



AMBEO Soundbar | Max

Model: SB01



Instruction manual



This instruction manual contains all information on the current firmware version. Firmware updates can be downloaded free of charge from the Internet ([> 51](#)).

Use the search function, the navigation (left) or the following links:

Start

“Product overview”

“Getting started”

“Installing the AMBEO Soundbar | Max”

“Connecting devices to the Soundbar”

“Putting the AMBEO Soundbar | Max into operation”

“Operating the AMBEO Soundbar | Max”

“Using the AMBEO Soundbar | Max”

“Maintaining the AMBEO Soundbar | Max”

“Specifications”

Sonova Consumer Hearing GmbH

Am Labor 1
30900 Wedemark
Germany

www.sennheiser-hearing.com

Product_safety@sennheiser-hearing.com

Version: 09/25 A06

Important safety instructions



1. Read these safety instructions.
2. Keep these safety instructions. Always include these safety instructions when passing the product on to others.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use the product near water.
6. Only clean the product when it is not connected to the power supply system. Clean only with a dry cloth.
7. Ensure circulating ventilation. The product generates heat which is dissipated through the housing. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, stoves, or other products that produce heat and do not expose to direct sunlight.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power supply cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where it exits from the product.
11. Use only attachments/accessories/spare parts supplied or recommended by Sonova Consumer Hearing.
12. Use only with shelves, racks, or tables that can safely support the weight of the product (see instruction manual).
13. Unplug the product during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the product 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 product, when the product has been exposed to rain or moisture, does not operate normally, or has been dropped.
15. **WARNING:** To reduce the risk of fire and electric shock, do not expose the product to dripping or splashing and ensure that no objects filled with liquids, such as vases, are placed on the product.
16. To completely disconnect this product from the AC mains, disconnect the power supply cord plug from the AC receptacle.
17. The plug of the power supply cord shall remain readily accessible.
18. Use the product only at altitudes up to 6562 ft/2000 m above mean sea level.

Hazard warnings on the bottom of the product



The product generates heat which is dissipated through the housing! Do not touch when in use or directly after use to prevent skin irritation.

The following label is attached to the bottom of the product.



The symbols on this label have the following meaning:

Read and follow the safety and operating instructions contained in this instruction manual.



Presence of uninsulated dangerous voltage within the product's enclosure that may be of sufficient magnitude to constitute a risk of fire or electric shock.



Never open the product. There is a risk of electric shock when touching live parts. There are no user serviceable parts inside the product. Refer repairs to an authorized Sonova Consumer Hearing partner.

CAUTION / AVIS / 小心
Risk of electric shock, do not open
Risque de choc électrique, ne pas ouvrir
有电击风险 请勿打开

Preventing damage to health and accidents

- ▷ Protect your hearing from high volume levels. Do not listen at high volume levels for long periods of time to prevent hearing damage. 
- ▷ The product generates stronger permanent magnetic fields that could cause interference with cardiac pacemakers, implanted defibrillators (ICDs) and other implants. Always maintain a distance of at least 3.94"/10 cm between the product component containing the magnet and the cardiac pacemaker, implanted defibrillator, or other implant. 
- ▷ Keep the product, accessories and packaging parts out of reach of children and pets to prevent accidents. Swallowing and choking hazard.
- ▷ Do not use the product in an environment that requires your special attention (e.g. when performing skilled jobs).

Preventing damage to the product and malfunctions

- ▷ If the product was moved from a cold environment to a warm one, allow the product to stand for at least 2 hours before putting it into operation.

Safety instructions for Lithium coin batteries (marking with CR and Li)

The coin battery is for use with the SB01-RC remote control.



WARNING

If abused or misused, the batteries may leak. In extreme cases, they may even present a risk of:

- explosion
- heat and fire development
- smoke and/or gas development
- damage to health and/or the environment

	If you think batteries have been swallowed or are lodged in the body, seek medical assistance immediately.
	Keep away from children.
	Observe correct polarity.
	Immediately remove the batteries from obviously defective product.
	Do not expose to moisture.
	Do not mutilate or dismantle.
	Remove the batteries if the product will not be used for extended periods of time.
	Pack/store batteries so that the terminals cannot contact each other – danger of shorting out/fire hazard.
	Only use batteries specified by Sonova Consumer Hearing.
	Store the product in a cool and dry place (approx. 20 °C/ 68 °F).
	Do not continue to use defective batteries.
	Do not heat above 70 °C/158 °F, e.g. do not expose to sunlight or throw into a fire.
	Dispose of exhausted batteries at special collection points or return them to your specialist dealer to facilitate recycling. To avoid short circuits, cover the poles of the batteries with tape.

Intended use/Liability

This product has been designed for playing TV sound and music via cable connections, Bluetooth, WiFi or Ethernet. This product is intended for private domestic use only. It is not intended for commercial use.

It is considered improper use when this product is used for any application not named in the instruction manual. Sonova Consumer Hearing GmbH is not liable for damages to devices that are not consistent with the interface specifications (USB, HDMI, Ethernet). Sonova Consumer Hearing GmbH does not accept liability for damage arising from misuse or improper use of this product and its attachments/accessories.

Before putting the product into operation, please observe the respective country-specific regulations.

Notes on data collection and processing and on firmware updates

This product stores individual settings such as volume, sound and UI settings (e.g. LED brightness), selected input and designations, Bluetooth addresses of paired devices, WiFi settings and usage data (e.g. power-on cycles and operating times). This data is required for the operation of the product and is not transferred to Sonova Consumer Hearing GmbH or companies commissioned by Sonova Consumer Hearing GmbH and is not processed.

You can update the firmware of the product for free via an Internet connection. If the product is connected to the Internet, the following data is automatically transferred to and processed by Sonova Consumer Hearing servers in order to provide and transfer suitable firmware updates: MAC address, IP address. The data will only be used as specified and will not be stored permanently. If you do not want this data to be transferred and processed, do not connect to the Internet.

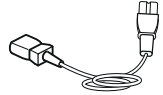
Notes on the packaging

We recommend using the original packaging to ensure safe storage and transport of the Soundbar. Damage during transport is often caused by the use of unsuitable packaging. The original packaging of the Soundbar provides optimal protection and minimizes the risk of damage during transport.

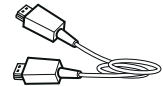
Package contents



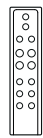
AMBEO Soundbar | Max
Model: SB01



Power cable, country-specific



Premium High Speed HDMI® Cable,
length approx. 1 m



Remote control (incl. 1x CR2032 battery)
Model: SB01-RC



Microphone for room calibration
with microphone holder, cable length approx. 5 m
Model: SB01-MS



Quick guide

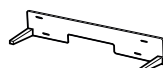


Safety guide

Online you can find:

- this detailed instruction manual and additional information (www.sennheiser-hearing.com/download)
- the Sennheiser Smart Control app for configuring on the Soundbar and for additional functions (www.sennheiser-hearing.com/smartcontrol)
- a list of accessories on the AMBEO Soundbar | Max product page at www.sennheiser-hearing.com (to purchase online or contact your local Sonova Consumer Hearing partner: www.sennheiser-hearing.com/service-support)

Optional accessories



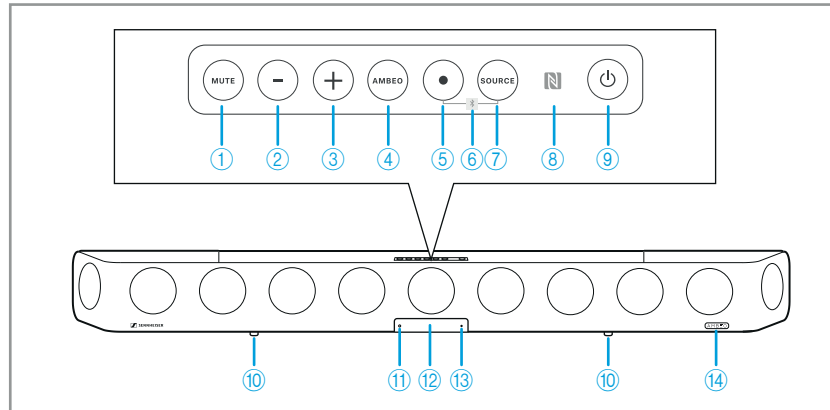
SB01-WM wall mount for the AMBEO Soundbar | Max, bracket for wall mounting
(article no.: 508612)

Product overview

AMBEO Soundbar | Max

Model: SB01

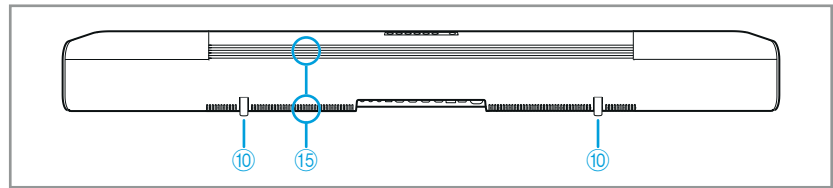
Front



Control panel

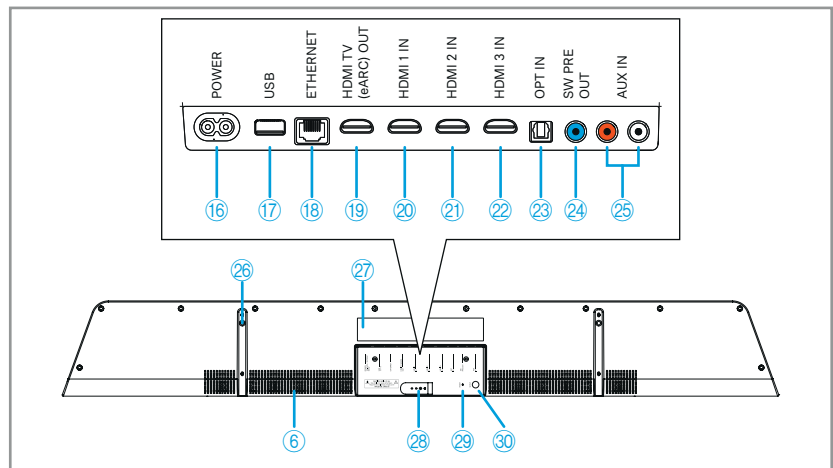
- ① **MUTE** button
- ② Volume button - (volume down)
- ③ Volume button + (volume up)
- ④ **AMBEO** button
for activating AMBEO
(pressing for 4 seconds activates the room calibration)
- ⑤ Multi-function button •
for controlling the media playback
- ⑥ Bluetooth pairing
(by simultaneously pressing the multi-function button and
the input source button for 2 seconds)
- ⑦ **SOURCE** button (input source selection)
- ⑧ NFC antenna
- ⑨ On/off button
- ⑩ Vibration absorbing feet
- ⑪ Input for room calibration microphone
- ⑫ OLED display with matt, scratch-resistant surface
- ⑬ Status LED
- ⑭ AMBEO display

Back



- ⑮ Cooling vents

Bottom



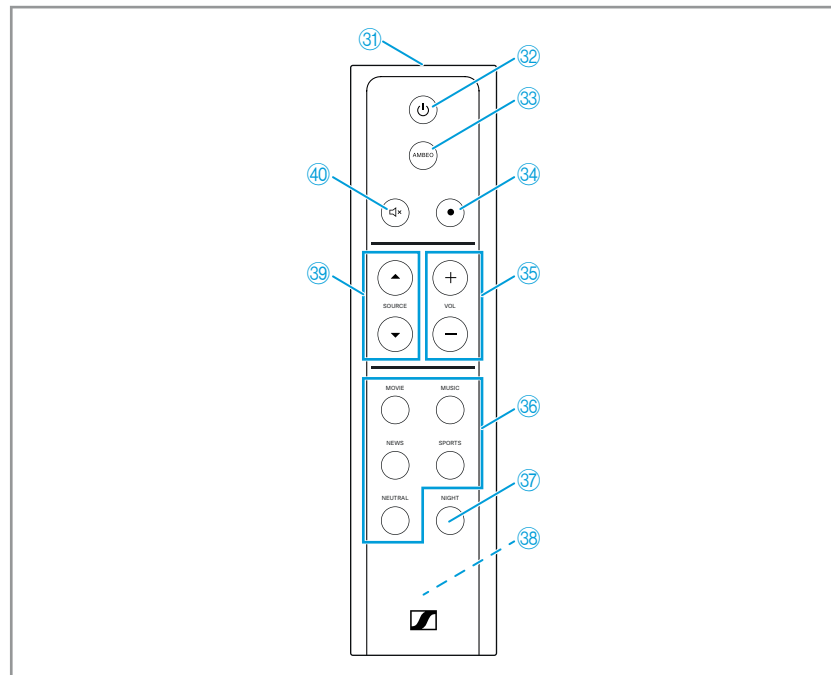
Connections

- ⑮ IEC mains socket
POWER 100 - 240 V~, 50/60 Hz, 250 W
- ⑰ USB input (for updates only)
type B, USB 5 V~, 1 A
- ⑱ Ethernet input
RJ45, ETHERNET
- ⑲ HDMI output
HDMI TV (eARC) OUT 5 V~, 1 A
- ⑳ HDMI input
HDMI 1 IN
- ㉑ HDMI input
HDMI 2 IN
- ㉒ HDMI input
HDMI 3 IN
- ㉓ S/PDIF input,
optical, OPT IN
- ㉔ Output for connecting a subwoofer with power amplifier
RCA socket SW PRE OUT
- ㉕ RCA input sockets for an analog audio source
AUX IN
- ㉖ Mounting thread (under the rubber foot) for the SB01-WM
wall mount (optional accessory)
- ㉗ Type plate

- ②⑧ Cable tie for bundling and strain-relieving the connected cables
- ②⑨ **RESET** button
- ③⑦ **SETUP** button
for WiFi setup (WiFi Protected Setup; WPS)

Remote control

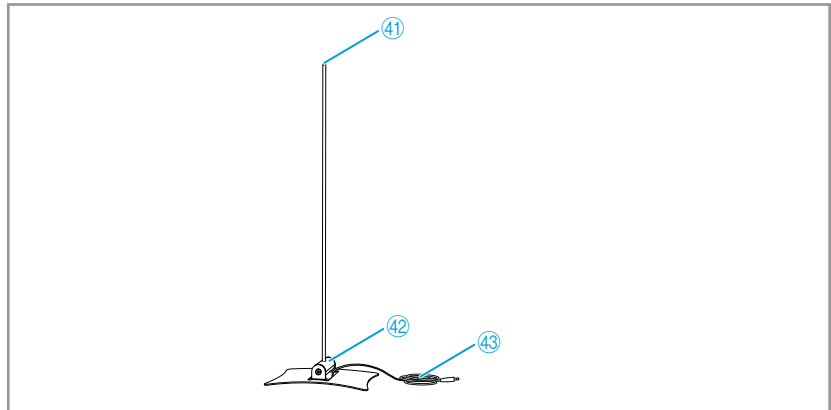
Model: SB01-RC



- ③① Infra-red transmitting diode
- ③② On/off button
- ③③ AMBEO button
for activating AMBEO
(pressing for 4 seconds activates the room calibration)
- ③④ Multi-function button
- ③⑤ Volume buttons
- ③⑥ Sound profile button
- ③⑦ Night mode button
- ③⑧ Battery compartment (for 1x CR2032 battery)
- ③⑨ Input source button
- ④① Mute button

Microphone for room calibration

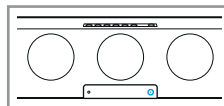
Model: SB01-MS



- ④① Microphone head
Omni-directional pick-up pattern
- ④② Microphone holder
- ④③ Cable with 2.5 mm jack plug

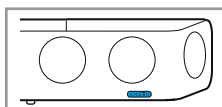
Overview of the displays

Status LED



Color	Status	Meaning
white	lights up 1x	Status change e.g. volume adjustment, sound profile selection
	pulses	Booting, connecting via Chromecast
blue	lights up	Connected via Bluetooth
	yellow	Connecting via Bluetooth
yellow	pulses	Update is being loaded and installed
	flashes	WiFi lost (check router settings, restart router if necessary)
orange	lights up	Reset is terminated
		WPS found
	pulses	Reset in progress
		WPS search
red	lights up	Soundbar in standby mode

AMBEO display



AMBEO display	Meaning
lights up white	AMBEO mode is on
off	AMBEO mode is off
pulses white	Room calibration in progress

The brightness of the **AMBEO display** and the **display** can be adjusted via the Smart Control app.



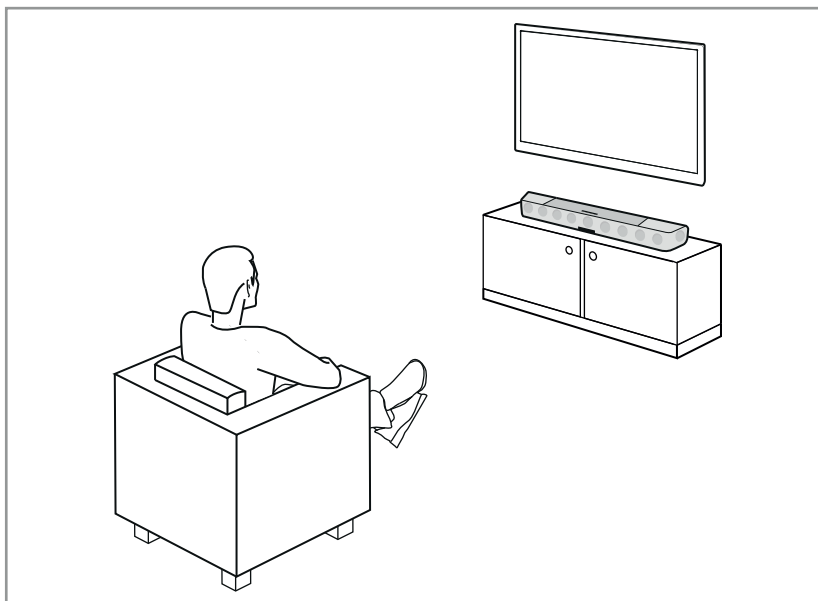
Messages on the display

Message on the display	Meaning/possible errors	Possible solution
TV Speakers On	The Soundbar mutes itself when the TV speakers are selected as the audio output.	In the TV settings, select the Soundbar as the audio output ("HDMI ARC Audio Output").
OVER HEAT	Overheating of the Soundbar	Switch the Soundbar off and let it cool down (> 35).
DOLBY Pass-Through	Selected function (e.g. sound profile or AMBEO mode) cannot be activated because the "Dolby Virtualizer" is activated.	Deactivate the "Dolby Virtualizer" in the Smart Control app (> 47).

Message on the display	Meaning/possible errors	Possible solution
Network Off	The Soundbar is in standby mode and all network connections are switched off (including remote control). Standby power consumption is minimized (> 36).	Switch the Soundbar off via the normal standby mode (> 35).
Please contact Service	The Soundbar has detected a serious error. Operation is not possible.	Disconnect the Soundbar from the power supply system (> 30). Contact your local Sonova Consumer Hearing partner: www.sennheiser-hearing.com/service-support

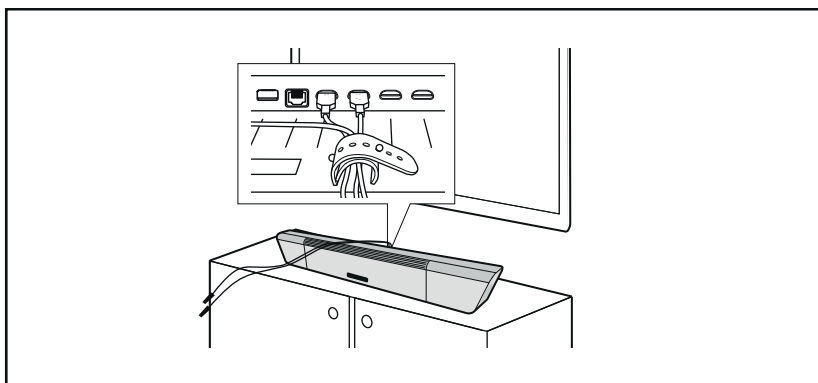
Getting started

1. Setting up the Soundbar



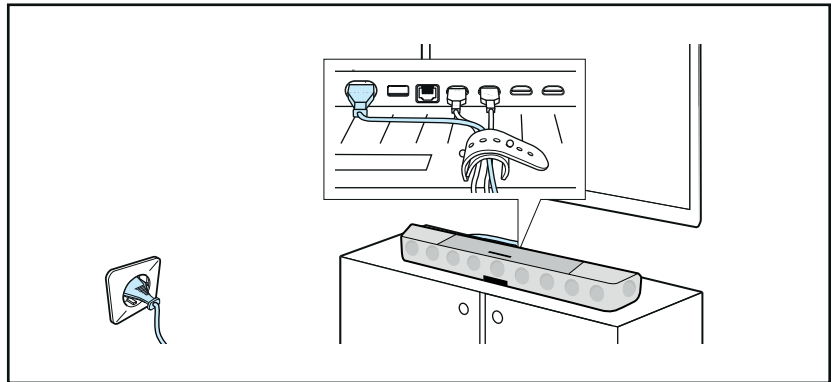
The correct placement and setup of the AMBEO Soundbar | Max is important for an optimum sound experience. You can place the AMBEO Soundbar | Max on a piece of furniture ([> 16](#)) or mount it directly to a wall using the wall mount (optional accessory) ([> 19](#)).

2. Connecting a TV and/or audio devices



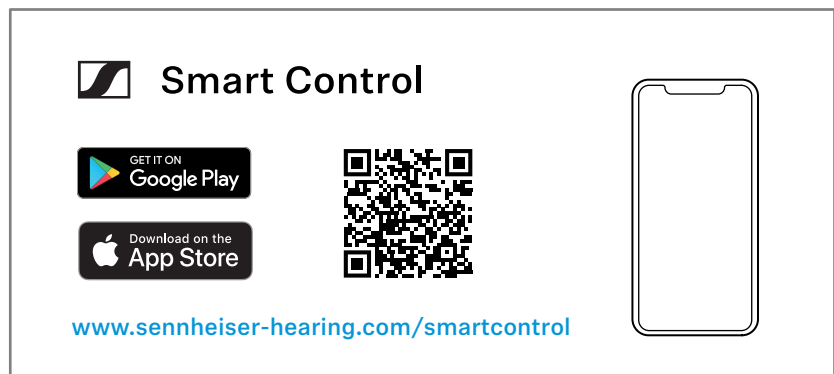
Connect your TV to the AMBEO Soundbar | Max. You can also connect other audio/video devices ([> 20](#)) or play wireless audio via Bluetooth or WiFi ([> 40](#)).

3. Connecting to the power supply system



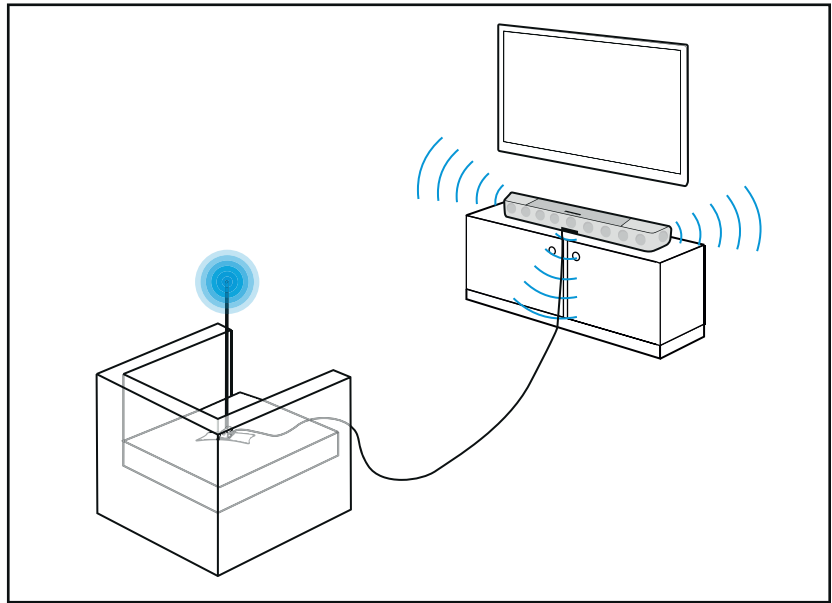
Connect the AMBEO Soundbar | Max to the power supply system - the AMBEO Soundbar | Max comes to life and guides you through the initial switch-on process (> 30).

4. Installing the Smart Control app on your smartphone and establishing a WiFi connection



The Sennheiser Smart Control app allows you to use all functions and settings of the AMBEO Soundbar | Max and to e.g. adjust the sound to your liking using the equalizer (> 42). After installation, you will be further guided through the setup process such as WiFi, name of the Soundbar and room calibration.

5. Starting the room calibration



For an optimum spatial sound experience, the AMBEO Soundbar | Max must perform a room calibration. Connect the microphone for the room calibration and start the calibration. The calibration takes only a few minutes and leads to the best possible 3D spatial sound (> 31).

Installing the AMBEO Soundbar | Max

Placing the Soundbar on the device feet

CAUTION

Material damage due to overheating

Inadequate ventilation may cause the Soundbar to overheat.

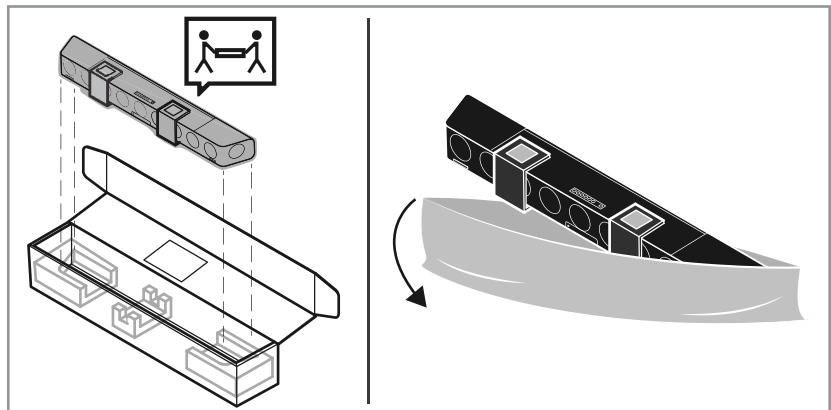
- ▷ Do not place any objects on the Soundbar, keep the minimum clearances and ensure circulating ventilation.

CAUTION

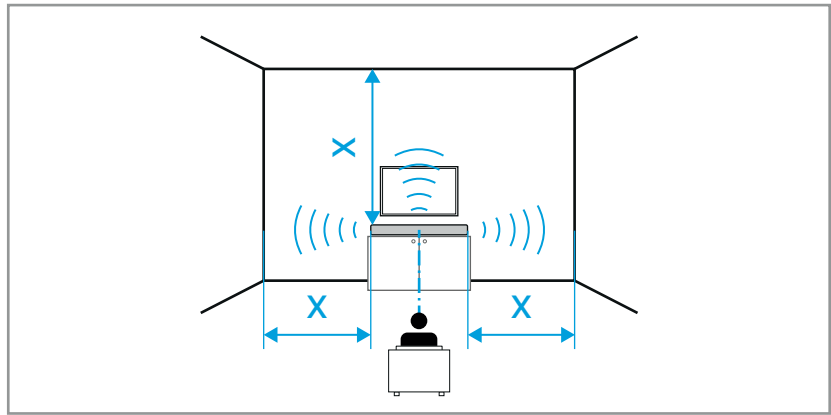
Staining of furniture surfaces!

Varnish or furniture polish may degrade the feet of the product, which could stain your furniture.

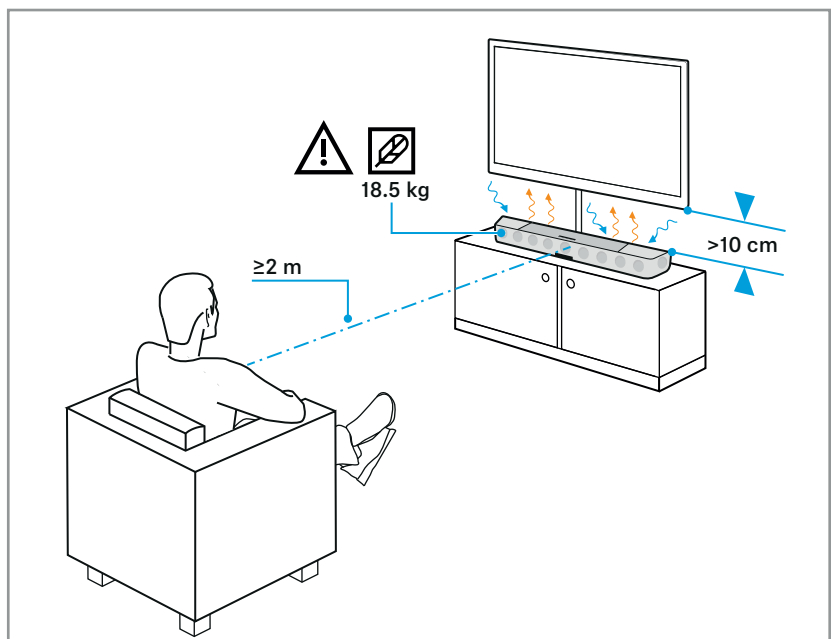
- ▷ Do not place the product on delicate surfaces. Use a non-slip pad under the product if necessary.
- ▷ With the help of a second person, take the Soundbar out of the packaging.
- ▷ Remove the protective foil.
- ▷ Remove the protective foil from the OLED display.



- ▷ With the help of a second person, place the Soundbar on a sturdy, level, horizontal piece of furniture that can safely carry the weight of the Soundbar (approx. 18.5 kg).
- ▷ Observe the following:
 - The distance X of the Soundbar to the side walls should ideally be the same so that the Soundbar is centered in the room. The optimum distance between the Soundbar and the walls is between 1 and 5 meters.
 - There must be no objects between the Soundbar, the side walls and the ceiling of the room that block sound or have a strong sound-absorbing effect (e.g. furniture such as shelves or arm-chairs, room dividers, curtains, flower pots).
 - The distance X of the Soundbar to the ceiling should be between 1 and 5 meters, but should not exceed 5 meters. The ceiling should be flat and horizontal (no pitched roof or domed roof).
 - The Soundbar should be positioned below the TV.



- The distance of the Soundbar to the TV should be at least 3.94"/10 cm.
- The seat (optimal point "sweet spot") should be positioned centrally in front of the Soundbar and have a distance of at least 2 meters to the Soundbar.

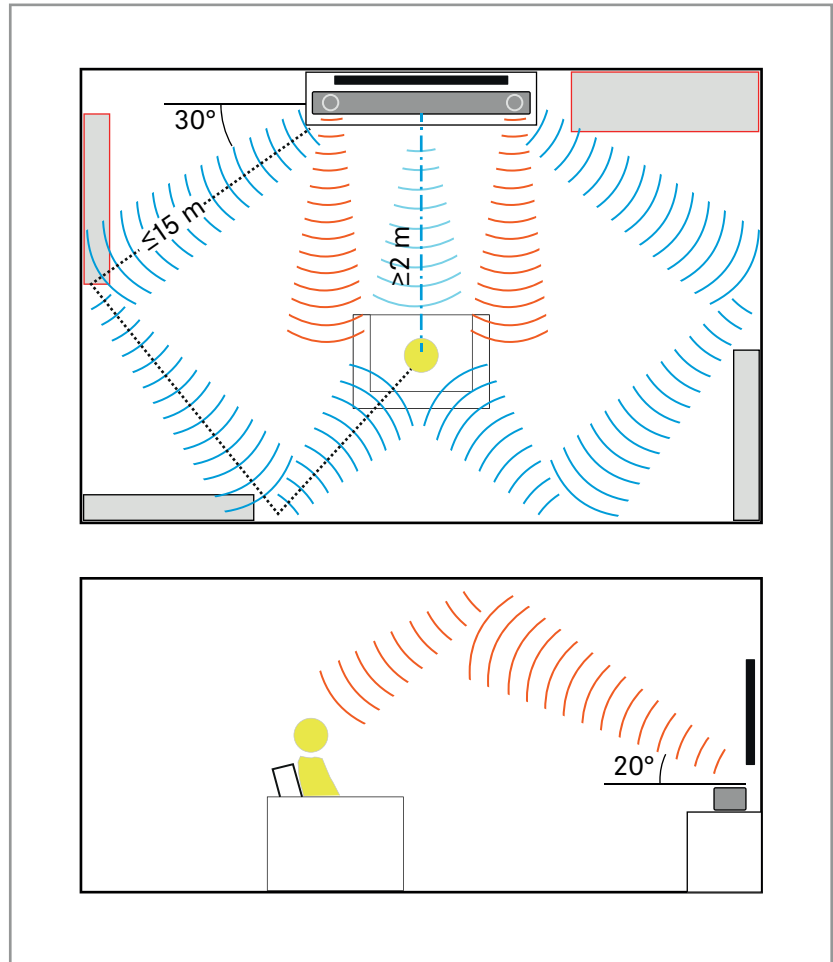


- ▷ Ensure circulating ventilation. The product generates heat which is dissipated through the housing. Do not touch when in use or directly after use!



Optimum positioning

Schematic structure of the sound waves from the Soundbar, which are reflected by walls and objects and thus reach the optimal point ("sweet spot"). Thus, a virtual surround sound can be created with a Soundbar.



Object	Meaning
	Reflecting surface
	TV
	Soundbar
	Furniture/curtain
	Optimal point "sweet spot"

Object**Meaning**

Sound waves of the loudspeakers



Sound waves from the top-firing loudspeakers to the ceiling



When positioning the Soundbar, keep in mind that the sound is reflected by the walls and ceiling. Many curtains, thick carpets and other rough surfaces can affect the 3D spatial sound.

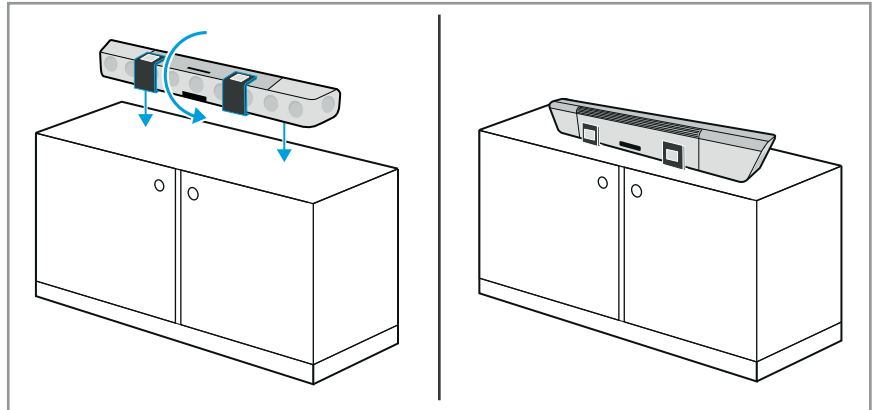
Mounting the Soundbar to a wall

To mount the Soundbar to a wall, you require the SB01-WM wall mount (optional accessory, > 6) for the AMBEO Soundbar | Max.

- ▷ Proceed as described in the mounting instructions (enclosed with the SB01-WM wall mount) and use the drilling template.

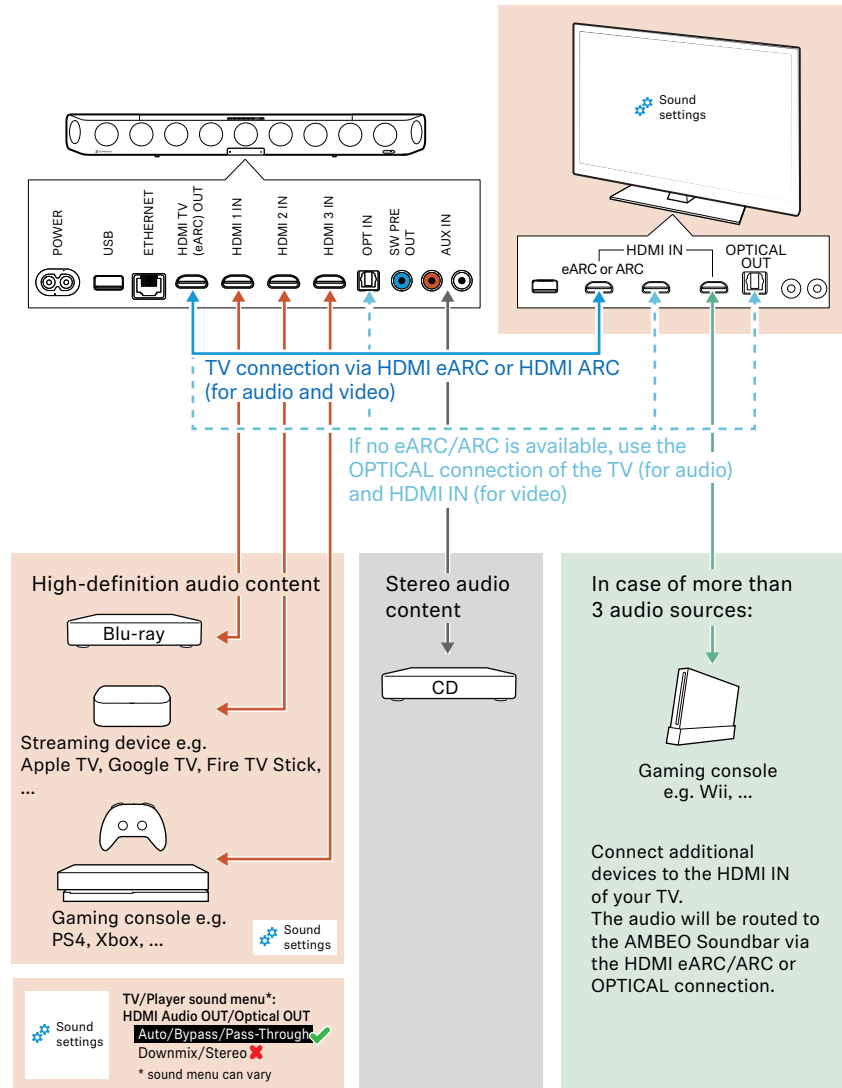
Connecting devices to the Soundbar

- ▷ Put a protective material (e.g. the foam parts of the packaging or a blanket) between the piece of furniture and the Soundbar.
- ▷ Carefully turn the Soundbar on its front.



Connection diagram (example)

Connect your audio sources to the AMBEO Soundbar | Max and your TV according to the following diagram (example). Sonova Consumer Hearing recommends connecting the audio sources for high-resolution surround formats directly to the AMBEO Soundbar | Max using a High Speed HDMI® Cable.

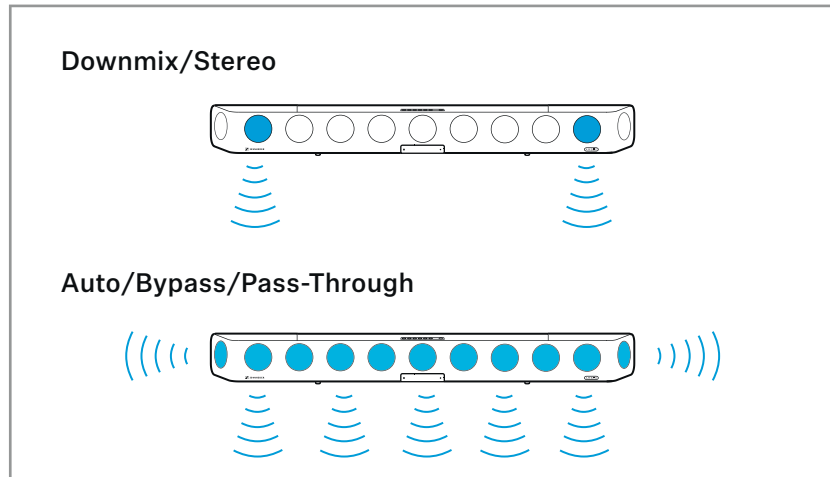


Preparation

Adjust the sound settings on the TV and on the audio/video device.

- ▷ On your devices, adjust the sound settings for the HDMI and optical output from “Downmix/Stereo” to “Auto/Bypass/Pass-Through”. (The menu of the devices may use different names depending on the manufacturer).

This ensures that the audio signals for 3D spatial sound from the source (e.g. TV) are passed on to the AMBEO Soundbar | Max.



- ▷ On your TV, set the Soundbar as the audio output.

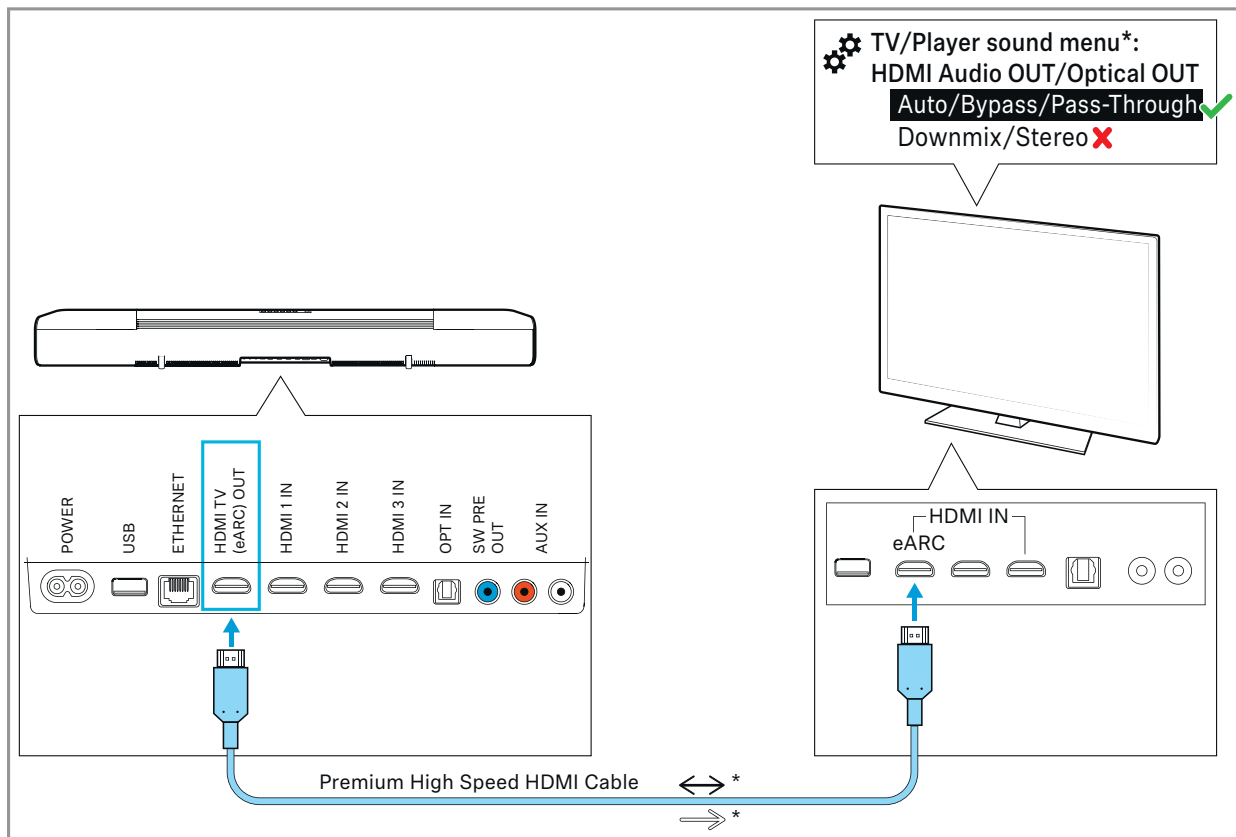
Connecting a TV

Connection to the HDMI eARC socket (recommended)

- Required cable: High-Speed HDMI Cable (supplied)

To connect the Soundbar to a TV with an HDMI IN socket labeled “ARC/eARC”:

- ▷ Connect one connector of the supplied High-Speed HDMI Cable to the **HDMI TV (eARC) OUT** socket on the Soundbar.
- ▷ Connect the other connector of the cable to the HDMI (eARC) IN socket of your TV.
- ▷ Observe the settings of your devices, > 22.



* ←
Video signal



* ←
Audio signal



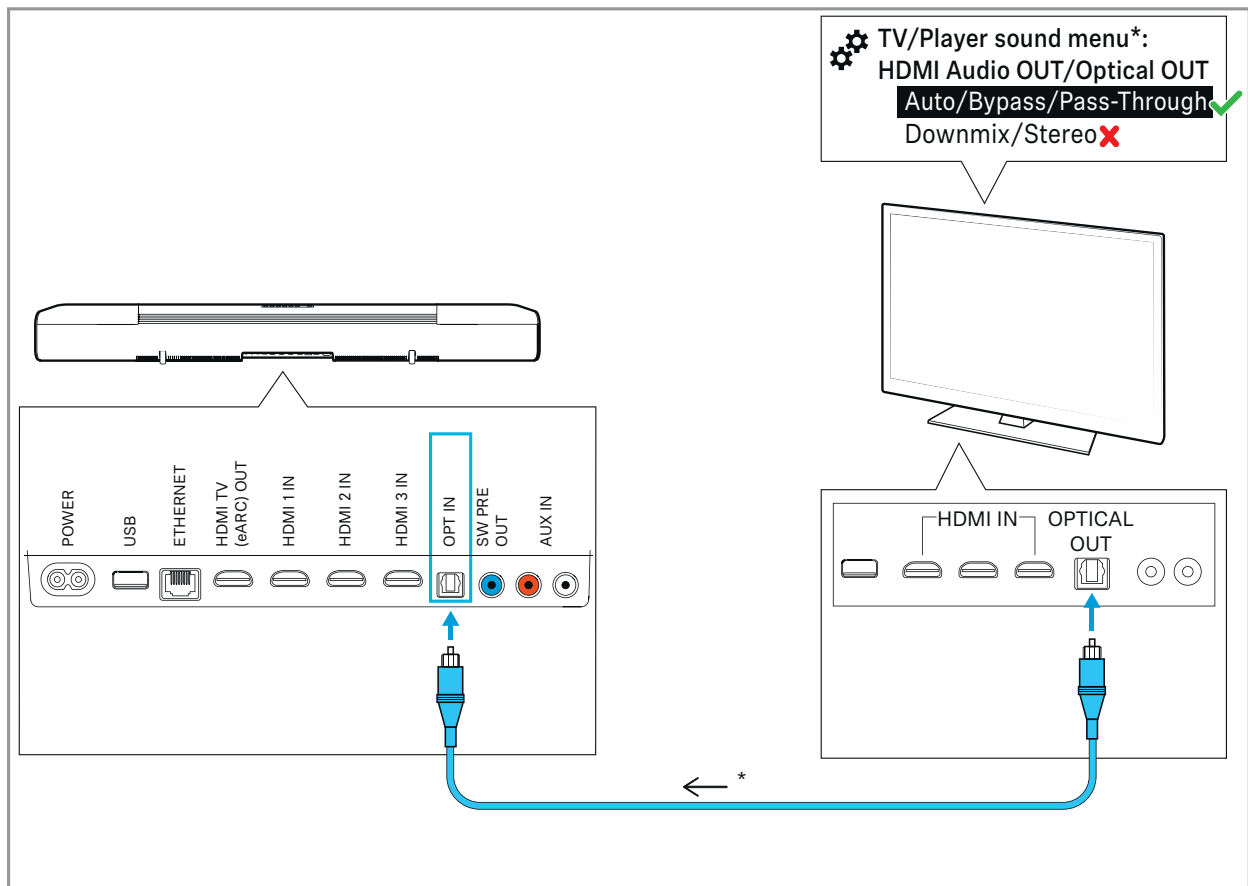
TV sets with an “ARC” output (not “eARC”) can transmit surround formats only to a limited extent.

Connection without HDMI eARC socket

- Required cable: optical cable (recommended length: max. 5 m)

To connect the Soundbar to a TV without an HDMI IN socket labeled “ARC/eARC”:

- ▷ Connect one connector of an optical cable (to be ordered separately) to the **OPT IN** socket on the Soundbar.
- ▷ Connect the other connector of the cable to the OPTICAL OUT socket on your TV.
- ▷ Observe the settings of your devices, > 22.



* ←
Audio signal

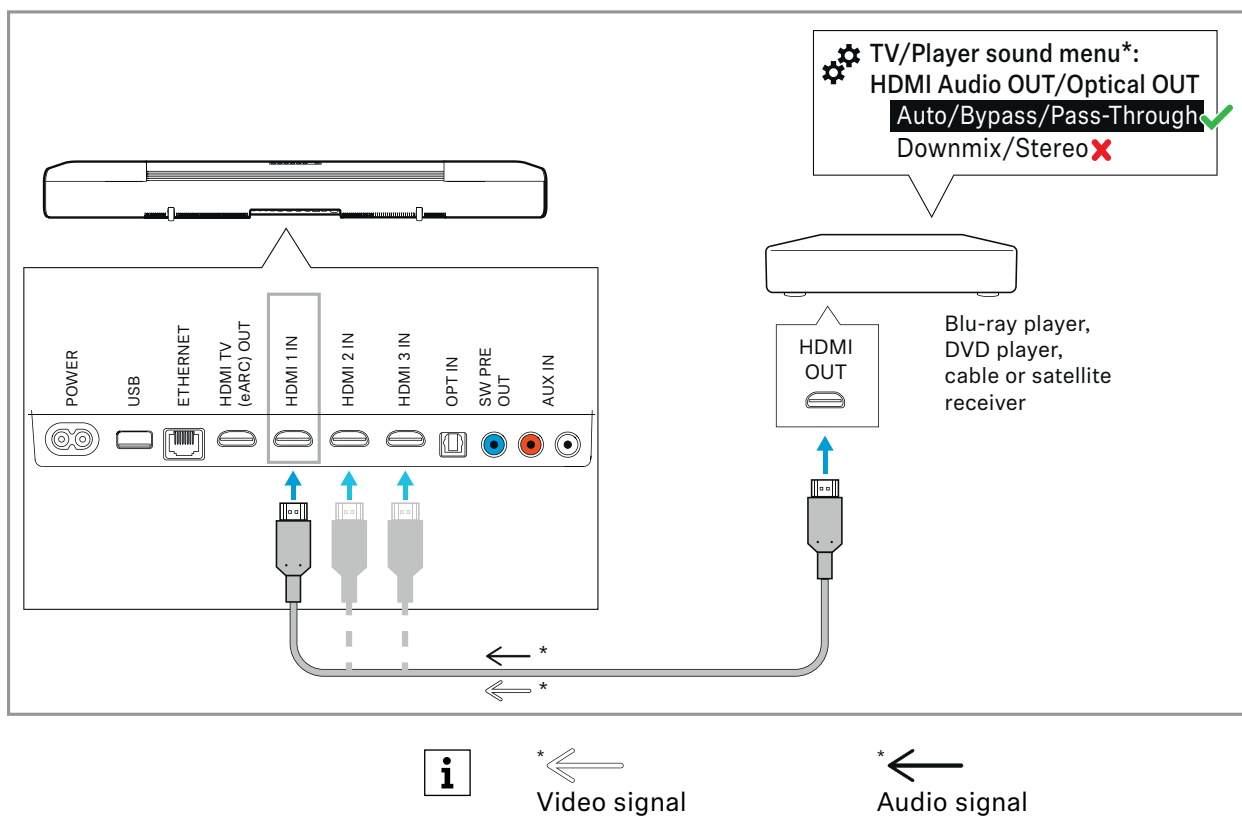
Connecting an audio/video device

Digital connection

- Required cable: HDMI

To connect the Soundbar to an audio source (e.g. Blu-ray player, DVD player):

- ▷ Connect one connector of an HDMI cable (to be ordered separately) to one of the three HDMI sockets (**HDMI 1 IN**, **HDMI 2 IN**, **HDMI 3 IN**) on the Soundbar.
- ▷ Connect the other connector of the cable to the HDMI OUT socket of your audio source.
- ▷ Observe the settings of your devices, > 22.

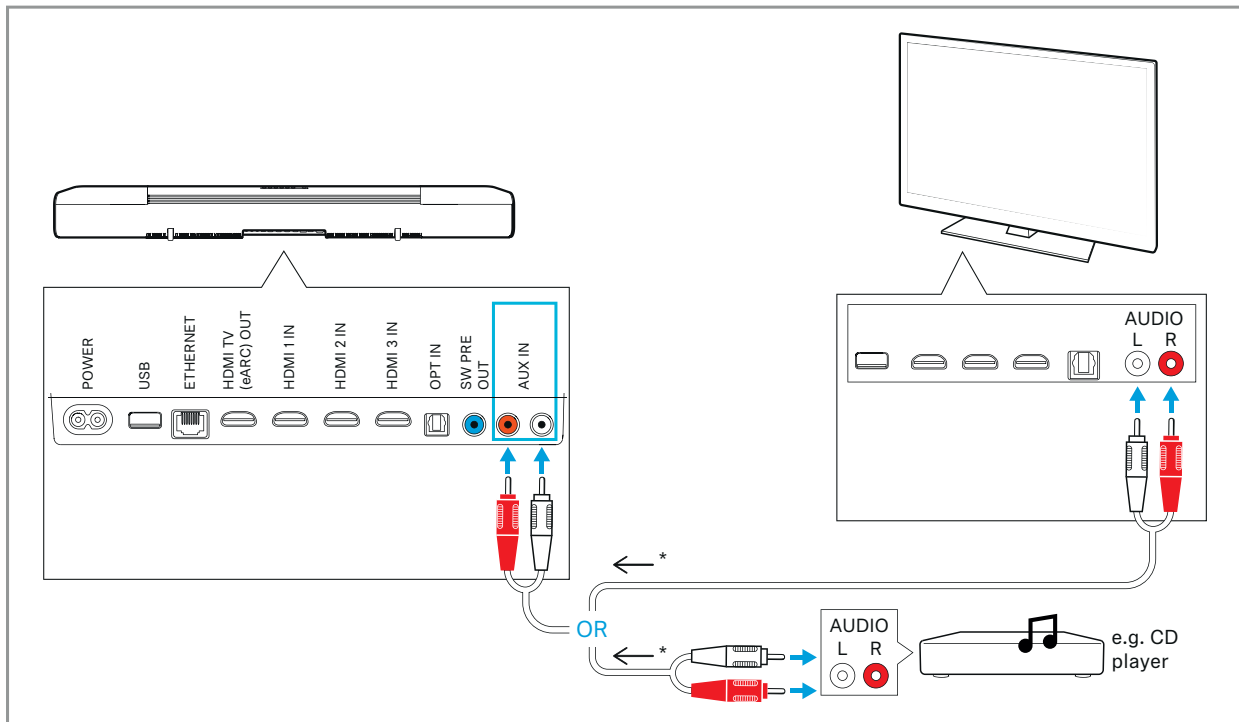


Analog connection

- Required cable: stereo RCA cable

To connect the Soundbar to a TV or an audio source (e.g. CD player):

- ▷ Connect the red connector of an RCA cable (to be ordered separately) to the red **AUX IN** socket and the white connector of the same cable end to the white **AUX IN** socket on the Soundbar.
- ▷ Connect the other red connector of the cable to the red socket and the white connector of the same cable end to the white socket of the TV or audio source.

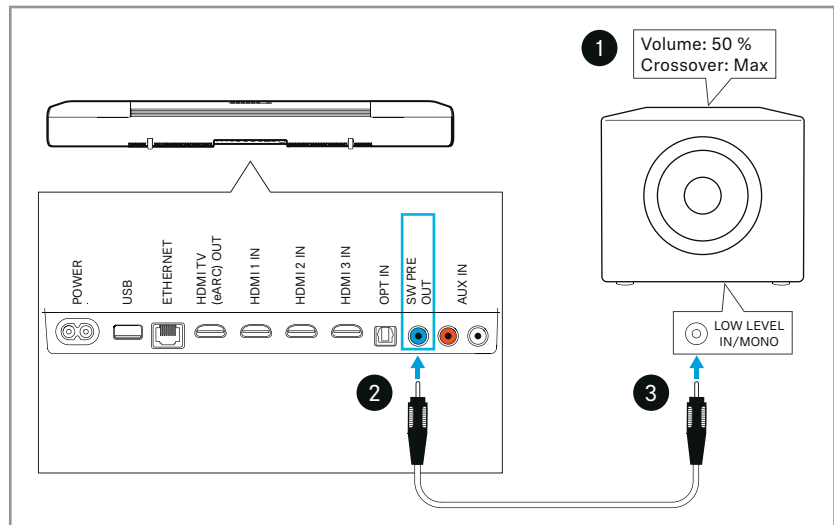


* ←
Audio signal

Connecting a subwoofer (optional)

Optionally, you can connect a subwoofer to the Soundbar.

- ▷ It is recommended to calibrate the soundbar both before and after connecting the subwoofer.
- ▷ Recommended settings: Adjust the volume on the subwoofer to “approx. 50%” and set the crossover to “Max”.
- ▷ Connect one connector of the mono RCA cable (to be ordered separately) to the **SW PRE OUT** socket on the Soundbar.
- ▷ Connect the other connector of the cable to the socket **LOW LEVEL IN/MONO** of the subwoofer.
- ▷ Calibrate the Soundbar (> 31).



Disconnecting the subwoofer

When the subwoofer is disconnected from the Soundbar, the Soundbar uses the previous calibration without subwoofer, if one exists.

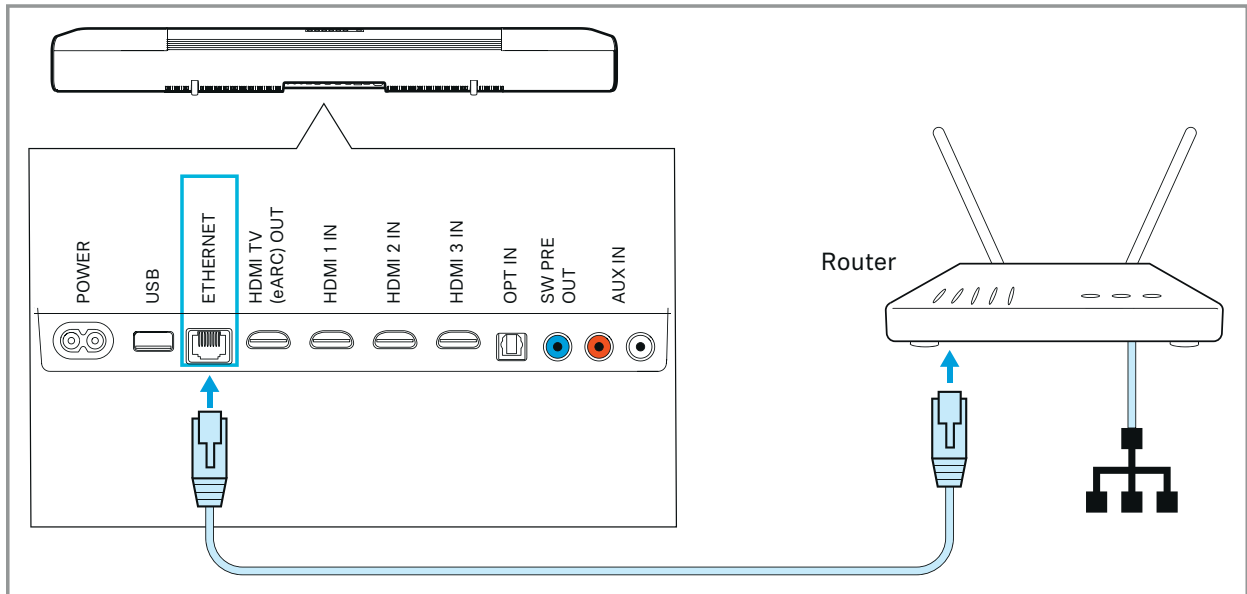
The app allows you to choose between the calibration with and without subwoofer.



Connecting an Ethernet cable

To connect the Soundbar to a wired network:

- ▷ Connect one connector of a network cable (with RJ-45 connector, to be ordered separately) to the **ETHERNET** socket on the Soundbar.
- ▷ Connect the other connector of the cable to the network socket of your router.
You may have to make settings to your router.



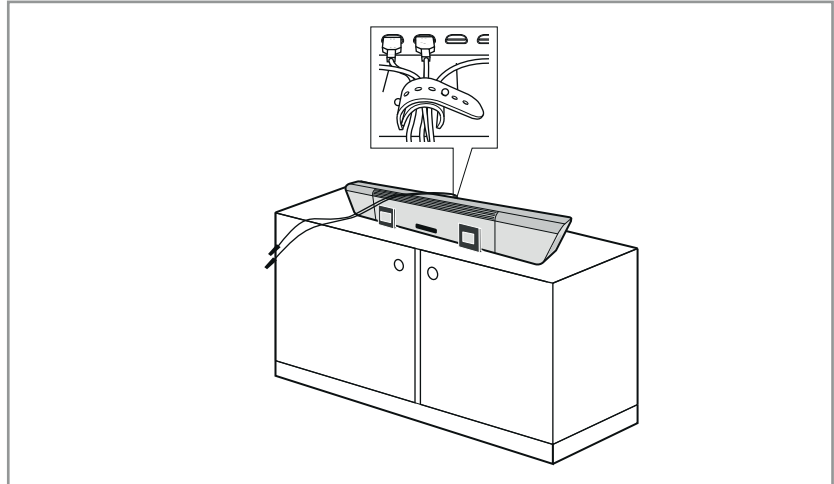
i If you connect the Soundbar to the Internet/Ethernet via cable, the WiFi function of the Soundbar is automatically deactivated.

Alternatively, the Soundbar can be connected to the Internet via WiFi. For more information, > 43.

Using the cable tie

To achieve strain relief on the sockets of the Soundbar:

- ▷ Bundle the cables.
- ▷ Place the cables in the cable tie and tighten it.
- ▷ Close the cable tie.



Receiving software updates automatically

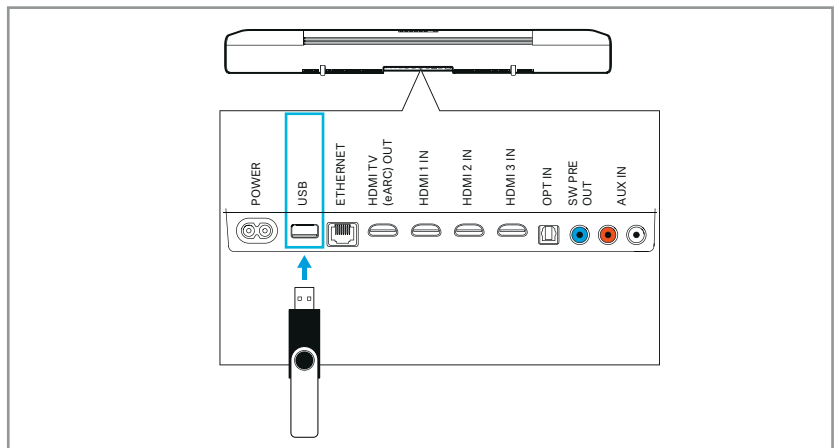
If the Soundbar is connected to the Internet, any available software updates will automatically be available, usually updating overnight.

Using the USB socket for updates

If the Soundbar is not connected to the Internet, you can install a firmware update on the Soundbar using a USB flash drive. For more information on the update, > 51.

A power supply of 5 V $\overline{\text{DC}}$, 1 A for accessories (external devices) is possible.

- ▷ Insert a USB flash drive or external accessory powered by USB (type B, to be ordered separately) into the **USB** socket on the Soundbar.

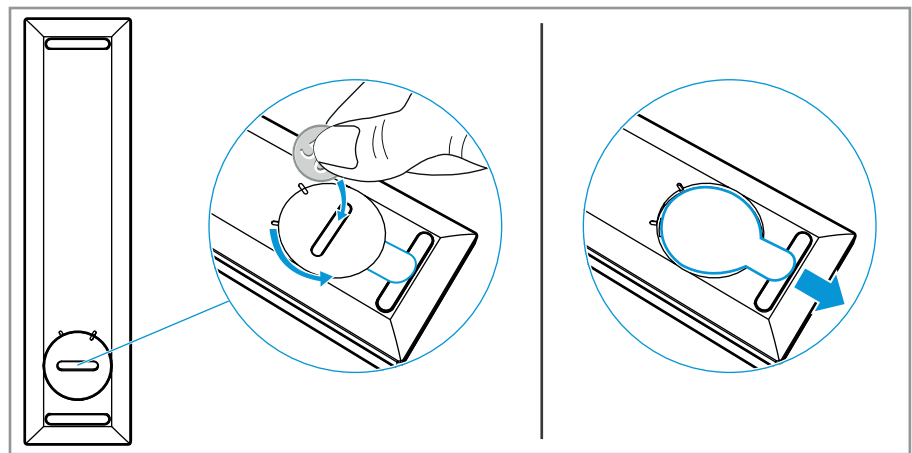


Putting the AMBEO Soundbar | Max into operation

Preparing the SB01-RC remote control

To remove the transport protection of the battery:

- ▷ Use a suitable object (e.g. a coin) to open the battery compartment cover (located on the bottom side of the remote control) by turning one turn counter-clockwise.
- ▷ Remove the plastic strip.
- ▷ Close the battery compartment cover by turning one turn clockwise.



Connecting/disconnecting the Soundbar to/from the power supply system

CAUTION

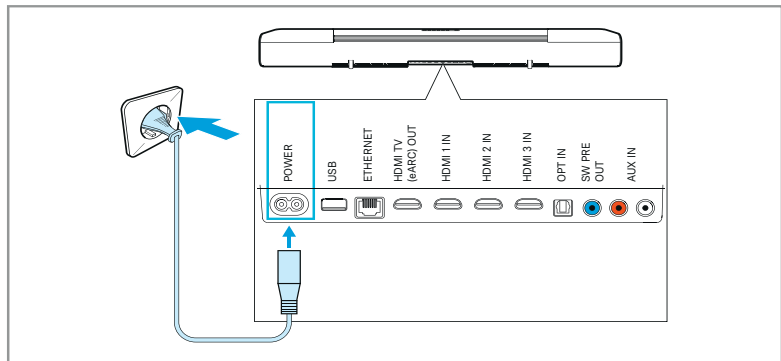
Damage to the product due to unsuitable power supply!

If you connect the product to an unsuitable power supply, the product can be damaged.

- ▷ Use a suitable power cable to connect the product to the power supply system (100 - 240 V~, 50/60 Hz).

Connecting to the power supply system

- ▷ Connect the plug of the power cable to the **POWER** socket on the Soundbar.
- ▷ Connect the power plug of the power cable to a suitable wall socket.



Disconnecting from the power supply system

- ▷ Disconnect the power plug of the power cable from the wall socket.
- ▷ Unplug the plug of the power cable from the **POWER** socket on the Soundbar.

Starting the room calibration

The room calibration is necessary for the measurement of the room in order to let you get the optimum spatial sound experience.

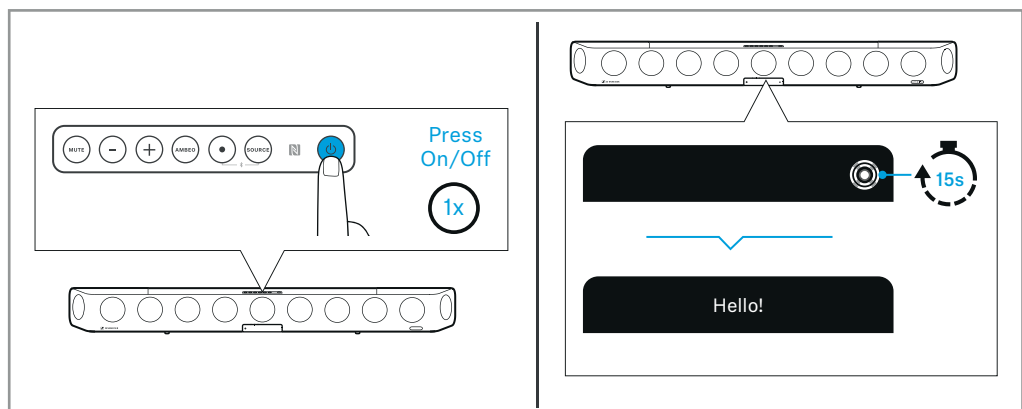
Therefore, the room calibration should be performed when

- the Soundbar is put into operation for the first time in a room,
- the position of the Soundbar has been changed,
- a subwoofer has been connected or disconnected,
- the room has been changed (e.g. furniture has been moved).

i If the “Dolby Virtualizer” is activated, you cannot perform a room calibration. If necessary, deactivate the “Dolby Virtualizer” in the Smart Control app (> 47).

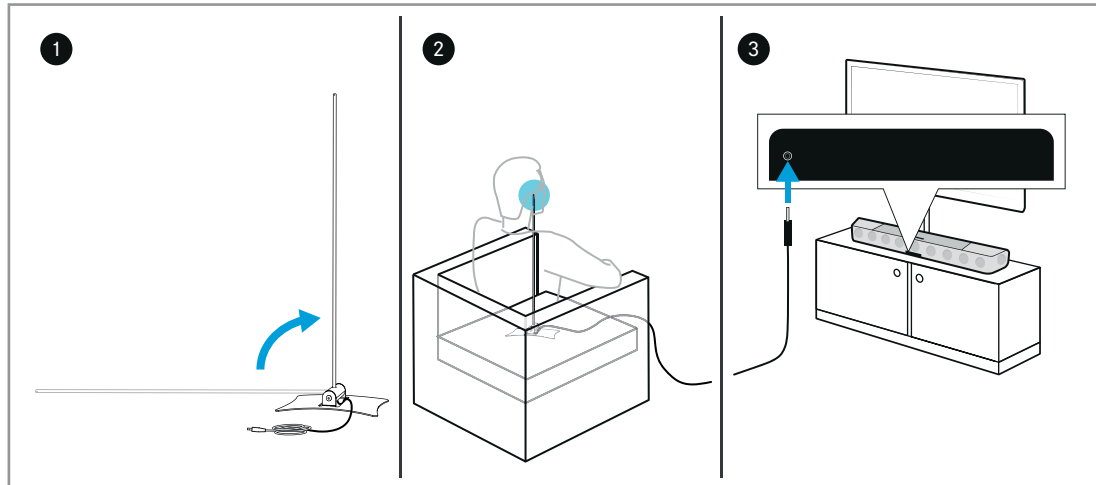
Preparations for calibration

- ▷ Connect the Soundbar to the power supply system (> 30). The Soundbar switches on. This process takes about 15 seconds. The **status LED** pulses white.
- ▷ Press the **on/off** button on the top of the Soundbar or the **on/off** button on the remote control. The **display** shows “Hello” and the prompt “Set up microphone”.



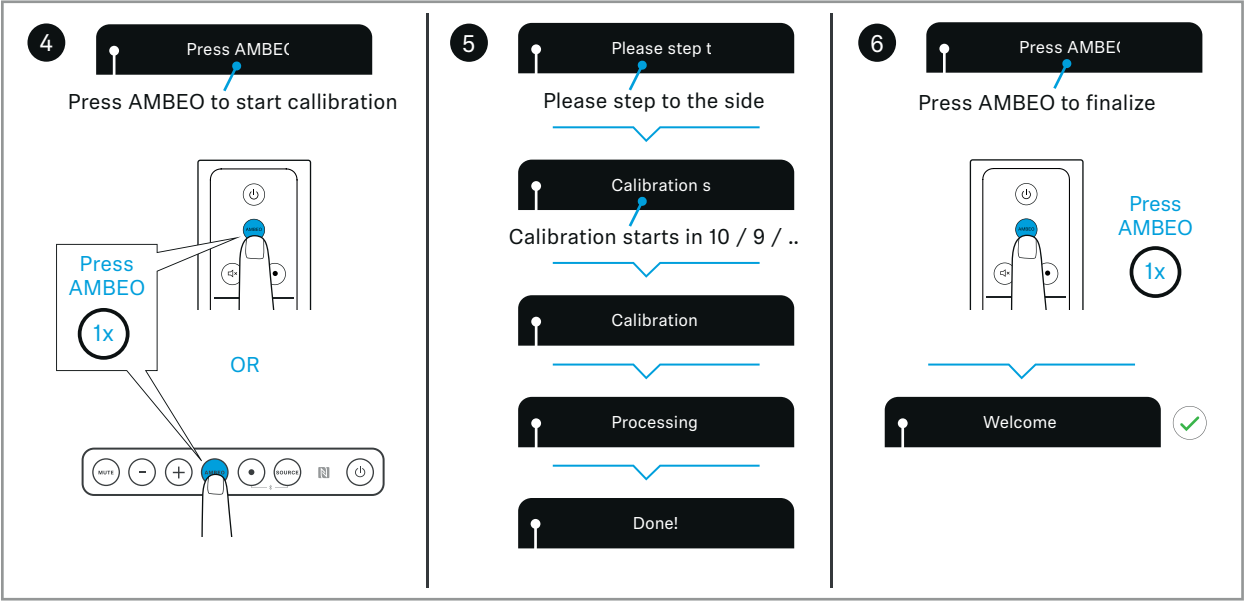
Calibrating the Soundbar

- ▷ Straighten up the microphone in the microphone holder.
- ▷ Place the microphone with the microphone holder on the seat in front of the Soundbar. The microphone head should be located approximately at ear height during normal use.
- ▷ Connect the jack plug of the microphone cable to the **microphone input** on the Soundbar.



- ▷ Press the **AMBEO** button on the top of the Soundbar or the **AMBEO** button on the remote control.
The **display** shows “Please step to the side”.
Please note that the test tones are played at a high volume during calibration.
- ▷ Avoid disturbing noises (open windows, household appliances, etc.) and do not stay between the Soundbar and the microphone as this can falsify the calibration.
The **display** shows a countdown for the start of the calibration “Calibration starts in 10 / 9 / ...”.
The calibration process takes several minutes.
The **display** shows “Done!” and “Press AMBEO to finalize”.
- ▷ Press the **AMBEO** button on the top of the Soundbar or the **AMBEO** button on the remote control.
The **display** shows “Welcome”. The AMBEO demo sound is played (approx. 10 seconds).
- ▷ Disconnect the jack plug of the microphone cable from the **microphone input** on the Soundbar.
- ▷ If an external subwoofer is used, it is recommended to run the room calibration twice. First run should be with the subwoofer disconnected followed by a second run with the subwoofer connected.



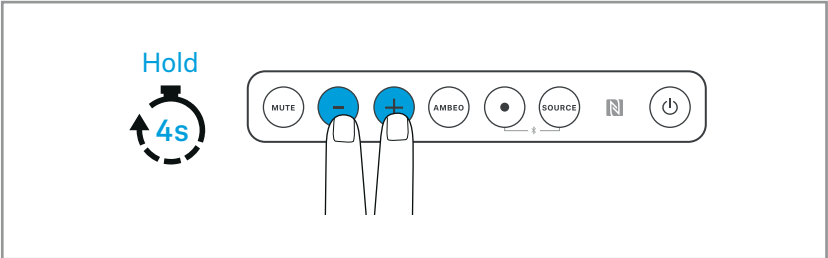


Error messages during room calibration

Message on the display	Possible error	Possible solution
Calibration failed. Please push AMBEO to cancel.	Subwoofer volume is too low	Increase the volume of the subwoofer and restart the calibration
	Microphone is not connected	Connect the microphone
	Ambient noise is too high	Reduce ambient noise
	Not enough sound-reflecting surfaces in the room	Change the position of the microphone in the room
	General error	An error has occurred, restart the calibration

Canceling the calibration

To cancel the calibration:
Press the **volume buttons** – (volume down) and **+** (volume up) for 4 seconds.



Repeating the calibration

If you want to repeat the calibration, you have the following options:

- Press the **AMBEO** button on the Soundbar for 4 seconds.
- Press the **AMBEO** button on the remote control for 4 seconds.
- Use the Smart Control app.



The app provides more detailed calibration options and an overview of the status of the calibration.



Operating the AMBEO Soundbar | Max

Switching the Soundbar on



WARNING

Danger of hearing damage due to high volume levels!

Listening at high volume levels for long periods of time can lead to permanent hearing defects.

- ▷ Adjust the volume to a low level before selecting a source.
- ▷ Do not continuously expose yourself to high volume levels.

If you want to switch on the Soundbar, you have the following options:

- Press the [on/off button](#) on the Soundbar.
- Press the [n/off button](#) on the remote control.
- Press the on/off button on the TV remote control (if the TV is connected to the Soundbar via HDMI CEC).
- Use the Smart Control app.



If the Soundbar is inactive for 20 minutes (default setting), it automatically switches to standby mode ([> 37](#)).

If you want to switch on the Soundbar from standby mode without network connection ([> 36](#)):

- Press the [on/off button](#) on the Soundbar for 1 second.

Switching the Soundbar off (standby mode)

If you want to switch off (standby mode) the Soundbar, you have the following options:

- Press the [on/off button](#) on the Soundbar.
- Press the [on/off button](#) on the remote control.
- Press the on/off button on the TV remote control (if the TV is connected to the Soundbar via HDMI CEC).
- Use the Smart Control app.

The Soundbar is in standby mode. The [status LED](#) lights up red. Any existing network connection is retained so that the Soundbar can be switched on automatically via the network or HDMI signals.

You can put the Soundbar in standby mode and switch off all network connections ([> 36](#)).

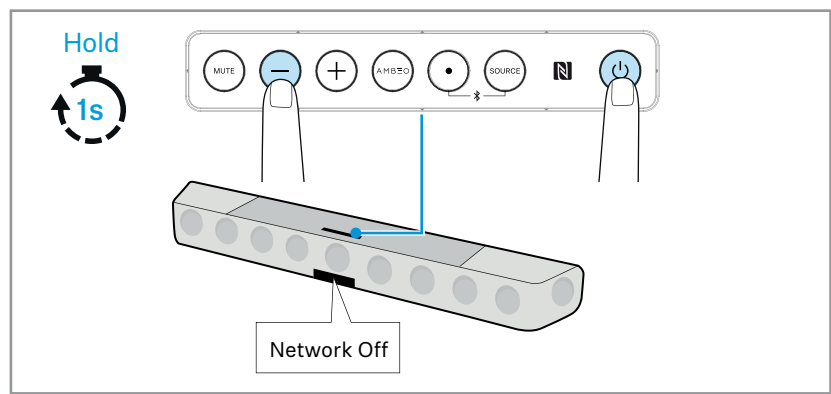
To completely disconnect the Soundbar from the power supply system, [> 30](#).

Switching the Soundbar off (standby mode without network connection)

You can switch off (standby mode) the Soundbar and also switch off all network connections. Please note that without network connections, Chromecast and Bluetooth playback is not possible, the Soundbar does not switch on automatically when HDMI signals are input and automatic firmware updates cannot be installed. Operation via the remote control or the Smart Control app is also not possible.

- On the Soundbar, simultaneously press the **on/off button** and the **volume button -** (volume down) for 1 second.

The Soundbar is in standby mode. The network connections are disconnected (WiFi, HDMI, Ethernet). The **status LED** goes off. The display shows “Network Off” permanently.



To switch off the display of “Network Off”:

- Press the multi-function button • for 1 second.

The display goes off.

i If you have activated the standby mode without network connection and the Soundbar switches to auto standby after normal operation (> 37), the standby mode without network connection is activated again.

ECO standby mode

The Soundbar has an ECO standby mode. You can set the mode via the Smart Control app. Booting the Soundbar takes longer when ECO standby mode is activated.

- ECO standby mode is activated: Booting takes approx. 20 seconds. The power consumption of the Soundbar is approx. 1.9 W (activated upon delivery).
- ECO standby mode is deactivated: Booting takes approx. 1 second. The power consumption of the Soundbar is approx. 5.5 W.



- i** In addition to the ECO standby mode, you can switch off the Soundbar and at the same time switch off all network connections (> 36). In this mode, power consumption is minimal, but the Soundbar must then be switched on on the device itself.

Auto standby

If there is no playback for 20 minutes, the Soundbar automatically switches to standby mode.

No playback:

- Bluetooth, Airplay, Spotify, Tidal or Chromecast input is paused
- Bluetooth, Airplay, Spotify, Tidal or Chromecast input is disconnected
- Analog, optical or HDMI input: no playback available

Auto standby always activates the standby mode that was last used (standby or standby without network connections).

- i** When playback is muted (“MUTE”), auto standby is not active.

The time after which the Soundbar switches to auto standby can be adjusted via the Smart Control app.



WARNING

Energy consumption may be increased with standby mode time adjustment.

Selecting the input source



WARNING

Danger of hearing damage due to high volume levels!

Listening at high volume levels for long periods of time can lead to permanent hearing defects.

- ▷ Adjust the volume to a low level before selecting a source.
- ▷ Do not continuously expose yourself to high volume levels.

If you want to change the input source, you have the following options:

- Press the **SOURCE** button on the Soundbar.
- Press the **SOURCE** button on the remote control.
- Use the Smart Control app.

Source selection:

- HDMI TV
- HDMI 1
- HDMI 2
- HDMI 3
- AUX
- Optical
- Bluetooth
- Streaming:
 - Casting Spotify Connect
 - Casting Tidal Connect
 - Casting TuneIn
 - Casting Soundcloud
 - Playing AirPlay
- Media



The sources Streaming (e.g. Chromecast) and Media cannot be selected via the **input source buttons**. The Soundbar automatically switches to the source when playback is started from the corresponding app.

Use your smartphone, tablet or computer as a remote control for Spotify. Go to www.spotify.com/connect to learn how.

If the connection is disconnected, the Soundbar jumps to the previous source.

The name of the source can be changed via the Smart Control app. The new name can consist of up to 9 characters (A-Z, a-z and 0-9).



Adjusting the volume



WARNING

Danger of hearing damage due to high volume levels!

Listening at high volume levels for long periods of time can lead to permanent hearing defects.

- ▷ Adjust the volume to a low level before selecting a source.
- ▷ Do not continuously expose yourself to high volume levels.

If you want to adjust the volume of the Soundbar, you have the following options:

- Press the **volume button –** (volume down) or **+** (volume up) on the Soundbar.
- Press the **volume buttons** on the remote control.
- Press the volume button on the TV remote control (if the TV is connected to the Soundbar via HDMI CEC).
- Use the Smart Control app.
- Use your connected Bluetooth device to adjust the volume.

The volume can be adjusted from 0 - 50.

i If the volume is adjusted to 0, the mute function is activated (> 39).

Activating/deactivating the mute function

If you want to activate the mute function, you have the following options:

- Press the **MUTE** button on the Soundbar.
- Press the **MUTE** button on the remote control.
- Press the mute button on the TV remote control (if the TV is connected to the Soundbar via HDMI CEC).
- Use the Smart Control app.
- Adjust the volume to 0.

If you want to deactivate the mute function, you have the following options:

- Increase the volume (> 38).
- Press one of the mute buttons again.

i The mute function remains activated when the input source is changed.

The mute function deactivates the auto standby function (> 37).

Using the AMBEO Soundbar | Max

Connecting the Soundbar to a Bluetooth/NFC device

Information on the Bluetooth wireless connection

The Soundbar features Bluetooth 4.2.

If your audio source supports one of the following high-resolution audio encoding methods, music is automatically played in high audio quality: AAC. Otherwise the Soundbar will play back your music in normal audio quality (SBC).

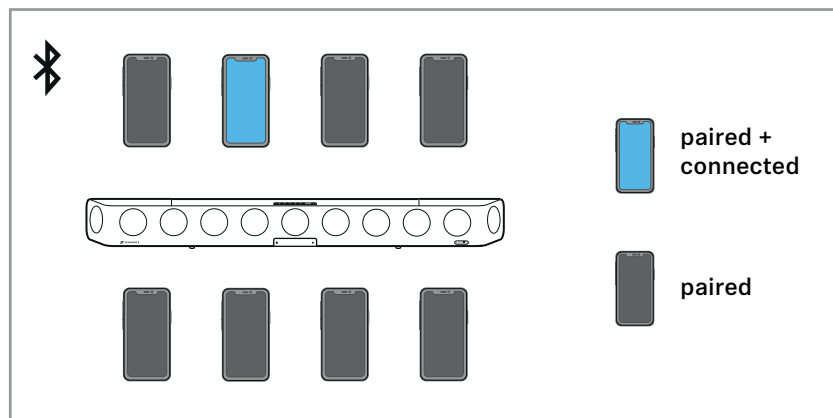
When selecting the “Bluetooth” input or when switching on with the last used input “Bluetooth”, the Soundbar automatically tries to connect to the last used Bluetooth device.

The Soundbar can save the connection profiles of up to eight Bluetooth devices with which it has been paired.

If you pair the Soundbar with the ninth Bluetooth device, the saved connection profile of the least used Bluetooth device will be overwritten. If you want to re-establish a connection with the overwritten Bluetooth device, you have to pair the earphones again.

If a device is connected, you first have to disconnect it to connect a new device.

You can use the Near Field Communication (NFC) function for easy pairing of the devices.

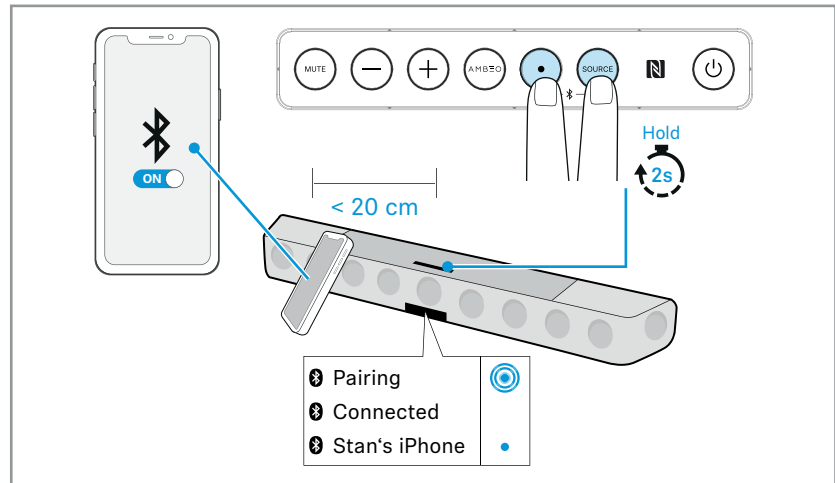


Pairing the Soundbar with a Bluetooth device

- ▷ Activate Bluetooth on your Bluetooth device.
- ▷ Press the **multi-function button** and the **SOURCE** button for 2 seconds.
The **status LED** pulses blue.
The Soundbar is in pairing mode.
- ▷ Hold your Bluetooth device at a distance of approx. 7.87"/20 cm to the Soundbar.
- ▷ Via the menu of your Bluetooth device, start the search for new Bluetooth devices.
All active Bluetooth devices in the proximity of your Bluetooth device are displayed.

- ▷ From the list of found Bluetooth devices, select “AMBEO Soundbar”. If necessary, enter the default pin code “0000”.
If pairing was successful, the **status LED** lights up blue.

i If no connection can be established within 3 minutes, the pairing mode is terminated. If necessary, start the pairing mode again.



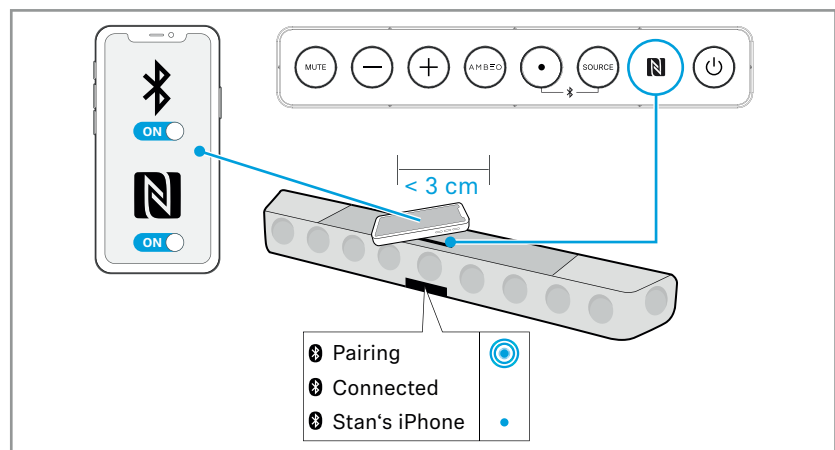
The device name of the Soundbar can be changed in the Smart Control app (e.g. “Soundbar family room”).

Disconnecting the Soundbar from a Bluetooth device

- ▷ Via the menu of your Bluetooth device, disconnect the connection to the Soundbar.
The Soundbar is disconnected from the Bluetooth device. The display shows “Disconnected”. The **status LED** goes off.

Pairing the Soundbar with an NFC device (NFC pairing)

- ▷ Activate Bluetooth and NFC on your Bluetooth device.
- ▷ Place your NFC device close (distance < 3 cm) to the **NFC antenna** on the Soundbar.
The **status LED** pulses blue. The devices are being paired.
If pairing was successful, the **status LED** lights up blue.



Disconnecting the Soundbar from an NFC device

- ▷ Place your paired NFC device close (distance < 3 cm) to the **NFC antenna** on the Soundbar.
The Soundbar is disconnected from the NFC device. The display shows “Disconnected”. The **status LED** goes off.

Installing the Sennheiser Smart Control app

To be able to control the Soundbar using a smartphone, the Soundbar and the smartphone on which you install the Sennheiser Smart Control app must be connected to the same WiFi network.

To make full use of all the settings and functions of the AMBEO Soundbar | Max, you have to have the free Sennheiser Smart Control app installed on your smartphone.

- ▷ Download the Sennheiser Smart Control app from the Apple App Store or from Google Play and install it on your smartphone. Alternatively, you can visit the following website: www.sennheiser-hearing.com/smartcontrol

Establishing the initial connection between the Sennheiser Smart Control app and the Soundbar

The initial connection between the Sennheiser Smart Control app and the Soundbar is established via Bluetooth Low Energy. For this, Bluetooth must be activated on your smartphone.

After the initial connection via Bluetooth is established, you can set up a WiFi connection for the Soundbar in the Smart Control app (> 43). In doing so, the Smart Control app can then connect to the Soundbar via WiFi.

- ▷ Make sure that the Soundbar is properly connected to the power supply.
- ▷ Make sure that the smartphone you want to connect to has the Smart Control app installed and Bluetooth and WiFi are activated.
- ▷ Start the Smart Control app.
- ▷ Follow the instructions in the Smart Control app.
The Smart Control app recognizes the Soundbar and activates all available settings and functions.

i If the initial connection between the Smart Control app and the Soundbar via Bluetooth fails, the Soundbar may have already been paired with the smartphone via Bluetooth.

In this case, you have to delete all entries of the Soundbar in the Bluetooth menu of the smartphone.

Then start a new connection attempt.

Configuring the Soundbar without the Sennheiser Smart Control app

- ▷ Connect your smartphone or computer to the Soundbar's WiFi hotspot.
The Soundbar's WiFi network name is “AMBEO Soundbar [serial number]”.

- ▷ Go to the Soundbar page in your web browser (address: <http://192.168.255.249/> or, if the Soundbar and your smartphone or computer are on the same network, go to: <http://ambeo>).

Network connection via WiFi or Ethernet

Use the WiFi connection or the Ethernet connection for:

- AirPlay
- Chromecast
- Spotify Connect
- Tidal Connect
- UPnP (Universal Plug and Play)
- Updates

The Soundbar must be on the same network as the devices the Soundbar wants to communicate with.

Using AirPlay

To use AirPlay:

- ▷ Play music with your favorite app.
- ▷ Open the iOS Control Center
- ▷ Tap the AirPlay icon on the “Now Playing” panel.
- ▷ Select your AMBEO Soundbar | Max from the AirPlay device list to play music from the Soundbar.



Using Apple AirPlay requires that your Soundbar is connected to the same network as your mobile device.

Using Chromecast

To use Chromecast:

- ▷ Download the Google Home app.
- ▷ Start the setup in the app.

Using Spotify Connect

To use Spotify Connect:

- ▷ Use your smartphone, tablet or computer as a remote control for Spotify.
- ▷ Go to www.spotify.com/connect to learn how.

Using Tidal Connect

To use Tidal Connect:

- ▷ Use your smartphone, tablet or computer as a remote control for Tidal.
- ▷ Go to <https://support.tidal.com/hc/en-us/articles/360004565898-TIDAL-Connect> to learn how.

Establishing a WiFi connection via the Smart Control app

The WiFi connection can be established and managed via the Smart Control app (> 42).

- ▷ In the device settings of the Smart Control app, tap “Network > WiFi” and connect the Soundbar to the desired WiFi.

Establishing a WiFi connection via WPS

To establish a WiFi connection via WPS (WiFi Protected Setup):

- ▷ Press the **SETUP** button for approx. 2 seconds to activate WPS. The Soundbar searches for a connection. The **display** shows “WPS searching” and the **status LED** flashes orange.

i If no connection is established within 2 minutes, the search is terminated.

- ▷ Press the WPS button on your router. The Soundbar connects to the WiFi. The **display** shows “WiFi connected” for 4 seconds and the **status LED** lights up orange.

Establishing an Ethernet network connection

- ▷ Make sure that the Ethernet cable is properly connected to the Soundbar and your network (> 28).
- ▷ The Ethernet connection can be set up and managed via the Smart Control app.

i If you connect the Soundbar to the Internet/Ethernet via cable, the WiFi function of the Soundbar is automatically deactivated.

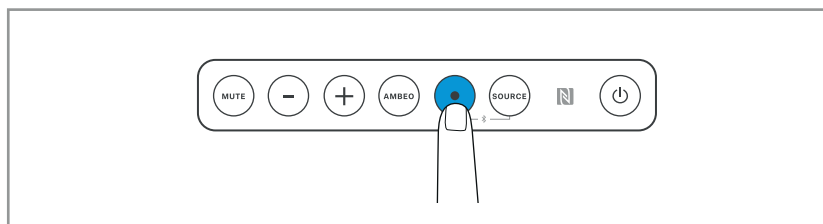


Controlling music playback

You can control music playback by pressing the **multi-function button** on the Soundbar or the **multi-function button** on the remote control. The function is available for playback via Bluetooth or network connection (e.g. Chromecast, Spotify, Tidal, AirPlay).

Functions of the multi-function button

- ▷ Press the **multi-function button**.



Multi-function button	Result
Press 1x ●	Plays or pauses music
Press 2x ● ●	Plays the next track in the playlist
Press 3x ● ● ●	Plays the previous track in the playlist

Using the sound profiles

If you want to activate a sound profile, you have the following options:

- Press the [sound profile buttons](#) on the remote control.
- Use the Smart Control app.

There are the following sound profiles:

- Movie
- Music
- News
- Sports
- Neutral

 If the “Dolby Virtualizer” is activated, you cannot use the sound profiles ([> 47](#)).

Adjusting the AMBEO modes

If you want to activate an AMBEO mode, you have the following options:

- Press the [AMBEO button](#) on the Soundbar.
- Press the [AMBEO button](#) on the remote control.
- Use the Smart Control app.

The [AMBEO display](#) lights up.

Order of modes

- Off
- AMBEO Light
- AMBEO Standard
- AMBEO Boost

The preset mode for all inputs is AMBEO Standard.

The modes Light, Standard and Boost can be adjusted in the app and assigned to the sound profiles ([> 44](#)).



 If the “Dolby Virtualizer” is activated, you cannot use the AMBEO modes ([> 47](#)).

Using the night mode “NIGHT”

To activate the night mode:

- ▷ Press the [night mode button](#) on the remote control.
When the night mode is activated, the [display](#) shows an icon in front of the name of the sound profile.
The bass is compressed (reduced).



The night mode can be applied to all sound profiles and modes, except AMBEO Boost.

Adjusting the voice enhancement level

(requires AMBEO OS2)

Voice enhancement can be adjusted in the Smart Control app, there are four levels of voice enhancement:

- ▷ 0 - enhancement is off
- ▷ 1 - light enhancement
- ▷ 2 - medium enhancement
- ▷ 3 - maximum enhancement

Adjusting the equalizer

To be able to use the equalizer, you require the Smart Control app (> 42).

- ▷ Adjust the equalizer via the Smart Control app.
The settings are stored in the Soundbar. These settings are active even without using the Smart Control app, i.e. when you are using another Bluetooth device for music playback.

Parameters:

- 4-band EQ split into
 - Foundation
 - Low-Mid
 - Clarity
 - Brilliance
- Adjustment range +10 dB to -10 dB

The app allows you to make additional acoustical settings in addition to the equalizer settings.



If the “Dolby Virtualizer” is activated, you cannot use the equalizer (> 47).

Using the Dolby DRC

You can use the “Dolby DRC” (“Dynamic Range Compression”) to play back Dolby audio content. This function compresses the dynamics of the audio signal, thus changing differences from soft to loud passages.

The “Dolby DRC” function can be activated/deactivated in the codec settings of the Smart Control app.

- “Off”: no change, full dynamics
- “Auto”: automatic reduction of dynamics; changes in volume can be perceived during playback
- “Normal”: slight compression of dynamics
- “Heavy”: heavy compression of dynamics

Using the Dolby Dialog Normalizer

You can use the “Dolby Dialog Normalizer” to play back Dolby audio content. This function makes dialogs easier to understand by reducing loud music/background noise and amplifying softer dialog audio. The “Dolby Dialog Normalizer” can be activated/deactivated in the codec settings of the Smart Control app.

Using the Dolby Virtualizer

You can use the “Dolby Virtualizer” to play back Dolby audio content. This function plays back Dolby audio content unchanged.

The “Dolby Virtualizer” can be activated/deactivated in the codec settings of the Smart Control app.

If the “Dolby Virtualizer” is activated, you can no longer use the following functions/settings:

- Sound profiles
- AMBEO modes
- Equalizer
- Room calibration data (the measured room data is not used for Dolby audio content)

Using the advanced audio settings

(requires AMBEO OS2)

The advanced audio settings can be adjusted via the Smart Control app. The Advanced Audio settings can be found by opening the Smart Control app and selecting AMBEO Soundbar Max from Devices, then Settings. Under “Audio”, select “Advanced audio settings”.

There are four adjustments available:

- ▷ **Center speaker level adjustment** - increases or decreases the center channel speaker level by up to 12dB, typically used to assist dialogue or vocals audibility.
- ▷ **Side firing speakers level adjustment** - increases or decreases the side firing speakers level by up to 12dB, typically to increase the perceived impact of sounds placed at rear of the soundstage.
- ▷ **Up firing speakers level adjustment** - increases or decreases the upwards firing speakers level by up to 12dB typically to increase the perception of height in the immersive sound field.
- ▷ **Subwoofer volume** - increases or decreases the output level to a wired subwoofer by up to 12dB, typically to deliver more dramatic low bass impact.

The “Reset” feature returns all sliders to their 0dB position, this is the audio setting result of the last room calibration.

Adjusting the brightness of the display and the AMBEO display

The brightness of the [display](#) and the [AMBEO display](#) can be adjusted via the Smart Control app.



There are three brightness levels:

- low brightness
- high brightness
- automatic brightness (activated upon delivery)

If “automatic brightness” is selected, the [display](#) and the [AMBEO display](#) automatically adjust to the ambient brightness.

The brightness of the [display](#) and the [AMBEO display](#) can also be adjusted independently of each other via the app.

Sound feedback

The beep sounds of the Soundbar can be activated or deactivated via the Smart Control app.



Transporting the Soundbar

ATTENTION

Material damage due to improper transport!

Incorrect packing of the Soundbar may cause damage to the Soundbar during transport.

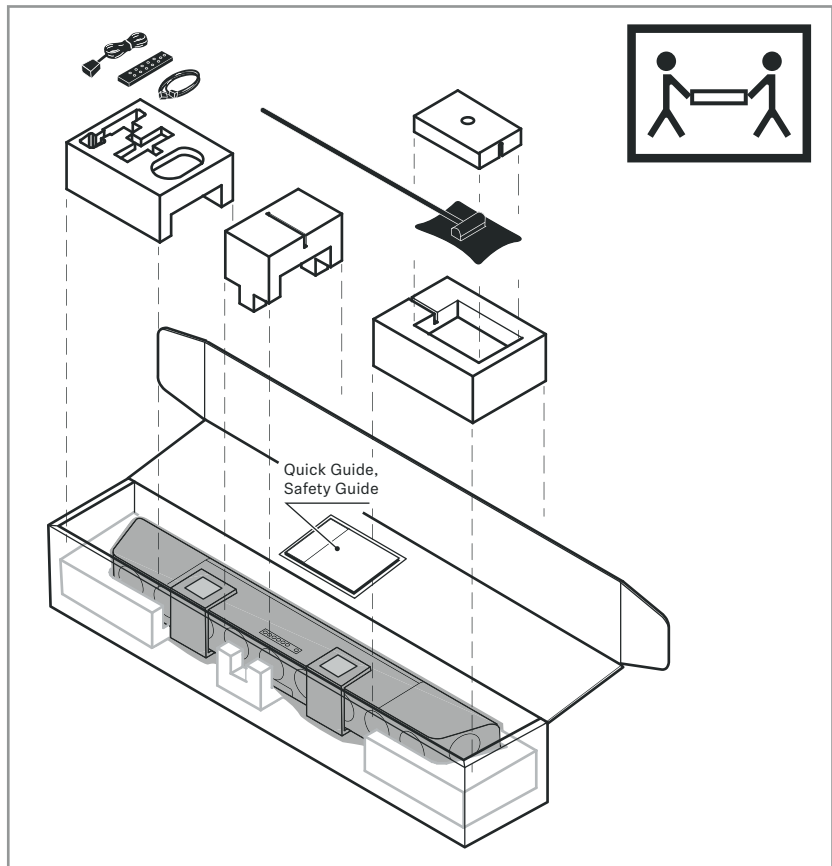
- ▷ Only transport the Soundbar in the original packaging with its protective foam parts.

Use the original packaging to transport the Soundbar.

To transport the Soundbar:

- ▷ Switch off the Soundbar (> 35).
- ▷ Disconnect the Soundbar from the power supply system (> 30).
- ▷ Disconnect all other cables and connections from the Soundbar (> 20).

- ▷ With the help of a second person, place the Soundbar, the accessories and the foam parts in the original packaging as shown.



- ▷ Close the packaging.
- ▷ Close the packaging so that it does not open during transport.
- ▷ The Soundbar in its packaging must be carried by at least two people.

Maintaining the AMBEO Soundbar | Max

Cleaning the Soundbar

ATTENTION

Severe product damage due to liquids!

Liquids entering the housing of the product can cause a short-circuit and damage the electronics.

- ▷ Keep all liquids far away from the product.
- ▷ Do not use any solvents or cleansing agents.

-
- ▷ Clean the product only with a soft, dry cloth.

The fabric of the Soundbar cannot be removed.

- ▷ Clean the fabric with a soft brush.

Replacing the battery of the remote control

If the range of the remote control decreases, you have to replace the battery.



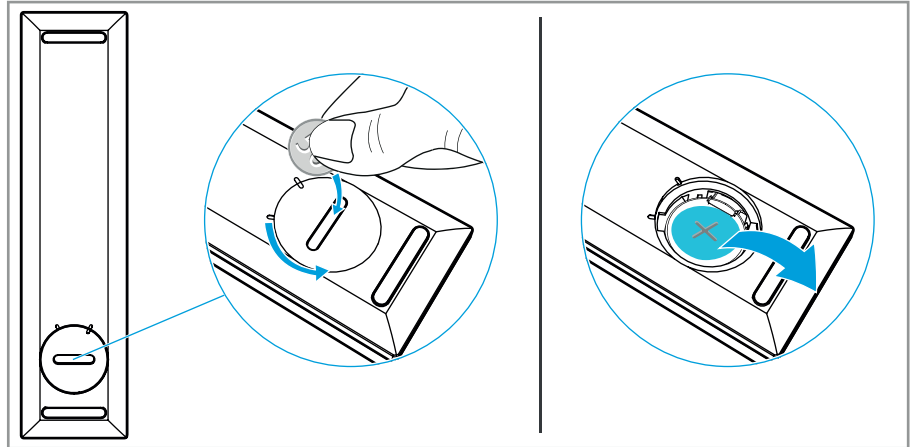
CAUTION

Personal injury due to incorrect handling of batteries!

Misuse or swallowing of batteries can cause injuries and health problems.

- ▷ Observe the safety instructions for lithium batteries (> 3).
 - ▷ Keep batteries away from children.
-

- ▷ Use a suitable object (e.g. a coin) to open the battery compartment cover by turning one turn counter-clockwise.
- ▷ Remove the used battery. In order to protect the environment, dispose of used batteries at special collection points or return them to your specialist dealer.
- ▷ Insert the new battery (type CR2032, 3 V) into the battery compartment. Observe correct polarity when inserting the battery.
- ▷ Close the battery compartment cover by turning one turn clockwise.



Installing firmware updates

Firmware updates are available free of charge and serve to enhance product improvement and also function extension.

You can update the Soundbar's firmware via a USB flash drive or using the Sennheiser Smart Control app.

Update via the Smart Control app

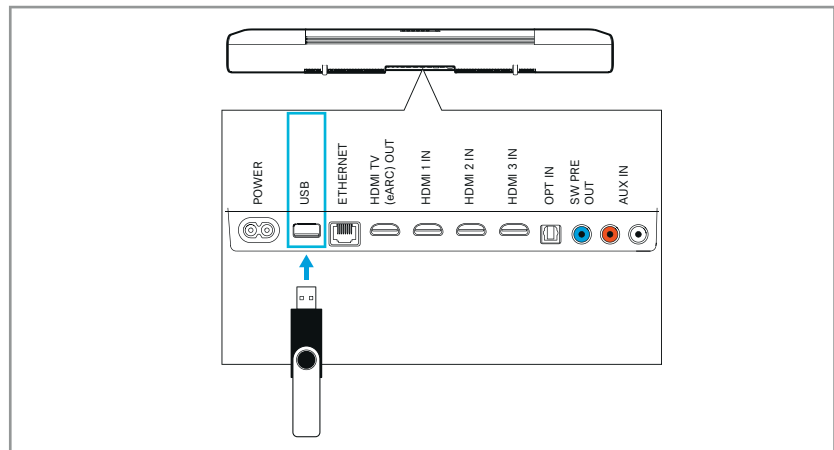
To update the firmware via the Smart Control app, the Soundbar must be connected to the Internet via WiFi or Ethernet (> 43).

- ▷ Start the Smart Control app on your smartphone.
- ▷ The app provides information on available firmware updates and guides you through the installation process.

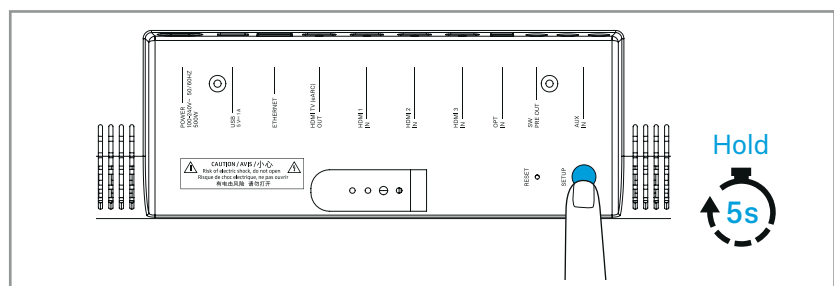
Update via a USB flash drive

Required USB flash drive:

- Memory size: 1 GB
- File system: FAT
- ▷ Download the update file with the file name "image.swu" from the website www.sennheiser-hearing.com/download and save the file on a USB flash drive.
- ▷ Do not change the file name!
- ▷ Switch on the Soundbar.
- ▷ Connect the USB flash drive to the USB socket on the Soundbar.



- ▷ Press the SETUP button for 5 seconds.
The display shows “Updating” and the status LED pulses yellow.



The Soundbar restarts several times during the update. The process can take up to 8 minutes.

Resetting the Soundbar

▷ Switch on the Soundbar.

If you want to reset the Soundbar, you have the following options:

- Insert a paper clip into the **RESET** recess on the bottom side of the Soundbar and press the paper clip for 2 seconds.
- Use the Smart Control app.

Action	Display	Status LED
Reset in progress	RESET	pulses orange
Reset terminated	RESET OK	lights up orange

Specifications

AMBEO Soundbar | Max, model: SB01

Number of channels	5.1.4
Amplifier	class D
Total audio power	250 W (RMS) 500 W (peak)
Total number of speakers	13
Low and mid-range speakers	quantity 6 Ø 10 cm/4 inches cellulose sandwich cones
Tweeters	quantity 5 (sideways: right and left; front: right, center and left) Ø 2.5 cm/1 inch aluminum cones
Top-firing full-range speakers	quantity 2 Ø 9 cm/3.5 inches cellulose sandwich cones
Frequency response	30 Hz to 20 kHz (-3 dB)
Audio processors	Dual Core 1.2 GHz ARM Cortex-A7 processor 2 x Dual Core 500 MHz SHARC DSP
Display	graphic OLED with brightness sensor, status LED, AMBEO LED
Power plug	country-specific
Voltage range	100 – 240 V~ 50/60 Hz
Power consumption	250 W
Standby power consumption	ECO standby activated: 1.9 W ECO standby deactivated: 5.5 W
Temperature range	operation: 0 °C to +45 °C storage: -20 °C to +70 °C
Relative humidity (non condensing)	operation: 20 to 85 % storage: 10 to 95 %
Dimensions (W x H x D)	approx. 126.5 x 13.5 x 17.1 cm incl. feet approx. 126.5 x 12.5 x 17.1 cm w/o feet
Weight	approx. 18.5 kg
Magnetic field strength	9 mT

Inputs/outputs

HDMI TV (eARC) OUT	default: HDMI 2.0a, eARC (HDMI 2.1) control: CEC video formats: up to 4K (60 Hz), Full HD, MHL 2.1 encryption: HDCP 1.4 power supply for accessories (external devices): 5 V $\overline{\text{DC}}$, 1 A
HDMI 1 IN HDMI 2 IN HDMI 3 IN	default: HDMI 2.0a encryption: HDCP 2.2 control: CEC video formats: up to 4K (60 Hz), Full HD, MHL 2.1 HDR formats: Dolby Vision Pass-Through
OPT IN	S/PDIF supported sampling rates: up to 192 kHz
AUX IN	stereo RCA sockets
USB	USB socket (type A), for power supply for accessories (external devices): 5 V $\overline{\text{DC}}$, 1 A; service socket for updates
ETHERNET	RJ-45 socket, 100/10 MBit
Subwoofer SW Pre-OUT	mono RCA, max. 2 V
Microphone input for room calibration	2.5 mm jack socket, mono

Remote control, model: SB01-RC

Transmission	infra-red
Range	approx. 8 m
Power supply	coin cell, type CR2032, 3 V

WiFi

Standard	IEEE 802.11 a/b/g/n/ac
Transmission system	2 x 2 MIMO
Transmission frequency (country-specific)	2,400 MHz to 2,483.5 MHz 5,170 MHz to 5,835 MHz
Modulation 2.4 GHz band	CCK, DQPSK, DBPSK for DSSS 64QAM, 16QAM, QPSK, BPSK for OFDM
Modulation 5 GHz band	64QAM, 16QAM, QPSK, BPSK
Output power	100 mW (max)

Bluetooth

Version	4.2, class 1, BR/EDR, BLE
Transmission frequency	2,400 MHz to 2,483.5 MHz
Modulation	GFSK, $\pi/4$ DQPSK, 8DPSK
Profiles	A2DP, AVRCP, GATT
Output power	10 mW (max)
Codec	AAC, SBC
Pairing option	Near Field Communication (NFC)

Network streaming

Network	Ethernet WiFi
Services	Apple AirPlay Chromecast built-in Spotify Connect Tidal Connect uPnP

Playable audio formats

Audio format/Codec	File extension
MP3	.mp3
AAC/HE-AAC	.m4a
	.aac
	.mp4
	.3gp
LPCM	.wav
FLAC	.flac
AIFF	.aiff
	.aif
ALAC	.m4a
Vorbis	.ogg

Supported audio formats/surround formats

Format	Audio source via:		
	HDMI, HDMI eARC, network streaming*	HDMI ARC**	OPTICAL
LPCM 2 Channel	yes	–	yes
LPCM 5.1 Channel	yes	–	yes
LPCM 7.1 Channel	yes	–	yes
Dolby Digital	yes	yes	yes
Dolby Digital Plus	yes	yes	yes
Dolby True HD	yes	–	–
Dolby Atmos - Dolby TrueHD	yes	–	–
Dolby Atmos - Dolby Digital Plus	yes	yes	yes
DTS	yes	yes	yes
DTS-ES Discrete 6.1, DTS-ES Matrix 6.1	yes	yes	yes
DTS 96/24	yes	yes	yes
DTS-HD High Resolution Audio	yes	–	–
DTS-HD Master Audion	yes	–	–
DTS-HD LBR	yes	–	–
DTS:X	yes	–	–
MPEG-H (Fraunhofer)	yes	–	yes

* not all streaming services support the playback of all codecs

** TV sets with an “ARC” output can transmit surround formats only to a limited extent

Manufacturer Declarations

Warranty

Sonova Consumer Hearing GmbH gives a warranty of 24 months on this product. For the current warranty conditions, please visit our website at www.sennheiser-hearing.com/warranty or contact your Sonova Consumer Hearing partner.

LIMITED AVAILABILITY OF REPLACEMENT PARTS AND REPAIR SERVICES

Most Products are covered by a 2-year Limited Warranty. Please see our full warranty terms and conditions here, which also include a list of the Products the warranty applies to: www.sennheiser-hearing.com/warranty-conditions.

Beyond the terms of the Limited Warranty, Sonova Consumer Hearing GmbH does not warrant or guarantee the availability of, and hereby disclaims any implied, statutory or other warranty or guarantee of availability of, any spare or replacement parts, repair services or information necessary for the maintenance or repair of the Products offered for sale at www.sennheiser-hearing.com by Sonova Consumer Hearing GmbH.

In compliance with the following requirements

- General Product Safety Regulation (EU) 2023/988

EU declaration of conformity



- Battery Regulation (EU) 2023/1542
- ErP Directive (2009/125/EC)
- RoHS Directive (2011/65/EU)

Hereby, Sonova Consumer Hearing GmbH declares that the radio equipment type SB01 is in compliance with the Radio Equipment Directive (2014/53/EU).

The full text of the EU declaration of conformity is available in English language at the following Internet address:
www.sennheiser-hearing.com/download.

UK declaration of conformity

- The Ecodesign for Energy-Related Products and Energy Information (Amendment) (EU Exit) Regulations (2019)
- RoHS Regulations (2012)
- Radio Equipment Regulations (2017)

Notes on disposal



- EU: Battery Regulation (EU) 2023/1542
- EU: WEEE Directive (2012/19/EU)
- UK: Battery Regulations (2015)
- UK: WEEE Regulations (2013)

The symbol of the crossed-out wheeled bin on the product, the battery/rechargeable battery (if applicable) and/or the packaging indicates that these products must not be disposed of with normal household waste, but must be disposed of separately at the end of their operational lifetime. For packaging disposal, observe the legal regulations on waste segregation applicable in your country. Improper disposal of packaging materials can harm your health and the environment.

The separate collection of waste electrical and electronic equipment, batteries/rechargeable batteries (if applicable) and packaging is used to promote the reuse and recycling and to prevent negative effects on your health and the environment, e.g. caused by potentially hazardous substances contained in these products. Recycle electrical and electronic equipment and batteries/rechargeable batteries at the end of their operational lifetime in order to make contained recyclable materials usable and to avoid littering the environment.

If batteries/rechargeable batteries can be removed without damaging them, you are obliged to dispose of them separately (for the safe removal of batteries/rechargeable batteries, see the instruction manual of the product). Handle lithium-containing batteries/rechargeable batteries with special care, as they pose particular risks, such as the risk of fire and/or the risk of ingestion in the case of coin batteries. Reduce the generation of battery waste as much as possible by using longer-life batteries or rechargeable batteries.

Further information on the recycling of these products can be obtained from your municipal administration, from the municipal collection points, or from your Sonova Consumer Hearing partner. You can also return electrical or electronic equipment to distributors who have a take-back obligation. Herewith you make an important contribution to the protection of the environment and public health.

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Licenses are available at: www.sennheiser-hearing.com/download.

Appendix

Open Source license terms and conditions

The AMBEO Soundbar | Max SB01 has a user interface to call up additional license terms and conditions for the open source software used. You can open the license terms and conditions on your computer or a mobile device in an Internet browser. This requires that the computer/mobile device is connected to the WiFi of the Soundbar (“AMBEO Soundbar [serial number]”).

- ▷ Open an Internet browser on your computer/mobile device and enter <http://ambeo.soundbar> in the address bar. The user interface is loaded and you can open the license terms and conditions.

In addition, you can access the license terms and conditions via the free “Sennheiser Smart Control” app.