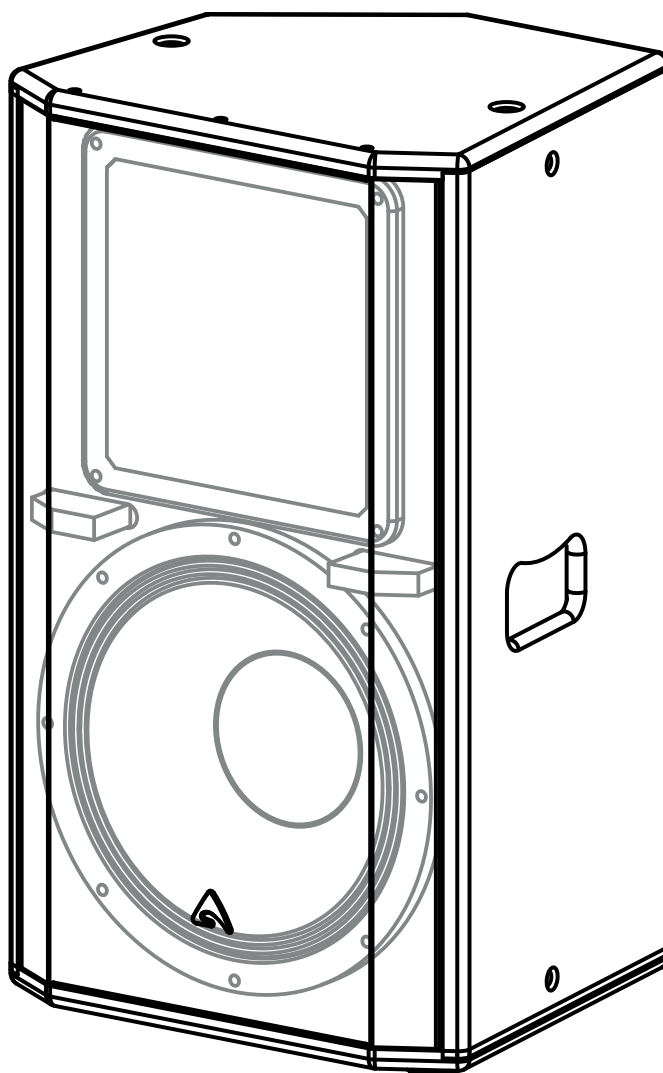




ED120P

passive point source loudspeaker



USER MANUAL

revision 2023-08-31





IMPORTANT SAFETY INSTRUCTIONS

Watch for these symbols:



The lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of uninsulated “dangerous voltage” within the product’s enclosure, that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer’s instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
15. Warning: to reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.
16. Do not expose this equipment to dripping or splashing and ensure that no objects filled with liquids, such as vases, are placed on the equipment.
17. To completely disconnect this apparatus from the ac mains, disconnect the power supply cord plug from the ac receptacle.
18. The mains plug of the power supply cord shall remain readily operable.
19. This apparatus contains potentially lethal voltages. To prevent electric shock or hazard, do not remove the chassis, input module or ac input covers. No user serviceable parts inside. Refer servicing to qualified service personnel.
20. The loudspeakers covered by this manual are not intended for high moisture outdoor environments. Moisture can damage the speaker cone and surround and cause corrosion of electrical contacts and metal parts. Avoid exposing the speakers to direct moisture.
21. Keep loudspeakers out of extended or intense direct sunlight. The driver suspension will prematurely dry out and finished surfaces may be degraded by long-term exposure to intense ultra-violet (UV) light.
22. The loudspeakers can generate considerable energy. When placed on a slippery surface such as polished wood or linoleum, the speaker may move due to its acoustical energy output.
23. Precautions should be taken to assure that the speaker does not fall off a stage or table on which it is placed.
24. The loudspeakers are easily capable of generating sound pressure levels (SPL) sufficient to cause permanent hearing damage to performers, production crew and audience members. Caution should be taken to avoid prolonged exposure to SPL in excess of 90 dB.



This marking shown on the product or its literature, indicates that it should not be disposed with other household wastes at the end of its working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources. Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take this item for environmentally safe recycling. Business users should contact their supplier and check the terms and conditions of the purchase contract. This product should not be mixed with other commercial wastes for disposal.



DECLARATION OF CONFORMITY



The product is in compliance with:

RoHS Directive 2011/65/EU and 2015/863/EU, WEEE Directive 2012/19/EU.



The product is in compliance with:

S.I. 2012/3032 The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012

LIMITED WARRANTY

Proel warrants all materials, workmanship and proper operation of this product for a period of two years from the original date of purchase. If any defects are found in the materials or workmanship or if the product fails to function properly during the applicable warranty period, the owner should inform about these defects the dealer or the distributor, providing receipt or invoice of date of purchase and defect detailed description. This warranty does not extend to damage resulting from improper installation, misuse, neglect or abuse. Proel S.p.A. will verify damage on returned units, and when the unit has been properly used and warranty is still valid, then the unit will be replaced or repaired. Proel S.p.A. is not responsible for any "direct damage" or "indirect damage" caused by product defectiveness.

- This unit package has been submitted to ISTA 1A integrity tests. We suggest you control the unit conditions immediately after unpacking it.
- If any damage is found, immediately advise the dealer. Keep all unit packaging parts to allow inspection.
- Proel is not responsible for any damage that occurs during shipment.
- Products are sold "delivered ex warehouse" and shipment is at charge and risk of the buyer.
- Possible damages to unit should be immediately notified to forwarder. Each complaint for package tampered with should be done within eight days from product receipt.

CONDITIONS OF USE

Proel do not accept any liability for damage caused to third parties due to improper installation, use of non-original spare parts, lack of maintenance, tampering or improper use of this product, including disregard of acceptable and applicable safety standards. Proel strongly recommends that this loudspeaker cabinet be suspended taking into consideration all current National, Federal, State and Local regulations. The product must be installed by qualified personal. Please contact the manufacturer for further information.



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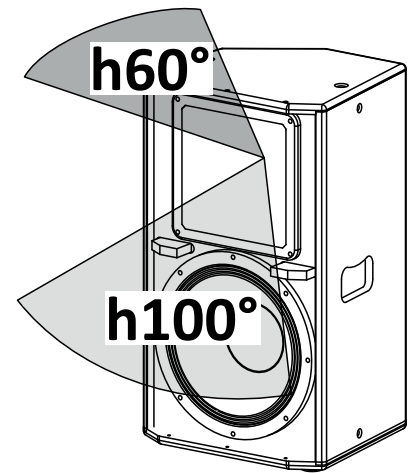
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INTRODUCTION

ED point source systems are designed for indoor and outdoor sound reinforcement applications ranging from clubs, bars and restaurants to theatres, live music venues, houses of worship and theme environments. Passive ED series loudspeaker systems are easy to set up and simple to operate.

The ED120P consists of an 12" LF drive unit and a 1.4" HF compression driver loaded by an asymmetric HF horn in a compact enclosure, designed for many multi-purpose sound reinforcement activities. The asymmetric HF coverage pattern, varying from 100° horizontal in the lower part of the horn for more effective near field coverage, and narrowing to 60° horizontal at the top of the horn for more focused coverage in the far field. The result is more accurate coverage of a typical auditorium than is possible with a fixed horizontal coverage device. The HF horn is also rotatable through 90° by simply removing four screws and realigning the horn, so that coverage can also be optimised for stage monitor use. This rotatable horn feature also makes it possible to maintain the ideal coverage pattern when the cabinet is installed in a horizontal (landscape) orientation. Its asymmetric dispersion pattern provides optimal coverage of typical rectangular venues, with wider dispersion at the front and narrower dispersion at the rear.

This versatile loudspeaker can also be used as a low profile stage monitor with its 35° tapered side, and in this situation the HF horn can be rotated to maintain the best coverage pattern for performers both near to and further away from the monitor. ED120P cabinet is an unobtrusive and compact format designed for a multitude of near field applications such as theatre under-balcony fill, stage front fill, delay speaker, bar and restaurant audio, and discreet stage monitor. A pole mount socket make this a very versatile loudspeaker in both portable and permanently installed applications.



TECHNICAL SPECIFICATION

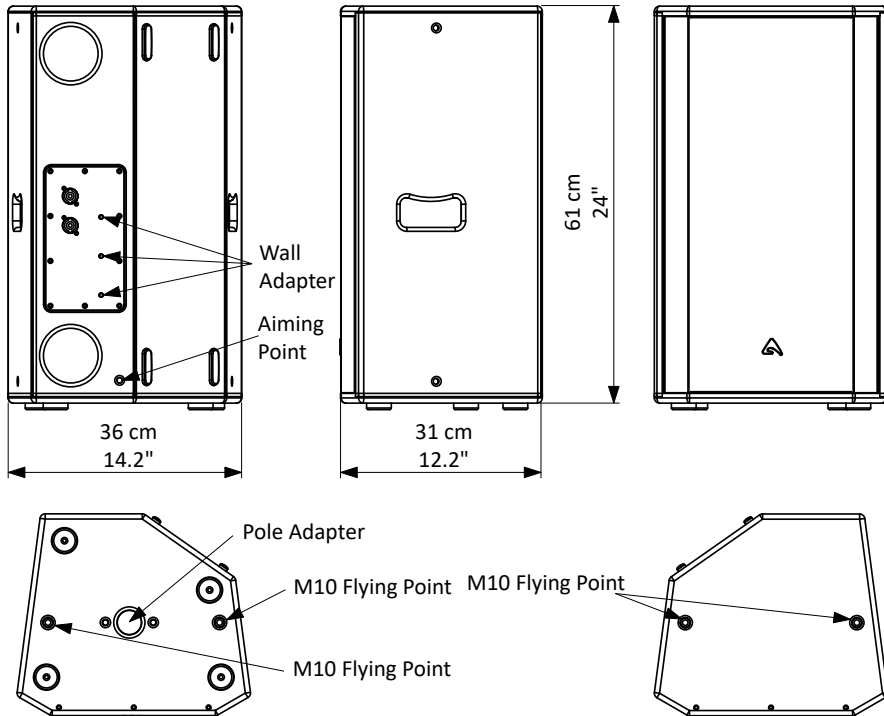
SYSTEM		POWER HANDLING	
System's Acoustic Principle	Two-way Vented Enclosure Asymmetric Dispersion	Power Handling (AES)	680 W
Frequency response	65 Hz – 17 kHz (-6dB)	Power Handling (prgm)	1360 W
Nominal Impedance	8 Ω		@ -10 dB Power (136 W) = 0.9 dB
Minimum Impedance	6.2 Ω @ 250Hz	LF Power Compression	@ -3 dB Power (680 W) = 2.8 dB
Horizontal Coverage Angle	60 to 100° (-6 dB)		@ 0 dB Power (1360 W) = 3.8 dB
Vertical Coverage Angle	60° (-6 dB)	ENCLOSURE & CONSTRUCTION	
Sensitivity (2.83V @ 1m, 2 Pi)	97 dB SPL	Width	360 mm (14.2")
Maximum Peak SPL @ 1m	128 dB	Height	610 mm (24")
TRANSDUCERS		Depth	310 mm (12.2")
Low frequency transducer	12" (300mm), 3" (75mm) ISV aluminium voice coil, 8Ω	Taper angle	Stage Monitor: 35° - Frontfill: 7.5°
High frequency transducer	1.4" (35.5 mm) compression driver, 2.4" (60 mm) aluminium voice coil, Titanium diaphragm, 8Ω	Enclosure Material	15mm, reinforced phenolic birch
INPUT CONNECTIONS		Paint	High resistance, black or white water based paint
Connector Type	Neutrik® Speakon® NL4 x 2	Flying System	M10 / M6 flying points or dedicated metal brackets
Input Wiring	Pin 1+/1- (Pin 2+/2- pass thru)	Net Weight	18 Kg (39.6 lbs)

* AES Pink Noise Continuous Power



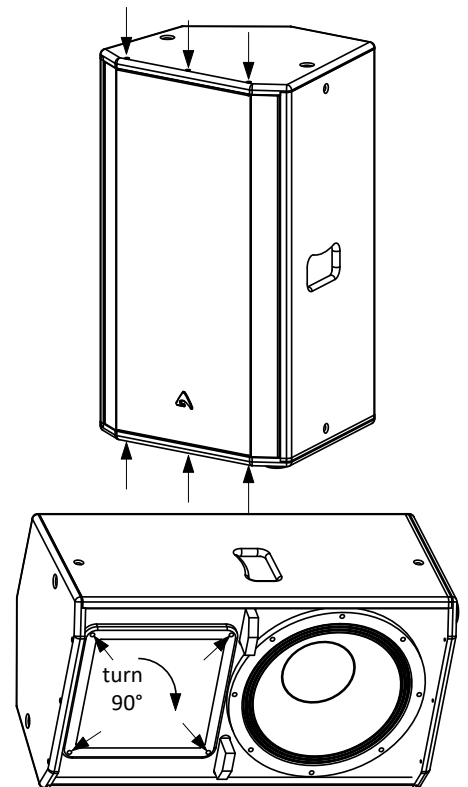


MECHANICAL DRAWING



INSTRUCTION FOR ROTATING THE HORN

1) Remove the speaker grid unscrewing the six screws indicated below.

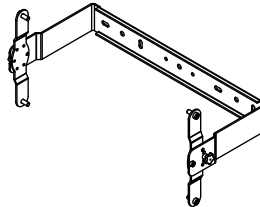


2) Unscrew the 4 screws fixing the horn and rotate the horn by 90°.

OPTIONAL ACCESSORIES

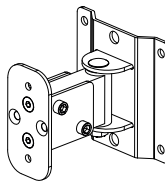
KPTED120B

Wall or Truss Mounting "C" bracket for horizontal or vertical aiming at 15 steps in +/- 70° range.



KPTLTP

Wall Mounting bracket, free horizontal aiming and 4 steps at 15° for vertical aiming, the loudspeaker can be mounted horizontally or vertically.



PLH300

Ø 48-51mm truss tube aluminium coupler with M12 x 50 built-in bolt and fastening nut.



NL4FX

Neutrik Speakon® PLUG

see <http://www.axiomproaudio.com> for detailed description and other available accessories.

SPARE PARTS

NL4MP

Neutrik Speakon® panel socket

91CR0072

ED120P Crossover PCBA

98ED120WZ8

12" woofer - 3" VC - 8 ohm

98DRI2065

1.4" - 2.4" VC compression driver - 8 ohm

98MBN2065

titanium diaphragm for 1.4" driver

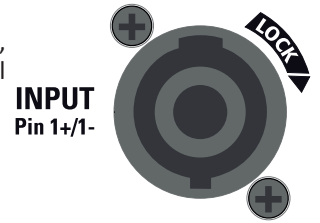




INPUT

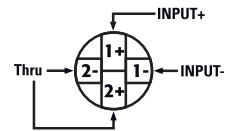
Power input for the external amplifier. The ED120P includes a passive crossover for filtering the signal, it includes also an internal protection that limit for excessive power on the HF section and if the signal persists for a long time period it excludes the HF section. The connections are the following:

INPUT - LINK	
NL4 pin number	internal connection
1+	+
1-	-
2+	none (pass thru)
2-	none (pass thru)



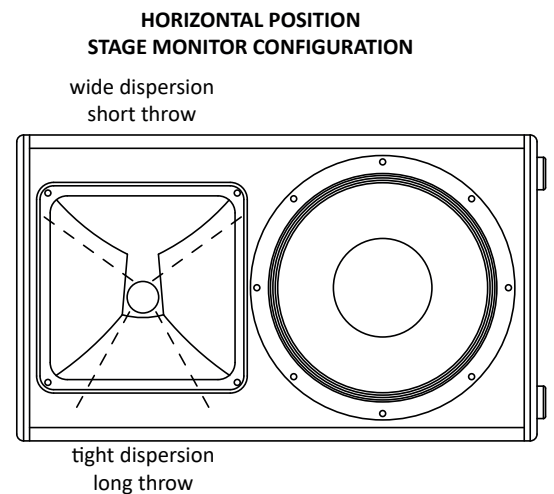
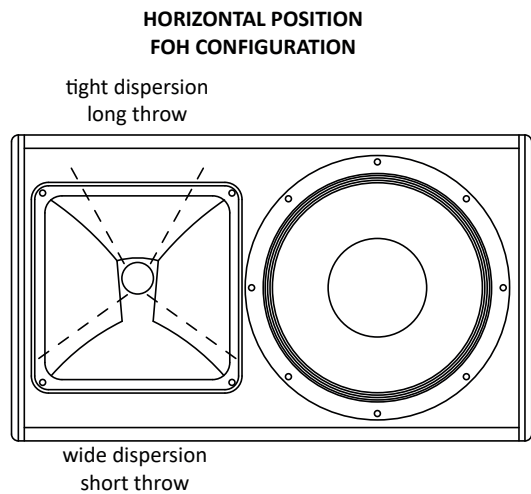
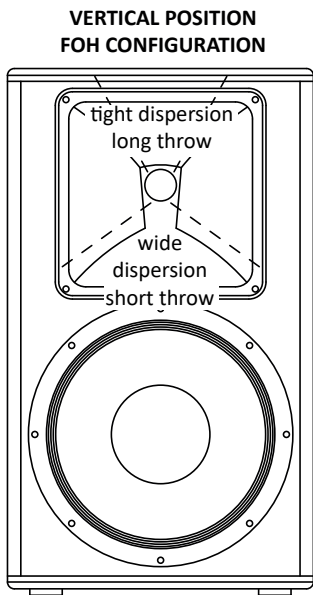
LINK

Power output in parallel with the INPUT socket for connecting the unit to another speaker. The number of ED120P cabinets that can be connected in parallel depends on the amplifier load capacity.



HORN ORIENTATION

For a correct horn orientation see the following examples:



WARNING! CAREFULLY READ THE FOLLOWING INSTRUCTIONS AND CONDITION OF USE:

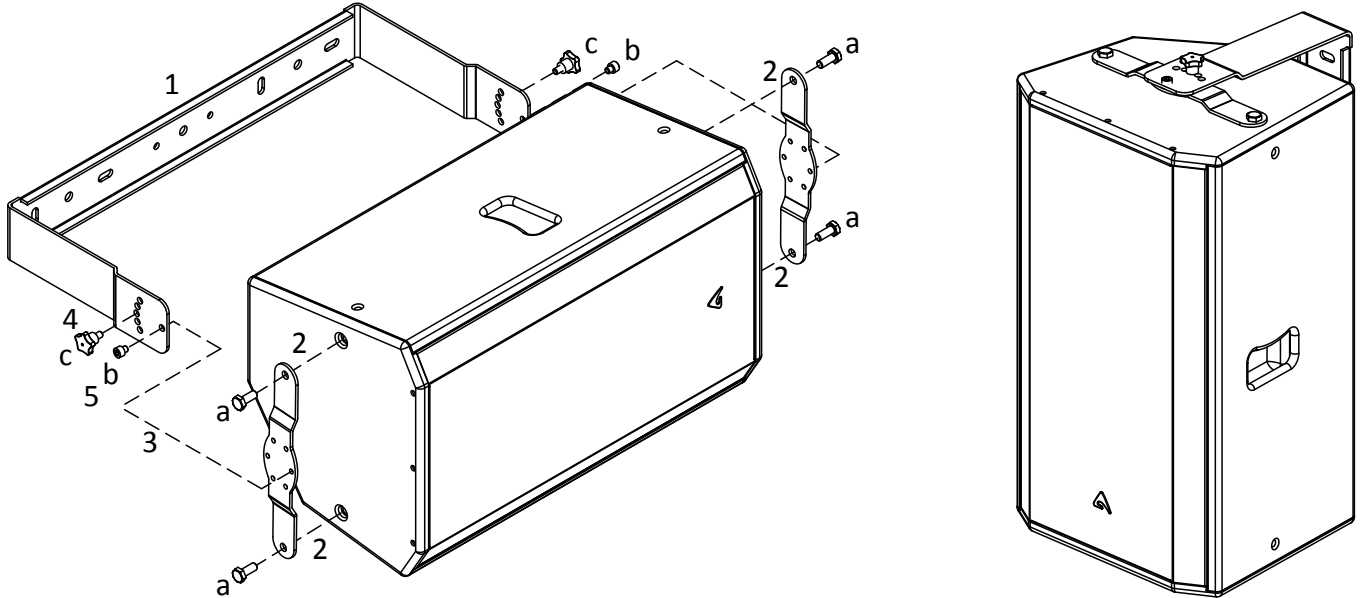
- For a supplementary safety assure always the loudspeaker to the wall with an alternative rope.
- This loudspeaker is designed exclusively for Professional audio applications. The product must be installed by qualified personal only.
- Proel strongly recommends that this loudspeaker cabinet be suspended taking into consideration all current National, Federal, State and Local regulations. Please contact the manufacturer for further information.
- Proel do not accept any liability for damage caused to third parties due to improper installation, lack of maintenance, tampering or improper use of this product, including disregard of acceptable and applicable safety standards.
- During assembly pay attention to the possible risk of crushing. Wear suitable protective clothing. Observe all instructions given on the rigging components and the loudspeaker cabinets. When chain hoists are in operation ensure that there is nobody directly underneath or in the vicinity of the load. Do not under any circumstances climb on the array.



KPTED120B WALL or TRUSS MOUNTING

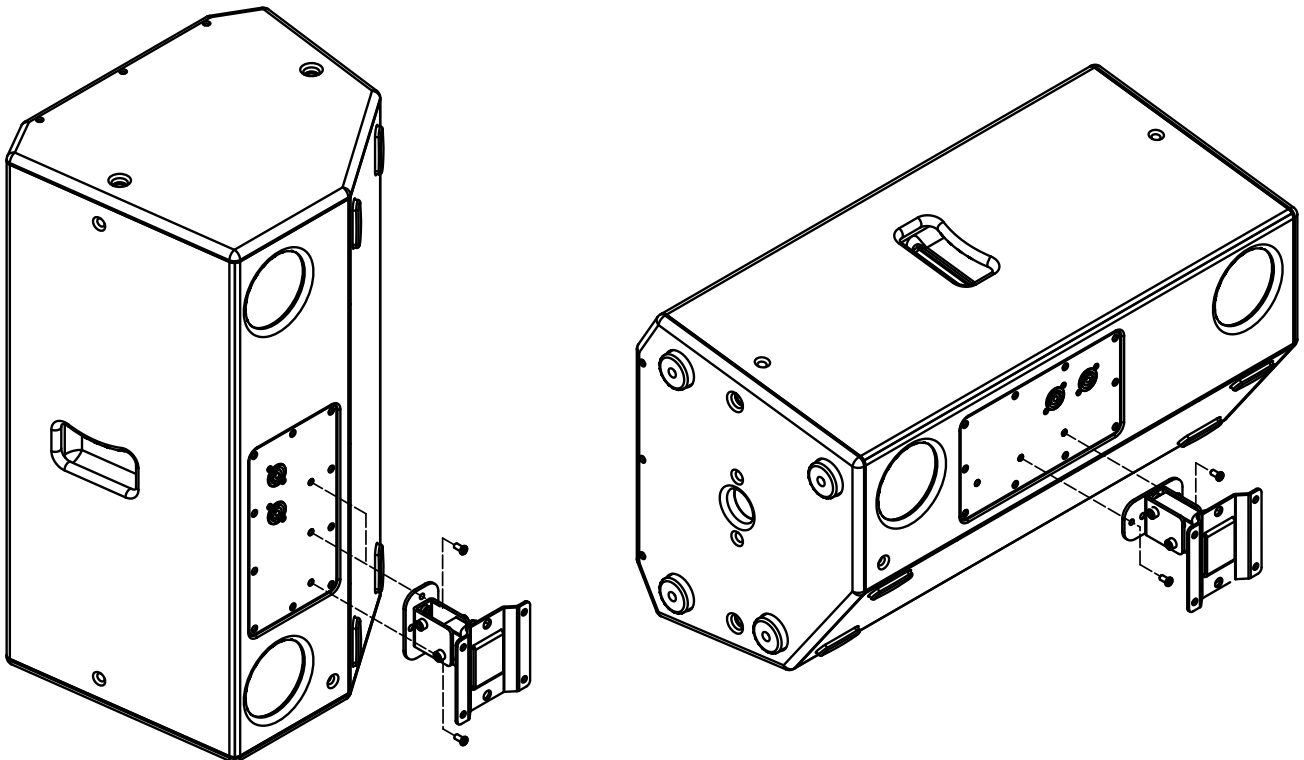
Using the "C" shape bracket the ED120P loudspeaker can be mounted to walls or truss combining it with two PLH300: It allows to aim the speaker in one direction (vertical or horizontal) in 15 steps (0° , $\pm 10^\circ$, $\pm 15^\circ$, $\pm 25^\circ$, $\pm 30^\circ$, $\pm 40^\circ$, $\pm 55^\circ$, $\pm 70^\circ$). For installing the speaker using the "C" bracket follow these instructions:

- 1) Install the "C" bracket to the wall or to the truss.
- 2) Mount the two steering plates on the top and bottom of the loudspeaker using the bolts (a).
- 3) Carefully put the loudspeaker into the "C" bracket then screw in the screws (b) to fix it to the "C" bracket.
- 4) Aim the loudspeaker and tighten the screw-knobs (c) in the desired holes.
- 5) Tight the screws (b).



KPTLTP WALL MOUNTING

This wall mounting bracket allows to aim the loudspeaker in both horizontally and vertically. The horizontal aiming is free with $\pm 15^\circ$ and the vertical aiming is in 4 steps (0° , -15° , -30° , -45°), the loudspeaker can be mounted horizontally or vertically as in the following figure.





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