UR 22
USB AUDIO INTERFACE

EN
DE
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IT
ZH
JA

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Contents

A Message From the Development Team

Thank you for choosing the UR22 USB Audio Interface.

The UR22 neatly integrates essential music production functionality into one compact, durable device. Although it is small and portable, the UR22 has been designed to deliver sound quality on a par with high-end models. A major contributor to that outstanding sound is the "D-PRE."

From parts selection to circuit design, every aspect of the "D-PRE" has been painstakingly engineered for optimum performance. Smoothly extended highs, detailed midrange, and fat, punchy lows are delivered with sublime balance and quality. Introduced in the Yamaha n12 and n8 digital mixing studios and then implemented in the Steinberg MR816 series and UR28M/UR824 audio interfaces, the "D-PRE" has become a standard with musicians and engineers who are serious about their sound. The UR22 makes that same technology and quality available to a wider spectrum of artists and engineers, in a broader range of music production environments.

Of course a great microphone preamplifier is only part of the story. The same quality must extend right through to the signal that feeds the monitor speakers for truly high-performance music production capability. The UR22 production team expended an enormous amount of energy on achieving that goal, with emphasis on ensuring the best possible spatial imaging: left to right, near to far, loud to soft … every nuance of the sound had to be detailed and clear. There could be no shortcuts or compromises, which is why we also provided support for 192 kHz sampling, but the results are thoroughly satisfying.

There are quite a few features that add versatility to the unit's extraordinary sound as well: a MIDI interface, the ability to simultaneously use two phantom-powered microphones even though the UR22 itself is USB bus powered, plus compact portability with rugged durability.

Whether you're just beginning on your musical journey or are already a seasoned pro, we're confident that the UR22 will contribute to your creative output. Your success is our pride and pleasure.

The Steinberg Hardware Development Team

Accessory disk

TOOLS for UR22 CD-ROM

TOOLS for UR22 CD-ROM consists of the following content.

Operation Manual

This document. For details, refer to the section "How to Read the Manual"(page 4).

Yamaha Steinberg USB Driver

Yamaha Steinberg USB Driver is a software program required when connecting the UR22 to a computer. Make sure to install it before initially using the device. Yamaha Steinberg USB Driver is a software program that allows communication between the device and a computer.

Power supply

The UR22 is a bus-powered type device which can be powered by the host computer connected via a USB cable. A power cable is not necessary.

Cubase AI Download

We are offering Cubase AI free for downloading via website, specifically for customers who have purchased UR22. To download Cubase AI, please follow the steps below.

1. **Create a user account in the MySteinberg area.**

2. **Log in to your MySteinberg account, and register your UR22.**

3. **Enter your "Download access code" which is included with your product.**

4. **Download Cubase AI from the download link.**
   After the download is completed, double-click the file to install it.

For the latest information, see the Steinberg web site below.

http://www.steinberg.net/getcubaseai/

How to Read the Manual

Types and Contents

Getting Started (printed)

This is included with the package. Make sure to read through this manual carefully to ensure safe use before initially using the product. Also confirm that the instructions on installing the Yamaha Steinberg USB Driver, as well as warranty information, contact information and all package contents have been included.

Operation Manual (PDF; this document)

This is included in the TOOLS for UR22 CD-ROM. Please read through this manual to understand how to use the features of the product.

NOTE

To view PDF files, you will need to install Adobe Reader on you computer. You can download the latest Adobe Reader at the following web site.
http://www.adobe.com/

Conventions

Windows or Mac

When the procedures or explanations are specific to only one of the platforms, Windows or Mac, this is properly indicated in the manual. When the platforms do not appear, procedures or explanations are for both Windows and Mac.

Procedures

" → " appears on some procedures in the manual. For example, the string "Devices" → "Device Setup"→ "Control Panel" indicates that you should perform the procedures in the following order.

1. Click the "Devices" menu.

2. Select the "Device Setup" option.

3. Click the "Control Panel" button.

Keyboard Shortcuts

[Windows modifier key]/[Mac modifier key] + [key] shows the shortcut keys. For example, [Ctrl]/ [command] + [Z] means "press [Ctrl] under Windows or [command] under Mac, then press [Z]."
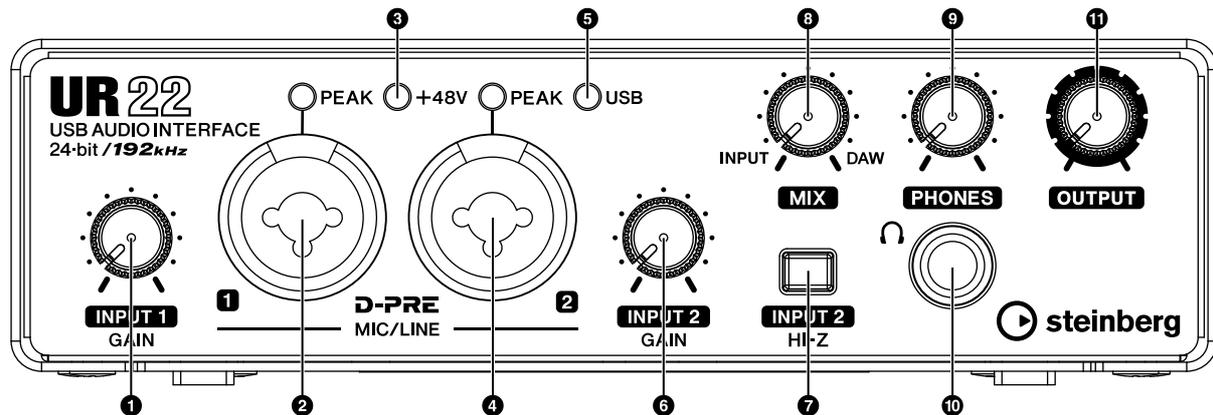
Cubase

The phrase "Cubase" in this manual applies to all Cubase programs and versions (except Cubase LE).

Screens

This manual predominantly uses screenshots of Windows. However, Mac screenshots are used when instructions of the function apply only to the Mac.

Description of the device

Front Panel

❶ [INPUT 1 GAIN] knob

Adjusts the input signal level of the [MIC/LINE 1] jack.

❷ [MIC/LINE 1] jack/[PEAK] indicator

For connection to a microphone or digital instrument. This jack can be connected to both XLR-type and phone-type (balanced/unbalanced) plugs. When connected to an XLR-type plug, this jack automatically switches to microphone input sensitivity, and when connected to a phone-type plug, it switches to line input sensitivity.

XLR-type (balanced)

Phone-type (balanced)

Phone-type (unbalanced)

The [PEAK] indicator lights in response to the level of input signal. To achieve optimum recording levels, increase the input level with the [INPUT GAIN] knob until the [PEAK] indicator lights in red, then slowly bring the level down until it stops lighting in red.

❸ [+48V] indicator

The indicator lights when [+48V] switch (phantom power) is turned on.

❹ [MIC/LINE 2] jack/[PEAK] indicator

For connection to a microphone, digital instrument, electric guitar, or electric bass. This jack can be connected to both XLR-type and phone-type (balanced/unbalanced) plugs. When connected to an XLR-type plug, this jack automatically switches to microphone input sensitivity, and when connected to a phone-type plug, it switches to line input sensitivity.

The [PEAK] indicator lights in response to the level of input signal. To achieve optimum recording levels, increase the input level with the [INPUT GAIN] knob until the [PEAK] indicator lights in red, then slowly bring the level down until it stops lighting in red.

❺ [USB] indicator

The indicator lights when the UR22 is connected to the computer via a USB cable and communication with the computer is enabled.

❻ [INPUT 2 GAIN] knob

Adjusts the input signal level of the [MIC/LINE 2] jack.

❼ [INPUT 2 HI-Z] switch

Switches the input impedance (ON▬/OFF■). Turn this switch on when connecting high impedance instruments, such as an electric guitar or electric bass, directly to the [MIC/LINE 2] jack. When you turn this switch on, use an unbalanced phone cable for connection between the instruments and the [MIC/LINE 2] jack. If you use a balanced cable or an XLR cable, this device will not work correctly.

⚠ *CAUTION*

- **Do not connect or disconnect a device while turning on the [INPUT 2 HI-Z] switch. Doing so can damage the connected device and/or the unit itself.**

- **To protect your speaker system, leave the monitor speakers turned off when turning the [INPUT 2 HI-Z] switch on/ off. It's also a good idea to turn all output level controls down to their minimum. Neglect of these precautions may result in large noise bursts that may damage your equipment, your ears, or both.**

❽ **[MIX] knob**

Adjusts the signal level balance between the signal from the analog input jacks and the signal from an application software, such as DAW. This control does not affect the signal sent to the computer.

❾ **[PHONES] knob**

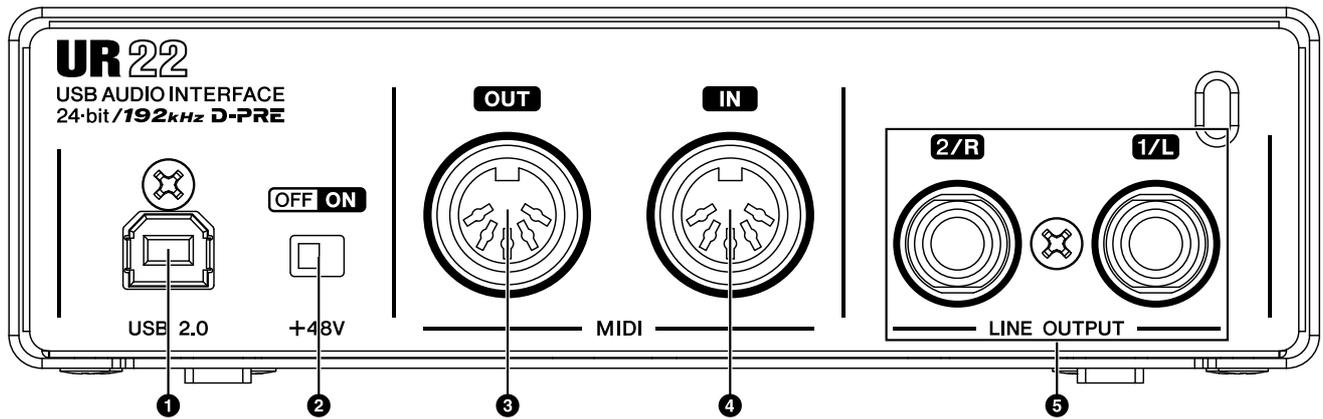Adjusts the output signal level of the [PHONES] jack. This output signal level is not affected by the [OUTPUT] knob.

❿ **[PHONES (⌒)] jack**

For connection to a set of headphones.

⓫ **[OUTPUT] knob**

Adjusts the output signal level of the [LINE OUTPUT] jacks.

Rear Panel

❶[USB2.0] port

For connection to a computer.

USB Port Precautions

Be sure to observe the following points when connecting to the computer's USB interface. Failing to do so may result in the computer freezing or shutting down, as well as corruption or even loss of data. If the device or computer does freeze, restart the application or computer.

NOTICE

- Be sure to wake the computer from sleep/ suspended/stand by mode before making a connection to the computer's USB port.
- Always quit all applications running on the computer before connecting or disconnecting the USB cable.
- When connecting or disconnecting the USB cable, be sure to set all output level controls to the minimum.
- Wait at least 6 seconds between connecting or disconnecting the USB cable.

❷[+48V] switch

Turns on and off the phantom power. When you turn this switch on, phantom power will be supplied to the [MIC/LINE 1/2] jack. The [+48V] indicator lights when the switch is turned on. Turn this switch on when using a phantom powered condenser microphone.

Phantom Power Precautions

> ⚠ **CAUTION**
>
> **Always turn phantom power OFF when it is not required.**
> **When using phantom power, observe the following to prevent noise and possible damage to UR22 or connected equipment.**
>
> - **When connecting devices not requiring phantom power to the [MIC/LINE 1/2] jacks, make sure to turn phantom power OFF.**
> - **Do not connect or disconnect any devices while phantom power is turned ON.**
> - **Set all output level controls to minimum when turning phantom power ON or OFF.**

❸[MIDI OUT] jack

For connection to the MIDI IN jack of the MIDI device. Transmits MIDI signals from the computer.

❹[MIDI IN] jack

For connection to the MIDI OUT jack of the MIDI device. Receives and inputs MIDI signals to the computer.

❺[LINE OUTPUT 2/R 1/L] jack

For connection to monitor speakers (powered speakers). This jack can be connected to both XLR-type and phone-type (balanced/ unbalanced) plugs. These jacks output the mixed signal from the analog input jacks and the signal from a DAW or other audio software.

Yamaha Steinberg USB Driver

Yamaha Steinberg USB Driver is a software program which allows communication between the UR22 and a computer. Yamaha Steinberg USB Driver has a control panel from which you can select the general settings of the audio driver for Windows and view the information for Mac.

Windows

How to Open the Window

• "Control Panel" → "Hardware and Sound" or "Sounds, Speech, and Audio Devices" → "Yamaha Steinberg USB Driver"

• From the Cubase series menu, "Devices" → "Device Setup…" → "Yamaha Steinberg USB ASIO" → "Control Panel"

How to Switch the Window

Click the upper tabs to select the desired window.

Steinberg UR22 window

This is the window for selecting the sample rate of the device.

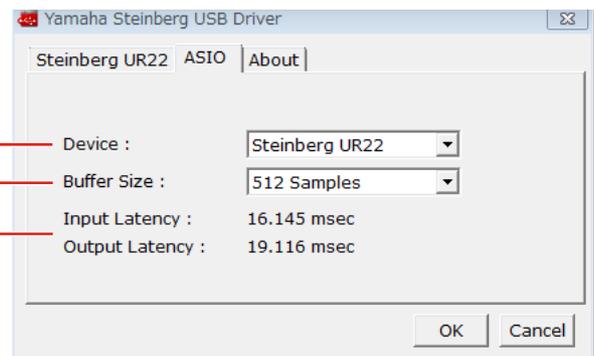

❶ **Sample Rate**

Selects the sample rate of the device.

Option: 44.1 kHz、48 kHz、88.2 kHz、96 kHz、176.4 kHz、192 kHz

NOTE

The Sample Rate setting differs depending on the DAW software specifications.

ASIO window

This is the window for selecting the ASIO driver settings.

❶ **Device**

Selects the device that will be using the ASIO driver. This function is available when connecting to the computer two or more devices compatible with the Yamaha Steinberg USB Driver.

❷ **Buffer Size**

Selects the buffer size for the ASIO driver. The range varies depending on the sample rate.

Sample Rate	Range
44.1 kHz/48 kHz	64 Samples – 2048 Samples
88.2 kHz/96 kHz	128 Samples – 4096 Samples
176.4 kHz/192 kHz	256 Samples – 8192 Samples

❸ **Input Latency/Output Latency**

Indicates the delay time for the audio input and output in millisecond units.

Audio latency varies depending on the value of the ASIO buffer size. The lower the value of the ASIO buffer size, the lower the value of Audio latency.

About window

This window indicates information about the audio driver.

❶ About

Indicates the version and copyright of the audio driver. The letters "x.x.x" indicate the version number.

Mac

How to Open the Window

• "System Preferences" → "Yamaha Steinberg USB"

• From the Cubase series menu, "Devices" → "Device Setup…" → "Steinberg UR22" → "Control Panel" → "Open Config App"

About window

This window indicates information about the audio driver.

❶ About

Indicates the version and copyright of the audio driver. The letters "x.x.x" indicate the version number.
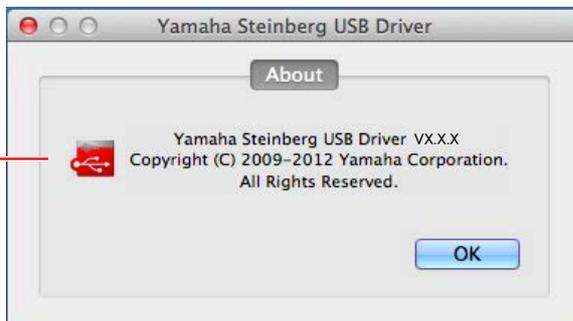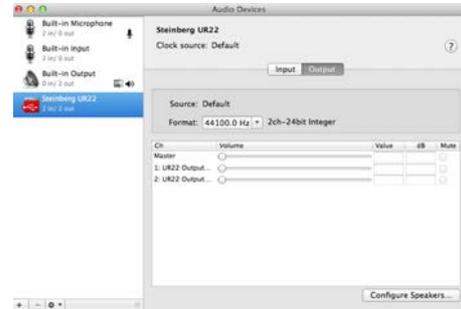

Tips

How to select the sample rate

Select the sample rate of the device via the "Audio MIDI Setup."

How to select the buffer size

Select the buffer size in the buffer size selecting window, which is opened from an application such as DAW software.

Basic Operations

Connection Example

Microphone   Digital instrument   Guitar   Headphones

Front Panel

Rear Panel

Computer   Synthesizer/MIDI keyboard   Monitor speakers
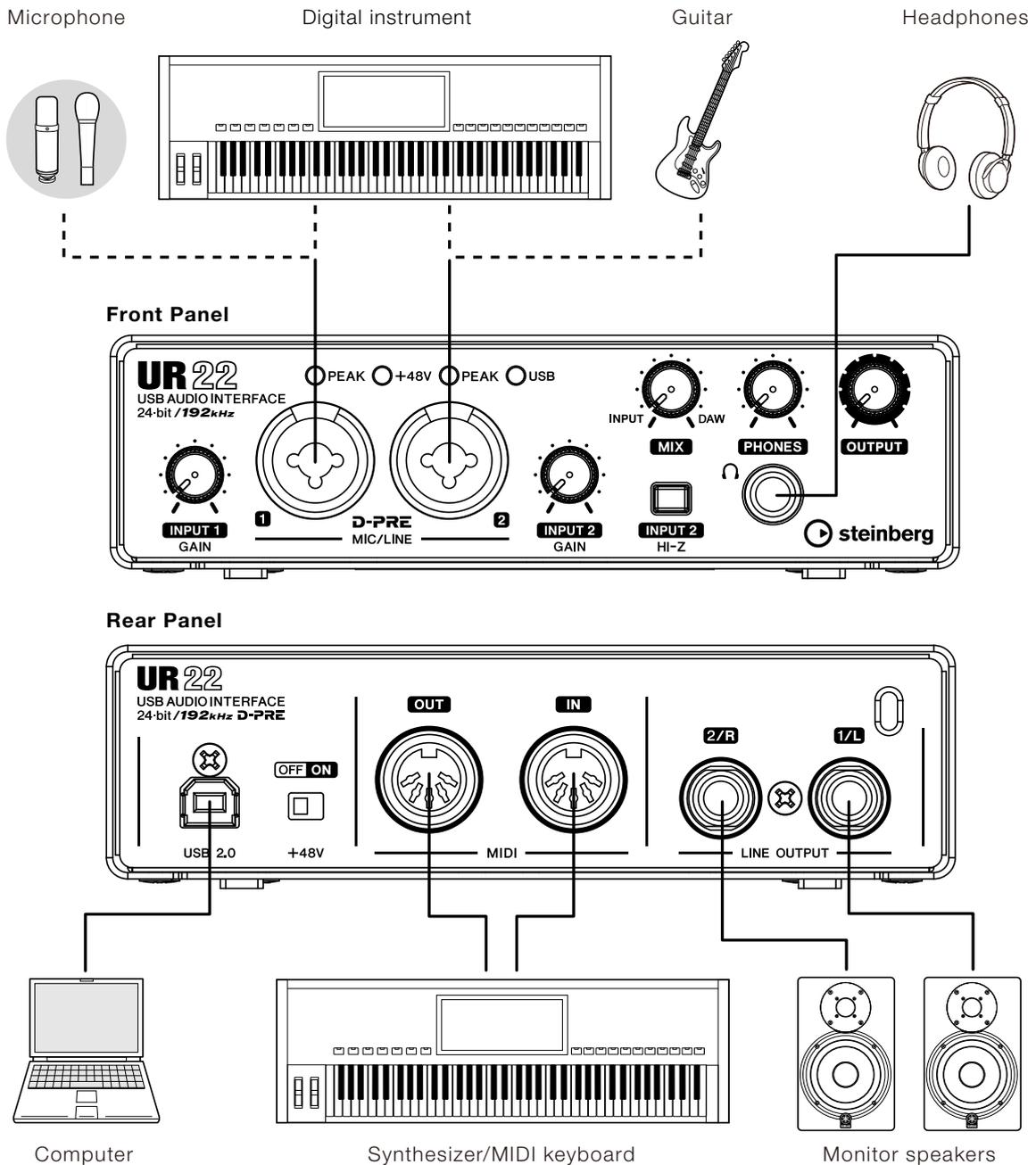
⚠ **CAUTION**

Make sure to set all volume levels to minimum before connecting or disconnecting the external device. Otherwise, high-volume output may damage your hearing or equipment.

Configuring Audio Driver Settings on the DAW Software

Cubase series Programs

1. **Make sure that all applications have been closed.**

2. **Connect the device directly to the computer by using the included USB cable.**

   NOTE
   ・(Windows only) Make sure to use the same USB port as the one used in the installation procedure when you connect the UR22 to the computer again. If you connect it to a different USB port, you will have to install the driver again.

3. **Double-click the shortcut of Cubase series on the desktop to start Cubase.**

4. **When the "ASIO Driver Setup" window appears while the Cubase series program is launching, confirm that the device is selected, then click "OK."**

The audio driver settings are now complete.

Programs Other Than Cubase Series

1. **Make sure that all applications have been closed.**

2. **Connect the device directly to the computer by using the included USB cable.**

   NOTE
   ・Make sure that only one device compatible with Yamaha Steinberg USB Driver is connected.
   ・(Windows only) Make sure to use the same USB port as the one used in the installation procedure when you connect the UR22 to the computer again. If you connect it to a different USB port, you will have to install the driver again.

3. **Launch the DAW software.**

4. **Open the audio interface settings windows.**

5. **(Windows only) Select the "ASIO Driver" for the audio driver settings.**

6. **Set as follows.**

Windows
Set the Yamaha Steinberg USB ASIO for the ASIO Driver settings.
**Mac**
Set the UR22 for the audio interface settings.

The audio driver settings are now complete.

Recording/Playback

Cubase Series Programs

1. **Launch the Cubase series DAW.**
   The "Project Assistant" window appears.

2. **Select the desired project template in "Recording" on the "Project Assistant" window, then click "Create."**

3. **When the "Missing Ports" window appears, select the UR22 port for each of the "Mapped Ports." Enter checkmarks to the corresponding "Map Always" boxes, then click "OK."**
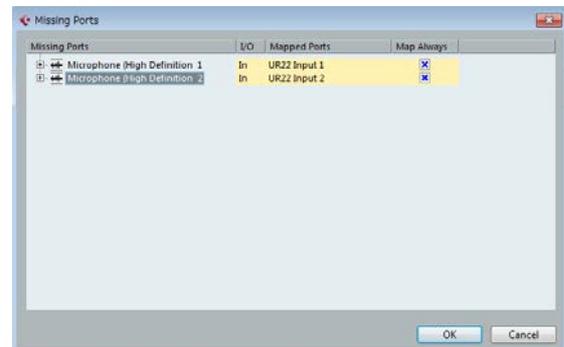
NOTE
・If you enter a checkmark for "Map Always," the "Missing Ports" window will not appear from the next time.

4. **Set the [MIX] knob to the center position between [INPUT] and [DAW].**

5. **While singing into the microphone, adjust the input signal level of the microphone by the [INPUT GAIN] knob on the device.**
   To achieve optimum recording levels, increase the input level with the [INPUT GAIN] knob until the [PEAK] indicator lights in red, then slowly bring the level down until it stops lighting in red.

6. **While singing into the microphone, adjust the output signal level of the headphones by the [PHONES] knob on the device.**

7. **Click "●" (Record) to start the recording.**

8. **After finishing the recording, click "□" (Stop) to stop it.**

9. **Click the Ruler to move the project cursor to the desired point for starting playback.**

10. **Click ">"(Play) to check the recorded sound.**

When listening to the sound over monitor speakers, adjust the output signal level by the [OUTPUT LEVEL] knob on the device.

Operation is now complete.

For instructions on using Cubase series programs, refer to the PDF manual, available from "Help" in the Cubase series menu.

Programs Other Than Cubase Series

1. **Launch your DAW software.**

2. **While singing into the microphone, adjust the input signal level of the microphone by the [INPUT GAIN] knob on the device.**
   To achieve optimum recording levels, increase the input level with the [INPUT GAIN] knob until the [PEAK] indicator lights in red, then slowly bring the level down until it stops lighting in red.

3. **While singing into the microphone, adjust the output signal level of the headphones by the [PHONES] knob on the device.**

4. **Start recording on your DAW software.**

5. **After finishing recording, stop it.**

6. **Play back the newly recorded sound to check it.**

Operation is now complete.

For instructions on using the DAW software, refer to your particular DAW's software manual.

Troubleshooting

Power does not turn on.

•Make sure that the device is properly connected to the computer via a USB cable.

Connecting between the computer and the device via a USB cable supplies power source to the device.

•Confirm whether or not a proper USB cable is used.

If the USB cable is broken or damaged, replace the USB cable with a new one. Use a USB cable no longer than 3 meters.

•Has Yamaha Steinberg USB Driver been installed properly?

Refer to the Getting started to complete Yamaha Steinberg USB Driver installation.

No Sound

•Are the volume controls of the device set to appropriate levels?

Confirm the levels of the [OUTPUT] knob and [PHONES] knob.

•Are the microphones and monitor speakers connected to the device properly?

Refer to the section "Connection Examples" (page 10) to confirm the connection.

•Are the audio driver settings on DAW software set properly?

Refer to the section "Configuring the Audio Driver Settings on DAW Software" (page 11) to set it.

•Is the "ASIO Driver" setting on the Cubase series program set properly?

From the Cubase series menu, open the "Devices" → "Device Setup…" → "VST Audio System", then confirm that the "Yamaha Steinberg USB ASIO" (Windows) or "Steinberg UR22" (Mac) is selected on the"ASIO Driver."

•Was the power of the device turned on before starting the DAW software?

Before starting the DAW software, connect the device to a computer and turn on the power of the device.

•Is the device connected to a computer via a USB hub?

Connect it directly without using a USB hub.

•Has Yamaha Steinberg USB Driver been installed properly?

Refer to the Getting started to complete Yamaha Steinberg USB Driver installation.

•Are any USB devices you are not using connected to the computer?

Remove them then confirm the sound.

•Are any other applications running at the same time?

Quit all applications you are not using then confirm the sound.

•Is the UR22 selected in the control panel for Yamaha Steinberg USB Driver? (Windows only)

When connecting two or more devices compatible with the Yamaha Steinberg USB Driver to the computer, select UR22 in the Device settings (page

8) of the Yamaha Steinberg USB Driver control panel.

Unusual Sound (noise, interruption, or distortion)

·Is the buffer size set too low?

Increase the buffer size compared to the current settings; refer to the section "Yamaha Steinberg USB Driver"(page 8) for instructions.

·Does your computer satisfy the system requirements?

Confirm the system requirements. For the latest information, see the Steinberg web site below.

http://www.steinberg.net/

·Are you recording or playing long continuous sections of audio?

The audio data processing capabilities of your computer will depend on a number of factors including CPU speed and access to external devices. Reduce the audio tracks then confirm the sound.

·Is a network adaptor for wired/ wireless LAN running?

Disable the suspected network adaptor. Some network adaptors can cause noise.

Double Sound

·Both the input signal to the device and the output signal from DAW software are being output.

Turn the [MIX] knob fully to the [DAW] side.

Computer does not recognize the device.
(USB indicator does not

switch from flashing to being continuously lit.)

·Has Yamaha Steinberg USB Driver been installed properly?

Refer to the Getting started to complete Yamaha Steinberg USB Driver installation.

Appendix

Uninstalling Yamaha Steinberg USB Driver

Windows

1. **Disconnect all USB devices other than the mouse and keyboard from the computer.**

2. **Start the computer and log on to the Administrator account.**
   Exit any open applications and close all open windows.

3. **Open the window for the uninstall operation as follows.**
   Select "Control Panel" → "Uninstall a Program" to call up the "Uninstall or change a program" panel.

4. **Select "Yamaha Steinberg USB Driver" from the list.**

5. **Uninstall them as follows.**
   Click the "Uninstall" / "Uninstall / Change".
   If the "User Account Control" window appears, click "Continue" or "Yes."
   Follow the on-screen instructions to remove the software.

Uninstallation of Yamaha Steinberg USB Driver is now complete.
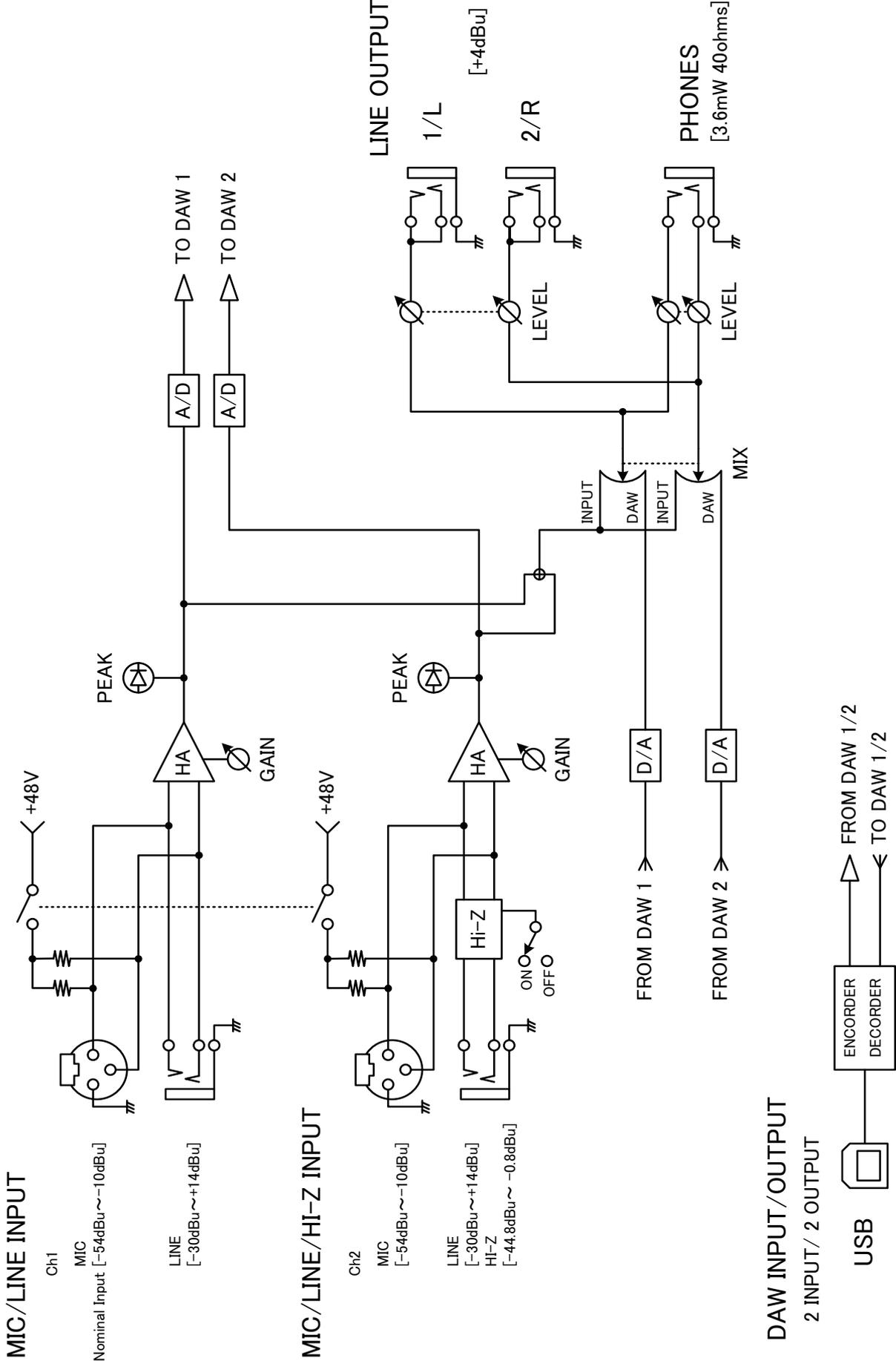
Mac

1. **Disconnect all USB devices other than the mouse and keyboard from the computer.**

2. **Start the computer and log in to the Administrator account.**
   Exit any open applications and close all open windows.

3. **Insert the TOOLS for UR22 CD-ROM into the CD-ROM drive.**

4. **Open the CD-ROM then double-click the file "Uninstall Yamaha Steinberg USB Driver."**

5. **Click "Run" when the "Welcome to the Yamaha Steinberg USB Driver uninstaller." message appears.**
   After that, follow the onscreen instructions to uninstall the software.

6. **After completing the uninstallation, an "Uninstallation completed." window appears. Click "Restart."**

7. **When the message prompting you to restart your computer appears, click "Restart."**

Uninstallation of Yamaha Steinberg USB Driver is now complete.

Block Diagrams

MIC/LINE INPUT

Ch1

MIC
Nominal Input [−54dBu~−10dBu]

LINE
[−30dBu~+14dBu]

PEAK

HA
GAIN

+48V

MIC/LINE/HI-Z INPUT

Ch2

MIC
[−54dBu~−10dBu]

LINE
[−30dBu~+14dBu]

HI-Z
[−44.8dBu~−0.8dBu]

PEAK

HA
GAIN

+48V

Hi-Z

ON
OFF

A/D → TO DAW 1
A/D → TO DAW 2

LINE OUTPUT

1/L   [+4dBu]

2/R

LEVEL

PHONES
[3.6mW 40ohms]

LEVEL

INPUT
DAW
INPUT
DAW
MIX

D/A   FROM DAW 1 ⇒
D/A   FROM DAW 2 ⇒

DAW INPUT/OUTPUT
2 INPUT/2 OUTPUT

USB

ENCORDER   FROM DAW 1/2
DECORDER   TO DAW 1/2

Specifications

Technical Specifications

MIC INPUT 1/2 (Balanced)	
Maximum Input Level	±0 dBu
Input Impedance	4 kΩ
GAIN Range	+10 dB to +54 dB
LINE INPUT 1/2 (Balanced)	
Maximum Input Level	+24 dBu
Input Impedance	20 kΩ
GAIN Range	-14 dB to +30 dB
HI-Z INPUT 2 (Unbalanced)	
Maximum Input Level	+5.8 dBV
Input Impedance	1 MΩ
GAIN Range	+0.8 dB to +44.8 dB
LINE OUTPUT 1/L 2/R (Impedance balanced)	
Maximum Output Level	+10dBu
Output Impedance	150 Ω
PHONES	
Maximum Output Level	6 mW+6 mW, 40 Ω
USB	
Specification	USB2.0, 24 bit, 44.1 kHz/48 kHz/88.2 kHz/96 kHz/176.4 kHz/192 kHz
XLR INPUT	
Polarity	Pin 1: Ground Pin 2: Hot (+) Pin 3: Cold (-)

General Specifications

Dimensions (WxHxD)	158.6 x 47 x 158.3 mm
Net Weight	998 g
Operating Free-air Temperature Range	0 to 40 °C
Included Accessories	• Getting started (printed) • CUBASE AI DOWNLOAD INFORMATION (printed) • TOOLS for UR22 CD-ROM • USB Cable

Specifications and descriptions in this manual are for information purposes only. Steinberg/Yamaha Corp. reserves the right to change or modify products or specifications at any time without prior notice. Since specifications, equipment or options may not be the same in every locale, please check with your Steinberg/Yamaha dealer.

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