

Gradient

HELSINKI 1.5

OWNER'S MANUAL

GRADIENT HELSINKI 1.5

Thank you for choosing a unique, limited edition pair of Gradient Helsinki loudspeakers.

This product is a state-of-the-art loudspeaker, handcrafted and individually tested in Finland using the best possible materials available. Gradient loudspeakers are built to last and when used with care, they will provide you with enjoyable musical experiences for years to come.

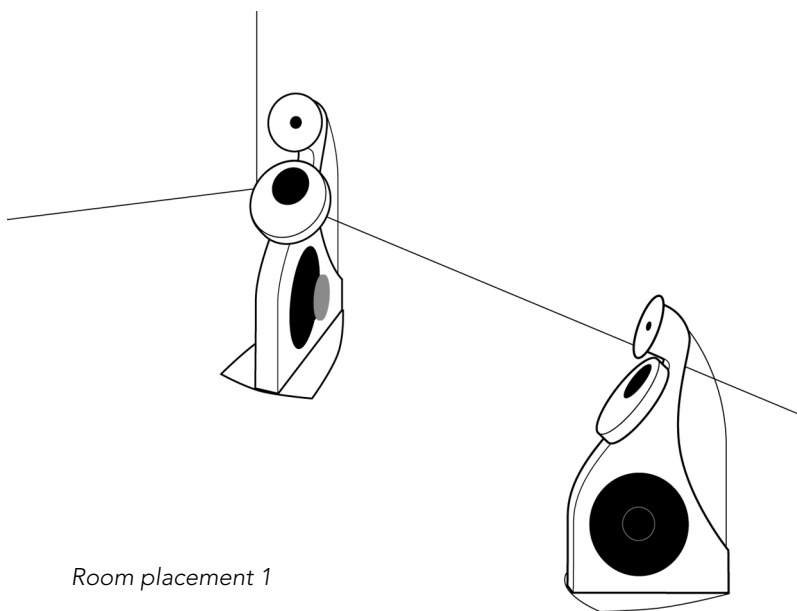
Gradient Helsinki is a versatile loudspeaker and has very natural and dynamic sound reproduction. They can be used in all kinds of listening rooms and placements. However, there are certain simple principles for placing these loudspeakers right.

They are presented in this booklet and will help you to get most out of your new Gradient Helsinki.

PLACEMENT IN A ROOM

As a rule of thumb, Gradient Helsinki sounds the best in a position where it also looks the best. So start from that. Place loudspeakers around 45 degrees sideways towards to backwall. In this placement magnet side of the woofers should point towards the backwall, i.e. inwards (*Room placement 1.*)

Tilting has a noticable effect on bass reproduction. The more you toe-in, the stronger bass you will get. Also the further away from the wall you use them, more sideways towards the wall they can be positioned.

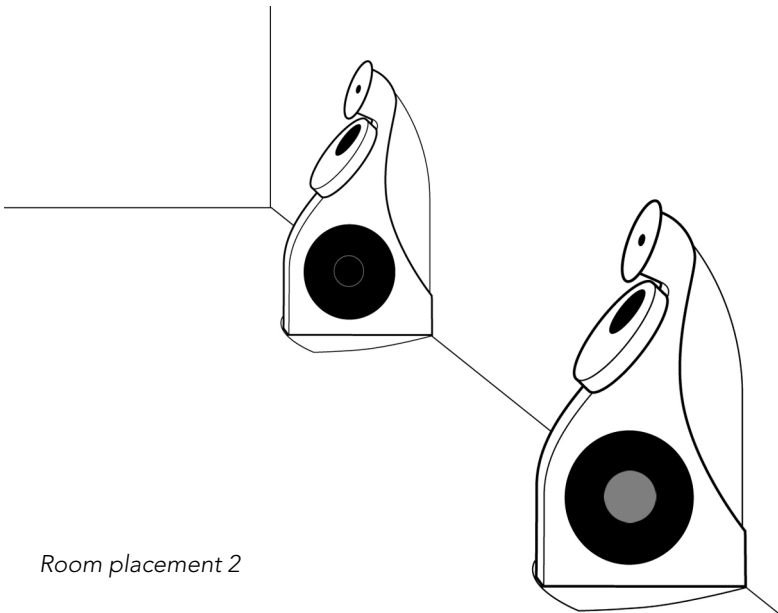


Room placement 1

PLACEMENT IN A ROOM

In a small listening room or with rather wide backwall, you can also experiment with very different placement than previously described.

By positioning Gradient Helsinki's backglass straight against the backwall you'll get very open and dynamic soundstage without much of a space for loudspeaker placement. In this position woofers should face magnets outwards. However, avoid direct corner positioning, where speakers are less than 1m from sidewalls (*Room placement 2*).



Room placement 2

CONNECTING TO THE AMPLIFIER

For fast, easy and high quality connecting, Gradient Helsinki is equipped with a professional four-pole Speakon connector and cable housing. Speakon is very durable and easy to connect and lasts hundreds of plug-in and plug-out connections.

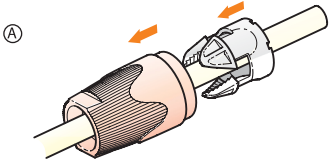
If you are not using dedicated **Gradient cables**, follow simple instructions below to prepare your cables with Speakon connectors to work with Gradient Helsinki. (Picture 3. Speakon SPX series instructions)

For single wiring, the plus wire from amplifier should be connected to the both plus poles (+1 and +2) and the minus wire similarly to the both minus poles (-1 and -2). This goes easiest with a four pole cable (like Supra Rondo). If a two pole cable is used, please connect +1 and +2 poles together with a short piece of insulated wire to avoid short circuit (-1 and -2 poles similarly).

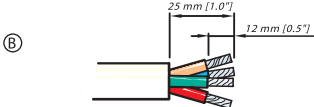
For bi-amping, connect the *amplifier driving woofers* to the poles +1 and -1, and the *amplifier driving midrange & treble drivers* to poles +2 and -2.

In Both cases we recommend you to use high quality loudspeaker cable of 1,5 - 4 square millimeters (12-16 Gauge).

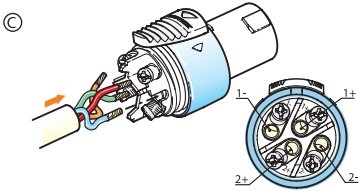
CONNECTING TO THE AMPLIFIER



(A)



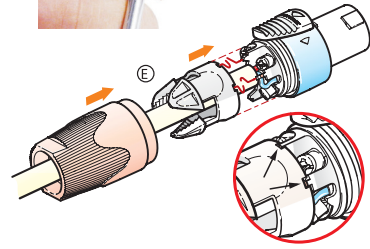
(B)



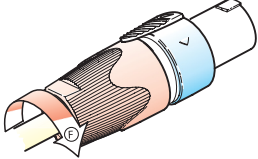
(C)



(D)



(E)



(A) Place bushing and chuck over cable.

(B) Prepare cable as shown.

Important: the stripping length of 25 mm and 12 mm.

(C) Insert wires into terminals and secure clamp terminals with screw driver (Pozidrive).

(D) For easy wiring especially on big cables, first screw on the inner contacts 1+ and 2+ and afterwards the outer contacts 1- and 2- !

(E) Push chuck up to housing .

Important: Align the chuck by positioning the nose into the recess.

(F) Tighten the bushing

INFO to the screw driver:




Pozidrive #1

DO NOT USE!

Phillips

Picture 3. Speakon SPX series instructions

RECOMMENDED EQUIPMENT

A good quality solid state amplifier, able to give minimum 25W into 8 ohms load per channel, is a good choice for Gradient Helsinki and will satisfy most of the music listeners.

Most modern and vintage tube amplifiers will also work well with Gradient Helsinki. Though some of them have high source impedance at lowest frequencies and thus reproduction of bass is quite round and not as tight as it could be. But this is also worth of experimenting and heavily depends on a listening room and personal taste of a listener.

We at Gradient are proud that you have chosen our unique product and want to wish you enjoyable and relaxing listening moments with Gradient Helsinki for years to come.

MAINTENANCE

Once you have found the best possible placement for Gradient Helsinki speakers, there is little need to move them anymore. If you have to carry speakers, use the upper part of the woofer hole in loudspeaker frame for lifting and carrying.

Oiled plywood surface will slightly change its color during the years. Direct sunlight makes this darkening faster. This aging is normal for real wood and will give your Gradient Helsinki a unique look and feel. It does not affect the loudspeaker performance or the structure of the wooden frame. However, it is advisable to apply small amount of furniture oil with cloth to wooden surface regularly once a year. This treatment protects loudspeakers against aging and the effect of sunlight.

TECHNICAL SPECIFICATIONS

Height	96 cm
Weight	23 kg
Functioning principle	Controlled directivity
Sensitivity	85dB/2.83V/1m
Impedance	Nominal 6 ohms, min. higher than 4 ohms
Frequency response	Freefield 200-20000Hz +/-1dB, -6dB cut off at 40Hz depending on room and placement
Radiation patterns	Bass dipole, midrange & treble cardioid
Directivity index	~5dB
Crossover frequencies	200-300Hz (depends on the angle of observation) and 2.2kHz
Features	Professional Speakon Connector or binding posts Bi-wiring (Speakon only) Bi-amping ready (Speakon only)
Recommended amplifier power	25-250 W

WARRANTY

Gradient loudspeakers are warranted to be free from manufacturing and material defects for a period of two years from the date of original retail purchase.

Within this period, repair will be free of charge as long as the loudspeaker has not been abused or used in conjunction with unsuitable or faulty equipment.

This warranty of the speakers is void if the voice coils are burned or damaged as a result of over powering or clipping.

This warranty is void if the product is used in professional or commercial applications, if the product (including the frame) has been tampered with or damaged by unauthorized service facility, or if the serial number plate has been removed or defaced.

If loudspeaker is known to be defective, carefully pack it in the original shipping carton with the appropriate packing material and return it to you authorized dealer.

It is owner's responsibility to return the speaker to the service depot and to ensure it against loss or damage enroute.

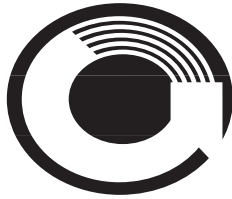
If you have further questions about the set-up and operation of your new Gradient speakers, do not hesitate to contact your authorized dealer or a manufacturer.

For more information about Gradient products, please visit
www.gradient.fi

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The logo for Gradient Labs Ltd, featuring the word "Gradient" in a large, stylized, outlined font. The letters are white with a grey outline, and the font is a sans-serif typeface.

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