

the t.mix

403-USB Play mixer



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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.
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 – high-voltage.
	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.



DANGER!

Electric shock caused by high voltages inside

Within the device there are areas where high voltages may be present. Never remove any covers.

There are no user-serviceable parts inside.

Do not use the device if covers, protectors or optical components are missing or damaged.



DANGER!

Electric shock caused by short-circuit

Always use proper ready-made insulated mains cabling (power cord) with a protective contact plug. Do not modify the mains cable or the plug. Failure to do so could result in electric shock/death or fire. If in doubt, seek advice from a registered electrician.



NOTICE!

Risk of fire

Do not block areas of ventilation. Do not install the device near any direct heat source. Keep the device away from naked flames.



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!

Power supply

Before connecting the device, ensure that the input voltage (AC outlet) matches the voltage rating of the device and that the AC outlet is protected by a residual current circuit breaker. Failure to do so could result in damage to the device and possibly injure the user.

Unplug the device before electrical storms occur and when it is unused for long periods of time to reduce the risk of electric shock or fire.

3 Features

- 4-channel DJ mixer with USB player
- 1 × microphone input with talk over (XLR / 1/4" combo jack)
- 2 × microphone inputs with delay (XLR / 1/4" combo jack)
- 1 × headphones output (stereo, as 1/4" phone jack)
- 2 × master outputs (XLR and RCA sockets) for left and right channel
- 1 × output for recording device (RCA socket)
- 1 × FX Send/Return (1/4" combo jack)
- 2 × phono / line inputs (RCA sockets)
- 2 × Line / CD inputs (RCA sockets)
- 1 × Booth output (RCA sockets)
- 2 × USB port

4 Installation



NOTICE!

Danger of short circuit

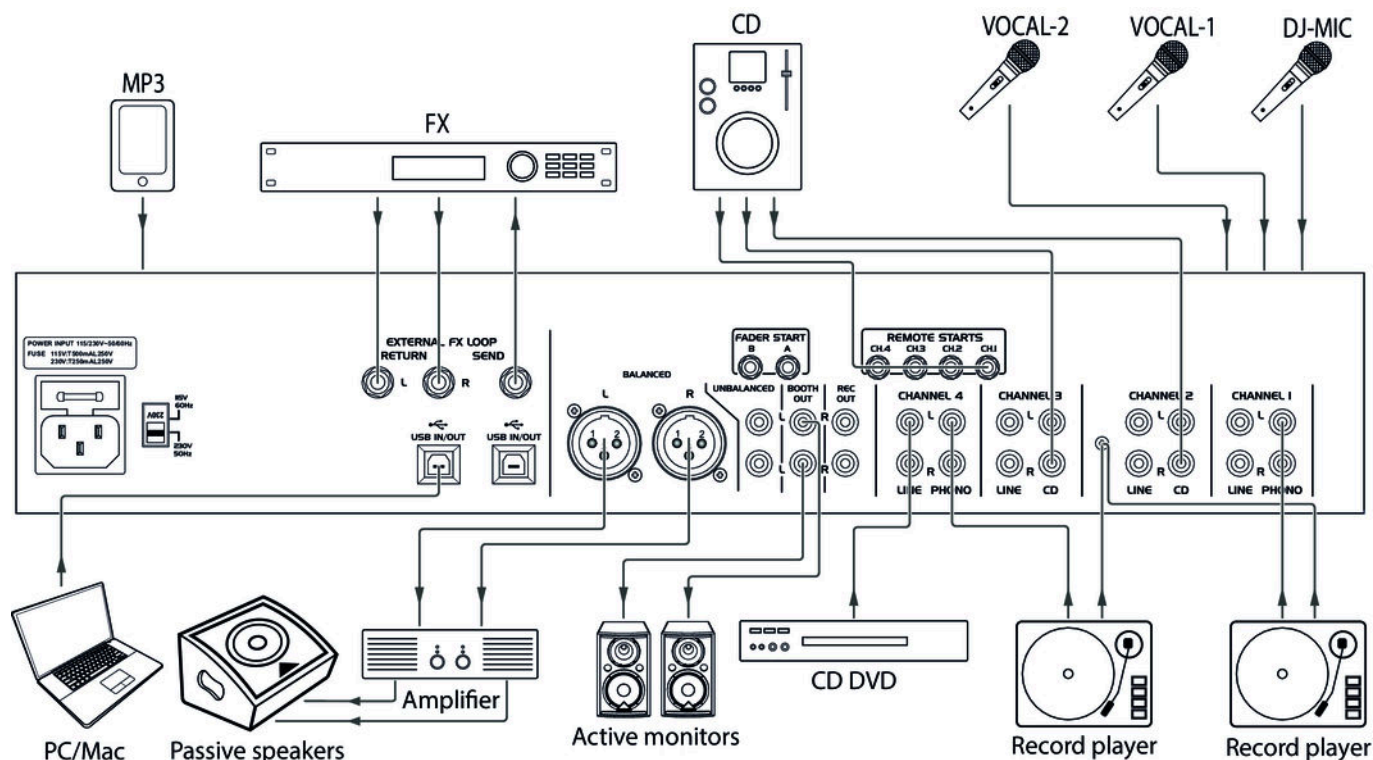
Switching on phantom power will damage the device if unbalanced XLR cables are connected.

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

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.

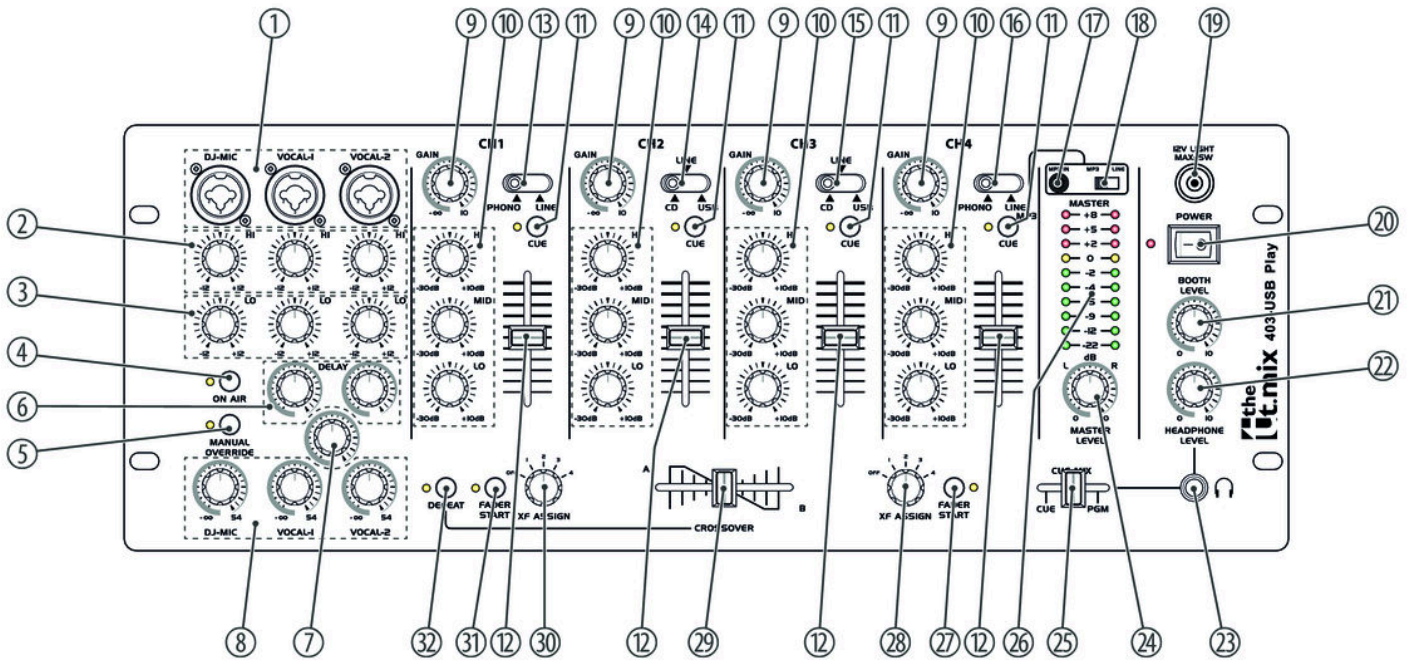
Create all connections while the device is off. Use the shortest possible high-quality cables for all connections. Take care when running the cables to prevent tripping hazards.

Connection options



5 Connections and controls

Front panel



1 [DJ-MIC], [VOCAL-1], [VOCAL-2]

Microphone input, designed as XLR / 1/4" phone combo socket

2 [HI]

Rotary control for adjusting the high frequencies of the microphone input

3 [LO]

Rotary control for adjusting the low frequencies of the microphone input

4 [ON AIR]

Activates the DJ-MIC. The LED lights up when the microphone is switched on.

5 [MANUAL OVERRIDE]

Enables the talk over function of the DJ microphone

When the button is pressed in the ON position, all other signal sources are attenuated by 14 dB, so that the microphone is clearly audible. The LED lights. In OFF position, all signals retain their original level.

6 [DELAY]

Rotary control to adjust the delay effect intensity of the microphone inputs [VOCAL-1] and [VOCAL-2]

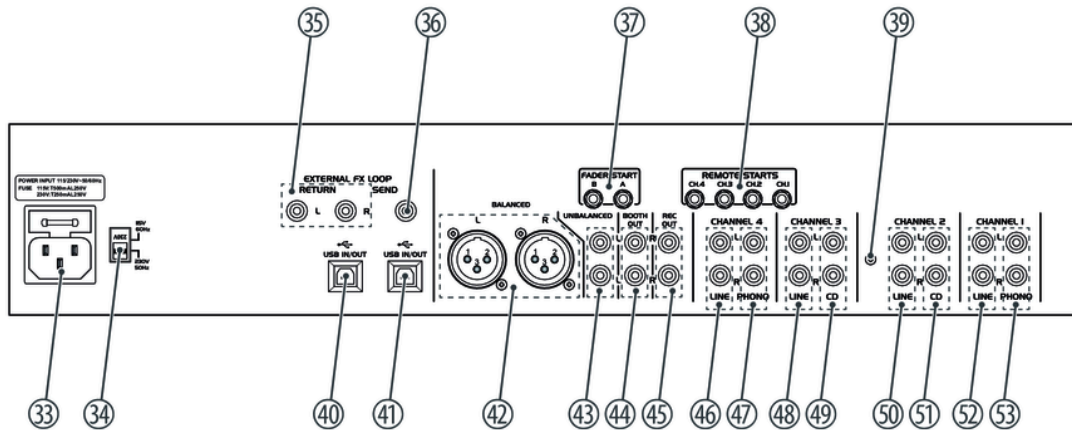
7 [TIME]

Rotary control to adjust the delay effect time of the microphone inputs [VOCAL-1] and [VOCAL-2]

8	<i>[DJ-MIC], [VOCAL-1], [VOCAL-2]</i> Rotary control for adjusting the volume of the microphone inputs
9	<i>[GAIN]</i> Rotary control to adjust the input signal to the working level of the unit.
10	<i>[HI], [MID], [LO]</i> Rotary control for direct tone control of the respective channel (bass, mids, treble)
11	<i>[CUE]</i> Selects the channel that can be heard through the headphones. When enabled, the LED lights up.
12	Slider for adjusting the volume of the respective channel
13	<i>[PHONO / LINE]</i> Input source selector for channel 1
14	<i>[CD / LINE / USB]</i> Input source selector for channel 2
15	<i>[CD / LINE / USB]</i> Input source selector for channel 3
16	<i>[PHONO / LINE]</i> Input source selector for channel 4
17	<i>[MP3 IN]</i> Connection for MP3 player, designed as 3.5 mm phone jack
18	<i>[MP3 / LINE]</i> Selector switch for selecting the input source for left and right channels
19	BNC plug for attachment of a goose neck lamp
20	<i>[Power]</i> Main switch. Turns the device on and off. This LED lights up when the device is switched on.
21	<i>[BOOTH LEVEL]</i> Rotary control to adjust the output level at Booth Out 44
22	<i>[HEADPHONE LEVEL]</i> Rotary control for adjusting the headphones volume
23	Monitor output for headphones, designed as 1/4" phone socket (stereo).
24	<i>[MASTER LEVEL]</i> Rotary control for adjusting the master out volume
25	<i>[CUE MIX]</i> Selector switch to listen to the CUE or the active programme simultaneously or separately
26	Level meter shows the volume of the output channel or the currently selected solo channel.

27	<i>[FADER START]</i> Enables the fader start for the channel assigned to the right side of the crossfader. When the button is pressed in ON position, the contact with the connected audio device is established and playback starts automatically. The LED lights. In OFF position, the contact with the connected audio device is interrupted.
28	<i>[XF ASSIGN]</i> Rotary control to select the channel assigned to the right side (B) of the crossfader.
29	<i>[CROSSFADER]</i> Controller for crossfading between two assigned channels
30	<i>[XF ASSIGN]</i> Rotary control to select the channel assigned to the left side (A) of the crossfader.
31	<i>[FADER START]</i> Enables the fader start for the channel assigned to the left side of the crossfader. When the button is pressed in ON position, the contact with the connected audio device is established and playback starts automatically. The LED lights. In OFF position, the contact with the connected audio device is interrupted.
32	<i>[DEFEAT]</i> Deactivates the crossfader When the button is pressed in ON position, the crossfader is bypassed. The LED lights. In OFF position the signal is passed through the crossfader.

Rear panel



33	IEC chassis plug for operating voltage supply with fuse holder Should the fuse have blown, disconnect the unit from the power supply and replace the fuse with a new fuse of the same type.
34	Selector switch for power supply voltage.
35.36	[EXTERNAL FX LOOP / RETURN], [EXTERNAL FX LOOP / SEND] Input and output for connecting an effects device, designed as RCA sockets When an effects unit is connected, the internal delay effect of the microphone inputs [VOCAL-1] and [VOCAL-2] is interrupted. The delay effect can only be controlled by the connected effects device.
37	[FADER START] Connection for the control signal of a playback device, designed as 3.5 mm phone sockets
38	[REMOTE STARTS] Connection for the control signal of a playback device, designed as 3.5 mm phone sockets When a CD player is connected, trigger signals are sent to channels 1 to 4 and playback starts immediately when the fader is moved up from the lowest position.
39	Grounding screws to reduce hum noise when connecting turntables
40	[USB IN/OUT] Type B USB port to connect a computer for channel 4
41	[USB IN/OUT] Type B USB port to connect a computer for channel 3
42	[BALANCED L/R] Master output for connecting an amplifier or active speakers, designed as XLR sockets.
43	[UNBALANCED] Output for connecting an amplifier or active speakers, designed as RCA sockets.

44	<i>[BOOTH OUT]</i>	Output for connecting to amplifiers or other audio devices, designed as 1/4" phone jacks
45	<i>[REC OUT]</i>	Output for connecting to a recording device, designed as RCA sockets for left and right channels
46, 48, 49 50, 51, 52	<i>[CHANNEL 4 LINE], [CHANNEL 3 LINE], [CHANNEL 3 CD], [CHANNEL 2 LINE], [CHANNEL 2 CD], [CHANNEL 1 LINE]</i>	Inputs for line level signals (e.g., CD, DVD, MP3), designed as RCA sockets
47, 53	<i>[CHANNEL 4 PHONO], [CHANNEL 1 PHONO]</i>	Inputs for signals with phono level (e. g. turntables), designed as RCA sockets

6 Technical specifications

Inputs	Microphone: 1.73 mV / 2 k Ω Phono: 4 mV / 47 k Ω Line/CD: 775 mV / 50 k Ω
Outputs	Main: 0 dBu Booth: 0 dBu Phone: 81 dB / 112 mV / 32 Ω
Tone control (bass, mids, treble)	-12 dB...+12 dB
Frequency range	Microphone: 25 Hz...30 kHz Line/CD: < 10 Hz...24 kHz
Signal-to-noise ratio	Microphone: 68 dB Phono: 73 dB Line/CD: > 87 dB
Phantom power	48 V
THD	Microphone: < 0.042 % Line/CD: < 0.005 %
Operating supply voltage	115/230 V ~ 50/60 Hz
Fuse	115 V: 5 mm \times 20 mm, 500 A, 250 V, slow-blow 230 V: 5 mm \times 20 mm, 250 A, 250 V, slow-blow
Dimensions (W \times H \times D)	513 mm \times 199 mm \times 123 mm
Weight	4.85 kg

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)



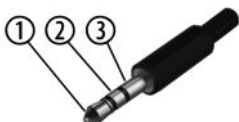
1	Signal
2	Ground, shielding

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



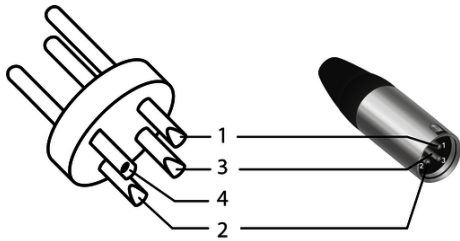
1	Signal (in phase, +)
2	Signal (out of phase, -)
3	Ground

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



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

XLR plug (balanced)



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

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.

