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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

2022 sees the launch of Burmester's B28 loudspeaker as an addition to the B-Series. Like the larger B38, the B28 loudspeaker works on a 3-way principle, but in the case of the B28 all the drivers are arranged on the front of the speaker. To work independently without interaction, each is located within its own housing chamber. Sonically, the B28 speaker also benefits from systematically integrated stiffening elements for structural stabilization and reducing cabinet vibrations. Unwanted resonance is subsequently successfully minimized, increasing the loudspeaker's accuracy. To eliminate microphonic effects, which can have a negative influence on the frequency response, the crossover is also placed in a separate chamber. The two flow-optimized, high rigidity bass reflex tubes employ very smooth surfaces to enable the B28 to reproduce the lowest frequencies with a high level of accuracy. By means of the sophisticated, technically high-quality signal routing and the use of fine core Burmester cables, as well as large cross sections, detrimental transmission losses can be almost eliminated.

FEATURES:

- Air-motion transformer with folded foil cone in the middle of a very strong magnetic field for particularly fine resolution combined with high level stability and impressive spaciousness
- Large midrange driver with glass-fiber cone optimized for very short attack and release times over a wide frequency range
- Two newly developed high-excursion woofers per speaker with particularly stiff fiberglass cone and flow-optimized bass reflex tubes for clean, fast and deep bass
- Room Adaption - individual adjustment of the bass level by means of an adjustment switch and foam cylinder
- Optional bi-amping for the connection of two power amplifiers per speaker
- Elaborately vibration-damped housing with multi-layered walls, systematically placed cross struts as well as separate chambers for all chassis and the crossover for maximum accuracy
- Solid loudspeaker base made of matched, vibration damping and stiffening materials to minimize vibration transmission

About this Operation Manual

This operation manual describes the installation, connection and operation of the Burmester B28 loudspeaker.

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

If you have further 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 product under the following conditions:

Maximum altitude: 2000 m
Humidity < 50%
Temperature range: 20-30 °C

Intended Use

This loudspeaker 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.



CAUTION: indicates a hazard 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 injuries or death.



DANGER: Indicates a hazard that will result in immediate death or serious injuries.

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 unsupervised with the device.

**CAUTION! OPENING THE LOUDSPEAKERS**

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

→ Do not open the loudspeakers.

**DANGER! DANGEROUS VOLTAGES**

The loudspeaker 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 device 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 loudspeaker 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 B28 loudspeaker is delivered as a pair.
The scope of delivery of a pair comprises:

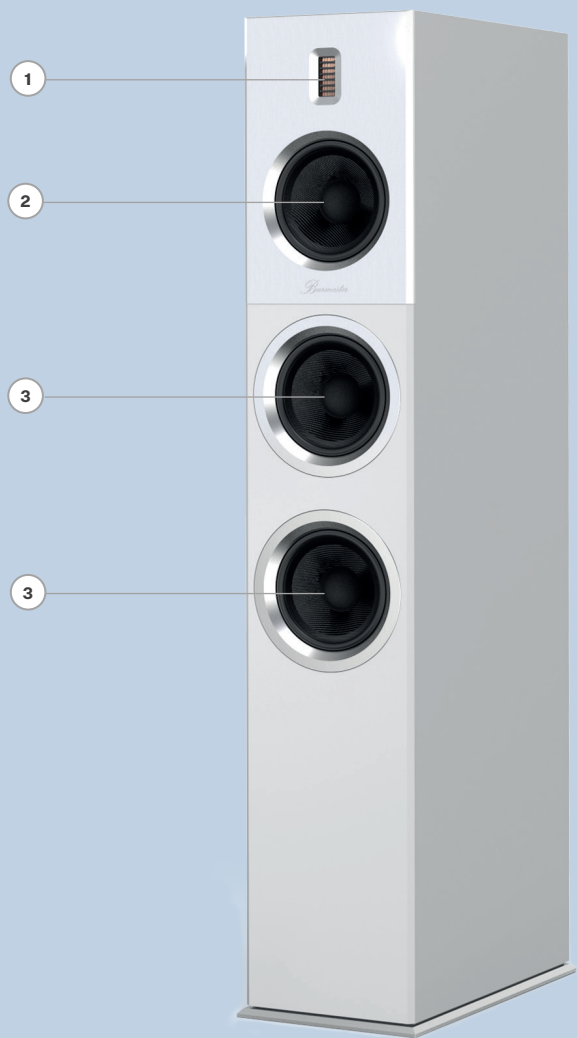
2	Packaging with B28 loudspeaker
1	Operation manual
1	Warranty certificate
4	Foam cylinder for bass reflex ports (two per loudspeaker)
4	Connection jumpers (two per loudspeaker, pre-installed)

PLEASE CHECK THE SCOPE OF DELIVERY FOR COMPLETENESS AND DAMAGE.

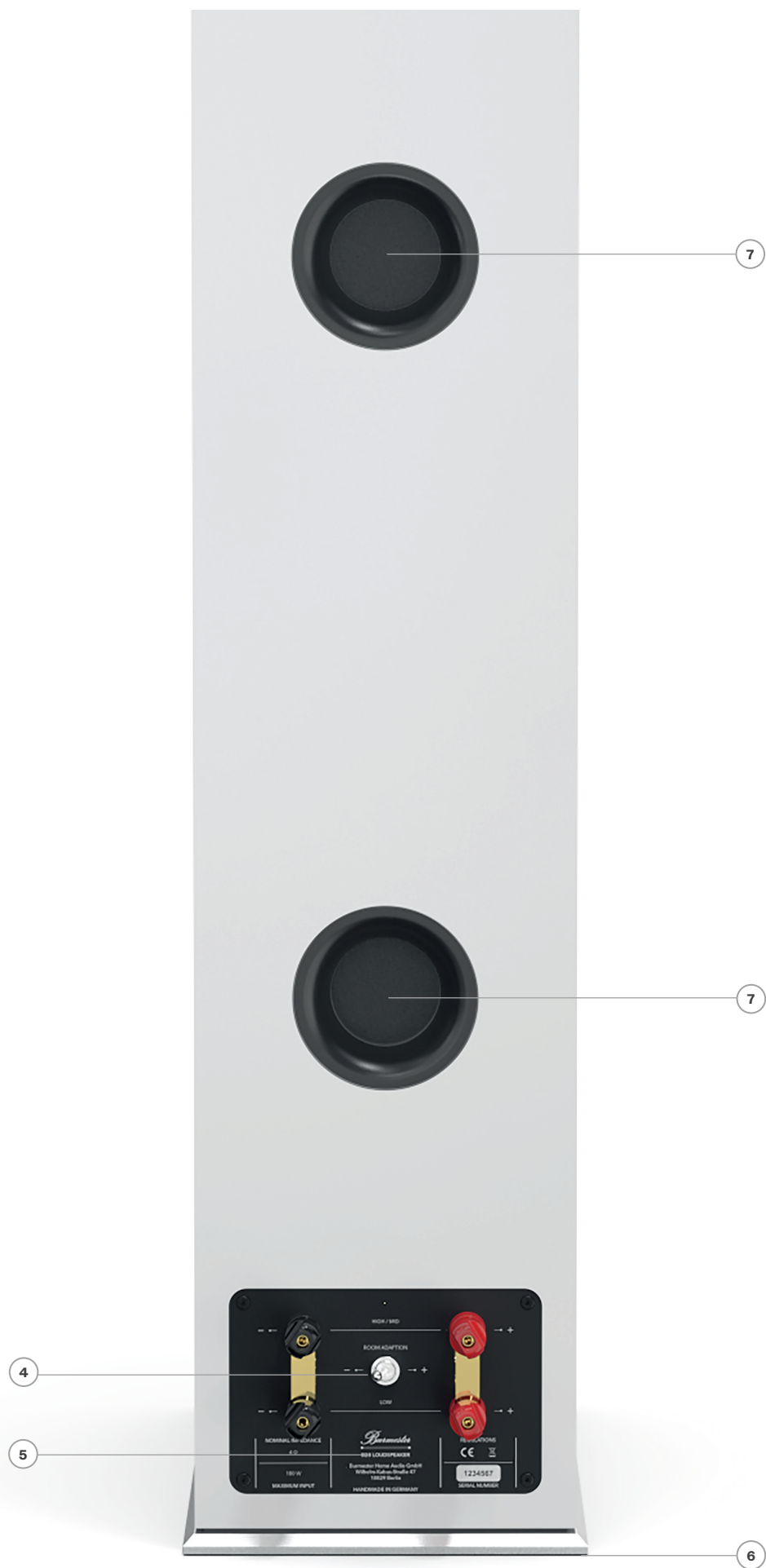
If parts of the delivery are missing or if you notice any damage when unpacking the device, please do not connect them and consult your Burmester dealer instead.



OVERVIEW OF THE B28

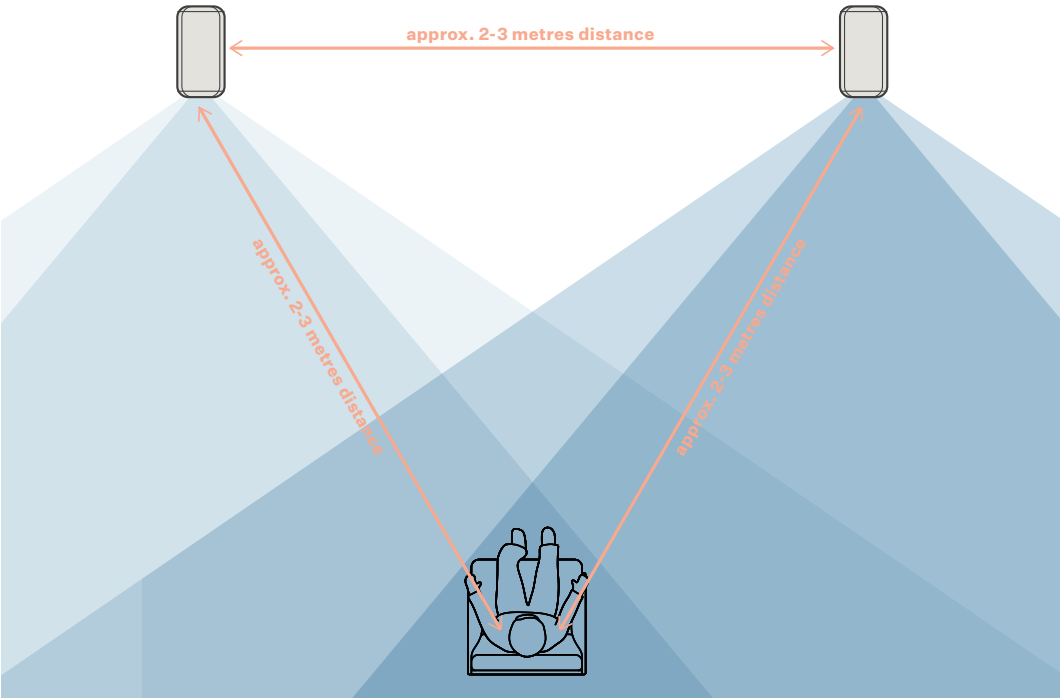


1	AMT tweeter
2	Mid-range driver
3	Woofer
4	Room Adaption switch for adjusting the bass
5	Connection panel (with installed connection jumpers)
6	Base plate
7	Bass reflex ports (with foam cylinders)

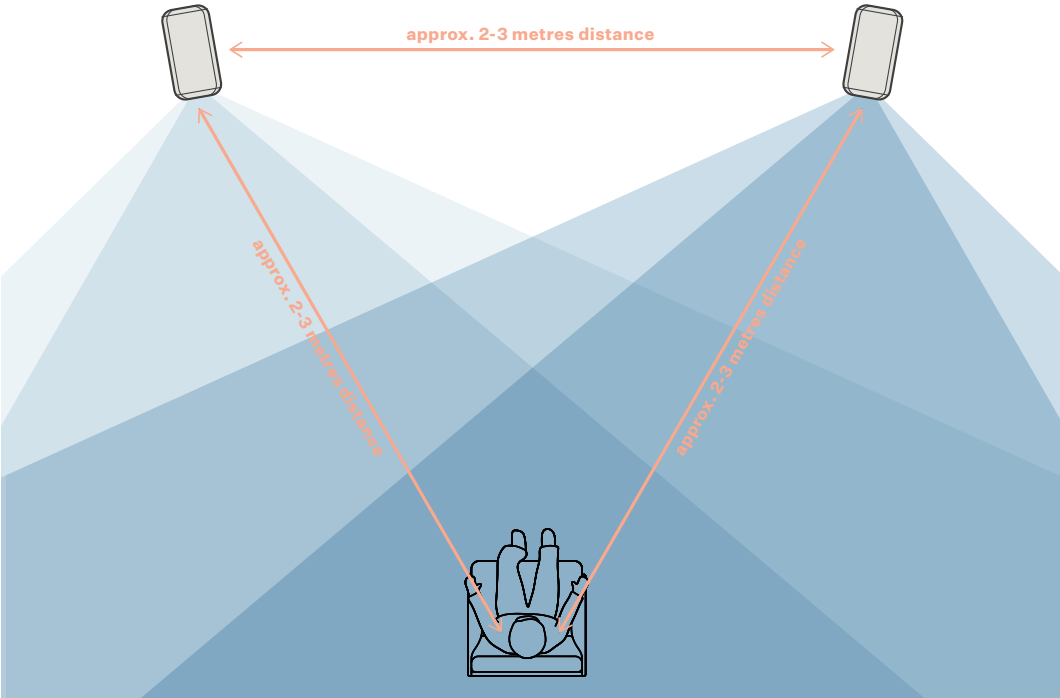




Setting Up the Loudspeakers



LOUDSPEAKER NOT ANGLED



LOUDSPEAKER ANGLED

Setting Up the Loudspeakers

CHOOSING AN INSTALLATION SITE



ATTENTION! DANGER DUE TO IMPROPER INSTALLATION

Please consider the following aspects when choosing the installation site:

- 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 at the shorter wall. 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

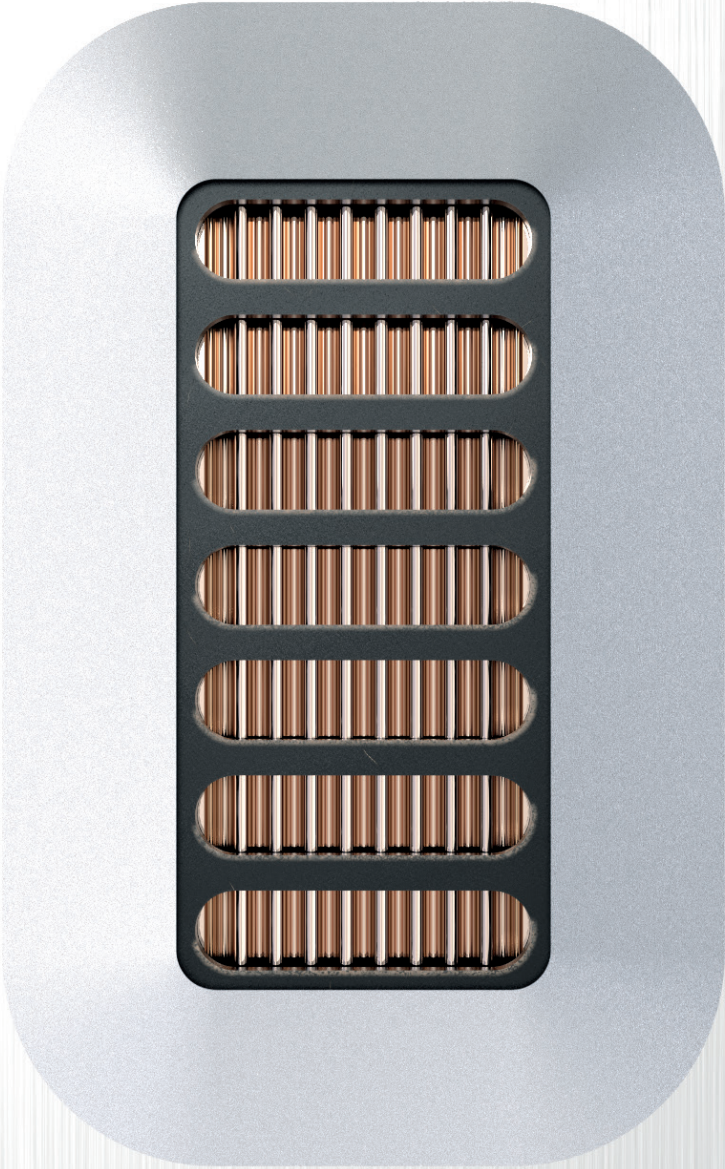
You can influence the sound of your loudspeakers with respect to the treble and the spatial imaging of the sound by the positioning

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



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 and putting them into operation.

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.

CONNECTION AND OPERATING MODES

The B28 can be operated in two different modes:

1. classic mode, with one amplifier channel per loudspeaker
or
2. in bi-amp mode with separate control of the mid-high range and the bass.

1. CONNECTING THE LOUDSPEAKERS IN THE CLASSIC OPERATING MODE

In this operating mode, the connection jumpers at the binding posts stay in their pre-assembled position.

Each loudspeaker is connected to an end stage channel via a 2-pole cable.

This means that a 2-channel (stereo) amplifier or two mono power amplifiers are required.



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

Connect the right loudspeaker to the amplifier's right output.

Connect the left loudspeaker to the amplifier's left output.

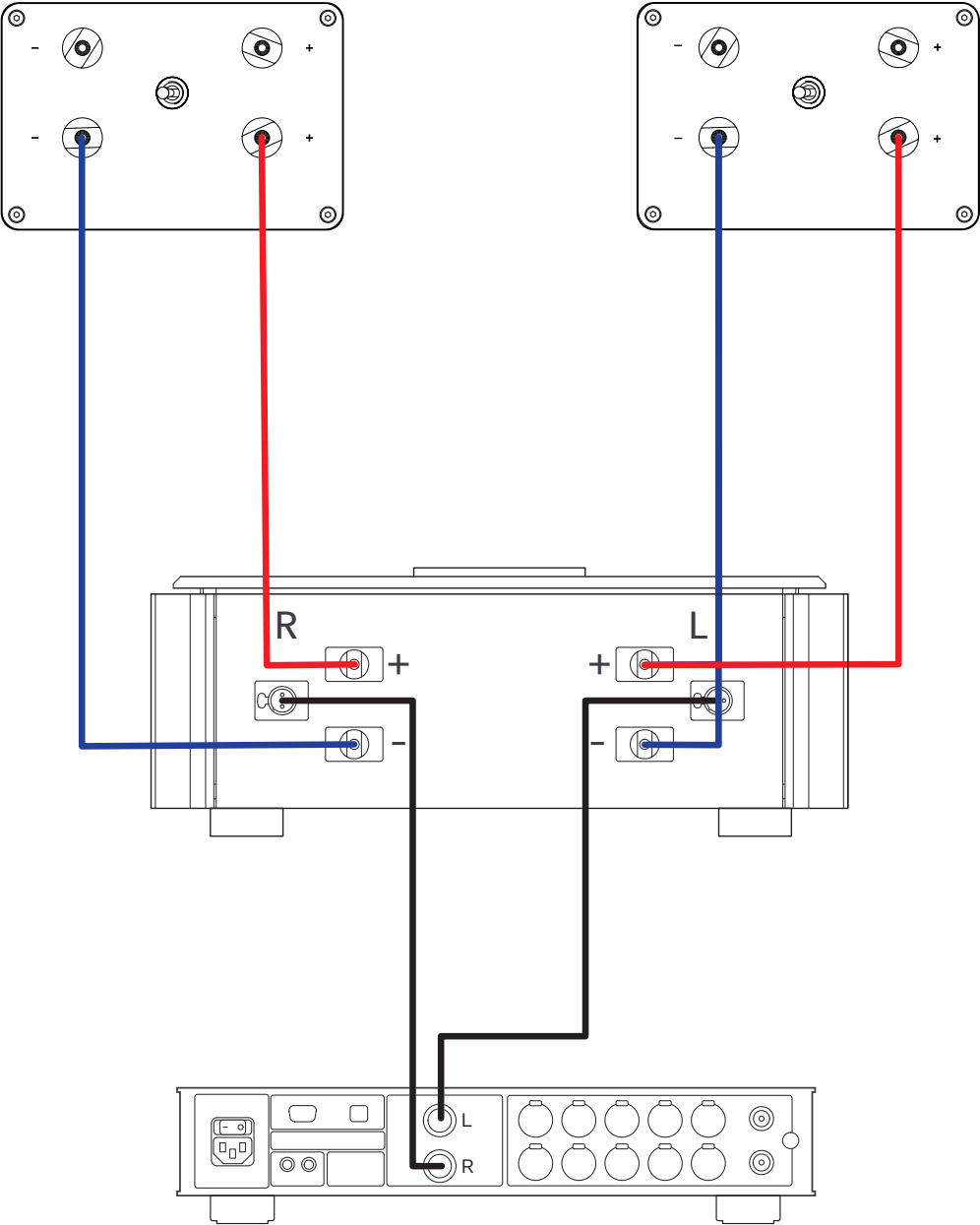
When connecting the loudspeakers, make sure that the connections have the correct polarity.

It is important that you make all connections in phase:

- Positive output of the power amplifier (+) = positive input of the loudspeaker (+)
- Negative output of the power amplifier (-) = negative input of the loudspeaker (-)



ATTENTION! Do not switch your hi-fi system on again until you are sure that all connections are correctly established.
Set your signal chain to a low volume first.



2. CONNECTING THE LOUDSPEAKERS FOR BI-AMP MODE

In bi-amp mode, the mid-high range and the bass are controlled separately.

In bi-amp mode, the particularly important mid-high range benefits directly from the fact that the relevant power amplifier channels are unburdened by the power-intensive low range. This leads to a significantly improved spatial imaging and a more precise locatability of voices and instruments.

In bi-amp mode, two 2-channel (stereo) amplifiers or four mono power amplifiers are required for playing stereo signals. In total, four 2-pole speaker cables are required.

For proper control, please also observe the operation manual of your power amplifier. Ask your dealer if you are not sure about the connection.

DISASSEMBLING THE CABLE BRIDGES FOR BI-AMP MODE



ATTENTION! For bi-amp mode, make sure to remove the connection jumpers between the low frequency and mid-high frequency paths at your loudspeakers! Otherwise, your amplifiers and your loudspeakers may be damaged.

1. Completely loosen the four binding posts by turning them anticlockwise.
2. Remove the connection jumpers.
3. Re-tighten the four binding posts by turning them clockwise. Observe the colours of the binding posts: Red: Positive (+), Black: Negative (-).



1.

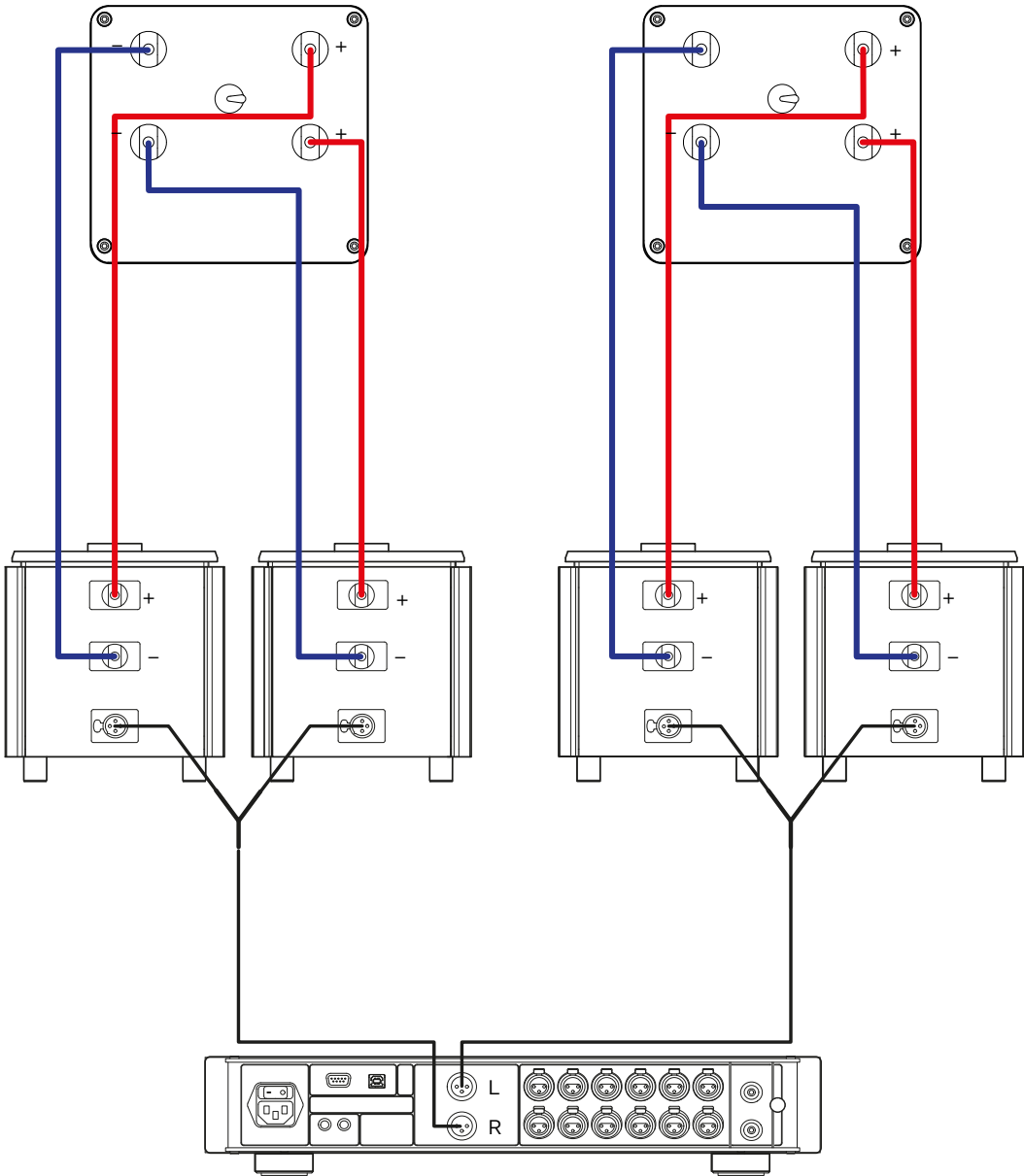


2.



3.

Put away the cable bridges and store them for later use.



CONNECTING THE SPEAKER CABLES FOR BI-AMP MODE

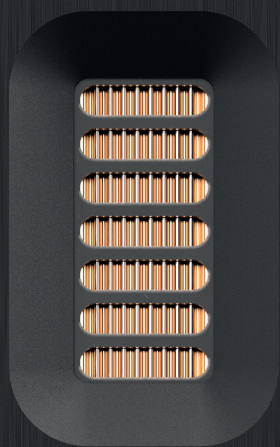
1. Connect the mid-high frequency path of the right loudspeaker to the output of the amplifier you want to use for this path.
2. Connect the low frequency path of the right loudspeaker to the output of the amplifier you want to use for this path.
3. Repeat steps 1 and 2 for the left loudspeaker.

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.



Burmester

Operation of the loudspeakers

Room adaption

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

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 adaptation 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 2.5 dB below 120 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 pronounced 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.
- Set the room adaption switch (4) of both speakers to the plus (+) position.

Result: Bass gain compared to variant 3 (between 60 and 120 Hz by up to 2.5 dB)
— Non-critical installation near the wall by closing the bass reflex ports Lowering the range below 60 Hz

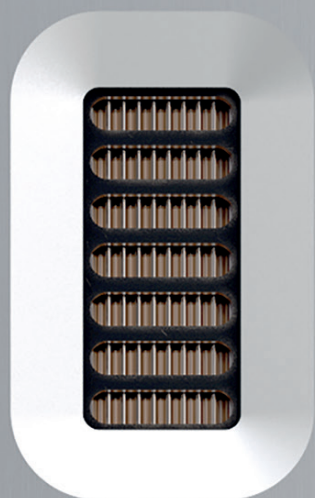
Note: By removing or inserting only one of the two foam cylinders per loudspeaker, you have further options to adapt your loudspeakers to your listening environment and your taste of sound in all four variants described.

Note: The chassis used in this loudspeaker have been burned in and matched in pairs. Nevertheless, the overall system requires a certain break-in time in interaction with the crossover until the loudspeakers 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.



B28 Specifications

Design principle	Three-way bass reflex
Weight (per device)	37 kg
Width	223 mm
Height	1,144 mm
Depth	464 mm (including speaker's binding posts)
Power rating	180 W
Sensitivity at 2.83 V/1 m	87 dB
Nominal impedance	4 Ω
Frequency response +/- 3 dB	39 – 31,000 Hz
Tweeter	Air Motion Transformer
Mid-range driver	17 cm glass fibre membrane
Woofers	2 x 17 cm glass fibre membrane
Crossover frequencies	150 Hz/2400 Hz

Subject to technical changes without notice



VERSION: BA_B28_en_1-1_2206

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