
W-BM1

Stereo Binaural Microphone

Instruction Manual

WHISMR

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Before You Begin

Thank you for purchasing the W-BM1 Stereo Binaural Microphone.

Before use, please read this instruction manual carefully to ensure correct and safe operation, and keep it in an accessible place for future reference.

All persons operating this product should read the Safety Information on the following pages before use.

Safety Information

WARNING

Indicates a hazard that could result in death or serious injury if not avoided.

CAUTION

Indicates a hazard that could result in injury or property damage if not avoided.

Warnings

- Do not subject the microphone to strong impacts.
- Do not disassemble, modify, or attempt to repair this product.
- Do not touch the product with wet hands. Doing so may result in electric shock or injury.
- When using this product in public spaces such as streets or parks, be mindful of your own safety and the safety of those around you.
- Listening to recorded or monitored audio at high volume for extended periods may damage your hearing.

Cautions & Handling Precautions

- Do not place this product in direct sunlight, near heating equipment, or in locations subject to high humidity or excessive dust.
- Do not strike, drop, or apply excessive force to this product.
- Do not allow water or foreign objects to enter the interior of this product.

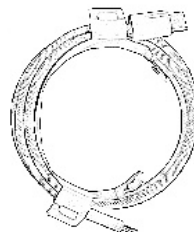
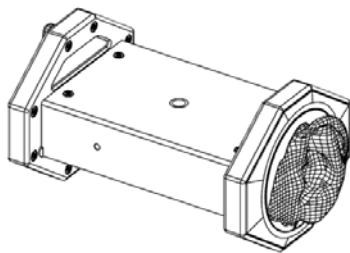
Handling Precautions

- Always hold the plug (not the cable) when connecting or disconnecting the USB cable. Pulling on the cable may cause damage or malfunction.
- Before any important recording, always make a test recording first to confirm that the product is recording correctly.
- Correct operation is not guaranteed with every PC or smartphone model.
- If the panel becomes dirty, wipe it with a soft, dry cloth.
- Remove dust from the silicone ear (pinna) parts using low-tack tape, and wipe off stains with a soft, damp cloth.

Package Contents

W-BM1 Basic Set

- W-BM1 microphone unit
- USB Type-C to Type-C cable (1 m)
- This instruction manual (with warranty card)



Part Names — Front & Back

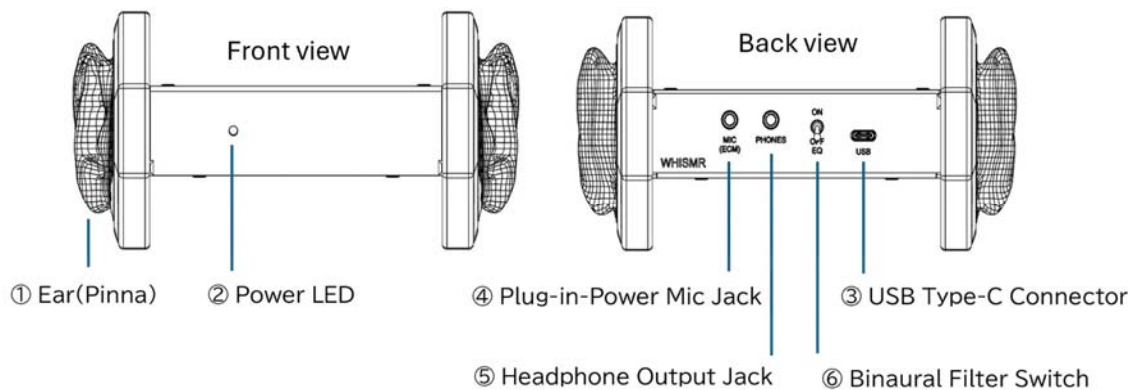


Fig. 1 — W-BM1 front and back view

1 Ear (Pinna) — Human-ear-shaped silicone pinnae that provide directional cues for binaural recording. Orient the front of the W-BM1 toward the primary sound source. Soft, skin-like silicone.

2 Power LED — Green when connected to a device; red when the recording level is saturated.

3 USB Type-C Connector — Connects to a PC, smartphone, or other device.

4 Plug-in-Power Mic Jack — For an optional external ECM microphone only. The internal mic is disabled when in use.

5 Headphone Output Jack — Connects headphones; volume is set on the connected device.

6 Binaural Filter Switch — Normally OFF (down). Select ON (up) for use cases such as live streaming.

Part Names — Top, Bottom & Side

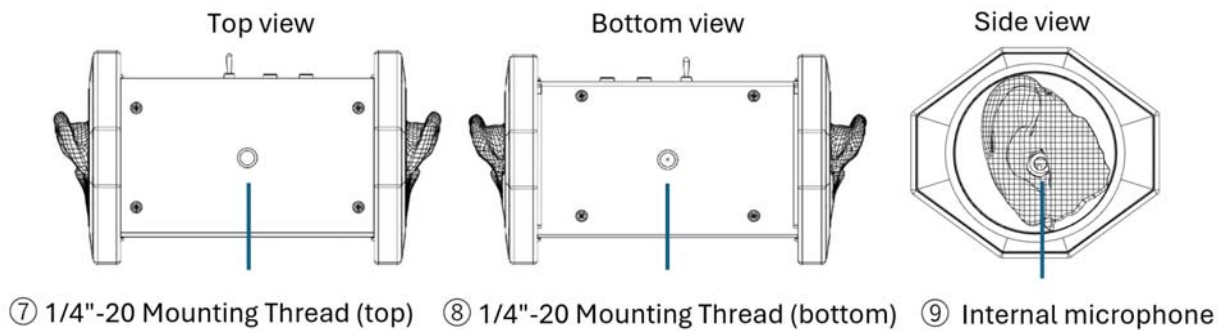


Fig. 2 — W-BM1 top, bottom & side view

Mounting Points

7 1/4"-20 Mounting Thread (top) — For attaching optional accessories.

8 1/4"-20 Mounting Thread (bottom) — For attaching a stand.

9 Internal microphone — Disabled when an external ECM microphone is connected. When placed on a flat surface, the angle can be adjusted up or down in approximately 45° increments.

Connecting the W-BM1

Connecting Your Device

The W-BM1 has a built-in audio interface compatible with UAC 1.0 and USB 2.0 Full-Speed, so it works as a plug-and-play device on major operating systems without additional software.

1. Connect the W-BM1 to your device using a USB cable (USB Type-C ↔ Type-C or Type-A).
2. Optionally, attach a stand with a 1/4"-20 mounting screw to the bottom 1/4-inch hole.

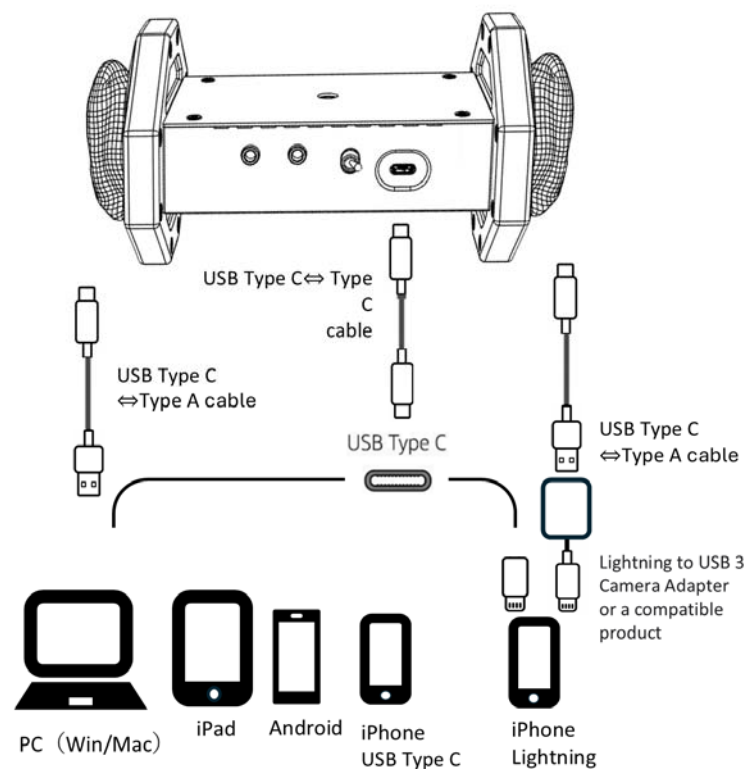


Fig. 3 — Connecting the W-BM1

NOTE: The smartphone must support USB host operation and USB audio devices.

NOTE: iPhone 14 and earlier require a Lightning USB 3 Camera Adapter or compatible Lightning (male) to USB-C (female) adapter.

NOTE: Some Android smartphone models may not be compatible, depending on the device.

Recording on a PC (Windows)

Choosing Recording Software

A wide range of third-party recording programs can be downloaded online. Use software that supports stereo recording; on a smartphone, use an app that supports an external microphone.

Initial Setup & Recording Level

- Go to Settings > System > Sound > Input and select “W-BM1 v001.” To monitor or play back through the W-BM1’s headphone jack, also select “W-BM1 v001” under Output.
- In the same panel, adjust the recording level using the volume slider as needed (default: 85).

NOTE: The recording level control adjusts the W-BM1’s built-in microphone gain stage, before A/D conversion.

Monitor Setup & Troubleshooting

Monitoring Through the W-BM1 Headphone Jack

After completing the recording setup above, open the advanced sound settings.

On the Recording tab, select “Microphone (W-BM1 v001)”. Then open the Listen tab, check “Listen to this device”, and click Apply.

NOTE: PC monitor audio is a loopback signal and has a slight delay.

NOTE: PC monitor audio reflects the effect of the Binaural Filter switch.

Troubleshooting: Recording Level Cannot Be Adjusted

On some PCs with the Intel® Smart Sound Technology driver installed, the recording level may not be adjustable. If this occurs, try the following in order:

1. Update Windows to the latest version and run Windows 11 repair/reset.
2. If not resolved, disable the Intel® Smart Sound Technology driver.
3. Using a USB Type-A↔Type-C cable that supports data transfer, change the USB port on your PC (front/back).

Recording on iPhone

Recording Video & Audio

You can capture binaural recordings using the standard iPhone Camera app. For binaural audio, go to Settings > Camera > Record Sound and select Stereo. To record audio only, use an audio recording app that supports stereo input from an external USB microphone. See the app's documentation for details.

Recording Level

The USB recording level (mic gain) defaults to +18 dB, which gives good results in typical environments. Apps that support mic gain control allow finer adjustment.

“WHISMR Recorder” (iPhone app by WHISMR) provides fine mic-gain adjustment; the adjusted level is also saved and used by other apps, including the standard Camera app — useful for loud environments or close-up recording. See whismr.com for details.

iPhone: Simultaneous Monitoring

iPhone 14 and Earlier

Monitor audio is output from the headphone jack by default. After you start recording, adjust the monitor volume using the iPhone's own playback volume control. This is direct monitoring and does not reflect the Binaural Filter switch.

iPhone 15 and Later

For simultaneous monitoring, use an app that supports feedback monitoring. Visit the WHISMR website for a list of compatible apps.

NOTE: Raising the playback volume too high may cause feedback (howling). Start at a low volume and increase it gradually.

Recording on Android

Recording Video & Audio

Binaural recording has been confirmed to work with “Open Camera” (open-source software). For audio-only recording, use an app that supports a stereo external microphone, such as a voice recorder app.

NOTE: Some Android models may not be compatible, depending on the device.

NOTE: When playing back on a smartphone, turn off the phone's built-in sound effects for the best listening experience.

Recording Level

The USB recording level (mic amp gain) defaults to +18 dB, which provides good results in typical environments.

The Android app “WHISMR Remote” allows fine mic gain adjustment — useful in loud environments or for close-up recording. Available on Google Play.

Android: Monitoring & Open Camera Setup

Simultaneous Monitoring

Whether headphone-jack monitor output is available by default depends on your Android device. If your device does not output monitor audio, use one of the following methods:

- Use a recording app that supports turning monitor audio ON/OFF.
- Use the WHISMR Remote app to turn monitoring ON. Once enabled, the setting is retained across other apps.

NOTE: WHISMR Remote is available on Google Play. See the WHISMR website for details.

Open Camera Settings (Reference)

1. In the app, go to Settings > Video Settings > Audio Source.
2. Select “External microphone (if connected).”
3. Under Audio Channels, select “Stereo (if supported).”

Technical Reference: Binaural Filter

Sound captured by a binaural microphone with pinnae (outer ears) acquires a characteristic frequency response due to the influence of the pinnae, which can affect the sound during playback.

Measurement data from an overseas research institute show a peak around 4–6 kHz, corresponding to the response at the human ear-canal entrance or the eardrum position of a typical dummy head. Audio with this response sounds treble-emphasized when played through speakers. A response without a pronounced 4–6 kHz peak — corrected by equalization — produces natural-sounding speaker playback.

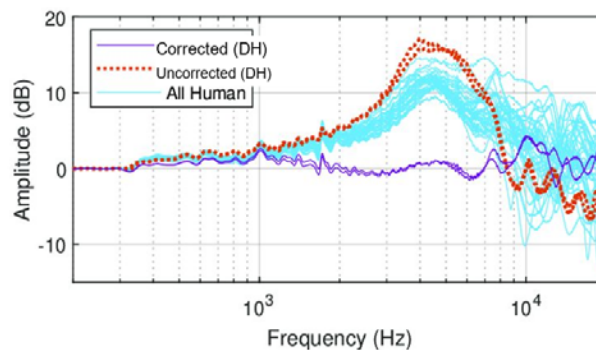


Fig. 4(a) — Binaural microphone frequency response (measurement data)

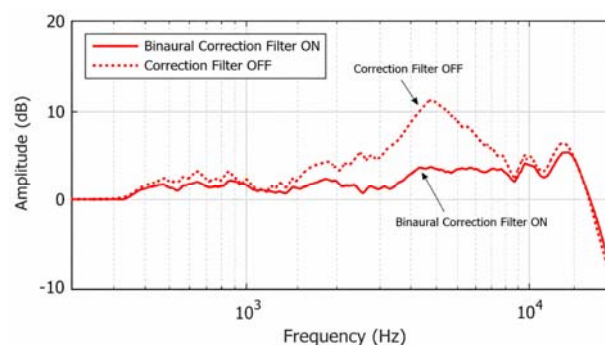


Fig. 4(b) — Correction effect of the W-BM1 Binaural Filter

The W-BM1's Binaural Filter applies this correction digitally, providing natural, less treble-emphasized sound for use cases such as speaker playback.

Source: “A Perceptual Evaluation of Individual and Non-Individual HRTFs: A Case Study of the SADIE II Database,” C. Armstrong, L. Thresh, D. Murphy, and G. Kearney, Audio Lab, Department of Electronic Engineering, University of York.

Specifications

Specification	Details
Type	Binaural microphone with pinnae
Max Input Sound Pressure	120 dB SPL
S/N Ratio	75 dB (at 1 kHz)
Frequency Response	20 Hz – 20 kHz
Input Gain	Default: +18 dB / PC-adjustable: up to +45 dB
Recording Format	Maximum Recording Format: 96 kHz / 24-bit (depending on the recording app and connected device)
Power Supply	USB bus power (approx. 80 mA)
Connectors	USB Type-C connector; stereo mini jack (headphone output); stereo mini jack (mic input, optional); Binaural Filter switch (ON/OFF)
Dimensions	170 (W) × 100 (D) × 80 (H) mm
Weight	Approx. 290 g

Specifications and appearance are subject to change without notice for product improvement.

FCC Compliance Statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Modifications

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

Responsible Party

Company Name: Americas Compliance Consulting LLC dba iCertifi

Address: 5809 US-2, Suite B, Albeni Plaza, Priest River, Idaho 83856, United States

Phone: +1 (866) 885-4575

Email: fccagent@icertifi.com

Warranty & Support

One-Year Limited Warranty

This product is covered by a one-year limited warranty against defects in materials and workmanship from the date of original purchase.

Please retain your original sales receipt or other proof of purchase, as it may be required to obtain warranty service.

This warranty does not cover damage resulting from misuse, abuse, unauthorized modification or repair, accidents, improper handling, or normal wear and tear.

Amazon Returns

For returns related to your Amazon purchase, please follow Amazon's return procedures.

Warranty service for product defects occurring after the applicable Amazon return period is handled by WHISMR.

How to Obtain Warranty Service

If you experience a problem with your W-BM1 during the warranty period, please contact WHISMR through our official support page before returning the product.

Please do not send the product to WHISMR in Japan without receiving return instructions from us.

After confirming the issue and determining that the product is covered by the warranty, WHISMR will, at its discretion, repair the product or provide a replacement product of the same or equivalent model.

For customers in the United States, warranty replacement products may be shipped from a U.S.-based fulfillment facility. If a defective product needs to be returned, WHISMR will provide return instructions.

For warranty service, please contact us through:

<https://whismr.com/en/contact/>

When contacting support, please provide:

Product name: W-BM1

Serial number

Description of the problem

Date of purchase

Proof of purchase, if requested

Product Support

For product support, troubleshooting, or warranty inquiries, please visit:

<https://whismr.com/en/contact/>

When contacting support, please provide: the product name (W-BM1), a description of the issue, and your date of purchase.

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