

Mixer

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## 1 General information

This document contains important instructions for the safe operation of the product. Read and follow the safety instructions and all other instructions. Keep the document for future reference. Make sure that it is available to all those using the product. If you sell the product to another user, be sure that they also receive this document.

Our products and documentation are subject to a process of continuous development. They are therefore subject to change. Please refer to the latest version of the documentation, which is ready for download under <u>www.thomann.de</u>.

## 1.1 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 document.

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.
WARNING!	This combination of symbol and signal word indicates a possible dangerous situation that can result in death or serious 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
$\triangle$	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!

### Risk of injury and choking hazard for children!

Children can suffocate on packaging material and small parts. Children can injure themselves when handling the device. Never allow children to play with the packaging material and the device. Always store packaging material out of the reach of babies and small children. Always dispose of packaging material properly when it is not in use. Never allow children to use the device without supervision. Keep small parts away from children and make sure that the device does not shed any small parts (such knobs) that children could play with.



#### WARNING!

### Possible hearing damage due to high volumes on speakers or headphones!

With speakers or headphones connected, the device can produce volume levels that may cause temporary or permanent hearing impairment. Over an extended period of time, even levels that seem to be uncritical can cause hearing damage. 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!

### Damage to the device if operated in unsuitable ambient conditions!

The device can be damaged if it is operated in unsuitable ambient conditions. Only operate the device indoors within the ambient conditions specified in the "Technical specifications" chapter of this user manual. Avoid operating it in environments with direct sunlight, heavy dirt and strong vibrations. Avoid operating it in environments with strong temperature fluctuations. If temperature fluctuations cannot be avoided (for example after transport in low outside temperatures), do not switch on the device immediately. Never subject the device to liquids or moisture. Never move the device to another location while it is in operation. In environments with increased dirt levels (for example due to dust, smoke, nicotine or mist): Have the device cleaned by qualified specialists at regular intervals to prevent damage due to overheating and other malfunctions.



#### NOTICE!

### Danger of short circuit due to use of unbalanced XLR cables!

The device has a phantom voltage input. Using unbalanced cables with the phantom power may damage the device. Use only balanced cables. Before switching on phantom power, always make sure that no unbalanced wired cables are connected.

### 3 Features

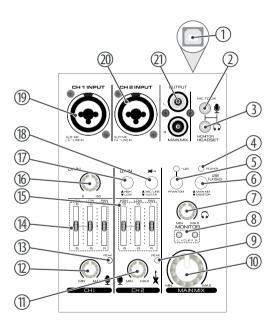
- 2-channel mixer
- 2 x mono channel with XLR / 1/4" combo socket (MIC / Line), gain adjustment, 2-band EQ and pan control
- 18 V phantom power globally switchable
- Channel 2 also suitable for direct instrument connection
- Headset with headphone and microphone connectable (3.5 mm jack)
- 1 × stereo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

# 4 Installation and starting up

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

Create all connections while the device is off. Use the shortest possible high-quality cables for all connections. Take care when running the cables to prevent tripping hazards.

## 5 Connections and controls



1 [USB TO COMPUTER] | USB port for connecting to a computer for use as an audio interface and for power supply. 2 [MIC TO CH 1] For connecting the microphone if a headset is in use, signal processing via channel 1. [MONITOR - HEADSET] | For connecting the headphones if a headset is in use. 4 [POWER] | The LED lights up when the device is powered. 5 [PHANTOM] | Turns the phantom power on and off for condenser microphones on the XLR inputs. The LED above the switch is on if phantom power is activated. [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 on the respective bus side. It lights up red when an overload occurs on the respective bus side. In this case, lower the input levels that could be causing the overload or turn the 'MAIN MIX' control anti-clockwise. [PEAK] | This LED lights up in case of an overload in channel 2. In this case, switch the [GAIN] switch to the LOW position. [MAIN MIX] | Volume control for the 'MAIN MIX' output and the USB port. [CH 2] | Level control for the signals on input 'CH2'. 12 [CH1] | Level control for the signals on input 'CH1'. 13 [PEAK] | This LED lights up in case of an overload in channel 1. In this case, turn the [GAIN] control anti-clockwise until the

LED goes out.

- 14 [HIGH LOW PAN] | Tone and pan control for channel 'CH1'. Push 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'. Push 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 for adjusting the sensitivity of input 'CH1'.
- [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 / jack input for connecting a microphone (XLR) or a line level signal source (6.3-mm 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 / jack input for connecting a microphone (XLR), a line level signal source or a guitar (6.3-mm 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.
- [MAIN MIX] | Stereo cinch output for the final signal mix of the device. Here you can connect a power amplifier, powered speakers or a recording device.

# **6** Technical specifications

Input connections	Microphone input 1 & 2	Туре	2 × XLR panel socket, 3-pin, balanced
		Level	2 mV
		Impedance	1.8 kΩ (max. gain)
	Line input 1	Type	6.3-mm jack socket, balanced
		Level	10 mV
		Impedance	12 kΩ
	Line input 2	Type	6.3-mm jack socket, balanced
		Level	30 mV
		Impedance	20 kΩ
			240 k $\Omega$ , guitar
	Microphone input	Туре	3.5-mm jack socket
	USB port	Туре	USB 1.1 compatible, 16 bit Delta-Sigma
		Sampling rates	44.1 kHz, 48 kHz
Output connections	Stereo cinch output	Туре	2 × cinch socket

		Level	max. 5.8 V		
	Headphone output	Туре	3.5-mm jack socket		
		Impedance	≥ 16 Ω		
EQ	Bass		± 15 dB/80 Hz		
	Treble		± 15 dB/12 kHz		
Frequency range			20 Hz ~ 22 kHz		
Signal-to-noise ratio			80 dB, A-weighted		
Total harmonic distortion (THD)			≤ 0.05%		
Phantom power			+18 V		
Power supply			Via computer (USB port) or USB mains adapter 5 V/500 mA (not included)		
Dimensions (W $\times$ H $\times$ D)			100 mm × 45 mm × 135 mm		
Weight			430 g		
Ambient conditions	Temperature range		0 °C40 °C		
	Relative humidity		20%80% (non-condensing)		

# 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)



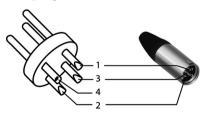
1	Signal
2	Ground, shielding

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



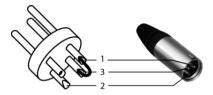
1	Signal (in phase, +)
2	Signal (out of phase, –)
3	Ground

### XLR plug (balanced)



1	Ground, shielding
2	Signal (in phase, +)
3	Signal (out of phase, –)
4	Shielding on plug housing (option)

### 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 packing material



Environmentally friendly materials have been chosen for the packaging. These materials can be sent for normal recycling. Ensure that plastic bags, packaging, etc. are disposed of in the proper manner.

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



Observe the disposal note regarding documentation in France.

### Disposal of your old device



This product is subject to the European Waste Electrical and Electronic Equipment Directive (WEEE) as amended.

Do not dispose of your old device with your normal household waste; instead, deliver it for controlled disposal by an approved waste disposal firm or through your local waste facility. When disposing of the device, comply with the rules and regulations that apply in your country. If in doubt, consult your local waste management facility. Proper disposal protects the environment as well as the health of your fellow human beings.

Also note that waste avoidance is a valuable contribution to environmental protection. Repairing a device or passing it on to another user is an ecologically valuable alternative to disposal.

You can return your old device to Thomann GmbH at no charge. Check the current conditions on www.thomann.de.

If your old device contains personal data, delete those data before disposing of it.