

Windows

To connect the H4n to a computer running Windows and to enable audio input/output, proceed as follows. The installation description uses Windows 7 as an example.

- 1 Download the latest ASIO driver from the web site of ZOOM Corporation (<http://www.zoom.co.jp>) and install the driver.

The ASIO driver software is required to enable use of Cubase LE for audio input and output with a computer. Refer to the read_me file included in the download package for instructions on how to install the driver correctly.

NOTE

If the system software of the H4n is not up to date, the H4n may not be recognized correctly by the computer. You should always upgrade the system software to the latest version. The latest version can also be downloaded from the web site of ZOOM Corporation.

- 2 Download and install Cubase LE from the Steinberg Web page.

NOTE

Cubase LE will not install on Windows XP.

Please visit the following URL.

www.steinberg.net/getcubasele

During the download process you will be asked to enter the download access code.

After extracting the downloaded file, Cubase LE folder is shown. Double-click "Start Center" to perform the installation.

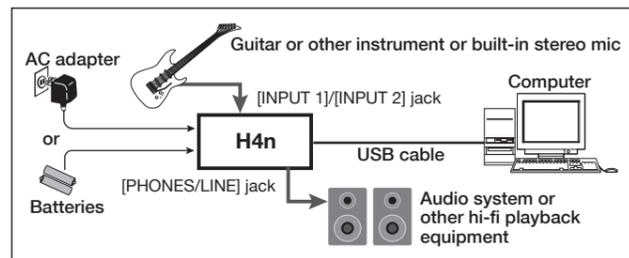


A language selection screen will appear. Select your language, and then follow the on-screen prompts.

NOTE

Enter the Activation Code in the eLicenser Control Center to permanently activate Cubase LE.

- 3 Connect the H4n to the computer using a USB cable.



Take the required steps at the H4n to enable USB connection. The H4n will be recognized by the computer. If this is the first time to connect the H4n, wait until the message "Your devices are ready to use" appears.

HINT

For information on steps to take at the H4n, see the section "Setting up: USB connection, H4n used as an Audio Interface" (p.033) of the H4n operation manual.

NOTE

- If you monitor the audio signal during recording via the audio output of the computer, there will be an audible delay. Be sure to use the [PHONES/LINE] jack of the H4n to monitor the signal.
- Use a high-quality USB cable and keep the connection as short as possible. If USB bus power is supplied to the H4n via a USB cable that is more than 3 meters in length, the low voltage warning indication may appear.

- 4 Bring up the "Sound" window from the Control Panel and make the input device setting for the computer.

To bring up the "Sound" window, select "Control Panel" from the Start menu and click "Hardware and Sound", then click "Sound".

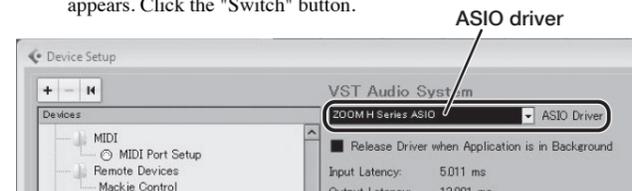


In the "Sound" window, verify that "ZOOM H Series Audio" is listed under the Play and Record devices and that the device is checked. (To switch between Play and Record, click the tabs at the top of the window.)

If the device is not checked, right-click on the icon for the device and click "Set as Default Device" so that a check mark appears.

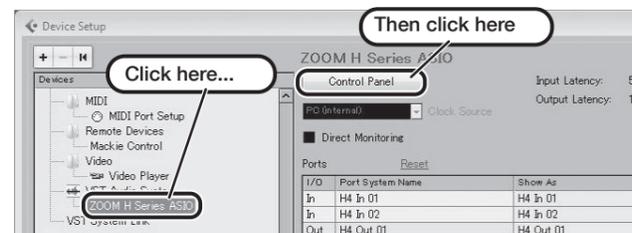
- 5 Start Cubase LE. Then access the "Devices" menu, select "Device Setup..." and click "VST Audio System".

To start Cubase LE, double-click the Cubase LE shortcut icon that was created on the desktop. If "Open Cubase LE Option" appears, click the "Cancel" button. After startup, select "ZOOM H Series ASIO" as the ASIO driver in the right section of the Device Setup window. When you change the ASIO driver selection, a confirmation message appears. Click the "Switch" button.



The device indication in the left section of the window now shows "ZOOM H Series ASIO" as the ASIO driver.

Click on this indication to select it, and then click the "Control Panel" button in the right section of the Device Setup window.



The window that appears lets you set the latency and sampling frequency for the ASIO driver. The latency should be set to a value that is as low as possible without causing sound dropouts during recording and playback. The sampling frequency setting should match the setting of the H4n.

When the setting is complete, click the OK buttons in the respective windows to return to the startup condition of Cubase LE.



Mac OS X

To connect the H4n to a computer running MAC OS X and to enable audio input/output, proceed as follows. The installation description uses Mac OS X v10.8 as an example.

- 1 Download and install Cubase LE from the Steinberg Web page.

NOTE

Cubase LE will not install on MAC OS 10.5 or earlier

Please visit the following URL.

www.steinberg.net/getcubasele

During the download process you will be asked to enter the download access code.

After extracting the downloaded file, Cubase LE folder is shown. Double-click "Start Center" to perform the installation.



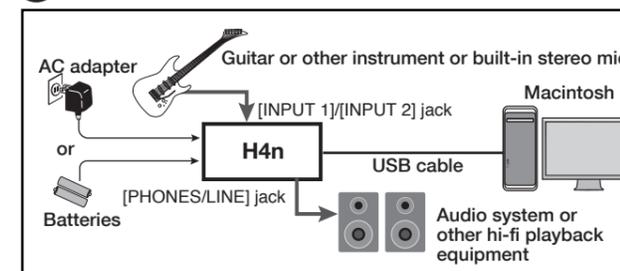
Start Center

A language selection screen will appear. Select your language, and then follow the on-screen prompts.

NOTE

Enter the Activation Code in the eLicenser Control Center to permanently activate Cubase LE.

- 2 Connect the H4n to the computer using a USB cable.



Take the required steps at the H4n to enable USB connection. The H4n will be recognized by the computer.

HINT

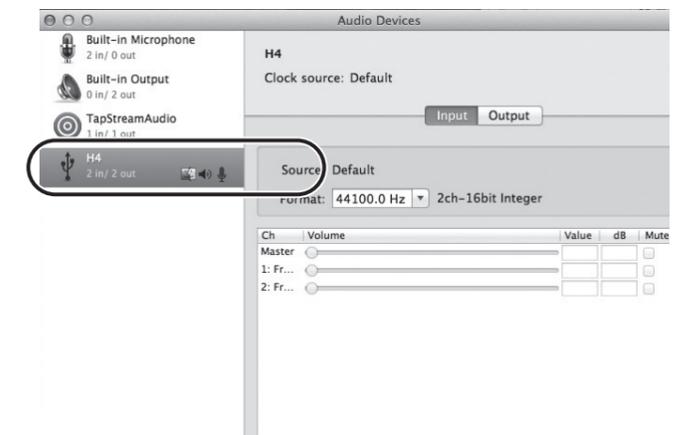
For information on steps to take at the H4n, see the section "Setting up: USB connection, H4n used as an Audio Interface" (p.033) of the H4n operation manual.

NOTE

- If you monitor the audio signal during recording via the audio output of the computer, there will be an audible delay. Be sure to use the [PHONES/LINE] jack of the H4n to monitor the signal.
- Use a high-quality USB cable and keep the connection as short as possible. If USB bus power is supplied to the H4n via a USB cable that is more than 3 meters in length, the low voltage warning indication may appear.

- 3 Open the "Applications" folder and then the "Utilities" folder, and double-click "Audio MIDI Setup".

The Audio MIDI Setup screen appears. Check whether "H4" is selected as input / output device.

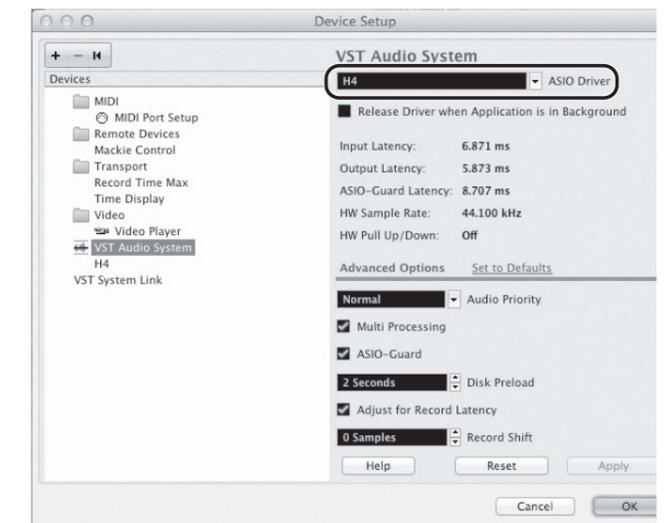


If another device is selected, use the gear icon to change the selection to "H4".

When the setting has been made, close Audio MIDI Setup.

- 4 Start Cubase LE. Then access the "Devices" menu, select "Device Setup..." and click "VST Audio System".

To start Cubase LE, double-click on the Cubase LE icon that was placed in the "Applications" folder during installation. After startup, be sure to verify that "H4" is selected as ASIO driver in the right section of the Device Setup window.

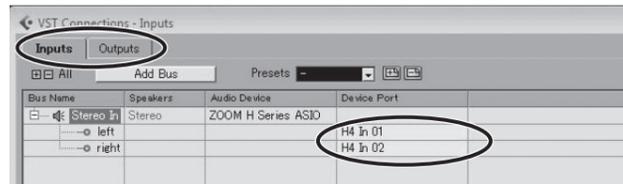


If another item is selected, use the pull-down menu to change the selection to "H4".

When the setting has been made, click the OK button to close the window.



- 6** From the "Devices" menu of Cubase LE, select "VST Connections" and select the device containing the string "H4 In (Out)" ("H4" for MacOS X) as input port and output port.



Use the tabs at top (top center for Mac OS X) left to switch between input and output, and verify that "H4 In (Out)" is selected as device port. If another device is selected, click the device port field and change the selection.

- 7** Access the "File" menu and select "New Project".

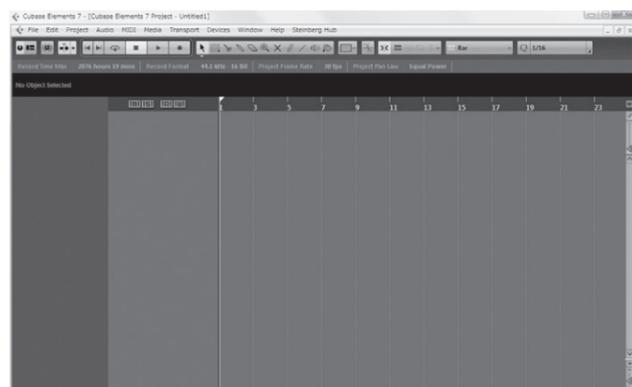
The new project window appears. Here you can select a project template.

- 8** Make sure that the "Empty" template is selected, and click the OK button.

A window for selecting the project file save location appears.

- 9** After specifying a suitable project file save location, click the OK button (Choose button in MacOS X).

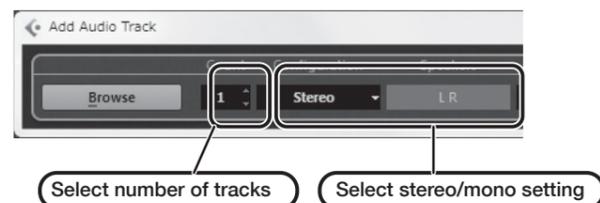
A new project is created, and the project window for controlling most of the Cubase LE operations appears.



Project window

- 10** To create a new audio track, access the "Project" menu and select "Add track". In the submenu that appears, select "Audio".

The Add Track window for specifying the number of audio tracks and the stereo/mono setting appears.

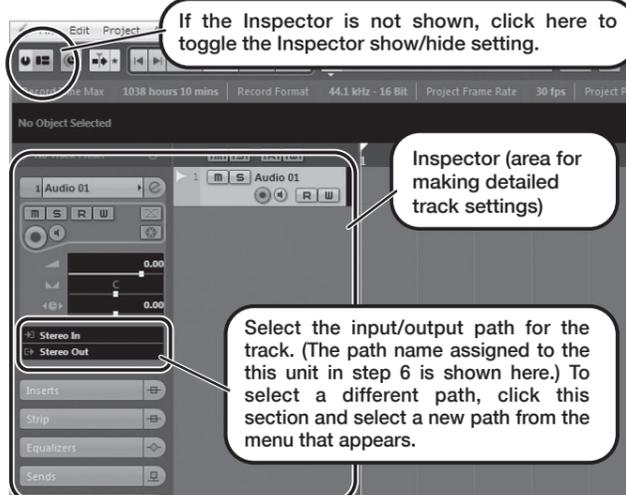


In this example, set the number of tracks to "1" and select stereo, then click the OK button.

A new stereo audio track is added to the project window.



- 11** Make the following settings for the newly created audio track.



HINT

The Inspector shows information about the currently selected track. If nothing is shown, click on the track to select it.

- 12** Connect the guitar or other instrument to the [INPUT] jack of the H4n and select the desired patch.

The sound selected here will be recorded on the computer via the [USB] port. For information on how to select the input signal and effect patch for the H4n, see page 034 (Selecting the input source) and page 083 (Selecting a patch) of the H4n operation manual. To monitor the input signal, set the MONITOR setting of the H4n to ON.

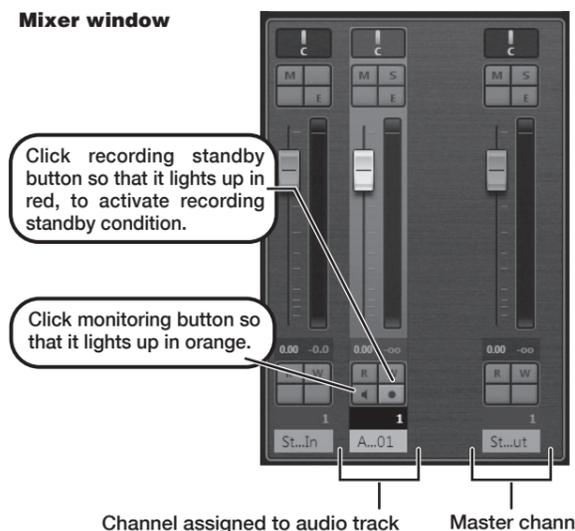
- 13** Access the "Devices" menu of Cubase LE and select "MixConsole".

The mixer window appears.

This window shows the channel assigned to the created track, and the master channel.

Perform the following steps here.

Mixer window



Click recording standby button so that it lights up in red, to activate recording standby condition.

Click monitoring button so that it lights up in orange.

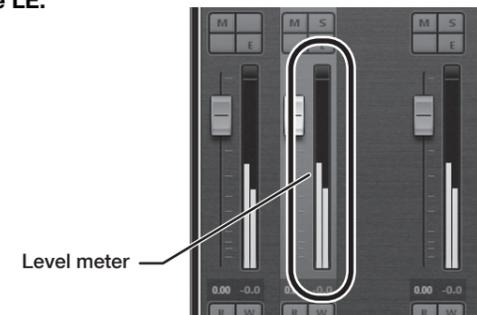
Channel assigned to audio track

Master channel

HINT

When the monitoring button is enabled, the level meter next to the fader shows the input level to the audio track. When the monitoring button is disabled, the meter fader shows the audio track output level.

- 14** While playing your instrument, adjust the output level of the H4n to achieve a suitable recording level for Cubase LE.



The recording level for Cubase LE can be checked with the levelmeter for the channel that is assigned to the recording standby track. Set the level as high as possible without causing the meter to reach the end of the scale.

To adjust the level, do not use the fader of Cubase LE. Instead change the recording level and gain settings at the H4n.

NOTE

- While the monitoring button is enabled, the direct signal input to the H4n and the signal routed to the computer and then returned to the H4n will be output simultaneously from the H4n, causing a flanger-like effect in the sound. To accurately monitor the sound also while adjusting the recording level, temporarily set the output device port for the VST connection (step 6) to "Not Connected".
- The level meter as in the above illustration shows the signal level after processing in the Cubase LE. When you pluck a guitar string the meter may register with a slight delay, but this is not a defect.

- 15** When the recording level has been adjusted, click the monitoring button to disable it.

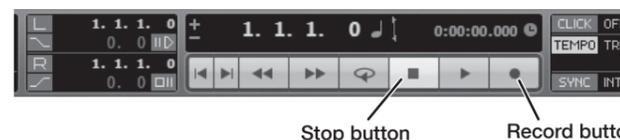
The input level is no longer shown on the meter, and the signal returned to the H4n via the computer is muted. In this condition, only the signal before sending to the computer can be monitored via the [PHONES/LINE] jack of the H4n.

- 16** Verify that the transport panel is being shown.



If the transport panel is not shown, access the "Transport" menu and select "Transport Panel".

- 17** To start recording, click the Record button in the transport panel.



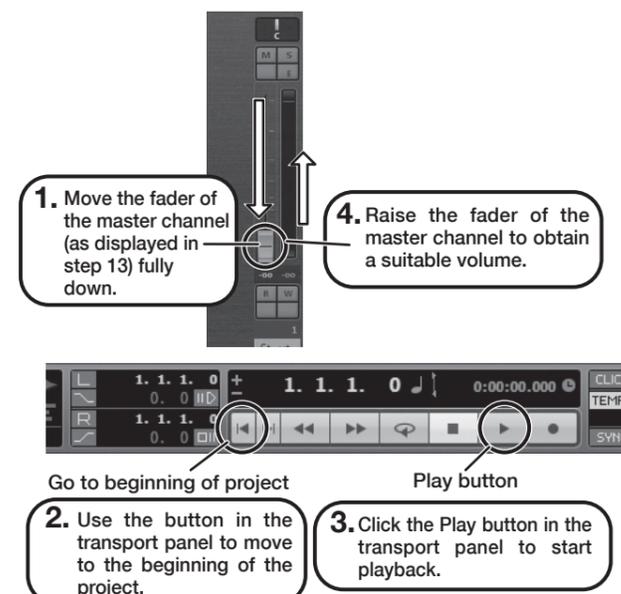
Recording starts.

As you play your instrument, the waveform appears in real time in the project window.

To stop recording, click the Stop button in the transport panel.

- 18** Check the recorded content.

To play the recording, perform the following steps.



Go to beginning of project

Play button

- 2.** Use the button in the transport panel to move to the beginning of the project.

- 3.** Click the Play button in the transport panel to start playback.

HINT

If no sound is heard when you click the Play button after recording, check the VST connection settings (step 6) once more.

NOTE

To continue using Cubase LE, a process called activation (license authentication and product registration) is necessary. When you start Cubase LE, a screen offering to register the product will appear. Select "Register Now". A web site for registration will open in your Internet browser. Follow the instructions on that page to register and activate the product.

For optimum enjoyment

While using Cubase LE, other applications may slow down drastically or a message such as "Cannot synchronize with USB audio interface" may appear. If this happens frequently, consider taking the following steps to optimize the operation conditions for Cubase LE.

- Shut down other applications besides Cubase LE. In particular, check for resident software and other utilities.
- Reduce plug-ins (effects, instruments) used by Cubase LE. When there is a high number of plug-ins, the computer's processing power may not be able to keep up. Reducing the number of tracks for simultaneous playback can also be helpful.
- Power the unit from an AC adapter. When a device designed to use USB power is powered via the USB port, the current supply may sometimes fluctuate, leading to problems. See if using an AC adapter improves operation.

If applications still run very slowly or the computer itself does not function properly, disconnect this unit from the computer and shut down Cubase LE. Then reconnect the USB cable and start Cubase LE again.