

## Zoom H2essential

# Zoom H2 Essential 32-Bit Float Portable Multi-Mic Recorder User Manual

Model: H2essential

## 1. INTRODUCTION

The Zoom H2 Essential is a portable multi-mic recorder designed for capturing high-quality audio in various environments. Featuring 32-bit float recording technology, it eliminates the need for gain adjustment, ensuring pristine audio capture without clipping. This device includes three built-in microphones offering multiple pickup patterns, making it versatile for musicians, podcasters, and content creators.

Key features include:

- Three onboard microphones with 90° stereo, 120° stereo, and mono pickup patterns.
- Ability to select front, rear, or both microphones for surround sound recording.
- 32-bit float recording for wide dynamic range without manual gain adjustment.
- Records directly to micro SDHC / micro SDXC cards up to 2 TB.
- Functions as a 32-bit USB Microphone for computers and mobile devices.

## 2. PRODUCT OVERVIEW



**Figure 2.1:** Front view of the Zoom H2 Essential recorder, showing the main microphone grille and display screen.



**Figure 2.2:** Back view of the Zoom H2 Essential, highlighting the rear microphone grille and battery compartment.



**Figure 2.3:** Close-up of the Zoom H2 Essential's display, showing real-time audio levels for front and rear microphones.



**Figure 2.4:** Top view of the recorder, showing the record button and controls for selecting 120°, 90°, and Mono microphone patterns.

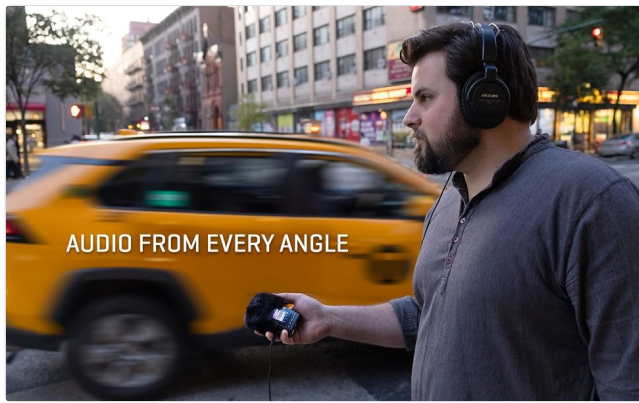


**Figure 2.5:** The Zoom H2 Essential positioned to record a live music performance, demonstrating its use in an ambient setting.

## Product Video Overview

**Video 2.1:** An official product overview video demonstrating the features and functionality of the Zoom H2 Essential recorder.

## 3. SETUP

### 3.1. Power Supply

The H2 Essential operates on 2 AA batteries. It supports Alkaline, Lithium, or Rechargeable NiMH batteries. For continuous power, it can be powered via a USB-C connection (DC 5V/1A) using an AC adapter (ZOOM AD-17 recommended) or USB bus power.

### 3.2. Inserting Batteries

1. Locate the battery compartment on the back of the device.
2. Open the battery cover.
3. Insert 2 AA batteries, ensuring correct polarity (+/-).
4. Close the battery cover securely.

### 3.3. Inserting a Micro SD Card

The H2 Essential records to micro SDHC / micro SDXC cards up to 2 TB. A micro SD card is required for recording audio.

1. Locate the micro SD card slot on the side of the device.
2. Insert the micro SD card into the slot until it clicks into place.
3. To remove, gently push the card until it springs out.

### 3.4. Powering On/Off

- To power on: Press and hold the power button until the display illuminates.
- To power off: Press and hold the power button until the device shuts down.

## 4. OPERATING THE H2 ESSENTIAL

### 4.1. Microphone Pickup Patterns

The H2 Essential features three built-in microphones that can be configured for various recording scenarios:

- **90° Stereo:** Captures a focused stereo image, ideal for individual instruments or vocals.
- **120° Stereo:** Provides a wider stereo field, suitable for groups or broader soundscapes.
- **Mono:** Records a single channel, useful for interviews or direct sound sources.
- **Surround Sound:** Combine FRONT and REAR microphone elements to capture immersive 360-degree audio.

Use the dedicated buttons on the top of the device to select your desired pickup pattern. Note that pickup patterns cannot be changed while recording is active.

### 4.2. 32-Bit Float Recording

The 32-bit float recording capability eliminates the need for manual gain adjustments. This means you can record without worrying about clipping or distortion, as the recorder captures a vast dynamic range. Audio levels can be adjusted in post-production without loss of quality.

### 4.3. USB Microphone Function

The H2 Essential can function as a 32-bit USB microphone when connected to a computer or compatible mobile device via its USB-C port. This allows for direct high-quality audio input for streaming, podcasting, or recording directly to your digital audio workstation (DAW).

### 4.4. Connecting External Devices

- **3.5mm Line In (Rear):** Connect external microphones or line-level audio sources. Plugging into this input disables the rear built-in microphone.
- **3.5mm Line Out / Headphones Jack:** Connect headphones for monitoring recorded audio or output audio to other devices. The volume knob on the side controls the output level.
- **USB 3.0 Type C:** Used for power, data transfer, and USB microphone functionality.

## 5. BATTERY LIFE INFORMATION

Estimated continuous operation times using different battery types for front stereo recording (48 kHz/32-bit float, no headphones or remote, Power Saving time set to 1 minute). These values are approximate and may vary based on usage conditions.

| Battery Type              | Approximate Runtime |
|---------------------------|---------------------|
| Alkaline batteries        | About 11 hours      |
| NiMH batteries (1900 mAh) | About 9 hours       |
| Lithium batteries         | About 20.5 hours    |

When using **FRONT+REAR stereo recording**, runtimes are:

| Battery Type              | Approximate Runtime |
|---------------------------|---------------------|
| Alkaline batteries        | About 8 hours       |
| NiMH batteries (1900 mAh) | About 8 hours       |
| Lithium batteries         | About 17.5 hours    |

When using **FRONT stereo + external mic recording** (96kHz/32-bit float with headphones (33Ω load) and remote, Power Saving time set to 1 minute), runtimes are significantly reduced:

| Battery Type              | Approximate Runtime |
|---------------------------|---------------------|
| Alkaline batteries        | About 4 hours       |
| NiMH batteries (1900 mAh) | About 4.5 hours     |
| Lithium batteries         | About 9.5 hours     |

## 6. MAINTENANCE

- **Cleaning:** Use a soft, dry cloth to clean the exterior of the device. Do not use liquid cleaners or solvents.
- **Storage:** Store the H2 Essential in a cool, dry place away from direct sunlight and extreme temperatures. Remove batteries if storing for extended periods to prevent leakage.
- **Microphone Care:** Avoid exposing the microphone grilles to dust, moisture, or physical impact.

## 7. TROUBLESHOOTING

- **Device not powering on:** Check battery installation and charge level. Ensure external power is connected correctly if not using batteries.
- **No audio recording:** Verify that a micro SD card is inserted and has sufficient free space. Ensure the correct microphone pattern is selected.
- **Cannot change microphone patterns during recording:** This is expected behavior. Microphone pickup patterns can only be changed when the device is not actively recording. Stop recording, adjust the pattern, then resume.
- **Bright LED lights in dark environments:** The H2 Essential's LED indicators and LCD screen are designed to be bright for visibility in various conditions. There is no option to dim these lights. Consider positioning the device to minimize light spill if this is an issue for your recording environment.
- **External microphone not working:** Ensure the external microphone is properly connected to the 3.5mm Line In jack. Note that plugging into this jack disables the rear built-in microphone.

## 8. SPECIFICATIONS

| Feature                 | Detail                                 |
|-------------------------|----------------------------------------|
| Model Number            | H2essential                            |
| Product Dimensions      | 3.82 x 2.36 x 1.73 inches              |
| Item Weight             | 6.7 ounces (170 g including batteries) |
| Batteries Required      | 2 AA batteries                         |
| Compatible Devices      | Personal Computer                      |
| Hardware Interface      | USB 3.0 Type C                         |
| Microphone Form Factor  | Built-In                               |
| Recording Format        | WAV (32-bit float)                     |
| Headphones Jack         | 3.5 millimeters                        |
| Memory Storage Capacity | Up to 2 TB (micro SDHC / micro SDXC)   |
| Power Consumption       | 3 W maximum                            |

## 9. WARRANTY AND SUPPORT

For warranty information, technical support, and the latest firmware updates, please visit the official Zoom website or contact your local Zoom distributor. Keep your purchase receipt as proof of purchase for warranty claims.

Manufacturer: Zoom

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### ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page’s manual context to help answer it.

Name

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After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

#### Question

Example: How do I reset this device or fix this error?

#### Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question