

Owner's Manual

Loudspeaker
B 18



Burmester

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Dear Music Enthusiast,

Congratulations on your selection and thank you for your trust.

You have chosen a product that combines absolute fidelity and uncompromising quality with technical innovation and maximum flexibility.

Please read through these operating instructions at least once before initially installing the product so you can fully benefit from all the functions of this truly high-fidelity device. Should any of your questions remain unanswered, please contact your specialist dealer or us directly.

Talk to us about any special requests you may have - even if they seem exceptional. We love accepting technically feasible challenges.

We wish you many hours of high-fidelity listening.

The Burmester Team

A BRIEF OVERVIEW

The B18 loudspeaker has been developed as a 2½-way bass reflex speaker with a front-firing design and is a universal sound talent: space-saving, yet at the same time extremely musical and dynamically thrilling.

The high-frequency reproduction benefits from the ring radiator which is custom-made for Burmester and guarantees optimum clarity and resolution. The low-mid and mid-low drivers are a derivative on the basis of the proven chassis which has already earned the B10 compact speaker an impressive sound performance.

The highly complex frequency crossover sits in an isolated enclosure chamber, just like the low-mid driver whose own sealed compartment yields an outstandingly clean mid-frequency performance. A fully re-designed, computerized spring-mass damping system ensures an optimum decoupling of the speaker and thus makes it extremely resistant to floor vibrations.

Supported by the cabinet, which has been optimized using FEM analysis, the massive and particularly torsion-resistant aluminum-MDF sandwich front delivers an accurate, precise bass and reduces cabinet resonances significantly.

Apart from a mechanical damping through a foam cylinder, the B18 loudspeaker has a bass switch to tweak the bass intensity to the ambient room conditions and your personal listening taste.

Highlights:

- Exclusive Burmester ring radiator for optimized transparency and resolution
- Advanced low-mid and mid-low driver based on the B10 compact speaker
- Several options of room adjustment using the rearward bass switch in combination with the plastic foam cylinder
- Accurate, precise bass and significantly reduced cabinet resonances due to the massive and particularly torsion-resistant aluminum-MDF sandwich front in combination with the cabinet, which has been optimized using FEM analysis
- 2½-way bass reflex speaker with an isolated enclosure chamber for the mid-low driver and an own sealed compartment for the low-mid-driver
- Re-designed, computerized spring-mass damping system decouples the speaker from the ground
- Highly complex frequency crossover in an isolated enclosure chamber

ABOUT THESE OPERATING INSTRUCTIONS

These operating instructions describe the set-up, connection and operation of the Burmester B18 loudspeaker (referred to in the following as “(loud)speaker” or “B18”).

Please note the following:

- ▶ Read and follow the information given, in particular the safety information and warnings.
- ▶ Save these operating instructions.

Used symbols and characters

✓	Requirement Designates a requirement which must be fulfilled before a subsequent action can be taken.
▶	Action step Designates an individual action step.
1. 2. 3.	Sequence of actions Designates a sequence of action steps which have to be performed in the given order.
↵	Result Designates the outcome of an action.

Meaning of warning symbols and words

This document uses the following warning symbols and words:

	The general danger symbol, in conjunction with the warning words CAUTION, WARNING, and DANGER, serves to warn against the risk of severe injuries. Follow all subsequent instructions to avoid injury or death.
	The lightning symbol, in conjunction with the warning word DANGER, serves to warn against a lethal electrical voltage.
ATTENTION	The warning word ATTENTION indicates a danger that can lead to damage to or destruction of the device.
CAUTION	The warning word CAUTION indicates a danger that poses a low or medium risk of injury.
WARNING	The warning word DANGER indicates a danger which can directly lead to death or severe injury.

IMPORTANT SAFETY INFORMATION



Please read through the operating instructions for your speaker completely and save them.

Note: Should you have any questions, please contact your specialist dealer.

Unpacking

The speakers are very heavy components. To prevent injuries, the speakers should only be unpacked and set up by individuals who are experienced in handling heavy loads.

To prevent damage to the housings, do not use sharp or pointed objects to remove the packaging.

When unpacking, look out for sharp edges.

The speakers are enclosed in a plastic bag on delivery. Keep this bag out of reach of children to prevent suffocation.

Positioning

Please keep in mind the following when positioning the speakers:

- Avoid direct sunlight, excessive heat, cold, moisture, and dust.
- Do not drip or spray water on the speaker and don't put anything containing liquid on top of the loudspeaker.
- Never put anything with an open fire, such as candles, on top of the speaker.

Connecting

- ▶ Switch off amplifiers before connecting them to the speakers.

First start-up

- ▶ After connecting the amplifier, adjust its volume to a low setting before switching it on.

During operation

- ▶ Do not listen at high volumes for an extended period of time. Excessive volume levels may damage your hearing.

UNPACKING THE LOUDSPEAKERS

CAUTION

Heavy weight of loudspeakers

The speakers are very heavy and can result in injuries in case of falling or toppling.

- ▶ The speakers should be unpacked and positioned only by persons who are used to handle heavy loads.
- ▶ If necessary solicit the help of another person to unpack and position the speakers.

Unpacking

- ▶ Remove the speaker carefully from its transport box and position it in an appropriate place. Avoid direct sunlight, dust and humidity.
- ▶ Please check the content of the box to make sure it is complete and undamaged. In case parts are missing or you notice damage to the speaker during unpacking please do not connect it. Instead, contact your authorized Burmester dealer.

What's in the box?

The shipment contains:

- Packaging with the loudspeaker B18
- 1 Manual
- 1 Set of warranty documents

Packing material

WARNING

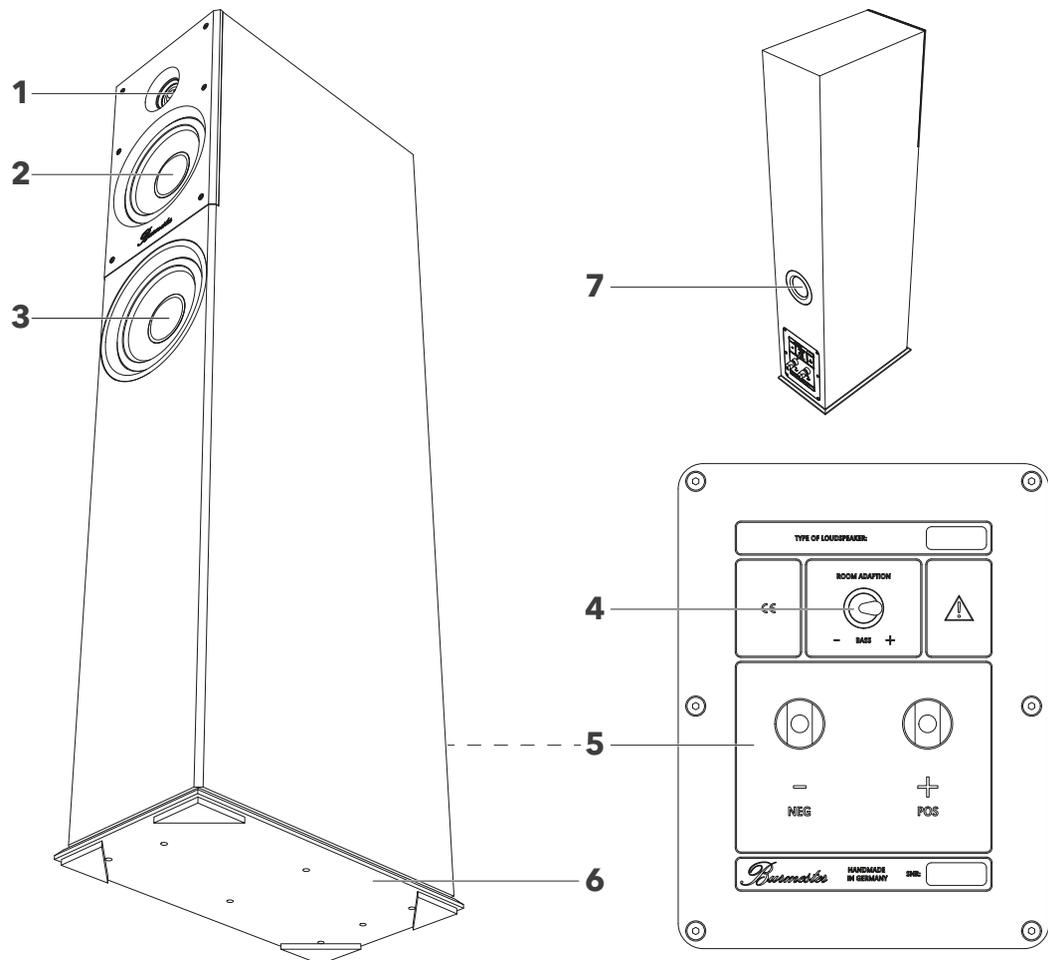
Danger of suffocation

The loudspeakers are shipped in a protective plastic bag which could pose a potential danger of suffocation for children.

- ▶ Keep this bag out of the reach of children.

We recommend keeping the original packing material for future transport such as when moving your household.

Overview of the loudspeaker



1	Radial tweeter
2	Midrange/bass driver
3	Bass/midrange driver
4	Room Adaption Switch Switch for adjusting the bass range to the room situation.
5	Connection panel
6	Base plate
7	Bass reflex port

SETTING UP THE LOUDSPEAKERS

Correctly placing the speakers

The distance between the speakers should ideally be between 2 and 3 meters (6.5 ft to 9.9 ft).

You have the possibility to influence the spatial imaging as well as the neutrality of the high frequency range by the positioning of the loudspeakers.

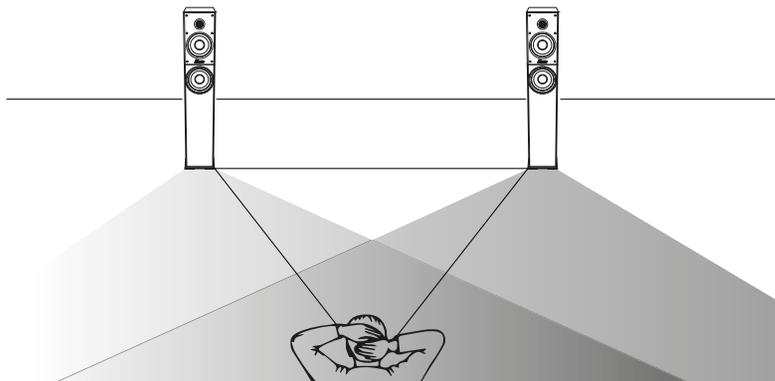
In a rectangular room, it is recommended to place the speakers on the shorter room wall. In principle, the space between the loudspeakers should be as empty as possible. If at all, acoustically dampening elements (curtains / acoustic elements) should be attached behind the loudspeakers. On the wall between the loudspeakers, reflective (also jagged) elements should be preferred. Even a smooth wall is closer to the goal of a three-dimensional stage than the mentioned acoustically dampening materials.

High-frequency range and spatial imaging

You can influence the spatial imaging and the high-frequency range by turning the speakers. The two positions described below only represent two variants. The best angle for the listener should be determined by testing:

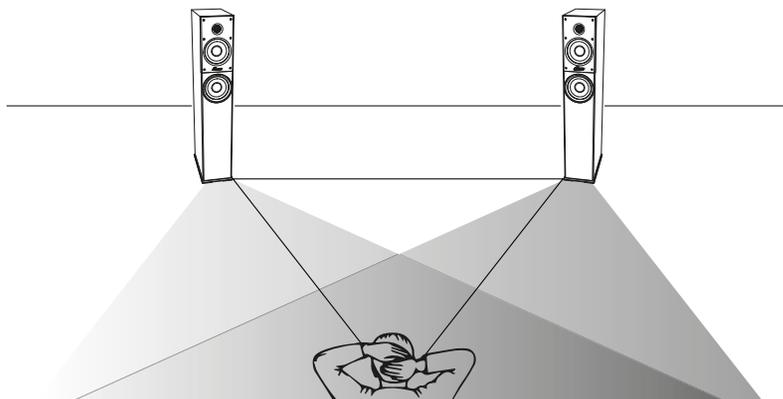
Straight speaker placement

- ▶ Place the loudspeakers straight, at a distance of 2 to 3 meters to each other (6.5 ft to 9.9 ft).
 - ↳ Spatial imaging becomes wider.
 - ↳ The high-frequency range becomes more subtle.



Angled speaker placement

- ▶ Place the loudspeakers straight, at a distance of 2 to 3 meters to each other (6.5 ft to 9.9 ft).
 - ↳ The sound stage becomes more precise.
 - ↳ Playback is more direct.



Fundamental tone and bass range (Room Adaption)

Distance to the wall

The spatial sound and the precision of the fundamental range increase with growing wall distance. This arrangement, however, can also lead to a feeling of thinner, bodyless fundamental sound reproduction.

On the other hand, a loudspeaker placed directly to the wall sounds generally richer, but under certain circumstances also imprecise and too prominent. The optimal position should be determined in conjunction with the bass plug and the "Room Adaption".

Refer to the following paragraph for recommendations.

Room Adaption

The loudspeaker offers the possibility to adjust the sound pressure level in the fundamental / bass range. The various possibilities are explained below.

Note: The following options are based on the most neutral sound possible in an average living space and should only be seen as recommendations. The best position should additionally be determined by hearing and personal perception.

Option 1:

Room

This setting should lead to the best results in average rooms without large glass surfaces and symmetrical positioning, but also in acoustically optimized rooms.

Necessary actions

- ✓ The speakers are placed at least 20 inches from the wall away.
- 1. Remove the bass plugs from the **bass reflex port (7)** of the speakers.
- 2. Set the **Room Adaption Switch (4)** to **minus** on both speakers (⊖).

Option 2:

Room

This setting is suitable for rooms with large glass surfaces or plasterboard walls that have poor bass reproduction (e.g. Lofts).

Room adjustment

The bass reproduction between 50 Hz and 100 Hz is increased by 2 dB. This leads to a significantly higher upper bass performance in rooms with poor bass reproduction.

In addition, the area below 50 Hz is lowered steeply. This leads to a higher maximum volume.

Note: This setting is therefore also suitable for events.

Necessary actions

- ✓ The speakers are placed at least 20 inches from the wall away.
- 1. Remove the bass plugs from the **bass reflex port (7)** of the speakers.
- 2. Set the **Room Adaption Switch (4)** to **plus** on both speakers (⊕).

Option 3:**Room**

This variant is primarily suitable for speakers placed close to the wall in smaller rooms.

Room adjustment

The bass drops slowly below 100 Hz and reaches very low frequencies. This frequency response compensates the overemphasis of the bass range by close corners and walls. This setting allows greater clarity in the mid-range reproduction.

Necessary actions

- ✓ The speakers are placed close to the wall.
- 1. Insert the bass plugs into the bass reflex opening (7) of the speakers.
- 2. Set the **Room Adaption Switch (4)** to **minus** on both speakers (⊖).

Option 4:**Room**

This variant is also suitable for speakers placed close to the wall in smaller rooms. The gain on bass compared to the previous variant provides an even more powerful performance.

Room adjustment

The bass reproduction between 50 Hz and 100 Hz is increased by 2 dB. In addition, the area below 50 Hz is lowered steeply.

The inserted bass plugs into the bass reflex tubes make the positioning quite uncritical and the gain on bass compared to variant 3 provide a more powerful performance.

Note: Due to the missing low bass, the maximum volume in this variant is also increased.

Necessary actions

- ✓ The speakers are placed close to the wall.
- 1. Insert the bass plugs into the bass reflex opening (7) of the speakers.
- 2. Set the **Room Adaption Switch (4)** to **plus** on both speakers (⊕).

CONNECTING THE LOUDSPEAKERS

- ▶ Before connecting the speakers please also read the manuals for the components that are to be connected.
- ▶ Make sure the polarity is correct: red = positive, blue or black = negative



⚠ WARNING

Dangerously high voltage at the binding posts

During operation dangerously high voltages may be present at the binding posts.

- ▶ Before connecting the speakers turn off all components of your music system and turn them back on only after you've made sure that all connections have been made correctly.
- ▶ Do not touch the binding posts while the speakers are connected to a live amplifier.

ATTENTION

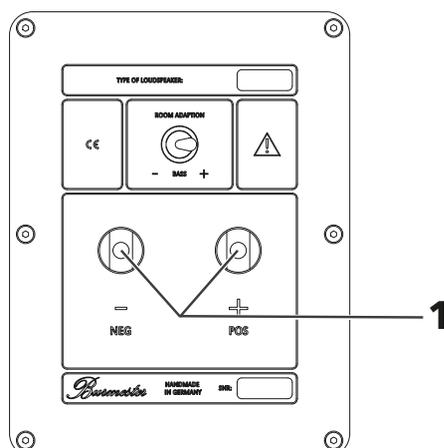
Damage caused by faulty connection

An electrical short or a faulty connection may damage the speakers as well as other components.

- ▶ Turn your amplifier off before connecting the speakers. This way you avoid possible shorts by cables not connected on both ends.
- ▶ Connect the cables to the speakers first and then to the amplifier.
- ▶ Connect the speaker cables **ONLY** to the speaker terminals of an audio amplifier. **NEVER** plug the speaker cables into an AC outlet, which would destroy the speakers.

Binding posts

Burmester uses the same terminals for its speakers as it does for its power amplifiers. These terminals have proved their worth many times over in terms of function and sound quality. Cable lugs soldered to the stripped speaker cable ends ensure optimal contact and minimal contact resistance. Sockets (1) for banana plugs are also available.



Connection cables

Burmester recommends the use of cables with a large cross-sectional area to connect the speakers to the power amplifier(s). The large cable cross-sectional area preserves the damping factor of the amplifiers for optimal speaker control.

For the best results, we recommend the use of original Burmester speaker cables, which have the same electrical and acoustic properties as the wiring inside Burmester speakers and amplifiers.

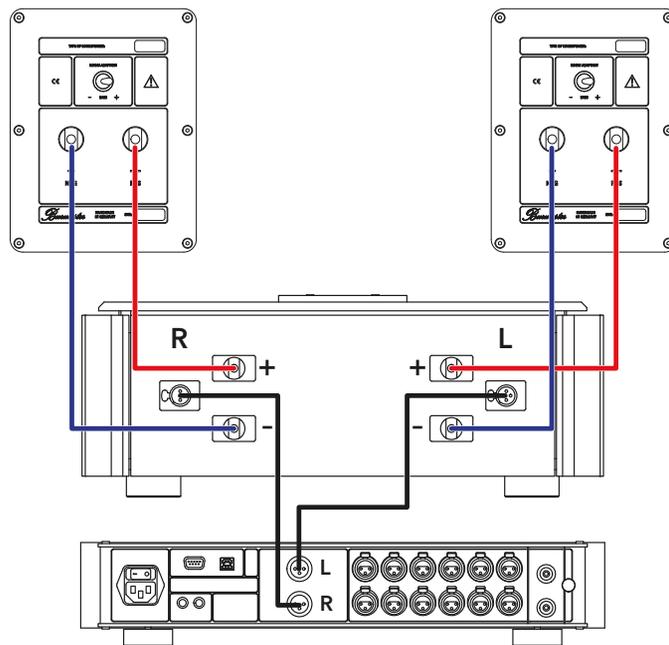
Requirements for amplifiers

The B18 can produce superior acoustics, even in large spaces. Nonetheless, high quality power amplifiers are required to prevent clipping (distortion caused by overdriving an amplifier) and speaker damage..

How to connect the loudspeaker:

Each output stage channel is connected to a loudspeaker via a 2-pin cable. Thus, a 2-channel (stereo) amplifier is required.

1. Connect the right loudspeaker with the right speaker output of your amplifier.
2. Connect the left loudspeaker with the left speaker output of your amplifier.



MAINTENANCE, REPAIR AND ROUTINE CARE

ATTENTION
<p>Damage to the surface Liquids and chemical agents may damage the housing surface.</p> <ul style="list-style-type: none"> ▶ Make sure that no liquid splashes on or enters the loudspeaker. ▶ Never use chemical agents for surface cleaning.

RECYCLING



European law requires that this device may not be recycled with general household trash. It must be turned in at special collection places for electronics.

WARRANTY

For loudspeakers Burmester offers a warranty period of two years and an extension of the warranty period for three years, provided that the speakers have been correctly hooked up, have not been overloaded, modified or mechanically altered. Also, the request for Warranty Papers and Warranty Extension must have been sent in.

The warranty is voided by unauthorized alterations, the removal of drivers or binding posts or by opening up the speakers.

TROUBLESHOOTING

Trouble	Most likely cause	Fix
One or both speakers are dead	The electronics have not been switched on	▶ Turn on your amplifier and/or the source.
	Short or open circuit in your cable connections	▶ Check your cable connections and correct any problems.
The sound seems to lack bass and/or be spatially ill defined	The polarity in one channel is reversed	▶ Swap the positive and negative wires on the affected channel.

TECHNICAL SPECIFICATIONS

Design type	2 ½-Way Bass reflex
Weight (per speaker)	34.8 kg (76.7 lbs)
Width	204 mm (8,1")
Height	1056,3 mm (41,6 ")
Depth	395 mm (15.6 ")
Power rating	120 Watt
Sensitivity at 2.83 V/1 m	88 dB
Impedance	4 Ω
Frequency range +/- 3 dB	42- 30,000 Hz
Tweeter	Radial tweeter
Midrange/Bass driver	17 cm (7.7") Glass fiber diaphragm
Bass/Midrange driver	17 cm (7.7") Glass fiber diaphragm
Crossover frequency	400 Hz/ 2,300 Hz

We reserve the right to make technical changes

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