

[audio physic]

No loss of fine detail



Owner's Manual

RHEA II

Safety Instructions

Please take the time to thoroughly read the information provided in this operation manual before you operate the Audio Physic RHEA II. The following safety instructions must be strictly observed:

- Only use or store the RHEA II in a dry place. Do not spill any kind of liquid on or insert any object into the subwoofer. If any liquid or object has entered your RHEA II, unplug the subwoofer immediately from the wall outlet and switch off all other equipment such as amplifier or multi-channel decoder. Remove also the cables connecting your RHEA II to the amplifier or multi-channel decoder. Refer safety check and servicing of your RHEA II to an authorised Audio Physic dealer.
- Position the RHEA II on a stable and level floor.
- Make sure the location of the RHEA II allows sufficient air exchange for cooling and ventilation in order to dissipate the generated heat.
- If your RHEA II has been exposed to a cold environment (for example during transportation), do not operate the subwoofer until it has regained room temperature and possible condensation has evaporated.
- Unplug the RHEA II when not in use for a longer period of time.
- Do not leave your RHEA II unattended when in use.
- Make sure that you exactly follow the instructions given in the chapter "Setup, Connection and Adjustment of your RHEA II".
- When positioning your RHEA II, leave at least 1m of clearance around any television sets, computer monitors or other devices equipped with a cathode-ray tube. Otherwise, the magnetic field created by the drivers of the RHEA II may permanently distort your television or monitor screen.
- Do not expose your RHEA II to strong and direct sunlight (ultraviolet light).
- Keep the RHEA II and especially the connecting terminals out of reach of small children.
- Make sure that you switch off the RHEA II by pressing the subwoofer's switch-off button before you start to clean the subwoofer. Only use a soft, clean cloth, moistened with a mild soap solution (but not wet!) to clean the cabinet of your RHEA II. Remove residual moisture with a soft, clean and dry cloth. Never use chemically aggressive liquids such as alcohol, solvents, diluting agents or petrol to clean the subwoofer. Use only a clean, dry, soft brush to clean the drivers. You should be extremely careful when doing so. Make sure that no short circuit condition exists at the connecting terminals and that all terminals and plugs are properly connected before you restart the RHEA II.
- Contact an authorised Audio Physic dealer if your RHEA II is in need of repair or has to be opened. If your RHEA II is damaged or if it does not function properly, unplug the subwoofer immediately and refer safety check and servicing to an authorised Audio Physic dealer.



Introduction

Congratulations! You have chosen an expertly designed and professionally manufactured subwoofer. The Audio Physic RHEA II is a state-of-the-art audio component which provides uncompromised quality even in the deepest bass region.

In order to ensure excellent bass performance, it is necessary to precisely adjust the subwoofer to the main loudspeakers and to the listening room. In designing the RHEA II, this inspired us to include an adjustment concept which allows perfect adjustment to the features and characteristics of your listening room. Therefore you will be able to always achieve a high quality balanced performance, independent of room variations.

We encourage you to read this manual thoroughly and in depth, as there is a great deal of information provided here. The information enables you to attain the greatest possible performance from the RHEA II as well as instructions on how to avoid damages to your subwoofer or associated equipment. Please also follow the recommendations offered in the manual regarding the positioning of your RHEA II.

Setup, Connection and Adjustment of your RHEA II

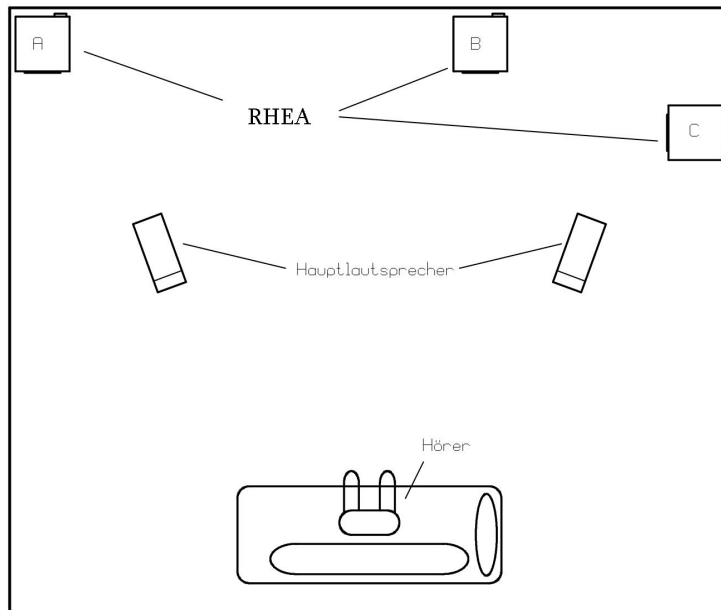
Should you encounter any problems which cannot be solved or any questions which cannot be answered, please contact your authorised Audio Physic dealer.

Enjoy the discovery of a new aspect of music reproduction.

[audio physic]

Setup

Setting up the RHEA II is easy and can be done in two different ways:



- The subwoofer can be positioned in a corner of the room (1.A)
- The subwoofer can be positioned alongside a wall (1.B and 1.C)

The RHEA II should be placed in the area of the room opposite the listening seat. Both set-ups are equivalent in acoustic terms, however, in critical rooms (such as rooms with large reflective surfaces made of concrete or glass, sparsely furnished or square rooms), we recommend that you place the subwoofer alongside a wall according to set-up 1.B or 1.C.

Make sure you follow the recommendations for correct positioning provided in the chapter "Safety Instructions" at the beginning of the manual.

Before you decide on the final position, you need to thread the four spikes included in the delivery into the inserts mounted at the bottom of the RHEA II and screw them in. Now place the subwoofer on its four spikes. Adjust the subwoofer by rotating the spikes until they are firmly set on the ground and the RHEA II is level and stable. In a next step, tighten the lock nuts included in the delivery onto the spikes.

The same instructions apply if two RHEA II need to be positioned. However if this is the case we recommend that you align both subwoofers symmetrically along an imaginary axis extending from the listening seat to the central point between the two loudspeakers.

We recommend that you keep the boxes and packaging material and set them aside for later use.

Connection

The RHEA II is designed for operation at a mains voltage of 230 V/50 Hz AC, unless otherwise specified on the amplifier module (2.4). Severe damage may occur to the RHEA II if operation is attempted from a power source other than that indicated on the nameplate.

Amplifier Module

Low-level inputs (2.1)

Power indicator (2.2)



High-level inputs (2.3)

Mains voltage indicator (2.4)

Main power switch (2.5) /
Power socket (2.6)

Control Unit



Remote control receiver (2.7)

Display (2.8)

Multifunction switch (2.9)

Power connection:

Make sure that your local AC mains voltage matches the voltage specified and indicated in red (2.4). Use the supplied power supply cable to connect the mains socket of the subwoofer (2.6) to a wall socket.

Turn the main power switch to position "ON" (2.5) in order to check the operability of your RHEA II. The indicator light will glow red.

Now turn the main power switch (2.5) to position "OFF" in order to switch the subwoofer off. Make sure that you **always** switch off the RHEA II and the connected amplifier before you start to make changes to the cables of the subwoofer in order to avoid damage to the subwoofer and to your amplifier.

Connection to your amplifier(s) or multi-channel decoder:

We recommend that you leave your main loudspeakers connected to your sound system as usual for all connection options that are mentioned in this chapter. The use of an additional frequency limitation for the loudspeakers has, according to our experience, more disadvantages than advantages and is therefore not included in the following connection examples.

Four connection options a), b), c) and d) are provided:

a) Connection to the amplifier of your stereo system:

Connect the RHEA II like a regular passive loudspeaker to the loudspeaker terminals of your amplifier in order to operate it in parallel with your main loudspeakers. With this possibility you need to connect the loudspeaker terminals of your amplifier to the high-level inputs of the subwoofer (2.3).

- Connect the amplifier's left channel positive terminal and the subwoofer's L+ input socket.
- Connect the amplifier's left channel negative terminal and the subwoofer's L- input socket.
- Connect the amplifier's right channel positive terminal and the subwoofer's R+ input socket.
- Connect the amplifier's right channel negative terminal and the subwoofer's R- input socket.

Make sure you have the right polarity. If the polarity of *one* channel is inverted, the reproduction of low frequencies suffers extreme damping!

The active inputs of the RHEA II only minimally stress the amplifier.
We recommend that you use a low-capacitive cable for connection.

In principle follow the same procedure if you need to connect two RHEA II to the loudspeaker terminals of your amplifier. Make sure, however, that you connect only the right and respectively only the left loudspeaker terminal of your amplifier to the correct input sockets of each of the subwoofers.

b) Connection to the preamplifier of your stereo system:

If outputs are still available on your preamplifier, you can connect these outputs to the low level input jacks of your RHEA II (2.1).

c) Connection to the amplifier of your multi-channel system:

Connect the RHEA II like a regular passive loudspeaker in order to operate it in parallel with your main loudspeakers. Follow the instructions provided under a) in order to connect the left and right channel of the amplifier's loudspeaker terminals.

In the case of multi-channel systems with centre loudspeakers, make sure that you switch the multi-channel decoder to "normal" mode and in the case of multi-channel systems without centre loudspeakers, switch the multi-channel decoder to "phantom" mode. Both modes ensure that the full bass range is fed into the channels of the main speakers and that the full bass content is fed to the RHEA II via the loudspeaker terminals. We recommend that you also consult the operation manual of your multi-channel decoder.

d) Connection to the subwoofer output of your multi-channel decoder

Connect the RHEA II input to the subwoofer output of your multi-channel decoder using the RCA input. Proceed as follows:

- Subwoofer output to LOW LEVEL INPUT "L" (2.1) of the RHEA II

If you can adjust both the level control and crossover frequency of your multi-channel decoder, we recommend that you set the level to maximum and the crossover frequency to the highest possible value. If in doubt, please consult the operation manual of your multi-channel decoder.

Operation

After all the necessary connection cables are in place, you are ready to switch on the RHEA II and your amplifier. Set the power switch to position "ON", as previously described.

When the RHEA II is on, the indicator light on the rear side of the subwoofer will glow red. If you press the multifunction switch (2.9) on the front side of the subwoofer, the display (2.8) will illuminate.

In order to switch the RHEA II back to the standby mode, press on the multifunction switch for about 3 seconds. When you set the power switch at the rear of the subwoofer to the "OFF" position, the power supply is completely cut off from the AC line.

Volume Adjustment



RHEA II:

Use the multifunction switch to adjust the volume until ideal blending between the subwoofer output and the loudspeaker level is obtained. Turn the switch clockwise to increase the volume, or anti-clockwise to decrease the volume. The volume of your RHEA II can be adjusted in 1dB steps between 0 dB and 31 dB, and in 2db steps between 31 dB and 79 dB.

Remote Control:

Use the [VOL+] and [VOL-] buttons to adjust the volume until ideal blending between the subwoofer output and the loudspeaker level is obtained. The volume of your RHEA II can be adjusted in 1dB steps between 0 dB and 31 dB, and in 2 db steps between 31 dB and 79 dB.

Crossover Frequency Adjustment



RHEA II:

In order to adjust the subwoofer's crossover frequency, keep pressing the multifunction switch until the words "Crossover Freq." appear in the display.

Set the desired crossover frequency (40Hz, 50Hz, 63Hz, 80Hz, 100Hz or 125Hz) by turning the multifunction switch and press the switch again to confirm your setting. The confirmed setting appears in the display where the frequency is indicated by a "*" .

Remote Control:

Use the [FREQUENCY+] and [FREQUENCY-] buttons to adjust the subwoofer's crossover frequency.

You are able to set the desired crossover frequency to 40Hz, 50Hz, 63Hz, 80Hz, 100Hz or 125Hz.

Roomgain Adjustment



RHEA II:

In order to adjust the subwoofer's room gain function, keep pressing the multifunction switch until the words "Room Gain" appear in the display.

Select the desired room gain value by turning the multifunction switch. The value is adjustable from 0 to 5 for frequencies up to 70Hz. Confirm the selected value by pressing the switch again. The value appears in the display, indicated by a "*".

Remote Control:

Use the [ROOMGAIN+] and [ROOMGAIN-] buttons to adjust the subwoofer's room gain function.

The value is adjustable from 0 to 5 for frequencies up to 70Hz.

Phase Adjustment



RHEA II:

In order to adjust the subwoofer's phase, keep pressing the multifunction switch until the word "Phase" appears in the display. You are able to select one of the preset values 0°, 90°, 180° or 270°. Then press the multifunction switch again to confirm the value.

Remote Control:

Use the [PHASE+] or [PHASE-] buttons to adjust the subwoofer's phase. You are able to select one of the preset values 0°, 90°, 180° or 270°.

Operation Mode Adjustment



RHEA II:

In order to adjust the subwoofer's operation mode, keep pressing the multifunction switch until the words "Mode select" appear in the display. You are able to select one of the following modes to operate your RHEA II:

SUB - Select the SUB mode if your subwoofer is integrated into a HiFi system.

LFE - Select the LFE mode if your subwoofer is integrated into a home cinema system. With this mode the crossover frequency setting is disabled, allowing the RHEA II to transmit the entire frequency range provided by the home cinema amplifier.

Remote Control:

Use the [MODE] button to set the operation mode. You are able to select one of the following modes to operate your RHEA II:

SUB - Select the SUB mode if your subwoofer is integrated into a HiFi system.

LFE - Select the LFE mode if your subwoofer is integrated into a home cinema system. With this mode the crossover frequency setting is disabled, allowing the RHEA II to transmit the entire frequency range provided by the home cinema amplifier.

Child-proof Lock



RHEA II:

In order to protect the settings and adjustments you have made to your RHEA II, keep pressing the multifunction switch until the words "Lock Setting" appear in the display. Now you have the possibility to either select "Disable" or "Enable". If you need to child proof your subwoofer, select "Enable". Thereafter, no changes can be made to the volume, crossover frequency, room gain, phase and operation mode. If you need to disable the child-proof lock, press the multifunction switch until "Lock Setting" is displayed and select "Disable".

Saving Your Settings



RHEA II:

You are able to use three memory stores in order to save your personal settings and also restore them at the press of a switch.

First create your personal settings. Then keep pressing the multifunction switch of the RHEA II until the words "Memory Store" appear in the display. Select "Mem1", "Mem2" or "Mem3" and confirm your selection by pressing the multifunction switch again. Your settings are now saved in the respective memory store.

Recalling Your Stored Settings



RHEA II:

In order to recall your personal settings keep pressing the multifunction switch until the words "Memory Recall" appear in the display. Select the memory store "Mem1", "Mem2" or "Mem3" with your personal settings. You can also select "default" in order to restore the RHEA II to its factory default settings. Confirm your selection by pressing the multifunction switch again. The subwoofer now returns to the stored settings.

Automatic ON/OFF Signal Sensing

The RHEA II features an automatic on/off sensing function for a more convenient operation. The subwoofer's standby function is automatically activated when there is no input signal to the RHEA II for more than 20 minutes. As soon as an input signal is detected, the subwoofer turns on automatically.

Mute Function

		Remote Control: By using the mute function you can disable or enable sound output from your subwoofer. Press the [MUTE] button for this.
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Adjustment

In order to adjust the RHEA II to your main speakers and listening room, we recommend that you take the following steps:

Switch on the RHEA II and play some well-recorded music with broad bass content through your system.

Adjust the volume level until ideal blending of the deep bass range with the rest of the music is obtained. At this early point of adjustment, occasional booming at single frequencies or some dryness or softness of the bass is insignificant.

Once the volume level of the deep bass range has been set to the position which achieves truly seamless blending with the rest of the music, you need to select the right polarity. Use the phase function to set the polarity to 180° and compare the sonic results with the previous setting. Change the polarity repeatedly between 0° and 180° and compare the sonic results of both settings. You will realise that one of the two phase settings excels with an extremely balanced and homogeneous bass reproduction in the mid-bass region. This is the optimal phase setting for obtaining maximum listening pleasure.

In some cases, however, a change of polarity may lead to an increase or decrease in the bass level. If this is the case, we suggest that you rotate the multifunction switch to adjust the volume accordingly.

The next step consists of setting the right crossover frequency. While you are experimenting with the ideal setting, pay close attention to unnatural irruptions (the instrument is weak and appears to play single tones too shortly) or peaks (the instrument starts to thicken up single tones and extends them in an uncontrolled and unnatural way). Correct adjustment of the crossover frequency allows for an imperceptible bass transition between the RHEA II and the main loudspeakers.

After the right crossover frequency is set, your RHEA II is perfectly adjusted to the main loudspeakers.

When you have completed this adjustment step, we recommend that you fine-tune the volume once again.

Now you have successfully completed the adjustment of your RHEA II subwoofer. You have opened the door into a new dimension of music reproduction and superb bass performance. Music material we recommend for adjustment of the RHEA II is also provided on the Audio Physic Reference CD.

Cleaning

Before cleaning the RHEA II, unplug it from the AC outlet and switch off all other equipment (e.g. amplifier or multi-channel decoder).

Only use a soft, clean cloth, moistened with a mild soap solution (but not wet!) to clean the subwoofer. Remove residual moisture with a soft, clean, dry cloth. Never use chemically aggressive liquids such as alcohol, solvents, diluting agents or petrol to clean your RHEA II.

Make sure that no liquid is spilt on the subwoofer.

Service

There are no user-serviceable parts inside your Audio Physic RHEA II. Do not open the subwoofer or attempt to service this product yourself.

If one of the following circumstances occurs, please refer servicing to your authorised Audio Physic dealer:

- The power supply cord or plug is damaged.
- Objects have fallen into the RHEA II or liquid has been spilt on the subwoofer.
- Your RHEA II has been exposed to extensive moisture.
- Your RHEA II has been exposed to strong mechanical pressure, or it has been dropped or mechanically damaged in any way.

Troubleshooting

Problem:

The RHEA II does not switch on.

Cause:

- a) Power failure.
- b) Fuse has blown.

Solution:

- a) Check power supply cord for correct connection. Check the AC outlet (try another electrical appliance). Use another outlet, if necessary.
- b) Please contact an authorised Audio Physic dealer.

Problem:

Power available, but no sound.

Cause:

- a) The polarity of a channel may be inverted when using loudspeaker inputs ('HIGH POWER INPUT').
- b) Input cables incorrectly connected or possibly a defective cable.
- c) Safety heat fuse has blown.
- d) Other defects.

Solution:

- a) Ensure correct polarity of the cables.
- b) Check cables for the right connection and correct function.
- c) Switch off the RHEA II, allow the subwoofer to cool down, then switch it on again. Make sure the location of the RHEA II allows for sufficient air exchange and ventilation (see chapter "Set-up").
- d) Please contact an authorised Audio Physic dealer.

Problem:

The RHEA II does not respond to the remote control.

Cause:

- a) The distance between the remote control and the RHEA II is too great.
- b) The remote control is low in battery power.

Solution:

- a) Reduce the distance between the remote control and the RHEA II and try again.
- b) Replace the battery. Please contact an authorised Audio Physic dealer for this.

Problem:

Other faults or defects.

Solution:

Please contact an authorised Audio Physic dealer.

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