

THE
GRYPHON



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Gryphon EOS 2 **Near-Wall Loudspeaker**

Owner's Manual

Table of Contents

Introduction	5	Setting up the EOS 2	19
You Have Arrived	6	Choice of Feet	20
Creating an Icon	7	Listening Position	22
The Man behind the Brand	8	Rear-wall distance	24
The Gryphon Story	9	Sidewall distance	26
Timeless Beauty	10	Toe-In	28
Bespoke Manufacture	10	Rake/Tilt	32
The Gryphon EOS 2	11	Warranty & Support	35
Features	13	Notes	36
Choice of Cables	15		
Specifications	16		
Unpacking	18		



The Gryphon Name

The Gryphon moniker and symbol is an appropriate image for the brand, inspired by Greek mythology, part eagle, part lion, the perfect union of grace and agility with power and authority.

Gryphon Audio Designs is quite simply
"The ultimate choice for the enthusiast who wants the sound with no frills other than the luxury imparted by the fit, feel and finish."
(Hi-Fi News & Record Review magazine, UK)

The Gryphon Genetic Code

"If I had to draw an analogy to something in the physical world, it would be sparkling clean, refreshing water flowing in a pristine stream"

(Michael Fremer, Stereophile Magazine)

Similar sentiments echo around the world.

You Have Arrived

Gryphon Presents the World's Finest Audio Equipment

For nearly four decades, Gryphon Audio Designs has defined the state-of-the-art in High End audio. In terms of aesthetics, circuit design and innovation, materials, build quality, intuitive control and, most importantly, audio performance, Gryphon products have set the standard by which all others are judged.

In addition to detailing all operational and functional aspects of the EOS 2 loudspeaker, this Owner's Manual describes the history and design ethos of Gryphon Audio Designs and our passionate pursuit of perfection. Please take a few moments to learn about the company in whose products you have invested.

Thank you for your patronage !



Creating an Icon

In virtually every category of consumer goods - fashion, automobiles, furniture, wine, watches, etc. - there exists a revered top tier of luxury and excellence, a small yet celebrated, High End segment populated by innovative designers who pursue perfection with little concern for production economies, practicality or cost.

The essence of these “aspirational brands” is consistent: aesthetic beauty, advanced technologies, superior performance and extravagant build quality combine to achieve unsurpassed levels of fit, feel, finish and function. As a result, all of these offerings are the very best that they can possibly be, for the discerning few who can appreciate and afford them.

While many of these marques are familiar to luxury consumers, others are known only to a limited group of cognoscenti. Curiously, High End audio systems remain a mystery to many affluent connoisseurs. This lack of enthusiasm can be explained by products whose awkward functionality or poor cosmetics clash with the refined aesthetic sensibilities of potential owners. As for aesthetics, the sculptural beauty of Gryphon components, combined with their extraordinary fit and finish, elevates fine audio componentry to objects of worship at home in the finest domestic spaces.

For the uninitiated, who mistakenly assume that they are unable to distinguish finer musical nuances as reproduced by High End audio systems, even the briefest audition proves that most individuals can discern and appreciate the “you-are-there” realism offered by fine High End home entertainment equipment. Rest assured: if you’re passionate about music, the illusion that the listener can be transported to the performance venue is addictive.

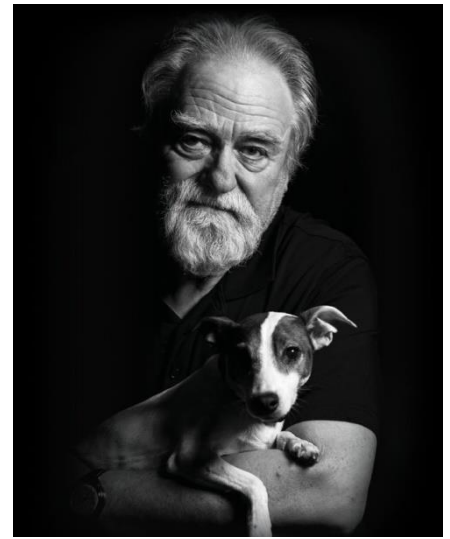
The fortunate few with the means to acquire the ultimate in-home entertainment owe it to themselves to experience the life-changing difference which a Gryphon audio system delivers.



The Man behind the Brand

After 33 years at Gryphon Audio Designs, Flemming Erik Rasmussen retired from the company he founded in 1985 to devote himself to his favourite pastimes including his first love, painting.

Rasmussen's audio career was purely serendipitous. After earning a degree in painting and graphic arts at Denmark's Aarhus Art Academy, he taught painting and photography before becoming chief designer of textiles and imprints for Scandinavia's largest sportswear company, then resigned to form 2R Marketing, which quickly became Denmark's leading High End audio distributor, later founding Gryphon as an offshoot of that company.



The legendary Gryphon Head Amp

The first product, the now legendary Gryphon Head Amp, was developed for Flemming's personal use; however, demand generated by rave reviews and "audiophile buzz" led to the formal establishment of Gryphon Audio Designs as a separate corporate entity.

Following the immediate success of the Gryphon brand, distribution was phased out in 1993 so that Rasmussen could dedicate his efforts entirely to Gryphon.

Rasmussen's background in fine arts and industrial design infused every Gryphon product with distinctive, luxuriant styling. His elegant, uniquely Scandinavian black-on-black designs were the original "Nordic Noir," long before TV crime dramas appropriated the term. His legacy is palpable in the visual aesthetic of current Gryphon chassis, as well as the ethos of quality and performance embodied in all Gryphon products.

The Gryphon Story: Our Legend Continues



The Gryphon story is lovingly documented in two volumes: *The Gryphon Unplugged: 25 Years of Gryphon Audio Designs* (2010) and *The Art of the Gryphon: Form and Function in a Spiritual Union* (2015), a sumptuous photo gallery of Rasmussen's designs.

The transfer of daily management in connection with Flemming E. Rasmussen's departure left no uncertainty regarding the future direction of the Danish icon that continues to earn praise and admiration among connoisseurs worldwide.

Gryphon's talented team of engineers, craftsmen and support staff remains wholly intact at all levels and every member continues to fulfill the brand's promise to offer the world's most inventive, technically advanced and aesthetically satisfying musical instruments to Gryphon's audience of passionate music lovers.

The engineering, artistic and marketing resources remain firmly committed to the principles that have defined the company from the very beginning.

Timeless Beauty, Aesthetic Perfection



Home of the Gryphon is located in beautiful surroundings in Ry, Denmark

The art of ultra-luxe audio systems should be apparent *before* the equipment is turned-on; for this reason, Gryphon products have always offered exquisite styling and superb user-friendliness to complement their stunning audio performance. In every Gryphon product, form follows function in a unique synthesis of aesthetics and operational simplicity which arises organically from the audio circuit design. Gryphon components embody sophisticated technology and cutting-edge industrial finish executed with the best of artisanal craftsmanship, all in the service of music. The peerless finish, build quality, ergonomics and pride of ownership that contribute to the wholistic Gryphon concept can only be fully understood and appreciated through personal experience with our products.

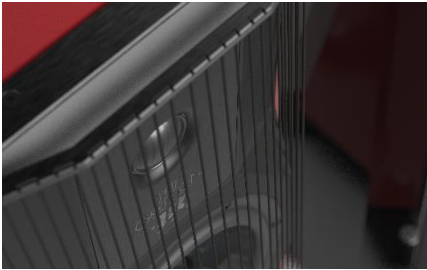
Bespoke Manufacture for Heirloom Build Quality



At our laboratories and manufacturing facilities in Denmark, we maintain full control over every aspect of development and production, and our team members follow each Gryphon component from initial concept to early prototype and through to final quality control. Printed circuit boards are assembled by a supplier of precision military and medical equipment employing the highest standards of quality control and pre-inspection of components. Chassis parts are manufactured by specialists chosen solely for their outstanding quality of workmanship and each unit is individually tested. In every aspect of every Gryphon product, the same stringent standards of excellence apply.



The Gryphon EOS 2 Speaker System



One of Gryphon's historic strengths has been our "Systems approach" to HiFi: by designing every component in the playback chain, we're able to achieve a level of system synergy that would otherwise not be possible. Recently, we've introduced breakthrough amplifier technology—first with Essence and then with Apex—then redefined preamplifier performance with Commander. Gryphon's Vanta cabling likewise represented a dramatic step forward in metallurgy while our StandArt equipment racks brought audio furniture to a new level of both sonics and aesthetics. Now, we're proud to introduce EOS 2: a new standard in compact loudspeaker design.

Gryphon's new EOS-series is born in cooperation between Gryphon's Industrial Designer Søren Slebo & Benno Baun Meldgaard, Gryphon's Loudspeaker Designer. Former Head of Design for Gamut, Mr. Meldgaard is one of High-End Audio's great talents and his work for EOS delivers innovative solutions to achieving big speaker sound in small rooms. First among these is EOS' unique "Stealth" enclosure, whose purpose-engineered front baffle enables the drivers to yield smooth dispersion and uniform energy output, as well as a more stable and dimensional soundstage.



EOS' Stealth exterior has been sculpted to function as an efficient diffusor of standing waves—a great advantage in small spaces—while the interior has been critically shaped to eliminate standing waves and cabinet resonances. Gryphon's proprietary "Line porting" technology, a new way of directing the back wave of the mid-woofer towards the ports, ensures a perfect path for the low frequencies to exit the enclosure while providing efficient damping of frequencies above the 60-80 Hz region. The result is shockingly fast and clean bass reproduction, free of distracting upper-frequency artifacts. Mr. Meldgaard's mandate to maximize room compatibility and placement flexibility yielded two additional design flourishes: EOS can be either front- or rear-ported by means of removable port plugs, while a three-position phase switch ensures ideal response at the listening position. Taken together, these two features enable unmatched versatility in speaker placement.

Although EOS 2 is Gryphon's most accessible loudspeaker, it offers uncompromising parts and build quality. Our proprietary woofer features a Thin-ply Carbon Fiber cone manufactured to our specifications by the world's leading manufacturer of Formula 1 components. EOS' tweeter—also proprietary—uses a large (34mm) Beryllium dome and resonance-free rear enclosure for enhanced dynamics and low-end response. Hand-assembled from the finest components, our

PCS (Progressive Curved Slope) crossover maximizes power handling and ensures a seamless transition between drivers. Featuring 89 dB efficiency and 3.8 Ohm minimum impedance, EOS 2 presents an easy load for virtually all high-quality power amplifiers.

Evocative of Gryphon's State-of-the-Art Kodo and Trident II loudspeakers, EOS' handsome, stringed front grille combines beauty and protection with acoustic transparency. As Gryphon's new entry-level loudspeaker, EOS 2 not only revolutionizes affordable performance but makes it possible to assemble a world-class music system at a price that was previously impossible. Combine EOS 2 with a Diablo Integrated Amplifier and Rosso cabling for a system whose aesthetic beauty and pride of ownership is surpassed only by its matchless musicality. Please join Gryphon Audio Designs in welcoming EOS: Gateway to the World of Gryphon!



Features

The EOS 2 Enclosure is designed to have several functions incorporated:

The front baffle is designed to aid the drivers in obtaining a smooth dispersion regardless of frequency, which yields a very uniform energy output, as well as a more stable soundstage.

The “Stealth” exterior design both functions as an efficient diffusor of standing waves in the area around the speakers, but more importantly it eliminates standing waves and resonances inside the enclosure.

Internally it consists of the new proprietary Gryphon “Line porting”, which is a special way of “tunnel-damping” the rear sound of the Mid-Woofer towards the Ports.

This ensures a direct path for the low frequencies to reach the port, while providing an efficient damping of frequencies above the 60-80 Hz region, resulting in a very fast and clean Bass reproduction, without disturbing artefacts from the upper frequencies.

By providing a choice between using a rear-OR front- firing port, The EOS 2 is very flexible and will work very well in both small and medium sized rooms.

The EOS 2 is fitted with 2 Drive units, a 7.5” (190mm) Mid-Woofer and a 1.34” (34mm) Large-Dome Beryllium Tweeter.

The Mid-Woofer is fitted with a powerful neodymium magnet which saturates the iron parts completely, resulting in a magnet-system with no compression. The cone is made of pure Thin-Ply Carbon fiber, (TPCD), resulting in one of the stiffest cones available today while also delivering a good inner damping resulting in a clean, fast and break-up free reproduction. This driver has no sound of its own therefore, the perfect match to the Beryllium Tweeter.

The Impulse optimizer ring, is positioned straight above the voice-coil hereby strengthening the bond between cone and voice-coil, resulting in unparalleled Impulse reproduction as well as a pure piston behavior well beyond its designated area of reproduction.

The Tweeter has a large Beryllium Dome, ensuring unparalleled dynamic reproduction while maintaining a very high bandwidth and extremely low distortion. We have created a large rear



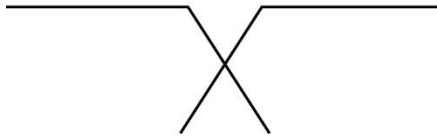
chamber implemented with a special damping that increases in steps, ensuring both a resonance free environment as well as the ability to reach quite low frequencies.

Our precisely shaped waveguide further enhances its dispersion as well as linearity.

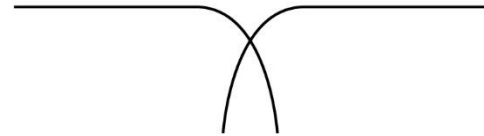
The crossover is the heart of the EOS 2 performance. Its unique technology, handles much more than just separation of the frequencies sent to each driver:

The Progressive Rounded Slope technology creates roll-off slopes that start with a very soft roll-off, ensuring perfect overlap and blending between the drivers. The slopes then become progressively steeper, effectively removing the out of band distortion from the drivers.

Normal Crossover Slope
(Linear roll off)



Baum PCS Crossover Slope
(Progressive Curved Slope)



The crossover also aligns the phase response of the two drivers at all frequencies (measured from the listening position) thereby reproducing a life-like soundstage in width, height, and depth.

Both drivers are connected in positive polarity and their impulse responses are aligned perfectly. This means that musical timing is reproduced without any smearing or shifts – retaining the original musicality found in the recording.

Choice of Cables

Gryphon's basic philosophy is one of sonic neutrality. We prefer to leave interpretation to the musicians and singers. Therefore, you should not need a cable with a particular "sound" of its own to balance or "equalize" your system. Unfortunately, in some circles, cables have become an acceptable equalizer in the High End audio industry.

Trust the advice of your authorized Gryphon dealer in selecting interconnects and loudspeaker cables for your Gryphon equipment and for that matter power cords as well. After all, we are listening to current "converted" into music!

Naturally, Gryphon's own range of interconnects, loudspeaker cables and power cords are used in the development of Gryphon products. Gryphon cables are designed for ultimate neutrality and resolution. They are extremely revealing and will allow the ultimate quality of your Gryphon system or any fine audio components to come through clearly and undiminished.

All Gryphon amplifiers are designed and manufactured with an extreme bandwidth and in some cases the wrong choice of speaker cable can present a technical issue and will create potential problems in the collaboration between the amplifier and the speakers, with the speaker cable as an interactive factor. Gryphon recommends that no speaker cable on a Gryphon amplifier should feature coaxial geometry, active shielding or "Network boxes" that will impose different types of filtration upon the signal. A speaker cable with a coaxial design or with active shielding will in most cases have a much lower bandwidth than the amplifier and therefore the amplifier will be met with a too high capacitive load and might cause oscillation of the amplifier. There is no need to actively add filtration to an analogue amplifier, as it doesn't serve the final reproduction of music.

Gryphon recommends using speaker cables with a low capacitance and a wide bandwidth in order to match the amplifier's bandwidth and output impedance specifications. There is no need to add more "negative" filtration to the system as Gryphon is striving to have the finest level of tonal balance and neutrality. Choose your cables with the highest level of attention to the actual parameters of the cable design (e.g. cable geometry, capacitance, bandwidth, insulation, conductor material and connectors) and aim for low capacitance, low resistance, low inductance and sonic neutrality.

Specifications

Type: 2-way, Linear phase, floor stander

Drivers: 1 x 7½" (190mm) Thin-ply Carbon Fiber Diaphragm (TPCD) With impulse optimizer ring.
1x1.34" (34 mm) Beryllium dome tweeter. Step-damped, resonance-free rear enclosure.

Principle: Line-dampened, Front or Rear firing port for optimum room integration.

Frequency response: 26 – 40.000 Hz (-3dB).

Sensitivity: 89dB 1m 2.83V @1KHz.

Impedance: 6Ω nom. / 3.8Ω min. @128Hz

Crossover: 2.2 KHz / 1st - 4th Order, progressive rising slope technology

Feet: Adjustable spikes with integrated dampers (Removable)

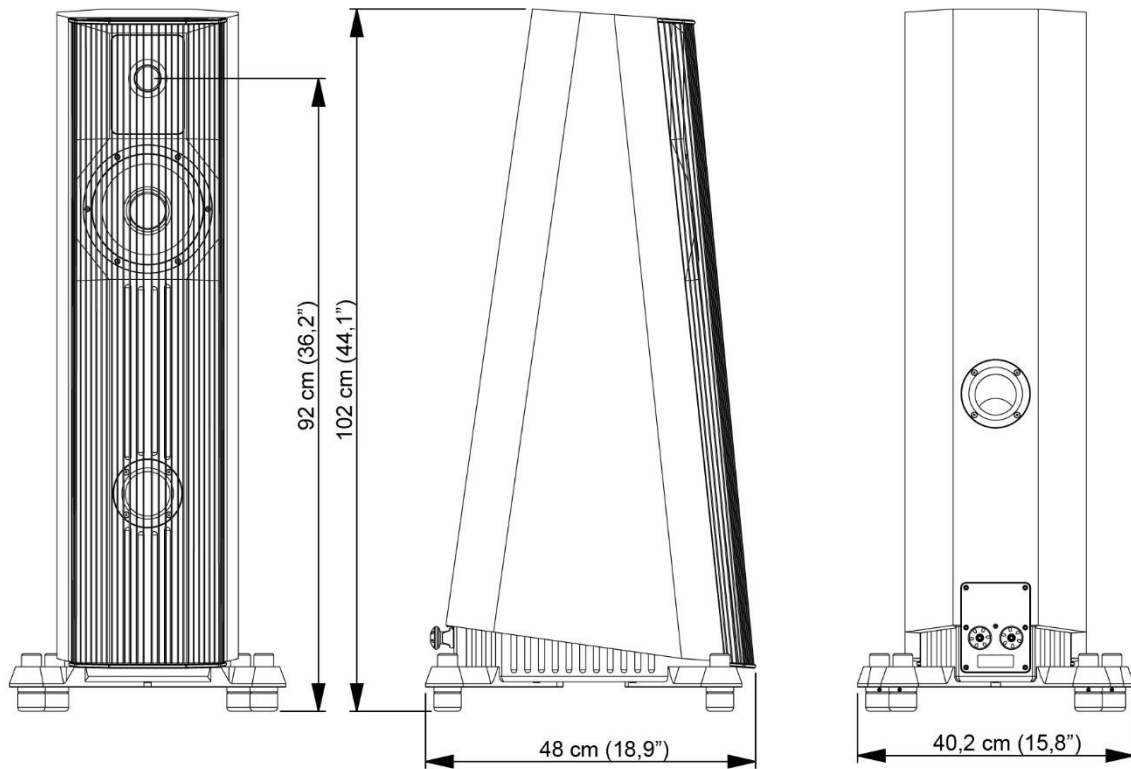
Enclosure volume: 1.4 cubic feet / 40 liters

Weight: 67.4 lbs. / 30,6 Kg Each.

Dimensions: See below illustration.

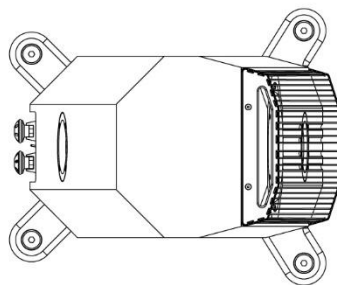
Specifications can be changed without notice.



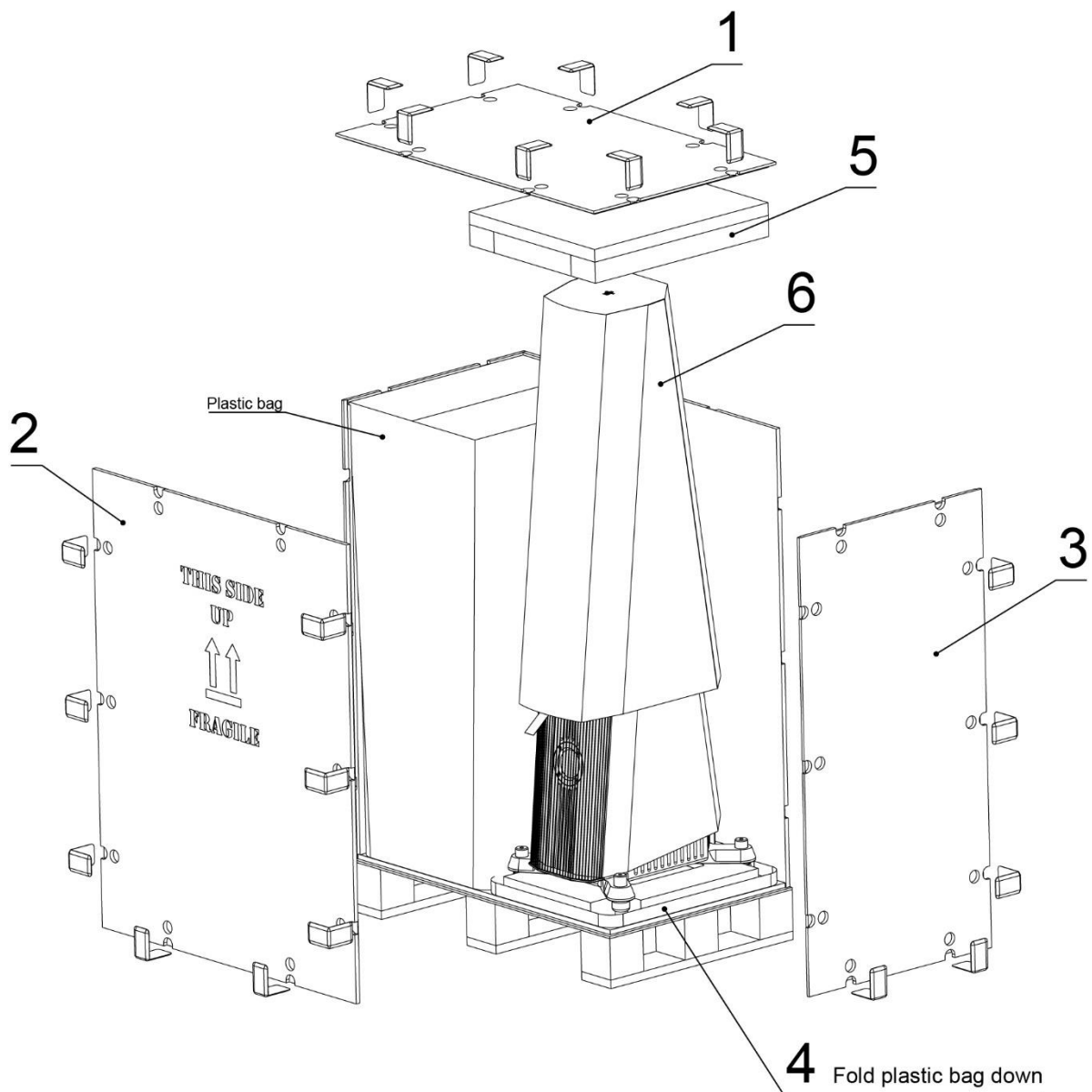


Dimension of packaging, 2x EOS 2:

With: 90 cm (35,4")
 Depth: 56,5 cm (22,2")
 Hight: 122 cm (48")



Unpacking



Setting Up the EOS 2

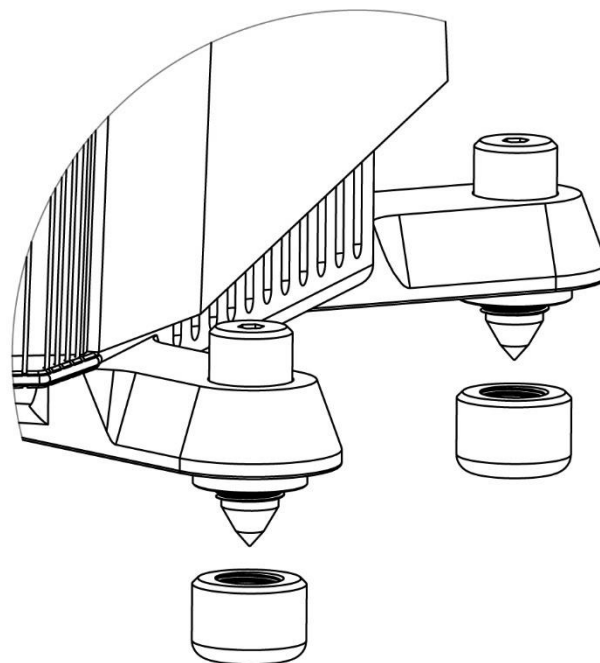
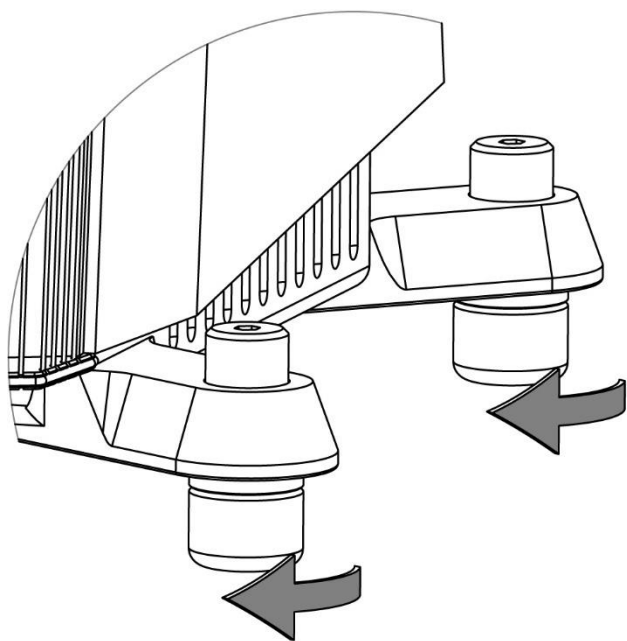
To fully unlock the potential of the EOS 2, it is important to pay great attention to how the EOS 2 is placed in the listening room.

Unlike most loudspeakers, the EOS 2 is designed specifically to be placed close to the rear wall, using the acoustics of the room to its advantage.

Under normal circumstances, placing room treatment products near the EOS 2 will degrade its bass performance and dynamic scale, if not used carefully.

This setup guide will assist in proper initial setup of your EOS 2, making final refinement much easier.





Before you start the process of setting up the EOS 2, you must determine the best configuration for the feet.

You have two options:

- Using the EOS 2 with spikes
- Using the EOS 2 with Spike-dampers.

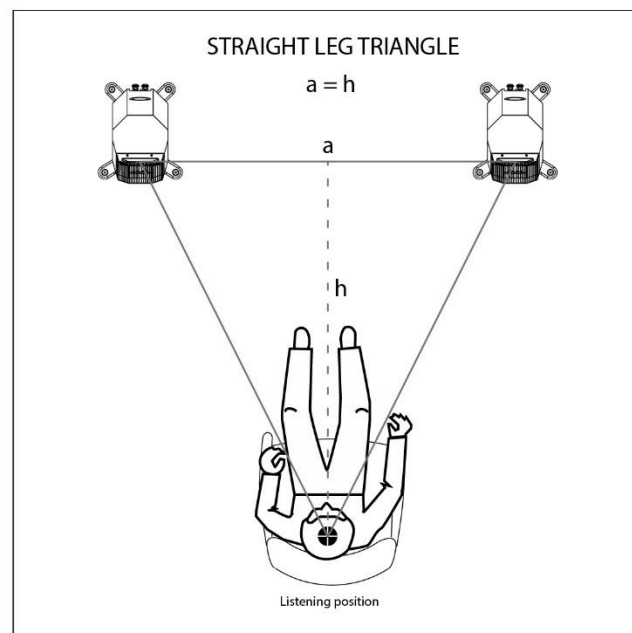
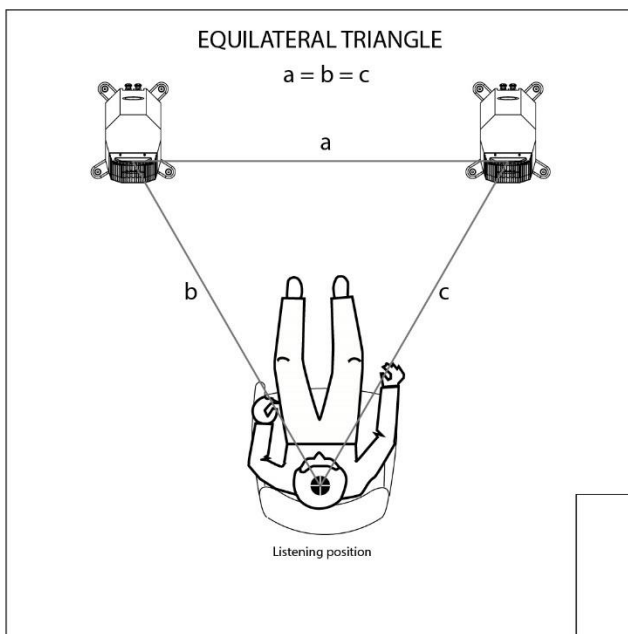
What solution you should go with, depends entirely on the nature of the floor in the listening room.

Rule of thumb:

Hard floors	–	Soft mechanical connection (Spike dampers)
Soft floors	–	Hard mechanical connection (Spikes)

The provided Spike-dampers are designed to be screwed directly onto the spikes. This design ensures a scratch-free set-up process, without the typical challenges with coasters not staying in place.

At the same time this solution also is very efficient at eliminating resonances.



The EOS 2 is designed to be both Phase and Impulse linear when listening to them from 3-4 meter / 10-13 feet, distance. Please take this into account when you position the EOS 2 in your listening room.

The optimal listening position should be between 3-4 meters / 10-13 feet away from the speakers and always positioned within an Equilateral triangle and a Straight Leg triangle.

For example:

Our room is 5 m / 16 feet wide. We position the speakers 1/5 room width, away from the side walls. (1 m / 3.3 feet)

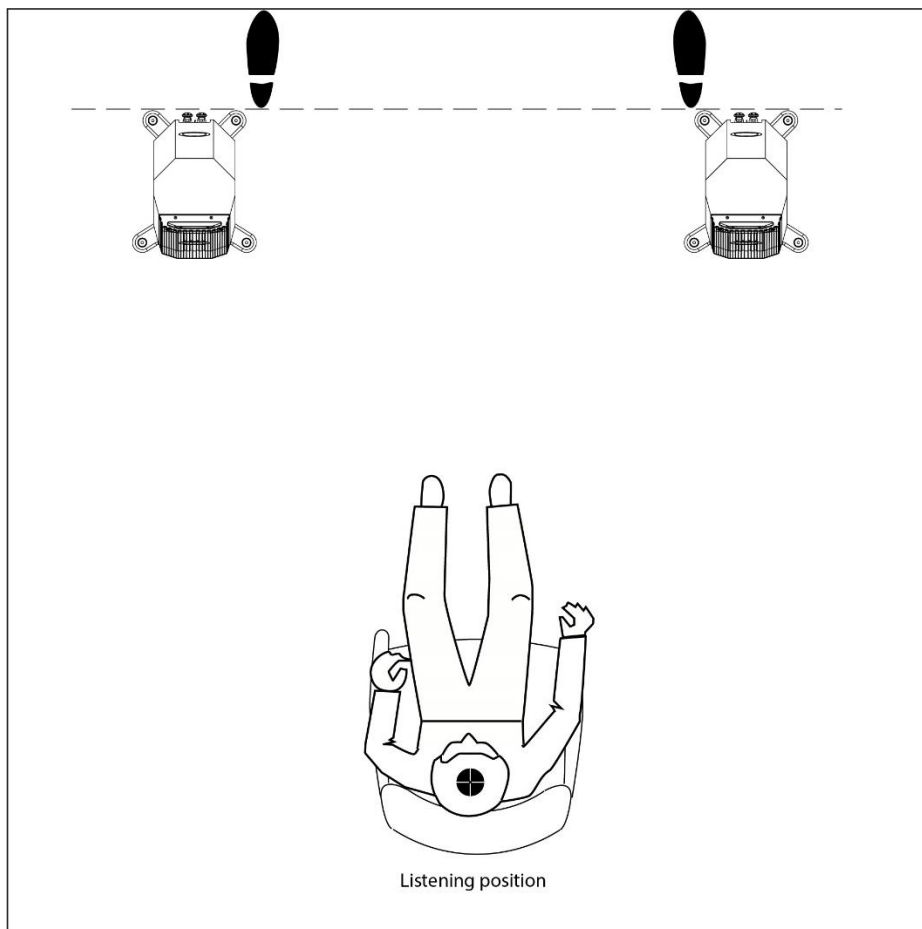
This leaves our speakers spread 3 m / 9.4 feet apart (Line **a**), resulting in a recommended listening position between either:

The Equilateral Triangle: 3 m / 9.4 feet away from each speaker (**a=b=c**)

OR

The Straight Leg Triangle: 3 m / 9.4 feet away from the center of line **a** (**a=h**)

Somewhere in-between these two distances, you will find the optimal position for best soundstage width and depth.



The EOS 2 is specifically designed to be placed close to the rear-wall.

When positioning a loudspeaker close to the rear-wall, an extra amplification of the lower frequencies will occur. Therefore, most speakers will sound best when placed over 3 feet from the rear-wall.

During the design of the EOS 2, we found a way to counteract this phenomenon, making the EOS 2 much easier to integrate into smaller rooms, without sacrificing sound quality.

Positioning EOS 2 too far from the rear wall will affect the overall tonality, making the sound thin and bright.

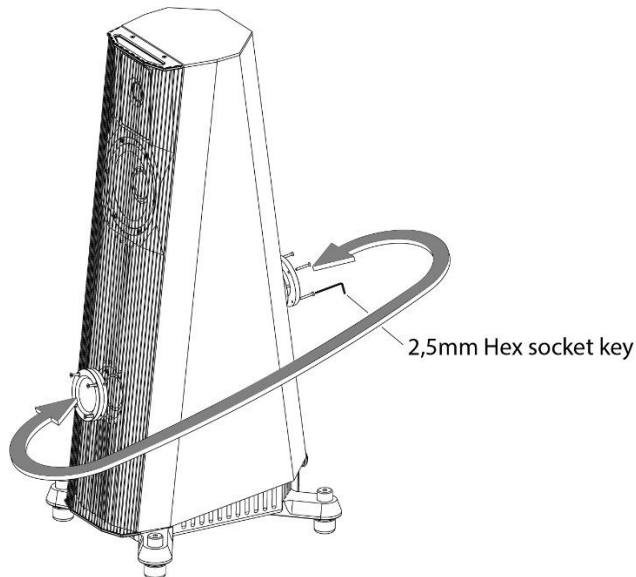
From this starting point, you can move the speakers back and forth in small steps – less than 2 cm / ½ inch increments are recommended.

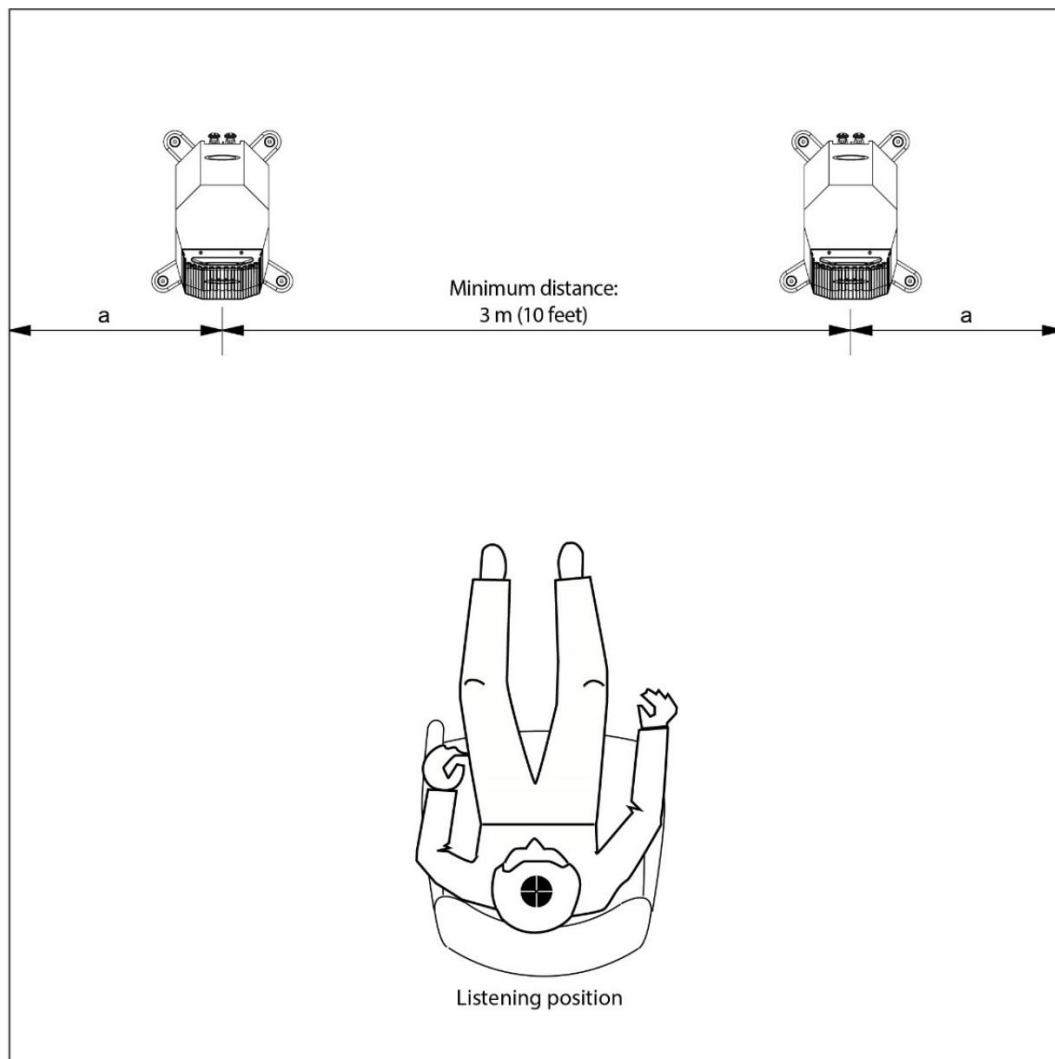
What you should listen for is the lower midrange balance, as well as the low frequency extension.

A good starting point is to place your foot between the rear-wall and the rear crossbar of the EOS 2.

In some situations, you may find yourself having a good overall midrange balance, but with a slightly boomy bass.

In this case the solution is to move the port opening to the front of the speaker, this lowers the room-gain in the lower frequency region.





The distance between the EOS 2 and the nearby sidewall, affects the sound quality in two areas.

- **Room nodes** (Typically bass notes in the 60-120 Hz region)
- **Soundstage** (Early side-wall reflections makes the imaging fuzzy)

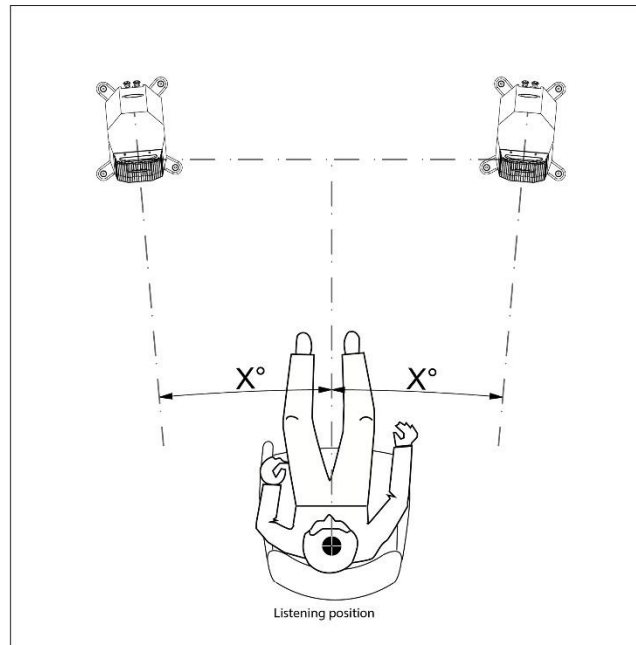
The solution to these problems is:

- *Placing the speakers at a distance to the sidewall which will make the speakers counteract the room nodes.*
- *Placing the speakers more than 3.3 feet / 1 meter away from the sidewall OR use acoustic treatment to dampen the first reflection.*

Measure the width of the listening room. Now divide the measured width, with an uneven number. (ex. 5, 7, 9)

The result that comes closest to a position more than 3.3 feet / 1 m away from the sidewall (**A**) is normally the best choice.

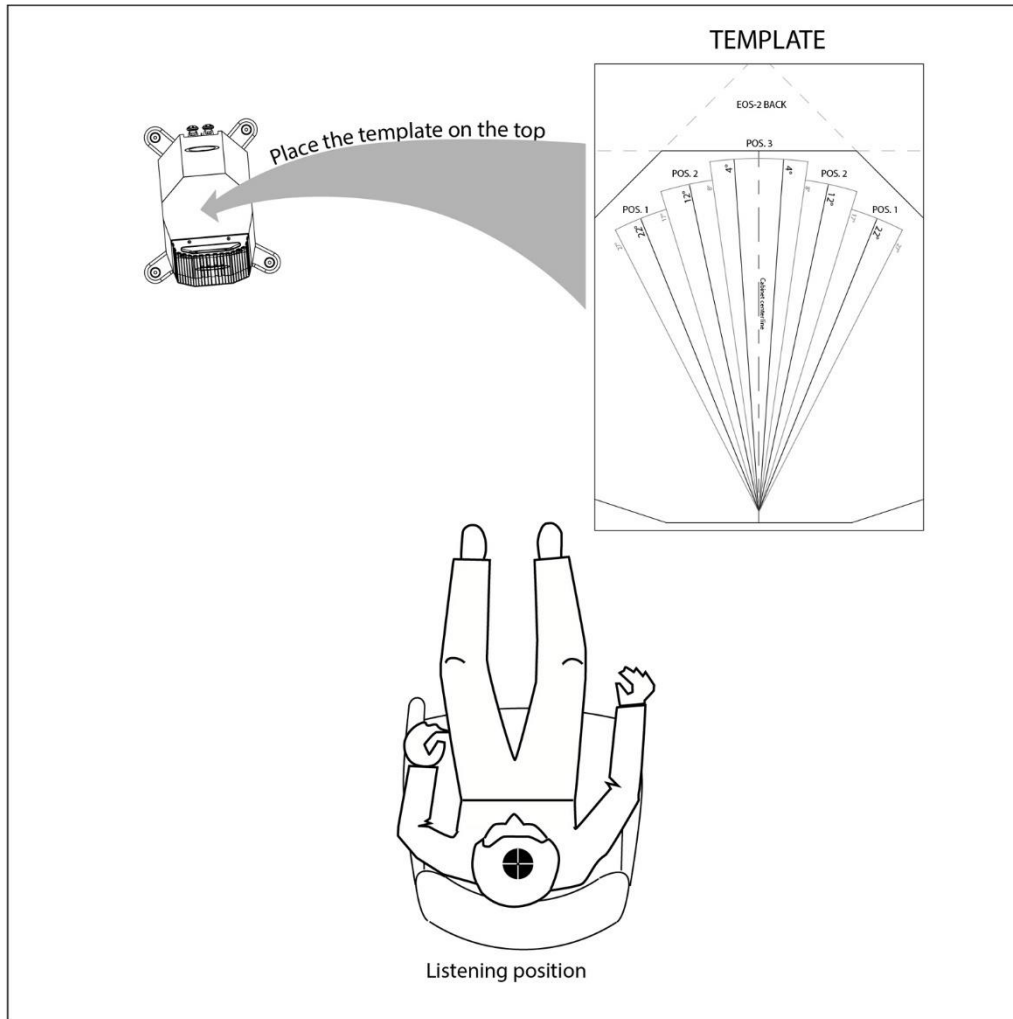
If the listening room is very narrow, you will have to position the speakers closer to the sidewalls than recommended in order to maintain the minimum distance between them. In this case it may help to use more toe-in along with some dampening of the first sidewall reflection.



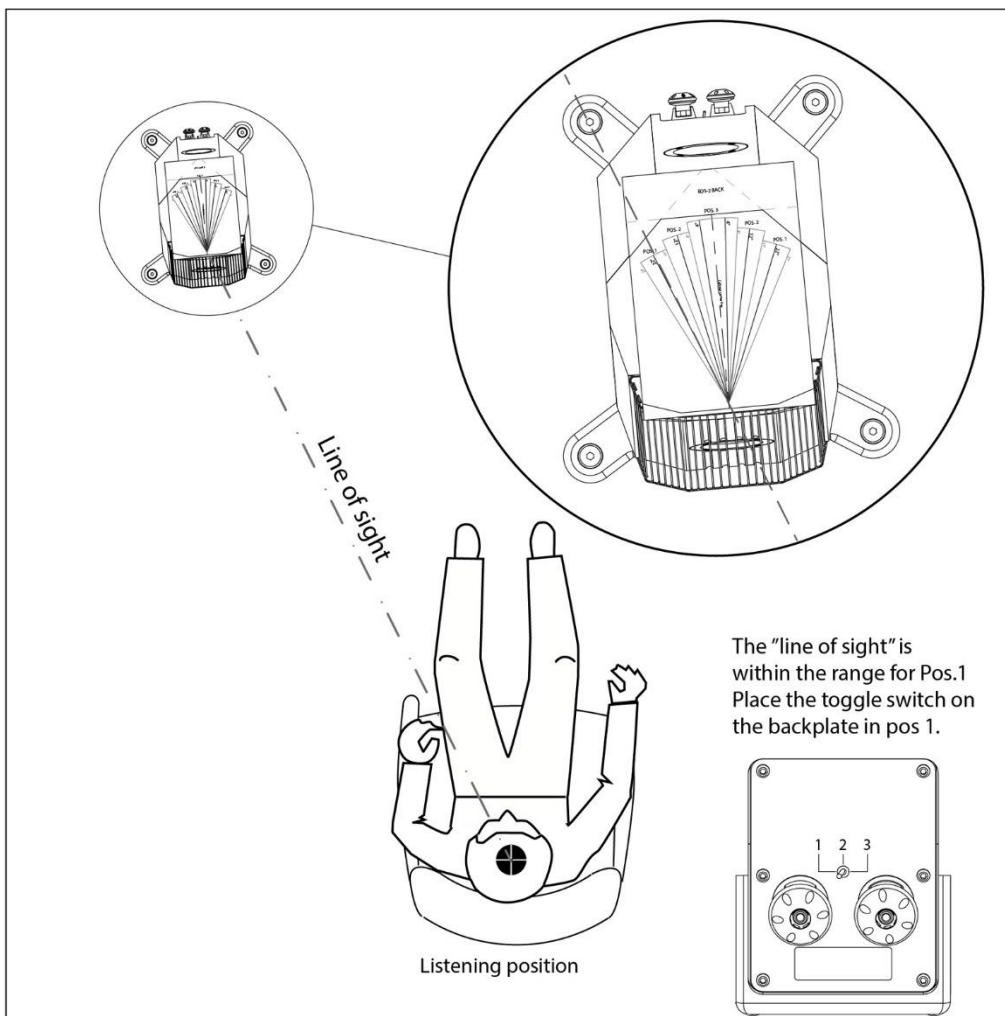
The recommended amount of toe-in needed for the EOS 2 is normally between 0 – 3 degrees. However, there are situations where a larger amount of toe-in can be necessary. For example:

- *In narrow rooms where the EOS 2 must be positioned less than 1 m / 3.3 feet away from the sidewalls.*
- *Situations where the listening position is closer to the speakers than the distance in-between them.*
- *When a wider sweet spot is preferred.*

The best amount of toe-in, is the amount that makes the speakers “disappear” the most, while maintaining a solid and well-defined center image.



The template used for the toe-in procedure, can be found in the back-cover of the manual, or as download on our website.



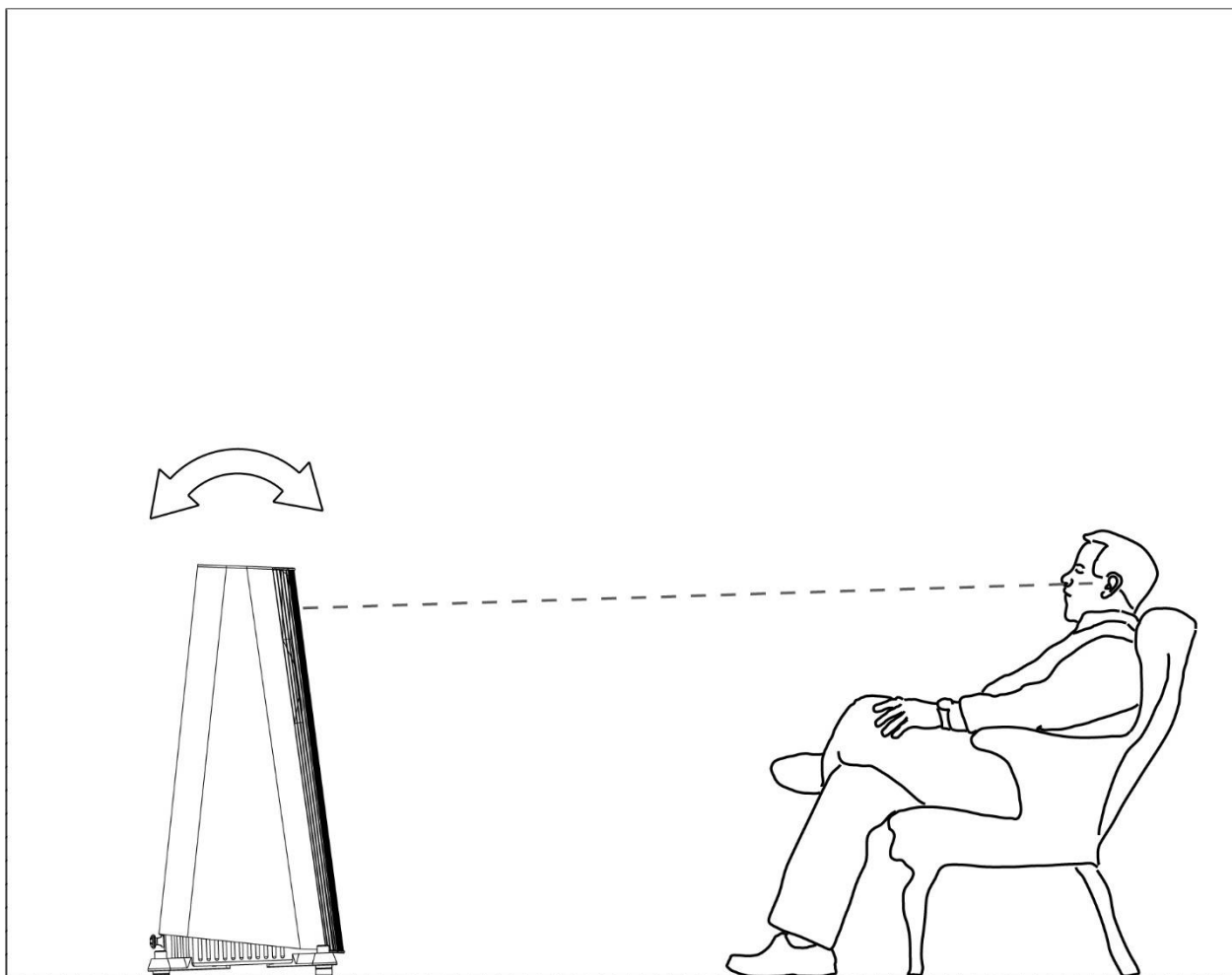
To ensure the best sound quality regardless of toe-in, the EOS 2 is fitted with a switch on its back (near the terminals) which adjusts the output level in the high frequency region, to accommodate a wider range of toe-in setting.

**Don't be alarmed if you find it hard to hear any difference between the 3 switch positions
– the differences are subtle adjustments in the frequency range above 12 kHz.**

Once the optimal amount of toe-in has been found, use the Toe-in template that comes with this manual and place it on top of one of the speakers. Pay attention to the alignment with the speaker.

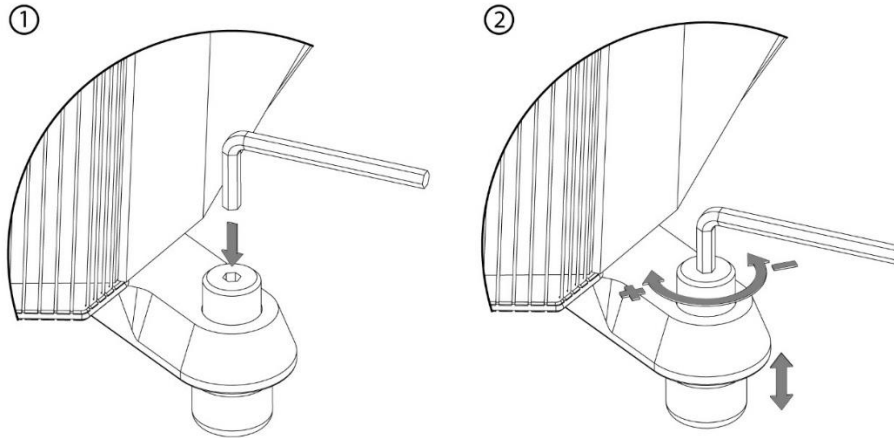
Each section of lines on the template has a number attached to them. These numbers indicate the best setting on the UHF Level Switch, found on the rear of each speaker.

Once placed and aligned correctly, you must find the angle which points closest towards your listening position, take note of the number attached to it, and set the rear UHF Level Switch accordingly. **(1, 2, 3)**



During the design process of the EOS 2, a key feature has been to ensure that both Impulse and Phase response are completely aligned at all frequencies when arriving at the listening position. (Your ears)

To adjust the Rake / Tilt of the EOS 2, use the provided Allen-key.



How much rake is needed will depend on the height of the listening position, and the distance between the listening position and the speakers.

Start by adjusting the rake, to make the tweeters point straight at ears height.

The amount of Rake / Tilt will affect the time-alignment between the drivers. This is quite easy to hear, so from here on, you will have to use your ears to determine the optimal amount of rake.

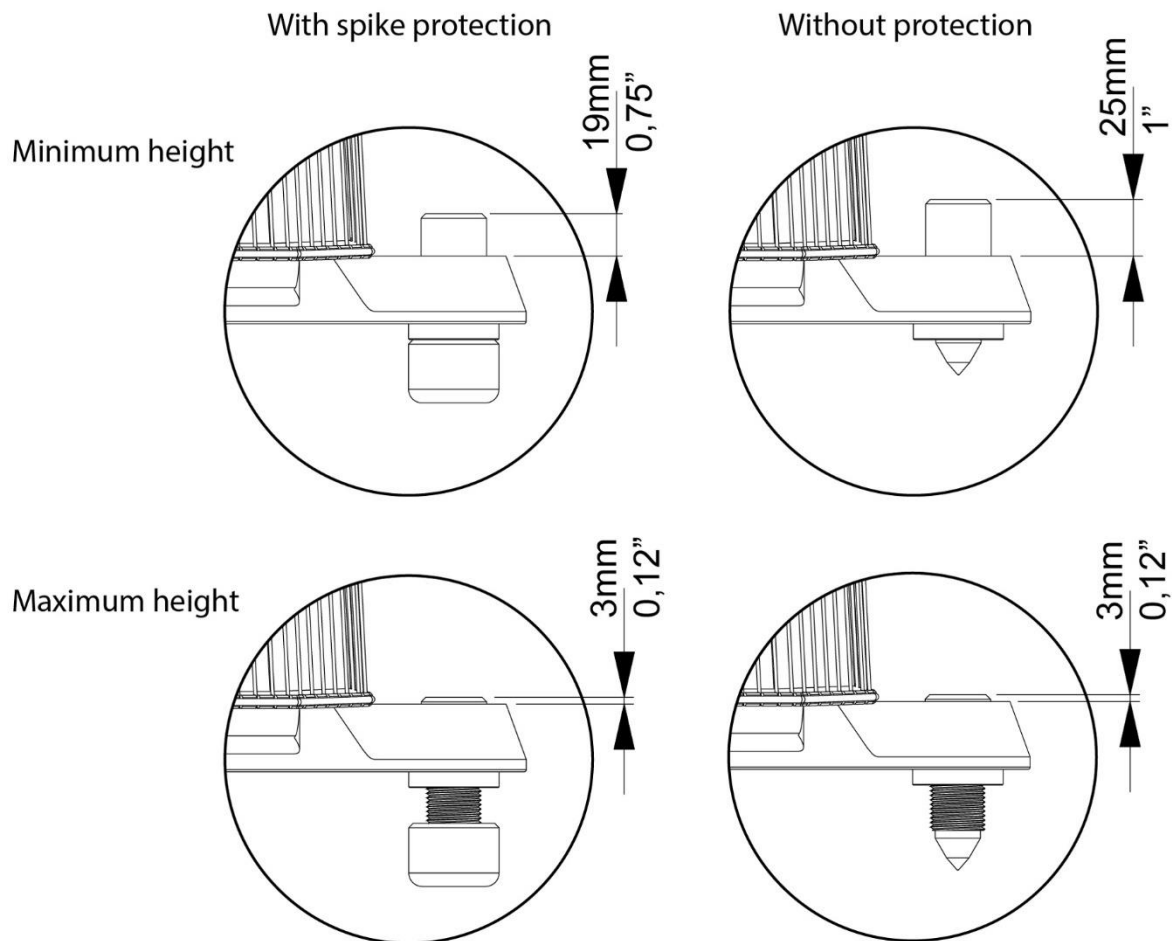
If the sound is sharp or a bit harsh:

Rake / Tilt the EOS 2 more *backward*.

If the sound is lacking details:

Rake / Tilt the EOS 2 more *forward*.

The speaker can be adjusted 16 mm (0.63") in height with spike protection fitted and 22 mm (0.87") without spike protection.



Warranty & Support

The Gryphon EOS 2 is warranted against failures arising through faulty workmanship and materials for a period of 3 years from date of purchase. The warranty is not transferable.

This warranty is only valid in the country where the product was purchased.

All claims under this warranty must be made to the distributor in the buyers' country by returning the unit securely packed in the original box with all accessories, postage/freight prepaid and insured. The unit will be repaired or replaced at no charge for parts and labor.

This warranty will be void if the serial number of the unit has been defaced or removed.

No user serviceable parts inside. **This warranty will be void if the unit has been repaired or modified by non-authorized Gryphon dealers or distributors.** Optional modules must be installed by authorized dealers and distributors only.

This warranty does not cover damage due to misuse, accident or neglect.

This warranty is not valid if the operation voltage of the product has been changed.

The distributor or manufacturer, Gryphon Audio Designs, Denmark, retains the exclusive right to make such judgement on the basis of inspection.

The retailer, distributor or manufacturer of the Gryphon shall not be liable for consequential damage arising from the use, misuse or failure of this product, including injuries to persons or property.

Please do not directly contact Gryphon for repair, warranty issues or technical questions. Our local representatives are competent and happy to help you.

To qualify for this warranty; the enclosed warranty registration card must be filled out and returned to Gryphon Audio Designs within 30 days of purchase.

Alternatively, you may wish to register online at www.gryphon-audio.com

Notes	
Gryphon Model:	
Serial No.:	
Date of Purchase:	
Dealer:	
Country:	

Notes
