the t.mix

MicroMix 1 USB

mixer

thomann
MUSIC IS OUR PASSION

user manual

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1 General information

This manual contains important instructions for the safe operation of the unit. Read and follow the safety instructions and all other instructions. Keep the manual for future reference. Make sure that it is available to all those using the device. If you sell the unit please make sure that the buyer also receives this manual.

Our products are subject to a process of continuous development. Thus, they are subject to change.

1.1 Further information

On our website (*www.thomann.de)* you will find lots of further information and details on the following points:

Download	This manual is also available as PDF file for you to download.
Keyword search	Use the search function in the electronic version to find the topics of interest for you quickly.
Online guides	Our online guides provide detailed information on technical basics and terms.
Personal consultation	For personal consultation please contact our technical hotline.
Service	If you have any problems with the device the customer service will gladly assist you.

1.2 Notational conventions

This manual uses the following notational conventions:

Letterings

The letterings for connectors and controls are marked by square brackets and italics.

Examples: *[VOLUME]* control, *[Mono]* button.

1.3 Symbols and signal words

In this section you will find an overview of the meaning of symbols and signal words that are used in this manual.

Signal word	Meaning
DANGER!	This combination of symbol and signal word indicates an immediate dangerous situation that will result in death or serious injury if it is not avoided.
CAUTION!	This combination of symbol and signal word indicates a possible dangerous situation that can result in minor injury if it is not avoided.
NOTICE!	This combination of symbol and signal word indicates a possible dangerous situation that can result in material and environmental damage if it is not avoided.

Warning signs	Type of danger
	Warning – danger zone.

2 Safety instructions

Intended use

This device is intended to be used for amplification, mixing and playback of signals from musical instruments and microphones. Use the device only as described in this user manual. Any other use or use under other operating conditions is considered to be improper and may result in personal injury or property damage. No liability will be assumed for damages resulting from improper use.

This device may be used only by persons with sufficient physical, sensorial, and intellectual abilities and having corresponding knowledge and experience. Other persons may use this device only if they are supervised or instructed by a person who is responsible for their safety.

Safety

DANGER!

Danger for children

Ensure that plastic bags, packaging, etc. are disposed of properly and are not within reach of babies and young children. Choking hazard!

Ensure that children do not detach any small parts (e.g. knobs or the like) from the unit. They could swallow the pieces and choke!

Never let children unattended use electrical devices.

CAUTION!

Possible hearing damage

With loudspeakers or headphones connected, the device can produce volume levels that may cause temporary or permanent hearing impairment.

Do not operate the device permanently at a high volume level. Decrease the volume level immediately if you experience ringing in your ears or hearing impairment.

NOTICE!

Operating conditions

This device has been designed for indoor use only. To prevent damage, never expose the device to any liquid or moisture. Avoid direct sunlight, heavy dirt, and strong vibrations.

NOTICE!

Danger of short circuit

Switching on phantom power will damage the device if unbalanced XLR cables are connected.

Only turn on phantom power when exclusively balanced XLR cables are connected.

3 Features

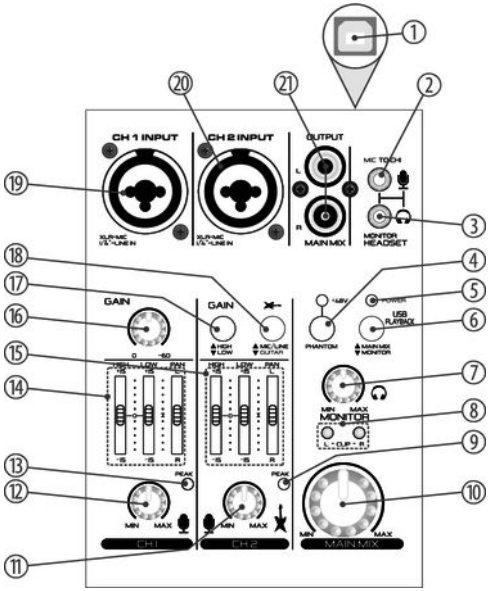
- 2-channel mixer
- 2 × mono channel with XLR / 1/4" combo socket (MIC / Line), gain adjustment, 2-band EQ and pan control
- 48 V phantom power globally switchable
- Channel 2 also suitable for direct instrument connection
- Headset with headphone and microphone connectable (3.5 mm jack)
- 1 × stereo RCA output
- USB port for use as an audio interface
- Power supply via USB port

4 Installation and starting up

Unpack and carefully check that there is no transportation damage before using the unit. Keep the equipment packaging. To fully protect the device against vibration, dust and moisture during transportation or storage use the original packaging or your own packaging material suitable for transport or storage, respectively.

Establish all connections as long as the unit is switched off. Use the shortest possible high-quality cables for all connections.

5 Connections and controls



1	*[USB TO COMPUTER]* USB port for connection to a computer for use as an audio interface as well as for power supply.
2	*[MIC TO CH 1]* To connect the microphone when using a headset, signal processing via channel 1.
3	*[MONITOR - HEADSET]* To connect the headphone when using a headset.
4	*[PHANTOM]* Turns the phantom power on and off for condenser microphones on the XLR inputs. The LED above the switch is lit when the phantom power is activated.
5	*[POWER]* The LED lights up once the unit is powered.
6	*[USB playback]* When the switch is pressed, the USB input signal is assigned to the *'MONITOR'* output, otherwise to the *'MAIN MIX'* output.

7	*[MONITOR]* Volume control for the Monitor output.
8	*[L - CLIP - R]* The *'L'* or *'R'* LED lights up green when a signal is present in the respective bus side. It lights up red when overload occurs in the respective bus side. Then lower the input levels that possibly cause the overload or turn the *'MAIN MIX'* control counterclockwise.
9	*[PEAK]* This LED lights up on overload in channel 2. If this happens, turn the *[GAIN]* switch to the LOW position.
10	*[MAIN MIX]* Volume control for the *'MAIN MIX'* output and the USB port.
11	*[CH 2]* Level control for the signals at input *'CH2'*.
12	*[CH1]* Level control for the signals at input *'CH1'*.

13	*[PEAK]* This LED lights up on overload in channel 1. If this happens, turn the *[GAIN]* control counterclockwise until the LED goes out.
14	*[HIGH - LOW - PAN]* Tone and pan control for channel *'CH1'*. Slide the *'HIGH'* control up or down to raise or lower the treble. Slide the *'LOW'* control up or down to raise or lower the bass. Slide the *'PAN'* control up or down to move the signal source further to the left or right in the stereo panorama.
15	*[HIGH - LOW - PAN]* Tone and pan control for channel *'CH2'*. Slide the *'HIGH'* control up or down to raise or lower the treble. Slide the *'LOW'* control up or down to raise or lower the bass. Slide the *'PAN'* control up or down to move the signal source further to the left or right in the stereo panorama.
16	*[GAIN]* Control to adjust the sensitivity of the input *'CH1'*.
17	*[GAIN]* Switch for selecting the sensitivity of input *'CH2'* between LOW (switch pressed = low sensitivity) and HIGH (switch not pressed = high sensitivity).

18	Switch for changing the input impedance. When directly connecting a high-impedance instrument such as an electric guitar or bass, push the switch to the GUITAR position.
19	*[CH 1 INPUT]* Balanced XLR / 1/4" phone jack input for connecting a microphone (XLR) or a line level signal source (1/4" phone jack). The XLR socket can provide phantom power for connecting condenser microphones. Never turn on the phantom power when unbalanced cables are connected to this socket.
20	*[CH 2 INPUT]* Balanced XLR / 1/4" phone jack input for connecting a microphone (XLR), a line level signal source or a guitar (1/4" phone jack). The XLR socket can provide phantom power for connecting condenser microphones. Never turn on the phantom power when unbalanced cables are connected to this socket. Connect guitars only using unbalanced instrument cables, otherwise the device will not work correctly.
21	*[MAIN MIX]* Stereo RCA output for the final signal mix of the device. Here you can connect a power amp, powered speakers or a recording device.

6 Technical specifications

Sensitivity / impedance	Channel 1 & 2, XLR	2 mV / 1.8 kΩ (gain @ max.)
	Channel 1, 1/4" phone jack	10 mV / 12 kΩ (line)
	Channel 2, 1/4" phone jack	30 mV / 20 kΩ (line), 30 mV / 240 kΩ (guitar)
Output level	Main & monitor	5.8 V (max.)
Frequency response		20 Hz ~ 22 kHz
THD		≤ 0.05 %
Signal-to-noise ratio		80 dB (A-weighted)
EQ	Bass	± 15 dB / 80 Hz
	Treble	± 15 dB / 12 kHz
Impedance headphones output		≥ 16 Ω

USB interface		USB 1.1 compatible, 16 bit Delta-Sigma Sampling rates: 44.1 kHz, 48 kHz
Phantom voltage		+48 V
Voltage supply		via computer (USB port) or USB mains adaptor 5 V / 500 mA (not supplied)
Dimensions (W × H × D)		100 × 45 × 135 mm
Weight		430 g

7 Plug and connection assignment

Introduction

This chapter will help you select the right cables and plugs to connect your valuable equipment in such a way that a perfect sound experience is ensured.

Please note these advices, because especially in 'Sound & Light' caution is indicated: Even if a plug fits into the socket, an incorrect connection may result in a destroyed power amp, a short circuit or 'just' in poor transmission quality!

Balanced and unbalanced transmission

Unbalanced transmission is mainly used in semi-professional environment and in hifi use. Instrument cables with two conductors (one core plus shielding) are typical representatives of the unbalanced transmission. One conductor is ground and shielding while the signal is transmitted through the core.

Unbalanced transmission is susceptible to electromagnetic interference, especially at low levels, such as microphone signals and when using long cables.

In a professional environment, therefore, the balanced transmission is preferred, because this enables an undisturbed transmission of signals over long distances. In addition to the conductors 'Ground' and 'Signal', in a balanced transmission a second core is added. This also transfers the signal, but phase-shifted by 180°.

Since the interference affects both cores equally, by subtracting the phase-shifted signals, the interfering signal is completely neutralized. The result is a pure signal without any noise interference.

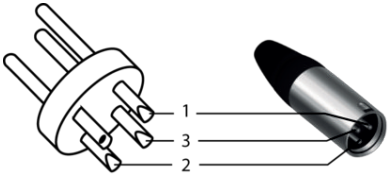
1/4" TS phone plug (mono, unbalanced)

1	Signal
2	Ground, shielding

1/4" TRS phone plug (mono, balanced)

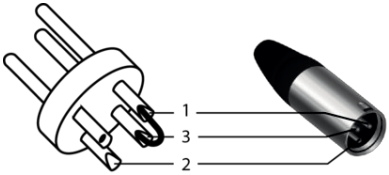
1	Signal (in phase, +)
2	Signal (out of phase, –)
3	Ground

XLR plug (balanced)



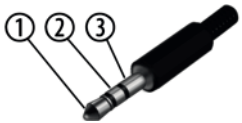
1	Ground, shielding
2	Signal (in phase, +)
3	Signal (out of phase, –)

XLR plug (unbalanced)



1	Ground, shielding
2	Signal
3	Bridged to pin 1

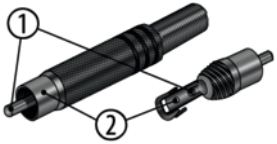
Three-pole 1/8" mini phone jack (stereo, unbalanced)



1	Signal (left)
2	Signal (right)
3	Ground, shielding

RCA connection

Drawing and table indicate the pin assignment of an RCA plug.



1	Signal
2	Ground, shielding

8 Protecting the environment

Disposal of the packaging material

For the transport and protective packaging, environmentally friendly materials have been chosen that can be supplied to normal recycling.

Ensure that plastic bags, packaging, etc. are properly disposed of.

Do not just dispose of these materials with your normal household waste, but make sure that they are collected for recycling. Please follow the notes and markings on the packaging.

Disposal of your old device

This product is subject to the European Waste Electrical and Electronic Equipment Directive (WEEE) in its currently valid version. Do not dispose with your normal household waste.

Dispose of this device through an approved waste disposal firm or through your local waste facility. When discarding the device, comply with the rules and regulations that apply in your country. If in doubt, consult your local waste disposal facility.

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