Technical Description And Operating Instructions
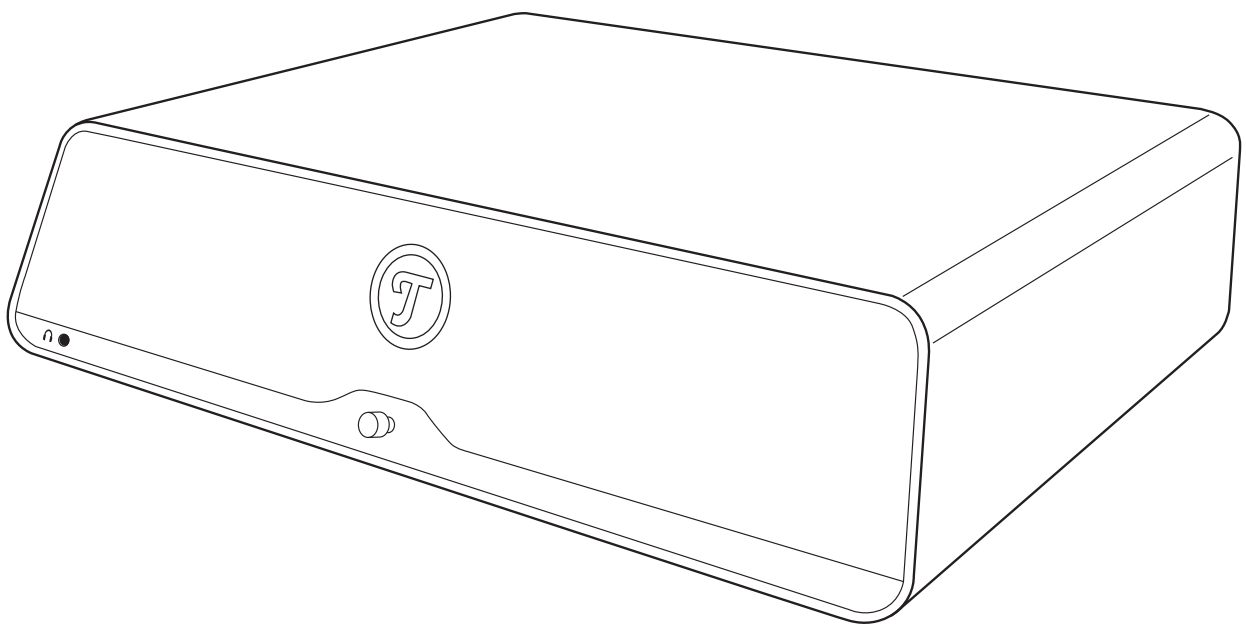
MD16

Multimedia Sound System

Teufel

Contents

General Notes And Information

Notice

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Version 1.0

June 2016

Original packaging

If you wish to exercise your eight-week right of return, we ask that you be absolutely sure to hold onto the packaging. We can only accept the return of the device WITH THE ORIGINAL PACKAGING.

Empty boxes are not available!

Complaints

In case of complaint we will need the following information to process your enquiry:

1. Invoice number

Can be found on the sales slip (enclosed with the product) or on the order confirmation received as a PDF document, e.g. 4322543

2. Serial number or batch number

Located on the back of the device,
e.g. serial no.: KB20240129A-123.

Thank you for your support!

Contact

Please contact our customer service with any questions, suggestions or criticism:

Lautsprecher Teufel GmbH

BIKINI Berlin

Budapester Str. 44

10787 Berlin (Germany)

Phone 00800 - 200 300 40 (toll-free)

Fax +49 (0)30 / 300 930 930

E-mail: service@teufelaudio.com

teufelaudio.com

Proper use

The MD16 is designed for the playback of PC music and speech via the built-in USB sound card or an external analogue player. It can also be used as a USB hub and charging station for a USB device.

Only use the MD16 as described in this user manual. Any other use will be deemed as not in accordance with the instructions and may lead to damage of property or even persons.

The manufacturer accepts no liability for damage caused by improper use.

The MD16 is intended for private use.

Before operating the MD16, please first read the safety notes and user manual carefully. Only in this way, can you ensure that all functions are used in a safe and reliable manner. Store the user manual in a safe place and also be sure to pass it on to any subsequent owner.

For Your Safety

Signal terms

You can find the following signal terms in this user manual:

⚠ **WARNING**

This signal term indicates a moderate risk, which, if not avoided, may result in death or severe injury.

⚠ **CAUTION**

This signal term indicates a low risk, which, if not avoided, may result in minor or moderate injury.

NOTICE

This signal term warns you of potential damage.

Safety notes

This chapter contains general safety notes which you should always observe to protect yourself and third parties. Also observe the warning notes in each chapter of this user manual.

Improper electrical installation or excessive mains voltage may result in an electrical shock.

- The mains adapter is suitable for a mains voltage of 100–240 V~, 50/60 Hz.

- Only use the enclosed wall adapter. When connecting the device, make sure that the correct voltage is present. More detailed information is available directly on the mains adapter.

- Check the device regularly for damage. Disconnect the wall adapter immediately from the socket and do not use the device if its case or the mains adapter are defective or if there is other visible damage.

- This device is disconnected from the mains by pulling the wall adapter. Therefore, make sure that the wall adapter is always easily accessible.

- If the device emits smoke, smells burnt or produces unusual sounds, immediately pull the wall adapter and do not operate it further.

- Never open the device housing.
  Repairs may only be carried out by an authorised specialist workshop. Only parts that match the original specification may be used.

- Only use the accessory products specified by the manufacturer.

- Only use the device in indoor areas.

- Do not operate the device in wet rooms and protect it from dripping and splash water. Make sure that no vases or other vessels filled with liquid are located on the device or nearby in order to prevent liquid from penetrating the housing. If water or any foreign objects have entered the housing, immediately disconnect the wall adapter and send the device to our service address.

- Never modify the device. Unauthorised interventions may affect the safety and functionality.

- Never touch the wall adapter with wet hands.

An unsuitable setup location may result in injury and damage.

- Never use the device in unstable locations, on wobbly tripods or furniture, on insufficiently dimensioned brackets etc. The device could tip or fall down and cause injury to persons or be damaged itself.

- Do not place the device near sources of heat (e.g. heaters, ovens, other heat generating equipment such as amplifiers etc.).

- Do not use the device in environments where there is a risk of explosion.

- When storing the product, also ensure that it stands safely and that it cannot be knocked down or over.

Children can become trapped in the packing film when playing and suffocate.

- Do not allow children to play with the device or the packing film. Danger of suffocation.

- Ensure that children do not remove small parts from the device or take them off of the device (e.g. control knobs or plug adapters). They could swallow the parts and choke.

- Never let children use electrical equipment unsupervised.

The product contains magnetic material.

- Please contact your physician if you have any questions on whether this might affect the operation of your implantable medical device.
- Keep magnetically sensitive items (e. g. credit cards, etc.) away from the housing.

Extended listening at high volumes may lead to hearing loss.

To avoid damage to health, avoid extended listening at high volumes.

- When the volume is set high, always keep a certain distance from the device and never place your ear directly on the speaker.
- If an amplifier is set to full volume, this may produce very high sound pressure. This may have psychological consequences and also cause physical injury. Children and pets are particularly at risk. After turning the device on, first set the volume control to a low setting.

If the device is subjected to warm temperatures after being cold (e.g. after transport), condensation may occur inside of it.

- In this case, wait at least 2 hours before you connect and activate it.

Improper use may lead to damage or fire.

- Do not place open flames such as burning candles or similar on the device.
- Ensure sufficient ventilation.
- Do not place the device in direct sunlight.
- Only use the device in indoor areas.

Explanation Of Symbols

▣	Protection class II Dual insulation
⚡	Risk of electrical shock – do not open the housing.

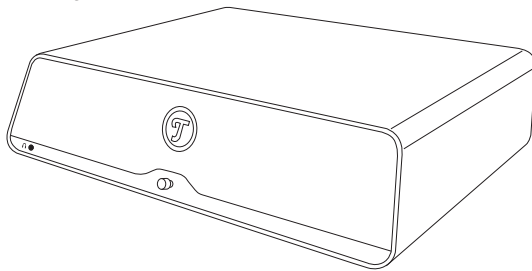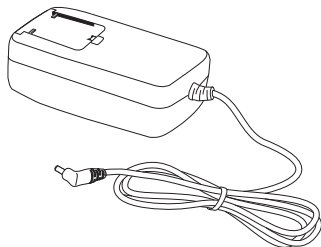|	
🚫🗑	**Old devices must not be disposed of with household waste!** If the device is no longer operational, every consumer is required by law to dispose of old devices separately from household waste, e.g. at a collection point run by the communal authority/borough. This ensures that old devices are recycled in a professional manner and also rules out negative consequences for the environment. For this reason, electrical equipment is marked with the following symbol.

Overview

Unpacking

- Carefully open the box and carefully lift the device and accessories out of the box.
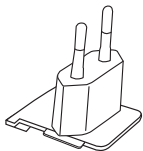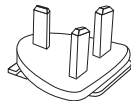
Pack contents

1 × MD16
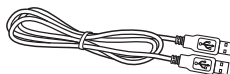
1 × Wall adapter

2 × Plug adapter for the wall adapter
Euro   Great Britain

1 × USB cable A/B   1 × USB cable A/A
for connection to the PC for extension

Checking the pack contents

- Check that all items have been delivered and that nothing is damaged.
- If the delivery is incomplete or exhibits transport damages, please contact our service team (see page 3).

⚠ WARNING

Do not in any case operate the device if it is damaged.

Functions

- USB-2 hub with 3 available ports. Here you can connect a keyboard and mouse for example. The hub is also active when the MD16 is turned off.
- The sound card with the connection for a headset with a microphone. The sound card supplies the audio signal for the amplifier of the MD16 and for the headset port. The headset port is also active when the MD16 is turned off.
- USB charging port (max. 1.5 amps) for charging a smartphone or operating a Bluetooth or radio receiver.
- Stereo audio input, which you can connect almost any audio source to (MP3 player, sat receiver, TV set, X-Box, PlayStation, CD player, DJ mixers, etc.). Its signal is emitted via the amplifier of the MD16 and relayed to the sound card input. This way, you can digitalise audio signals with your PC.
- No driver software required: No driver software is required to operate the MD16 under Windows 7, 8 and 10 as well as Mac OS X 10.5 and higher.
- The MD16 is perfectly designed for direct sound reproduction at PC workstations, i.e. a relatively short distance from the listener to the speaker. The listening zone should not exceed 20 sqm.

Example of use with laptop

Set up the MD16 as a workstation for your laptop:

- Connect the keyboard, mouse, USB printer and headset to the MD16.
- For the laptop, you only need its mains adapter and the USB connection to the MD16.

This way, you can quickly and easily set up and put away your laptop while making full use of the equipment at your workstation.
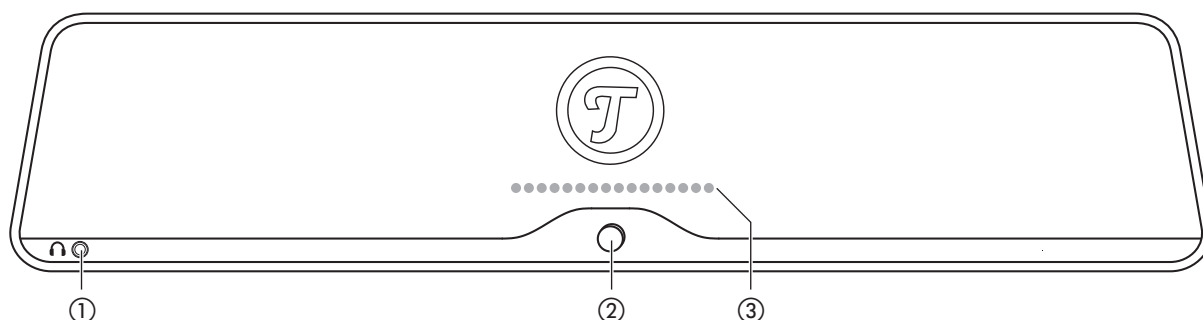
Example of use with a TV set

With small TV sets, the sound emitted is often suboptimal due to the small speakers.

Simply place the TV set on the MD16 and connect the audio or headphone output to the AUX IN input of the MD16.
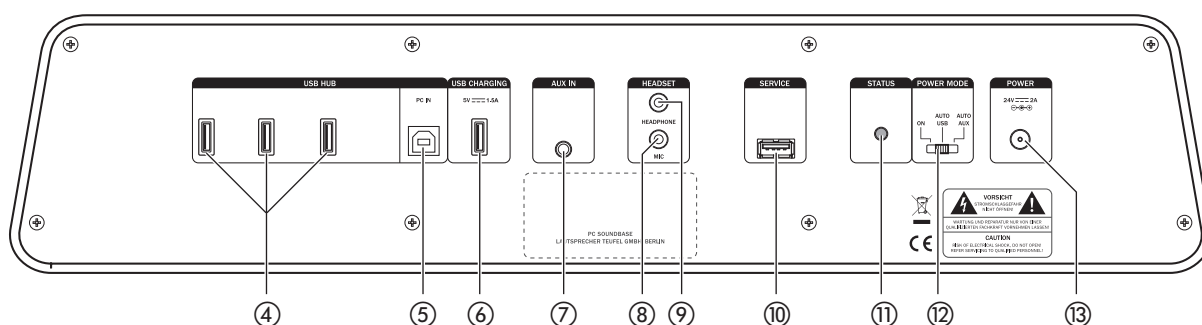
Operational Controls And Connections

Front side

Item	Name	Description
①	⌒	Headphone jack
②	—	Control dial for the volume and to turn the device on and off

Item	Name	Description
③	—	LED strip

Back side

Item	Name	Description
④	**USB HUB**	USB ports of the hub
⑤	**PC IN**	USB port for PC
⑥	**USB CHARGING**	USB charging port (max. 1.5 A)
⑦	**AUX IN**	Input jack for analogue audio source device
⑧	**HEADSET MIC**	Microphone jack for the headset

Item	Name	Description
⑨	**HEADSET HEADPHONE**	Headphone jack for the headset
⑩	**SERVICE**	Only for service
⑪	**STATUS**	Status LED
⑫	**POWER MODE**	Switch for automatically activating and deactivating the device
⑬	**POWER**	Connector jack for the wall adapter

Setup And Connection

Setup location

NOTICE

If the device is subjected to warm temperatures after being cold (e.g. after transport), condensation may occur inside of it.

– *In this case, wait at least 2 hours before you connect and activate it.*
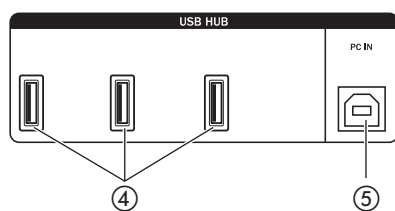
Location tips

- Select a stable, level base.
- Make sure that the environment is clean and free from dust.
- Select a location away from heat sources and direct sunlight.
- Lay the connector cords so that they do not pose a tripping hazard.

Simply place your monitor, all-in-one PC, laptop or TV set on the MD16. Observe the maximum load capacity of 10 kg in the process.

Audio connection to the PC

The MD16 is suitable for connecting to any desktop computer or notebook. It is connected either via the USB port or the stereo mini-jack output of the computer. If you don't have a high-quality sound card, we always recommend using the USB port.
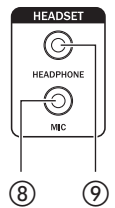
USB hub and sound card

Connect the jack ⑤ to the USB port of your PC. Use the enclosed USB cable or a comparable one (type A/B) to do so. The cable should be as short as possible.

As soon as your PC has been switched on, the USB ports ④ are available for connecting USB devices (e.g. keyboard, mouse, camera). They can draw a total current of no more than 500 mA.
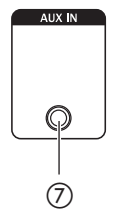
Headset

You can connect a headset (a combination of earphones and a microphone) to the jacks MIC ⑧ and HEADSET ⑨. All corresponding functions (activation, volume, microphone level) are controlled via USB from the PC.
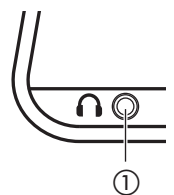

External source

You can connect a source device with analogue stereo sound such as a Bluetooth or radio receiver or a MP3 player to the AUX IN jack ⑦. You will need a stereo cable with a 3.5-mm jack plug to do so.

Note: Connecting via AUX IN will disconnect the USB sound card from the amplifier. However, the headset ports will continue to be connected with the USB sound card.

Headphones

You can connect stereo headphones with a 3.5 mm jack plug to the jack ∩ ① on the front side. This output is connected with the amplifier and can therefore also play back audio signals from the AUX IN input ⑦.

The speakers automatically switch off when headphones are connected.

⚠ CAUTION

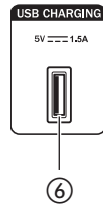*Extended listening at high volumes may lead to hearing loss.*

– *To avoid damage to health, avoid extended listening at high volumes.*

Risk of injury/damage!

– *Lower the volume before you pull out the headphone plug out again; otherwise, the speakers may emit unexpected high sound pressure. This could injure your hearing or damage the device.*
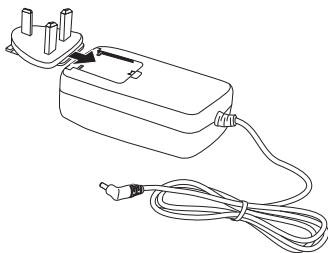
USB charging port

You can use the USB CHARGING port ⑥ to charge a smartphone or operate a Bluetooth or radio receiver. The device can draw current of no more than 1.5 A in the process.
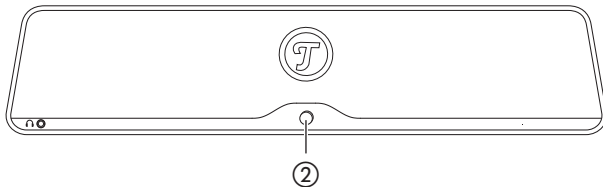
Mains connection

The enclosed wall adapter is suitable for mains voltages of 100 to 240 V~. Before using it for the first time, push the Euro mains plug onto the mains adapter until it locks into place (see graphic).
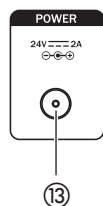
To replace the Euro mains plug, push the button marked with "PUSH" and pull the plug off upwards.

1. Make sure that your MD16 has been turned off. Do so by turning the control dial ② counterclock-wise up to the stop.
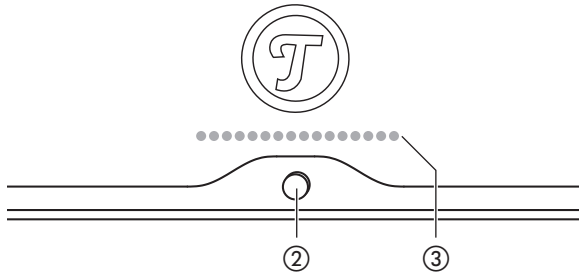
2. Insert the small plug of the wall adapter in the POWER jack ⑬.
3. Insert the wall adapter in a mains socket (100 V – 240 V ~, 50/60 Hz).

The MD16 is now operational.

Basic Functions

Switching on and off

- By turning the control dial ② clockwise, you can switch the MD16 on and increase the volume at the same time.
  The first LED on the LED strip ③ will illuminate in red. The more you increase the volume, the more LEDs will light up.
- To turn the device off, turn the control dial ② counterclockwise up to the stop. The device will switch off with an audible click.

Automatic activation/deactivation

If the MD16 does not detect an audio signal via USB or the AUX input, the MD16 will automatically switch to standby after approx. 20 minutes.
As soon as an audio signal is detected on the selected channel, the MD16 will automatically be reactivated.

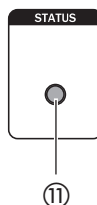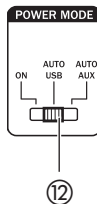You can control the automatic activation and deactivation with the POWER MODE switch ⑫:

ON – The automatic function is not active; the device is turned on and off manually.

AUTO USB – The automatic function monitors the USB input (sound card).

AUTO AUX – The automatic function monitors the AUX input.

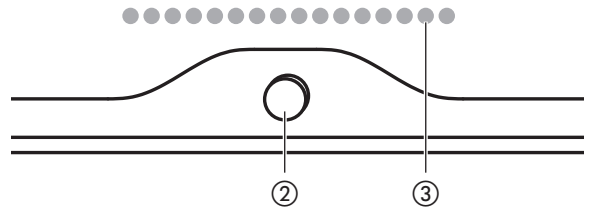- In standby mode, the LED STATUS ⑪ illuminates in red.

Note: The device is not disconnected from the mains even when it is turned off or in standby mode. To turn it off completely, pull the wall adapter out of the socket.

Setting the volume

- Increasing the volume: Turn the control dial ② clockwise.
- Decreasing the volume: Turn the control dial ② counterclockwise.

The LED strip ③ will display the selected volume with up to 16 LEDs.

With Windows 7, 8 and 10 as well as Mac OS X 10.5 and higher, no special driver software is required to operate the MD16. The operating systems detect the MD16 as a "USB Advanced Audio Device" when it is connected to the USB port.

You only adjust the volume of the amplifier on the MD16, all other settings (e.g. sound, recording and headset level) are controlled from your PC.
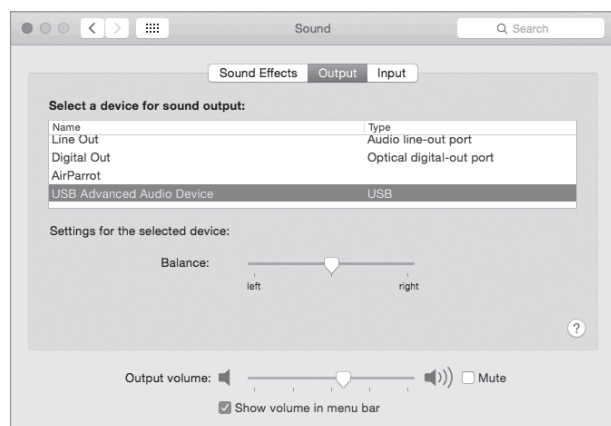
Mac OS X

To quickly switch playback to the MD16, push the [alt] button on the Mac and click the speaker icon on the menu bar (you can activate this icon under "Sound" in the system preferences, see below). Select the "USB Advanced Audio Device" from the list "Output Device". All Mac sounds will now be played back via the MD16.

You can also select the "Input Device" via this menu. However, only the last one used with the MD16 ("Microphone" in this example). You can only toggle the inputs in the System Preference "Sound".
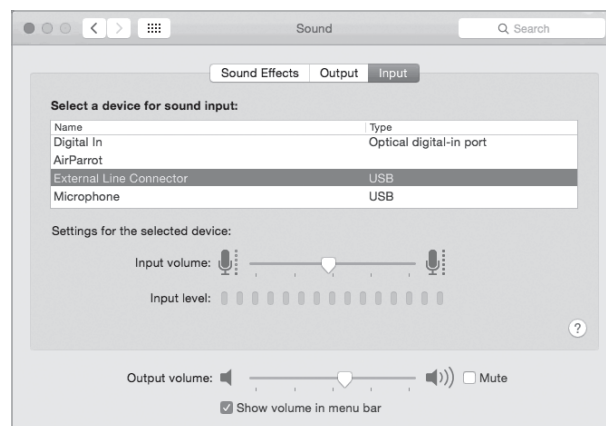
System Preference "Sound"

In the System Preference "Sound", you can select the MD16 as the playback device on the "Output" tab: Click "USB Advanced Audio Device" in the list. All Mac sounds will now be played back via the MD16.

If you check "Show volume in menu bar" at the very bottom, you can also access the menu described above via the speaker icon.

The inputs of the MD16 are selected on the "Input" tab:

- **External line connector** — AUX IN input ⑦
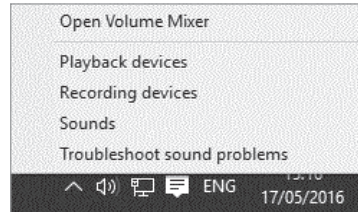- **Microphone** — MIC microphone input ⑧ of the headset port

Once the desired input has been selected, you can set the level with the slider and check it using the bar indicator.

Further sound settings depend on the programme in use, e.g. iTunes or Facetime.
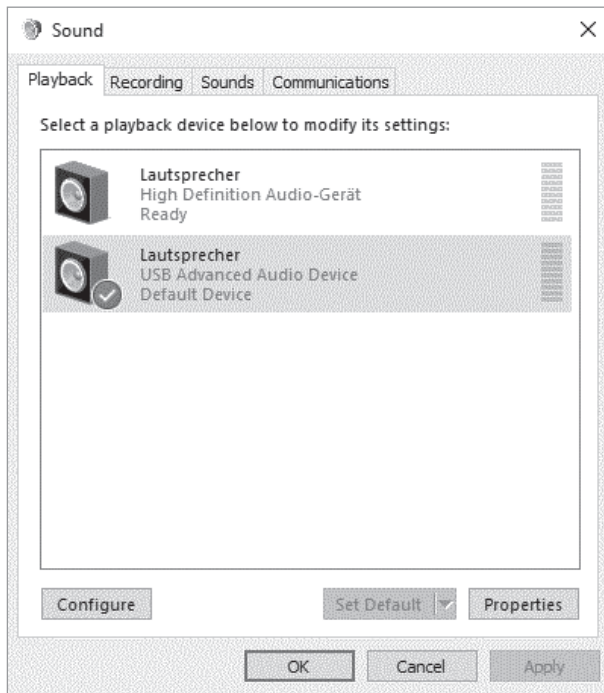
Windows 7, 8 and 10:

When establishing the USB connection, Windows automatically detects the MD16 and allocates playback accordingly.

To quickly switch between playback and recording devices, right click the speaker icon on the task bar and select "Play-back devices" or "Recording devices". The corresponding "Sound" tab of the control panel will open.
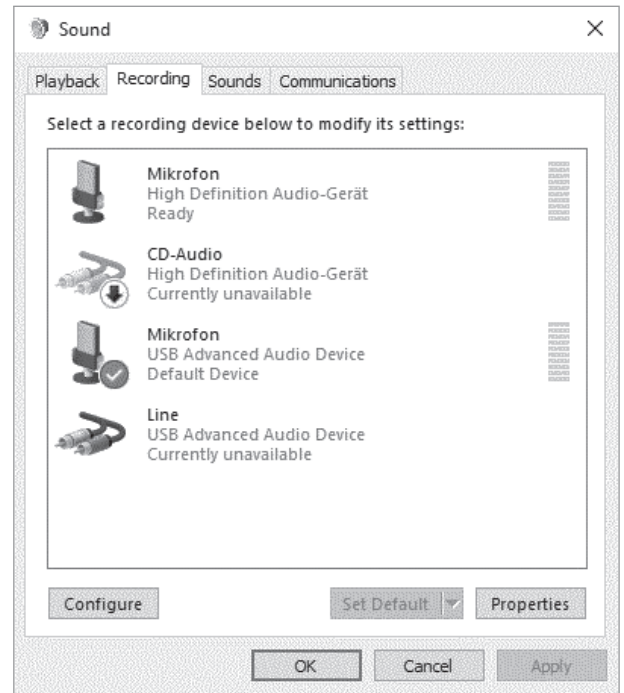
"Sound" control panel

In the "Sound" control panel, you can select the MD16 as the playback device:
Under the "Playback" tab, click "Lautsprecher / USB Advanced Audio Device". All PC sounds will now be played back via the MD16.

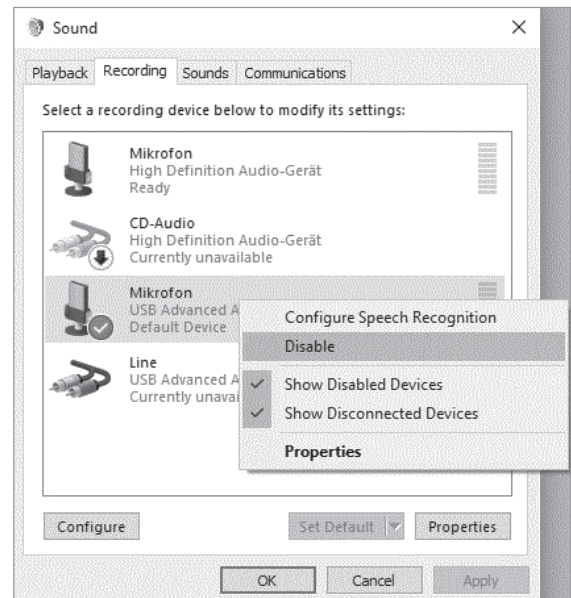The inputs of the MD16 are selected on the "Recording" tab:

The "USB Advanced Audio Device" offers two inputs for this purpose:

- **Line** — AUX IN input ⑦
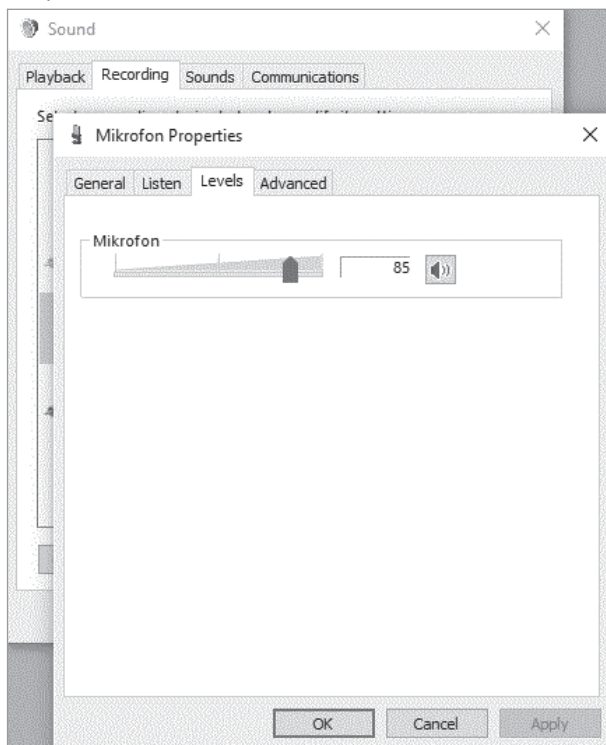- **Microphone** — MIC microphone input ⑧ of the headset port

If the desired input is marked as "Currently unavailable" (in fig. "Line" input), first deactivate the other input (in fig. "Microphone" input):

– Right click the other input and select "Disable".

– Now left click the desired input.
– Click "Set Default" at the bottom. This will activate the desired input.

Once the desired input has been selected, you can, amongst others, set the level under "Mikrofon Properties":

Further sound settings depend on the programme in use, e.g. Media Center or Skype.

For more information on configuration, visit our FAQ page on the Internet:

http://www.teufelaudio.com/faq.html

Cleaning And Maintenance

External influences may damage or destroy the device.

– *If the device is to be left unattended for a prolonged period of time (e.g. during a vacation) or if a thunderstorm is forecast, pull the wall adapter out of the socket. Otherwise, sudden overvoltage could cause the device to become defective.*

– *If possible, only use plain water without any additives. In case of stubborn marks, a mild soap solution may be used.*

– *Do not use caustic cleaning products, white spirit, thinners, petrol or similar under any circumstances. Such cleaning agents may damage the delicate surface of the housing.*

- Ideally, you should remove dust or small amounts of dirt with a dry, smooth leather cloth.
- Use a damp cloth to rub off stubborn dirt. Make sure that no liquid penetrates the housing.
- Then immediately wipe the damp surfaces off with a soft cloth without applying pressure.

The following advice should help you to solve problems. If this does not help, you will find useful information in the detailed FAQs on our website. Otherwise, please contact our hotline (see page 3). Take note of the warranty instructions.

Problem	Possible cause	Solution
The MD16 doesn't work.	The MD16 has no power.	Check the wall adapter and socket.
The MD16 doesn't emit sound.	The volume is set to "0".	Increase the volume (page 10).
The MD16 hums.	The hum is due to line disturbance.	Buy a mains filter and connect both devices to it.
	The humming is caused by a multiple socket strip.	Use a different multiple socket strip or connect the subwoofer directly to the wall socket.
The sound is not ideal.	The settings are incorrect.	Set the bass tones, treble tones and sound on your PC.
Playback is noisy.	Generally speaking, the MD16 is a very low-noise system. The speaker system with very high resolution in the high range area can expose the poor quality of a signal source (e.g. from MP3 files).	Ensure that the source is sending a clear signal to the MD16.
No sound is emitted via USB.	No USB connection to the PC.	Establish a connection (see page 8).
	The AUX IN input ⑦ is occupied.	Pull the jack plug out of the jack.
	When using the Windows operating system, the MD16 suddenly stops playback when using conventional PC programmes like iTunes or Internet Explorer. The speakers start emitting sound again once the application has been closed.	In Windows you can check a power-saving option to deactivate USB peripheral devices during periods of inactivity. This can also include the built-in USB sound card of the MD16. Please deactivate this setting.
Interference and sound cuts out when operating the device via the USB interface.	Windows power-saving mode is activated by default so that the USB port is not constantly supplied with sufficient power.	Switch power-saving mode for the USB port off. This can be done under Control panel\System\ Power options.
No sound when connecting a USB MP3 player	The USB input on the MD16 is only intended for connections to desktop computers and notebooks.	
No sound via AUX IN.	Volume of the playback program has been set to zero.	Carefully increase the volume on the source device.
Receipt of radio interference	In very rare cases, the device may pick up unwanted radio frequencies. However, this depends on the local conditions.	Please disconnect all audio cables from the amplifier and check whether there is still interference. We recommend using shorter, higher quality audio connector cables that are shielded if necessary.

Technical Data

Dimensions (WxHxD)	415 x 93 x 326 mm
Weight	6.7 kg
Max. carrying capacity	10 kg
Operating voltage (wall adapter)	100 – 240 V~, 50/60 Hz
Max. power consumption	55 watts

You can find further technical data on our website. Technical changes reserved!

CE Products marked with this symbol meet all applicable Community regulations for the European Economic Area. The EU declaration of conformity can be requested from the address specified at the end of this instruction manual.