

## Motiv 3

5.1 Home theatre loudspeaker combination

Teufel

#### About this document

The information in this document is subject to change without warning. The Lautsprecher Teufel GmbH is in no way bound by the information provided herein.

No section of this document may be reproduced or copied by any electronic or mechanical means, including photocopying and recording, without prior written consent from Lautsprecher Teufel GmbH.

© Lautsprecher Teufel GmbH Version 1.0 August 2008

#### Original packaging

If you wish to make use of the eight-week right-of-return period, please make sure to hold on to all the packaging. We only accept the productss back if they are shipped in their ORIGINAL PACKAGING.

We do not provide packaging boxes separately.

#### **Technical specifications**

For technical specifications of the products described herein, please refer to www.teufel.eu

#### **Customer complaints**

In case of a complaint, we need the following information for processing:

#### 1. Invoice number

As shown on your physical invoice (shipped with the product) or on your order confirmation (PDF format), e.q. 4322543

#### 2. Serial number, i.e., lot number

As shown on the rear of the unit, e.g., lot number: MO 04007480121A

Thank you for your assistance.

#### Contact

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

Lautsprecher Teufel GmbH Gewerbehof Bülowbogen · Bülowstrasse 66 10783 Berlin (Germany)

Tel.: +49(30) - 300 9 300 Fax: +49(30) - 300 9 30 30 www.teufel.eu

#### Terms of warranty

The Lautsprecher Teufel GmbH provides a twelveyear 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. It 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. 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 Lautsprecher Teufel offers these components for sale separately. If you return one or more individual components from a set, this voids the discount that Lautsprecher 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 total 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 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.

#### Contents

Table of contents	3
Introduction	4
Unpacking · Included components	5
Accessories (optional)	6
Speaker placement in the 5.1 configuration	7
Connections	9
Assembly · Settings	10
Subwoofer controls	11
Problems and solutions · Cleaning	12

#### Introducing the Motiv 3 system

#### Dear Lautsprecher Teufel customer,

Thank you for purchasing a Motiv 3 loudspeaker set from Lautsprecher Teufel.

You are now the owner of a powerful and sophisticated Motiv 3 home theatre audio system. All Teufel products are meticulously manufactured and fitted with top-quality components. Our Motiv 3 system is designed for audio playback in rooms sized up to 20 m². Before using the loudspeaker set for the first time, carefully read this operating manual. Keep the manual in a safe place for later reference.

If you have any questions, feel free to contact our technicians at +49 (30) 3009-300, or write us an email using the form provided on our website (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 12 of this operating manual. Further answers are provided on the Frequently Asked Questions page of our website: www.teufel.eu.

Please take careful note of the safety guidelines included in this shipment. Do not start using the loudspeakers before you have read this page.



Please write down the loudspeaker set's serial number (shown on a sticker on the packaging) and the invoice number here:

My INVOICE NUMBER is:	
	••••
My <b>SERIAL NUMBER</b> is:	
	••••
Should you ever require any customer supp from us, please tell us these numbers so we	

process your request promptly.

Teufel

#### Unpacking · Included components

#### **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 you hold on to all the original packaging. In case you ever need to ship the speakers back for servicing, the original packaging offers the best protection for your valuable loudspeakers. We cannot be made liable for damage due to improper packaging.



**4** A 300 SW subwoofer Please make sure that the system is not missing any components

#### Remember

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!

#### **Included components**

- ▶ 1 x A 300 SW subwoofer
- ▶ 1 x power cable for subwoofer
- ▶ 5 x MO 3 FCR loudspeakers
- ▶ 5 x magnetic table mounts for the MO 3 FCR
- ▶ 5 x assembly brackets
- ▶ 5 x fastening screws for the assembly brackets

#### Accessories

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

All of the accessories available for the Motiv 3 set are described on the following page.



Power cable for the subwoofer



**◀ MO 3 FCR satellite speaker** 



Magnetic table mount for the MO 3 FCR



◆ assembly bracket



◆ Fastening screws for the assembly bracket

### Optional accessories for the Motiv 3 set

Teufel offers the following accessories for your Motiv 3 set:

If you require any optional accessories, you can easily order these directly from the Accessories section of our online store: www.teufel.eu

#### 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 offers the best results when used with the

Motiv 3. In response to customer demand, all our audio cables are now pre-wired for typical usage lengths.

#### Teufel NF mono RCA cable



This cable is designed for connecting active subwoofers to AV receivers/ amplifiers, and it is shielded against magnetic inter-

ference. 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.

#### M 50 P speaker stand



Speaker stands perfectly suiting the MO 3 FCR satellite speakers. The speaker cables are concealed on the inside of the stand.

#### Height

adjustable between 80 and 120 cm.

#### Design



Metal, black (available in silver too). Speaker stands are only sold as pairs. The included assembly brackets are used for fastening the speakers to the stand.

#### Shortlock wall mount



Special metal design for small satellite speakers, making it the best choice as a wall mount for the MO<sub>3</sub> FCR.

The Shortlock mounts come with an integrated screw for easy fastening to the threaded hole on the MO 3 FCR satellite speakers—no drilling required. You can angle the speakers both horizontally and vertically towards the listening spot.

#### Speaker placement in the 5.1 configuration

#### General notes on speaker placement

Thanks to its stylish and modern design, the Teufel Motiv 3 loudspeaker set will easily blend into your living room. In order to get the best possible audio quality from your Teufel loudspeaker set, 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 spot. 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 speaker

The centre speaker reproduces virtually all spoken sound, including most dialogue. In relation to the main listening spot, place it centrally below or above the TV/screen. If you need to position the centre speaker (MO 3 FCR) lower than 40 cm or higher than 1.2 m, we recommend to angle it horizontally towards the listening spot.

#### Front loudspeaker

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 set-up, the left and right front speakers should be equidistant to the TV/screen, mounted on the wall or on speaker stands. The M 50 P speaker stands (sold separately) 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.

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.

# Front SW Centre 2/3 Front Front

#### \* Hint:

Practice has shown that the best bass imaging is achieved if the subwoofer is placed in a relation of 1/3 to 2/3 to the front or side wall, i.e., not at the centre but offset towards one of them.

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

#### Subwoofer

At the recommended crossover frequency of 120 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,\* but you should feel free to experiment with placing it anywhere you like. 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.

#### Speaker placement in the 5.1 configuration

#### Rear speaker

We recommend you place the rear speakers

grey rear area. The best default positions

somewhere in the

are indicated by

A, B and Č. The arrows indicate

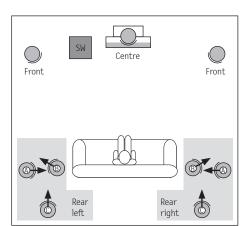
the speakers'

projection path.

Position the left and right rear loudspeakers either behind or to the side of the main listening spot. The ideal angle for the rear speakers is parallel to the listener, offset by 20 degrees.

The rear speakers should always be at least 1 m away from the listener.

If they are any closer, make sure that the front of the speakers is not directly pointed at the listener but into the room, angled slightly towards the wall. Or you could also place them further back in the room.



#### Attention:

The magnetic table mounts shipped with the speakers are only intended to provide the satellite speakers with a sturdy hold (e.g., on a table or shelf) and the proper positioning towards the listening spot. Although the integrated magnets are strong enough to support the entire weight of the MO 3 FCR loudspeaker for a short period, they were not designed for use as a wall or ceiling mount!

If improperly mounted, the magnetic hold of the satellite speakers could loosen with the additional weight of the loudspeaker cables, through minimal vibrations during audio playback or by external forces, and the speakers might fall on something or someone, causing property damage or even physical injury.

Please refer to the "Assembly" section starting on page 10 in this operating manual if you do not intend to use magnetic table mounts for the MO 3 FCR satellite speakers.

Lautsprecher Teufel GmbH is not liable for any damage resulting from improper or unintended placement and/or assembly of the satellite speakers.



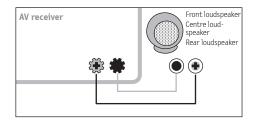
#### Connections

#### Front, centre and rear speakers

You can connect the Motiv 3 set to any modern Dolby Digital/DTS 5.1/6.1/7.1 AV receiver/amplifier for a 5.1 set-up with an active subwoofer. If your AV receiver is 6.1/7.1, simply ignore the rear centre socket(s). If you have a 5.1 receiver, connect the front, centre and rear speakers as shown in the diagram.

#### Subwoofer

Connect the subwoofer output (Sub Out) of your Dolby Digital/DTS AV receiver/amplifier to the Line Input of the subwoofer using a mono RCA cable.



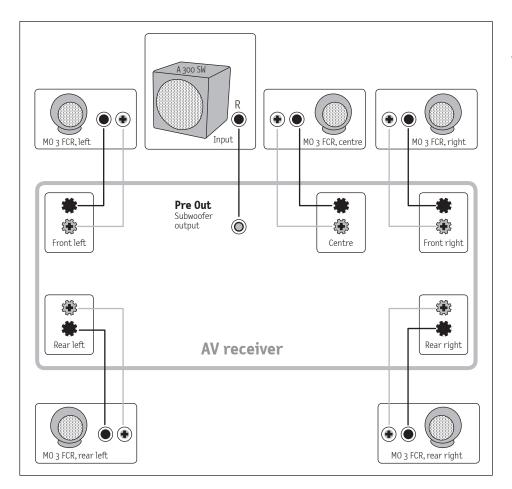
#### AV receiver A 300 SW Pre Out Subwoofer output Input R RCA line input RCA line output

#### Speaker loads

Please note: This operating manual assumes that the signal loads sent to the satellite speakers are issued from an AV receiver, i.e., that any potentially damaging bass content has been filtered out by the receiver.

#### Plus and minus

Please consult the diagram when connecting the loudspeakers. Pay careful attention to the polarity markings! Nearly all loudspeaker cables have these markings for ease of connection. Normally the sleeve of one is riffled, the other smooth. Some manufacturers also use colour coding on one of the two lines. Pay careful attention to the markings when setting up the loudspeakers. If you use the ca-ble with the riffled sleeve for the plus pole, please continue to use it for that purpose throughout



Connecting the loudspeakers AV surround receiver

#### \* Speaker loads

Please note: This operating manual assumes that the signal loads sent to the satellite speakers are issued from an AV receiver, i.e., that any potentially damaging bass content has been filtered out by the receiver.

#### Assembling the MO 3 FCR satellite speakers

There are three different options for mounting the MO 3 FCR satellite speakers:

- 1. Magnetic table mount (included)
- 2. Wall mount, such as the Shortlock wall mount (sold separately)
- 3. Speaker stand, such as the M 50 P (sold separately)
- 1. The magnetic table mount allows for easy mounting: Place one of the MO 3 FCR satellite speakers onto one of the magnetic table mounts. You can now adjust the loudspeaker horizontally on the mount or angle it vertically until you achieve optimal results for the listening spot. There is a rubber ring on the table mount to protect the satellite speakers from getting scratched. The high-quality shielding of the MO 3 FCR loudspeaker chassis prevents the magnet in the table mount from adversely affecting the audio quality.
- 2. We recommend you use our Shortlock wall mount (sold separately) if you wish to mount the loudspeakers on a wall. The Shortlock wall mount has a screw that fits the MO 3 FCR perfectly. No drilling into the chassis is required when mounting the satellite speakers.

With the Shortlock wall mount, you can also adjust the loudspeakers both vertically and horizontally towards the listening spot.

3. Use the assembly brackets shipped with the loudspeakers to attach the optional M 50 P speaker stand (see page 6). They come with screws for mounting to the rear of the satellite speakers. The assembly brackets can be fastened to the M 50 P speaker stand by means of their "keyhole" opening. See separate assembly instructions.

#### Setting up the AV receiver/amplifier

To take full advantage of your new Motiv 3 system, in "Speaker Setup" section (Bass Management and/or Speaker Management) of your AV receiver choose the setting "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 receiver's "Speaker Setup" section (Bass Management and/or Speaker Management), make sure the subwoofer is set to "On". Set the crossover frequency for the Motiv 3 to 120 Hz. 150 Hz is also an option.

#### Setting up the subwoofer

Modern AV receivers determine the subwoofer's phase automatically. This happens within the receiver's "Speaker Setup" utility, which analyses the distance between the different speakers and the listening spot. For this to work correctly, the subwoofer's own phase needs to be set to "o"."

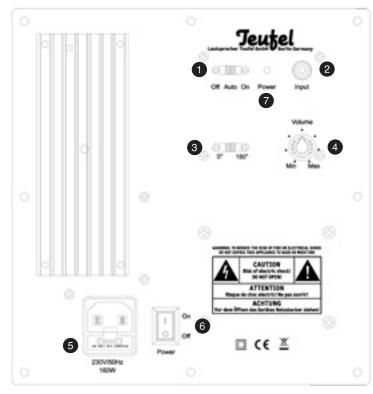
The subwoofer's output setting may vary depending on usage, e.g., home theatre sound system or music playback. Whereas an action-packed DVD typically contains very defined subbass signals, many music-only sources do not. This is especially noticeable if your system is calibrated for optimum DVD playback. 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 provided in the Bass Management/Speaker Management section ("Speaker Setup") to a high value, such as +4 to +12 dB; this will guarantee that the subwoofer activates itself at the right times when in standby mode. You can then use the subwoofer's own level control to experiment with different bass levels that are suited to your various listening scenarios.

#### Accessories

You can order matching accessories, such as wall mounts or speaker stands, from our web shop (www.teufel.eu) in the "Accessories" section.



## 4 Volume (level control)

Use this control to adjust the subwoofer's volume. In the bass management section of your AV receiver/ amplifier, setthe bass level to a high value, i.e., between +4 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.

#### **5** Fuse

The subwoofer's mains power fuse is located under the mains power socket.

## 6 Power (main switch)

OFF means that the subwoofer is switched off and completely disconnected from the mains power; ON means that it is switched on. Please also refer to the instructions for the ① switch.

#### Power LED

When the power switch ③ is OFF, the power LED is off. If the subwoofer's power switch ⑤ is on, the power LED lights up red or green, depending on the setting of the OFF-AUTO-ON switch ①. When the subwoofer is permanently active (= ① is ON), the power LED lights up green. When the subwoofer is in standby mode (= ① switch is AUTO), the power LED lights up red. This means that the subwoofer only activates once it receives a signal, at which point the LED turns green. After the subwoofer switches itself off after 20 minutes of inactivity, the LED changes back to red again. If the ① power function switch is OFF, the LED also lights up red.

#### 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 an equilateral triangle, as 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: 89/336E WG and 73/23 EWG.



The "waste bin" 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.



This product complies with DIN EN 61140 (VDE 0140-1) and IEC 60417 of protection class II. It only requires a two-pin round plug (included) and not an earthed plug. The product has a reinforced or double-shielded casing to prevent electrical shock

#### 1 Off-Auto-On (power function)

OFF means that the subwoofer is switched off; ON means that it is switched on. AUTO means that the subwoofer is operational but is only activated once it receives an audio signal from the AV receiver. The subwoofer automatically switches to standby after 20 minutes of inactivity. We recommend using AUTO.

Please note: If you need to disconnect the subwoofer from the mains power completely, set the switch to OFF.

#### 2 Input

Plug in the mono RCA cable from your AV receiver/amplifier ("Subwoofer Out") here.

#### Phase

This switch determines the phase relationship between the subwoofer and the front/centre speakers. If the speakers are positioned as indicated on page 11 (grey area of drawing) in your set-up, set the phase to 0°. With other set-ups, the 180° setting may produce better results.

#### Problems and solutions · Cleaning

#### The subwoofer is not working



If the power LED on the front panel does not light up after switching on the unit, replace the fuse (see page 11, point 5).

If the power LED lights up, set the subwoofer volume

level to "Min", unplug the subwoofer's RCA cable from the amplifier, turn up the subwoofer's volume level slightly and touch the tip of the RCA connector (the pin protruding from the middle) 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:

- 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 than

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 at 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 RCA cable from the receiver to see whether the hum is caused by one of the other connected devices.

#### 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. Before cleaning a unit, always unplug the power cable.

# Teufel

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

#### Lautsprecher Teufel GmbH

Gewerbehof Bülowbogen · Bülowstrasse 66 10783 Berlin (Germany) Tel.: +49(30) 30 09 30 0 Fax: +49(30) 30 09 30 30 www.teufel.eu No responsibility can be accepted for the correctness of this information. Subject to technical changes. Errors and omissions excepted.