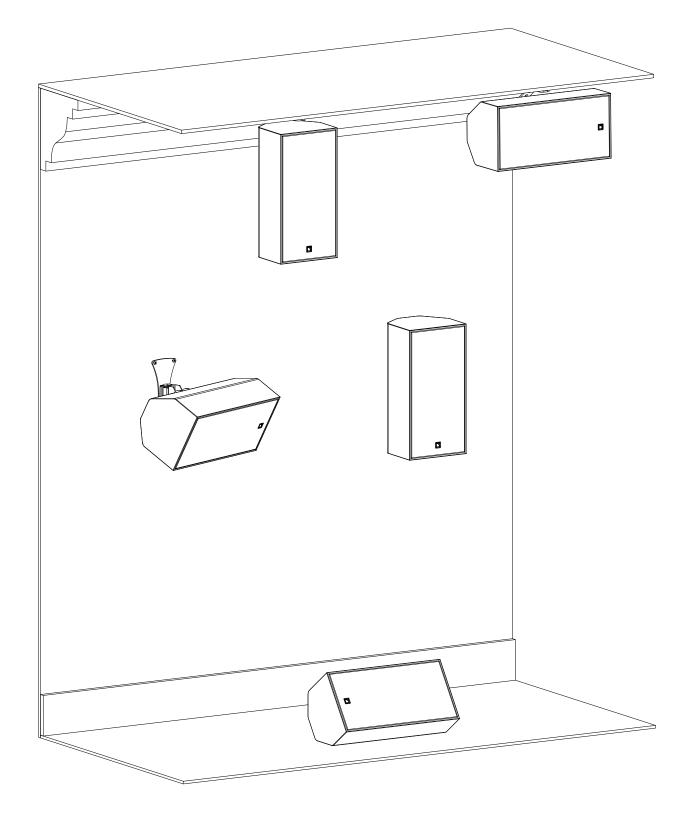




owner's manual (EN)



Document reference: X8i owner's manual (EN) version 1.0 Distribution date: April 11, 2024 © 2024 L-Acoustics. All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means without the express written consent of the publisher.

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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.





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.



Risk of crushing injury

Ensure that the wall or ceiling can support the load of the product.

It is recommended to mount only on solid structures. If mounting on a hollow structure (such as a wall cavity), place anchoring points on the framework (wall studs, ceiling joists), or reinforce the mounting area.

Select screws and anchors applicable to the wall or ceiling properties and to the load of the product. Prevent screws from loosening over time, using for example thread locker or lock washers.



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.

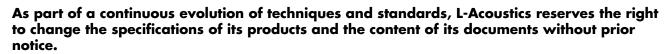
Take into account the wind effects on dynamic load.

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.



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.



Safety

Introduction



X8i is a coaxial system designed for short throw installation applications that require discretion, elegance, and yet power. The slender and streamlined design of X8i facilitates its integration in high-end architectural settings where it provides clear, studio-like sound.

The passive loudspeaker features a 1.5" neodymium compression driver coaxially loaded by an 8" low frequency transducer in a bass-reflex cabinet. This coaxial arrangement produces a 90° axisymmetric directivity with a smooth tonal response free of secondary lobes over the entire frequency range.

X8i can be driven by two presets to adapt to the acoustic needs of projects and to subwoofer coupling configurations. For strong vocal reinforcement, or when used alongside a subwoofer, the [X8i] preset boasts 129 dB of max SPL, down to 67 Hz. For standalone applications and close proximity listening experience, the [X8i_40] preset delivers full range sound reproduction down to 43 Hz, and produces 123 dB of max SPL.

The combination of pristine yet powerful sound and elegant form makes X8i ideal for vocal or musical reinforcement in small theaters, live clubs, luxury and hospitality spaces, houses of worship, home & yacht, broadcast and recording studios.

How to use this manual

The X8i owner's manual is intended for all actors involved in the system design, implementation, preventive and corrective maintenance of the X8i 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.13)
 - Rigging system description (p.17)
- 2. Prepare the system configuration. Consider the mechanical limits and the available acoustical configurations.
 - Mechanical safety (p.34)
 - Loudspeaker configurations (p.36)
- 3. Before rigging the system, perform mandatory inspections and functional checks.
- 4. To deploy the system, follow the step-by-step rigging instructions and refer to the cabling schemes.
 - Rigging procedures (p.43)
 - Connection to LA amplified controllers (p.167)

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 indicates a potential risk of electrical injury.

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	Apr. 2024	Initial version.

System components

Loudspeaker enclosures

X8i	2-way passive coaxial enclosure: 8" LF + 1.5" HF diaphragm (installation version)
SB10i	Ultra-compact subwoofer: 1 × 10" (installation version)
Syva Sub	Infra low frequency subwoofer: 1 × 12" LF
KS21	High power compact subwoofer: 1 × 21"



Refer to the Syva user documentation for information on using Syva Sub.

Powering and driving system

LA2Xi	Install-specific amplified controller 4 × 640 W / 4 ohms
LA4X	Amplified controller 4 × 1000 W / 8 ohms
LA7.16i	Install-specific amplified controller 16 × 1300 W / 8 ohms
LA12X	Amplified controller 4 × 2600 W / 4 ohms



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

Cables

SPCON	2-point speakON adaptor (2.5 mm ² gauge) for terminal blocks
$2 \times 2.5 \text{ mm}^2 \text{ cable}$	Speaker cable with bare wire endings Adapt the cable length to the installation.
custom 2-point speakON cable	2-point speakON cable (2.5 mm ² gauge) to bare wire cable

This cable needs to be custom made.

i 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

X8i-onCW	On-wall or on-ceiling mounting accessory with silent blocks for X8i
WALLx2	Wall-mounting kit
PANx2	Adjustable pan accessory kit +/-45°
PAN	Adjustable pan accessory +/-45°
WALL	Wall-mounting accessory
TILT	Adjustable tilt accessory from 0° to 40°
TILT5	Fixed tilt accessory 5°
TILT 15	Fixed tilt accessory 15°
TILT40	Fixed tilt accessory 40°
TILT-SUPPORT	Support plate for TILT/PAN/WALL accessories
GROUND	Ground-mounting accessory

GROUND55	Ground-mounting accessory for 55° site angle
GROUND35	Ground-mounting accessory for 35° site angle
X8i-HBAR	Rigging accessory for horizontally-oriented X8i
VBAR	Rigging accessory for vertically-oriented loudspeaker
CEILING-PENDANT	Rigging accessory for ceiling-hung pendant loudspeaker
POLE	Pole-mount adapter

Software applications

Soundvision3D acoustical and mechanical modeling softwareLA Network ManagerSoftware for remote control and monitoring of amplified controllers

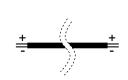
Refer to the Soundvision help. Refer to the LA Network Manager help.

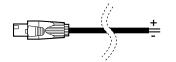
System component illustrations

Cables

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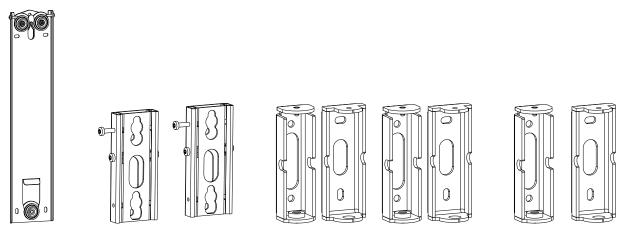


SPCON

2 × 2.5 mm² cable custom 2-point s

custom 2-point speakON cable

Rigging accessories

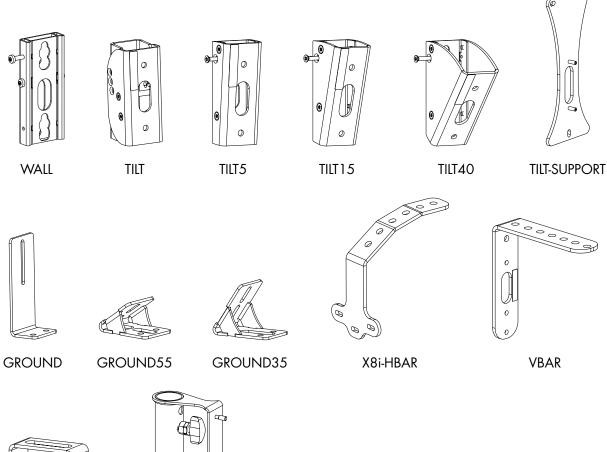


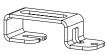
X8i-onCW

WALLx2

PANx2

PAN



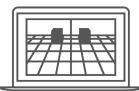




CEILING-PENDANT

POLE

Software applications



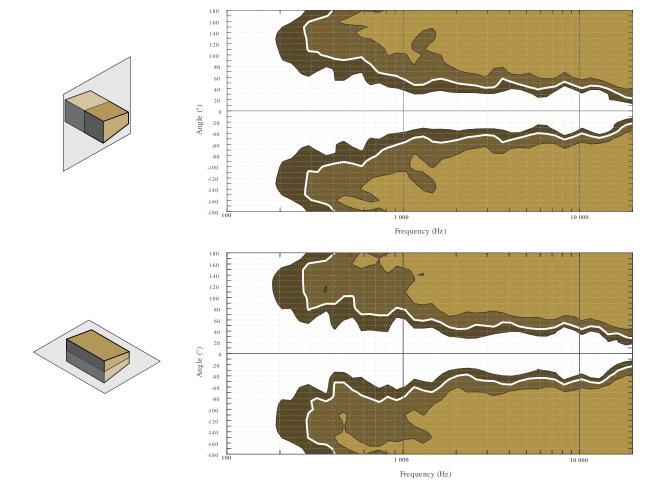




LA Network Manager

Electro-acoustical description

Directivity



X8i features a coaxial transducer arrangement that generates an axisymmetric directivity pattern of 90°.

Dispersion angle diagram of a single X8i using lines of equal sound pressure at -3 dB, -6 dB, -12 dB.

Preset description

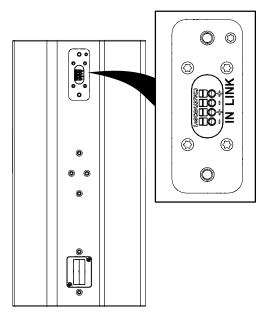
[X8i] [X8i_40] [X8i_MO]

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

[KS21_100] [SB10_60] [SB10_100] [SYVA SUB_100]

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



X8i

4-point terminal block with push-in connection

Internal pinout for L-Acoustics 2-way passive enclosures

Terminal block points	IN +	IN -
Transducer connectors	+	-

SPCON terminal block to speakON adapter

SPCON is a 2-point speakON to bare wire adaptor for X8i. The cables have a gauge of 2.5 mm² and the ends are equipped with ferrules. SPCON replaces the connector sealing plate.

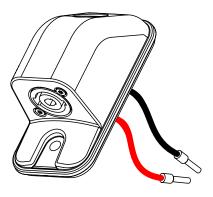


Risk of electric shock

When SPCON is connected to an amplified controller, the bare wires carry electrical voltage. Always mount SPCON to the enclosure **before** connecting the speaker cable to SPCON. Always disconnect the speaker cable from SPCON **before** removing SPCON from the enclosure. If the speaker cable cannot be disconnected, unplug the amplified controller from the mains.

SPCON is **not compatible** with the following rigging accessories:

- X8i-onCW
- WALLx2
- PANx2
- GROUND55
- GROUND35
- GROUND

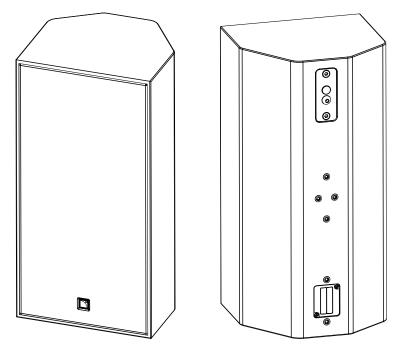


SPCON 2-point speakON

Rigging system description

X8i

X8i is a loudspeaker enclosure dedicated for installation projects. X8i can be mounted on a wall, on a ceiling, flown, or secured to the ground with dedicated rigging accessories, using the inserts at the back.





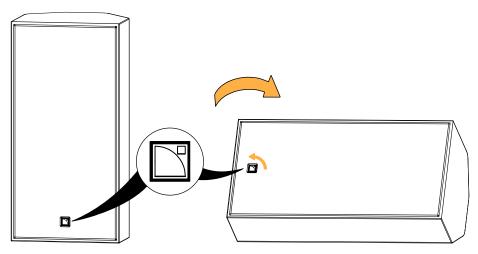
Secondary safety for flown enclosures

Use one insert at the back of the enclosure to implement a secondary safety.

Risk of acoustic leaks

Always put the placeholder screws back in place when the inserts are not in use.

The logo on the grill can be rotated to adapt to every position.

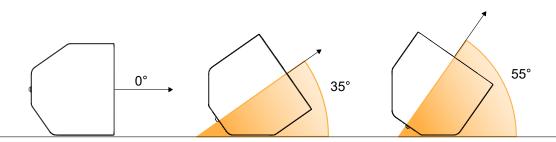




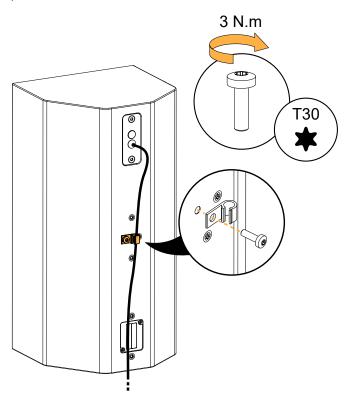
Weather resistance

X8i reaches IP55 protection level when it is in the vertical position, with the connector at the top.

When on the ground, the shape of the cabinet provides three possible monitor angles: 0°, 35°, or 55°. Ground-mounting accessories can be used for more stability, see GROUND / GROUND35 / GROUND55 (p.32).



X8i includes a cable clip to run the speaker cable along the cabinet. Mount the cable clip on any available insert in the middle of the enclosure with the provided M6×20 Torx screw.



Elements for wall-mounting



Risk of crushing injury

Ensure that the wall or ceiling can support the load of the product.

It is recommended to mount only on solid structures. If mounting on a hollow structure (such as a wall cavity), place anchoring points on the framework (wall studs, ceiling joists), or reinforce the mounting area.

Select screws and anchors applicable to the wall or ceiling properties and to the load of the product. Prevent screws from loosening over time, using for example thread locker or lock washers.

Refer to APPENDIX A: Specifications for screws and anchors (p.196).

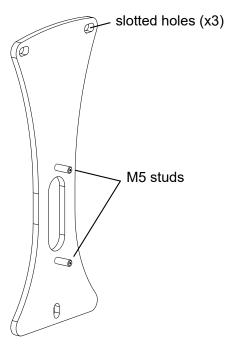
TILT-SUPPORT

TILT-SUPPORT is a support plate for individual X8i wall-mounting accessories. TILT-SUPPORT must be used to ensure the safety of the assembly with WALL, PAN, TILT5, TILT15, TILT40, or TILT.

TILT-SUPPORT is composed of:

- a main part with two M5 self-clinching studs
- fasteners for assembly

TILT-SUPPORT features three Ø 6.4 mm / 0.25 in slotted holes for vertical and horizontal adjustment during installation.



TILT-SUPPORT fasteners



🔍 x2

M5 hex locknut thick plain washer Ø5mm

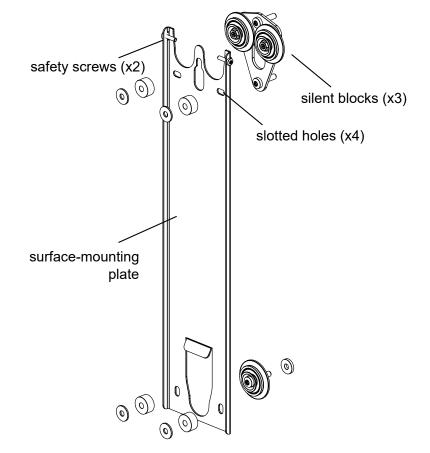
X8i-onCW

X8i-onCW is a rigging interface with silent blocks for mounting one X8i on a wall or on a ceiling. X8i-onCW is composed of:

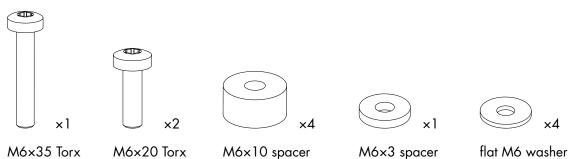
- one surface-mounting plate
- three silent blocks: •
 - one enclosure-mounting plate with two silent blocks
 - one individual silent block ٠
- fasteners for assembly and safety

The silent blocks isolate the enclosure from the wall to reduce the transmission of vibrations and improve sound quality.

X8i-onCW features four Ø 6.4 mm / 0.25 in slotted holes for vertical and horizontal adjustment during installation. Four flat M6 washers are provided for depth adjustment on uneven surfaces.



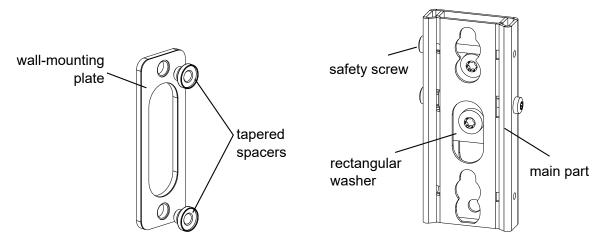
X8i-onCW screws and fasteners



WALL

WALL is a rigging interface for mounting one X8i horizontally on a wall. It must be used in combination with TILT-SUPPORT (p.19). WALL is composed of:

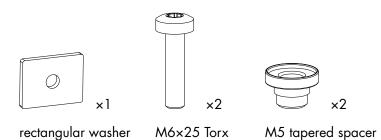
- a main part for mounting on X8i
- a rectangular washer
- a wall-mounting plate
- fasteners for assembly and safety



i

To mount X8i vertically on a wall, use WALLx2 (p.22) instead.

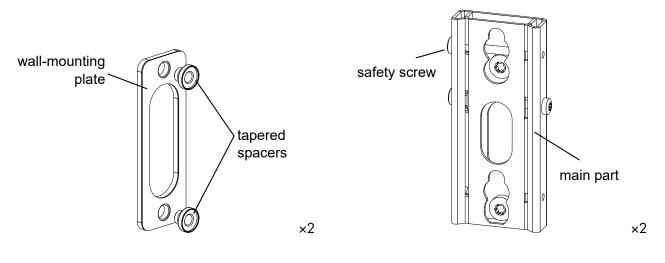
WALL screws and fasteners



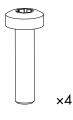
WALLx2

WALLx2 is a rigging interface for mounting one X8i vertically on a wall. WALLx2 is composed of two WALL (p.21), without rectangular washers:

- two main parts for mounting on X8i
- two wall-mounting plates
- fasteners for assembly and safety



WALLx2 screws and fasteners





M6×25 Torx

M5 tapered spacer

Elements for ceiling-mounting or truss-mounting



Risk of crushing injury

Ensure that the wall or ceiling can support the load of the product.

It is recommended to mount only on solid structures. If mounting on a hollow structure (such as a wall cavity), place anchoring points on the framework (wall studs, ceiling joists), or reinforce the mounting area. Select screws and anchors applicable to the wall or ceiling properties and to the load of the product. Prevent screws from loosening over time, using for example thread locker or lock washers.

Refer to APPENDIX A: Specifications for screws and anchors (p.196).

VBAR

VBAR is a rigging bracket for mounting X8i vertically on the ceiling, or for flying X8i with a truss or a threaded rod in a suspended ceiling.

VBAR can be combined with TILT, TILT5, TILT15, or TILT40 to adjust the site angle when mounting X8i on the ceiling.

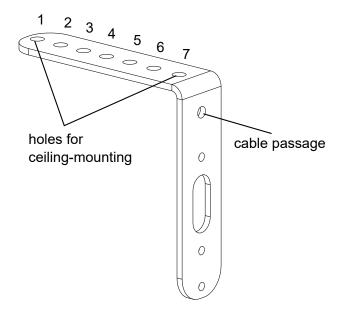
VBAR has seven Ø 10.4 mm / 0.41 in possible pickup points for site angle setting in flown configuration. When mounting on the ceiling, drive two screws in holes 1 and 7.



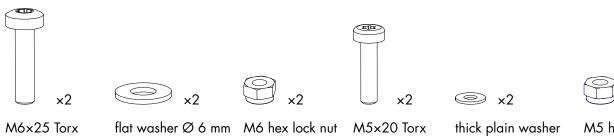
Ceiling-mounting holes

When ceiling-mounting with VBAR, always use holes 1 and 7 (at both ends) to ensure optimal support.

A Ø 9 mm / 0.35 in hole is available at the top of VBAR to run the speaker cable above X8i.



VBAR screws and fasteners





Ø5mm

M5 hex locknut

X8i site angles when flown or truss-mounted with VBAR

hole N ^o	angle	
1	9°	
2	5°	
3	0°	
4	-4°	
5	-9°	
6	-13°	
7	-17°	

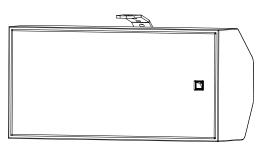
X8i-HBAR

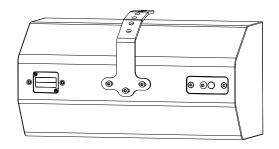
X8i-HBAR is a rigging bracket for mounting X8i horizontally on the ceiling, or for flying X8i with a truss or a threaded rod in a suspended ceiling.

X8i-HBAR has six \emptyset 10.3 mm / 0.40 in possible pickup points for site angle setting in flown configuration. When mounting on the ceiling, use one pair of adjacent, coplanar holes depending on the chosen site angle.

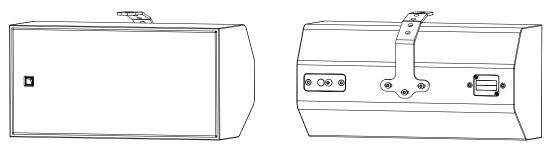
X8i-HBAR can be mounted on a horizontal X8i turned either way:

• with the connector plate on the right-hand side:

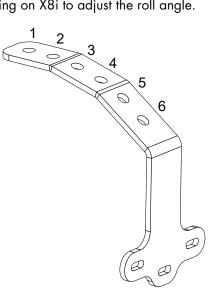




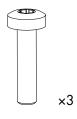
• with the connector plate on the left-hand side:



X8i-HBAR has three slotted holes for mounting on X8i to adjust the roll angle.



X8i-HBAR screws





X8i site angles when flown or truss-mounted with X8i-HBAR

hole N°	angle		
1	9°		
2	1°		
3	-10°		
4	-20°		
5	-30°		
6	-40°		

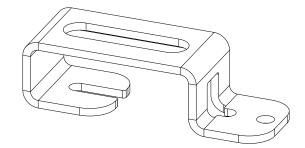
X8i site angles when ceiling-mounted with X8i-HBAR

holes N ^o	angle		
1 + 2	0°		
3 + 4	-14°		
5 + 6	-35°		

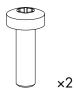
CEILING-PENDANT

CEILING-PENDANT is a rigging accessory for flying X8i in downward-facing position with a truss or a threaded rod in a suspended ceiling.

The slotted hole at the top has a diameter of \varnothing 12 mm / 0.47 in.



CEILING-PENDANT screws



M6×20 Torx

Elements for site or azimuth angle adjustment



Risk of crushing injury

Ensure that the wall or ceiling can support the load of the product.

It is recommended to mount only on solid structures. If mounting on a hollow structure (such as a wall cavity), place anchoring points on the framework (wall studs, ceiling joists), or reinforce the mounting area.

Select screws and anchors applicable to the wall or ceiling properties and to the load of the product. Prevent screws from loosening over time, using for example thread locker or lock washers.

Refer to APPENDIX A: Specifications for screws and anchors (p.196).

TILT5 / TILT15 / TILT40

TILT5, TILT15, and TILT40 are rigging interfaces for mounting one X8i vertically or horizontally with a fixed site angle of 5°, 15°, or 40° respectively. They must be used in combination with TILT-SUPPORT (p.19) or VBAR (p.23). Optionally, TILT5, TILT15, or TILT40 can be combined with PAN (p.30) to mount X8i with site and azimuth angle.

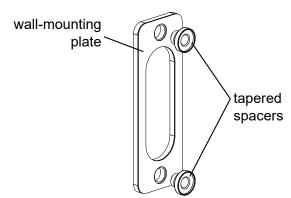
TILT5, TILT15, and TILT40 are composed of:

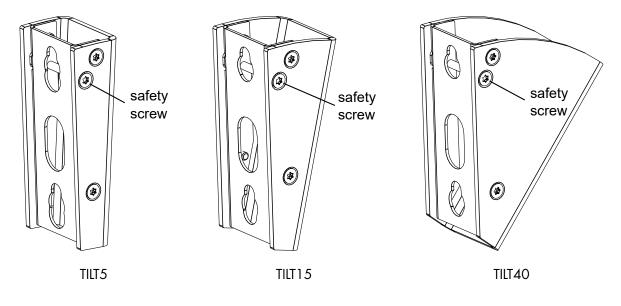
- a main part for mounting on X8i
- a wall-mounting plate
- a rectangular washer for horizontal configurations
- fasteners for assembly and safety



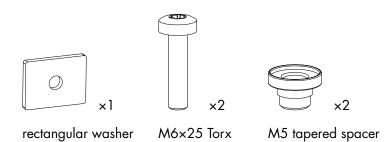
Risk of falling objects

Do not use TILT, TILT5, TILT15, or TILT40 upside-down. These rigging accessories are designed for negative site angles only.





TILT5 / TILT15 / TILT40 screws and fasteners



TILT

TILT is a rigging interface for mounting X8i vertically or horizontally with an adjustable site angle. It must be used in combination with TILT-SUPPORT (p.19) or VBAR (p.23). Optionally, TILT can be combined with PAN (p.30) to mount X8i with site and azimuth angle.

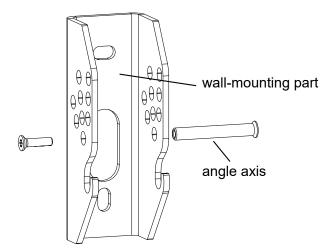
TILT is composed of:

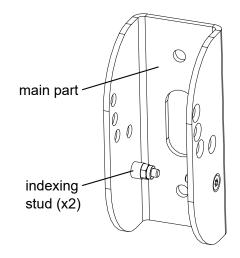
- a main part for mounting on X8i
- a wall-mounting part
- a rectangular washer for horizontal configurations
- fasteners for assembly and safety



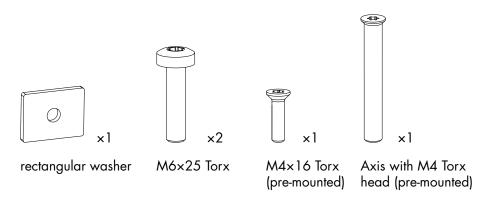
Risk of falling objects

Do not use TILT, TILT5, TILT15, or TILT40 upside-down. These rigging accessories are designed for negative site angles only.

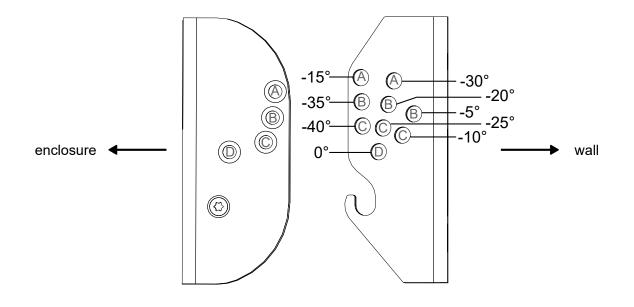




TILT screws and fasteners



The enclosure site angle can be adjusted from 0° to -40° in 5° steps.



PAN

PAN is a rigging interface for mounting one X8i horizontally on a wall with adjustable azimuth angle. It must be used in combination with TILT-SUPPORT (p.19).

PAN can be combined with TILT, TILT5, TILT15, or TILT40 to mount X8i horizontally or vertically with site and azimuth angle.

The azimuth angle can be set between -45° and 45°.

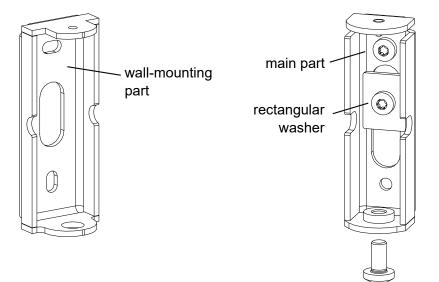
PAN is composed of:

- a main part for mounting on X8i ٠
- a wall-mounting part
- a rectangular washer for horizontal configurations
- fasteners for assembly and safety

Risk of falling objects

Do not use PAN or PANx2 upside-down.

Do not swap the wall-mounting part(s) and the enclosure-mounting part(s).



PAN screws and fasteners





rectangular washer

M6×25 Torx





Ø5mm

×2 M8×16 Torx thick plain washer



To mount X8i vertically on a wall with adjustable azimuth angle and without site angle setting, use PANx2 (p.31) instead.





M6 hex lock nut





flat washer Ø 6 mm M5×20 Torx



M5 hex locknut

PANx2

PANx2 is a rigging interface for mounting one X8i vertically on a wall with adjustable azimuth angle. It is composed of two PAN (p.30), without the fasteners for combinations with TILT accessories or horizontal configurations:

- two main parts for mounting on X8i
- two wall-mounting parts
- fasteners for assembly and safety

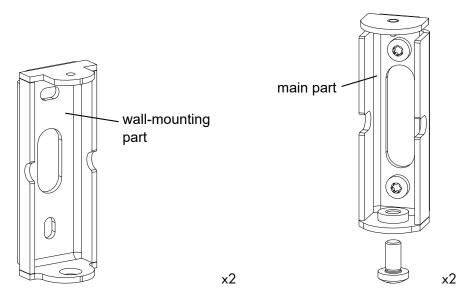
The azimuth angle can be set between -45° and 45°.



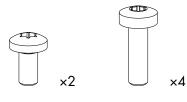
Risk of falling objects

Do not use PAN or PANx2 upside-down.

Do not swap the wall-mounting part(s) and the enclosure-mounting part(s).



PANx2 screws and fasteners



M8×16 Torx

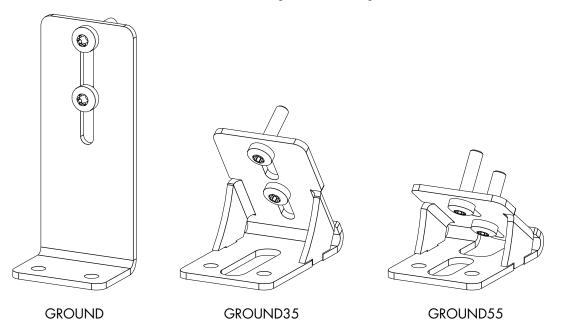
M6×20 Torx

Elements for ground-mounting

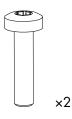
GROUND / GROUND35 / GROUND55

GROUND, GROUND35, and GROUND55 are accessories for securing X8i to the ground with a site angle of 0°, 35°, or 55° respectively.

Two Ø 6.4 mm / 0.25 in holes are available for ground-mounting the enclosure.



GROUND / GROUND35 / GROUND55 screws and fasteners

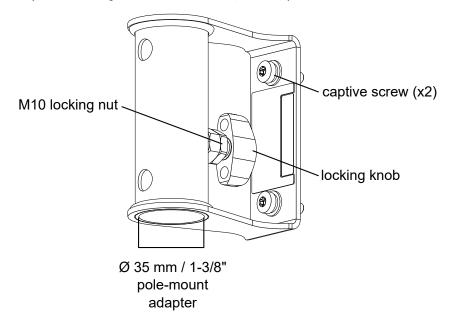


M6×25 Torx

Elements for pole-mounting

POLE

POLE is a rigging accessory for mounting X8i on a Ø 35 mm (1-3/8") pole.



Mechanical safety

Flown configurations

The X8i 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.



Safe/maximum limit: 1

All the mechanical configurations described in this manual are destined to mount a single X8i.



Risk of injury or product damage

This manual describes all allowed mechanical configurations with X8i and its accessories. Do not attempt to use these products outside of their intended use.



Mechanical configurations overview

For a detailled list of X8i mechanical configurations, refer to X8i mechanical configurations overview (p.43).

In this table, TILTxx designates the fixed angle accessories TILT5, TILT15, and TILT40.

X8i

1

configuration		deployment parameters			
		site angle			adjustable
mode	orientation	0° angle	adjustable angle	fixed angle	azimuth angle
wall-mounted	vertical	 X8i-onCW[*] WALLx2 	TILT-SUPPORT + TILT	TILT-SUPPORT + TILT <i>xx</i>	 PANx2 With site angle setting: TILT-SUPPORT + PAN + TILT / TILT xx
	horizontal	TILT-SUPPORT + WALL	TILT-SUPPORT + TILT	TILT-SUPPORT + TILT <i>xx</i>	 TILT-SUPPORT + PAN With site angle setting: TILT-SUPPORT + PAN + TILT / TILT xx
ceiling-	vertical	VBAR	VBAR + TILT	VBAR + TILT <i>xx</i>	-
· · ·	horizontal	X8i-HBAR		X8i-onCW*	-
truss- mounted / suspended by a threaded rod	vertical	VBAR		CEILING- PENDANT	-
	horizontal	X8i-HBAR			-

with silent blocks

Other configurations

X8i

configuration		depl	deployment parameters		
		site angle			
mode	orientation 0° angle fix		fixed angle		
grounded	vertical	no rigging accessory	-		
	horizontal	GROUND	GROUND55 (55°) / GROUND35 (35°)		
pole-mounted	vertical	POLE	-		

Assessing mechanical safety



Mechanical safety of the rigging system

Before any installation, always model the system in Soundvision and check the **Mechanical Data** section for any stress warning or stability warning.

In order to assess the actual safety of any array configuration before implementation, refer to the following warnings:



Rated working load limit (WLL) is not enough

The rated WLL is an indication of the element resistance to tensile stress. For complex mechanical systems such as loudspeaker arrays, WLLs cannot be used per se to determine the maximum number of enclosures within an array or to assess the safety of a specific array configuration.

Mechanical modeling with Soundvision

The working load applied to each linking point, along with the corresponding safety factor, will depend on numerous variables linked to the composition of the array (type and number of enclosures, splay angles) and the implementation of the flying or stacking structure (number and location of flying points, site angle). This cannot be determined without the complex mechanical modeling and calculation offered by Soundvision.

Assessing the safety with Soundvision

The overall safety factor of a specific mechanical configuration always corresponds to the lowest safety factor among all the linking points. Always model the system configuration with the Soundvision software and check the **Mechanical Data** section to identify the weakest link and its corresponding working load. By default, a stress warning will appear when the mechanical safety goes beyond the recommended safety level.

Safety of ground-stacked arrays in Soundvision

For ground-stacked arrays, a distinct stability warning is implemented in Soundvision. It indicates a tipping hazard when the array is not secured to the ground, stage or platform. It is the user's responsibility to secure the array and to ignore the warning.

Additional safety for flown arrays

When flying an array, use available holes to implement a secondary safety.

Considerations must be given to unusual conditions

Soundvision calculations are based on usual environmental conditions. A higher safety factor is recommended with factors such as extreme high or low temperatures, strong wind, prolonged exposition to salt water, etc. Always consult a rigging specialist to adopt safety practices adapted to such a situation.

Loudspeaker configurations

X8i point source

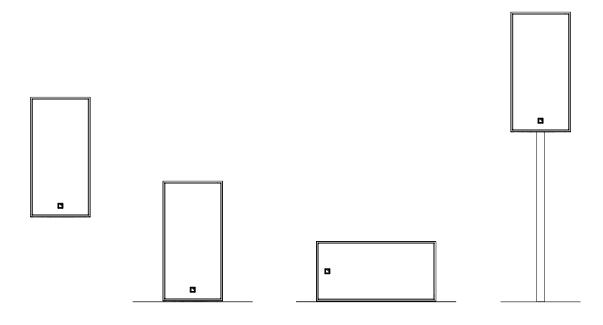
Deployed as a standalone point source, an X8i system operates over the nominal bandwidth of the X8i enclosure for short throw applications.

Two factory presets are available:

- The [X8i_40] preset extends the bandwidth in the low end, for full-range sound reproduction.
- The [X8i] preset offers a higher SPL ouput for vocal reinforcement or to be combined with a low-frequency element.

The X8i enclosure is driven by the LA2Xi / LA4X / LA7.16i / LA12X amplified controllers.

Reduced maximum SPL or drive capacity with LA2Xi: refer to the LA2Xi owner's manual.



Preset	[X8i_40]	[X8i]
Usable bandwidth (-10 dB)	43 Hz - 20 kHz	67 Hz - 20 kHz
Maximum SPL	123 dB	129 dB

X8i point source with low-frequency element

Deployed as a point source with SB10i(r), Syva Sub, or KS21(i) subwoofers, X8i system is extended in the low end and the LF contour is reinforced.

i

Gain structure

X8i and SB10i(r) provide 4 dB of headroom. Syva Sub and KS21(i) provide 8 dB of headroom. Refer to the **Preset Guide** for more information.

configuration	subwoofer upper frequency limit	presets			
		SB10i(r)	Syva Sub	KS21(i)	
coupled	100 Hz	[SB10_100]	[SYVA SUB_100]	[KS21_100]	
separated	60 Hz	[SB10_60]	-	[KS21_60]	

X8i, SB10i(r), Syva Sub, and KS21(i) are driven by LA2Xi / LA4X / LA7.16i / LA12X.

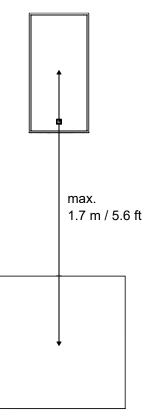
Reduced maximum SPL or drive capacity with LA2Xi: refer to the **LA2Xi owner's manual**.

X8i with SB10i(r)

Coupled

With SB10i(r) and the [SB10_100] preset, the bandwidth of the X8i system is extended down to 27 Hz and the system contour is reinforced.

The [X8i] preset is recommended for X8i in this configuration.



Enclosure	Х8і	SB1Oi(r)
Preset	[X8i]	[SB10_100]
Recommended ratio	1 X8i : 1 SB1Oi(r)	
Usable bandwidth (-10 dB)	27 Hz - 20 kHz	
System contour (peak low-end SPL)	+6 dB at 1 kHz with [X8i]	



Contour value takes into account the effect of the wall and floor on the contour.

Delay values

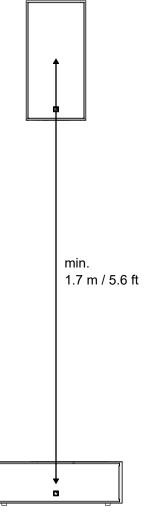
Do not forget to add the pre-alignment and geometric delays depending on the configuration.

presets	pre-alignment delay values and polarity settings		
[X8i] + [SB10_100]	X8i = 0 ms	SB10i = 0.5 ms	

Separated

With SB10i(r) and the [SB10_60] preset, the bandwidth of the X8i is extended down to 25 Hz and the system contour is reinforced.

The [X8i_40] preset is recommended for X8i in this configuration.



Enclosure	Х8і	SB1Oi(r)	
Preset	[X8i_40]	[SB10_60]	
Recommended ratio	1 X8i : 1 SB10i(r)		
Usable bandwidth (-10 dB)	25 Hz - 20 kHz		
System contour (peak low-end SPL)	+8 dB at 1 kHz with [X8i_40]		



Contour value takes into account the effect of the wall and floor on the contour.

Delay values

Do not forget to add the pre-alignment and geometric delays depending on the configuration.

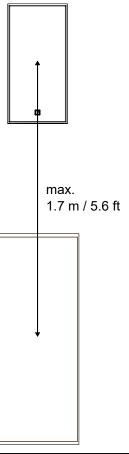
presets	pre-alignment delay values and polarity settings		
[X8i_40] + [SB10_60]	X8i = 0 ms	+	SB10i = 3 ms

X8i with Syva Sub

Coupled

With Syva Sub and the [SYVA SUB_100] preset, the bandwidth of the X8i system is extended down to 27 Hz and the system contour is reinforced.

The [X8i] preset is recommended for X8i in this configuration.



Enclosure	X8i	Syva Sub	
Preset	[X8i]	[SYVA SUB_100]	
Recommended ratio	1 X8i : 1 Syva Sub		
Usable bandwidth (-10 dB)	27 Hz - 20 kHz		
System contour (peak low-end SPL)	+6 dB at 1 kHz with [X8i]		

Contour value takes into account the effect of the wall and floor on the contour.

Delay values

Do not forget to add the pre-alignment and geometric delays depending on the configuration.

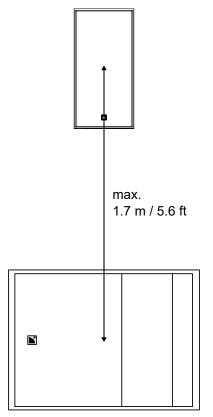
presets	pre-alignment delay values and polarity settings		
[X8i] + [SYVA SUB_100]	X8i = 0 ms	Syva Sub = 0 ms	

X8i with KS21(i)

Coupled

With KS21(i) and the [KS21_100] preset, the bandwidth of the X8i system is extended down to 31 Hz and the system contour is reinforced.

The [X8i] preset is recommended for X8i in this configuration.



Enclosure	Х8і	KS21(i)	
Preset	[X8i]	[KS21_100]	
Recommended ratio	1 X8i : 1 KS21(i)		
Usable bandwidth (-10 dB)	31 Hz - 20 kHz		
System contour (peak low-end SPL)	+15 dB at 1 kHz with [X8i]		

Contour value takes into account the effect of the wall and floor on the contour.

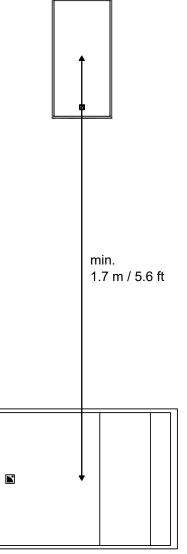
Do not forget to add the geometric delays depending on the configuration.

No pre-alignment delay values are required for this configuration.

Separated

With KS21(i) and the [KS21_60] preset, the bandwidth of the X8i is extended down to 29 Hz and the system contour is reinforced.

The [X8i_40] preset is recommended for X8i in this configuration.



Enclosure	X8i	KS21(i)
Preset	[X8i_40] [KS21_60]	
Recommended ratio	1 X8i : 1 KS21(i)	
Usable bandwidth (-10 dB)	29 Hz - 20 kHz	
System contour (peak low-end SPL)	+20 dB at 1 kHz with [X8i_40]	

i

Contour value takes into account the effect of the wall and floor on the contour.

Delay values

Do not forget to add the pre-alignment and geometric delays depending on the configuration.

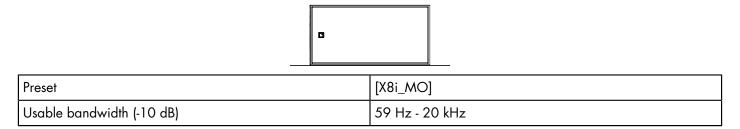
presets	pre-alignment delay values and polarity settings		
[X8i_40] + [KS21_60]	X8i = 4.8 ms	+ KS21 = 0 ms	

X8i stage monitor

Deployed as a stage monitor, an X8i system operates over the nominal bandwidth of the X8i enclosure.

The [X8i_MO] preset delivers a reference frequency response in stage monitoring applications.

The X8i enclosure is driven by the LA2Xi / LA4X / LA7.16i / LA12X amplified controllers.



Low-latency preset

A low-latency preset is available for the X8i enclosure used as a monitor ([X8i_MO]). It reduces latency from 3.84 ms down to 1.18 ms (LA7.16i) and 0.84 ms (LA2Xi / LA4X / LA12X).

To combine the monitor with a subwoofer:

- on 4-channel amplified controllers, create a custom low-latency preset
- on 16-channel amplified controllers, select the low-latency (*_MO) preset for the subwoofer

Refer to the LA Network Manager Help for more information.

Paired X8i monitors with LFC

The Low Frequency Contour (LFC) tool implemented in LA Network Manager can compensate for coupling effects between closely operating monitors. LFC allows to adjust the frequency response curve to obtain the desired low frequency contour.

For paired X8i monitors, enter the following parameters to obtain the reference response curve of a single enclosure:

	LF Contour	
FREQ/RATIO	180	N/A
GAIN	-3.0	

For more information about LFC, refer to the **LA Network Manager Help** (section: Group Control Panel) and to the **Array Morphing** white paper, available on www.l-acoustics.com.

Rigging procedures

X8i mechanical configurations overview

Use the following tables to choose the appropriate mechanical configuration based on the deployment parameters. Each configuration links to the corresponding procedure.



Risk of injury or product damage

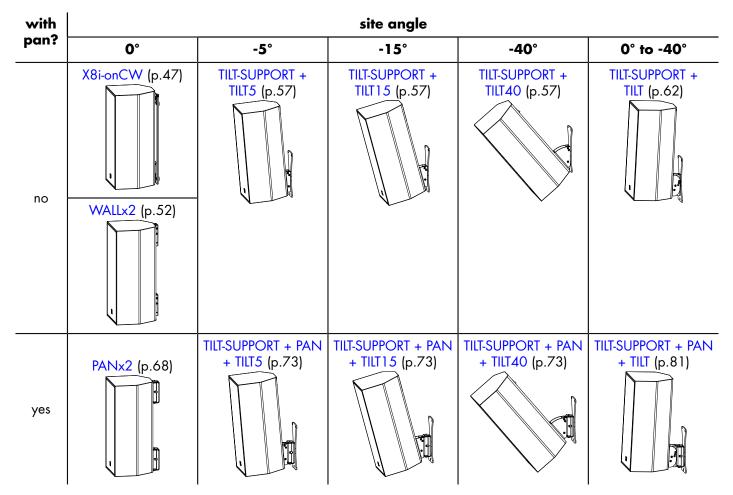
This manual describes all allowed mechanical configurations with X8i and its accessories. Do not attempt to use these products outside of their intended use.

Deployment parameter definitions

Site angle ("tilt"): Physical deployment parameter that refers to the position of the source as the elevation angle in the vertical dimension.

Azimuth angle ("pan"): Physical deployment parameter that refers to the position of the source as the off-axis angle in the horizontal dimension.

X8i wall-mounted vertically



X8i wall-mounted horizontally

with			site angle		
pan?	0 °	-5°	-15°	-40°	0° to -40°
no	TILT-SUPPORT +	TILT-SUPPORT +	TILT-SUPPORT +	TILT-SUPPORT +	TILT-SUPPORT +
	WALL (p.90)	TILT5 (p.95)	TILT15 (p.95)	TILT40 (p.95)	TILT (p. 100)
yes	TILT-SUPPORT +	TILT-SUPPORT + PAN	TILT-SUPPORT + PAN	TILT-SUPPORT + PAN	TILT-SUPPORT + PAN
	PAN (p.107)	+ TILT5 (p.112)	+ TILT15 (p.112)	+ TILT40 (p.112)	+ TILT (p. 120)

X8i ceiling-mounted vertically

	site angle				
0 °	-5 °	-15°	-40°	0° to -40°	
VBAR (p.128)	VBAR + TILT5 (p.135)	VBAR + TILT15 (p.135)	VBAR + TILT40 (p.135)	VBAR + TILT (p.140)	

X8i ceiling-mounted horizontally

site	site angle			
0° to -35°	90° (downward-facing)			
X8i-HBAR (p.145)	X8i-onCW (p.153)			

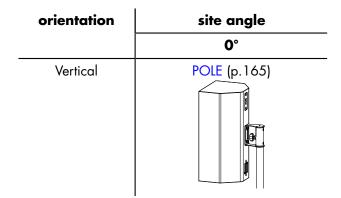
X8i truss-mounted or suspended by a threaded rod

orientation	site angle		
	9° to -17°	90° (downward-facing)	
Vertical	VBAR (p.128)	CEILING-PENDANT (p.158)	
orizontal	9° to -40°		
	X8i-HBAR (p.145)		

X8i ground-stacked

orientation	site angle		
	0 °	35°	55°
Vertical	no rigging accessory		·
Horizontal	GROUND (p.160)	GROUND35 (p.160)	GROUND55 (p.160)

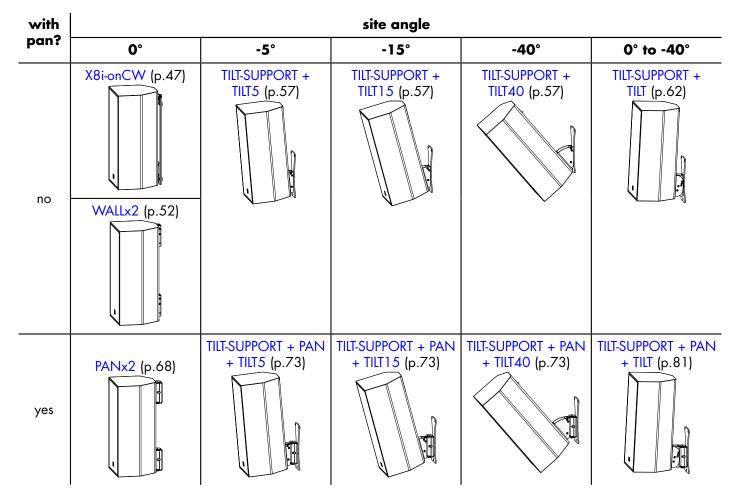
X8i pole-mounted



Wall-mounting

Wall-mounting X8i vertically

Overview



Wall-mounting X8i vertically with X8i-onCW

Type of deployment	wall-mounting	
Rigging accessories	X8i-onCW	
Additional material	4 compatible screws and anchors	
Tools	torque screwdriver	
	T20 Torx bit	
	T30 Torx bit	
Min. number of operators	1	

Secondary safety for flown enclosures

Use one insert at the back of the enclosure to implement a secondary safety.



Risk of crushing injury

Ensure that the wall or ceiling can support the load of the product.

It is recommended to mount only on solid structures. If mounting on a hollow structure (such as a wall cavity), place anchoring points on the framework (wall studs, ceiling joists), or reinforce the mounting area.

Select screws and anchors applicable to the wall or ceiling properties and to the load of the product. Prevent screws from loosening over time, using for example thread locker or lock washers.

Specifications for screws and anchors

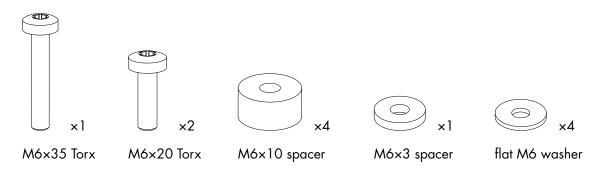
deployment	accessory	ultimate tensile load per screw (daN)	ultimate shear load per screw (daN)	screws quantity	mounting hole size	specific constraints
wall-mounting	X8i-onCW	6	5	4	Ø 6.4 mm / 0.25 in (slotted)	total thickness with spacers: 13.10 mm / 0.51 in



SPCON cannot be used in this configuration.

Screws and fasteners

from X8i-onCW



Assembly

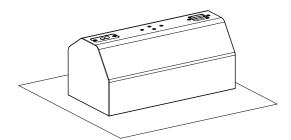
About this task



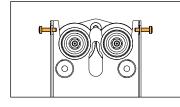
For this configuration, the speaker cable must be run inside the wall or ceiling.

Prerequisite

Place X8i on its front face on a clean flat surface.



Make sure that the X8i-onCW safety screws are present and loosened.

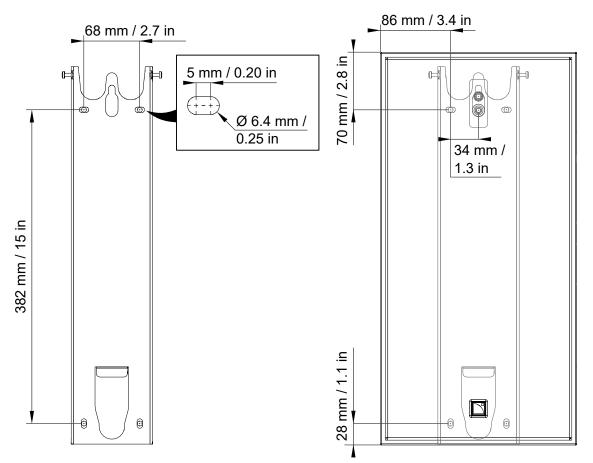


Procedure



Make sure to leave enough space between the walls and the sides of the rigging element to access the screw(s) when the enclosure is mounted.

1. Drill holes in the wall for the anchors and for the cable exit(s).

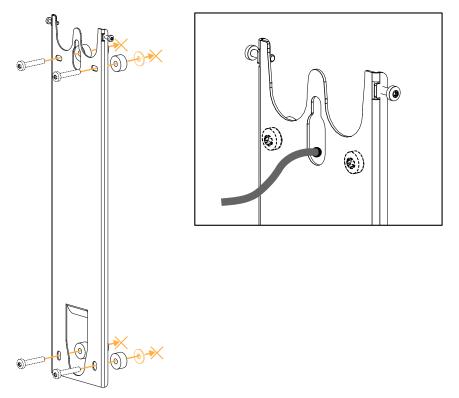


2. Run the speaker cable inside the wall or ceiling.

3. Secure the surface-mounting plate to the wall, using the four M6×10 spacers.

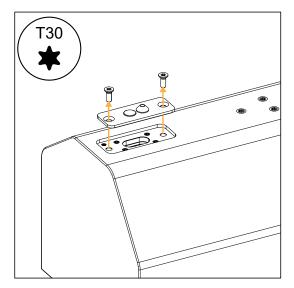
If the surface is uneven, adjust with the flat M6 washers.

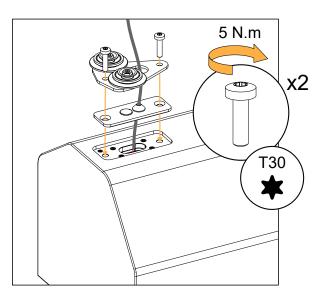
Run the cable through the top hole of the surface-mounting plate.



- 4. Secure the two top silent blocks to X8i:
 - a) Remove the connector sealing plate (if present) or the placeholder screws.
 - b) Run the cable through the enclosure-mounting plate and through the connector sealing plate.
 - c) Connect the cable to the X8i terminal block. Refer to Cabling X8i (p.169).
 - d) Secure the enclosure-mounting plate and the connector sealing plate to X8i.

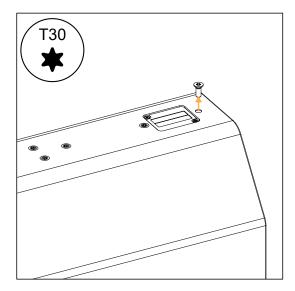
Use the two M6×20 Torx screws.

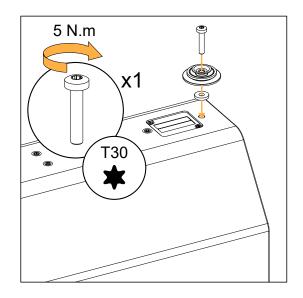




- **5.** Secure the bottom silent block to X8i:
 - a) Remove the placeholder screw at the bottom of X8i.
 - b) Secure the silent block and the M6×3 spacer at the bottom of the enclosure.

Use the M6×30 Torx screw.

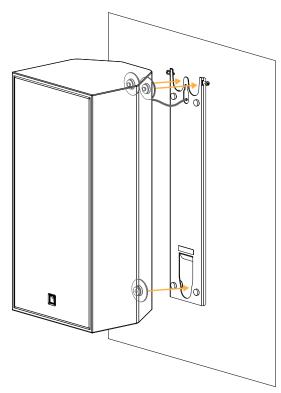


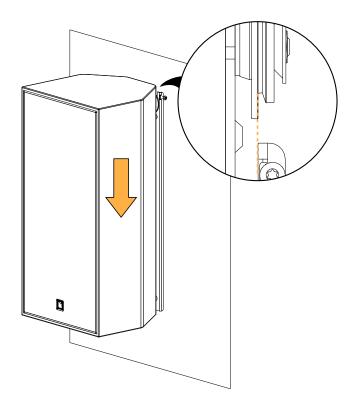




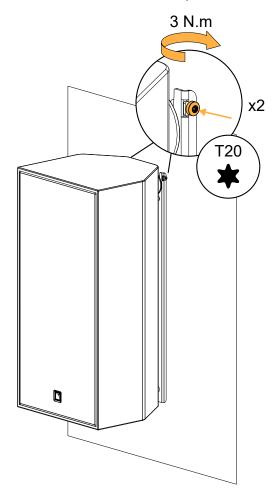
This step requires two operators.

- 6. Mount X8i on the wall:
 - a) Align the silent blocks with the surface-mounting plate cutouts.
 - b) Push the assembly towards the bottom of X8i.





7. Tighten the safety screws on both sides and make sure the assembly is stable.



Wall-mounting X8i vertically with WALLx2

Type of deployment	wall-mounting		
Rigging accessories	WALLx2		
Additional material	4 compatible screws and anchors		
Tools	torque screwdriver		
	T20 Torx bit		
	T30 Torx bit		
Min. number of operators	1		

Secondary safety for flown enclosures

Use one insert at the back of the enclosure to implement a secondary safety.



Risk of crushing injury

Ensure that the wall or ceiling can support the load of the product.

It is recommended to mount only on solid structures. If mounting on a hollow structure (such as a wall cavity), place anchoring points on the framework (wall studs, ceiling joists), or reinforce the mounting area.

Select screws and anchors applicable to the wall or ceiling properties and to the load of the product. Prevent screws from loosening over time, using for example thread locker or lock washers.

Specifications for screws and anchors

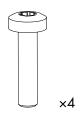
deployment	accessory	ultimate tensile load per screw (daN)	ultimate shear load per screw (daN)	screws quantity	mounting hole size	specific constraints
wall-mounting	WALLx2	6	5	4	Ø 5.2 mm / 0.20 in	maximum screw head size: Ø 11 mm / 0.43 in



SPCON cannot be used in this configuration.

Screws and fasteners

from WALLx2





M6×25 Torx

M5 tapered spacer

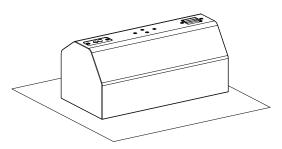
Assembly

About this task

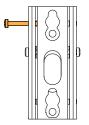
For this configuration, the speaker cable must be run inside the wall.

Prerequisite

Place X8i on its front face on a clean flat surface.



Make sure that the WALLx2 safety screws are present and loosened.



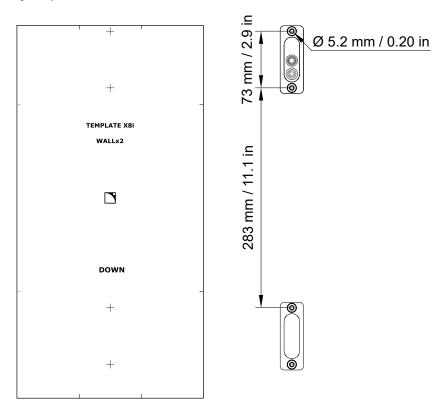
Procedure



Make sure to leave enough space between the walls and the sides of the rigging element to access the screw(s) when the enclosure is mounted.

1. Drill holes in the wall for the anchors and for the cable exit.

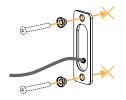
Use the provided drilling template.



2. Run the speaker cable inside the wall.

3. Secure the two wall-mounting plates to the wall with the four tapered spacers. The gaskets are facing away from the wall.

Run the speaker cable through the top wall-mounting plate.

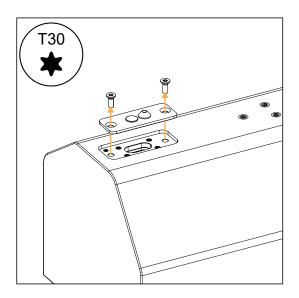


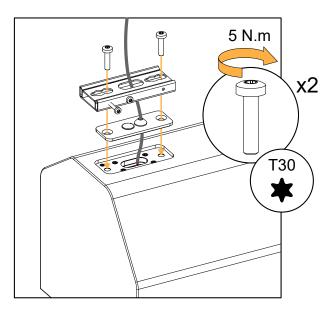


4. Secure the top WALLx2 part to X8i:

- a) Remove the connector sealing plate (if present) or the placeholder screws.
- b) Run the cable through the WALLx2 part and through the connector sealing plate.
- c) Connect the speaker cable to the X8i terminal block. Refer to Cabling X8i (p.169).
- d) Secure the WALLx2 part and the connector sealing plate to X8i.

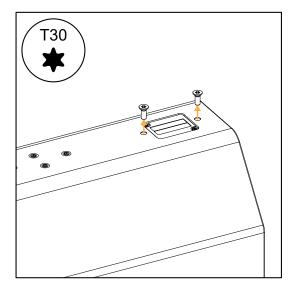
Use two M6×25 Torx screws.

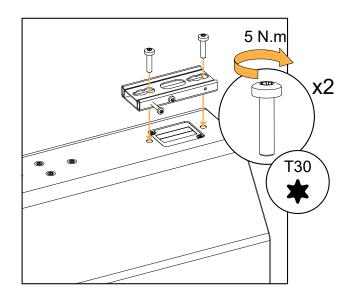




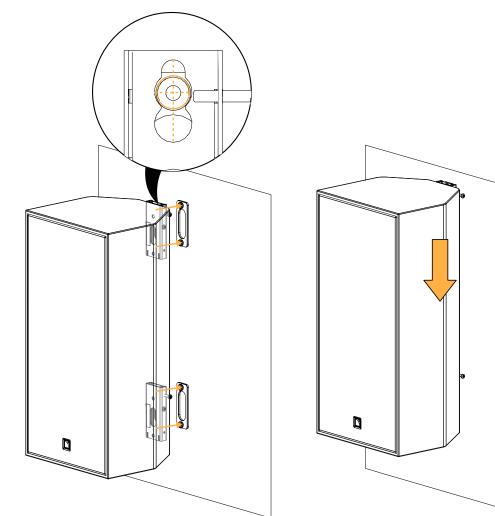
- 5. Secure the bottom WALLx2 part to X8i:
 - a) Remove the two bottom placeholder screws.
 - b) Secure the WALLx2 part to X8i.

Use two M6×25 Torx screws.



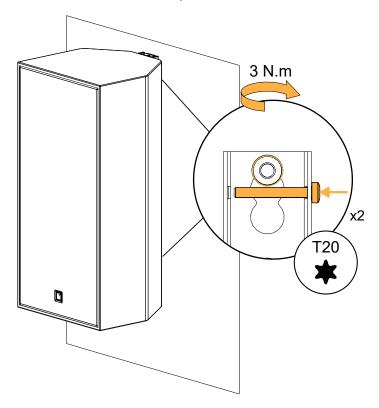


- 6. Mount X8i on the wall-mounting plates:
 - a) Align the midpoints of the WALLx2 rear cutouts with the tapered spacers.
 - b) Push X8i downwards.



Rigging procedures

7. Tighten the two safety screws and make sure the assembly is stable.



Wall-mounting X8i vertically with TILT5/TILT15/TILT40

Type of deployment	wall-mounting
Rigging accessories	TILT-SUPPORT
	TILT5/TILT15/TILT40
Additional material	3 compatible screws and anchors
Tools	torque screwdriver
	screwdriver extension or angled screwdriver
	T30 Torx bit
	8 mm wrench or 8 mm hex socket
Min. number of operators	1



Secondary safety for flown enclosures

Use one insert at the back of the enclosure to implement a secondary safety.



Risk of crushing injury

Ensure that the wall or ceiling can support the load of the product.

It is recommended to mount only on solid structures. If mounting on a hollow structure (such as a wall cavity), place anchoring points on the framework (wall studs, ceiling joists), or reinforce the mounting area.

Select screws and anchors applicable to the wall or ceiling properties and to the load of the product. Prevent screws from loosening over time, using for example thread locker or lock washers.

Specifications for screws and anchors

deployment	accessory	ultimate tensile load per screw (daN)	ultimate shear load per screw (daN)	screws quantity	mounting hole size	specific constraints
wall-mounting	TILT-SUPPORT + any accessory	12	9	3	Ø 6.4 mm / 0.25 in (slotted)	_



Risk of falling objects

Do not use TILT, TILT5, TILT15, or TILT40 upside-down. These rigging accessories are designed for negative site angles only.

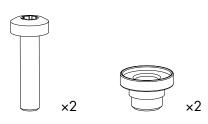
Screws and fasteners

from TILT-SUPPORT



M5 hex locknut

from TILT5/TILT15/TILT40



M6×25 Torx

M5 tapered spacer

Assembly

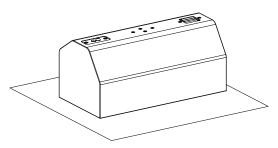
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About this task

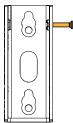
In this procedure, TILTxx designates the fixed angle accessories TILT5, TILT15, and TILT40.

Prerequisite

Place X8i on its front face on a clean flat surface.



Make sure that the TILTxx safety screw is present and loosened.

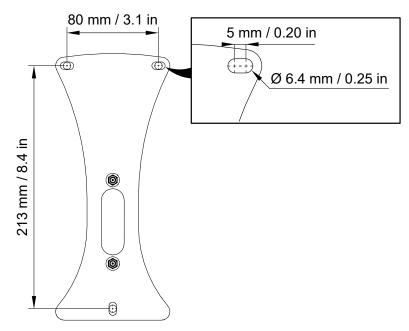


Procedure



Make sure to leave enough space between the walls and the sides of the rigging element to access the screw(s) when the enclosure is mounted.

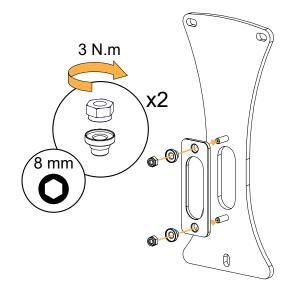
1. Drill holes in the wall for TILT-SUPPORT.



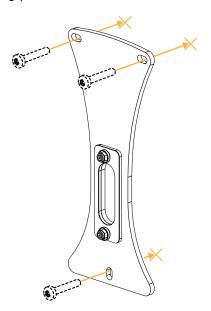
2. Assemble the wall-mounting plate and tapered spacers with TILT-SUPPORT.

Use the two M5 nuts.

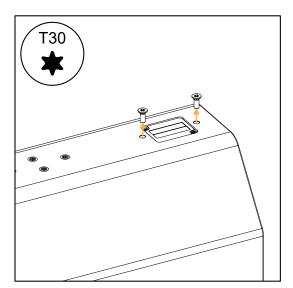
The wall-mounting plate gasket is facing away from TILT-SUPPORT.



3. Secure TILT-SUPPORT and the wall-mounting plate to the wall.



4. Remove the two placeholder screws at the bottom of X8i.

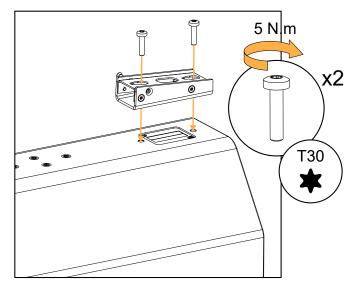


5. Secure TILTxx to X8i.

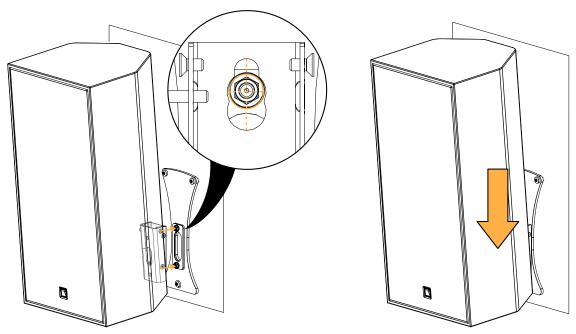
Use the two M6×25 Torx screws.



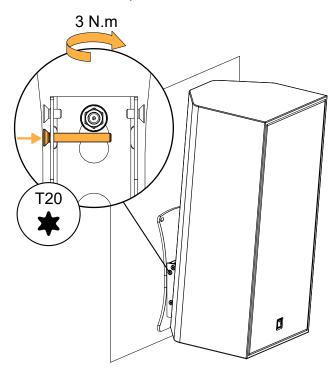
If the shank of the screwdriver collides with TILT40, use a screwdriver extension or an angled screwdriver to drive the screws.



- 6. Prepare the cabling. Refer to Cabling X8i (p.169).
- 7. Mount X8i on the wall-mounting plate:
 - a) Align the midpoints of the TILTxx rear cutouts with the tapered spacers.
 - b) Push the assembly downwards.



8. Tighten the safety screw and make sure the assembly is stable.

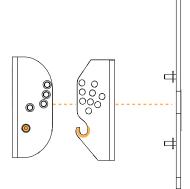


Wall-mounting X8i vertically with TILT

Type of deployment	wall-mounting
Rigging accessories	TILT-SUPPORT
	ТІЦТ
Additional material	3 compatible screws and anchors
Tools	torque screwdriver
	2 × T20 Torx bit
	T30 Torx bit
	8 mm wrench or 8 mm hex socket
Min. number of operators	2

Assembly overview

Pay attention to the position of the accessory parts throughout the procedure.





TILT-SUPPORT

Secondary safety for flown enclosures

Use one insert at the back of the enclosure to implement a secondary safety.

Risk of crushing injury

TILT

Ensure that the wall or ceiling can support the load of the product.

It is recommended to mount only on solid structures. If mounting on a hollow structure (such as a wall cavity), place anchoring points on the framework (wall studs, ceiling joists), or reinforce the mounting area.

Select screws and anchors applicable to the wall or ceiling properties and to the load of the product. Prevent screws from loosening over time, using for example thread locker or lock washers.

Specifications for screws and anchors

deployment	accessory	ultimate tensile load per screw (daN)	ultimate shear load per screw (daN)	screws quantity	mounting hole size	specific constraints
wall-mounting	TILT-SUPPORT + any accessory	12	9	3	Ø 6.4 mm / 0.25 in (slotted)	_



Risk of falling objects

Do not use TILT, TILT5, TILT15, or TILT40 upside-down. These rigging accessories are designed for negative site angles only.

Screws and fasteners

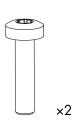
from TILT-SUPPORT

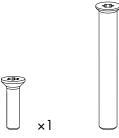


@ x2

M5 hex locknut thick plain washer \emptyset 5 mm

from TILT





M6×25 Torx

M4×16 Torx (pre-mounted)

Axis with M4 Torx head (pre-mounted)

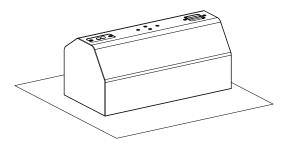
×1

Rigging procedures

Assembly

Prerequisite

Place X8i on its front face on a clean flat surface.

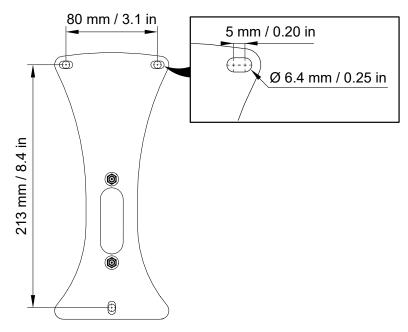


Procedure

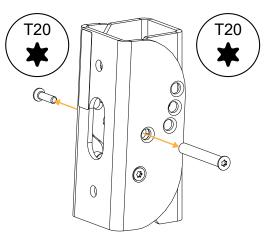


Make sure to leave enough space between the walls and the sides of the rigging element to access the screw(s) when the enclosure is mounted.

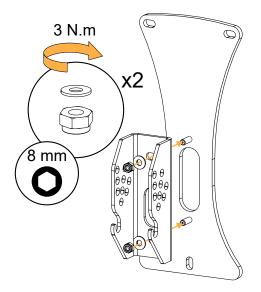
1. Drill holes in the wall for TILT-SUPPORT.



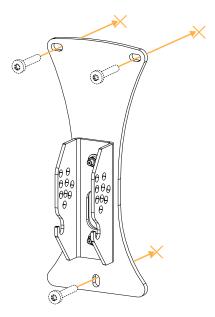
2. Disassemble the two TILT parts.



3. Assemble the TILT wall-mounting part with TILT-SUPPORT. Use the two M5 nuts and washers.

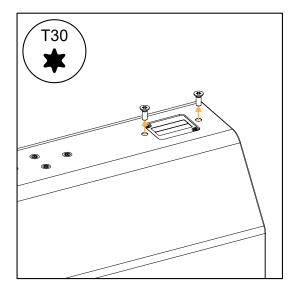


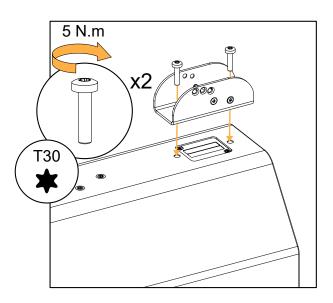
4. Secure TILT-SUPPORT and TILT to the wall.



- 5. Secure TILT to X8i:
 - a) Remove the two placeholder screws at the bottom of X8i.
 - b) Secure the TILT enclosure-mounting part to X8i.

Use the two M6×25 Torx screws.





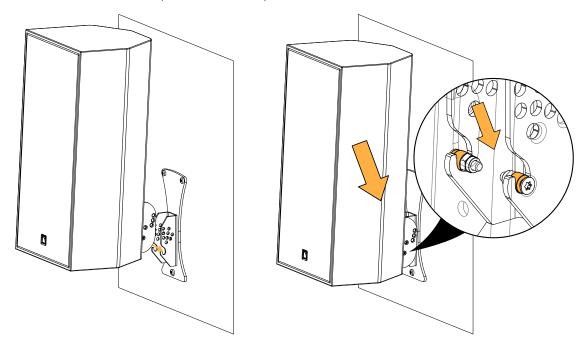
6. Prepare the cabling. Refer to Cabling X8i (p.169).

Risk of pinching fingers

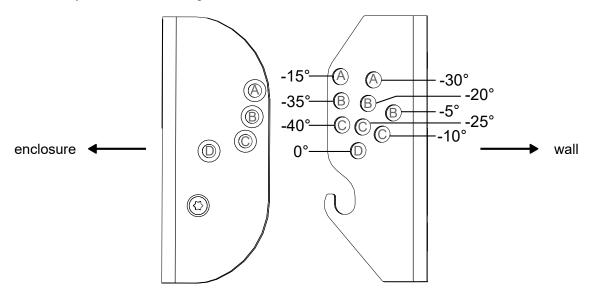
Hold X8i from underneath when assembling the two TILT parts.

- **7.** Mount X8i on the wall:
 - a) Assemble the two TILT parts by fitting the indexing studs into the hooks.

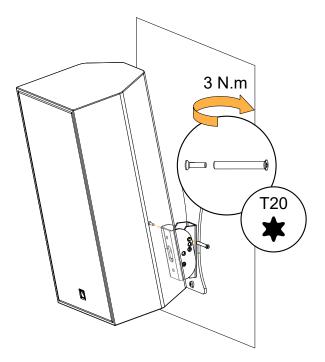
Make sure that the studs are pushed all the way into the hooks.



b) Rotate the assembly to select the site angle.



c) Drive the axis through the holes and secure it with the M4×16 Torx screw. Make sure that the assembly is stable.



Wall-mounting X8i vertically with PANx2

Type of deployment	wall-mounting	
Rigging accessories	PANx2	
Additional material	4 compatible screws and anchors	
Tools	torque screwdriver	
	T30 Torx bit	
	T40 Torx bit	
Min. number of operators	1	

Secondary safety for flown enclosures

Use one insert at the back of the enclosure to implement a secondary safety.



Risk of crushing injury

Ensure that the wall or ceiling can support the load of the product.

It is recommended to mount only on solid structures. If mounting on a hollow structure (such as a wall cavity), place anchoring points on the framework (wall studs, ceiling joists), or reinforce the mounting area.

Select screws and anchors applicable to the wall or ceiling properties and to the load of the product. Prevent screws from loosening over time, using for example thread locker or lock washers.

Specifications for screws and anchors

deployment	accessory	ultimate tensile load per screw (daN)	ultimate shear load per screw (daN)	screws quantity	mounting hole size	specific constraints
wall-mounting	PANx2	6	5	4	Ø 6.4 mm / 0.25 in (slotted)	_



Risk of falling objects

Do not use PAN or PANx2 upside-down.

Do not swap the wall-mounting part(s) and the enclosure-mounting part(s).



SPCON cannot be used in this configuration.

Screws and fasteners

from PANx2





M8×16 Torx

M6×20 Torx

Assembly

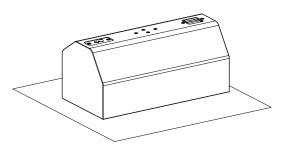
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About this task

For this configuration, the speaker cable must be run inside the wall.

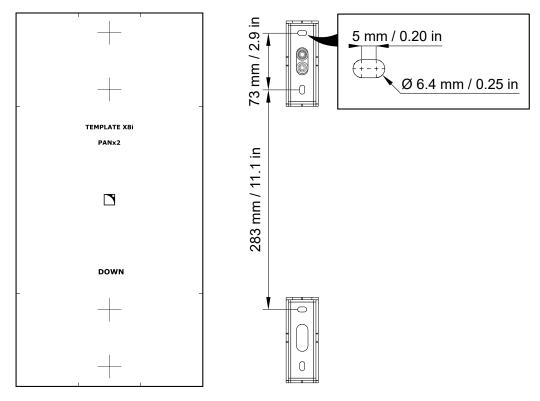
Prerequisite

Place X8i on its front face on a clean flat surface.



Procedure

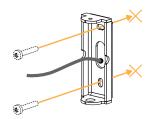
 Drill holes in the wall for the anchors and for the cable exit. Use the provided drilling template.

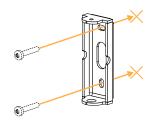


2. Run the speaker cable inside the wall.

Rigging procedures

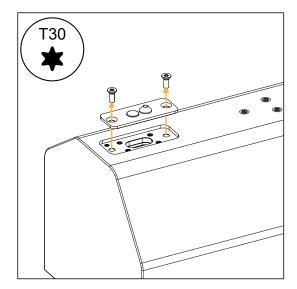
3. Secure the two PANx2 wall-mounting parts to the wall.

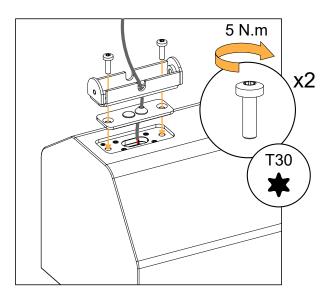




- 4. Secure the top PANx2 part to X8i:
 - a) Remove the connector sealing plate.
 - b) Run the cable through the PANx2 part and through the connector sealing plate.
 - c) Connect the cable to the X8i terminal block. Refer to Cabling X8i (p.169).
 - d) Secure the PANx2 part and the connector sealing plate to X8i.

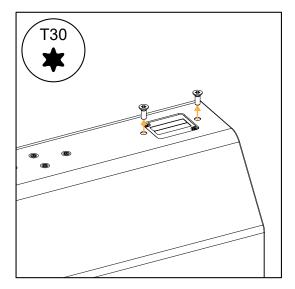
Use two M6×20 Torx screws.

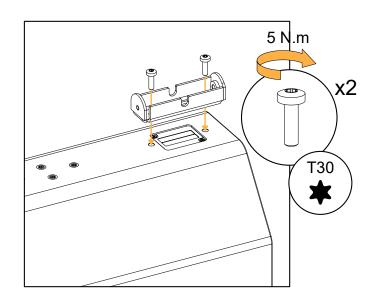




- 5. Secure the bottom PANx2 part to X8i:
 - a) Remove the two bottom placeholder screws.
 - b) Secure the PANx2 part to X8i.

Use two M6×20 Torx screws.

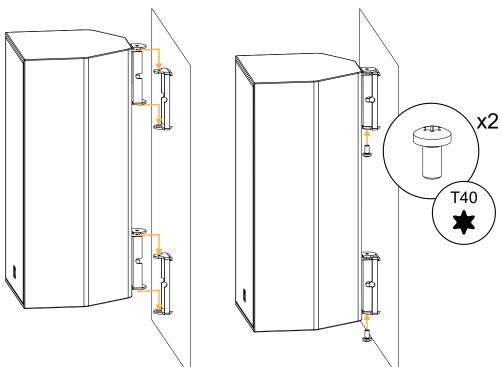




- 6. Mount the assembly on the wall-mounting parts:
 - a) Align the pins with the top holes and push the assembly downwards.
 - b) Drive the two M8×16 Torx screws from underneath the PANx2 parts.

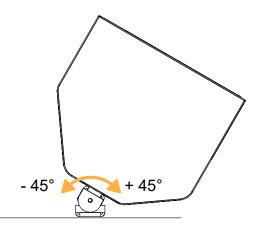


Do not fully tighten the screws.

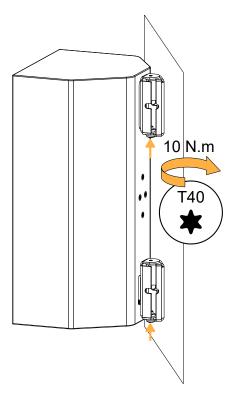


Rigging procedures

7. Rotate X8i to adjust the azimuth angle from -45° to $+45^{\circ}$.



 Tighten the two M8×16 Torx screws. Apply a torque of 10 N.m. Make sure the assembly is stable.



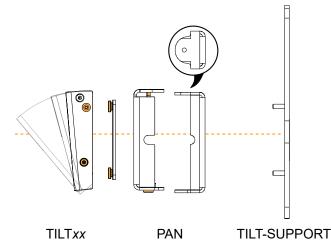
Wall-mounting X8i vertically with PAN and TILT5/TILT15/TILT40

Type of deployment	wall-mounting
Rigging accessories	TILT-SUPPORT
	PAN
	TILT5/TILT15/TILT40
Additional material	3 compatible screws and anchors
Tools	torque screwdriver
	T25 Torx bit
	T30 Torx bit
	T40 Torx bit
	8 mm wrench or 8 mm hex socket
Min. number of operators	1



Assembly overview

Pay attention to the position of the accessory parts throughout the procedure.



Secondary safety for flown enclosures

Use one insert at the back of the enclosure to implement a secondary safety.



Risk of crushing injury

Ensure that the wall or ceiling can support the load of the product.

It is recommended to mount only on solid structures. If mounting on a hollow structure (such as a wall cavity), place anchoring points on the framework (wall studs, ceiling joists), or reinforce the mounting area.

Select screws and anchors applicable to the wall or ceiling properties and to the load of the product. Prevent screws from loosening over time, using for example thread locker or lock washers.

Specifications for screws and anchors

deployment	accessory	ultimate tensile load per screw (daN)	ultimate shear load per screw (daN)	screws quantity	mounting hole size	specific constraints
wall-mounting	TILT-SUPPORT + any accessory	12	9	3	Ø 6.4 mm / 0.25 in (slotted)	_



Risk of falling objects

Do not use PAN or PANx2 upside-down.

Do not swap the wall-mounting part(s) and the enclosure-mounting part(s).



Risk of falling objects

Do not use TILT, TILT5, TILT15, or TILT40 upside-down. These rigging accessories are designed for negative site angles only.

Screws and fasteners

from TILT-SUPPORT

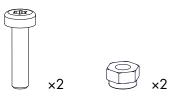
x2



M5 hex locknut thick plain washer

Ø5mm

from PAN







M5×20 Torx

M5 hex locknut

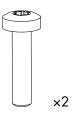
thick plain washer Ø5mm

×2

O

M8×16 Torx

from TILT5/TILT15/TILT40





M6×25 Torx

M5 tapered spacer

Assembly

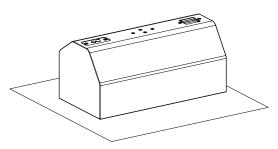
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About this task

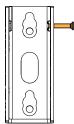
In this procedure, TILTxx designates the fixed angle accessories TILT5, TILT15, and TILT40.

Prerequisite

Place X8i on its front face on a clean flat surface.



Make sure that the TILTxx safety screw is present and loosened.

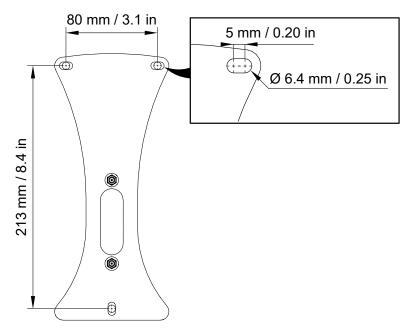


Procedure



Make sure to leave enough space between the walls and the sides of the rigging element to access the screw(s) when the enclosure is mounted.

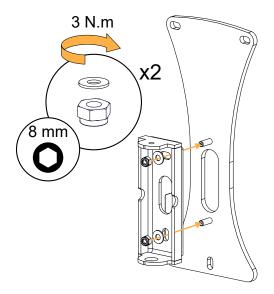
1. Drill holes in the wall for TILT-SUPPORT.



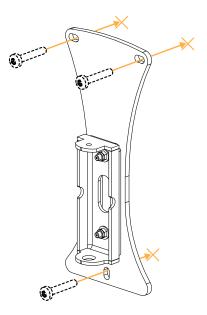
Rigging procedures

2. Assemble the PAN wall-mounting part with TILT-SUPPORT.

Use the two M5 nuts and washers.



3. Secure TILT-SUPPORT and PAN to the wall.



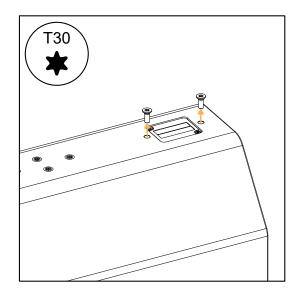
4. Secure TILT*xx* to X8i:

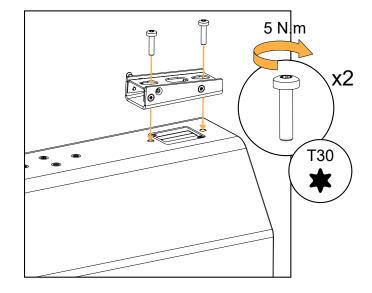
- a) Remove the two placeholder screws at the bottom of X8i.
- b) Secure TILTxx to X8i.

Use the two M6×25 Torx screws.

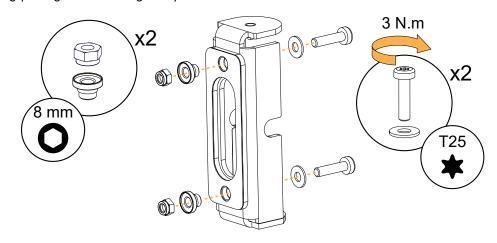


If the shank of the screwdriver collides with TILT40, use a screwdriver extension or an angled screwdriver to drive the screws.

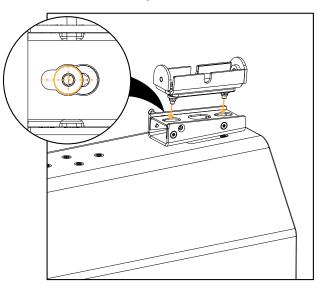


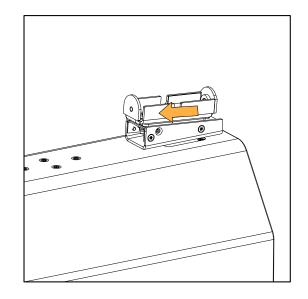


Assemble the wall-mounting plate and tapered spacers with PAN.
 Use two M5×20 Torx screws, two M5 washers, and two M5 nuts.
 The wall-mounting plate gasket is facing away from PAN.

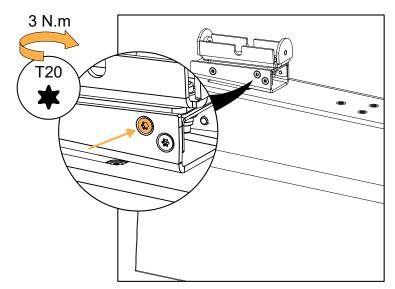


- 6. Mount PAN on TILTxx:
 - a) Align the tapered spacers with the midpoints of the TILTxx rear cutouts.
 - b) Push PAN towards the top of TILTxx.



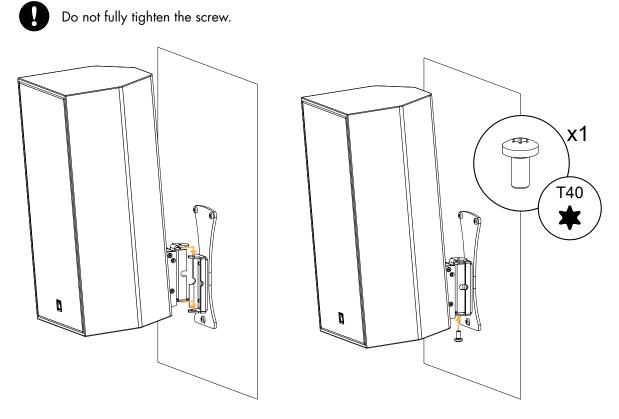


7. Tighten the safety screw on TILT*xx*.

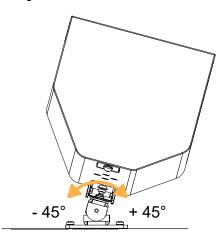


8. Prepare the cabling. Refer to Cabling X8i (p.169).

- 9. Mount X8i on the PAN wall-mounting part:
 - a) Align the pin with the top hole and push the assembly downwards.
 - b) Drive the M8×16 Torx screw from underneath PAN.

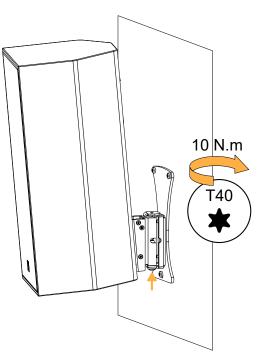


10. Rotate the assembly to adjust the azimuth angle from -45° to $+45^{\circ}$.



Rigging procedures

 Tighten the M8×16 Torx screw. Apply a torque of 10 N.m. Make sure the assembly is stable.



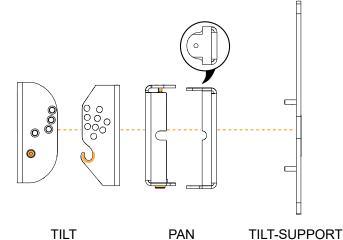
Wall-mounting X8i vertically with PAN and TILT

Type of deployment	wall-mounting
Rigging accessories	TILT-SUPPORT
	PAN
	TILT
Additional material	3 compatible screws and anchors
Tools	torque screwdriver
	T20 Torx bit
	T30 Torx bit
	T40 Torx bit
	T20 screwdriver
	8 mm wrench or 8 mm hex socket
	10 mm wrench or 10 mm hex socket
Min. number of operators	2



Assembly overview

Pay attention to the position of the accessory parts throughout the procedure.





PAN TILI-SU

Secondary safety for flown enclosures

Use one insert at the back of the enclosure to implement a secondary safety.

Risk of crushing injury

Ensure that the wall or ceiling can support the load of the product.

It is recommended to mount only on solid structures. If mounting on a hollow structure (such as a wall cavity), place anchoring points on the framework (wall studs, ceiling joists), or reinforce the mounting area.

Select screws and anchors applicable to the wall or ceiling properties and to the load of the product. Prevent screws from loosening over time, using for example thread locker or lock washers.

Specifications for screws and anchors

deployment	accessory	ultimate tensile load per screw (daN)	ultimate shear load per screw (daN)	screws quantity	mounting hole size	specific constraints
wall-mounting	TILT-SUPPORT + any accessory	12	9	3	Ø 6.4 mm / 0.25 in (slotted)	_



Risk of falling objects

Do not use PAN or PANx2 upside-down. Do not swap the wall-mounting part(s) and the enclosure-mounting part(s).



Risk of falling objects

Do not use TILT, TILT5, TILT15, or TILT40 upside-down. These rigging accessories are designed for negative site angles only.

Screws and fasteners

from TILT-SUPPORT

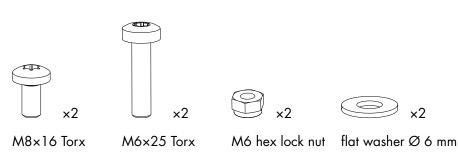


@ x2

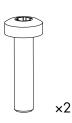
M5 hex locknut

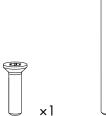
thick plain washer Ø 5 mm

from PAN



from TILT







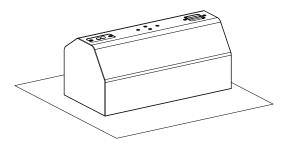
Axis with M4 Torx head (pre-mounted)

x1

Assembly

Prerequisite

Place X8i on its front face on a clean flat surface.

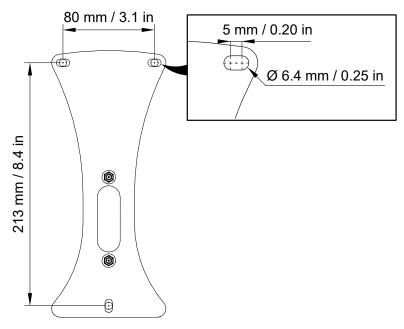


Procedure

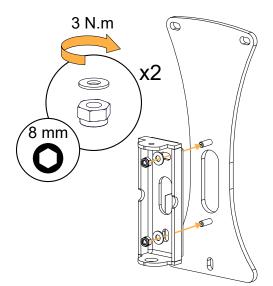


Make sure to leave enough space between the walls and the sides of the rigging element to access the screw(s) when the enclosure is mounted.

1. Drill holes in the wall for TILT-SUPPORT.

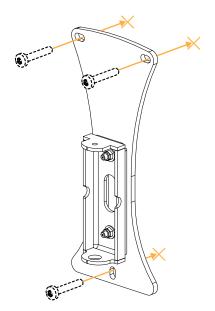


2. Assemble the PAN wall-mounting part with TILT-SUPPORT. Use the two M5 nuts and washers.

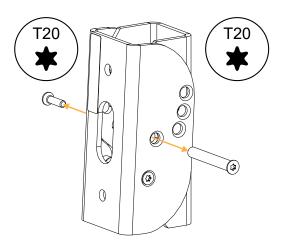


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Rigging procedures
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3. Secure TILT-SUPPORT and PAN to the wall.

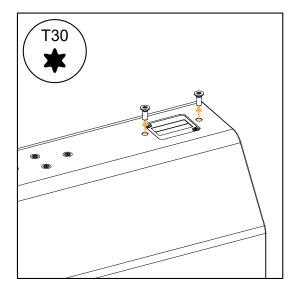


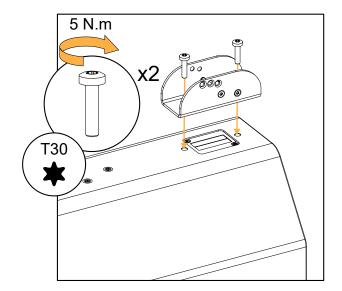
4. Disassemble the two TILT parts.



- 5. Secure TILT to X8i:
 - a) Remove the two placeholder screws at the bottom of X8i.
 - b) Secure the TILT enclosure-mounting part to X8i.

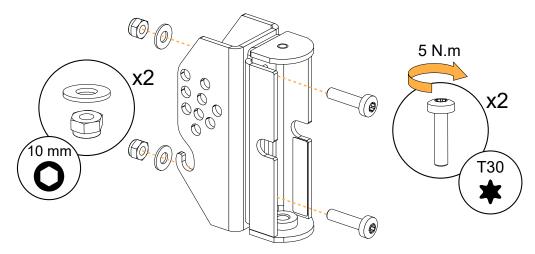
Use the two M6×25 Torx screws.



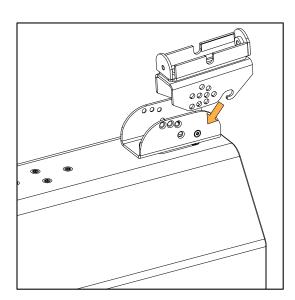


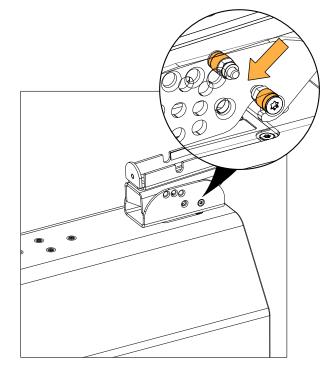
6. Assemble the PAN enclosure-mounting part with the TILT wall-mounting part.

Use the two M6×25 Torx screws, M6 nuts and washers.

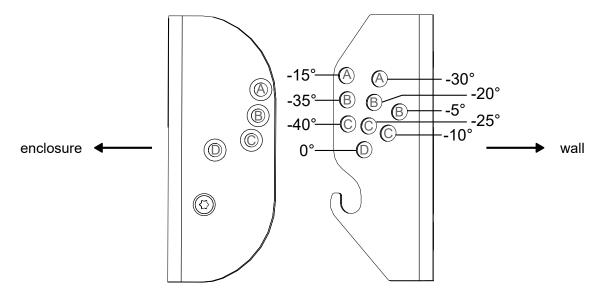


- 7. Secure the PAN and TILT assembly to X8i:
 - a) Assemble the two TILT parts by fitting the indexing studs into the hooks.Make sure the studs are pushed all the way into the hooks.

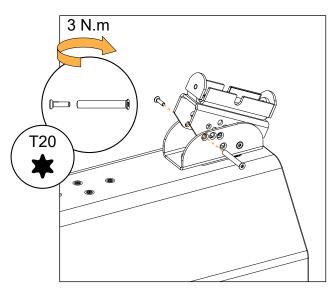




b) Rotate the assembly to select the site angle.



c) Drive the axis through the holes and secure it with the M4 \times 16 Torx screw.

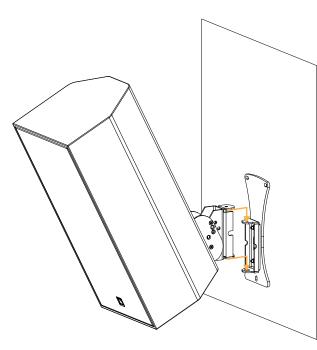


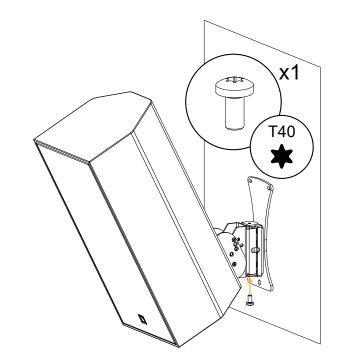
8. Prepare the cabling. Refer to Cabling X8i (p.169).

- 9. Mount the assembly on the PAN wall-mounting part:
 - a) Align the pin with the top hole and push the assembly downwards.
 - b) Drive the M8×16 Torx screw from underneath the PAN.

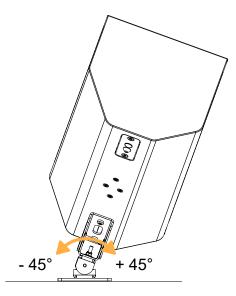


Do not fully tighten the screw.

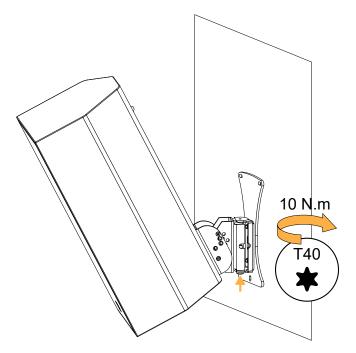




10. Rotate X8i to adjust the azimuth angle from -45° to $+45^{\circ}$.



 Tighten the M8×16 Torx screw. Apply a torque of 10 N.m. Make sure the assembly is stable.



Wall-mounting X8i horizontally

Overview

with			site angle		
pan?	0 °	-5°	-15°	-40°	0° to -40°
no	TILT-SUPPORT +	TILT-SUPPORT +	TILT-SUPPORT +	TILT-SUPPORT +	TILT-SUPPORT +
	WALL (p.90)	TILT5 (p.95)	TILT15 (p.95)	TILT40 (p.95)	TILT (p. 100)
yes	TILT-SUPPORT +	TILT-SUPPORT + PAN	TILT-SUPPORT + PAN	TILT-SUPPORT + PAN	TILT-SUPPORT + PAN
	PAN (p.107)	+ TILT5 (p. 112)	+ TILT15 (p.112)	+ TILT40 (p.112)	+ TILT (p. 120)

Wall-mounting X8i horizontally with WALL

Type of deployment	wall-mounting
Rigging accessories	TILT-SUPPORT
	WALL
Additional material	3 compatible screws and anchors
Tools	torque screwdriver
	T20 Torx bit
	T30 Torx bit
	8 mm wrench or 8 mm hex socket
Min. number of operators	1



Secondary safety for flown enclosures

Use one insert at the back of the enclosure to implement a secondary safety.



Risk of crushing injury

Ensure that the wall or ceiling can support the load of the product.

It is recommended to mount only on solid structures. If mounting on a hollow structure (such as a wall cavity), place anchoring points on the framework (wall studs, ceiling joists), or reinforce the mounting area.

Select screws and anchors applicable to the wall or ceiling properties and to the load of the product. Prevent screws from loosening over time, using for example thread locker or lock washers.

Specifications for screws and anchors

deployment	accessory	ultimate tensile load per screw (daN)	ultimate shear load per screw (daN)	screws quantity	mounting hole size	specific constraints
wall-mounting	TILT-SUPPORT + any accessory	12	9	3	Ø 6.4 mm / 0.25 in (slotted)	-

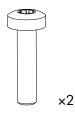
Screws and fasteners

from TILT-SUPPORT



M5 hex locknut thick plain washer Ø5mm

from WALL







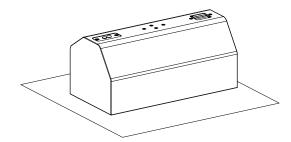
M6×25 Torx

M5 tapered spacer rectangular washer

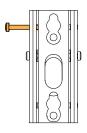
Assembly

Prerequisite

Place X8i on its front face on a clean flat surface.



Make sure that the WALL safety screw is present and loosened.

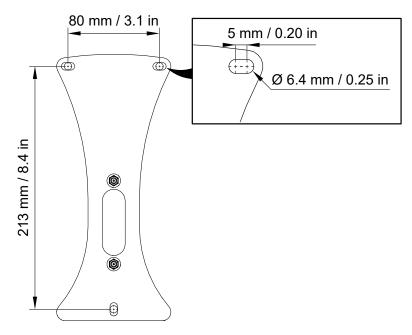


Procedure



Make sure to leave enough space between the walls and the sides of the rigging element to access the screw(s) when the enclosure is mounted.

1. Drill holes in the wall for TILT-SUPPORT.

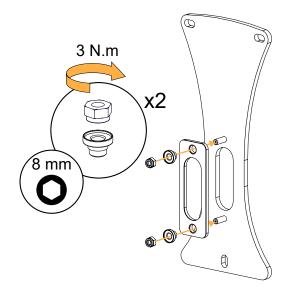


Rigging procedures

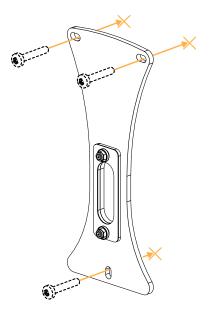
2. Assemble the wall-mounting plate and tapered spacers with TILT-SUPPORT.

Use the two M5 nuts.

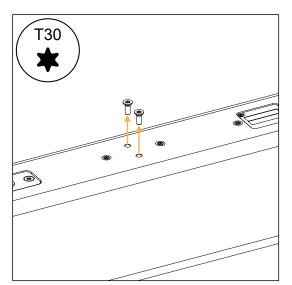
The wall-mounting plate gasket is facing away from TILT-SUPPORT.



3. Secure TILT-SUPPORT and the wall-mounting plate to the wall.

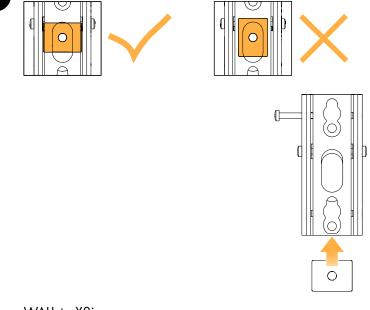


4. Remove the two placeholder screws in the middle of X8i.



5. Insert the rectangular washer into WALL.

Make sure the rectangular washer is in the correct position.

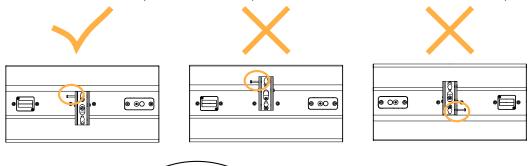


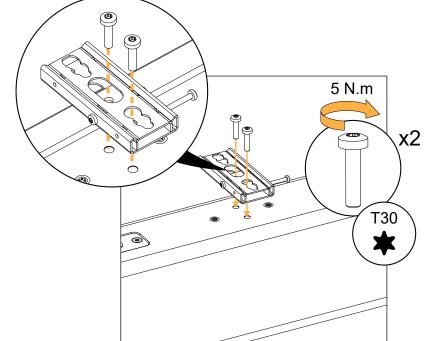
6. Secure WALL to X8i.

Use the two M6×25 Torx screws.

Align the top and the middle hole (formed by the washer) from the rigging accessory with the top and bottom hole on X8i, respectively.

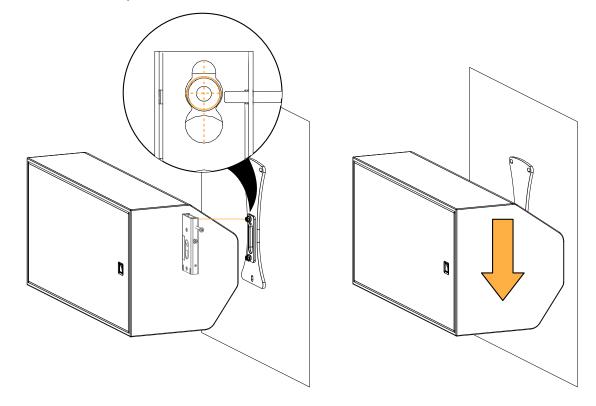
Make sure that the safety screw is at the top when the enclosure is mounted in its final position.



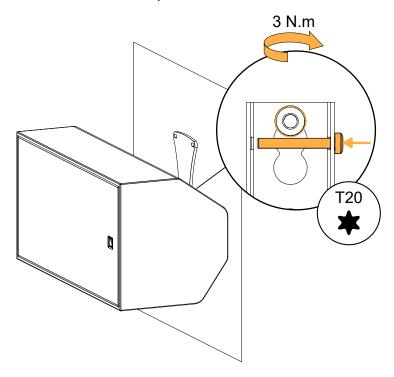


7. Prepare the cabling. Refer to Cabling X8i (p.169).

- 8. Mount the assembly on the wall-mounting plate:
 - a) Align the midpoints of the WALL rear cutouts with the tapered spacers.
 - b) Push the assembly downwards.



9. Tighten the safety screw and make sure the assembly is stable.



Wall-mounting X8i horizontally with TILT5/TILT15/TILT40

Type of deployment	wall-mounting
Rigging accessories	TILT-SUPPORT
	TILT5/TILT15/TILT40
Additional material	3 compatible screws and anchors
Tools	torque screwdriver
	screwdriver extension or angled screwdriver
	T30 Torx bit
	8 mm wrench or 8 mm hex socket
Min. number of operators	1



Secondary safety for flown enclosures

Use one insert at the back of the enclosure to implement a secondary safety.



Risk of crushing injury

Ensure that the wall or ceiling can support the load of the product.

It is recommended to mount only on solid structures. If mounting on a hollow structure (such as a wall cavity), place anchoring points on the framework (wall studs, ceiling joists), or reinforce the mounting area.

Select screws and anchors applicable to the wall or ceiling properties and to the load of the product. Prevent screws from loosening over time, using for example thread locker or lock washers.

Specifications for screws and anchors

deployment	accessory	ultimate tensile load per screw (daN)	ultimate shear load per screw (daN)	screws quantity	mounting hole size	specific constraints
wall-mounting	TILT-SUPPORT + any accessory	12	9	3	Ø 6.4 mm / 0.25 in (slotted)	_



Risk of falling objects

Do not use TILT, TILT5, TILT15, or TILT40 upside-down. These rigging accessories are designed for negative site angles only.

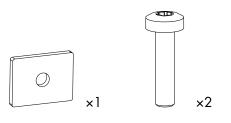
Screws and fasteners

from TILT-SUPPORT



M5 hex locknut

from TILT5/TILT15/TILT40





rectangular washer

M6×25 Torx

M5 tapered spacer

Assembly

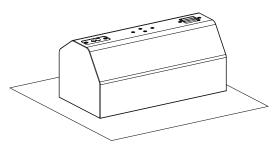
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About this task

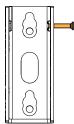
In this procedure, TILTxx designates the fixed angle accessories TILT5, TILT15, and TILT40.

Prerequisite

Place X8i on its front face on a clean flat surface.



Make sure that the TILTxx safety screw is present and loosened.

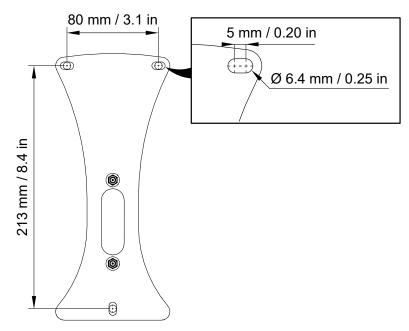


Procedure



Make sure to leave enough space between the walls and the sides of the rigging element to access the screw(s) when the enclosure is mounted.

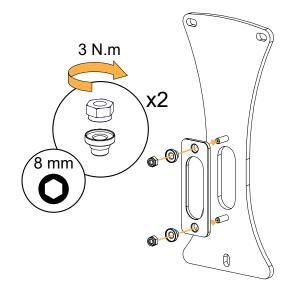
1. Drill holes in the wall for TILT-SUPPORT.



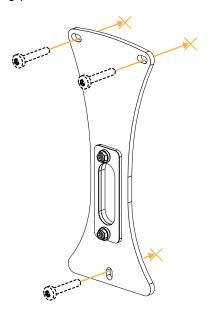
2. Assemble the wall-mounting plate and tapered spacers with TILT-SUPPORT.

Use the two M5 nuts.

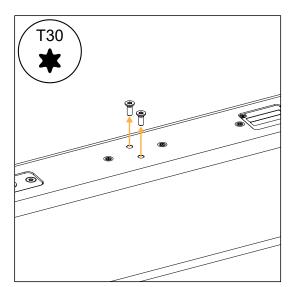
The wall-mounting plate gasket is facing away from TILT-SUPPORT.



3. Secure TILT-SUPPORT and the wall-mounting plate to the wall.

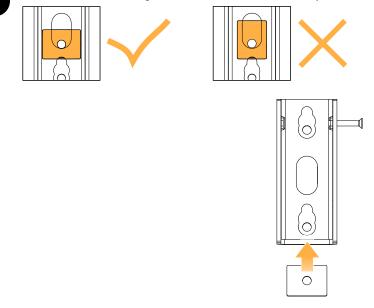


4. Remove the two placeholder screws in the middle of X8i.



5. Insert the rectangular washer into TILTxx.

Make sure the rectangular washer is in the correct position.

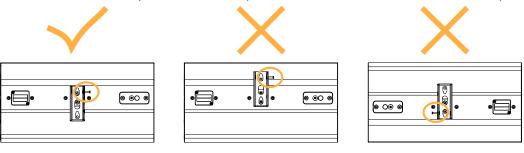


6. Secure TILTxx to X8i.

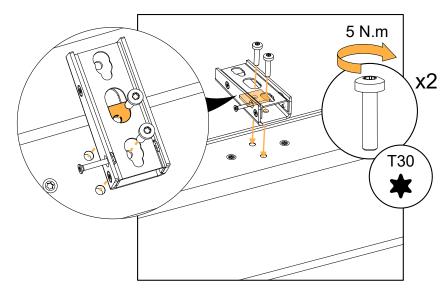
Use the two M6×25 Torx screws.

Align the top and the middle hole (formed by the washer) from the rigging accessory with the top and bottom hole on X8i, respectively.

Make sure that the safety screw is at the top when the enclosure is mounted in its final position.

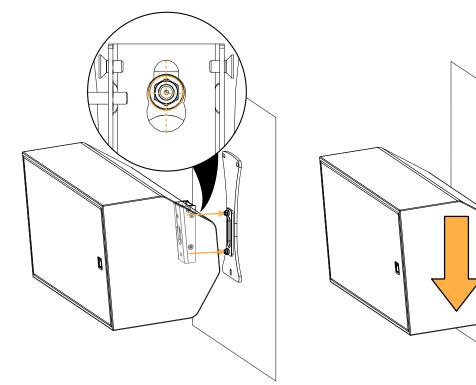


If the shank of the screwdriver collides with TILT40, use a screwdriver extension or an angled screwdriver to drive the screws.



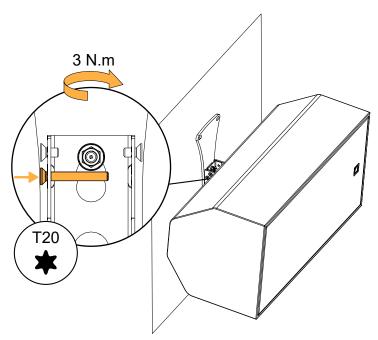
7. Prepare the cabling. Refer to Cabling X8i (p.169).

- 8. Mount the assembly on the wall-mounting plate:
 - a) Align the TILT*xx* holes with the tapered spacers.
 - b) Push the assembly downwards.



9. Tighten the safety screw.

Make sure the assembly is stable.



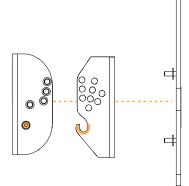
Wall-mounting X8i horizontally with TILT

Type of deployment	wall-mounting
Rigging accessories	TILT-SUPPORT
	ТІЦТ
Additional material	3 compatible screws and anchors
Tools	torque screwdriver
	T20 Torx bit
	T30 Torx bit
	8 mm wrench or 8 mm hex socket
Min. number of operators	1



Assembly overview

Pay attention to the position of the accessory parts throughout the procedure.





TILT-SUPPORT

Secondary safety for flown enclosures

Use one insert at the back of the enclosure to implement a secondary safety.

Risk of crushing injury

TILT

Ensure that the wall or ceiling can support the load of the product.

It is recommended to mount only on solid structures. If mounting on a hollow structure (such as a wall cavity), place anchoring points on the framework (wall studs, ceiling joists), or reinforce the mounting area.

Select screws and anchors applicable to the wall or ceiling properties and to the load of the product. Prevent screws from loosening over time, using for example thread locker or lock washers.

Specifications for screws and anchors

deployment	accessory	ultimate tensile load per screw (daN)	ultimate shear load per screw (daN)	screws quantity	mounting hole size	specific constraints
wall-mounting	TILT-SUPPORT + any accessory	12	9	3	Ø 6.4 mm / 0.25 in (slotted)	_



Risk of falling objects

Do not use TILT, TILT5, TILT15, or TILT40 upside-down. These rigging accessories are designed for negative site angles only.

Screws and fasteners

from TILT-SUPPORT



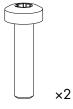
@ x2

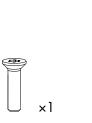
M5 hex locknut

thick plain washer Ø 5 mm

from TILT









rectangular washer

M6×25 Torx

M4×16 Torx (pre-mounted)

Axis with M4 Torx head (pre-mounted)

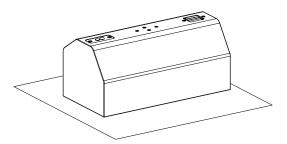
Rigging procedures

Assembly

About this task

Prerequisite

Place X8i on its front face on a clean flat surface.

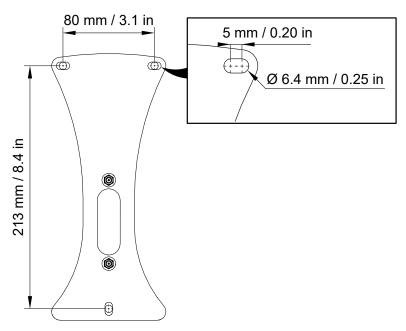


Procedure

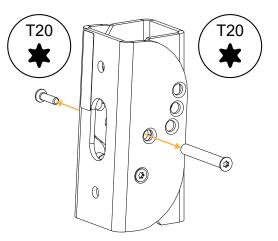


Make sure to leave enough space between the walls and the sides of the rigging element to access the screw(s) when the enclosure is mounted.

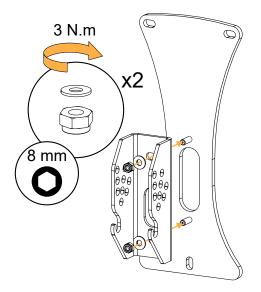
1. Drill holes in the wall for TILT-SUPPORT.



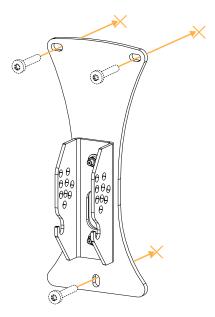
2. Disassemble the two TILT parts.



3. Assemble the TILT wall-mounting part with TILT-SUPPORT. Use the two M5 nuts and washers.



4. Secure TILT-SUPPORT and TILT to the wall.

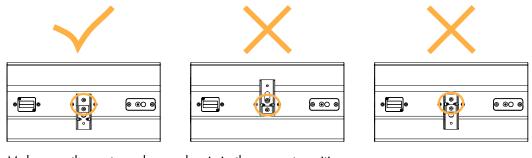


- 5. Secure TILT to X8i:
 - a) Remove the two placeholder screws in the middle of X8i.
 - b) Secure the TILT enclosure-mounting part with the rectangular washer to X8i.

Use the two $M6 \times 25$ Torx screws.



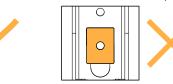
Align the top and the middle hole (formed by the washer) from the rigging accessory with the top and bottom hole on X8i, respectively.

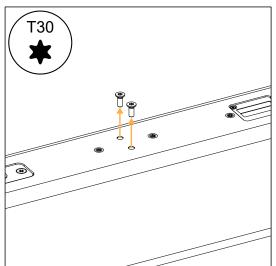


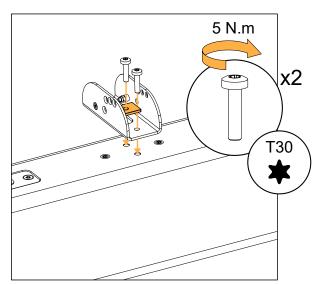


Make sure the rectangular washer is in the correct position.







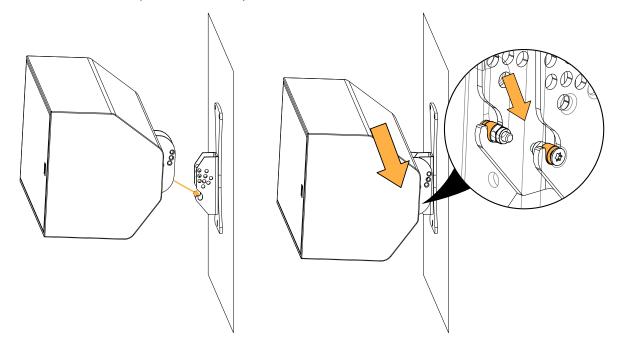


6. Prepare the cabling. Refer to Cabling X8i (p.169).

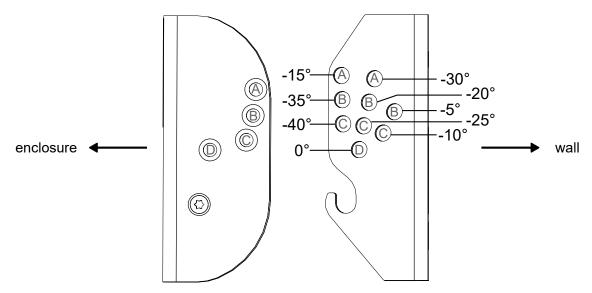
Risk of pinching fingers

Hold X8i from underneath when assembling the two TILT parts.

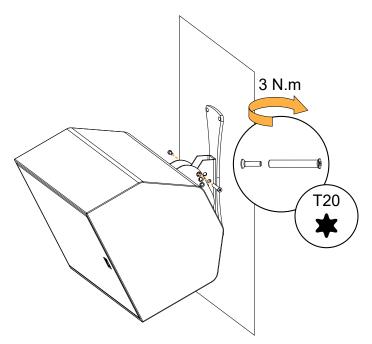
- 7. Mount X8i on the wall:
 - a) Assemble the two TILT parts by fitting the indexing studs into the hooks. Make sure the studs are pushed all the way into the hooks.



b) Rotate the assembly to select the site angle.



c) Drive the axis through the holes and secure it with the M4×16 Torx screw. Make sure the assembly is stable.



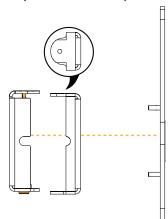
Wall-mounting X8i horizontally with PAN

Type of deployment	wall-mounting
Rigging accessories	TILT-SUPPORT
	PAN
Additional material	3 compatible screws and anchors
Tools	torque screwdriver
	T30 Torx bit
	T40 Torx bit
	8 mm wrench or 8 mm hex socket
Min. number of operators	1



Assembly overview

Pay attention to the position of the accessory parts throughout the procedure.





PAN TILT-SUPPORT Secondary safety for flown enclosures

Use one insert at the back of the enclosure to implement a secondary safety.



Ensure that the wall or ceiling can support the load of the product.

It is recommended to mount only on solid structures. If mounting on a hollow structure (such as a wall cavity), place anchoring points on the framework (wall studs, ceiling joists), or reinforce the mounting area.

Select screws and anchors applicable to the wall or ceiling properties and to the load of the product. Prevent screws from loosening over time, using for example thread locker or lock washers.

Specifications for screws and anchors

deployment	accessory	ultimate tensile load per screw (daN)	ultimate shear load per screw (daN)	screws quantity	mounting hole size	specific constraints
wall-mounting	TILT-SUPPORT + any accessory	12	9	3	Ø 6.4 mm / 0.25 in (slotted)	-



Risk of falling objects

Do not use PAN or PANx2 upside-down.

Do not swap the wall-mounting part(s) and the enclosure-mounting part(s).

Rigging procedures

Screws and fasteners

from TILT-SUPPORT

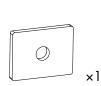


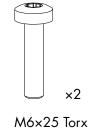


M5 hex locknut

thick plain washer Ø 5 mm

from PAN





×2

rectangular washer

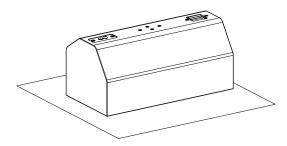
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M8×16 Torx

Assembly

Prerequisite

Place X8i on its front face on a clean flat surface.

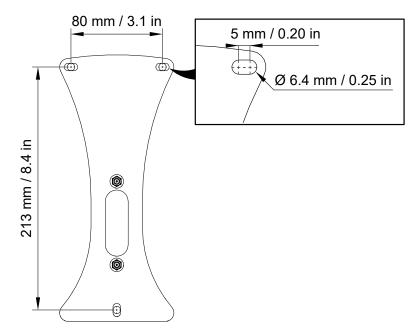


Procedure



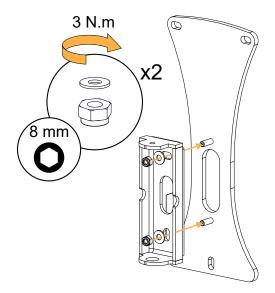
Make sure to leave enough space between the walls and the sides of the rigging element to access the screw(s) when the enclosure is mounted.

1. Drill holes in the wall for TILT-SUPPORT.

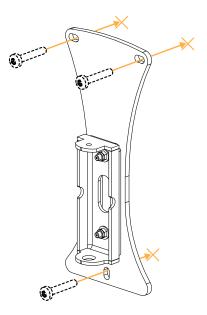


 $\label{eq:2.2} \textbf{Assemble the PAN wall-mounting part with TILT-SUPPORT.}$

Use the two M5 nuts and washers.



3. Secure TILT-SUPPORT and PAN to the wall.



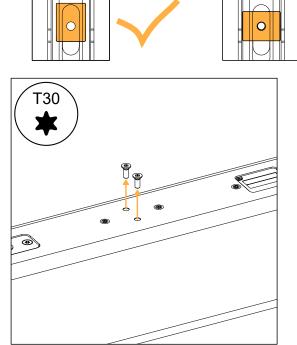
- 4. Secure PAN to X8i:
 - a) Remove the two placeholder screws in the middle of X8i.
 - b) Secure the PAN enclosure-mounting part with the rectangular washer to X8i. Use the two M6×25 Torx screws.

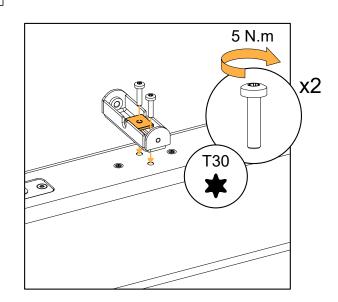


С

Make sure the rectangular washer is in the correct position.

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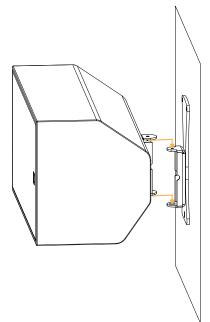


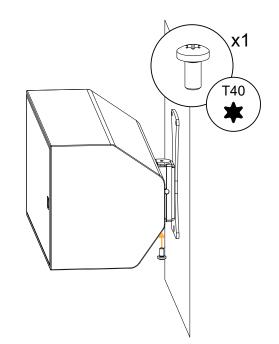


- 5. Prepare the cabling. Refer to Cabling X8i (p.169).
- 6. Mount the assembly on the PAN wall-mounting part:
 - a) Align the pin with the top hole and push the assembly downwards.
 - b) Drive the M8x16 Torx screw from underneath PAN.



Do not fully tighten the screw.

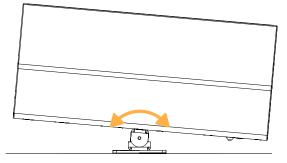




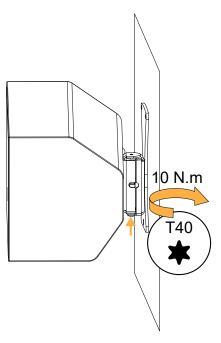
7. Rotate the assembly to adjust the azimuth angle.

Azimuth angle in horizontal orientation

When X8i is mounted horizontally with PAN against a wall, an azimuth angle of $+9^{\circ}/-9^{\circ}$ can be reached. Use a wedge or mount on a narrow wall to increase the azimuth angle, up to $+45^{\circ}/-45^{\circ}$.



 Tighten the M8 screw. Apply a torque of 10 N.m. Make sure the assembly is stable.



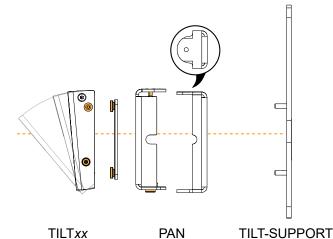
Wall-mounting X8i horizontally with PAN and TILT5/TILT15/TILT40

Type of deployment	wall-mounting
Rigging accessories	TILT-SUPPORT
	PAN
	TILT5/TILT15/TILT40
Additional material	3 compatible screws and anchors
Tools	torque screwdriver
	T25 Torx bit
	T30 Torx bit
	8 mm wrench or 8 mm hex socket
Min. number of operators	1



Assembly overview

Pay attention to the position of the accessory parts throughout the procedure.





Secondary safety for flown enclosures

Use one insert at the back of the enclosure to implement a secondary safety.



Risk of crushing injury

Ensure that the wall or ceiling can support the load of the product.

It is recommended to mount only on solid structures. If mounting on a hollow structure (such as a wall cavity), place anchoring points on the framework (wall studs, ceiling joists), or reinforce the mounting area.

Select screws and anchors applicable to the wall or ceiling properties and to the load of the product. Prevent screws from loosening over time, using for example thread locker or lock washers.

Specifications for screws and anchors

deployment	accessory	ultimate tensile load per screw (daN)	ultimate shear load per screw (daN)	screws quantity	mounting hole size	specific constraints
wall-mounting	TILT-SUPPORT + any accessory	12	9	3	Ø 6.4 mm / 0.25 in (slotted)	_



Risk of falling objects

Do not use PAN or PANx2 upside-down.

Do not swap the wall-mounting part(s) and the enclosure-mounting part(s).



Risk of falling objects

Do not use TILT, TILT5, TILT15, or TILT40 upside-down. These rigging accessories are designed for negative site angles only.

Screws and fasteners

from TILT-SUPPORT

x2



@ x2

M5 hex locknut thick plain washer

Ø5mm

from PAN





O ×2



M5×20 Torx

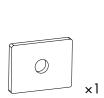
M5 hex locknut

x2

thick plain washer Ø5mm

M8×16 Torx

from TILT5/TILT15/TILT40





rectangular washer

M6x25 Torx

Assembly

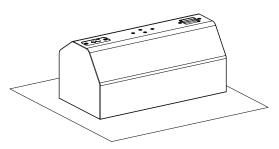
ĺ

About this task

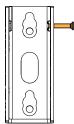
In this procedure, TILTxx designates the fixed angle accessories TILT5, TILT15, and TILT40.

Prerequisite

Place X8i on its front face on a clean flat surface.



Make sure that the TILTxx safety screw is present and loosened.

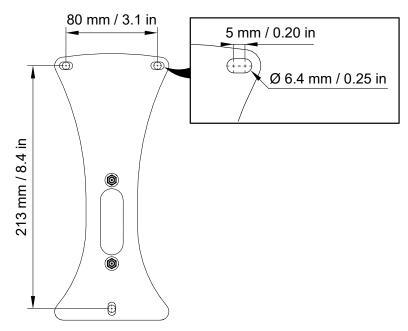


Procedure



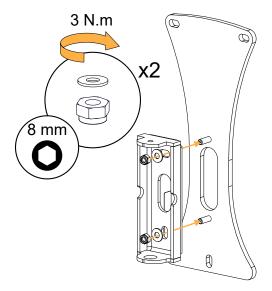
Make sure to leave enough space between the walls and the sides of the rigging element to access the screw(s) when the enclosure is mounted.

1. Drill holes in the wall for TILT-SUPPORT.

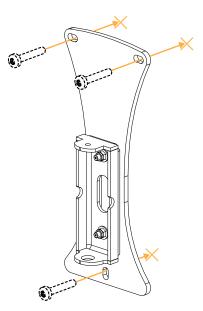


 $\label{eq:2.2} \textbf{Assemble the PAN wall-mounting part with TILT-SUPPORT.}$

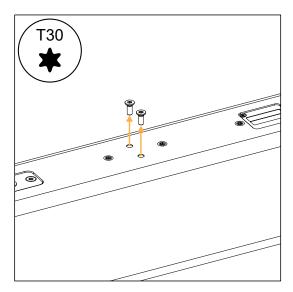
Use the two M5 nuts and washers.



 $\textbf{3.} \hspace{0.1 cm} \textbf{Secure TILT-SUPPORT and PAN to the wall.}$

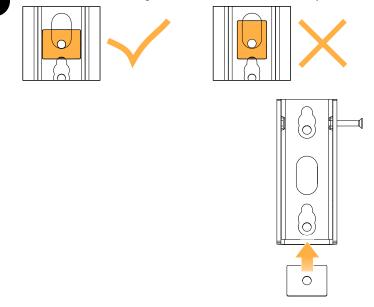


4. Remove the two placeholder screws in the middle of X8i.



5. Insert the rectangular washer into TILTxx.

Make sure the rectangular washer is in the correct position.

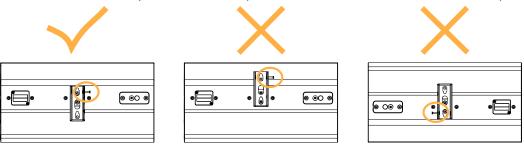


6. Secure TILTxx to X8i.

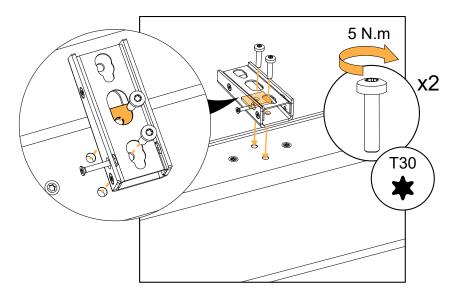
Use the two M6×25 Torx screws.

Align the top and the middle hole (formed by the washer) from the rigging accessory with the top and bottom hole on X8i, respectively.

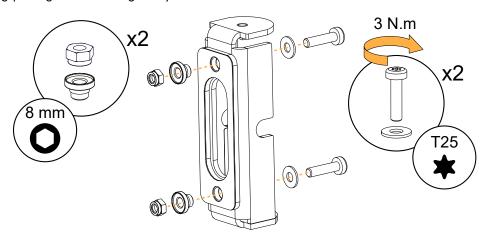
Make sure that the safety screw is at the top when the enclosure is mounted in its final position.



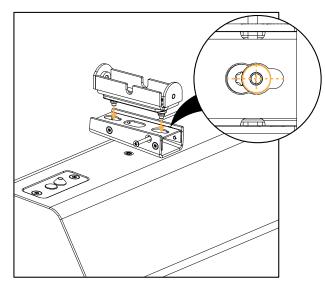
If the shank of the screwdriver collides with TILT40, use a screwdriver extension or an angled screwdriver to drive the screws.

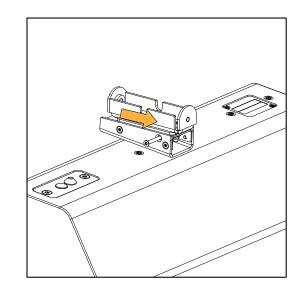


7. Assemble the wall-mounting plate and tapered spacers with PAN.
 Use two M5×20 Torx screws, two M5 washers, and two M5 nuts.
 The wall-mounting plate gasket is facing away from PAN.

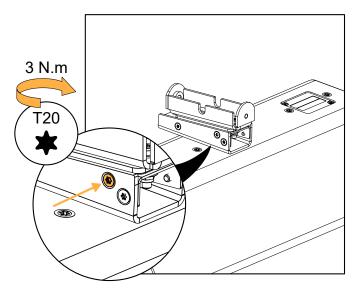


- 8. Mount PAN on TILTxx:
 - a) Align the tapered spacers with the midpoints of the TILTxx rear cutouts.
 - b) Push PAN towards the top of TILTxx.





9. Tighten the safety screw on TILTxx.



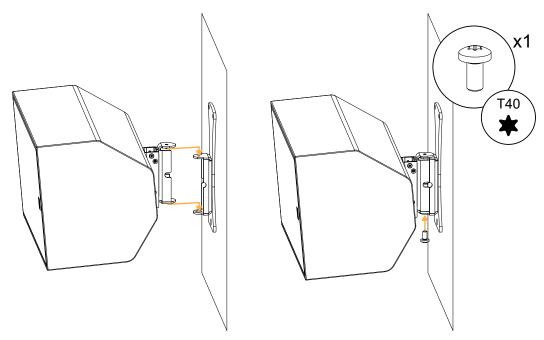
10. Prepare the cabling. Refer to Cabling X8i (p.169).

- **11.** Mount the assembly on the PAN wall-mounting part:
 - a) Align the pin with the top hole and push the assembly downwards.
 - b) Drive the M8×16 Torx screw from underneath PAN.



i

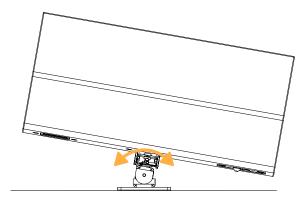
Do not fully tighten the screw.



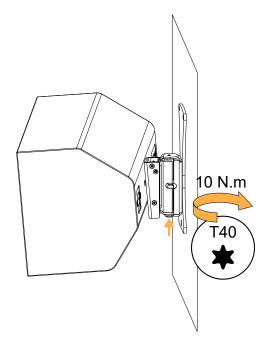
12. Rotate the assembly to adjust the azimuth angle.

Azimuth angle in horizontal orientation

When X8i is mounted horizontally with PAN against a wall, an azimuth angle of $+9^{\circ}/-9^{\circ}$ can be reached. Use a wedge or mount on a narrow wall to increase the azimuth angle, up to $+45^{\circ}/-45^{\circ}$.



Tighten the M8 screw. Apply a torque of 10 N.m.
 Make sure the assembly is stable.



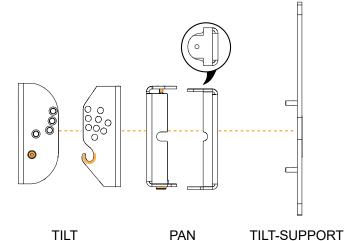
Wall-mounting X8i horizontally with PAN and TILT

Type of deployment	wall-mounting			
Rigging accessories	TILT-SUPPORT			
	PAN			
	TILT			
Additional material	3 compatible screws and anchors			
Tools	torque screwdriver			
	T20 Torx bit			
	T30 Torx bit			
	T40 Torx bit			
	T20 screwdriver			
	8 mm wrench or 8 mm hex socket			
	10 mm wrench or 10 mm hex socket			
Min. number of operators	1			



Assembly overview

Pay attention to the position of the accessory parts throughout the procedure.





Secondary safety for flown enclosures

Use one insert at the back of the enclosure to implement a secondary safety.

Risk of crushing injury

Ensure that the wall or ceiling can support the load of the product.

It is recommended to mount only on solid structures. If mounting on a hollow structure (such as a wall cavity), place anchoring points on the framework (wall studs, ceiling joists), or reinforce the mounting area.

Select screws and anchors applicable to the wall or ceiling properties and to the load of the product. Prevent screws from loosening over time, using for example thread locker or lock washers.

Specifications for screws and anchors

deployment	accessory	ultimate tensile load per screw (daN)	ultimate shear load per screw (daN)	screws quantity	mounting hole size	specific constraints
wall-mounting	TILT-SUPPORT + any accessory	12	9	3	Ø 6.4 mm / 0.25 in (slotted)	_



Risk of falling objects

Do not use PAN or PANx2 upside-down. Do not swap the wall-mounting part(s) and the enclosure-mounting part(s).



Risk of falling objects

Do not use TILT, TILT5, TILT15, or TILT40 upside-down. These rigging accessories are designed for negative site angles only.

Screws and fasteners

from TILT-SUPPORT



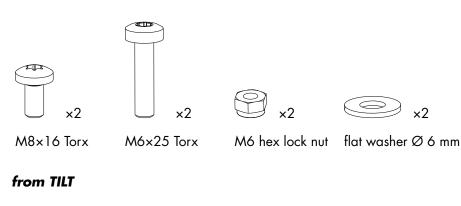
@ x2

M5 hex locknut

Ø5mm

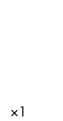
thick plain washer

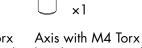
from PAN











rectangular washer

M6×25 Torx

M4×16 Torx (pre-mounted)

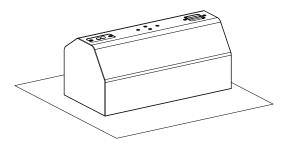
head (pre-mounted)

Rigging procedures

Assembly

Prerequisite

Place X8i on its front face on a clean flat surface.

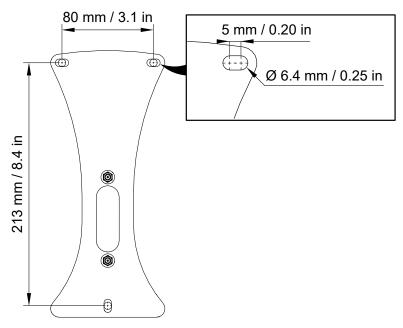


Procedure

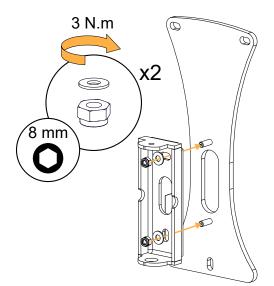


Make sure to leave enough space between the walls and the sides of the rigging element to access the screw(s) when the enclosure is mounted.

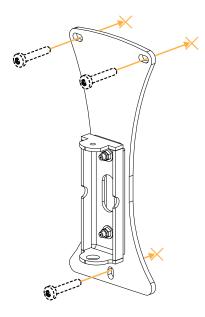
1. Drill holes in the wall for TILT-SUPPORT.



2. Assemble the PAN wall-mounting part with TILT-SUPPORT. Use the two M5 nuts and washers.



3. Secure TILT-SUPPORT and PAN to the wall.

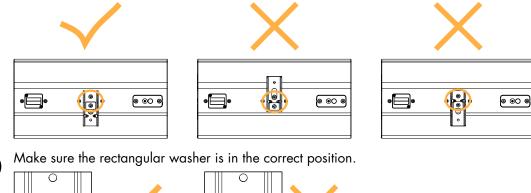


4. Secure TILT to X8i:

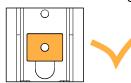
- a) Remove the two placeholder screws in the middle of X8i.
- b) Secure the TILT enclosure-mounting part with the rectangular washer to X8i. Use the two M6×25 Torx screws.



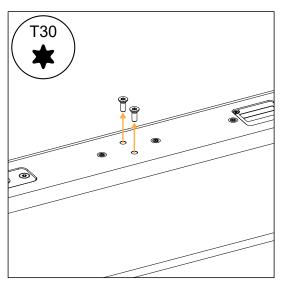
Align the top and the middle hole (formed by the washer) from the rigging accessory with the top and bottom hole on X8i, respectively.

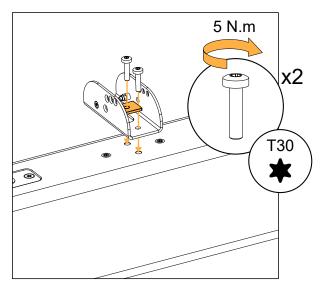








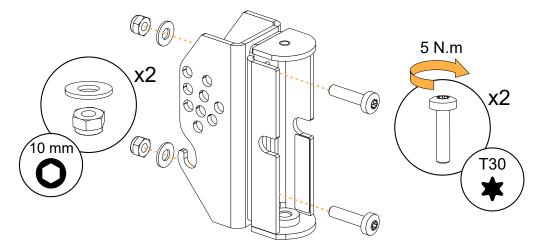




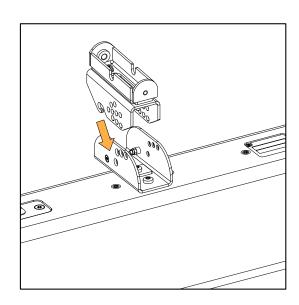
Rigging procedures

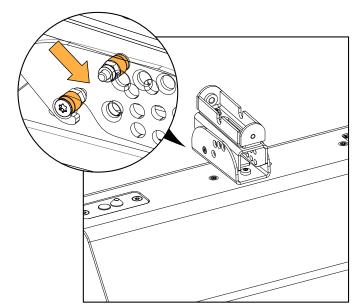
5. Assemble the PAN enclosure-mounting part with the TILT wall-mounting part.

Use the two M6×25 Torx screws, M6 nuts and washers.

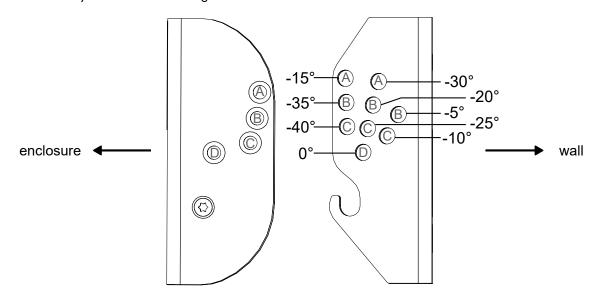


- 6. Secure the PAN and TILT assembly to X8i:
 - a) Assemble the two TILT parts by fitting the indexing studs into the hooks. Make sure the studs are pushed all the way into the hooks.

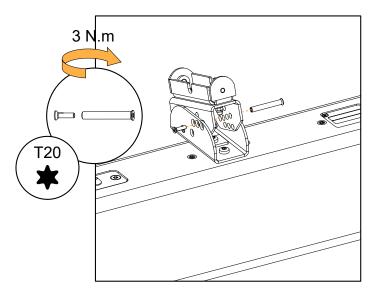




b) Rotate the assembly to select the site angle.



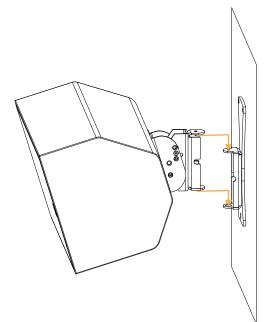
c) Drive the axis through the holes and secure it with the M4×16 Torx screw.

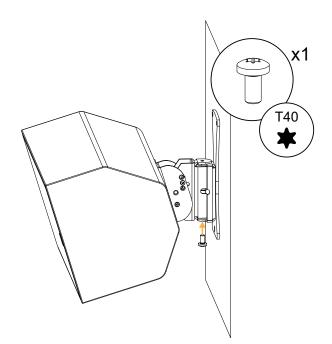


- 7. Prepare the cabling. Refer to Cabling X8i (p.169).
- 8. Mount the assembly on the PAN wall-mounting part:
 - a) Align the pin with the top hole and push the assembly downwards.
 - b) Drive the M8×16 Torx screw from underneath the PAN.



Do not fully tighten the screw.

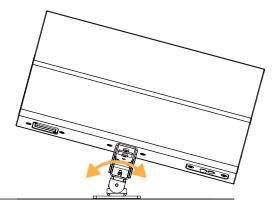




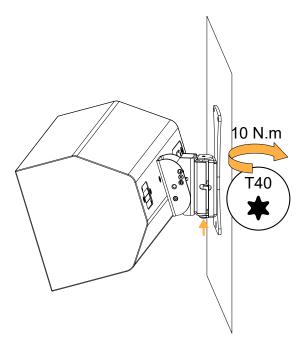
9. Rotate the assembly to adjust the azimuth angle.

Azimuth angle in horizontal orientation

When X8i is mounted horizontally with PAN against a wall, an azimuth angle of +9°/-9° can be reached. Use a wedge or mount on a narrow wall to increase the azimuth angle, up to +45°/-45°.



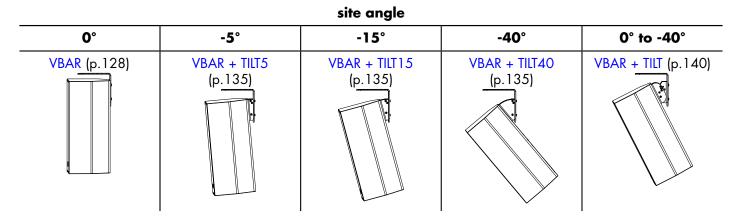
 Tighten the M8×16 Torx screw. Apply a torque of 10 N.m. Make sure the assembly is stable.



Ceiling-mounting or truss-mounting

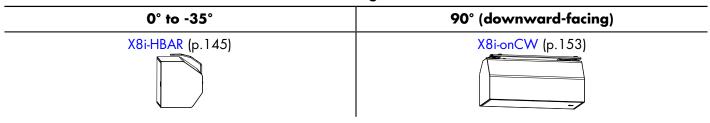
Overview

X8i ceiling-mounted vertically



X8i ceiling-mounted horizontally

site angle



X8i truss-mounted or suspended by a threaded rod

orientation	site	angle
	9° to -17°	90° (downward-facing)
Vertical	VBAR (p.128)	CEILING-PENDANT (p. 158)
Horizontal	9° to -40°	
	X8i-HBAR (p.145)	

Vertically

Ceiling-mounting or flying X8i vertically with VBAR

Type of deployment	ceiling-mounting or truss-mounting			
Rigging accessories	VBAR			
Additional material 2 compatible screws and anchors, or				
	1 max. Ø10 mm / 0.39 in truss clamp, or			
	1 max. Ø10 mm / 0.39 in threaded rod, with corresponding nuts and washers			
Tools	torque screwdriver			
	T30 Torx bit			
Min. number of operators	2			



Secondary safety for flown enclosures

Use one insert at the back of the enclosure to implement a secondary safety.

Risk of crushing injury

Ensure that the wall or ceiling can support the load of the product.

It is recommended to mount only on solid structures. If mounting on a hollow structure (such as a wall cavity), place anchoring points on the framework (wall studs, ceiling joists), or reinforce the mounting area.

Select screws and anchors applicable to the wall or ceiling properties and to the load of the product. Prevent screws from loosening over time, using for example thread locker or lock washers.

Specifications for screws and anchors

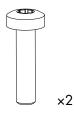
deployment	accessory	ultimate tensile load per screw (daN)	ultimate shear load per screw (daN)	screws quantity	mounting hole size	specific constraints
ceiling- mounting	VBAR + optional TILT or TILTxx	19	_	2	Ø 10.4 mm / 0.41 in	use the holes 1 and 7 (at both ends)



SPCON cannot be used in this configuration.

Screws and fasteners

from VBAR



M6×25 Torx

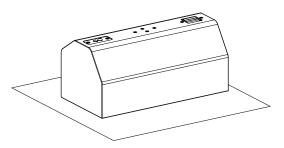
Ceiling-mounting X8i with VBAR

About this task

For this configuration, the speaker cable must be run inside the ceiling.

Prerequisite

Place X8i on its front face on a clean flat surface.



Procedure

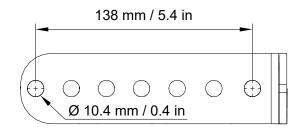


Ceiling-mounting holes

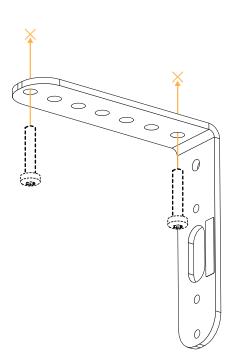
When ceiling-mounting with VBAR, always use holes 1 and 7 (at both ends) to ensure optimal support.

Make sure to leave enough space between the walls and the sides of the rigging element to access the screw(s) when the enclosure is mounted.

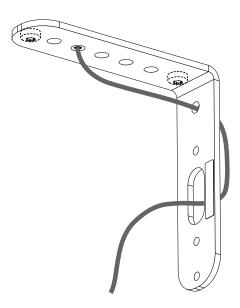
1. Drill holes in the ceiling for VBAR.



2. Secure VBAR to the ceiling.

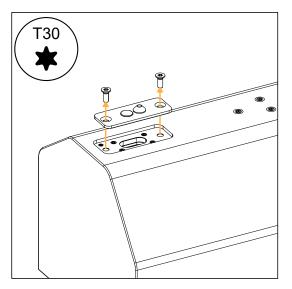


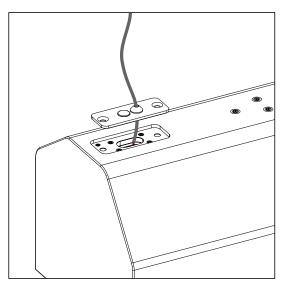
3. Run the speaker cable through VBAR.



4. Prepare X8i cabling:

- a) Remove the connector sealing plate.
- b) Run the cable through the connector sealing plate.
- c) Connect the cable to the X8i terminal block. Refer to Cabling X8i (p.169).





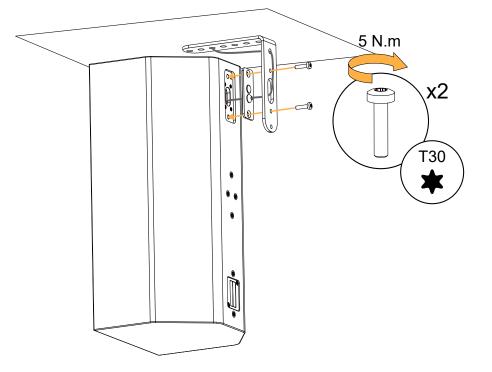
Risk of crushing injury

This step requires two operators.

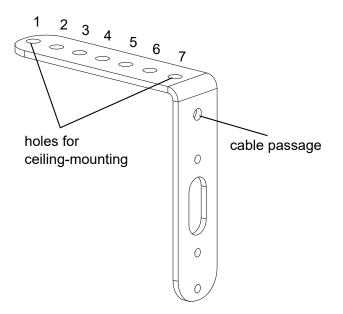
5. Hold the connector sealing plate against the connector and secure X8i to VBAR.

Use two M6×25 Torx screws.

Make sure the assembly is stable.



Flying X8i with VBAR About this task

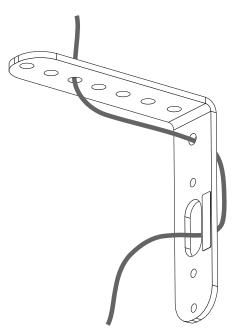


X8i site angles when flown or truss-mounted with VBAR

hole N ^o	angle
1	9°
2	5°
3	0°
4	-4°
5	-9°
6	-13°
7	-17°

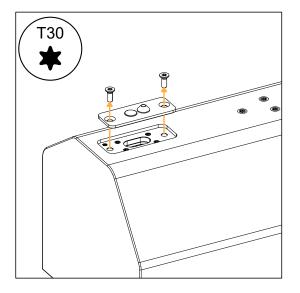
Procedure

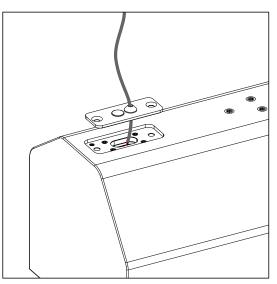
1. Run the speaker cable through VBAR.



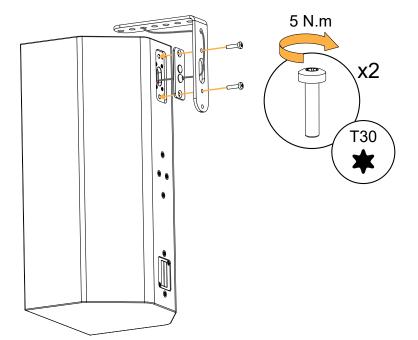
2. Prepare X8i cabling:

- a) Remove the connector sealing plate.
- b) Run the cable through the connector sealing plate.
- c) Connect the cable to the X8i terminal block. Refer to Cabling X8i (p.169).





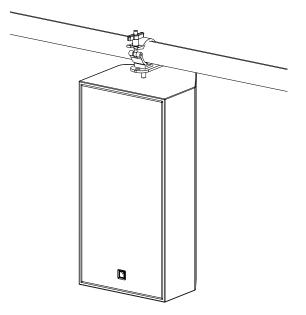
- 3. Hold the connector plate and position X8i upright.
- 4. Secure VBAR and the connector sealing plate to X8i.



Risk of crushing injury

This step requires two operators.

 Choose the pickup point and fly X8i with a truss clamp or a threaded rod (maximum Ø10 mm / 0.39 in). Make sure the assembly is stable.



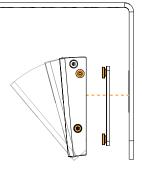
Ceiling-mounting X8i vertically with VBAR and TILT5/TILT15/TILT40

Type of deployment	ceiling-mounting				
Rigging accessories	VBAR				
	TILT5/TILT15/TILT40				
Additional material	2 compatible screws and anchors				
Tools	torque screwdriver				
	T25 Torx bit				
	T30 Torx bit				
	8 mm wrench or 8 mm hex socket				
Min. number of operators	2				



Assembly overview

Pay attention to the position of the accessory parts throughout the procedure.





Secondary safety for flown enclosures



Use one insert at the back of the enclosure to implement a secondary safety.

Risk of crushing injury

Ensure that the wall or ceiling can support the load of the product.

It is recommended to mount only on solid structures. If mounting on a hollow structure (such as a wall cavity), place anchoring points on the framework (wall studs, ceiling joists), or reinforce the mounting area.

Select screws and anchors applicable to the wall or ceiling properties and to the load of the product. Prevent screws from loosening over time, using for example thread locker or lock washers.

Specifications for screws and anchors

deployment	accessory	ultimate tensile load per screw (daN)	ultimate shear load per screw (daN)	screws quantity	mounting hole size	specific constraints
ceiling- mounting	VBAR + optional TILT or TILTxx	19	-	2	Ø 10.4 mm / 0.41 in	use the holes 1 and 7 (at both ends)



Risk of falling objects

Do not use TILT, TILT5, TILT15, or TILT40 upside-down. These rigging accessories are designed for negative site angles only.



Ceiling-mounting holes

When ceiling-mounting with VBAR, always use holes 1 and 7 (at both ends) to ensure optimal support.

Rigging procedures

Screws and fasteners

from VBAR

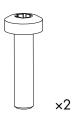




M5×20 Torx

thick plain washer Ø 5 mm M5 hex locknut

from TILT5/TILT15/TILT40





M6×25 Torx

M5 tapered spacer

Assembly

1

About this task

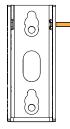
In this procedure, TILTxx designates the fixed angle accessories TILT5, TILT15, and TILT40.

Prerequisite

Place X8i on its front face on a clean flat surface.



Make sure that the TILTxx safety screw is present and loosened.



Procedure

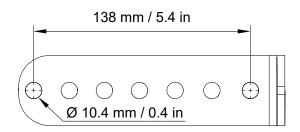
Ceiling-mounting holes

When ceiling-mounting with VBAR, always use holes 1 and 7 (at both ends) to ensure optimal support.



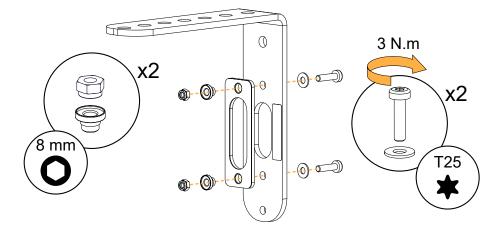
Make sure to leave enough space between the walls and the sides of the rigging element to access the screw(s) when the enclosure is mounted.

1. Drill holes in the ceiling for VBAR.

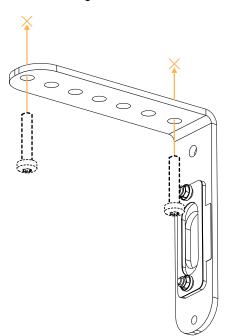


Assemble the wall-mounting plate and tapered spacers with VBAR.
 Use two M5×20 Torx, two M5 washers, and two M5 nuts.

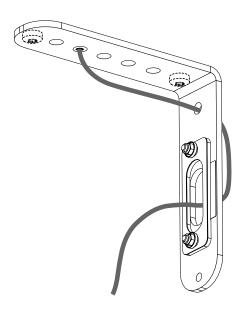
The wall-mounting plate gasket is facing away from VBAR.



3. Secure VBAR and the wall-mounting plate to the ceiling.



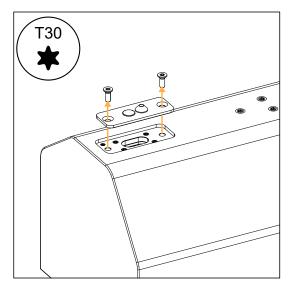
4. Run the speaker cable through VBAR.

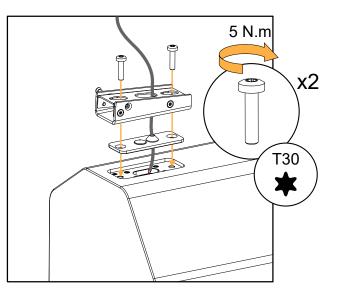


5. Secure TILTxx to X8i:

- a) Remove the connector sealing plate (if present) or the placeholder screws.
- b) Run the cable through TILTxx and through the connector sealing plate.
- c) Connect the speaker cable to the X8i terminal block. Refer to Cabling X8i (p.169).
- d) Secure TILTxx and the connector sealing plate to X8i.

Use two M6×25 Torx screws.



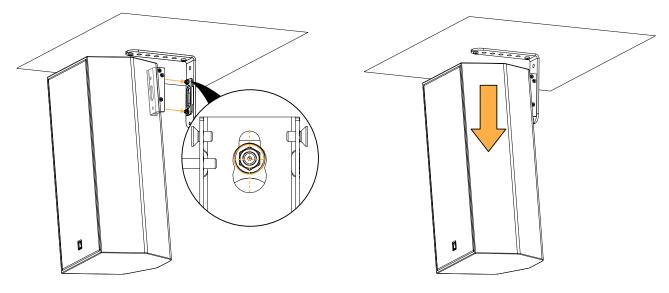


Risk of crushing injury

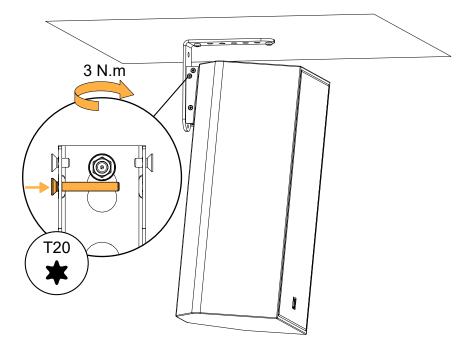
This step requires two operators.

6. Mount X8i on VBAR:

- a) Align the midpoints of the TILTxx rear cutouts with the tapered spacers.
- b) Push the assembly downwards.



7. Tighten the safety screw and make sure the assembly is stable.



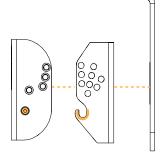
Ceiling-mounting X8i vertically with VBAR and TILT

Type of deployment	ceiling-mounting
Rigging accessories	VBAR
	TILT
Additional material	2 compatible screws and anchors
Tools	torque screwdriver
	T20 Torx bit
	T30 Torx bit
	T40 Torx bit
	T20 screwdriver
	10 mm wrench or 10 mm hex socket
Min. number of operators	2



Assembly overview

Pay attention to the position of the accessory parts throughout the procedure.



TILT VBAR



Secondary safety for flown enclosures

Use one insert at the back of the enclosure to implement a secondary safety.



Risk of crushing injury

Ensure that the wall or ceiling can support the load of the product.

It is recommended to mount only on solid structures. If mounting on a hollow structure (such as a wall cavity), place anchoring points on the framework (wall studs, ceiling joists), or reinforce the mounting area.

Select screws and anchors applicable to the wall or ceiling properties and to the load of the product. Prevent screws from loosening over time, using for example thread locker or lock washers.

Specifications for screws and anchors

deployment	accessory	ultimate tensile load per screw (daN)	ultimate shear load per screw (daN)	screws quantity	mounting hole size	specific constraints
ceiling- mounting	VBAR + optional TILT or TILTxx	19	-	2	Ø 10.4 mm / 0.41 in	use the holes 1 and 7 (at both ends)



Risk of falling objects

Do not use TILT, TILT5, TILT15, or TILT40 upside-down. These rigging accessories are designed for negative site angles only.

Screws and fasteners

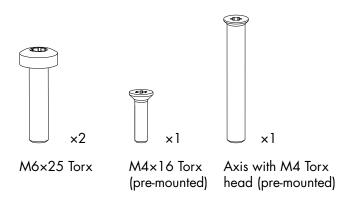
from VBAR





flat washer Ø 6 mm M6 hex lock nut

from TILT



Assembly

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About this task

In this procedure, TILTxx designates the fixed angle accessories TILT5, TILT15, and TILT40.

Prerequisite

Place X8i on its front face on a clean flat surface.



Procedure

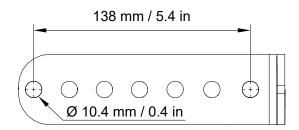
Ceiling-mounting holes

When ceiling-mounting with VBAR, always use holes 1 and 7 (at both ends) to ensure optimal support.



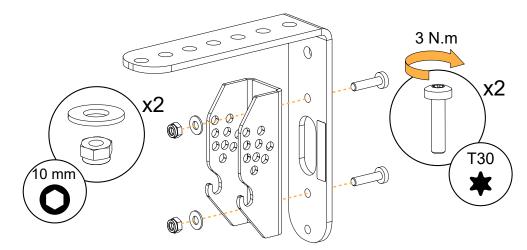
Make sure to leave enough space between the walls and the sides of the rigging element to access the screw(s) when the enclosure is mounted.

1. Drill holes in the ceiling for VBAR.

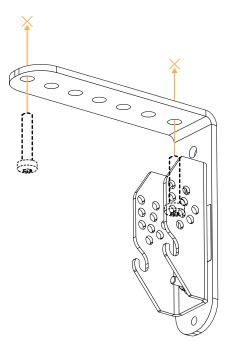


2. Assemble the TILT wall-mounting part with VBAR.

Use two M6×25 Torx, two M6 nuts and two M6 washers.



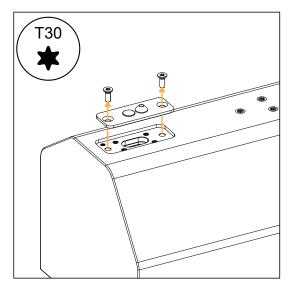
3. Secure VBAR to the ceiling.

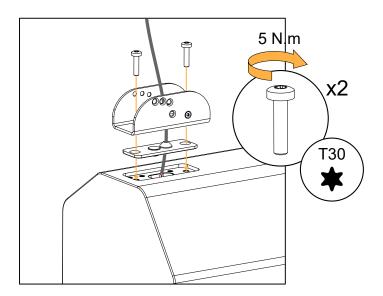


4. Secure TILT to X8i:

- a) Remove the connector sealing plate (if present) or the placeholder screws.
- b) Run the cable through TILT and through the connector sealing plate.
- c) Connect the speaker cable to the X8i terminal block. Refer to Cabling X8i (p.169).
- d) Secure the TILT enclosure-mounting part and the connector sealing plate to X8i.

Use the two M6×25 Torx screws.





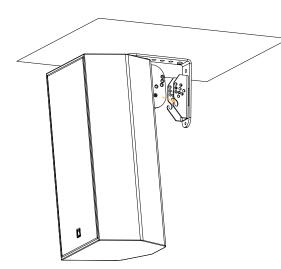


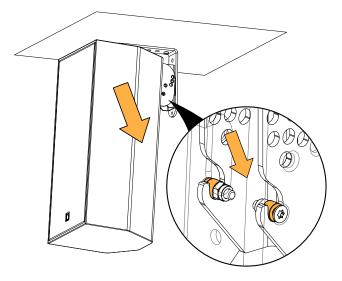
Risk of crushing injury

This step requires two operators.

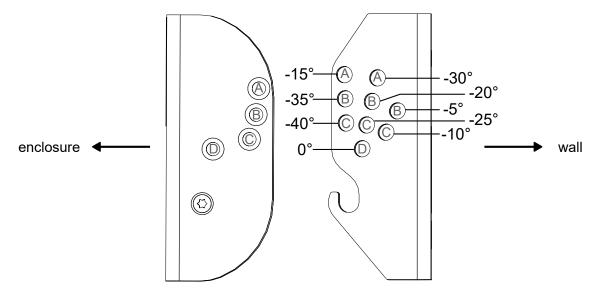
- 5. Mount X8i on VBAR.
 - a) Assemble the two TILT parts by fitting the indexing studs into the hooks.

Make sure that the studs are pushed all the way into the hooks.

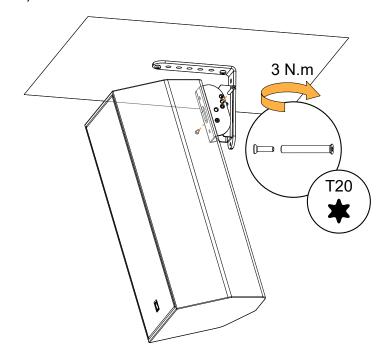




b) Rotate the assembly to select the site angle.



c) Drive the axis through the holes and secure it with the M4×16 Torx screw. Make sure that the assembly is stable.



Horizontally

Ceiling-mounting or truss-mounting X8i horizontally with X8i-HBAR

Type of deployment	ceiling-mounting or truss-mounting			
Rigging accessories	X8i-HBAR			
Additional material	2 compatible screws and anchors, or			
	1 max. Ø10 mm / 0.39 in truss clamp, or			
	1 max. Ø10 mm / 0.39 in threaded rod, with corresponding nuts and washers			
Tools	torque screwdriver			
	T30 Torx bit			
	level			
Min. number of operators	2			



Secondary safety

Use available holes on the rigging accessories to implement a secondary safety.

Risk of crushing injury

Ensure that the wall or ceiling can support the load of the product.

It is recommended to mount only on solid structures. If mounting on a hollow structure (such as a wall cavity), place anchoring points on the framework (wall studs, ceiling joists), or reinforce the mounting area.

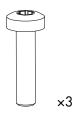
Select screws and anchors applicable to the wall or ceiling properties and to the load of the product. Prevent screws from loosening over time, using for example thread locker or lock washers.

Specifications for screws and anchors

deployment	accessory	ultimate tensile load per screw (daN)	ultimate shear load per screw (daN)	screws quantity	mounting hole size	specific constraints
ceiling- mounting	X8i-HBAR	19	_	2	Ø 10.3 mm / 0.40 in	use two adjacent, coplanar holes distance between centers: 25 mm / 0.98 in

Screws and fasteners

from X8i-HBAR



M6×25 Torx

Ceiling-mounting X8i horizontally with X8i-HBAR

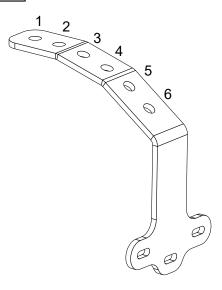
About this task



For this configuration, the speaker cable must be run inside the ceiling.

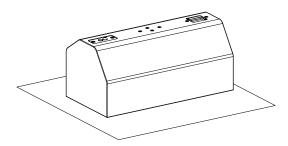
X8i site angles when ceiling-mounted with X8i-HBAR

holes N ^o	angle
1 + 2	0°
3 + 4	-14°
5 + 6	-35°



Prerequisite

Place X8i on its front face on a clean flat surface.



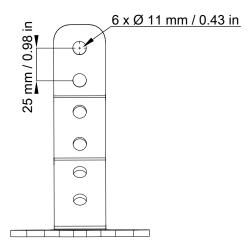
Procedure

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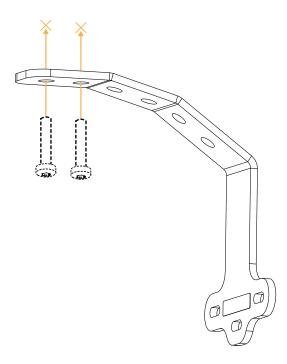
Ceiling-mounting holes

When ceiling-mounting with X8i-HBAR, use one pair of adjacent, coplanar holes depending on the chosen site angle.

1. Drill holes in the ceiling for X8i-HBAR.

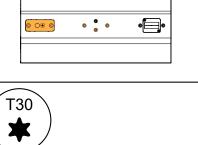


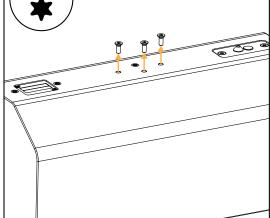
2. Secure X8i-HBAR to the ceiling.



- 3. Remove the three placeholder screws in the middle of X8i.
 - X8i-HBAR can be mounted on a horizontal X8i turned either way:
 - with the connector plate on the right-hand side with the connector plate on the left-hand side









Risk of crushing injury

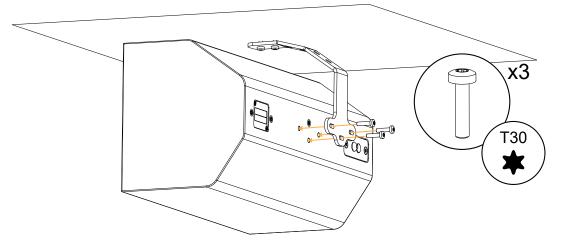
This step requires two operators.



Do not fully tighten the screws.

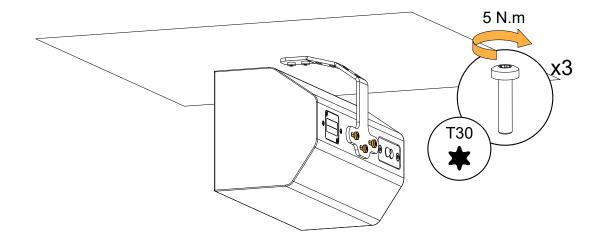
4. Mount X8i on X8i-HBAR.

Use three $M6 \times 25$ Torx screws.



5. Tighten the screws.

Make sure the assembly is stable.



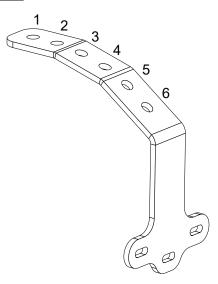
6. Prepare X8i cabling. Refer to Cabling X8i (p.169).

Flying X8i with X8i-HBAR

About this task

X8i site angles when flown or truss-mounted with X8i-HBAR

hole N ^o	angle
1	9°
2	۱°
3	-10°
4	-20°
5	-30°
6	-40°



Prerequisite

Place X8i on its front face on a clean flat surface.

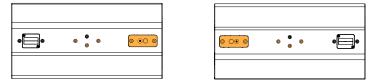


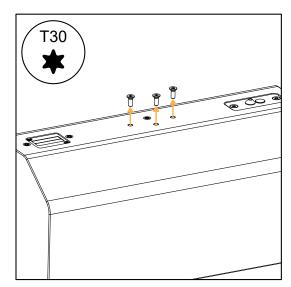
Procedure

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- 1. Remove the three placeholder screws in the middle of X8i.
 - X8i-HBAR can be mounted on a horizontal X8i turned either way:

with the connector plate on the right-hand side with the connector plate on the left-hand side

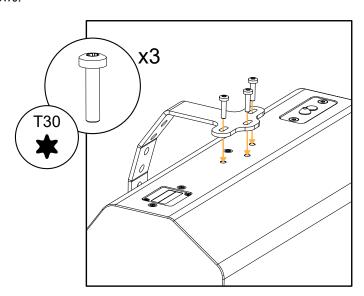






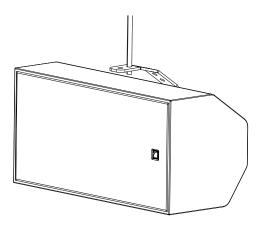
Do not fully tighten the screws.

 Mount X8i-HBAR on X8i. Use three M6×25 Torx screws.

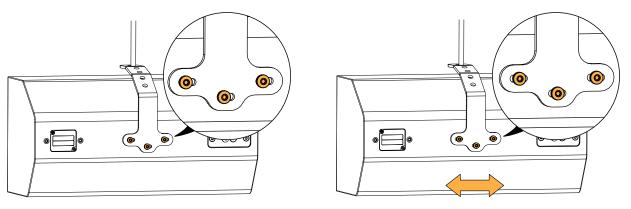


Rigging procedures

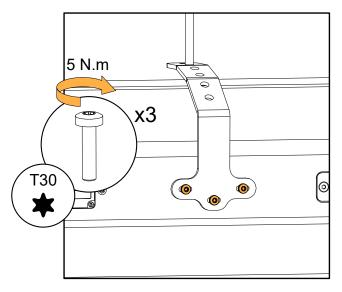
3. Choose the pickup point and fly X8i with a truss clamp or a threaded rod (maximum Ø 10 mm / 0.39 in). Make sure the assembly is stable.



4. Adjust the roll angle.



5. Place X8i on its front face and tighten the screws.



6. Prepare the cabling. Refer to Cabling X8i (p.169).

Downward-facing

Ceiling-mounting X8i with X8i-onCW

Type of deployment	ceiling-mounting			
Rigging accessories	8i-onCW			
Additional material	compatible screws and anchors			
Tools	torque screwdriver			
	T20 Torx bit			
	T30 Torx bit			
Min. number of operators	2			



Secondary safety for flown enclosures

Use one insert at the back of the enclosure to implement a secondary safety.



Risk of crushing injury

Ensure that the wall or ceiling can support the load of the product.

It is recommended to mount only on solid structures. If mounting on a hollow structure (such as a wall cavity), place anchoring points on the framework (wall studs, ceiling joists), or reinforce the mounting area.

Select screws and anchors applicable to the wall or ceiling properties and to the load of the product. Prevent screws from loosening over time, using for example thread locker or lock washers.

Specifications for screws and anchors

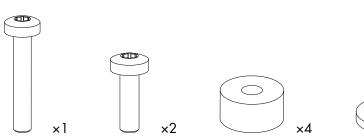
deployment	accessory	ultimate tensile load per screw (daN)	ultimate shear load per screw (daN)	screws quantity	mounting hole size	specific constraints
ceiling- mounting	X8i-onCW	6	-	4	Ø 6.4 mm / 0.25 in	total thickness with washers: 13.10 mm / 0.51 in



SPCON cannot be used in this configuration.

Screws and fasteners

from X8i-onCW







M6×35 Torx

M6×20 Torx

M6×10 spacer

M6×3 spacer

flat M6 washer

Assembly

About this task

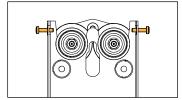
For this configuration, the speaker cable must be run inside the wall or ceiling.

Prerequisite

Place X8i on its front face on a clean flat surface.



Make sure that the X8i-onCW safety screws are present and loosened.

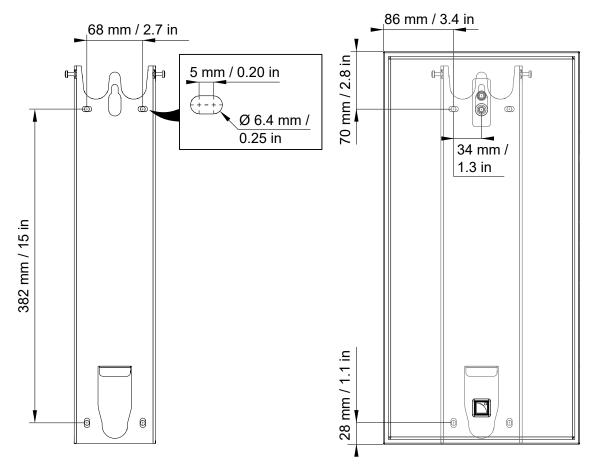


Procedure



Make sure to leave enough space between the walls and the sides of the rigging element to access the screw(s) when the enclosure is mounted.

1. Drill holes in the ceiling for the anchors and for the cable exit(s).

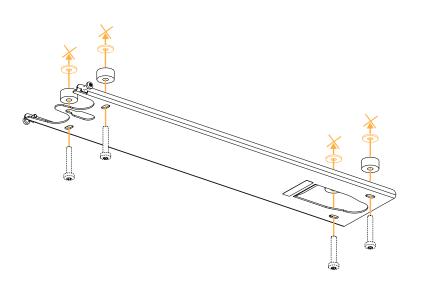


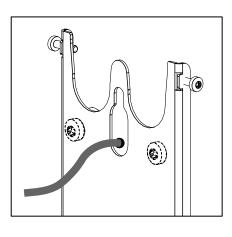
2. Run the speaker cable inside the ceiling.

3. Secure the surface-mounting plate to the ceiling, using the four M6×10 spacers.

If the surface is uneven, adjust with the flat M6 washers.

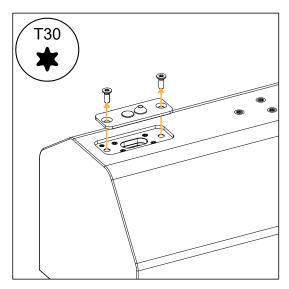
Run the cable through the top hole of the surface-mounting plate.

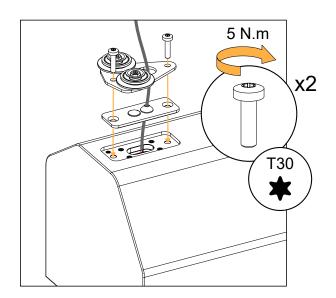




- 4. Secure the two top silent blocks to X8i:
 - a) Remove the connector sealing plate (if present) or the placeholder screws.
 - b) Run the cable through the enclosure-mounting plate and through the connector sealing plate.
 - c) Connect the cable to the X8i terminal block. Refer to Cabling X8i (p.169).
 - d) Secure the enclosure-mounting plate and the connector sealing plate to X8i.

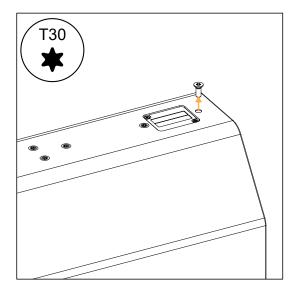
Use the two M6×20 Torx screws.

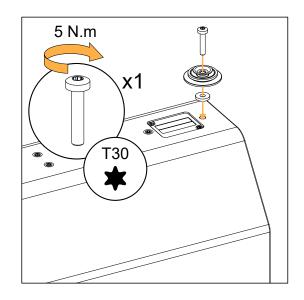




- **5.** Secure the bottom silent block to X8i:
 - a) Remove the placeholder screw at the bottom of X8i.
 - b) Secure the silent block and the M6×3 spacer at the bottom of the enclosure.

Use the M6×30 Torx screw.

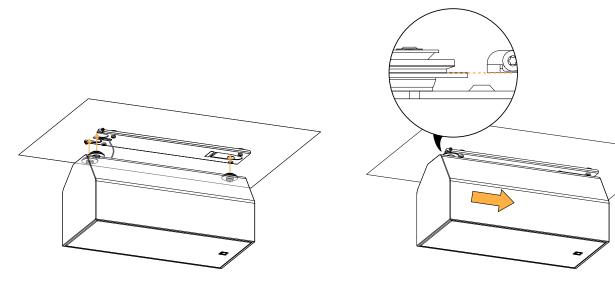




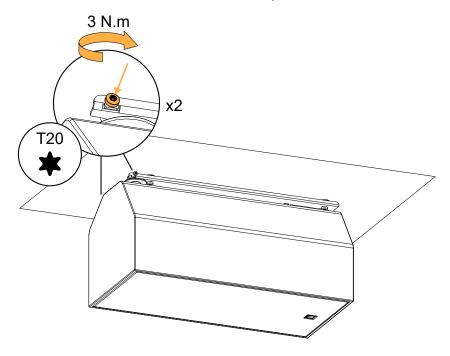


This step requires two operators.

- **6.** Mount X8i on the ceiling:
 - a) Align the silent blocks with the surface-mounting plate cutouts.
 - b) Push the assembly towards the bottom of X8i.



7. Tighten the safety screws on both sides and make sure the assembly is stable.



Flying X8i with CEILING-PENDANT

Type of deployment	truss-mounting			
Rigging accessories	CEILING-PENDANT			
Additional material	tional material 1 max. Ø 12 mm / 0.47 in truss clamp, or			
	1 max. Ø 12 mm / 0.47 in threaded rod, with corresponding nuts and washers			
Tools	torque screwdriver			
	T30 Torx bit			
Min. number of operators	2			

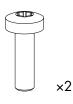


Secondary safety for flown enclosures

Use one insert at the back of the enclosure to implement a secondary safety.

Screws and fasteners

from **CEILING-PENDANT**



M6×20 Torx

Assembly

About this task



For this configuration, the speaker cable must be run inside the ceiling.

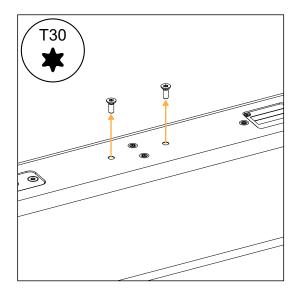
Prerequisite

Place X8i on its front face on a clean flat surface.

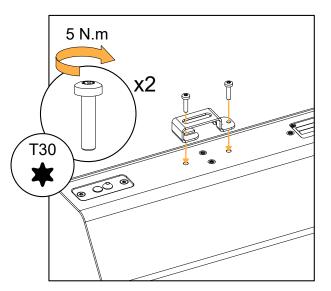


Procedure

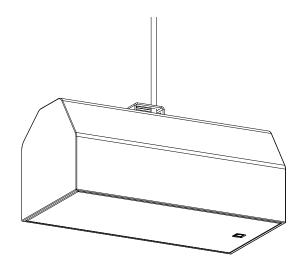
1. Remove the two placeholder screws in the middle of X8i.



2. Secure CEILING-PENDANT to X8i. Use two M6×25 Torx screws.



3. Fly X8i with a truss clamp or a threaded rod (maximum Ø 12 mm / 0.47 in). Make sure the assembly is stable.



4. Prepare the cabling. Refer to Cabling X8i (p.169).

Ground-mounting

Overview

orientation	site angle				
	0 °	35°	55°		
Vertical	no rigging accessory				
Horizontal	GROUND (p. 160)	GROUND35 (p.160)	GROUND55 (p.160)		

Ground-mounting X8i horizontally with GROUND / GROUND55 / GROUND35

Type of deployment	ground-stacking			
Rigging accessories	GROUND / GROUND55 / GROUND35			
Additional material	compatible screws and anchors			
Tools	torque screwdriver			
	T30 Torx bit			
	screwdriver extension			
Min. number of operators	1			



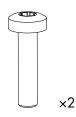
SPCON cannot be used in this configuration.

Specifications for screws and anchors

deployment	accessory	ultimate tensile load per screw (daN)	ultimate shear load per screw (daN)	screws quantity	mounting hole size	specific constraints
ground- mounting	GROUND / GROUND35 / GROUND55	-	-	2	Ø 6.4 mm / 0.25 in	-

Screws and fasteners

from GROUND / GROUND55 / GROUND35



M6×25 Torx

Assembly

About this task



In this procedure, GROUNDxx designates the ground-mounting accessories GROUND55, GROUND35, and GROUND.

Prerequisite

Place X8i on its front face on a clean surface:

• For GROUND55 (55° site angle): with the connector plate on the right.



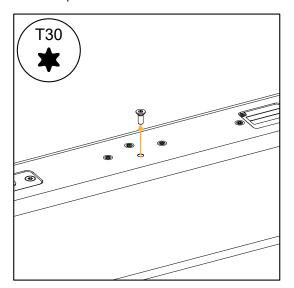
• For GROUND35 (35° site angle) : with the connector plate on the left.

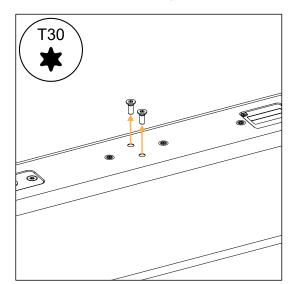


• For GROUND (0° site angle): turned either way.

Procedure

1. Remove one placeholder screw for GROUND or two for GROUND55/GROUND35, in the middle of X8i.





GROUND

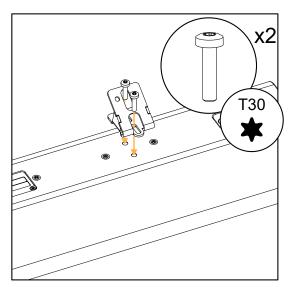
GROUND55/GROUND35



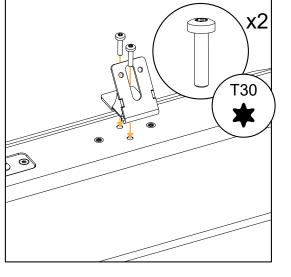
Do not fully tighten the screws.

2. Mount GROUNDxx on X8i.

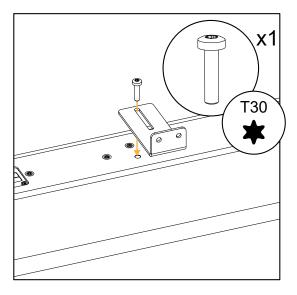
Use one M6x25 Torx screw (GROUND) or two M6x25 Torx screws (GROUND55/GROUND35).



GROUND55



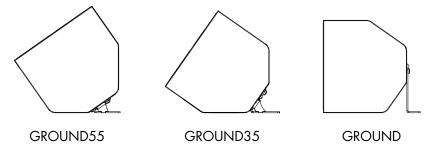
GROUND35



GROUND

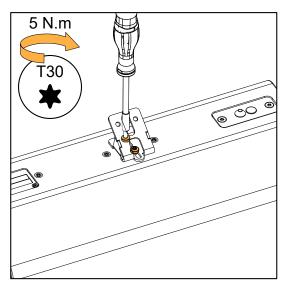
3. Place X8i in monitor position, with GROUND*xx* resting on the ground.

Make sure that GROUNDxx is aligned with the cabinet. Make adjustments if necessary.

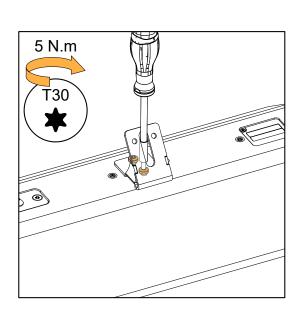


4. Place X8i on its front face and tighten the screws.

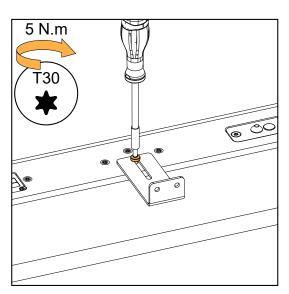
Use a screwdriver extension.



GROUND55

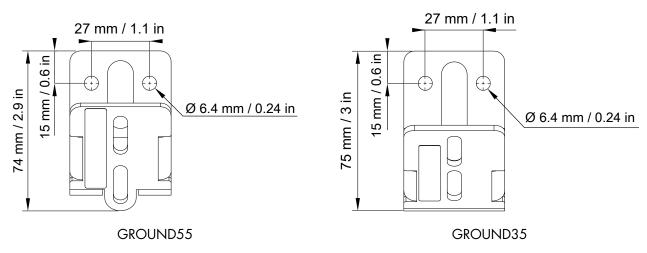


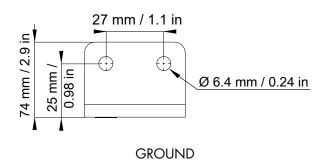
GROUND35





 Place X8i at its final location and secure GROUNDxx to the ground. Make sure the assembly is stable.





Pole-mounting

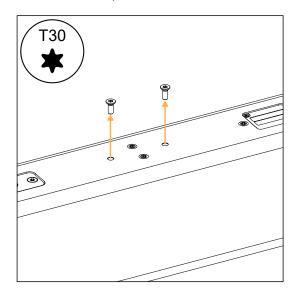
Pole-mounting X8i with POLE

Type of deployment	pole-mounting			
Rigging accessories	POLE			
Additional material	ð 35 mm (1-3/8") pole			
Tools	torque screwdriver			
	screwdriver extension			
	T30 Torx bit			
	17 mm wrench			
Min. number of operators	1			

Assembly

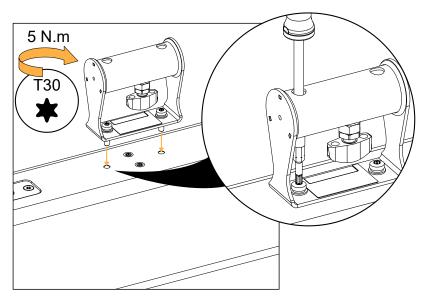
Procedure

1. Remove the two placeholder screws in the middle or at the bottom of X8i.



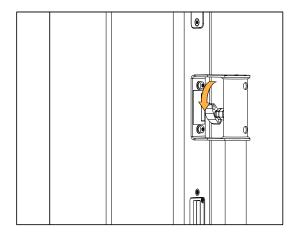
2. Secure POLE to X8i with the two captive screws.

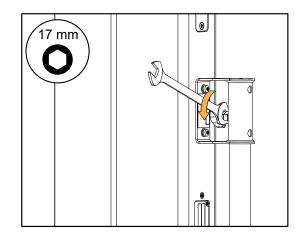
Use a screwdriver extension.



- Mount the assembly on a Ø 35 mm (1-3/8") pole.
 Use a screwdriver extension.
- 4. Tighten the locking knob and the nut.

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 ^a	per output [*] / total
X8i	2 / 8 (SE), 1 / 2 (BTL)	2 / 8	1 / 16	3 / 12

i

Reduced maximum SPL or drive capacity with LA2Xi: refer to the LA2Xi owner's manual.

^{*} 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.

^a Given for nominal use, assuming that all channels are driven at full power. When sending the same signal to all outputs, never exceed the maximum numbers, regardless of the Power Budget values, otherwise the Fuse Protect algorithm may be triggered. When powered by a 100 V power supply, reduce the number of enclosures in order not to exceed 75% of the power gauge.

Cabling schemes for X8i

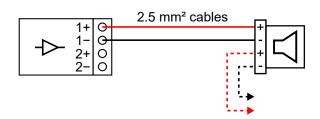
Refer to the cabling schemes to connect the enclosures to different types of output configurations.



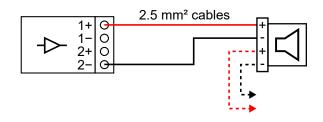
Refer to the cable manufacturer documentation for the wire color code.

Refer to the LA2Xi owner's manual for more information on output configurations.

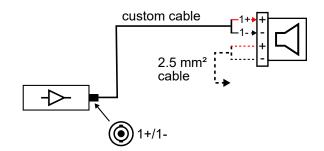
Terminal block output (LA2Xi SE / LA7.16i)



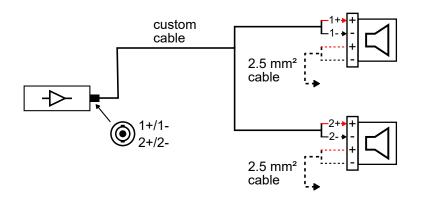
Terminal block output (LA2Xi BTL)



One-channel speakON output



Two-channel speakON output



Cabling X8i

Accessory	connector sealing plate (provided)	
Screws and fasteners	2 M6x16 screws (mounted on enclosure)	
Tools	torque screwdriver	
	T30 Torx bit	
	small tool or flat screwdriver (3 mm or less)	
Additional material	recommended: insulated cable ferrules and crimping tool	
Min number of operators	1	

Specifications for insulated cable ferrules

Wire range		14 AWG / 2.5 mm ²	► B -
Maximum electric current		30 A	
Maximum electrical rating		105 °C (221 °F) / 600 V	A
Terminal material		tin-plated copper	
Dimensions	A	12 mm / 0.47 in	
	В	2.5 mm / 0.10 in	

Cabling

Prerequisite

The cable glands on the connector sealing plate are compatible with cables up to 2×2.5 mm² gauge.

Refer to:

- APPENDIX B: Recommendation for speaker cables (p.197)
- Cabling schemes for X8i (p.168)

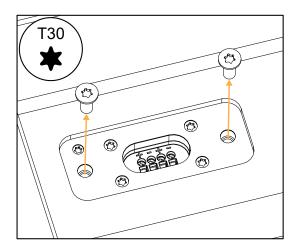
About this task

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.

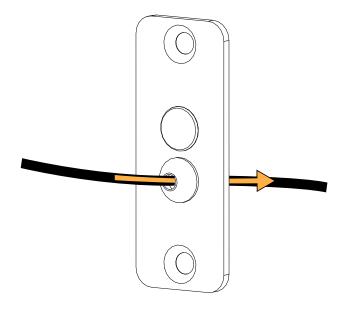
This procedure describes how to connect the input cable to the enclosure. If the enclosure must be connected in parallel, replace the protective plug with the extra cable gland and proceed identically for both cables.

Procedure

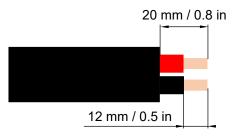
1. Remove the connector sealing plate (if present) or the placeholder screws.



2. Insert the cable through the cable gland.



3. Strip the wires of the cable.



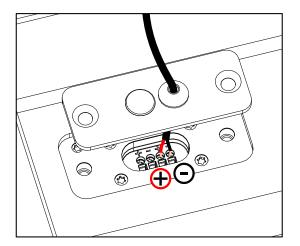
- $2 \times max. 2.5 \text{ mm}^2 \text{ cable}$
- 4. Optionnally, crimp insulated ferrules at the end of both wires.

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

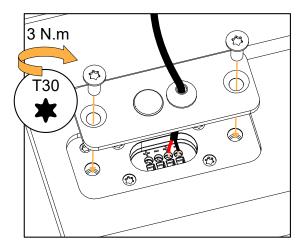
5. Push the wires into the terminals.

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If necessary, use a small tool in the hole next to the terminal to unlock it.

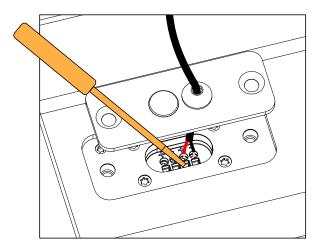


 Secure the connector sealing plate to the enclosure. Apply a torque of 3 N.m.



What to do next

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



Cabling with SPCON

About this task



Risk of electric shock

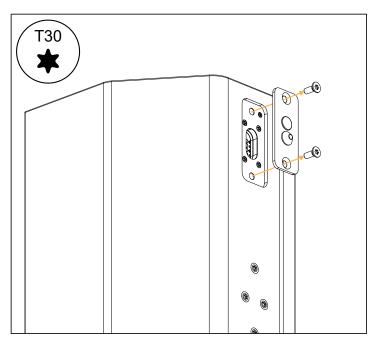
When SPCON is connected to an amplified controller, the bare wires carry electrical voltage. Always mount SPCON to the enclosure **before** connecting the speaker cable to SPCON. Always disconnect the speaker cable from SPCON **before** removing SPCON from the enclosure. If the speaker cable cannot be disconnected, unplug the amplified controller from the mains.

SPCON is **not compatible** with the following rigging accessories:

- X8i-onCW
- WALLx2
- PANx2
- GROUND55
- GROUND35
- GROUND

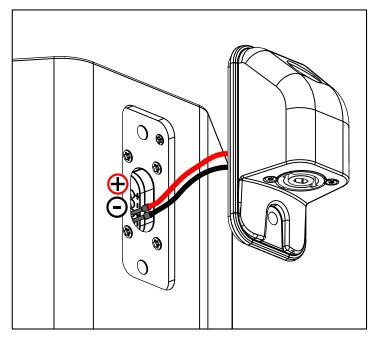
Procedure

1. Remove the connector sealing plate (if present) or the placeholder screws.



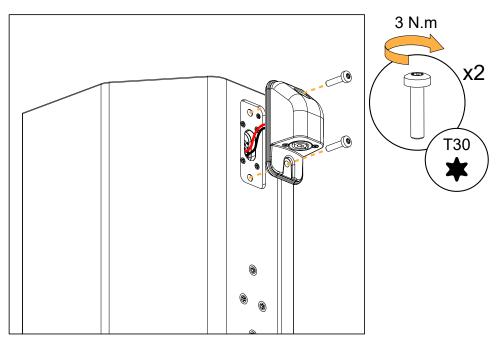
2. Push the SPCON ferrules into the terminals.

If necessary, use a small tool in the hole next to the terminal to unlock it.

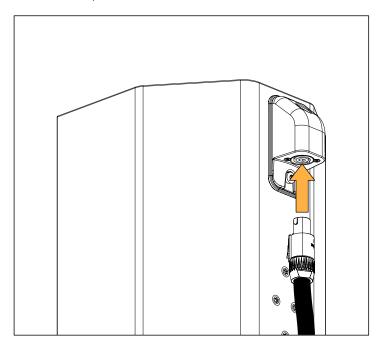


3. Secure SPCON to X8i.

Use the two provided M6 \times 25 Torx screws.



4. Connect the speaker cable to SPCON.



Specifications

X8i specifications

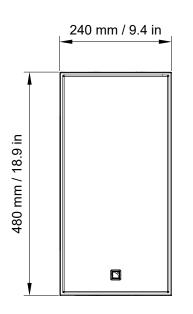
Description		2-way passive coaxial enclosure (installation version) amplified by	: 8" LF + 1.5" HF diaphragm / LA2Xi / LA4X / LA7.16i / LA12X	
		with [X8i_40]	with [X8i]	
Usable bandwidth (-10 dB)		43 Hz - 20 kHz	67 Hz - 20 kHz	
Maximum SPL ¹	with LA2Xi (bridge mode) / LA4X / LA7.16i / LA12X	123 dB	129 dB	
	with LA2Xi (single-ended mode)	121 dB	125 dB	
Nominal directivity (-6 dB)		90° axisymmetric		
Monitoring angle		35° / 55°		
Transducers		LF: 1 × 8"		
		HF: 1 × 1.5" neodymium		
Acoustical load		bass-reflex		
Nominal impedance		8 Ω		
Connectors		1 × 4-point terminal block with push-in connection		
Rigging and handling		8 M6 inserts		
Weight (net)		11 kg / 24 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 orde	er	
IP		IP55 ²		

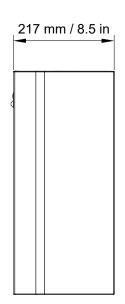
¹ Peak level measured at 1 m under free field conditions using pink noise with crest factor 4 (preset specified in brackets).

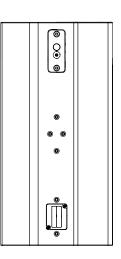
 2 With connector at the top and connector sealing plate.

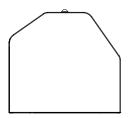
X8i dimensions

222 mm / 8.7 in





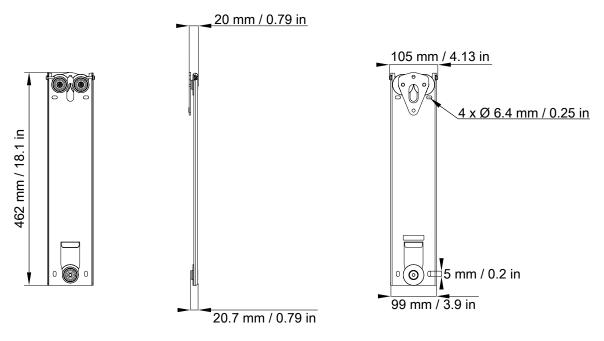




X8i-onCW specifications

Description	On-wall or on-ceiling mounting accessory with silent blocks for X8i
Weight (net)	0.7 kg / 1.5 lb
Material	steel with anti-corrosion coating

X8i-onCW dimensions

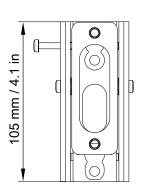


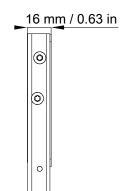
WALL specifications

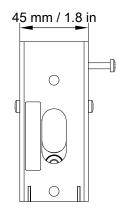
Description	Wall-mounting accessory
Weight (net)	0.3 kg / 0.7 lb

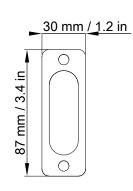
Material steel with anti-corrosion coating

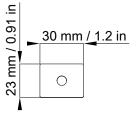
WALL dimensions







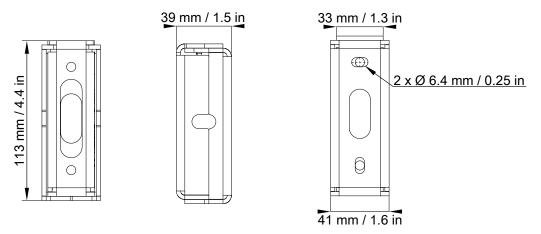




PAN specifications

Description	Adjustable pan accessory +/-45°
Weight (net)	0.4 kg / 0.9 lb
Material	steel with anti-corrosion coating

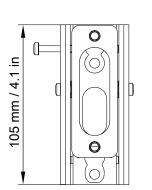
PAN dimensions

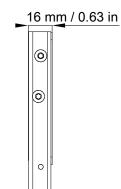


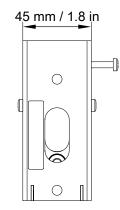
WALLx2 specifications

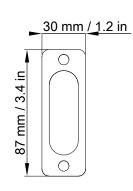
Description	Wall-mounting kit
Weight (net)	0.4 kg / 0.9 lb
Material	steel with anti-corrosion coating

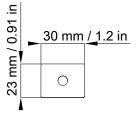
WALLx2 dimensions







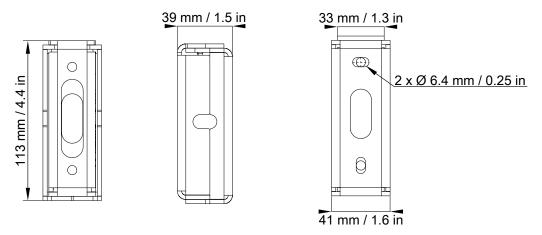




PANx2 specifications

Description	Adjustable pan accessory kit +/-45°
Weight (net)	0.8 kg / 1.8 lb
Material	steel with anti-corrosion coating

PANx2 dimensions

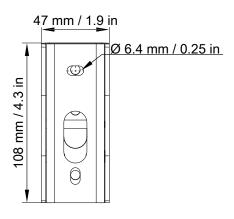


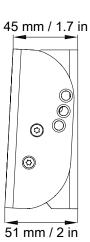
TILT specifications

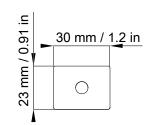
Description	Adjustable tilt accessory from 0° to 40°
Weight (net)	1.1 kg / 2.4 lb

Material steel with anti-corrosion coating

TILT dimensions



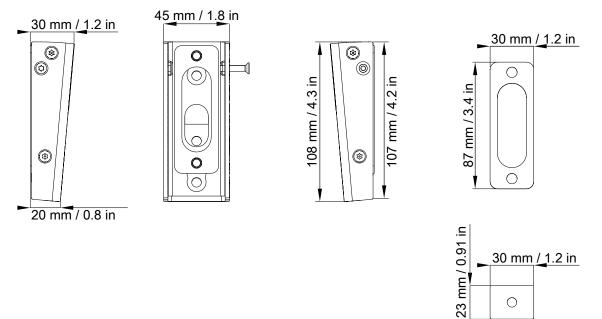




TILT5 specifications

Description	Fixed tilt accessory 5°
Weight (net)	0.3 kg / 0.7 lb
Material	steel with anti-corrosion coating

TILT5 dimensions

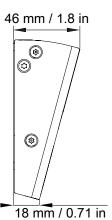


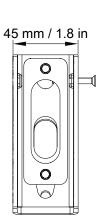
0

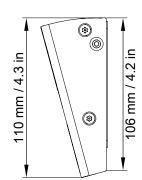
TILT15 specifications

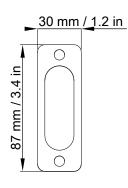
Description	Fixed tilt accessory 15°
Weight (net)	0.4 kg / 0.9 lb
Material	steel with anti-corrosion coating

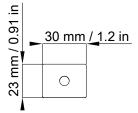
TILT15 dimensions







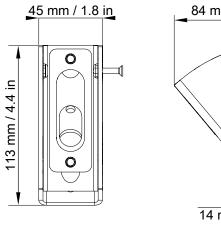


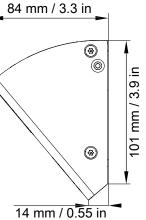


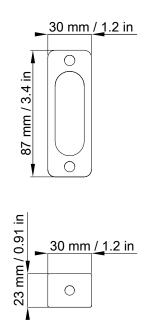
TILT40 specifications

Description	Fixed tilt accessory 40°
Weight (net)	0.5 kg / 1.1 lb
Material	steel with anti-corrosion coating

TILT40 dimensions



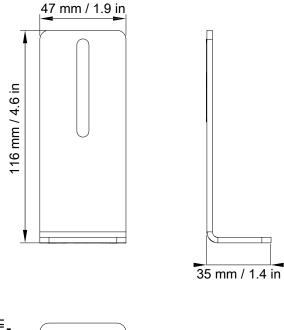


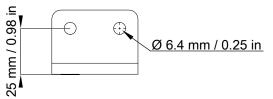


GROUND specifications

Description	Ground-mounting accessory
Weight (net)	0.2 kg / 0.4 lb
Material	steel with anti-corrosion coating

GROUND dimensions





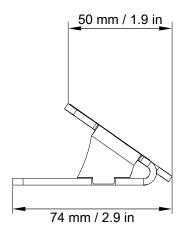
GROUND55 specifications

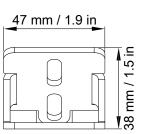
Description	Ground-mounting accessory for 55° site angle

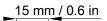
Weight (net) 0.1 kg / 0.2 lb

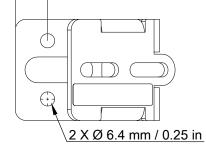
Material steel with anti-corrosion coating

GROUND55 dimensions









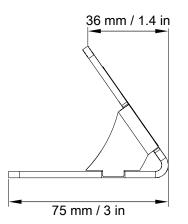
GROUND35 specifications

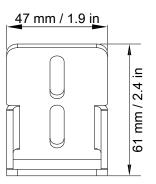
Description	Ground-mounting accessory	for 35° site angle
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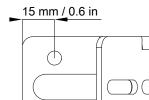
Weight (net) 0.2 kg / 0.4 lb

Material steel with anti-corrosion coating

GROUND35 dimensions







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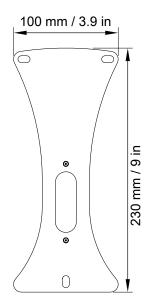
<u>2 x Ø 6.4 mm / 0.25 in</u>

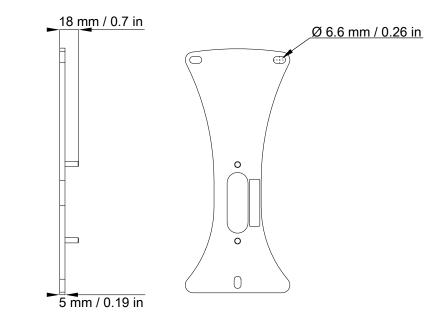
TILT-SUPPORT specifications

Description	Support plate for TILT/PAN/WALL accessories
Weight (net)	0.5 kg / 1.1 lb

Material steel with anti-corrosion coating

TILT-SUPPORT dimensions



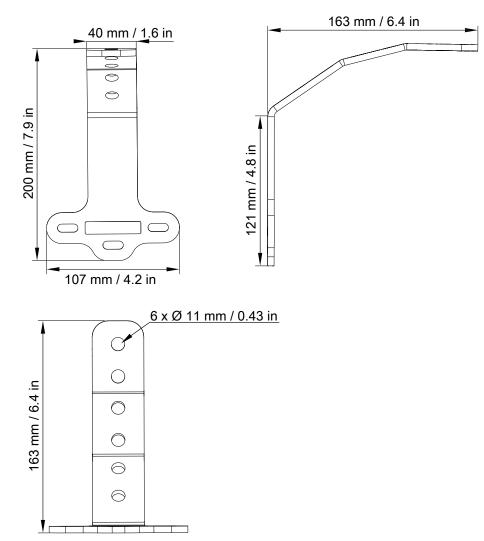


X8i-HBAR specifications

Description	Rigging accessory for horizontally-oriented X8i
Weight (net)	0.5 kg / 1.1 lb

Material steel with anti-corrosion coating

X8i-HBAR dimensions

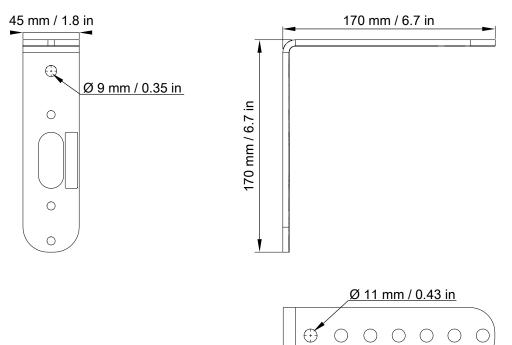


VBAR specifications

Description	Rigging accessory for vertically-oriented loudspeaker
Weight (net)	0.5 kg / 1.1 lb

Material steel with anti-corrosion coating

VBAR dimensions



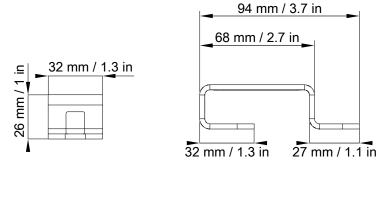
CEILING-PENDANT specifications

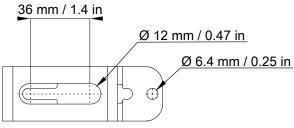
Description Rigging accessory for ceiling-hung pendant loudspeaker

Weight (net) 0.1 kg / 0.2 lb

Material steel with anti-corrosion coating

CEILING-PENDANT dimensions

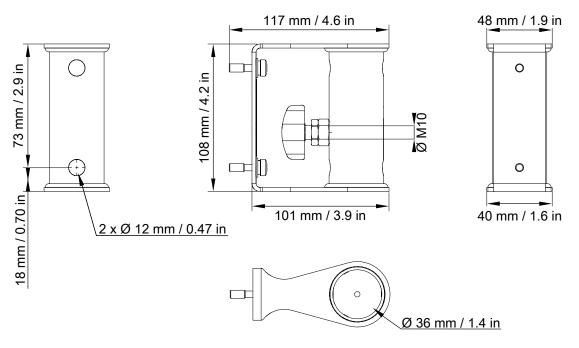




POLE specifications

Description	Pole-mount adapter
Weight (net)	0.5 kg / 1.1 lb
Material	steel with anti-corrosion coating

POLE dimensions

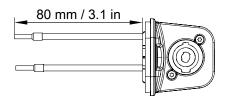


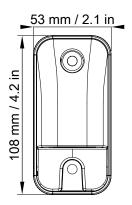
SPCON specifications

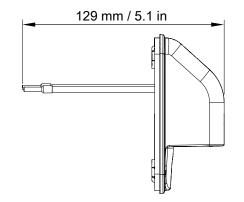
Description	2-point speakON adaptor (2.5 mm ² gauge) for terminal blocks
Weight (net)	0.1 kg / 0.2 lb

Material moulded ABS polymer

SPCON dimensions







Specifications for screws and anchors

Use the following information to choose compatible screws and anchors for mounting X8i on the wall, on the ceiling, or on the ground.



Risk of crushing injury

Ensure that the wall or ceiling can support the load of the product.

It is recommended to mount only on solid structures. If mounting on a hollow structure (such as a wall cavity), place anchoring points on the framework (wall studs, ceiling joists), or reinforce the mounting area.

Select screws and anchors applicable to the wall or ceiling properties and to the load of the product. Prevent screws from loosening over time, using for example thread locker or lock washers.

deployment	accessory	ultimate tensile load per screw (daN)	ultimate shear load per screw (daN)	screws quantity	mounting hole size	specific constraints
wall-mounting	TILT-SUPPORT + any accessory	12	9	3	Ø 6.4 mm / 0.25 in (slotted)	_
wall-mounting	X8i-onCW	6	5	4	Ø 6.4 mm / 0.25 in (slotted)	total thickness with spacers: 13.10 mm / 0.51 in
wall-mounting	WALL×2	6	5	4	Ø 5.2 mm / 0.20 in	maximum screw head size: Ø 11 mm / 0.43 in
wall-mounting	PAN×2	6	5	4	Ø 6.4 mm / 0.25 in (slotted)	-
ceiling- mounting	X8i-onCW	6	-	4	Ø 6.4 mm / 0.25 in	total thickness with washers: 13.10 mm / 0.51 in
ceiling- mounting	VBAR + optional TILT or TILTxx	19	-	2	Ø 10.4 mm / 0.41 in	use the holes 1 and 7 (at both ends)
ceiling- mounting	X8i-HBAR	19	-	2	Ø 10.3 mm / 0.40 in	use two adjacent, coplanar holes
						distance between centers: 25 mm / 0.98 in
ground- mounting	GROUND / GROUND35 / GROUND55	-	-	2	Ø 6.4 mm / 0.25 in	-

Recommendation for speaker cables



Cable quality and resistance

Only use high-quality fully insulated loudspeaker 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.

It is good practice to keep loudspeaker cables short to ensure optimal system performance. L-Acoustics strongly recommends using cables of similar type, length, and gauge to address symmetrical deployment of loudspeakers, such as stereo systems, L-ISA frontal systems, or outfill systems.



For more information about cable effect on loudspeaker frequency response, refer to the publication **Demystifying the effects of loudspeaker cables** on the L-Acoustics website, in **Education > Scientific resources > Scientific publications**.

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
1.5	18	16	18	60	9	30	-	-
2.5	15	14	30	100	15	50	10	33
4	13	11	50	160	25	80	17	53
6	11	9	74	240	37	120	25	80

Refer to the following table for recommended cable length for uncompromised performance.

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

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



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