NUX

NAI-24

USB Audio Interface

User Manual

USB

32-bit / 192 kHz

Mac / PC

| Audio Series |

2-in | 4-out

WARNING

To reduce the risk of fire or electric shock, do not expose this appliance to rain or moisture.

FCC Warning

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
Any Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Introduce

Thank you for taking the time to review this manual. Whether or not you decide to purchase the products described here, we hope that the knowledge gained from this brochure will be useful in your creative process. We sincerely appreciate your interest.

The functional requirements for digital audio equipment have evolved drastically over the last decade. Alongside the exacting performance demands of modern producers, there's a growing need to optimize workflow.

At NUX, our professional audio equipment is designed to balance these two aspects, delivering high-quality sound and streamlined workflow for young, modern music producers.

The NAI-24 is a high-performance audio interface, featuring two pure Class-A microphone amplifier circuits utilizing ultra-low-noise discrete transistors. To accommodate low-sensitivity dynamic microphones, we developed the classic 76PRE amplifier circuit, a pure Class-A design using three transistors, which delivers a total gain of 71dB, comparable to standalone microphone preamps.

The NAI-24 is equipped with hardware compression circuitry based on a FET gain control unit. This, combined with digitally controlled calibration, ensures consistent compression across both channels. With three compression modes tailored for different scenarios, the result is fast sound shaping, warm analog tones, and powerful compression characteristics.

To tackle the complexities of home recording environments, the NAI-24's main output channels 1L/2R are powered by two specially customized high-performance audio transformers. These transformers not only reduce ground-loop interference caused by connections between digital devices but also impart a unique warmth to the sound, characteristic of analog audio transformers.

The NAI-24 is a versatile 2-in/4-out USB audio interface, offering two built-in signal routing modes to cater to the diverse needs of producers:

- **Recording Mode:** Provides two independent output channels (1L/2R and 3L/4R) for performance recording or outboard hardware rendering.
- **A/B Mode (Dual Monitor Switching Mode):** Allows one-click switching between two sets of monitor speakers for comparison.

The NAI-24 combines a robust hardware design with stable software functionality, ensuring seamless performance and USB connectivity to support your creative projects for years to come.

If you have any questions or suggestions, please feel free to visit our website www.nuxaudio.com or social media channels. We're always eager to hear from you and appreciate your support and feedback.

Features

- 2-in/4-out desktop USB audio interface with support for up to 32-bit/192kHz sample rate.
- Pure Class-A discrete transistor preamplifier delivering ultra-high dynamic range and resolution.
- FET type 76PRE compression circuit with multiple preset modes for various applications.
- Studio-grade audio transformer on Main Output 1L/2R channels for warm, professional sound characteristics.
- Additional 3L/4R output channels for auxiliary output, enhancing versatility in different setups.
- Two high-performance headphone amplifiers with routable channels for customized monitoring.
- USB powered, no external power supply required.
- 48V phantom power with independent on/off control for each channel.
- Ultra-low latency direct monitoring channels for real-time performance.
- Provides stable and reliable signal transmission using high-quality XLR connectors and 6.35mm connectors.

NAI-24 System Requirements

- USB 3.0 (or higher) interface
- Intel, AMD or apple silicon CPU
- 8GB or more RAM
- Windows 10/11(64bit), MacOS Catalina 10.15.6 or later
- Internet connection (for online updates)

Driver Installation

MacOS

The NAI-24 audio interface is fully compliant with the USB 2.0 audio class standard, ensuring effortless connection to any Mac running macOS 10.15 or later. Simply connect via USB, and the Mac will automatically recognize the NAI-24 as a USB audio device—no additional drivers needed. This allows immediate access to its inputs and outputs within your preferred audio software. Core settings, such as hardware sample rate, can be easily configured directly through the host software.

Windows

The NAI-24 audio interface is USB 2.0 audio class compliant, allowing seamless connection to any Windows computer (Windows 10 or later) via USB without the need for additional drivers. Upon connection, your computer will automatically recognize the NAI-24 as a USB audio device, giving you access to its inputs and outputs through your audio software. Basic settings, like hardware sample rate, can be adjusted directly in the Windows "Sound Settings." However, to unlock the full range of the NAI-24's features, installing the dedicated NAI-24 driver is recommended.

1. Download Driver Installer

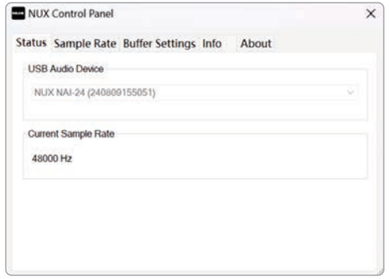
Visit the official NAI-24 website at **www.nuxaudio.com** to download the latest version of the driver.

2. Installation of Drivers

Connect the NAI-24 to your computer, open the downloaded driver installation package, and follow the prompts to install it. Once the installation is complete, restart your computer.

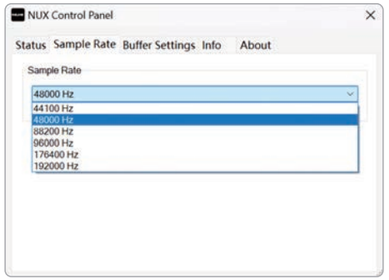
After restarting, open the NAI-24 driver by clicking on the NUX control panel icon in the system tray. If everything is working correctly, the control panel screen should appear.

Status



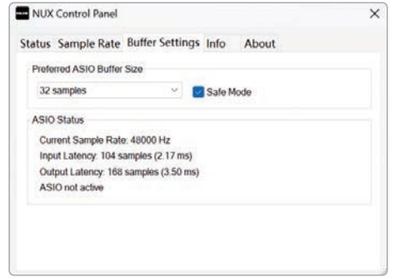
The Status tab shows the ID number of the USB audio device along with the current sample rate of the device.

Sample Rate



The Sample Rate tab shows the current sample rate of the device, allowing you to select and set the appropriate rate from the drop-down menu.

Buffer Settings



The Buffer Settings page allows you to view and set the buffer size of the current device's ASIO driver. You can select the desired buffer size from the drop-down menu. A smaller buffer size reduces audio latency to the host software, with buffers of 256 samples or less resulting in nearly imperceptible latency.

> **Notes:** Please be cautious when using very small buffer sizes (less than 32 samples), as they may cause performance issues with the host software or computer.

Safe Mode

Under the Buffer Settings page, you'll find the Safe Mode option. If you experience audio lag or latency issues, enable Safe Mode. This adds an extra buffer to help ensure the stability and reliability of your data transmission.

Product Description

Top Panel

❶ GAIN	❺ 76PRE Buttons	❾ LOOPBACK	⓭ Phones Level 1/2
❷ Input Peak Level Meter/Function Indication	❻ MIX	❿ MONITOR	⓮ USB indicator
❸ 48V Phantom Power	❼ STEREO	⓫ MUTE	⓯ HI-Z
❹ Line Input Switches	❽ OUT 3/4	⓬ OUT 3/4	⓰ Phones jacks 1 and 2

❶ GAIN

The GAIN knobs are used to adjust the preamplifier gain for microphones, instruments, or line-level devices connected to the corresponding input. For optimal gain, rotate the GAIN knob to adjust the input signal level while monitoring the connected source. Aim for the Input Peak Level Meter to display as much green and orange as possible without triggering the red, which indicates clipping.

> ⚠ **NOTE:** When the input signal reaches -1dBFS (near the maximum digital system level of 0dBFS), the red LED indicator will light up. At this point, the system is digitally clipping the sampled signal, which compromises the integrity of the recorded audio.

❷ Input Peak Level Meter/Function Indication

The Input Peak Level Meter shows the input signal level, controlled by Gain knob 1. When the input signal reaches -1dBFS (near the maximum 0dBFS level acceptable to a digital system), the red Input LED will illuminate, indicating the digital signal is beginning to clip. The Input Peak Level Meter reflects the digital signal level after A/D conversion (from analog to digital), ranging from -27dBFS to 0dBFS.

> ⚠ **NOTE:** Clipping happens when a digital signal is overloaded, causing unwanted distortion. While clipping in analog equipment can be used creatively, clipping in digital systems should typically be avoided.

❸ 48V Phantom Power

Pressing this button toggles the 48V phantom power for the Microphone In XLR connector. The LED indicator will flash red when phantom power is turning on or off. Once phantom power is fully active, the LED indicator will remain solid red.

> Most condenser microphones require phantom power, but dynamic or ribbon microphones usually do not (special note: phantom power can damage some ribbon microphones).

Note: Make sure phantom power is off before connecting or disconnecting the microphone.

❹ Line Input Switches

When a 6.35mm TRS plug is connected to the combo jack on CHANNEL 1/2, press the LINE button to switch the signal to line level. If an XLR cable is connected to the combo jack, ensure the LINE button remains off.

Note: The most common silent fault occurs when the LINE button setting does not correspond to the type of plug being used.

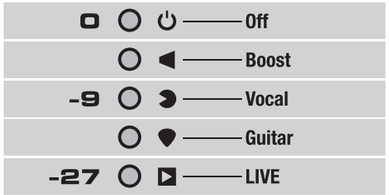
❺ 76PRE Buttons

The 76PRE button is used to toggle the 76PRE preamplifier module on or off. This preamp delivers a low-noise, highly dynamic, pure Class-A amplification, offering extra gain to drive low-sensitivity dynamic microphones. Each preamp is also equipped with a FET gain control unit that provides four FET-type compression characteristics.

When the 76PRE function button is pressed, the 76PRE button lights up, indicating the preamp is switched on. The function indicator illuminates for 2 seconds to display the current state of the 76PRE module. While the indicator is lit, pressing the 76PRE button again will cycle through the four compression modes. After 2 seconds, the indicator turns off, and pressing the 76PRE button once more immediately deactivates the module's functions.

When the preamplifier module is active, the 76PRE button remains lit. Pressing the 76PRE function button switches it off, with the off state indicated for 1 second.

The 76PRE preamplifier module supports four modes: Boost, Vocal, Guitar, and Live.



Off	Deactivates the 76PRE function module.
Boost	Adds an extra 8dB of gain to the preamp, resulting in a total amplifier gain of 71dB.
Vocal	Configures the ATTACK and RELEASE features to medium speeds, tailored to vocal characteristics for smooth compression.
Guitar	Offers fast response and smooth release, delivering balanced and sustained volume for guitar or bass.
Live	Provides very fast compression, ensuring clarity and integrity of the live signal.

❻ MIX

The MIX knob adjusts the balance between the input signal and the signal from the PC's USB port. Rotating the knob clockwise to the maximum position mutes the input signal from CHANNEL 1/2 and outputs only the signal from the USB port. Conversely, turning the knob counterclockwise to the minimum position mutes the USB signal and outputs only the input signal from CHANNEL 1/2. When the knob is set to the middle position, it mixes the input signal from CHANNEL 1/2 with the USB signal equally.

Adjust this knob to optimize the balance between the input signal and the signal from the PC's USB port.

Note: If the software monitor of the DAW on PC is active, adjust the MIX knob clockwise to the maximum position to turn off the input monitor signal and avoid phase issues with the hardware monitor.

❼ STEREO

The STEREO button toggles the stereo function on or off. When the button is off, the input signals from CHANNEL 1 and CHANNEL 2 are mixed and routed to the stereo bus as a combined signal. When the button is pressed, the input signals from CHANNEL 1 and CHANNEL 2 are sent to the stereo bus separately, maintaining their distinct stereo channels.

❽ OUT 3/4 (knob)

Recording Mode: The OUT 3/4 knob can adjust the volume of the output channel 3/4.

A/B Mode: The OUT 3/4 knob can adjust the output level of 3L/4R to compensate for the volume difference caused by different input levels of two external devices.

❾ LOOPBACK

Pressing the LOOPBACK button routes the output from channels 3/4 back to the input channels 1/2. This allows audio sent to output channels 3/4 to be captured and returned to the computer as input on channels 1/2. This feature is useful for capturing the signal in your host software, streaming it to the web, or broadcasting it with podcasting software.

❿ MONITOR

Recording Mode: The MONITOR knob can adjust the volume level of the output channel 1/2.

A/B Mode: The MONITOR knob can control the main output volume.

⓫ MUTE

Pressing the MUTE button will silence the output signal. Additionally, this button is used to toggle between Recording Mode and A/B Mode. To switch modes, press and hold the MUTE button while powering up the device. The MUTE button will flash, indicating that the device is switching between the two modes.

⓬ OUT 3/4 (button)

Recording Mode

Press the OUT 3/4 button to route the 3/4 channel signal to the Monitor Level, overriding the 1/2 channel signal, and output it to 1L/2R for monitoring.

A/B Mode

Connect your primary monitors (A) to 1L/2R and your secondary monitors (B) to 3L/4R. Press the OUT 3/4 button briefly to switch between Speaker A and Speaker B. In this Mode, the 3L/4R jacks no longer function as outputs for the 3/4 channels. Instead, they mirror the signal from the 1L/2R jacks, with the A/B switch controlling which pair is active while the other is muted.

Headphone Monitor

In either mode, pressing and holding the OUT 3/4 button for more than 2 seconds will switch the signal of the 3/4 channel to headphone output 2 for monitoring. At this point, the indicator light of the OUT 3/4 button will change from off to dim when the button is in the off position. Pressing and holding the OUT 3/4 button for more than 2 seconds again at any time will switch the signal of the 1/2 channel back to headphone output 2 for monitoring. At this point, the indicator light of the OUT 3/4 button will change from dim to off when the button is in the off position.

⓭ Phones Level 1/2

These knobs is used to adjust the output volume level of the phones 1 and 2.

⓮ USB indicator

When the NAI-24 is connected to the PC's USB port and data transfer begins, the USB indicator will light up.

⓯ HI-Z

The HI-Z jacks are designed to connect high-impedance instrument output signals to the NAI-24's input port CHANNEL 1. When you insert a 6.35mm TR plug into the front panel HI-Z connector, the interface will automatically route the signal to CHANNEL 1.

> ⚠ **Note:** High impedance refers to a signal source with a very high output impedance, typically ranging from tens to hundreds of kilo-ohms. The NAI-24's High Impedance input is specifically designed for connecting such high impedance instruments, including electric guitars, electric basses, or acoustic instruments equipped with passive (non-powered) pickups.

⓰ Phones jacks 1 and 2

The Phones jacks 1 and 2 are used to connect headphones. Phones jack 1 is connected to output channel 1, while Phones jack 2 is connected to output channel 2.

Rear Panel

17 | Input Jacks CHANNEL 1/2	18 | Output Jacks 1L/2R	19 | Output Jacks 3L/4R	20 | USB-C

17 Input Jacks CHANNEL 1/2

CHANNEL 1/2 are used to connect microphones or line-level devices. The combo input jacks accept XLR, 6.35mm balanced TRS, or 6.35mm unbalanced TS cables.

18 Output Jacks 1L/2R

Balanced Output Jacks. Used to connect stereo monitor speakers to output jacks 1L/2R. Connect the left monitor speaker to jack 1L and the right monitor speaker to jack 2R.

> ⚠ **Note:** It is recommended to use balanced TRS (Tip-Ring-Sleeve) cables for the connection. If the connected device does not support balanced TRS cables, please use a high-quality unbalanced TS (Tip-Sleeve) cable instead.

19 Output Jacks 3L/4R

Balanced Output Jacks. Used to connect stereo monitor speakers to output jacks 3L/4R. Connect the left monitor speaker to jack 3L and the right monitor speaker to jack 4R, or connect to the input of other outboard devices.

> ⚠ **Note:** 1. It is recommended to use balanced TRS (Tip-Ring-Sleeve) cables for the connection. If the connected device does not support balanced TRS cables, please use a high-quality unbalanced TS (Tip-Sleeve) cable instead.
>
> 2. It is recommended to connect the higher-sensitivity monitor speakers to the 3L/4R channels and the lower-sensitivity monitor speakers to the 1L/2R channels. Then, use the OUT 3/4 knob to adjust the volume balance between the two sets of speakers.

20 USB-C

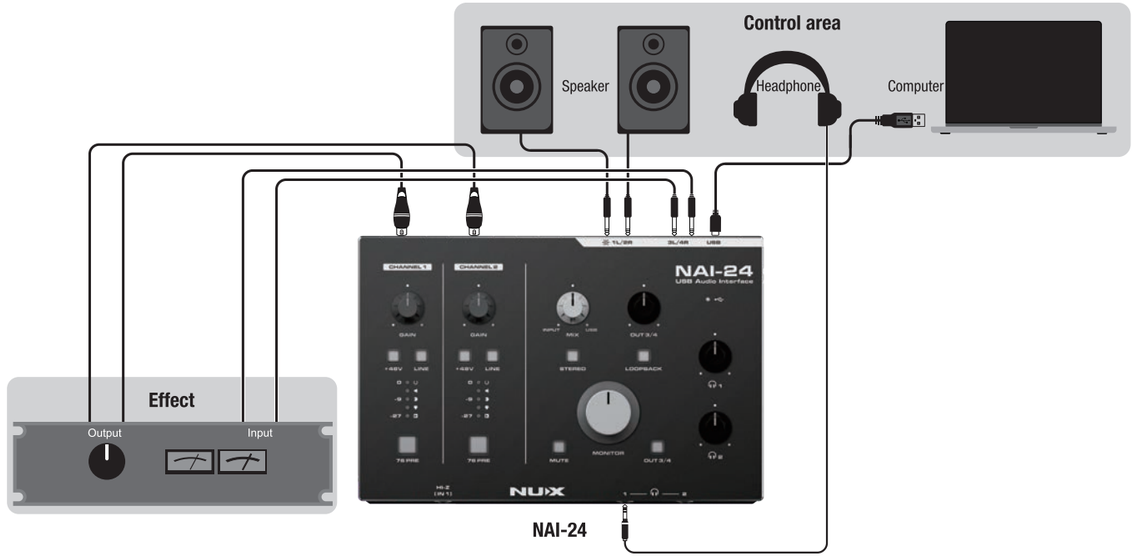
Connect the NAI-24 to a USB 3.0 (or higher) port on your computer using the included USB-C to USB-A cable, or another high-performance USB-C cable.

> ⚠ **Note:** The NAI-24 must be connected to a USB 3.0 compliant port that is powered by the USB bus. Some USB ports, such as those on inferior hubs, may not meet USB compliance standards and might not provide sufficient power. If the NAI-24 does not power up properly, connect it directly to a USB 3.0 port on your computer.

Application Example

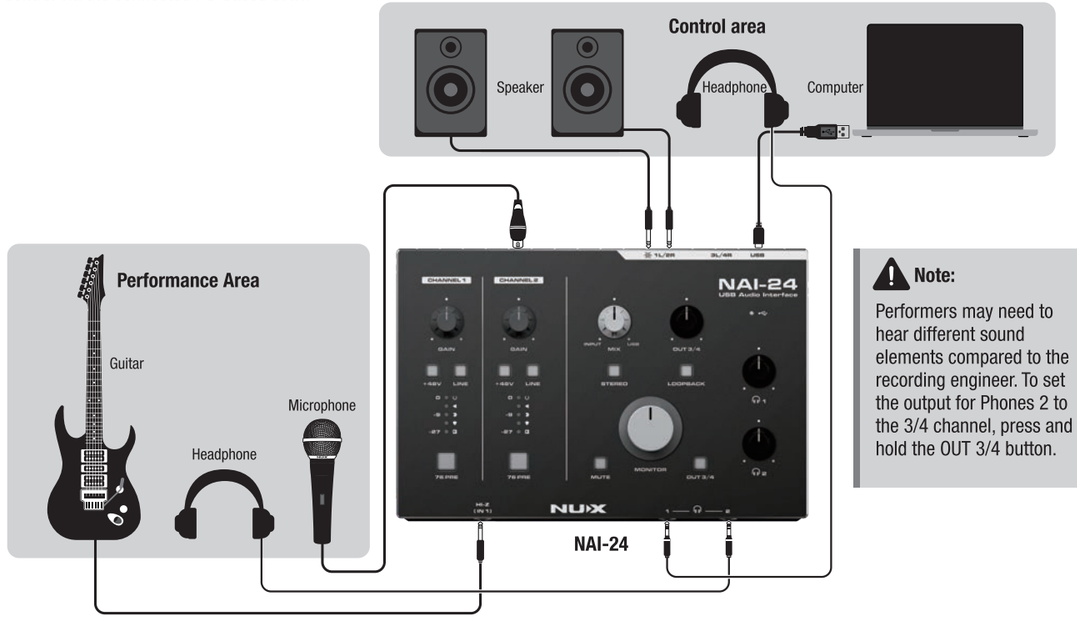
1. Production with Outboard Effects

Set the NAI-24's OUT 3/OUT 4 channel in your DAW to a SEND channel or an INSERT output. Set IN 1/IN 2 to a channel or an external INSERT input. Connect the input and output jacks of an outboard device to the OUT 3L/4R and IN CHANNEL 1/2 jacks respectively. The DAW will then route the signal to the outboard effect for processing and subsequently re-input the processed signal into the DAW through the CHANNEL 1/2 jacks.



2. Recording a Singer

During the recording process, the performer completes their performance using the equipment in the performance area, with backing music provided through the headphones connected to Phones 2. A high-impedance guitar or other instrument is connected to CHANNEL 1, while a microphone for recording vocals is connected to CHANNEL 2. The sound engineer monitors through the control room's speakers or through Phones 1, and manages recording and signal control via the connected PC-based DAW.

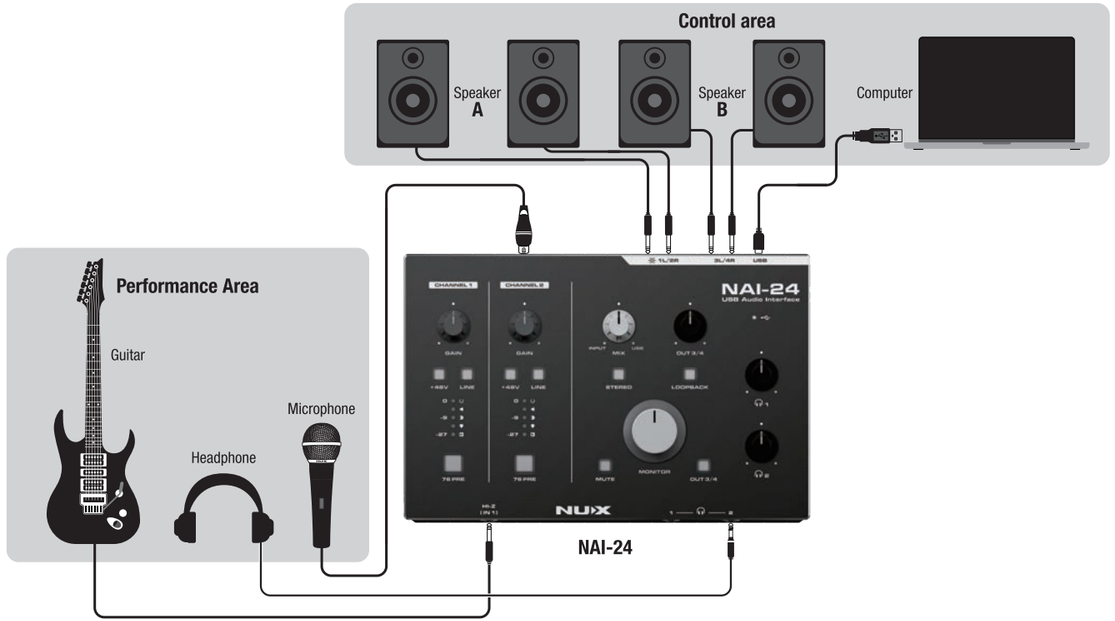


Note:

Performers may need to hear different sound elements compared to the recording engineer. To set the output for Phones 2 to the 3/4 channel, press and hold the OUT 3/4 button.

3. Mix Down

If you have two different sets of studio monitors and wish to switch between them to compare the mix, connect the primary monitors (A) to the 1L/2R outputs of the NAI-24, and the secondary monitors (B) to the 3L/4R outputs. To toggle between the A and B speakers, quickly press the OUT 3/4 button.



Specifications

MIC IN	
Dynamic Range	114dB(A-weighted)
Frequency Response	20 - 20000Hz ± 0.1dB
THD+N	0.002%@-1dBFS (at minimum gain)
EIN	-126dB(A-weighted)
Maximum Input Level	6dBu(at minimum gain)
Gain Range	5.4 - 63dB
Input Impedance	2.4kΩ

LINE IN	
Dynamic Range	114dB(A-weighted)
Frequency Response	20 - 20000Hz ± 0.12dB
THD+N	0.003%@-1dBFS (at minimum gain)
Maximum Input Level	26dBu (at minimum gain)
Gain Range	-12.6 - 45dB
Input Impedance	21kΩ

HI-Z	
Nominal Input Level	-10dBu
Input Impedance	1MΩ

1L/2R	
Dynamic Range	112 dB(Balanced, 600 Ω, A-weighted)
Frequency Response	20 - 20000Hz ± 0.5dB
Maximum Output Level	+12.4dBu(Balanced, 0dBFS)
THD+N	0.003%@-1dBFS
Output Impedance	580Ω

3L/4R	
Dynamic Range	112 dB(Balanced, 200kΩ, A-weighted)
Frequency Response	20 - 20000Hz ± 0.1dB
THD+N	0.001%@-1dBFS
Maximum Output Level	+18.4dBu(Balanced, 0dBFS)
Output Impedance	240Ω

PHONES OUTPUT	
Dynamic Range	104 dB (A-weighted)
Frequency Response	20 - 20000Hz ± 0.25dB
THD+N	0.005%@-5dBFS
Power Output	30mW@32Ω

Dimensions	194(L) x 128(W) x 67(H)mm
Weight	722g

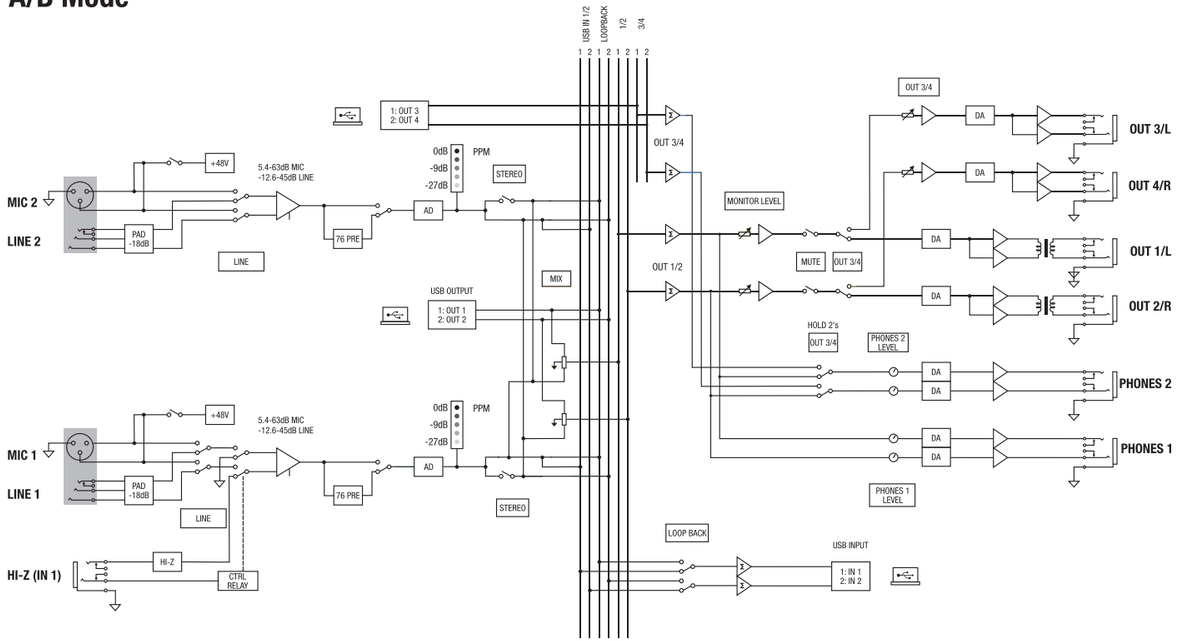
Accessories

- USB-C cable
- Manual
- Warranty card
- NUX logo sticker
- Cubase Le License redemption card

*Specifications and features are subject to change without notice.

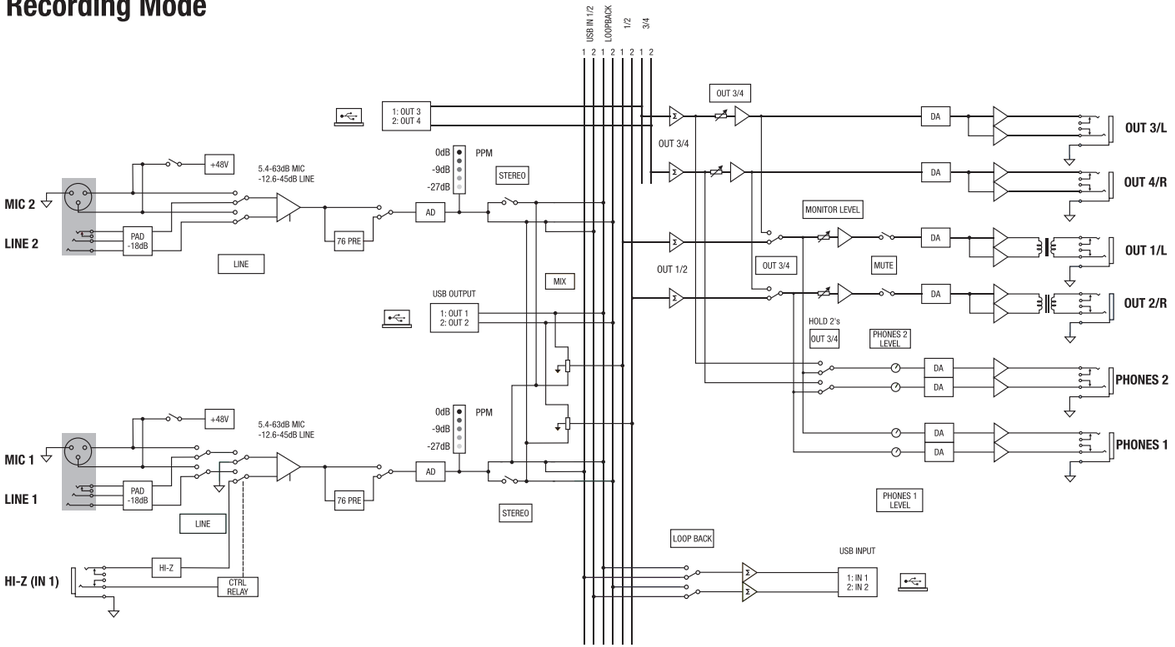
NAI-24 Block Diagram

A/B Mode



NAI-24 Block Diagram

Recording Mode



NUX

NAI-24
USB Audio Interface
使用手册

USB
32-bit / 192 kHz
Mac / PC

| Audio Series |

2入4出USB音频接口

引言和概述

首先，感谢您抽出宝贵时间观看本手册。无论您是否购买本手册中描述的产品我们都希望您在浏览此手册的过程中获得有益的知识并应用在您的创造中，再次致以诚挚的谢意。

和10年前相比，当今对于数字音频设备的功能需求已经完全不同。现代的制作人对于设备的需求除了在性能上有近乎苛刻的要求以外，在简化工作流程方面的需求也是至关重要的。

NUX的专业音频设备致力于在上述两个方面能够获得兼顾，为现代时尚的年轻音乐制作人提供至臻的声音特性，和更加优化的工作流程。

NAI-24是拥有高性能的音频接口产品，在至关重要的话筒放大器方面，我们使用了两路由极低噪声分立晶体管构成的纯A类话放电路。为了推动低灵敏度的动圈话筒，我们设计了经典的由3只晶体管构成的纯A类放大器76PRE电路，使得最终的总增益量达到71dB，取得与独立话放单元相同的性能水平。NAI-24的硬件压缩电路使用FET增益控制单元，由数字处理器控制的校准电路确保两个通道压缩特性的一致性。3种适合不同场景的压缩模式设置实现快速的声音整形，给声音带来温暖的模拟音色和凌厉的压缩特性。

为了面对复杂的家用录音环境，NAI-24的主输出通道1L/2R使用两只特别定制的高性能音频牛（变压器）进行推动，除了可以减少数字设备之间连接带来的地环回路干扰，还可以感受音频变压器特有的温暖声音特性。

作为一个标准的2入4出USB音频接口，NAI-24内置了两种信号路由方式来满足制作者的不同创作需求。

1. 录制模式（Recording Mode）：实现两路独立的声音馈送（cue）和录音，或进行板外硬件效果渲染。
2. 双路监听模式（A/B Mode）：实现两路监听音箱一键切换对比功能。

NAI-24坚如磐石般的硬件设计、稳定的软件功能和信号传输特性，将为您接下来多年的创新工作提供可靠的支持。

最后，如果您有任何问题或建议，欢迎莅临我们的网站或社交媒体指导。我们将很高兴聆听您的意见并从中感受到您对我们的支持和期望。

产品特点

- 2入4出桌面型USB音频接口，最高支持32-bit/192kHz采样率
- 经典的纯A类分立晶体管前置放大器，超高动态范围、解析力
- 特别设计的FET类型76PRE压缩电路，提供多种预设模式应用不同场合
- 主输出1L/2R通道采用录音室级别的音频变压器输出，提供温暖的声音特性
- 3L/4R输出通道，提供额外的输出通道用于各种应用场合的辅助输出
- 两路可路由配置的高性能耳机放大器，可设置连接不同的输出通道进行监听
- USB接口供电，联机（PC/MAC）或离线（需单独的USB电源）均可输出信号
- 支持通道独立开/关的48V幻象供电
- 直接监听通道提供超低系统延迟
- 使用高品质的XLR（卡农）接口和6.35mm接口，提供稳定可靠的信号传输

系统需求

- USB3.0（或更高）接口
- Intel，AMD或苹果Silicon处理器
- Windows 10/11（64位）、MacOS Catalina 10.15或更新
- 因特网连接（用于在线更新）

驱动安装

macOS

NAI-24音频接口符合USB 2.0音频类标准，无需额外的专用驱动程序。可通过USB连接到任何运行macOS 10.15或更高版本的Mac。连接后，您的Mac会自动将NAI-24识别为USB音频设备，这时您可通过音频软件调用其输入和输出。其他设置，如硬件采样率则可以通过系统菜单的“音频设备”进行调整。

Windows

NAI-24音频接口符合USB 2.0音频类标准，建议安装专用驱动程序。可通过USB连接到任何运行Windows 10或更高版本的电脑。连接后，电脑会自动将NAI-24识别为USB音频设备，这时您可通过音频软件调用其输入和输出。其他设置，如硬件采样率则可以通过系统菜单的“声音设置”进行调整。

为了充分使用NAI-24的全部功能，建议安装专用的NAI-24驱动程序。

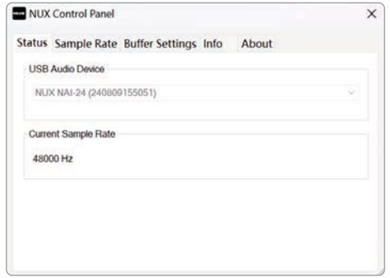
1. 下载驱动安装程序

请访问官方网站www.nuxaudio.com下载最新版本的驱动程序。

2. 安装驱动程序

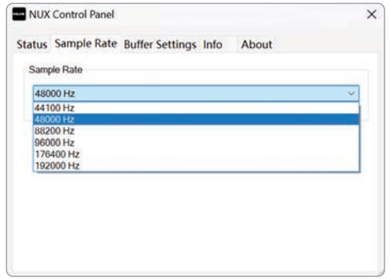
将NAI-24连接到电脑，打开已下载的驱动安装包，并按照提示进行安装。安装完成后重新启动电脑。重启后，点击系统托盘中的NUX控制面板图标。如果一切正常，声卡的控制面板将会出现。

状态页面



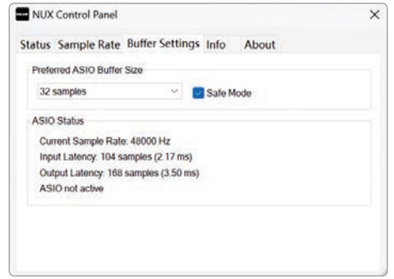
此页面会显示USB音频设备的ID号及当前设备的采样率。

采样率页面



采样率选项卡显示设备的当前采样率，您可以从下拉菜单中选择并设置合适的采样率。

缓冲设置页面



缓冲设置页面允许您查看和设置当前设备ASIO驱动的缓冲区大小。您可以从下拉菜单中选择所需的缓冲区大小。较小的缓冲区设置可减少音频延迟，缓冲区为256 samples或更少时，延迟几乎可以忽略不计。

> ⚠ **注意：**请在使用非常小的缓冲区设置（如32 samples）时保持谨慎，因为可能会出现声音卡顿的问题。

安全模式选项

在缓冲设置页面下，您会找到“安全模式”选项。如果您遇到音频延迟或卡顿问题，请启用安全模式。这将增加额外的缓冲区，以确保数据传输的稳定性和可靠性。

功能介绍

顶部面板

❶ GAIN旋钮	❺ 76PRE按键	❾ LOOPBACK按键	⓭ 耳机音量控制1/2旋钮
❷ 输入峰值电平表/功能指示	❻ MIX旋钮	❿ MONITOR旋钮	⓮ USB指示灯
❸ 48V幻象电源按键	❼ STEREO按键	⓫ MUTE按键	⓯ HI-Z接口
❹ LINE线路输入开关	❽ OUT 3/4旋钮	⓬ OUT 3/4按键	⓰ 耳机接口1/2

❶ GAIN旋钮

两个GAIN旋钮用于调整前置放大器的增益，以适应连接到相关输入端的麦克风、乐器或线路电平设备。为了获得最佳增益，请旋转增益旋钮调节输入信号电平，同时监听所连接的信号源，使输入峰值电平表（❷）尽量多的显示绿色和橙色区域但不点亮红灯。

> **提示：** 当输入信号达到-1dBFS（接近数字系统所能接受的最大电平0dBFS）时，红色LED指示灯将被点亮，此时系统采样的信号将被数字削波，破坏采集信号的完整性。

❷ 输入峰值电平表/功能指示

输入峰值电平表显示输入的信号电平，该电平的大小由GAIN旋钮（❶）控制。当输入信号达到-1dBFS（接近数字系统所能接受的最大电平0dBFS）时，红色输入LED将被点亮，指示采集的数字信号正在开始削波。输入峰值电平表指示的是AD（模拟到数字转换器）后的数字信号电平，指示范围从-27dBFS到0dBFS。

> **提示：** 数字信号过载时会出现削波。发生削波时，波形的顶端呈方形，会产生令人不悦的失真。模拟设备的削波具有创造性用途，但数字系统的削波通常要避免。NAI-24的峰值电平指示灯显示的是数字系统的电平水平，为防止削波，应该调节GAIN旋钮（❶），使绿色和黄色指示灯点亮，红色LED灯不亮。

❸ 48V幻象电源按键

按下此按键可打开/关闭施加于麦克风输入（卡农）接口的48V幻象电源。当幻象电源启动或关闭时，LED指示灯闪烁红光。当幻象电源处于激活状态时，LED指示灯亮起红色。

大多数电容式麦克风都需要幻象电源，但动圈麦克风或铝带式麦克风通常不需要（**特别注意：幻象电源会损坏某些铝带式麦克风**）。

⚠ **注意：**在连接或断开麦克风之前，请确认幻象电源处于关闭状态。

❹ LINE线路输入开关

当合并式输入接口CHANNEL 1/2连接6.35mm大三芯的插头时，需要按下LINE按键以实现信号切换。如果此输入接口接入的线缆是卡农接口（XLR）线缆，则务必使LINE按键处于熄灭状态。

⚠ **注意：**最常见的无声故障是，**LINE按键的设置没有对应上相应的插头。**

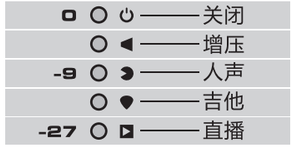
❺ 76PRE按键

76PRE按键用于打开或关闭76PRE前置放大器模块。此前置放大器提供低噪声、高动态的纯A类放大器，为话筒放大器提供额外的增益以驱动某些低灵敏度的动圈话筒。每个前置放大器还配有一个专用的FET增益控制单元，提供4种不同的FET类型压缩特性。

按下76PRE功能按键，76PRE按键被点亮，前置放大器被打开。此时功能指示灯（❷）被点亮2秒，显示76PRE功能模块当前所处的状态。在功能指示灯（❷）点亮这段时间内如果连续按76PRE按键，可以循环切换压缩模块的4种状态。2秒钟后，功能指示灯熄灭，此后再按下76PRE按键，则立即关闭76PRE模块功能。

前置放大模块在打开状态时，76PRE按键是点亮的。此时按下76PRE功能按键立即关闭前置放大模块。功能指示灯的关闭模块的指示灯点亮，并持续1秒钟。

76PRE 前置放大模块实现四种功能，分别对应功能指示灯（❷）的增压、人声、吉他和直播的4种应用功能。



关闭	将76PRE功能模块关闭。
增压模式	为整体前级放大器提供额外的8dB增益，使得整体的话放增益达到71dB。
人声压缩模式	根据人声特点设置中等速度的ATTACK和RELEASE特性，带来平滑的压缩特性。
吉他类乐器压缩模式	快速的响应和平滑的释放为吉他/贝斯带来更加均衡和持续的音量。
直播模式	在此模式下76PRE模块将提供非常快速的压缩特性，确保直播信号的完整性和清晰度。

❻ MIX旋钮

MIX旋钮用于调整输入信号与PC的USB端口发送出来的信号的混合比例。旋钮顺时针旋转到最大位置时，CHANNEL1/2的输入信号被完全屏蔽，仅输出PC的USB端口发送出来的信号。旋钮逆时针旋转到最小位置时，CHANNEL1/2的输入信号被完全发送，PC的USB端口发送出来的信号则被完全屏蔽。

旋钮处于中间位置时，CHANNEL1/2的输入信号和PC的USB端口发送出来的信号被平均的混合。

适当调节此旋钮，使输入信号与PC的USB端口发送出来的信号的混合比例达到最佳。

⚠ **注意：**如果PC端的DAW软件的通道监听开关处于打开状态，为了避免输入监听信号和DAW通道监听信号叠加后产生声像定位或相位干扰，请将MIX旋钮顺时针调整到最大位置，此时输入监听信号将被关闭。

❼ STEREO按键

STEREO按键用于打开或关闭立体声功能。此按键关闭时CHANNEL1/2的两路输入信号会同时输出到后面的两路输出通道。按下按键，CHANNEL1的输入信号只输出到输出通道1，CHANNEL2的输入信号只输出到输出通道2。

❽ OUT 3/4旋钮

录制模式：OUT 3/4旋钮用于调整输出通道3/4的音量。

双路监听模式：OUT 3/4旋钮可调整3L/4R的电平输出，用于补偿两路外接设备输入电平不同造成的音量差。

❾ LOOPBACK按键

将USB端口发送出来的信号重新回送到USB输入端口，以实现PC/MAC内部信号通道的直接连接。

❿ MONITOR旋钮

录制模式：MONITOR旋钮用于调整输出通道1/2的音量大小。

双路监听模式：MONITOR旋钮用于控制总输出音量大小。

⓫ MUTE按键

按下MUTE按键将对输入到Monitor音量控制的输出信号进行静音。

此按键还用于在录制模式（Recording Mode）和双路监听模式（A/B Mode）之间进行切换。按住此按键连接USB线上电，MUTE按键灯闪烁，声卡将从两种模式的一种切换到另一种。

⓬ OUT 3/4按键

录制模式（Recording Mode）

按下OUT 3/4按键，按键灯点亮，3/4通道的信号将代替1/2的信号被推送到Monitor Level进行控制，并输出到1L/2R进行监听。

双路监听模式（A/B Mode）

按下OUT 3/4按键，按键灯点亮，此时1/2通道的信号将从1L/2R接口切换到3L/4R接口输出。再次按下OUT 3/4按键，按键灯熄灭，此时1/2通道的信号将从3L/4R接口切换到1L/2R接口输出。

耳机监听

无论在哪种模式下，按住OUT 3/4按键2秒钟以上，此时3/4通道的信号将被切换耳机输出2进行监听。此时OUT 3/4按键在关闭状态时的按键指示灯由熄灭转为弱亮。任意时刻再次按住OUT 3/4按键2秒钟以上，1/2通道的信号将被重新切换到耳机输出2进行监听。此时OUT 3/4按键在关闭状态时的按键指示灯由弱亮转为熄灭。

⓭ 耳机音量控制1/2旋钮

耳机音量控制1/2旋钮用于调整耳机输出通道1/2的输出音量大小。

⓮ USB指示灯

当NAI-24连接到PC的USB端口开始数据传输时，USB指示灯点亮。

⓯ HI-Z接口

HI-Z接口用于将高阻抗的乐器输出信号从前面板连接到NAI-24的输入端口CHANNEL 1。使用大两芯型的6.35mm插头插入到前面板的 HI-Z 接口，接口将自动连接到CHANNEL 1通道，此时无论后面板的合并式接口是否插入卡农插头还是大三芯的6.35mm插头都无效。

> ⚠ **注意：**高阻抗（High Impedance）是指信号源输出阻抗非常高，通常在数十千欧姆到数百千欧姆。NAI-24的高阻抗输入用于连接这些高阻抗的乐器输出，如电吉他、电贝斯或装有被动式（不需要电源供电）拾音器的原声乐器。

⓰ 耳机接口 1/2

耳机接口1/2用于连接两副耳机。耳机1/2的输出信号出厂时被设置到监听输出通道1/2。然而，耳机2可通过按住OUT 3/4按键2秒钟将监听的信号源切换到3/4。

后面板

⓱ | CHANNEL 1/2输入接口	⓲ | 输出接口1L/2R	⓳ | 输出接口3L/4R	⓴ | USB-C接口

⓱ CHANNEL 1/2输入接口

CHANNEL 1/2输入接口用于连接麦克风或线路电平设备。合并式的输入连接器可接受卡农（XLR）线缆和6.35mm的大三芯平衡或大两芯非平衡线缆。

⓲ 输出接口1L/2R

平衡输出接口，用于将立体声监听音箱连接到输出接口1L/2R。将左监听音箱连接到接口1L，将右监听音箱连接到接口2R。

⚠ **注意：** 建议使用平衡大三芯连接线连接。如连接的设备不支持大三芯连接线，请使用品质较好的非平衡大两芯连接线。

⓳ 输出接口3L/4R

平衡输出接口，用于将立体声监听音箱连接到输出接口3L/4R。将左监听音箱连接到接口3L，将右监听音箱连接到接口4R。或连接其他板外效果器的输入端。

⚠ **注意：** 1.建议使用平衡大三芯连接线连接。如连接的设备不支持大三芯连接线，请使用品质较好的非平衡大两芯连接线。

2.建议把灵敏度较高的监听音箱连接到3L/4R通道，把灵敏度较低的监听音箱连接到1L/2R通道，然后通过OUT 3/4旋钮调节两套音箱之间的音量平衡。

⓴ USB-C接口

用USB-C到USB-A连接线（附带）或其他性能良好的USB-C连接线将NAI-24连接到电脑上的USB 3.0（或更高）端口上。

⚠ **注意：** NAI-24需要连接到符合USB 3.0规范的端口，由USB总线供电。但是，有些USB端口（如劣质集线器上的USB端口）不符合USB规范，无法提供足够的总线供电。如果NAI-24无法正常通电，请将NAI-24直接连接到PC端的USB 3.0端口上。

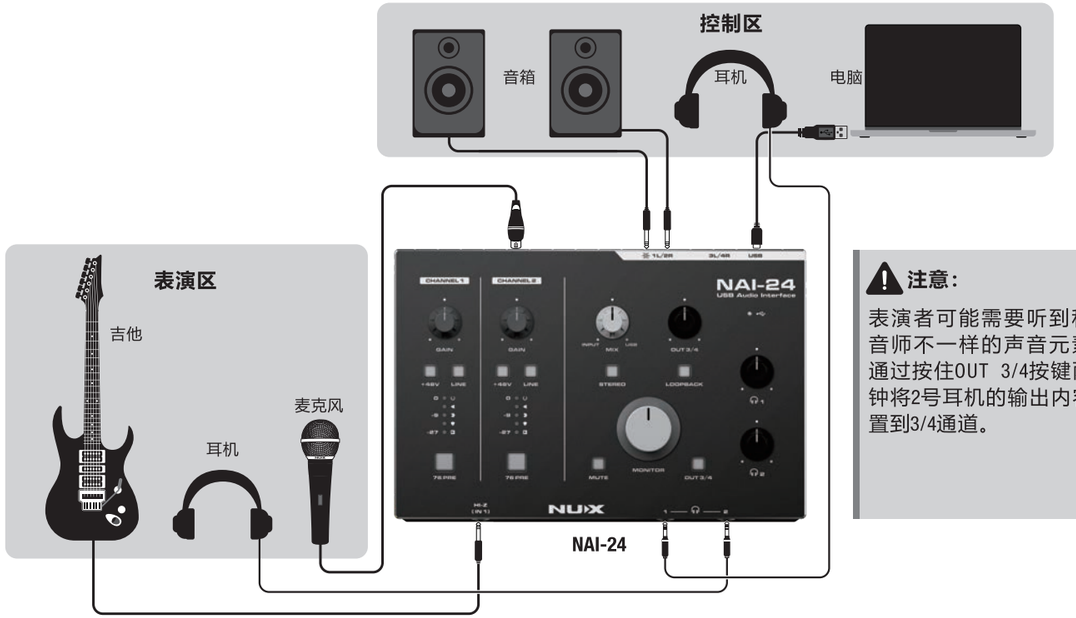
应用场景

1. 为已有录音增加板外效果

在DAW中将OUT3/OUT4通道设置成发送（SEND）通道或外部插入（INSERT）的输出，将IN1/IN2设置到某个通道或是外部插入（INSERT）的输入。连接板外效果器的输入到3L/4R接口，此时DAW会把内部信号输出到外部效果器进行处理，之后通过外部效果器的输出接口把处理后的信号通过CHANNEL 1/2接口重新输入到DAW。

2. 标准录音场景

录音时，表演者通过表演区的设备完成表演，连接到2号耳机通道的耳机负责提供表演者需要的伴奏音乐。高阻抗的吉他或其他类型的乐器连接到CHANNEL 1，一个用于录制人声的麦克风连接到CHANNEL 2。录音师通过控制区的监听音箱或者1号耳机通道进行监听，通过连接的PC端DAW进行信号的录制和控制。

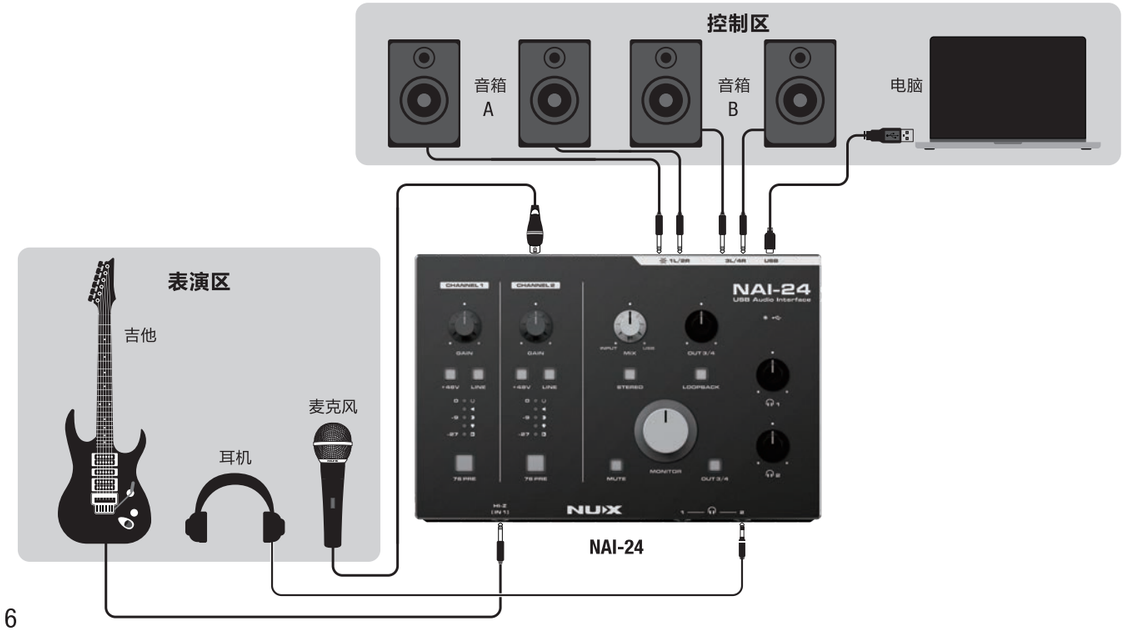


注意：

表演者可能需要听到和录音师不一样的声音元素，通过按住OUT 3/4按键两秒钟将2号耳机的输出内容设置到3/4通道。

3.两套监听音箱切换场景

如果您有两套不同的录音室监听音箱，并希望在它们之间进行切换，以比较每对监听音箱的混音效果，请将主监听音箱 (A) 连接到NAI-24的1L/2R输出，将副监听音箱 (B) 连接到3L/4R输出。快速按下OUT 3/4按键在A扬声器和B扬声器之间切换。



技术规格

话筒放大器输入	
动态范围	114dB (A计权)
频率响应	20 - 20000Hz ± 0.1dB
总谐波+失真	0.002%@-1dBFS (增益旋钮最小位置)
等效输入噪声	-126dB (A计权)
最大输入电平	6dBu(增益旋钮最小位置)
增益范围	5.4 - 63dB
输入阻抗	2.4kΩ

线路放大器输入	
动态范围	114dB (A计权)
频率响应	20 - 20000Hz ± 0.12dB
总谐波+失真	0.003%@-1dBFS (增益旋钮最小位置)
最大输入电平	26dBu (增益旋钮最小位置)
增益范围	-12.6 - 45dB
输入阻抗	21kΩ

HI-Z 输入	
名义输入电平	-10dBu
输入阻抗	1MΩ

输出1/2	
动态范围	112dB (平衡输出，负载600Ω，A计权)
频率响应	20 - 20000Hz ± 0.5dB
最大输出电平	+12.4dBu (平衡，0dBFS)
总谐波+失真	0.003%@-1dBFS
输出阻抗	580Ω

输出3/4	
动态范围	112dB (平衡输出，负载200kΩ，A计权)
频率响应	20 - 20000Hz ± 0.1dB
总谐波+失真	0.001%@-1dBFS
最大输出电平	+18.4dBu (平衡，0dBFS)
输出阻抗	240Ω

耳机放大器输出	
动态范围	104dB (A计权)
频率响应	20 - 20000Hz ± 0.25dB
总谐波+失真	0.005%@-5dBFS
输出功率	30mW@32Ω

体积	194(L) x 128(W) x 67(H)mm
重量	722g

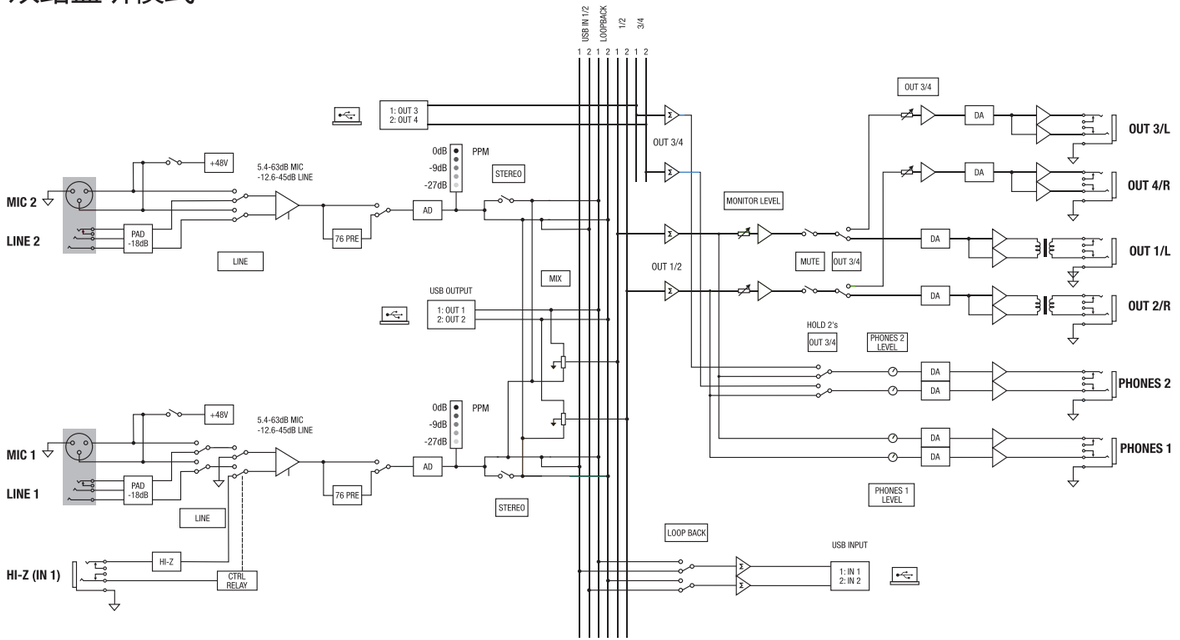
附件

- USB-C 连接线
- 使用说明书
- 保修卡
- NUX 贴纸
- Cubase 许可证卡

*技术规格如有变更，恕不另行通知。

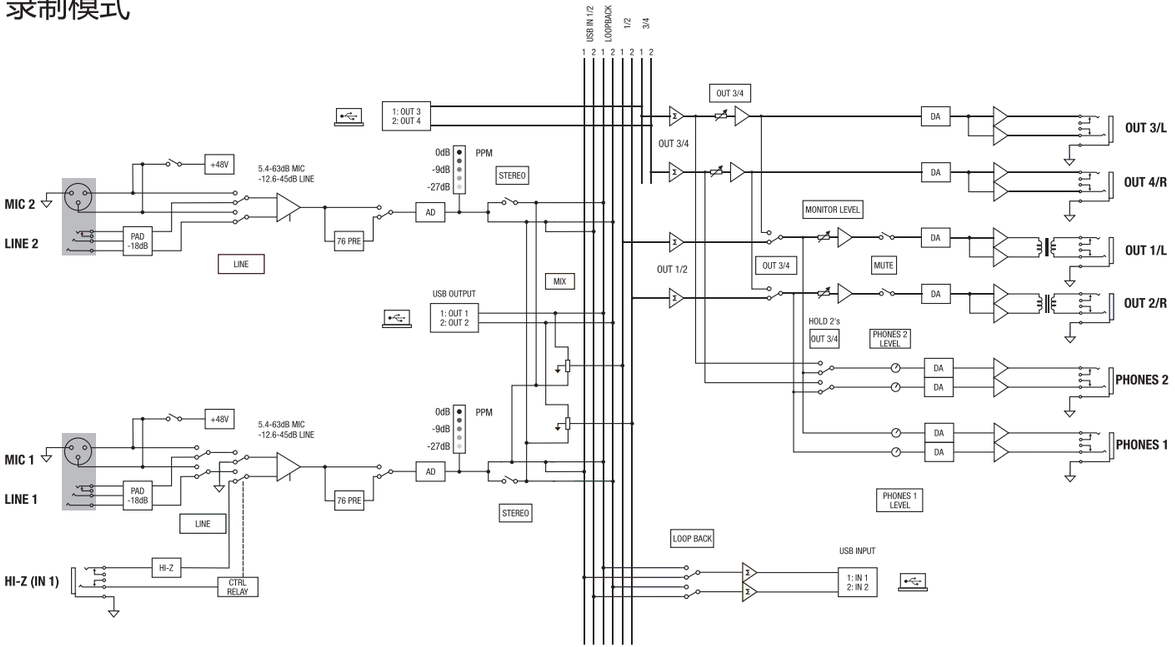
NAI-24信号图

双路监听模式



NAI-24信号图

录制模式



质量承诺

亲爱的NUX用户：

在您使用NUX产品时，请仔细参阅产品说明书，当您有疑问和困难时，请拨打售后服务热线：**400-990-9866**

■ 一周内出现质量问题可退货退款　　■ 一年内出现质量问题可免费维修

■ 一月内出现质量问题可调换　　■ 终身享有咨询和维修服务

[请向销售商索取正规发票并予以保存]

换修政策

一、包换政策：

1、消费者通过正规授权渠道购买的产品，自购机之日起1个月之内 ，在正常使用情况下出现非人为的产品性能故障、且产品外观及包装保持完好，可向所购机的经销商换机。

2、消费者在换机时应出示由经销商开出的购机凭证，否则经销商可以不予更换。

二、保修政策：

1、消费者通过正规授权渠道购买的产品(以发票所示销售方为准)，自购买之日起1年内，若出现非人为损坏的性能故障，可享有免费维修服务。

2、对于超过1年或人为及不可抗力因素造成损坏的产品， 我司可提供有偿维修服务。

*本售后政策仅适用于中国大陆地区，其它国家及地区以当地售后政策及法律法规为准。

售后服务地址

广东省珠海市高新区唐家湾镇科技九路10号 邮编:519080

珠海市蔚科科技开发有限公司　售后服务部

有关产品中所含有害物质限量的说明

为了控制和减少电器电子产品废弃后对环境造成的污染，本资料就本公司产品中所含的特定有害物质限量及其安全性予以说明。

本资料适用于2022年12月31号以后本公司所制造的产品。

环保使用期限

此标志适用于在中国国内销售的电子信息产品，表示环保使用期限的年数。所谓环保使用期限是指在制造日起的规定期限内，产品中所含的有害物质不致引起环境污染，不会对人身、财产造成严重的不良影响。环保使用期限仅在遵照产品使用说明，正确使用产品的条件下才有效。不当的使用，将会导致有害物质泄漏的危险。

产品中所含有害物质限量说明

项目	限量	
邻苯二甲酸酯类物质的限量	A类	B类
	○	○
多环芳烃类物质的限量	A类	B类
	○	○
可迁移元素物质的限量	A类	B类
	○	○
苯系物、总挥发有机化合物及甲醛物质的限量	○	
五氯苯酚（PCP）物质的限量	○	
电子部件限用物质的限量	○	
天然放射性核素的限量	○	

*上表当中的信息依据GB 28489-2022仅在产品含有其中限量要求项目时适用。

本表格依据GB 28489-2022的规定编制。

○表示该有害物质在该部件所有均质材料中的含量均在GB 28489-2022第五章规定的限量要求以下。

保护环境

如果需要废弃本产品，请遵循本地相关指引，请勿随意丢弃或作为生活垃圾处理，以避免对环境造成污染。

合格证

Certificate

检验员
Inspector

名 称
Name **USB音频接口**

生产日期
Date

型 号
Type **NAI-24**

本产品经检验合格
This product is inspected and approved.

执行标准: Q/WKDZ 001-2020
Product is certificated with Q/WKDZ 001-2020