

 *the Sonus faber*

S E

Rob Tesson

OWNER'S MANUAL



S E

Paul Barton

Dear Customer,

we would like to thank you for choosing the Sonus faber to live your passion for music. Please read this handbook on the use and maintenance of the speakers before installing them, as it is our paramount interest that you have the greatest satisfaction while enjoying music.

To ensure an optimum result, please contact us directly. We will be able to advise you on the best electronic interface and the best setup in your music room.

Sonus faber

OVERTURE

Designing an acoustic reference loudspeaker system is a long and complicated process: research, innovation, technical solutions, product design and final tuning.

The task is to evoke the original sonic event, bringing it back to life, to make it real.

We have been inspired in our designs by the ancient art of Cremona violin makers, through the metaphor of analogies with string music instruments, on the assumption that good sound depends largely on the acoustic chamber.

The choice of timber for this application is therefore extremely important for the timbre.

Sonus faber speaker cabinets are entirely handmade using staves of solid wood or carefully matched sheets of different heartwoods for better control of resonances, according to the acoustic needs of the individual design.

Research is the essence of Sonus faber.

For over 25 years, Sonus faber has reinvented the electroacoustic applications of wood.

Design inspired by the shapes of both lute and violin.

The absolute reference loudspeaker system needed a further source of inspiration: the Lyre.

The lyre is the essential and ancient symbol of music, the instrument of the Gods.

It is a perfect reference icon.

The dual curvature shape introduced by the Sonus faber, the Lyre shape is an evolution of the Lute shape.

Technically speaking, the dual curvature, special cross grained plywood, used in a double thickness constriction layer damped configuration has significant advantages in terms of low coloration compared to the single curvature variant used previously.

However, the perfect reproduction of music also implies the emphasis on the canvas where music exists: 'Silence'.

Here metal and the way to shape it come into play. Metal, from 'avional' to 'gun metal', is dealt in the same way as real wood: by CNC machining from solid billets of raw metal, hand finished, in the best tradition of made in Italy 'supercars'.

The Sonus faber is the highest expression of Sonus faber's creativity.

ELECTRO ACOUSTIC DESIGN

SYSTEM

3.5 way floorstanding vented box loudspeaker system, lyra-shaped design, sound field shaper variable geometry radiation.

Optimized loudspeaker/floor vibration cancellation system, the 'Z.V.T'; thermo-kinetic conversion system for swallowing the residual vibration, the 'T.M.D.'; para-aperiodic tuning system, the 'Stealth reflex'.

ACOUSTIC ENCLOSURE

As an evolution of the 'Lute shape', the Sonus faber introduces the 'Lyra shape'.

Technically speaking, the dual curvature, special cross grained plywood, used in a double thickness constriction layer damped configuration, thanks to a special visco-elastic layer placed in between and having a thickness of 2 mm ensures the cancellation of mutual resonances.

The acoustic ambient of each emitting transducer has been optimized to be close to the theoretical perfection.

Special reinforcing ribs and sub-structures are strategically placed in the enclosure.

INNOVATIVE FEATURES

The 'Anima legata' system is based on the two clamshells, i.e. CNC anodized Aluminium machined vibration 'conveyors' (on the top and on the bottom of the cabinet) that 'collect' the vibrations coming from the cabinet walls and the transducers, like the parabola of an antenna.

The two clamshells are rigidly connected by a special steel rod, a high speed mechanical interface, the 'Soul Pole', which concentrates the vibrations to the 'Multiple Tuned Mass Damper', a device usually used in record height skyscrapers and F1 cars to critically damp structural resonances by oscillating in antiphase.

The enclosure is decoupled from the floor through a patent pending suspension system, Z.V.T., i.e. Zero Vibration Transmission. It is a specifically optimized spring/elastomer device that reduces to the measurable limit any vibration transmission to the listening environment and inhibits 'acoustic feedback'.

The 'Stealth reflex' systems is an innovative patent pending para-aperiodic tuning system.

Besides the advantages of reduced acoustic chambers' volume dimensions, of extended lower range and of reduced amount of any kind of distortions, it has the prerogative of eliminating spurious noises that are typical of traditional reflex systems.

DIRECT RADIATION AND TRANSDUCERS

Despite using the most advanced technological instruments, in Sonus faber we are convinced that the only appropriate judge of our design choices is the human ear.

This is one of the main inspirations for the design of our products right from the start.

Every component is developed, analyzed and eventually selected and selected at the research stage on the basis of this kind of evaluation.

All the loudspeaker drivers we use are designed by us and exclusively produced by the most renowned Scandinavian manufacturers.

They are also individually hand tuned before assembly.

HIGH FREQUENCY SPECTRUM

High frequencies are reproduced by a 30 mm moving coil driver, with Sonus faber's vibration optimized mechanical interface, D.L.C. (Diamond Like Carbon) Beryllium dome diaphragm for maximum resolution, visco-elastically decoupled from the main baffle board.

It is implemented with an ergal acoustic labyrinth rear chamber, with a mechanical anti-resonator designed for this application.

MIDDLE FREQUENCY SPECTRUM

It is the key element among the drivers designed for the the Sonus faber.

A Sonus faber designed 180 mm neodymium magnet system ultra dynamic linearity midrange.

CCAW wire is used on a composite former "eddy current free" voice coil. The dynamically linear magnetic field motor incorporates triple Kellogg/Goeller rings.

A special custom diaphragm is made with a real time air dried non pressed blend of traditional cellulose pulp, kapok, kenaf and other natural fibers, developed according to the most natural sound.

To further inhibit any residual cone coloration we are using a transparent viscous surface damping coating.

The basket of this unit has been thoroughly optimized to eliminate any resonance and it is fully CNC machined from solid billets of Avional and Gun metal.

The combination of the 2 different metals allows to eliminate any mutual resonance.

The same way as the tweeter, the midrange is decoupled from the main baffle board.

LOW FREQUENCY SPECTRUM

The two 10" woofers have been designed to blend perfectly with our special midrange, and at the same time to have absolute definition in their range.

The solution has been an innovative sandwich cone structure where the high-tech syntactic foam core is covered on the two external surfaces by coated cellulose pulp skins, that have the same sonic character of the midrange cone.

The 3" voice-coils on Kapton formers allow an unlimited dynamic performance and low hysteresis.

INFRA LOW FREQUENCY SPECTRUM

For this frequency range, the king of the diameters has been chosen: the 15".

For maximum rigidity here also a sandwich structure has been selected; in this case the skins are made of nano carbon fibre on the syntactic foam core.

The 4" voice-coil has been optimized to have progressive damping, through the use of both Kapton and Avional in the former to control the Lorentz currents proportionally to the excursion obtaining this way the tightest lows.

To perfectly match the low end performance to different listening rooms it is possible to adapt the SPL of the infra woofer.

SOUND FIELD SHAPER

One of its main performance limits, just like all the other conventional stereo loudspeaker systems is undoubtedly its poor ability to create a perfect tride dimensional sound image.

The sound instruments may be reproduced faithfully timbre-wise and their position may be sufficiently plausible, however a sound stage with a limited depth is often an issue.

The Sound field Shaper is a rear-firing, acoustic power compensating system designed to give the listener, by adjusting the level and aiming controls, a means to compensate this limit, allowing him to shape the sound field generated in the listening room.

To control the direct/reverberant radiation of the Sonus faber the sound field module can be optimized in terms of azimuth and SPL.

The tweeter is a 29 mm ultra dynamic linearity neodymium dome driver.

Optimized off-axis radiation for this special application.

The midrange is a 120 mm, paper pulp/natural fiber blend cone driver for maximum coherence with the front midrange emission.

THE CROSSOVER

Great care is taken with the design of the crossover network to ensure it meets Sonus faber's criteria. The choice of network and components, in combination with the loudspeaker drivers is critical for the quality of the system.

The crossover has the new progressive slope structure, with optimized phase/amplitude response, as already seen on the Cremona M and Liuto range. Cross over frequencies are 50/300/3200 Hz.

The absolutely maximum quality is used in terms of the components: Mundorf EVO Supreme Aluminium Oil and Silver/Gold/Oil capacitors, Jantzen Wax-coil inductors.

TECHNICAL SPECIFICATION

SYSTEM:

3.5 way, sound field shaper variable geometry radiation, vibration cancellation optimized system, stealth reflex vented box, loudspeaker system.

CABINET:

"Lyre shape" design, dual side curvature, special cross grained okumè plywood, used in a double thickness constriction layer damped configuration, has significant advantages compared to the single curvature variant used previously, in terms of low coloration.

Sub-structural plywood ribs are strategically placed for total rejection of spurious vibrations and standing waves control.

"Anima legata" system, based on two clamshells, i.e. CNC anodized machined avional "vibration conveyors" (on the top and on the bottom of the cabinet) that "collect" the remaining structural micro-vibrations coming from the cabinet walls and the transducers, like the parabola of an antenna. The two clamshells are rigidly connected by a special steel rod, a high speed mechanical interface, the "Soul Pole", that concentrates the micro-vibrations to the "Multiple Tuned Mass Damper", a special custom device optimized to critically damp structural resonances, by oscillating in anti-phase. The enclosure is decoupled from the floor through a patent pending suspension system, eliminating any acoustic feedback and any vibration transmission to the listening room.

TWEETER:

High frequencies are reproduced by a 30 mm moving coil driver, with Sonus faber's vibration optimized mechanical interface, D.L.C. (Diamond Like Carbon) Beryllium dome diaphragm for maximum resolution, visco-elastically decoupled from the main baffle board.

It is implemented with an ergal acoustic labyrinth rear chamber, with a mechanical anti-resonator designed for this application.

MIDRANGE:

A Sonus faber designed 180 mm neodymium magnet system ultra dynamic linearity midrange. CCAW wire is used on a composite former "eddy current free" voice coil. The dynamically linear magnetic field motor incorporates triple Kellogg/Goeller rings.

A special custom diaphragm is made with a real time air dried non pressed blend of traditional cellulose pulp, kapok, kenaf and other natural fibers, developed according to the most natural sound.

To further inhibit any residual cone coloration we are using a transparent viscous surface damping coating.

The basket of this unit has been thoroughly optimized to eliminate any resonance and it is fully CNC machined from solid billets of Avional and Gun metal.

The combination of the 2 different metals allows to eliminate any mutual resonance.

The same way as the tweeter, the midrange is decoupled from the main baffle board.

WOOFERS:

260 mm woofers with a "sandwich" cone structure, high-tech syntactic foam core and two external surface skins of coated cellulose pulp.

Designed to blend perfectly with the special midrange, and at the same time to have absolute definition in their range: the sandwich structure with outer paper pulp skins has the same sonic character of the midrange cone.

3" voice-coils on Kapton former allow an unlimited dynamic performance and low hysteresis.

INFRA WOOFER:

380 mm infra woofer sandwich cone structure with high-tech syntactic foam core and two external surface skins in nano carbon fibre for maximum rigidity and light weight.

4" voice-coil optimized to have progressive damping, through the use of both Kapton and Avional in

the former, to control the Lorentz currents proportionally to the excursion obtaining this way the tightest available lows.

To perfectly match the low-end performance to different listening rooms it is possible to adapt the SPL of the infra woofer.

SOUND FIELD SHAPER:

Special patented Sound Field Shaping technology allows the control of the direct/reverberant radiation of the Sonus faber.

The sound field shaping module can be optimized in terms of azimuth and SPL.

SOUND FIELD SHAPER TWEETER:

29 mm ultra dynamic linearity neodymium dome driver. Optimized off-axis radiation for this special application

SOUND FIELD SHAPER MIDRANGE:

120 mm, paper pulp/natural fiber blend cone driver for maximum coherence with the front midrange emission.

CROSSOVER:

Completely re-designed Non-resonant Crossover, optimized amplitude/phase response for optimal space/time performance. "Paracross topology" for maximum transparency.

The impedance at low frequencies is controlled for a clear and friendly amplifier performance.

Double staggered transfer function low frequency/room interface optimized filter.

Highest quality is used in terms of the components: last generation Mundorf Supreme Evo Aluminium Oil and Silver/Gold/Oil capacitors, Mundorf Supreme resistors and Jantzen Wax-coils inductors.

Cross-over: 80Hz - 250 Hz - 2500Hz.

FREQUENCY RESPONSE:

18Hz – 36000Hz, Stealth reflex included.

SENSITIVITY:

92 db spl (2.83V/1m).

NOMINAL IMPEDANCE:

4 ohm.

POWER HANDLING:

100W - 1KW, without clipping.

DIMENSIONS (HXWXD):

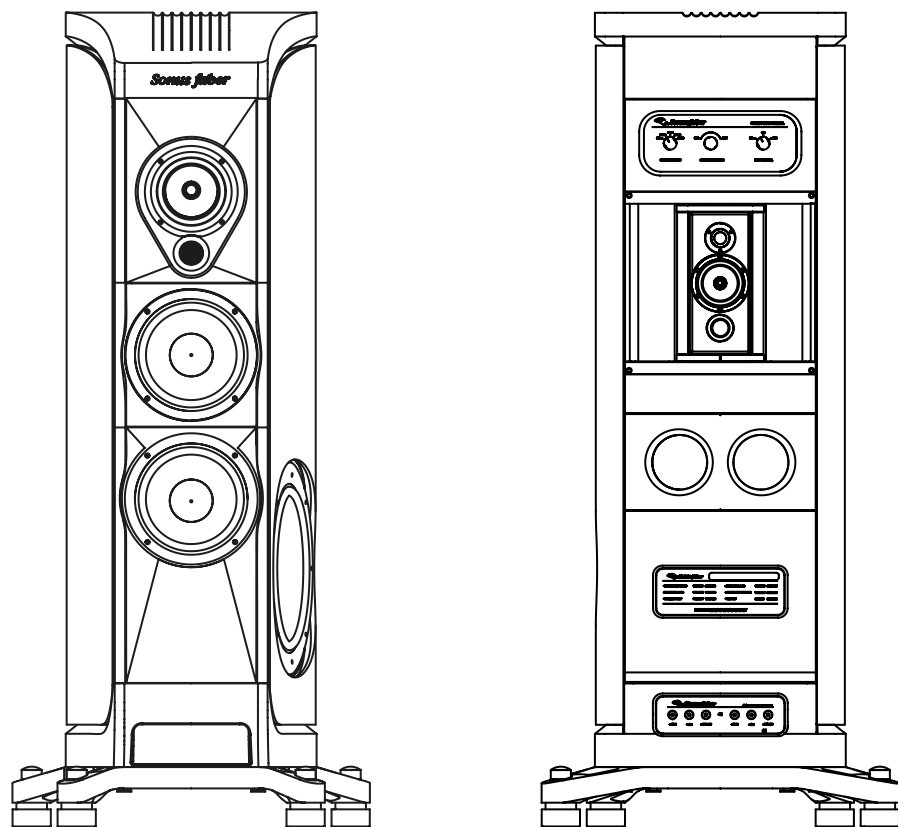
68.9" x 29.5" x 30.9"

1750 x 750 x 875 mm

WEIGHT:

1,355.8 lb / 615 kg per pair – net weight

1,635 lb / 742 kg per pair – shipping weight.



INSTRUCTIONS FOR UNPACKING AND MOVING THE SONUS FABER

We would strongly advise to have at least two persons to unpack and install the Sonus faber. We have designed the unpacking of the Sonus faber so as to be able to install it alone. However, for the first time it is preferable two persons do it.

First of all, locate the crate on which 'Open this first' is written.

The 'Open this first' side is the one to be opened.

Please remove the lateral sides of the packaging.

Next, please remove the top protection and the stratocell.

You will have to use the hex key that you will find on the wheeled trolley.

This hex key will be used to remove the four fixing screws that hold down the Sonus faber to the pallet.

Please see **FIGURE 1**.

Once the Sonus faber is freed from the pallet, you will have to pull aside the trolley wide enough to have the wheels outside of the pallet's perimeter, ready to touch ground.

Now by rotating counterclockwise the four handles, please lower the wheels up to the ground as illustrated in **FIGURE 2**.

As soon as the wheels touch the ground, you will have to rise the Sonus faber up to the minimum height to be able to remove the pallet from the underside of the speaker as shown in **FIGURE 3**.

From the box placed on the front side of the pallet please remove the four feet of the Sonus faber that are an integral part of the Z.V.T. system, as well as the 4 upper knobs.

The four feet plus the 4 knobs should be located indirect proximity of the Sonus faber.

The four feet should be mounted on the Sonus faber as the next step.

Again we strongly advise at least two persons to do this and proceed at a careful pace with the counterclockwise rotation.

Please only lift the Sonus faber the strict minimum height to be able to slide out the pallet.

Please proceed with maximum care remembering that the Sonus faber should be strictly vertical during all this procedures!!!

Please note the four Z.V.T. feet and the four relative knobs are absolutely position specific.

The position of the feet should never be changed or inverted. If any error is made the Z.V.T. System will not work and endanger the stability of the Sonus faber.

Please see the included diagram for correct position; on every Z.V.T. foot and on every foothold you will find the relative number that defines the correct location.

The four feet should be inserted from below by rotating the relative axis counter clockwise as displayed in **FIGURE 4**.

Once the assembly of the feet is done, please double check the location of the feet and the relative positions.

Now you can start to proceed with the landing of the Sonus faber.

Again two persons are needed, one in front of the speaker and one behind, each one operating the two left/right handles.

The handles should be rotated slowly taking care that the Sonus faber remains perfectly vertical during the landing procedure.

Once the Sonus faber has been landed, please check the contact with the ground is perfect.

Next, you can proceed with optimizing the geometry of the trolley to easily move the Sonus faber.

This is done by pushing the left and the right side of the trolley towards the center of the Sonus faber, as shown in **FIGURE 5**.

As soon as you have the trolley and the Sonus faber in transport mode, please operate the handles counterclockwise, so as to lift the Sonus faber from the ground one to 1.18''.

Again this has to be done always by keeping the Sonus faber perfectly vertical.

Now you can freely move the Sonus faber in the ideal listening position.

As soon as this position is found you can land the Sonus faber.

The next step is to free the trolley from the first Sonus faber to be able to use it for the second one.

As soon as the Sonus faber is in perfect contact with the ground, lift the four wheels of the trolley completely away from the ground and pull out the sides of the trolley by pulling to the left and to the right.

Please see **FIGURE 6**.

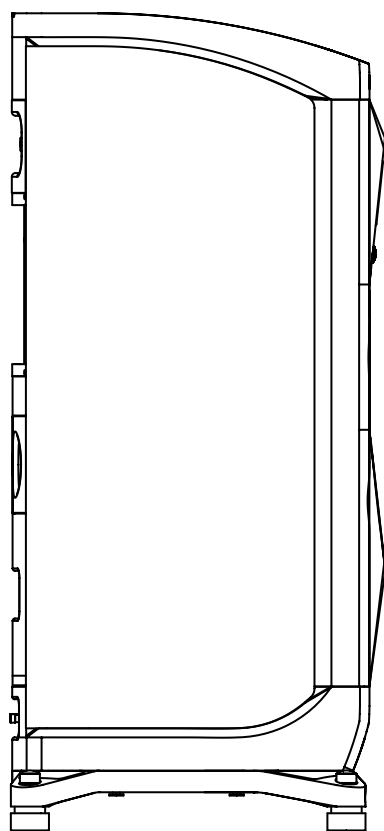


FIGURE 1

Removing the trolley from underneath the Sonus faber must be done with extreme care to avoid any damage.

Please observe how the trolley is connected to the Sonus faber on its underside.

The rear sustaining bar should be extracted from underneath the Sonus faber by two persons holding it laterally and by making it slide towards the front of the speaker until the sustaining bar is completely unhooked from underneath.

The same procedure should be applied to the front sustaining bar, i.e. the two persons should hold this bar laterally, make it slide towards the rear of the speaker until this bar is totally unhooked from underneath as well.

Please check **FIGURE 7**.

Now you can proceed by opening the box of the second Sonus faber.

Please remove the lateral sides of the packaging, the top protection and the stratocell and accessories box under the speaker base.

Please locate the four fixing points to hook up the trolley underneath the second Sonus faber. In the box containing the four Z.V.T. feet you will find the four screws companion to the transport trolley.

These four transport screws should be inserted and solidly screwed to the under side of the speaker, as shown in **FIGURE 8**.

Now you can proceed by assembling the transport trolley to the second Sonus faber.

First the rear sustaining bar has to be hooked to the speaker.

Please insert the two halves of the rear sustaining bar near the center of the speaker in such a way as to be able to intercept the transport screws.

Two persons should hold left and right the rear sustaining bar and slide it towards the back of the speaker until perfect contact is established with the transport screws.

The same procedure in the opposite direction should be applied to the front sustaining bar.

Please see **FIGURE 9**.

The following step is to insert in the sustaining bars the left/right wheeled parts of the trolley.

Two persons are needed to do this job; one will hold the two sustaining bars while the other one will insert, one at a time, the wheeled portion of the trolley as you can see in **FIGURE 10**.

The wheeled part of the trolley should be first set in wide mode so as to have the wheels outside of the perimeter of the pallet.

From now on you can follow the same steps already applied to the first Sonus faber.

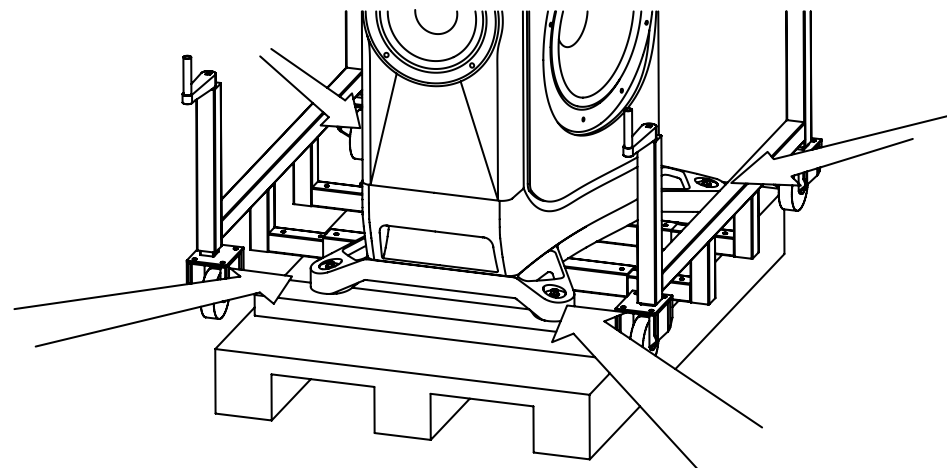


FIGURE 2

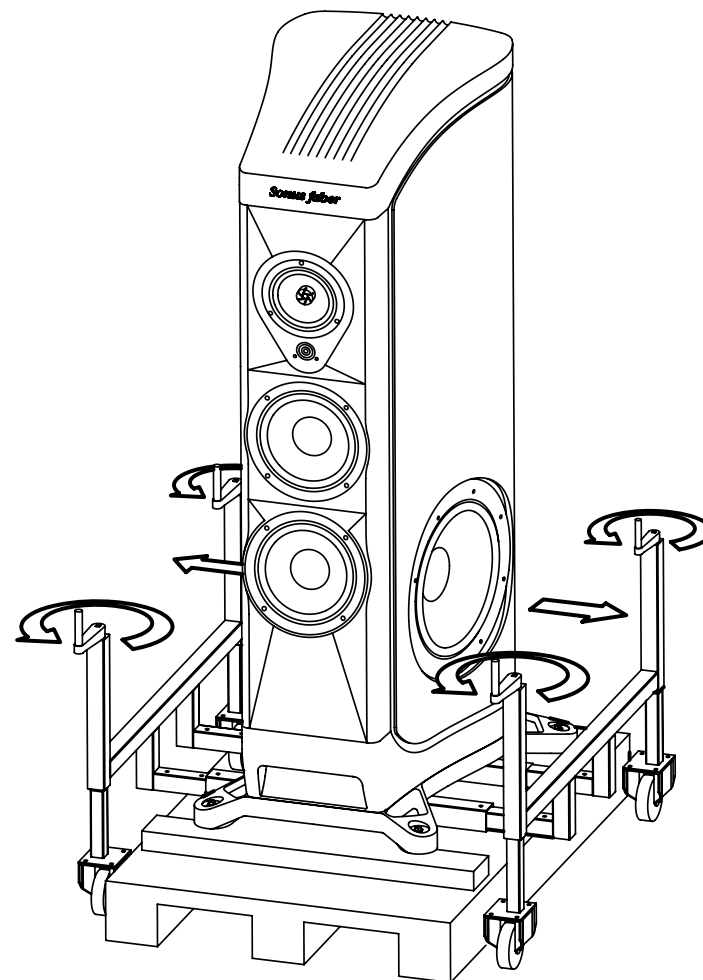


FIGURE 3

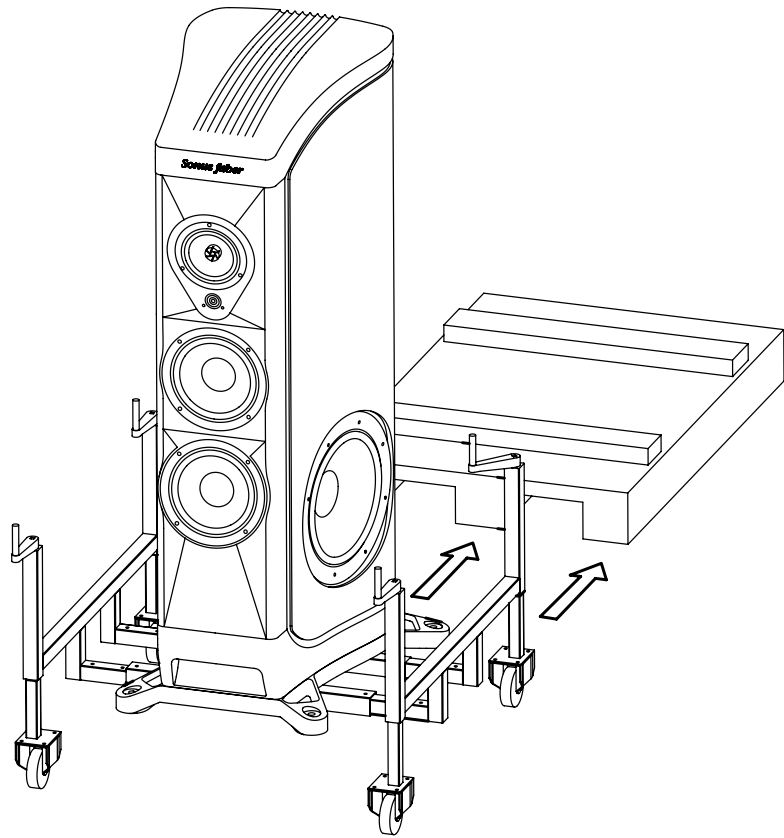


FIGURE 5

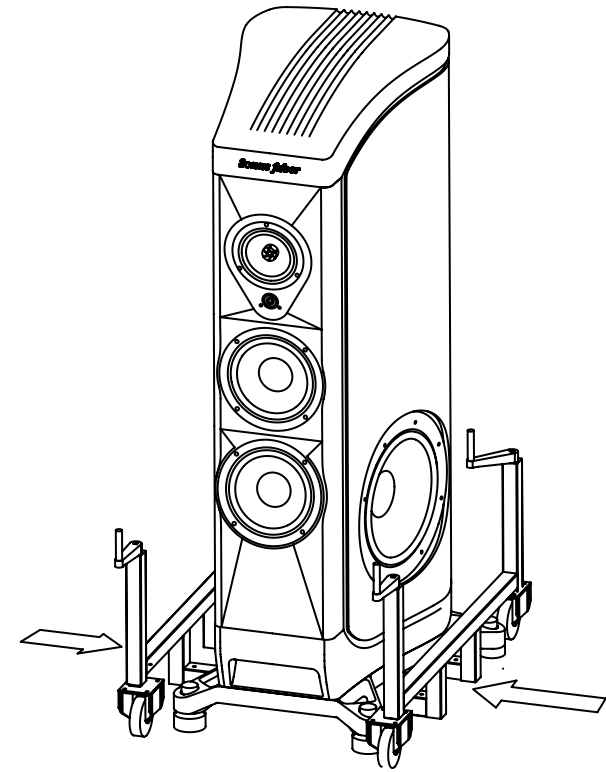
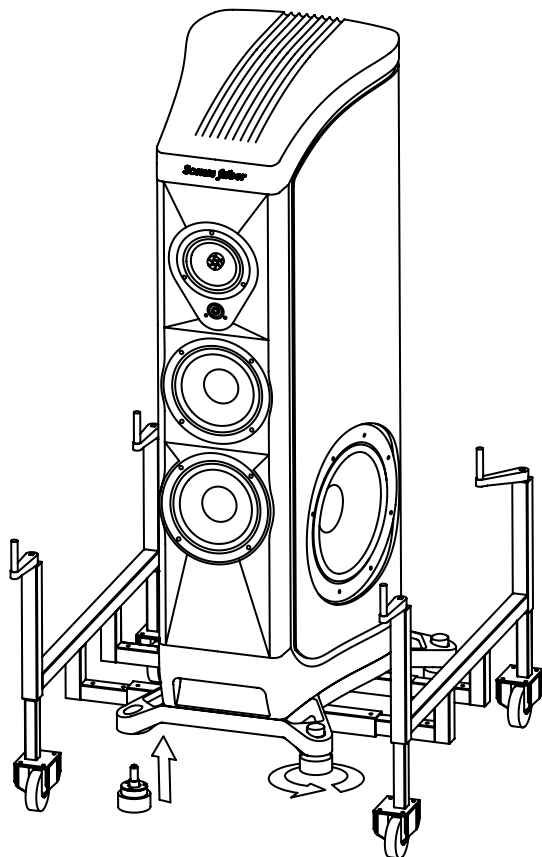
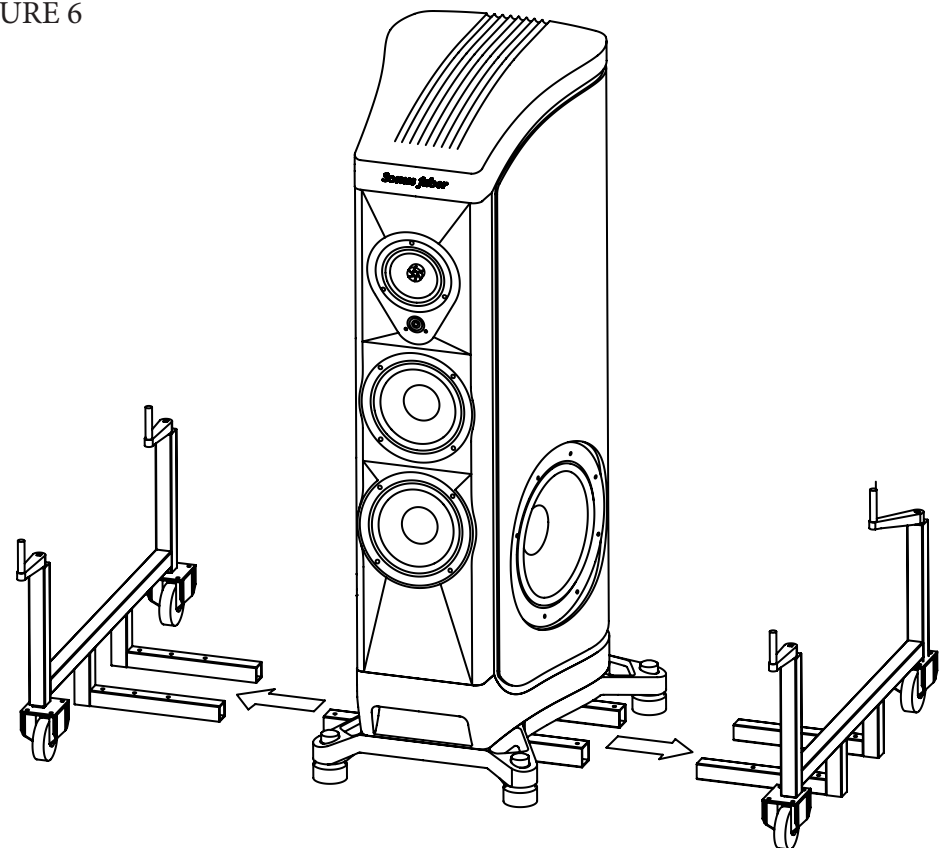


FIGURE 4



12

FIGURE 6



13

FIGURE 7

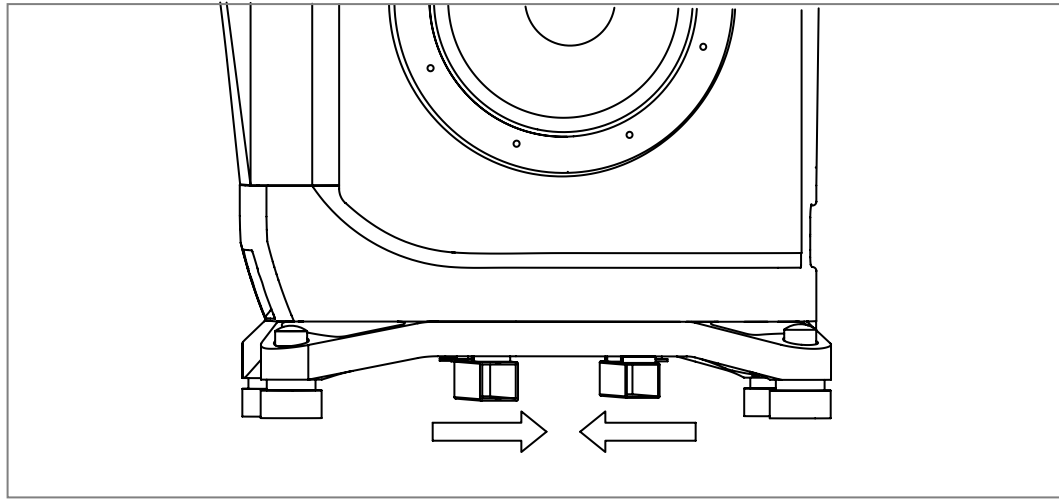


FIGURE 9

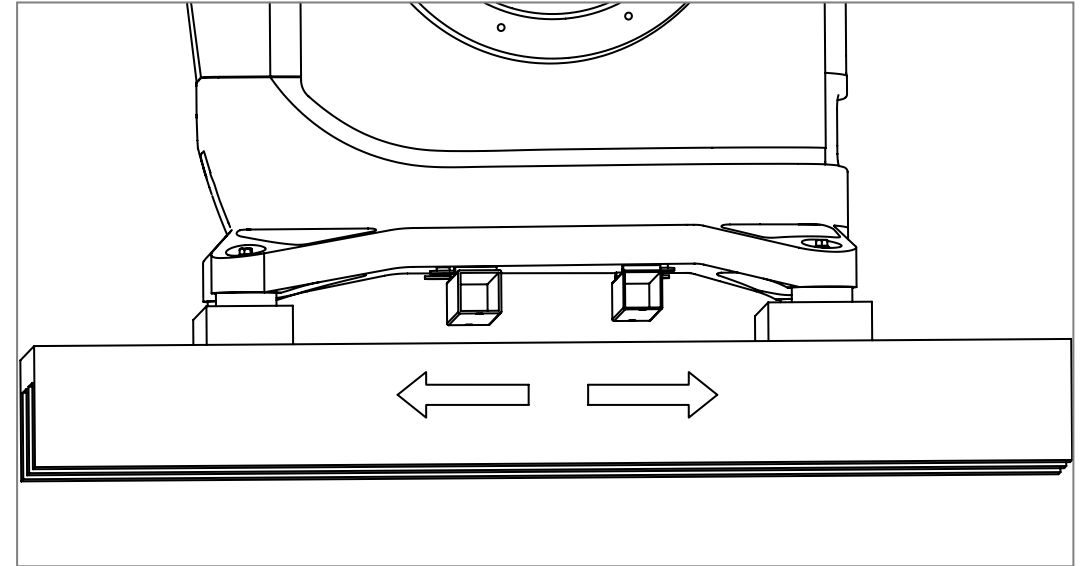


FIGURE 8

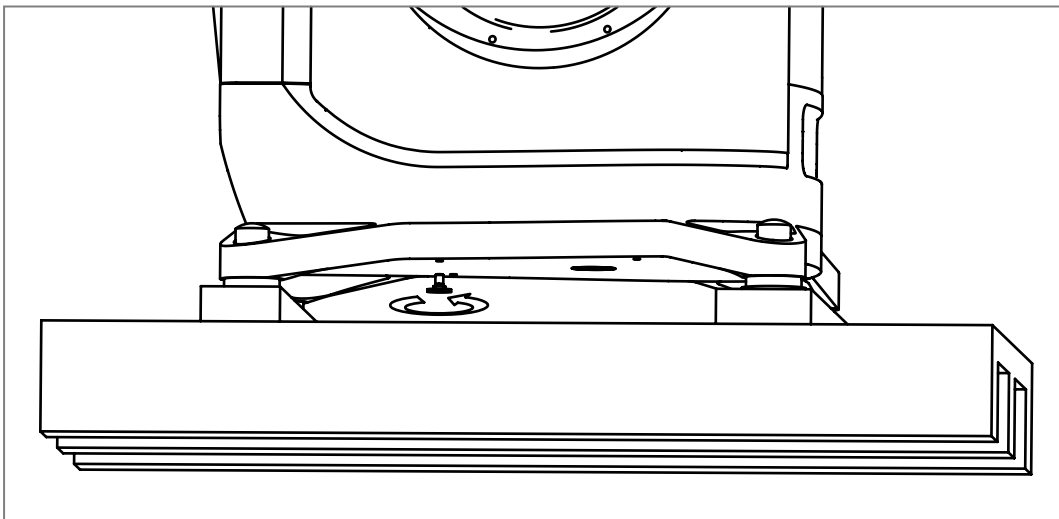
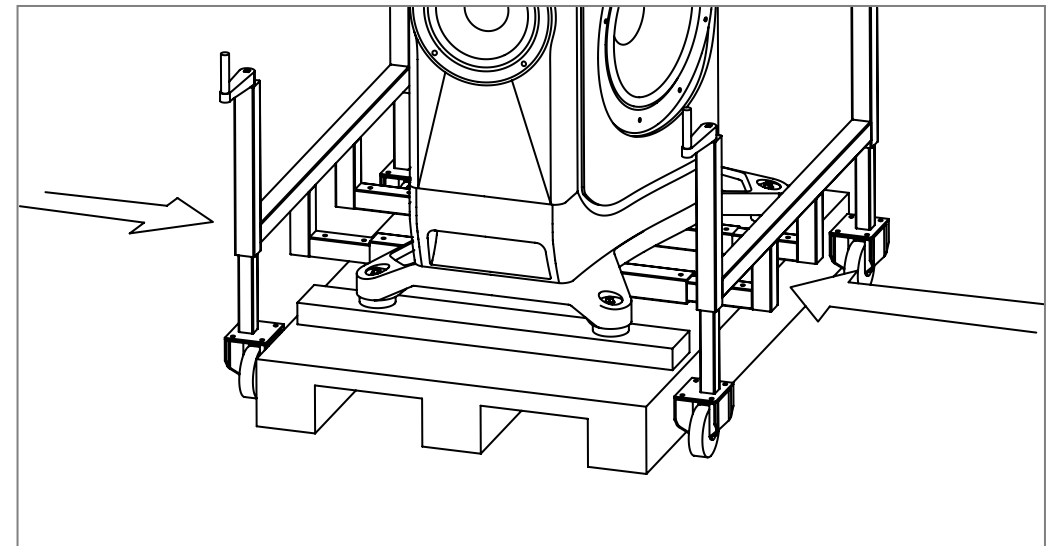


FIGURE 10

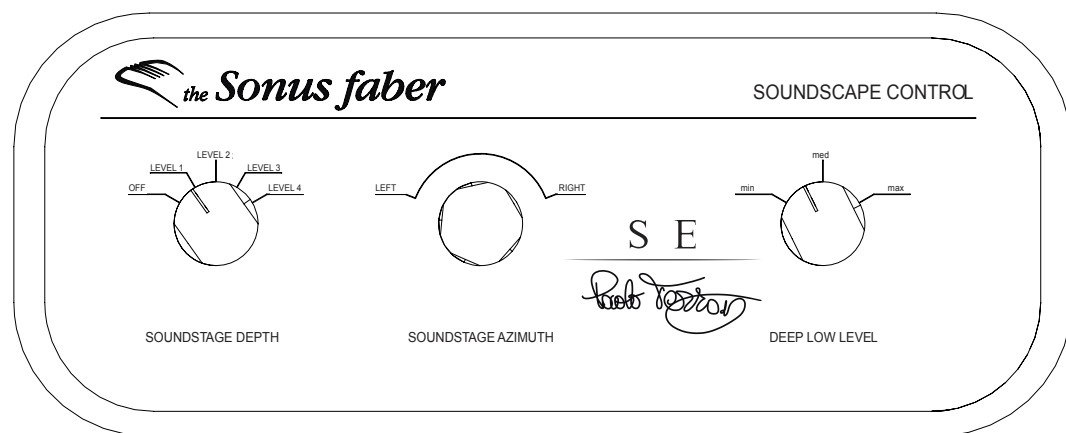


A GUIDE TO THE CORRECT SET UP OF THE SONUS FABER IN THE LISTENING ROOM

Once the Sonus fabers have been removed from their packaging (which we advise to keep for any future moves), they may be set up in the room by using the supplied trolley to move them. It is extremely important that a Sonus faber expert takes care of this task!

GENERAL RULES

Some general rules are outlined here and have a purely indicative value. Special attention should be paid to the choice of the music room and the position of the speakers in it. This will have an important impact on the tonal balance of the whole sound system. For the Sonus faber a 50 square meters room - at least - is highly recommended, with possibly ideal acoustic proportions. A good basic ratio of absorbing (carpets, sofas etc.) and reflective elements (tables, windows etc.) will be welcome. It is of paramount importance to have the best left/right equilibrium possible of the listening room (furniture and architectural elements). It is preferable to have a more reflective ambient behind the Sonus faber and a more absorbing one behind the listening area. Possible specific room acoustic corrections will be advised by your Sonus faber expert. However, taking the above criteria into account, it must be pointed out that there are no rules universally valid for every room.



The set up of the Sonus faber should initially be optimized on the best possible focus of the sound stage, as any conventional loudspeaker system. These preliminaries mean switching off the Sound scape control panel (off position on Soundstage Depth). The same way the deep low level control should be set on the Med position, as shown in **FIGURE 11**. The subwoofers can be indifferently set up inside or outside, according to the best performance in your specific music room. We prefer to have them facing outside, but in this case please try to have at least a 1.5 m distance from the side walls. It will be enough to set the subwoofer inside 1 m from the side walls. A good approach is to start by theoretically dividing the room into three equivalent surfaces, as shown by the lines in **FIGURE 12**.

The speakers are best placed on the first of these lines and well away from the side walls, while the best listening position is on the second, as shown in **FIGURE 12**. This will ensure a good quantity of air all around the speakers, allowing them to work in total freedom, and protect the listener from acoustic first reflections generated near the walls and corners of the room. We recommend distances of 1 m, even better of over 1.5 m from the lateral surfaces, around the speakers as we have specified before for the subwoofer. The listening area should be roughly placed along the second line. Figure 12 also shows how the axis of the speakers should be made to converge on the listening point, crossing on it and creating the classic isosceles triangle setup. We recommend a distance of 3/6 m between the speakers and roughly the same between the speakers and the listener. During the first listening sessions you should experiment optimizing the distance between speakers and their angles towards the listener to obtain the best focus of the sound stage without taking particular care about its depth. It is extremely important to ensure a 1,1 m height for the listener's ears. Generally speaking setting up a sound system is very similar to focusing binoculars. Nothing can tell us when a binocular is focused better than our eye, and nothing better than your ear can tell you when the sound focus is right. Only a long series of patient, attentive listening sessions will allow you to fully appreciate the quality we have strived for over the years and given you through the Sonus faber.

SOUND FIELD SHAPER OPTIMIZATION

The Sound Field Shaper correct operation needs a minimum distance between the Sonus faber and the back wall: 1,5 m. Best results are achievable starting from a 2 m distance from the back wall. These indications should not be critical if the general rules for placing the Sonus faber, as explained before have been followed. As soon as the Sonus faber has been set up for the traditional stereo sound stage, both the level and the 90° adjustable azimuth of the rear module, as shown in **FIGURE 11** can be experimented with for optimum results. We highly suggest to start setting the module azimuth by having the radiation axis perpendicularly firing into the back wall, as shown in **FIGURE 13**. Adjusting the level of the Sound field shaper means to start listening and experimenting with different levels and to come back from time to time to the off position. This is the only way to understand the impact of this device and get the optimum setting for the most natural soundstage depth. Now by using a diverging or a converging angle between the left and right rear modules it is possible to shape the depth and ambience of the sonic stage.

INFRA LOW LEVEL OPTIMIZATION

The lowest spectrum can be optimized on three settings Min, Med and Max with the Deep Low level control shown in **FIGURE 11**. This fine tuning is totally dependent on your listening room and your specific taste.

FIGURE 12

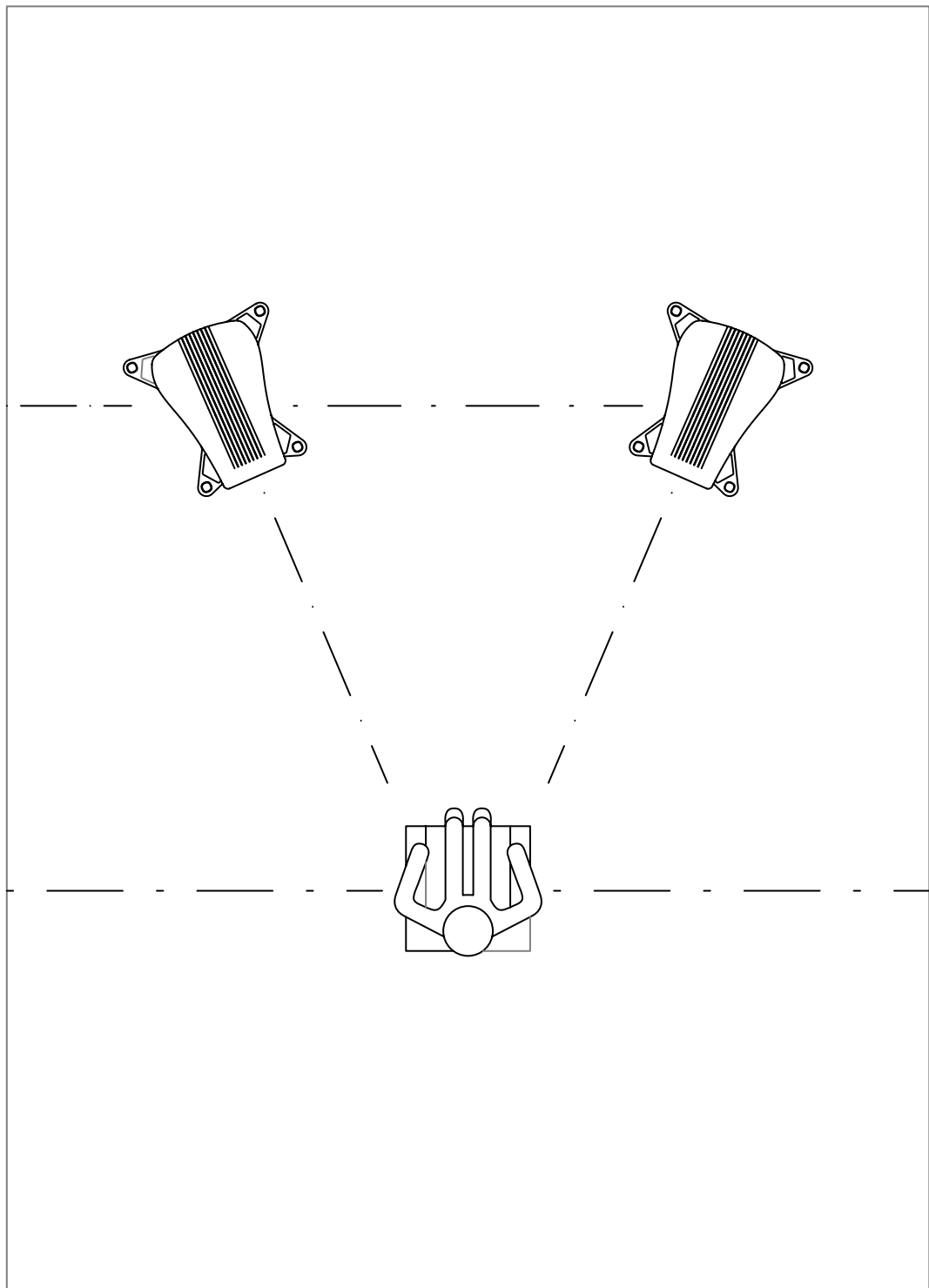
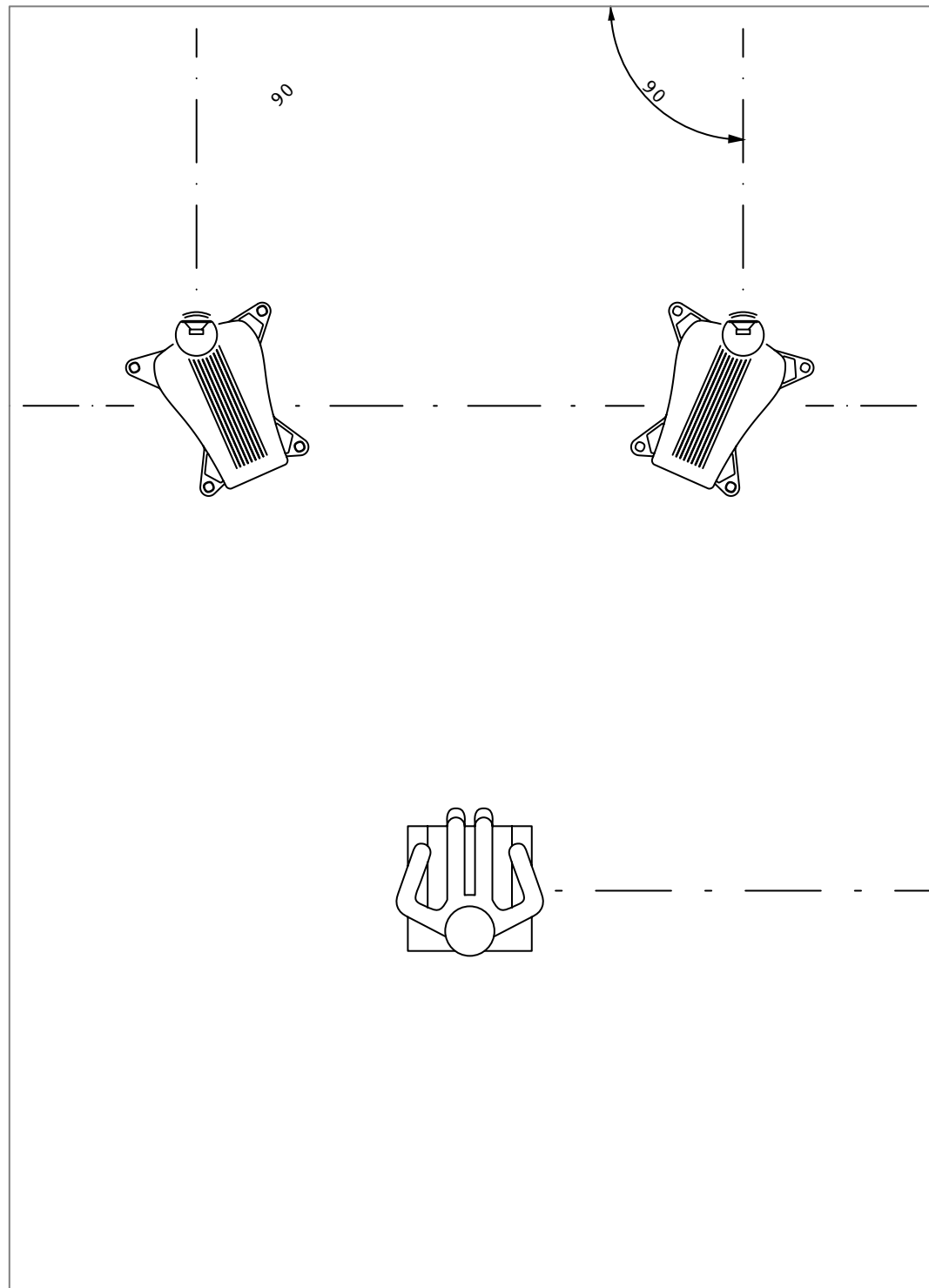


FIGURE 13



AMPLIFIERS

We receive numerous inquiries about the correct interface for the Sonus faber. In order to dispel all doubts we specify the following. A reference loudspeaker system cannot be designed to function perfectly only with a certain kind of amplifier. So claims such as 'The loudspeaker X works properly only with tube amplifiers' and so on are inaccurate and limiting. A state-of-the-art loudspeaker system needs a state-of-the-art amplifier, no matter the featured technology. It is evident that a loudspeaker system like the Sonus faber, considering all possible listening rooms will need an appropriate reserve of power (the more the better as long as the quality is not compromised) to have optimum results. In this case as well a qualified Sonus faber expert will be able to find the right combination for the precise needs of a specific system in a specific room for a specific client.

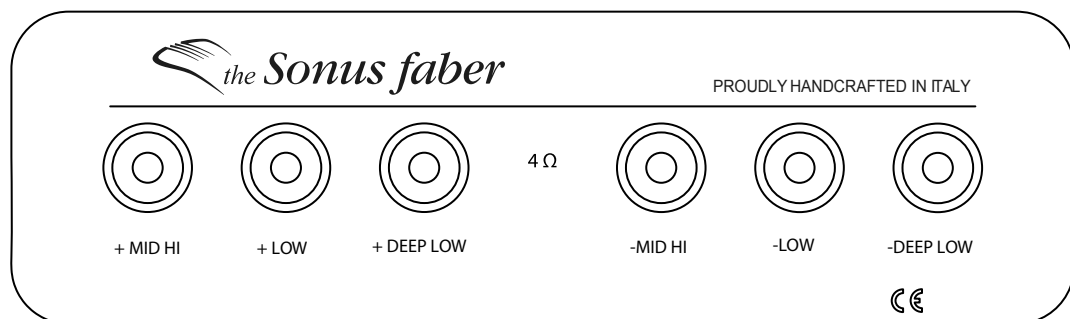
CONNECTION

There are two triple sets of binding posts on the Sonus faber back side panel: one set is relative to the positive polarity, the other to the negative one. Those connections accept bare wires, spade plugs and banana plugs as well. From left to right the two sets show a couple of positive and negative connectors for the mid-high frequencies, a couple of positive and negative connectors for the low frequencies and a couple of positive and negative connectors for the infralow frequencies, as shown in **FIGURE 14**. The Sonus faber accessories box includes some connection bridges: two couples (one for each speaker) marked with a red sheath and two couples (one for each speaker) marked with a black sheath. The bridges are made with a special high performance hybrid carbon/silver conductor wire (the same one used to wire internally the Sonus faber) and finished with different kinds of connectors.

The whole complete set for a single Sonus faber is:

- Two red bridges finished with a spade plug on one side and with a banana plug on the other.
- Two black bridges finished with a spade plug on one side and with a banana plug on the other.

FIGURE 14



The alternative use of those bridges allows connecting the Sonus faber in all the possible configurations, perfectly matching your favourite speaker wire terminals at the same time. Some examples:

- Standard connection using speaker wire finished with spades plugs. Please refer to the diagram shown in **FIGURE 15**.
- Standard connection using speaker wire finished with banana plugs. Please refer to the diagram shown in **FIGURE 16**.
- Bi-wiring/Bi-amping connection (With the midhi section standing alone and the low + infra-low sections coupled together) using the speaker wire finished with spades plugs. Please refer to the diagram shown in **FIGURE 17**.
- Bi-wiring/Bi-amping connection (With the midhi section standing alone and the low + infra-low sections coupled together) using the speaker wire finished with banana plugs. Please refer to the diagram shown in **FIGURE 18**.

Here follows the various connection topology description path. Following it means increasing, step by step, the quality of sound reproduction in standard connection.

STANDARD CONNECTION

The standard connection can be available with one stereo power amplifier or with a pair of mono power amplifier and with one set of speaker cables. The connection can be done only after having bridged the binding posts according to the diagram shown in **FIGURE 19**.

BI-WIRING

The bi-wiring connection can be available with one stereo power amplifier or with a pair of mono power amplifier and with two sets of speaker cables. The Sonus faber allows to implement two different bi-wiring options:

- Option 1: while the mid-hi section is standing alone and wired with one speaker cable, the low + infra-low sections are coupled together and wired with the other speaker cable. This is the option we recommend. The connection can be done only after having bridged the binding posts according to the diagram shown in **FIGURE 20**.
- Option 2: while the infra-low section is standing alone and wired with one speaker cable, the mid-hi + low sections are coupled together and wired with the other speaker cable. This is an interesting alternative to the option 1. The connection can be done only after having bridged the binding posts according to the diagram shown in **FIGURE 21**.

TRI-WIRING

The tri-wiring connection can be available with one stereo power amplifier or with a pair of mono power amplifier and with three sets of speaker cables connecting separately every the Sonus faber section with one of the three speaker cables sets without using the bridges at all. The connection must be done according to the diagram shown in **FIGURE 22**.

BI-AMPING

The bi-amping connection can be available with a pair stereo power amplifier or with four mono power amplifier (we highly recommend to use the same brand and model amplifier for the whole system) and with two sets of speaker cables.

The Sonus faber, as it happens for the bi-wiring allows to implement two different biamping options:

- Option 1: While the mid-hi section is standing alone and is driven by one stereo amplifier (or by two mono amplifiers) the low + infralow sections are coupled together and driven by the other stereo amplifier (or by two mono amplifiers).

This is the option we recommend.

The connection can be done only after having bridged the binding posts according to the diagram shown in **FIGURE 23**.

- Option 2: while the infra-low section is standing alone and is driven by one stereo amplifier (or by two mono amplifiers) the mid-hi + low sections are coupled together and driven by the other stereo amplifier (or by the two mono amplifiers).

This is an interesting alternative to the option 1.

The connection can be done only after having bridged the binding posts according to the diagram shown in **FIGURE 24**.

TRI-AMPING

The tri-amping connection can be available with three stereo power amplifier or with six mono power amplifier (we highly recommend to use the same brand and model amplifier for the whole system) and with three sets of speaker cables, driving separately every Sonus faber section with one stereo amplifier (or with two mono amplifiers) and using for every section one of the three speaker cables without using the bridges at all.

This configuration represents the paramount of the increasing quality path.

The connection must be done according to the diagram shown in **FIGURE 25**.

Accurate tightening of the contacts and periodic checking of these will help improve performance.

FIGURE 15

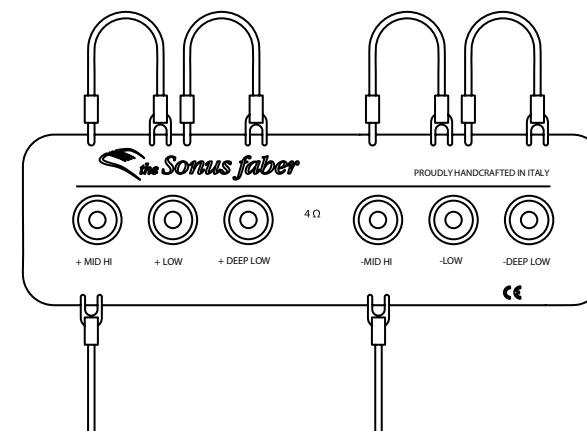


FIGURE 16

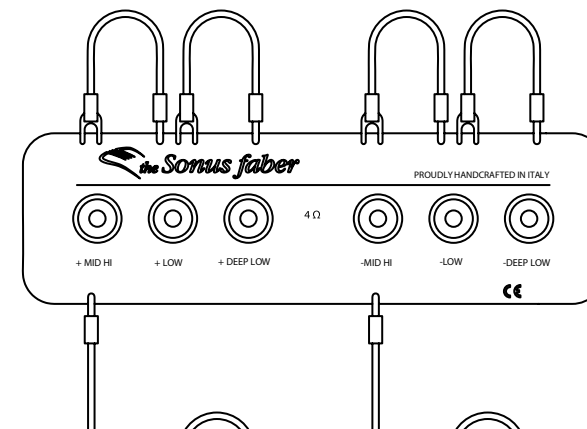


FIGURE 17

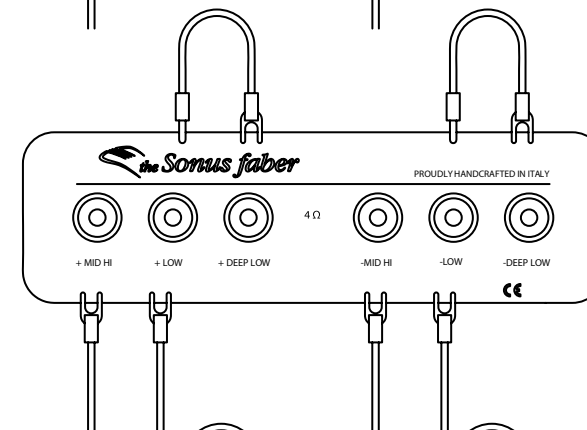


FIGURE 18

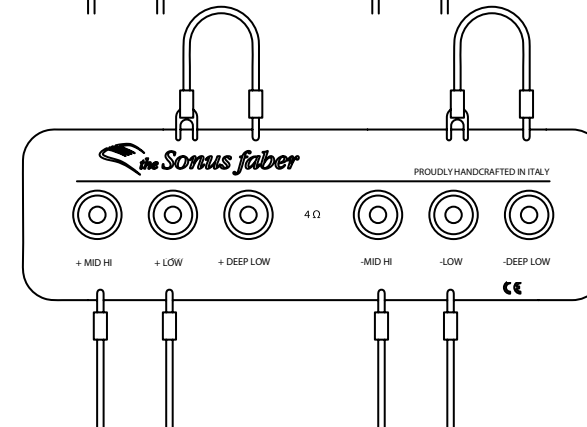


FIGURE 19

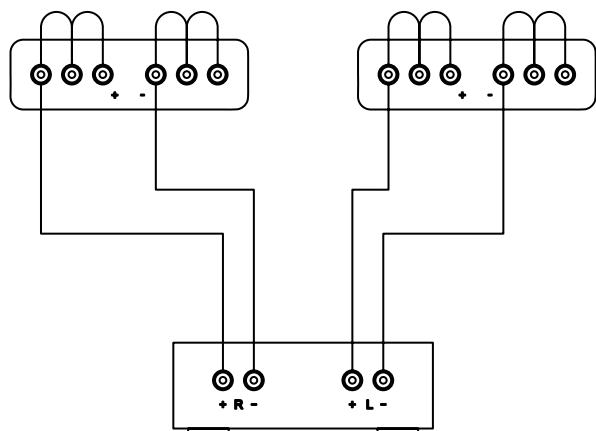


FIGURE 20

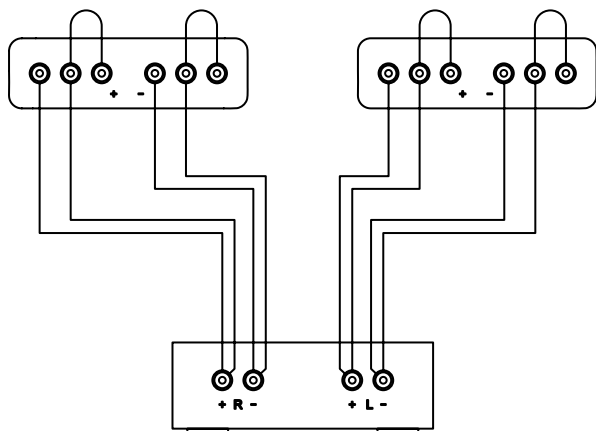


FIGURE 21

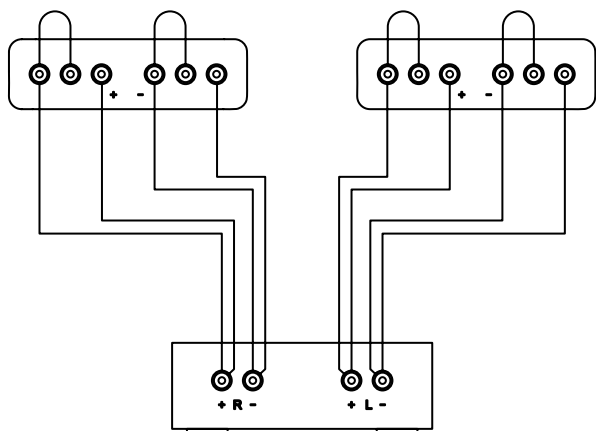


FIGURE 22

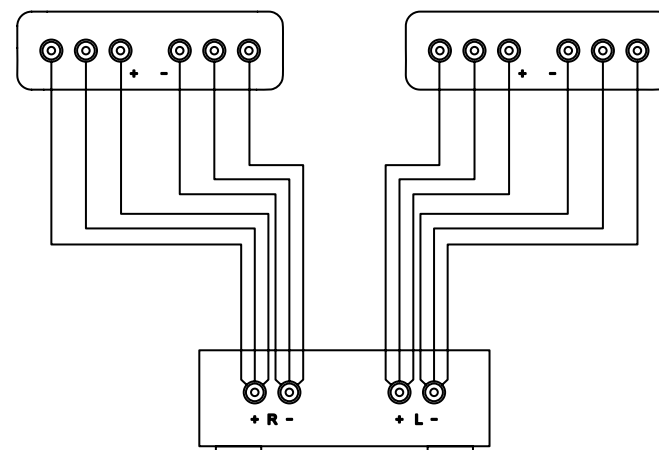


FIGURE 23

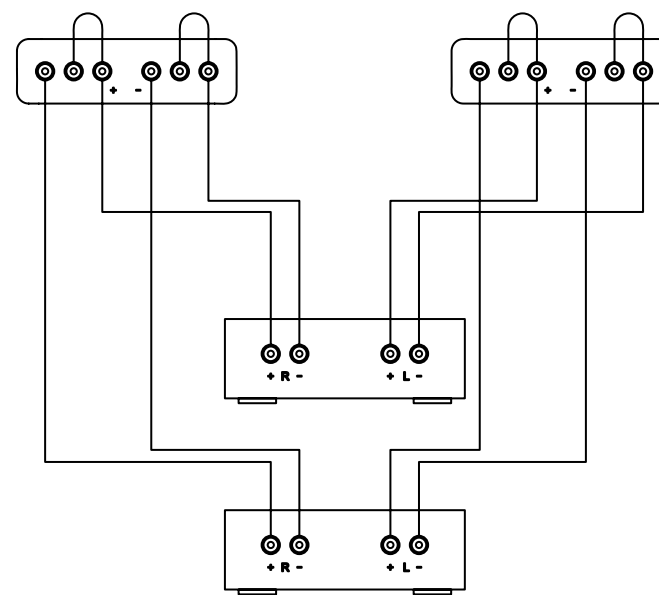


FIGURE 24

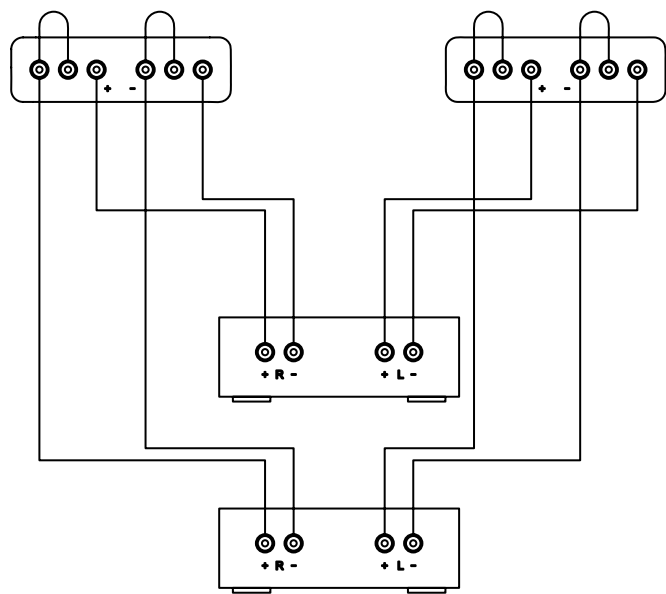
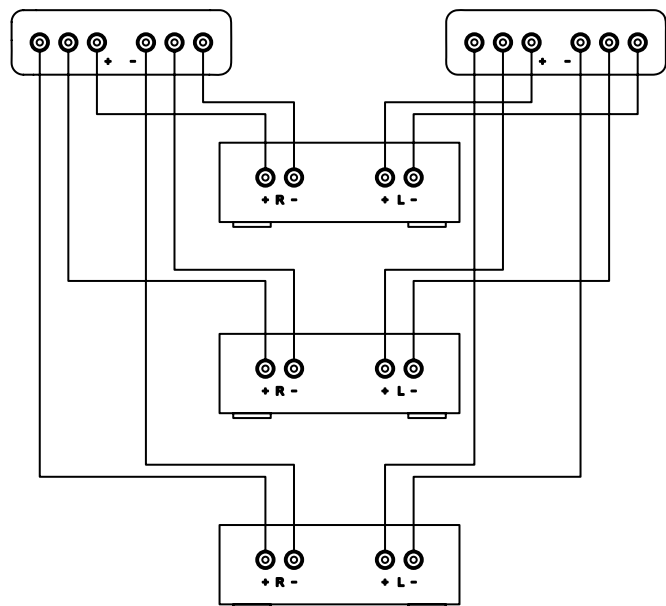


FIGURE 25



THE SONUS FABER MAINTAINANCE

WOOD AND LEATHER SURFACES

The Sonus faber does not require any particular maintenance apart from occasional general cleaning. Clean the wooden part of the cabinet with a soft cloth and a few drops of citrus or lemon oil, silicon or liquid wax.

Wood is a natural, living material that is sensitive to external agents, so avoid placing the speakers near heat sources or windows, particularly in summertime.

Avoid direct sunlight. We suggest to use a soft brush from time to time and pay attention when removing dust present on the leather surfaces.

METAL SURFACES

If your Sonus faber version is the one in black anodized Avional, please clean the metal surfaces using a soft cloth and the supplied specific cleaning solution.

If your Sonus faber is the one in highly polished natural Avional maximum care should be taken: by using the dedicated and supplied cleaning cloth please clean the surfaces roughly every three months. Please avoid leaving fingerprints on the surface as much as possible.

THE LOUDSPEAKERS

The drivers should be kept away from any mechanical contact and from excessive temperatures and humidity.

Cleaning them with a very soft and fine brush from time to time, and avoiding damaging the diaphragms of the drive units, in particular the tweeter one will be sufficient.

These simple considerations will keep your precious Sonus faber in perfect condition for many years.

RUNNING IN THE SONUS FABER

Although the Sonus faber has been designed to give excellent results from the very beginning, it is a fact that the quality will improve after a while.

This is thanks to running in the moving parts (the diaphragms of the drive units).

The acoustic chambers will improve as well, very much like all stringed musical instruments.

We can say that after roughly 100/300 hours of listening the Sonus faber will reach its highest performance.

We wish you the best listening experience.

Feel free to contact us.

