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Burmester

Introduction



Dear music lover, Congratulations on your purchase and thank you for choosing Burmester.

You have chosen a product that combines absolute fidelity and uncompromising quality with technical innovation. Before using the device for the first time, we recommend that you read through the entire manual at least once so that you can make full use of the capabilities of this exceptional audio device. Should you still have questions, please speak to your dealer or contact us directly. We're always happy to discuss your special requests, no matter how unusual. We love a good technical challenge. We wish you an exceptional listening experience.

Your Burmester team

About this Loudspeaker

The B18 loudspeaker is designed as a 2 ½ way bass reflex loudspeaker in a front-firing design and is an all-round talent in terms of sound: space-saving, but at the same time highly musical, open sounding and dynamically responsive. The high-frequency reproduction benefits from the ring radiator developed exclusively for Burmester, which ensures optimum transparency and resolution. Low-mid and mid-woofer are an advanced development based on an already proven drive unit, which also aids the B18 to achieve an impressive sound performance. The highly complex crossover is in its own enclosure chamber, as is the mid-bass driver, whose own closed enclosure results in particularly clean midrange performance. The B18's sandwich-constructed base is made of a high-molecular-weight thermoplastic polymer in combination with other materials of high internal damping and rigidity for optimum decoupling of the speaker from the floor. The solid MDF front, in conjunction with the enclosure optimized using FEM analysis, ensures accurate, precise bass response and significantly reduces cabinet reverberation. In addition to the mechanical damping by a foam cylinder, the B18 speaker has a bass switch to adjust the bass response according to room conditions and personal listening taste.

THE HIGHLIGHTS:

- Exclusive Burmester ring radiator for optimal transparency and resolution
- Further developed low-mid and midrange woofer
- A rear switch for bass adjustment in combination with the included bass reflex the supplied bass reflex plugs for several possibilities of room adaptation
- The massive torsionally stiff 48mm MDF front in combination with the optimized by FEM analysis for accurate and precise bass response and Bass response and reduces the reverberation of the cabinet significantly
- 2 ½ way bass reflex principle with separate closed enclosure for the mid-bass and separate bass reflex enclosure for the bass-midrange driver
- Solid loudspeaker base made of matched, vibration damping and stiffening materials to minimize vibration transmission
- Highly complex crossover in its own enclosure chamber

About this Operation Manual

This operation manual describes the installation, connection and operation of the Burmester B18 loudspeaker.

Please read this operation manual in full and keep it in a safe place.

If you have any questions regarding the installation and operation of your loudspeakers, please contact your dealer.

Permissible Operating Conditions

Please take care to only ever use your Burmester device under the following conditions:

Maximum altitude: 2000 m

Humidity < 50%

Temperature range: 20–30 °C

Intended Use

This device is intended for use in home music systems.

Meanings of Warning Symbols and Words

The following warnings, symbols and warning words are used in this document:



The general danger symbol in combination with the warning words **CAUTION**, **WARNING** and **DANGER** warns of the risk of serious injury. Follow all of the subsequent instructions to avoid injury or death.



The flash symbol in combination with the warning word **DANGER** warns of a life-threatening electrical voltage.



This warning symbol in combination with the warning word **CAUTION** warns of high-intensity sound.



ATTENTION:
indicates a hazard that could damage or destroy the device.



CAUTION:
indicates a hazard that poses a low or moderate risk of injury.



WARNING:
indicates a hazard that could cause serious injury or death.



DANGER:
indicates a hazard that will result in immediate death or serious injury.

Important Notes

**CAUTION! RISK OF INJURY TO CHILDREN**

This device poses various injury risks if used improperly.
This device is not intended for use by children.

→ Never leave your children alone with the device unattended.

**OPENING THE LOUDSPEAKERS**

There are no parts inside the device that can be serviced by the user.

→ Do not open the loudspeakers.

**DANGER!**

Dangerous voltages The speaker outputs of a power amplifier may carry potentially fatal voltages.

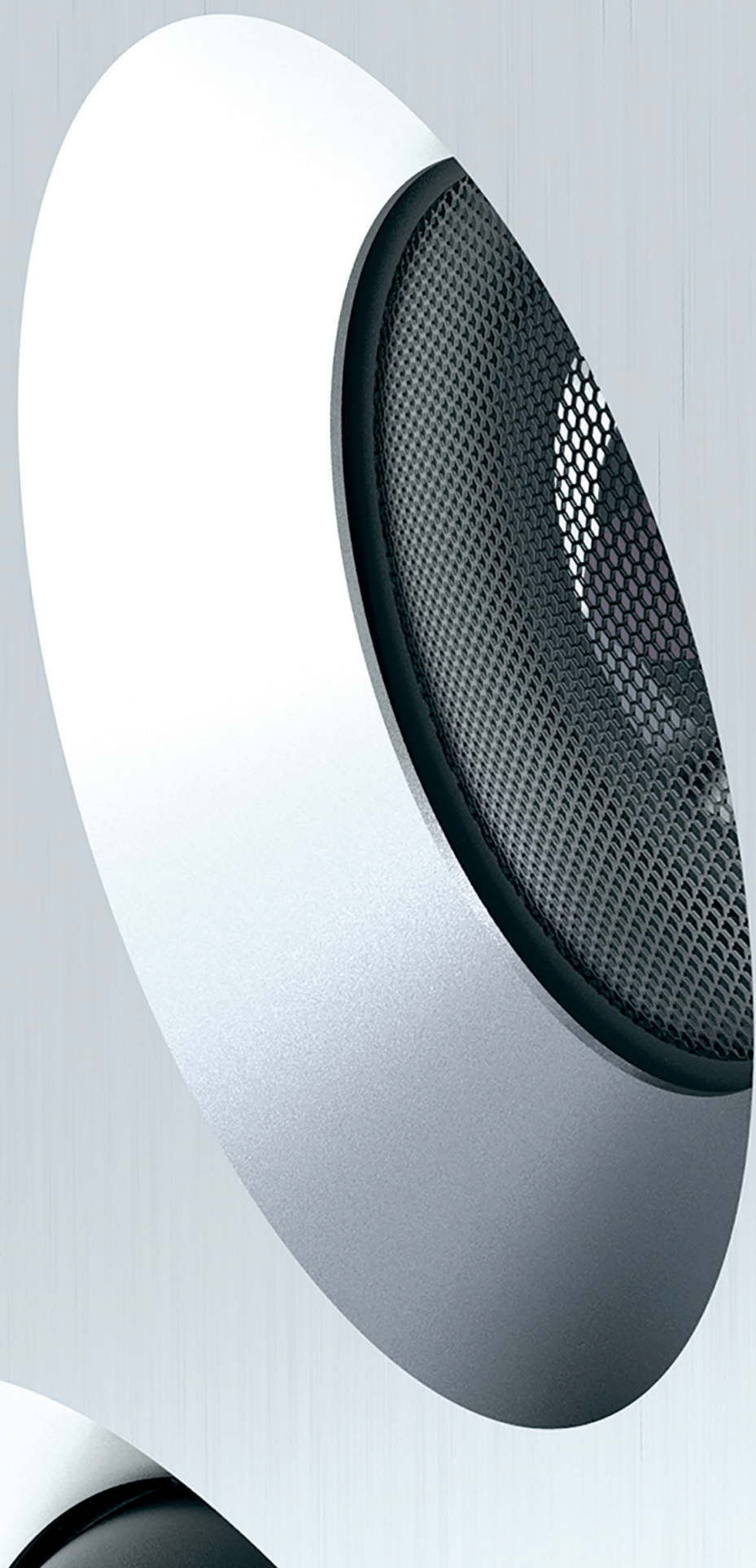
→ Do not touch the speaker connectors on the device and loudspeaker.

**CAUTION! HIGH-INTENSITY SOUND**

Loud output signals can damage your hearing.

→ Set the connected amplifier to a low volume before switching it on.

→ Avoid listening at high volume levels for long periods of time.



Unpacking the loudspeakers

1. Carefully remove the loudspeakers from the packaging.

**ATTENTION! DAMAGING THE HOUSING**

To avoid damaging the housing, do not use any pointed or sharp objects to open the packaging.

**CAUTION! RISK OF INJURY DUE TO HEAVY WEIGHT**

The loudspeaker is very heavy and can cause injuries when falling.

- The device should only be unpacked and set up by persons who are experienced in handling heavy loads.
- If necessary, have a second person help you unpack and set up the speakers.

2. Remove all the packaging materials and padding from the device.

**WARNING! SUFFOCATION HAZARD!**

Parts of the scope of delivery are delivered packed in plastic bags.

- Remove the packaging from the vicinity of children.

3. Keep the packaging for later transport.

SCOPE OF DELIVERY

The B18 loudspeaker is delivered as a pair.

The scope of delivery of a pair comprises:

2	Packaging with B18 loudspeaker
1	Operation manual
1	Warranty certificate
2	Foam cylinder for the bass reflex port

PLEASE CHECK THE SCOPE OF DELIVERY FOR COMPLETENESS AND DAMAGE.

If parts of the delivery are missing or if you notice any damage when unpacking the device, please do not connect them and consult your Burmester dealer instead.



OVERVIEW OF THE B18

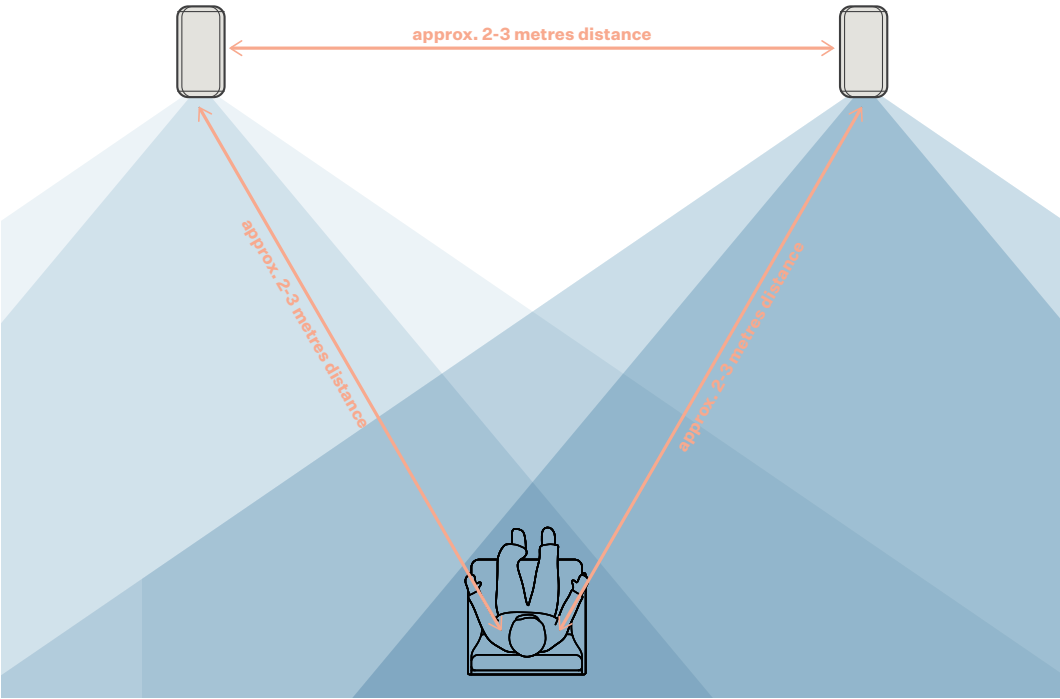


1	Ring radiator
2	Low-midrange driver
3	Midrange woofer
4	Room adaption Switch for adjusting the bass
5	Connector panel
6	Base plate
7	Bass reflex port

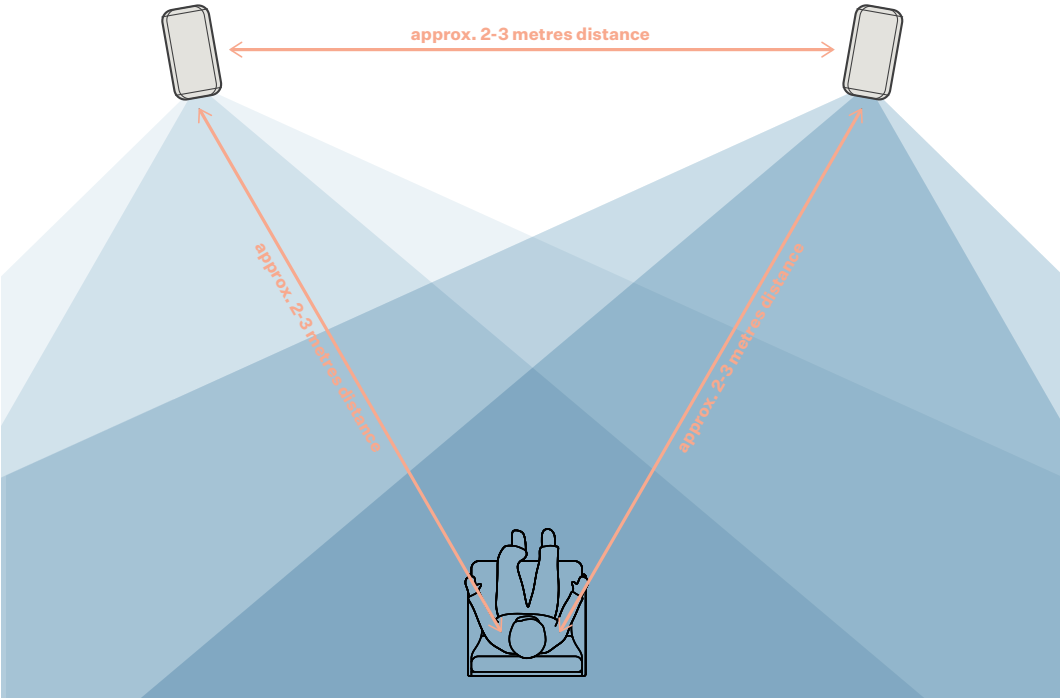




Setting Up the Loudspeakers



LOUDSPEAKER NOT ANGLED



LOUDSPEAKER ANGLED

Setting Up the Loudspeakers

CHOOSING AN INSTALLATION SITE



ATTENTION! DANGER DUE TO IMPROPER INSTALLATION

Consider the following points when choosing where to position the device:

- Never use the loudspeaker outdoors.
- Avoid exposure to direct sunlight, excessive heat, cold, moisture and dust.
- Do not expose the loudspeakers to dripping or splashing water, and do not place containers of liquid on the loudspeakers.
- Never place open fire sources, such as lit candles, on the loudspeakers.



CAUTION! RISK OF INJURY DUE TO TIPPING OVER

If used improperly, your loudspeaker may tip over. Always place the loudspeakers on a flat, sturdy surface. Make sure that the loudspeaker is always exactly level.

OPTIMAL INSTALLATION POSITION

The distance between the two loudspeakers should ideally be 2-3 metres. The space between the loudspeakers should remain as free as possible. The distance to the listener should also be about 2-3 metres.

In a rectangular room, the loudspeakers should be placed on the shorter wall of the room. Where possible, the speakers should be set up in the “hard” acoustic area of the room (against smooth walls and window surfaces) rather than the “soft” acoustic area (where upholstered furniture, books and rugs may dampen the sound).

TREBLE AND SPATIAL IMAGING

You can influence the sound of your loudspeakers with respect to the treble and the spatial imaging of the sound by the positioning

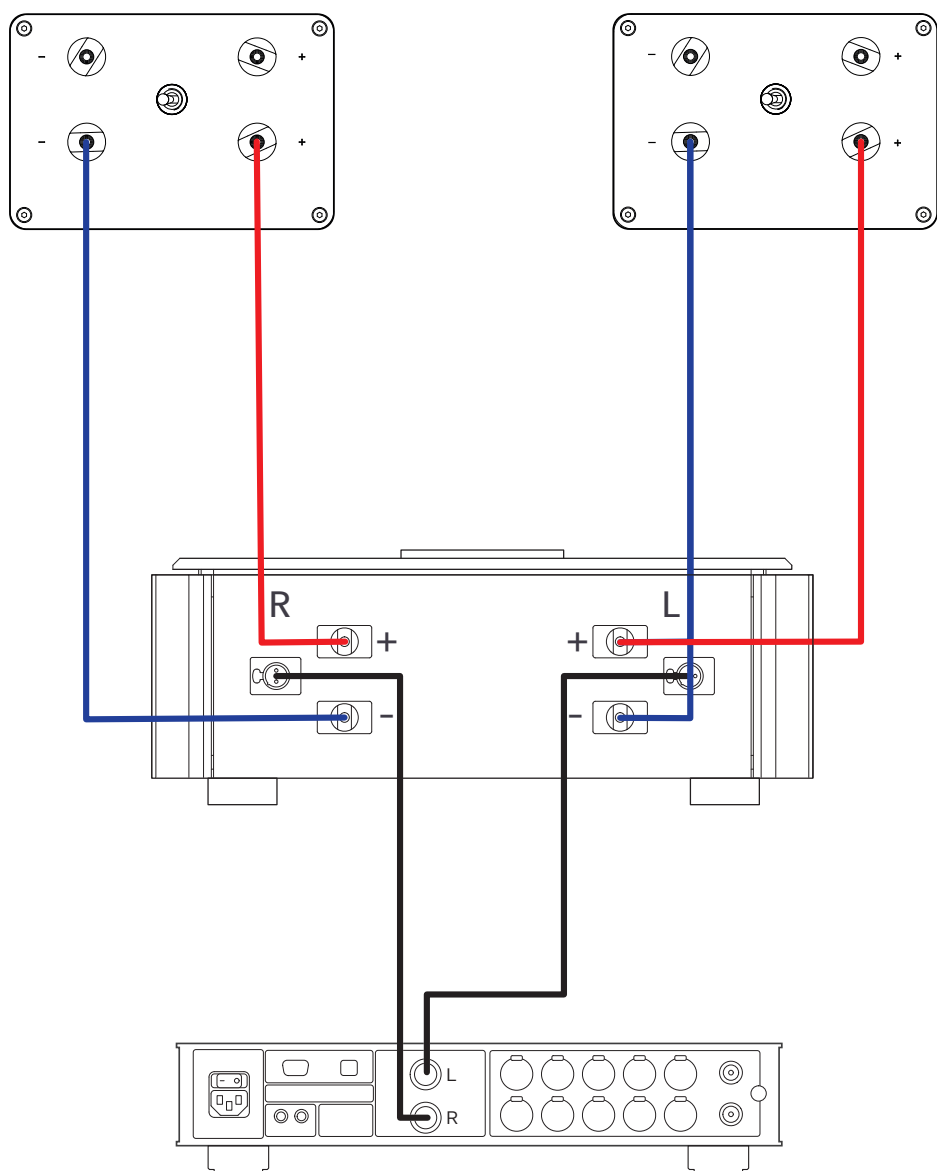
Loudspeakers not angled:

- Increased spatial imaging and wider soundstage
- Less pronounced highs
- Warmer sound

Loudspeakers angled towards the listening position:

- More precise imaging and soundstage
- More pronounced highs
- Clearer sound

Connecting the Loudspeakers





ATTENTION! DEVICE TEMPERATURE AFTER UNPACKING

If the temperature is too high or too low, this can cause the device to malfunction.

- After unpacking, leave the loudspeakers in the room for some time before connecting them.

SPEAKER CABLES

Burmester recommends using cables with a large diameter to connect the loudspeakers to the power amplifier. A large diameter allows you to maintain the damping factor of the power amplifiers for optimal control of the loudspeakers. Best results are achieved by using original Burmester speaker cables, which have the same electrical and tonal characteristics as the internal wiring of Burmester loudspeakers and amplifiers.

For optimal results, use customised speaker cables with spade lugs.



ATTENTION! The insulation of the loudspeaker cable must correspond to the original Burmester loudspeaker cable and must at least meet the flammability tests according to VW-1. Ask your dealer for more information.

CONNECTING THE LOUDSPEAKERS

Each loudspeaker is connected to an end stage channel via a 2-pole cable. Thus, a 2-channel (stereo) amplifier or two mono power amplifiers is required.

Connect the right loudspeaker to the right output of the amplifier as shown in the drawing. Connect the left loudspeaker to the left output of the amplifier.



ATTENTION! Turn off all components of your hi-fi system before connecting the loudspeakers.

CORRECT POLARITY

When connecting the loudspeakers, make sure that the connections have the correct polarity. It is important that you make all connections in phase:

Positive output on power amplifier (+) = positive input on loudspeaker (+)

Negative output on power amplifier (-) = negative input on loudspeaker (-)



ATTENTION! Do not switch your hi-fi system on again until you are sure that all connections are correctly configured. Set your amplifier to a low volume before.

Room adaption

ADJUSTING THE BASS REPRODUCTION TO THE INSTALLATION POSITION

The spatial imaging increases with increasing distance of the loudspeakers from the wall, while the bass reproduction decreases. The bass reproduction of your loudspeakers can be adapted to the installation position by means of the enclosed foam cylinders and the switchable **room adaption**. Recommendations are explained in the following paragraph.

The variants described below represent recommendations and are intended to assist you in achieving the best possible listening experience. You should determine the optimal position of your loudspeakers by hearing and according to your personal feelings.

Version 1: Room characteristics:

Average room without large glass surfaces, with symmetrical division or acoustically optimised room

- Place the loudspeakers at least 50 cm from the wall.
- Remove the foam cylinders from the bass reflex ports (7) of the loudspeakers.
- Set the room adaption switch (4) to the minus (-) position on both loudspeakers.

Result: Neutral sound without overemphasis

Version 2: Room characteristics:

Low-bass room with large glass surfaces or plasterboard walls (e.g. loft)

- Place the loudspeakers at least 50 cm from the wall.
- Remove the foam cylinders from the bass reflex ports (7) of the loudspeakers.
- For both loudspeakers, set the room adaption switch (4) to the plus (+) position.

Result: The bass is increased by 2 dB between 50 Hz and 100 Hz

Balanced playback in low-bass rooms

Version 3: Room characteristics:

Small room with solid walls

- Place the loudspeakers near the wall.
- Insert the foam cylinders into the bass reflex ports (7) of the loudspeakers.

Set the room adaption switch (4) to the minus (-) position on both loudspeakers.

Result: The bass drops gently below 100 Hz, but reaches very deep

- Compensation of overemphasis of the bass by close walls

Version 4 for a stressed bass reproduction: Room characteristics:

Rooms of all sizes and characteristics

- Place the loudspeakers near the wall.
- Insert the foam cylinders into the bass reflex ports (7) of the loudspeakers.
- For both loudspeakers, set the room adaption switch (4) to the plus (+) position.

Result: Bass gain compared to variant 3 (between 50 Hz and 100 Hz by 2 dB)

Non-critical installation near the wall by closing the bass reflex ports

Lowering the range below 50 Hz

Note: The chassis used in this loudspeaker have been burned in and matched in pairs. However, loudspeakers need a certain amount of break-in time until they develop their full sound potential.

Troubleshooting

Problem	Typical cause	Solution
There is no sound coming from one or both loudspeakers	The electronics are not switched on	Turn on the amplifier and/or the audio source
	Short circuit or open circuit in the wiring	Check the wiring and fix any problems
The sound has poor bass or is spatially diffuse	Incorrect wiring polarity for one channel	Swap the positive and negative cables for the channel in question

If your device demonstrates a fault during operation and you are unable to remedy said fault using the instructions in this operation manual, please contact your dealer.



Additional Notes

Warranty

We at Burmester have crafted a product that meets the highest standards.

Every detail is carefully thought out and consciously conceptualised. All used components and materials are handpicked, tested and incorporated by us that the best achievable product quality and a long service life are ensured.

We hereby guarantee that your Burmester product has successfully passed an extensive checkout routine and has left our factory in perfect shape.

We provide a five-year warranty on your Burmester loudspeakers. In order for the warranty to be valid, the device must have been connected and operated properly without overloading, the mechanical integrity of the device must not have been compromised, and the loudspeakers must have been registered. The warranty is voided in the case of removal of the chassis, or if the loudspeaker is opened.

Please register your product with the serial number at: www.burmester.services/warranty and activate your warranty extension.

Care

Liquids and chemical agents can damage the surface of the housing. Ensure that no liquids get into the device. Do not use chemical agents when cleaning.

Disposal

Legislators stipulate that this device and its accessories must not be disposed of with household waste (grey bin, yellow bin, compost bin, paper or glass). Instead, they must be handed in at municipal collection points or to voluntary recycling programmes.



B18 Specifications

Design principle	2 ½ bass reflex
Weight (per device)	34 kg
Width	206 mm
Height	1,050 mm
Depth	401 mm (including speaker's binding posts)
Power rating	120 W
Sensitivity at 2.83 V/1 m	88 dB
Nominal impedance	4 Ω
Frequency response +/- 3 dB	39 – 30,000 Hz
Tweeter	Ring radiator
Low-midrange driver	17 cm glass fibre membrane
Midrange woofer	17 cm glass fibre membrane
Crossover frequencies	400 Hz / 2300 Hz

Subject to technical changes without notice



VERSION: BA_B18_en_1-1_2206

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