

## MOTU M2

# MOTU M2 USB-C Audio Interface User Manual

Model: M2

## 1. INTRODUCTION

The MOTU M2 is a 2-in/2-out USB-C audio interface designed for high-quality audio recording and playback. It features premium ESS Sabre32 Ultra DAC technology, delivering excellent sound performance. This manual provides essential information for setting up, operating, maintaining, and troubleshooting your M2 interface.

## 2. KEY FEATURES

- **2-in/2-out Connectivity:** Two input channels and two output channels for versatile recording and monitoring.
- **24-bit/192kHz Audio Resolution:** Supports high-fidelity audio capture and playback.
- **USB-C Connection:** Modern, high-speed connectivity for reliable performance.
- **Two Preamps:** Equipped with two microphone/line/instrument preamps, each with individual gain control and switchable 48V phantom power.
- **Hardware Monitoring:** Direct monitoring capability for zero-latency input monitoring.
- **ESS Sabre32 Ultra DAC Technology:** Ensures professional-grade audio conversion.
- **Loopback Functionality:** Allows for easy routing of computer audio back into your recording software.
- **Included Software:** Access to over 6GB of free content, compatible with macOS, Windows, and iOS.

## 3. SETUP GUIDE

### 3.1 Driver Installation

Before connecting your MOTU M2, it is crucial to install the latest drivers for your operating system. Visit the official MOTU website to download the appropriate drivers for macOS or Windows. For iOS devices, the M2 is class-compliant and typically does not require additional drivers.

### 3.2 Hardware Connection

1. **Connect to Computer:** Use the provided USB-C cable to connect the M2 to an available USB port

on your computer. Ensure the connection is secure.

2. **Power On:** Press the power button located on the rear panel of the M2. The front panel display will illuminate.
3. **Connect Inputs:** Plug your microphones (XLR) or instruments (1/4-inch TS) into the combo input jacks (IN 1L, IN 2R) on the front panel.
4. **Connect Outputs:** Connect your studio monitors to the main output jacks (1/4-inch TRS or RCA) on the rear panel. For headphone monitoring, plug your headphones into the 1/4-inch jack on the front panel.
5. **MIDI Devices (Optional):** If using MIDI devices, connect them to the MIDI IN and MIDI OUT ports on the rear panel.



Figure 3.2.1: Front view of the MOTU M2 audio interface, showing input jacks, gain knobs, 48V phantom power buttons, monitor buttons, and the main display.



Figure 3.2.2: Rear view of the MOTU M2 audio interface, displaying the power button, MIDI In/Out ports, USB-C port, and main monitor outputs (TRS and RCA).

## 4. OPERATING INSTRUCTIONS

### 4.1 Input Level Adjustment

Use the **GAIN** knobs for IN 1L and IN 2R on the front panel to adjust the input level of your connected microphones or instruments. Observe the input meters on the front display to ensure levels are optimal and not clipping (peaking into the red).



Figure 4.1.1: The MOTU M2 with XLR and 1/4-inch cables connected to the front inputs, demonstrating typical input connections.

## 4.2 Phantom Power (48V)

For condenser microphones that require external power, press the **48V** button located below each input's gain knob. The button will illuminate to indicate phantom power is active. Ensure dynamic microphones or ribbon microphones do not have phantom power applied unless specifically designed for it.

## 4.3 Direct Monitoring

Press the **MON** button for each input channel to enable direct hardware monitoring. This allows you to hear your input signal directly through the M2's outputs with zero latency, which is beneficial during recording to avoid delays between playing and hearing your performance.

## 4.4 Output Level Control

- **Main Monitor Output:** The large **MONITOR** knob on the front panel controls the overall output level to your studio monitors connected to the rear panel.
- **Headphone Output:** The dedicated headphone volume knob adjusts the listening level for headphones connected to the front panel.

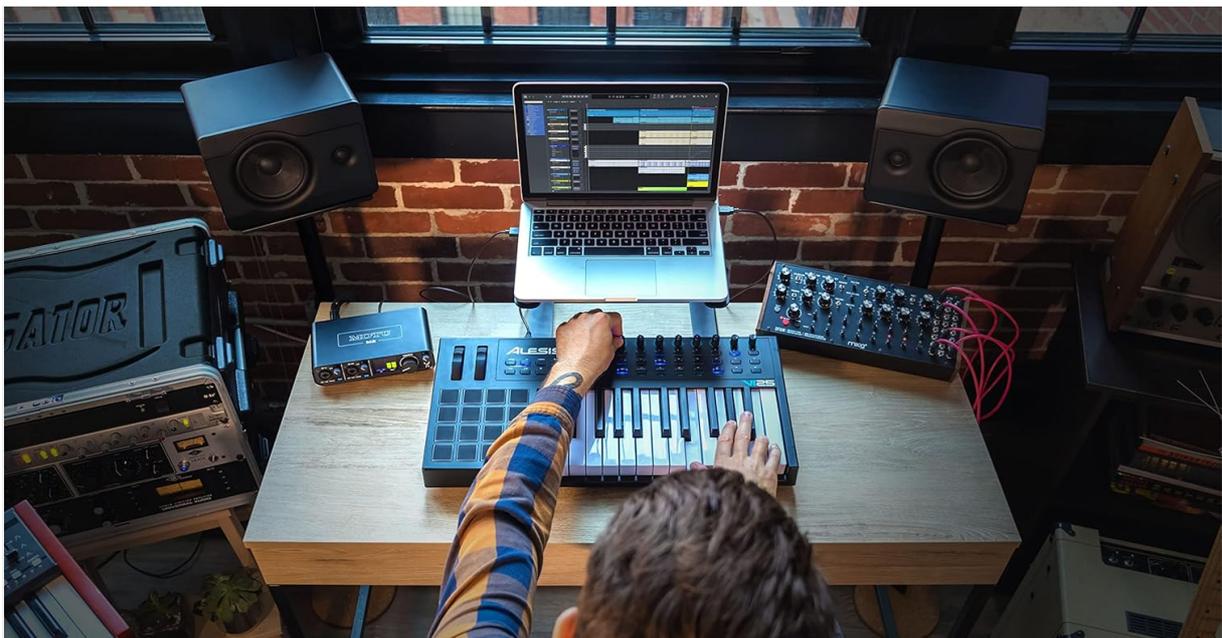


Figure 4.4.1: The MOTU M2 in use with a keyboard and headphones, illustrating a typical music production setup.

## 4.5 Loopback Functionality

The MOTU M2 offers loopback channels, which allow you to capture the audio playing from your computer and route it back into your recording software. This is useful for recording audio from web browsers, video

calls, or other applications alongside your live inputs. Refer to your operating system's sound settings or your Digital Audio Workstation (DAW) for specific configuration details.

## 5. MAINTENANCE

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### 5.1 Cleaning

To maintain the appearance and functionality of your M2, wipe the exterior with a soft, dry cloth. Avoid using abrasive cleaners, solvents, or waxes, as these can damage the finish or internal components.

### 5.2 Software Updates

Regularly check the official MOTU website for driver and firmware updates. Keeping your M2's software up-to-date ensures optimal performance, compatibility with new operating systems, and access to potential new features or bug fixes.

### 5.3 Storage

When not in use, store the M2 in a clean, dry environment away from extreme temperatures and direct sunlight. If transporting the unit, consider using a protective case to prevent physical damage.

## 6. TROUBLESHOOTING

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This section addresses common issues you might encounter with your MOTU M2.

### 6.1 No Sound from Outputs

- **Check Connections:** Ensure all cables (USB-C, monitor, headphone) are securely connected.
- **Volume Levels:** Verify that the MONITOR knob and headphone volume knob are turned up. Check volume levels in your operating system and DAW.
- **Driver Installation:** Confirm that the correct MOTU M2 drivers are installed and recognized by your computer.
- **System Audio Settings:** Ensure the MOTU M2 is selected as the default audio input and output device in your computer's sound settings and your DAW.

### 6.2 Input Signal Issues (No Signal or Distortion)

- **Gain Levels:** Adjust the GAIN knobs for the input channels. If the signal is too low, increase gain. If it's distorting, reduce gain. The front panel meters should show a healthy signal without clipping.
- **48V Phantom Power:** For condenser microphones, ensure 48V phantom power is enabled.
- **Cable Integrity:** Test with different cables to rule out faulty connections.
- **Direct Monitoring:** If you are hearing a delayed signal, ensure direct monitoring is enabled (MON button) and software monitoring in your DAW is disabled.

### 6.3 Latency Issues

High latency can occur during recording. To minimize this:

- **Buffer Size:** Reduce the buffer size in your DAW's audio settings. Lower buffer sizes reduce latency but require more CPU power.
- **Direct Monitoring:** Utilize the M2's hardware direct monitoring feature (MON button) to eliminate input latency during recording.
- **Driver Optimization:** Ensure you have the latest MOTU drivers installed. Some operating systems

may require specific driver settings for optimal low-latency performance.

## 6.4 Interface Not Recognized by Computer

- **USB Port:** Try connecting the M2 to a different USB port on your computer. Ensure it's a USB 2.0 or 3.0/3.1/3.2 port.
- **Reboot:** Restart your computer and the M2.
- **Driver Reinstallation:** Uninstall and reinstall the MOTU M2 drivers.

For further assistance, refer to the comprehensive support resources on the official MOTU website or contact their customer support.

## 7. SPECIFICATIONS

Feature	Specification
Model Number	M2
Item Weight	1.35 pounds (0.61 kg)
Product Dimensions	7.5 x 4.25 x 1.75 inches (19.05 x 10.8 x 4.45 cm)
Number of Channels	2 Input / 2 Output
Connectivity Technology	USB-C
Hardware Interface	USB
Compatible Devices	Personal Computer (macOS, Windows, iOS)
Operating System	Windows, macOS, iOS
Color Name	Black

## 8. WARRANTY AND SUPPORT

### 8.1 Warranty Information

The MOTU M2 USB-C Audio Interface is covered by a manufacturer's warranty. For detailed information regarding warranty terms, duration, and coverage, please refer to the warranty card included with your product or visit the official MOTU website. Keep your proof of purchase for warranty claims.

### 8.2 Customer Support

If you encounter issues not covered in this manual or require further technical assistance, please contact MOTU customer support. Support resources, including FAQs, driver downloads, and contact information, are available on the official MOTU website: [motu.com/support](https://motu.com/support).

	<p><a href="#">MOTU 8pre USB User's Guide for Mac OS X</a></p> <p>Comprehensive user guide for the MOTU 8pre USB audio interface and analog-to-digital converter, covering installation, setup, operation, software configuration, troubleshooting, and safety precautions for Mac OS X users.</p>
	<p><a href="#">MOTU 8D User Guide: Setup, Features, and Operation</a></p> <p>Comprehensive user guide for the MOTU 8D digital audio interface, covering setup, hardware and software installation, AVB networking, DSP mixing, effects, and troubleshooting. Learn to connect, configure, and utilize the 8D for professional audio applications.</p>
	<p><a href="#">MOTU 896 User's Guide: Installation, Features, and Operation</a></p> <p>Comprehensive user manual for the MOTU 896 audio interface. Covers hardware setup, software integration with Digital Performer and AudioDesk, safety precautions, and technical specifications for professional audio recording.</p>
	<p><a href="#">MOTU 896HD User's Guide for Macintosh</a></p> <p>Explore the comprehensive user's guide for the MOTU 896HD, a powerful 19-inch rack-mountable FireWire audio interface designed for Macintosh computers. Learn about its extensive connectivity, high-quality audio performance, and integration with professional audio software.</p>
	<p><a href="#">MOTU 828x User Guide: Professional Thunderbolt/USB Audio Interface Manual</a></p> <p>Detailed user guide for the MOTU 828x, a 28x30 Thunderbolt and USB 2.0 audio interface. Learn about installation, setup, CueMix FX, and advanced features for Mac and Windows.</p>
	<p><a href="#">MOTU UltraLite-mk4 User Guide: Professional Audio Interface</a></p> <p>Explore the capabilities of the MOTU UltraLite-mk4, a high-performance 18x22 USB audio interface. This comprehensive user guide details its advanced features, including a 48-channel digital mixer, powerful DSP effects, wireless control, and exceptional audio conversion. Learn how to set up, connect, and operate the UltraLite-mk4 for studio recording, live sound, and more. Discover its extensive I/O options, intuitive web app control, and flexible routing capabilities to enhance your audio production workflow.</p>