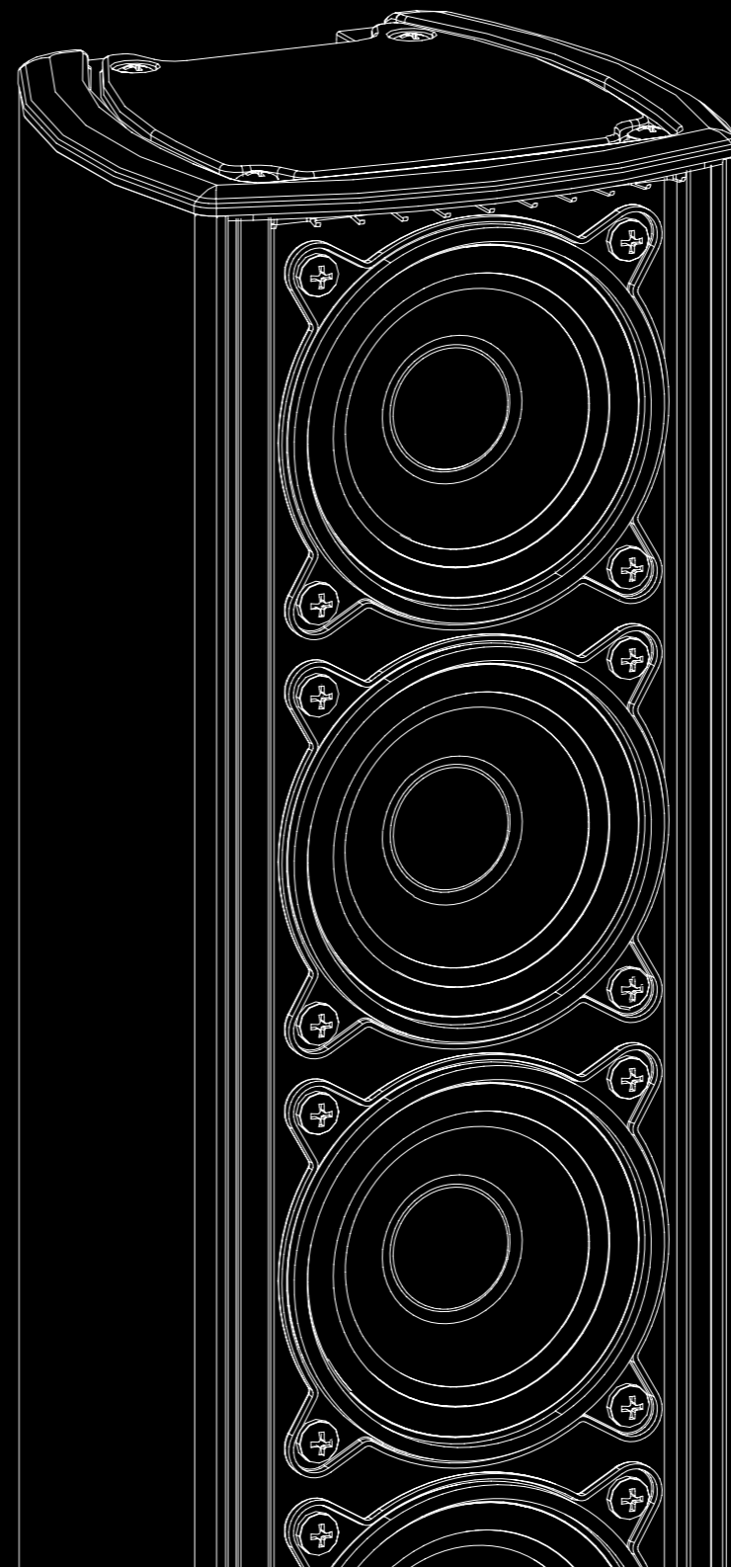
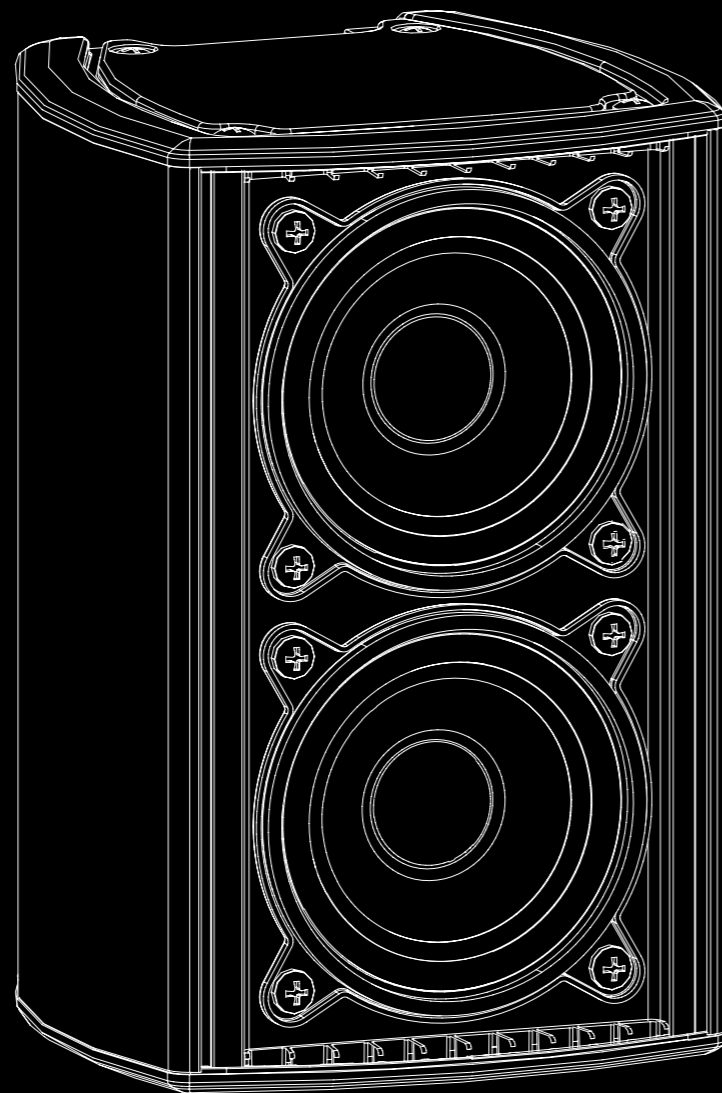
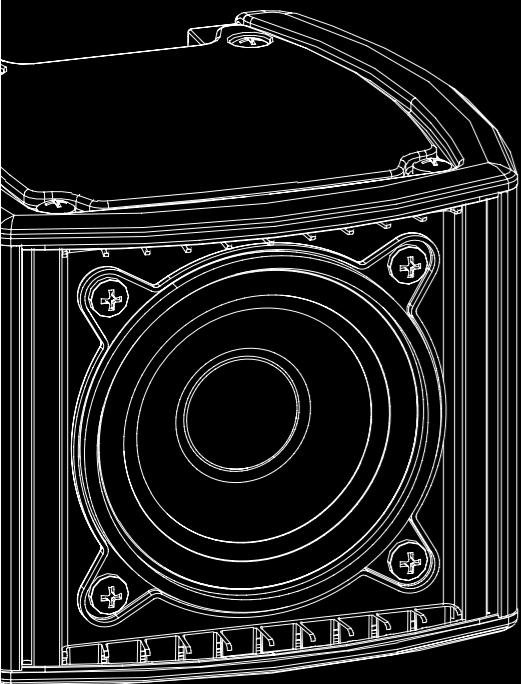


Q-3-T / Q-23-T / Q-43-T
Q-83-T / Q-8 / Q-10 / Q-10A

Quantum series



SOUND WITH SOUL

Quantum Series | **Overview**

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Quantum Series | **Declaration of conformity**

DAS Audio Group, S.L.

C/ Islas Baleares, 24 - 46988 - Pol. Fuente del Jarro - Valencia. España (Spain).

Declares that Quantum series:

Abide by essential objectives relating Directives:

- Low Voltage 2014/35/UE
- EMC 2014/30/UE
- RoHS 2011/65/UE
- WEEE 2012/19/UE

In accordance with Harmonized European Norms:

- EN 62368-1:2014 + EN 62368-1 / AC:2015.- Audio/video, information and communication technology equipment - Part 1: Safety requirements (IEC 62368-1:2014, modified)
- EN 55032:2012.- Electromagnetic compatibility of multimedia equipment. Emission requirements.
- EN 55103-2:2009.- Electromagnetic compatibility. Product family standard for audio, video, audio-visual and entertainment lighting control apparatus for professional use. Part 2: Immunity
- EN IEC 63000:2018.- Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances.

Quantum Series | **Introduction**

The systems of the Quantum series have been developed as installation systems with high intelligibility and configurable response, ideal for spaces with complex acoustic conditions and immersive experiences. The Quantum full-range systems can be ordered in any RAL color to discretely combine with the venue decor.

It is an ideal series for applications including foreground systems in worship center facilities, museums, hotels, conference centers, shopping centers, stations, airports and music halls of medium or small size, as well as a background systems in theaters and auditoriums.

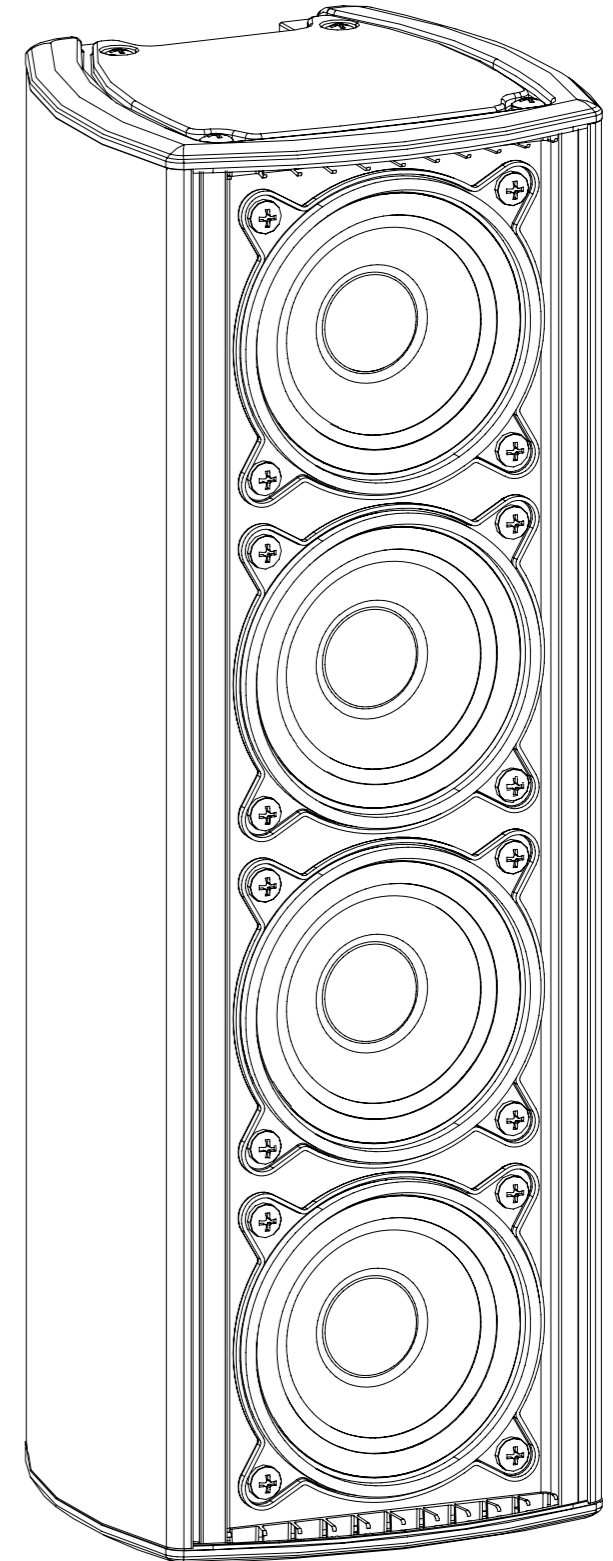
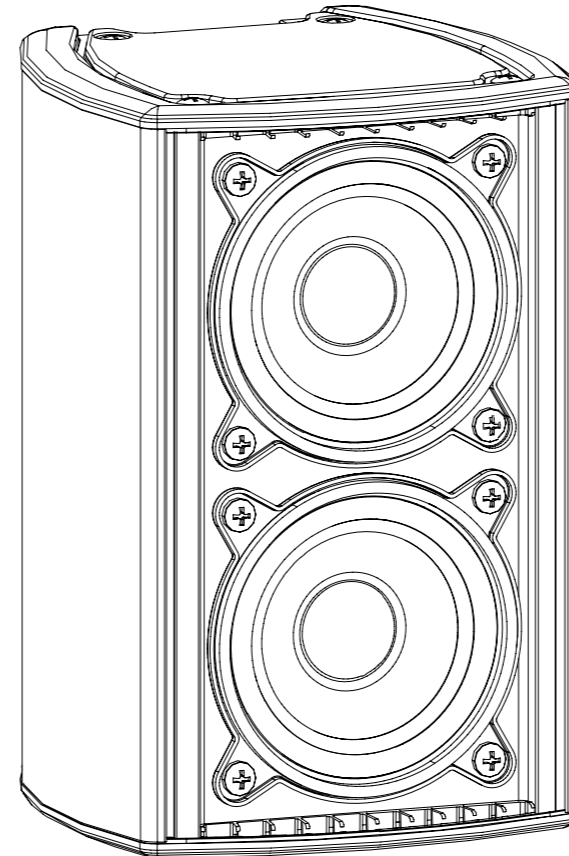
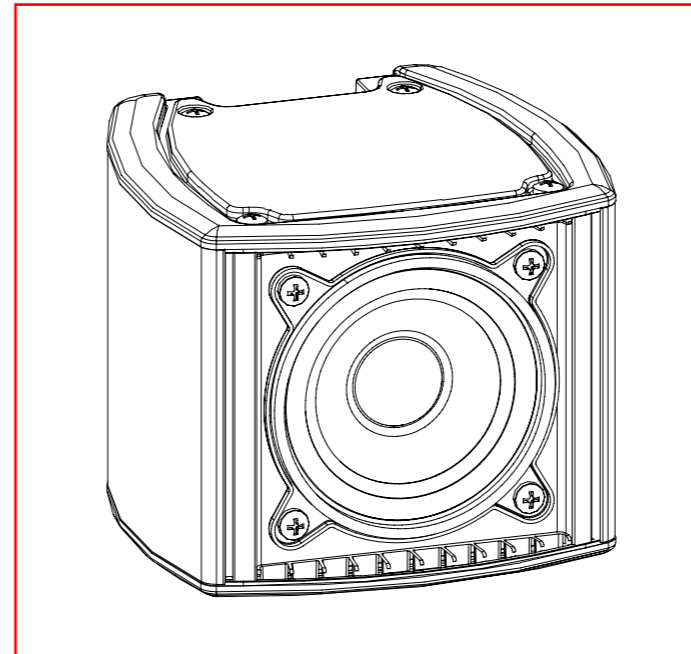
Quantum Series | Introduction

Q-3-T

The Q-3-T is a highly compact and discrete system ideal for short distances, for creating ambience, and for frontfill and underbalcony sound reinforcement. Like the other systems in the series, the Q-3 has two operating modes (voice and music) that guarantee outstanding speech intelligibility and excellent music reproduction in any acoustic environment.

The aluminum enclosure and the IP-66 kit make this a highly reliable and durable choice, available in any RAL color.

- Passive system
- Extruded aluminum enclosure
- 1 x 3", 3P full-range speaker
- Dispersion H x V: 120° x 120°
- SPL peak: 106 dB
- Multi-tap 100/70V transformer included
- Low/high-impedance operation
- Available in all RAL colors



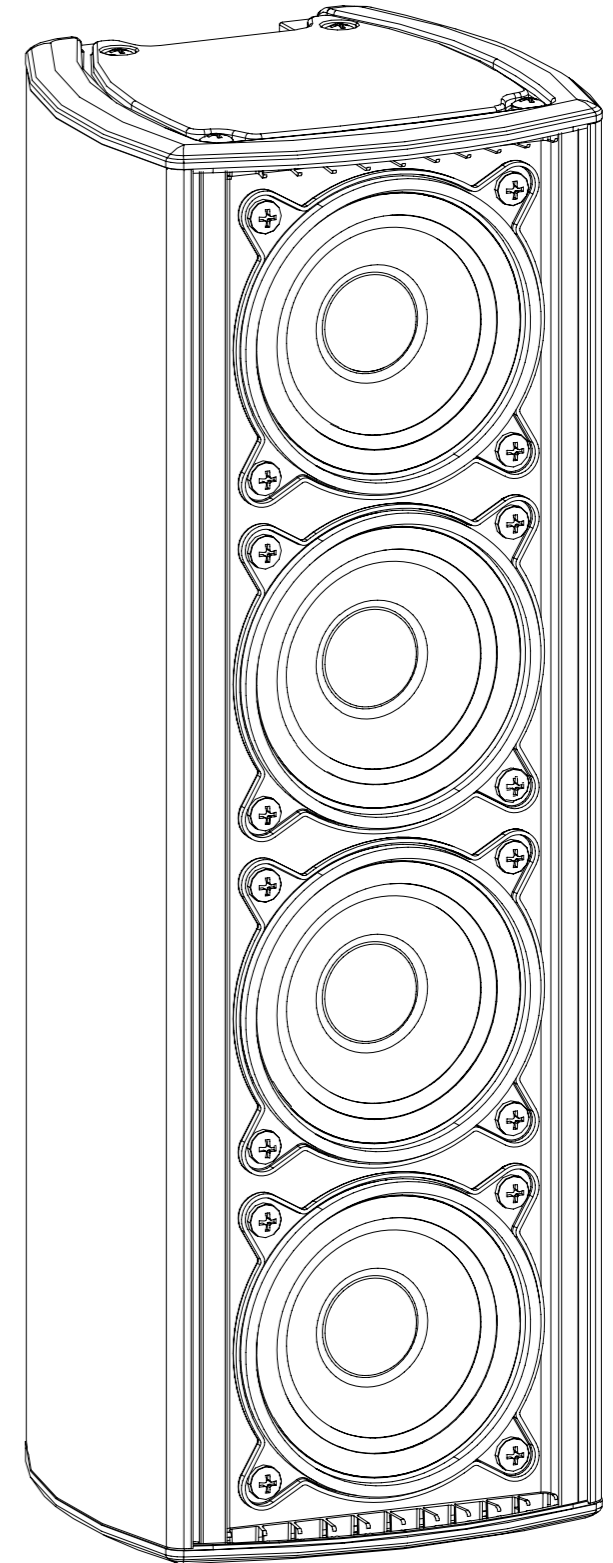
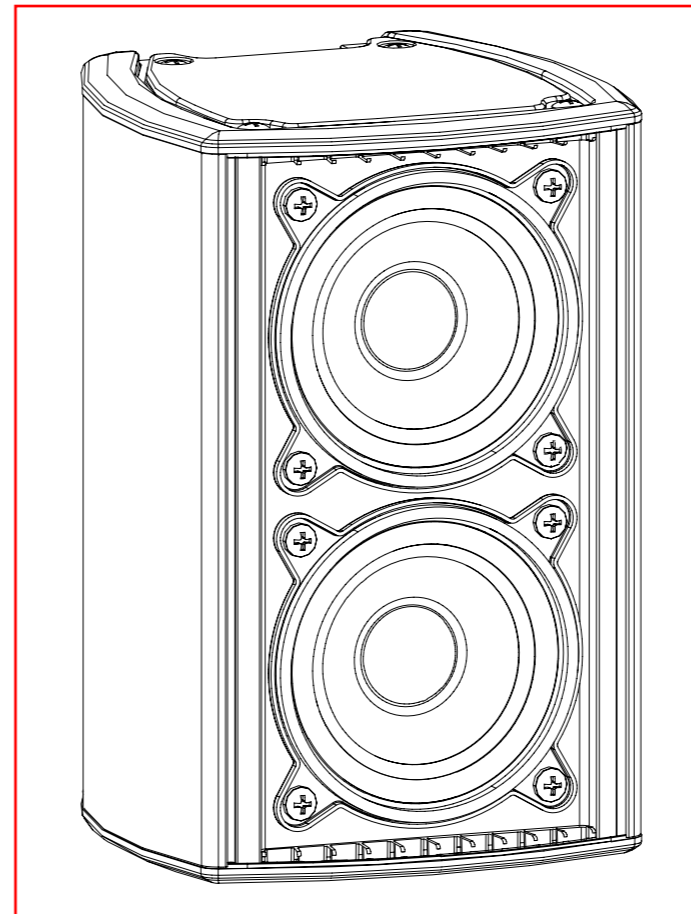
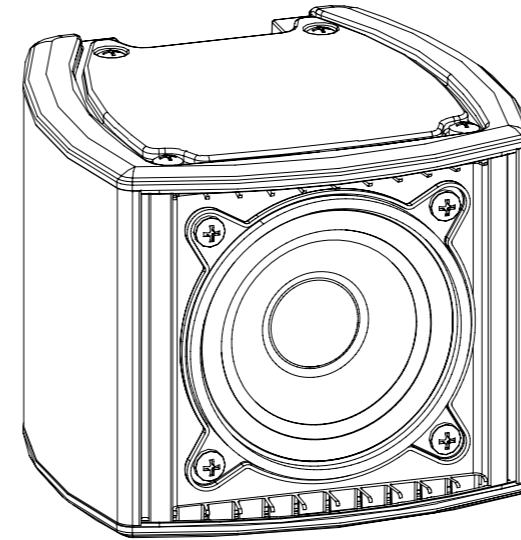
Quantum Series | Introduction

Q-23-T

The Q-23 is a highly compact and discrete system ideal for short distances, for creating ambience, and for frontfill and underbalcony sound reinforcement. Like the other systems in the series, the Q-23 has two operating modes (voice and music) that guarantee outstanding speech intelligibility and excellent music reproduction in any acoustic environment.

The aluminum enclosure and the IP-66 kit make this a highly reliable and durable choice, available in any RAL color.

- Passive system
- Extruded aluminum enclosure
- 2 x 3", 3P16 full-range speaker
- Dispersion H x V: 120° x 70°/90°
- SPL peak: 112 dB
- Multi-tap 100/70V transformer included
- Low/high-impedance operation
- Available in all RAL colors



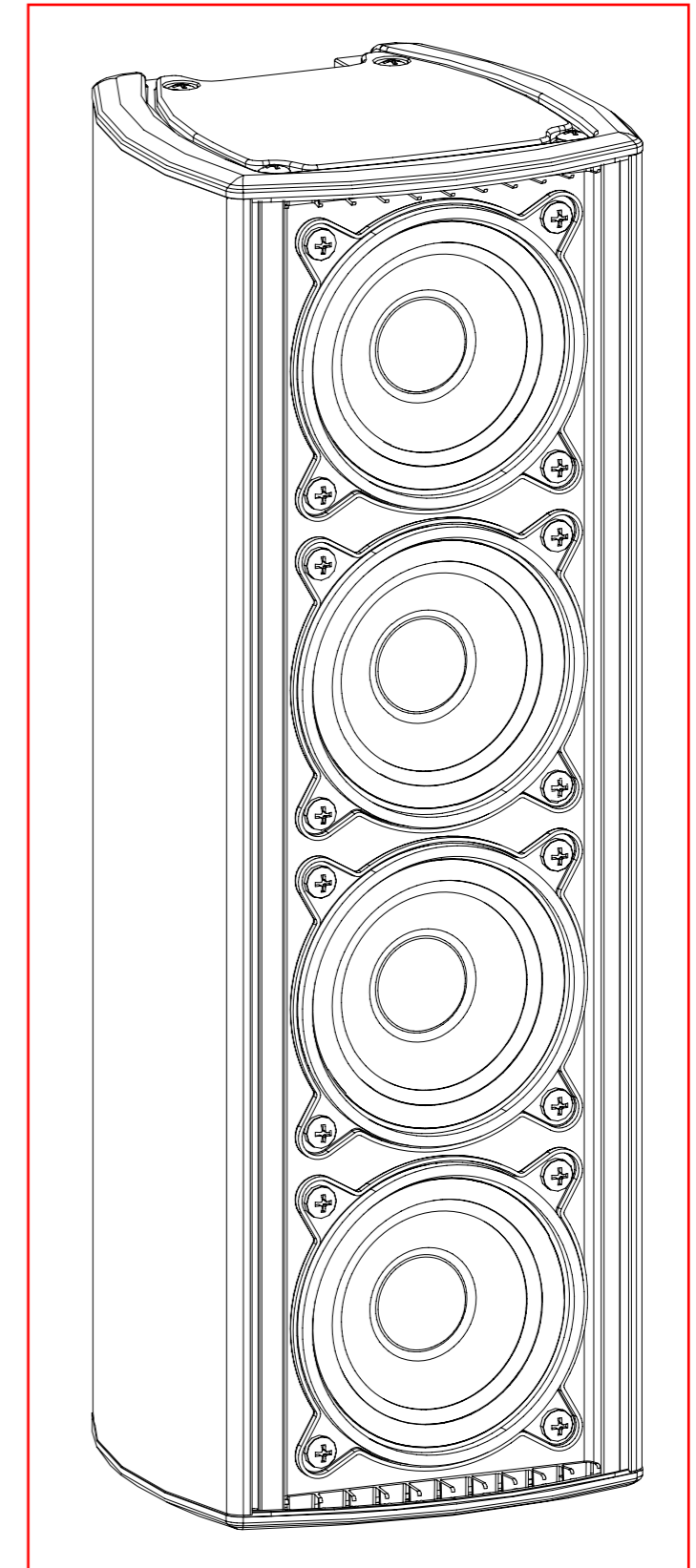
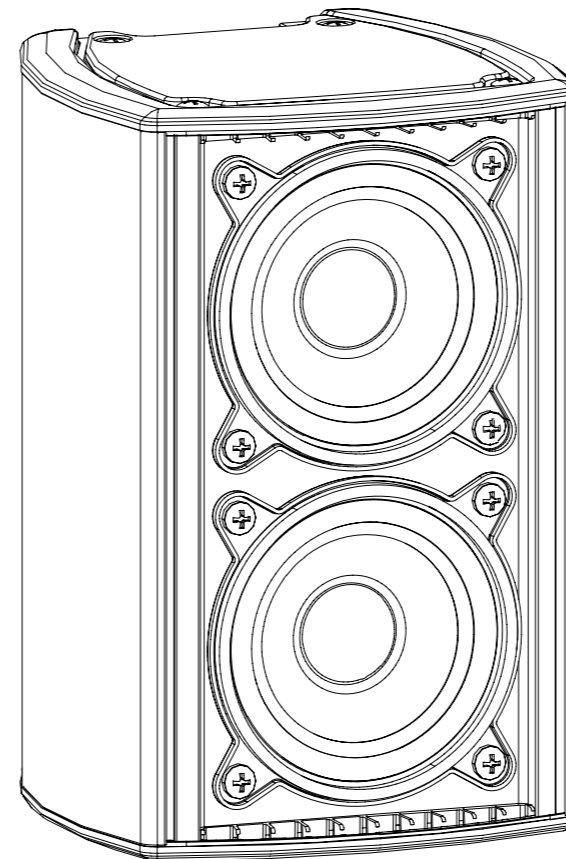
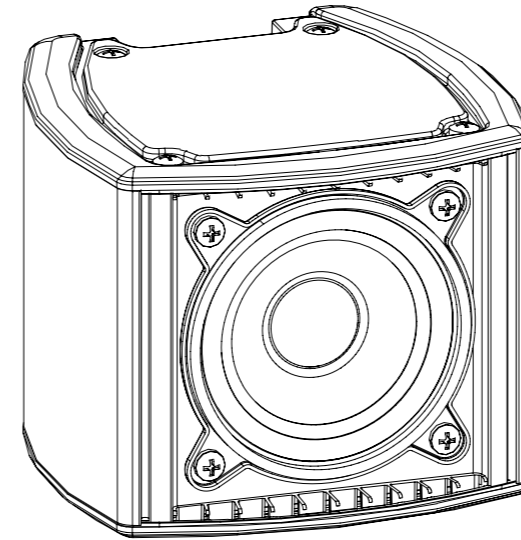
Quantum Series | Introduction

Q-43-T

This system is designed for small- and mid-sized venues. The vertical dispersion selection by means of the system integrated filter (30°/45°) makes it possible to control the system's dispersion lobe in the vertical plane and thus reduce the reverb, improving intelligibility in spaces such as cultural centers, museums, conference rooms...all while delivering superb music reproduction.

The aluminum structure and the IP-66 kit make it a highly reliable and resistant choice, available in any RAL color.

- Passive system
- Extruded aluminum enclosure
- 4 x 3", 3P16 full-range speaker
- Dispersion H x V: 120° x 30°/45°
- SPL peak: 118 dB
- Multi-tap 100/70V transformer included
- Low/high impedance operation
- Available in all RAL colors



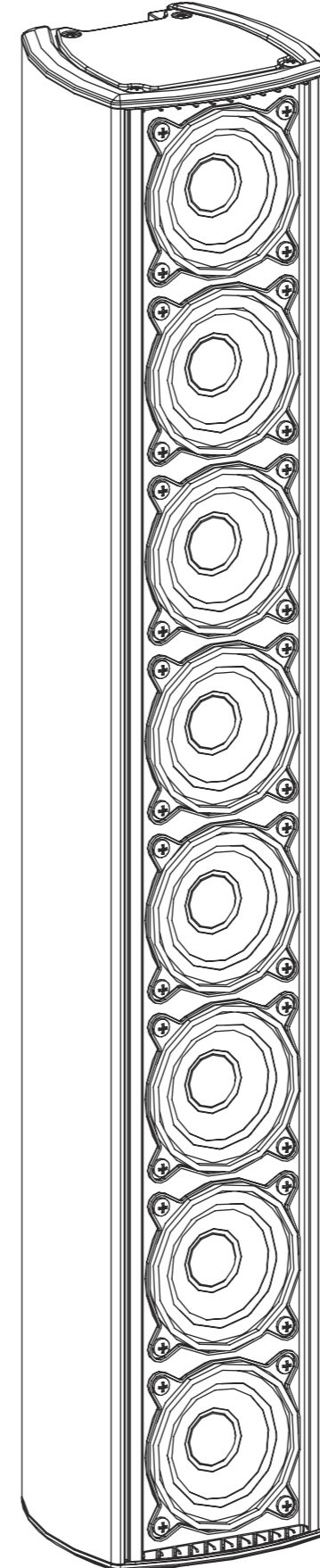
Quantum Series | **Introduction**

Q-83-T

This system is designed for small- and mid-sized venues. The narrow vertical dispersion (20°) prevents exiting reverberation field, improving intelligibility in spaces such as cultural centers, museums, conference rooms...all while delivering superb music reproduction.

The aluminum structure and the IP-66 kit make it a highly reliable and resistant choice, available in any RAL color.

- Passive system
- Extruded aluminum enclosure
- 8 x 3", 3PN16 full-range speaker
- Dispersion H x V: 120° x 20°
- SPL peak: 123 dB
- Multi-tap 100/70V transformer included
- Low/high impedance operation
- Available in all RAL colors



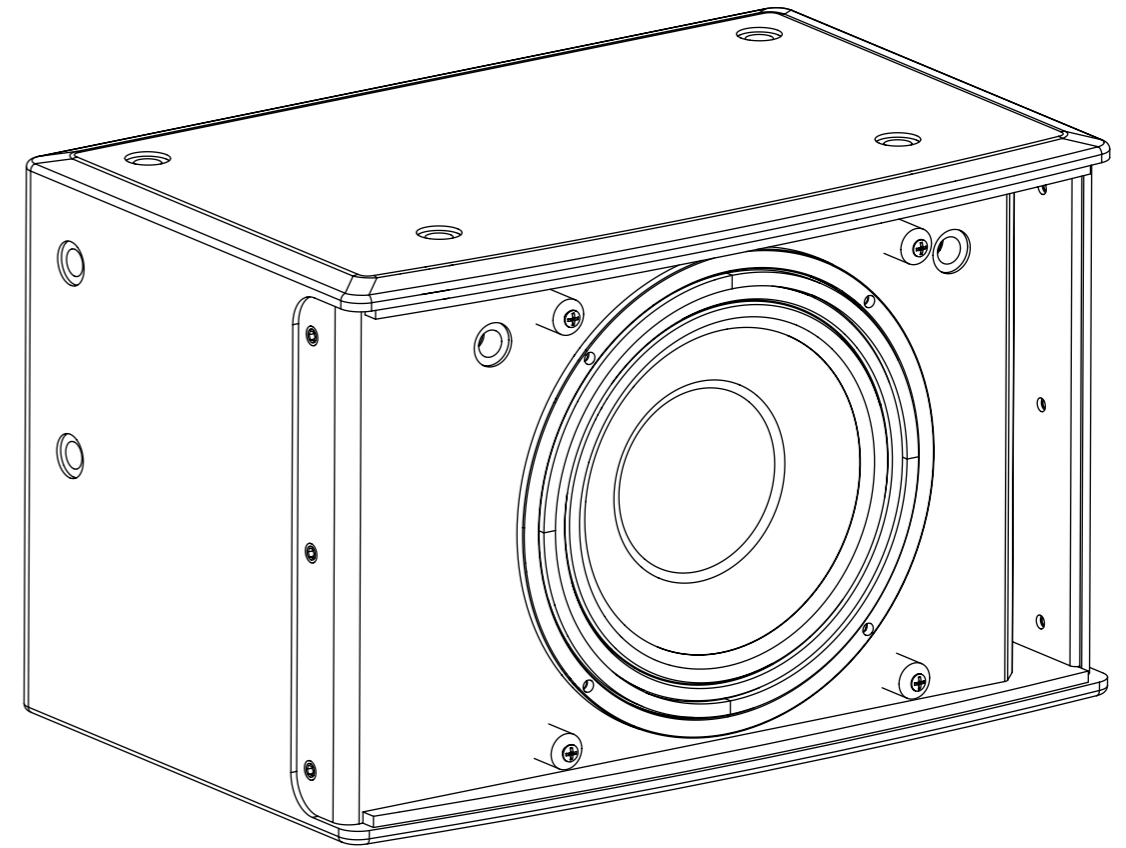
Quantum Series | **Introduction**

Q-8

This ultra-compact, low-profile subwoofer is ideal for small and medium-sized installations. Low frequency clarity and reproduction make this an unbeatable system for delivering outstanding music reproduction. Perfect match for the Q Series tops.

The connector panel provides a high-pass filtered satellite output for the Q Series tops.

- Compact subwoofer system
- Birch plywood enclosure
- 1 DAS 8FW loudspeaker
- Frequency range 50 Hz – 200 Hz



Quantum Series | **Introduction**

Q-10

This ultra compact, low-profile subwoofer is ideal for small and medium-sized installations. Low frequency clarity and reproduction make this an unbeatable system for delivering outstanding music reproduction. The perfect match for the Quantum Series tops.

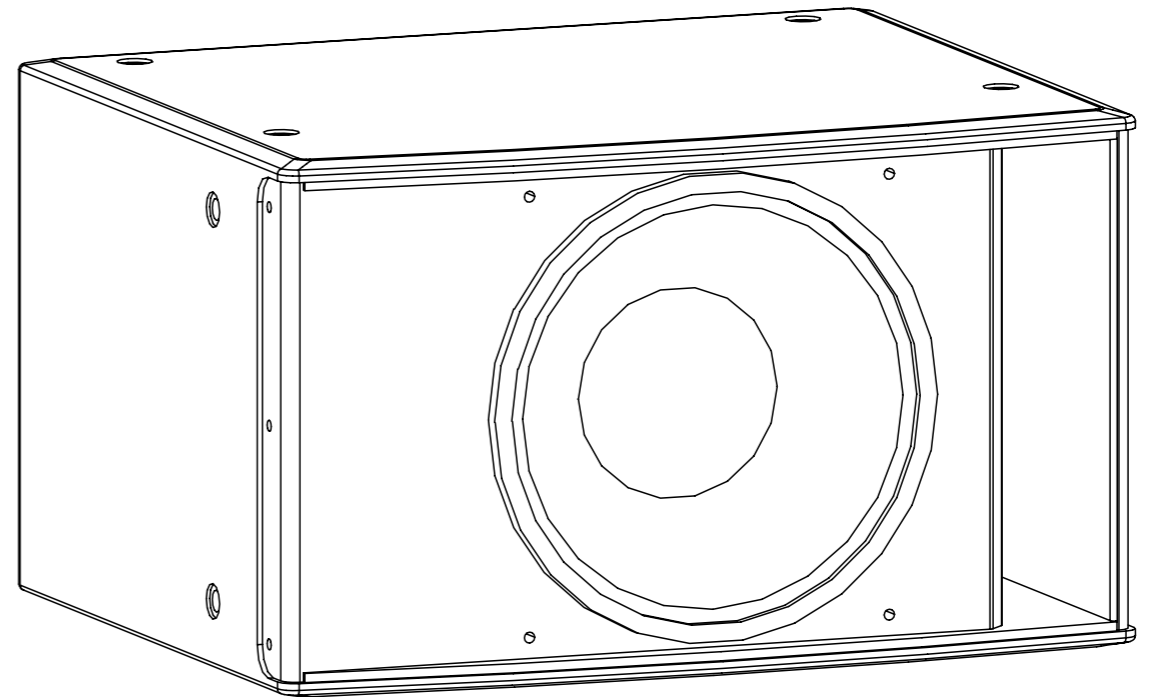
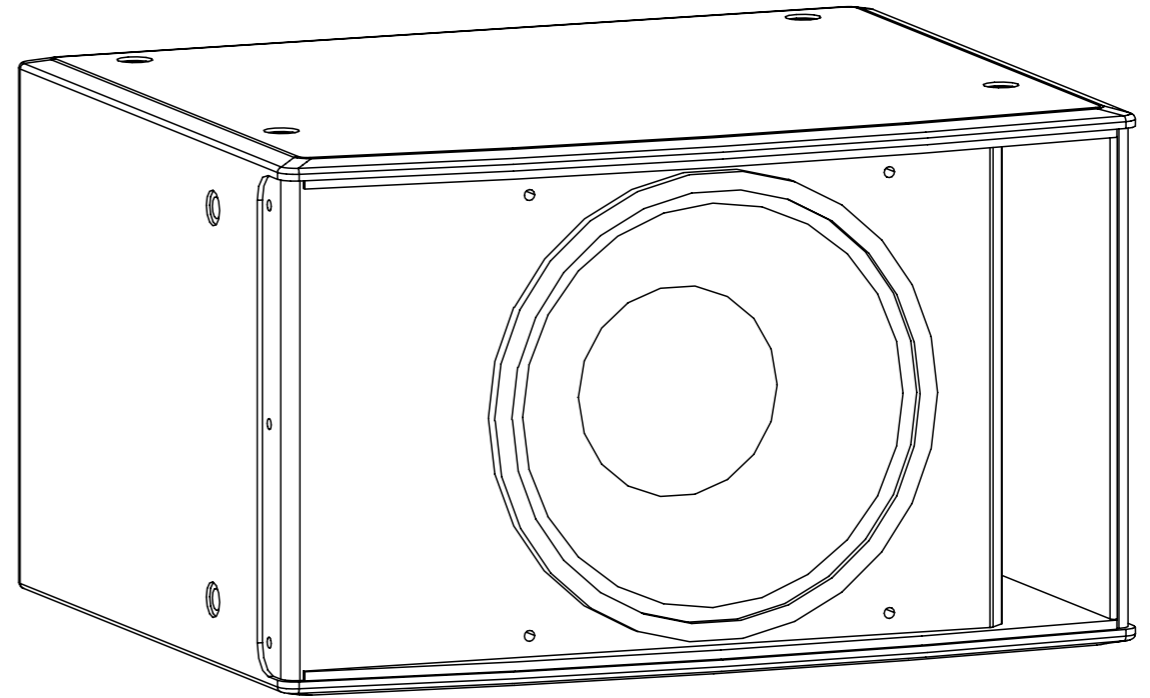
- Ultra compact passive subwoofer system
- Birch plywood enclosure
- 1 x 10", 10MG Loudspeaker
- Frequency range 40 Hz – 200 Hz

Q-10A

This powered, ultra compact, low-profile subwoofer is ideal for small- and medium-sized installations. Low frequency clarity and reproduction make this an unbeatable system for delivering outstanding music reproduction. The perfect match for the Quantum Series tops.

The system is equipped with a class D switched-mode amplifier, with two signal inputs, variable low-pass filter, and EQ adjustment (deep/loud) with DAScontrol technology.

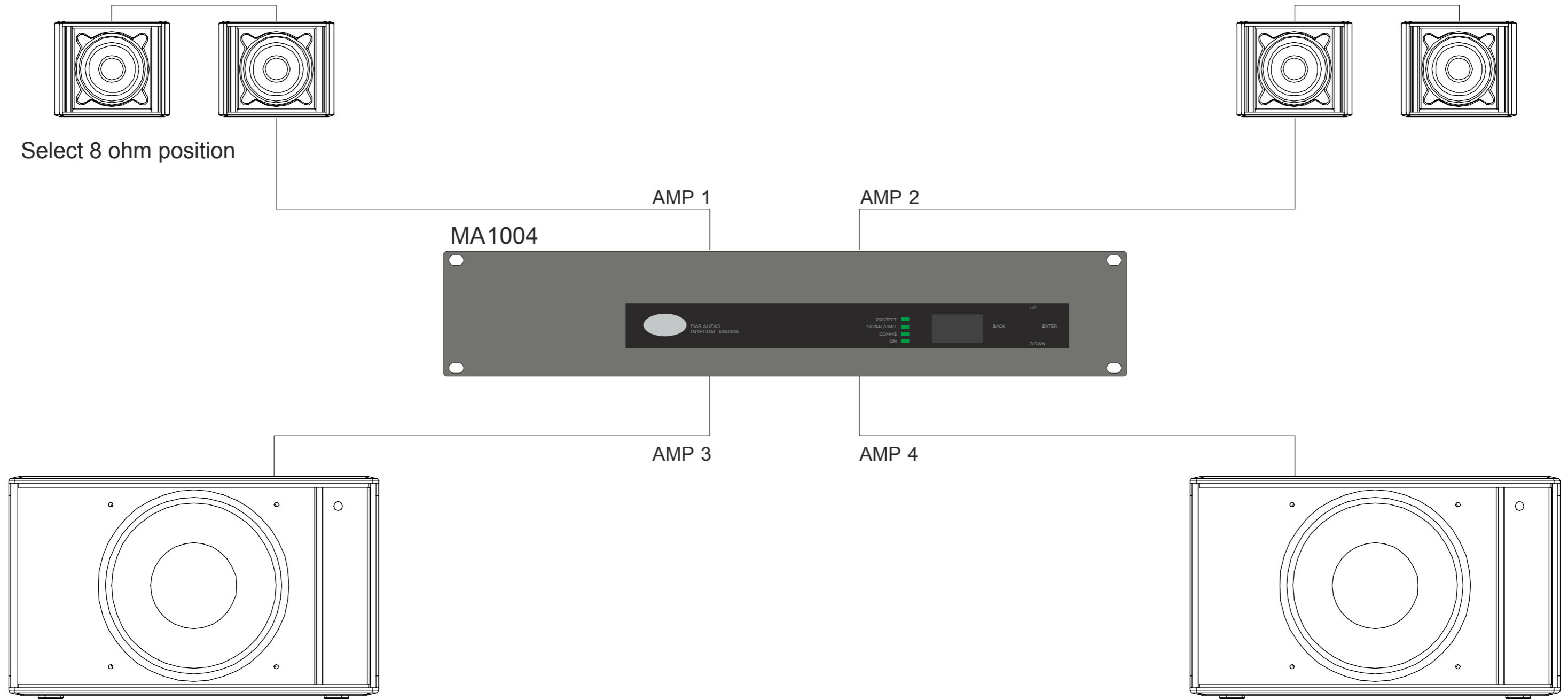
- Ultra compact passive subwoofer system
- Birch plywood enclosure
- 1 x 10", 10MG Loudspeaker
- Frequency range 40 Hz – 200 Hz



Quantum Series | **Configurations**

Quantum Q-3-T + Q-8 + MA1004

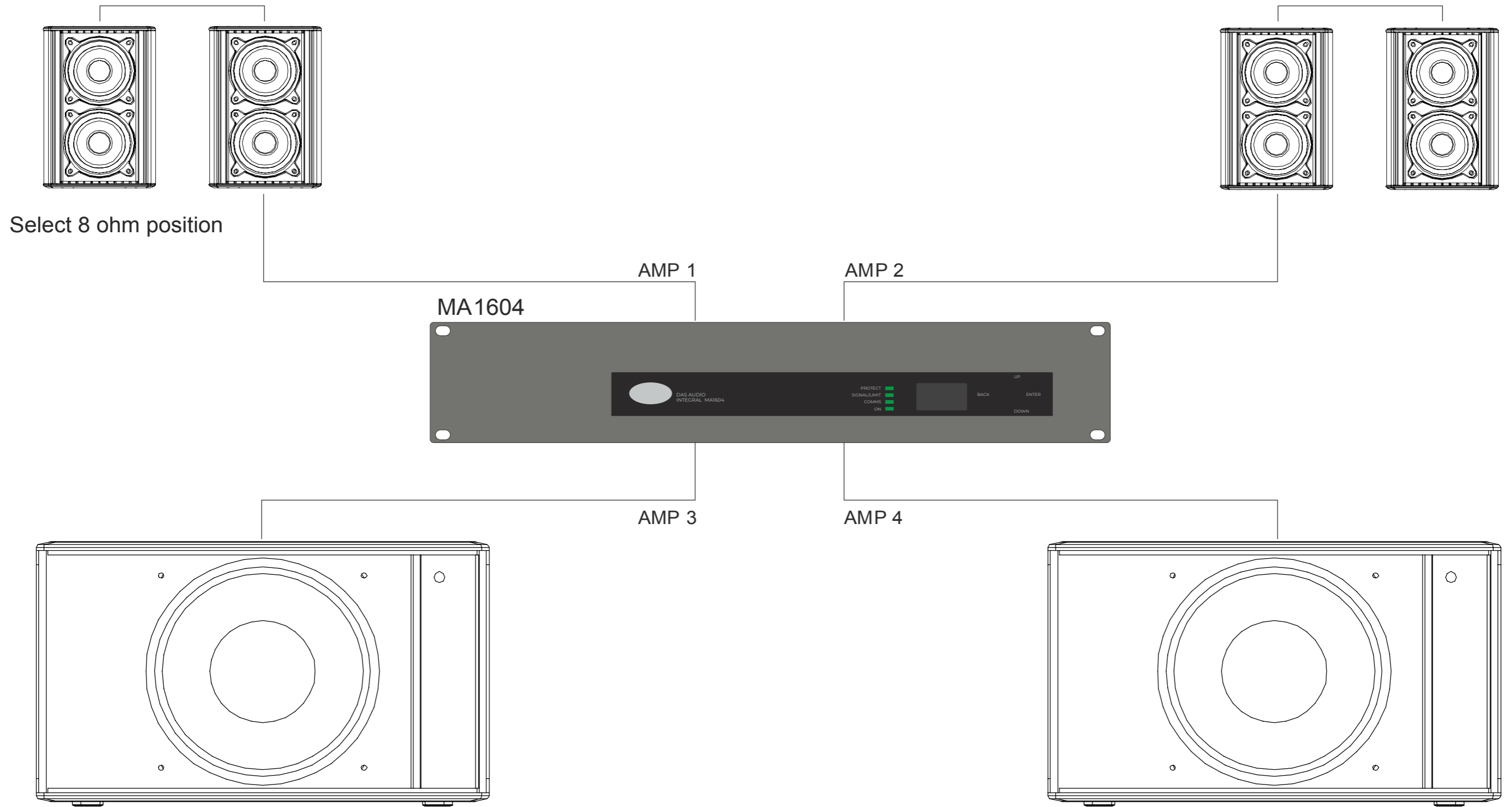
All Amplifier Channels in Stereo Mode for low impedance operation



Quantum Series | Configurations

Quantum Q-23-T + Q-10 + MA1604

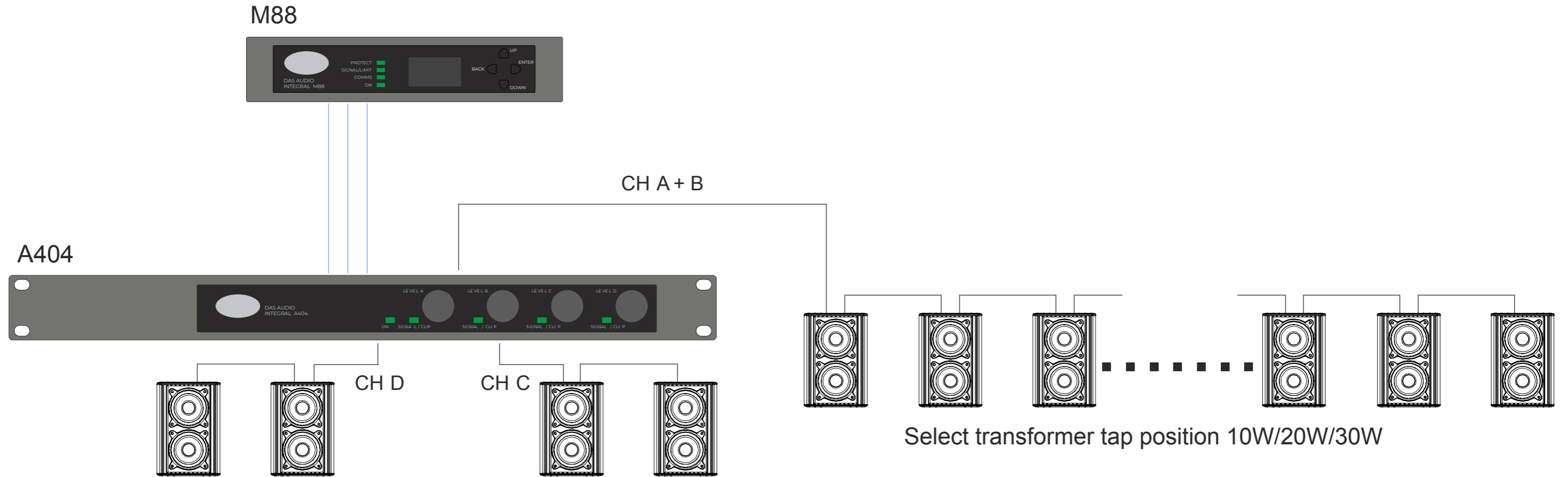
All Amplifier Channels in Stereo Mode for low impedance operation



Quantum Series | Configurations

Quantum Q-23-T + A404 + M88

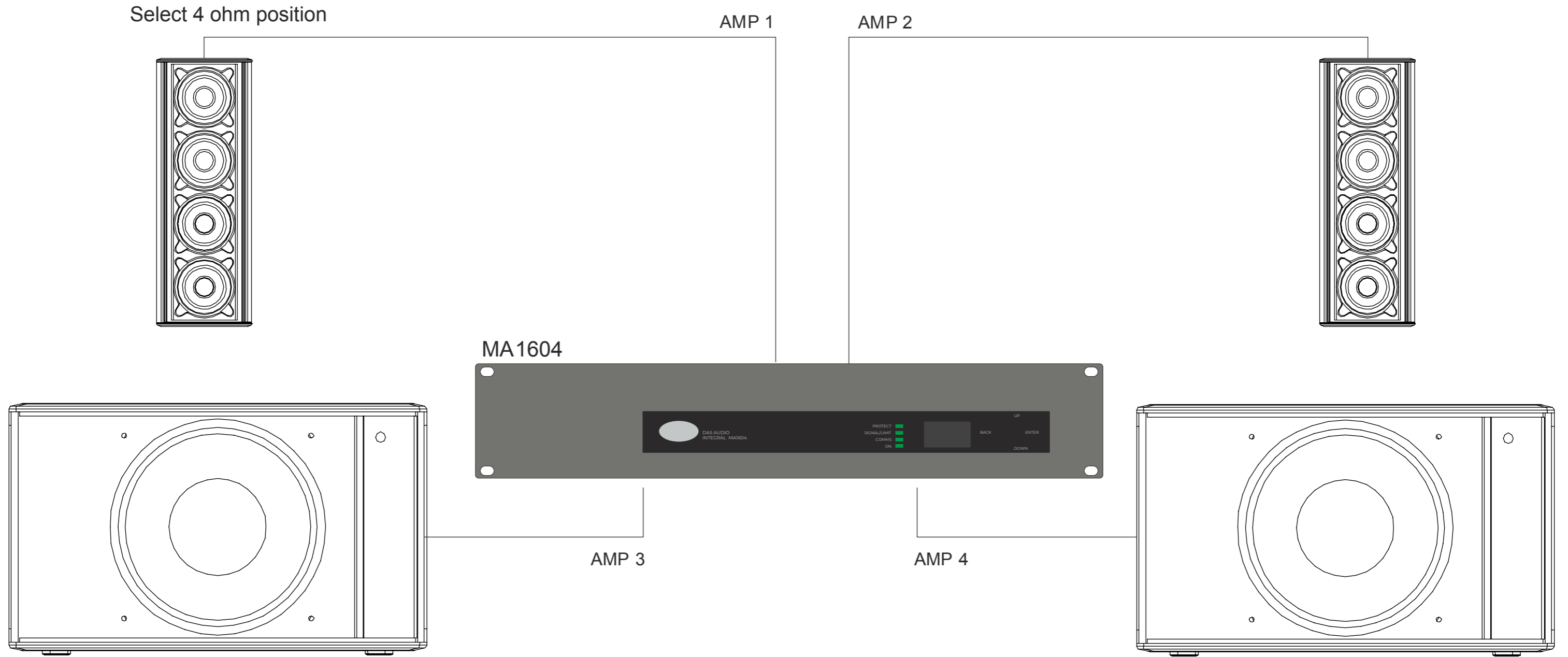
Two Amplifier Channels in Bridge Mode for high impedance operation:
Max power available 400W per channel (20 x Q-23-T at 20W)



Quantum Series | **Configurations**

Quantum Q-43-T + Q-10 + MA1604

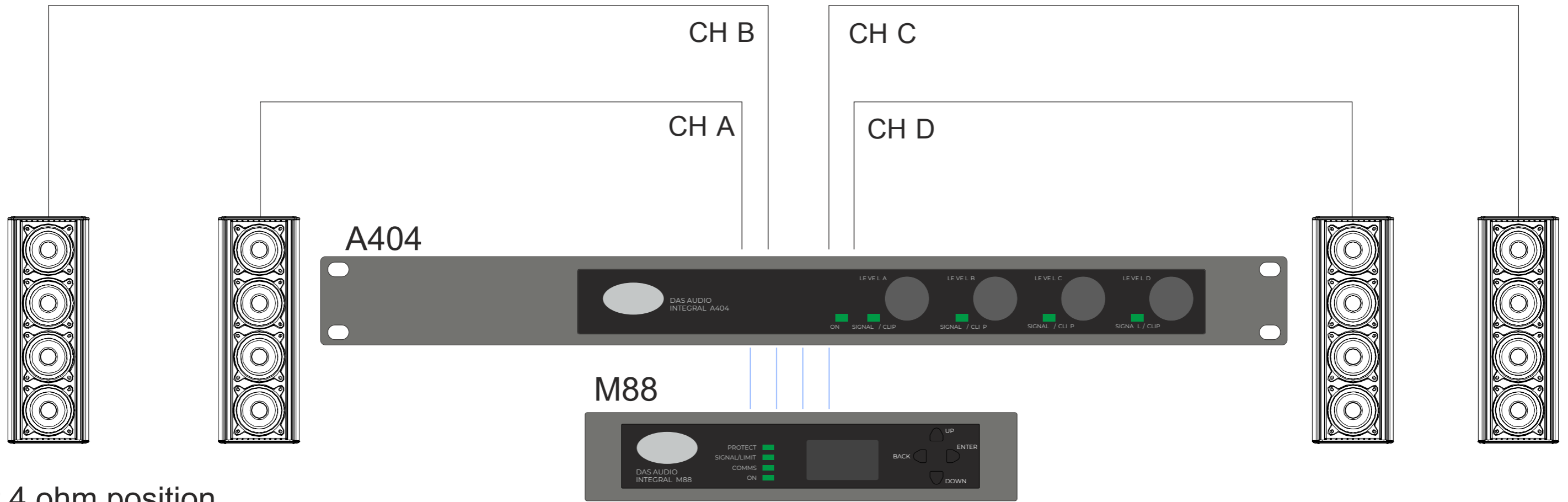
All Amplifier Channels in Stereo Mode for low impedance operation



Quantum Series | Configurations

Quantum Q-43-T + A404 + M88

All Amplifier Channels in Stereo Mode for low impedance operation

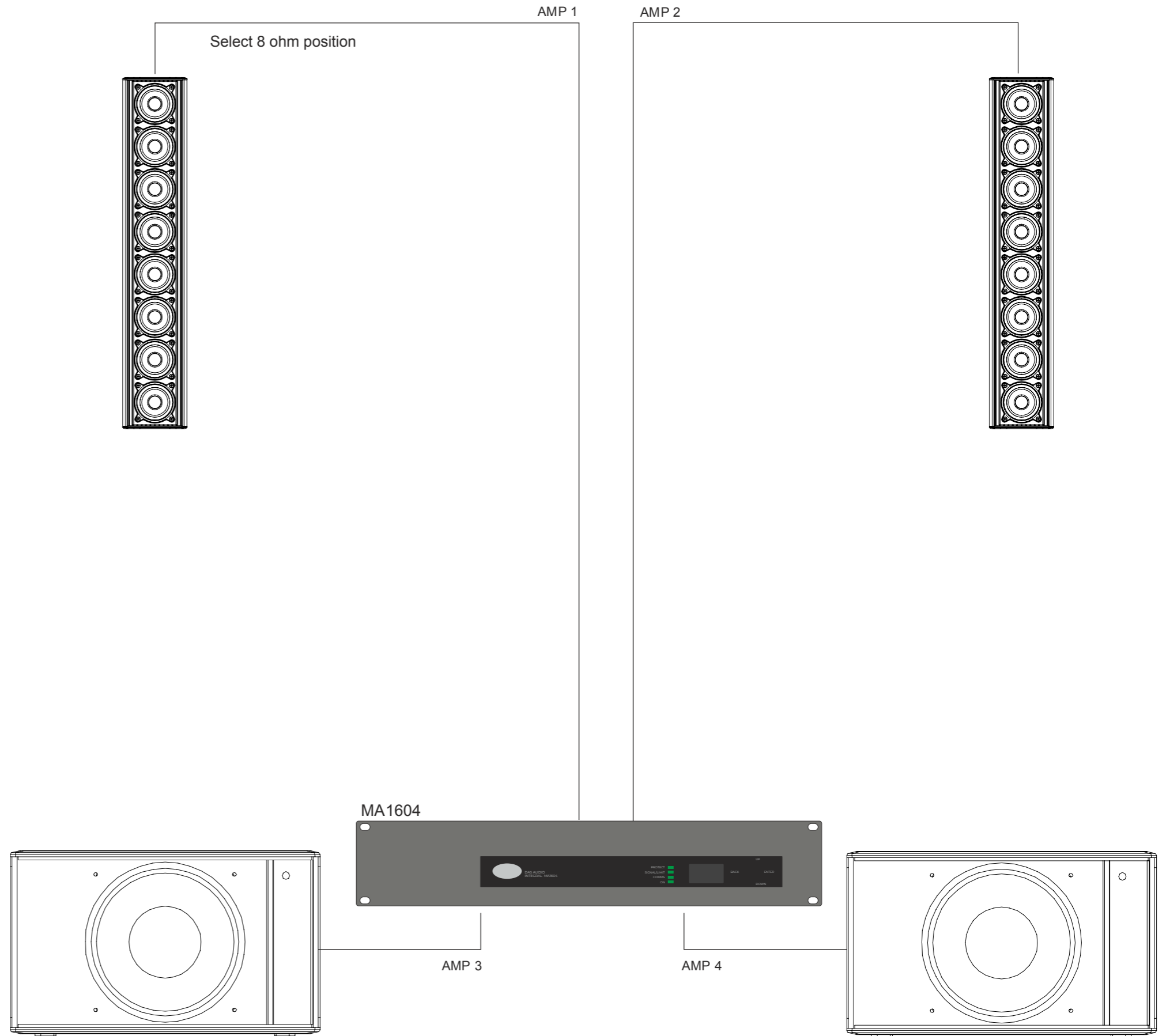


Select 4 ohm position

Quantum Series | Configurations

Quantum Q-83-T + Q-10 + MA1604

All Amplifier Channels in Stereo Mode for low impedance operation



Quantum Series | Specifications

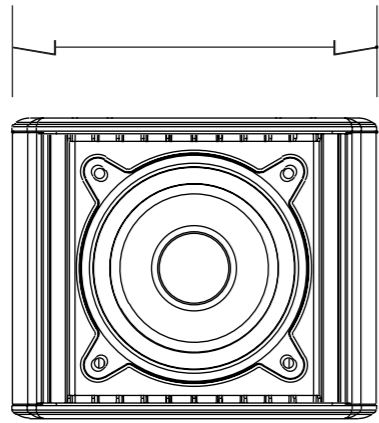
Model	Q-3-T	Q-23-T	Q-43-T	Q-83-T
RMS Power Handling	20 W	40 W	80 W	160 W
Peak Power Handling	80 W	160 W	320 W	640 W
Frequency Range (-10 dB)	150 Hz - 20 kHz	150 Hz - 20 kHz	150 Hz - 20 kHz	150 Hz - 20 kHz
On-axis Sensitivity 1 W / 1 m	87 dB SPL	90 dB SPL	93 dB SPL	95 dB SPL
Rated Peak SPL at 1 m	106 dB	112 dB	118 dB	123 dB
Horizontal Coverage (-6 dB)	120°	120°	120°	120°
Vertical Coverage (-6dB)	120°	Switchable: 90° -70°	Switchable: 45° -30°	20°
Nominal Impedance	8 ohms	8 ohms	4 ohms	8 ohms
Transformer Taps 70V	3.5 W - 7.5 W - 10 W	5 W - 10 W - 15 W	7.5 W - 15 W - 25 W	12.5 W - 25 W - 50 W
Transformer Taps 100V	7.5 W - 15 W - 20 W	10 W - 20 W - 30 W	15 W - 30 W - 50 W	25 W - 50 W - 100 W
Connectors	4-way Phoenix 2.54 mm	4-way Phoenix 2.54 mm	4-way Phoenix 2.54 mm	Ceramic Barrier Strip
IP Rating	IP66	IP66	IP66	IP66
Transducers / Replacement parts	1x 3P / 3P	2x 3P16 / 3P16	4x 3P16 / 3P16	8x 3PN16 / 3PN16
Enclosure Material	Aluminum	Aluminum	Aluminum	Aluminum
Finish	Paint	Paint	Paint	Paint
Color	Black,White	Black,White	Black,White	Black,White
Dimensions (H x W x D) [mm]	105 x 125 x 125	188 x 125 x 125	355 x 125 x 125	685 x 125 x 130
Dimensions (H x W x D) [in]	4.1 x 4,9 x 4,9	7.4 x 4.9 x 4,9	14 x 4.9 x 4.9	27 x 4.9 x 5.1
Weight [kg]	1.6	2.8	5.3	7.8
Weight [lb]	3.52	6.16	11.66	17.16
Accessories	AXC-AT2 AXC-Q AXC-ZT2 AXW-4 AXW-5 JP-Q KIT-IP-Q	AXC-AT2 AXC-Q AXC-ZT2 AXS-Q AXW-4 AXW-5 JP-Q KIT-IP-Q	AXC-AT2 AXC-Q AXC-ZT2 AXW-4 AXW-5 JP-Q KIT-IP-Q	AXC-AT2 AXC-Q AXW-6 JP-Q KIT-IP-Q

Model	Q-8	Q-10
RMS Power Handling	200 W	250 W
Peak Power Handling	800 W	1000 W
Frequency Range (-10 dB)	50 Hz - 200 Hz	40 Hz - 200 Hz
On-axis Sensitivity 1 W / 1 m	92 dB SPL	94 dB SPL
Rated Peak SPL at 1 m	118 dB	121 dB
Horizontal Coverage (-6 dB)	-	-
Vertical Coverage (-6dB)	-	-
Nominal Impedance	8 ohms	8 ohms
Connectors	Covered Barrier Strip	2 x NL4 Speakon
IP Rating	-	-
Transducers / Replacement parts	1x 8FW / GM-8FW	1x 10MG / GM-10MG
Enclosure Material	Birch Plywood	Birch Plywood
Finish	Paint	Paint
Color	Black,White	Black,White
Dimensions (H x W x D) [mm]	260 x 405 x 265	305 x 505 x 415
Dimensions (H x W x D) [in]	10.2 x 15.9 x 10.4	12 x 19.9 x 16.3
Weight [kg]	9	16
Weight [lb]	19.8	35.2
Accessories		ANL-2
		AXC-AT
		AXU-Q10
		SPK4-1
		SPK4-10 SPK4-20

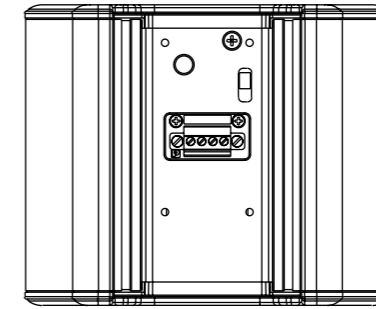
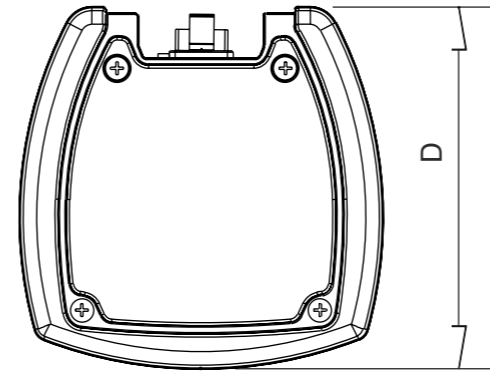
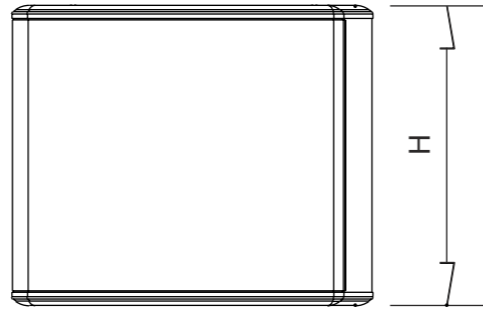
Model	Q-10A
Nominal Amplifier Power	250 W Continuous
Nominal Amplifier Power	500 W Peak
Input type	Balanced Differential Line
Frequency Range (-10 dB)	40Hz - 200Hz
Sensitivity	Line: 1.92V (+8dBu)
Rated Maximum Peak at 1m	121 dB
AC Power Requirements 1/3 Power (Pink Noise)	115V, 2.8A, 50 Hz / 60 Hz 230V, 1.4A, 50 Hz / 60 Hz
Input Impedance	20 kohms
Connectors	Audio INPUT: 2x Female
Transducers/Replacement Parts	10MG / GM-10MG
Enclosure Material	Birch Plywood
Finish	Paint
Color	Black,White
Dimensions (H x W x D) [mm]	305 x 505 x 415
Dimensions (H x W x D) [in]	12 x 19.9 x 16.3
Weight [kg]	17
Weight [lb]	37.4
Accessories	ANL-2
	AXC-AT
	AXU-Q10

Quantum Series | Line drawings

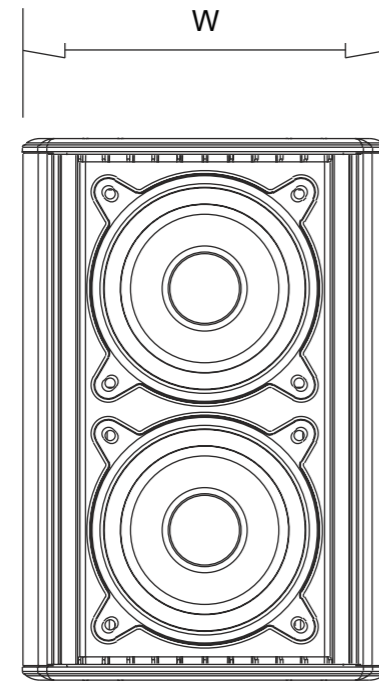
Q-3-T



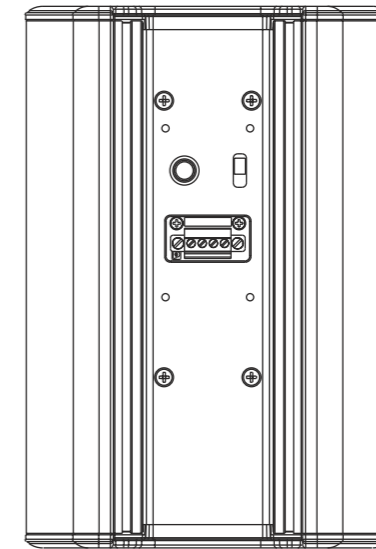
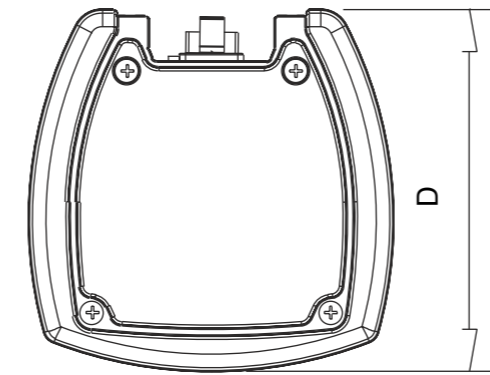
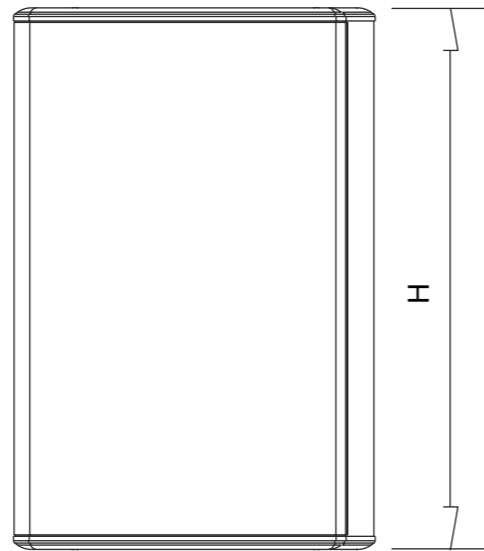
W



Q-23-T

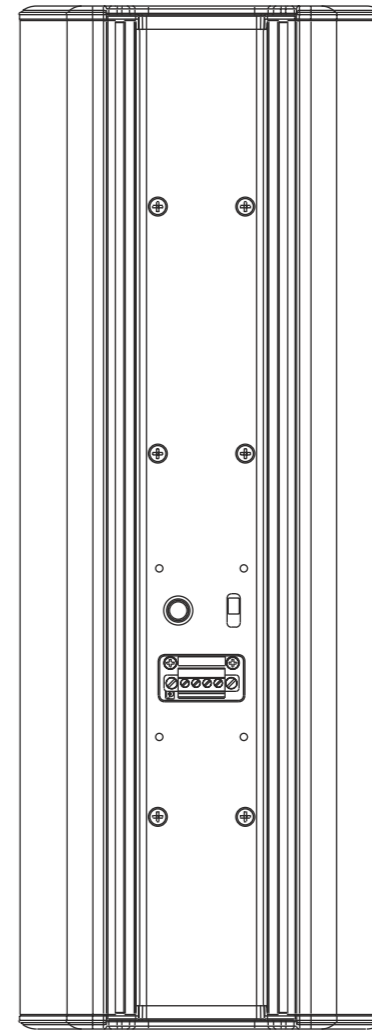
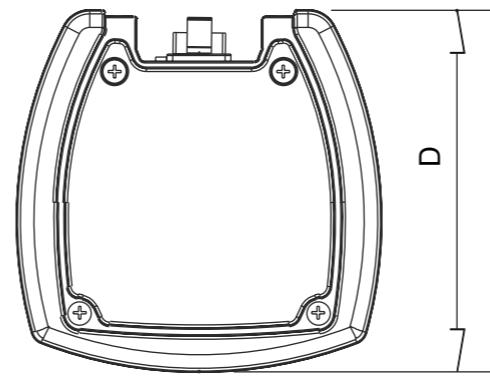
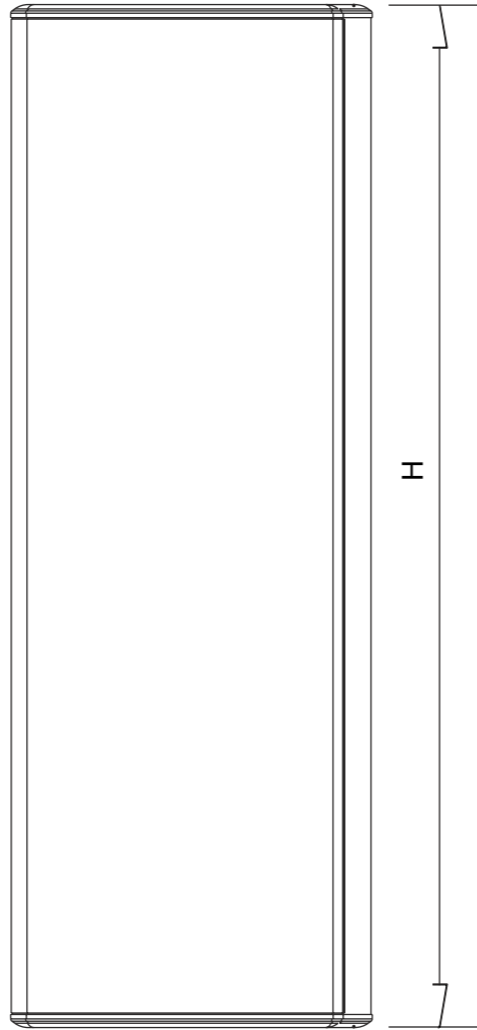
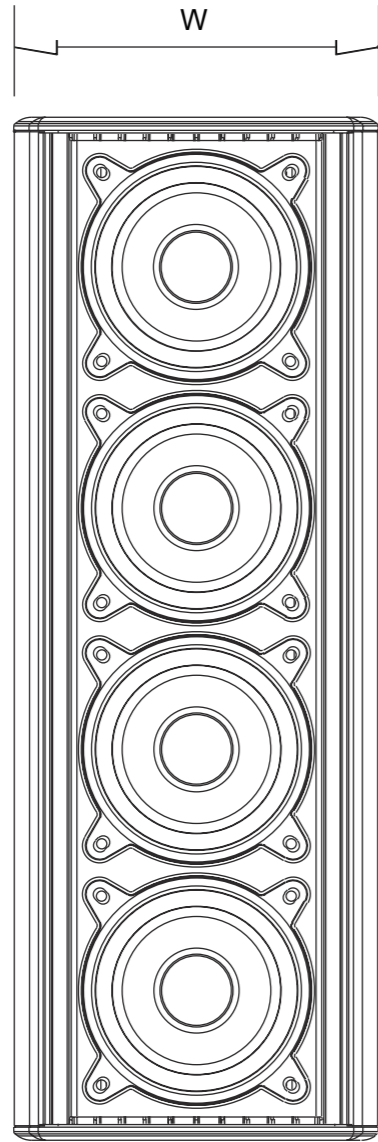


W



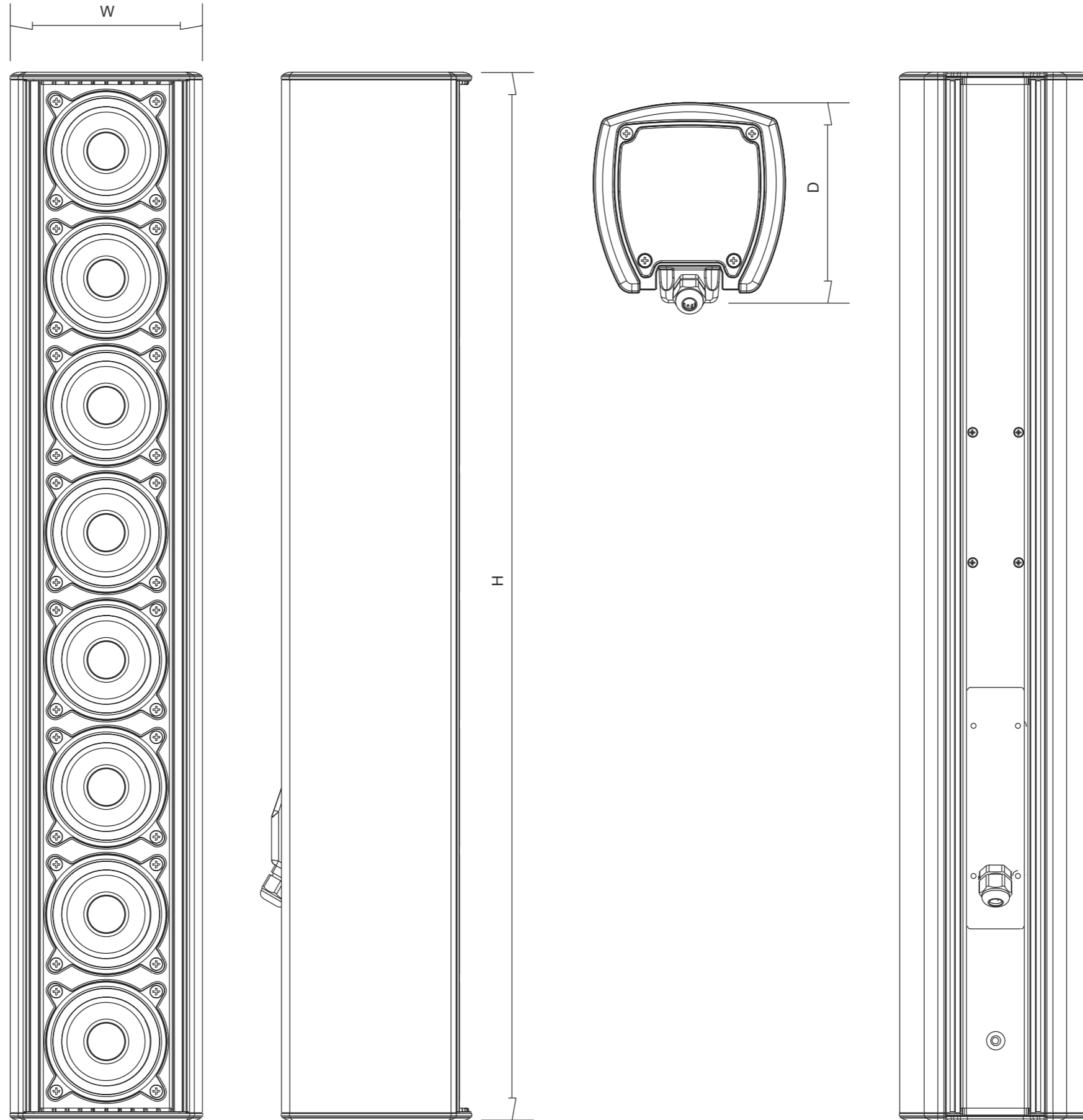
Quantum Series | Line drawings

Q-43-T



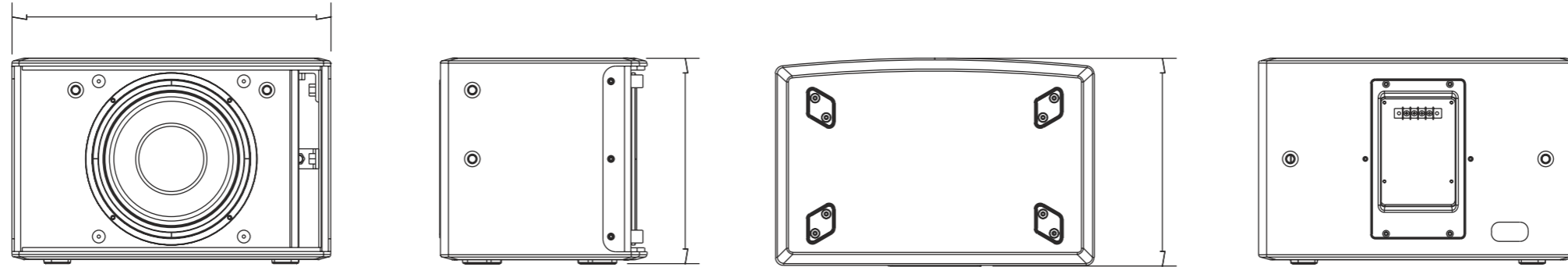
Quantum Series | Line drawings

Q-83-T

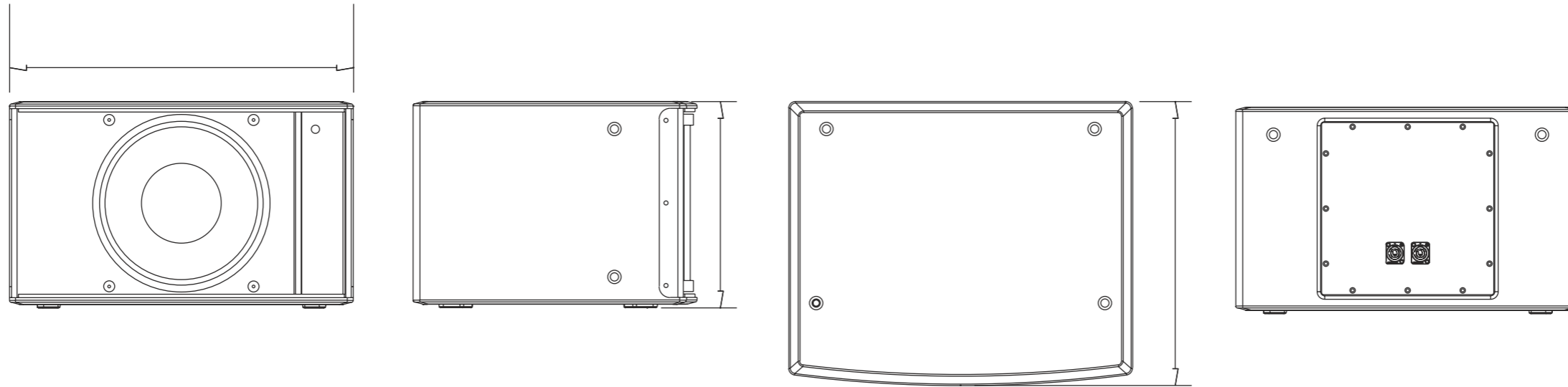


Quantum Series | Line drawings

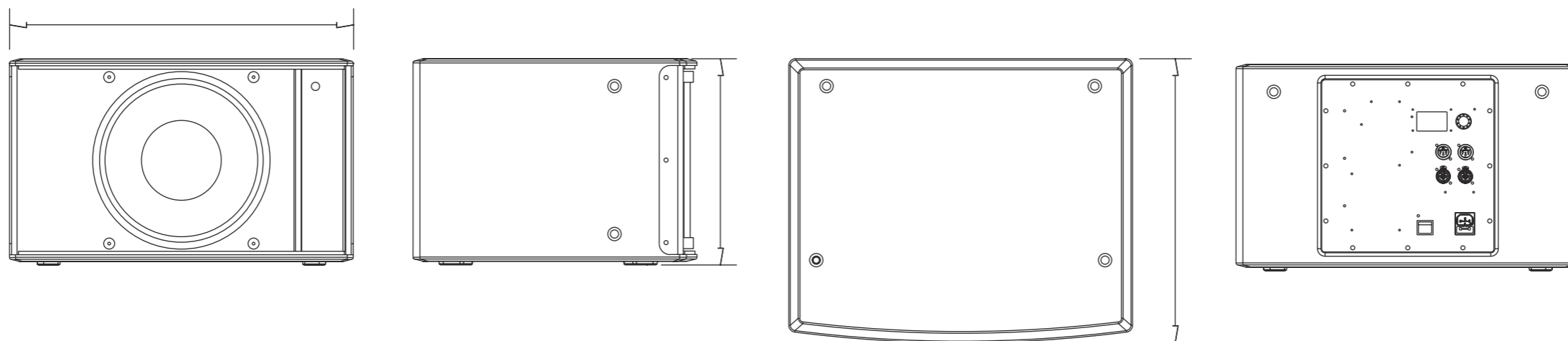
Q-8



Q-10



Q-10A



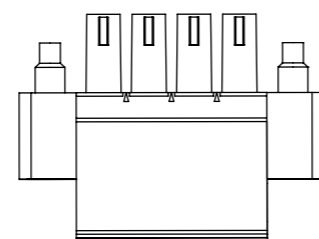
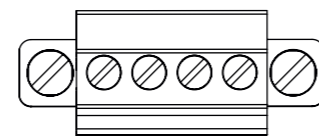
Quantum Series | Installation

Connectors

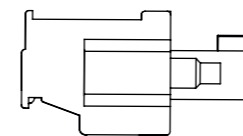
The Quantum series models of DAS have been designed for an easy connection. The Q-3-T, Q-23-T, Q-43-T and Q-83-T models offer connectors with screws to be easy fixed and to use in the most installations.

The polarity of the contacts, as well as other important indications for their correct connection, are indicated on the labels.

Model: **Q-3-T**
DAS Audio Group, S.L.
Made in Spain



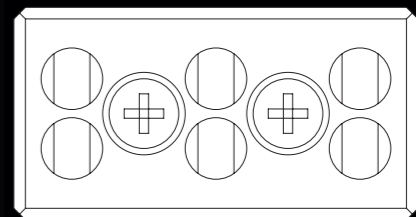
Model: **Q-23-T**
DAS Audio Group, S.L.
Made in Spain



Model: **Q-43-T**
DAS Audio Group, S.L.
Made in Spain

Connector included in the device for easy connection. Pay attention to the polarity indicated on the label when screwing the connection cable.

Model: **Q-83-T**
DAS Audio Group, S.L.
Made in Spain



Quantum Series | Installation

A complex crossover network provides the needed attenuation and phase shift to the Q-23-T / Q-43-T speakers in order to modify the vertical radiation pattern of the system.

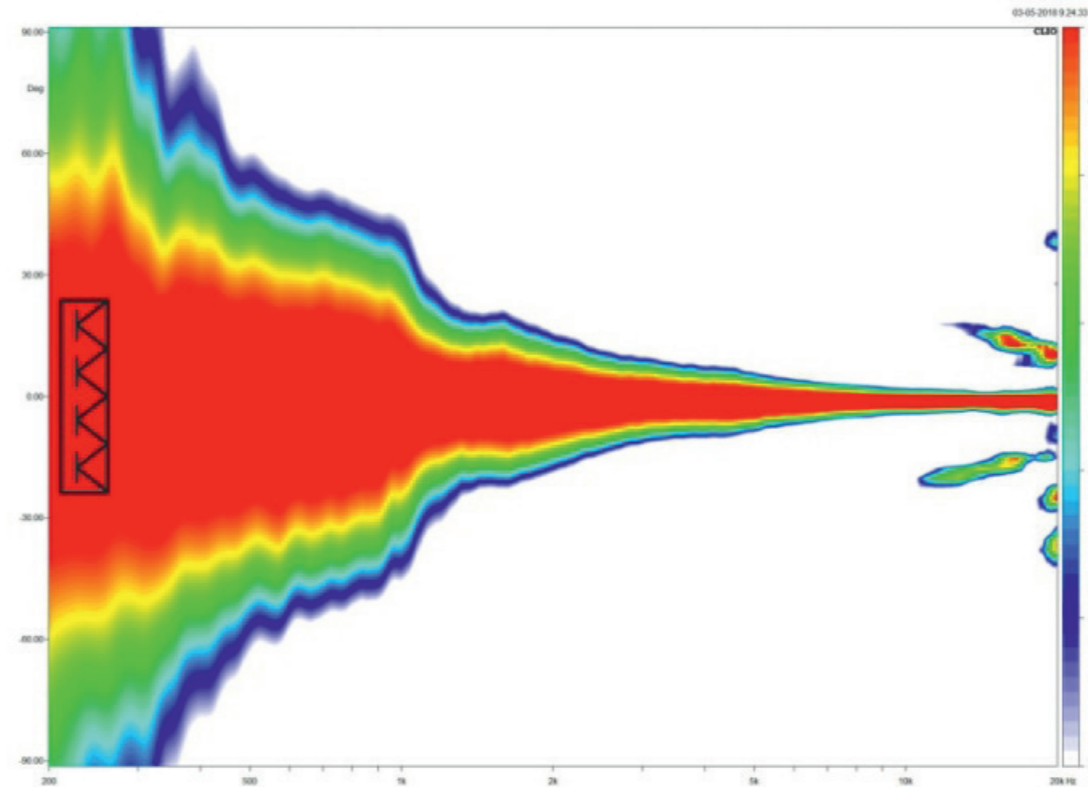
A switch allows the user to choose between Narrow and Wide modes depending on the acoustical environment, the application and the voicing preferences.

The Narrow mode drives all drivers with the same signal in parallel to get a narrow pattern and a mid-high enhanced response, to be used in reverberant spaces where good intelligibility is needed.

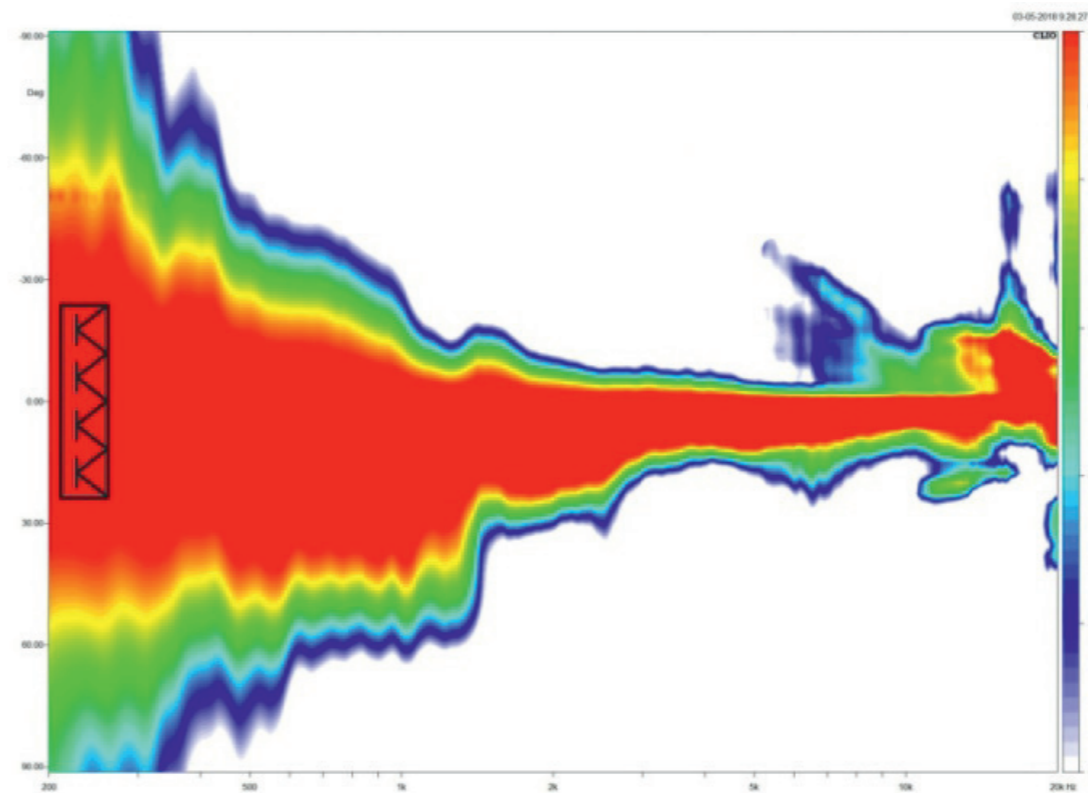
As mentioned before, in Narrow mode, the coverage narrows as frequency increases, following the array behaviour.

This also produces a mid-high reinforcement in the response. The Wide mode applies appropriate shading and phase shift from top to bottom drivers to widen the coverage in the vertical plane and tilt down the lobe.

The Wide mode keeps the -6dB down angle at around 20° at mid-high frequencies, avoiding the natural narrowing effect of the array and providing a total 45° beam-width (1 kHz to 8 kHz avg.).



Q-43-T Isobar plot: Narrow mode.



Q-43-T Isobar plot: Wide mode.

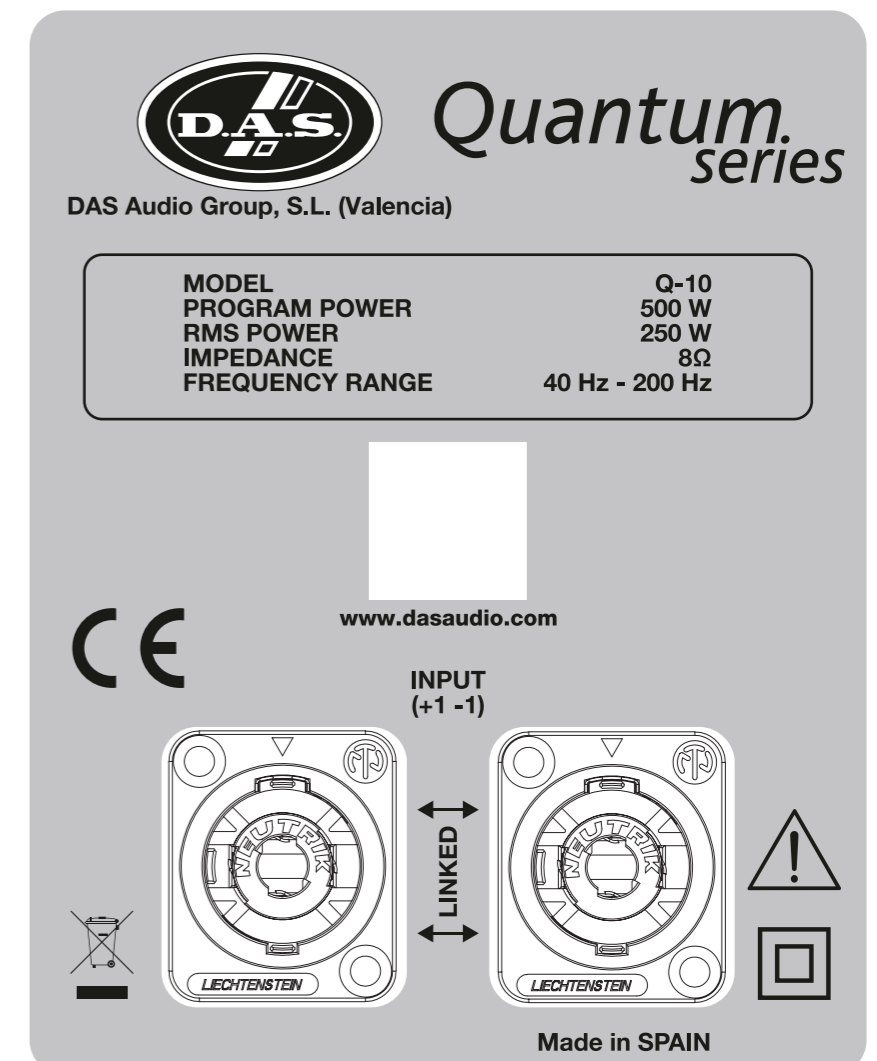
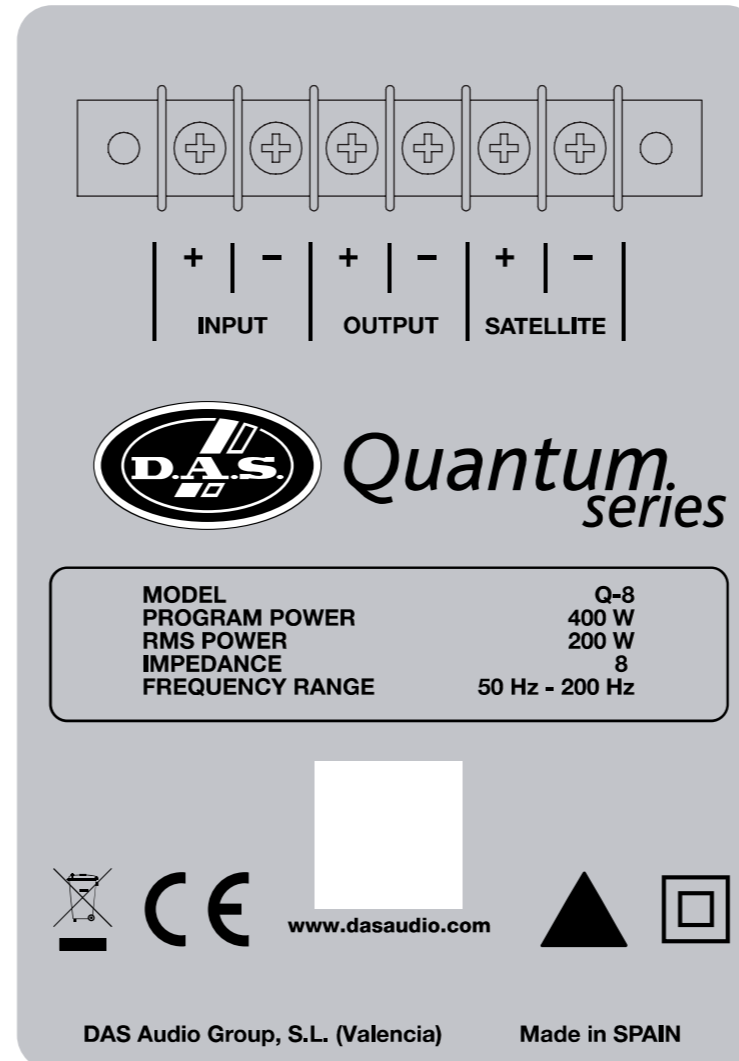
Quantum Series | Installation

The Q-8 model is provided with barrier strip terminals including first order high pass output for "Satellite" units, such as Q-3T or Q-23T. Up to two satellites can be connected in parallel in the "satellite" output.

The Q-10 model is provided of a pair connectors NL4 in parallel, to ease the link of devices.

The polarity of the contacts, as well as other important indications for their correct connection, are indicated on the labels.

The Q-10A model is a self powered subwoofer. Refer to the label:



Quantum Series | Installation

1. Master volume and DSP Control:

Use the encoder (1) to select the desired output volume and push/hold it to access to the different DSP and cabinet settings.

2. Main screen:

In the main screen all selected settings are shown. Besides this, there are two input level indicators on the left, one output level indicator on the right and the center area is reserved to display messages as Input Clip or Limit.

3. Input connectors:

1/4" Jack+XLR combined socket-type input signal connectors. This is a balanced connector just like the OUTPUT connectors with the following pin assignments:

- 1 or S =GND (ground).
- 2 or T =(+) Non inverted input.
- 3 or R =(-) Inverted input.

4. Output connectors:

XLR-type output signal connectors for connecting several units together and sending them all the same signal.

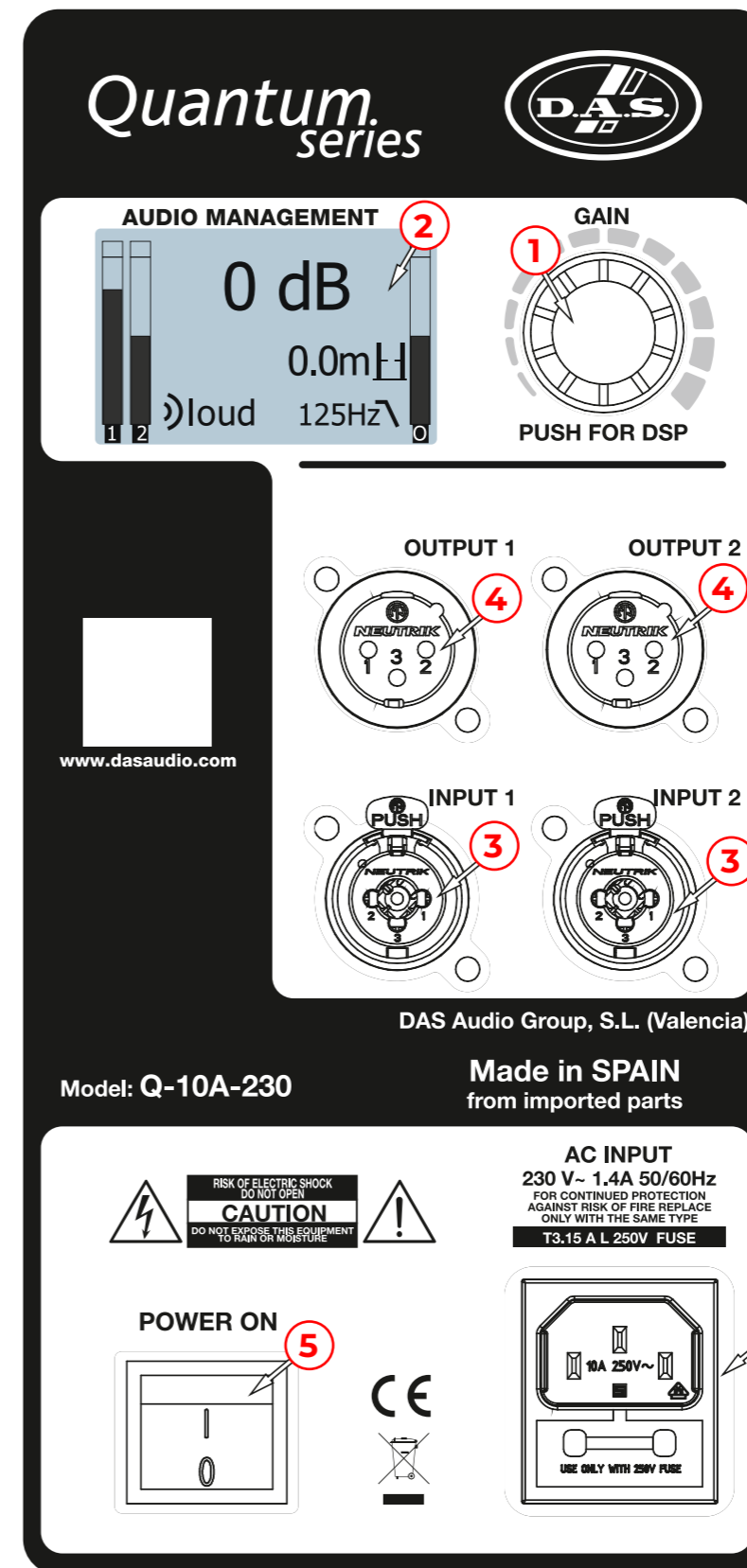
5. Power on:

Mains switch.

6. AC Input:

IEC type mains connector which incorporates a fuse holder.

Note: If the fuse is blown, replace the fuse with another of the same type and size. Use this equipment with an appropriate mains cord for your country.



Quantum Series | Installation

DISPLAY (only Q-10A)

By default the state of the screen is the following:

Once the input source has been connected to the amplifier's cabinet, the user has to check the gain structure of the system. Adjust level output from your processor and/or mixing console in order to prevent INPUT CLIP (left signal meter), as shown below in the channel 1:

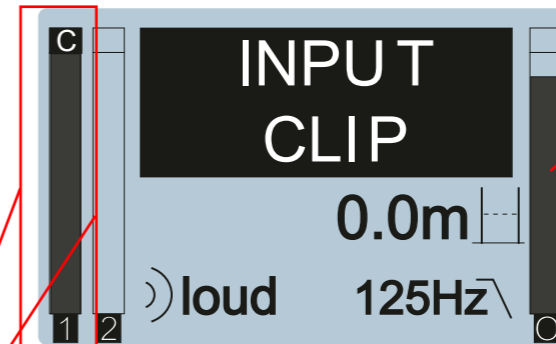
After having set the input volume values under the maximum level, user has to adjust output volume with the master control. The level is shown in the right meter in the screen. As with the inputs be careful not to exceed the limit (LIMIT shown):

After these two volume adjustments the screen will show something like this (when having the input sources ON):

Note: to enter and select an option always push the encoder. For going back in the menu, the user has to select Back in the screen and press the encoder or just pushing the encoder.

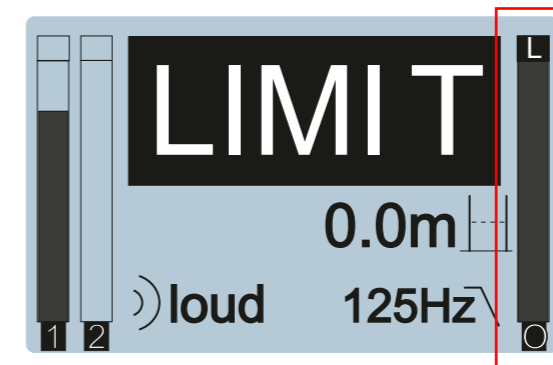
After 30 seconds without touching the button, the unit will return to the main screen automatically.

AUDIO MANAGEMENT

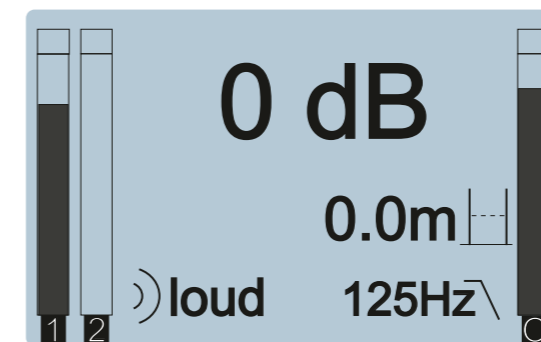


RMS measurer

Peak measurers



Exceeding the limits may cause damage in the system!!

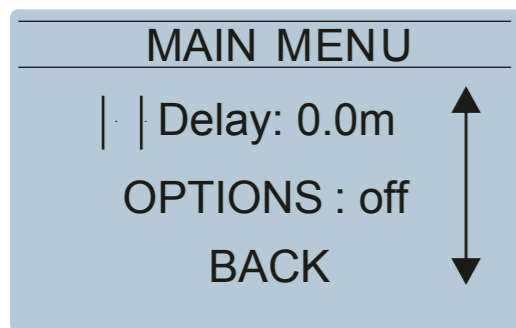
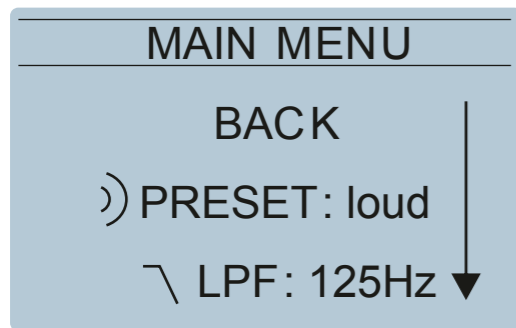


Quantum Series | Installation

DISPLAY (only Q-10A)

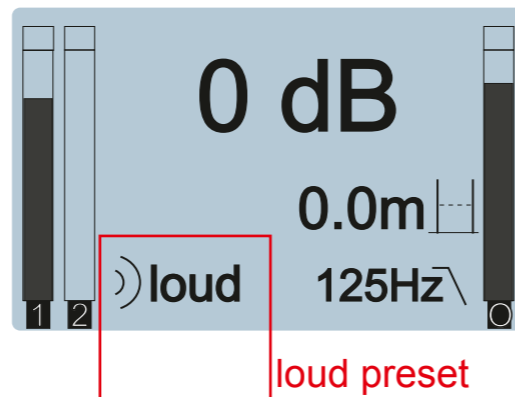
Main menu:

As stated previously by pushing the encoder the user can access the following options in the menu:

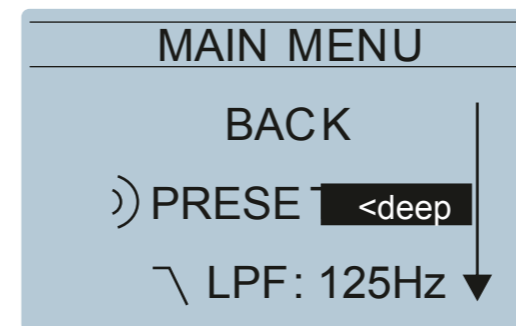
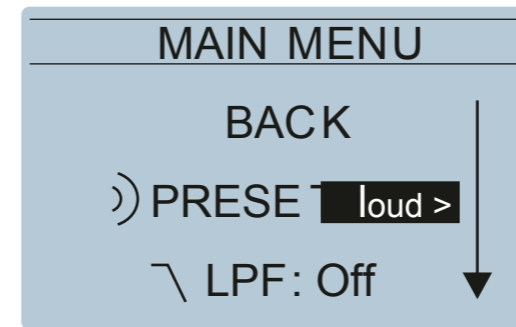
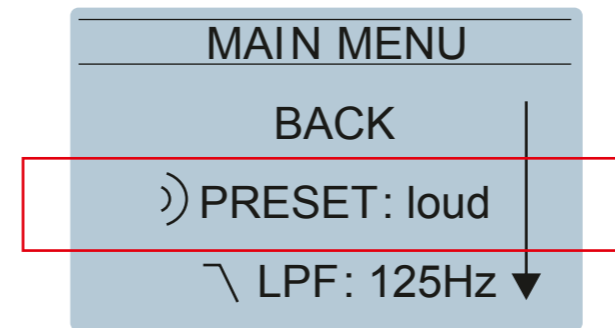


Presets:

Two factory settings (loud and deep) depending on the type of music/use has been configured by default:

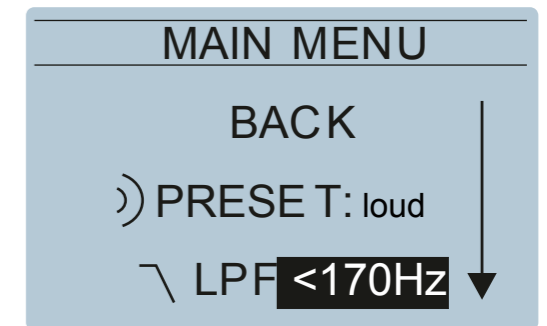
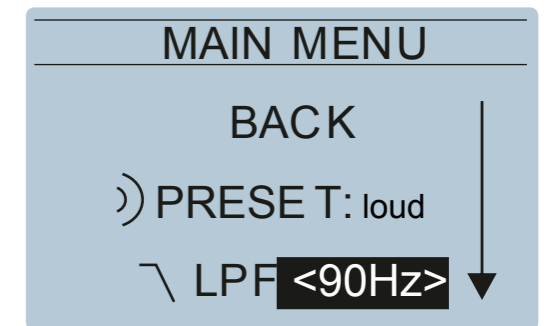
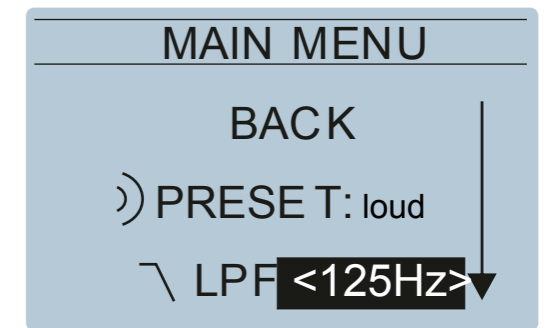


With the encoder go to Preset Sub-menu and press the knob to access the different options:



LPF (Low Pass Filter):

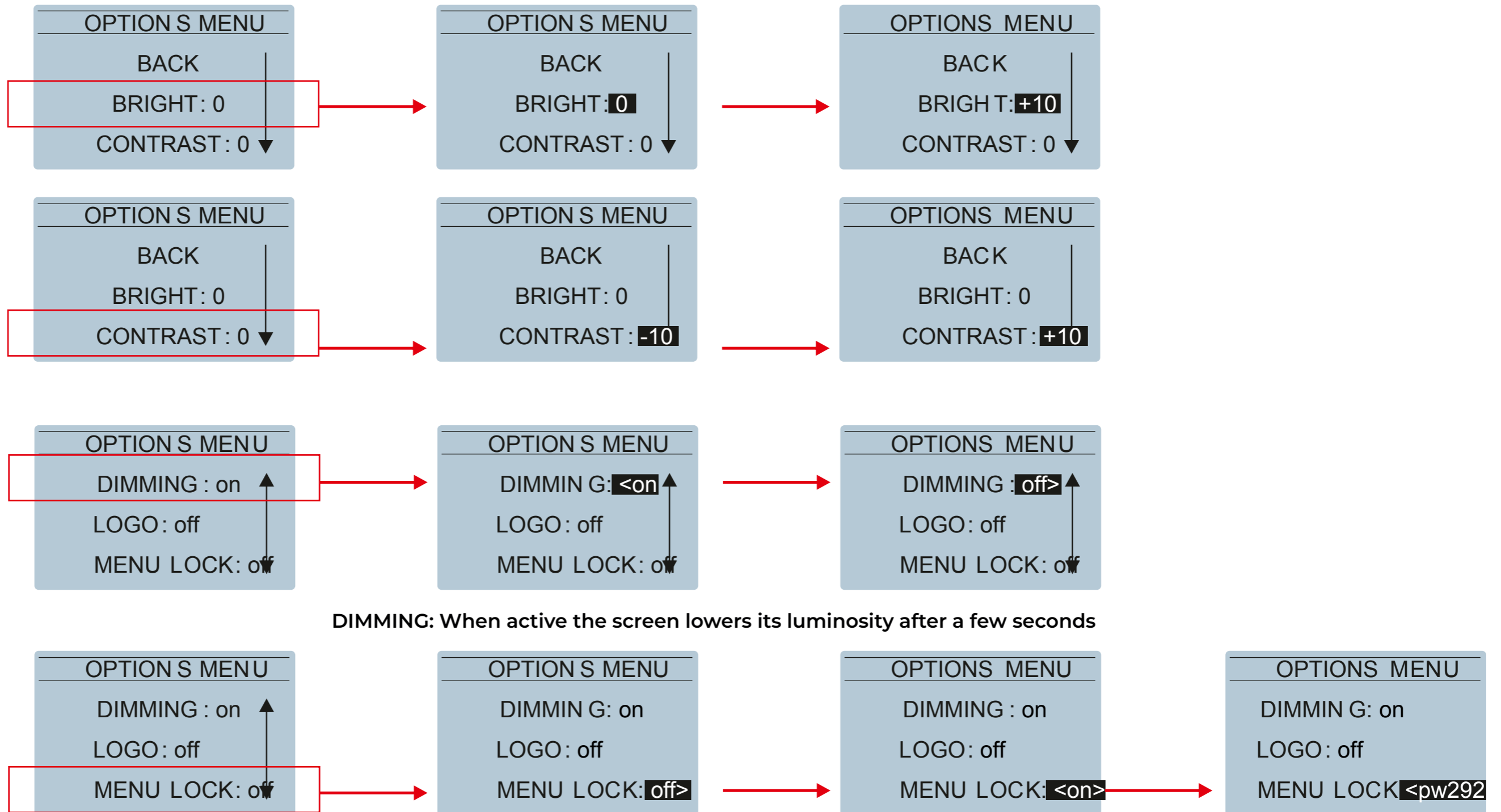
There are 3 different options:



Quantum Series | Installation

OPTIONS:

In this sub-menu the user can configure all the non-audio related options.
Remember that in order to access each parameter it is necessary to push the encoder:



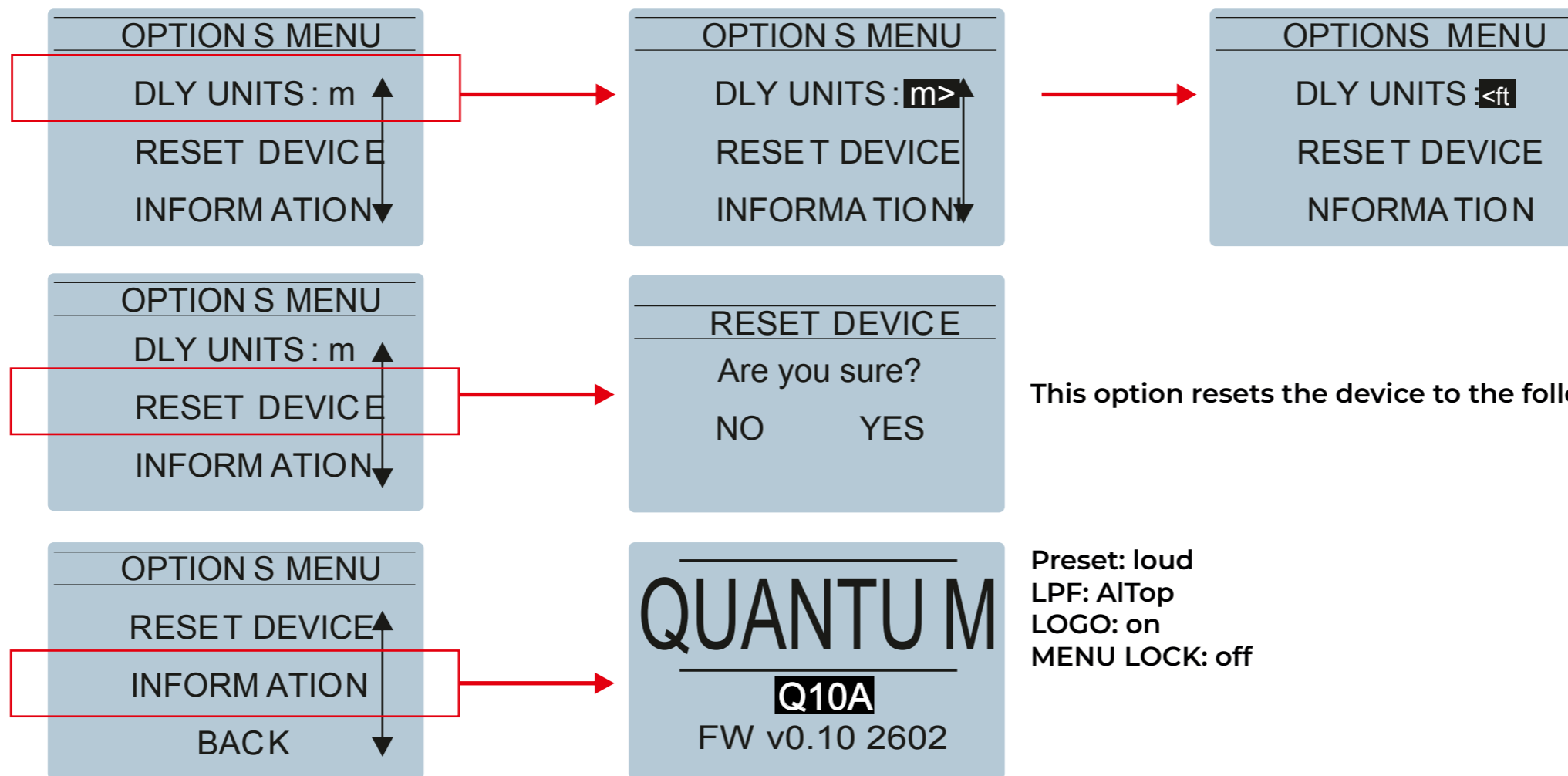
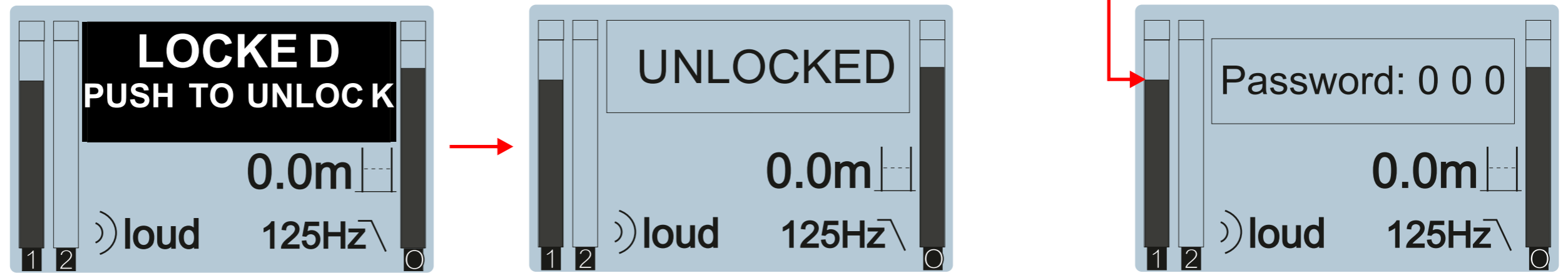
- A. User can LOCK the Display and Master Volume Control by enabling this option MENU LOCK: ON
- B. User can LOCK the Display and the encoder WITH PASSWORD by enabling this option MENU LOCK: pw292

Quantum Series | Installation

OPTIONS:

In case A, to unlock just press the encoder:

In case B, to unlock PUSH encoder and enter the 3 digit password (292):



This option resets the device to the following values:

- Preset: loud
- LPF: AllTop
- LOGO: on
- MENU LOCK: off

Quantum Series | **Accessories**



To perform any operations related to flying the system, read the present document first, and act on the warnings and advice given.

The goal is to allow the user to become familiar with the mechanical elements required to fly the acoustic system, as well as the safety measures to be taken during set-up and teardown.

Only experienced installers with adequate knowledge of the equipment and local safety regulations should fly speaker boxes.

It is the user's responsibility to ensure that the systems to be flown (including flying accessories) comply with state and local regulations.

The working load limits in this manual are the results of tests by independent laboratories. It is the user's responsibility to stay within safe limits. It is the user's responsibility to follow and comply with safety factors, resistance values, periodical supervisions and warnings given in this manual.

Product improvement by means of research and development is on going at DAS Specifications are subject to change without notice.

It is common practice to apply 5:1 safety factors for enclosures and static elements.

For slings and elements exposed to material fatigue due to friction and load variation the following ratios must be met; 5:1 for steel cable slings, 4:1 for steel chain slings and 7:1 polyester slings.

Thus, an element with a breaking load limit of 1000 kg may be statically loaded with 200 kg (5:1 safety factor) and dynamically loaded with 142 Kg (7:1 safety factor).

The load capacity, of each lift motor, should correspond to a safety factor of 10:1.

When flying a system, the working load must be lower than the resistance of each individual flying point in the enclosure, as well as each box.

Hanging hardware should be regularly inspected and suspect units replaced if in doubt.

This is important to avoid injury and absolutely no risks should be taken in this respect. It is highly recommended that you implement an inspection and maintenance program on flying elements, including reports to be filled out by the personnel that will carry out the inspections.

Local regulations may exist that, in case of accident, may require you to present evidence of inspection reports and corrective actions after defects were found.

Absolutely no risks should be taken with regards to public safety. When flying enclosures from ceiling support structures, extreme care should be taken to assure the load bearing capabilities of the structures so that the installation is absolutely safe.

Do not fly enclosures from unsafe structures.

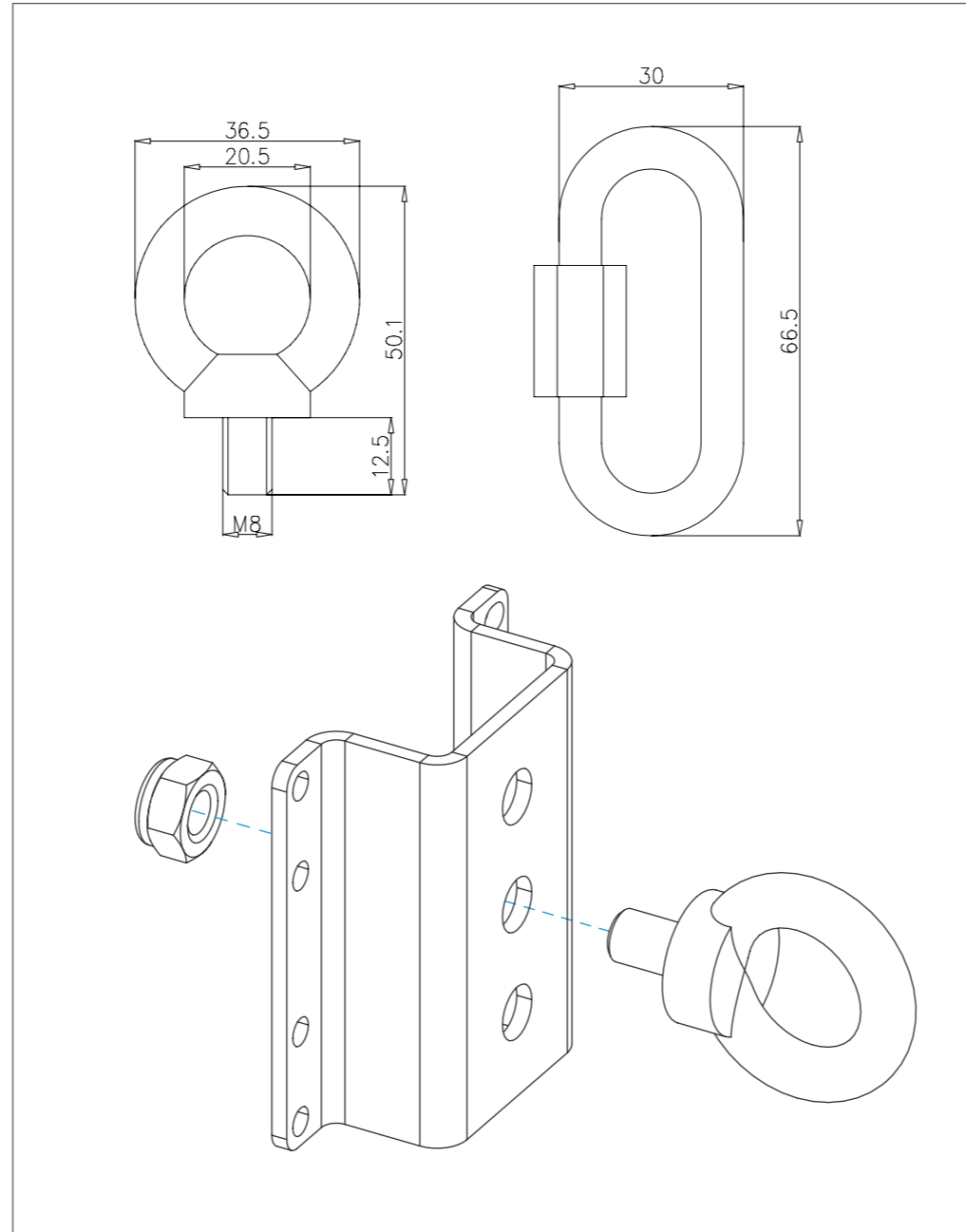
Consult a certified professional if needed.

All flying accessories that are not supplied by DAS Audio are the user's responsibility. Use at your own risk.

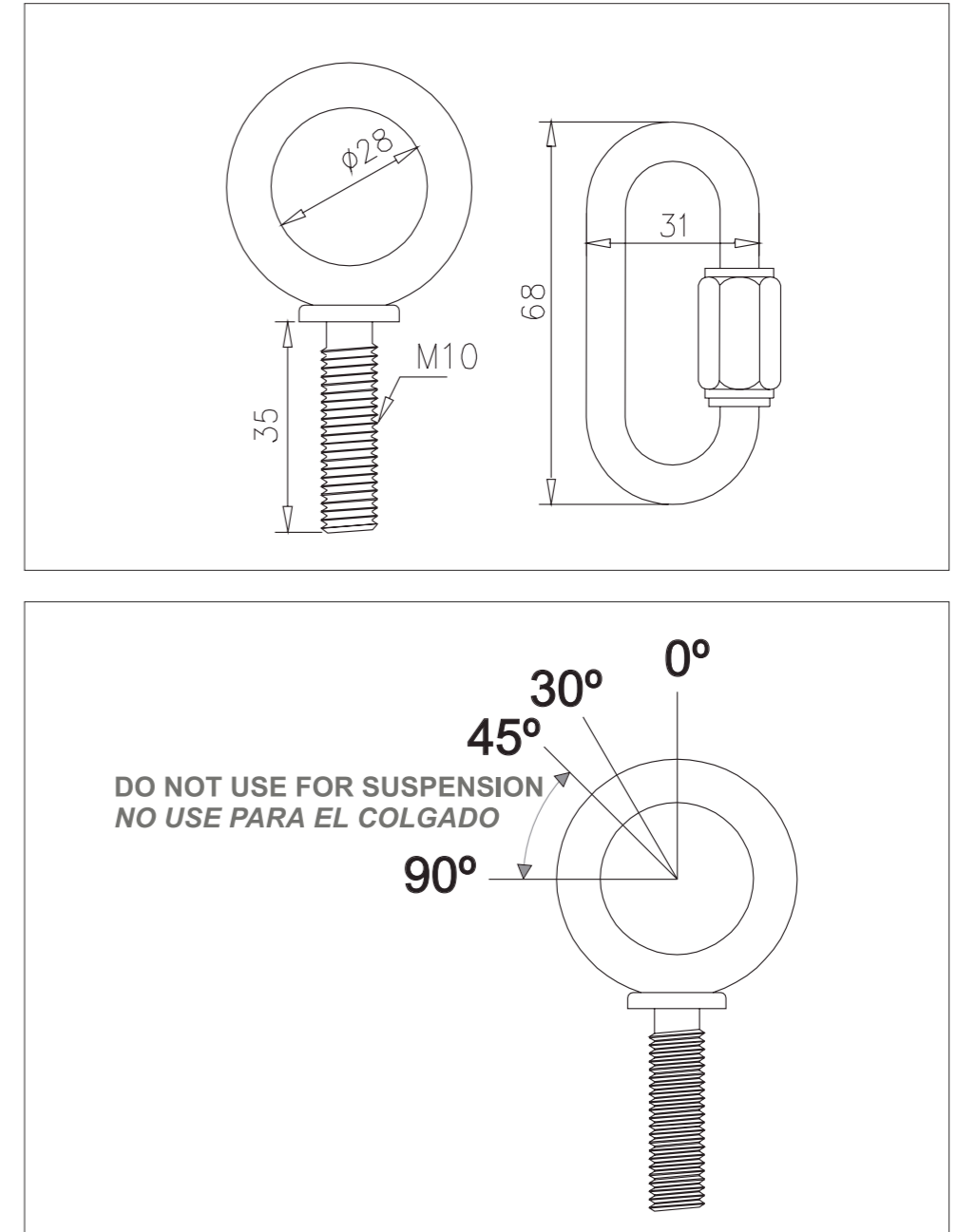
% Working Load

0 Degrees	100%
30 Degrees	65%
45 Degrees	30%
More than 45 Degrees	25%

JP-Q

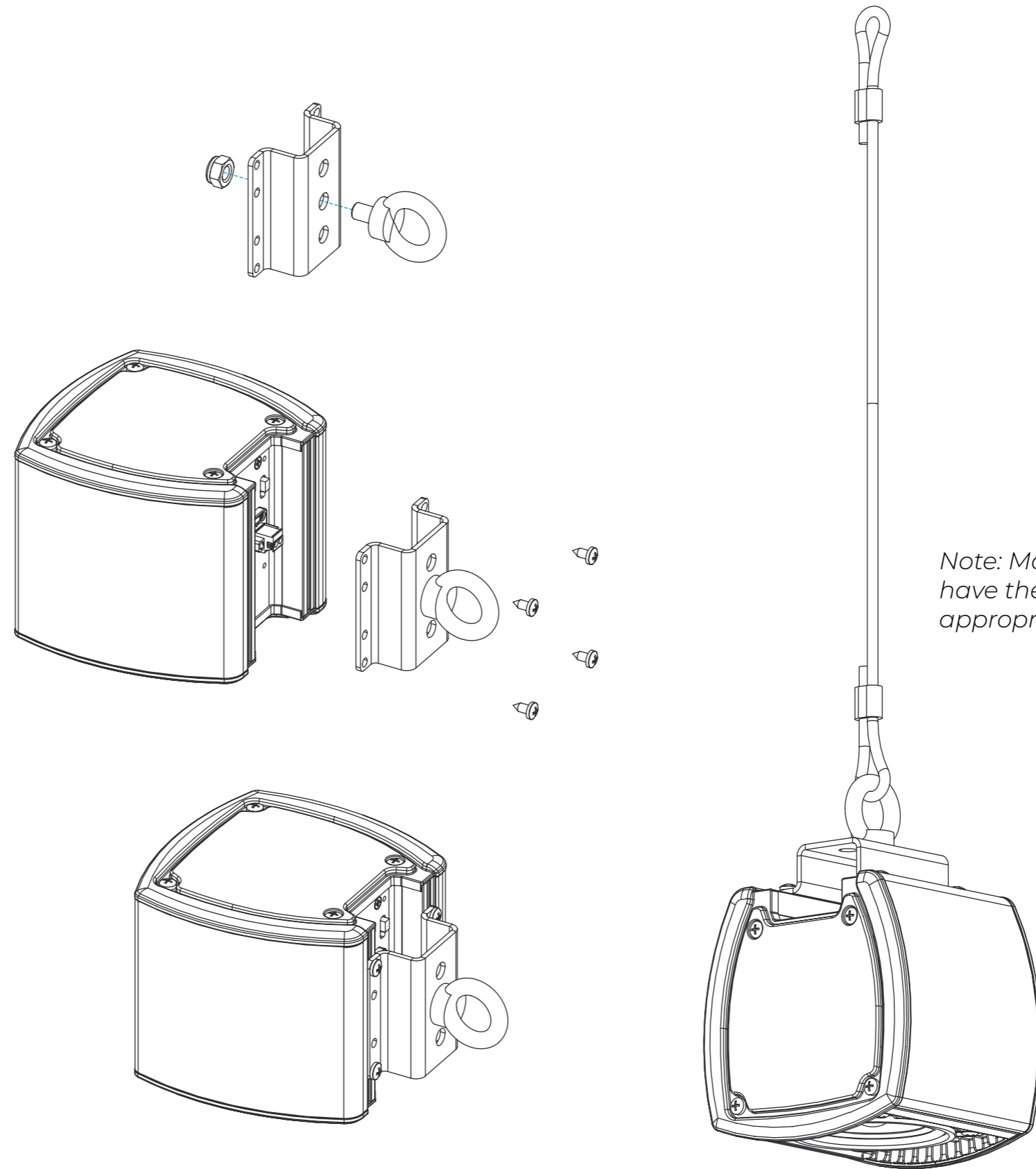


ANL-2



Quantum Series | **Acessories** | **JP-Q and ANL-2**

The JP-Q accessory allows the installation of devices of the Quantum series suspended by means of rings.



Quantum Series | Accessories | JP-Q and ANL-2

Also, the JP-Q accessory allows the union of several boxes of the Quantum series (example Q-43-T), forming columns, which can then be suspended by means of rings.

To hang the units, Q-10 or Q-10A, the ANL-2 accessory is needed. To install this accessory, the Allen-head screws must be removed and replaced by M10 eyebolts on one side of the enclosure. Each rigging point has a 200 kg (440 lb) working load limit.

Then choose the slings or chains of a required load resistance and length, bearing in mind that the length difference between the front and back slings or chains will determine the vertical orientation. Alternatively, the back bottom eyebolt points can be used to provide vertical orientation.

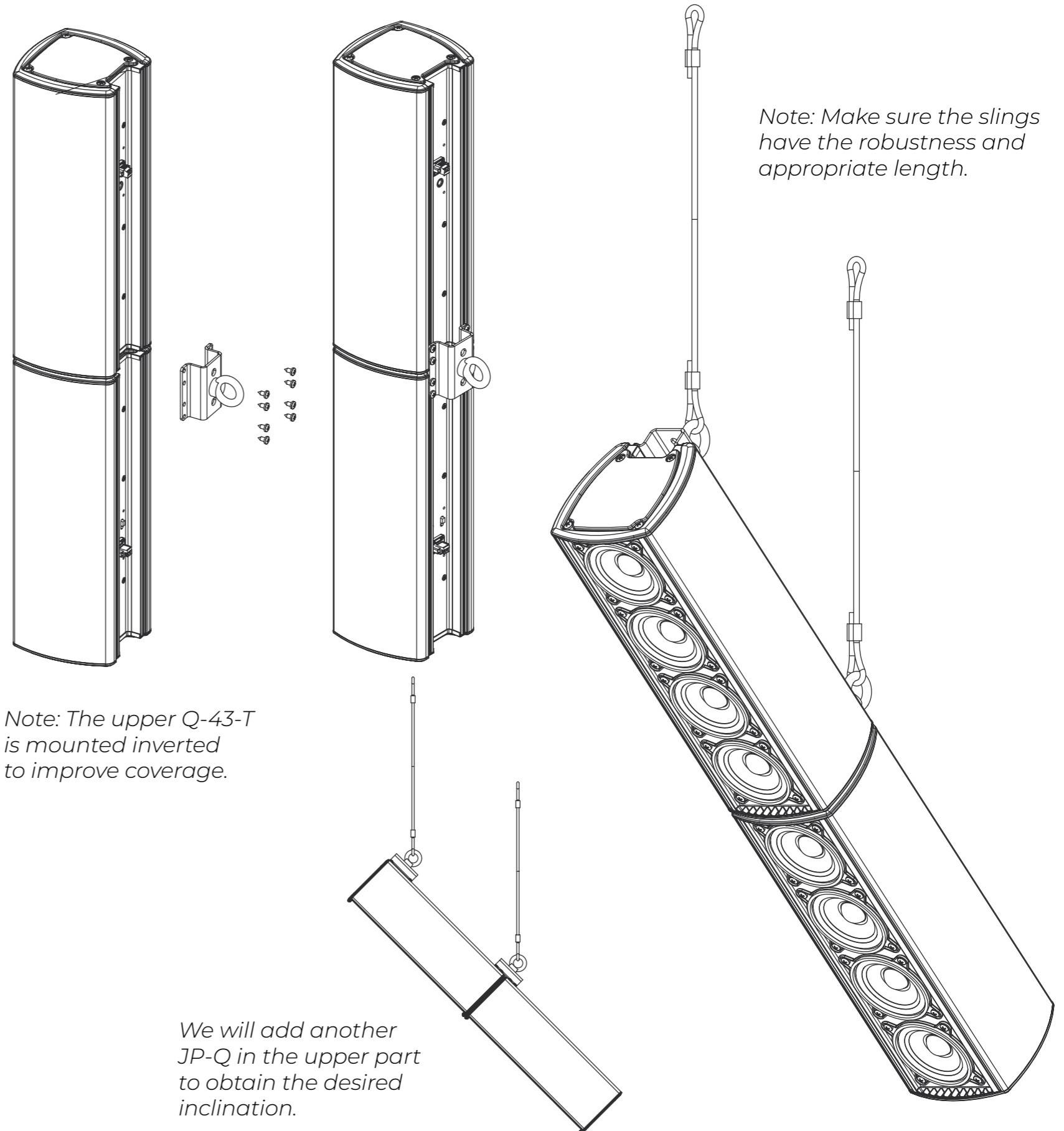
The ANL-2 set is an optional set of four eyebolts and four carabiners. (Dimensions are in millimetres). Each ANL-2 eyebolt has a rated working load of 200 kg. (440 lb). Each ANL-2 carabiner has a working load of 330 kg (726 lb). If using other hardware, make sure it is rated to handle the required load.

When using eyebolts it is important to bear in mind that the rated working load is only true for a load applied in the plane of the eye, and is significantly reduced for other angles. The drawing above illustrates the concept.

The table shows the variation of the working load as a function of the load angle. In the case of the ANL-2 eyebolt, this means that the 200 kg working load becomes 60 kg at 45 degrees.

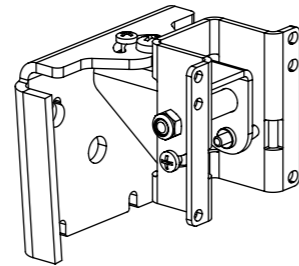
Do not use eyebolt flying if the load angle is higher than 45 degrees.

Note: As always, when we handle heavy loads, we should wear appropriate clothing and protective elements such as gloves, safety shoes, etc.

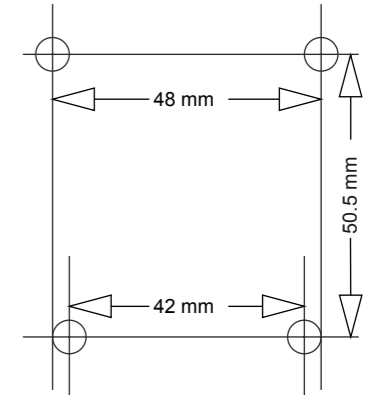
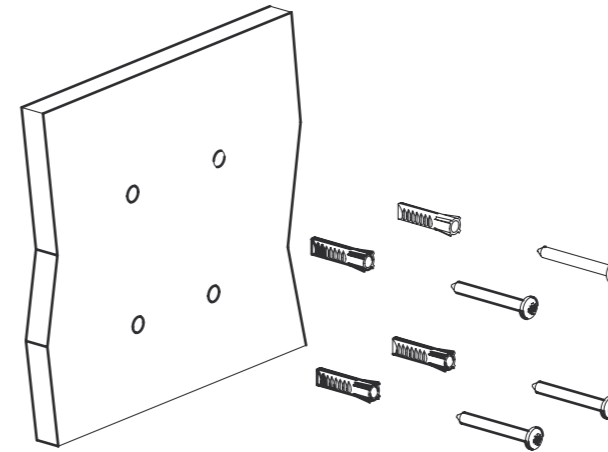


Quantum Series | **Acessories** | **AXW-4**

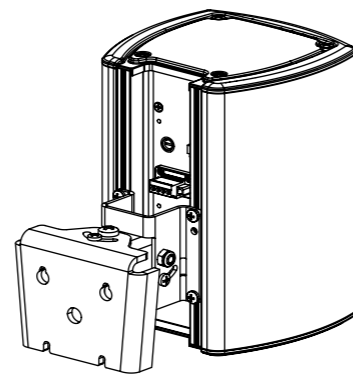
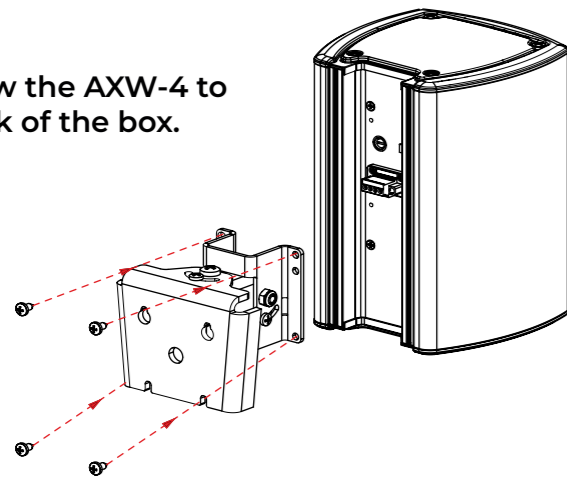
The AXW-4 accessory is a wall mount bracket that permits variable angle inclination of a Quantum series unit.



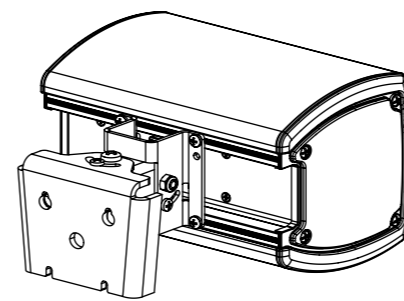
1.- First, make four holes in the wall separated according to the figure, we will place the wall plugs and partially screw the 4 screws.



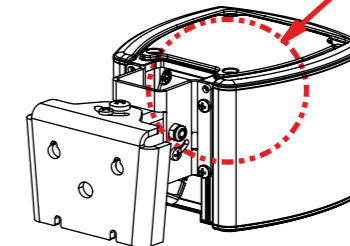
2.- Screw the AXW-4 to the back of the box.



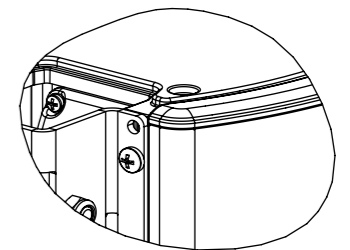
Vertical assembly



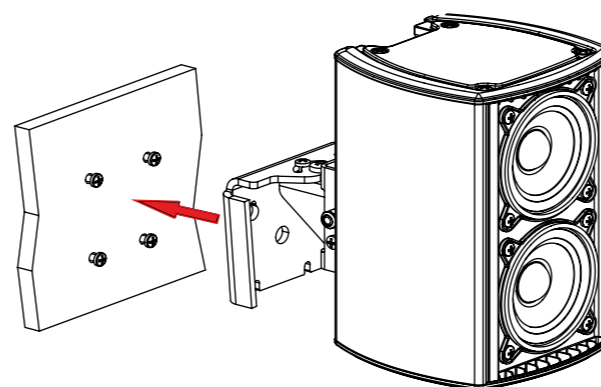
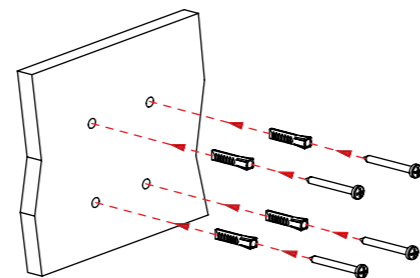
Horizontal assembly



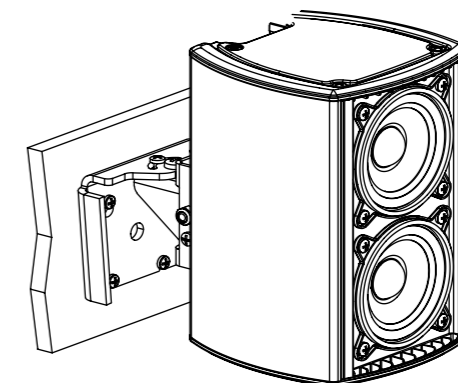
DETAIL
Note: Screw the AXW-4 to the back of a Q-3-T, as shown in the figure.



1. Usar patrón.
2. Taladrar (Broca)
3. Introducir tacos
4. Roscar tornillos parcialmente
5. Insertar conjunto AXW-4(+)Q-xxT
6. Apriete definitivo



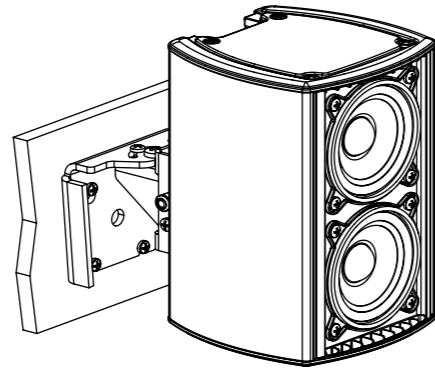
3.- Match the holes with the screws and tighten them firmly.



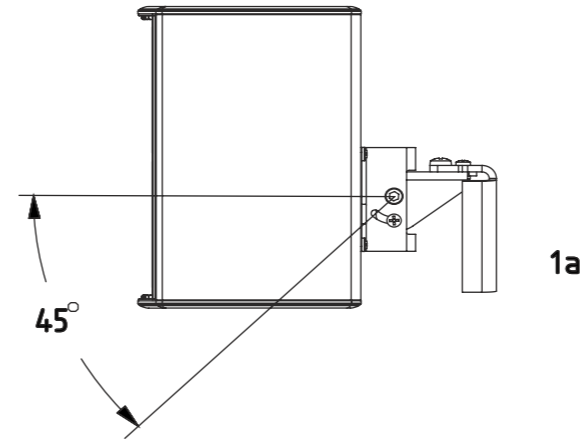
Unit attached to the wall.

Quantum Series | Accessories | AXW-4

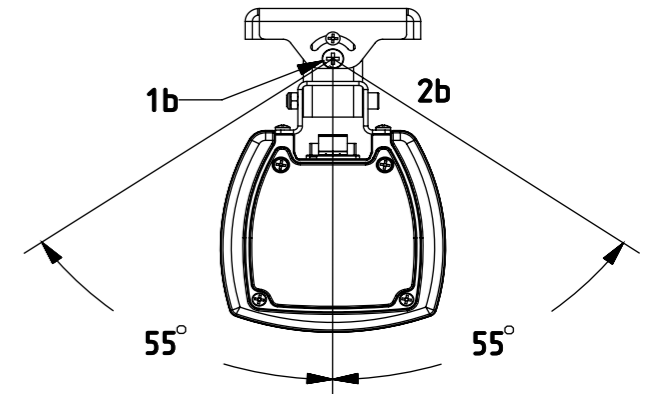
The AXW-4 accessory is a wall mount bracket that permits variable angle inclination of a Quantum series unit.



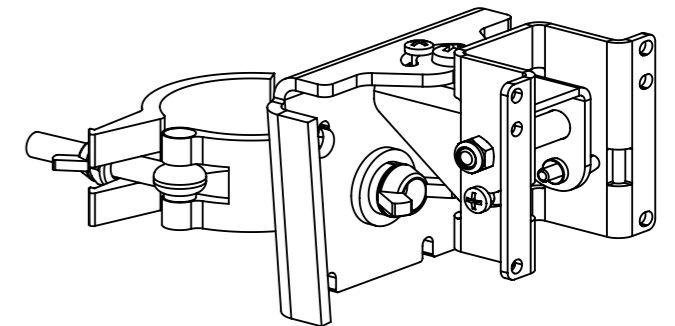
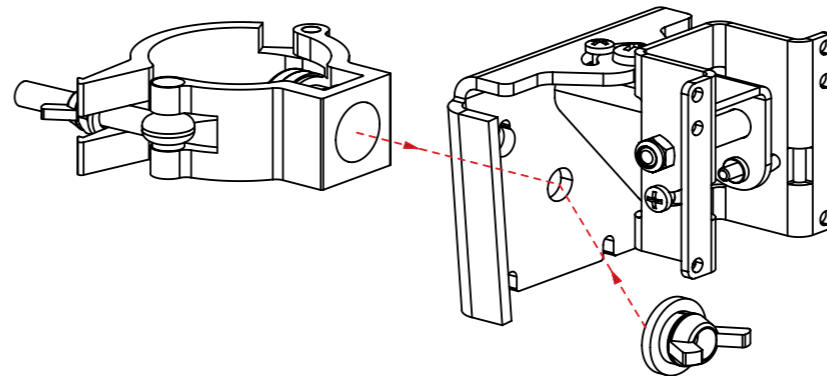
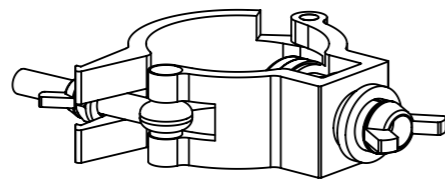
4.- Finally, select the angles for the box, first the vertical.



Fix the angle by tightening the screw (1a) and its opposite.

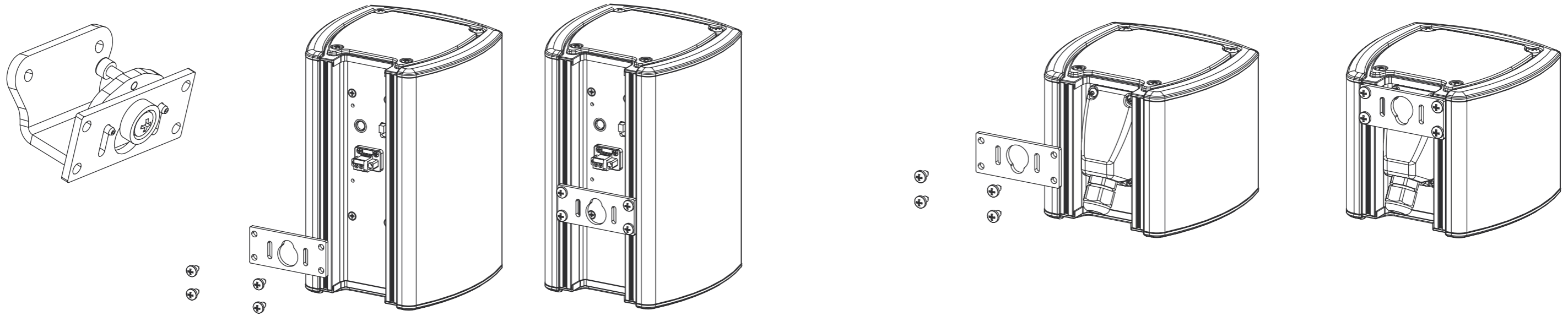


And then, the horizontal: Fix the angle by tightening the screws (1b and 2b).

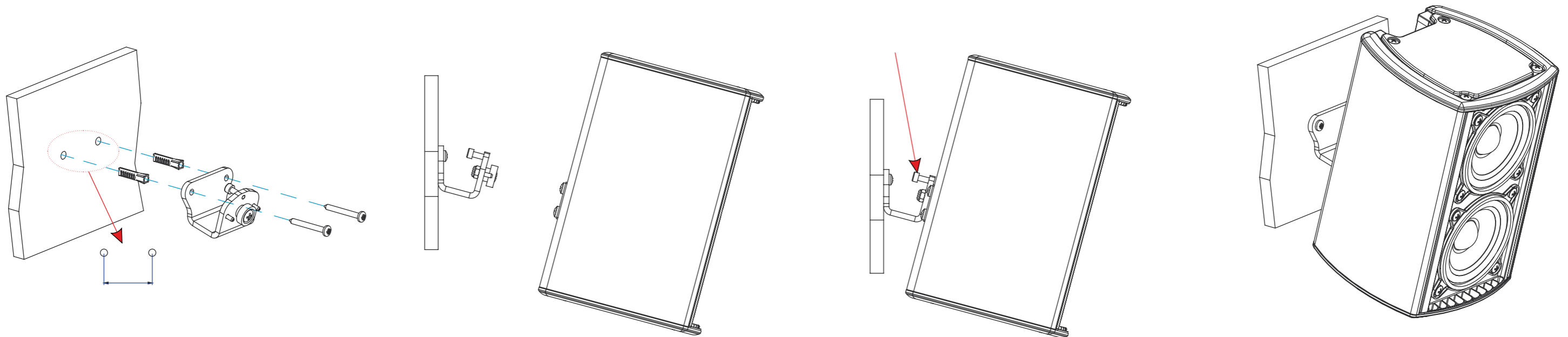


Quantum Series | Accessories | AXW-5

The AXW-5 accessory is a wall mount bracket that allows the easy installation of Quantum series units (fixed inclination of -15°).



1.- First, we will screw the AXW-5 plate to the back of the box



2.- Make two holes in the wall 40 mm apart and screw the body of the AXW-5 that we will then join to the back of the unit.

3.- Attach the loudspeaker unit and manually tighten the screw to lock the unit.

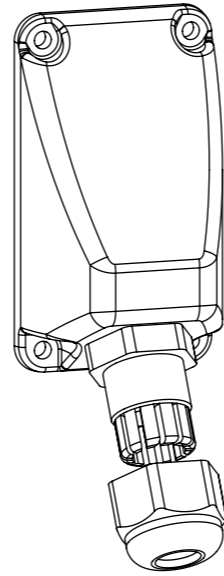
Note: The AXW-5 gives an fixed inclination of -15° to the unit.

Quantum Series | **Acessories** | **KIT-IP-Q**

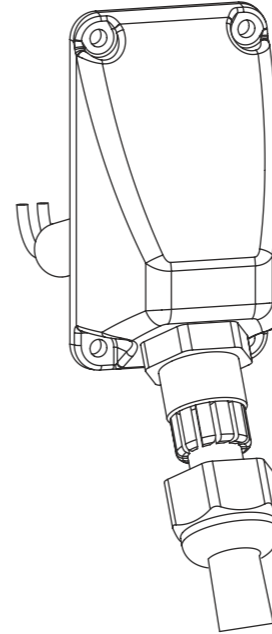
The KIT-IP-Q accessory is designed for Q-3-T, Q-23-T and Q-43-T units. It allows that unit to acquire a degree of protection IP-66 according to IEC-60529. In the attached figures the steps for their assembly are shown:

- 1.** Loosen the nut of the cable gland to insert the cable.
- 2.** Insert the cable through the cable gland.
- 3.** Remove the connector from the cabinet and screw the cable attach paying attention to the polarity indicated on the cabinet label.
- 4.** Connect the cable to the cabinet using the connector and fix it with its screws.
- 5.** Position the cover according to the label and fix it to the cabinet with the supplied screws.
- 6.** Pull the cable so that it is not too long and secure the rubber seal to the cable before tightening the nut of the cable gland.

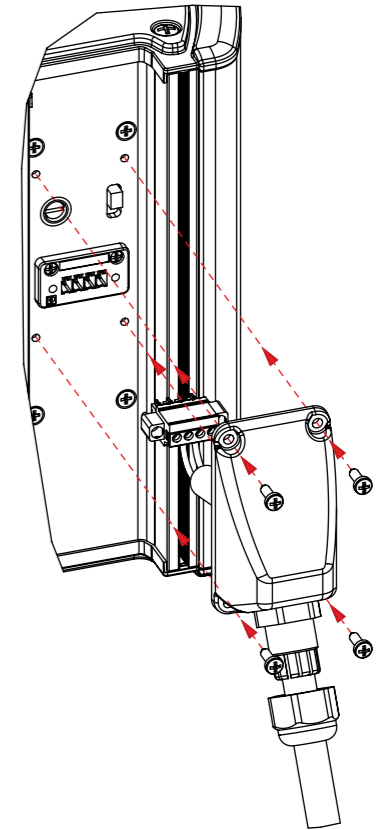
1.



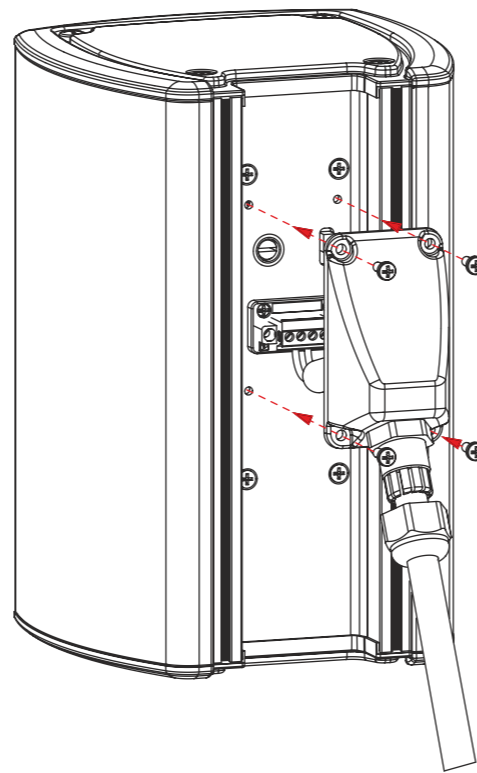
2.



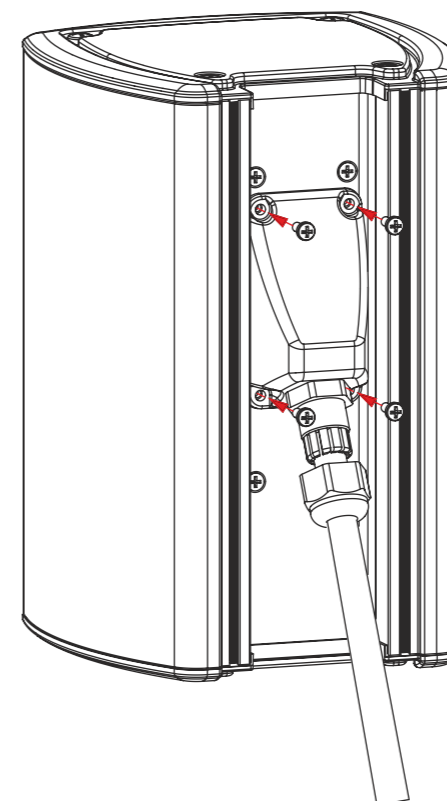
3.



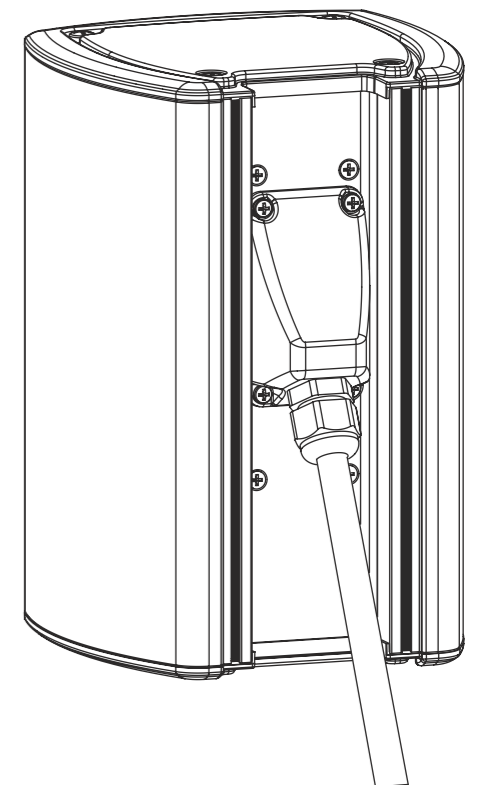
4.



5.

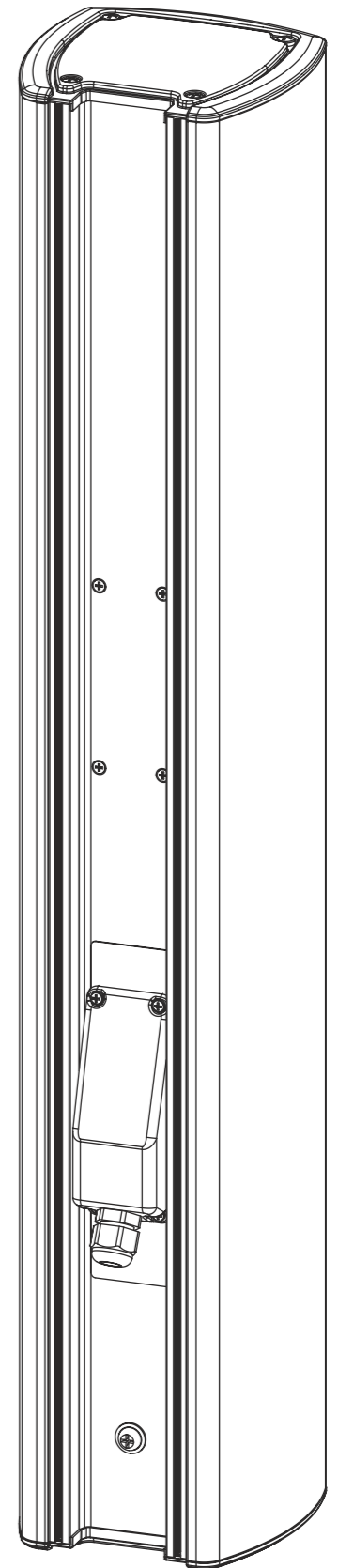
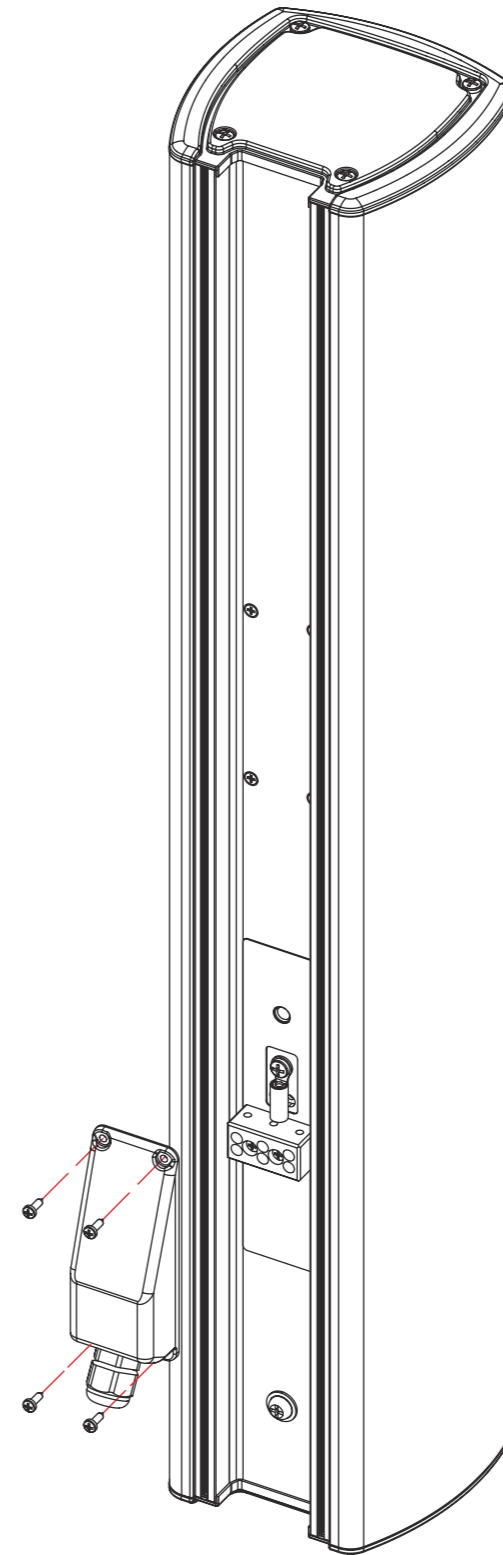
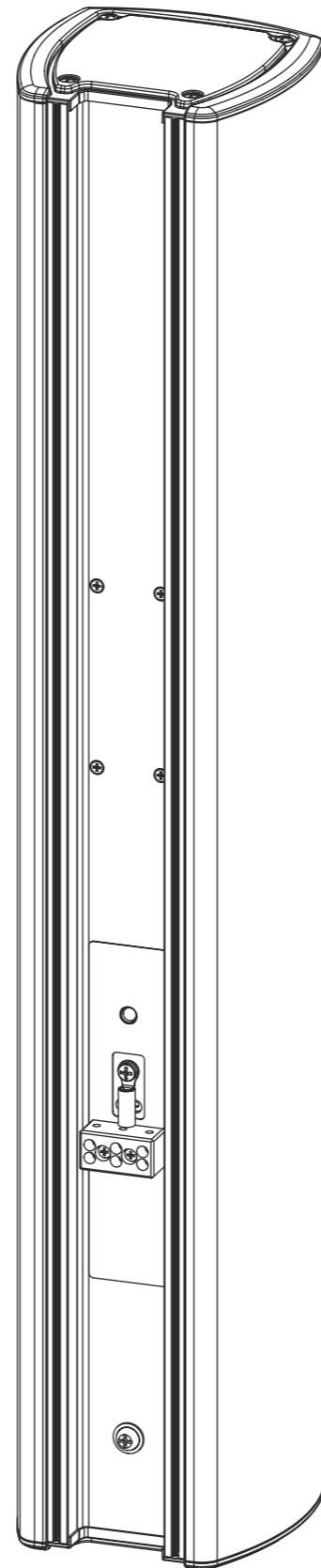
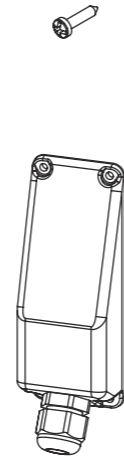


6.



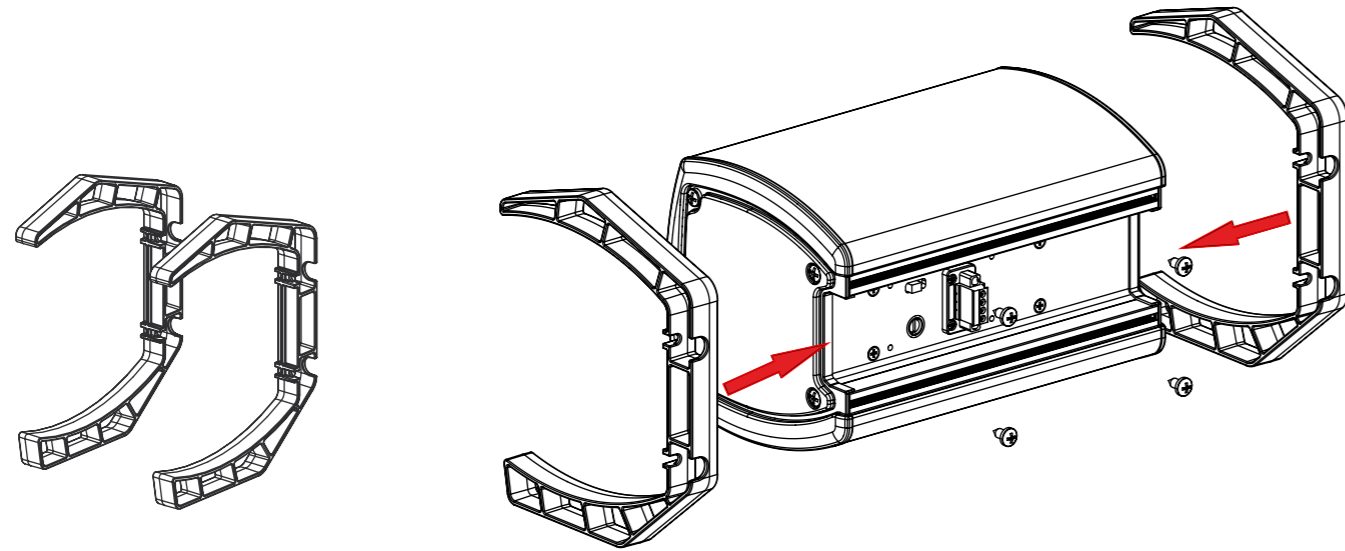
Quantum Series | **Acessories** | **KIT-IP-Q**

The KIT-IP-Q accessory is designed for Q-3-T, Q-23-T and Q-43-T units. It allows that unit to acquire a degree of protection IP-66 according to IEC-60529. In the attached figures the steps for their assembly are shown:

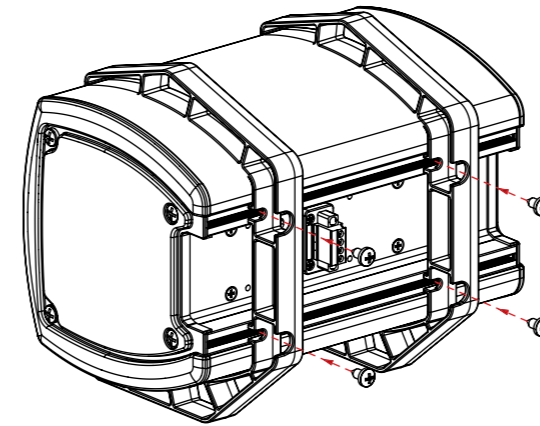


Quantum Series | Accessories | AXS-Q

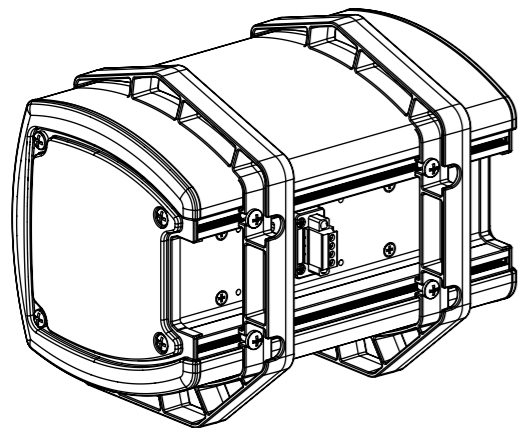
The AXS-Q accessory allows to place a Q-23-T on a flat surface, giving it an angle of -15° , 0° , 20° or 40° , as shown below.



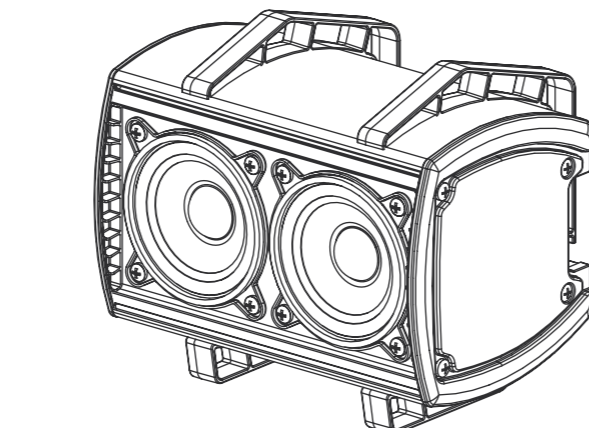
1.- First, place the pieces the upper and lower ends



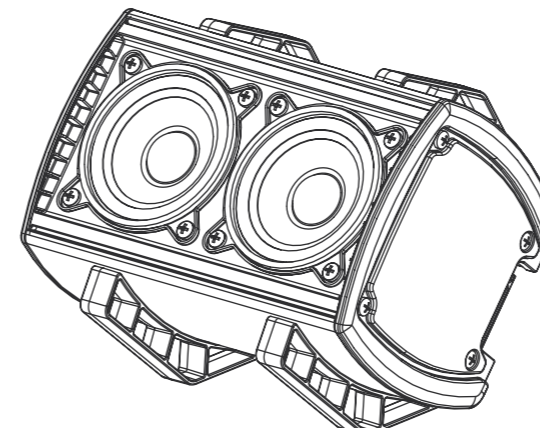
2.- Screw the pieces to the unit by means of the supplied screws



3.- Now we can place the unit on the flat surface, with the desired angle

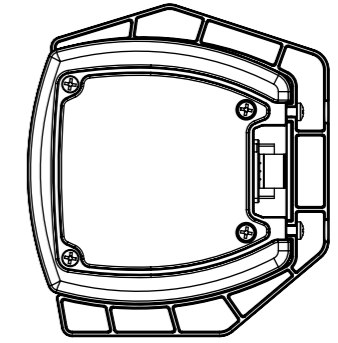


Q-23-T with 0° of inclination

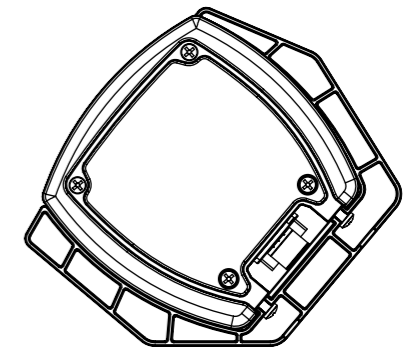


Q-23-T with 40° of inclination

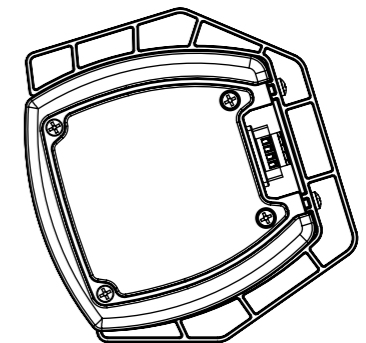
0B



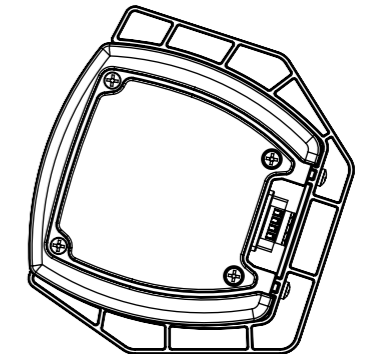
40B

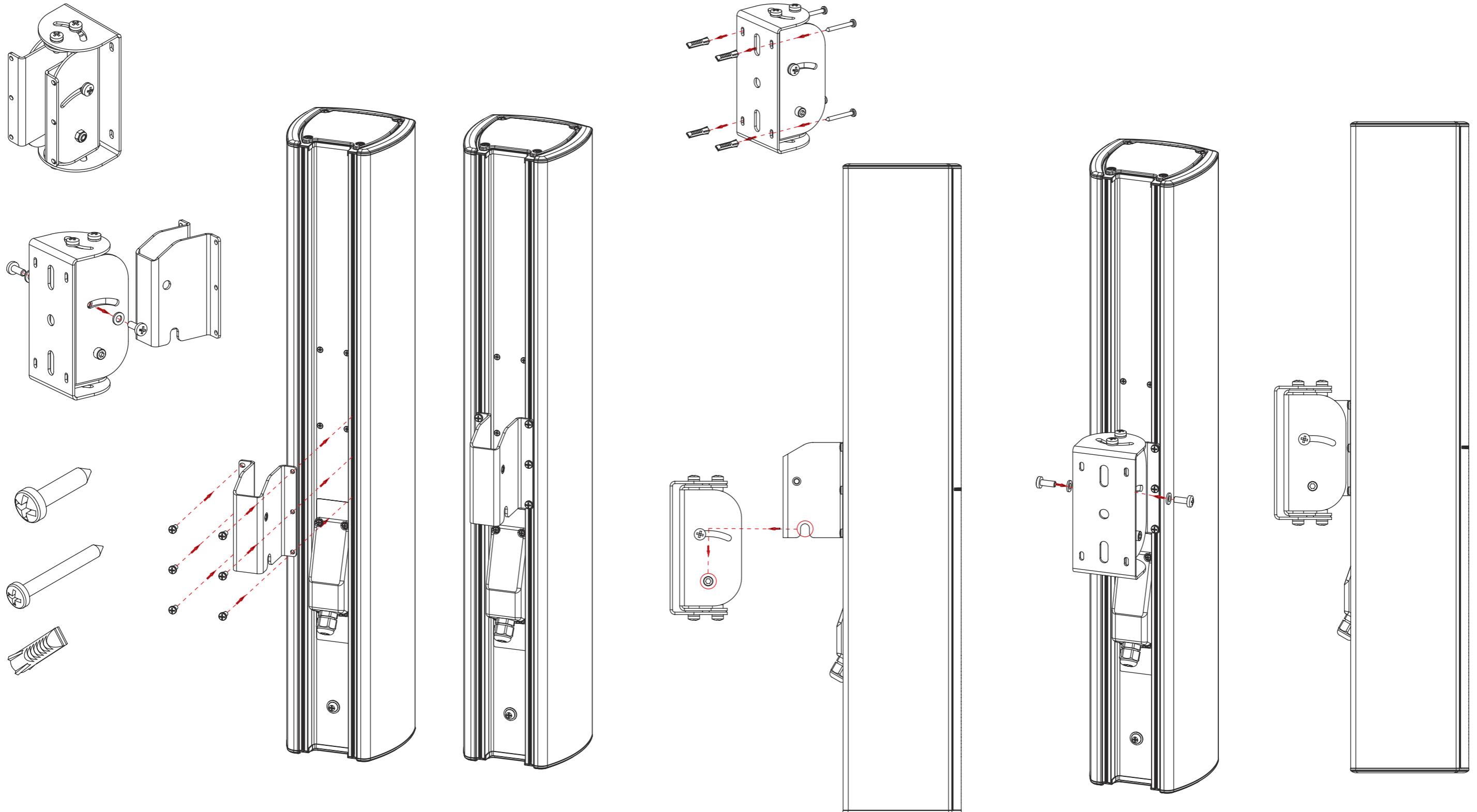


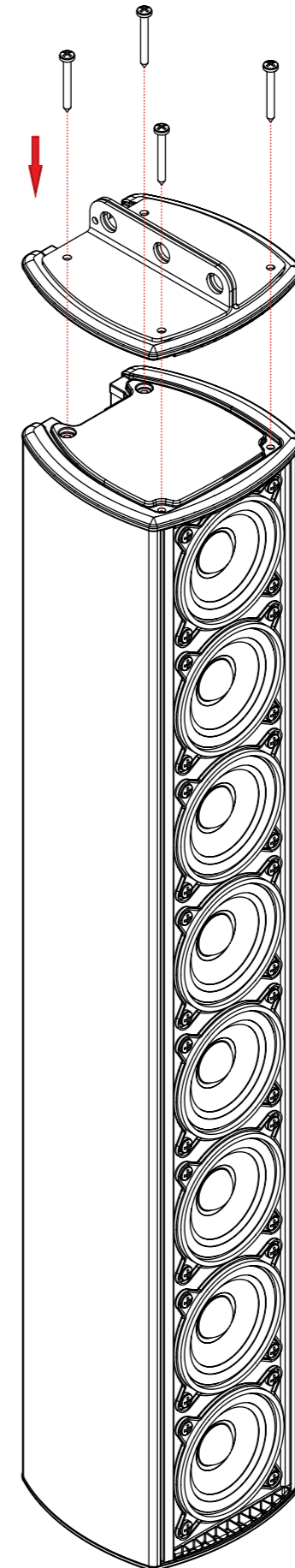
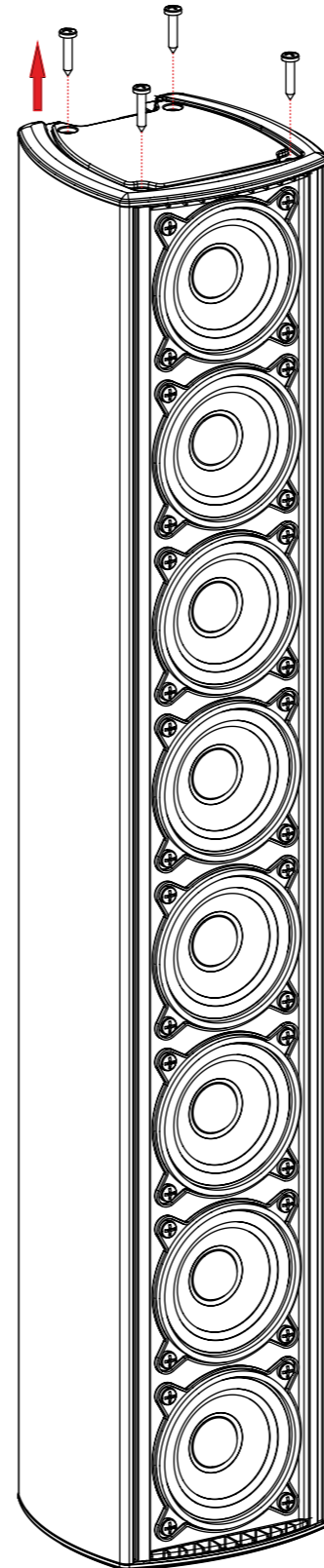
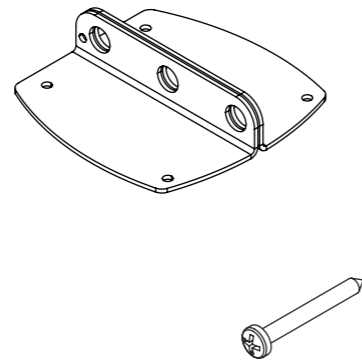
-15B

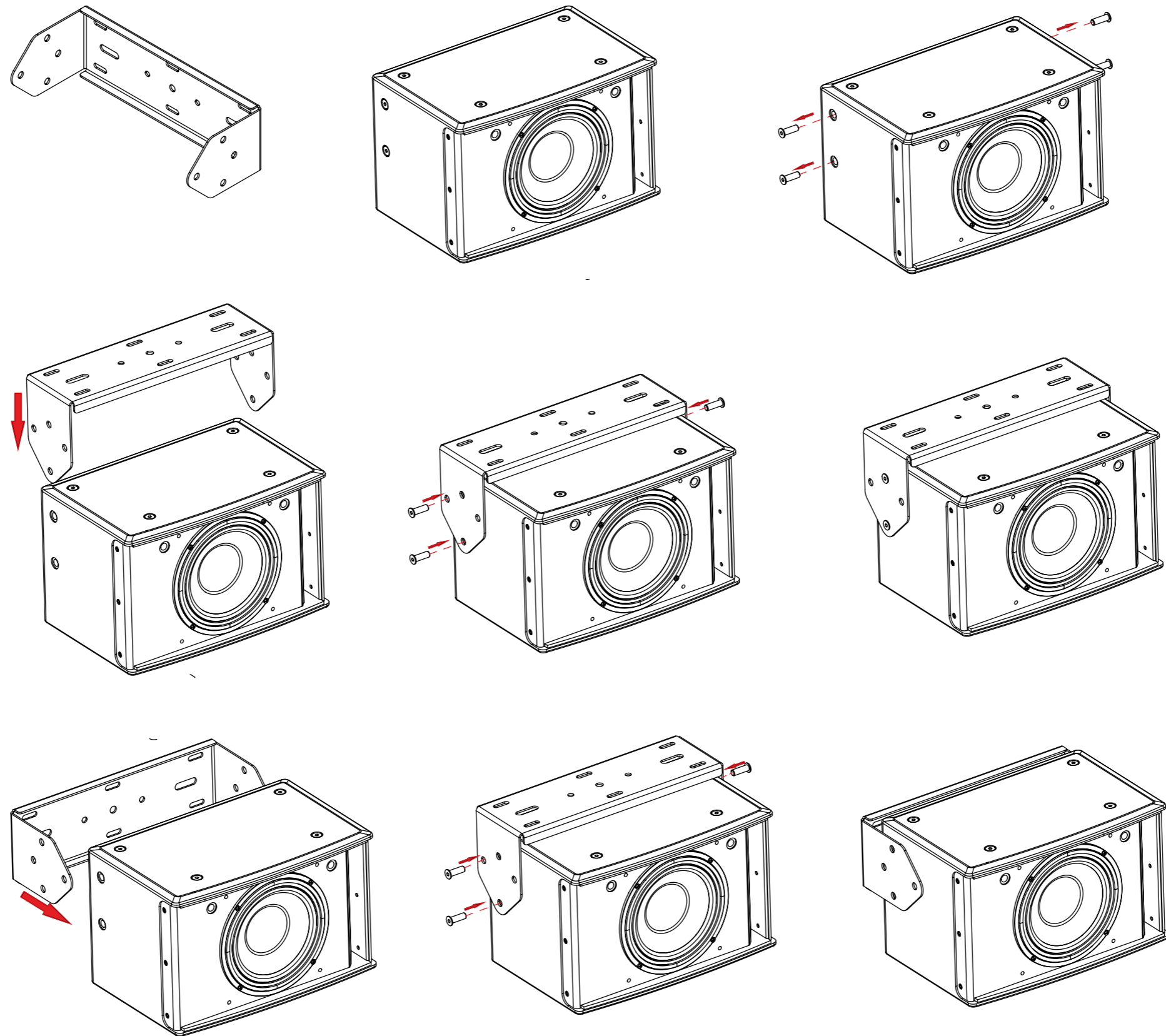


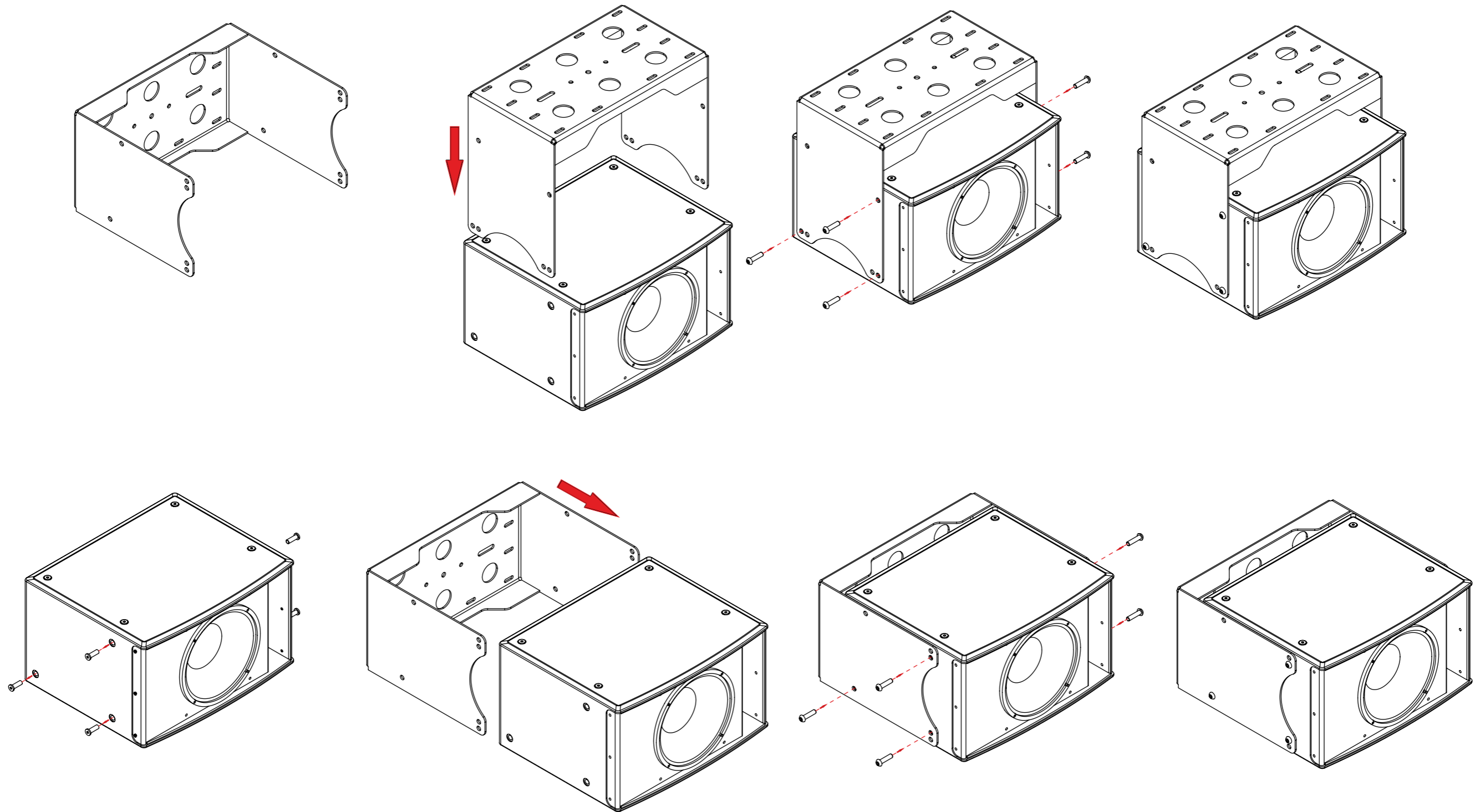
20B











Quantum Series | Annex: Table for cable selection

This table shows the power loss in % and dB, for different cable lengths and sections shown. It is recommended that the losses do not exceed 30% in any case (around 3dB). Although it is recommended minimizing losses, the maximum acceptable losses are usually around 15% (approximately 1.4dB).

Longitud / Length		Calibre AWG	Area mm2	R Ohms	Perdida de potencia / Power Loss			
m	ft				% @ 8 ohms	% @ 4 ohms	dB @ 8 ohms	dB @ 4 ohms
5	16,4	18	0,8	0,2250	2,74	5,33	-0,241	-0,475
		16	1,31	0,1374	1,69	3,32	-0,148	-0,293
		14	2,1	0,0857	1,06	2,10	-0,093	-0,184
		12	3,3	0,0545	0,68	1,35	-0,059	-0,118
		10	5,3	0,0340	0,42	0,84	-0,037	-0,073
		8	8,35	0,0216	0,27	0,54	-0,023	-0,047
10	33	18	0,8	0,4500	5,33	10,11	-0,475	-0,926
		16	1,31	0,2748	3,32	6,43	-0,293	-0,577
		14	2,1	0,1714	2,10	4,11	-0,184	-0,364
		12	3,3	0,1091	1,35	2,65	-0,118	-0,234
		10	5,3	0,0679	0,84	1,67	-0,073	-0,146
		8	8,35	0,0431	0,54	1,07	-0,047	-0,093
15	49	18	0,8	0,6750	7,78	14,44	-0,704	-1,354
		16	1,31	0,4122	4,90	9,34	-0,436	-0,852
		14	2,1	0,2571	3,11	6,04	-0,275	-0,541
		12	3,3	0,1636	2,00	3,93	-0,176	-0,348
		10	5,3	0,1019	1,26	2,48	-0,110	-0,218
		8	8,35	0,0647	0,80	1,59	-0,070	-0,139
25	82	18	0,8	1,1250	12,33	21,95	-1,143	-2,153
		16	1,31	0,6870	7,91	14,66	-0,716	-1,377
		14	2,1	0,4286	5,08	9,68	-0,453	-0,884
		12	3,3	0,2727	3,30	6,38	-0,291	-0,573
		10	5,3	0,1698	2,08	4,07	-0,182	-0,361
		8	8,35	0,1078	1,33	2,62	-0,116	-0,231
50	164	18	0,8	2,2500	21,95	36,00	-2,153	-3,876
		16	1,31	1,3740	14,66	25,57	-1,377	-2,565
		14	2,1	0,8571	9,68	17,65	-0,884	-1,686
		12	3,3	0,5455	6,38	12,00	-0,573	-1,110
		10	5,3	0,3396	4,07	7,83	-0,361	-0,708
		8	8,35	0,2156	2,62	5,11	-0,231	-0,456
75	246	18	0,8	3,3750	29,67	45,76	-3,057	-5,314
		16	1,31	2,0611	20,49	34,01	-1,991	-3,610
		14	2,1	1,2857	13,85	24,32	-1,295	-2,421
		12	3,3	0,8182	9,28	16,98	-0,846	-1,616
		10	5,3	0,5094	5,99	11,30	-0,536	-1,041
		8	8,35	0,3234	3,88	7,48	-0,344	-0,675
100	328	18	0,8	4,5000	36,00	52,94	-3,876	-6,547
		16	1,31	2,7481	25,57	40,72	-2,565	-4,542
		14	2,1	1,7143	17,65	30,00	-1,686	-3,098
		12	3,3	1,0909	12,00	21,43	-1,110	-2,095
		10	5,3	0,6792	7,83	14,52	-0,708	-1,362
		8	8,35	0,4311	5,11	9,73	-0,456	-0,889



SOUND WITH SOUL