active Audio declines all responsibility in the event of material breakage due to overuse and non-use of manufacturer presets.

The attached table gives the recommended equalization and crossover settings for the iS Active Audio. The corresponding response curves are in the figures on the next page.

	iS110	iS112	iS115
High-pass filter freq (Hz)	46	42	40
High-pass filter gain (dB)	-3	-3	-3
EQ1 freq (Hz)	42	46	46
EQ1 gain (dB)	3.5	3	5
EQ1 width (Oct)	0.3	0.5	0.5
EQ2 freq (Hz)	68	243	231
EQ2 gain (dB)	-4	-12	-10
EQ2 width (Oct)	0.2	0.25	0.5
EQ3 freq (Hz)	310		
EQ3 gain (dB)	-9		
EQ3 width (Oct)	0.45		
High-shelf freq (Hz)	150		
High-shelf gain (dB)	-6		
Low-pass filter freq (Hz)	180	180	180
Low-pass filter gain (dB)	-3	-3	-3



EQ IS110



EQ IS112



EQ IS115

2.6 Examples of configurations

Two configurations between an iS115 subwoofer and a Step-Array 180 column loudspeaker are possible thanks to the SA180PM accessory.

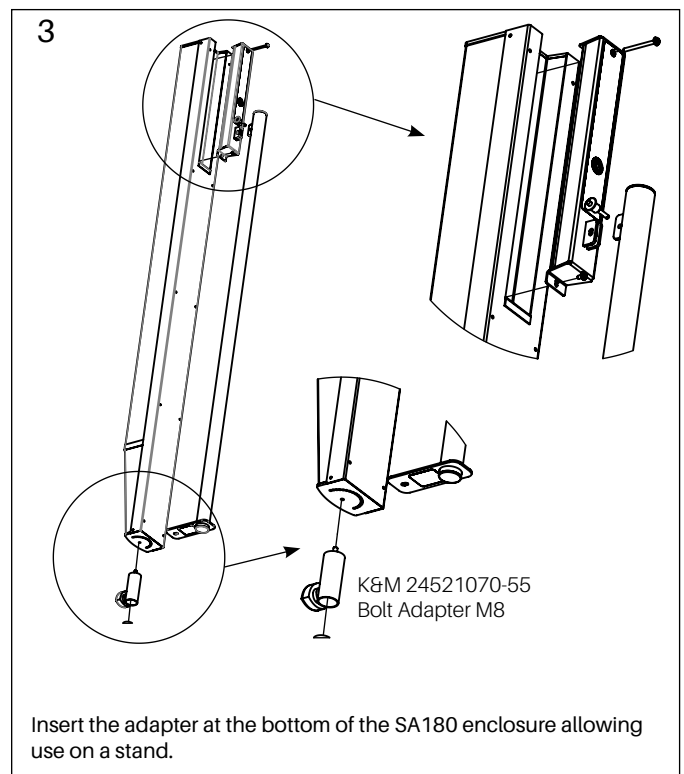
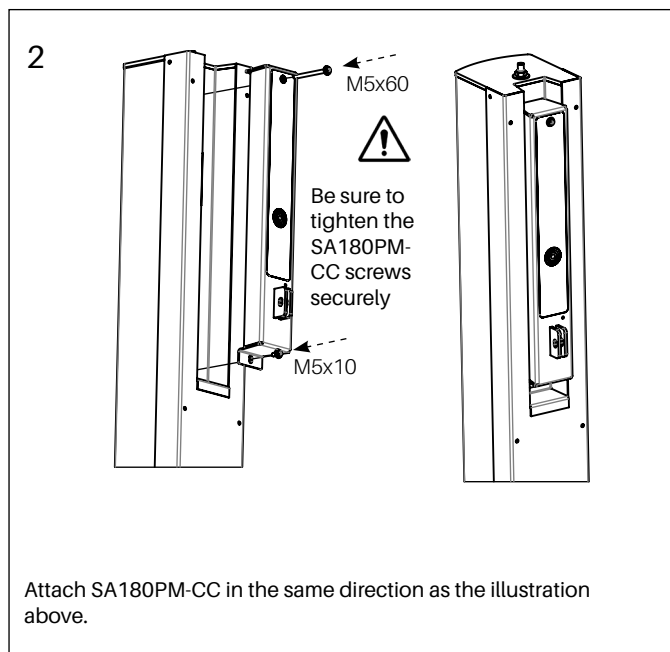
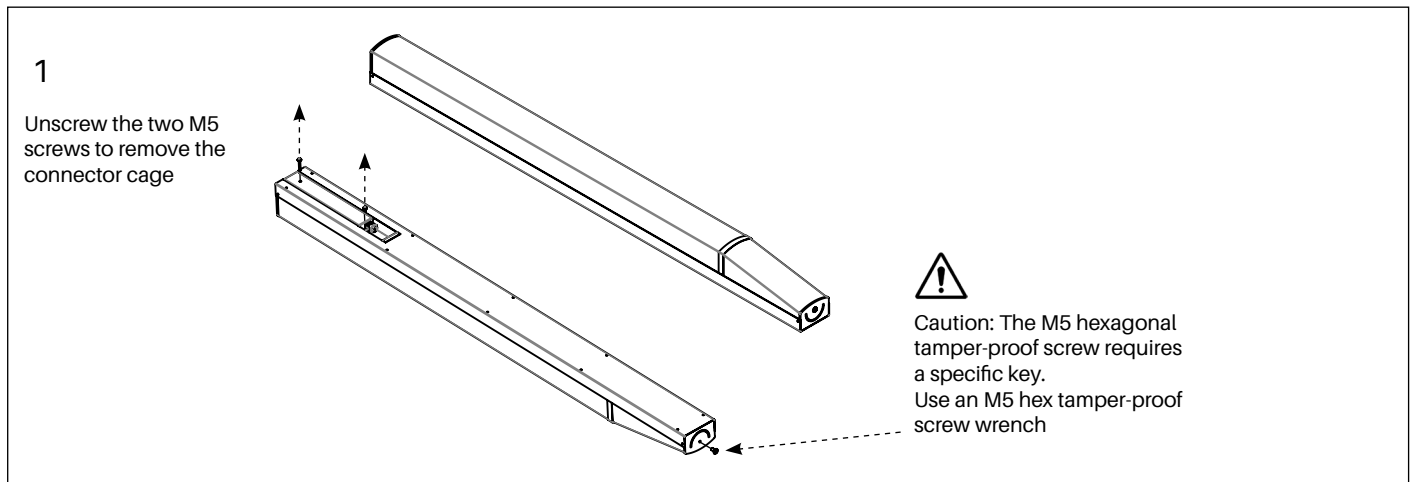
One in a standing configuration and the other in a suspended configuration.

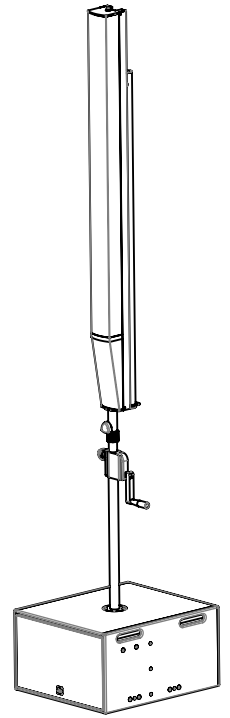
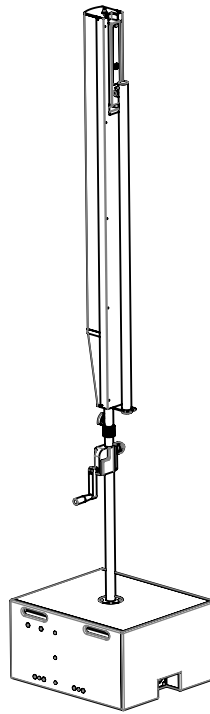
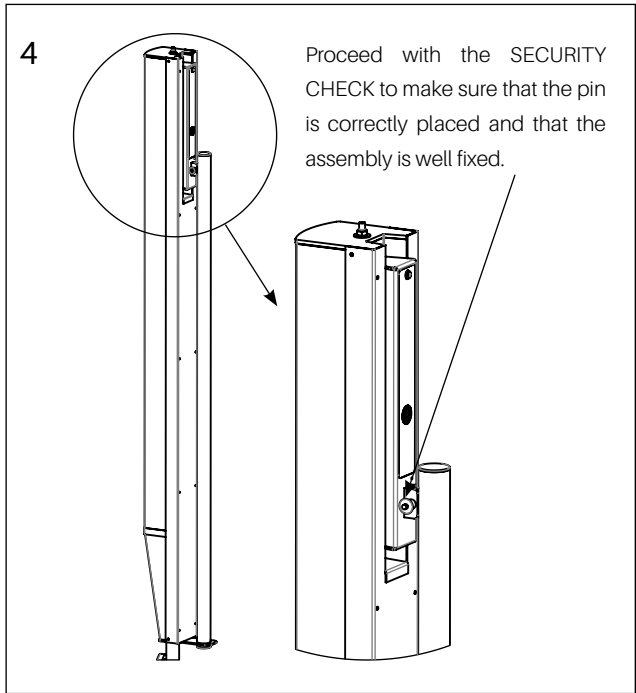
Stand Mount (SA180PM-CC + SA180PM-BAR)



WARNING : Only the Active Audio iS115 subwoofer is compatible with the SA180PM accessory because the M20 screw thread is reinforced from the inside. Do not use any other model of subwoofer, risk of breakage of the screw support. Do not use an APG iS115 subwoofer that is not reinforced.

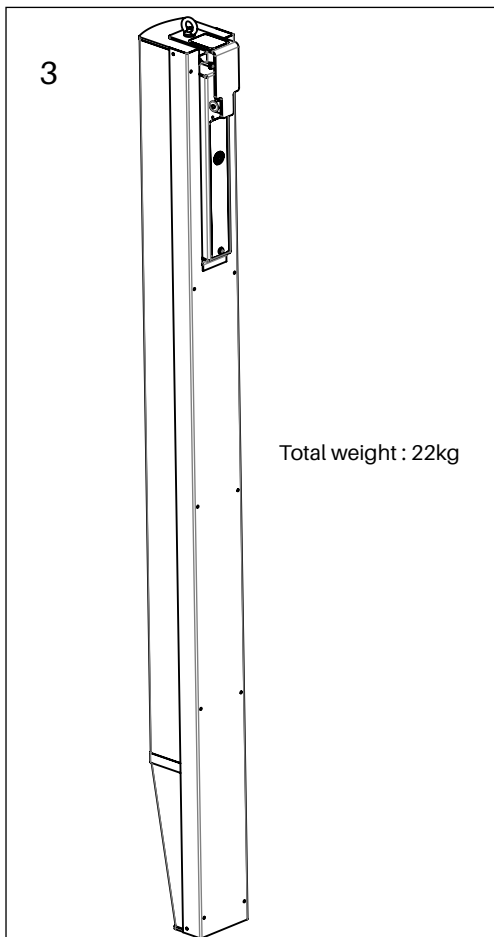
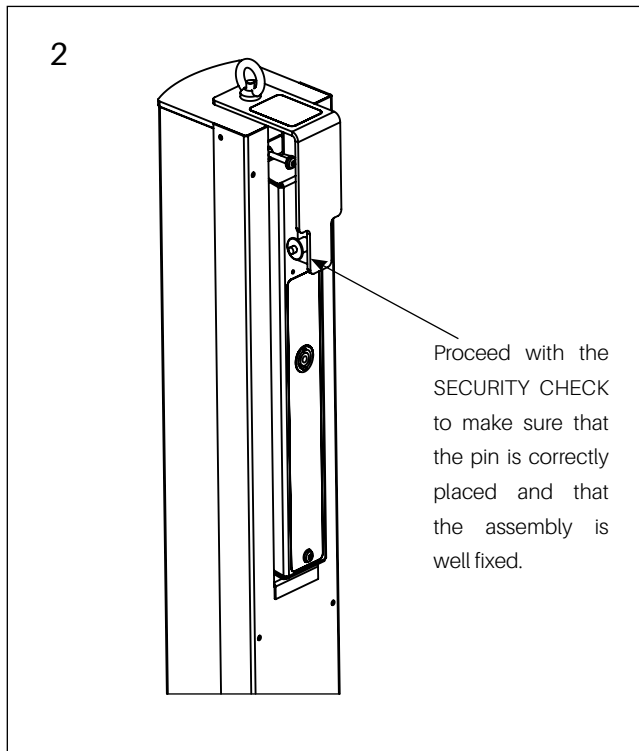
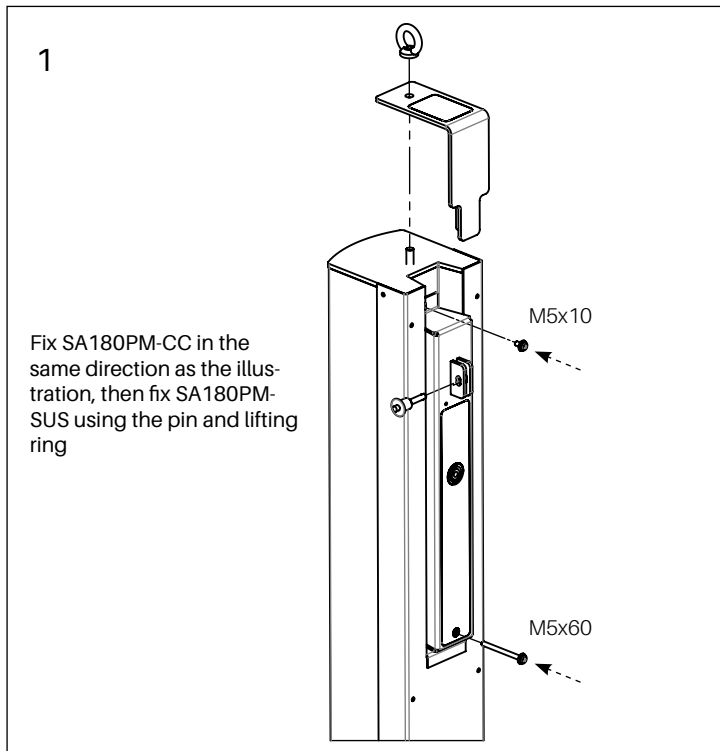
Take a TORX 25 screwdriver to unscrew/rescrew the screws





Suspension mount (SA180PM-CC + SA180PM-SUS)

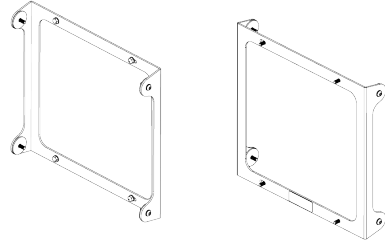
Take a TORX 25 screwdriver to unscrew/tighten the screws.



2.7 Rigging

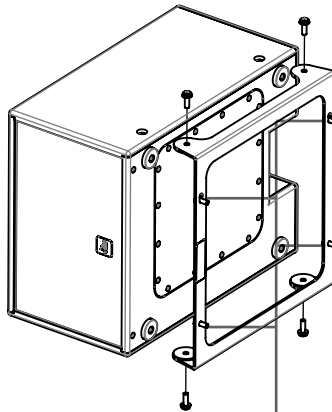
iS110 hanging accessory

The iS110 can be placed on the ground horizontally, suspended from the ceiling horizontally or positioned vertically against a wall using the iS110KMV mounting accessory.



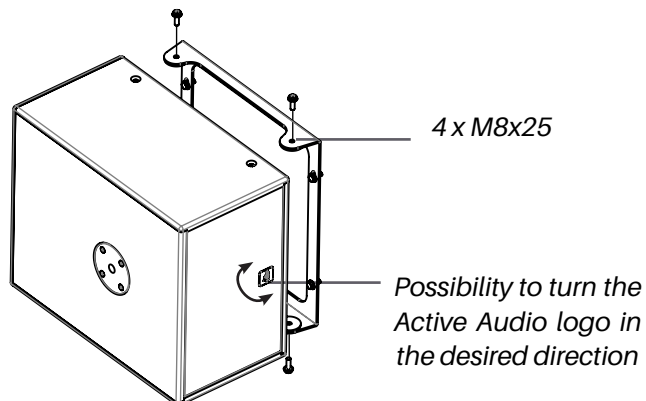
iS110KMV wall or ceiling mounting accessory

1. It is possible to fix the assembly to a wall using the fixing holes. Fix the bracket to the support with plugs suitable for the nature of the support, then install the subwoofer on the support.



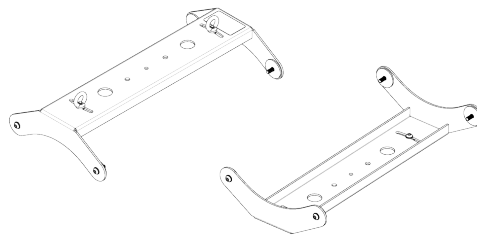
Fixing holes for installation on a suitable wall.

2. To install the subwoofer on the support, simply fix it using the M8x25 screws provided for this purpose.



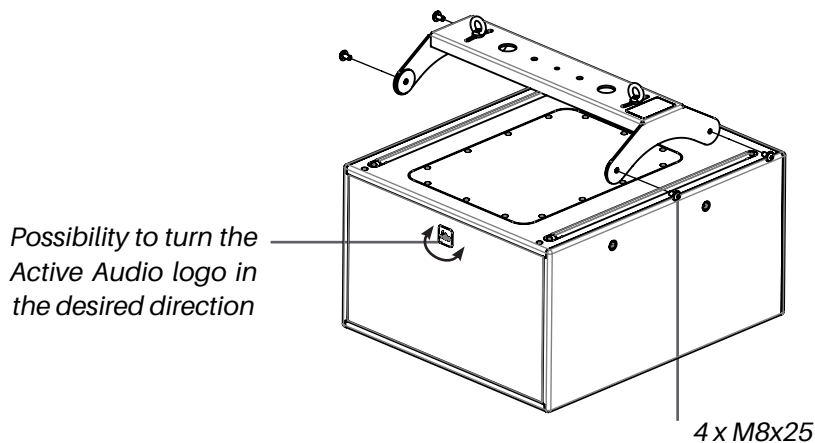
iS112 hanging accessory

The iS112 can be placed on the floor or suspended using the iS112BH mounting accessory.

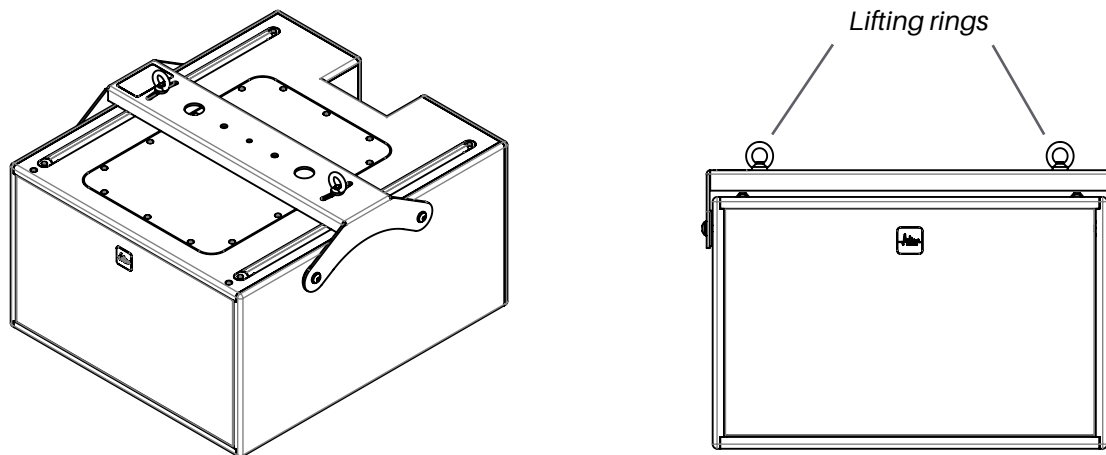


Hanging bumper iS112BH

1. Place the mounting accessory on the underside of the enclosure then secure it using the M8x25 screws provided for this purpose.

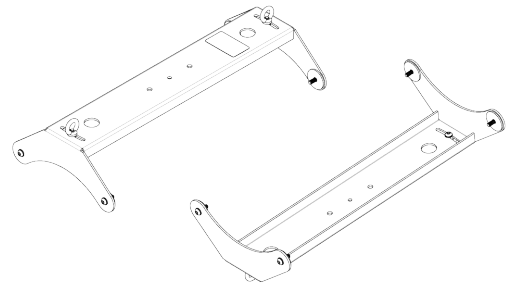


2. Use the lifting rings to suspend and secure the subwoofer with a motor for example.



iS115 hanging accessory

The iS115 can be placed on the floor or suspended using the iS115BH mounting accessory.

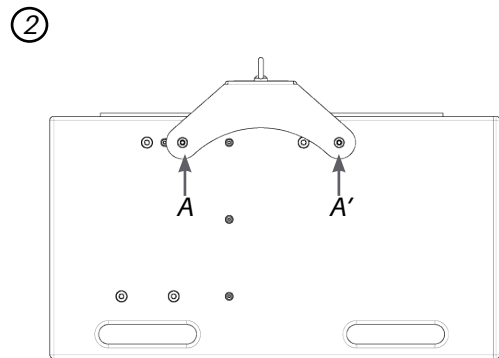
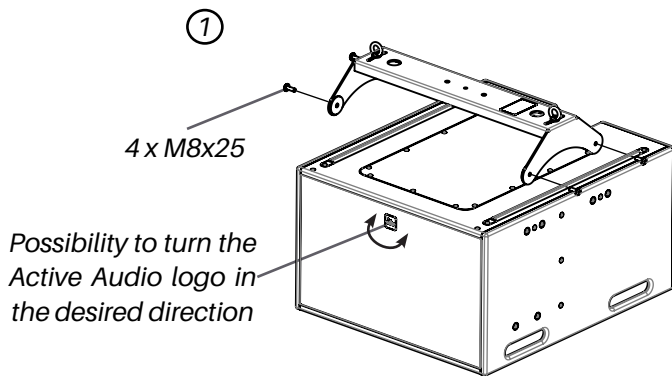


Hanging bumper iS115BH

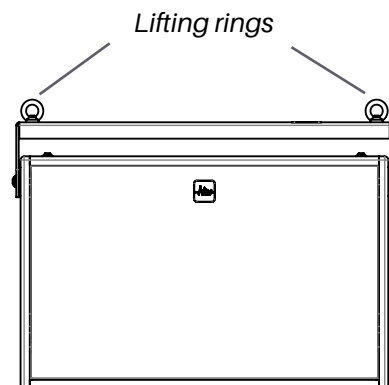
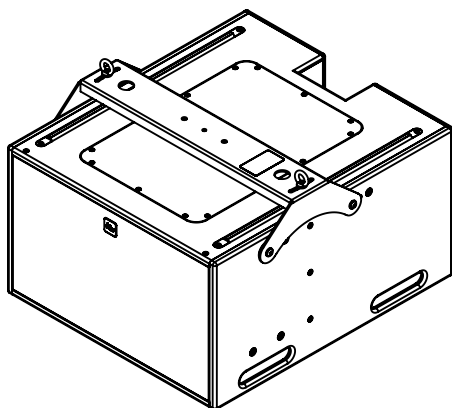
1. Place the mounting accessory on the underside of the speaker.

WARNING :

- For suspended use of the iS115, be sure to attach the bracket to the corresponding attachment points (A and A') then secure it using the M8x25 screws provided for this purpose.

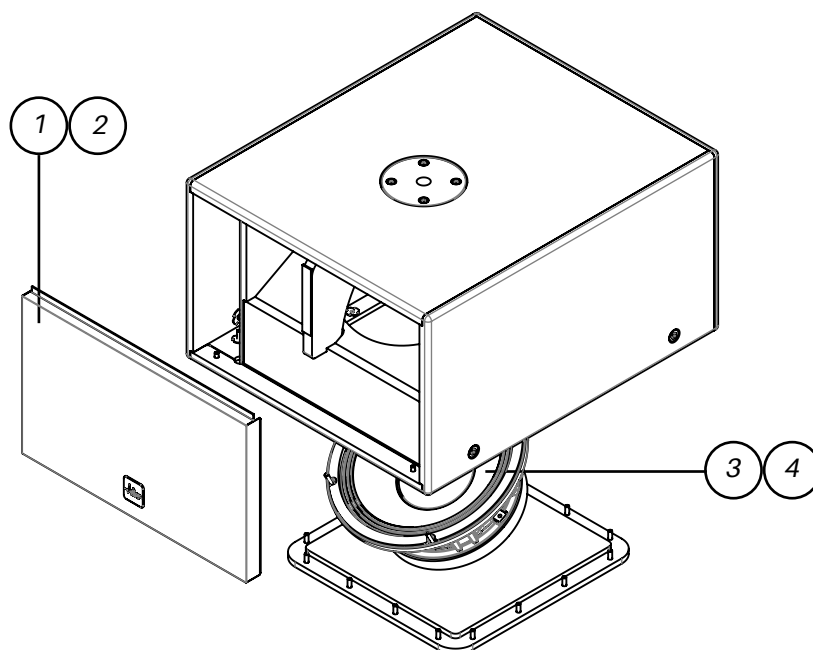


2. Use the lifting rings to suspend and secure the enclosure with a hoist for example.



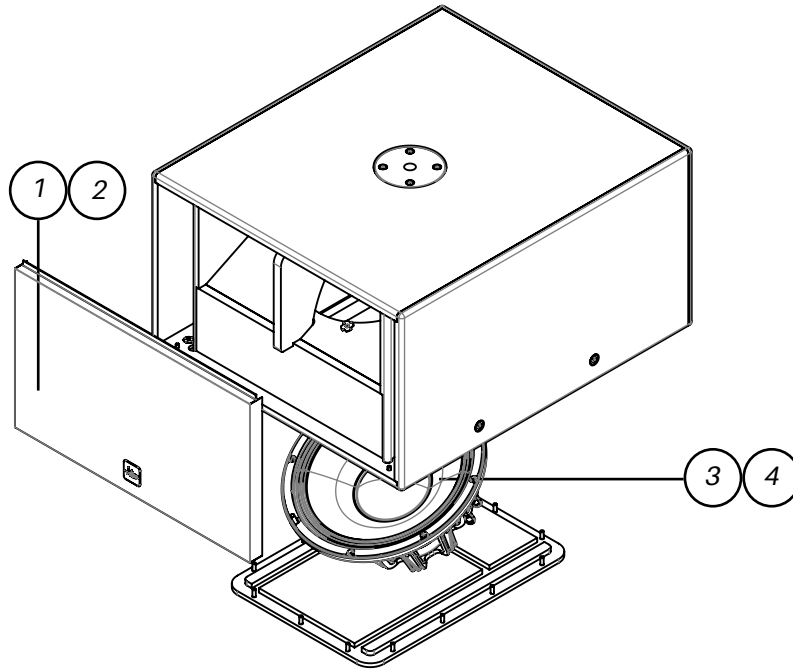
2.8 Maintenance - Spare parts

iS110 loudspeaker



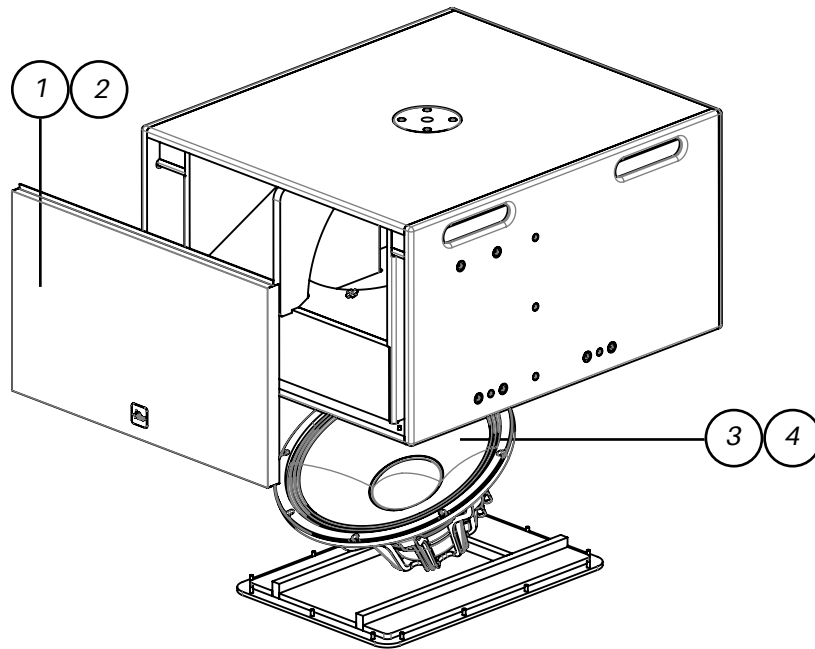
REPERE	REFERENCE	DESIGNATION
1	PRS_1261	Black steel iS110 AA
2	PRS_1262	White steel iS110 AA
3	PRS_1126	Recone kit for PST_1508
4	PRS_1195	HP PST_1508_completed

iS112 loudspeaker



REPERE	REFERENCE	DESIGNATION
1	PRS_1263	Black steel iS112 AA
2	PRS_1264	White steel iS112 AA
3	PRS_1198	Recone kit for PST_1524
4	PRS_1199	HP PST_1524_completed

iS115 loudspeaker

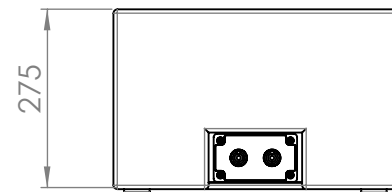
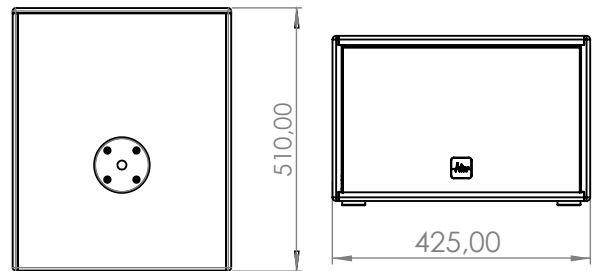


REPERE	REFERENCE	DESIGNATION
1	PRS_1265	Black steel iS115 AA
2	PRS_1266	White steel iS115 AA
3	PRS_1202	Recone kit for PST_1541
4	PRS_1203	HP PST_1541_completed

2.9 Technical specifications

iS110 loudspeaker

Features	
Usable bandwidth (± 10 dB)	45 Hz - 180 Hz
SPL Max @ 1m	132 dB SPL (1)
Nominal directivity	Omnidirectionnal (2)
Nominal impedance	8 ohms
Components	
Transducers	1 x 10" Ferrite
Topology	Dual Interactive Chamber Technology
Acoustical load	Bass Reflex
Ways and amplification type	1 way, mono amplified
Power	
AES	500 W (3)
Maximum power handling	2000 W (4)
Construction	
Dimensions H,W,D (mm)	10,8" x 16,7" x 20" (275 x 425 x 510 mm)
Weight	41,8 lb (19,2 kg)
Connectors	2 x Speakon NL4MP (5)
IP	43
Color	White (RAL9016) or Black (RAL9005)



(1) Peak level @ 1m, 2msr using 12dB crest factor pink noise with Active Audio preset

(2) Nominal directivity @-6dB

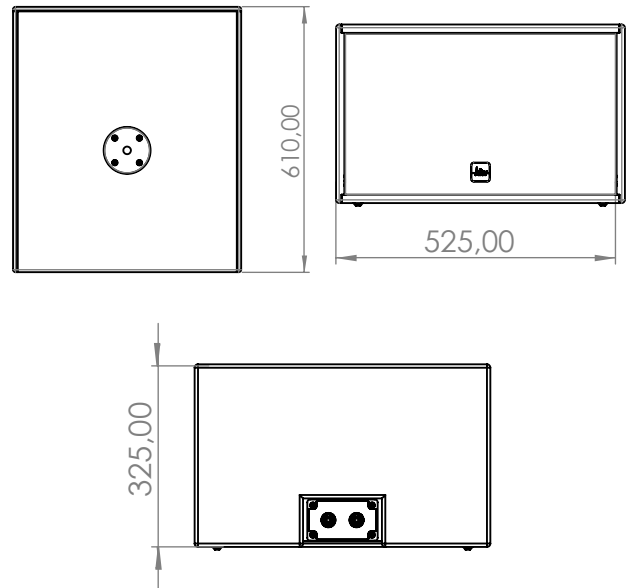
(3) Continuous power according to AES2-2012 in DCR

(4) Peak power according to AES2-2012 in DCR

(5) SPEAKON connectors are wired hot pin 1+, cold pin1- (2+ and 2- THRU)

iS112 loudspeaker

Features	
Usable bandwidth (± 10 dB)	45 Hz - 180 Hz
SPL Max @ 1m	137 dB SPL (1)
Nominal directivity	Omnidirectionnal (2)
Nominal impedance	8 ohms
Components	
Transducers	1 x 12" Néodyme
Topology	Dual Interactive Chamber Technology
Acoustical load	Bass Reflex
Ways and amplification type	1 way, mono amplified
Power	
AES	800 W (3)
Maximum power handling	3200 W (4)
Construction	
Dimensions H,W,D (mm)	12,7" x 20,6" x 24" (325 x 525 x 610 mm)
Weight	53,1 lb (24,1 kg)
Connectors	2 x Speakon NL4MP (5)
IP	43
Color	White (RAL9016) or Black (RAL9005)



(1) Peak level @ 1m, 2 π sr using 12dB crest factor pink noise with Active Audio preset

(2) Nominal directivity @-6dB

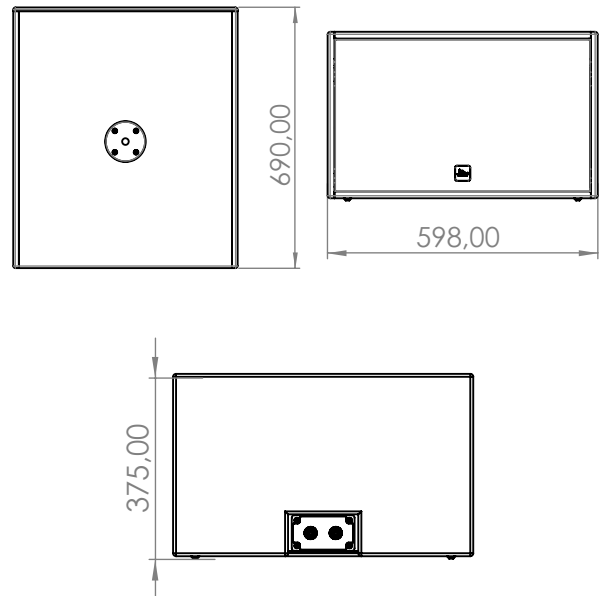
(3) Continuous power according to AES2-2012 in DCR

(4) Peak power according to AES2-2012 in DCR

(5) SPEAKON connectors are wired hot pin 1+, cold pin1- (2+ and 2- THRU)

iS115 loudspeaker

Features	
Usable bandwidth (± 10 dB)	42 Hz - 180 Hz
SPL Max @ 1m	138 dB SPL (1)
Nominal directivity	Omnidirectionnal (2)
Nominal impedance	8 ohms
Components	
Transducers	1 x 15" Néodyme
Topology	Dual Interactive Chamber Technology
Acoustical load	Bass Reflex
Ways and amplification type	1 way, mono amplified
Power	
AES	900 W (3)
Maximum power handling	3600 W (4)
Construction	
Dimensions H,W,D (mm)	14,7" x 23,5" x 27,1" (375 x 598 x 690 mm)
Weight	72 lb (32,7 kg)
Connectors	2 x Speakon NL4MP (5)
IP	43
Color	White (RAL9016) or Black (RAL9005)



(1) Peak level @ 1m, 2 π sr using 12dB crest factor pink noise with Active Audio preset

(2) Nominal directivity @-6dB

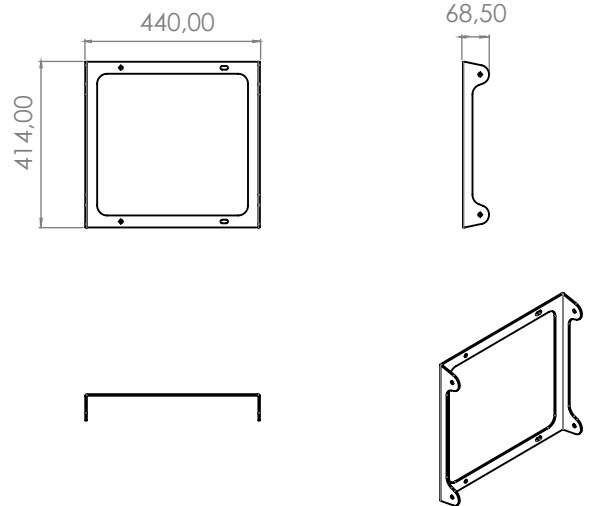
(3) Continuous power according to AES2-2012 in DCR

(4) Peak power according to AES2-2012 in DCR

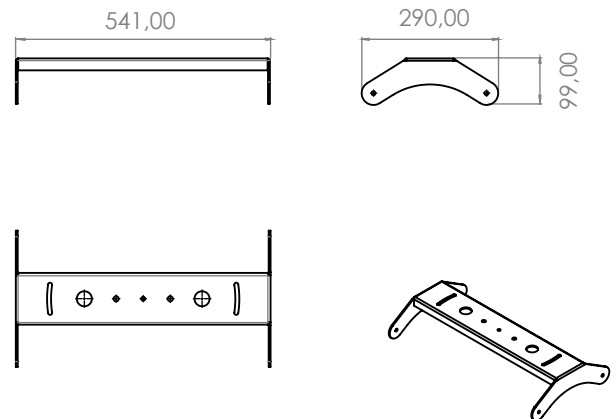
(5) SPEAKON connectors are wired hot pin 1+, cold pin1- (2+ and 2- THRU)

iS110KMV

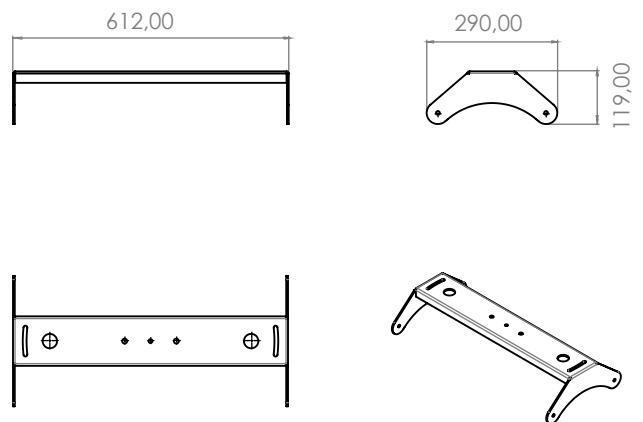
Construction	
Dimensions H,W,D (mm)	16,2" x 17,3" x 2,6" (414 x 440 x 68,50 mm)
Weight	5,5 lb (2,5 kg)
WLL (Working Load Limit)	44 lb (20 kg)


iS112BH

Construction	
Dimensions H,W,D (mm)	3,8" x 21,2" x 11,4" (99 x 541 x 290 mm)
Weight	7,5 lb (3,4 kg)
WLL (Working Load Limit)	55 lb (25 kg)


iS115BH

Construction	
Dimensions H,W,D (mm)	4,6" x 24" x 11,4" (119 x 612 x 290 mm)
Weight	8,5 lb (3,9 kg)
WLL (Working Load Limit)	121 lb (55 kg)





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