



**User manual**

# **Bravus**



# Safety instructions



Read these instructions.

Keep these instructions.

Heed all warnings.

Follow all instructions.

Do not use this apparatus near water.

Clean only with dry cloth.

Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.

Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus. Only use attachments/accessories specified by the manufacturer.

Use only with cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

Unplug this apparatus during lightning storms or when unused for long periods of time.

Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

The appliance coupler is used as the disconnect device and shall remain readily operable.

## Introduction

We would like to thank you for buying an AperionAudio subwoofer. The electrical design of the subwoofer offers the ultimate in sound reproduction. In order to utilize your new device in the best possible way, please read this manual carefully before using it for the first time. It often takes some effort and patience to make a HiFi system sound its best. If you don't have any previous experience from this kind of installations, please feel free to contact our free of charge support and we will help you.

Switch off your amplifier before connecting to your sound source. Make sure that the signal cables have a strong connection to the signal source.

Make sure that the electronics are not exposed to direct sunlight or strong artificial light. Listening to high sound pressure levels over a longer period of time may harm your hearing. To avoid hearing damage do not listen to high sound levels over a longer period of time.

## Connections and Settings of the Subwoofer

### AUTO/ALWAYS ON

When the switch is in the "AUTO" position, the subwoofer automatically turns on when an audio signal is present. If there is no signal (anymore), the device will switch to standby mode after some time.

When the switch is set to the "ALWAYS ON" position, the subwoofer remains permanently on and does not switch to standby mode.

### PHASE

This control allows you to optimally match the phase of the subwoofer to your front speakers.

To do this, select the setting in which you achieve the highest volume level at the listening area (at the crossover frequency). If you are using an amplifier or AV receiver with a calibration system, select 0 °.

### CROSSOVER

This control allows you to set the upper limit frequency of the subwoofer (crossover frequency) between 40 and 160 Hz. Above the selected frequency, the level of the subwoofer is reduced. The crossover frequency should be chosen so that a seamless transition between your speakers and the subwoofer is possible. If you use small loudspeakers with a high lower cutoff frequency, you should choose the crossover frequency between 100 and 160 Hz. If you have large speakers with lower lower Limit frequency, you should select the crossover frequency between 60 and 100 Hz.

The settings made here only affect the inputs "LINE-IN" and "HI LEVEL INPUTS" to which you connect your amplifier. When the amplifier is connected to the "LFE" input, this controller is bypassed internally.

### VOLUME

This control allows you to adjust the volume of the subwoofer optimally to your speakers. If your amplifier or AV receiver has a calibration system, set the volume control to 9 o'clock and then measure. If your amp does not have such a system, set the knob to 7 o'clock and slowly increase the volume until it matches the rest of your system.

### LINE-IN

RCA input for the left and right channel. The signals of both channels are summed internally. If your amplifier has only one subwoofer output, connect it to the left RCA input.

If you use an AV receiver with bass management (calibration system), we recommend using the LFE as a connection variant.

### LFE

RCA input (LFE). This input bypasses the internal low pass filter (CROSSOVER) of the subwoofer. If you use an amplifier or AV receivers that takes over the bass management, you should select this input.

### HI LEVEL INPUTS

The high-level input allows you to operate the subwoofer on an amplifier, which has neither a subwoofer output nor preamp outputs. In this case, the subwoofer is connected to your amplifier with speaker cables. This input uses the internal low-pass filter of the subwoofer.

### 230V / 115V

With this switch, the subwoofer can be adapted to the prevailing mains voltage. The mains voltage prevailing in Europe is 230V.

**Important:** The subwoofer must be completely isolated from the power before using the switch (the power cord must be removed). Before you change the setting of this switch, please inform yourself beforehand about the prevailing mains voltage.

## **POWER**

This toggle switch is the main switch of the device. It can be set to "ON" and "OFF". If the device is not going to be used for a long time (eg when you are on vacation), the main power switch should be turned off and the power cord disconnected.

## **Power connection**

Connection for the mains plug and container for the device fuse.

# **Installation**

## **RCA cables**

To connect the subwoofer, use high quality shielded coaxial cables. Poor quality cables may pick up noise and cause hum or noise. Keep the length of the cable as short as possible and route signal cables separate from the power cables to reduce the potential for induced noise.

## **Loudspeaker cables**

For distances of less than 15 m, we recommend using 2.5 mm<sup>2</sup> speaker cables to ensure high-quality signal transmission. For distances over 15 m we recommend the use of 4 mm<sup>2</sup> speaker cables.

## **Positioning**

Subwoofers work in a frequency range that is primarily emitted in spherical form. However, you should keep in mind that the sound and depth of the subwoofer depend substantially on its position and the place of the listening position. If the subwoofer is placed incorrectly, the overall listening pleasure can be significantly reduced. It usually requires some experimentation to find the optimum position for the subwoofer. Therefore, we recommend that you follow the instructions below and place the subwoofer in one of the recommended positions.

In most rooms, the optimum location for the subwoofer is in the area closest to the listening position. This positioning ensures optimal coupling of the subwoofer to the room. If two subwoofers are used, positioning the two subwoofers in the front two corners is preferable. Optimum four subwoofers are used and placed in each corner. This stimulates the room as evenly as possible. Experiment with different positions before you finally decide. For this you should choose a piece of music or a film scene, which you know very well and play it with different placement of the subwoofer again and again. If you have an acoustic measurement system, you can determine the optimal placement by measuring the different positions.

## Recommended settings

### Settings home cinema system

In this method, the AV receiver or AVR is the central control point of the system and is responsible for the bass management (splitting the frequency spectrum between speakers and subwoofer).

In this case, use the following settings on the subwoofer:

CROSSOVER:	160 Hz
PHASE:	0°
VOLUME:	9 Uhr (depending on the calibration system)

### Settings music system

When using an amplifier that does not offer its own bass management, the bass management can be taken over by the subwoofer.

In this case, use the following settings on the subwoofer:

CROSSOVER:	Set the frequency response knob to a setting that provides a seamless transition with your speakers. If you are using small speakers with low lower boundary frequency, a high frequency (for example, 100-160 Hz) should be selected. For larger loudspeakers with stronger bass reproduction, a lower frequency (e.g., 60-100 Hz) should be selected.
PHASE:	Set the control to a setting that provides maximum bass with your speakers (depending on the speaker).
VOLUME:	Set the control to a setting that matches the volume of your speakers.

## Troubleshooting and service

If you should experience a problem with the operation of your subwoofer, please check all of the following hints before seeking service. Following is a simple troubleshooting guide to assist you.

1. Verify unit is plugged in and that the power outlet used supplies the proper AC voltage & current.
2. Is the power switch on?
3. Has the external fuse blown? Unplug the power cord from the amplifier, then use a small screwdriver to remove the fuse holder cartridge (located below the cord connection), and inspect fuse for damage. If blown, replace with the same type & value fuse.
4. Is the auto turn on/off properly set for the inputs used?
5. Is the subwoofer receiving an input signal from your source equipment?
6. Have all controls on the subwoofer (volume, crossover, phase, etc.) been properly set?
7. Is the volume control properly set to match source signal level?
8. If the subwoofer has been running at high levels for an extended period of time, one of the protection circuits may be engaged;
  - Does the built-in amplifier panel feel extremely hot (located on the rear of the cabinet)?
  - Is your AC power line circuit sufficiently rated to supply adequate VA required for full amp output? If your power line is not capable of supplying enough energy, the maximum output power will be reduced & distortion may become audible.

## Disposal and battery return

**Environmental protection:** Ingredients, e.g. the chemical nature of batteries and old equipment can damage the environment and health if not properly stored and disposed of. At the same time recyclable raw materials can be included, old equipment can be repaired or parts can be reused and thus significantly protect the environment. Batteries and old devices must therefore not be disposed of with the normal household waste. As end-users, you are required by law to return or properly dispose of used batteries as well as electrical appliances.

**Batteries** can be returned to public collection points in your community or outlets free of charge. Delivery to points of sale is restricted to end user disposal rates and waste batteries that the distributor has in his range. The crossed-out wheeled bin symbol reminds you that you must not dispose of batteries in the trash. Under this sign you can also find the following symbols with the following meanings above ingredients: **Pb** battery contains lead, **Cd** battery contains cadmium, **Hg** battery contains mercury.



**Old Equipment:** You can hand in old equipment at your municipal collection points. For details, contact your local authority. The crossed-out wheeled bin symbol reminds you that you should not dispose of old equipment in your household rubbish. The bar indicates that the appliance was placed on the market after 13.08.2005 and is therefore subject to the obligation of the manufacturer to take an active role in the disposal in cooperation with disposal centers.



AperionAudio  
HifiPilot GmbH  
Höhenstr. 7  
75239 Eisingen