

# MOTU Pro Audio Driver Read Me

The MOTU Pro Audio driver is now available for download at [motu.com/download](http://motu.com/download) or [motu.com/avb](http://motu.com/avb). Rewritten from the ground up, this new driver provides high-performance support for Thunderbolt and USB on both Mac and Windows for MOTU's latest-generation audio interface models:

Model	Supported busses	OS X	Windows
1248	Thunderbolt USB	10.8 or later	Thunderbolt: Windows 10 USB: Windows 7 or later
8M	Thunderbolt USB	10.8 or later	Thunderbolt: Windows 10 USB: Windows 7 or later
16A	Thunderbolt USB	10.8 or later	Thunderbolt: Windows 10 USB: Windows 7 or later
112D	Thunderbolt USB	10.8 or later	Thunderbolt: Windows 10 USB: Windows 7 or later
24Ai	USB	10.8 or later	Windows 7 or later
24Ao	USB	10.8 or later	Windows 7 or later
Monitor 8	USB	10.8 or later	Windows 7 or later
Stage-B16	USB	10.8 or later	Windows 7 or later
UltraLite AVB	USB	10.8 or later	Windows 7 or later

## IMPORTANT: NEW FIRMWARE IS REQUIRED

Before using the new Pro Audio drivers, please update the firmware in your MOTU interface to version 1.2.7 or later. If your interface is connected to a computer with internet access, visit the Device tab in the web app and look for the firmware update banner across the top of the page, which includes one-click access to the firmware update. Scroll to the bottom of the page to view the current firmware version installed in your interface. You can also visit [motu.com/avb](http://motu.com/avb) to download the firmware update file for off-line updating.

To access the web app, launch the *MOTU Discovery* app in your Mac's Applications folder or the Windows task bar.

## DRIVER INSTALLATION

Download the MOTU Pro Audio installer for Mac or Windows from [motu.com/avb](http://motu.com/avb) or [motu.com/download](http://motu.com/download). Launch the installer and follow the directions it gives you.

☛ If this is your first time installing the driver, we recommend that you run the software installer *before* you connect your MOTU interface to your computer and power it on. This ensures that all driver components are properly installed in your system.

## WHAT'S NEW IN THE MOTU PRO AUDIO DRIVER

The MOTU Pro Audio driver provides the following significant changes and enhancements.

### Thunderbolt support for both Mac and Windows

You can now connect your Thunderbolt-equipped MOTU interface (1248, 8M, 16A or 112D) to a Thunderbolt-equipped PC and access up to 128 channels of simultaneous audio input and output using the MOTU Pro Audio ASIO driver. On OS X, the MOTU Pro Audio Core Audio driver provides similar high-bandwidth Thunderbolt I/O for Mac audio applications. On both Mac and Windows, you will enjoy access to very low buffer settings and extremely low I/O latency performance from your host audio software.

### Industry-leading I/O latency performance

On OS X and Windows, the MOTU Pro Audio driver provides exceptionally low I/O latency performance for both Thunderbolt and USB operation. For example, with a 32-sample buffer size, a 1248 interface operating at 96 kHz produces round trip latency (RTL) performance of 1.9 milliseconds (ms) over Thunderbolt on Windows and 1.6 ms on OS X. RTL is the measurement of the time it takes audio to pass from an analog input, through a high-performance DAW host such as Digital Performer, to an analog output.

Consult your MOTU interface User Guide for further information about latency.

### Simplified operation

On Windows, driver settings are no longer accessed through a Windows control panel. Instead, the *Buffer Size* and *Host Safety Offset* settings are now conveniently located in the web app Device tab for your interface, as shown in Figure 1.

☛ The *USB Streaming Mode* setting in the Windows control panel from earlier versions of the USB Windows drivers has been replaced by the new *Host Safety Offset* setting in the web app Device tab. With an expanded menu of safety offset settings, this parameter now offers more user control over latency performance.

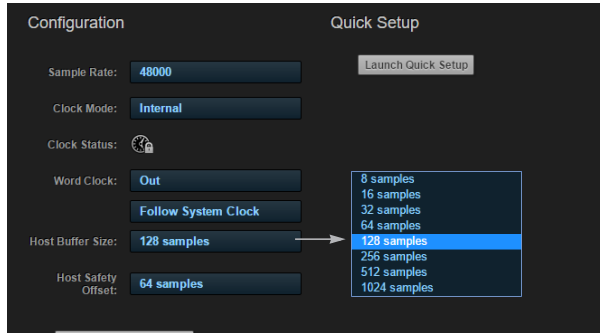


Figure 1: Access the 'Host Buffer Size' and 'Host Safety Offset' settings in the web app Device tab for your MOTU interface.

### Host Buffer Size

When connected to a Windows host, the *Host Buffer Size* menu (Figure 1) is available. This setting determines the amount of latency (delay) you may hear when live audio is patched through your Windows audio software. Smaller buffer sizes produce lower latency, with sizes of 256 samples or less producing virtually imperceptible delay. Many host applications report audio hardware I/O latency, so you can see what happens to the reported latency when making adjustments to this setting.

Be careful with very small buffer sizes, as they can cause performance issues from your host software or PC.

See your MOTU audio interface User Guide for further information about latency.

🔊 At sea level, audio travels approximately one foot (30 cm) per millisecond. A latency of ten milliseconds is about the same as being ten feet (three meters) from an audio source.

### Host Safety Offset

When connected to a Windows host, the *Host Safety Offset* menu (Figure 1) also becomes available. This setting allows you to fine tune host latency. Larger offsets allow the driver more time to process audio as it transfers to and from the hardware. Lower settings produce lower latency, but if you go too low, your host software may experience performance issues. Generally speaking, 48 samples should serve as a good baseline setting. You can then experiment with lower settings from there. Be mindful, however, when reducing the safety offset, as this parameter can have a significant impact on your computer system's performance.

### WDM / Wave driver support

The new MOTU Pro Audio driver includes stereo and multi-channel support (up to 24 channels) for WDM (Wave) compatible audio software.

### USB audio class-compliant operation on OS X

All of the MOTU interfaces listed on page 1 of this document are USB audio class-compliant on OS X. This means that you can connect them to any Mac running OS X 10.8 or higher using USB for multi-channel audio I/O without having to install any drivers. For details, consult the User Guide for your MOTU interface.