



No loss of fine detail

STEP plus Owner's Manual



Welcome!

Dear music lover,

We would like to thank you for putting your trust in our products and welcome you to the family of audiophile friends of AUDIO PHYSIC.

You have chosen a top-class product that has been developed in Germany. We would like to congratulate you on this choice and wish you a lot of fun and enjoyment with your product.

We only use the latest technical expertise and top-quality components when manufacturing our loudspeakers and we produce them in accordance with strict quality criteria. These criteria enable Audio Physic, as the manufacturer, to provide original owners with a 10 year warranty for our loudspeakers (2 years for the subwoofer electronics and 10 years for the drivers), starting on the date of purchase of the product by the original owner. In order to secure this additional service, please fill out the warranty card enclosed with your loudspeakers and send this and a copy of your proof of purchase to your AUDIO PHYSIC distributor.

Only after several electronic and acoustic test runs, which our quality assurance staff confirm by signing the enclosed certificate, are our loudspeakers allowed to leave the factory in secure packaging. These measures help to ensure that you can enjoy the full experience of the high-quality materials, production and sound of AUDIO PHYSIC loudspeakers in the comfort of your own home.

In general, your AUDIO PHYSIC dealer will deliver and install your loudspeakers. If you would rather install your product yourself, the following pages provide you with detailed tips and steps to follow in order to safely set up your loudspeakers. **Have fun with your STEP plus!**

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Included in the Delivery

Your new loudspeakers are delivered in one box. In addition to the two loudspeakers, the box contains a separately packaged accessory pack and the "Welcome to the AUDIO PHYSIC Family" package as well as this Owner's Manual, a spirit level to help optimize the setup and the Final Inspection Certificate.

Accessory Pack: 2x front grilles



General Tips

Depending on the size and weight of your loudspeakers, it is a good idea for two people to unpack them. First take out the accessory pack, which is located inside the main box, and follow the instructions in the chapters "Unpacking and Assembly", "Connecting the Loudspeakers" and "Setting Up the Loudspeakers" to ensure the safe and correct installation of your loudspeakers.

The loudspeakers should reach a temperature that is approximately equivalent to room temperature before you connect them to the HiFi system and/or operate them. This instruction predominately refers to the winter months in case the loudspeakers were previously stored in a cold room.

Maintenance

Our loudspeakers are coated in high-quality veneers or high-gloss lacquers. You should avoid using chemical cleaning agents because these can attack the loudspeaker surfaces and make them dull. As a rule, a fine, soft and damp cloth is all that you need to clean the surfaces. If a cleaning agent is required, use this to dampen the cloth and do not directly apply it to the surface. It is best if you test the suitability of the cleaning agent on a less visible part of the cabinet. The **drivers do not normally need to be cleaned**. Dust particles fall off quickly when the loudspeakers are operated. You can, however, use a soft brush to lightly brush over the surfaces of the drivers. When doing so, make sure you do not put any pressure on it. Please **never use any cleaning agents on the drivers**. Do not expose the loudspeakers to direct sunlight. Anodized surfaces are sensitive to acids, alkalis, and to ultraviolet light and may fade.

The drivers in this range of AUDIO PHYSIC loudspeakers use a unique mounting technique. Rather than directly mounting the drivers onto the cabinet of the loudspeaker, the drill holes of the STEP plus contain special neoprene plugs. These neoprene plugs tighten in the mounting hole when the screws are fitted, creating a permanently elastic connection between the driver and the cabinet that reduces resonance. **You do not need to tighten these screws**. Re-tightening the screws may damage the plugs and have a negative effect on the sound.

Burning in the Loudspeakers

The loudspeakers first reach their full sound potential after a specific burn-in period. **We burn in the drivers of the STEP plus at our factory prior to assembly**, meaning that they normally only need a burn-in period of a few hours at a normal room volume and with music that has a range of frequencies that is as wide as possible, for example orchestral pieces. Recordings containing 'white or pink noise' such as those available on many so-called Test CDs are also ideal. For safety reasons, these pieces should never be played at high volumes.

Stray Magnetic Fields

The magnetic field created by the individual driver magnets may to some extent have an effect outside of the loudspeaker. This stray magnetic field may interfere with other devices, particularly televisions and monitors with cathode ray tubes (not LCD or plasma televisions), for example by causing changes in color in the picture. We recommend that you place the loudspeakers approximately 20" away from such devices (and also from magnet tapes and credit cards with magnetic stripes, etc.).

Please retain the loudspeaker packaging. You can then securely transport your loudspeakers if you move or the speakers need to be retuned for servicing.

Unpacking and Assembly

1. Place the box on a stable and level surface, preferably on the floor.
2. Carefully open the packaging on the long side where it has been taped up, preferably using a pocket knife or kitchen knife.
3. Carefully remove the loudspeakers, together with their protective foam pads, from the box. **Make sure that you do not touch the drivers** when removing and handling the loudspeakers as this may cause irreparable damage to the drivers.
4. Now remove the foam cover from the top and carefully pull down the foil and Place the loudspeakers in their intended positions.

You can now start to optimally align your new STEP plus to the listening position. You can find tips regarding this process in the following chapter on "Setup."

Connecting the Loudspeakers

Your STEP plus loudspeakers are fitted with a modern connecting terminal (the image on the right) that is acoustically decoupled from the loudspeaker cabinet and contains extremely high-quality patented nextgen™ connectors made by the specialist manufacturer WBT. The connectors have a unique mechanism (*the torque indicator*) that will help you during the installation procedure.

1. Please switch off all equipment in your Hifi system before you begin to connect your loudspeakers.
2. If you are using a loudspeaker cable with spade connectors, turn the screw clamps to the left until you can easily slide the spades into the openings at the side. Push the spades into these openings and turn the screw clamps to the right **until you hear a clicking noise - this is the torque indicator**. Now turn the clamps until they are hand-tight, which will normally be the case after a few more 'clicks'. After this point, you can indeed tighten the clamps even more, but this will not improve the results. In the worst case scenario, further tightening the clamps may lead to damage to the surface structure of the spade connectors. Attach the loudspeaker cable to the connectors on the loudspeakers.
3. When doing so, please make sure that you have the right polarity. As a rule, loudspeaker cables are accordingly labeled, either by a permanent marking on one of the two conductors of the cable by "+" and "-" markings on the cable ends.
4. Now connect the cable to your amplifier and make sure that you have the right polarity here.
5. The STEP's connectors, which are shown in the image on the right, accept both spades and banana plugs. Loose cable strands oxidize easily and are not suitable for a permanently high-quality listening experience.



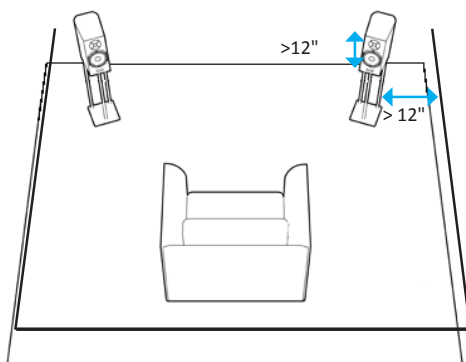
Positioning the Loudspeakers

We strongly recommend that you operate the loudspeakers on suitable stands, for example the AUDIO PHYSIC SHERPA V (see the image on the right). In terms of sound, the use of suitable loudspeaker feet or stands is normally far more superior than placing your speakers directly on a shelf. This ensures that the tweeters are located in an ideal position (at an ideal height) in relation to your listening position, which is particularly important for the spatial image and the acoustic neutrality. Also, it helps to prevent interactions between the loudspeaker and the surface on which it is placed (e.g. the cupboard or shelf). Such elements may otherwise vibrate in response to the music.

When placed on a shelf, the STEP plus loudspeakers are probably also in direct proximity to the back wall. This proximity to both the wall and the shelf surface increases the sound level in terms of the bass and root notes, which may result in a thicker sound that is lacking in detail. If you want to operate your STEP plus on a shelf, place the speaker as forward as possible. We also recommend that you use our optional VCF Component feet in order to largely mechanically decouple the loudspeakers from the surface.

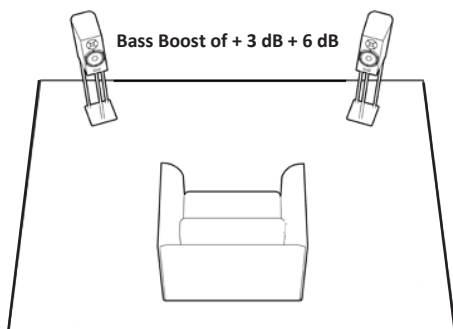


1. The STEP plus loudspeakers should be placed in a position in which the tweeters are at ear height in relation to your listening position.
2. The ideal placement of your loudspeakers in your room involves positioning them in an isosceles triangle arrangement including your listening seat, creating equal spacing between each loudspeaker and the listening position.
3. The distance between the loudspeakers should be around 0.8 - 1.2 times as much as the distance between the loudspeakers and the listening position. The closer you sit to the loudspeakers, the more direct and dry your sound experience will be. As you move further away from the loudspeakers, the sound image will more generous, although the focusing will decrease. The larger the space between the listening position and the loudspeakers, the more you will be aware of the acoustic effects of the room on the sound produced.
4. Where possible, the loudspeakers should be positioned approximately 20" from the surrounding walls. The larger the space between the loudspeakers and the back wall, the more precise the sound reproduction, particularly where bass frequencies are concerned.



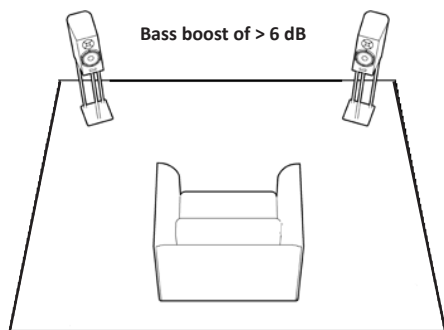
Setup away from the wall: The loudspeakers are positioned at least 20" away from the surrounding walls. The STEP plus are configured in such a way that they produce a clear and precise bass even when they are positioned about 12" away from the walls.

5. The design of the STEP plus enables them to still produce a clear and precise sound even when they are positioned closer to a wall. This position broadly reinforces low frequencies by around +3 and +6 decibels, making the bass output sound more powerful. As a result, the tonal quality of the sound reproduction may increase. Placement too close to the walls may, however, also result in a bass boost which provides a reproduction that is undifferentiated and lacking in details, depending on how close the loudspeakers are to the walls.



Setup close to the wall: Low frequencies are broadly reinforced by around +3 and +6 decibels when the loudspeakers are positioned close to the wall.

6. This effect is even more intense when the loudspeakers are placed in the corners of the room. The broad increase in lower frequencies may rise to considerably more than six decibels. This is normally not conducive to the sound reproduction and makes the bass tones become dominant very quickly, while the midrange becomes diffuse and thick. All in all the music lacks in detailed information. When placed in the corners of the room, the acoustic conditions mean that the loudspeakers tend to perform significantly below their sound reproduction capabilities.



Setup in the corners of the room: Low tones become significantly louder and overlap into the midrange frequencies. This results in a washed-out and lethargic sound reproduction.

You can easily use your favorite music to determine the influence of the position of your loudspeakers on their sound reproduction. Pieces of music involving a singing voice accompanied by only a few natural instruments are particularly suitable for this test. Start by placing the loudspeakers about 20" away from the walls and then move them around 5" closer to the wall in each listening test. As soon as voices sound start to sound diffuse and lose their contours and the fine details fade away into the background or even completely disappear, move the loudspeakers a few more inches away from the wall again. Use the same procedure to find the ideal distances away from the side walls. By carrying out this test, you can quickly determine the perfect position for your loudspeakers.

7. In addition to the strength of the bass response, the distance from the side walls also particularly affects the localization of sound events and therefore the precision of the spatial imaging. As the distance from the walls increases, the localization will become more precise and the sound will be more balanced. When the loudspeakers are extremely close to the side walls, this will result in early acoustic reflections, leading to both reduced spatial perception and a rather nervous sound reproduction. Curtains or shelves or similar at the sides reduce this effect.

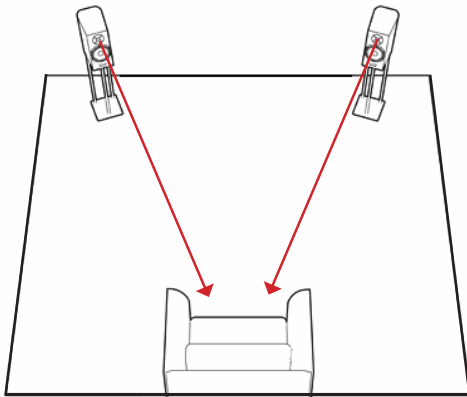
AUDIO PHYSIC'S Sound Advice

If you want to increase the sound quality of your STEP plus even more in terms of precision and bass response, especially when using the loudspeakers on a sideboard or shelf, you should definitely try out our high-quality feet (for example VCF II Component in the image on the right) on your loudspeakers. The "Vibration Control" feet reduce the transmission of vibrations between the loudspeakers and the surface on which they are placed. In response to sound energy, shelves and cupboard surfaces in particular tend to produce natural vibrations that can, in turn, be transmitted to the loudspeaker cabinet. These micro-vibrations have an adverse effect on the quality of the sound, especially in the midrange area, which may quickly result in a diffuse and less precise sound image. Our "Vibration Control" feet are perfectly suited to stop the transmission of vibrations from the surface, leading to an audible improvement in the level of detail and realistic sound reproduction. Another advantage of using VCF Component feet, is that they also reduce the risk of scratches on cupboard and shelf surfaces. For more information and advice, please contact your dealer.



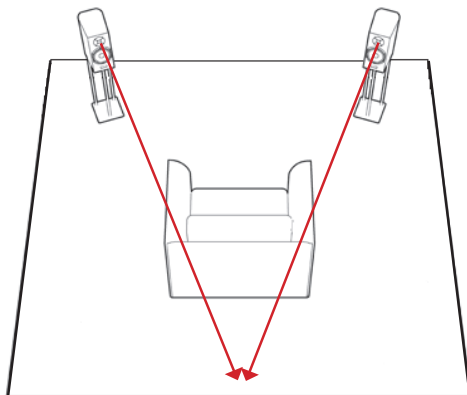
Positioning the Loudspeakers

1. Once the loudspeakers are positioned parallel to the side walls, turn them inwards until an imaginary line is pointing from the tweeter of each loudspeaker towards your preferred listening position. If you prefer to listen to music alone, these imaginary lines coming from the loudspeakers should 'intersect' at your listening position. This will result in excellent localization and spatial imaging. If you would rather listen to music in a group, turn the loudspeakers further inwards so that the imaginary lines cross in front of the listening position.



First step: Angle the loudspeakers so that an imaginary line is in place between the tweeters and your listening position.

2. If you prefer a wider soundstage and more generous spatial imaging, position the loudspeakers at less of an angle so that the imaginary lines cross just behind the listening position. Once a specific angle has been reached, the spatial image in the center between the loudspeakers will begin to lose structure and precision. You can easily identify the ideal angle by using a mono recording. When the voice of the artist sounds clear again and comes directly from the middle between the loudspeakers, you have found the ideal position.



Second step: Experiment with the angle. When it comes to positioning your loudspeakers, your listening taste plays an important role. To find the ideal position, mono recordings are extremely useful, particularly those with a singing voice and few instruments.

Technical Specifications

Height
Width
Depth
Required Space: Width x Depth
Weight
Recommended Amplifier Power
Impedance
Frequency range
Sensitivity

STEP plus

12.6"
6.9"
9.8"
6.9" x 11.8"
12.25 lbs.
10 - 120 watts
8 Ohm
50 Hz - 40 kHz
87 dB

Driver Compliment

Woofer

Tweeter

1 x 5.9" / HHCM

1 x 1.75" / HHCT-III

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