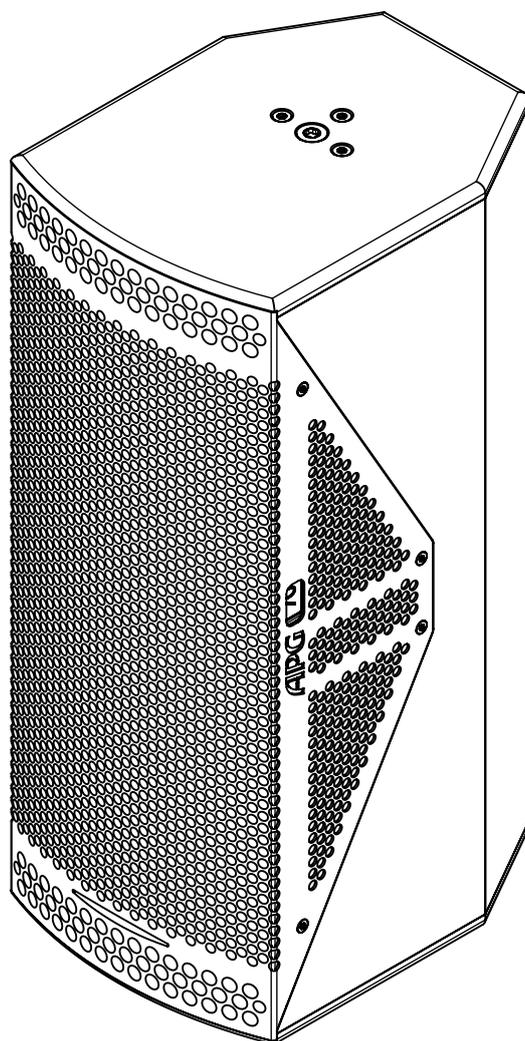


SPOT 2.6

APG

User manual



General information

SPOT 2.6 - User manual
06/2022 - EN

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1. Safety note and general information

- Information on the risk of exposure to high sound level
- APG loudspeakers are liable to generate levels of sound pressure hazardous to health, which may cause hearing impairment. It is recommended that you never stand in the immediate vicinity of the loudspeakers in operation and wear hearing protection when necessary. Observe the maximum exposure time to noise according to the noise level and the regulations in force in your country. Pay attention to the hearing protection of listeners when using APG systems.
- Read this manual before use and keep it.
- Read all documents relating to the product to be used before setting up and using it. Please contact APG with any questions relating to the product.
- Obtain the latest version of the user manual from the APG website: www.apg.audio.
- Consider all warnings and follow the instructions and recommendations for use.
- Make sure you know the safety rules for hanging, stacking or setting up on a pole or tripod. Failure to follow these rules may expose people to potential injury or death.
- Ensure the safety of operators and spectators.
- Staff must wear personal protective equipment (PPE) during each step of installing the product (helmet, gloves, safety shoes at a minimum).
- Installation of APG products should only be carried out by qualified staff trained in rigging techniques and aware of the safety recommendations set out in this manual.
- Always check the stability, resistance to weight, flatness and horizontality of the support. Prevent access to the spectators around the system, prevent it being possible to push or climb the stack of speakers. Use straps to prevent tipping.
- Do not store the product on an unstable cart, stand, tripod, bracket or table.
- Use the products with the specified accessories by the manufacturer.
- Inspect lifting products and accessories before each use.
- Do not install equipment that is faulty or presents a risk of breakage and have it repaired by qualified personnel or by APG.
- Entrust all repairs to qualified staff or by APG. Repairs are mandatory if the device is damaged in any way, for example: damaged power cord or plug, spilled liquid or object dropped inside the device, exposure of the device rain or moisture for long periods of time, appliance that does not operate normally or that has been dropped.
- Any unauthorized maintenance operation will void the product warranty.
- Perform safety and compliance checks of accessories, enclosures, and third-party accessories periodically at least once a year.
- Respect the maximum load capacity of each configuration and carry out conformity simulations using the tools APG Tools, APG Uniline Aiming Tool, AFMG EASE Focus 3.
- Use only with a cart, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. If a cart is used, move the cart-apparatus combination carefully so as not to tip it over, which could cause personal injury.
- Do not install near a heat source such as an open flame, radiator, heat register, stove or any other device that produces heat (including amplifiers).
- Do not expose the product to extreme conditions such as humidity (rain, sea water, condensation, ambient humidity, etc.), excessive heat (sun, heating, etc.) over a long period.
- Take into account the effects of the wind. Flying loudspeakers overhead at wind forces higher than, 16 mph (25km/h) is not recommended. If the wind force exceeds 46 mph (72km/h):
 - Make sure that no person remains in the vicinity of the loudspeaker array.
 - Lower and secure the array.
- During an outdoor performance, it is advisable to find out about the weather conditions and to follow the local weather report and the recommendations of the competent authorities. An anemometer can be used at the top of the system.



- Use a secondary safety system for any APG speaker rigging.
- The product is intended for be used by professionals trained in professional audio work.
- APG declines all responsibility in the event of the use of non-validated accessories or non-compliance with safety instructions and rules.
- APG products are guaranteed for 5 years. The full five-year warranty covers filters and transducers against manufacturing defects under normal product use.
- APG pursues a research and development policy aimed at improving its products. For this reason, new materials, manufacturing methods and changes in principle may be introduced without prior warning. As a result, an APG product may differ in some aspects from its published description, however, unless otherwise indicated, its characteristics will be greater than or equal to those published.
- Disposal of electrical or electronic equipment
- This symbol on the product or on its packaging indicates that it will not be treated as household waste. Instead it will be delivered to the applicable collection point for the recycling of electrical and electronic equipment. By ensuring recycling, you will help prevent potential consequences for the environment and human health. Recycling of materials will help conserve natural resources. For more detailed information on recycling this product, please contact your local office, waste collection agency or dealer.



2. Passive loudspeaker SPOT 2.6

2.1 Product description

SPOT 2.6 is a passive full-range loudspeaker equipped with 2x6.5" speakers and a compression driver loaded by a 70° x 50° constant directivity horn. SPOT 2.6 offers perfect directivity control over a wide frequency range thanks to the 2 low-mid transducers d'Appolito mounting and the use of a rotating horn for the high frequencies. It has been designed to work with APG subwoofers thus providing powerful and precise systems while being particularly compact.

SPOT 2.6 can be powered by Canali or DA amplifiers. Dedicated presets for ArmoniaPlus and APG Live Manager softwares make the performances easy to achieve. They also include powerful and musical protection parameters.

A wide range of optional accessories accompanies the SPOT 2.6: base for stands, U brackets for horizontal and vertical mounting, link plates for clusters building (2 or 3 loudspeakers). SPOT 2.6 is available in 4 Ohm (SPOT2.6/4) and 16 Ohm (SPOT 2.6/16) versions. An optional external 200W transformer allows SPOT to be connected to 100V line set up.

SPOT 2.6-i is the reference for installation version (figure 2) and also available only in 16 ohm , with the only difference being the absence of the handle at the rear of the enclosure.

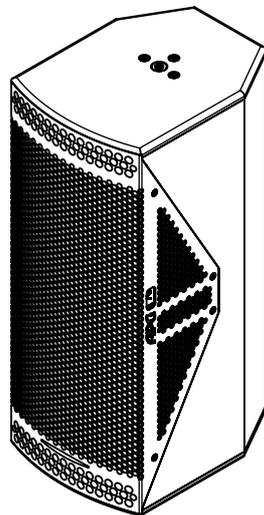


Figure 1 : Touring version

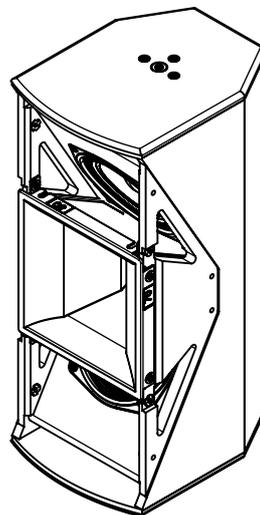
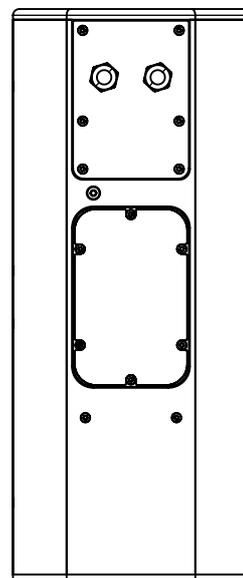
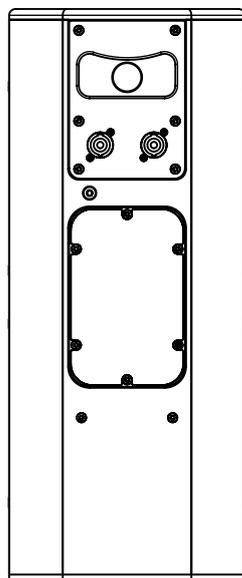
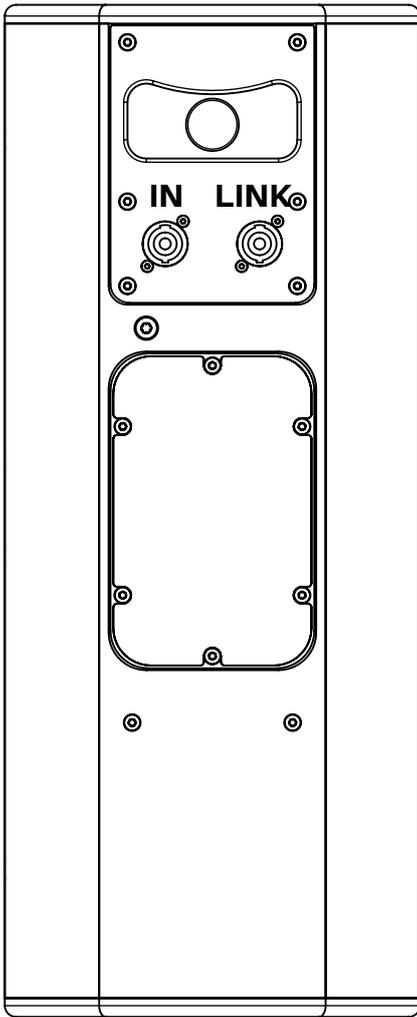


Figure 2 : Installation version

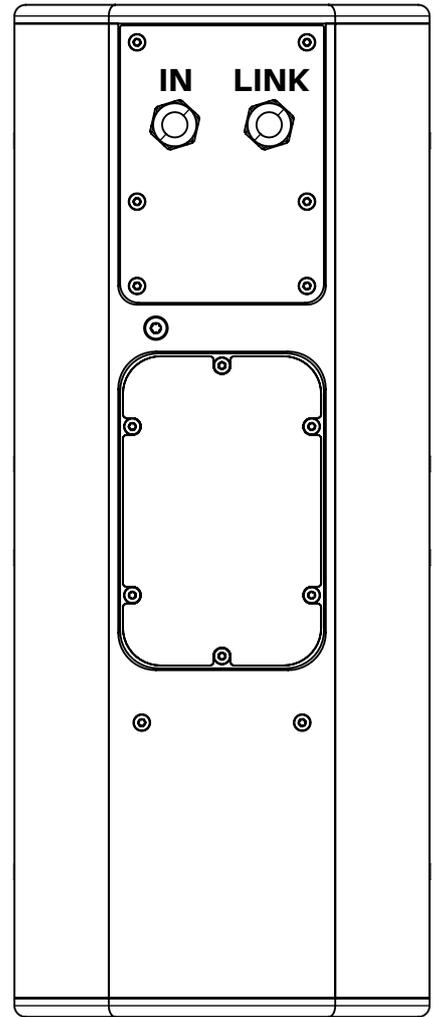


2.2 Connections



Touring version

Wiring
 1+ Hot 2+ THRU
 1- Cold 2- THRU



Installation version

The rear panel of the SPOT 2.6 Touring is equipped with two NL4 connectors unlike the SPOT 2.6 Installation which is equipped with cable gland connectors. The four pins of the two connectors are connected in parallel. The speakers occupy points 1+/1-.

The IN connector is used to receive the audio signal. The LINK connector allows to redistribute it to another SPOT 2.6 connected in parallel.

SPOT 2.6 wiring in the table below :

NL4 / Gland connector	1+	1-	2+	2-
Rear panel connector	Hot (+)	Cold (-)	THRU	THRU

2.3 Amplifiers

WARNING

APG speakers must be powered by APG or Powersoft amplifiers with the corresponding speaker preset. Failure to heed this warning may cause damage to speaker components and the user experience will not be optimal. Refer to the amplifier manual for its connection to the speakers.

	DA8	DA12
SPOT 2.6 Touring / 4 ohms	8	8
SPOT 2.6 Touring / 16 ohms	8	16
SPOT 2.6 Installation / 16 ohms	8	16

Table : Wiring of loudspeakers / amplifiers

In order to maintain sound quality, the wiring will be carried out with flexible deoxyged-copper speaker cable with a minimum 2.5mm² section for lengths of up to 70m maximum for one speaker per channel.

	Section recommandé [mm ²]	Longueur maximum recommandé [m]
SPOT 2.6 Touring / 4 ohms	2.5mm ²	15m
SPOT 2.6 Touring / 4 ohms x 2	2.5mm ²	5m
SPOT 2.6 Touring / 16 ohms	2.5mm ²	70m
SPOT 2.6 Touring / 16 ohms x 2	2.5mm ²	35m
SPOT 2.6 Installation / 16 ohms	2.5mm ²	70m
SPOT 2.6 Installation / 16 ohms x 2	2.5mm ²	35m

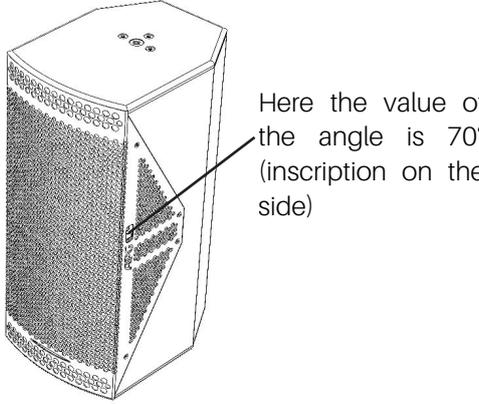
Table : Recommended cable section & length depending on the configuration

2.4 Constant directivity horn rotation

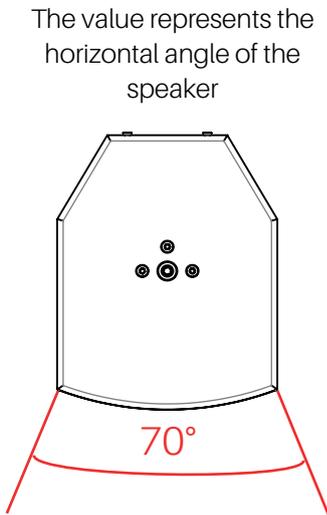
With SPOT 2.6 you can choose the directivity.

Thanks to the assembly/disassembly of the horn, the directivity can be 50° or 70° by following the steps below.

- 1.**

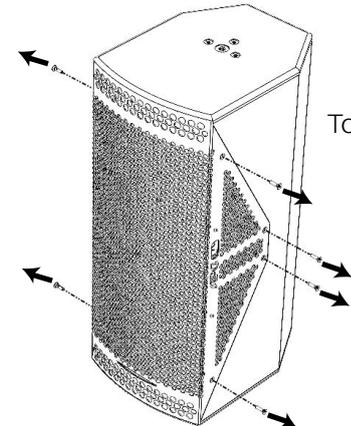


Here the value of the angle is 70° (inscription on the side)

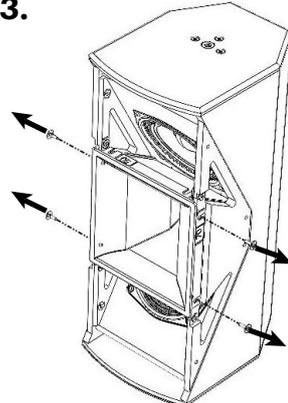


The value represents the horizontal angle of the speaker

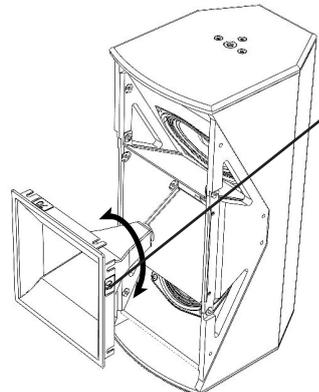
70°
- 2.**



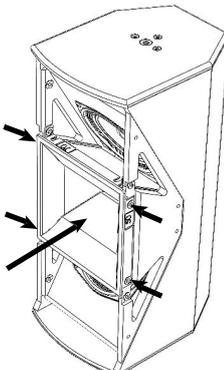
Torx 20 - screw M4
- 3.**



Torx 20 - screw M4
- 4.**

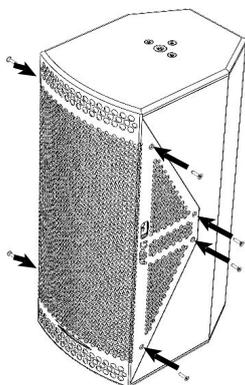


Rotate the horn to have the value 50° on the side.
- 5.**



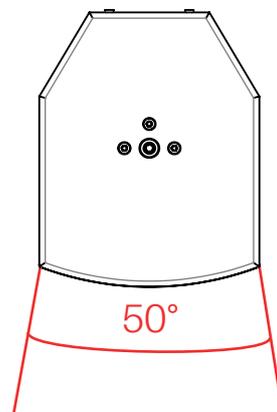
Reinsert the horn and secure it with the 4 screws.

6.



Make sure the blue arrow on the steel is towards the bottom of the loudspeaker.

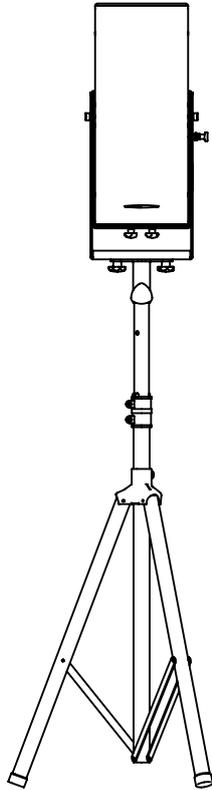
The angle is now 50°



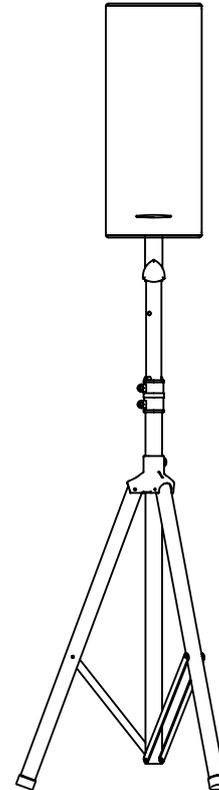
2.5 Examples of configurations

Use on a stand is possible with and/or without bracket :

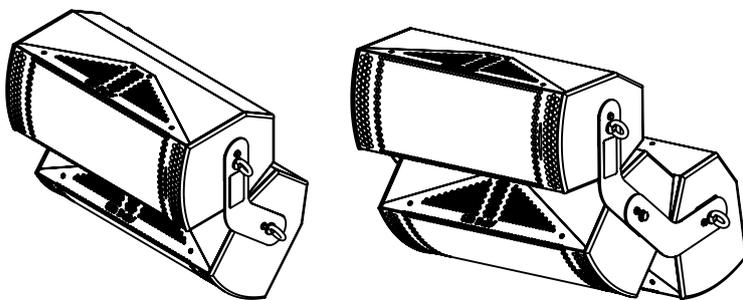
- With SPOT2.6BV bracket : use K&M 24281 adapter
(see page 15)



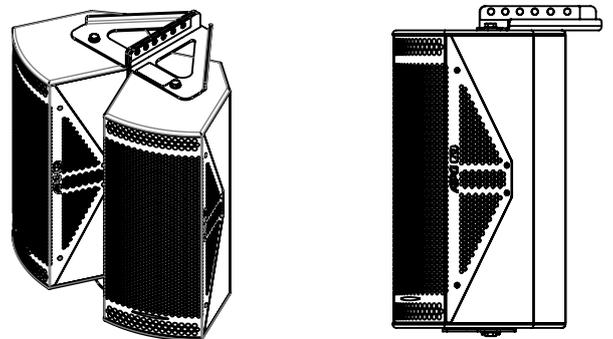
- Without bracket : use K&M 24521 M10 to 35mm
adapter



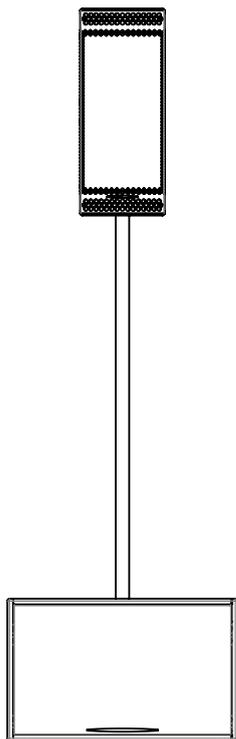
Use in horizontal and/or vertical cluster configuration



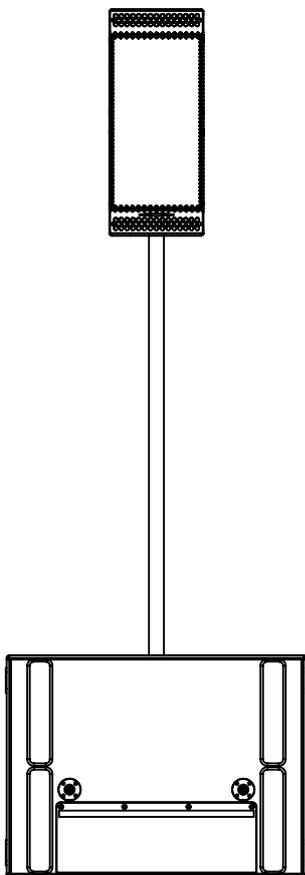
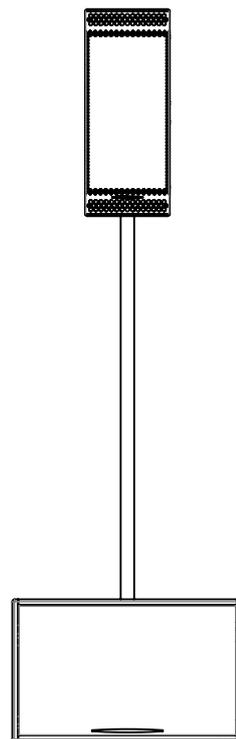
*Horizontal cluster with 2 or 3
loudspeakers (see page 17)*



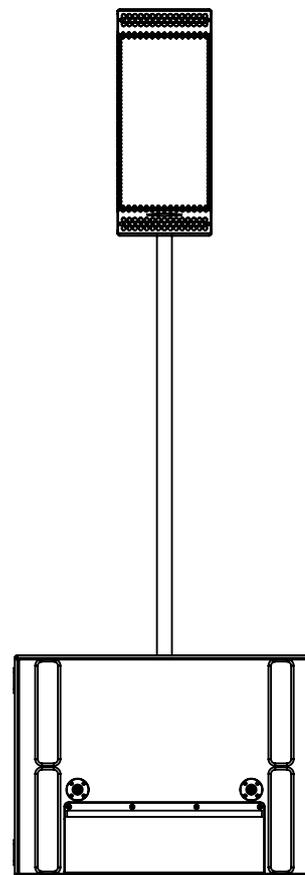
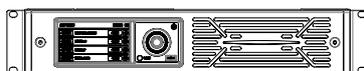
Vertical cluster (see page 18)



2 x iS115
2 x SPOT 2.6
1 x DA12



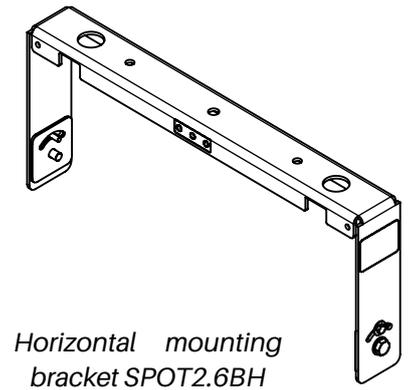
2 x UC118i
2 x SPOT 2.6
1 x DA12



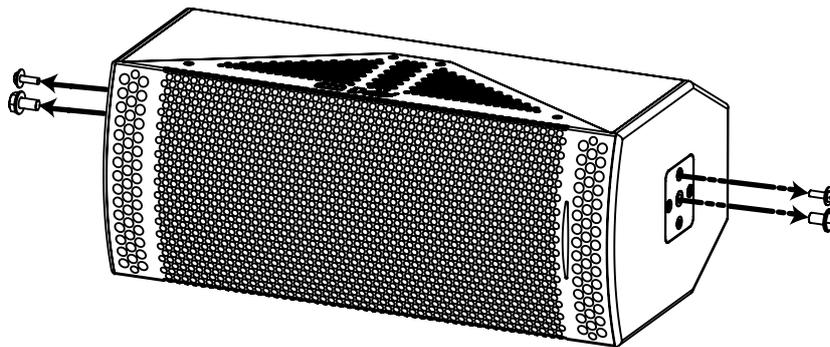
2.6 Rigging

Horizontal mounting bracket SPOT2.6BH

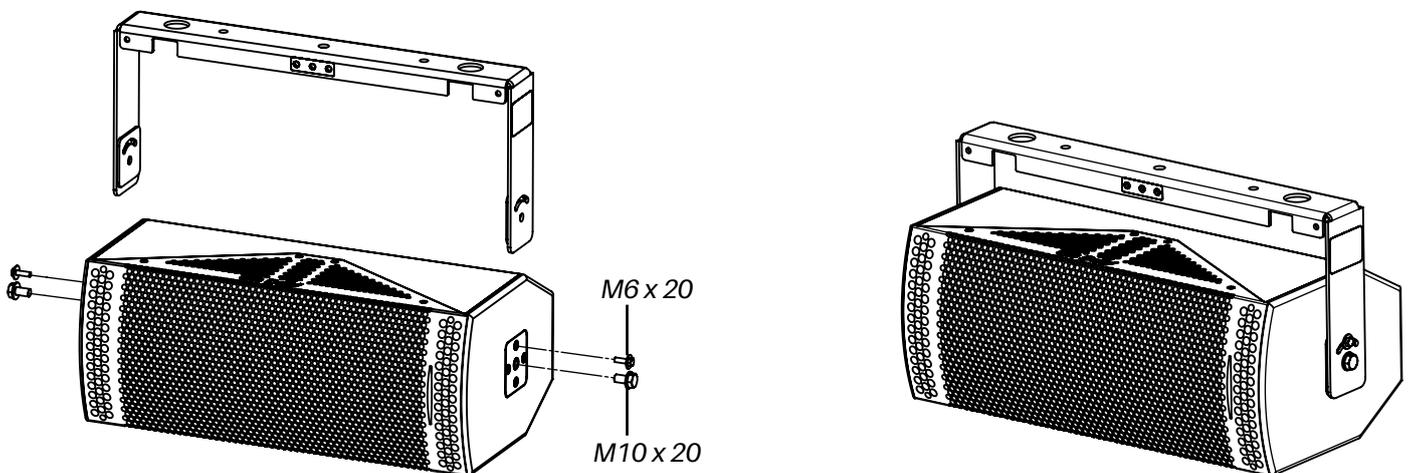
The SPOT 2.6 can be installed horizontally using the SPOT2.6BH mounting bracket.



1. Position the enclosure then remove the bottom and top screws as shown in the diagram below.

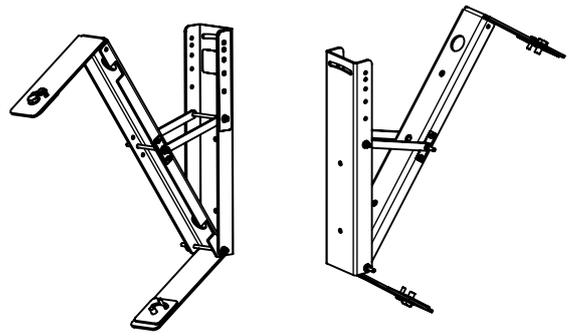


2. Approach the fixing bracket on one of the sides of the enclosure then fix it using screws and M6x20 and M10x20 washers provided for this purpose. A spanner or socket 10 for the M6 screw and socket 17 for the M10 screw will be required.



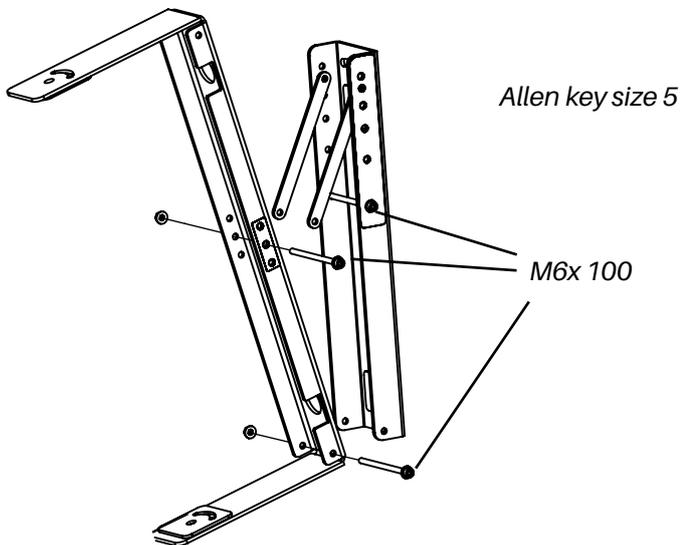
Angle part for wall bracket SPOT2.6BVAP

A wall angle piece is also available with the SPOT 2.6. Compatible with the SPOT2.6BH bracket, this part allows the speaker to be positioned at several inclinations.



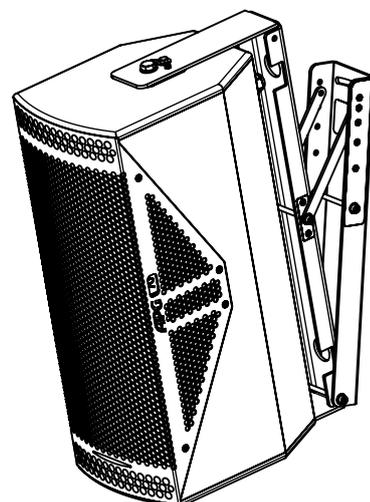
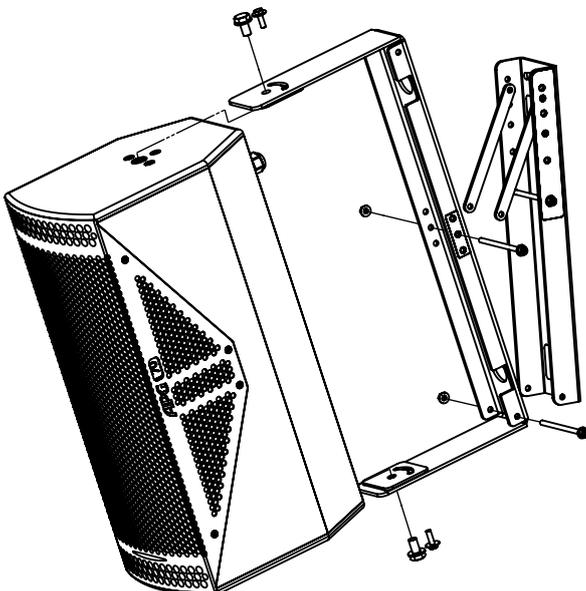
SPOT2.6BH horizontal bracket with SPOT2.6BVAP

1. Assemble the SPOT2.6BH bracket to the wall mounting piece using the M6x100 screws with nut and washers. Choose the desired angle using the reference marks and the table below.



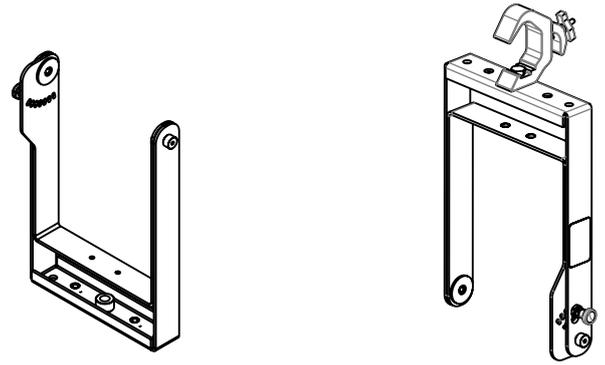
	A	B	A
1	-	10°	-
2	5°	15°	5°
3	-	20°	-
4	-	25°	-
5	-	30°	-
6	-	35°	-

2. Fix the loudspeaker at SPOT2.6BH.



Vertical mounting bracket SPOT2.6BV

The SPOT 2.6 can be positioned vertically thanks to a U-shaped bracket fixed to the enclosure and a mobile bracket with angular adjustment via the indexing pin. Both for use on a stand thanks to the K&M 24281 adapter, and for suspended use with a fixing hook.

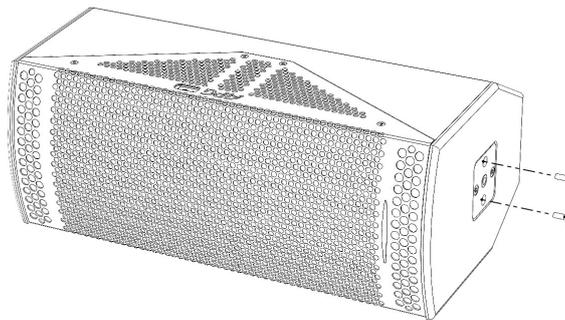


Position for standing use

Position for suspended use

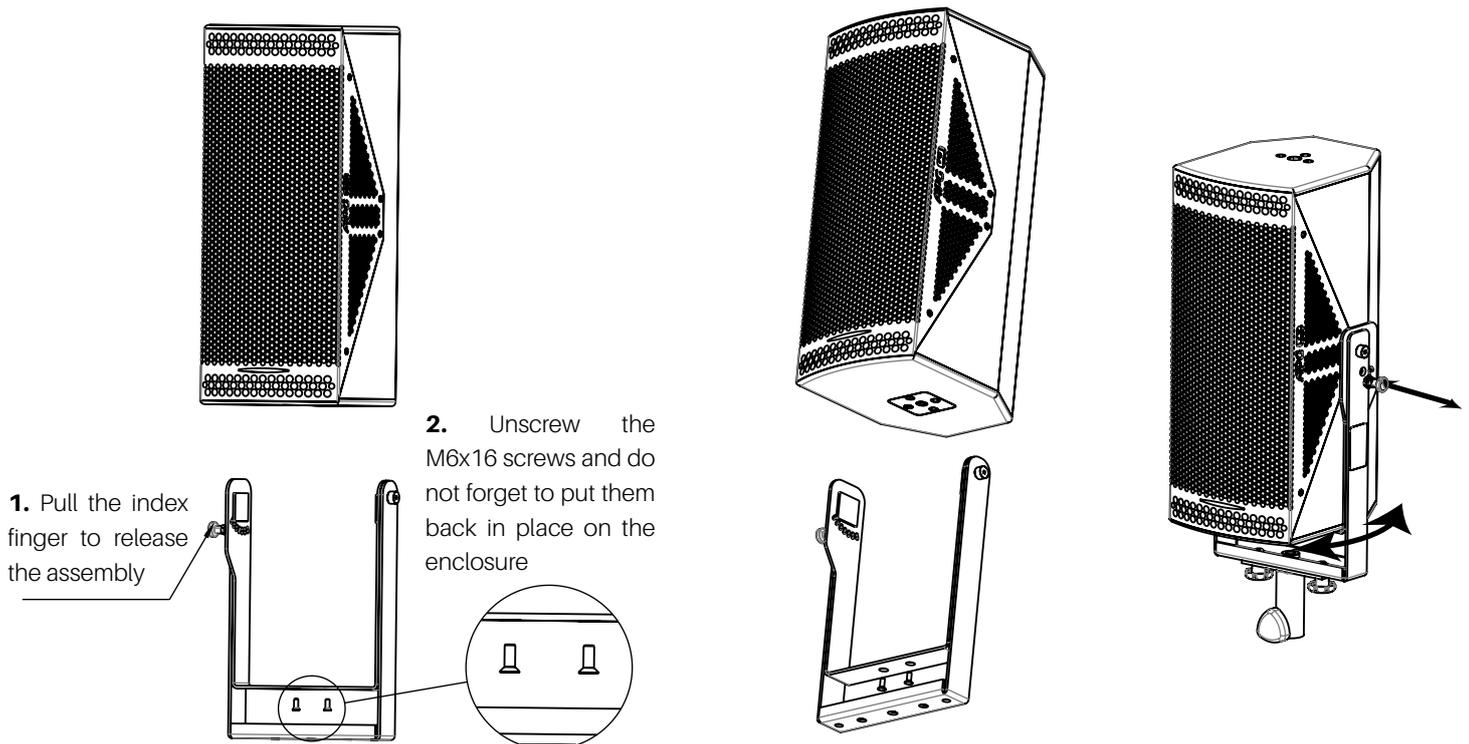
For standing use

1. Position the enclosure then remove the bottom screws (T30) as shown in the diagram below.



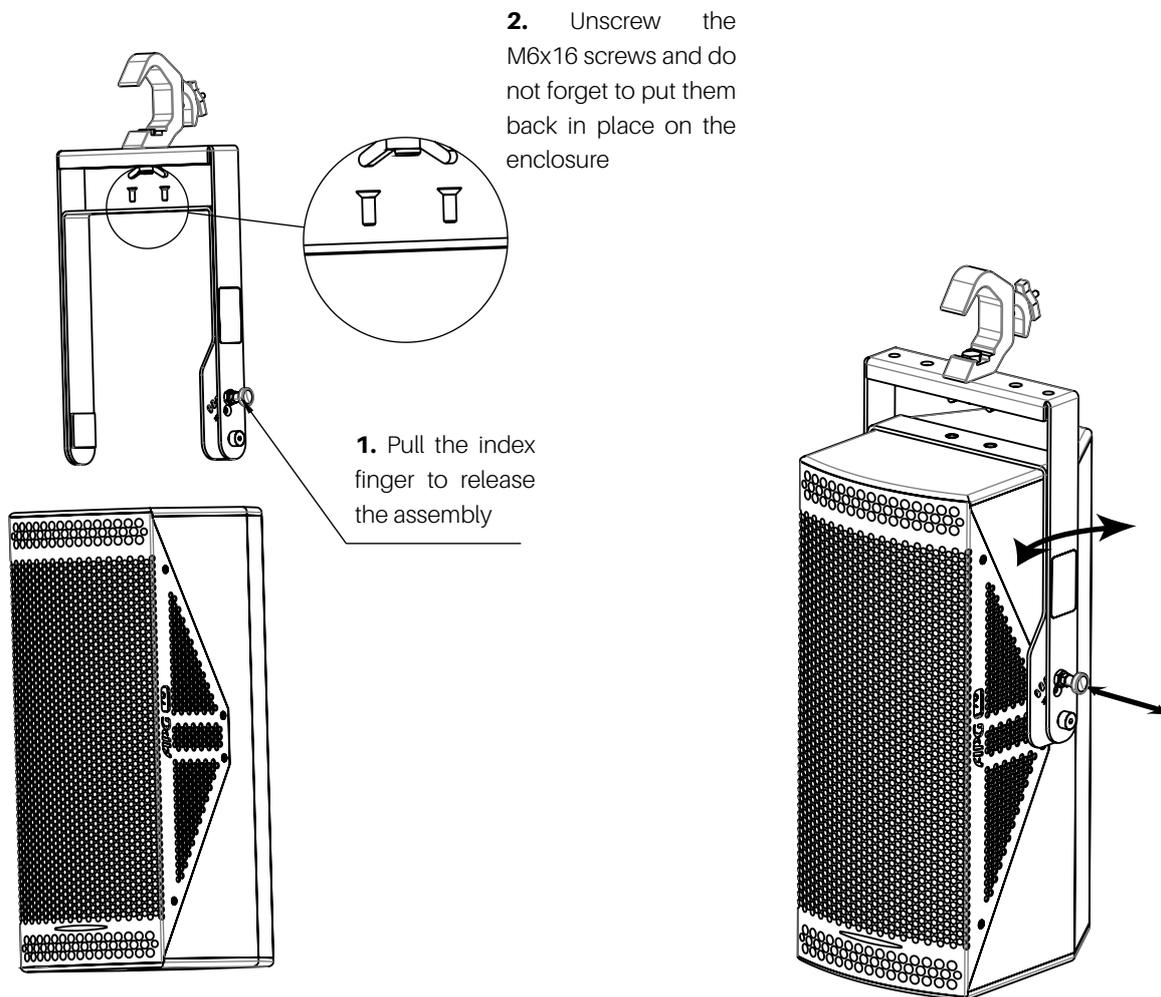
2. Assemble the mobile bracket to it from below with the pins and the indexing finger then attach the K&M 24281 adapter to the using two M10 joysticks.

Choose the desired angle using the index finger (5°).

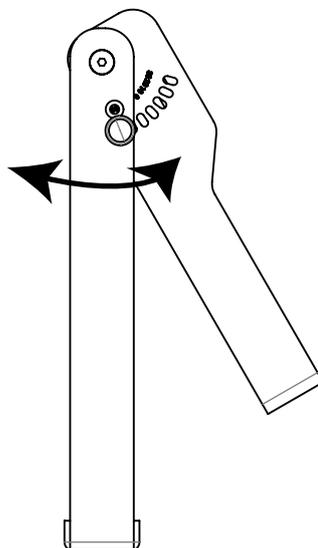


For suspended use

1. Same step as for the stand use, except that the mobile bracket must be assembled from the top and the fixing hook must be attached. Select the desired angle with the index finger (5° notch).



Desired angle range from 0 to 30°



Horizontal cluster for use with 2 or 3 loudspeakers

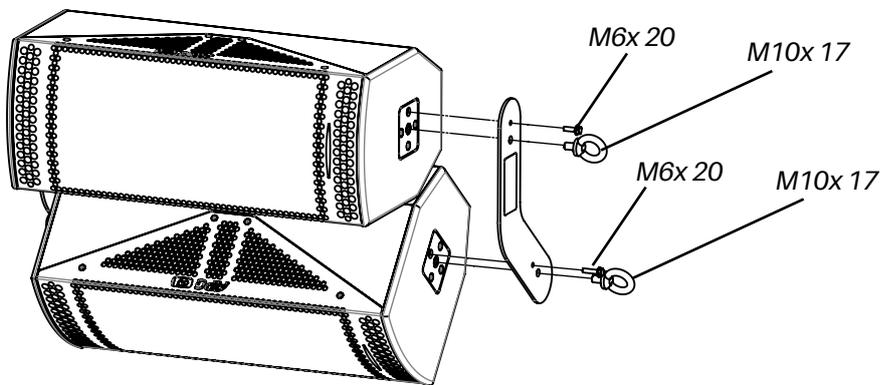
The SPOT 2.6 can be positioned horizontally by 2 or 3 thanks to a connecting piece allowing the hook between the speakers.



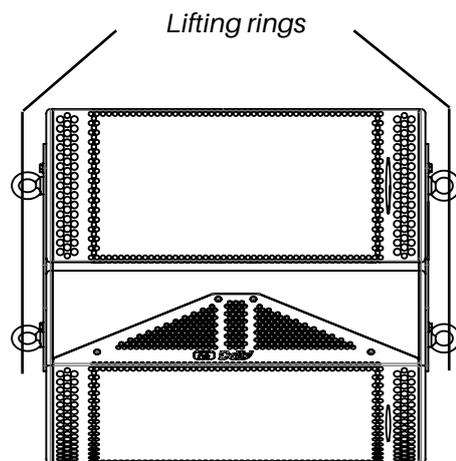
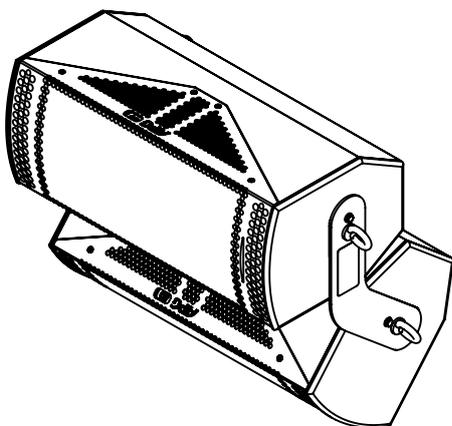
For the horizontal cluster (by 2 or 3) and vertical cluster configurations, the horn must be positioned at the 50° value. (see page 10)

Use with 2 loudspeakers

1. Fix the connecting piece on each side of the two enclosures, as shown in the diagram below, using M6x20 screws and M10x17 lifting ring. A spanner or socket 10 will be necessary for the M6 screws.

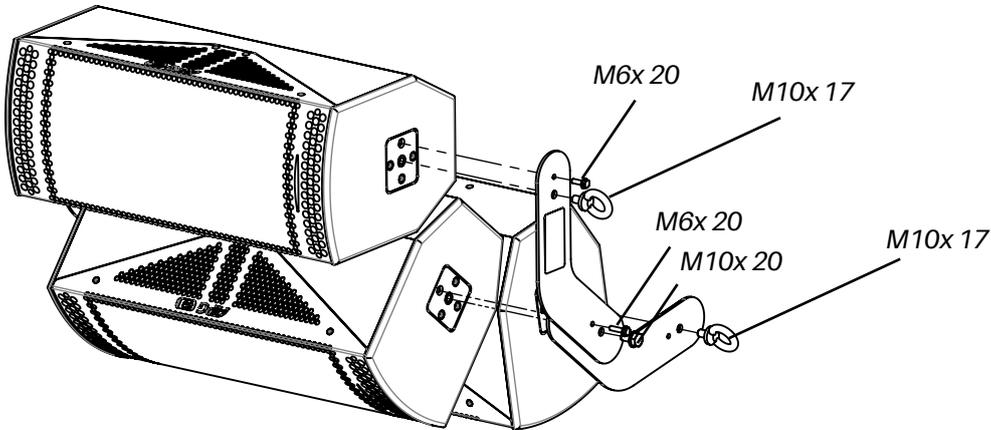


2. Use the lifting rings to suspend and secure the system with exemple lifting slings.

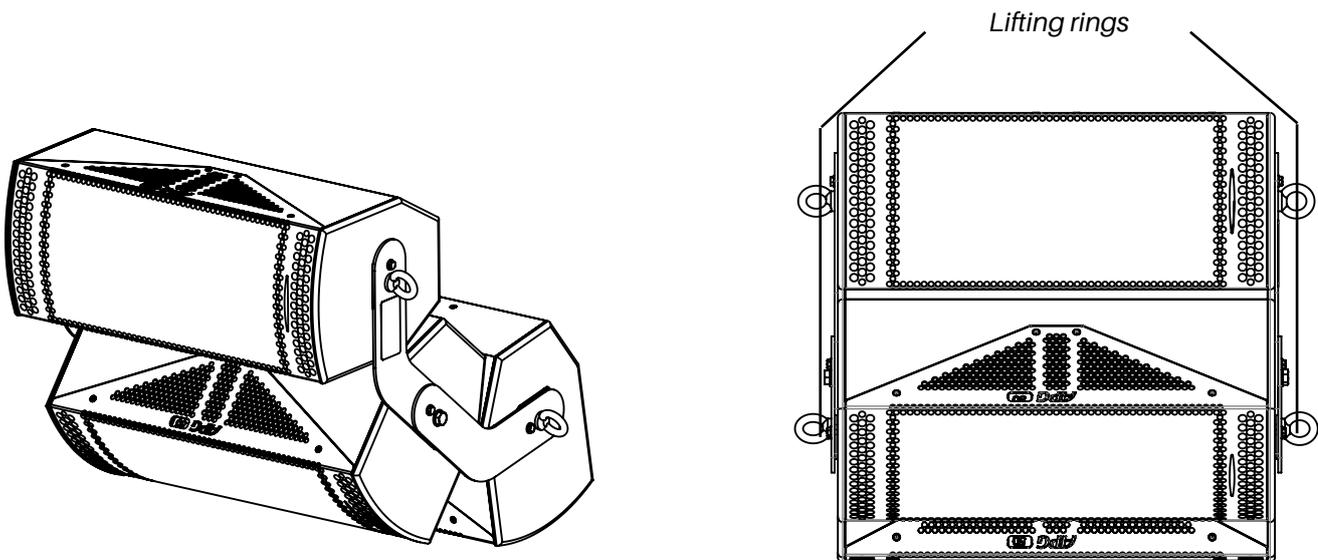


Use with 3 loudspeakers

1. Fix the 2 connecting piece on each side of the two enclosures, as shown in the diagram below, using M6x20 screws and M10x17 lifting ring. A spanner or socket 10 will be necessary for the M6 screws.



2. Use the lifting rings to suspend and secure the system with exemple lifting slings.



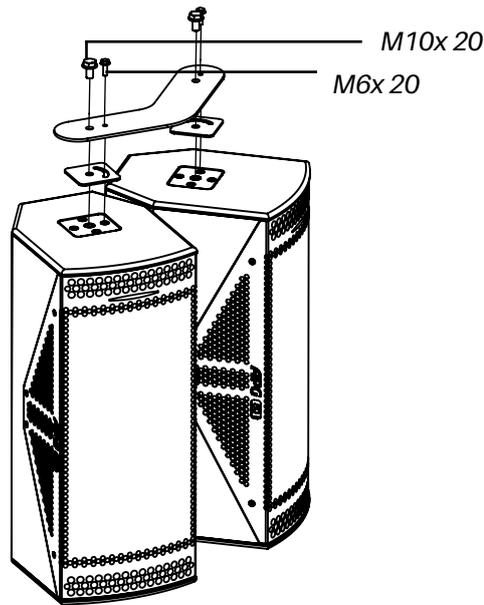
Vertical cluster

The SPOT 2.6 can be in a vertical configuration with a cluster of 2 loudspeakers..

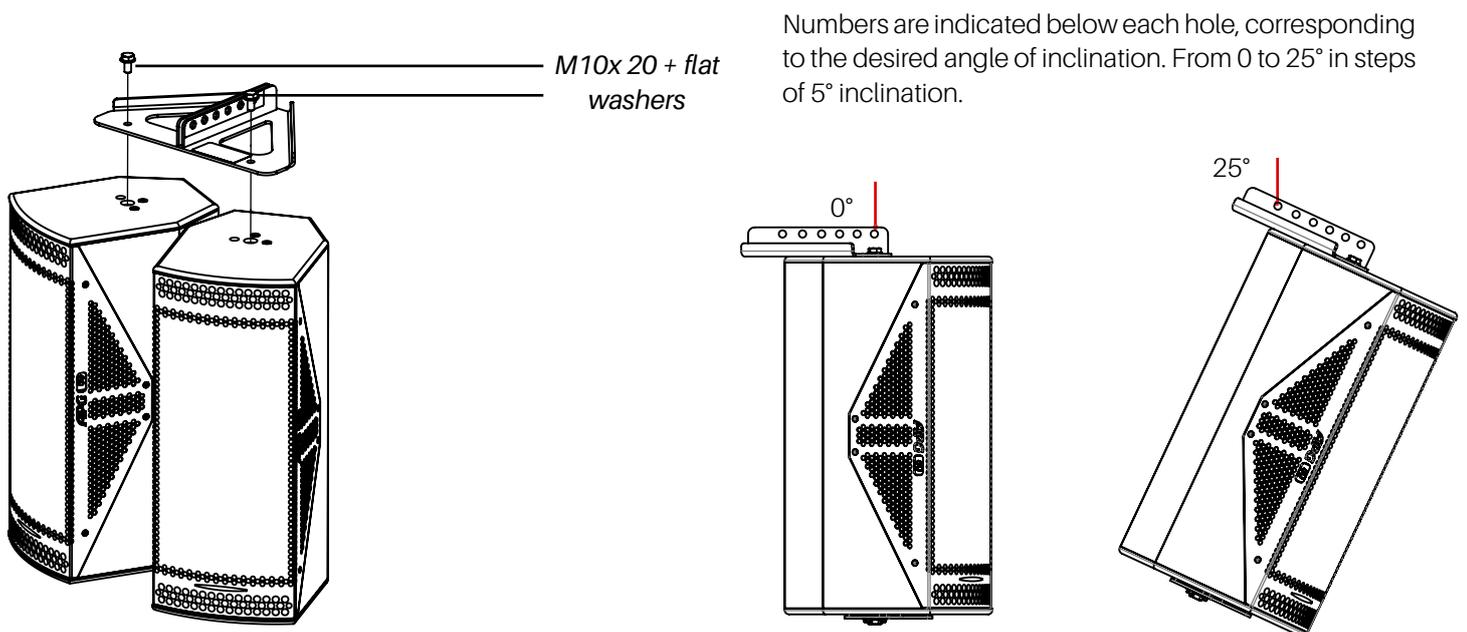


For the horizontal cluster (by 2 or 3) and vertical cluster configurations, the horn must be positioned at the 50° value. (see page 10)

1. Turn the speakers over so that the blue arrow is up, then attach the attachment piece (boomerang-shaped) to the two SPOT2.6s using M10x20 and M6x20 screws. This piece guarantees the 50° angle between the two enclosures.

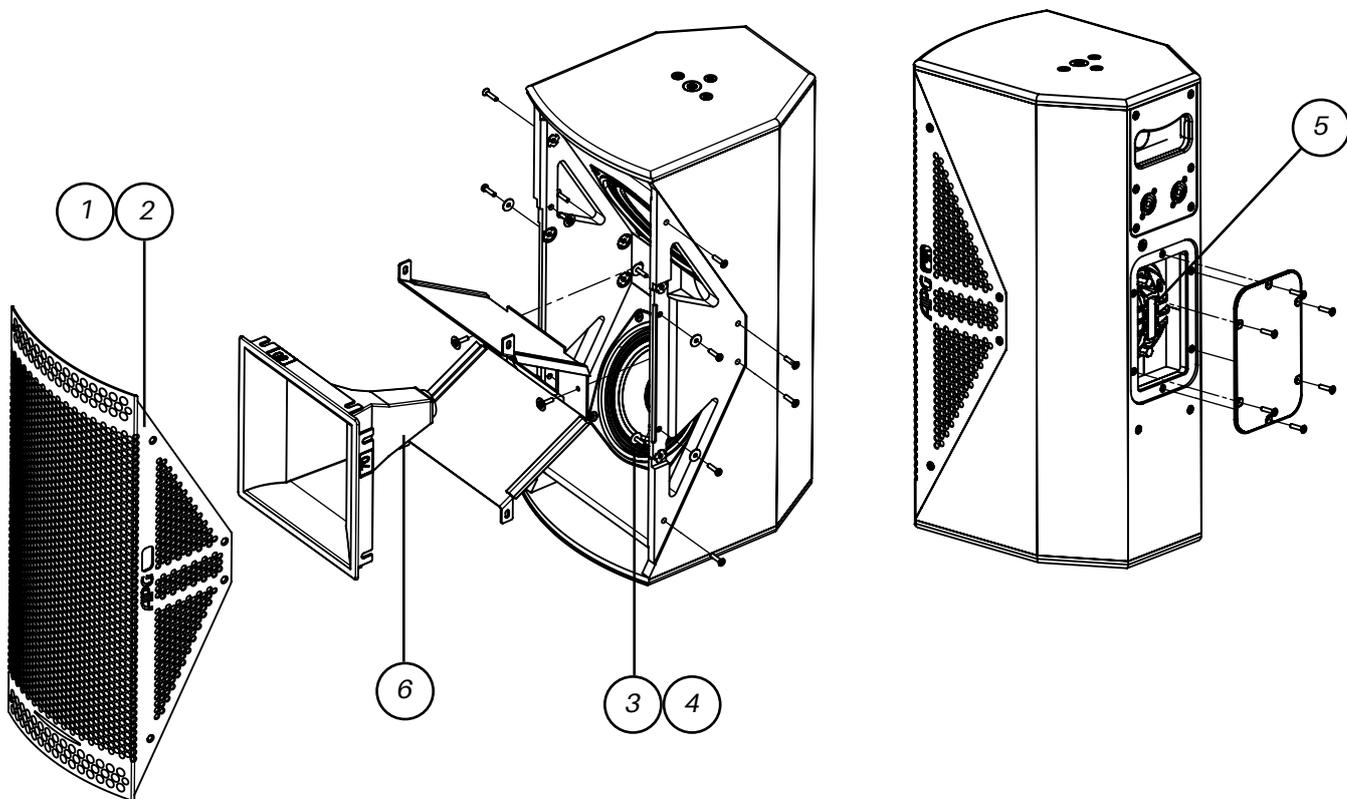


2. Put the speakers right side up and fix the DELTAPLATE attachment piece (in the shape of a triangle) on top of the two SPOT2.6s with M10x20 screws and washers as shown in the diagram below. A spanner or socket 17 will be needed.



2.7 Maintenance - Spare parts

SPOT 2.6 loudspeaker

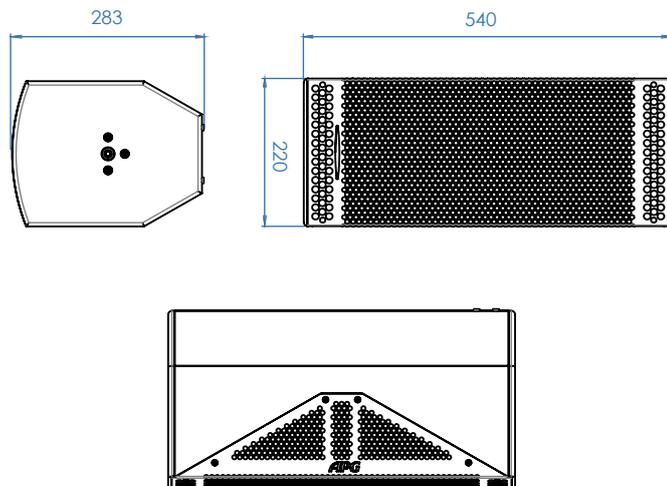


REPERE	REFERENCE	DESIGNATION
1	PRS_1216	Black steel SPOT 2.6
2	PRS_1217	White steel SPOT 2.6
3	PRS_1218	HP PST_1742 complet
4	PRS_1219	Recone kit for PST_1742
5	PRS_1220	Diaphragme 1.75 pouce 16 ohms
6	PRIS_1221	Constant directivity horn PST_2135

2.8 Technical specifications

SPOT 2.6 loudspeaker

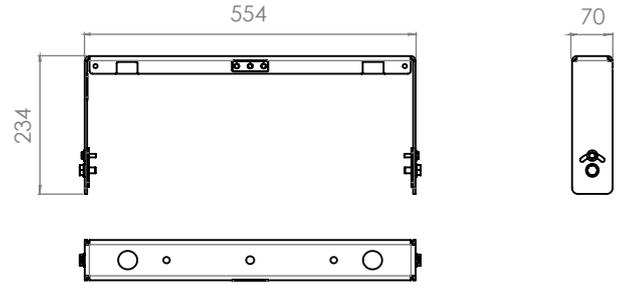
Features	
Usable bandwidth (± 10 dB)	65 Hz - 19 kHz
SPL max @ 1m	131 dB SPL (1)
Nominal directivity ($H^\circ \times V^\circ$)	70° x 50° (2)
Nominal impedance	4 or 16 ohms
Components	
Transducers	2 x 6,5" low frequency driver 1 x 1,75" diaphragm compression driver
Topology	MTM (Medium - Tweeter - Medium)
Acoustical load	Bass Reflex - Constant directivity
Ways and amplification type	2 ways, mono amplified
Power	
AES (W)	550 W (3)
Maximum power (W)	2200 W (4)
Constructions	
Dimensions H, W, D (mm)	504 x 220 x 283 mm
Weight (kg)	33 lb (15,7 kg)
Connectors	2 x Speakon NL4MP (5)
IP	43



- (1) Peak level @ 1m, 2 π sr using 12dB crest factor pink noise with APG preset
- (2) Nominal directivity @-6dB
- (3) Continuous power according to AES2-2012 in DCR
- (4) Peak power according to AES2-2012 in DCR
- (5) SPEAKON connectors are wired hot pin 1+, cold pin 1- (2+, 2- THRU)

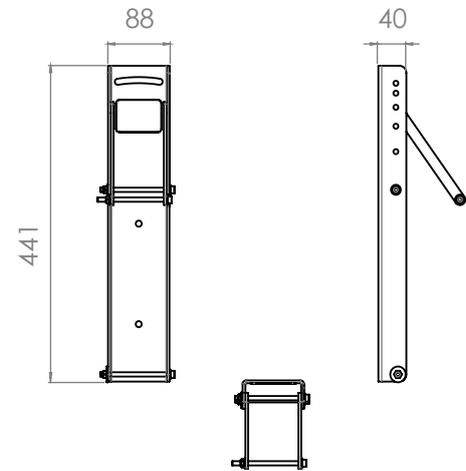
SPOT2.6BH

Construction	
Dimensions H,W,D (mm)	9,2" x 21,8" x 2,7" (234 x 554 x 70 mm)
Weight	4,4 lb (2,9 kg)
WLL (Working Load Limit)	44 lb (20 kg)



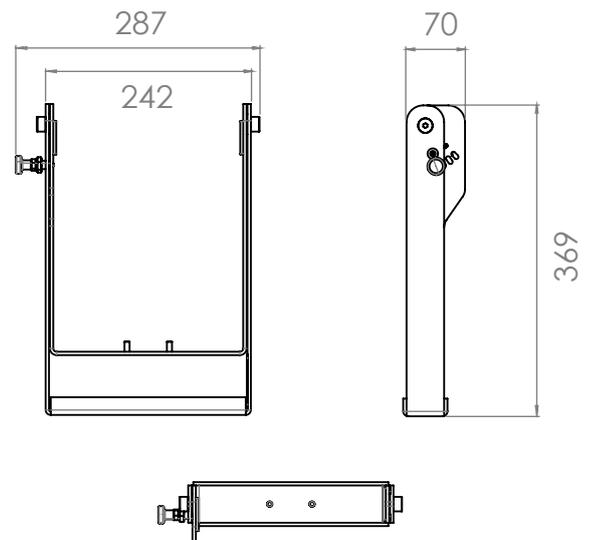
SPOT2.6BVAP

Construction	
Dimensions H,W,D (mm)	17,3" x 3,4" x 1,5" (441 x 88 x 40 mm)
Weight	4,4 lb (2,2 kg)
WLL (Working Load Limit)	44 lb (20 kg)



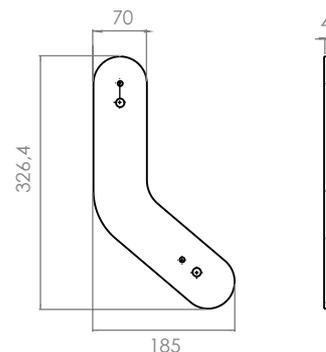
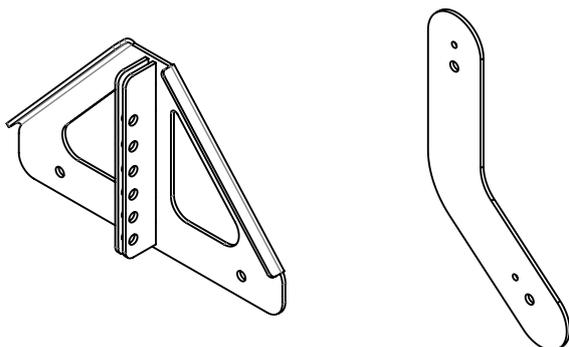
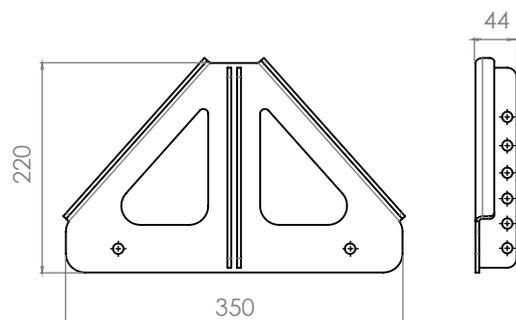
SPOT2.6BV

Construction	
Dimensions H,W,D (mm)	14,5" x 11,2" x 2,7" (369 x 287 x 70 mm)
Weight	6,6 lb (3,2 kg)
WLL (Working Load Limit)	44 lb (20 kg)



CLUSTER-V-2xSPOT 2.6

Construction	
Dimensions H,W,D (mm)	1,7" x 13,7" x 8,6" (44 x 350 x 220 mm)
Weight	4,4 lb (2 kg)
WLL (Working Load Limit)	77 lb (35 kg)



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