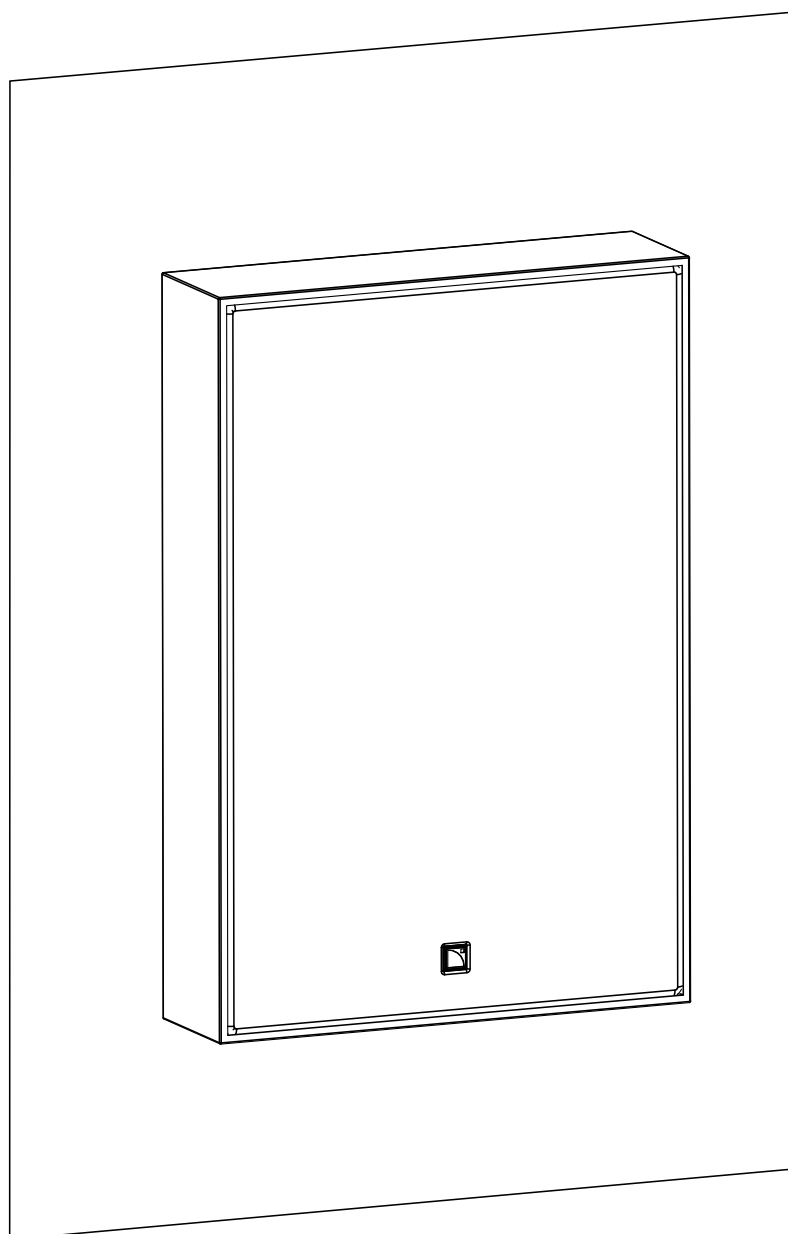


SB6i



owner's manual (EN)



Document reference: SB6i owner's manual (EN) version 1.1

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Safety

Instructions

-  **Inspect the system before any deployment.**
Perform safety related checks and inspections before any deployment.
- Perform preventive maintenance at least once a year.**
Refer to the preventive maintenance section for a list of actions and their periodicity.
Insufficient upkeep of the product can void the warranty.
- If any safety issue is detected during inspection, do not use the product before performing corrective maintenance.**
Check for issues. A rigging system part or fastener is missing or loose. A rigging system part exhibits: bends, breaks, broken parts, corrosion, cracks, cracks in welded joints, deformation, denting, wear, holes. A safety cue or label is missing.
-  **Never incorporate equipment or accessories not approved by L-Acoustics.**
-  **Read all the related PRODUCT INFORMATION documents shipped with the products before exploiting the system.**
-  **Do not store the product on an unstable cart, stand, tripod, bracket, or table.**
-  **Beware of sound levels.**
Do not stay within close proximity of loudspeakers in operation.
Loudspeaker systems are capable of producing very high sound pressure levels (SPL) which can instantaneously lead to permanent hearing damage to performers, production crew and audience members. Hearing damage can also occur at moderate level with prolonged exposure to sound.
Check the applicable laws and regulations relating to maximum sound levels and exposure times.
-  **Work with qualified personnel for rigging the system.**
Installation should only be carried out by qualified personnel that are familiar with the rigging techniques and safety recommendations outlined in this manual.
- Ensure personnel health and safety.**
During installation and set-up personnel must wear protective headgear and footwear at all times. Under no circumstances is personnel allowed to climb on a loudspeaker assembly.
- Respect the Working Load Limit (WLL) of third party equipment.**
L-Acoustics is not responsible for any rigging equipment and accessories provided by third party manufacturers. Verify that the Working Load Limit (WLL) of the suspension points, chain hoists and all additional hardware rigging accessories is respected.
- Respect the maximum configurations and the recommended safety precautions.**
For safety issue, respect the maximum configurations outlined in this manual. To check the conformity of any configuration in regards with the safety precautions recommended by L-Acoustics, model the system in Soundvision and refer to the warnings in Mechanical Data section.
- Be cautious when flying a loudspeaker configuration.**
Before installing/raising the product, check each individual element to make sure that it is securely fastened to the adjacent element. Always verify that no one is standing underneath the product when it is being installed/raised. Never leave the product unattended during the installation process.
As a general rule, L-Acoustics recommends the use of secondary safety at all times.
- Be cautious when ground-stacking a loudspeaker array.**
Do not stack the loudspeaker array on unstable ground or surface. If the array is stacked on a structure, platform, or stage, always check that the latter can support the total weight of the array.
As a general rule, L-Acoustics recommends the use of safety straps at all times.

Risk of falling objects

Verify that no unattached items remain on the product or assembly.

Risk of tipping

Remove all rigging accessories before transporting a product or an assembly.

Take into account the wind effects on dynamic load.

When a loudspeaker assembly is deployed in an open air environment, wind can produce dynamic stress to the rigging components and suspension points.

If the wind force exceeds 6 bft (Beaufort scale), lower down and/or secure the product or the assembly.

**Intended use**

This system is intended for use by trained personnel for professional applications.



As part of a continuous evolution of techniques and standards, L-Acoustics reserves the right to change the specifications of its products and the content of its documents without prior notice.

Check www.l-acoustics.com on a regular basis to download the latest document and software updates.

**Long term exposure to extreme conditions may damage the product.**

For more information, refer to the **Products weather protection** document, available on the website.

**Read the maintenance section of this document before servicing the product.****Contact L-Acoustics for advanced maintenance.**

Any unauthorized maintenance operation will void the product warranty.



This marking indicates that this product should not be disposed of with other household waste throughout the EU. To prevent possible harm to the environment or human health from uncontrolled waste disposal, recycle it responsibly to promote the sustainable reuse of material resources. To return your used device, please use the return and collection systems or contact the retailer where the product was purchased. They can take this product for environmentally safe recycling.



Introduction

SB6i ultra-shallow subwoofer



SB6i is an ultra-shallow subwoofer designed to extend the bandwidth of X4i and Soka in installation applications requiring concert sound and utmost discretion. SB6i features two direct-radiating 6.5" transducers mounted in a bass-reflex tuned enclosure. Its ultra-slim profile enables in-wall and in-ceiling integration, making it ideal for high-end architectural and professional sound reinforcement settings, with minimal to no visual impact.

SB6i couples with other L-Acoustics shallow enclosures to provide low-frequency content down to 29 Hz and an output of 110 dB Max SPL when separated from the main loudspeakers using the 60 Hz preset. In coupled configurations, SB6i can be driven by two presets, 100 Hz and 200 Hz, providing 111 dB and 115 dB of Max SPL respectively.

Like the largest concert-grade subwoofers, SB6i features L-Vents laminar vents that substantially reduce turbulence and port noise at high levels while also increasing LF efficiency.

How to use this manual

The SB6i owner's manual is intended for all actors involved in the system design, implementation, preventive and corrective maintenance of the SB6i system. It must be used as follows:

1. Read the technical description for an overview of all system elements, their features, and their compatibilities.
 - [Electro-acoustical description](#) (p.10)
 - [Rigging system description](#) (p.11)
2. Prepare the system configuration. Consider the mechanical limits and the available acoustical configurations.
 - [Mechanical safety](#) (p.13)
 - [Loudspeaker configurations](#) (p.14)
3. Before rigging the system, perform mandatory inspections and functional checks.
 - [Inspection and preventive maintenance](#) (p.15)
4. To deploy the system, follow the step-by-step rigging instructions and refer to the cabling schemes.
 - [Rigging procedures](#) (p.21)
 - [Connection to LA amplified controllers](#) (p.25)



The [Corrective maintenance](#) (p.30) section contains the operations authorized for the end user.

Performing another operation exposes to hazardous situations.

For advanced maintenance, contact your L-Acoustics representative.

As part of a continuous evolution of techniques and standards, L-Acoustics reserves the right to change the specifications of its products and the content of its document without prior notice. Please check www.l-acoustics.com on a regular basis to download the latest document and software updates.


Contact information


For information on advanced corrective maintenance:


- contact your Certified Provider or your L-Acoustics representative
- for Certified Providers, contact the L-Acoustics customer service: customer.service@l-acoustics.com (EMEA/APAC), laus.service@l-acoustics.com (Americas).

Symbols

The following symbols are used in this document:

 This symbol indicates a potential risk of harm to an individual or damage to the product. It can also notify the user about instructions that must be strictly followed to ensure safe installation or operation of the product.

 This symbol notifies the user about instructions that must be strictly followed to ensure proper installation or operation of the product.

 This symbol notifies the user about complementary information or optional instructions.

Revision history

version number	publication date	modification
1.0	Nov. 2022	Initial version.
1.1	Mar. 2023	Issue fixes and improvements.

System components

Loudspeaker enclosures

SB6i Ultra-shallow subwoofer: 2 x 6.5"

Powering and driving system

LA2Xi / LA4X / Amplified controller with DSP, preset library and networking capabilities
LA7.16i / LA12X

 Refer to the LA2Xi / LA4X / LA7.16i / LA12X owner's manual for operating instructions.

Cables

2 x 2.5 mm² cable speaker cable with bare wire endings
Adapt the cable length to the installation.

custom 2-point 2-point speakON cable (2.5 mm² gauge) to bare wire cable
speakON cable
This cable needs to be custom made.

 **Information about the connection of the enclosures to the LA amplified controllers is given in this document.**

Refer to the LA2Xi / LA4X / LA7.16i / LA12X owner's manual for detailed instructions about the whole cabling scheme, including modulation cables and network.

Rigging elements

SB6i-onCW On-wall or on-ceiling mounting accessory with silent blocks for SB6i

Software applications

Soundvision 3D acoustical and mechanical modeling software
 LA Network Manager Software for remote control and monitoring of amplified controllers



Refer to the **Soundvision** help.

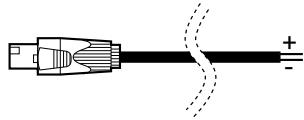
Refer to the **LA Network Manager** help.

System component illustrations

Cables

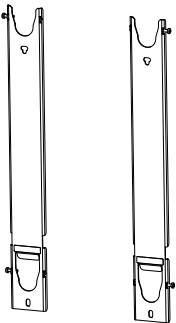


2 x 2.5 mm² cable



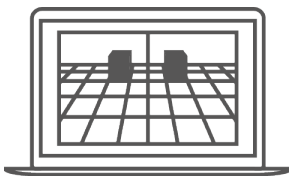
custom 2-point speakON cable

Rigging accessories



SB6i-onCW

Software applications



Soundvision



LA Network Manager

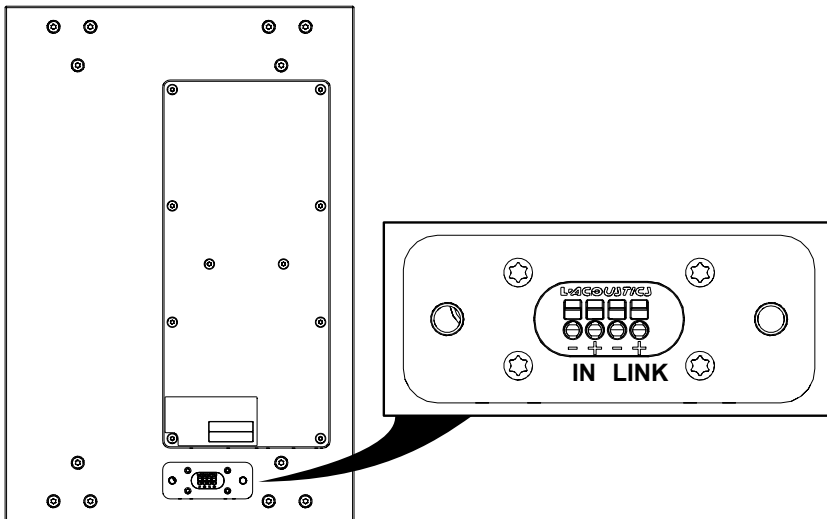
Electro-acoustical description

Preset description

[SB6_60] [SB6_100] [SB6_200]

outputs	channels	routing	gain	delay	polarity	mute
OUT 1	SB	IN A	0 dB	0 ms	+	ON
OUT 2	SB	IN A	0 dB	0 ms	+	ON
OUT 3	SB	IN A	0 dB	0 ms	+	ON
OUT 4	SB	IN A	0 dB	0 ms	+	ON

Connectors



SB6i

1 x 4-point terminal block with push-in connection

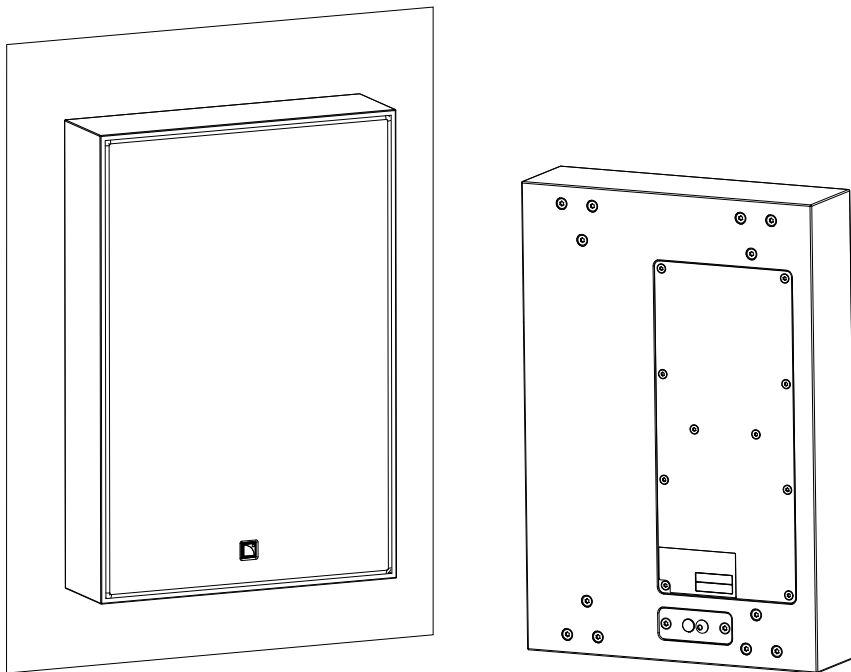
Internal pinout for L-Acoustics subwoofers

Terminal block points	IN +	IN -
Transducer connectors	LF +	LF -

Rigging system description

SB6i

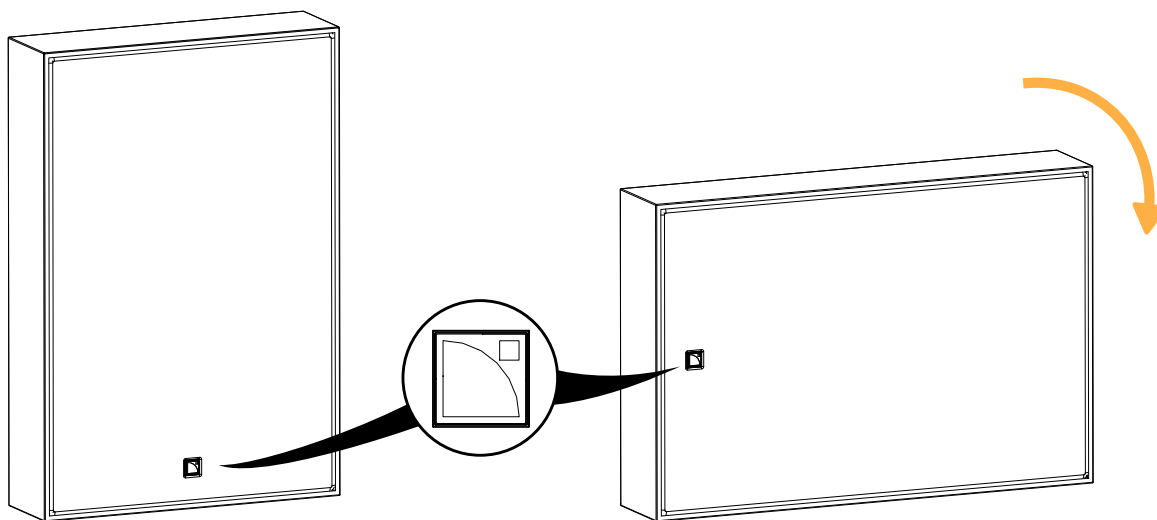
SB6i can be mounted on a wall or a ceiling using the inserts on the back to secure dedicated rigging accessories.



Risk of acoustic leaks

Always put the placeholder screws back when the inserts are not used.

The logo on the front face can be rotated to adapt to every configuration.

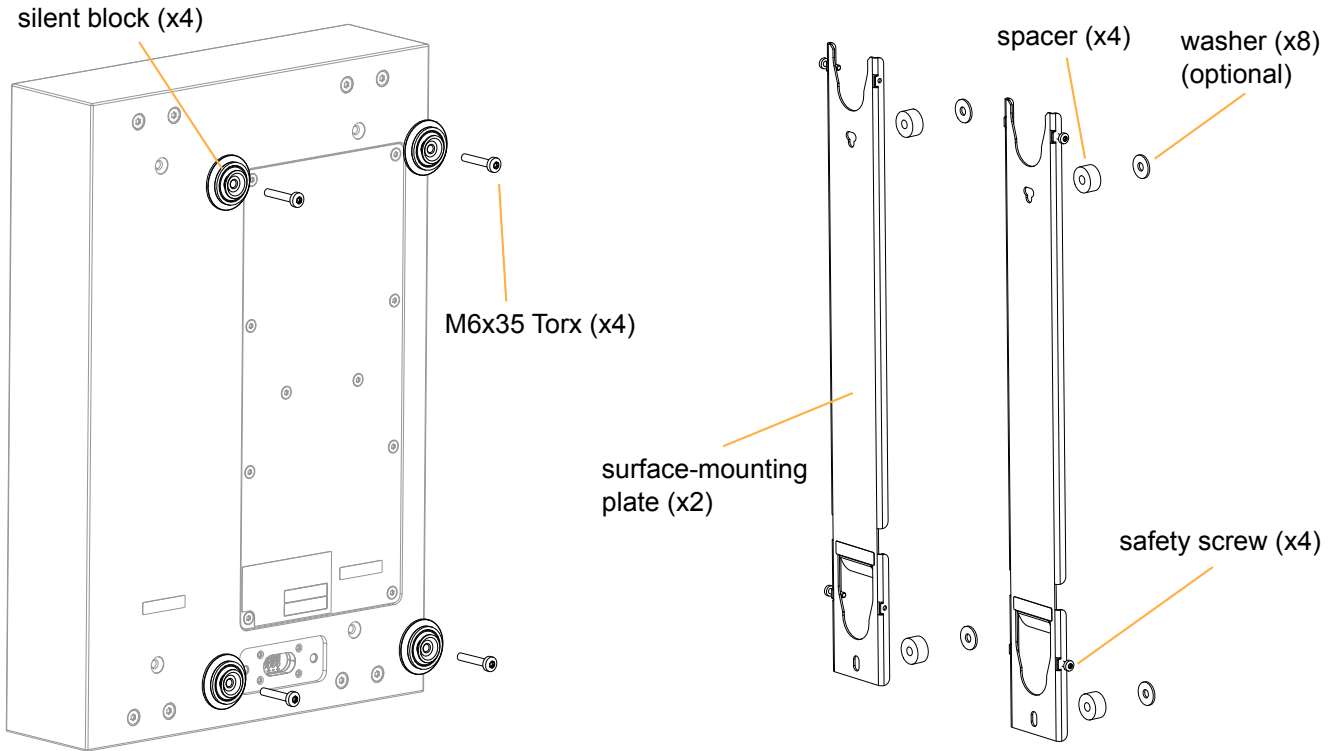


Rigging elements

SB6i-onCW

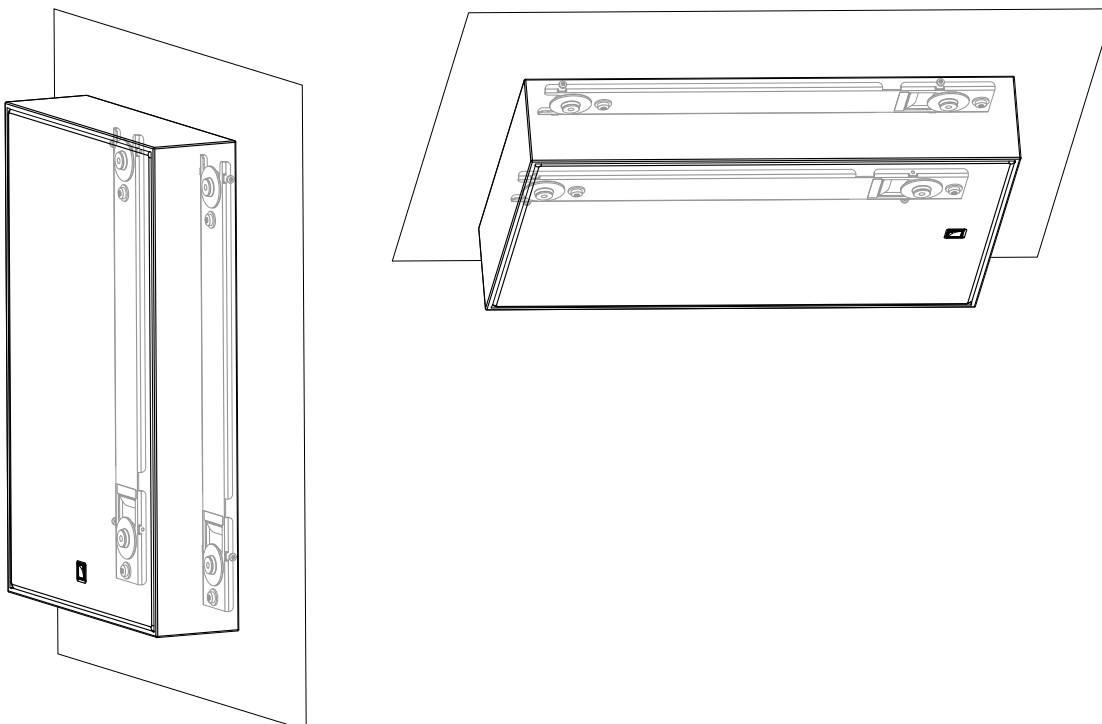
SB6i-onCW is a rigging interface for mounting one SB6i on a wall or on a ceiling. It is composed of:

- two surface-mounting plates
- four silent blocks
- fasteners for assembly and safety



! Fasteners for wall-mounting or ceiling-mounting

Secure the rigging element with four round or pan head M6 screws.
 Select screw length and anchors applicable to the wall or ceiling properties.



Mechanical safety

The SB6i rigging system complies with EN 62368-1: 2014 Audio/video, information and communication technology equipment — Part 1: Safety requirements.

The deployments described in this manual achieve a safety factor of **5**.

SB6i

configuration	rigging accessory	safe/maximum limit
wall-mounted / ceiling-mounted	SB6i-onCW	1

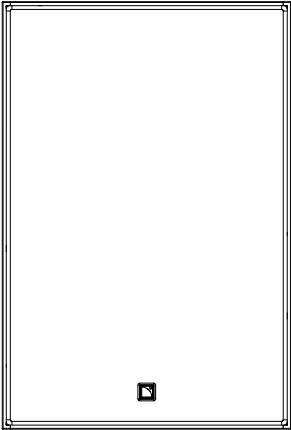
Loudspeaker configurations

SB6i in standard configuration

Deployed in a standard configuration, an SB6i system operates with an omnidirectional directivity pattern over the nominal bandwidth of the SB6i enclosure.

The [SB6_60], [SB6_100], and [SB6_200] factory presets provide the subwoofer system with an upper frequency limit at 60 Hz, 100 Hz, and 200 Hz respectively, in order to optimize the acoustic coupling with a main full-range system.

The SB6i subwoofer is driven by the LA2Xi / LA4X / LA7.16i / LA12X amplified controllers.



Preset	[SB6_60]	[SB6_100]	[SB6_200]
Low frequency limit (-10 dB)	29 Hz	29 Hz	32 Hz



Delay values

When combining a line source with subwoofers, delays may have to be added to the presets.

Refer to the Preset Guide to obtain the pre-alignment delay values.

Inspection and preventive maintenance

How to do preventive maintenance

Inspect the system after any corrective maintenance operation.

Perform preventive maintenance at least once a year.

Rigging and hardware

Perform the [Rigging part inspection](#) (p.16) on each rigging part.

Use the [Mechanical system overview](#) (p.16) to identify critical parts of the system.

If any parts are damaged, contact your L-Acoustics representative for further instructions.

Acoustics

Perform the [Enclosure check](#) (p.18).

Perform the [Listening test](#) (p.20) to detect any degradation in sound quality.

If necessary, refer to the [Corrective maintenance](#) (p.30) section for speaker repair kits and maintenance instructions.

Rigging part inspection

About this task

The term "rigging part" comprises:

- lifting accessories such as clamps and shackles
- rigging accessories such as rigging frames, rigging interfaces, and brackets
- fasteners used for assembling two products together such as ball-locking pins, rigging axes, and safety pins
- rigging plates mounted on enclosures and their rigging screws
- screens mounted on enclosures

This inspection procedure covers only L-Acoustics products. To inspect other products that are part of the lifting chain, refer to the manufacturer's instructions.

Prerequisite

Perform the inspection in a well-lit environment.

Procedure

1. Check that the rigging part is present.
2. Check for:
 - corrosion
 - wear and cracks
 - bends and dents
 - holes
 - missing safety cues
 - missing identification labels
 - missing or loose fasteners



Replacing screws

If a screw is loose, remove and replace it.

Always use the new screws provided in the repair kit.

If no new screw is available, add blue threadlocker before reusing the screw.

Do not apply more than the indicated torque.

3. Check the geometry of the part to identify critical deformations.


What to do next

If a problem is detected, perform the authorized maintenance operations or contact your L-Acoustics representative.

Mechanical system overview

Critical parts of the lifting chains are highlighted.



The  indicates a visual inspection.



Perform the [Rigging part inspection](#) (p.16) on critical parts.



Replacing screws

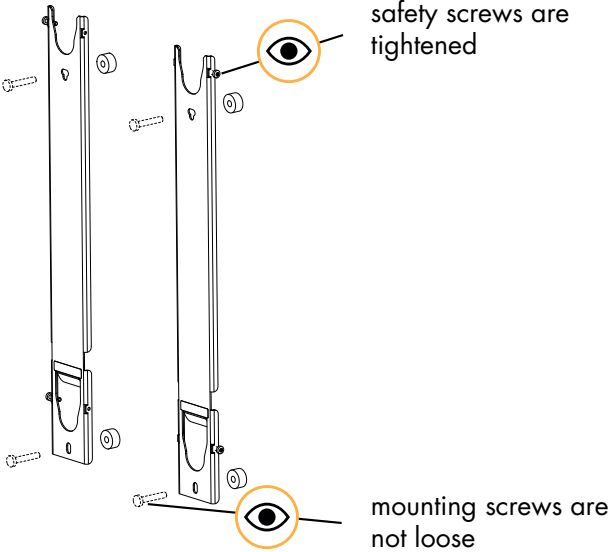
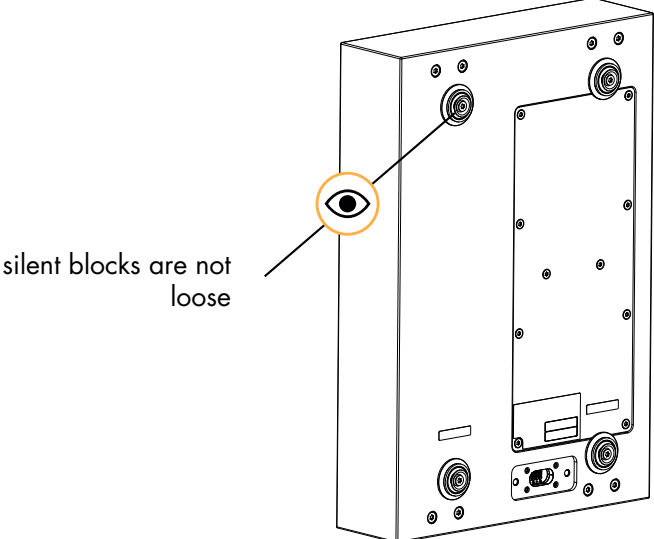
If a screw is loose, remove and replace it.

Always use the new screws provided in the repair kit.

If no new screw is available, add blue threadlocker before reusing the screw.

Do not apply more than the indicated torque.

SB6i mounted on a wall or ceiling with SB6i-onCW



Acoustical check

Enclosure check



This feature is available on:

LA4X
LA12X

ENCLOSURE CHECK measures impedance at the reference frequencies for the connected loudspeaker family. The measured impedance is compared to the expected range allowing for fast detection of loudspeakers presenting circuit continuity issues.



The results can be used for preliminary diagnosis but cannot replace a comprehensive quality control.

Prerequisite



ENCLOSURE CHECK measurements can only be reliable if the following requirements are met:

Environment and temperature:

- Ambient temperature must be comprised between 0 °C / 32 °F and 40 °C / 104 °F. Ideal temperature is 20 °C / 68 °F.
- Enclosures must be at room temperature. If warm from a recent high level use or recently moved from a cold environment, let the loudspeakers reach room temperature before starting.

Enclosures:

- Enclosures must be included in the embedded factory preset library.
- Enclosures must be in nominal operating conditions:
 - Remove covers or dollies obstructing the loudspeakers or the vents.
 - Check for obvious physical damage or air leak: visually inspect the grill, gasket, cabinet, and connector plate for loose, missing or damaged parts.

Connection:

- Use only 10 m / 30 ft 4 mm² / AWG 11 speaker cables.
- Do not connect enclosures in parallel.

Amplified controllers:

- LA4X must run at least firmware version 1.1.0.
- LA4X load sensors must be calibrated. Refer to the **Load Sensor Calibration Tool** technical bulletin for more information.
- LA4X must warm up for at least 10 minutes after power up. Do not power off, reboot or switch to standby mode to avoid resetting the countdown.
- Load a preset corresponding to the connected loudspeaker's family. Presets from the user memories may be used on condition they are made of presets supported in the embedded factory preset library.

Procedure

1. Power up the amplified controller. Let LA4X warm up for at least 10 minutes.
2. Connect the loudspeaker enclosures to the amplified controller.
3. Load a preset from or built from the embedded library corresponding to the connected loudspeaker family.
4. On the amplified controller, use the encoder wheel to select **MONITORING & INFO**. Press the OK key or the encoder wheel to validate.
5. Use the encoder wheel to select **ENCLOSURE CHECK**.



Beware of sound levels.

Although the sound pressure levels generated for the ENCLOSURE CHECK are moderate, do not stay within close proximity of the loudspeakers and consider wearing ear protection.

6. Press the OK key or the encoder wheel to launch the ENCLOSURE CHECK.

The amplified controller generates short sinusoidal signals simultaneously for each connected output.

The amplified controller displays the results for each output.

7. Depending on the displayed results, follow the instructions in the table.

result	interpretation	instructions
OK	measured impedance is within expected range	enclosure is in working order electrically
?	unsupported preset family	only supported enclosures should be tested
NC	Not Connected	if cables are connected: a. inspect the cables and connections b. go to step 8 (p.19)
NOK	measured impedance is not within expected range	a. check that all the prerequisites are met, in particular that the loaded preset corresponds to the connected speaker's family b. inspect the cables and connections c. go to step 8 (p.19)
UNDEF	measured impedance is undefined	

8. Under NC, NOK and UNDEF results, press and hold the corresponding OUT key.

The amplified controller displays:

- the tested frequencies,
- information on the measured impedance:
 - OPEN for open circuit (found in NC results),
 - SHORT for short circuit (found in NOK results), or
 - a percentage of variation from the expected range (found in NOK and UNDEF results)
- the number of operational transducers out of the total



Low variations from the expected range are acceptable: displayed percentage can be different from 0 and all transducers considered operational.

Listening test

enclosure	preset	usable bandwidth
SB6i	[SB6_100]	29 Hz - 150 Hz

Procedure

1. Load the preset on an LA2Xi / LA4X / LA7.16i / LA12X amplified controller.
2. Connect a sinus generator to the amplified controller.



Risk of hearing damage

Set a low sound level to start and use ear protection to adjust before testing.

3. Scan the bandwidth focusing on the usable range.
The sound should remain pure and free of unwanted noise.
4. Focus on the 25 Hz frequency.
The sound should remain pure and free of unwanted noise.

Troubleshooting for LF speakers

One or more LF speaker produces distorted, buzzing, rubbing, clicking, muffled or weak sound.

Possible causes

- The screws are not tightened with the appropriate torque.
- There is an air leak in the gasket.
- There is dust on the cone.
- The cone is damaged.
- The surround is torn or delaminated.
- The voice coil or the spider is damaged.

Procedure

1. Perform the speaker disassembly procedure.
2. Visually inspect the cables and the connectors.
3. Visually inspect the speaker cone, the voice coil and the spider.
If any damage is visible, replace the speaker.
4. Carefully clean the speaker with a dry cloth.
5. Perform the reassembly procedure.
Replace the speaker gasket and the screws.
Apply the recommended torque.
6. Repeat the listening test.
If the problem persists, replace the speaker.

Troubleshooting for installation enclosures

One or more enclosure produces a high-pitched, leaking air sound.

Possible cause

- Placeholder screws are missing.

Procedure

Visually inspect the screws on both sides of the enclosures.

Secure placeholder screws in the empty inserts.

Rigging procedures

Tools

Before rigging this product, make sure all the tools listed are available. References are given for FACOM® products in this table. Other manufacturers can be used.

name	reference	distributor
set of 6-point 1/4" sockets	RL.NANO1 / R.360NANO	FACOM
torque screwdriver (2 - 10 N.m)	A.404	FACOM

Wall- or ceiling-mounting SB6i with SB6i-onCW

type of deployment	wall-mounting
	ceiling-mounting
rigging accessories	SB6i-onCW, including: <ul style="list-style-type: none"> • surface-mounting plates • 4 M6x35 Torx screws • 4 silent blocks • 4 spacers • 8 washers
additional material	4 compatible screws and anchors
tools	torque screwdriver
	T30 Torx bit
	T20 Torx bit
min. number of operators	1



Fasteners for wall-mounting or ceiling-mounting

Secure the rigging element with four round or pan head M6 screws.
Select screw length and anchors applicable to the wall or ceiling properties.

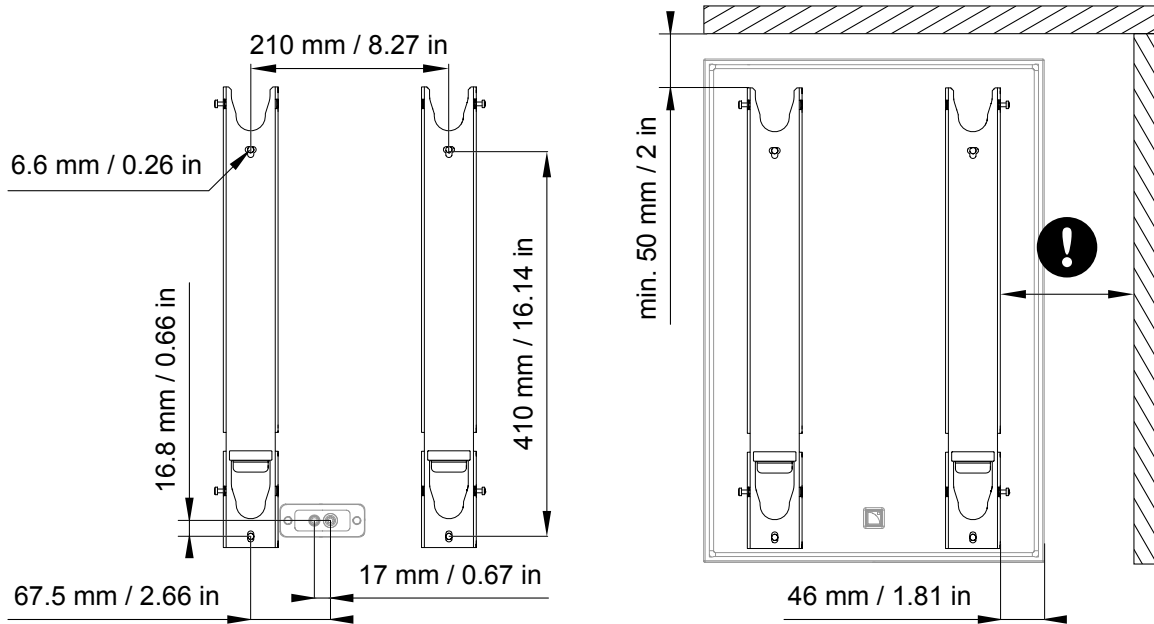
Assembly

Procedure



The cardboard packaging of the rigging element can be used as a drilling template.

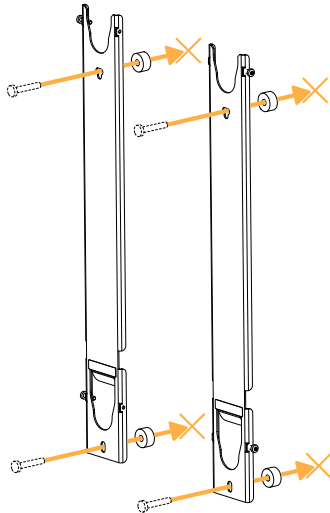
1. Prepare the wall or ceiling for drilling.



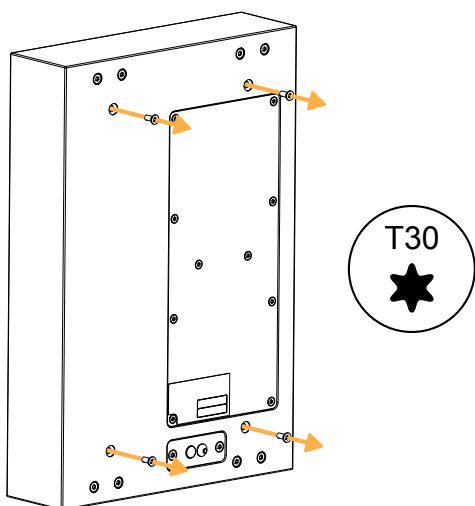
Make sure to leave enough space between the wall or ceiling and the sides of the rigging element to access the security screws when the enclosure is mounted.

2. Secure the surface-mounting plate on the wall or on the ceiling, using the four spacers.

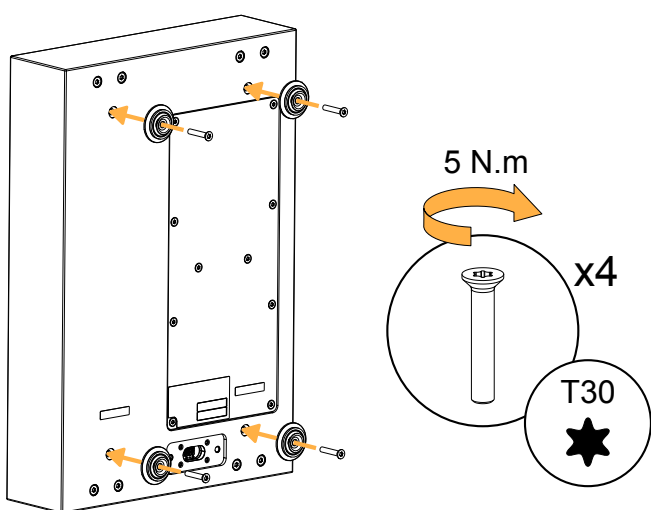
The washers can be added behind the spacers if the wall or ceiling is not perfectly flat.



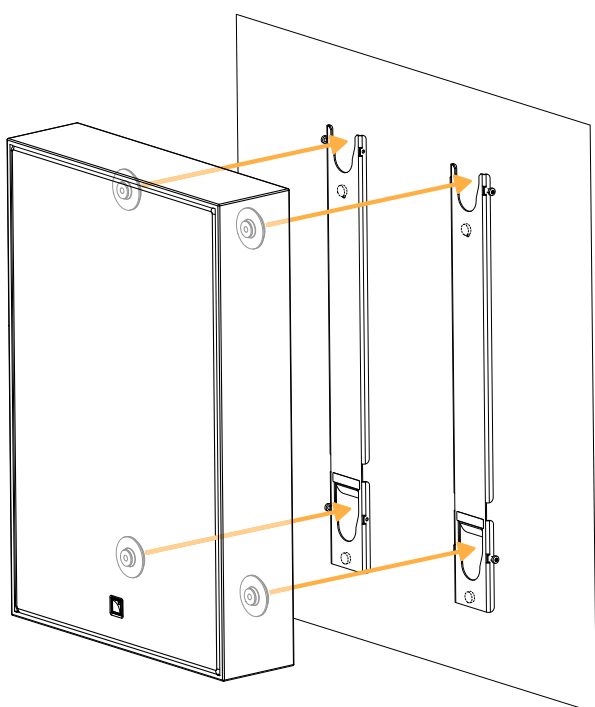
3. Remove the four placeholder screws from the back of SB6i.



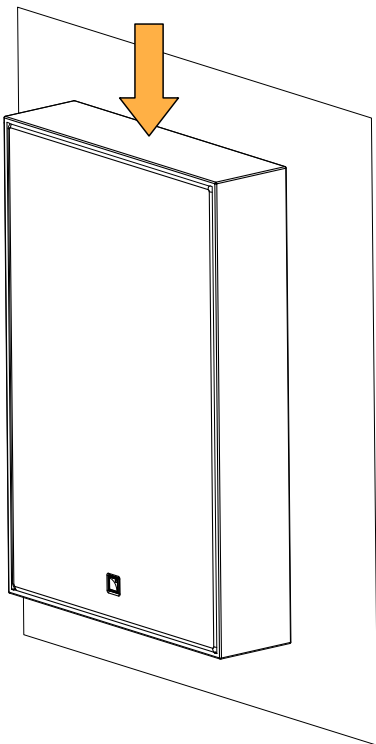
4. Mount the silent blocks to SB6i with the four M6x35 Torx screws.



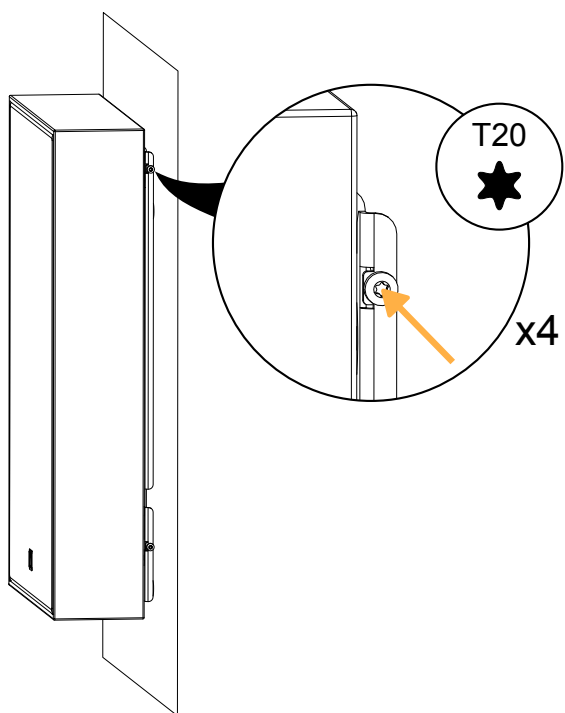
5. Prepare the cabling. Refer to [Cabling SB6i](#) (p.27).
6. Mount the assembly on the surface-mounting plates.



7. Slide towards the bottom of SB6i to secure the assembly.



8. Tighten the four safety screws and make sure the assembly is stable.



Connection to LA amplified controllers

! Refer to the **Amplification reference** technical bulletin for the latest information on compatibility with amplified controllers and cabling schemes for all enclosure types.

Enclosure drive capacity per amplified controller

Make sure the total number of connected enclosures does not exceed the maximum number of enclosures per controller (refer to the footnotes).

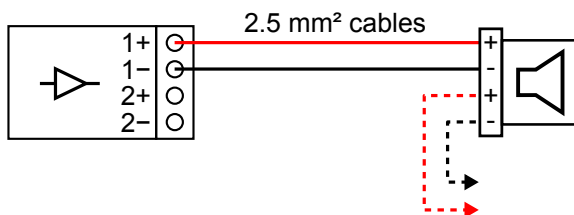
	LA2Xi	LA4X	LA7.16i	LA12X
	per output[*] / total	per output[*] / total	per output[*] / total	per output[*] / total
SB6i	1 / 4	1 / 4	1 / 16	2 / 8

Cabling schemes for SB6i

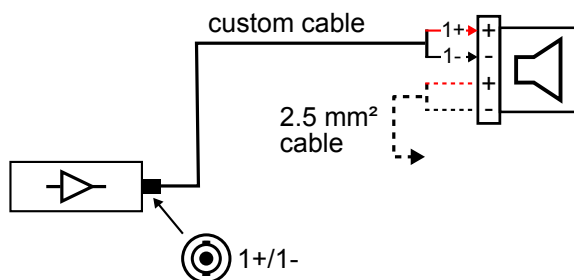
Refer to the cabling schemes to connect the enclosures to different types of output configurations.

! Refer to the cable manufacturer documentation for the wire color code.

Terminal block output (LA2Xi SE / LA7.16i)

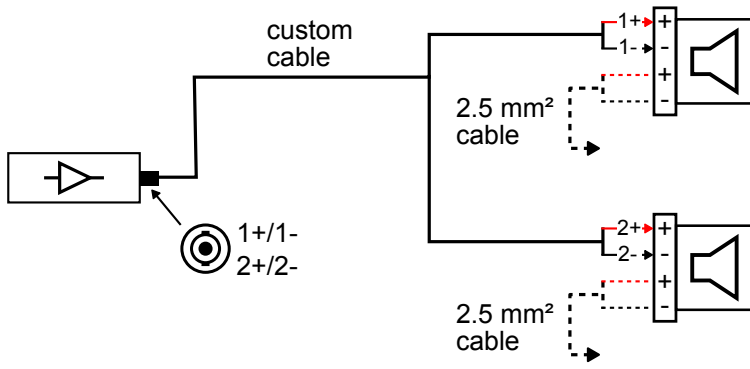


One-channel speakON output



* For passive loudspeakers, the value corresponds to the number of enclosures in parallel on the output. For active loudspeakers, the value corresponds to the number of sections in parallel on the output.

Two-channel speakON output



Cabling SB6i

Accessory	connector sealing plate (provided)
Screws and fasteners	2 M6×16 screws (mounted on enclosure)
Tools	torque screwdriver T30 Torx bit small tool or flat screwdriver (3 mm or less)
Min number of operators	1

Assembly

Prerequisite

! The cable glands on the connector sealing plate are compatible with cables up to $2 \times 2.5 \text{ mm}^2$ gauge.

Refer to:

- [APPENDIX A: Recommendation for speaker cables](#) (p.36)
- [Cabling schemes for SB6i](#) (p.25)

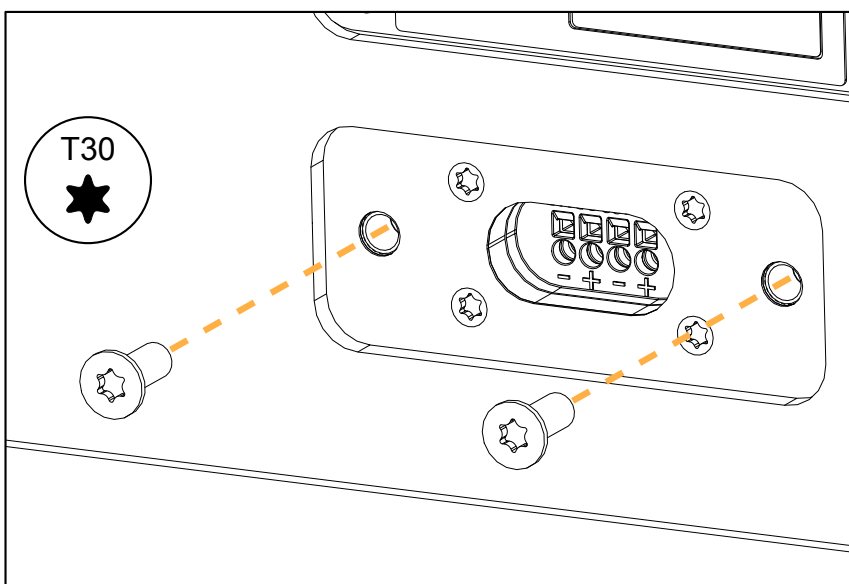
About this task

The connector sealing plate has two holes: one for the input cable and one for the cable connecting to the next enclosure in parallel. By default, the first hole is fitted with a cable gland and the second one with a protective plug. An extra cable gland is provided with each enclosure.

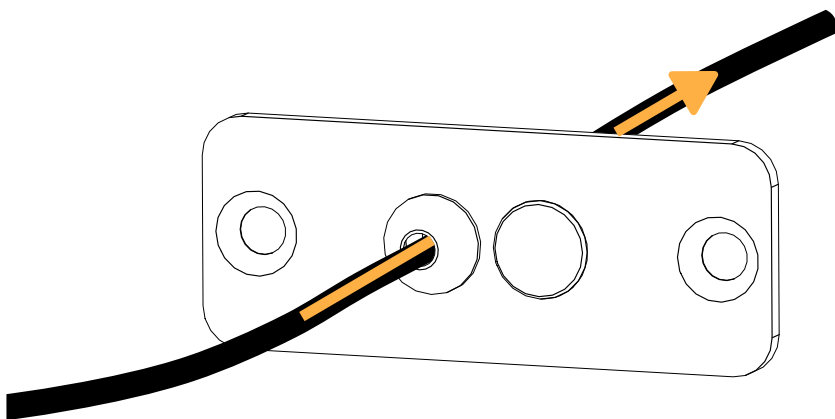
This procedure describes how to connect the input cable to the enclosure. If the enclosure must be connected in parallel, replace the protective plug with the extra cable gland and proceed identically for both cables.

Procedure

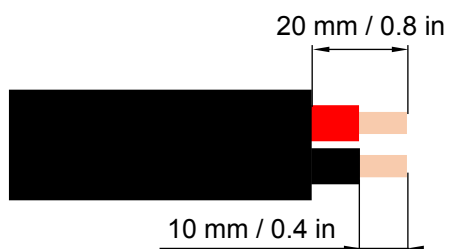
1. Remove the two screws from the enclosure.



2. Insert the cable through the cable gland.



3. Strip the wires of the cable.



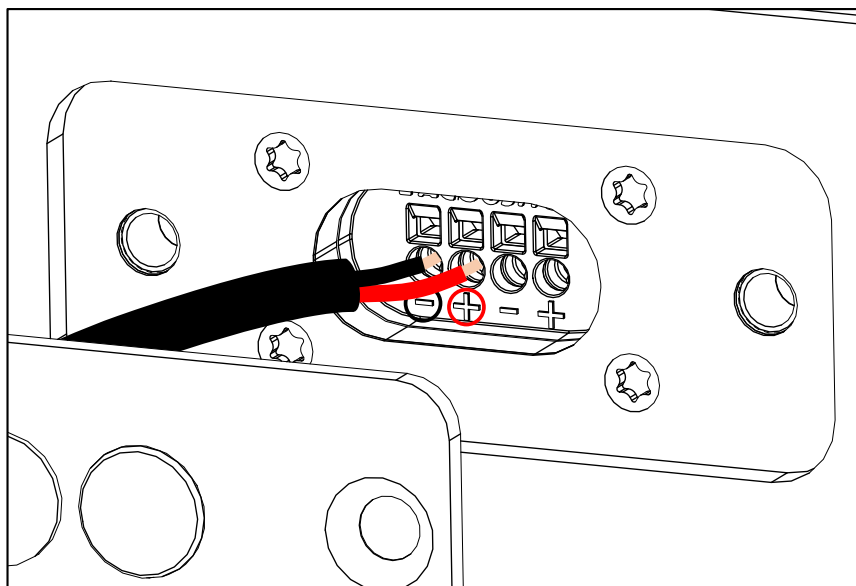
2 x 2.5 mm² cable



Refer to the cable manufacturer documentation for the wire color code.

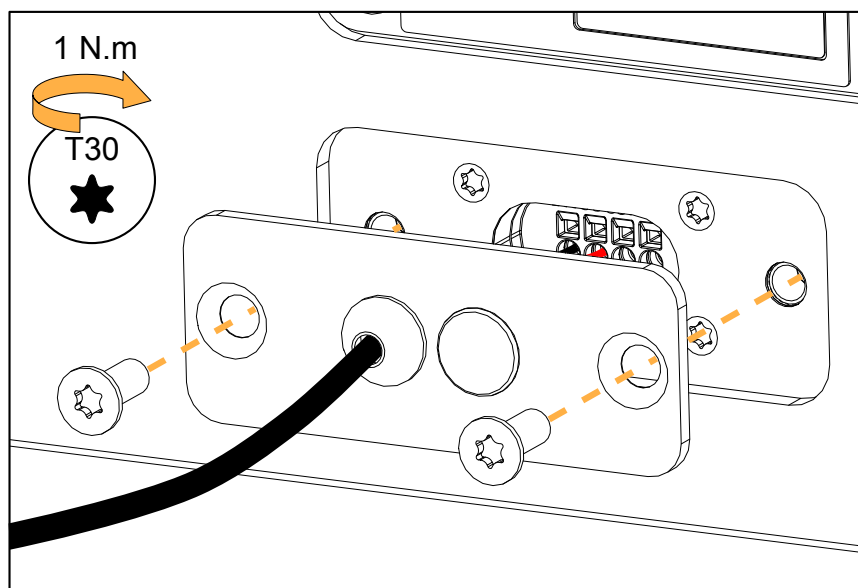
4. Push the wires into the terminals.

If necessary, use a small tool in the hole on top of the terminal to unlock it.

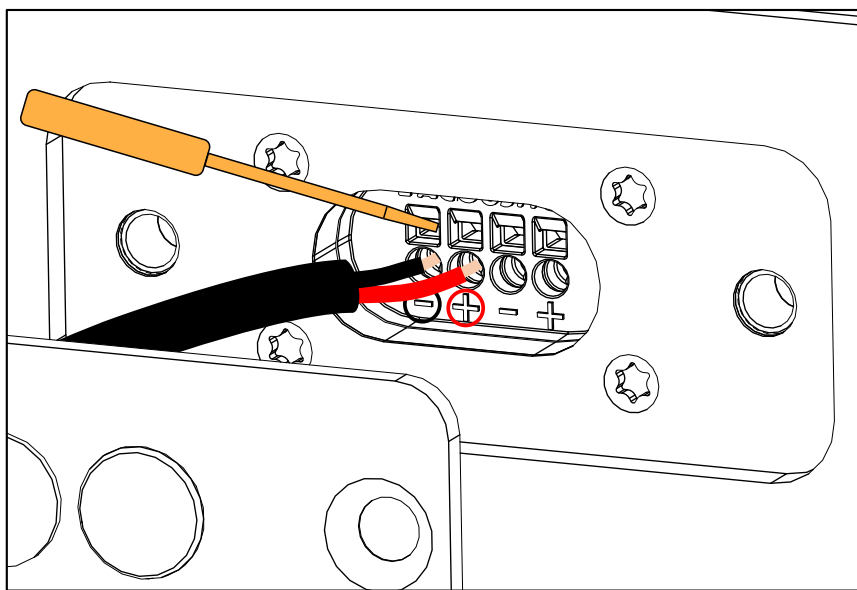


5. Secure the connector sealing plate to the enclosure.

Apply a torque of 1 N.m.

**What to do next**

To remove the cables, use the small tool to unlock the terminals and pull on the wires.



Corrective maintenance

Introduction

This section contains the following maintenance procedures:

- [D/R - Trapdoor](#) (p.32)
- [D/R - LF speaker](#) (p.33)

For advanced maintenance, contact your L-Acoustics representative.

Tools and consumables

Before performing maintenance on this product, make sure all the tools listed are available. References are given for FACOM® products in this table. Other manufacturers can be used.

name	reference	distributor
set of 6-point 1/4" sockets *	RL.NANO1 / R.360NANO	FACOM
torque screwdriver (2 - 10 N.m)	A.404	FACOM
flat plastic tool	—	—



* included in the L-Acoustics Maintenance Toolcase.

Maintenance Toolcase

The Maintenance Toolcase is a carry-on suitcase that includes all the tools required to perform maintenance on L-Acoustics products. This toolcase is aimed at Certified Providers.

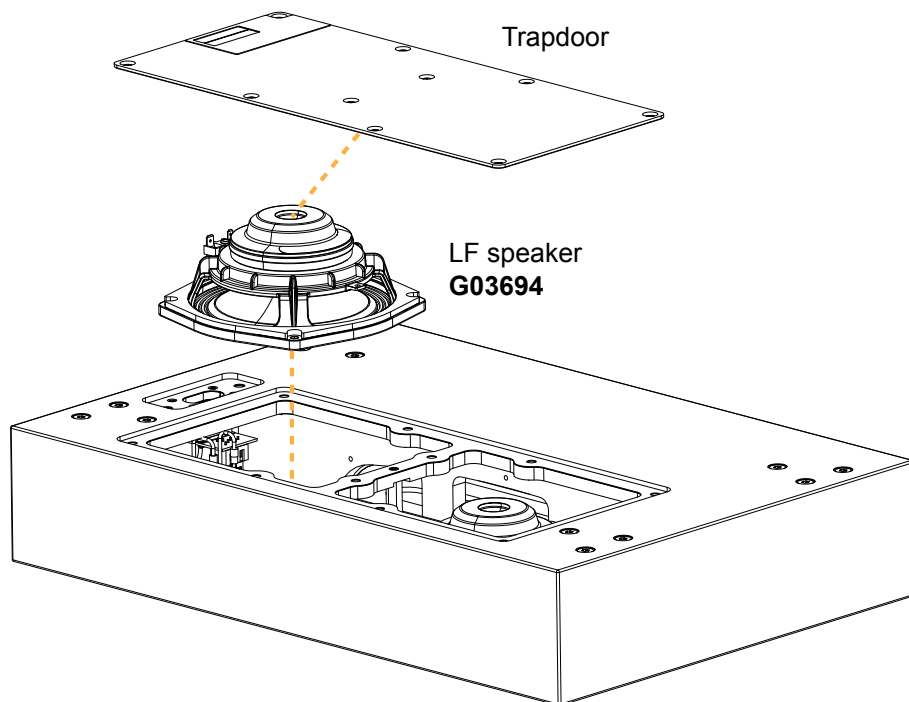
The Maintenance Toolcase uses a Peli™ 1510 Protector case that features three pre-cut layers of foam to safely fit the tools. The Maintenance Toolcase includes tools manufactured by FACOM®, Fluke®, Tohnichi, ABUS, and Würth.



All third-party trademarks, registered trademarks, or product names are the property of their respective owners.

Exploded views

In order to operate, follow the order outlined here. Each assembly refers to the corresponding Disassembly/Reassembly (D/R) procedure and the necessary repair kit.



Disassembly and Reassembly procedures

D/R - Trapdoor

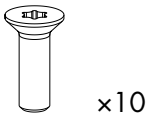
Tools

- torque screwdriver
- T25 Torx bit
- flat plastic tool

Repair kit

G03694

KR loudspeaker 6" SB6i



S100086

M5x16 Torx

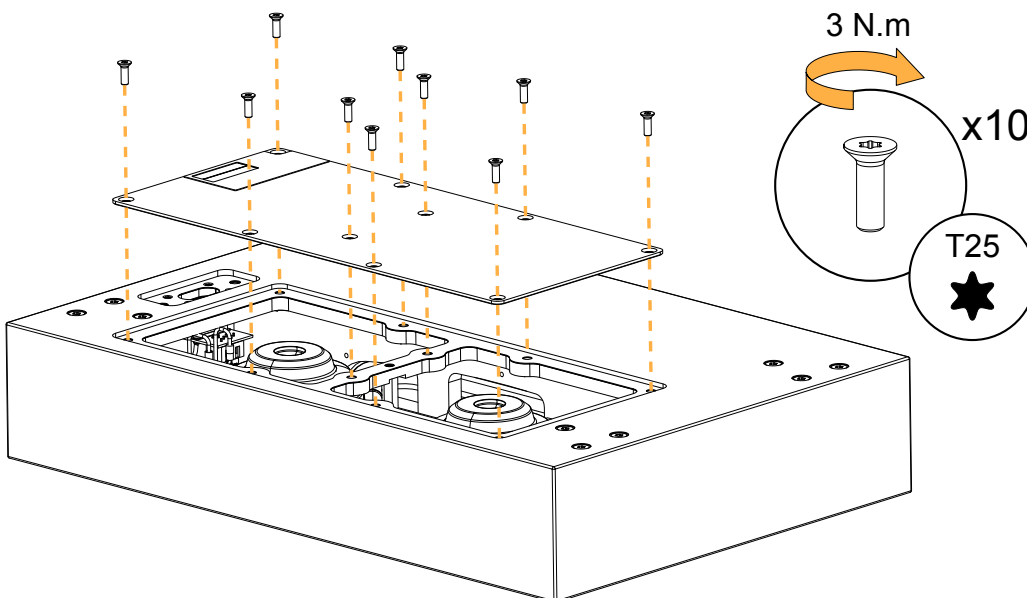
Prerequisite

Place SB6i upside-down on a flat surface.

Exploded view

! For safety reasons, always use the new screws and spare parts provided in the KR.
If no new screws are available, use blue threadlocker.

Use a flat plastic tool as a lever to remove the trapdoor.



D/R - LF speaker

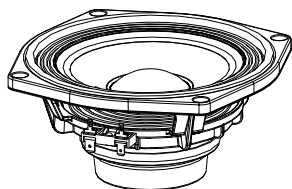
Tools

- torque screwdriver
- 4 mm hex bit

Repair kit

G03694

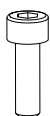
KR loudspeaker 6" SB6i



x1

1741

6.5" speaker - 16 Ω (with gasket)



x4

S100113

M5x16 hex

Prerequisite

Trapdoor removed.

See [D/R - Trapdoor](#) (p.32).

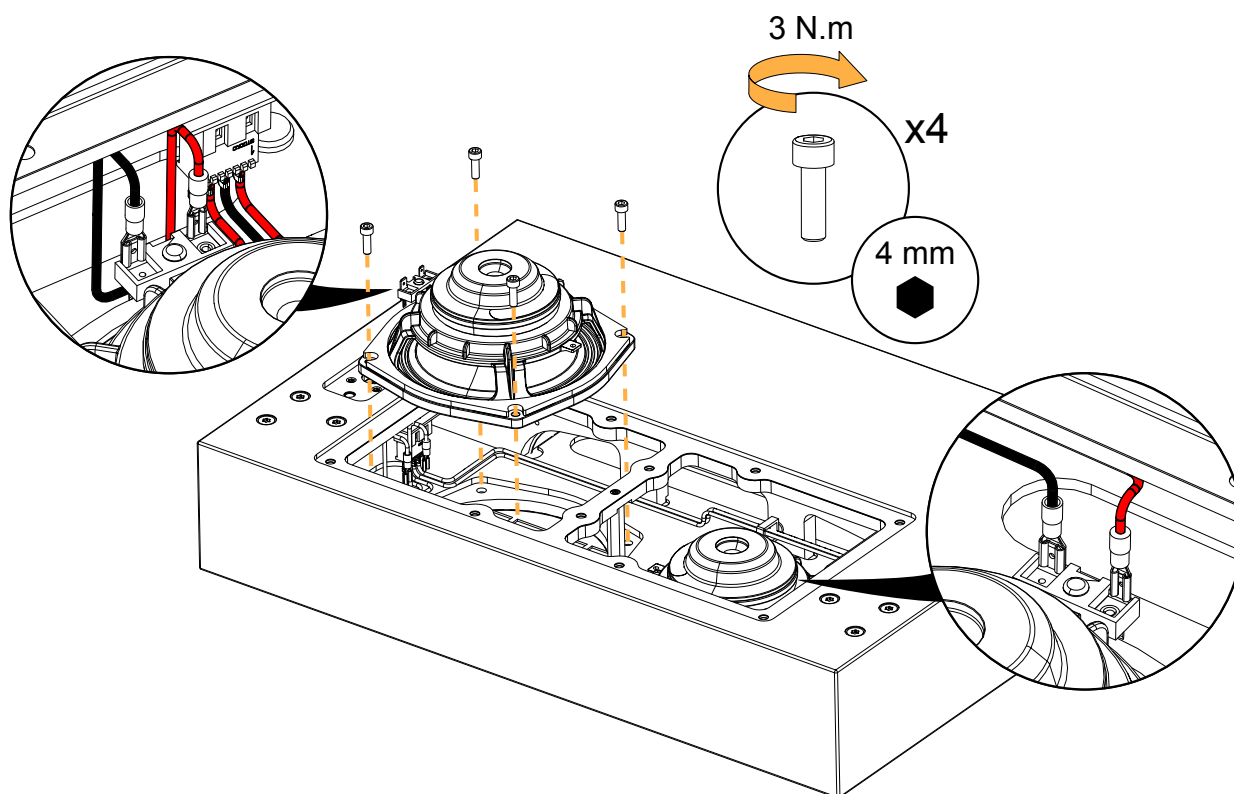
Exploded view



For safety reasons, always use the new screws and spare parts provided in the KR.
If no new screws are available, use blue threadlocker.



Gradually tighten the screws following a star pattern.



What to do next

Perform the [Acoustical check](#) (p.18) procedures.

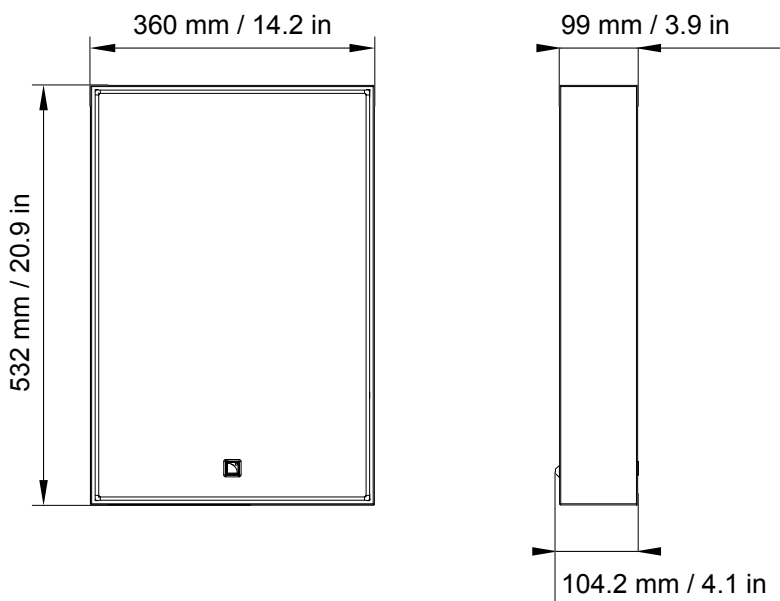
Specifications

SB6i specifications

Description	Ultra-shallow subwoofer: 2 × 6.5", amplified by LA2Xi / LA4X / LA7.16i / LA12X		
	with preset [SB6_60]	with preset [SB6_100]	with preset [SB6_200]
Low frequency limit (-10 dB)	29 Hz	29 Hz	32 Hz
Maximum SPL¹	110 dB	111 dB	115 dB
Nominal directivity (-6 dB)	standard configuration		
Transducers	2 × 6.5" cone driver		
Acoustical load	bass-reflex, L-Vents		
Nominal impedance	4 Ω		
Connectors	1 × 4-point terminal block with push-in connection		
Rigging and handling	8 M6 inserts for rigging accessories		
Weight (net)	8.6 kg / 18 lb		
Cabinet	premium grade Baltic beech and birch plywood		
Front	coated steel grill acoustically neutral 3D fabric		
Finish	dark grey brown Pantone 426 C pure white RAL 9010 custom RAL code on special order		
IP	IP55		

¹ Peak level at 1 m under half space conditions using pink noise with crest factor 4 (preset specified in brackets).

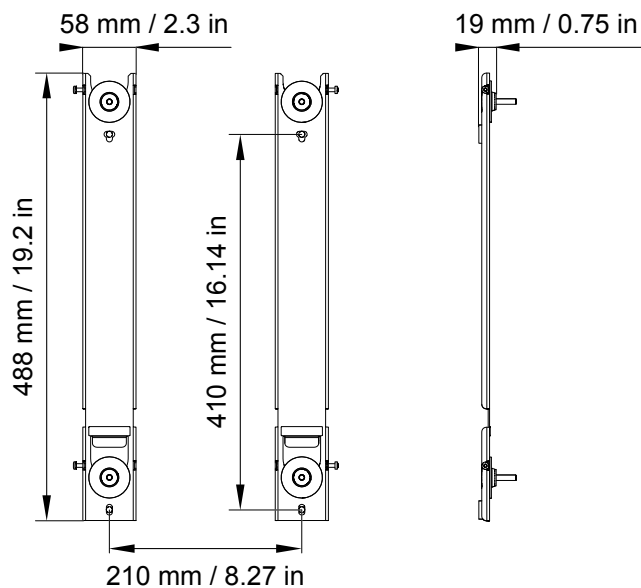
SB6i dimensions



SB6i-onCW specifications

Description	On-wall or on-ceiling mounting accessory with silent blocks for SB6i
Weight (net)	1.1 kg / 2.4 lb
Material	high grade steel with anti-corrosion coating

SB6i-onCW dimensions



Recommendation for speaker cables

Follow the recommended maximum length for loudspeaker cables to ensure minimal SPL attenuation.



Cable quality and resistance

Only use high-quality fully insulated speaker cables made of stranded copper wire.

Use cables with a gauge offering low resistance per unit length and keep the cables as short as possible.

The table below provides the recommended maximum length for loudspeaker cables depending on the cable gauge and on the impedance load connected to the amplifier.

cable gauge			recommended maximum length					
			8 Ω load		4 Ω load		2.7 Ω load	
mm ²	SWG	AWG	m	ft	m	ft	m	ft
2.5	15	13	30	100	15	50	10	33
4	13	11	50	160	25	80	17	53
6	11	9	74	240	37	120	25	80

Use the more detailed L-Acoustics calculation tool to evaluate cable length and gauge based on the type and number of enclosures connected. The calculation tool is available on our website:

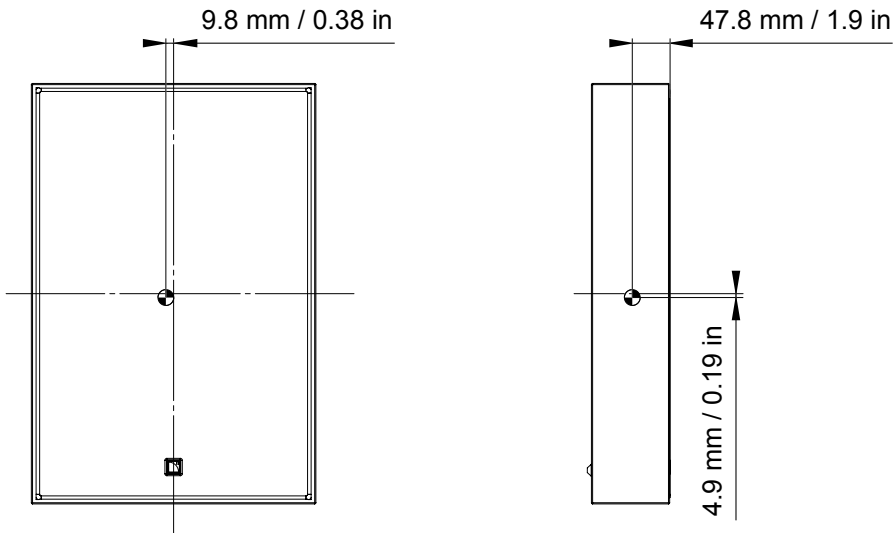
<https://www.l-acoustics.com/installation-tools/>

Specifications for custom rigging

Dimensions

Refer to [SB6i dimensions](#) (p.34).

Center of gravity



Weight


SB6i: 8.6 kg / 18 lb

Threaded inserts and screws



Use only rigging inserts to implement a custom rigging

Inserts marked with  can be used for rigging.

Inserts marked with  must not be used for custom rigging (reserved for screen mounting, maintenance purposes, L-Acoustics accessories, etc.).



Grade of screws must be defined by a qualified person

Take into consideration the number of inserts used, weight and center of gravity of enclosure(s), and resulting action forces.

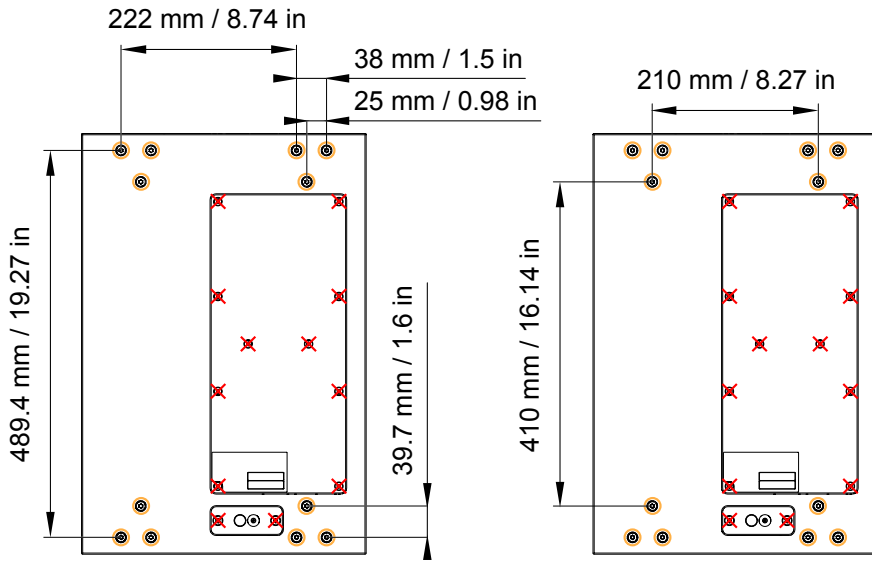
Prevent screws from loosening (threadlocker, spring washer...).

SB6i has **12 threaded M6 inserts** available for rigging.

Ultimate Tensile Strength	1160 N
Ultimate Shear Strength	3300 N
Recommended screw length *	min. 20 mm / 0.8 in
Recommended torque	5 N.m



* Recommended screw length for a metal sheet with a thickness of 3 mm / 0.1 in. Adapt the length to the custom rigging design.





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