

swi**sonic**



UA-2X2
audio interface

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1 General notes

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.

Displays

Texts and values displayed on the device are marked by quotation marks and italics.

Examples: *'24ch'*, *'OFF'*.

Instructions


The individual steps of an instruction are numbered consecutively. The result of a step is indented and highlighted by an arrow.

Example:

- 1.** ▶ Switch on the device.
- 2.** ▶ Press *[Auto]*.
⇒ Automatic operation is started.
- 3.** ▶ Switch off the device.

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 – danger zone.

2 Safety instructions

Intended use

This device serves to convert analogue audio signals to digital audio signals and vice versa. 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.



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.

3 Features

- Receiver for the digital transmission of audio signals
- 2 × analogue microphone and line inputs as XLR / 1/4" combo sockets
- 2 × analogue line inputs as 1/4" phone sockets (balanced)
- Headphone phone as 1/4" phone socket
- Master volume control
- Supports Windows and macOS

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.

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.

4.1 System requirements

Use one of the following operating systems to enable the optimal use of the device:

- PC: Windows 7 / 8 / 8.1 or 10 (32- and 64-bit)
- Mac: macOS X / macOS 10.7 or higher

The computer must have at least one free USB 2.0 port.

4.2 Hardware installation

The device is connected to a USB port on the computer with the supplied cable and run directly on the power delivered via the port.

4.3 Driver and software installation

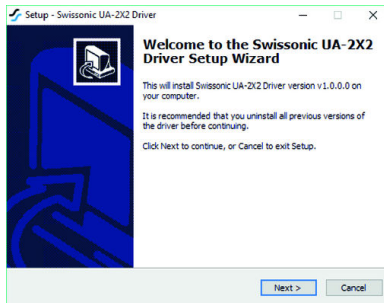
After it is connected to the computer, the operating system will automatically detect the device and usually install the correct USB audio driver.

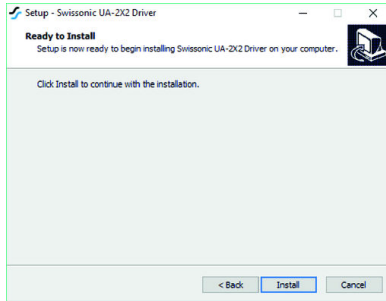
All applications that don't require any special, professional ASIO driver can already be used, e.g. DVD players or DJ applications in Windows or simple applications e.g. Garageband in Mac OS.

4.3.1 Installation in Windows

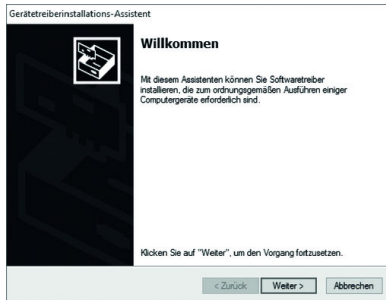
To use all the features of the applications, install the USB audio driver as follows:

1. ➤ Disconnect the USB cable from the computer.
2. ➤ Place the supplied installation CD into the computer's CD drive.
3. ➤ Start the installation programme '*setup_UA-2X2_vX.YYYY.exe*' by double-clicking. The extension '*vX.YYYY*' in the file name describes the current version number of the USB audio driver.
4. ➤ When the installation programme starts, Window shows a safety notification. Click on *[Next]* to allow the installation.

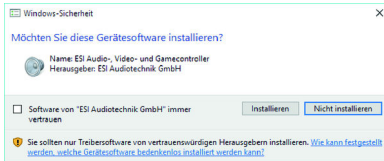




5. ➤ Confirm the installation and click on *[Install]*. The USB audio driver data are copied onto the computer.

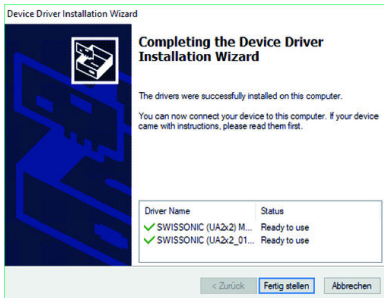


6. ➤ The device driver installation wizard opens. Click on *[Continue]* to proceed.

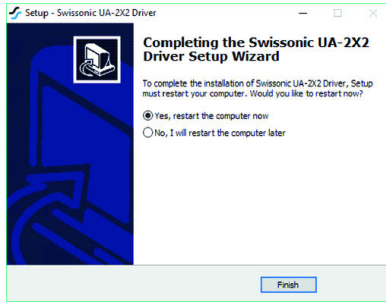


7. After the USB audio driver data are copied again, Window shows a safety notification. Confirm the safety notification and click on *[Install]*.

⇒ The message that the USB audio driver has been successfully installed is displayed.



8. Click on *[Finish]*.



9. Select 'Yes, restart the computer now' and click on [Finish] to confirm the computer reboot.

⇒ The computer reboots.

The 'swissonic' symbol is displayed in the task bar. The installation is finished.

10. Connect the device to the computer's USB port. After it is connected to the computer, the USB audio driver will automatically detect the device and make the necessary changes.

⇒ The device is ready for operation.

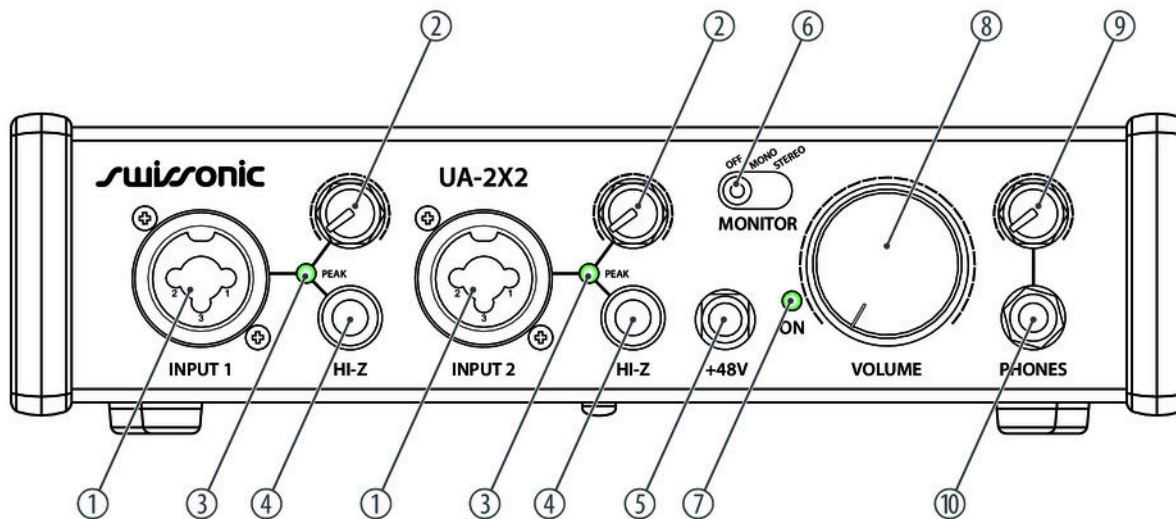
4.3.2 Installation in macOS

macOS supports native CoreAudio USB audio drivers, so no installation is necessary.

1. ➤ Connect the audio interface to the computer's USB port. After it is connected to the computer, the USB audio driver will automatically detect the device and make the necessary changes.
⇒ The device is ready for operation.
2. ➤ To simplify the application our control panel is available that can be found on the supplied CD (macOS folder) and in the download area on our website. To install it, drag the control panel symbol from the file in your application folder Installation that is displayed next to it.
3. ➤ It is also possible to steer some UA-2X2 options under macOS via the audio MIDI configuration of the macOS.

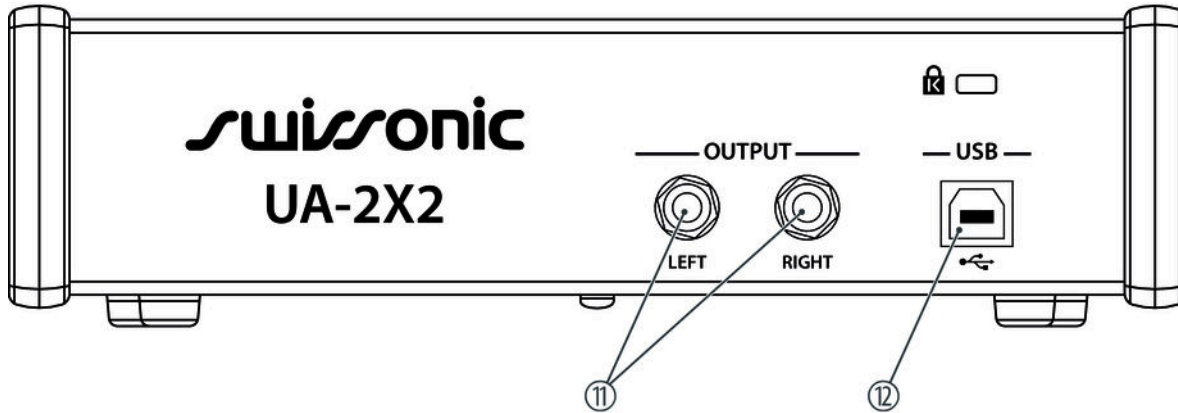


5 Connections and controls



1	<i>[INPUT 1 / INPUT 2]</i> Microphone and instrument input e.g. for guitar or bass, designed as XLR / 1/4" combo sockets
2	Control for setting the input level
3	<i>[PEAK]</i> The LED lights up green when the input level on the respective input is sufficient, and lights up red when the input level is too high. The control for adjusting the input level can be used to set it correctly.
4	<i>[HI-Z]</i> Push-button to select the input sensitivity (line or microphone level).
5	<i>[+48 V]</i> Switches the phantom power for the power supply for the condenser microphones on (button pressed) or off (button not pressed). The phantom power leads to damage to the device if unbalanced cables are connected. Only switch on phantom power while exclusively balanced cables are connected.

6	<p><i>[MONITOR]</i></p> <p>Control for for adjusting input monitoring</p> <ul style="list-style-type: none">■ <i>[OFF]</i>: Incoming signals are muted■ <i>[MONO]</i>: Incoming signals are audibly separated to left and right■ <i>[STEREO]</i>: Incoming signals are audible left and right
7	<p><i>[ON]</i></p> <p>The LED lights up when the device is supplied with power via the USB port.</p>
8	<p><i>[VOLUME]</i></p> <p>Control for adjusting the master volume</p>
9	<p>Control for adjusting the monitor volume for the headphones.</p>
10	<p><i>[PHONES]</i></p> <p>Headphones output (stereo, as 1/4" phone socket)</p>



11 [OUTPUT]

Line outputs for connecting an amplifier or an active speaker box, designed with separate 1/4" phone sockets (balanced) for the left and right channel.

12 [USB]

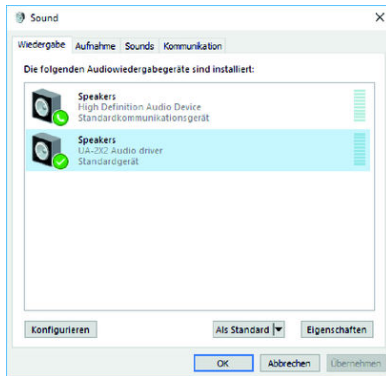
USB port for feeding in digital audio signals with the supplied cable.

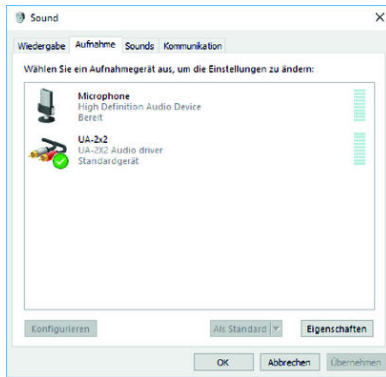
6 Operating

6.1 Audio settings in Windows

To set the audio interface as the standard playback and recording device, proceed as follows:

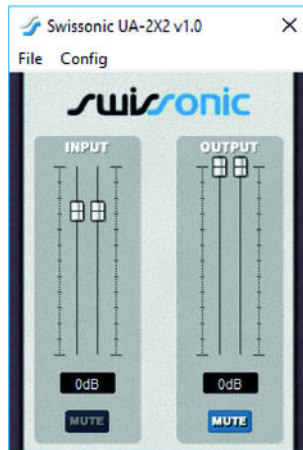
1. ➤ Open the *'System control panel'* and select *'Sound'*.
2. ➤ In the *'Playback'* bar, select the audio interface that is used by all audio applications and confirm with *[OK]*.





3. In the 'Record' bar, select the audio interface and confirm with [OK].

6.2 Control Panel in Windows



The audio interface is controlled via the control panel on the computer.

Open the control panel by double-clicking on the 'swissonic' symbol in the task bar.

The input volume level for the incoming signal is set in the *[INPUT]* area. The two sliders control one mono channel each or one stereo signal together depending on the cursor position. The colour of the slider is blue when adjusting the respective channel. The input signal is muted with *[MUTE]*. The switch is blue when muting is activated, and grey when it is inactive.

The output volume level for the outgoing signal is set in the *[OUTPUT]* area. The two sliders control one mono channel each or one stereo signal together depending on the cursor position. The colour of the slider is blue when adjusting the respective channel. The output signal is muted with *[MUTE]*. The switch is blue when muting is activated, and grey when it is inactive.

6.2.1 Latency setting

Before the audio application is started, the latency period must be set to avoid undesired delays in the transmissions.

In the *[Config]* menu item, the latency period for the US audio driver is set under *[Latency]*.

A shorter latency period is achieved by selecting a smaller buffer. A latency period between 4 ms and 8 ms is usually sensible for recording applications, and it is typically displayed on the control panel.

The computer's processing power should be taken into account for this setting. The faster the processor works to maintain the the next signal for conversion within the buffering time of the whole system or to send the signal for recording, no audible delay will occur. A gap will result if the processor is slow. The converters lack information and the next sample of the recording will not be saved.

6.3 Control panel in macOS



The audio interface is controlled via the control panel on the computer.

Open the control panel in 'Programme'.

The input volume level for the incoming signal is set in the *[INPUT]* area. The two sliders control one mono channel each or one stereo signal together depending on the cursor position. The colour of the slider is blue when adjusting the respective channel. The input signal is muted with *[MUTE]*. The switch is blue when muting is activated, and grey when it is inactive.

The output volume level for the outgoing signal is set in the *[OUTPUT]* area. The two sliders control one mono channel each or one stereo signal together depending on the cursor position. The colour of the slider is blue when adjusting the respective channel. The output signal is muted with *[MUTE]*. The switch is blue when muting is activated, and grey when it is inactive.

7 Technical specifications

Inputs	2 × XLR / 1/4" combo sockets (balanced): max. +22 dBu
Outputs	3 × 1/4" phone socket (balanced)
Gain	-∞...+10 dBu
Phantom power	48 V
Digital signal processing	Analogue-to-digital converter: 102 dB, Resolution: 24 bit
	Digital-to-analogue converter: 108 dB, Resolution: 24 bit
	Internal processor: 24 bit, floating point
Dimensions (W × H × D)	198 mm × 112 mm × 50 mm (15.35in. × 5.31in. × 15.55in.)
Weight	880 g

8 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)



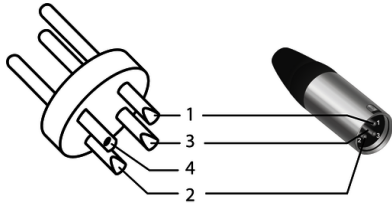
1	Signal
2	Ground, shielding

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)

9 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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