



## LT 2 + R

5.1 channel home cinema set including fully active subwoofer with an integrated Dolby Digital/DTS receiver

**Teufel**

### For your information

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### Complaints

If you have a complaint, it is essential that you provide the following information so that we can respond:

1. Invoice number  
Found on the receipt (enclosed with the product) or the order confirmation that you received as a PDF file, e.g. 4322543.
2. Series or batch number  
Found on the rear of the appliance,  
e.g. batch no.: MO 04007480121A

Thank you for your support.

### Technical data

You will find technical data on our website: [www.teufel.eu](http://www.teufel.eu).

### Warranty terms

12 year warranty for speakers and 2 year warranty for power amplifiers and electronics (from purchase date) on materials and work time, with the exception of damage caused by incorrect use or electrical or mechanical overload. An original copy of our invoice is required as the warranty document. This warranty is exclusively valid for speakers, power amplifiers and electronics that have been purchased from Teufel for private use by end customers. The warranty is not valid for speakers, power amplifiers and electronics that the end user has purchased from a different distributor. If the Teufel product is sold on privately, the warranty may be transferred to the purchaser, providing that the original proof of purchase is also transferred.

### Returns

Teufel guarantees an eight-week right of exchange or return with rebate of the purchase price paid.

The return of individual components of a kit is only permitted if these components can also be purchased individually from Lautsprecher Teufel. When one or individual components are returned, the price discount that Lautsprecher Teufel guarantees for all components of a kit as part of the set price shall no longer be valid. For the components returned, customers shall therefore be refunded only the difference between the set price and the purchase price of the individual components that they are keeping. The economic outcome for customers is as if they had bought the remaining components at the individual price from the outset.

You can find more information about returns on the "returns form" that accompanies the delivery or on line in the support area of our web site [www.teufel.eu](http://www.teufel.eu).

In the event of making a return, please do not take any action without first contacting Lautsprecher Teufel.

**We can only process and accept returns if you have informed us first by phone and discussed the procedure with us.**

Please contact our service department if you have any questions, suggestions or if there is anything you think we could do better.

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## Safety information

### **Please read the following safety information carefully.**

*Risk of suffocation – keep packaging materials (e.g. the plastic film) out of the reach and sight of children.*

*Risk of electrocution – do not leave children unsupervised with electrical appliances!*

### **In case of emergency**

If any of the following occur disconnect the appliance from the mains and consult our technicians:

- ▶ If the plug or cable are damaged
- ▶ If foreign bodies or liquid have entered the appliance
- ▶ If the appliance has been in direct contact with rain or other water
- ▶ If the appliance does not play, even though you have followed the operating instructions
- ▶ If the appliance has been dropped or damaged in some other way

We cannot accept any responsibility for incidences that occur because safety information has not been adhered to.

**Important:** Please read through these operating instructions very carefully. It is essential that you take note of all of the safety information and operating instructions before switching on the appliance. Please keep these operating instructions in a safe place for future reference.

**Important:** Please read the operating instructions. You should also follow all instructions for start-up and ongoing use.

**Information on cleaning:** Please do not attempt to clean the appliance using household chemicals because they could damage its surface. Simply use a dry cloth. Disconnect the appliance from the mains before cleaning.

**Caution – moisture and sunlight:** Never operate the appliance in damp rooms, i.e. close to baths, showers, wash basins, drains, damp cellars or swimming pools; never use it where there is moisture. Never expose the speakers to high air humidity and avoid direct sunlight. Do not expose device to dripping or splashing water. Do not place objects filled with liquids, such as vases on the device.

**Information on location:** Do not use the appliance unsecured in vehicles, in unstable places, on wobbly tripods or furniture or supports that are too small. The speakers could fall and cause damage to people, including yourself. Speakers, particularly if positioned on stands or on the TV/monitor, may fall and cause damage due to their weight, even if they have been positioned securely and stably, as a result of external influences (pulling on the cable, tripping over the cable, unintentional physical contact). This also applies to wall supports that have been attached inappropriately or incorrectly to walls that may not be capable of supporting their weight. Only use suitable wall brackets for mounting. Make sure that you know how much weight the walls can bear. The appliance must not be placed near sources of heat. This includes radiators and heaters, ovens and other appliances that emit heat (e.g. amplifiers). Sources of heat, such as fan heaters or candles, should not be placed on the speakers.

**For ventilation:** Any slits and openings in the casing have been provided for ventilation. Their purpose is to guarantee reliable operation and to prevent the appliance from overheating. These openings must not be blocked or covered, including by placing the appliance on a bed, sofa, carpet or other soft surface. Do not place any newspapers or table cloths, etc. on the appliance. The cooling plate of the amplifier electronics must not be covered or exposed to direct sunlight. Additional active cooling of the appliance is generally not permitted.

**Electrical supply:** The subwoofer must only be supplied from a power source with the correct voltage as specified on the identification label. If you are unsure about the electricity supply in your home, please contact us or your electricity supplier for more information. The device must be grounded. Please only use the appropriate power cable for connecting to the power socket. Do not modify the power cable under any circumstances! You must comply with regulations regarding polarity and grounding. The power socket of the device will only accept a 3-pin power plug. Make sure the power switch is in the “off” position before connecting or disconnecting the device.

**Information on wiring:** Please place the supply cable flat and flush to the wall and floor. Cables that are laid loosely represent a risk of tripping. This could also result in interference and cause the sound to be disrupted. The electricity supply cable should be laid so that it is not likely to be stepped on or squashed from the sides or above by heavy objects. Damaged cables must be replaced. Pay particular attention to the cable/plug connection, the mains socket and the cable output from the subwoofer. The power supply cable and the cables that connect the speakers

should be checked regularly for insulation faults or breaks. If a fault is discovered, the appliance and the cabling must be disconnected from the mains immediately and the defective cable must be replaced.

**During periods without use:** Remove the subwoofer’s power supply cable from the socket for longer periods of absence or non-use.

**During thunderstorms:** In order to avoid damage caused by lightning strikes, the appliance should be switched off and also detached from the mains socket as soon as a thunderstorm is expected.

**Risk of overload:** You should not overload wall sockets, extension cables or integrated appliance sockets, because this could potentially lead to short circuits and even fires. You should also avoid turning up the volume very high on the relevant amplifier, especially if you have increased the bass using the bass control, the loudness button or one of the deep bass boost switches.

**Foreign bodies and liquids:** Foreign bodies and liquids must not get into the appliance via its openings under any circumstances, as they could come into contact with parts carrying high voltages, which could then cause short circuits and fires. Therefore do not spill any liquids of any kind on the appliance. Troubleshooting: Do not attempt to repair the appliance yourself. Contact our service department first for authorisation if you think that you can repair the fault yourself. Otherwise the appliance must be sent to our service department.

**Transport:** The appliance should be transported using a hand truck. Great care must be taken during transport. Please note that uneven surfaces, sudden stopping or inappropriate exertion of force may cause the hand truck and the load to fall over.

**Information on spare parts:** Lautsprecher Teufel will provide you with spare parts during the warranty period. Your warranty will not be invalidated if you replace the parts yourself on-site using Lautsprecher Teufel spare parts.

**Unusual sounds:** If any unusual sounds occur during use or the sound becomes distorted, the speaker output must be reduced immediately so that the system plays an undistorted sound.

**Connecting and changing the fuse:** Disconnect the mains plug. A faulty fuse may only be exchanged for one of the same type.

**Information on volume:** Loud noises can damage hearing. Sudden high pressure may be created, particularly if a “subwoofer” in “Standby/Auto On” mode is switched on by a bass impulse at full volume. In addition to physical damage, please be aware of possible psychological consequences. Children and pets require particular care. If necessary, set the volume control of your signal source appliance to the lowest level. At high volumes, always keep a certain distance from the appliance and never have your ears right next to the speaker.

## Introduction LT 2 + R

### Dear Lautsprecher Teufel customer,

Thank you for buying the home cinema system LT 2 + R from Lautsprecher Teufel.

You have purchased a very high-performance 5.1 channel home cinema system: Lautsprecher Teufel speaker systems are equipped with high-quality components and are assembled with extreme care.

The associated L2200/6 SWR, a fully active subwoofer with six integrated end stages, can deliver output in addition not only to its own subwoofer but also to five satellite speakers for treble and mid-range sounds and thus forms the basis of the 5.1 home cinema set. You can find connection details on pages 14 and 15 of these instructions.

We recommend the LT 2 + R for providing sound in rooms up to 35 m<sup>2</sup> in size.

Before operation please read these instructions carefully and store them in a safe place for future reference. If you have any further questions, please contact our engineers on tel. +49 (30) -300 9 300 or use the e-mail contact form on our website [www.teufel.eu](http://www.teufel.eu). Please have your invoice number ready, so we can immediately locate your product and provide the best possible support.

BEFORE contacting us with a question, please read the "Problems and solutions" section on pages 22 to 23 of these operating instructions and visit our website ([www.teufel.eu](http://www.teufel.eu)) where you will find answers to many questions in "FAQ/Support".

Please refer to our safety information on page 4 of these operating instructions and only use the speaker once you have read the safety information.



LT 2 + R Set 1



LT 2 + R Set 3

**First please check that the delivery is complete.**

**Please note:**  
Please keep the boxes for at least the eight-week return period, as we can ONLY repay the full purchase price if the products are returned in the ORIGINAL PACKAGING in which they were supplied!

**Warning:**  
Inappropriate replacement of the battery may cause explosion. Replace only with batteries of same type. Do not expose the battery to excessive heat such as sunshine or fire. If you plan to not use the device for a longer period of time: remove the batteries from remote control and store them appropriately to prevent possible damage from leaking.

## Unpacking

Fold back the flaps on the upper side of the box, remove the polystyrene pieces and carefully lift each speaker out of the box. Alternatively you can fold back the flaps on the top of the box and turn the box with its contents on its head. Then lift the box from the contents and remove the internal packaging. For your own benefit we recommend that you do not dispose of the box, in order to guarantee safe transport if the appliance requires servicing later on.

## Contents

### LT 2 + R - Set 1

- ▶ 1 x LT 2 + R subwoofer L2200/6 SWR
- ▶ 1 x centre speaker L220C
- ▶ 4 x column speakers L220FR
- ▶ 1 x subwoofer remote control
- ▶ 2 x batteries for remote control
- ▶ 1 x base for L220C
- ▶ 4 x spikes, hard
- ▶ 4 x spikes, soft
- ▶ 1 x VHF/FM auxiliary aerial
- ▶ 1 x MW/AM frame aerial
- ▶ 1 x speaker cable (30m)
- ▶ 1 x mains cable

### LT 2 + R - Set 3

- ▶ 1 x LT 2 + R subwoofer L2200/6 SWR
- ▶ 1 x centre speaker L220C
- ▶ 2 x rear speakers L220FCR
- ▶ 2 x column speakers L220FR
- ▶ 1 x subwoofer remote control
- ▶ 2 x batteries for remote control
- ▶ 1 x Fbase for L220C
- ▶ 4 x spikes, hard
- ▶ 4 x spikes, soft
- ▶ 1 x VHF/FM auxiliary aerial
- ▶ 1 x MW/AM frame aerial
- ▶ 1 x speaker cable (30m)
- ▶ 1 x mains cable

## Accessories

Other connection cables or subwoofer casters are not included as a result of the different requirements. You can, however, order any required accessories directly from us. You will find the optional accessories for the LT 2 + R Dolby Digital/DTS subwoofer on the following page.



LT 2 + R subwoofer  
L2200/6 SWR



Centre speaker L220C



Column speaker L220FR



Rear speaker L220FCR



Remote control  
2 x batteries



MW/AM frame aerial



VHF/FM auxiliary aerial



Spikes, hard



Mains power cable



Spikes, soft



Base for L220C



speaker cable

## Accessories (optional)

### Optional accessories for the LT 2 + R

Here is an overview of the relevant accessories available for your Teufel home cinema set.

#### Teufel Y adapter cable



If you want to connect an appliance (e.g. MP3 player) that only has a mini-jack output – and the mini-jack input “PC” is already occupied – this cable is suitable for connecting the appliance with the “VCR” or Aux” cinch inputs. Available in three lengths.

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



This highly flexible copper wire with transparent sheath and marking to indicate polarity is suitable for the satellite speakers on your Concept S-system. The 2 x 2.5 mm<sup>2</sup> cable can be used for a length of 15 metres. Due to a high number of customer requests, our cable is pre-cut to practical lengths of 10 to 50 metres.

#### Teufel banana plug



These high-quality Teufel all-round plugs enable you to connect your speakers to an amplifier or receiver in a cost-effective and reliable way. A stable screw grip firmly holds all cables with a diameter up to 4 mm. Permanently elastic spring contacts and genuine gold-plating guarantees plug connections with very low resistance. Supplied in pairs, one red plug and the other black.

#### Teufel casters



These black casters, characterised by a particularly flat construction height, make your Teufel subwoofer mobile in no time at all. This makes the back-breaking carrying round of the subwoofer when testing the ideal subwoofer position a thing of the past. They are also very practical when cleaning. These casters can be used instead of the supplied resonance damper.

#### Oehlbach Red Opto optical fibre



These thin plastic lines are used to transfer digital data between the CD, MD and amplifier/receiver and between the laser disc and DVD player and the AV appliance. The cables are now supplied with an adapter for CD and MD Walkmans. The black optical cable has a 5,5 mm diameter and is the first choice for high quality home cinema and THX systems.

A 0.5 m optical connection cable is already included as standard. If you have to cover longer distances or simply want better quality, please use our online shop to order the Oehlbach Red Opto optical fibre cable. The Red Opto cable is available in lengths of 0.5 to 6 metres.

#### Teufel volume level measuring device



Do not rely on your ears. Equalising your home cinema system works much more precisely with the aid of a volume measuring device. A purchase that will last a lifetime!

*All optional accessories can easily be ordered as required, e.g. from the accessories area on our website: [www.teufel.eu](http://www.teufel.eu)*

## Setting up the 5.1 configuration

### General information on configuration

Much more important than for a stereo system, home cinema systems must observe certain set up criteria in order to optimise the sound quality when using a multichannel surround sound system.

For home cinema systems, we recommend concentrating on the area actually used – i.e. the (part of the) room where the TV/screen and seats are located. The TV/screen should be positioned as centrally as possible to the listening location.

The recommended set-up (on the following pages) represents the best possible arrangement for perfect multichannel playback at home. Your available space, your partner or furniture may not always permit such ideal placement. Try to meet as many requirements as possible. Small variations are not a problem. The L2200/6 SWR offers options for compensating electronically for any compromises in the set up. Generally speaking, the following rule always applies: you can always use our recommendations to experiment with what works best acoustically and optically. Let your ears (and eyes) decide!

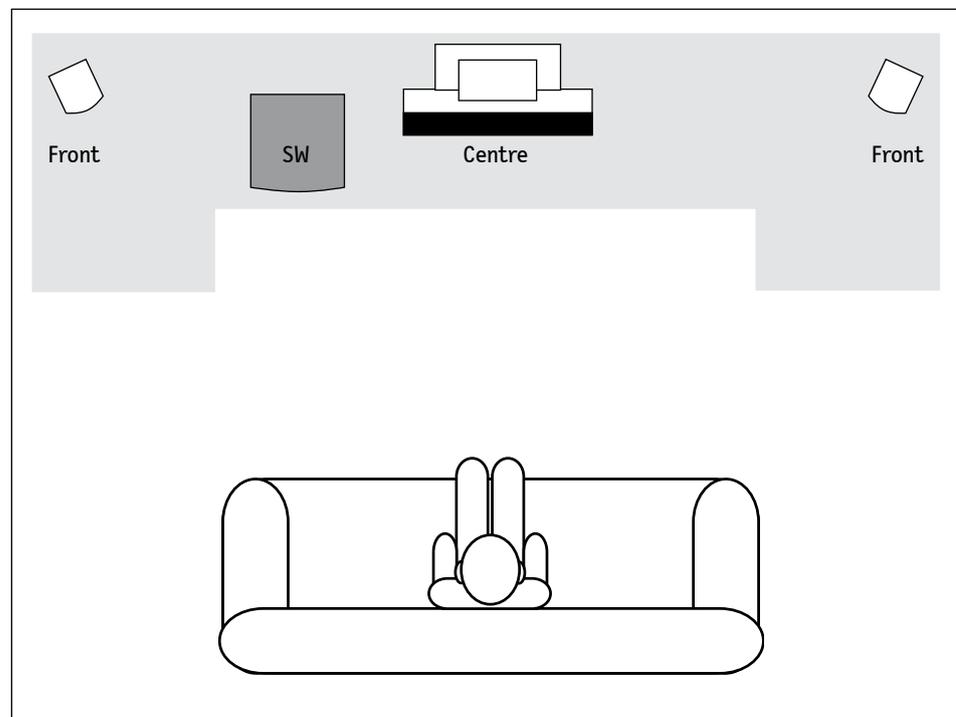
### Subwoofer

The location of the subwoofer is freely selectable and does not affect the other speakers. Placement within a straight line between the two front satellites is ideal. But you can also try it out at any other location in the room. Thanks to its magnetic screening, the woofer can also be placed near the TV. We must, however, advise you not to use it as a “TV table” as the subwoofer’s vibration may cause the TV to “wander” – with potentially damaging consequences to the appliance and users. For ideal communication between the subwoofer and remote control, it is essential for the front of the subwoofer to be aimed towards the listener.

### Centre

As the centre plays back all voice information, including the actors’ dialogues, the centre speaker must be as central as possible to the listening position or located above the TV/screen so that the sound and image make up a harmonious unit.

*We recommend placing the subwoofer in the front grey area.*



## Setting up the 5.1 configuration

### Front

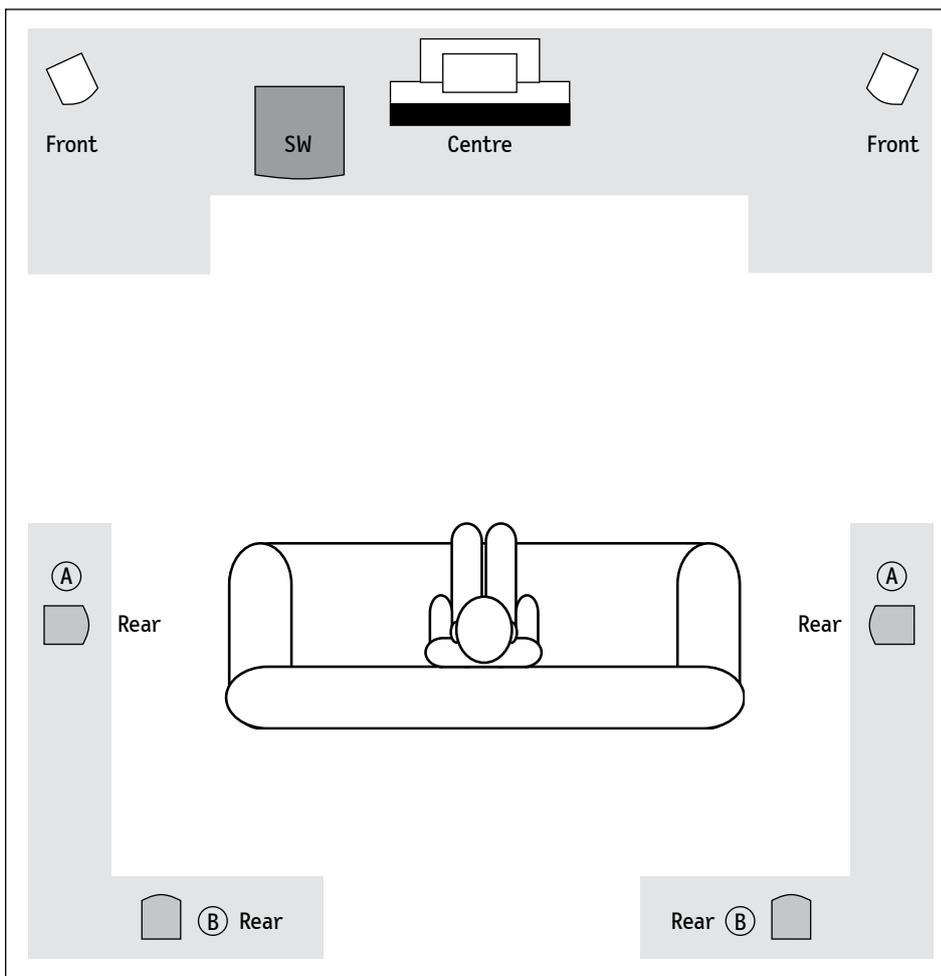
Using the old stereo tradition (distance to listener = distance between the left and right speaker), the front speakers are set up next to the TV/screen with the same distance to left and right or fixed to the wall. If the speakers have to be placed further out, you can easily turn them inwards and towards the listening location.

The following applies if the front speakers are fixed to the wall or placed on shelves: select a set-up height of between 40 centimetres and 1.20 metres (lower edge). It is important that the centre and front speakers are approximately in a line, or possibly even on a slight arc to the TV. Otherwise the homogeneity of the playback may vary with run time differences. Setting the speakers up in this way allows them to deliver their full sound potential.

### Rear

The rear speakers should be set up to the left and right either to the side or behind the listening location – ideally at the same height as the front speakers, e.g. on a shelf or directly on the wall. The speakers can be fixed higher than the front speakers (up to 2.10 m); but we advise you not to locate them lower.

We always recommend that the distance between the rear speakers and the listening location is more than 1.00 m. But if you (have to) sit closer, please ensure that the front of the speaker is not pointing directly at you but rather angle the speakers more into the room. Or create a greater distance by positioning the speakers higher than 1.20m.



*We recommend placing the subwoofer in the front grey area.*

*We recommend placing the rear speakers in the rear grey area.*

*Select position area A or B.*



**Button names and their functions**

**Standby**

Switches the subwoofer on (press once) or off (press again) after the power supply has been initiated on the rear ("Power" – see page 11) of the appliance. A blue LED indicates that the device is on standby.

**Input**

Select the input signal with this button. The next input is activated every time the button is pressed.

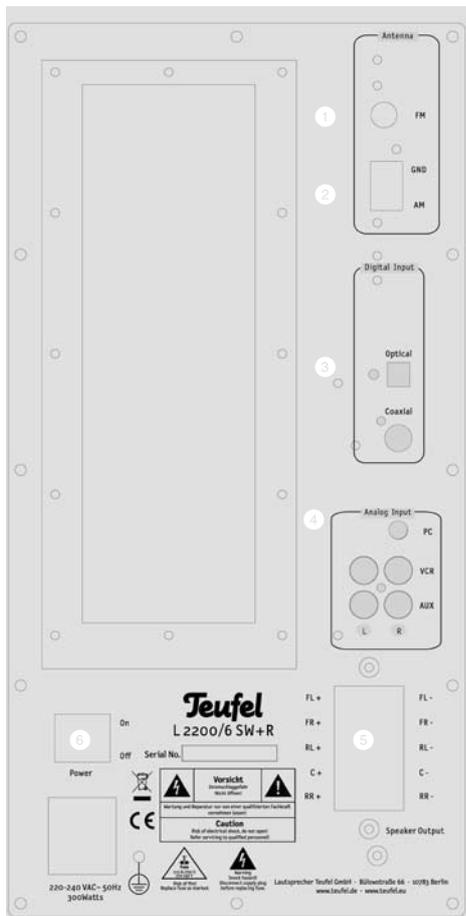
**Volume +**

This increases the overall volume of the system.

**Volume –**

This decreases the overall volume of the system.

The display always shows the selected signal source during operation, e.g. "Coax" and the playback mode, e.g. "AC3" = Dolby Digital. This display is interrupted if you make a change, e.g. to the volume. As soon as this activity is ended, the display indicates the originally selected signal source again.



**Connection names and their functions**

**1 FM**  
Connection for FM/VHF auxiliary aerial

**2 AM**  
Connection for AM/MW aerial

**3 Digital input**  
**Optical:** For connecting the L2200/6SWR with a digital signal source in optical format (Toslink).  
**Coaxial:** For connecting the L2200/6SWR with a digital signal source in coaxial format.

**4 Analogue input**  
**PC:** This is used to connect the sound card output (“Audio Out”) on your desktop PC or notebook to the L2200/6SWR using an optional stereo mini-jack cable. Alternatively, you can connect an MP3 player.  
**Aux/VCR:** You can connect the cinch cables (left/ right) with the analogue outputs of your stereo reproduction appliances (e.g. TV set, CD player, video recorder, etc.). The input called VCR (= video recorder) can also be used with other signalling appliances such as a MiniDisk player, cassette recorder etc. You will need an additional equalizer/preamplifier to connect and operate an analogue record player.

**5 Speaker output**  
Here you connect the two-core speaker cables [+]  
and [-] from the five satellite speakers.

**6 Power mains power switch**  
When set to “Off”, the subwoofer is switched off, and on when it is set to “On”.

**Explanation of symbols**



The arrow-headed lightning symbol in an equilateral triangle indicates the presence of a dangerous uninsulated electrical voltage within the system housing and therefore a risk of electrical shock.



The exclamation mark in an equilateral triangle, as affixed to the appliance, is to make the user aware of important operating and maintenance instructions..



This product complies with European Community guidelines 2004/108/EC and 2006/95/EC.



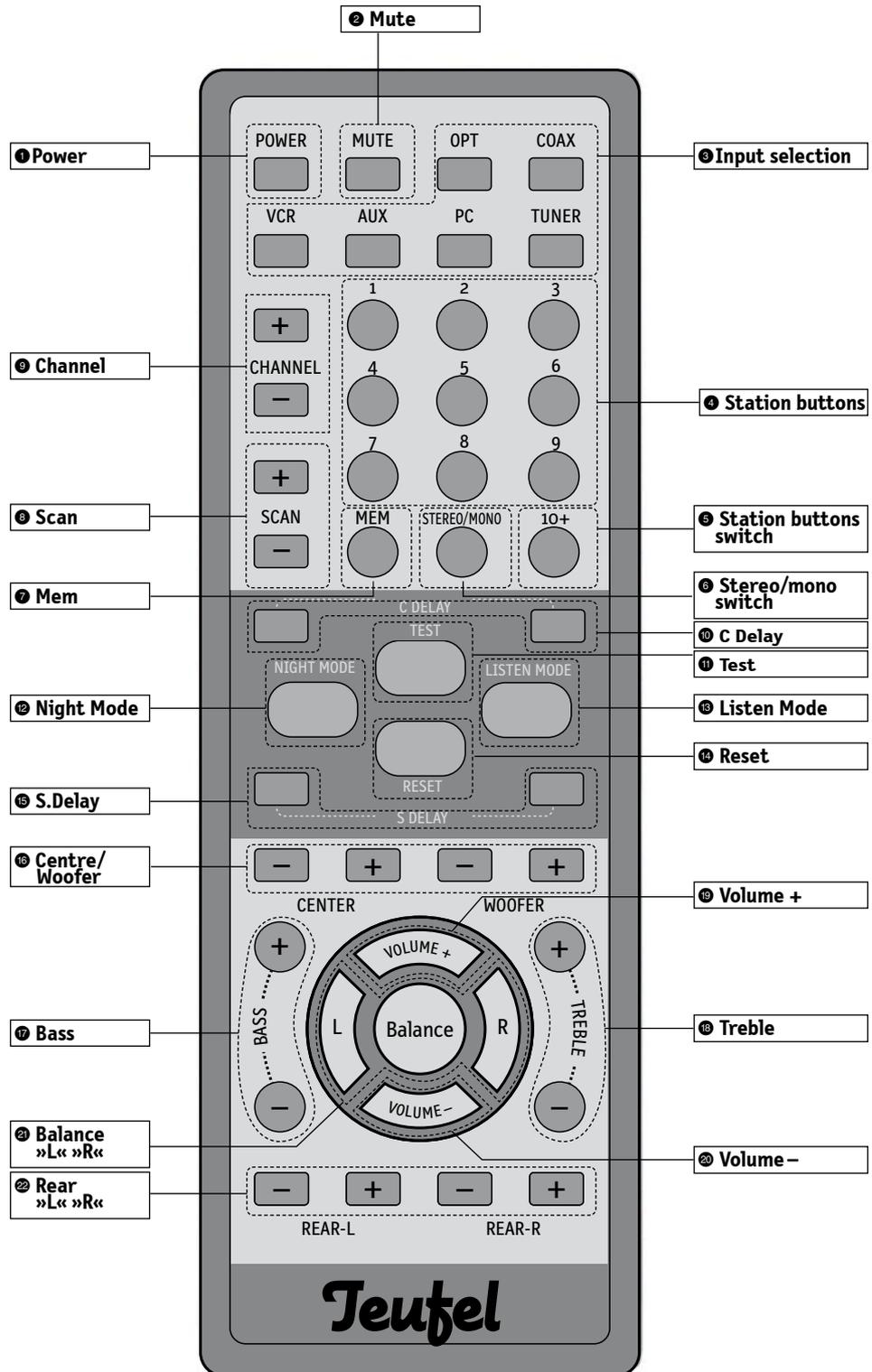
The dustbin symbol printed on our products’ type plates and amplifiers states that Lautsprecher Teufel guarantees proper disposal of these speakers and subwoofers in line with the Electrical and Electronic Appliance Act.

**Attention:**  
The separating equipment of this equipment is the mains plug, this separating equipment must be usable without difficulties.

## Function: Remote control

### Button names and their functions

→ Explanation of functions on the following page



### ❶ Power

Switches the subwoofer on (press once) or off (press again) after the power supply has been initiated on the rear ("Power" – see page 11) of the appliance.

### ❷ Mute

Pressing the button once immediately mutes the complete system; if you press it again, the system returns to its previous operating status. If the system has been switched to mute, the "MUTE ON" message on the display lights up; on reactivation "MUTE OFF" lights up briefly before the input source appears again, e.g. "OPT".

### ❸ Choice of input

Here you select the five inputs plus the integrated radio receiver. → *Page 20*

### ❹ Station buttons

Nine buttons allow the radio stations saved by the user to be selected directly. → *page 21*

### ❺ Station buttons switch

Enables the programming of other radio presets. Press once for positions 11–19, twice for 20–29, 3 x 30. → *page 21*

### ❻ Stereo/mono switch

When receiving weaker VHF/FM stations via room aerials, the playback quality may improve noticeably if you switch to mono.

### ❼ Mem

Memory button to assign the station buttons (4). → *page 21*

### ❽ Scan

For radio operation you can run through the frequency bands manually to get to the next station – in ascending [+] or descending [-] order. → *page 21*

### ❾ Channel

In "Tuner" mode you can switch directly from station to station – in ascending [+] or descending [-] order. → *page 21*

### ❿ C.Delay

Option to set the delay on the centre speaker. Only works with Dolby Digital/DTS. → *page 19*

### ⓫ Test

Initialises the test sound to equalise the speakers. → *page 18*

### ⓬ Night Mode

For Dolby Digital signals, this activates volume-reduced playback with acoustic adaptation to a lower volume level. Press again to deactivate Night Mode. → *page 20*

### ⓭ Listen Mode

Used to select the various playback modes such as Dolby ProLogic II or stereo. If a Dolby Digital signal is active, stereo mode is forced by pressing this button. → *page 20*

### ⓮ Reset

Call up the subwoofer's factory settings using this button.

### ⓯ S.Delay

Allows the delay of the rear loudspeaker to be set. Only works with Dolby Digital/DTS and Dolby ProLogic II. → *page 19*

### ⓰ Centre/Woofer

Press [+] and [-] to set the desired level for the centre and subwoofer.

### ⓱ Bass

Press [+] and [-] to set the desired level for the centre and subwoofer.

### ⓲ Treble

Use the [+] and [-] keys to set the required bass level. It works directly on both front speakers.

### ⓳ Volume +

This increases the overall volume.

### ⓴ Volume -

This reduces the overall volume.

### ⓵ Balance »L« »R«

The "L" and "R" buttons increase the respective amounts of sound output from the left ("L") or right ("R") front speakers. Pressing the "Balance" button will return the sound output to the original balanced state.

### ⓶ Rear

Use the [+] and [-] keys to regulate the required levels of the left and right rear speakers.

#### Tip:

*The settings you make are saved directly by the subwoofer without any need for further action. They remain available even after the mains power has been switched off and on again.*

## Connection: Signal sources with digital outputs

### Connection to appliances with digital outputs for surround or stereo playback

Multichannel sound card, DVD-player/recorder, sat receiver, PlayStation®2 & 3, Xbox 360®\*...

The L2200/6SWR is perfectly suited for combination with a maximum of two of the appliances listed above.

Connect the playback appliances as shown in the illustrations.

You connect these appliances via their Digital Out outputs using an appropriate cable to inputs of the same type (coaxial or optical) on the subwoofer.

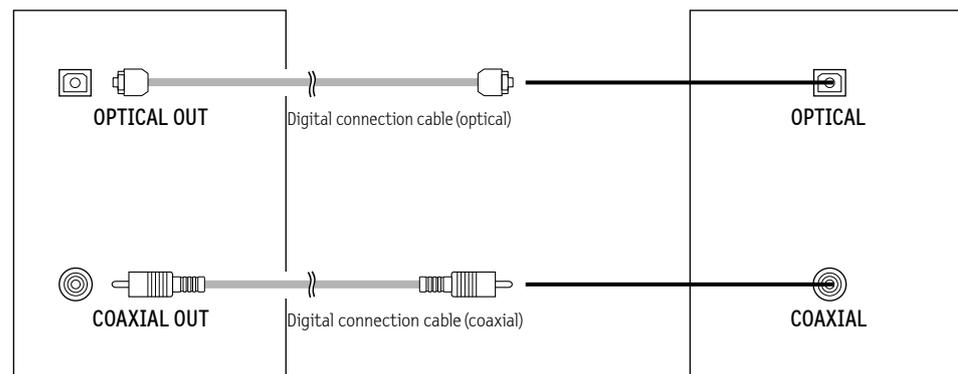
The internal Dolby Digital/DTS decoder on the subwoofer automatically recognises the signal transferred via the digital input, decodes the data flow and converts it into an audible 5.1 sound experience.

You will find further information on operation on page 20.

*\* Only users of the Xbox Advanced AV Pack and High Definition AV Pack have a digital output*

**Multichannel sound card, DVD player/recorder, sat receiver, PlayStation®2 & 3, Xbox 360®\*...**

**L2200/6SWR DIGITAL INPUT**



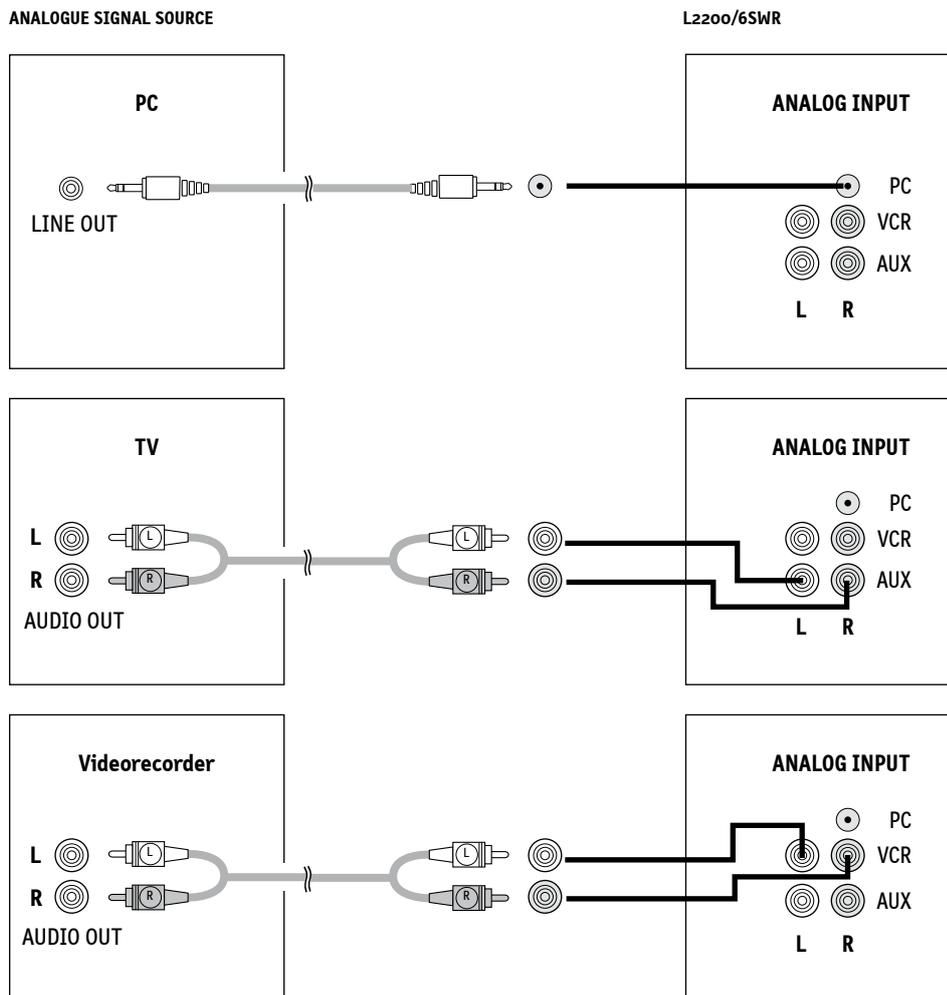
## Connection: Signal sources with analogue outputs

### Connection to appliances with analogue outputs for stereo playback

2-channel sound card, MP3 player, TV set, CD player and video recorder ...

In addition to the two digital inputs the L2200/6SWR has a total of three analogue inputs: [VCR] [Aux] [PC]. These can be used with the analogue appliances of your choice. This requires either a stereo cinch cable [Aux] [VCR] or 3.5 mm stereo mini-jack cable [PC] for each device. \* Connect the playback devices as shown in the illustrations.

*\* These cables are usually enclosed with the stated appliances.*



*When connecting the appliances, please note the relevant information in the handbooks for the components used.*

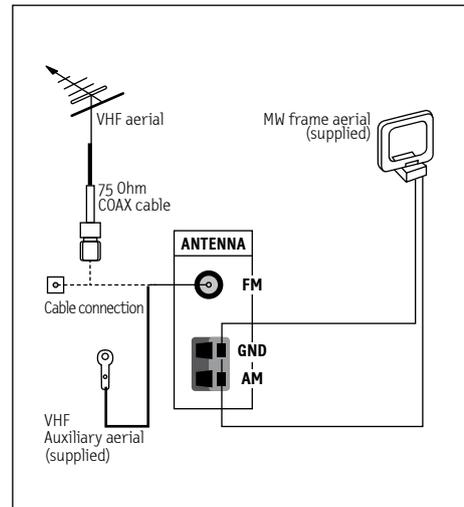
## Connection: Aerial · Speakers

### Connecting the aerial

The use of the supplied aerials is essential as a minimum requirement for disturbance-free reception. Please connect the aerials as shown in the illustration.

**\* To be purchased separately**

A standard coaxial plug at the end of a coaxial cable\* (e.g. a cable connection) can be connected directly with the FM coax input (in place of the supplied auxiliary aerial).



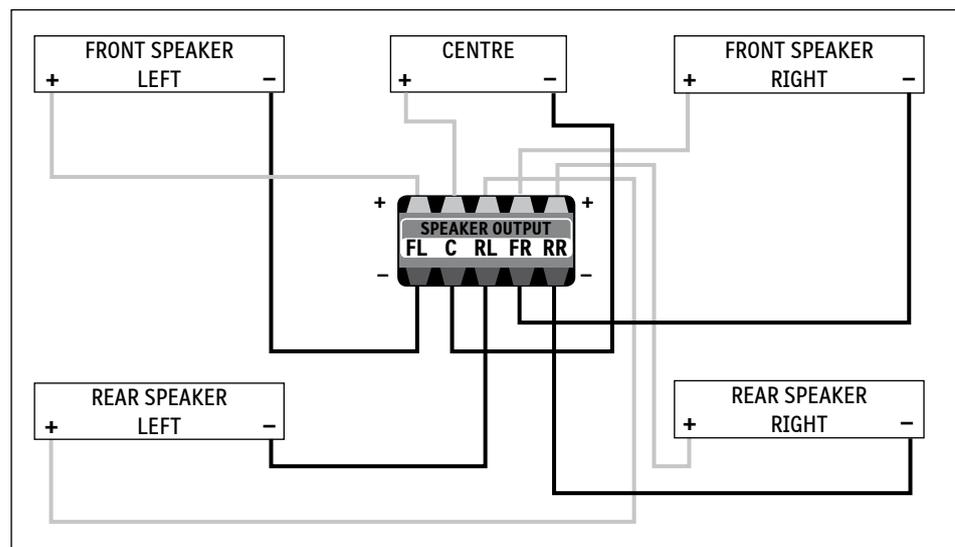
*Please ensure that no individual exposed wire from a cable comes into contact with any free terminals, the rear of the appliance or other uninsulated cables (e.g. from other speakers).*

### Connecting the satellite speakers

The five satellite speakers for the treble and mid ranges are connected via speaker cables to the relevant speaker outputs front L/R, rear L/R and front centre on the subwoofer. To do this, strip the ends of the speaker cable (about 7 mm) and twist the cable. The speakers and the fully active subwoofer have corresponding [+] and [-] terminals. It is important that you observe the correct polarity when connecting the speakers: the plus pole of the speaker to the plus pole of the subwoofer amplifier and the minus pole of the speaker to the minus pole of the subwoofer amplifier ("Speaker Output"). To do this, press the clip and insert the ends of the cable.



**Please note:**  
Connecting the cables with the incorrect phases can result in thin sound, weak bass and reduced stereo characteristics.  
For multichannel surround systems, too, it is important that all speakers are connected with the correct polarity in order to ensure an appropriate three-dimensional atmosphere and the correct alignment of the sound.



## Start-up

First ensure that all cables are connected as described above and insert the mains cable into the socket.

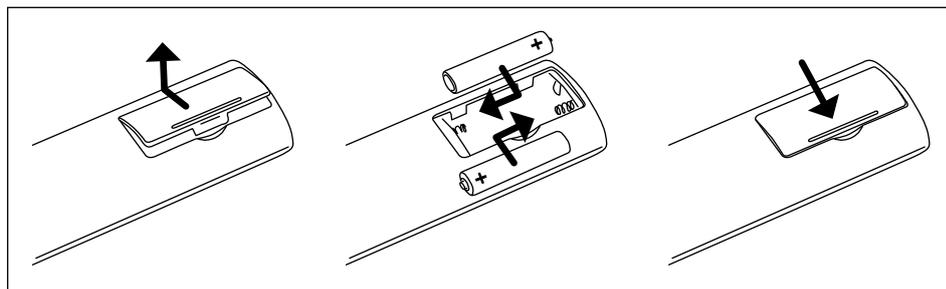
Switch the main power switch [Power] on the back to “On” to activate the 5.1 amplifier on the subwoofer. The blue LED lamp lights up on the left of the operation panel on the front of the subwoofer. The “Input”, “Volume+” and “Volume-” buttons on the operating panel have no (activated) function (yet). The subwoofer starts operation when you press “Standby”.



By pressing “Input” repeatedly you can activate all inputs in succession: “Opt”, “Coax”, “VCR”, “Aux”, “PC”, “Tuner”.

You can set the desired overall volume using the “Volume [+] and [-]” buttons.

With the L2200/6SWR, it is possible to make all settings using the remote control. To do this, please first insert the batteries into the remote control's battery compartment as per the illustration:



If the appliance no longer reacts to the remote control, even when it is used in direct proximity to the subwoofer, please change the batteries.

**Please note:**

- 1) Do not combine new and old batteries
- 2) Do not use different types of batteries
- 3) Observe the polarity – see battery compartment

For proper operation it is necessary to direct the remote control towards the subwoofer from a distance not exceeding 5 metres and at a horizontal angle of no more than 30 degrees.

→The remote control's functions are explained on pages 12/13.

## Setting up the surround system

### Equalisation

Before familiarising yourself with the other functions of the appliance, it is necessary to set the volume relationships of the five satellite speakers and the bass channel for the bass speaker.

To do this, switch on the appliance using the “Power” switch on the back.

The subwoofer goes onto standby when you press the “Standby” button on the front operating panel of the “Power” button on the remote control. Make sure that no signal-emitting appliances, such as DVD players, are active.

Increase the overall volume of the set to “70 dB” via the central “Volume +” button on the remote control **19**. This sets a kind of reference level. Make sure you are in the best and most central place possible for listening. Press the “Test” button **11**. This activates a test tone that runs through the five satellites and the subwoofer in sequence. Now you can increase or decrease the level on the remote control for the centre, the two rear speakers and the subwoofer to the positions **16** and **22** on the remote control until the volume of these four speakers corresponds to the volume of the two front speakers.

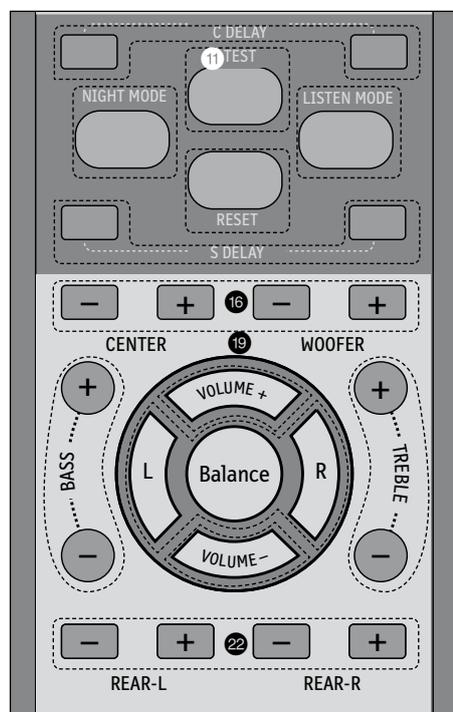
Equalisation by ear requires a few attempts and does not always provide perfect results first time. For perfect equalisation of the speakers we recommend using a volume level measuring device, as available in the Teufel shop. This device is a purchase that will last a lifetime and allows considerably more precise equalisation than the ear. Bass levels in particular are often set too loud – exact adjustment is only guaranteed using a measuring device.

The volume setting of the subwoofer may be slightly different when playing back music compared with home cinema sound, depending on the recording quality and mixing. While a large

proportion of bass tones may often dominate in effect-rich DVDs, the required level may be partly unheard in the musical area (in particular if the kit has been adjusted to optimal DVD reproduction). Above all, personal taste is essential for the best compromise between the two sources. You can directly adjust the subwoofer level as required using the buttons “Woofer [+] and [-]” **16** on the remote control. Press the “Test” **11** button again to complete the calibration process.

**Please note!**  
After successfully completing the test, please reduce the volume from the 70 dB setting used for testing.

**Information**  
The selected settings are retained even after the device is switched off.

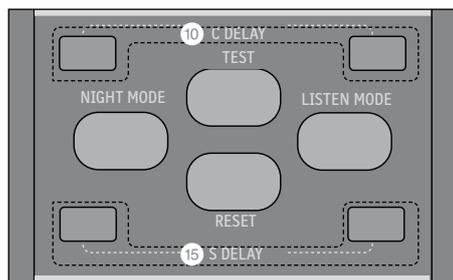


## Setting up the surround system

### Adjusting the time delay (“delay”)

In order for the appliance’s digital signal processor (DSP) to be able to convert Dolby signals perfectly, it must be informed of the spatial positioning of the individual speakers relative to each other.

The C. Delay (Centre) 10 and S. Delay (Surround = rear speaker) 15 buttons on the remote control are used for this.



#### Information

The delay setting option for the centre speaker is only provided in the Dolby Digital and DTS listen modes.

The correct delay time is calculated as follows:

#### Centre delay

1. Measure the distance between the listening point and the front speakers.
2. Measure the distance between the listening point and the centre speaker.
3. Subtract the distance from the centre from the distance from the front speakers.
4. Multiply the result by 3.  
This gives you the delay time in milliseconds.

#### Example

Distance to the front speakers = 3.5 metres, distance to the centre speaker = 2.5 metres. Subtraction of the distances equals  $3.5 - 2.5$  metres = 1.0 metres. Multiplied by 3 this results in 3ms delay time.

#### Surround delay of the rear speaker

1. Measure the distance between the listening point and the front speakers.
2. Measure the distance between the listening point and the rear speakers.
3. Subtract the distance of the front speakers from the distance of the rear speakers.
4. Multiply the result by 3.  
This gives you the delay time in milliseconds.

#### Example

Distance to the front speakers = 3.5 metres, distance to the rear speakers = 1.5 metres. Subtraction of the distances equals  $3.5 - 1.5$  metres = 2.0 metres. Multiplied by 3 this results in 6ms time delay.

15 ms is added as a constant to the delay time calculated by this method. For the example given above, this results in:  $6 \text{ ms} + 15 \text{ ms constant} = 21 \text{ ms delay time}$ . As the L2200/6SWR permits settings in steps of 5, select the next possible value, 20 ms.

#### The following rule of thumb applies:

In small rooms, up to  $20 \text{ m}^2$ , set a delay value of 15 ms and in medium-sized rooms ( $20\text{--}35 \text{ m}^2$ ) set a value of 20 ms.

#### Information

The setting option of the delay of the rear speaker is only provided in the Dolby Digital/DTS and Dolby ProLogic II listen modes.

**Surround or stereo playback of devices with digital outputs**

*\* Only users of the Xbox Advanced AV Pack/High Definition AV Pack have a digital output*

**Information**  
*Between individual titles in a DVD the subwoofer signals this "signal pause" with the display message "Unlock".*

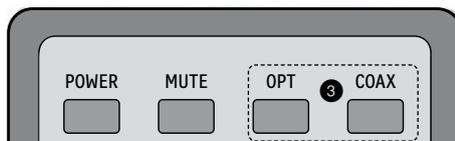
**Night Mode**  
*For volume-reduced playback (e.g. at night) you can select the "Night mode" during Dolby Digital playback, which limits the dynamic range without drastically reducing sound quality.*

Multichannel sound card, DVD-player/recorder, sat receiver, Premiere® receiver, PlayStation®2 & 3, Xbox 360®\*...

Using the remote control select "OPT" (for the optical output) or "COAX" (for the coaxial output) depending on the digital output format of the connected device ③.

The corresponding input is shown on the display. As soon as the device has detected an encoded surround signal, it decodes it and then signals its ability to decode it by stating the signet and the name – e.g. AC3 for Dolby Digital.

Using the "Listen mode" function on the remote control (13 refer to page 12) you can also play back Dolby Digital signals in 2.0 stereo.

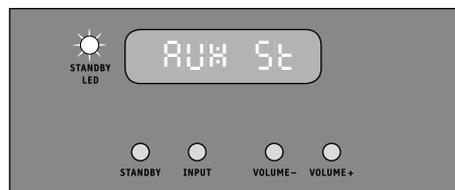
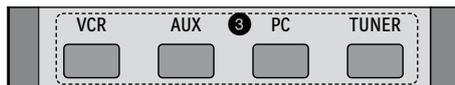


**Stereo playback on appliances on the three analogue inputs**

2-channel sound cards, MP3 player, TV set, CD player, video recorder, etc.

Using the remote control select one of the three inputs "AUX", "VCR" or "PC" – depending on the device connected ③. The display indicates the relevant input, for example "AUX St" \*\*.

*\*\* The abbreviation "St" signifies stereo mode.*



**Listen Mode**

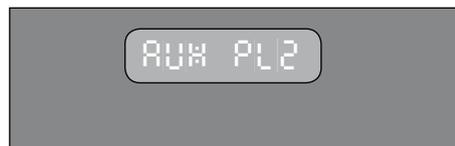
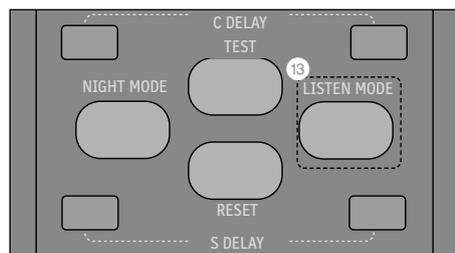
Here you can select whether and to what extent the stereo signals are prepared by integrated "Upmix" functions and played back via all satellite speakers, including the subwoofer.

You reach these "Upmix" modes by successively pressing the "Listen mode" button on the remote control 13 (refer to page 12).

The following stages are available:

Dolby Prologic II Music, Dolby Prologic II Movie, Stereo, DSP Passthru, DSP Hall, DSP Theater, DSP Room.

The switch also works in tuner mode. The changes to the listen modes are, however, not shown on the display.



## Playback: Radio programmes

### Radio programmes

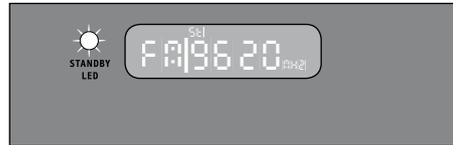
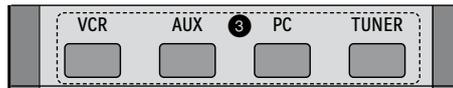
To hear radio programmes, please press the “Tuner” button on your subwoofer remote control ③. Press it once for the VHF range (FM) or twice to receive medium wave stations (AM).

The following information is shown on the subwoofer display, e.g. for VHF reception:

“FM” = VHF

“ST” = Stereo

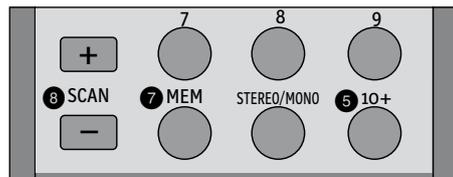
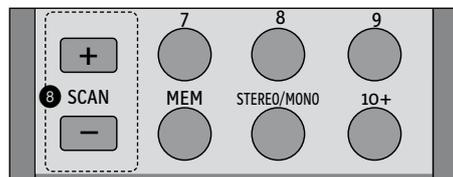
“96.20” = Transmission frequency



### Saving the stations

We recommend first saving your favourite stations. To do this, select “Scan” ⑧ on the remote control. You can search through the frequency range and find your favourite stations. If you press it briefly the tuner moves forward in 0.05 MHz steps; but if you press the button longer, the tuner runs until it finds the next station.

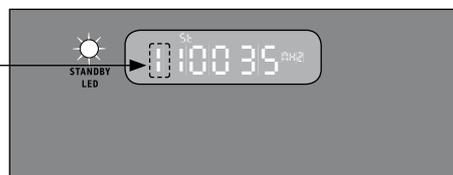
After finding the station of your choice using the “Scan” ⑧ remote control button, press the “MEM” ⑦ button and select the desired memory space, e.g. “1”. This memory space is used to save the station using the “MEM” ⑦ memory button.



*If you use the auxiliary aerial enclosed – e.g. in areas that have poor radio reception – reception interference may occur. We recommend operating the receiver with an external/building aerial or from the cable network. To do this, you usually require an additional coaxial cable.*

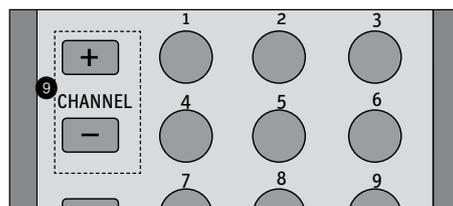
### Memory space

When the channel changes, the display briefly indicates the selected memory space then the display changes back to FM or AM. The memory spaces 11–19, 20–29 and 30 are reached by activating the “10+” ⑤ button. Press another button between 1 and 9 within 2 seconds, e.g. 2 to call up memory space 12.



### Select station

Press the “Channel +/-” ⑨ button to go to the saved stations.



### **“The subwoofer is buzzing”**

These buzzing noises may be produced by connected appliances or faults in the power network. Excessive buzzing is usually caused by one of the following:

1. The subwoofer is connected to a different power circuit from the rest of the equipment. Ensure that all linked appliances (including the PC if connected) are connected to a single power circuit or plug.
2. The aerial connected to the equipment or TV has a different ground potential to the socket. To test this, simply remove all aerial cables from the wall socket. If the interference stops, you need a sheath current filter that is available from electronics retailers (including the car hi-fi department). It is inserted between the aerial socket and the LT2+R subwoofer.
3. A separately purchased mains filter, to which all appliances must be connected, may be useful in eliminating the interference. Please negotiate a right to return for the filter, in case it does not lead to positive results.
4. Occasionally, a multiple socket strip proves to be responsible for creating buzzing noises. To test this, disconnect the plug strip and plug the subwoofer's mains plug directly into a wall socket.
5. You can also try turning the mains plug around and inserting it into the socket the other way up, inasmuch as your mains plug/socket allows this.
6. In order to better localise the cause of the buzzing, check whether the subwoofer operates without buzzing on a power circuit in another room (e.g. using an extension lead). In addition, try disconnecting the cable connection from the subwoofer to the connected appliances in order to exclude the influence of connected components.

### **“There is no sound – neither from the satellites nor from the subwoofer”**

Please ensure that the power cable is firmly inserted into the socket. If this is the case, please check whether the blue “Standby” LED on the Teufel subwoofer lights up after activating the appliance by pressing the “Power” tip switch on the rear; if this is not the case please contact our service department.

### **“I hear no sound from the individual speaker channels; other speaker channels work”**

Please check whether all speaker cables – both on the subwoofer rear and on the rear of the satellite speakers – are firmly inserted into the relevant sockets and that none of the individual, uninsulated wires are in contact with each other. Please also check the relevant channel setting menus in the signal source appliance to be played back (e.g. DVD player).

### **“The rear satellites and/or centre will not play with stereo sources such as music CDs (e.g. via PC or DVD player)”**

Switch the “Listen mode” on the remote control to Dolby Prologic Music Modus = PL II. Please also check the relevant channel setting menus in the signal source appliance to be played back (e.g. DVD player).

### **“The subwoofer is picking up additional radio/interference signals”**

In rare cases it may be possible to receive radio/interference frequencies; this depends on the local environment. Please remove all cinch cables from the subwoofer and check whether the interference still occurs. We recommend trying out shorter, higher quality, shielded cinch connection cables.

**“The subwoofer reacts to the remote control of another device/another device reacts to the decoder’s remote control”**

As there are no fundamental regulations on the distribution of frequencies, each manufacturer can work with the code of its choice. Unfortunately, the fact that there may be occasional crossovers in individual cases cannot be prevented. This is, however, not a fault in the subwoofer.

If, however, you have the freedom to choose another location and can locate the subwoofer outside the range of the other appliance’s remote control (i.e. not right next to the receiver) this may reduce this problem, as the reception spectra may then no longer overlap.

**“The subwoofer does not respond perfectly to the remote control”**

The batteries may have been inserted incorrectly or they may be flat, so they may need to be inserted correctly or replaced. Operation can be impaired if the subwoofer is situated too far away or in direct sunlight.

**Care instructions and cleaning**

To make sure you are able to enjoy your product from Lautsprecher Teufel for a long time, please note the following tips:

Do not expose the casing to direct sunlight.

Avoid extreme temperature differences and protect your speakers from moisture.

When cleaning the speaker, only use a slightly damp or dry cloth. Abrasive cleaners and products that contain alcohol should be avoided. Remove dust from the membrane very carefully with a dry cloth.

### Active subwoofer

Speaker for bass playback, with integrated amplifier. Very deep frequencies can only be played back with a large-volume speaker. To make sure that the front speakers can be kept as compact as possible, a separate subwoofer is used for bass tones. It can be located unobtrusively in the living room: for instance, behind the sofa or under a side table. The cut-off frequency between the front speakers and the subwoofer depends on the components used but is usually between 50 and 120 Hertz.

### Auto On/Off function

The Auto On/Off function switches the subwoofer on as soon as a signal is detected and off again a certain time after the last signal was transferred (around 20 minutes).

### Centre

Central speaker in the home cinema system. All dialogues are played back via the centre. Therefore, good voice playback capability is essential for the centre.

### Cinema Set

All Teufel speaker systems that are supplied with three direct front speakers and dipole effect speakers are also called a Cinema Set. In contrast, five direct speakers are called Concert Sets.

### Concert Set

All Teufel speaker systems with five direct satellites are called Concert Sets. In contrast, Cinema Sets have three direct front speakers and a dipole rear speaker.

### Dipole

Dipole speakers emit sound in two directions. They are therefore ideal rear speakers for your home cinema because their emission characteristics imitate the speaker arrangement in a commercial cinema. Cinemas always use multiple speakers for the rear channels and their sound is distributed throughout the whole room. Dipoles have been designed to emit sound indirectly into the room (i.e. not locatable), which is different from direct emitters (see below).

### Direct emitters

Direct emitters are conventional speakers that transport sound to the listener in a direct line. In the home cinema, direct emitters are used generally to play back the three front channels; in Concert Sets they are also located to the rear.

### Dolby Digital/DTS Decoder

Electronic switching to divide up the digital multichannel signals from the DVD into as many as seven individual signals. Dolby Digital and DTS are two different sound formats, so two different decoders are also required. AV receivers, DVD players or corresponding sound cards usually have both decoders.

### Frequency/cut-off frequency

This is where you stipulate the frequency used for playing back sounds from the satellites or subwoofer. If, for example, you set a cut-off frequency of 120 Hz, all frequencies above 120 Hz are emitted by the satellites, frequencies under 120 Hz are played by the subwoofer.

### Level

The level controller on the subwoofer is used to adjust the volume. For perfect playback, all speaker channels – incl. the subwoofer – should be set such that the signals from the individual speakers can be heard equally loudly at the listening location.

### Phase

With the phase controller, you can adjust the subwoofer to the satellites such that the speaker membranes vibrate in the same direction in the cut-off frequency range. If the phase is set incorrectly, the bass may be weakened or cancelled. If the subwoofer is located between the front speakers we recommend 0° for a position close to the listening location 180°. If the subwoofer is in another location, the "180°" setting can balance out the reduced bass playback. Set the phase controller appropriately to get the strongest bass playback.

### Rear speaker

Effects and atmospheric sounds are played back via the rear speakers (either → dipoles or → direct emitters). This gives a greater spatial feel when playing back films and music.

### Sub out

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

### 5.1/7.1 pre out

Pre-amplifier output on the receiver or output on the DVD player. One analogue signal is provided for each channel via cinch connection.

### 6.1/7.1 technology

Surround sound procedure that, in addition to the left and right rear channel (and the relevant speakers), also uses a centrally played back rear channel. Depending on the sound format, this "rear centre" is embedded in the stereo signals for the left and right rear channel ("matrixed") and extracted for playback (e.g. for THX® Surround EX, Dolby Digital EX) or transferred as an independent signal. Instead of the dominant 5.1 technology, these are therefore 6.1 sound formats. In practice, it has proven to be beneficial for the sound to allow the rear centre to be played back by two centrally located rear speakers. AV technology equipped with the necessary amplifiers and connections is therefore called "7.1" although it only plays back a 6.1 signal.

# Teufel

Please contact our service department if you have any questions, suggestions or if there is anything you think we could do better.

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