

Burmester

OWNER'S MANUAL

INWALL LOUDSPEAKER



INWALL

TABLE OF CONTENTS

A BRIEF OVERVIEW OF THE INWALL SPEAKERS	5
ABOUT THIS USER MANUAL	6
Symbols and text labels used	6
Meaning of warning symbols and words	6
IMPORTANT SAFETY INFORMATION	7
Unpacking	7
Set-up (for installers)	7
Connecting	7
Start-up	7
Operation	7
UNPACKING THE SPEAKERS	8
Unpacking	8
The speaker at a glance	9
<i>InWall Satellit</i>	9
<i>InWall Center</i>	10
<i>InWall Woofer</i>	11
Installation of the speakers (for Installer)	12
DIMENSIONS	20
Speaker dimensions (mm)	20
Mounting brackets dimensions	21
Cutout dimensions	21
CONNECTING THE LOUDSPEAKERS (FOR INSTALLERS)	22
Connection cables	22
Individual connection	23
Parallel connection	23
OPERATING THE LOUDSPEAKERS	24
MAINTENANCE, REPAIR, CARE	24
DISPOSAL	24
WARRANTY	24
TROUBLESHOOTING	25
TECHNICAL DATA	25

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 OF THE INWALL SPEAKERS

The Burmester InWall loudspeaker series can be integrated in a dry wall without any problems due to its low installation depth of only 3.94 in and the frameless installation.

The satellite and the center speakers from the Burmester InWall series are designed as 2-way loudspeakers. The high-frequency range is reproduced by an AMT tweeter specially manufactured according to Burmester specifications, which have already been the benchmark for fine-tuning, neutrality, load-bearing and dynamics in the high-frequency range for many years. The 6.7 in low-mid-range driver with its extremely powerful drive and its special glass-fiber diaphragm maximizes the efficiency up to 91 dB and a stunning precision in playback with a very high load capacity. In combination, high and low-frequency drivers reach a wider sweetspot with reduced bundling. The unique sound experience is therefore to be experienced throughout the entire listening room.

The Burmester InWall Woofer is a bass reflex loudspeaker with a nominal load capacity of 120 W and complements the existing InWall system in an ideal way and turns the setup into a complete 3-way system with the same acoustic niveau of a stand-alone speaker.

Highlights:

- low installation depth of only 3.94 in
- perfectly integrated into the wall
- frameless mounting
- The housing is made entirely of aluminum.
- wide sweetspot
- High-Quality AMT-Tweeter

ABOUT THIS USER MANUAL



This user manual describes the operation of the InWall speakers by the user. In addition, it provides information on the installation and connection for installers of the system. Sections which exclusively concern the installer are marked accordingly in the heading.

Symbols and text labels used

✓	Prerequisite 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 prevent serious or fatal injuries.
	The lightning symbol, in conjunction with the warning word DANGER, serves to warn against lethal voltage.
NOTICE	The warning word NOTICE 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 WARNING indicates a danger that can lead to death or severe injuries.

Please follow the instructions below:

- ▶ Read and follow the given instructions, in particular the safety and warning instructions.
- ▶ Keep these operating instructions.

IMPORTANT SAFETY INFORMATION



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

Unpacking

- ▶ To prevent damage to the housing, do not use sharp objects to open the packaging.

⚠ WARNING

Danger of suffocation

The speakers are packaged in a plastic bag on delivery. This bag can present a suffocation hazard for children.

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

Set-up (for installers)

Observe the following during set-up:

- The dry wall, in which the speakers are installed, should be completely rattle-free.
- Use only sealing material that has good adhesion to aluminum to seal the gaps.

⚠ WARNING

Danger of injury caused by incorrectly installed speakers

If installed improperly, the speaker can come out of the wall and cause injury by falling down.

- ▶ Please ensure proper installation, as described in this manual.
- ▶ The installation should only be carried out by persons who are familiar with such work.

Connecting

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

Start-up

⚠ CAUTION

High-intensity sound

Loud output signals may damage your hearing.

- ▶ Set the connected amplifier to a low volume before turning it on.

Operation

- ▶ Do not listen to music at a high volume for extended periods. Very loud signals can cause hearing damage.

UNPACKING THE SPEAKERS

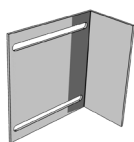
Unpacking

- Please make sure the package contents are complete and undamaged. Should parts be missing or if you detect damage while unpacking the speaker, please do not connect it. Instead, contact your authorized specialist dealer.

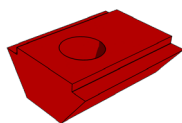
Scope of delivery

The scope of delivery includes:

- InWall speaker
- Speaker cover with fabric cover
- Mounting kit:
 - 4 x mounting brackets
 - 8 x locknuts
 - 8 x washer
 - 8 x spring washer
 - 8 x M4 screw



Mounting bracket



Locknut



Spring washer



Washer



M4 screw

- Owner's manual
- 2 x cutting template
- Cover for plastering
- Socket wrench



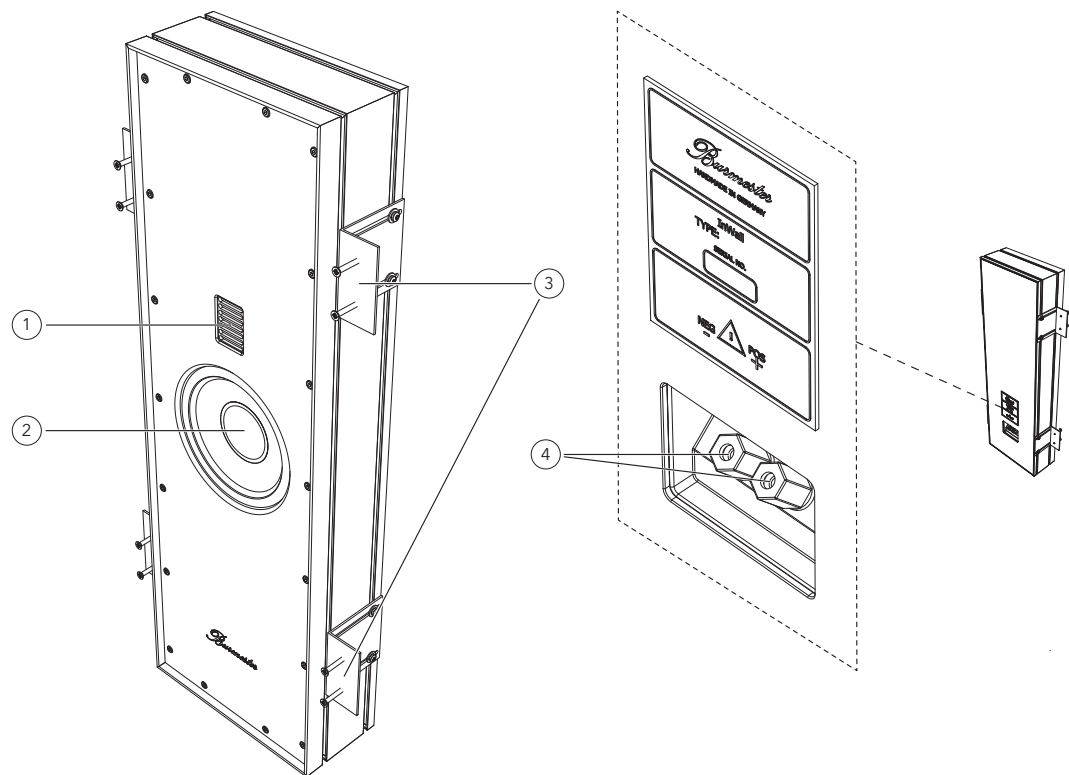
Socket wrench

Packaging

We recommend saving the original packaging for transportation, such as when moving.

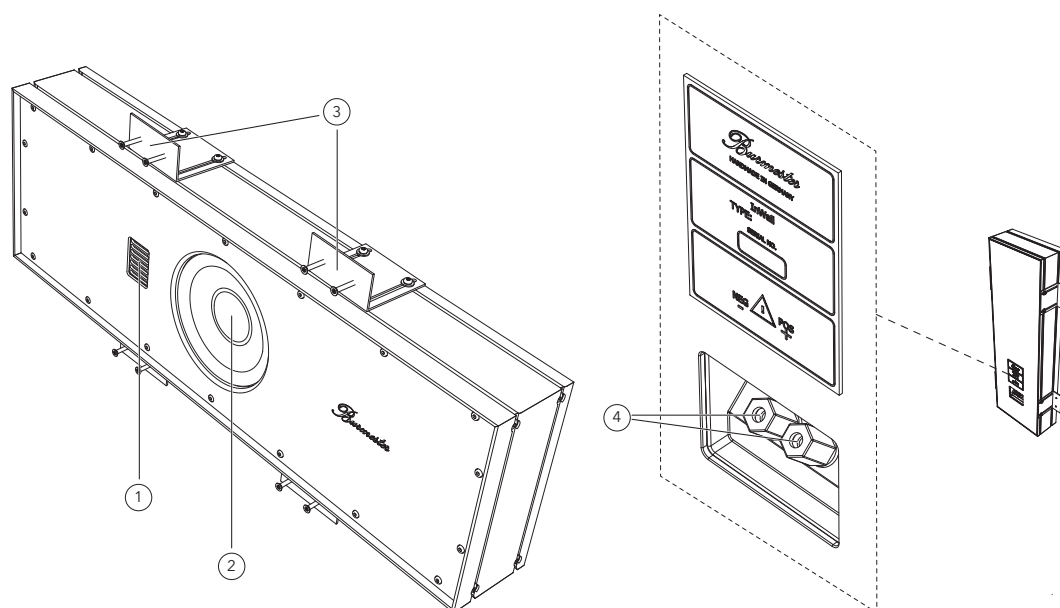
The speaker at a glance

InWall Satellit



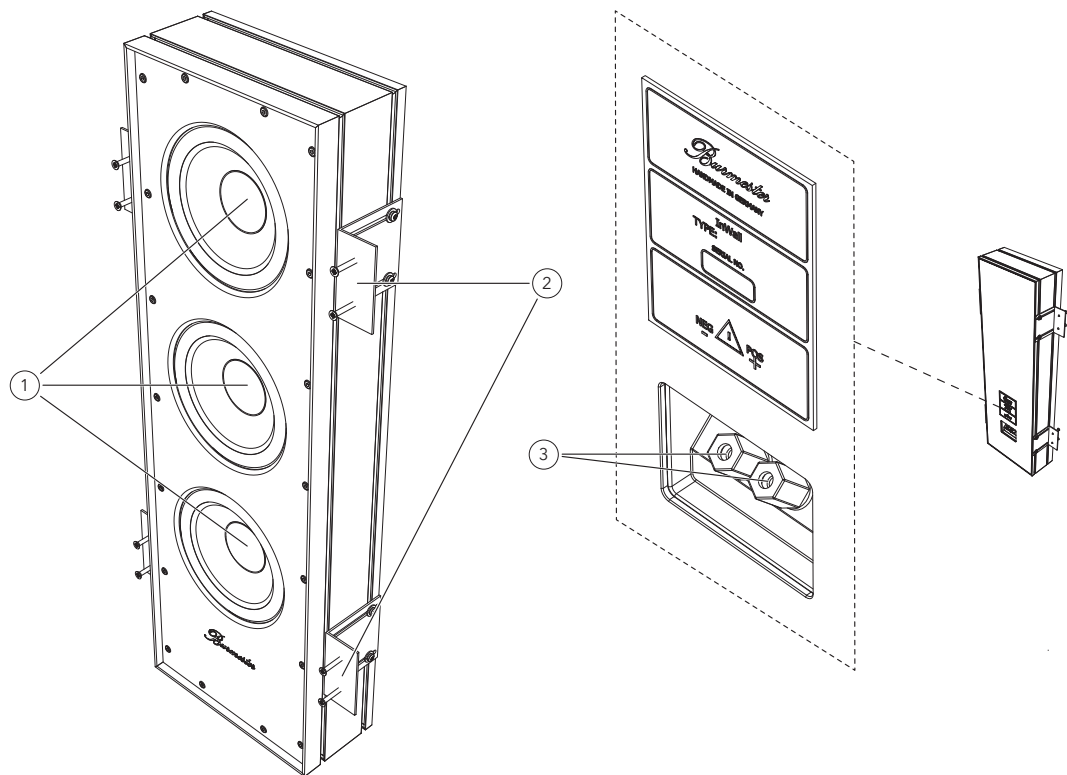
1	Tweeter
2	Low-mid speaker
3	Mounting bracket
4	Wiring terminal

InWall Center



1	Tweeter
2	Low-mid speaker
3	Mounting bracket
4	Wiring terminal

InWall Woofer

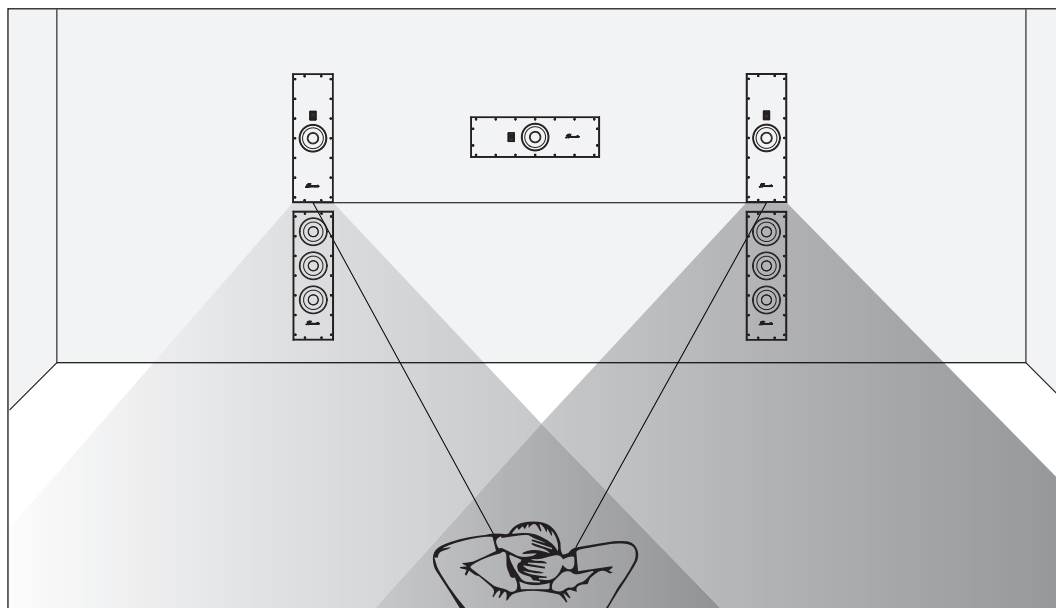


1	1 x woofer, 2 x passive driver
2	Mounting bracket
3	Wiring terminal

Installation of the speakers (for Installer)

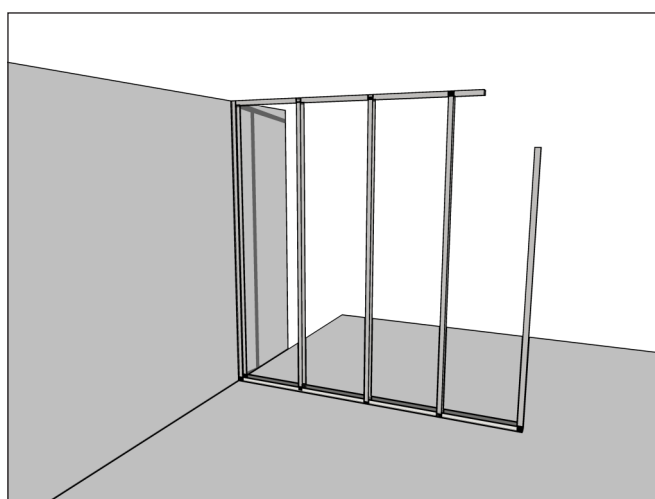
Correct positioning

The following figure shows the positioning of the loudspeakers in the wall recommended by Burmester. The tweeters of the loudspeakers should be at ear level.



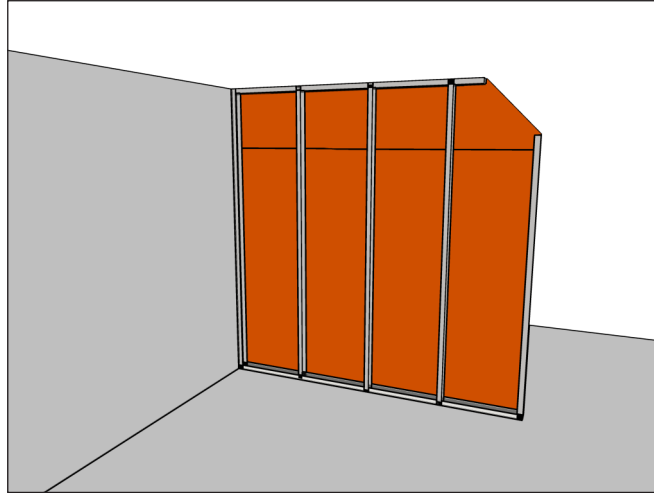
Step 1 - Installation of the framework.

Decouple the framework of all adjacent surfaces. Various solutions are available from different manufacturers. Always ensure that all parts are connected to one another without rattling



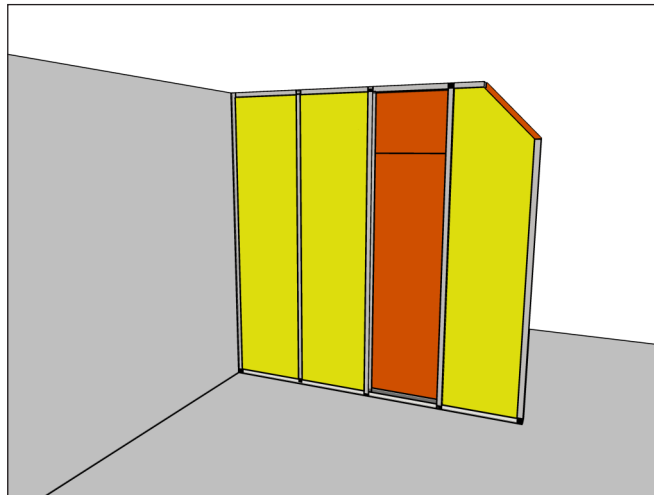
Step 2 - Attachment the rear plasterboards

Attach the rear plasterboard according to the manufacturer's instructions.



Step 3 - Fill all hollow spaces with insulating material

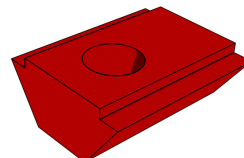
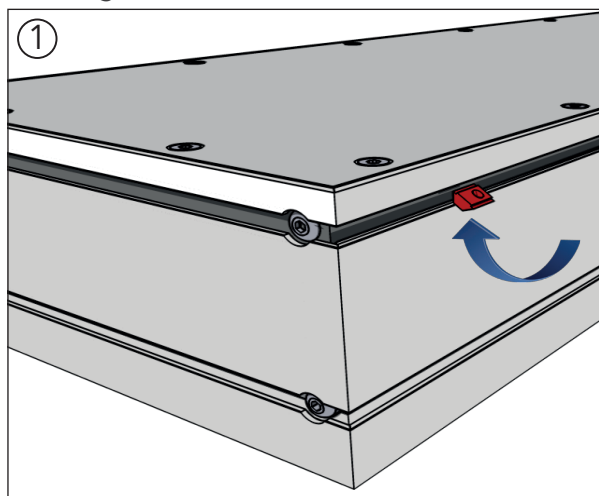
Filling all hollow spaces serves, among other things, to avoid cavity resonances which might be caused by the InWall loudspeaker. Please save the area where the InWall loudspeaker is to be installed.



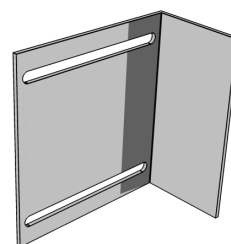
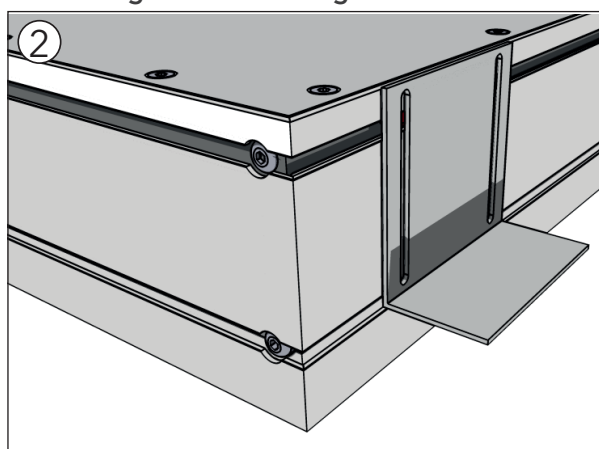
Step 4 - Mounting the mounting kit

Please pay attention that there are different ways of mounting the speaker in the wall. Depending on your decision the correct position of the mounting brackets must be chosen.

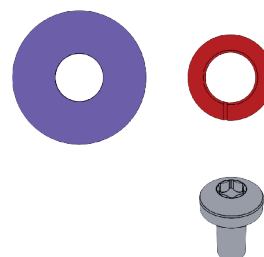
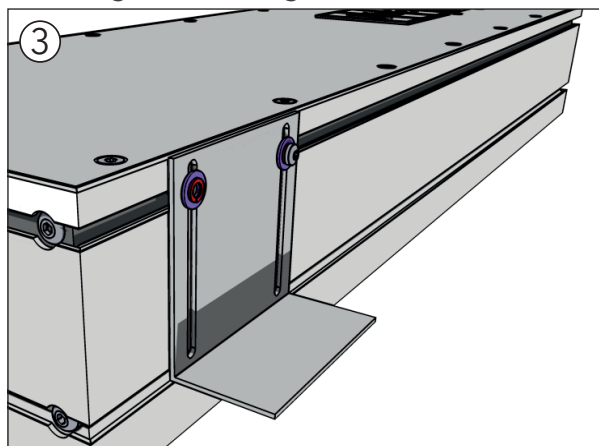
Inserting the locknuts:



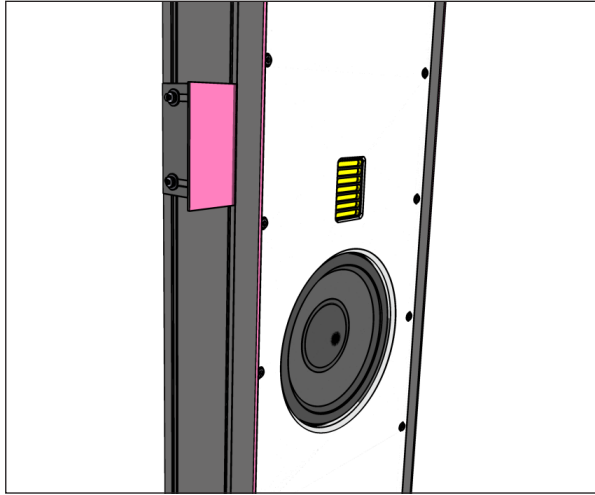
Positioning of the mounting brackets:



Fastening the mounting bracket:

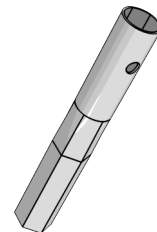
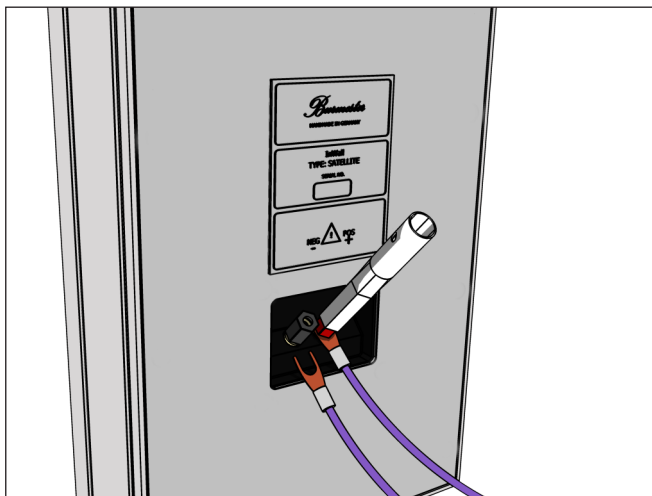


Adjust the distance of the pink colored surface of the mounting brackets so that the surrounding edge of the InWall loudspeaker is flush with the wall surface after installation.



Step 5 - Installing and connecting the speaker cables

Please pay attention to the polarity of the wiring! Use the supplied socket wrench for installation.

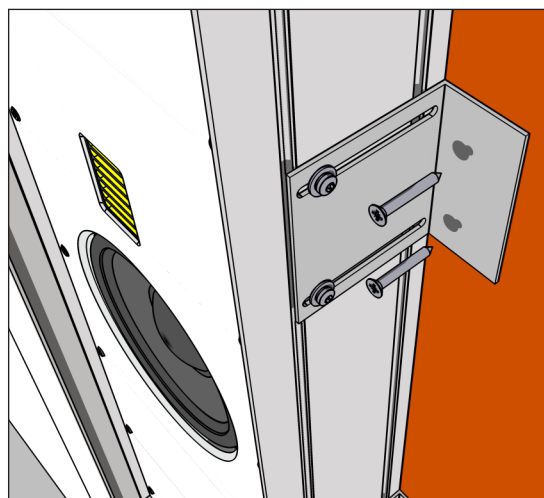
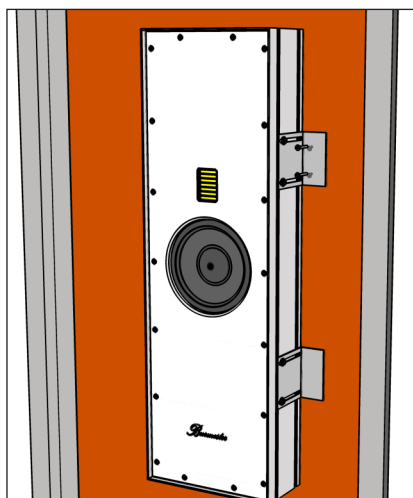


Step 6 - Mounting the InWall speakers in the wall

Rear mounting

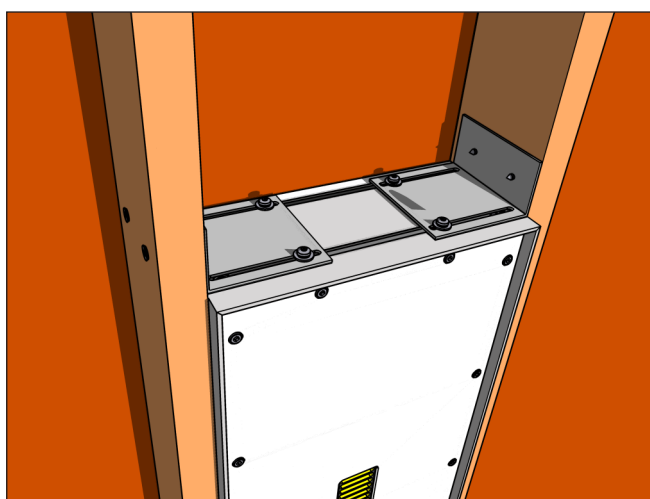
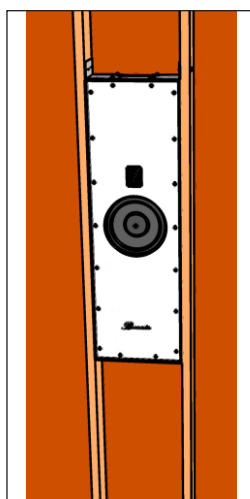
You can mount the InWall speakers on the rear wall. Use the mounting brackets as shown in the following pictures.

The mounting brackets have slots with which the InWall loudspeaker is aligned in such a way that the front frame is flush with the wall. Screw the mounting brackets using the included coarse thread screws. These cut through the mounting bracket and are suitable for walls made of wood and plaster.



Installation between two beams

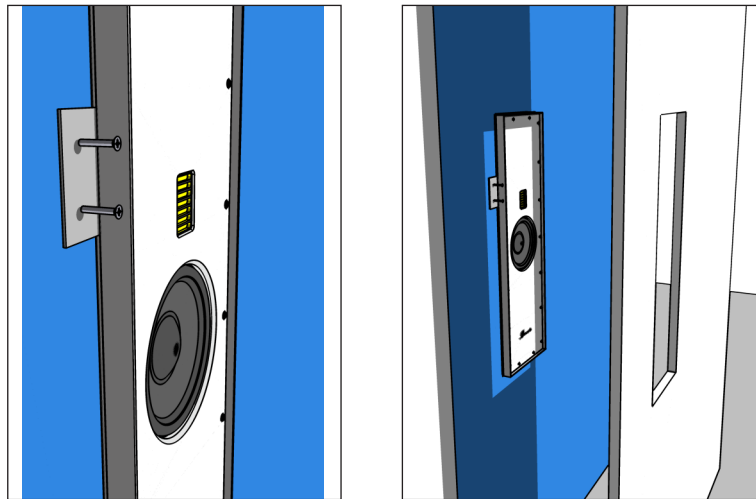
The mounting brackets can be used in such a way that the InWall loudspeaker can be mounted between two beams. The positioning of the mounting brackets can be seen in the following figures. Be sure to mount everything rattle-free especially between the loudspeaker housing and the beam.



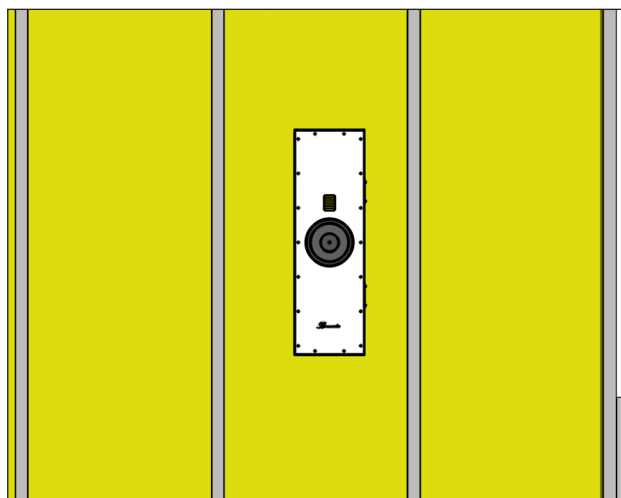
Installation from the front into a cutout (for double-skinned walls and retrofitting)

The InWall speaker can be mounted from the front into a cutout. Cut a cutout using the appropriate dimensions (see "Cutout dimensions (mm)" on page 21). If no additional plasterboard is planned in front of the mounting bracket, it must be countersunk at least 3 mm deep. Screw the mounting brackets into the wall using the included coarse thread screws. Cover the mounting brackets with a another plasterboard, which has a cutout ("Cutout dimensions (mm)" on page 21) in the appropriate location or plaster the recessed mounting brackets.

NOTE: Cut-out templates for marking the cutout are included in the scope of delivery.



NOTE: For all versions of the assembly, care must be taken to ensure that sufficient insulation material (colored yellow in the following figure) is distributed around the loudspeaker before closing the wall.

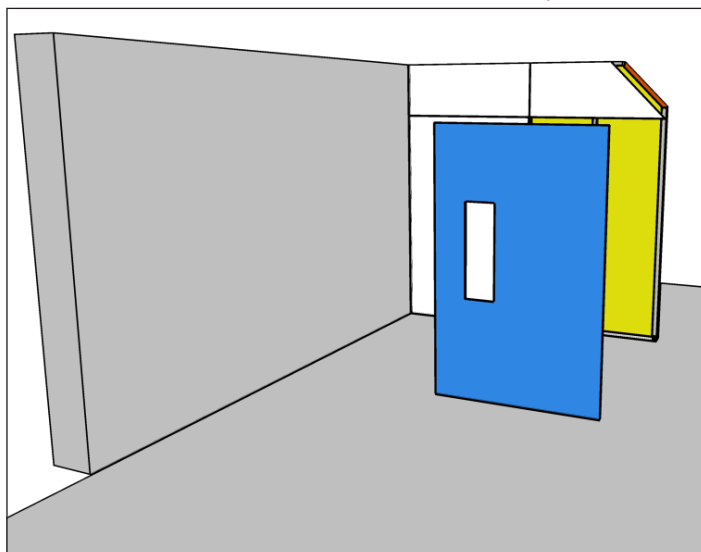


Step 7 - Closing the Wall

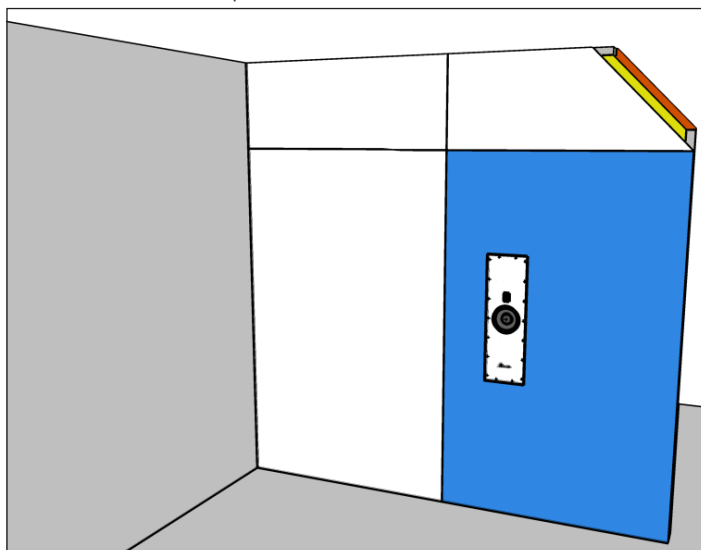
In the case of rear mounting and mounting between two beams, the front of the wall must be plastered. At the appropriate spot cut a cutout into the plasterboard ("*Cutout dimensions (mm)*" on page 21). Mount the plasterboard to the framework according to the manufacturer's instructions.

NOTE: Cut-out templates for marking the cutout are included in the scope of delivery.

Plasterboard with cutout for the InWall loudspeaker:

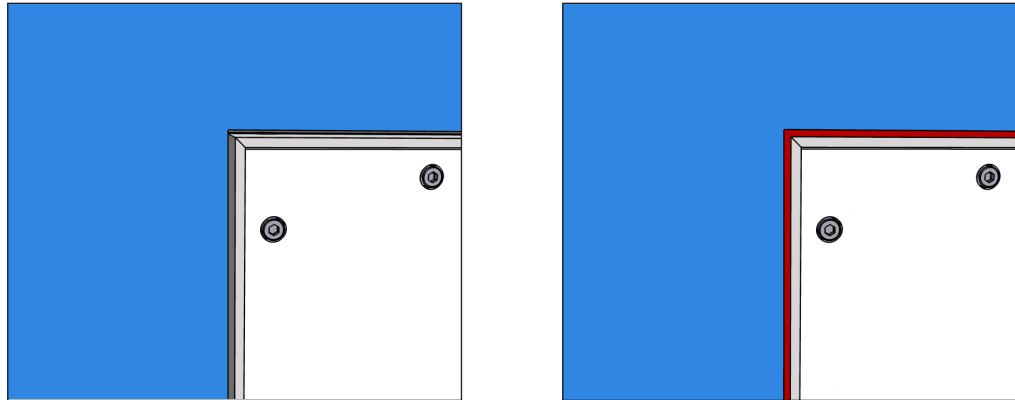


Attachment of the plasterboard to the framework:



Step 8 - Closing the gap between loudspeaker and plasterboard

The resulting gap between the loudspeaker and the plasterboard is closed with silicone or acrylic, depending on the further treatment of the wall.



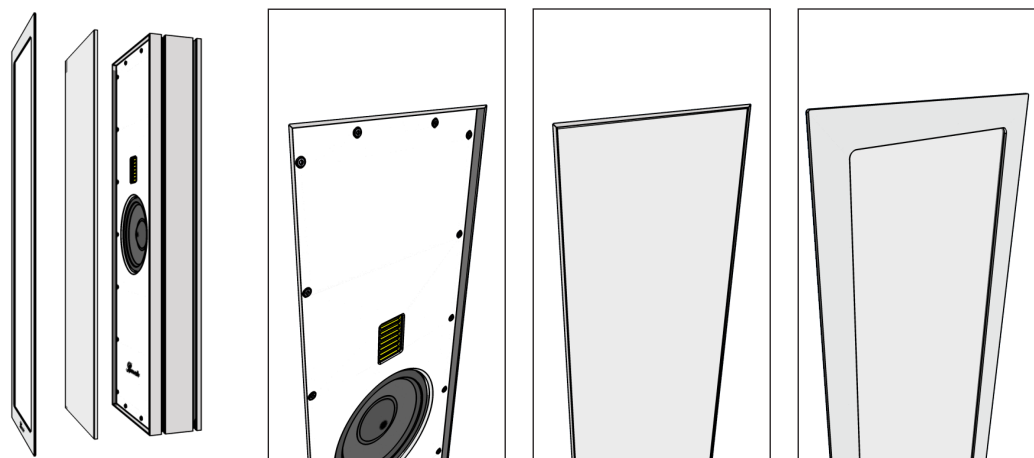
Step 9 - Choosing the front cover

The InWall speaker offers two possible front covers. These are attached to the speaker front by integrated magnets.

The following variations are possible:

1. Without front cover
2. Flush-mounted front cover with fabric cover
3. Flush-mounted front cover with fabric cover and top-lying aluminum frame (optional accessory)

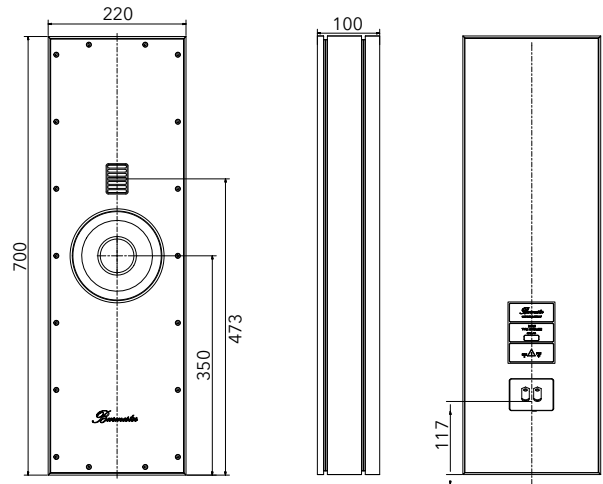
Variations 1-3 from left to right:



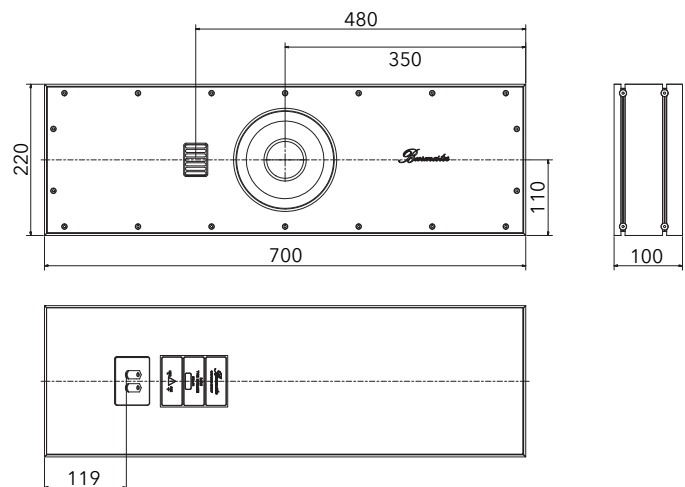
DIMENSIONS

Speaker dimensions (mm)

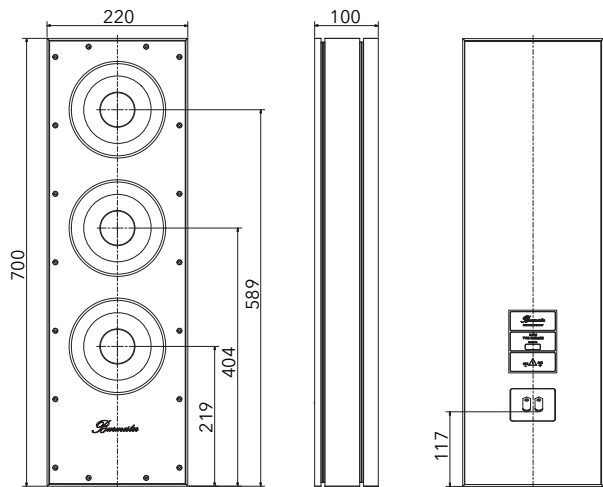
Satellit:



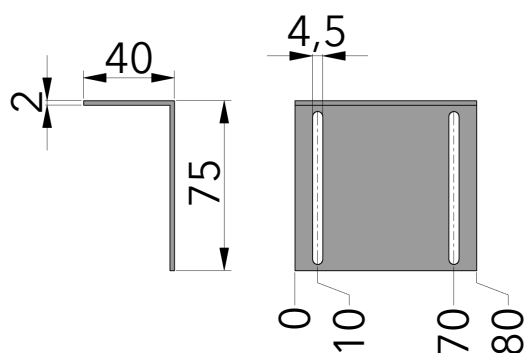
Center:



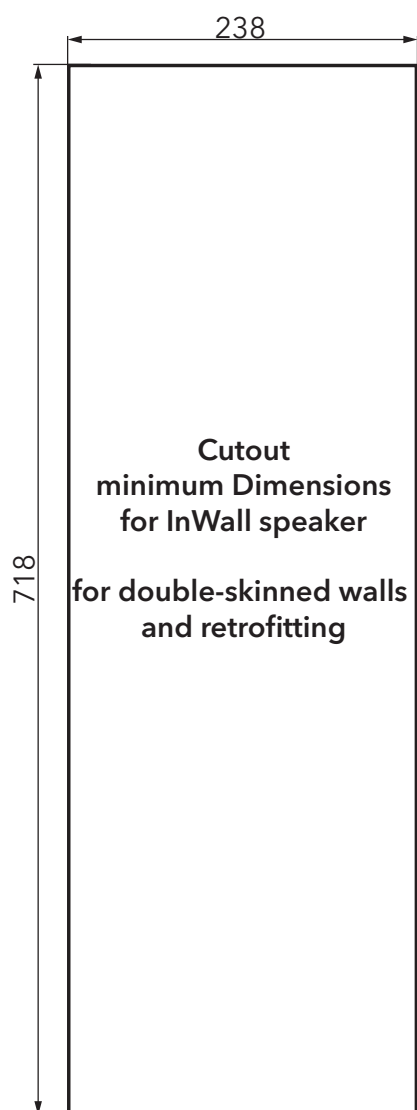
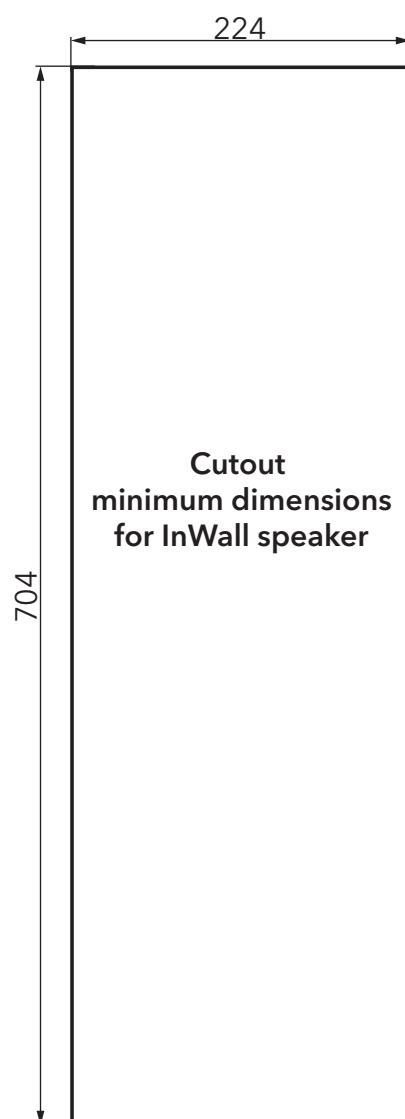
Woofer:



Mounting brackets dimensions (mm)



Cutout dimensions (mm)



CONNECTING THE LOUDSPEAKERS (FOR INSTALLERS)

- ▶ Read the operating instructions for the other connected components before connecting the speakers.
- ▶ Make sure the polarity is correct: red = positive, black = negative



WARNING

Dangerous voltage on the connection terminals

The terminals may carry dangerous voltage during operation.

- ▶ Switch off all of your audio system components and do not switch them back on until all connections are properly established.
- ▶ Do not touch the terminals while the amplifier power is on and the speaker is connected.

NOTICE

Damage caused by improper connections

A short circuit or an improper connection can damage the speakers and other components.

- ▶ Switch off the power amplifiers before connecting the speakers. This prevents short circuits due to cables that are not yet connected at both ends.
- ▶ First connect the cables to the speakers and then to the power amplifiers.
- ▶ Only connect the speaker cables to the proper terminals on an audio amplifier. Never insert the connection cables into an electrical outlet, since this will destroy the speakers.

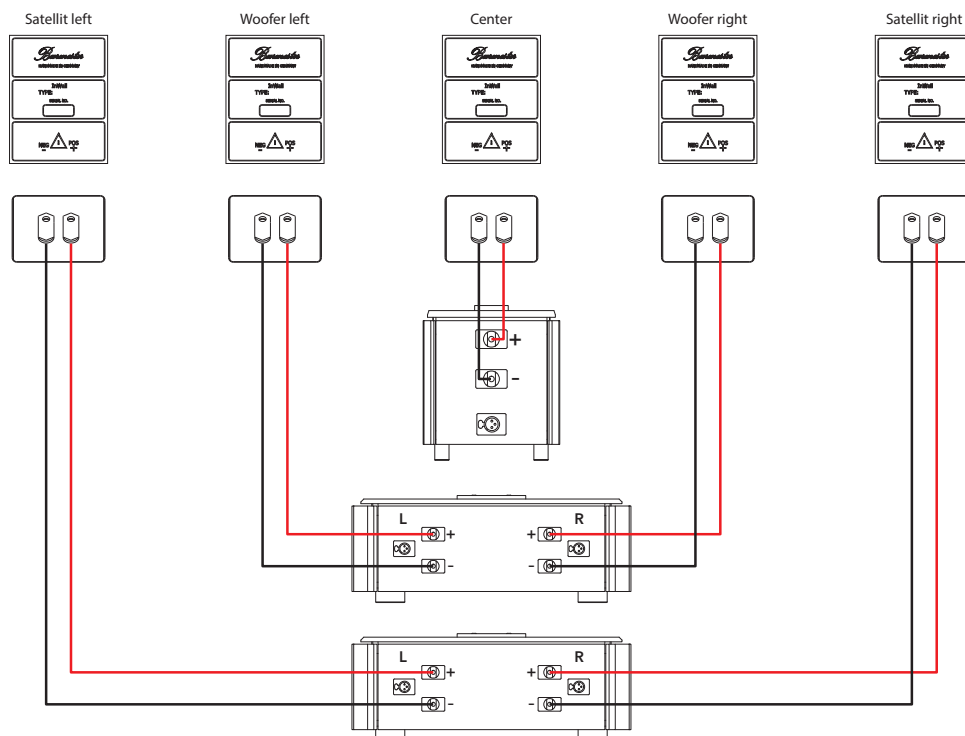
Connection cables

Burmester recommends the use of cables with a large cross-sectional area to connect the speakers to the power amplifiers. 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.

Individual connection

This is the connection method recommended by Burmester. Each speaker is connected to a separate amplifier. The amount of amplifiers needed equals the amount of speakers that are built into the wall.

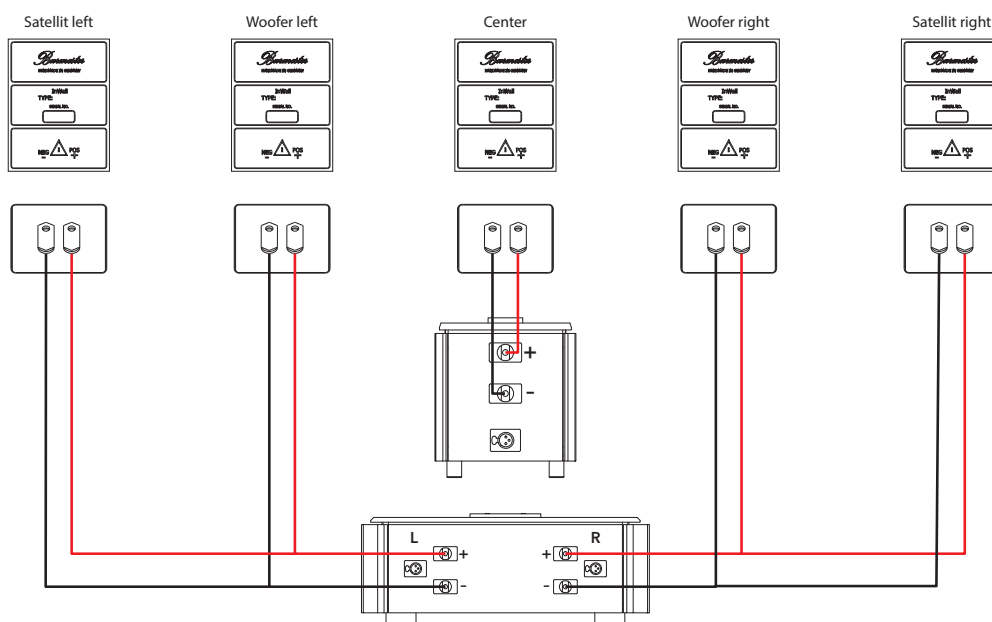


Parallel connection

When connecting the speakers to the amplifiers according to this method, you will need less amplifiers. But the requirements for the amplifiers is far more demanding.

CAUTION

This method requires Amplifiers that have huge power reserves!



OPERATING THE LOUDSPEAKERS

NOTICE

Incorrect wiring or excessive sound levels

Incorrect wiring or excessive sound levels can damage the system components.

- ▶ Before switching on the system, check all cable connections for correct polarity (positive, negative).
- ▶ After re-wiring, slowly increase the volume until you are certain that everything is connected correctly.

NOTE: All chassis in this speaker are burned in and selected as pairs using a digital measuring system. However, like all mechanical systems, the speakers need an initial burn-in period to develop their full acoustic potential.

MAINTENANCE, REPAIR, CARE

NOTICE

Damage to the speaker surface

Liquids and chemical agents can damage the housing surface.

- ▶ Make sure that no liquids enter the loudspeaker.
- ▶ Do not use chemical agents to clean the speaker.

DISPOSAL



Legislation prohibits the disposal of this device by means of normal household waste (residual waste, recycling, organic waste, paper, glass). The device must be handed over to a communal collection point or voluntary take-back system.

WARRANTY

All Burmester loudspeakers come with a five-year warranty. The warranty requires proper connection without overloading, the mechanical integrity of the loudspeakers, and the submission of a warranty claim.

The warranty does not apply if unauthorized modifications are made, the chassis or terminals are dismantled, or the loudspeakers are opened.

TROUBLESHOOTING

Malfunction	Probable cause	Remedy
No sound from one or both speakers	Electronics are not switched on	► Switch on the amplifier and/or audio source.
	Short circuit or open circuit in wiring	► Check the wiring and eliminate any faults.
Poor bass response or diffuse sound quality	Polarity error in the wiring for a channel	► Swap the positive and negative wires on the affected channel

TECHNICAL DATA

Satellite

Transmission range (± 3 dB)	60 Hz - 45 kHz
Rated power	100 W
Efficiency (2.83V, 1m)	91 dB
Impedance	4 Ω
Crossover frequencies	2500 Hz
Dimensions (WxHxD)	220 x 700 x 100 mm
Weight	8 kg

Center

Transmission range (± 3 dB)	60 Hz - 45 kHz
Rated power	100 W
Efficiency (2.83V, 1m)	91 dB
Impedance	4 Ω
Crossover frequencies	2500 Hz
Dimensions (WxHxD)	700 x 220 x 100 mm
Weight	8 kg

Woofer

Transmission range (± 3 dB)	38 Hz - 150 Hz
Rated power	120 W
Efficiency (2.83V, 1m)	89 dB
Impedance	3 Ω
Dimensions (WxHxD)	220 x 700 x 100 mm
Weight	10 kg

Subject to technical changes

Burmester Home Audio GmbH
Wilhelm-Kabus Straße 47 · 10829 Berlin, Germany
www.burmester.de

BA-Version 1.0 / 1611