EVO LINE OWNERS MANUAL

2022.04

WHEN ART
MEETS
HIGH END
AUDIO

AUDIONEC

AMPLIFIERS
MUSIC SERVERS
SPEAKERS

THANK YOU!

Congratulations and thank you for entering the world of AudioNec. You have invested in one of the world's premier loudspeaker systems. That means that you are one of those who want a very highly musical product with a unique and modern design offering the possibility to upgrade your product. Consequently we are certain it will provide you years of listening pleasure.

The EVO line speakers represents an advanced combination of sonic technologies establishing an unprecedented direction for audiophile design. The result of years of research, these unique loudspeaker features DuoPole technology, powerful drivers and meticulous crossover engineering pushing the envelope to new standards for efficiency, dynamics and natural sound.

Our aim is to achieve any audiophile Holy Grail: not listen to music through a HiFi system as good as it could be but forgetting the devices and just listen to the music as it was recorded. We want to bring you Music with the same intensity, feelings and soul that the musicians and sound engineers have wanted to create and communicate. We just want you listen to the musicians playing their instruments in your listening room.

Please take a few minutes to read through this owner's manual prior to playing your EVO speakers. This will help you to place and use them in the best possible way. It will also allow you to maximize the exceptional performance for which they were designed.

Your pair of EVO speakers has undergone extensive laboratory tests for technical and musical performance. In addition, your pair has been subjected to rigorous listening trials in our listening room utilizing a wide range of musical material. No pair of speakers leaves our factory until we are satisfied that it is capable of achieving their full potential.

Welcome to the world of AudioNec.

EVO serial number: **EVO1P030124UK**

Francis Chaillet / CEO

Hervé Brasebin / General Director

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PART 1

PRESENTATION

COMPANY

AudioNec is a 100% French luxury brand devoted to the design and manufacture of a wide range of high end audio products: music servers, amplifiers, loudspeakers, DSP, all coming from our workshop near Paris, and made by an amazing team of craftsmen, designers, engineers and technicians working each day to bring you the very finest audio playback products and components in the world. In many ways, those skills are a signature of traditional French know-how in luxury products and a guarantee to receive the finest craftsmanship on offer today. We aim to become the Haute Couture of music reproduction.

From the very beginning, AudioNec's philosophy could be summed up in a very simple way: why make things the same way as others and having similar results? If we wanted to really improve results and obtain the best possible musical sound reproduction, we had to find new solutions, new ways, new technologies to do things. It is as simple as that.

Consequently, the first product we designed, at the beginning of the 21st century, was the SDV1, one of the very first music servers in the world, based on an advanced computer able to rip CDs, store, play and stream digital files with a very natural sound close to analog. Encouraged by the success of the SDV1 and its following avatars, we decided to
investigate the crowded field of loudspeaker design with the same lateral thinking methods.

A few years later, we presented the Answer speaker at the 2010 Munich High-End Show. This unconventional speaker was totally different from all that had been invented so far. The idea was simply to explore ways to achieve another level of listening quality. Not only this speaker employed its proprietary dipole wideband driver named DuoPole playing in an open baffle, it also used an innovative box less bass driver developed to complement the mid-high driver perfectly. To reproduce music with no compromise, this speaker came with its own DSPV2 processor as a digital domain crossover, system optimization, and room acoustic correction. Even today many audiophiles and industry professionals who visited our stand at the Munich High-End show strongly remember their listening experience ten years ago, as it was a true revelation. The Answer and its wideband DuoPole driver became the technological base for other speaker developments in the forthcoming years.

After several years of research, we introduced in 2018 the DuoPole.31 whose height is only 31 cm as the name suggests. This new smaller wideband driver opened us the door to design modular loudspeakers which were introduced in 2019 at the Munich High-End Show. So today the innovative EVO line offers a full range of modular high-end loudspeakers which with you can evolve along your journey towards music reproduction Nirvana.

And you can count on us for continuing creating innovative products to accompany you on that journey.

Onwards and upwards!

Stay connected with us.

@AudioNec **@audionecproducts**

CONCEPT

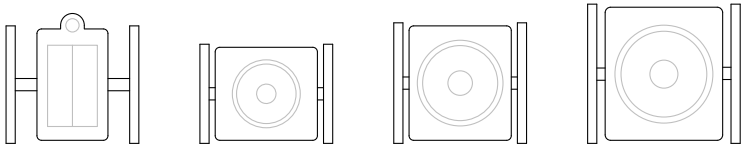
The AudioNecs EVO speakers line implements the new wideband driver DuoPole.31 whose height is 31 cm. This unique driver benefits from all the inherent qualities of its elder, the DuoPole.50, which has allowed AudioNec to be at the pinnacle of sound reproduction for many years.

The DuoPole.31 is unlike any driver able to play music reproduction more life-like than any other. Paired with a very high quality super-tweeter for the upper frequencies and woofer and subwoofer for the low, your speaker is capable of playing everything from a small ensemble to a full orchestra without distortion or compression.

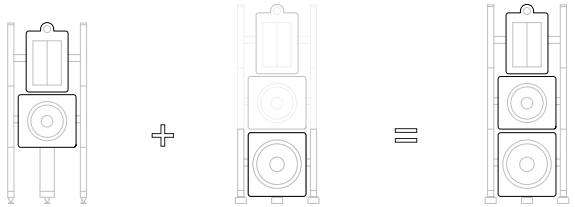
As its name suggests, the EVO range introduces the concept of speaker system scalability which allows you to upgrade your speaker to an upper model, at any time, simply by purchasing the additional modules. It is no necessary to sell your EVO speakers to achieve a superior system. As most of music lovers you are always on the quest for the Holy Grail, constantly trying to climb the quality ladder of sound reproduction. So from now on, one can expand ones system over the years to reach the very best sound reproduction quality one can dream of.

The EVO range comes in three levels of quality and engineering prowess:
- The standard EVO loudspeakers come with passive crossovers that allow bi-amplification.
- The AS range adds amplification and active crossovers to the subwoofers.
- The Signature versions implement the AudioNec DSPV4 which offers digital crossovers, full range system optimization & acoustic room correction, and subwoofers amplification for the very low frequencies.

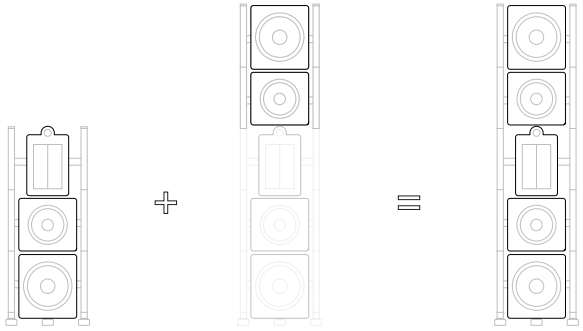
Acquitting an EVO speaker is the best way to prevent the psychological obsolescence of the products, while providing an elegant and simple upgrade path to another level of Nirvana music reproduction.



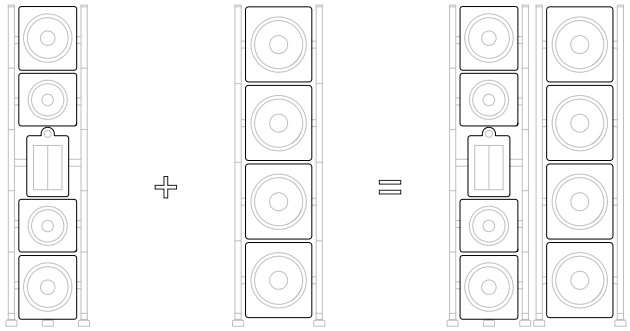
DuoPole DS & Super Tweeter | Low 22cm | Sub 28cm | Sub 38cm



EVO 1 + Upgrade = EVO 2



EVO 2 + Upgrade = EVO 3



EVO 3 + Upgrade = EVO 4

UPGRADABILITY

You are now the lucky owner of a pair of EVO speakers, one of the most innovative loudspeakers today. Congratulations!

This modular concept allows you to move inside the range when you want to take the next step and do not want to lose money by having to sell your existing speakers at discount. Your investment in Audionec is secure!

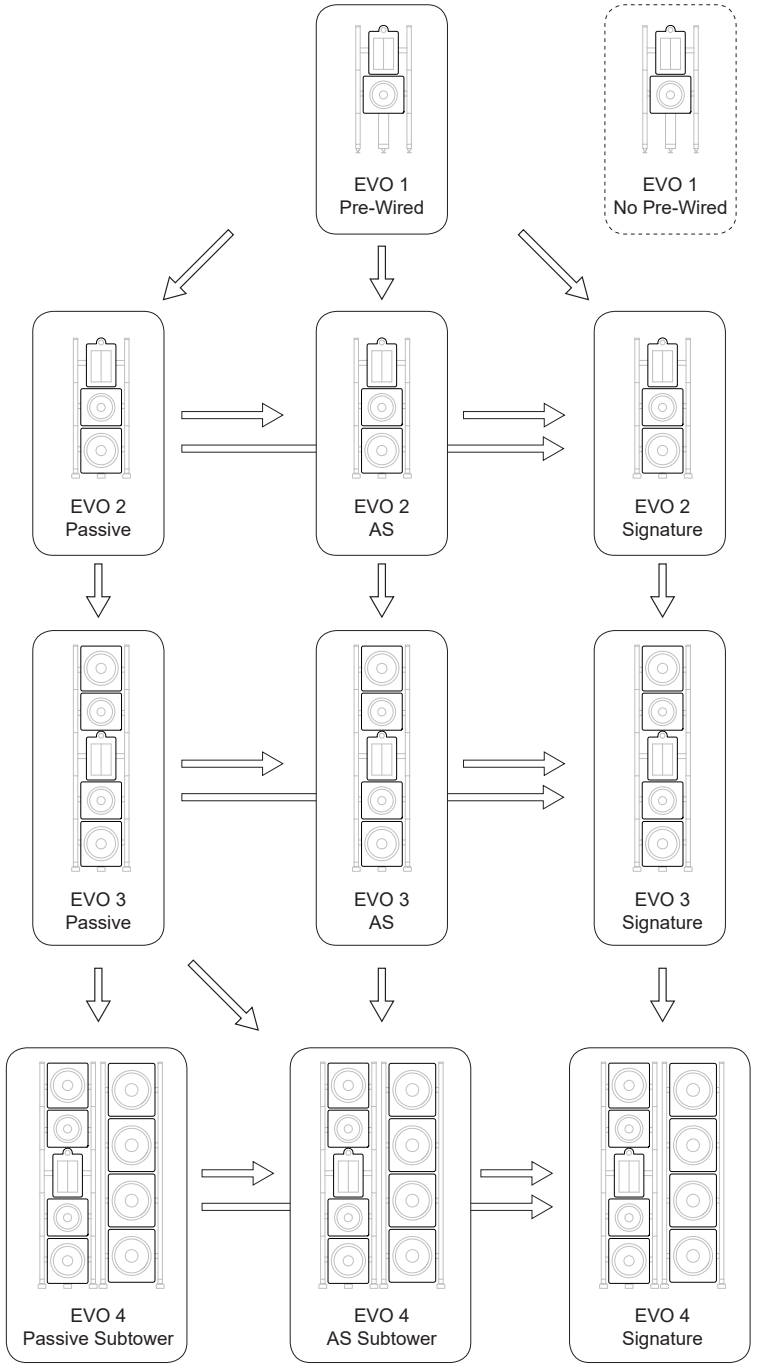
You can almost do any upgrade to this modular system, providing you have a PW (pre-wired) loudspeaker system. With other systems, you may have to stay with the same gear for a long time, which is not necessarily a bad thing, but you don't face this dilemma when you own an AudioNec loudspeaker system.

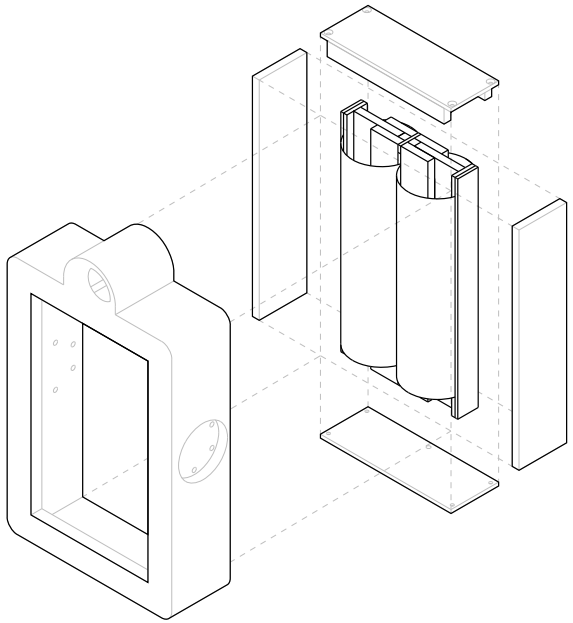
As shown on the diagram on the opposite page, you can see for example how to upgrade a pair of PW EVO 1 to a pair of EVO 2. Then to a pair of EVO 3. And if you win the lottery or come into unexpected extra funds, or you save wisely, and have a large listening room you can reach the summit of any music lover dream by having a double tower EVO 4.

You have to know that you can also move horizontally towards the same model. For example from a full passive EVO 2 to an EVO 2 AS with Active Subwoofer, ie active bass would make it much easier to integrate your EVO into a room which might not be perfect, to manage bass level or to better match your speakers with a very good but low power amplifiers such as 300B or other nice vacuum tube gear.

For those who want a perfect control and adaptation of the loudspeakers to the acoustical characteristics of their listening room, they can upgrade their system to a Signature version where the DSP-room correction offers full optimization.

The possibilities of this particular and innovative system are numerous, so do not hesitate to ask your dealer to explore the best solution for you.



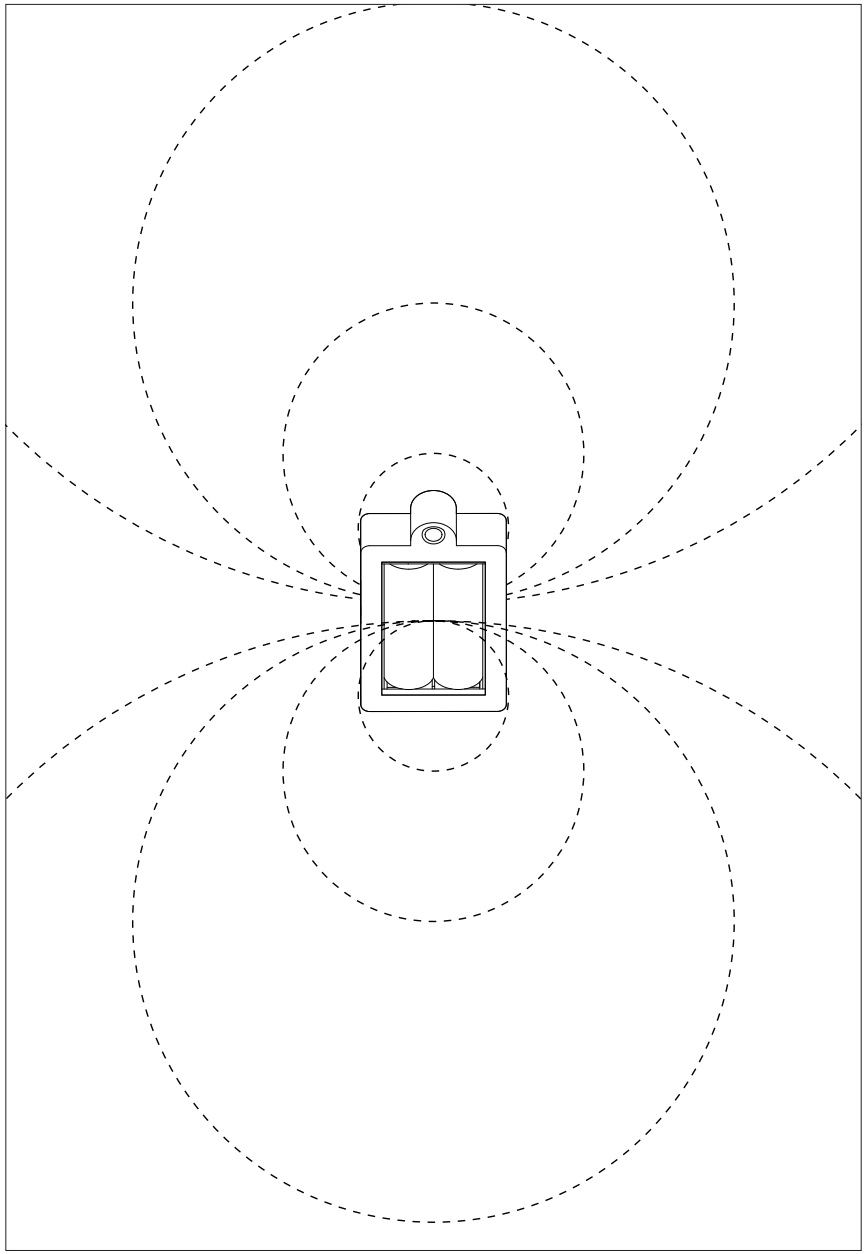


DUOPOLE DS.31

Wideband main driver

The main driver uses a unique AudioNec's proprietary technology acting as a dipole in an open baffle configuration, effectively avoiding any cabinet coloration. That means that it plays music forward and backward in free air. The driver is built from 2 cylindrical membranes with a vertical coil driven by an ultra powerful magnetic field of over one Tesla. This implies that the driver must be held in vertical position to function properly. The membrane is composed of a special kind of paper specially treated to AudioNec's specification.

As most drivers, it is advisable to avoid touching it. If this happened by accident, do not worry about it! As long as the membrane is not broken or severed, the driver can play music. If in doubt, please contact your official dealer.
This driver comes with a very simple and strong construction, it doesn't wear out and will be enjoyed for many years to come without any loss of musical properties. Reproducing frequencies from 400 Hz to 12 kHz, our dipole is a wideband driver capable of playing all kind of music in any kind of room, as long as you take care of the positioning of the speakers. Please see instructions below.



STRUCTURAL SYSTEM

“Form follows function” (Louis H. Sullivan)

The EVO Line speakers has been designed by a young talented architect/designer while our team of engineers developed the electronics, drivers and crossovers for the best performance in that form factor.

The result is a totally new and revolutionary way of building loudspeakers. As you can see on the technical drawing aside, the main structure of the speakers is outside the different cabinets. This architecture brings numerous benefits:

1. The waves vibrations generated by each bass drivers are not transmitted to the other drivers like it is with conventional all-in-one-box loudspeakers. So each driver can play without any interference. Furthermore, each cabinet is strengthened by internal bracing and filled with an appropriate amount of opened cells alveolar foam to avoid any standing and unwanted waves. Consequently, the sound is the cleanest and the most transparent possible. There is no unwelcome sound from box coloration.

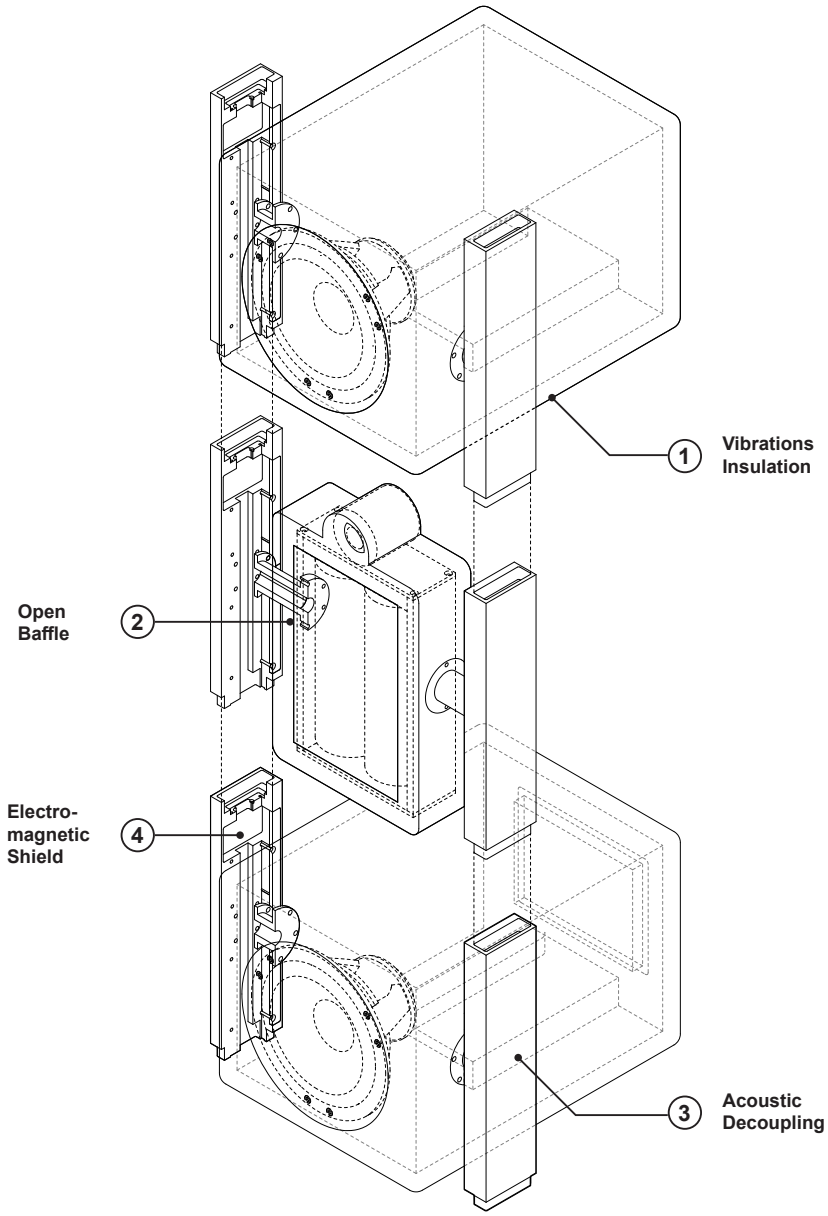
2. As you can see on the image, our DuoPole wideband driver has not only its own structure but it is placed in a so-called open baffle. This means no unwanted feedback waves. The DuoPole reproduces frequencies from 400 Hz until 12 kHz, the range where the human ear is the most sensitive and where the most musical information resides, offering a perfect and clear sound.

3. The third benefit is a perfect acoustic decoupling between the speakers and the ground. Due to the massive structure of the aluminum bars, its weight and only 3 contact points with the ground, your EVO speakers are isolated from ground vibrations and potential interferences.

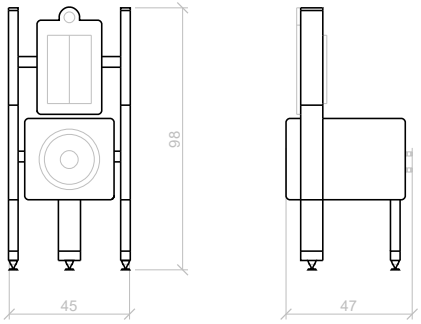
4. The last benefit and not the least is that the aluminum bars, inside which the wires run, act as electromagnetic and radio frequency interferences shields, a consequent characteristic regarding today’s numerous waves pollution alike Wifi, Bluetooth or other high frequencies surrounding us.

Finally, even though not crucial, this type of structure offers a light and open design, more pleasing to the eye and more acceptable and elegant to other members of the household - the important so-called WAF! Consequently, a tall and imposing pair of loudspeakers such as the EVO 3 does not appear as big as a monolithic object.

This modular structure obviously also allows you to upgrade your pair of EVO to the next version up in the future.



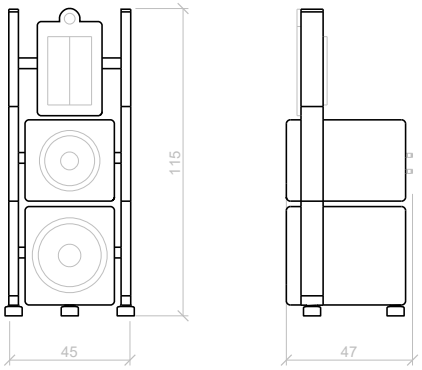
SPECIFICATIONS



EVO 1

3-way, 3 drivers loudspeaker system

Frequency Response:	35 Hz – 45’000 Hz
Sensitivity:	92 dB/2.83V
Power Handling:	200 Watts
Nominal Impedance:	6 Ohm (passive version)
Dimensions (WxHxD):	45 x 98 x 47 cm
Weight:	40 kg (one speaker)

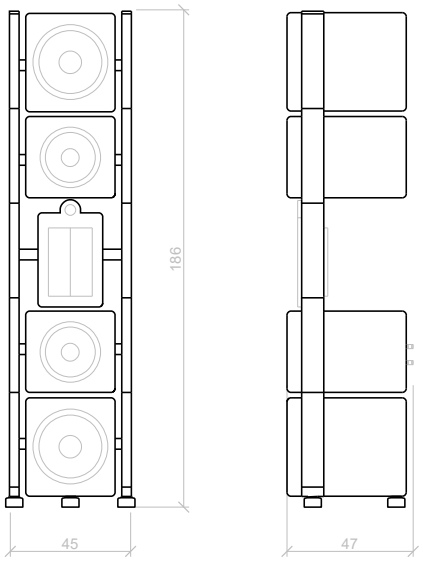


EVO 2

3-way, 4 drivers loudspeaker system

Frequency Response:	18 Hz – 45’000 Hz
Sensitivity:	91 dB/2.83V
Power Handling:	200 Watts
Subwoofer amplifier:	500 Watts (AS version)
Nominal Impedance:	4 Ohm (passive version) 6 Ohm (AS version)
Dimensions (WxHxD):	45 x 115 x 47 cm
Weight:	65 kg (one speaker)

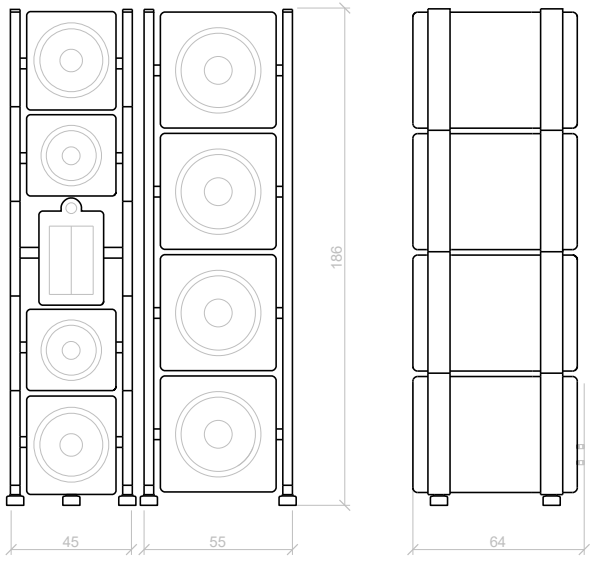
SPECIFICATIONS



EVO 3

3-way, 6 drivers loudspeaker system

Frequency Response:	18 Hz – 45’000 Hz
Sensitivity:	92 dB/2.83V
Power Handling:	500 Watts
Subwoofer amplifier:	2x 500 Watts (AS version)
Nominal Impedance:	8 Ohm (passive version) 8 Ohm (AS version)
Dimensions (WxHxD):	45 x 186 x 47 cm
Weight:	110 kg (one speaker)



EVO 4

3-way, 10 drivers loudspeaker system

Frequency Response:	14 Hz – 45’000 Hz (room dependent)
Sensitivity:	92 dB/2.83V
Power Handling:	5000 Watts
Subwoofer amplifier:	5000 Watts (AS version)
Nominal Impedance:	6 Ohm (passive version) 8 Ohm (AS version)
Dimensions (WxHxD):	45 x 186 x 47 cm (Main Tower) 55 x 186 x 64 cm (Sub Tower)
Weight:	320 kg (one speaker)

PART 2

INSTALLATION

PRELIMINARY

In general, a loudspeaker can be no better than the listening room allows it to be.

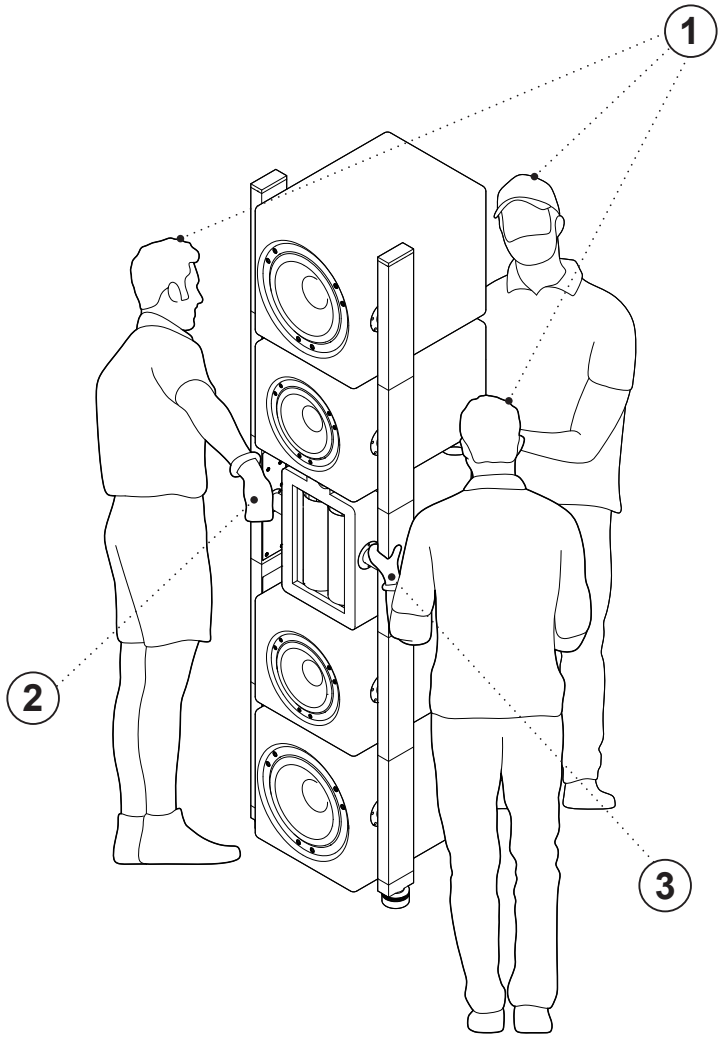
Therefore, the listening room is the most important element in a high performance sound system and for this reason is often referred to as the final frontier. Few people have the luxury of a dedicated, purpose-built listening room. Most of us listen to music in a room that also serves as the living room. There are several ways to address this challenge. Here are the most common “solutions”...

The room can be treated in several ways by using passive and/or active absorbents, bass traps, diffusers and other devices. For those who have no problem for changing the look and feel of their internal decor and have money for it could be a good solution. Please ask advice to a professional of this domain.

For many years, sophisticated “room correction systems” have been introduced. Although the term Room Correction is quite misleading insofar as none of these systems actually correct the room in any real sense, they digitally compute the sound of the audio system in order to optimize it to match to the room. We have been at AudioNec one of the first brands proposing that kind of ultimate solution. All of our Signature version loudspeakers are sold with their DSPV4 acting as digital crossover, acoustic room corrector and amplifier for the low frequencies.

The most popular solution is to experiment and take care of positioning the loud-speak-ers at the best possible place. As with every high-end speaker in the market, you have to pay attention on where and how you position and orient them. On the other hand as the DuoPole diffuses the sound throughout the listening room like circular waves, the sweet spot is not so much critical than with other type of loudspeakers.

Anyway please read the instructions below and you will listen to great music with great sound without needless hassle.



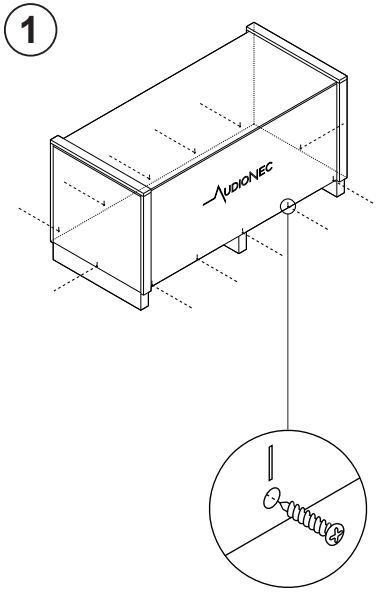
1 **We highly recommend being at least two or three people to manipulate the loudspeakers.**

2 **Use clean and soft gloves.**

3 **Make sure to always hold the EVO by the bars.**

UNPACKING

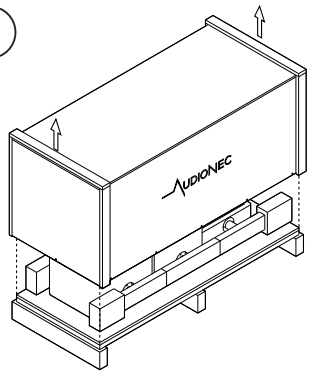
1



The speakers have been packed in wooden crates to ensure a perfect protection during transport. When moving the boxes, please make sure to move them horizontally as much as possible until their final position in the listening room. If not possible due to narrow stairs or access, please carry each box vertically, according to the “T” (Top) and “B” (Bottom) markings on the crates.

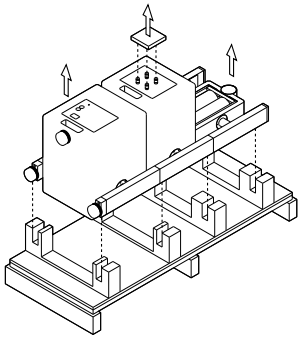
Once the box is properly and horizontally placed in the room, remove only the **cruciform highlighted screws** at the bottom of the crates.

2

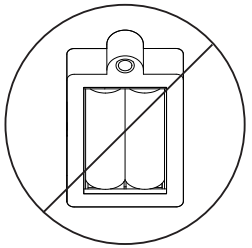


Once the top part of the box is free, lift it carefully keeping it horizontal (2 persons required) until at least 30 cm above the speakers. Then put it aside.

3

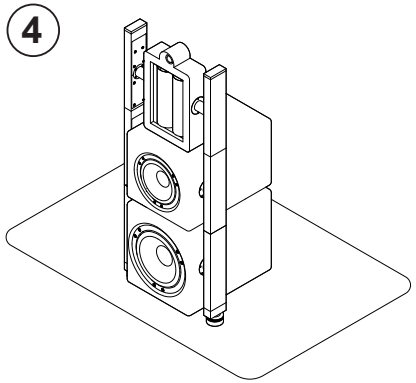


Move carefully the foam protection of the rear plate. Try to be as close as possible to the final place of the speakers to avoid moving them unnecessarily once unpacked and unprotected. Make sure there are no obstacle in the path to the speakers final position.



⚠ **Please avoid to hold the speakers by the top black housing of the DuoPole driver or by the rear aluminum foot of the subwoofer.**

4



The best way to move the speakers and to tilt them to the vertical position is to hold them by the aluminum black sidebars.

Listening position.

Start with the rear of your speakers placed approximately 50 cm from the front wall (the wall in front of the listening position) and the edge of the external aluminum bar about 80 cm from the side walls. Most of times your sitting distance should be further than the distance between the speakers themselves. You are trying to attain the impression of good center imaging and stage width. There is no exact distance between speakers and listener, but there is a relationship. In long rooms, the distance between the speakers will be far less than the distance from you to the speaker system. However, in a wide room, you will still find that if the distance from the listener to the speakers becomes smaller than the distance between the speakers themselves, in that case it can happen that the image will no longer focus in the center.
Now that you have positioned your speaker system, spend time listening. Wait to make any major changes in your initial setup for the next few days as the speaker systemitself will change subtly in its sound. Over the first days of play, the musicality will improve slightly with deeper bass and more spacious highs resulting. After a few days of listening you can begin to make refinements and hear the differences.

The wall behind the listener.

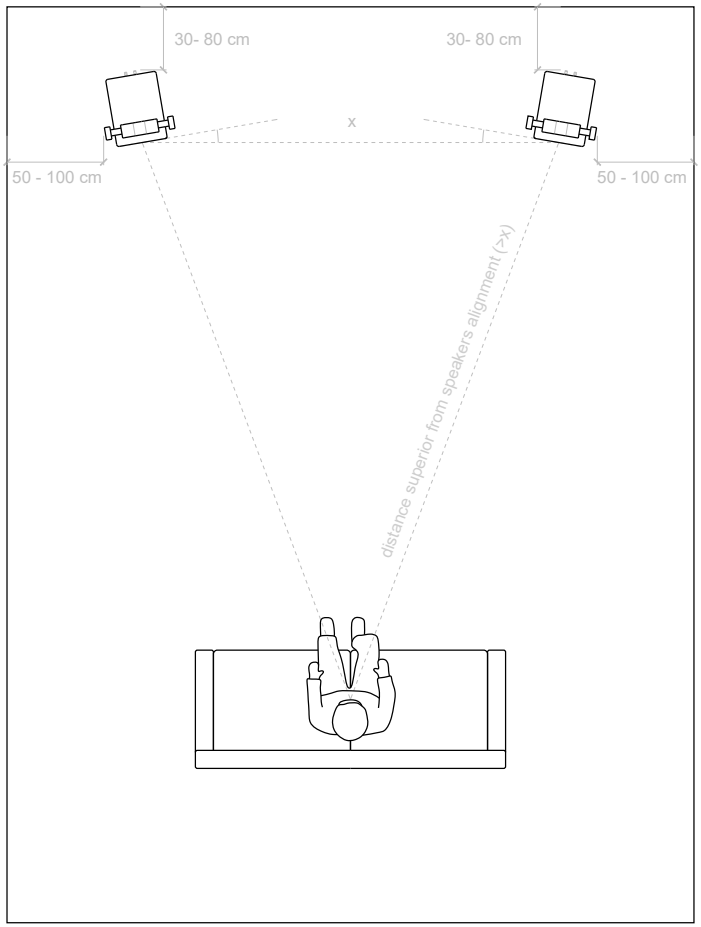
Reflections also occur from your back wall (the wall behind the listening position). If your listening position is close to the back wall, these reflections can cause problems and confuse imaging quality. It can be better for the wall behind you to be quite a bit absorptive rather than to be entirely reflective even if sometimes having there diffusion panels can also solve the issues. Each case is specific depending of the room proportions and materials.

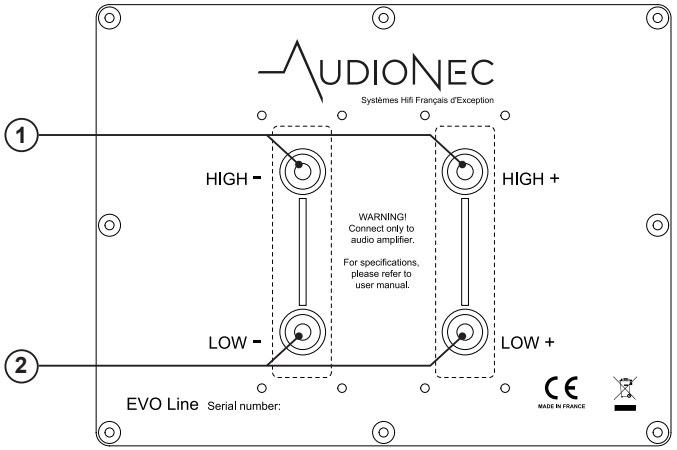
The wall behind the speakers.

The front surface of this wall should not be extremely hard or soft. A pane of glass will cause reflections, brightness and confused imaging. Curtains, drapery and objects such as bookshelves can be placed along the wall to diffuse an overly reflective surface.
A standard sheet rock or textured wall is generally an adequate surface if the rest of the room is not too bright and hard. Walls can also be too soft. If the entire front wall consists of heavy drapery, your system can sound dull. You may hear muted music with little ambiance. Harder surfaces will actually help in this case. If you have openings, the reflection and bass characteristics from each channel can be different.

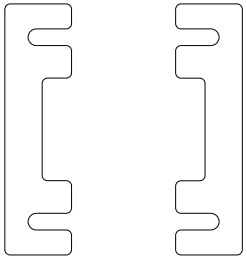
The side walls.

As the DuoPole's unique wide dispersion inherently uses side wall reflections, a position as little as 50 cm or less from the side walls could be inadequate. Sometimes, if the system is bright or the imaging is not to your liking, and the side walls are very near, you can try putting curtains or softening material directly to the edge of each speaker. Often acoustic panels mixed of absorbing and diffusing are a good way to treat primary reflexions coming from side walls.





Connector plate



AudioNec straps

Speaker Cables

To wire the EVOs to your amplifier(s) use the best speaker cables you can. The length and type of speaker cable used in your system will have an audible effect. A variety of cables are available whose manufacturers claim better performance than standard heavy gauge wire. We have verified this in many cases, and the improvements available are often more noticeable than the differences between wires of different gauge. The effects of cables may be masked if the rest of the electronic equipment is not of the highest quality.

Connections

Connections are done at the signal input section on the rear panel of the speaker. When possible, use spade connectors for optimum contact and ease of installation. Hand tighten the binding posts, but do not overtightened - **DO NOT use a tool to tighten the binding posts.**

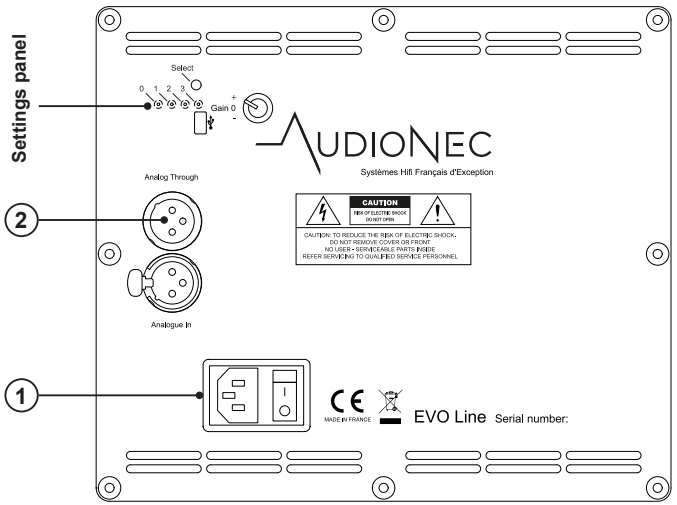
Be consistent when connecting the speaker cables to the signal input terminals. Take care to assign the same color cable lead to the (+) terminal on both the left and right channel speakers. Most of time + is marked Red and - marked black. If bass is nonexistent and you cannot discern a tight, coherent image, you may need to reverse the (+) and (-) leads on one speaker to bring the system into proper polarity.

Amplification

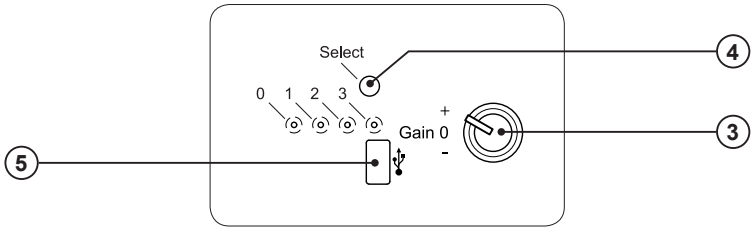
1. When mono amplified, the speakers cables have to be plugged to the top binding posts marked “HIGH”, the provided straps are there to establish the link with the LOW binding posts.

2. When bi amplification or bi-wring is used, remove the straps and connect the cables for med/high frequencies to the “HIGH” binding posts and the cables for the low frequencies to the “LOW” binding posts.

PLUGGING AS VERSION



AS rear plate



Settings panel

Connections

1 The EVO 2 AS has an amplified subwoofer. It has to be connected to the mains and the On/Off switch has to be on the “I” position. The second subwoofer at the top of the EVO 3 AS does not need to be plugged to the mains at it is linked by internal wire to the mains of the first one at the bottom

2 Analog XLR Input and Analog XLR Output are reserved for users who specifically ask for this kind of setting where two outputs per channel are available on their preamplifier. By default, the subwoofer is internally linked to the speakers incoming signal so no extra connection is required.

Settings

3 A rotative knob allows to get +/- 12 dB of volume gain for the subwoofer so you can adjust to your room and tastes.

4 Top Left, there is a very small Select push button to choose the preset in use. A small LED indicates the preset in use and by default the preset is n°1. 3 presets are available for user (preset 0 is reserved to show wrong amplifier conditions):

Preset 1 is the standard factory setting.
Preset 2 aims to reduce the subwoofer output so less bass is produced. In some cases it can be useful for neighbors who do not appreciate your music...
Preset 3 augments the bass level as some people prefer it for example for pop, rock, rap, electro music...

5 All settings can be remotely changed by us. A laptop with an Internet connection and USB connected to the AS subwoofer rear plate USB plug is needed. This is how the AS speakers can be updated when some factory improvements occurs.

Automatic switch on/off

Even if the amps driving the EVO AS subwoofer are Class D, it is normal that some heat occurs there. The rear subwoofer plate is used as a heat sink so it is normal that after some listening time it becomes warm. This way the amplifiers are cooled passively without the need of fans. In normal use even when warm it should still be possible to touch the plate without being hurt. By default, active subwoofer amps are configured with an automatic switch on/off according to the signal presence at the input.

When an input signal is detected the amps switch on automatically, they shut down after 15 minutes without signal. This delay and the level of signal detection are parameters we can remotely adjust.

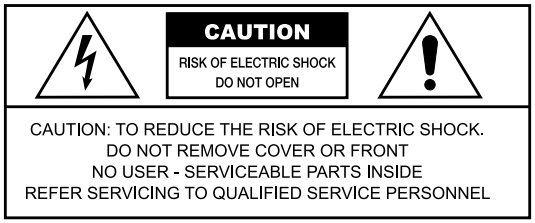
5 We can do software changes remotely via a PC connected to the speakers through a USB 2.0 Cable. Please contact your retailer to enable that procedure.

SECURITY

1 Read these instructions.
2 Keep these instructions.
3 Heed all warnings.
4 Follow all instructions.
5 Do not position the speakers near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
6 Only use attachments/accessories specified by the manufacturer.
7 Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-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.
8 Turn amplifier off and unplug speaker if any abnormal conditions occur.
9 Turn amplifier off before making or breaking any signal connections!
10 Do not operate if there is any visual damage to the DuoPole membrane.
11 Do not drive speaker beyond its rated power.
12 No candles or other sources of open flame should be placed on the speaker.
13 No liquids either in glasses or vases should be placed on speaker.
14 Speaker should not be exposed to dripping or splashing liquids.

For Active Sub-woofer versions:

15 To reduce risk of electric shock, do not remove back plates.
16 Unplug power during lightning storms or when unused for long periods of time.
17 The mains plug of the power supply cord shall remain readily operable.
18 To completely disconnect this equipment from the mains, disconnect the power supply cord plug from the receptacle.
19 To reduce the risk of fire or electric shock, this apparatus should not be exposed to rain or moisture and objects filed with liquids, such as vases, should not be placed on this apparatus.
20 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.
21 Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit the apparatus.
22 The power cord must be connected to mains socket outlet with a protective earthing connection.



The lightning bolt 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.

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.

In accordance with the European Union WEEE (Waste Electrical and Electronic Equipment) directive effective August 13, 2005, we would like to notify you that this product may contain regulated materials which upon disposal, according to the WEEE directive, require special reuse and recycling processing.

Service Information

For service this product should be returned to your authorized dealers.
In France, please visit www.audionec.com for contact information. Outside France, please refer to our dealers list at www.audionec.com/contact

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