



## Theater 2

5.1 Home Theatre Set  
with 400 Watt Active Subwoofer

**Teufel**

### About this document

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### Cleaning

Please take note of the following guidelines to protect your Teufel loudspeakers:

- ▶ Avoid placing the speaker cabinets in direct sunlight.
- ▶ Avoid extreme temperature fluctuations and protect your loudspeakers against humidity.
- ▶ When cleaning the speaker cabinets, only use dry or moist cloths. Never use abrasive or alcohol-based cleaning products. If you need to clean a speaker membrane, do so very carefully using a dry cloth.

### Original packaging

We recommend that you hold on to the packaging of all your new Teufel products, as we only accept loudspeakers back within the initial eight-week return period if they are shipped in their ORIGINAL PACKAGING. We do not provide packaging boxes separately.

### Trademarks

® All registered trademarks remain the property of their respective owners.

### Contact

If you have any questions, suggestions or criticisms, please contact our support team:

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Gewerbehof Bülowbogen · Bülowstraße 66  
10783 Berlin (Germany)  
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**www.teufel.eu**

### Terms of warranty

Lautsprecher Teufel GmbH provides a twelve-year warranty for loudspeakers and a two-year warranty for amplifiers and electrical components, starting at the purchase date. The warranty covers all materials and time needed. The warranty does not cover devices damaged as a result of improper use or electrical/mechanical overloading. The original Teufel invoice is your proof of warranty. This warranty applies exclusively to loudspeakers, amplifiers and electronic components purchased by consumers from Teufel for private usage. The warranty does not apply to loudspeakers, amplifiers and electronic components sold to consumers through third-party dealers. For third-party products supplied together with the Teufel system, the terms of warranty of the manufacturer in question apply. When Teufel products are resold privately, the warranty may be transferred to the new owner. For this, the new owner requires the original Teufel invoice.

### Returns policy

Teufel provides an eight-week right of return with a money-back guarantee.

You may only return individual components from a set if Teufel offers these components for sale separately. If you return one or more individual components from a set, this voids the discount that Teufel provides on the sale of components as a set. This means that for individually returned components from a set, you will be refunded the difference between the set price and the sum purchase price of the individual components you decide to keep, i.e., we will deduct the discount that applies to set purchases.

For further information on returns, please refer to the returns form provided with your shipment (or online at [www.teufel.eu](http://www.teufel.eu) in the support section).

If you decide to return any or all of the purchased goods, please always contact us first.

**Note that we can only process and accept returned goods if you have telephoned us in advance and discussed the required returns procedure.**

### Technical specifications

All technical specifications are listed on our website at [www.teufel.eu](http://www.teufel.eu)

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## Safety guidelines

### **Please read the following safety guidelines very carefully.**

*Packaging materials, particularly plastic bags and foils, should be kept out of children's reach, as these can be dangerous (e.g., risk of suffocation). Never leave your children alone with electrical devices, as there is potentially always a risk of electrical shock.*

### **In case of an emergency:**

Immediately disconnect the unit's power plug from the mains socket. In the following cases, please contact one of our service technicians:

- Power plug or cable is damaged
- Liquid or other foreign substances have entered the interior of the unit
- The unit has been directly exposed to rain or another type of liquid
- The unit is inoperational even though you have followed all the operating instructions
- The unit has been dropped or otherwise damaged

Lautsprecher Teufel is not liable for any incidents resulting from disregard for the safety guidelines.

**General note:** Make sure to read this operating manual carefully and in its entirety. Before plugging in the units for the first time, make sure you have complied with all relevant safety and operating instructions. Keep this operating manual in a safe place so you can refer to it at a later date if necessary.

**Always:** If in doubt, consult the operating manual. Make sure to comply with all instructions regarding the units' setup and ongoing operation.

**Cleaning:** Avoid cleaning the units with domestic cleaning agents, as these may scratch the surface. Just use a dry cloth. Before cleaning a unit, always unplug the power cable.

**Humidity and sunlight:** Never operate the unit in humid or wet spaces, e.g., near a bath tub, shower, wash basin, drain, in a damp basement, or near a swimming pool. Never expose the loudspeaker to humidity, and avoid exposing it to direct sources of sunlight.

**Placement:** Never mount the units loosely in a vehicle, on an unstable surface, on a loose stand, on unsuitable furniture, or with insufficient bracing. The loudspeakers could topple and cause personal injuries, which you will be liable for. Especially when speaker cabinets are mounted on stands or placed on top of TV sets/monitors, they may topple due to external stress (cable being pulled, tripping over cable, accidental physical contact) – even if they seem to be mounted quite securely. As a result of their weight, toppling speaker cabinets can cause considerable damage, as well as becoming badly damaged themselves. The same applies to undersized or unprofessionally installed wall-mounting brackets, particularly on light walls. Always use adequately sized wall brackets for mounting loudspeakers, and ensure that the wall can withstand the stress. Never mount the units near a heat source. This could be a heater or oven, but also any other electrical device that heats up during operation (e.g., amplifier). Similarly, never place a heat source on top of the loudspeakers, such as a fan heater or candles.

**Ventilation:** There are several ventilation slits and openings in the unit's housing. These are designed to ensure reliable operation and protect the unit from overheating. Never block or cover the ventilation slits; do not place the unit on a soft surface such as a bed, couch, carpet, etc., as this blocks the ventilation slits in the bottom of the housing. Do not put any newspapers, tablecloths, etc., on top of the unit. Most importantly, do not cover up the heatsink of the amplifier section or expose it to direct sunlight. Conversely, you should generally not attempt to provide additional cooling to the unit yourself. This is not necessary.

**Power source:** Make sure to connect the subwoofer to a power source that provides the correct voltage, i.e., the voltage indicated on the type plate. If you are unsure about the voltage provided by your domestic power connection, please contact us or your local electricity provider for advice. The unit does not require earthing. When connecting to the mains power socket, always use the supplied two-pole power cable. Under no circumstances should you modify the power cable, as it must comply with the official polarity and earthing regulations. Make sure to plug the power cable only into a double-pole socket.

**Cables:** Lay all the cables flush with the floor and walls. Avoid any loops in your cables that could cause people to trip up. Cable loops can also cause electrical interference and degrade the

sound quality. Make sure to lay your power cables out of reach so that they are not stood on or squashed by heavy objects. If you notice any cable damage, replace the cable. Pay special attention to all plug connectors, the mains socket, and the subwoofer's connector panel. Regularly check all powered cables to and from the loudspeakers for insulation issues and breakage. If you detect a fault, immediately power down all connected units, unplug the cables and replace the defective cable.

**Disuse:** During prolonged periods of disuse (holidays, etc.), always unplug the subwoofer from the mains socket.

**Thunderstorms:** In the event of a thunderstorm, switch off and unplug the unit as soon as you can in order to avoid damage from lightning strikes.

**Overloading:** Never overload your wall sockets, extension cables and multiboxes, or the integrated power sockets on your electrical devices. Power overloads can cause short circuits and fires. Also avoid turning up the volume control excessively on your amplifier, particularly if you are also boosting the bass frequencies (bass control, loudness button, bass boost button, etc.).

**Liquid and foreign substances:** Liquids or other foreign substances should never get inside the unit, as they may interfere with exposed live parts and cause short circuits or fires. Absolutely avoid spilling any type of liquid onto the unit. In case of a fault: Never attempt to repair the unit yourself. Always contact our support team first and discuss the fault with them. If appropriate, they may give you instructions on how to clear the fault. If this is not possible, send the unit directly to our service address.

**Transport:** Take utmost care when transporting the unit, and use a sack barrow if possible. Be aware that both the sack barrow and the unit can easily fall over as a result of sudden stopping or jolting (uneven ground, lurching movements, etc.).

**Replacement parts:** During the period of warranty, Lautsprecher Teufel will supply all required replacement parts. Your warranty will not be voided as long as you use Teufel spare parts to replace any defective components.

**Unusual noises:** If any unusual noises occur during operation, or if the sound gets distorted, immediately turn down the amplifier volume to a level where the sound returns to normal.

### **Replacing the fuse:**

Unplug the power cable before replacing the fuse. Make sure that the replacement fuse has the same rating as the defective fuse.

**Speaker volume:** Excessive loudspeaker volume can cause irreversible hearing loss. The subwoofer may emit high sound pressure levels very unexpectedly when it is suddenly triggered into activity by a bass impulse ("Standby/Auto On" mode) – particularly if the unit is on full volume. As well as physical hearing loss, also watch out for psychological stress caused by excessive volume. Children and pets are particularly sensitive to noise. Always set the volume control of your audio system to a level that is appropriate to the surroundings. When the system is playing at high volume, do not stand too closely to the subwoofer and never put your ears directly up to any of the loudspeakers.

## Introducing the Theater 2 system

### Dear Lautsprecher Teufel customer,

Thank you for purchasing a set of loudspeakers from Lautsprecher Teufel.

You are now the owner of a powerful and sophisticated loudspeaker system. All Teufel products are meticulously manufactured and fitted only with top-quality components. Our Theater 2 loudspeaker set is designed for audio playback in rooms sized up to 50 sq m.

Before using the loudspeaker set for the first time, carefully read this operating manual in its entirety. Keep the manual in a safe place for later reference. If you have any questions, feel free to contact our technicians (ph. +49 (30) 30 09 300), or write an e-mail using the contact form provided on our website [www.teufel.eu](http://www.teufel.eu). Please provide your order number so that we can identify your purchase and provide the best possible support.

BEFORE you contact us with any questions, make sure to read the "Problems and Solutions" section on page 15 of this operating manual. Further answers are provided on the Frequently Asked Questions page of our website: [www.teufel.eu](http://www.teufel.eu)

Please take careful note of the safety guidelines on page 4 of this operating manual. Do not start using the loudspeakers before you have read this page.



# Teufel

## Unpacking · Included components

**Please make sure that you have all the components of the system!**

**Attention:**

*Hold on to the cardboard boxes for at least eight weeks (duration of the right-of-return period). Lautsprecher Teufel will ONLY refund the full purchase price if the speakers are shipped back in their ORIGINAL PACKAGING!*

### Unpacking

Open the top flaps of the cardboard box, take out the styrofoam padding, and carefully lift the loudspeaker out of the box. If the speaker set is shipped with speaker grilles, attach these now.

We recommend holding on to all the original packaging in case you ever need to ship the speakers back to us for servicing.

The Theater 2 set consists of four different types of components:



▸ Subwoofer

### Included components

- 1 x M 2200 SW subwoofer
- 1 x M 220 C centre loudspeaker
- 2 x M 220 FR front loudspeakers
- 2 x M 220 D rear loudspeakers
- 1 x power cable

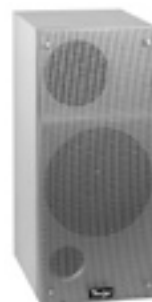


▸ Centre speaker

### Accessories

As our customers' setup requirements tend to vary considerably, the system does not ship with any audio cables, wall mounts or speaker stands. However, you can order suitable cables for the speakers and subwoofers directly from us, as well as any required mounts or stands.

All of the accessories available for the Theater 2 loudspeaker set are described on pages 7 and 8.



▸ Front speaker



▸ Rear speaker

## Accessories (optional)

### Optional accessories for the Theater 2 system

Teufel offers the following accessories for your Theater 2 system (to be purchased separately):

#### Theater 2 "5.1 > 7.1" EX set



If you own a 7.1 AV receiver, you can purchase an expansion set to upgrade your Theater 2 loudspeaker setup to a full-blown 7.1 system.

The EX set consists of two additional M 220 D dipole speakers, to be mounted centrally between the side rear speakers (see page 11).

#### Teufel speaker cable 2 x 2.5 mm<sup>2</sup>



Highly flexible copper core (650 strands) with a transparent sleeve and polarity markings. The 2 x 2.5 mm<sup>2</sup> cable can be used for cable

distances up to 15 metres. For longer distances, we recommend the thicker 2 x 4 mm<sup>2</sup> cable. In response to customer demand, all our audio cables are now pre-wired for typical usage lengths.

#### Teufel speaker cable 2 x 4 mm<sup>2</sup>



Hundreds of ultra-thin, low-oxygen copper wires (protected by a thick, flexible, transparent plastic sleeve that withstands almost any

stress) ensure that your audio signals are passed to the speakers cleanly and without being compromised by underdimensioned cabling.

#### Teufel NF mono cinch cable



This cable is designed for connecting active subwoofers to AV receivers/amplifiers, and is shielded against magnetic interference.

A reliable connection is guaranteed by sturdy, gold-plated connectors. This cable is available in several different lengths (2.5 to 15 metres) to perfectly match your requirements.

#### Y adapter



1 x socket to 2 x connector. A Y adapter lets you feed a mono sub signal to both of the subwoofer's stereo inputs; this increases the subwoofer's overall volume.

#### M 110 P speaker stand



Featuring a refined silver finish, this brand-new stand for the M 220 F front speakers and the M 220 C centre speaker further emphasises the elegant silvery design of the Theater 2 system. The speaker cabinet is fastened directly to the stand's 62 cm metal pipe. The speaker cable is also fed through this pipe, concealing it from view. Suitable for Teufel M 220 F, M 220 C and M 220 D (direct-radiating mode only).

#### Teufel banana plugs



These high-quality, multi-purpose speaker connectors from Teufel are an affordable option to ensure faultless connections between your loudspeakers and amplifier/receiver. The rugged banana-design screw connector securely

holds cables up to 10 mm in diameter. Low-resistance plug connections are ensured by flexible spring contacts and solid gold plating. Banana plugs are sold in pairs only, marked red and black respectively. The Theater 2 loudspeaker set requires 10 banana plugs.

*If you require any optional accessories, you can easily order these directly from the Accessories section of our online store: [www.teufel.eu](http://www.teufel.eu)*

## Accessories (optional)

### Teufel L-Lock wall bracket



A versatile wall bracket for mounting speaker cabinets – designed by Teufel. Most Teufel speakers can be mounted very easily using this wall bracket, with no holes needing to be drilled into the cabinets. Combined with the standard bracket, the L-Lock permits additional swivelling of the speaker cabinet. The M 220 C/F/D cabinets provide a fitting for an M6 packing screw on the cabinet base, which is used for attaching them to wall mounts or speaker stands.

*If you require any optional accessories, you can easily order these directly from the Accessories section of our online store: [www.teufel.eu](http://www.teufel.eu)*

### VLB 100 wall mount



The VLB 100 is designed for heavy front speakers such as the Teufel M 220 F, providing a maximum load capacity of 25 kg on a continuous horizontal angle mount. Installation is quick and easy thanks to a simple lock-in mechanism. The wall holder is elegantly designed with a silk matte black finish and conceals the speaker cables internally.

### Teufel Vibrapods – professional resonance eliminators



Teufel Vibrapods are designed to eliminate all unwanted resonant frequencies. Made from a sophisticated high-density rubber which is also used in space travel, these professional resonance eliminators reliably decouple even the heaviest speaker cabinets and subwoofers from vibrating wooden floors and shelves, ensuring tight, unmuddled bass frequencies at all times.

### Teufel rollers



Fitted with these compact black rollers, your Teufel subwoofer instantly becomes mobile. With a mobile subwoofer, the trial-and-error setup stage is made quick and easy – particularly on your back! In addition, you can simply wheel the subwoofer out of harm's way when cleaning.

Have a look at our four Accessory Bundles – these contain a variety of speaker cables, mono cinch cables (subwoofer) and banana plugs at discounted prices. Save up to 15 %!

#### Accessory Bundle 1

- 30-metre speaker cable, 2 x 2.5 mm<sup>2</sup>
- 1 NF mono cinch cable, 2.5 metres
- 10 banana plugs

#### Accessory Bundle 2

- 30-metre speaker cable, 2 x 2.5 mm<sup>2</sup>
- 1 NF mono cinch cable, 5 metres
- 10 banana plugs

#### Accessory Bundle 3

- 30-metre + 20-metre speaker cable, 2 x 2.5 mm<sup>2</sup>
- 1 NF mono cinch cable, 5 metres
- 10 banana plugs

#### Accessory Bundle 4

- 30-metre speaker cable, 2 x 4 mm<sup>2</sup>
- 1 NF mono cinch cable, 2.5 metres
- 10 banana plugs





## Speaker positions in the 5.1 configuration

### General notes on speaker placement

Thanks to its unobtrusive design, the Teufel System 2 loudspeaker set will easily blend into your living room. In order to get the best possible audio quality from your Teufel system, however, there are a number of speaker placement rules to consider; these apply particularly to home theatre use.

As a general guideline, any home theatre system should be concentrated around the viewing area, i.e., that part of the room that contains the TV/screen and the main seating spots. If at all possible, the TV/screen should be placed centrally in relation to the viewing/listening spots.

Our speaker placement suggestions, shown over the next pages, are designed for the best possible multi-channel sound reproduction in your home. In the reality of your living room, of course, there may be factors working against the suggested placements. While our recommendations represent the audio purist's optimum layout, modern AV receivers also offer a number of options to electronically compensate for compromises in speaker placement. Always remember: Our recommendations are not the be-all-and-end-all but a starting point. Ultimately, you will know best what works in your room, both visually and sonically. Trust your eyes – and your ears!

### Centre

The centre speaker reproduces virtually all spoken sound, including most dialogue. In relation to the main listening spot, place it centrally under or above the TV/screen. If you need to position the centre speaker (M 220 C) lower than 40 cm or higher than 1.20 m, angle it horizontally towards the listening spot.

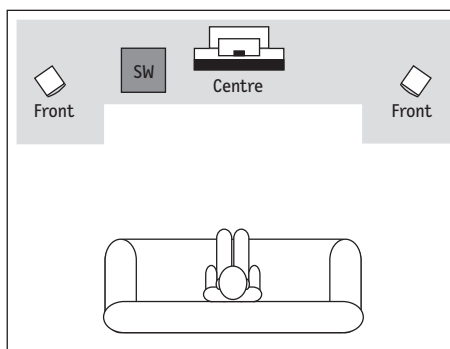
### Front

The front speakers should be positioned the same way as any conventional stereo speakers – forming an equilateral triangle with the listener. In a home theatre setup, the left and right front speakers should be equidistant to the TV/screen, mounted on the wall or on speaker stands. Place the two M 220 F speakers as left and right so that the tweeter (offset at the top of each speaker) is closer to the centre. The Teufel M 220 F satellite speakers can be mounted on a wall using Teufel's L-Lock angle bracket. For this purpose, they provide an M6 packing screw on the base of the cabinet. This packing screw is similarly used to fasten the cabinet to a speaker stand. A range of Teufel speaker stands are available for this system, such as the M 110 P. Speaker stands ensure that the satellite speakers are placed at the best possible height.

If you mount the speakers on the wall or on a bookshelf, make sure the speaker height is between 40 cm and 1.20 m. If these recommended values are not practical in your listening environment and you need to position the speakers higher or lower, you should angle them towards the listening spot. Teufel's VLB 100/200 wall mounts are designed for just this purpose.

Finally, make sure that the centre speaker and the two front speakers are positioned in a straight line, or on a slight arc with the TV/screen. If the distances between you and the speakers vary significantly, this will degrade the audio signal's spatial imaging.

Make sure to align your speakers properly so they sound as good as possible.



*We recommend you place the subwoofer somewhere in the grey front area.*

### Subwoofer

At the recommended crossover frequency of 80 Hz, the subwoofer can be positioned in the room very flexibly without affecting the output from the other loudspeakers. The ideal position is somewhere along the axis between the two front speakers. Simply make sure that the front of the subwoofer (with the speaker grille) can radiate freely towards the centre of the room, i.e., it is not pointed directly at a wall. If this cannot be avoided, make sure the subwoofer is at least 0.50 m away from the wall.

### Rear

Theater 2 rear speakers: For the best home theatre results, the M 220 D speakers should be run in dipole mode. Dipole mode is selected on the speaker cabinet's connection panel with a switch between the plus and minus terminals (set to inwards). To determine later on which response mode the switch is set to, simply perform a quick listening test:

If the signal radiates out both sides of the speaker cabinet, it is running in "Dipole" mode. If there is no signal coming out of the rear tweeters and woofers, it is running in "Monopole" (direct) mode.

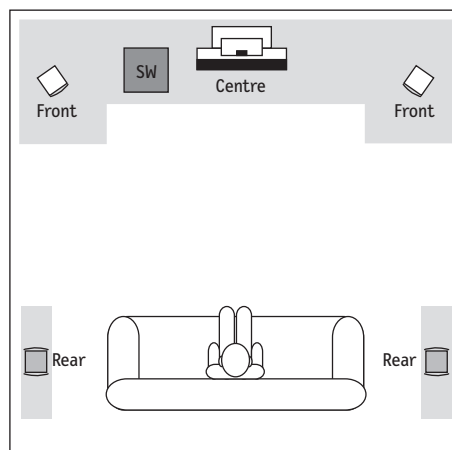
*The placement options for the rear speakers are described on page 10 →*

## Speaker positions in the 5.1 configuration

### Rear/side speaker placement option A

The M 220 D dipole speakers should ideally be mounted to the sides of the listening spot, at a height of 1.40–2.10 m. The Teufel dipole speakers can be mounted on a wall using Teufel's L-Lock angle bracket. For this purpose, they provide an M6 packing screw on the base of the cabinet. This ensures the cabinet is securely fastened to the mount. With this placement option, the dipole rear speakers radiate towards the TV/screen out the front (silver speaker grille with Teufel logo) and towards the rear wall out the back of the speaker cabinet. Note that the rear sides of the dipole speakers should be at least 10 cm removed from the room's rear walls.

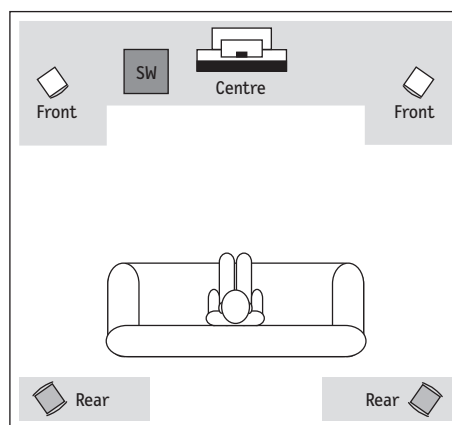
*We recommend you place the subwoofer somewhere in the grey front area.*



### Rear speaker placement option B

You can also wall-mount the dipole speakers behind the listening spot, at a height of 1.40–2.10 m. We recommend that you mount the M 220 D speaker cabinets with our L-Lock wall bracket, which permits them to be angled horizontally. The ideal angle for the dipole speakers is 45 degrees, which means they can radiate towards the side wall out the cabinet front and towards the rear wall out the back. If the rear side channels are reflected off both the side and rear walls, this will create the desired spatial diffusion. Note that the front sides of the dipole speakers should be at least 10 cm removed from the room's side walls.

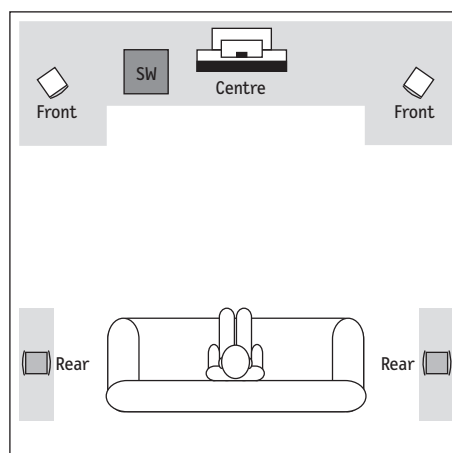
*We recommend you place the rear speakers somewhere in the grey rear area.*



### Rear speaker placement option C

If it is impractical to position the M 220 D dipole rear speakers as described above, you can also use them in direct-radiating mode. For the speakers to radiate out the front only, set the switch on the connection panel to the outwards position. When in direct-radiating mode, position the rear speakers to the left and right of the listening spot, ideally at the same height – e.g., on the same shelf, or best of all on speaker stands. If you need to mount the speakers significantly higher or lower, experiment with angling them towards the listening spot. To attach the speakers to the wall, we recommend using our Multilock wall mounts. When in direct-radiating mode, the M 220 D rear speakers should be positioned at least 1.00 m away from the listener.

If they are any closer to the listening spot, make sure that the front of the speakers is not directly pointed at the listener but into the room, angled towards the TV/screen.



## Speaker positions in the 7.1 configuration (with 5.1 → 7.1 EX set)

If you have augmented your Theater 2 system with an EX set (see page 7), you can make full use of your 7.1 AV receiver and expand your surround setup into a 7.1 home theatre system.

### Front • Centre • Subwoofer • Rear (Side)

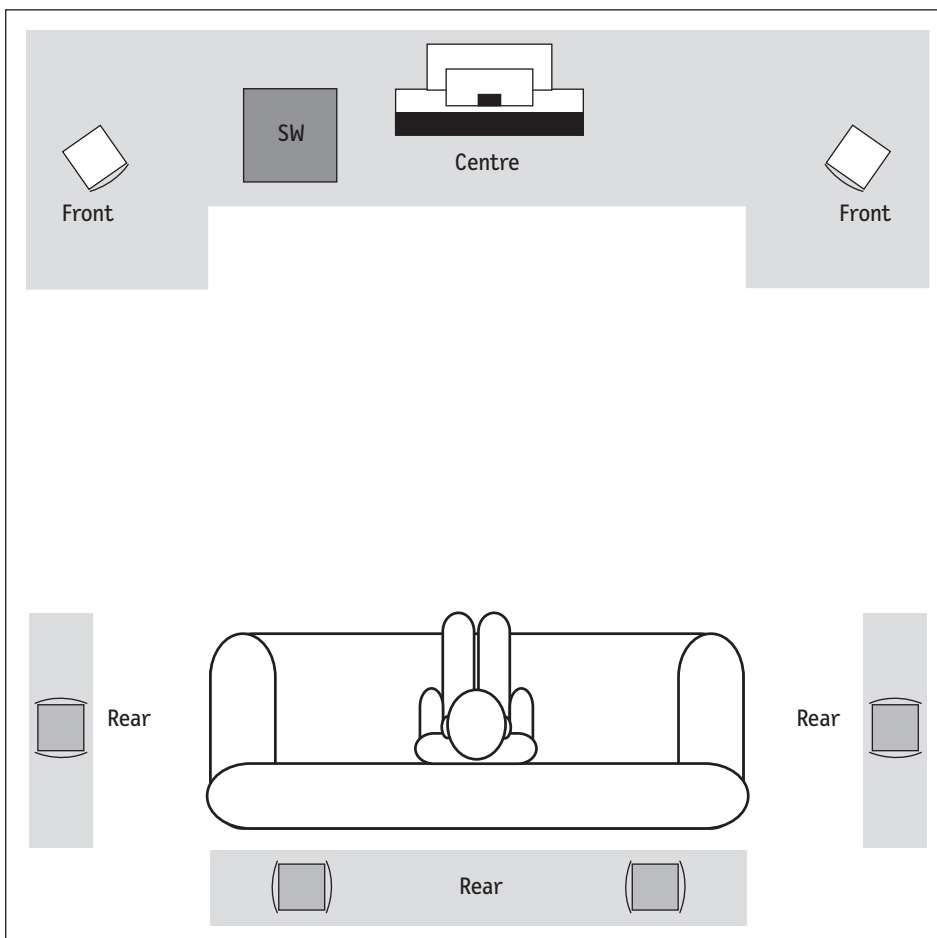
The arrangement of speaker boxes follows the same pattern as a 5.1 system. Please refer to “Speaker Positions in the 5.1 Configuration” on the previous two pages.

### Rear centre

If the distance between the two rear centre speakers and the listening spot is less than 1.00 m – for example, your couch may have its back directly to the rear wall – we recommend running the M 220 D speakers in dipole mode. In an ideal 7.1 system, the rear effects speakers (rear sides) are positioned on the side walls facing the listening spot, and the rear centre speakers are positioned on the rear wall (height: 1.40–2.10 metres).

If the distance to the listening spot is larger than 1.00 m and/or you prefer to place the speakers on stands, the M 220 D's direct (monopole) mode is more suitable.

7.1 speaker placement: If you picture a top-view geometry of your surround setup, the four rear speakers should ideally form an isosceles trapezium. Each side of the trapezium should be at least 1.00 m long. If the sides have differing lengths, or if the four rear speakers are mounted at different heights, you can compensate for such asymmetries by entering the distances of the individual speakers in the AV receiver/amplifier's “Speaker Setup” utility.



*We recommend you place the subwoofer somewhere in the grey front area.*

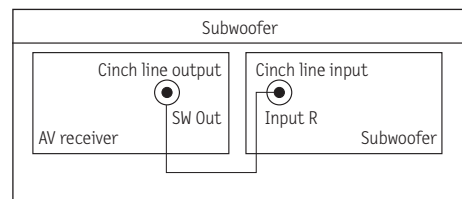
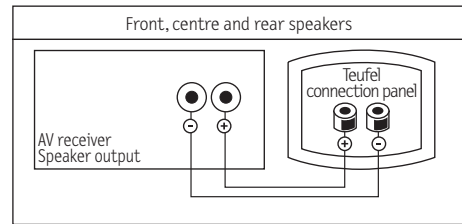
*We recommend you place the rear speakers somewhere in the grey rear area.*

## Connections

You can connect the Theater 2 system to any modern Dolby Digital/DTS 5.1/6.1/7.1 AV receiver/amplifier for a 5.1 setup with an active subwoofer. If your receiver is 5.1, connect the front, centre and rear speakers as shown in the diagram.

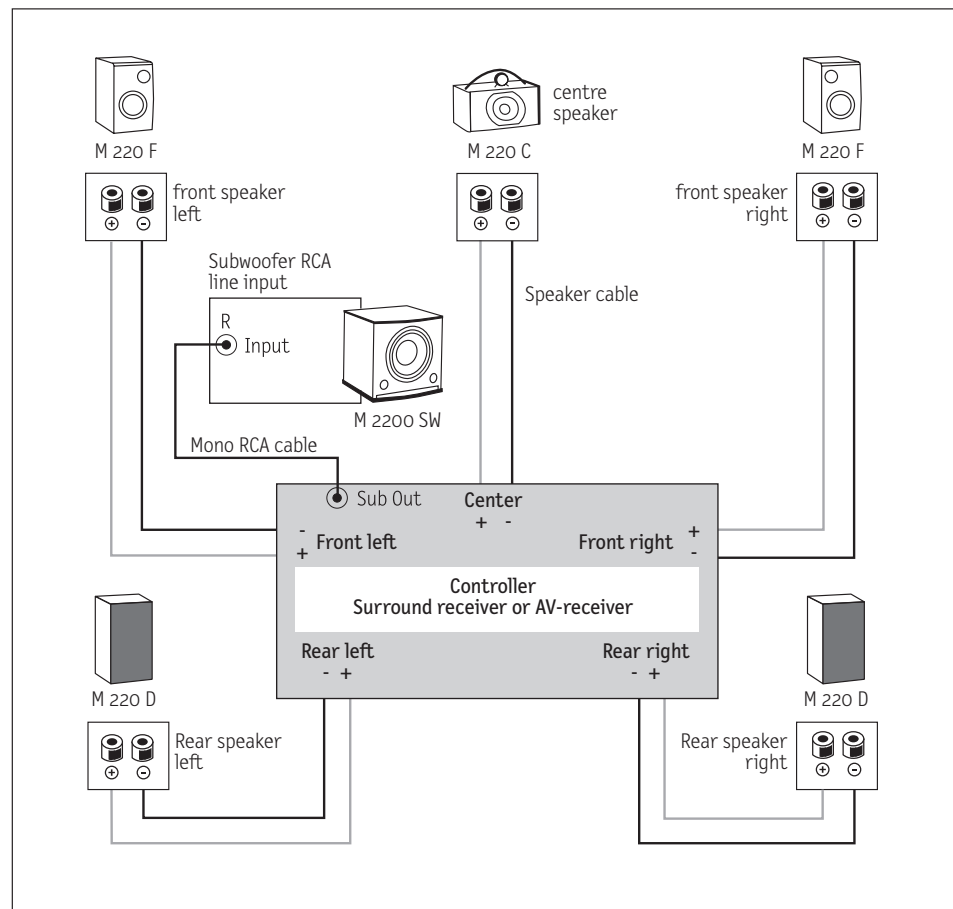
If your AV receiver is 6.1/7.1, simply ignore the Rear Centre Out(s). To make full use of a 7.1 AV receiver, you will additionally need to install the Theater 2 "5.1 → 7.1 EX" set (see page 7), which consists of two add-on M 220 D speakers for the left and right rear centre channels.

Connect the subwoofer output (Sub Out) of your Dolby Digital/DTS AV receiver/amplifier to the right Line Input (R) of the subwoofer using a mono cinch cable. In this setup, the left input (Line Input L) is not connected. If you want to feed the Sub Out signal to both of the subwoofer's inputs for an additional bass boost, use a Y adapter (see Accessories, p. 7).



**Connecting the speakers to an AV surround receiver (example: 5.1 system)**

**Note:**  
With the 7.1 EX set, connect the additional L/R rear centre speakers to the 7.1 AV receiver's L/R Rear Centre Outs.



## Settings

### Setting up the AV receiver

To take full advantage of a home theatre system with an active subwoofer, set the “Speaker Setup” section of your AV receiver to “small” or “normal” (not “large”) for the five satellite speakers. This ensures that the speakers receive the right amount of signal, and that the subwoofer and front speakers have matching volumes.

Also in the “Speaker Setup” section (Bass Management and/or Speaker Management), make sure the subwoofer is set to “On”.

The correct crossover frequency for the Theater 2 set is 80 Hz.

### Setting up the subwoofer:

Set the subwoofer itself to “Full Range”. This means that the phase and crossover frequency are controlled by the AV receiver. Make sure that the subwoofer’s frequency control is set to maximum.

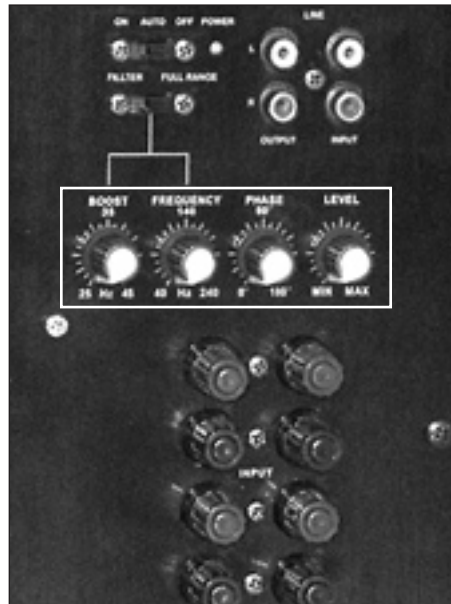
The subwoofer’s output volume may vary depending on usage, e.g., home theatre sound system or music playback. Whereas an action-packed DVD typically contains very defined sub bass signals, many music-only sources do not. This is especially noticeable if your system is calibrated for optimum DVD playback. To find the best compromise between differing sound sources, use your own subjective judgement. Our recommendation is to determine the best subwoofer volume gradually over time.

Avoid configuring the subwoofer volume automatically via your AV receiver’s integrated room analysis computer (advanced receivers only). Instead, set the subwoofer level in the

bass management/speaker management section (“Speaker Setup”) to a high value, and to medium-low on the subwoofer itself. This will guarantee that the subwoofer activates itself at the right times when in “Auto On/Standby” mode, and you can freely experiment with different bass levels that are suited to your various listening scenarios.

The active equalizer (“Bass Boost” control) extends the bottom end of the frequencies and can be set anywhere between 25 Hz and 45 Hz. The ideal setting of this control depends on the resonant frequencies of your room.

**To find out more about resonant frequencies, please read our “FAQ/Support” pages on [www.teufel.eu](http://www.teufel.eu).**



### As a general rule:

*The smaller the room, the closer this control should be to 45 Hz in order to ensure a tight, defined reproduction of the bass frequencies.*

*In most average-sized listening environments, a setting of 35 Hz will produce good results.*

## Subwoofer controls

### What the icons mean



The lightning/arrow symbol inside an equilateral triangle informs the user about the possibility of a dangerous, non-isolated electrical current inside the device housing, indicating the risk of electrical shock.



The exclamation mark within the equilateral triangle, which can be seen on the back of the unit, indicates that there is important operating and service information for the user to read.



This product complies with the following European Union guidelines: 89/336 WG and 73/23 EWG.



The "wastebasket" symbol printed on the type plates and amplifier labels of our products signifies that Lautsprecher Teufel ensures the proper disposal of its sold loudspeakers and subwoofers according to Germany's Electrical and Electronic Equipment Act.

**\* As a general rule:**  
The smaller the room, the closer this control should be to 45 Hz in order to ensure a tight, defined reproduction of the bass frequencies.



### 1 Line Input

Connect the AV receiver's "Sub Out" to the subwoofer's "Line Input" using a mono cinch cable (optionally with an additional Y adapter).

### 2 Line Output

Here you can connect a second subwoofer for added bass or to compensate for resonant frequencies in the room.

### 3 Power mode

OFF means that the subwoofer is switched off; ON means that it is switched on (LED: red). AUTO means that the subwoofer is operational but is only activated once it receives an audio signal (LED: green). The subwoofer automatically switches to standby after 20 minutes of inactivity (LED: changing between red and green).

### 4 Filter Fullrange

With the switch on "FILTER", the built-in controls for "Phase" and "Frequency" are activated. With the switch on "FULLRANGE" (recommended setting), these parameters are controlled by the AV receiver.

### 5 Bass Boost \*

This active equalizer boosts the bottom end of the bass frequencies and can be set anywhere between 25 Hz and 45 Hz. The ideal setting of this control depends on the resonant frequencies of your room. To find out more about resonant frequencies, please read our "FAQ/Support" pages on [www.teufel.eu](http://www.teufel.eu).

### 1 Line Input

### 2 Line Output

### 3 Power Function (top)

### 4 Filter Fullrange

### 5 Bass Boost

### 6 Frequency

### 7 Phase

### 8 Level

### 9 High Level Input/Output

### 10 Power – mains (bottom)

### 11 Fuse

### 6 Frequency

Use this control to set the crossover frequency between the subwoofer's bass signal and the bass frequencies of the other speakers. If you are using a surround receiver, set the receiver's crossover frequency to 80 Hz and turn the subwoofer's frequency control to maximum (hard right).

### 7 Phase

This switch determines the phase relationship between the subwoofer and the front/centre speakers. If the subwoofer is positioned in the speaker setup as indicated on p. 9 (grey area of drawing), set the phase to 0°. With other setups, the 180° setting may produce better results.

### 8 Level

Use the "LEVEL" control to adjust the subwoofer's volume. In the receiver's bass management section, set the bass level to a high value, i.e., between 6 and 12 dB. Next, set the subwoofer's level control to 1/4. While the AV receiver is outputting its white noise setup signal, slowly turn up the subwoofer level to the desired volume.

### 9 High Level Input/Output

Use these speaker sockets to connect the subwoofer to a conventional stereo amplifier without a dedicated subwoofer output. Do not connect anything here if you are using a multi-channel AV receiver with a Sub Out.

### 10 Power

OFF means that the subwoofer is switched off; ON means that it is switched on.

### The subwoofer is not working

If the Power LED on the rear panel does not light up, replace the fuse (see page 14, point 11). If the Power LED lights up, set the subwoofer volume level to “Min”, unplug the subwoofer cinch cable from the amplifier, turn up the volume slightly and touch the tip of the cinch connector with your finger. If this produces a hum or crackle, the fault is with the amplifier or the amplifier settings. If the subwoofer remains completely silent, please contact our support team.

### The subwoofer is making a humming noise

Hum may be caused by any connected audio device as well as by problems with the mains power. In most cases, excessive hum is caused by one of the following:

1. The subwoofer is connected to a different electrical circuit than the other components. Make sure that all the connected devices (including any computers) are powered from the same electrical circuit, i.e., the same mains socket.
2. The antenna connected to the audio system or TV has a different ground potential to the antenna socket. To test this, simply disconnect all the antenna cables from the wall socket. If this makes the hum disappear, you will need a ground breaker (available from most electronics stores). Simply insert the ground breaker between the antenna socket and the TV/receiver.
3. A line filter (to be purchased separately) can also be useful for hum removal. Note that you will need to connect all your electrical devices to the line filter. Make sure you can return the line filter for a refund if it does not produce the desired results.
4. Some types of power multiboxes are also known to produce hum. Try eliminating your multibox and plug the subwoofer's power cable directly into the mains socket.
5. If possible: Unplug the mains cable, rotate the connector plug by 180°, and plug it back into the mains socket.
6. If you have trouble locating the source of the hum, check whether the subwoofer is less noisy when you plug it into the mains connection in another room (e.g., using an extension cable). Also, try disconnecting the subwoofer's cinch cable from the receiver to see whether the hum is caused by one of the other connected audio devices.

### The M 2200 SW is switching itself off

For safety reasons, the M 2200 SW is equipped with an automatic disable switch.

This is designed to protect the power supply, the amplifiers and the speaker from overloading. Whenever the subwoofer is pushed beyond its limits, the disable switch is activated. For example, this may happen if the subwoofer is placed in a very large room and is run continuously at a very high volume with the “Bass Boost” control right down on 25 Hz. Use the “Power Function” switch (On – Auto – Off) to reactivate the subwoofer.

### Cleaning

Please take note of the following guidelines to protect the components and maintain the finish of your Teufel loudspeakers:

Avoid placing the speaker cabinets in direct sunlight. Avoid extreme temperature fluctuations and protect your loudspeakers against humidity. When cleaning the speaker cabinets, only use dry or moist cloths. Never use abrasive or alcohol-based cleaning products. If you need to clean a speaker membrane, do so very carefully using a dry cloth.

### Technical specifications

All technical specifications are listed on our website at [www.teufel.eu](http://www.teufel.eu)

### Active subwoofer

Loudspeaker with integrated amplifier for the reproduction of bass frequencies. Very low frequencies can only be reproduced by large-size speakers. To permit a speaker system with compact front speakers, the bass frequencies are handled separately by a dedicated subwoofer unit. As bass frequencies travel largely non-directionally, the subwoofer can be placed out of sight, e.g., behind the couch or under a coffee table. The crossover frequency between the front speakers and the subwoofer varies from system to system, but is usually somewhere between 50 and 120 Hertz.

### Auto On/Off function

The Auto On/Off function activates the subwoofer when an audio signal is detected at the input, and switches it off again after a set time of inactivity (approx. 20 minutes).

### Centre

The central loudspeaker of the home theatre system. Surround sound for TV/film places most of the dialogue in the centre speaker. Because of this, excellent reproduction of speech is a vital quality of the centre speaker.

### Cinema set

"Cinema sets" are all Teufel speaker systems that consist of three direct-radiating front speakers and dipole effects speakers. "Concert sets", in contrast, consist of five direct-radiating speakers.

### Concert set

"Concert sets" are all Teufel speaker systems consisting of five direct-radiating speakers. "Cinema sets", in contrast, consist of three direct-radiating front speakers and dipole rear speakers.

### Dipole

Dipole loudspeakers radiate sound in two directions. This makes them ideal as rear speakers in home theatre systems, as their radiation pattern mimics the loudspeaker arrangement in commercial cinemas. In a cinema setup, the rear audio channels are reproduced by several speakers that spread the sound around the room. Dipole speakers are designed to radiate sound indirectly so that it cannot be easily located. This distinguishes them from direct-radiating speakers.

### Direct-radiating speaker

All conventional loudspeaker cabinets that directly radiate the sound at the listener are described as "direct-radiating speakers". In home theatre systems, direct-radiating speakers are primarily used for the sound channels of the three front speakers. In Teufel's Concert sets, they are also used for the rear channels.

### Dolby Digital/DTS decoder

An electronic circuit to split digital multi-channel audio signals from DVDs into up to seven separate signals. 'Dolby Digital' and 'DTS' are different audio formats, so they require different decoders. Most AV receivers, DVD players and surround sound cards are equipped with both decoders.

### Frequency/crossover frequency

The "crossover frequency" determines at which point in the frequency range the bass frequencies are separated off to the subwoofer. For example, a crossover frequency of 120 Hz means that all frequencies above 120 Hz are sent to the satellite speakers, and all frequencies below 120 Hz are sent to the subwoofer.

### Level

The "Level" control on the subwoofer determines the subwoofer's volume. In a perfect speaker setup, all the speaker channels (including the subwoofer) are balanced in relation to the listening spot, i.e., all the speakers appear to have an equal volume.

### Phase

The "Phase" control lets you adjust the subwoofer to the satellite speaker so that the membranes of all the speakers vibrate in the same direction ("phase") when reproducing signals around the crossover frequency. If the phase is set incorrectly, this may cause a reduced bass response or even bass cancellations. If the subwoofer is positioned between the front speakers, we recommend a phase setting of 0°; if the subwoofer is positioned closer to the listening spot, a phase of 180° may be more appropriate. Similarly, the 180° setting may help to eliminate bass cancellations if you position the subwoofer in other areas of the room. Always set the phase control to the position where the bass response is best.

### Rear speaker

The rear speakers (→ dipole or → direct-radiating) mostly reproduce effects and atmospheric sounds. This creates a much more spatial sound field when playing back film sound and music.

### Sub Out

Output on the receiver or amplifier to connect an active subwoofer using a mono cinch cable.

### 5.1/7.1 Pre Out

Preamp outputs on the receiver, or DVD player outputs. An analog audio signal (cinch connection) is provided for each channel.

### 6.1/7.1 surround sound format

In this surround sound format, the left and right rear speakers are complemented by a centre rear channel. Depending on the encoding format, this "Rear Centre" is either embedded into the stereo matrix for the left/right rear channels and then extracted during playback (e.g., THX® Surround EX, Dolby Digital EX), or it is transmitted as a separate signal (DTS Discrete). In reference to the more widespread "5.1" surround format, these formats are described "6.1". Practice has shown that the best surround results are achieved if the rear centre channel is reproduced by not one but two centre rear speakers. Because of this, AV systems that feature amplifiers and connections for two rear centre speakers are described as "7.1", although they are technically only reproducing a "6.1" signal.

# Teufel

If you have any questions, suggestions or criticisms, please contact our support team:

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