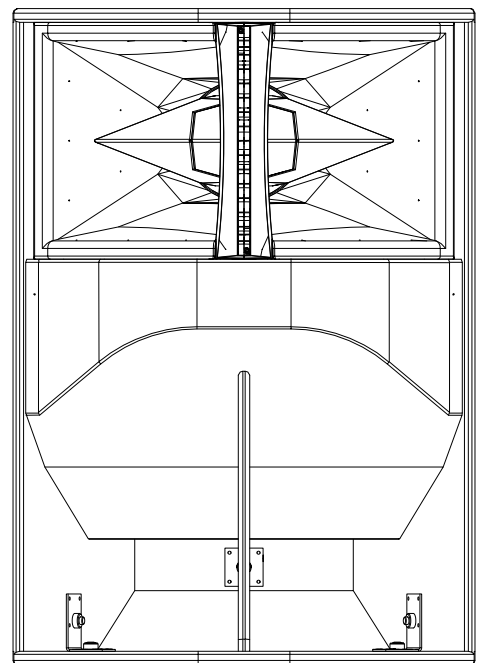
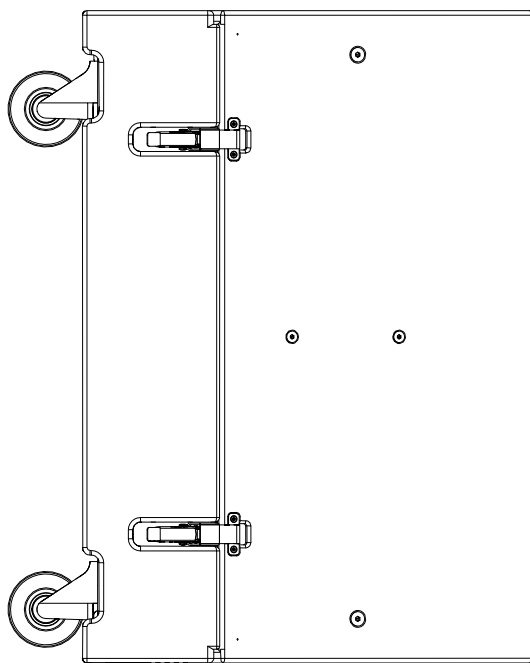
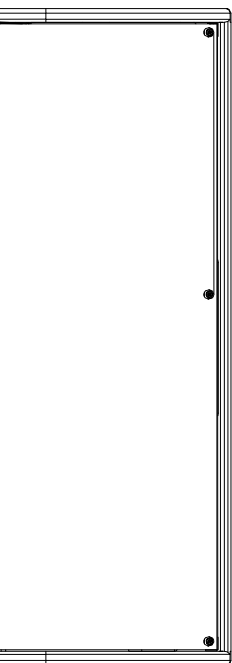


FUNKTION-ONE

Evo X USER GUIDE



Evo X User Guide Version 1.2

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Keep this guide in a safe place so it's available for future reference.

This guide is subject to change without notice. We recommend that you regularly check the Funktion-One website for the latest version of this document.

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1 SAFETY AND REGULATIONS

1.1 Important safety instructions

Read these instructions.
Keep these instructions.
Heed all warnings.
Follow all instructions.



1.2 WEEE Directive

The Waste Electrical and Electronic Equipment Directive (WEEE Directive) aims to minimise the impact of electrical and electronic goods on the environment. Funktion-One Research Ltd. complies with the Directive 2012/19/EU.

Funktion-One products are designed for longevity and repairability, we hope they provide many decades of enjoyment and useful operation. In the unlikely event that you need to dispose of your Funktion-One product, all of our products are marked with the WEEE symbol; this indicates that this product must NOT be disposed with other waste. Instead it is the user's responsibility to dispose of their unwanted Funktion-One electrical and electronic equipment by returning it to Funktion-One Research Ltd. for recycling and reprocessing.

For more information about where you can send your waste equipment for recycling, please contact Funktion-One Research Ltd. or your local distributor.

1.3 Volume Warning

The Evo X is capable of producing high sound levels that can damage your hearing over time. Care should be taken to manage your noise exposure levels.

1.4 Safety Symbols



The triangle with the lightning bolt is used to alert the user to risk of electric shock.



The triangle with the exclamation point is used to alert the user to important operating or maintenance instructions,

1.5 Declaration of Conformity



This declaration applies to passive loudspeakers manufactured by Funktion-One Research Ltd. listed below:

Evo X

In accordance with the following

Low Voltage Directive 2014/35/EU,
Restriction of Hazardous Substances (RoHS) Directive
2011/65/EU.

We declare that the listed products are in the conformity
with the applicable requirements for the following
documents:

LVD:
EN62368-1:2020+A11:2020

RoHS:
EN 63000:2018



This declaration applies to the passive loudspeakers manufactured by Funktion-One Research Ltd. listed below:

Evo X

In accordance with the following

Electrical Equipment (Safety) Regulations 2016.
The Restriction of the Use of Certain Hazardous
Substances in Electrical and Electronic Equipment
Regulations 2012.

We declare that the listed products are in the conformity
with the applicable requirements for the following
documents:

Electrical Equipment Safety:
EN62368-1:2020+A11:2020

RoHS:
EN 63000:2018

Tony Andrews, Director,
Funktion-One Research Limited.

Issued on the 20th of January 2021

Hoyle, Horsham Road, Beare Green, Dorking, Surrey

2 WARRANTY

2.1 Funktion-One Limited Warranty

Funktion-One Research Limited shall, as soon as reasonably practicable, repair or replace any faulty products or components during the period of 24 months (limited to 12 months for products sold as water resistant) from the date of delivery where such defects occur under correct and proper usage save that this warranty shall not apply where any product has been changed, modified, abused, installed or operated incorrectly or interfered with in any way. Any products being returned to the factory or service center must be shipped prepaid.

The Seller shall have no further liability to the Purchaser.

This warranty relates only to Funktion-One equipment and specifically excludes any works carried out by an installation company which relate to the installation of the system into the venue.

2.2 Obtaining Service

If your Funktion-One product requires service, contact your local distributor to raise a claim. A list of distributors can be found at www.funktion-one.com.

Should it not be possible to resolve your issue remotely, you may have to send your product to a service centre. If this is the case, package the loudspeaker in its original packaging and return it to the service centre stipulated by your distributor or sales outlet. Ensure the loudspeaker is well packed and the following information is provided inside the box:

- Name
- Address
- Contact email
- Contact phone number
- Brief description of the fault

3 INTRODUCTION

3.1 Welcome

Thank you for purchasing this Funktion-One product.

Evo X is a three-way, full range loudspeaker with wide horizontal dispersion and narrow vertical dispersion.

Evo X should be used either one per side in stereo, or one per corner in a four-point system.

This user guide includes the information you will need to configure the system correctly, ensuring that you enjoy its full sonic capabilities.

3.2 On Delivery

Before signing for your delivery you should:

- Carry out a full visual inspection of the parcel looking for signs of abuse, contamination or transit damage
- Confirm that all invoiced items are with the consignment
- If for any reason the consignment is incomplete or its contents are found to be damaged, inform the shipping company/delivery driver and contact your Funktion-One dealer

4 SPECIFICATIONS

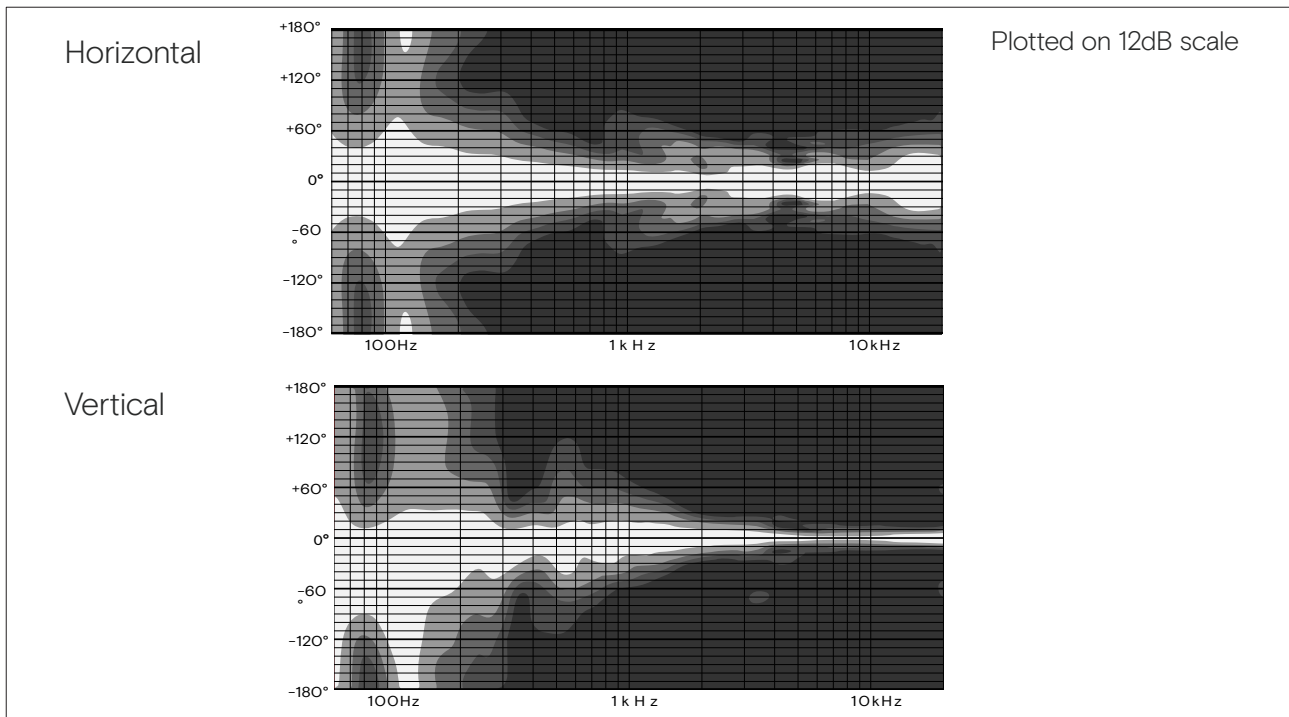
4.1 Cabinet Specification

Frequency Response (-3dB):	60Hz - 18kHz
Weight (without wheelboard):	47kg 103(lbs)
Nominal Dispersion:	90° Horizontal x 13° Vertical
Connectors:	2 x Neutrik NL8
Flying/Mounting:	M10 Captive Threads
Yoke Bracket Mounts:	M8 Captive Threads

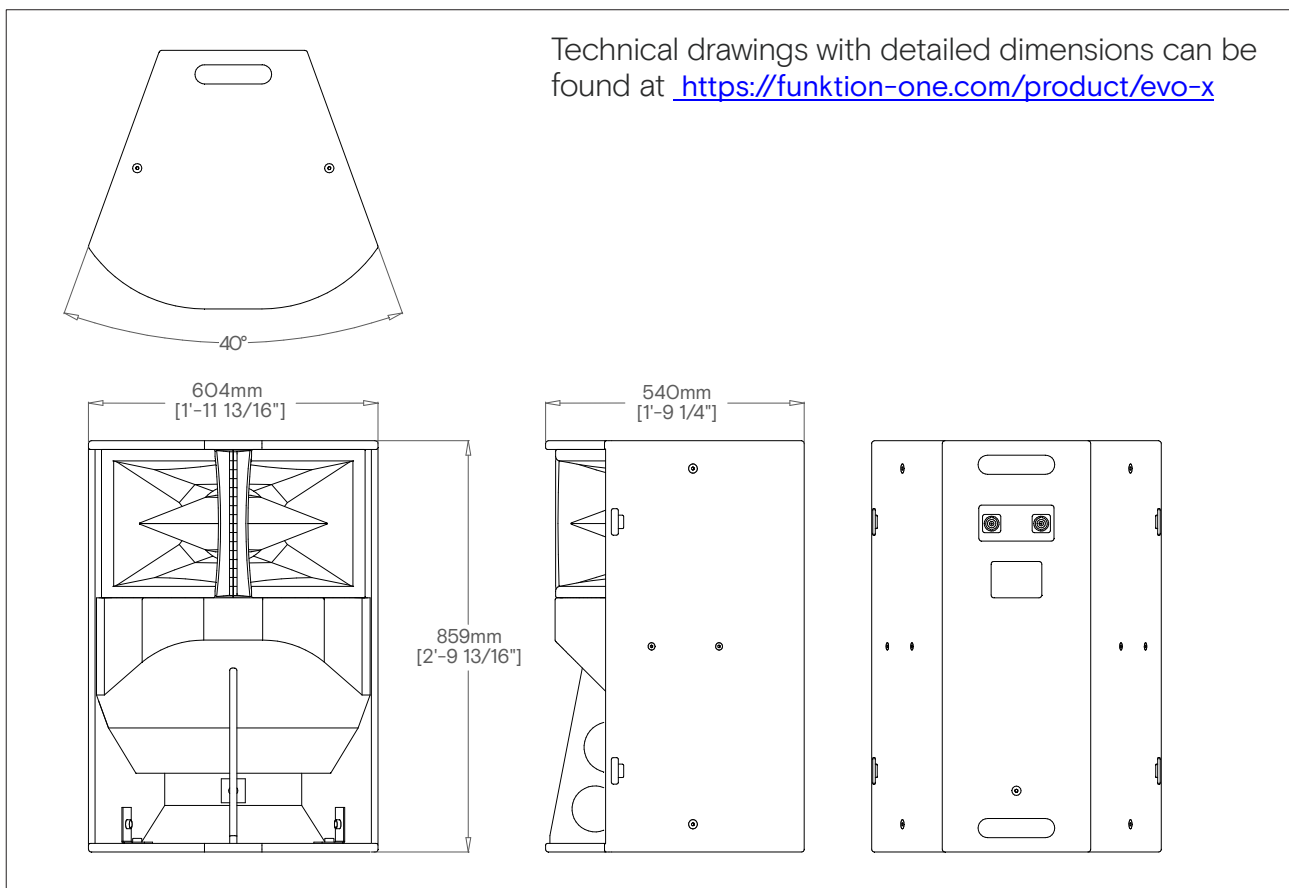
4.2 Driver Specification

Driver	Crossover Frequencies	Sensitivity (At 1m)	Power (AES)	Nominal Impedance
15" (LF)	30/85-280Hz	102dB at 2.8V	400W	8Ω
8" (MF)	280-5kHz	107dB at 4V	200W	16Ω
1" (HF)	5kHz - up	109dB at 4V	100W	16Ω

4.3 Directivity Map

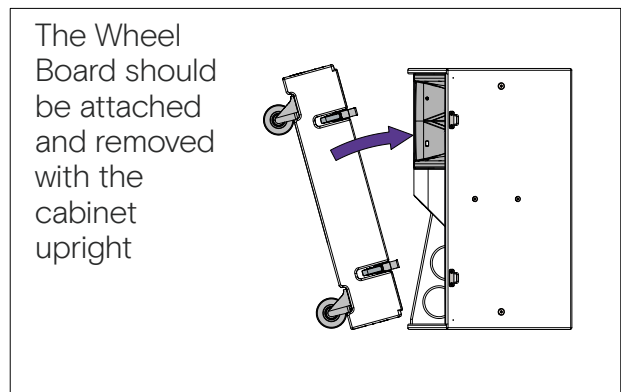
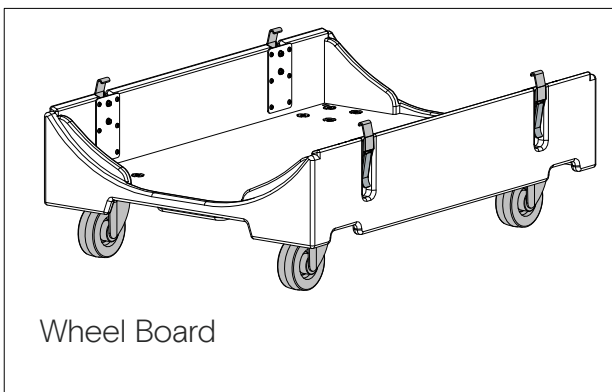
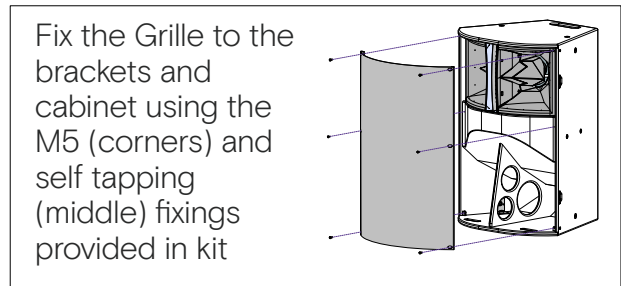
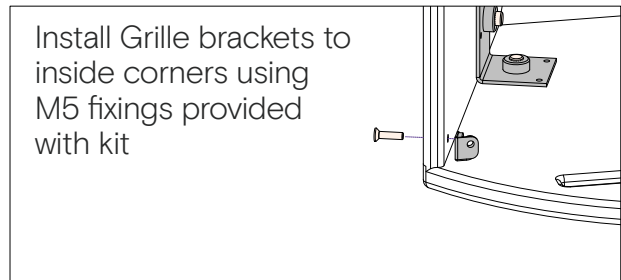
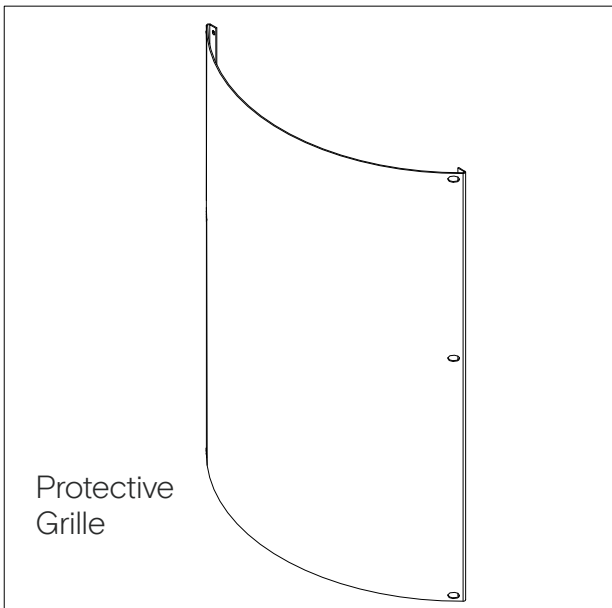
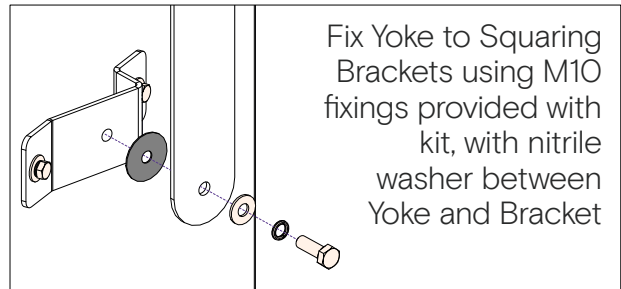
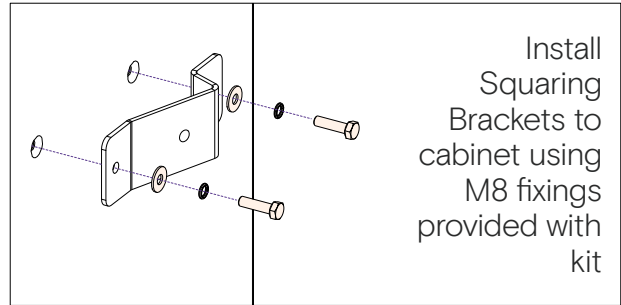
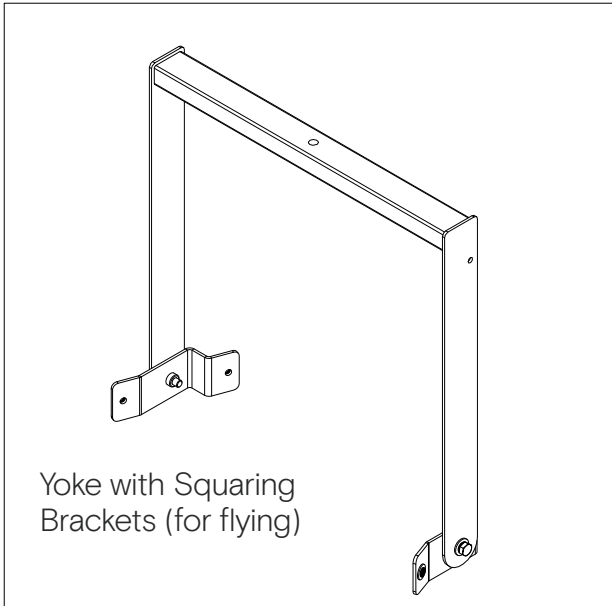


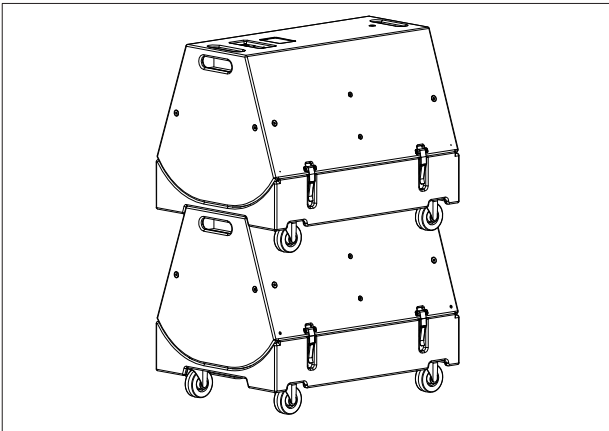
4.4 Dimensions



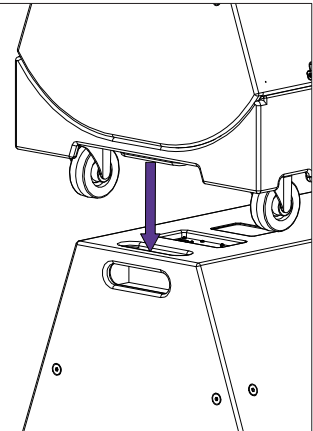
5 ACCESSORIES

5.1 Accessories





Evo X Wheel Boards are designed to securely interlock when stacked for transport.

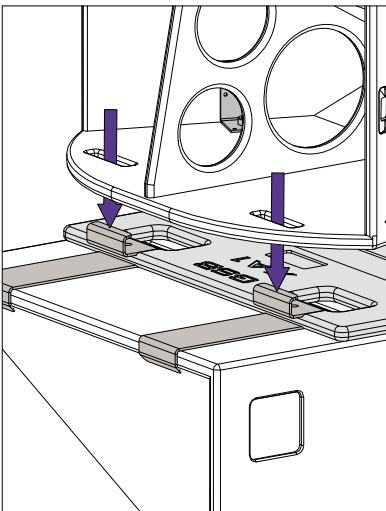


5.2 Ground Stacking

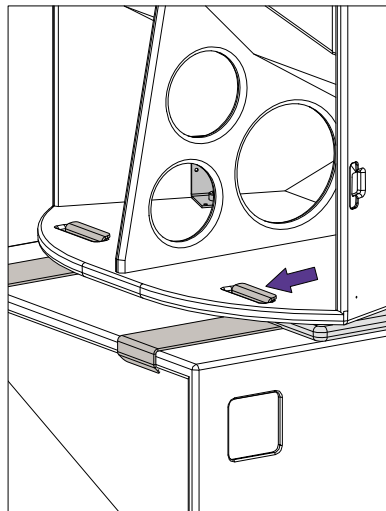
A guide to the Funktion-One ground stacking system can be found at <https://funktion-one.com/support>

Evo X uses the same ground stacking concept as other Funktion-One 'E' and 'T' products, however, it requires its own 'GSM ClaspLD' (Long Double) to allow tilting over the curved front edge of the cabinet.

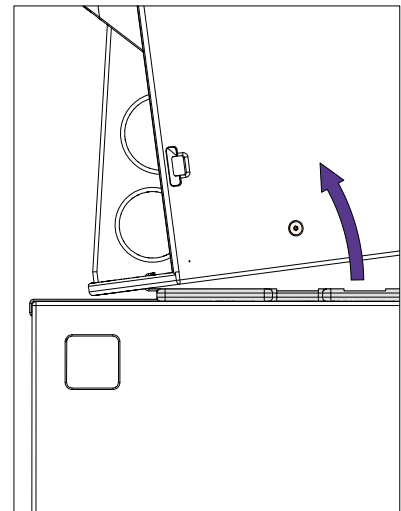
Mount the board with 2x ClaspLD as per the ground stack guide.



Lower the Evo X onto the board, passing the hooks of the 2x ClaspLD through the cutouts in the cabinet.



Slide the Evo X forwards to engage the cabinet with the clasps.



You can now tilt the cabinet and proceed as per the ground stack guide.

6 SETUP AND OPERATION

6.1 Connection

The NL8 connectors are wired together in parallel.

1+/1- is not used in the Evo X but can be utilised as a through link.

To ensure you use the correct gauge speaker cable, please use the cable loss calculator at:

<https://funktion-one.com/calculators>

6.2 Positioning - General

Careful consideration should be used when positioning Evo X speakers to achieve the best audience coverage. Evo X wide horizontal and relatively narrow vertical dispersion will help you to focus the sound on the audience whilst mitigating unwanted room reflections and/or off site noise problems.

Evo X is not an arrayable loudspeaker. Only one should be used per side (or per corner in four-point configurations).

6.3 Positioning - Horizontal/Pan Angle

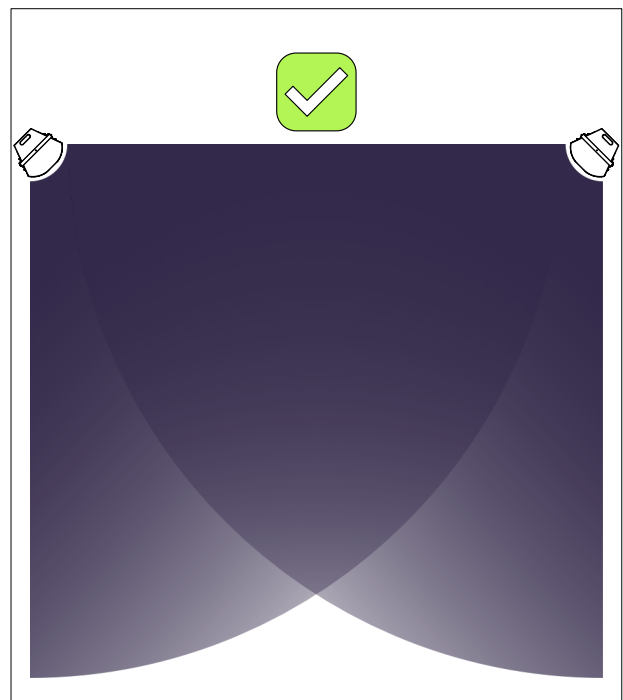
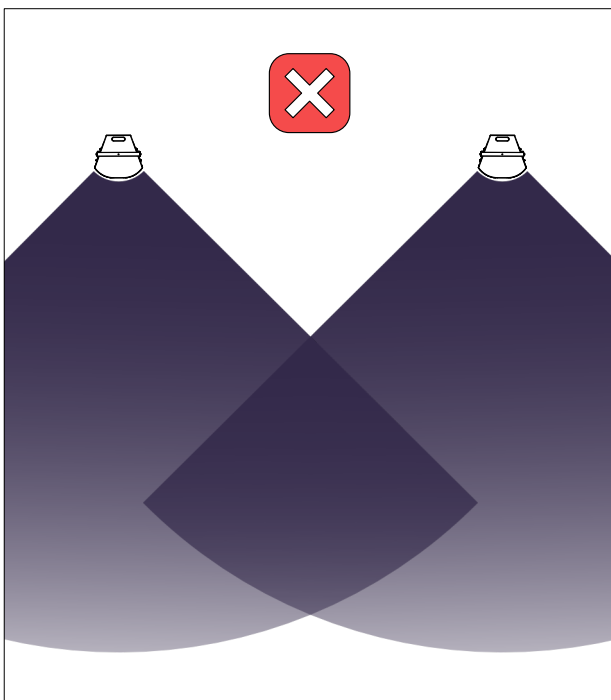
The correct pan angle will provide excellent coverage, as well as a strong stereo image across a large area of the audience.

This will also mitigate unwanted room reflections and/or off site noise problems.

Only use Evo X with approved Funktion-One crossover settings or DSP presets which can be found at www.funktion-one.com



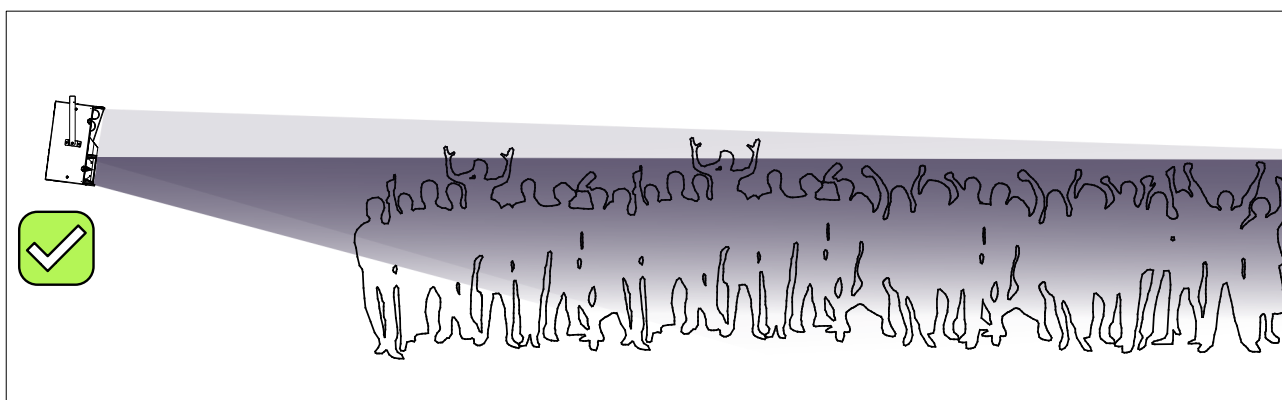
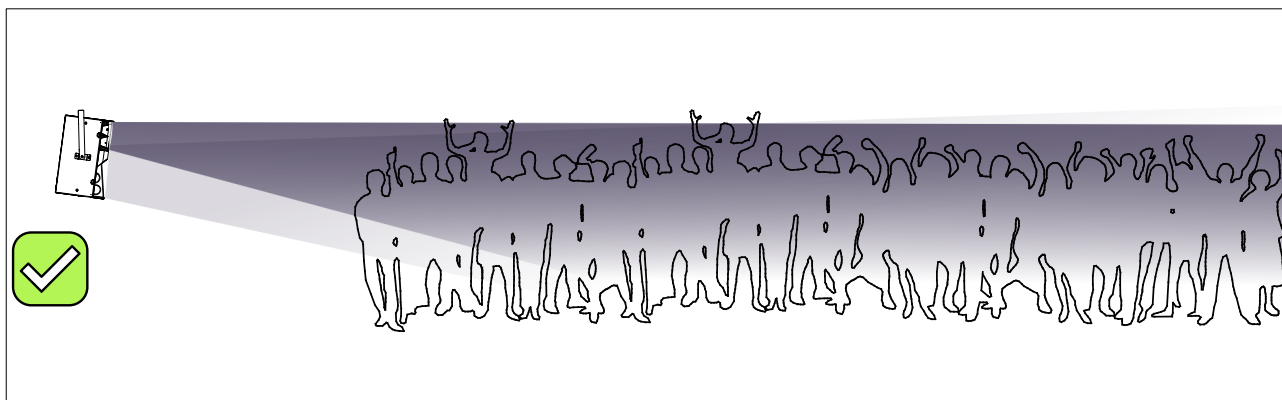
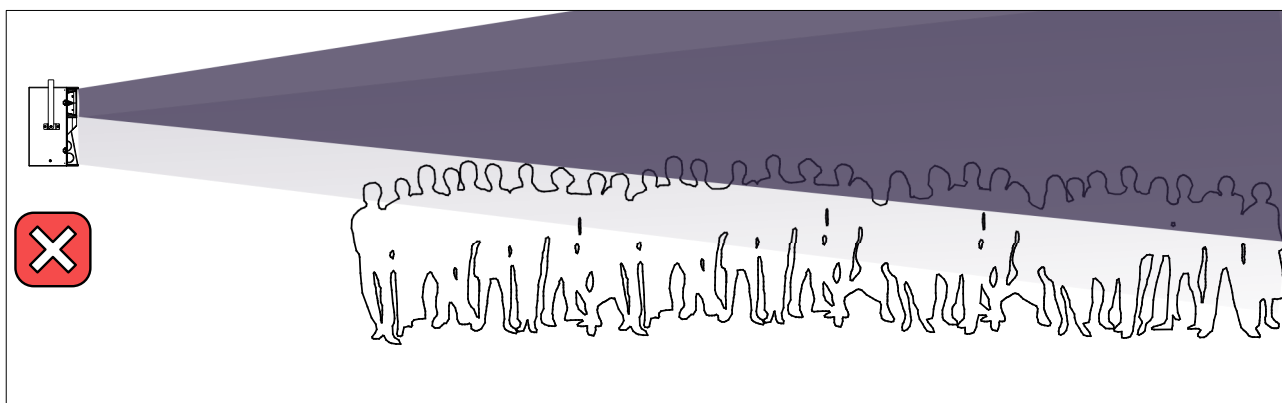
NL8 Pin	Driver assignment
1+/1-	N/A (through)
2+/2-	LF (15")
3+/3-	MF (8")
4+/4-	HF (1")



6.4 Positioning - Height & Tilt Angle

In most situations, Evo X should be positioned with the MF/HF waveguide just above head height, with the cabinet tilted downwards slightly, focusing the sound on the audience.

Sometimes, when the audience are close to the speakers, it may be beneficial to install the cabinets 'upside down' with the LF at the top and the MF/HF at the bottom. This helps with LF coverage.



7 SERVICE & MAINTENANCE

7.1 General Maintenance

With proper care, Funktion-One products will provide many years of service. Regular testing and cleaning is recommended to keep your Evo X in optimum condition.

7.2 Paintwork/Coatings

Due to the nature of their purpose, Evo X cabinets can get dirty and sustain bumps and scratches during transport, setup and de-rig.

Keep your cabinets clean with warm soapy water and a sponge or microfibre cloth.

For cuts and scratches in standard paint finishes, touch up paint is available from your local distributor.

Polyurethane adhesive/sealant can be used for repairing chips in Polyurea coatings. Details can be found with your local distributor. Do not try to use paint to touch up Polyurea coatings.

Once your cabinets are clean, wiping a light silicone spray over the surfaces will help prevent dirt adhering to them in the future. It will also help to repel rain/moisture when being used outside.



