

AXIOM ED80P Passive Point Source Loudspeaker



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AXIOM ED80P Passive Point Source Loudspeaker



Product Information

- **Specifications**

- **Product Name:** ED80P
- **Type:** Passive Point Source Loudspeaker
- **Revision Date:** 2023-08-31
 - The ED80P is a passive point source loudspeaker designed for indoor and outdoor sound reinforcement applications.
 - It features an 8" LF drive unit and a 1" HF compression driver loaded by a horn, providing focused coverage in the far field.
 - The rotatable horn allows for optimized coverage patterns in various orientations, making it suitable for a wide range of venues.

- **Usage Instructions**

- **Setup**
 - Place the ED80P in the desired location, ensuring proper ventilation.
 - If used as a stage monitor, adjust the HF horn rotation for optimal coverage.
 - Connect the loudspeaker to an appropriate amplifier using compatible cables.
- **Operation**
 - Power on the amplifier and adjust the volume to the desired level.
 - Monitor the sound output to ensure it meets your requirements.
 - If using in a portable setup, secure the loudspeaker using the pole mount socket.
- **Maintenance**
 - Regularly clean the ED80P with a dry cloth to remove dust and debris.
 - Avoid using liquid cleaners or solvents that may damage the enclosure.

FAQs

- **Q: Can the ED80P be used outdoors?**
 - **A:** Yes, the ED80P is suitable for both indoor and outdoor sound reinforcement applications.
- **Q: How can I optimize coverage for different venue layouts?**

- **A:** Use the rotatable horn feature to adjust the coverage pattern based on the venue's shape and size.

IMPORTANT SAFETY INSTRUCTIONS

Watch for these symbols:

- The lightning flash with the 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.

Read these instructions

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 a dry cloth.
7. Do not block any ventilation openings. Install by 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 one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for the 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.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as a 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 ultraviolet (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 ensure 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 over 90 dB.

CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN!

- This marking shown on the product or its literature indicates that it should not be disposed of 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 waste 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 complies with:** RoHS Directive 2011/65/EU and 2015/863/EU, WEEE Directive 2012/19/EU.
- **The product complies 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 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 the 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.

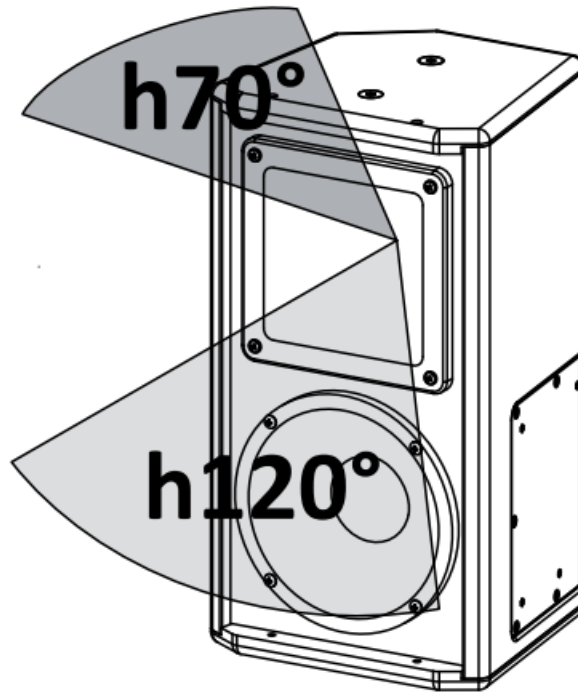
- Proel is not responsible for any damage that occurs during shipment.
- Products are sold “delivered ex-warehouse” and shipment is at the charge and risk of the buyer.
- Possible damages to the unit should be immediately notified to the forwarder. Each complaint for package tampered with should be done within eight days from product receipt.

CONDITIONS OF USE

- Proel does 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 personnel.
- Please contact the manufacturer for further information.

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 ED80P consists of an 8” LF drive unit and a 1” 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 varies from 120° 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 and further away from the monitor.
- ED80P 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 makes this a very versatile loudspeaker in both portable and permanently installed applications.



TECHNICAL SPECIFICATION

SYSTEM

- **System's Acoustic Principle** Two-way Vented Enclosure Asymmetric Dispersion
- **Frequency response** 75 Hz – 18 kHz (-6dB)
- **Nominal Impedance** 8 Ω
- **Minimum Impedance** 6.1 Ω @ 300Hz
- **Horizontal Coverage Angle** 60 to 120° (-6 dB)
- **Vertical Coverage Angle** 55° (-6 dB)
- **Sensitivity** (2.83V @ 1m, 2 Pi) 95 dBSPL
- **Maximum Peak SPL @ 1m** 124 dB

TRANSDUCERS

- **Low-frequency transducer** 8" (200 mm), 2" (50 mm) ISV voice coil, 8 Ω
- **High-frequency transducer** 1" compression driver, 1" (25mm) aluminium voice coil, PEPT diaphragm, 8 Ω

INPUT CONNECTIONS

- **Connector Type** Neutrik® Speakon® NL4 x 2
- **Input Wiring** Pin 1+/1- (Pin 2+/2- pass thru) AES Pink Noise Continuous Power

POWER HANDLING

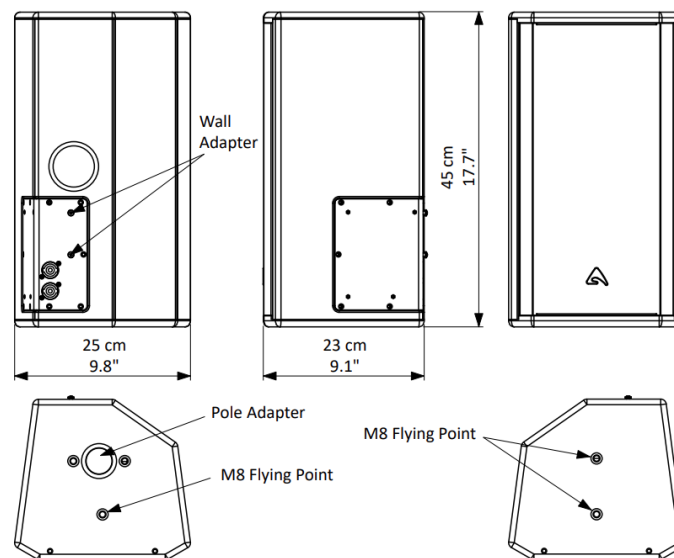
- **Power Handling** (AES) 280 W
- **Power Handling** (prgm) 560 W
- **LF Power Compression**

- @ -10 dB Power (56 W) = 0.5 dB
- @ -3 dB Power (280 W) = 1.4 dB
- @ 0 dB Power (560 W) = 2.3 dB

ENCLOSURE & CONSTRUCTION

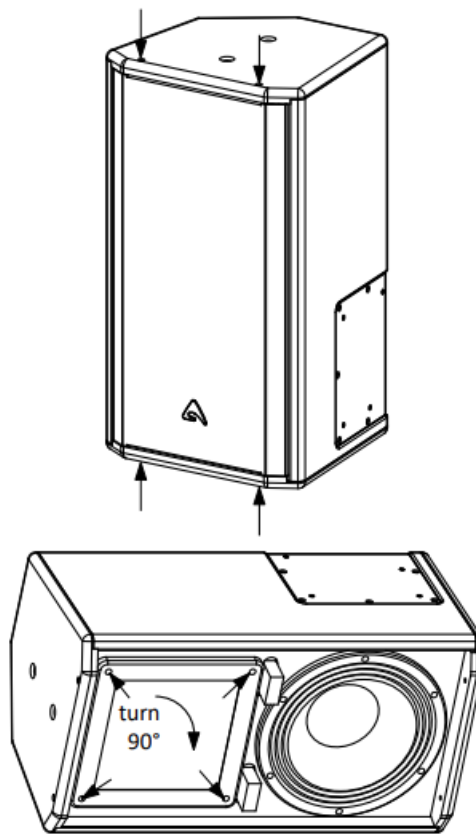
- **Width** 250 mm (9.8")
- **Height** 450 mm (17.7")
- **Depth** 230 mm (9.1")
- **Taper angle** Stage Monitor: 35° – Frontfill: 7.5°
- **Enclosure Material** 15 mm phenolic birch plywood
- **Paint** High resistance, black or white water-based paint
- **Flying System** M10 / M6 flying points or dedicated metal brackets
- **Net Weight** 8 Kg (17.6 lbs)

MECHANICAL DRAWING



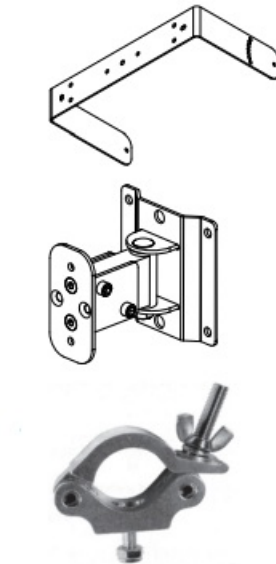
INSTRUCTION FOR ROTATING THE HORN

1. Remove the speaker grid unscrewing the four screws indicated below.
2. Unscrew the 4 screws fixing the horn and rotate the horn by 90°.



OPTIONAL ACCESSORIES

- **KPTED80B** Wall or Truss Mounting “C” bracket.
- **KPTLTP** Wall Mounting bracket.
- **PLH295 PLH295BK** Ø 48-51mm truss tube aluminium half coupler with M10 x 50 built-in bolt and fastening nut. Also available with a black finish.



- **NL4FX** Neutrik Speakon® PLUG

see <http://www.axiomprouaudio.com> for detailed descriptions and other available accessories.

SPARE PARTS

- **NL4MP** Neutrik Speakon® panel socket

- **91CR0071** ED80P Crossover PCBA
- **98ED80WZ8** 8” woofer – 2” VC
- **98DRICDX1-1070** 1” – 1” vc compression driver

INPUT

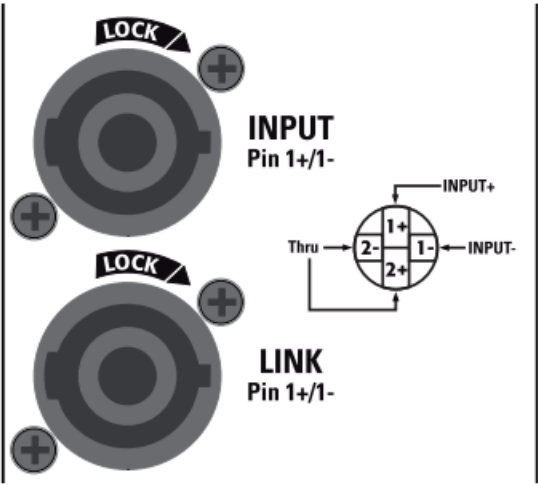
- Power input for the external amplifier.
- The ED80P includes a passive crossover for filtering the signal.
- It is also an internal protection that limits any excessive power to the HF section and, if the signal persists for a long time, it excludes the HF section.

The connections are the following:

| INPUT – LINK | |
|--------------|---------------------|
| NL4 PIN | internal connection |
| 1+ | + |
| 1- | – |
| 2+ | none (pass thru) |
| 2- | none (pass thru) |

LINK

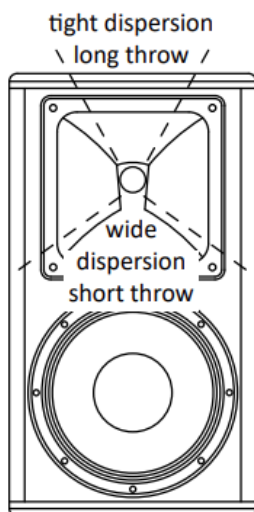
Power output in parallel with the INPUT socket for connecting the unit to another speaker. The number of ED80P cabinets that can be connected in parallel depends on the amplifier load capacity.



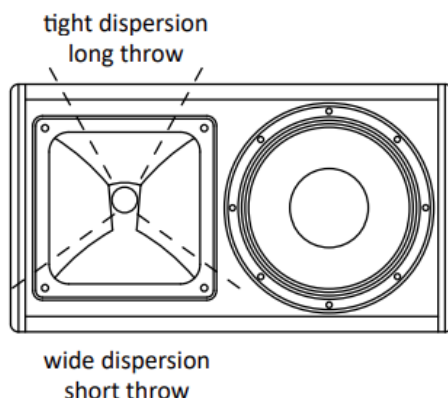
HORN ORIENTATION

ED80P features an asymmetrical horn that can be rotated in a few minutes to obtain the best coverage according to the speaker configuration.

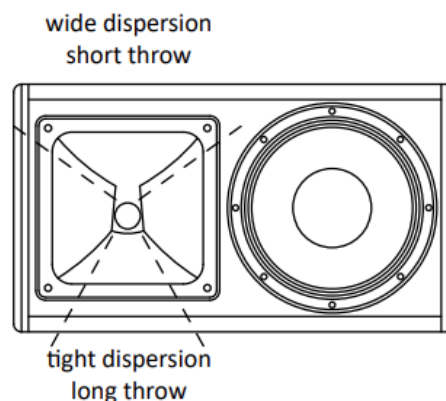
VERTICAL POSITION FOH CONFIGURATION



HORIZONTAL POSITION FOH CONFIGURATION



HORIZONTAL POSITION STAGE MONITOR CONFIGURATION

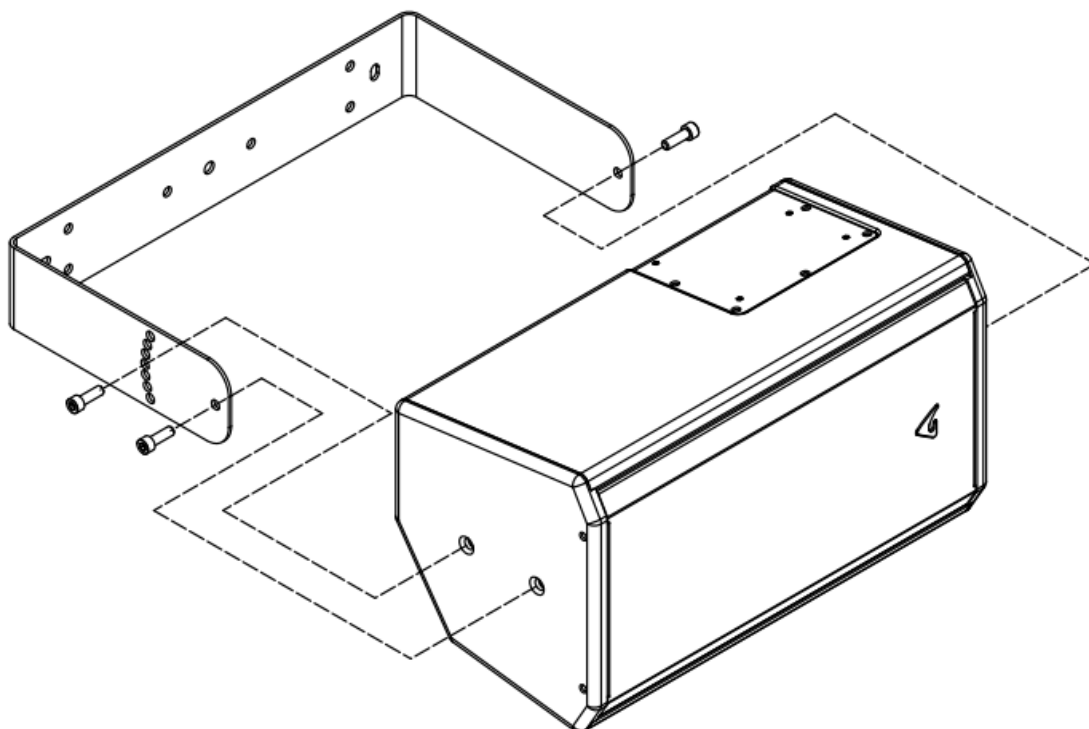


WARNING! CAREFULLY READ THE FOLLOWING INSTRUCTIONS AND CONDITIONS OF USE:

- For supplementary safety ensure the loudspeaker is to the wall with an alternative rope.
- This loudspeaker is designed exclusively for Professional audio applications. The product must be installed by qualified personnel 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 does 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.

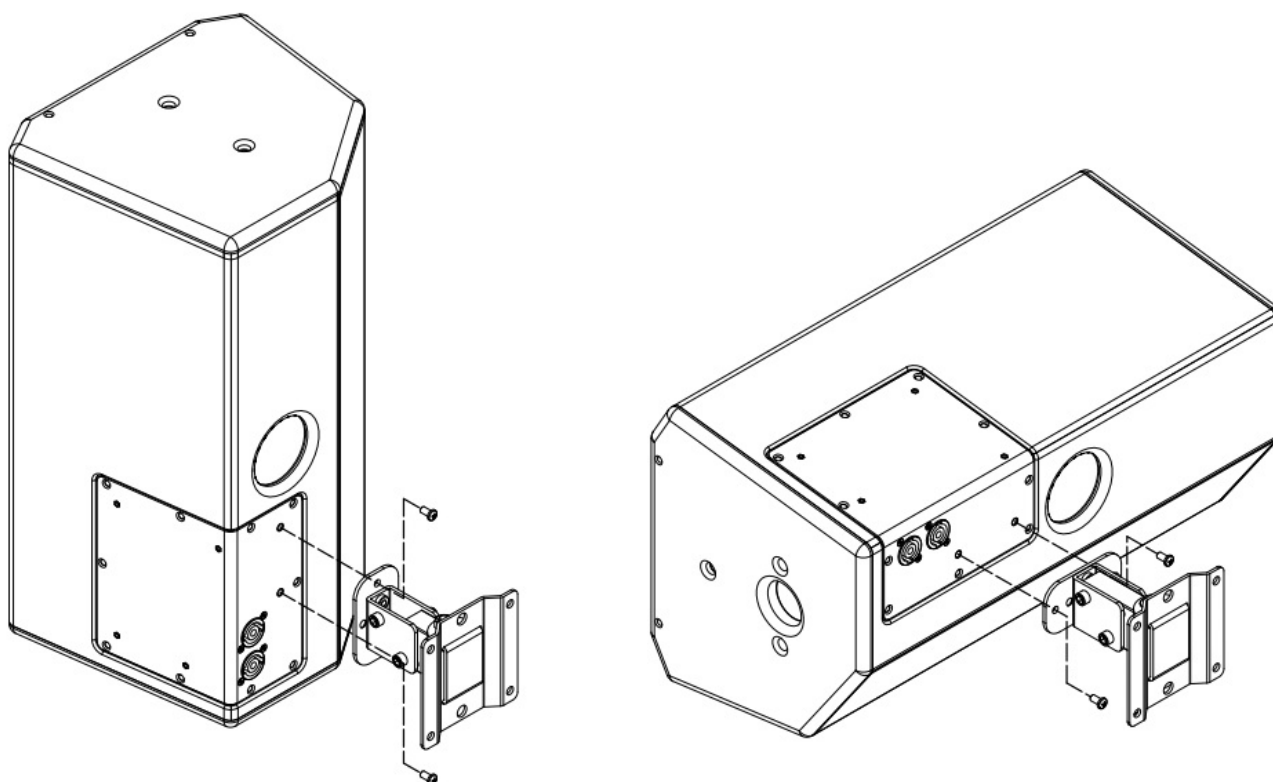
KPTED80B WALL or TRUSS MOUNTING

- Using the "C" shape bracket the ED80P loudspeaker can be installed on walls or mounted to trusses in combination combining with a PLH295.
- It allows to aim the speaker in one direction (vertical or horizontal) in 7 steps (-22.5° , -15° , -7.5° , 0° , $+7.5^{\circ}$, $+15^{\circ}$, $+22.5^{\circ}$).



KPTLTP WALL MOUNTING

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




CONTACT

- PROEL S.p.A. (World Headquarters)
- Via alla Ruenia 37/43 – 64027 Sant'Omero (Te)

- ITALY
 - **Tel:** +39 0861 81241
 - **Fax:** +39 0861 887862
 - www.axiomproaudio.com.
 - **Revision 2023-08-31**
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Documents / Resources

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|  | <p>AXIOM ED80P Passive Point Source Loudspeaker [pdf] User Manual ED80P Passive Point Source Loudspeaker, ED80P, Passive Point Source Loudspeaker, Point S ource Loudspeaker, Source Loudspeaker, Loudspeaker</p> |
|---|---|

References

-  [Axiom Pro Audio](#)
- [User Manual](#)

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