

SECTION L: COMMUNITY RECORDING WITH THE ZOOM H6 HANDY RECORDER

QUICK-START GUIDE

This short guide will help you use your Zoom H6 Handy Recorder. The Zoom H6 is a high-quality, but easy-to-use handheld audio recording device. This makes it a great fit for community recording. With a little bit of experience, you will soon be comfortable recording Traditional Knowledge in your community: a precious gift for future generations. For more about community audio recording, please refer to Inspired Practices for Documenting Traditional Knowledge with Community Recording [Section L Appendix C].

We will start with a short orientation to the recorder, including basic set up. We will then move on to preparing for recording, selecting microphones, and setting volume gain. Finally, we will discuss how to record and make back-ups. Further sources for community recording, more advanced Zoom Recorder techniques, and troubleshooting can be found at the end of this guide.

STEP 1: SET UP YOUR RECORDER

Take your Zoom H6 Recorder out of its case and flip it over. On the bottom (Figure 1) of your Zoom H6, you will find a **battery panel**. Remove the panel by pushing the tab towards the “Open ^” label. Insert four fully charged AA batteries as shown.



Figure 1: Bottom of Zoom 6 (left) and Zoom 6 with battery panel removed (right).

On the left side of your Zoom H6 Handy Recorder (Figure 2), you will find your first two XLR and line **microphone**

inputs. Next to them is a space to insert your **memory card**, as well as a **headphone** output jack and volume control.

Open the SD card slot and insert your SD memory card. Your memory card should have more than enough space for your session. At preservation settings, each minute of recording will need about 17.28 MB per minute or 1.037 GB per hour for each microphone used.

Near the base of the left side, you will find the **power switch**. Hold the power button down towards the bottom of the device for one second until you see the screen on top of your Zoom H6 light up. Your H6 is now powered on.



Figure 2: Left side view of the Zoom H6 Handy Recorder.

On the right side of your Zoom H6 (Figure 3), you will find your third and fourth XLR and line **microphone inputs**. You will also find the **Menu** button and a toggle switch to scroll through menu items. You can push the toggle switch in to select a menu item. Finally, you will find a **USB connection port** that you can use to power your device when plugged in. You can also use this port to upload your recordings to a computer.



Figure 3: Right side view of Zoom H6 Handy Recorder.

On the top of your Zoom H6 Handy Recorder (Figure 4), you will find a **microphone port** to attach one of the Zoom microphone capsules included in your kit. Below, you will find **volume (gain) controls** for microphones 1-4. The volume control for the Zoom microphone will look the same, but it is attached to the microphone itself. Next, you will find a row of **microphone selectors**, which let you choose which microphones are recorded. When a microphone is on, the red indicator light will turn on. Below this are a variety of **playback controls** and the **record button**. The playback controls can be used to play, pause, stop, and move forward and backward when listening to recordings. Finally, you will find a **display monitor**, shown in detail in Figure 5.



Figure 4: Top view of Zoom H6 Handy Recorder

On the **Display Monitor** (Figure 5), you will find some important information. In the top right corner, you will see **remaining battery life**. In the bottom left corner, you will see **remaining recording time**. This is estimated based on your current memory card, settings, and number of microphones. In the middle, you will see the current **recording level** of each microphone measured in decibels (dBs). Finally, in the bottom left corner, you will see the **recording settings**, including format, sampling rate, and bit depth. In the example shown, these settings are WAV format, 96 kHz sampling rate, and 24-bit depth. These are suggested settings for preservation quality recordings, but they take up a lot of memory space. If you do not have enough memory or storage space, you could consider recording at 48 kHz sampling rate instead. It would be hard to hear a difference in quality, though 96 kHz is slightly better.

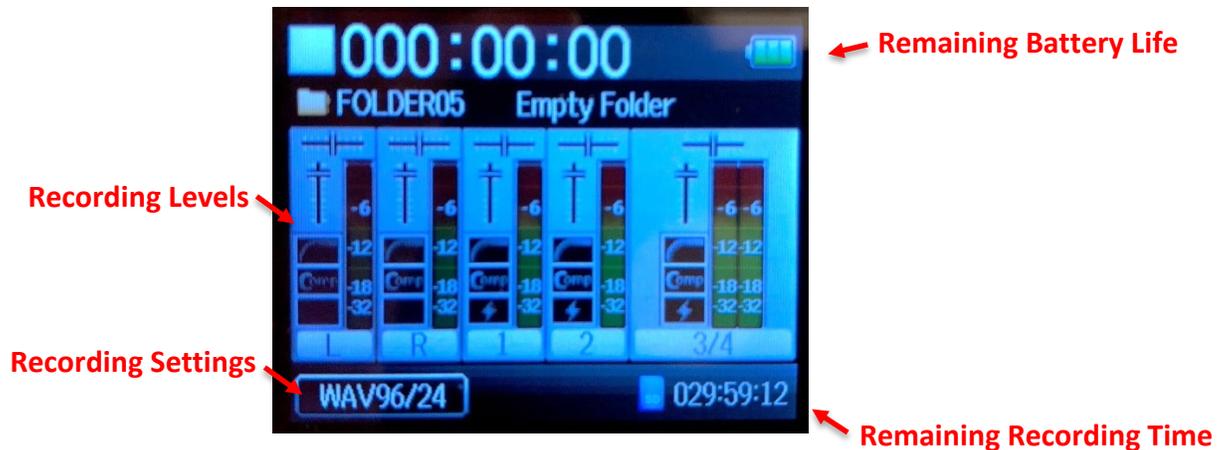


Figure 5: Zoom 6 Handy Recorder display screen

Now that you've set up your Zoom 6 Handy Recorder, let's make sure it's ready to record.

STEP 2: CHECK YOUR BATTERY, RECORDING TIME, AND SETTINGS

Before every recording session, it is important to make sure your device is set up how you would like it to be. Check for these settings on your **Display Monitor** (Figure 5) before recording:

- Your recorder has **three green bars** of **remaining battery life**. It's a good idea to have back up batteries ready. Fully charged batteries should provide about 20 hours of life. This will be shorter when using more microphones.
- Your SD memory card has enough **remaining recording time** for your planned session. It is a good idea to have several hours of extra recording time available in case your session goes longer than you expect. Have a back-up SD card ready just in case;
- Your **recording settings** are set to preservation quality: WAV format, 96 kHz sampling rate, and 24-bit depth (WAV96/24). If you are worried about having enough memory space, consider a 48 kHz sampling rate. Remember: it is not possible to increase the quality of your recording afterwards. If you would like to change your recording settings, follow the steps described below.

CHANGE YOUR RECORDING SETTINGS

1. Press the **Menu button** on the right side of your Zoom recorder;
2. Use the **Menu switch** to scroll down twice to the recording settings screen (Figure 6). Press down on the switch twice to go to the **recording format** screen;
3. In the recording format screen, use the **Menu switch** to scroll down to the format you would like to use for your recording (Figure 7). Higher quality formats are further down the list of options;
4. Press the **Menu switch** to pick your recording format.



Figure 6: Zoom H6 recording settings screen

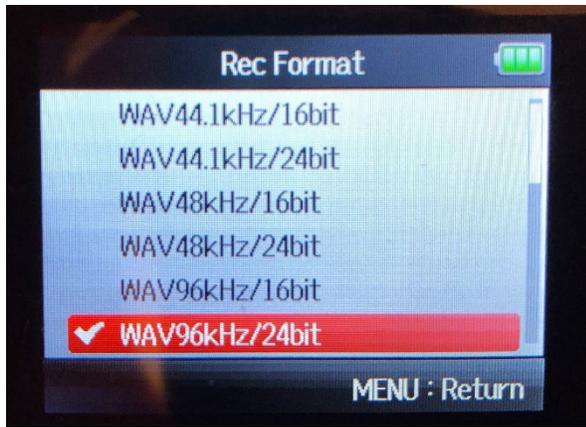


Figure 7: Zoom H6 recording format screen.

5. Press the **Menu** button three times to return to the **Display Monitor**. Your **recording settings** should now match your choice.

FORMAT YOUR SD CARD

If you are using a new SD card, or one you have not used with the H6 before, you will need to format it. Formatting a memory card for a device creates a compatible file storage structure on that memory card.

Warning: Formatting your SD card will erase anything saved on it. Make sure there are no files on your SD card before formatting it.

1. Press the **menu button** on the right side of your Zoom recorder;
2. Use the **menu switch** to scroll down eight times. Select “SD Card” by pressing the **menu switch**;
3. Scroll down and select “Format” using the **menu switch**;
4. You will see a screen that says “Format SD Card. Are you sure?” Use the **menu switch** to select and press “Yes”;
5. Your SD card is now formatted to be used with the Zoom H6 Handy Recorder.

STEP 3: DOCUMENT YOUR RECORDING

It can be very helpful to record some basic information about your recording session. If this information is kept with the recording, either digitally or physically with the original SD memory card, it will be much easier for others to know what is on each recording. We have included a printable template with basic information in [Appendix A: Community Recording Documentation Form](#). Please customize this to reflect your community and recording project.

STEP 4: SELECT YOUR MICROPHONE(S)

It is helpful to choose the microphone or microphones that best fits your recording session. This guide will help you choose from the two **capsule microphones** provided with your Zoom H6 recorder. However, you may want to add your own microphones through an XLR or line cable. This is especially true for recording in group settings.

Please note: the Zoom H6 creates separate audio files for each microphone used. This is known as multi-track recording. If you would like to have only one file of your recording, you will need to create a mixdown on your Zoom H6 or using Audacity. For more information about why and how you might want to do this, please see [Appendix A: Multi-Track Recording and Mixdowns](#).



Figure 8: Zoom MSH-6 MS capsule microphone.

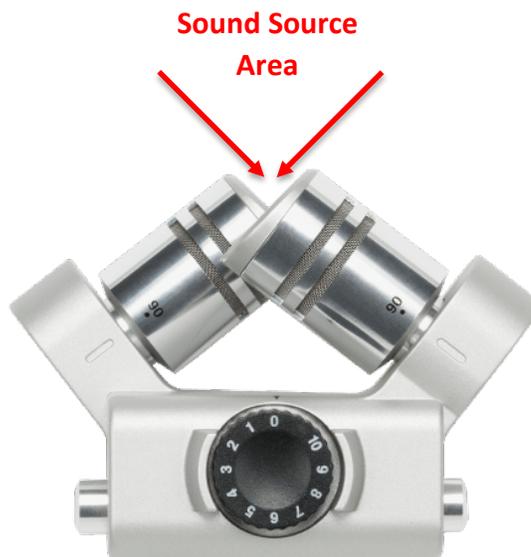


Figure 9: Zoom XYH-6 X/Y capsule microphone.

The **MSH-6 MS capsule microphone** (Figure 8) works best when pointed towards *a single participant* or source of sound. The capsule emphasizes sound coming in a straight line towards the top of the microphone, though it does pick up additional ambient sounds from either side.

The **XYH-6 X/Y capsule microphone** (Figure 9) works best with *a small group seated close together*. The capsule includes two matched stereo microphones. It emphasizes sound coming from a 90-degree window towards the top of the microphones. If you would like to record a wider angle for a slightly larger group, you can gently spin the microphone cylinders counter clockwise until the 120-degree mark is in line with the marks on the front of the capsule. The microphones will click into place.

HOW TO ATTACH A ZOOM MICROPHONE

1. Remove the plastic cover from the top of the Zoom H6 and the base of the capsule;
2. Squeeze the buttons on each side of the capsule;
3. Insert the capsule into the recorder;
4. Release the buttons on the capsule.

HOW TO SELECT MICROPHONES

To select the capsule microphone, press the **L microphone selector**. The indicator will light up red as shown in Figure 10.



Figure 10: L-R microphone indicators illuminated.

If you are using additional microphones, attach them to the XLR-line ports and select them here as well.

STEP 5: SET YOUR VOLUME LEVELS

Now that your microphones are set up, you should position them facing your participant(s) and test the recording volume (or gain) levels. Aim for an average volume of



-12dB to avoid distortion.

1. Ask the participant(s) to begin speaking. They may feel awkward about this. It can be helpful to give them a gentle prompt: ask them to tell a joke, count off 1-2, or tell you about the weather;
2. Check the **Display Monitor** and adjust the **Microphone Volume** until each one averages -12dB;
3. Once your levels seem right, **record** about 10-15 seconds of your participant speaking;
4. Attach your headphones and listen back to the recording by pressing the **playback** button. The recording should sound clear and free of distracting noise.
 - If the recording is *muddy or muffled*, move the microphone closer to the participant(s) and make sure the microphone is pointed towards them;
 - If there is background noise, do your best to lessen or remove it. You may want to cover your microphone with the **windscreen** included in your kit.
5. Repeat steps 2 to 4 until your recording sounds clear.

STEP 6: RECORD

To start recording, press the button with the red circle, or **record button**, once.

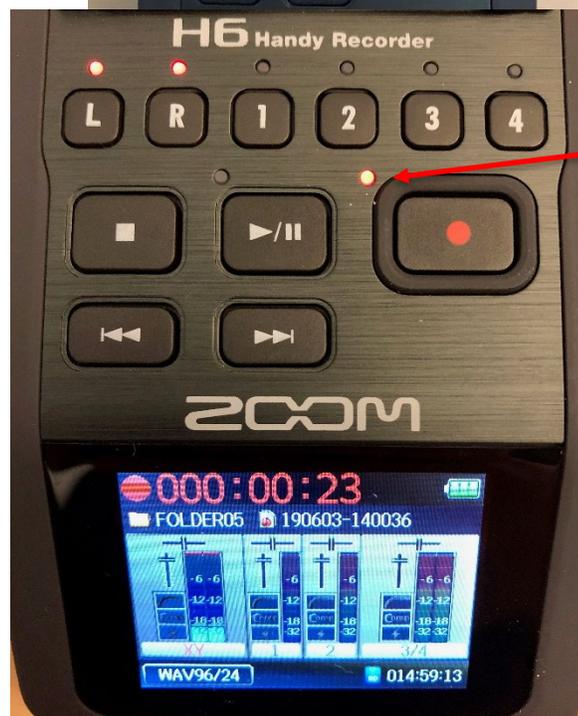
Recording tips:

- The red indicator light next to the record button will light up and the **Display Monitor** will show how long you have been recording at the top of the screen (Figure 12);
- Be sure to keep an eye on your remaining battery life and remaining recording time indicators;
- It's okay if your volume level varies, but if it is often distorting, or hitting the upper red area in the Display Monitor, you may want to pause your session and adjust the **Microphone Volume**.

To stop your recording, press the **stop button**.



Microphone Volume



Display Monitor Recording Indicator

Figure 12: Zoom H6 recording in progress.

STEP 7: BACK UP YOUR RECORDING

Once you have completed your recording and thanked your participant(s), you should back up your recording.

1. While the recorder is powered off, attach a **USB cable** to your computer and to the port on the right side of the H6;
2. Power on the H6. This will bring up the USB options screen on the **Display Monitor** (Figure 13). Select **SD Card Reader** by pressing the **Menu switch** button;
3. This will bring up the Autoplay menu on your computer. Click “Open folder to view files.” This will bring up the ten recording folders on your memory card. Click through the folders to find your recordings and copy them into your selected folder on your computer. Unless you have set another folder, your files will be in FOLDER01;
4. Each folder within FOLDER01 will contain all the files associated with a recording. Each microphone used will have its own file, so it is important to keep these files together. The final characters of each file name will tell you which microphone input was used for that recording. If you would like to combine these recordings into a single file, you can create a mix-down in Audacity using your Access Master files later. For more on this topic, please see [Appendix B: Multi-Track Recording and Mixdowns](#);
5. Rename your Preservation Master file(s) according to the file naming conventions you have set for your project;
6. Apply **Metadata** using the steps outlined in section [D.1.5.12 of the Indigitization toolkit](#);
7. Safely eject your Zoom H6 from your computer.

If possible, keep a copy of your recording on the original carrier (e.g. SD memory card) and label the memory card using your file naming convention. Please refer to section [I. Preservation of the Indigitization toolkit](#) for more information about preserving your recordings.

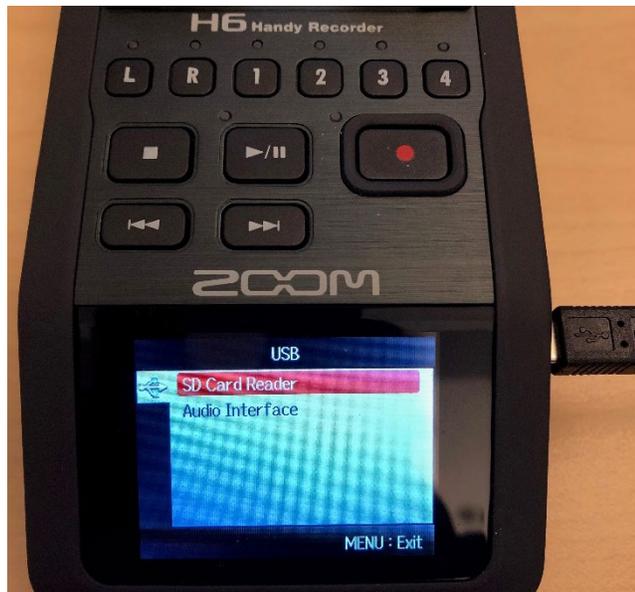


Figure 13: Zoom H6 with USB options screen.

MORE RESOURCES

- Indigitization toolkit: <http://www.indigitization.ca/indigitization-toolkit/>
- Inspired Practices for Documenting Traditional Knowledge with Community Recording **[WEBLINK]**
- Sustainable Heritage Network oral history resources: <http://sustainableheritagenetwork.org/digital-heritage/category/audio-recordings/keywords/oral-history>
- Zoom H6 Product Manual: https://www.zoom-na.com/sites/default/files/products/downloads/pdfs/E_H6v2_0.pdf