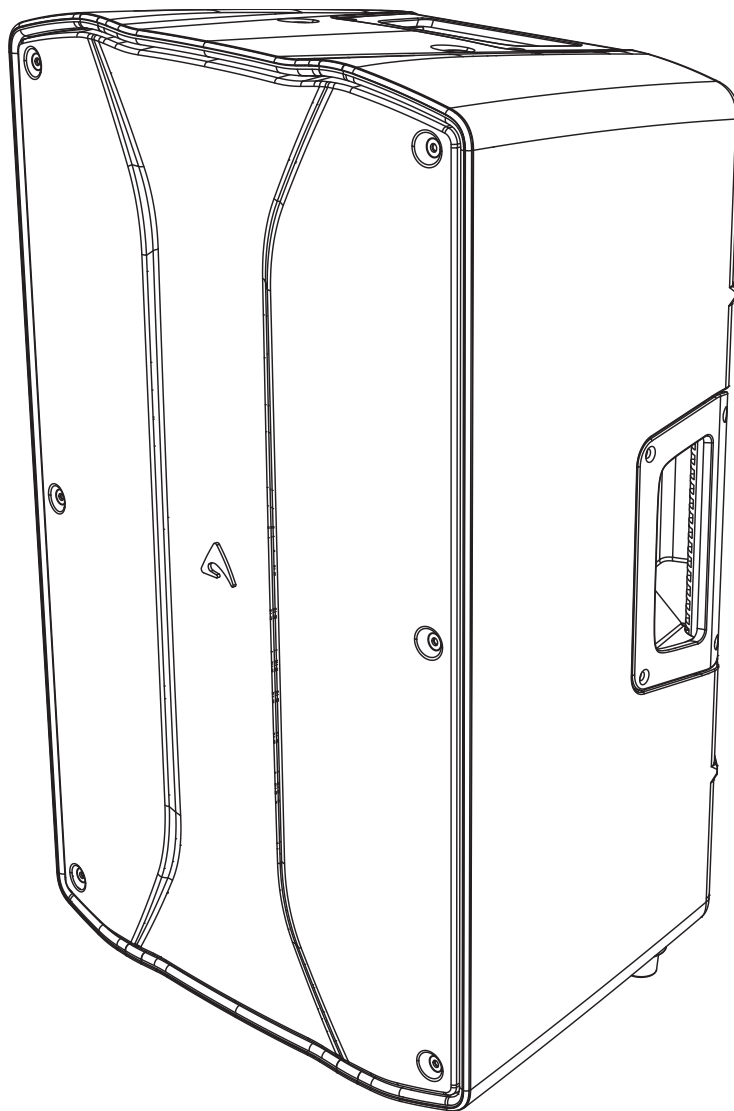




FL120P

passive portable point source loudspeaker



USER MANUAL

revision 2024-07-12





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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INTRODUCTION

The FL120P is a two-way passive point source loudspeaker that provides full frequency response and controlled dispersion from an easily manageable enclosure. It is designed for many kinds of foreground sound reinforcement applications requiring high quality sound, repeatable performance, and convenience of operation in an easily portable format.

The 12" low frequency neodymium driver is matched to a 1" high frequency compression driver with 1.75" aluminum voice coil, for low weight and good transient response. The custom-designed HF horn that provide wide and accurate coverage of a typical auditorium.

The FL120P's symmetrical vented enclosure allows it to adapt to multiple portable and fixed applications, such as front-of-house duties on a speaker stand, or pole mounted on an associated subwoofer or, by using the 42° wedge angle, as a powerful stage monitor.

The compact and lightweight high-density PP cabinet is provided with a 35mm pole mount, three recessed aluminum handles for easy lifting and handling, and M10 rigging points to allow suspension in fixed installations using optional mounting brackets.

FL120P cabinet is an unobtrusive and compact format designed for a multitude of easily portable and fixed mid field applications in open and closed spaces, such as music club, theatre, bar and restaurant, stage front fill and monitor. A pole mount socket make this a very versatile loudspeaker in portable applications and the KPTLT and KPTFL120 accessories make this a very versatile loudspeaker in permanently installed applications.

TECHNICAL SPECIFICATION

SYSTEM

System's Acoustic Principle	Two-way Vented Enclosure
Frequency response	62 Hz – 20 kHz (-6dB Processed)
Nominal Impedance	8 Ω
Minimum Impedance	6.51 Ω @ 146Hz
Horizontal Coverage Angle	90° (-6 dB)
Vertical Coverage Angle	60° (-6 dB)
Sensitivity (2.83V @ 1m, 2 Pi)	98 dBSPL
Maximum Peak SPL @ 1m	128 dB

TRANSDUCERS

Low frequency transducer	12" (305 mm) neodymium magnet waterproof cone, 2.5" (64 mm) VC, 8 Ω
High frequency transducer	1" (25 mm) compression driver, 1.75" (44 mm) Edgewound copper clad aluminium VC, PEPT film 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

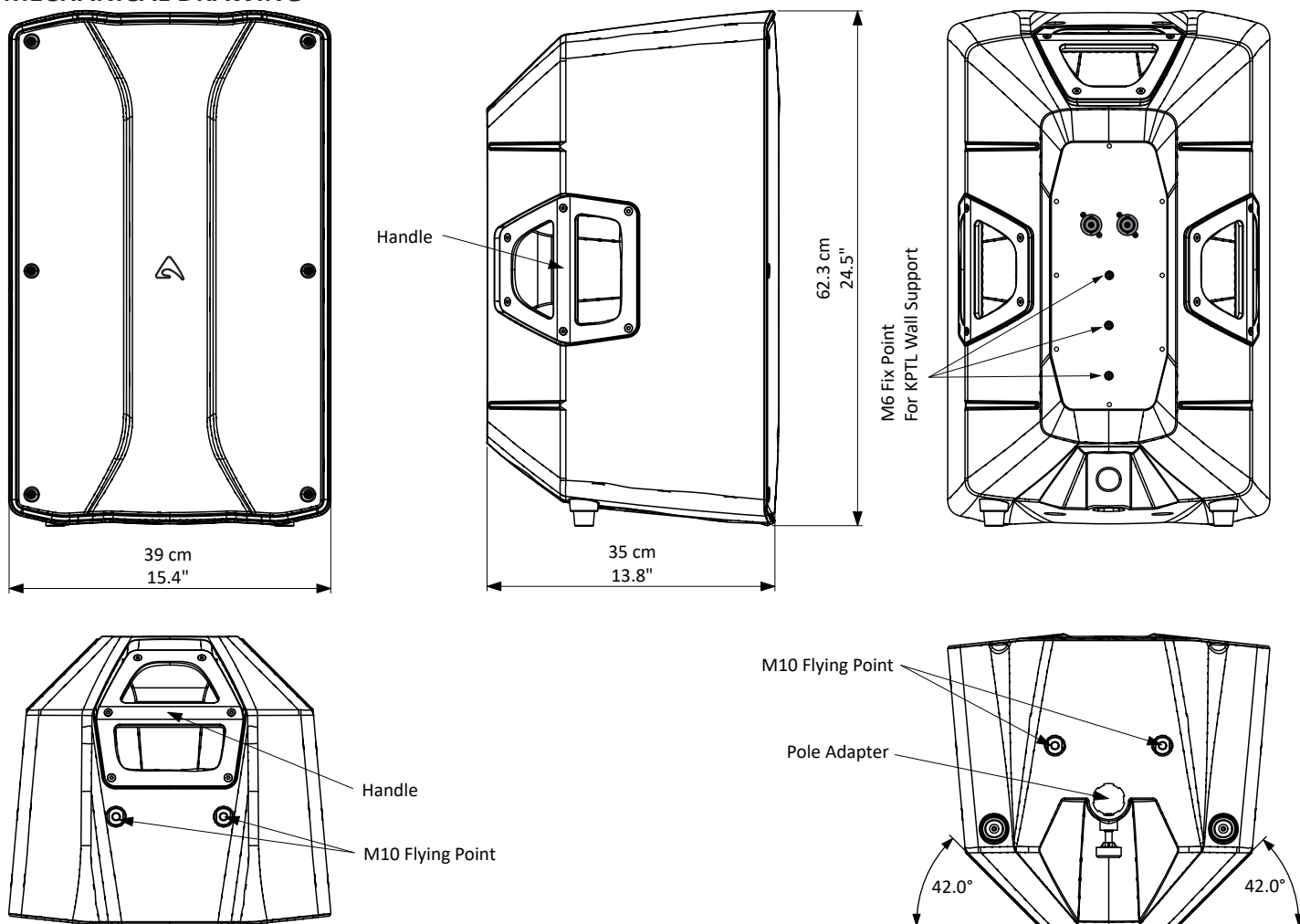
Power Handling (AES)	400 W
Power Handling (prgm)	800 W
	@ -10 dB Power (80 W) = 0.5 dB
LF Power Compression	@ -3 dB Power (400 W) = 1.9 dB
	@ 0 dB Power (800 W) = 2.9 dB

ENCLOSURE & CONSTRUCTION

Width	390 mm (15.3")
Height	623 mm (24.5")
Depth	350 mm (13.7")
Taper angle	42°
Pole holder	1 Bottom
Transport	1 Top handle, 2 side handles
Enclosure Material	High-density Polypropylene with Metal Grid
Flying System	M10 flying points or dedicated metal brackets
Net Weight	16 Kg (35.3 lbs)

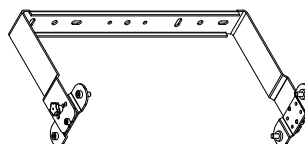


MECHANICAL DRAWING

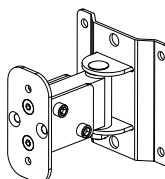


OPTIONAL ACCESSORIES

KPTFL120 Wall or Truss Mounting "C" bracket.



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.



COVERFL120 Cover for transport

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

NL4FXXWS

Neutrik Speakon® PLUG

SPARE PARTS

98AXFL120WZ8 12" woofer - 2.5" VC - 8 ohm

98DRINETHRNLDPH diaphragm for 1" driver

98DRINETHRNLD 1" - 1.75" VC compression driver - 8 ohm





INPUT

Power input for the external amplifier. The FL120P 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)

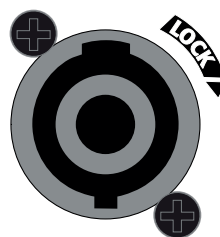
LINK

Power output in parallel with the INPUT socket for connecting the unit to another speaker.

The number of FL120P cabinets that can be connected in parallel depends on the amplifier load capacity.

KPTLTP WALL MOUNTING

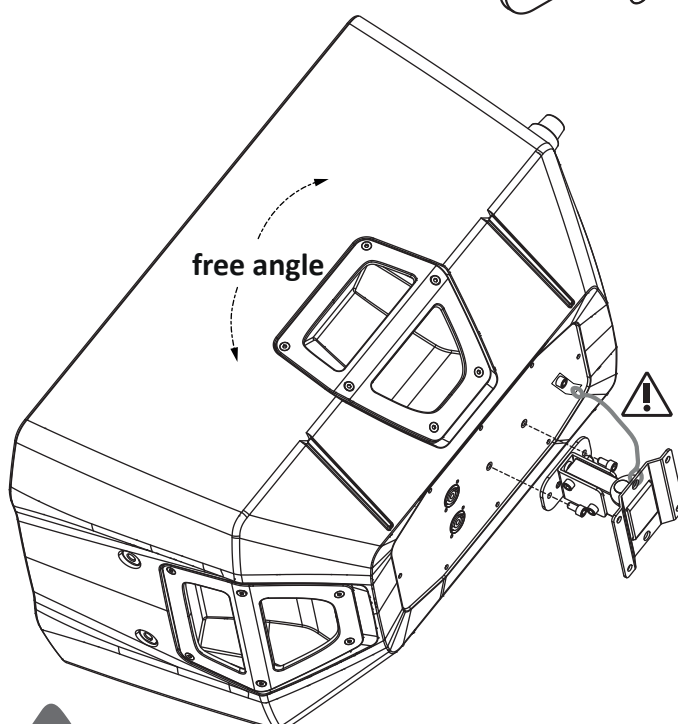
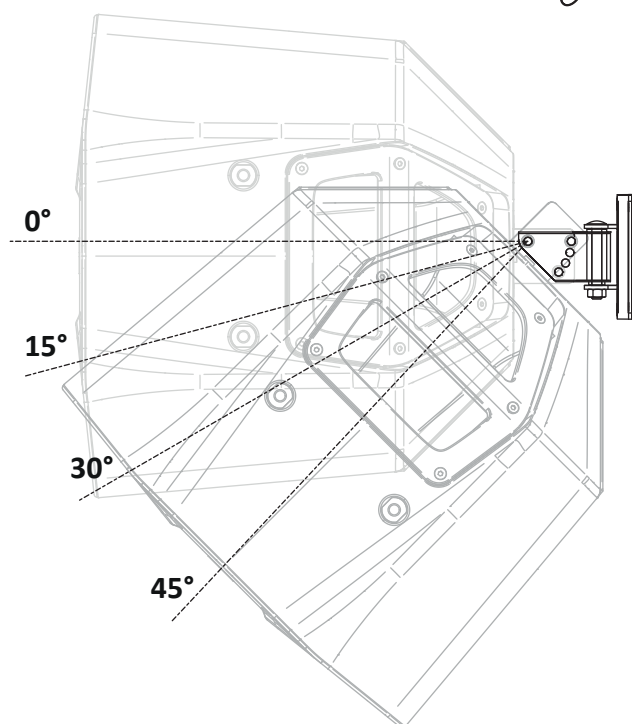
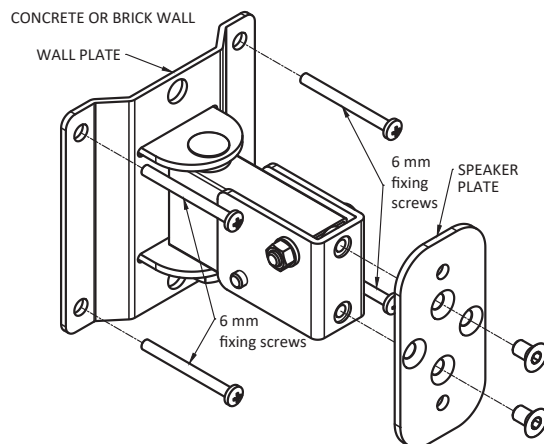
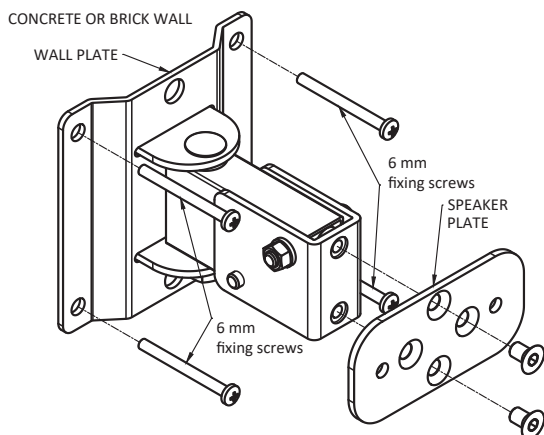
This wall mounting bracket allows to aim the loudspeaker in both horizontally and vertically. The horizontal aiming is free and the vertical aiming is in 4 steps (0°, -15°, -30°, -45°). The loudspeaker can be mounted horizontally or vertically as in the following figure.



INPUT
Pin 1+/1-

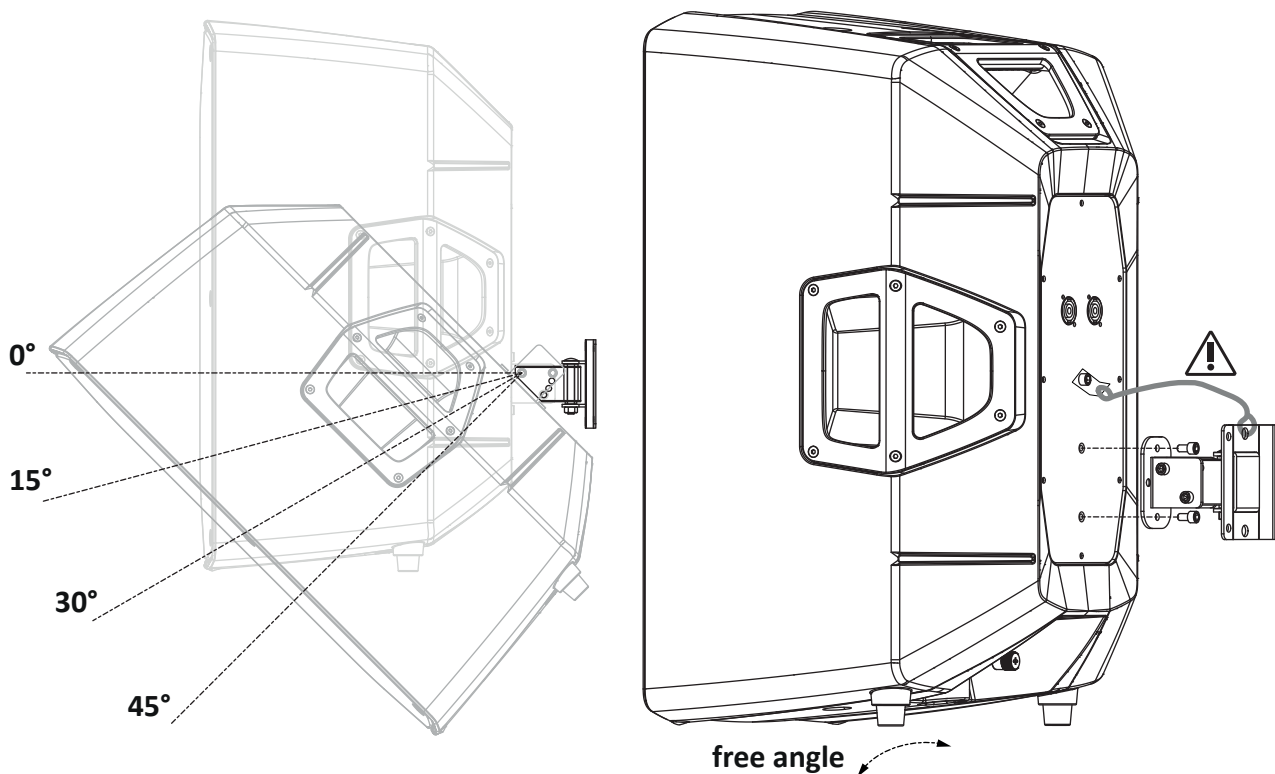


LINK
Pin 1+/1-





Note: Take into account that horizontal aiming is not completely free as it is limited by the rear wall, inclination and size of the speaker box.



WARNING: a safety rope is included with the KPTLT accessory, always use it to have additional safety for suspended loads, in any case observe all local regulations on suspended loads.

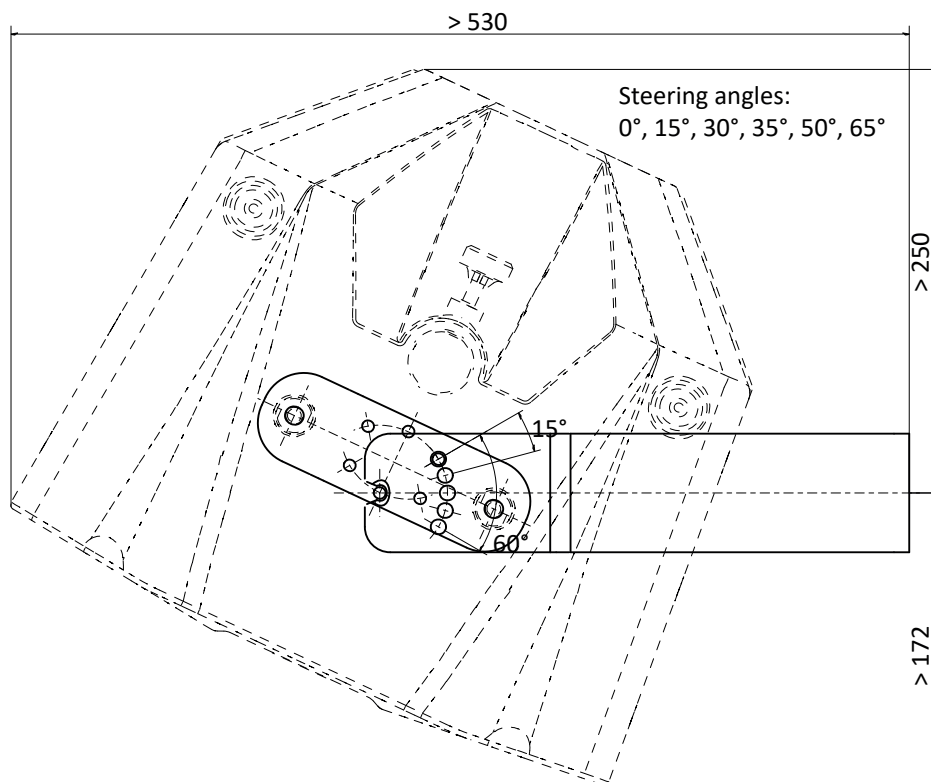
KPTFL120 WALL or TRUSS MOUNTING

Using the "C" shape bracket the FL120A 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 11 steps (0°, ±15°, ±30°, ±35°, ±50°, ±65°).

Supplied materials:

- 1x C-SHAPE bracket
- 2x Steering plates
- 4x M10x20mm hex socket head screws (a)
- 2x M8x8mm hex socket head screws (b)
- 2x M8x12mm threaded knobs (c)

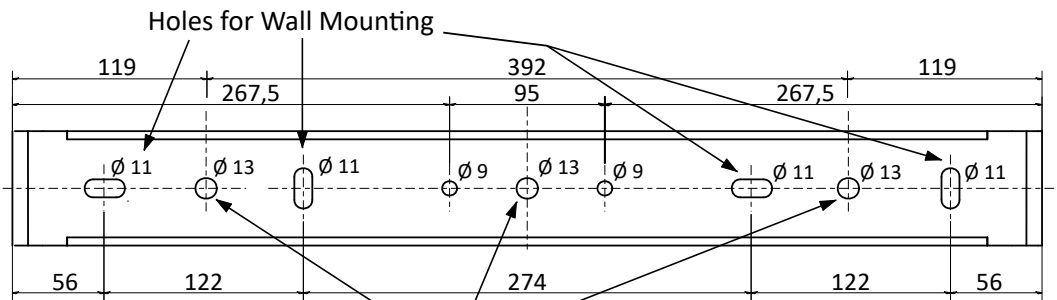
All dimensions are in mm.



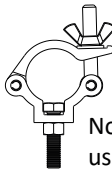


For installing the speaker using the "C" bracket follow these instructions:

- 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).



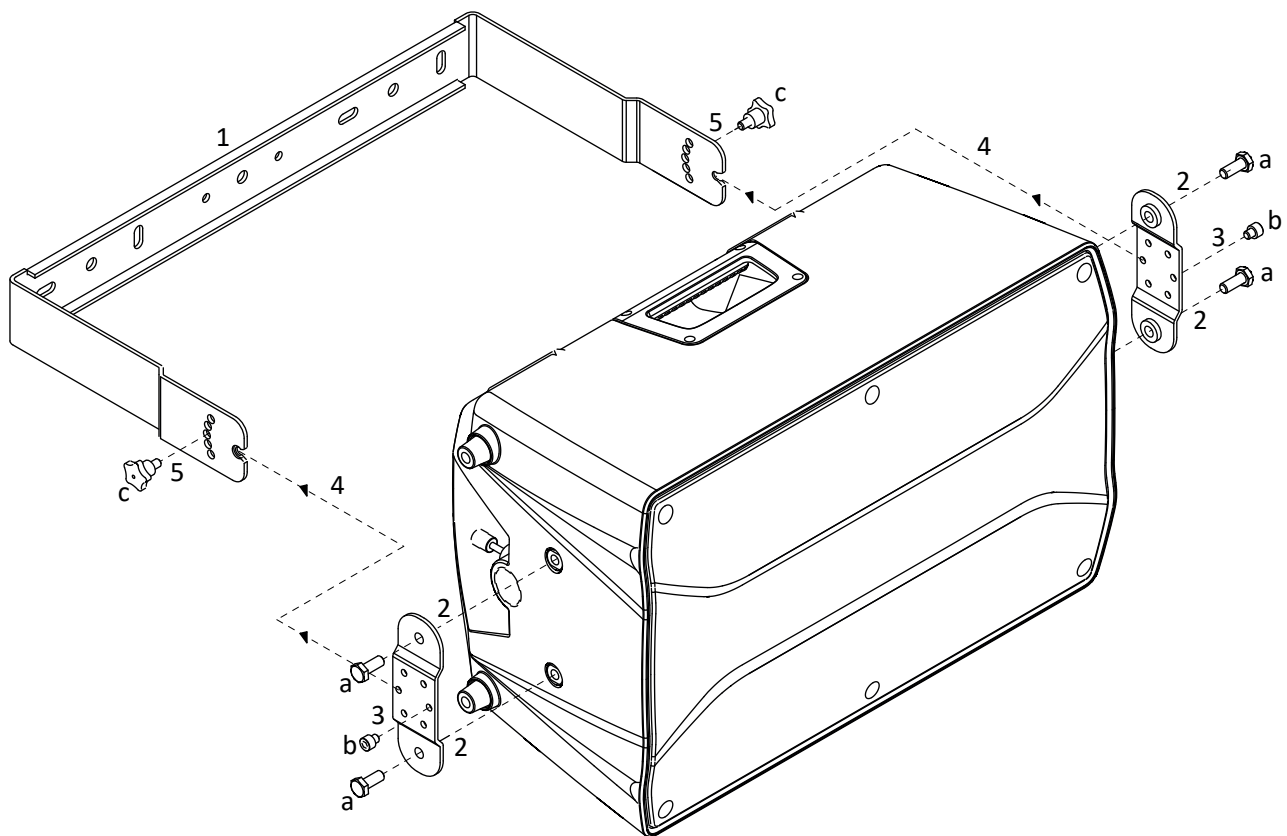
M12 TRUSS CLAMP
PROEL CODE: PLH300
(OPTIONAL)



Holes for TRUSS CLAMP

all dimensions are in mm

Note:
use at least 2 clamps



CONDITIONS OF USE

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INSTALLATION WARNINGS

- Use the C-Shape bracket exclusively for FL120A/P models.
- For wall or ceiling mounting use exclusively adequate fixings to hold up at least ten times the total weight of the speaker plus the bracket, using at least two holes for double safety.
- Do not suspend speakers from plasterboard or other light walls or ceilings of any material.

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