

MODEL

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THE NORDIC TONE

ELECTROCOMPANIET

REFERENCE LOUDSPEAKERS

Owner's Manual

A new standard

"The Nordic Tone - Model 1" is the result of one of the largest research and development projects within loudspeaker design.

The multidisciplinary project team consisting of industrial designers, acoustics specialists and metallurgists, has worked over a period of more than six years to develop this exclusive loudspeaker.

The aim has been to achieve a natural sound in the home environment, whilst producing a handsome contemporary design that compliments any home interior.

The result is sound reproduction giving an experience of "being there" far beyond the ordinary.

Music reproduced as it was meant to be...

The Nordic Tone - Model 1



Our philosophy.....

Music reproduction as it was meant to be



We aspire to recreate a holographic musical experience, giving our listeners the best natural music reproduction in their homes, from a loudspeaker which has been designed to contribute positively not only aurally but also visually to the home environment.

Please study this manual carefully before installing the loudspeakers.

THE NORDIC TONE

Installation, usage and maintenance

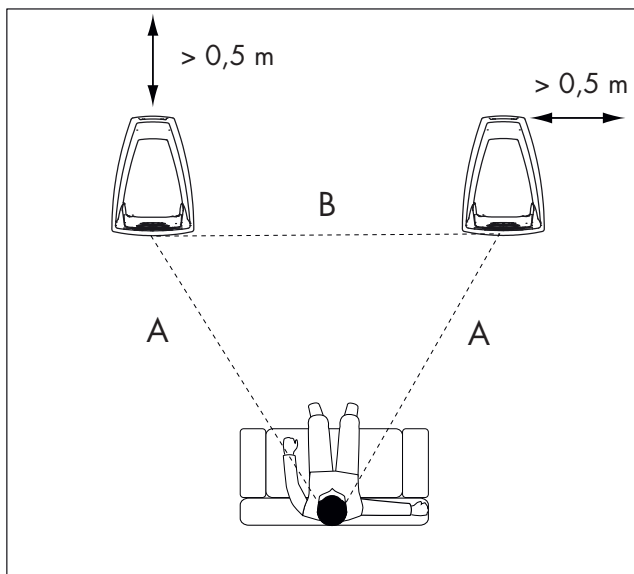
(A quick guide to installation)

Positioning

The Nordic Tone Model 1 loudspeakers are a precision instrument for music reproduction. As such, proper care and attention to detail when setting up these speakers will allow you to achieve the maximum performance from them. Following these set-up guidelines will make sure the speakers are properly positioned to deliver the optimum listening experience:

- The speakers and the listener should form an isosceles triangle. (Figure 1)
- The listener should be exactly equidistant between the two loudspeakers. The best way to determine this is with a piece of string. Pick a fixed spot at the listening position. Run the string from this spot to the tip of the tweeter of the left speaker. Repeat the process for the right speaker. It is critically important to keep this distance precisely the same.
- Toe-in. We recommend picking a spot 1 – 2 feet (30 - 60 cm) behind the listener as a fixed on-axis reference point.

Figure 1



Break-in

A loudspeaker is a mechanical device and as such requires an extended initial period of normal use during which a noticeable improvement in sound quality will occur. Do not attempt to accelerate the break-in process by playing sine waves, tone sweeps, break-in cds of any sort, or other generated signals.

Care

Use a lint-free soft cloth, dampened only with warm, slightly soapy water (a small drop of dish soap will do). Do not use cleaners that contain ammonia, strong solvents, or abrasive materials. Use of these cleaners can degrade, scratch, or destroy the finish. Polish wax for cars can be used to give the enamel paint a new fresh look when needed. Same procedure as for waxing a car.

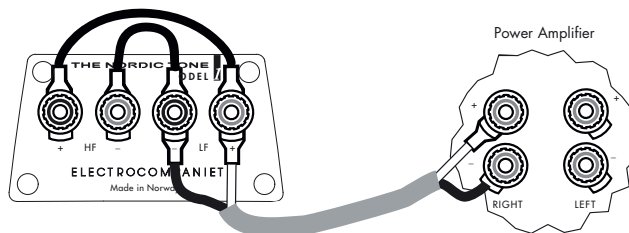
Connections

All connections should be made with all electronic equipment (amplifiers, preamplifiers) turned off. There are four terminals at the back of the speaker. The terminals are insulated to accept a variety of cable terminations for most applications and to prevent any likelihood of electrical shock, even when the speakers are used with the highest powered amplifiers. Do not use tools to tighten the binding posts.

Loudspeaker single wire connection

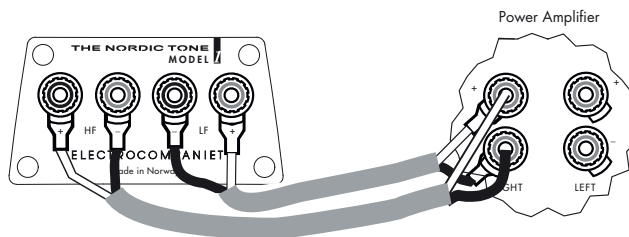
Single wire connection offers use of only one speaker cable between the amplifier and the loudspeaker.

A cable link is needed to link together the HF and LF section. You can use the link that comes with the speaker but we recommend using a link of similar quality or brand as your speaker cable.



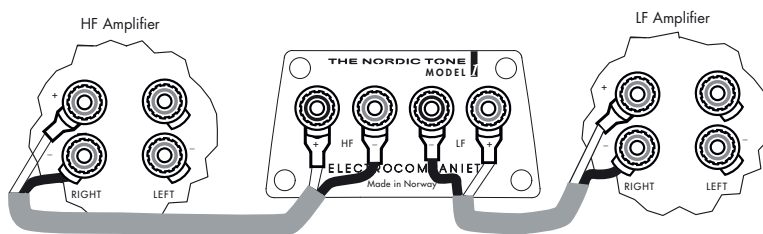
Loudspeaker bi-wire connection

Bi-wiring separates the signal paths to each section of the speaker and can improve both stereo imaging and detail resolution. It also enables the use of different types of cable for each frequency band.



Loudspeaker bi-amplification connection

Bi-amplification goes a stage further and involves the use of two independent power amplifier channels for each speaker. This is not the same as a fully "active" drive as the speaker's internal passive crossover is still used. If bi-amplification is employed, ensure that each amplifier channel has the same gain, otherwise the speaker's tonal balance will be distorted.



Objective sound and subjective experience

"The Nordic Tone - Model 1"

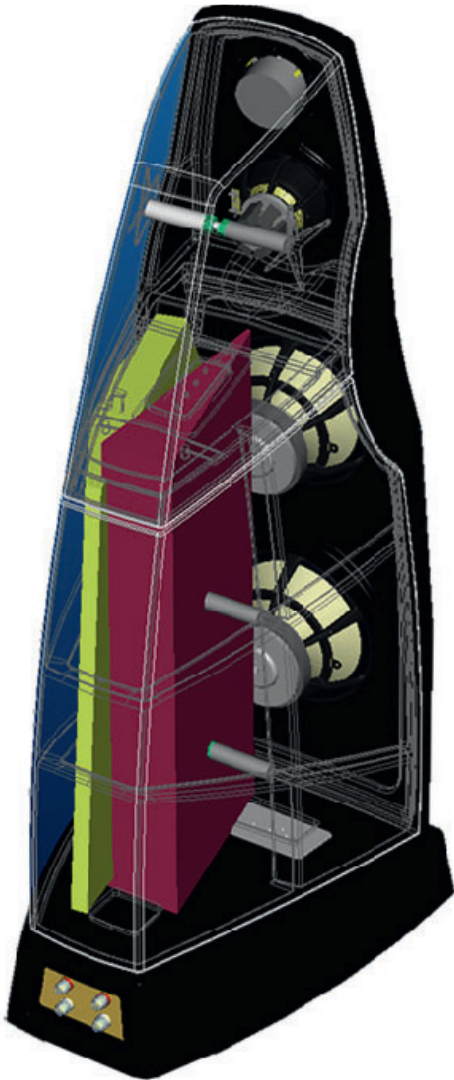
has a visual expression designed to function in harmony within a domestic environment.



Model 1 is easy to position, even near walls, due to the chosen bass loading.
The infinite baffle bass loading provides precise bass without excessive overhang.



Technology



The cabinet technology breaks with traditional thinking - loudspeaker enclosures of thick, heavy wood based materials. We believe a cabinet should be made of thin, light, stiff material, with curved surfaces. The implementation of doubly curved surfaces are necessary to increase stiffness - tenfold compared to extruded aluminium profiles, and hundredfold compared to flat sheet.

Our search for a thin, light, stiff enclosure is based on the following: High frequency resonances, as found in light and stiff structures, are much more easily absorbed. We combine the outer 7 mm cast aluminium shell with a high damping factor sandwich on the inside. Our damping method is basically the same as used for aircraft.

Passengers disembark with their hearing intact despite their proximity to one of mans loudest noise sources - the jet engine.

To improve this method even further we pre-stress the complete enclosure with rods loaded to 2500N. The sound absorbents inside the enclosure are wedge shaped, preventing reflections of sound waves reaching the rear of the membranes.

Patents pending.

Technology

Synergy between the high quality components creates a natural sound experience.

Loudspeaker drive units

The drive units in *The Nordic Tone - Model 1* are carefully chosen to complement each other. They are delivered specially for our loudspeakers by two of the worlds leading producers: SEAS and Scan-Speak.

Cabinet

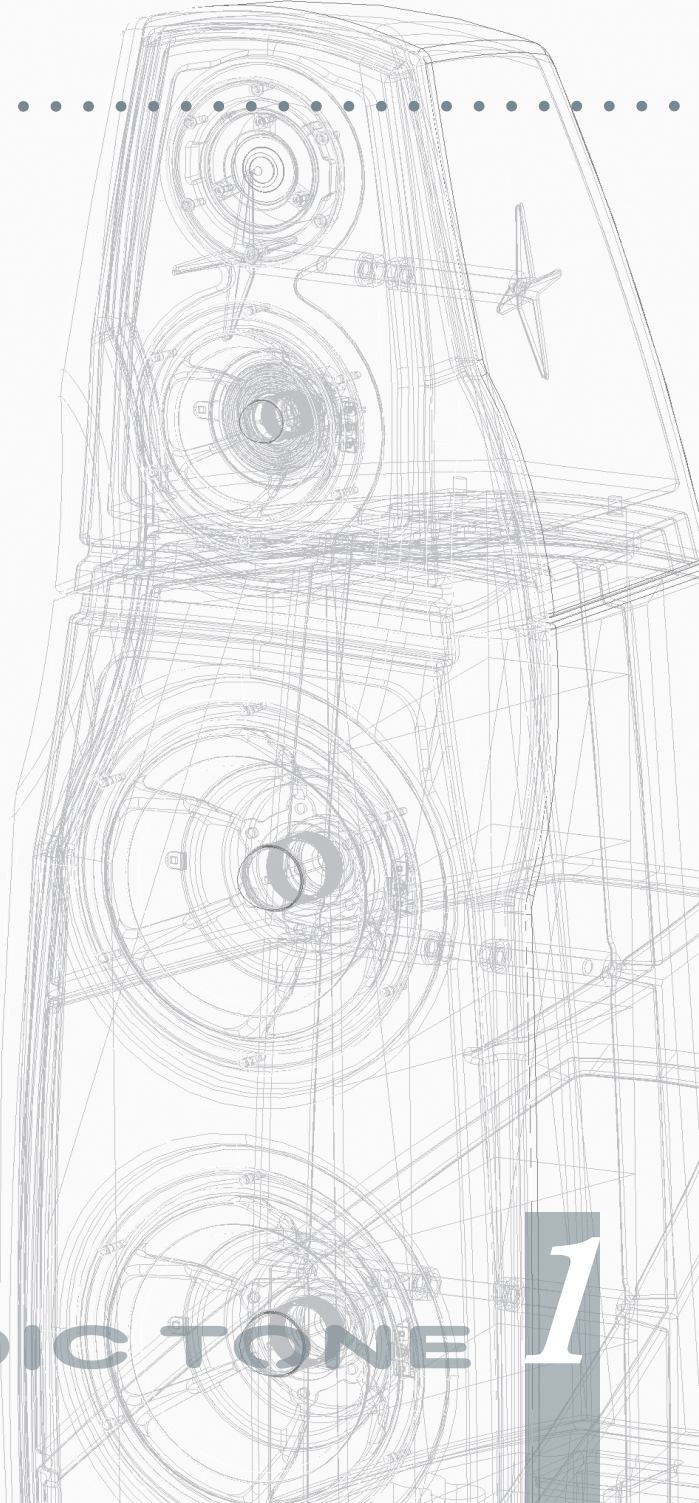
The main structural material for the cabinet is sand cast aluminium, formed in thin curved surfaces that are extremely stiff. Internally the walls are covered with vibration damping layers. The cabinet sections are coupled together with viscoelastic adhesive and then pre-stressed with rods to 2500N. This provides a cabinet that does not contribute colouration to the music, helping to create the holographic, accurate reproduction, even at high sound levels.

Crossover

The crossover filters are the result of an iterative process consisting of calculations, measurements and listening tests. This was achieved with components from the world renowned specialist Mundorf GmbH in Germany. Amongst the chosen components are capacitors with special induction- free SUPREME winding technology.

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Technical specifications

Design: Three-way infinite baffle loading

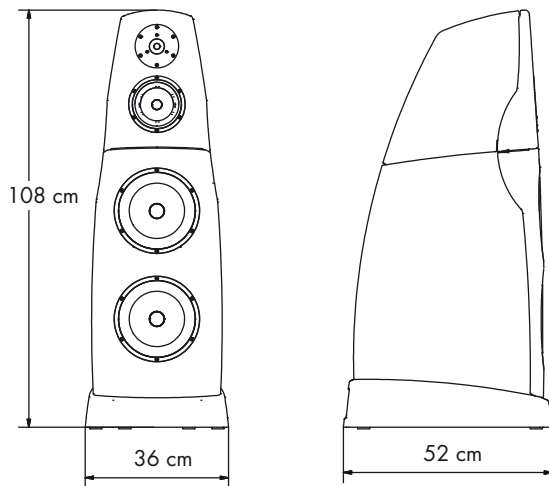
Frequency response: 28 - 35000 Hz ± 2 dB

Sensitivity: 90 dB, re 2.83V @ 1m

Nominal impedance: 6 Ohm

Dimensions: 108x52x36 cm (HxDxW)

Weight: 75 kg / speaker



The project group

Our multidisciplinary project group has, during the design of Model 1, gone through many iterative improvements of the design, combined with analysis and measurement before arriving at the present product. In this process the interaction between Dr. Mike Newman (acoustics consultant) and Sigmund Øvereng (Industrial designer) was decisive for achieving today's solution.

Crossover/ Drivers has been designed by Roar Moen together with a team from Electrocompaniet and a multidiscipline group of people within the High-End industry in Norway. This process was decisive in being able to achieve the holographic aural experience that the Nordic Tone Model 1 produces.

THE NORDIC TONE

Electrocompaniet AS | Breivikveien 7, 4120 Tau, Norway | tel: +47 51741033

www.electrocompaniet.no

Made in Norway