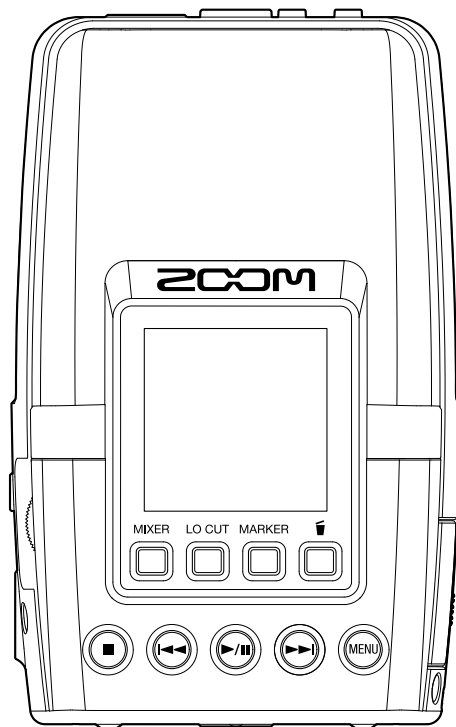


H2essential

Handy Recorder



Operation Manual

You must read the Usage and Safety Precautions before use.

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Proper display is not possible on grayscale devices.

Notes about this Operation Manual

You might need this manual in the future. Always keep it in a place where you can access it easily.

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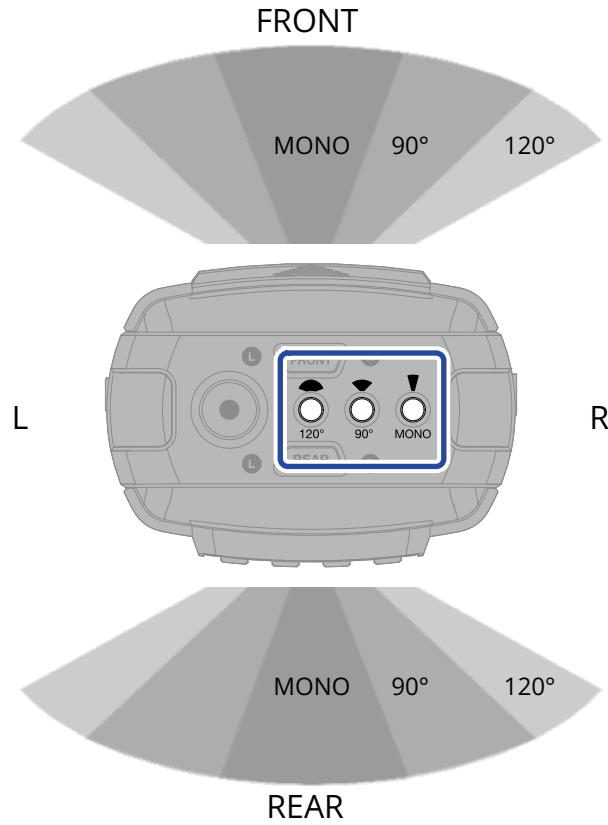
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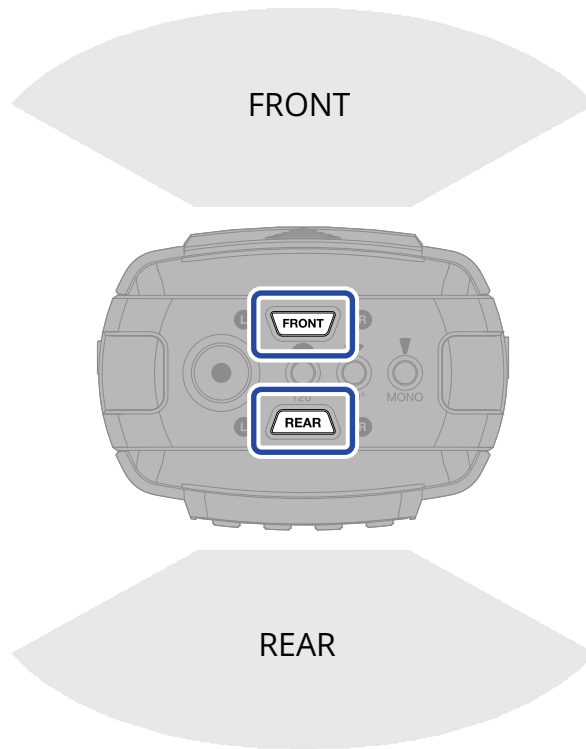
H2essential overview

Recording mode overview

With the H2essential, recording directions and mic pick up patterns can be set according to purpose.



Recording direction settings



■ FRONT recording



This setting records from the front of the H2essential. Use this to record with the H2essential facing the sound source.

■ REAR recording



This setting records from the back of the H2essential. The display can be viewed while recording your own singing while playing an instrument, for example.

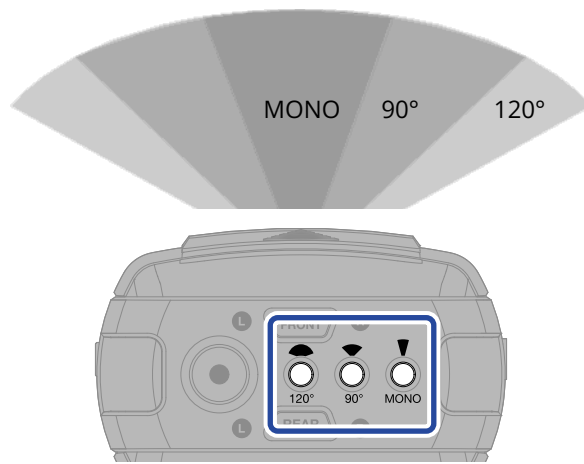
■ FRONT+REAR recording



This setting records from both the front and rear of the H2essential. Use this when surrounded by the sound sources being recorded.

In addition to separate FRONT and REAR recording files, a mix of both FRONT and REAR can be simultaneously recorded.

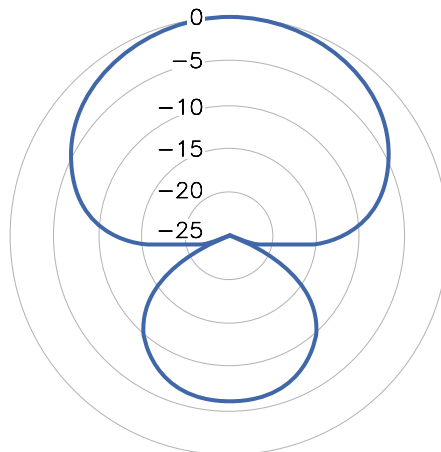
Pickup pattern settings



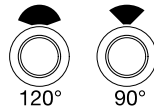
■ Mono pickup pattern



When the H2essential is recording in mono, a hypercardioid pickup pattern is used. This allows the targeted sound directly in front to be recorded while suppressing sound from the sides.



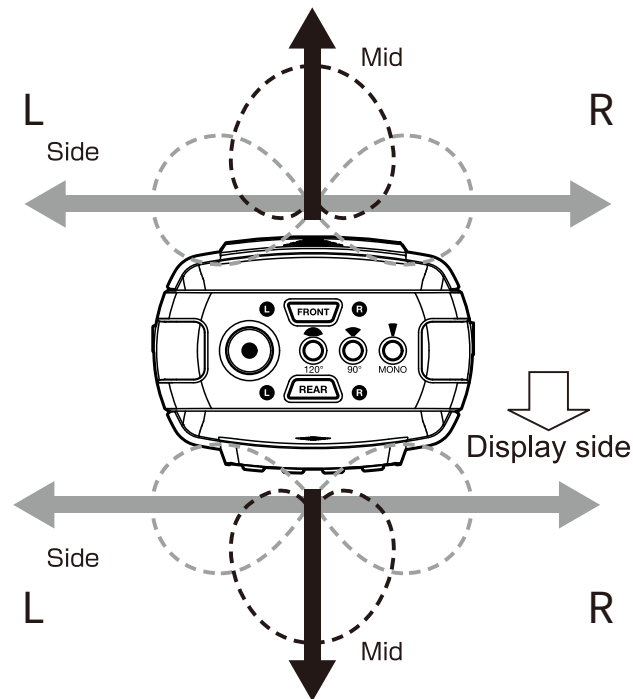
■ 90°/120° (stereo) pickup pattern



The H2essential uses the mid-side (MS) method for stereo recording.

The MS method uses a mid mic to capture sound directly forward and a side mic to capture sound from the left and right and converts these signals to stereo when recording.

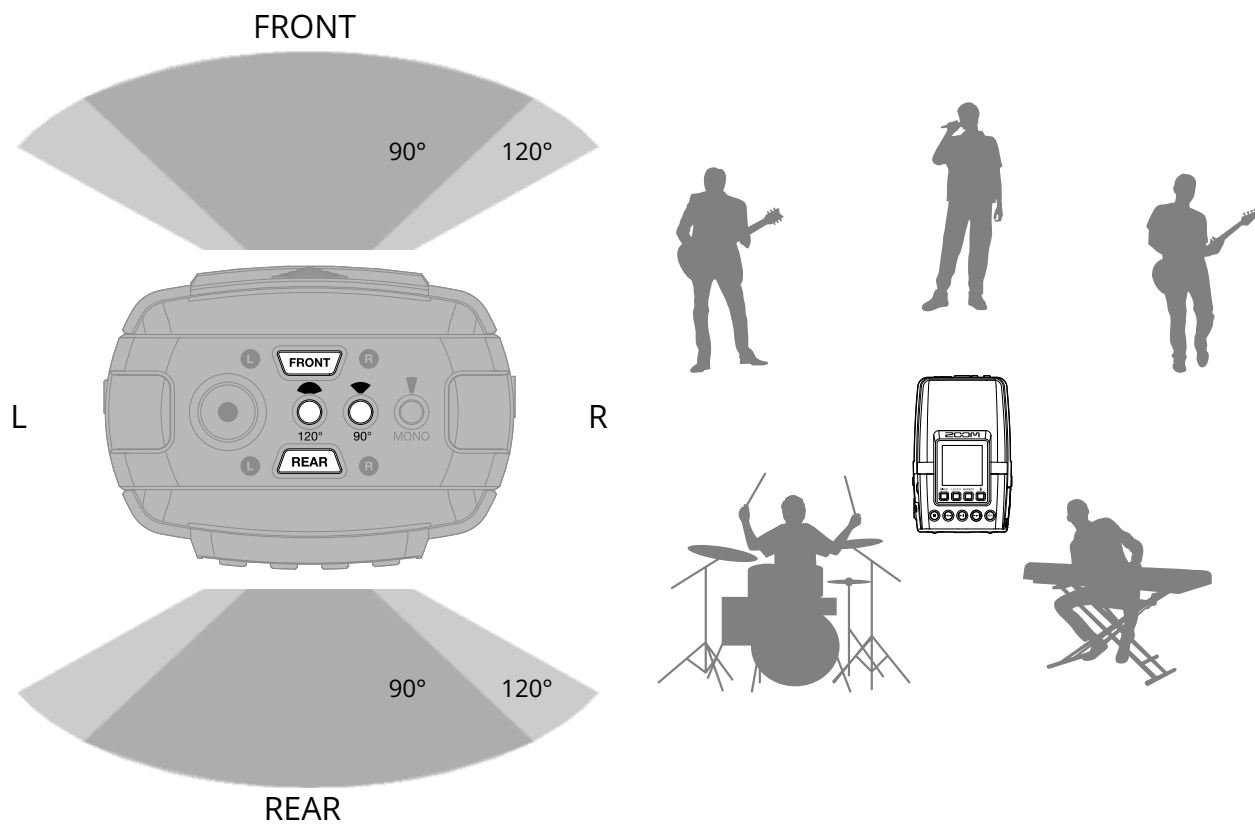
In addition, by enabling MS RAW recording, mid and side audio can be recorded as is, allowing the stereo width to be adjusted afterward. (→ [Recording with MS RAW format](#))



Recording examples

Example 1: Studio recording

During a band rehearsal, place the H2essential in the middle and record with a FRONT+REAR stereo setting to easily capture the sound of being there without worrying about mic placement.

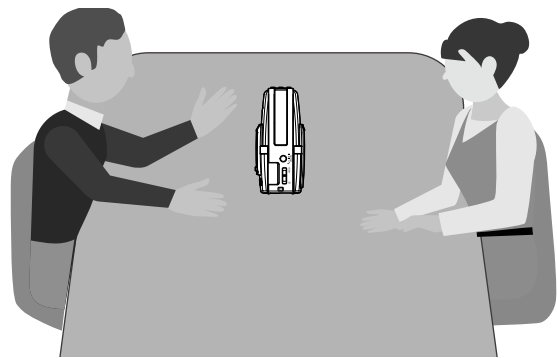
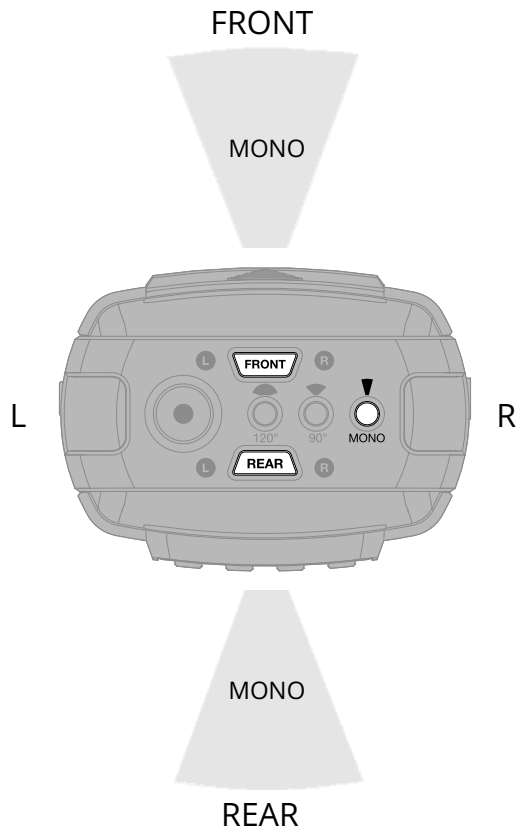


Example 2: Face-to-face podcast recording

To capture a face-to-face podcast, place the H2essential in the middle and record with a FRONT+REAR mono setting.

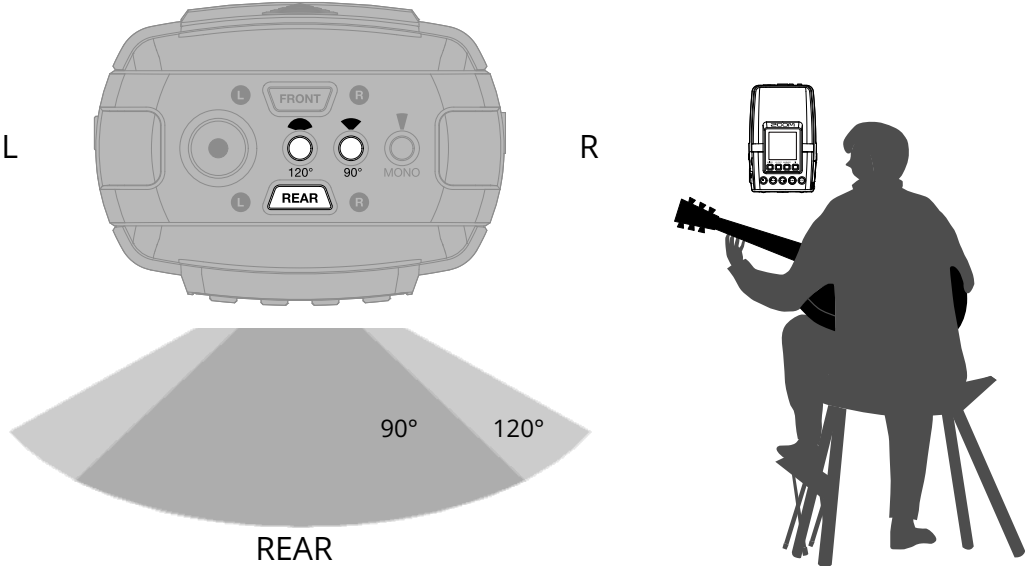
In addition to the two FRONT and REAR recording files that are focused on the individual voices, a file with a clear mix of both voices will also be recorded.

In this case, the audio of the mixed file will be recorded bidirectionally.



Example 3: Recording while playing and singing

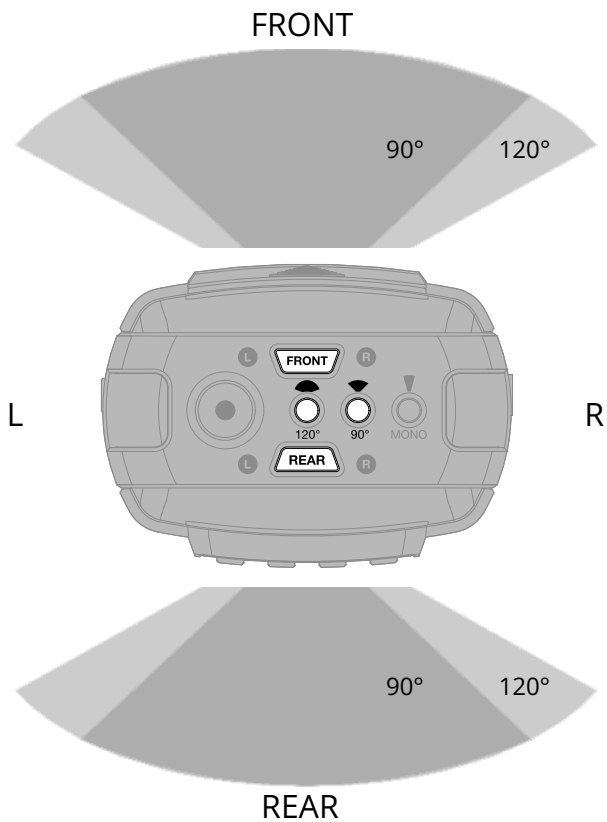
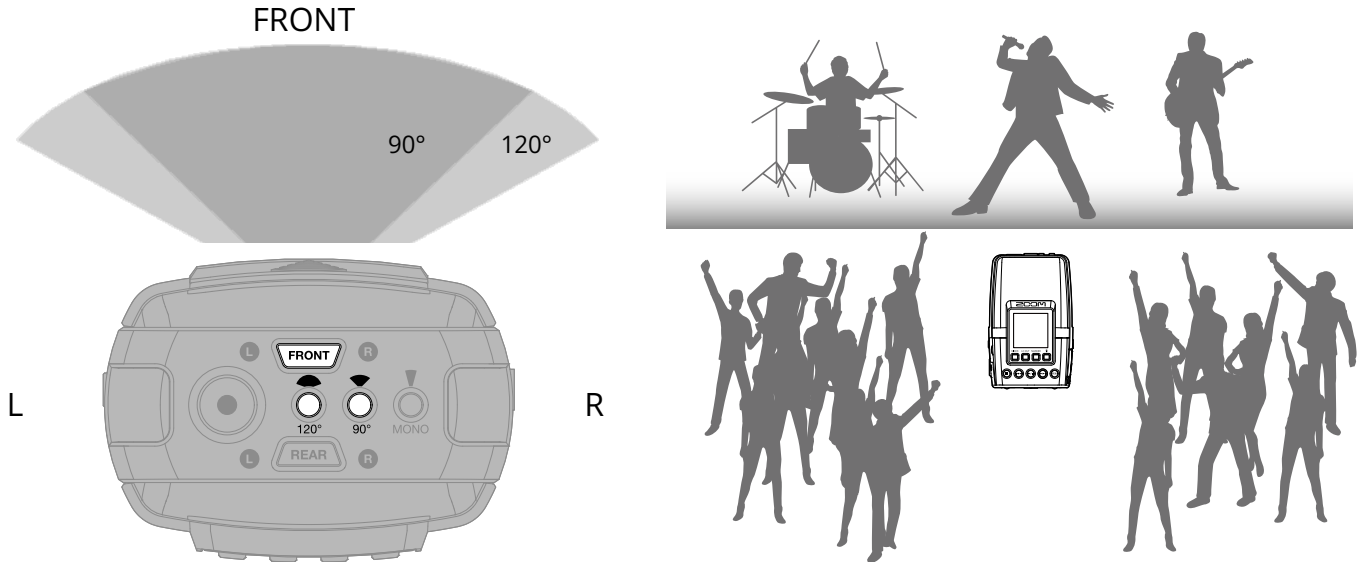
To record yourself playing and singing, place the H2essential facing toward you and record with a REAR stereo setting. This will allow you to check the waveform on the display as you record yourself playing and singing.



Example 4: Stage recording

To record facing a stage, place the H2essential in front of the stage and record with a FRONT stereo setting. This will allow the sound to be captured with wide stereo width.

In this case, by also enabling the REAR, sound with an even greater sense of being there, including the ambience of the space, can be captured.



Achieving high audio quality throughout recording and editing

With support for 32-bit float WAV files, the H2essential can maintain the highest audio quality from recording through editing in a DAW or other software.



32-bit float WAV file overview

32-bit float WAV files have the following advantages over conventional 16/24-bit WAV files.

Due to these advantages, the audio quality of recording can be maintained afterward when editing in a DAW or other software.

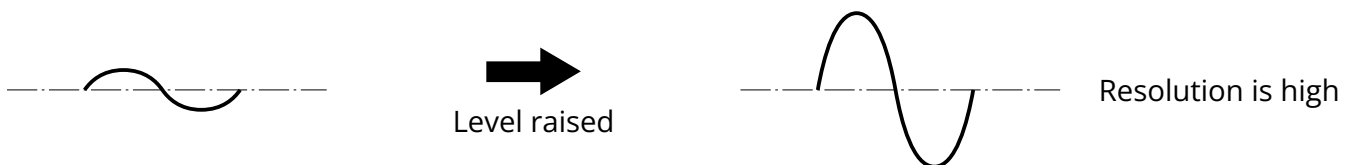
Resolution advantage

32-bit float WAV files have the advantage of being able to maintain high resolution even at low volumes. As a result, quiet sounds can be made louder when editing after recording without degrading their quality.

■ 16/24-bit WAV



■ 32-bit float WAV

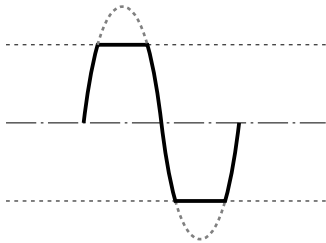


Clipping advantage

If a waveform sounds clipped when output from the H2essential or in a DAW, it can be edited after recording to lower its volume and restore an unclipped waveform because the data in the 32-bit float WAV file itself is not clipped.

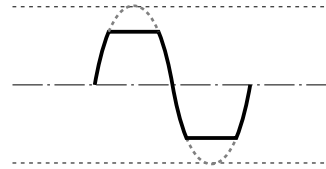
■ 16/24-bit WAV

Clipped recording



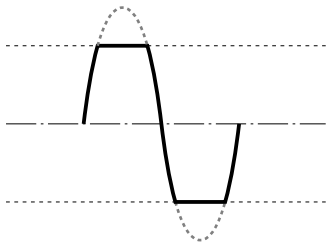
➔
Level lowered

Still clipped



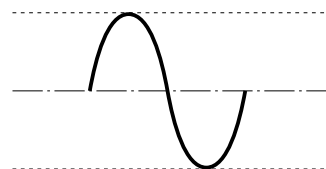
■ 32-bit float WAV

Clipped recording



➔
Level lowered

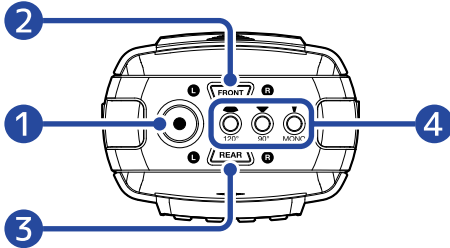
Not clipped



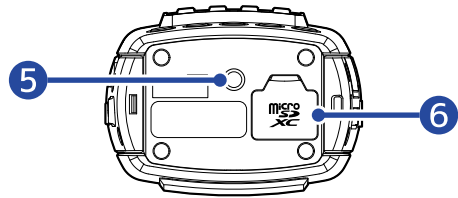
Functions of parts

Top and bottom

■ Top



■ Bottom



1 REC button

This starts and stops recording.
The REC button lights during recording.

2 FRONT button

Press this to enable recording toward the front. The FRONT button will light when enabled.

3 REAR button

Press this to enable recording toward the rear. The REAR button will light when enabled.
When an external mic is connected to the MIC/LINE IN jack, REAR recording cannot be enabled.

4 Pickup pattern selection buttons

These determine whether tracks are recorded in mono or stereo and the stereo width.
Select from one of the following. The selected button will light.

- MONO: mono (hypercardioid pickup pattern)
- 90°: stereo (90° MS stereo)
- 120°: stereo (120° MS stereo)

5 Tripod mounting thread

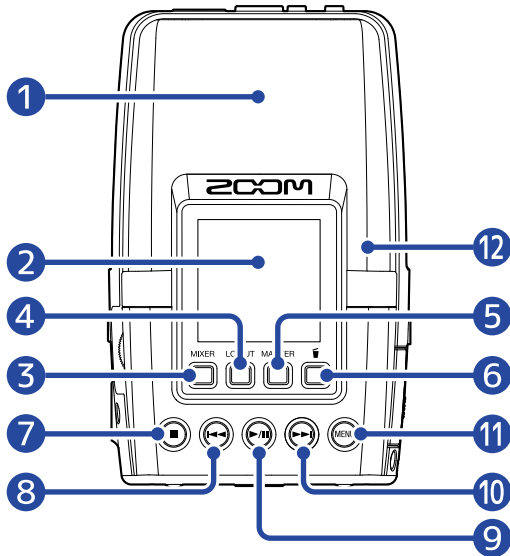
This can be used to attach the H2essential to a tripod, for example.

6 microSD card slot

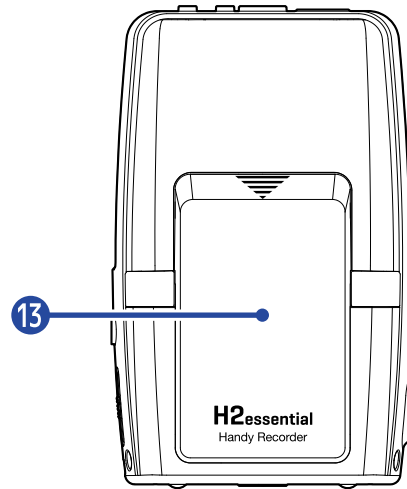
Insert a microSD card here.

Front and rear

■ Rear (display side)



■ Front (battery side)



1 Built-in mic

Comprised of three mic capsules, this mic can achieve hypercardioid and MS stereo (90°/120°) pickup patterns in both front and rear directions.

2 Display

This shows various types of information.

3 MIXER button (operation button 1)

When the [Home Screen](#) is open, this opens the [Mixer Screen](#).

When any screen other than the Home Screen is open, this has the function of the icon shown at the bottom of the display. (→ [Using operation buttons 1-4](#))

4 LO/CUT button (operation button 2)

When the [Home Screen](#) is open, this changes the LO CUT setting.

When any screen other than the Home Screen is open, this has the function of the icon shown at the bottom of the display. (→ [Using operation buttons 1-4](#))

5 MARKER button (operation button 3)

When the [Home Screen](#) is open, this adds a marker to the recording.

When any screen other than the Home Screen is open, this has the function of the icon shown at the bottom of the display. (→ [Using operation buttons 1-4](#))

6 TRASH button (operation button 4)

When the [Home Screen](#) is open, this moves the recorded file to the trash.

When the [Playback Screen](#) is open, this moves the playing file to the trash.

When any screen other than the Home Screen or Playback Screen is open, this has the function of the icon shown at the bottom of the display. (→ [Using operation buttons 1-4](#))

7 STOP button

When recording, this stops recording.

When the [Playback Screen](#) is open, this stops playback. Pressing this again when stopped will return to the [Home Screen](#) (from most screens).

8 REW button

Press during playback or when paused to move to the previous file, the beginning of the file, or the previous marker.

Press and hold to search backward.

9 PLAY/PAUSE button

This starts and pauses playback.

10 FF button

Press during playback or when paused to move to the next file or the next marker.

Press and hold to search forward.

11 MENU button

Press this to open the [Menu Screen](#).

When a screen other than the Menu Screen or [Playback Options Screen](#) is open, this returns to the [Home Screen](#).

When the [Playback Options Screen](#) is open, this returns to the [Playback Screen](#).

12 Speaker

Sound is output here during file playback.

If headphones are connected to the PHONE/LINE OUT jack, sound will not be output from the speaker.

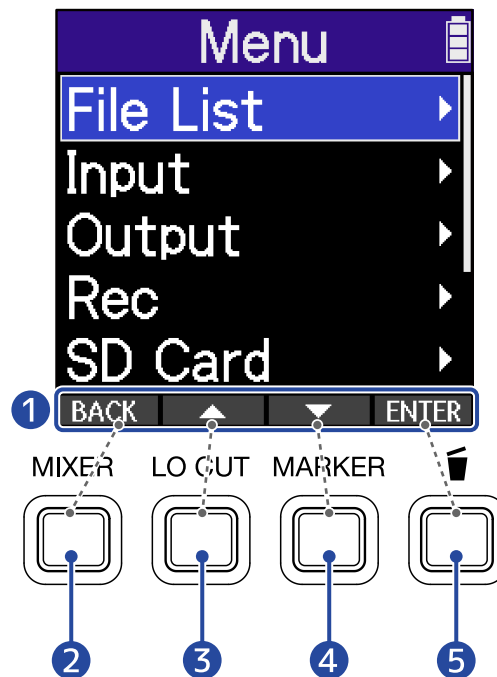
13 Battery cover

Open this when installing or removing AA batteries. (→ [Installing batteries](#))

■ Using operation buttons 1–4

When operation icons appear at the bottom of the display, including on the [Menu Screen](#), [Playback Screen](#), and [Playback Options Screen](#), press the operation keys directly below them to select or confirm items on that screen.

■ Menu Screen example









- 1 Operation icons shown on screen**
The icons shown depend on the screen.
- 2 Operation button 1 (**BACK**) (MIXER)**
This returns to the previous screen.
- 3 Operation button 2 (**▲**) (LO CUT)**
This selects the item above.
- 4 Operation button 3 (**▼**) (MARKER)**
This selects the item below.
- 5 Operation button 4 (**ENTER**) (TRASH)**
This confirms the selected item.

Other operation icons will appear. They are explained in the procedures for each item.

■ Note about procedure abbreviations in this operation manual

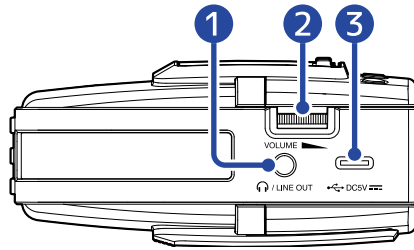
In this operation manual, procedures that include pressing operation buttons to conduct operations use icons and are abbreviated as follows.

Example: Use the operation buttons that correspond to  (select above button) and  (selected below button) to select "Rec Settings". Then, use the operation button that corresponds to  (ENTER) to confirm the selected item.

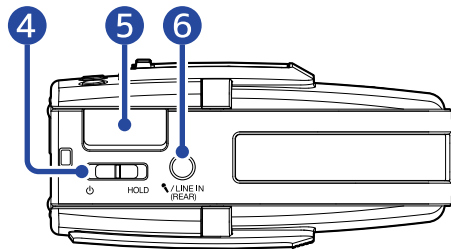
This becomes: "Use  (operation button 2) and  (operation button 3) to select 'Rec Settings' and press  (operation button 4) to confirm."

Left and right sides

■ Left side



■ Right side



1 PHONE/LINE OUT jack

Use this stereo mini jack to output sound to headphones or a connected device.

2 VOLUME

This adjusts the output to the built-in speaker, headphones and connected device.

3 USB port (Type-C)

Connect this to a computer, smartphone or tablet to use file transfer functions and to use the H2essential as an audio interface.

This supports operation on USB bus power.

4 POWER/HOLD switch

Use this to turn the power on/off and to disable button operation.

5 REMOTE connector

Connect a ZOOM BTA-1 or another dedicated wireless adapter here.

This enables use of the ZOOM Handy Control & Sync app for smartphones and tablets to operate the H2essential wirelessly.

6 MIC/LINE IN jack (supports plug-in power)

A connected mic can be used to record.

Mics that require plug-in power can be used with this jack.

When an external mic is connected to the MIC/LINE IN jack, REAR recording is disabled.

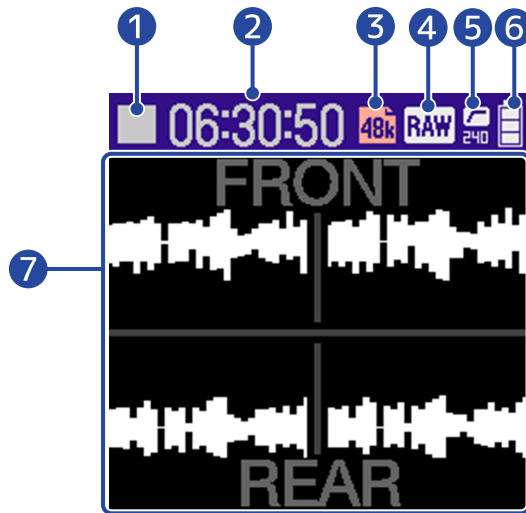
Overview of screens that appear

In this section, we explain the screens shown on the display of the H2essential.

Home Screen

This screen appears on the display when the H2essential power is turned on. This shows the state of the H2essential, including recording status and input signal waveforms.

When recording starts, the name of the file being recorded is shown at the top of the screen.



1 Status icon

The recording status is shown by an icon.

-  Stopped
-  Recording

2 Available recording time / recorded time

This shows the available recording time when recording is paused and the current elapsed recording time when recording.

3 Sample rate

This shows the current sample rate setting. (→ [Setting the sample rate](#))

4 MS RAW recording indicator

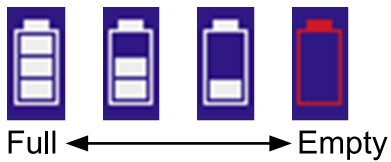
This shows the MS RAW recording status. (→ [Recording with MS RAW format](#))

5 LO CUT indicator

This shows the LO CUT setting. Nothing will be shown when set to OFF. (→ [Reducing noise \(Lo Cut\)](#))

6 Remaining battery indicator

This is shown when operating on batteries. When the remaining battery charge becomes low, replace the batteries (→ [Installing batteries](#)) or connect an AC adapter (→ [Connecting an AC adapter](#)) or portable battery (→ [Using other power sources](#)).




7 Waveform display (FRONT/REAR)

This shows the waveforms of signals input into the H2essential. Waveforms that are currently being recorded are shown in red.

Waveforms are shown for the mic inputs selected using the FRONT and REAR buttons.

HINT

When a screen other than the Home Screen is open, press the  (MENU) button to return to the Home Screen. This function is useful when you want to return to the Home Screen quickly from various setting screens. (Moving to the Home Screen is not possible from some screens.)

Playback Screen

When the [Home Screen](#) is open, pressing the  (PLAY/PAUSE) button to start playback will open this screen on the display.





This shows playback conditions of the selected file, including the playback time and waveform.

When playback starts, the name of the file being played is shown at the top of the screen.



1 Status icon

The playback status is shown by an icon.

-  Playing back
-  Paused
-  Searching backward
-  Searching forward

2 Playback time

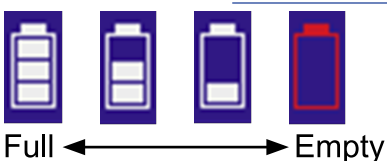
This shows the elapsed time since the start of playback.

3 File length

This shows the length of the file currently playing.

4 Remaining battery indicator

This is shown when operating on batteries. When the remaining battery charge becomes low, replace the batteries (→ [Installing batteries](#)) or connect an AC adapter (→ [Connecting an AC adapter](#)) or portable battery (→ [Using other power sources](#)).



5 **Waveform display (FRONT/REAR)**

This shows the waveform of the files being played. The parts of the waveforms that have already been played appear green.

The positions of markers can also be checked. (→ [Adding markers during recording](#), [Adding/deleting markers in recorded files](#))

6 **Marker bar**

This shows a marker added to the file being played back.

7 **OPTION** (Operation button 1)

This opens the [Playback Options Screen](#) where the following can be done.

- [Adjusting the levels of mics](#)
- [Selecting files for playback \(File List Screen\)](#)
- [Changing the playback speed \(Playback Speed\)](#)
- [Setting repeat playback \(Play Mode\)](#)
- [Adding/deleting markers in recorded files](#)
- [Repeating playback of a set interval \(A-B repeat\)](#)
- [Changing the file format and exporting files](#)

8 **-3 SEC** (Operation button 2)

This moves the file playback position back 3 seconds.

9 **+10 SEC** (Operation button 3)

This moves the file playback position forward 10 seconds.

10 **TRASH** (Operation button 4)

Use this to move the file being played to the TRASH folder. (→ [Moving the file being played to the TRASH folder](#))

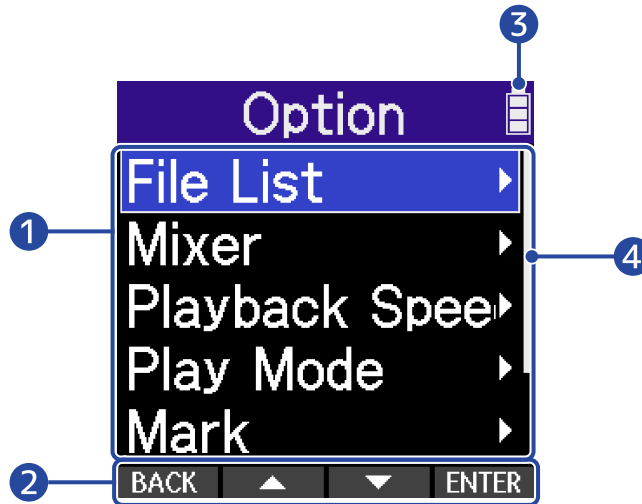
HINT

Press the  (STOP) button when playback is stopped to return to the [Home Screen](#).

Playback Options Screen

Use this screen to make settings related to playback.

When the [Playback Screen](#) is open, press **OPTION** (Operation button 1) to open this.



1 Playback option items

This shows setting items and setting values, for example.

2 Operation icons

Press operation buttons below the corresponding operation icons on the display to select option items and confirm selected items. (→ [Using operation buttons 1-4](#))

3 Remaining battery indicator


This is shown when operating on batteries. When the remaining battery charge becomes low, replace the batteries (→ [Installing batteries](#)) or connect an AC adapter (→ [Connecting an AC adapter](#)) or portable battery (→ [Using other power sources](#)).




4 Scrollbar

This will appear when a list has more items than will fit on the display.

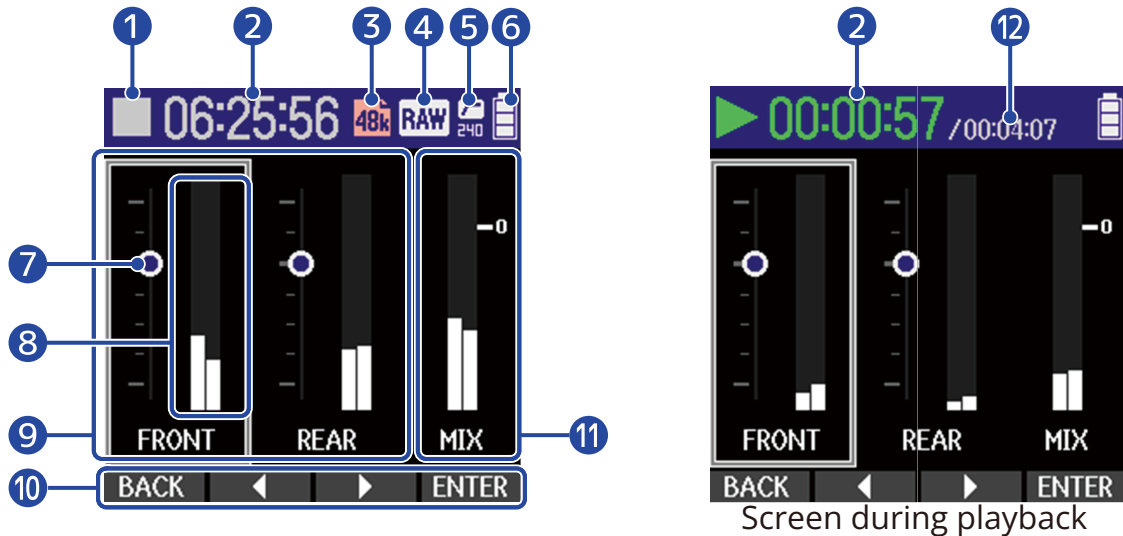
HINT

Press the  (MENU) button to return to the [Playback Screen](#).

Mixer Screen







Press the  (MIXER) button to open this.

Use this to adjust the levels of the tracks.



1 Status icon

The playback status is shown by an icon.

-  Recording
-  Recording paused
-  Playing back
-  Playback paused
-  Searching backward
-  Searching forward

2 Elapsed recording time / playback time

During recording, this shows the current elapsed recording time.

During playback, this shows the elapsed time since the start of playback.

3 Sample rate

This shows the current sample rate setting. (→ [Setting the sample rate](#))

4 MS RAW recording indicator

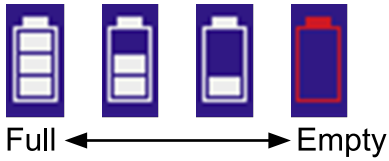
This shows the MS RAW recording status. (→ [Recording with MS RAW format](#))

5 LO CUT indicator

This shows the LO CUT setting. Nothing will be shown when set to OFF. (→ [Reducing noise \(Lo Cut\)](#))

6 Remaining battery indicator

This is shown when operating on batteries. When the remaining battery charge becomes low, replace the batteries (→ [Installing batteries](#)) or connect an AC adapter (→ [Connecting an AC adapter](#)) or portable battery (→ [Using other power sources](#)).



7 Level setting indicator



These show the level settings for each track.

8 Level meters

The level meters show the monitoring levels for each track.

9 Track status

These show the names and statuses of tracks.

-  FRONT enabled
-  FRONT disabled

A muted icon will be shown in the level meter area when a track is disabled.

10 Operation icons

Press operation buttons below the corresponding operation icons on the display to select option items and confirm selected items. (→ [Using operation buttons 1-4](#))

11 Stereo mix track


These level meters show the monitoring levels of the stereo mix.

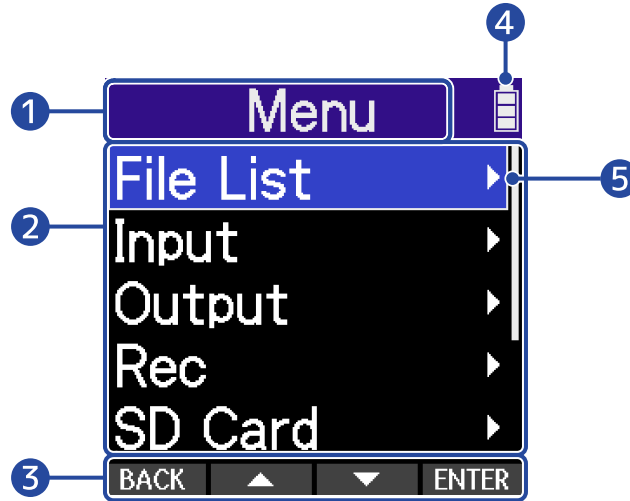
12 File length

This shows the length of the file currently playing.

Menu Screen

Make recording, input, output and system settings, use USB and Bluetooth functions and manage SD cards on this screen.

When the [Home Screen](#) is open, press the  (MENU) button to open this.



1 Menu title

2 Menu items

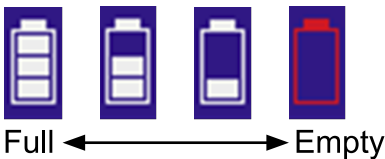
This shows setting items and setting values, for example.

3 Operation icons

Press operation buttons below the corresponding operation icons on the display to select menu items and confirm selected items. (→ [Using operation buttons 1-4](#))

4 Remaining battery indicator


This is shown when operating on batteries. When the remaining battery charge becomes low, replace the batteries (→ [Installing batteries](#)) or connect an AC adapter (→ [Connecting an AC adapter](#)) or portable battery (→ [Using other power sources](#)).



5 Scrollbar

This will appear when a list has more items than will fit on the display.

HINT

When the Menu Screen is open, press the  (MENU) button to return to the Home Screen. This function is useful when you want to return to the Home Screen quickly from various setting screens. (Moving to the Home Screen is not possible from some screens.)




Recording process

Recording follows the process shown below.



Preparation before recording

- Load a microSD card. (→ [Inserting microSD cards](#))
- Prepare the power. (→ [Installing batteries](#), [Connecting an AC adapter](#))
- Turn the power on. (→ [Turning the power on](#))
- Make settings related to input. (→ [Making input settings](#))
- Make settings related to recording. (→ [Making recording settings](#))

Recording

- Press the  (REC) button to start recording and press the  (REC) or  (STOP) button to stop recording. (→ [Recording](#))

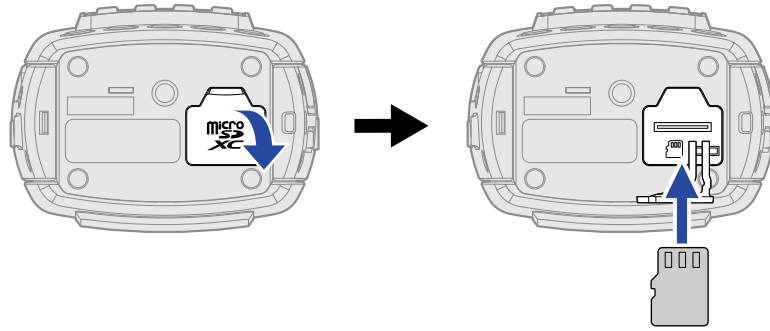
Playing back and reviewing

- Press the  (PLAY/PAUSE) button to start playback and press the  (STOP) button to stop it. (→ [Playing recordings](#))

Making preparations

Inserting microSD cards

1. When the power is off, open the microSD card slot cover. Then, insert a microSD card with the logo facing down all the way into the slot.



To remove a microSD card, push it further into the slot and then pull it out.

2. Close the microSD card slot cover.

NOTE

- Always make certain that the power is off when inserting or removing a microSD card. Inserting or removing a card while the power is on could result in data loss.
- When inserting a microSD card, be sure to insert the correct end with the top side up.
- Recording and playback are not possible when a microSD card is not loaded in the H2essential.
- Always format microSD cards in order to maximize their performance after purchasing them new or using them with a different device. (→ [Formatting microSD cards](#))
- A message will open when a card that has not been used with the H2essential before is loaded in it.



When the SD Card Testing Screen opens, test the SD card. (→ [Testing microSD cards](#))

- The following types of recording media are supported.
 - microSDHC memory cards
 - microSDXC memory cards

See the ZOOM website (zoomcorp.com/help/h2essential) for information about microSD cards that have been confirmed to work with this unit.

Supplying power

The H2essential can operate using batteries or a power supply connected to the USB port (AC adapter, USB bus power or portable battery).

Power from a power supply connected to the USB port will be used before batteries.

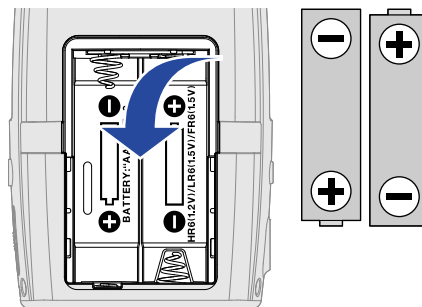
Installing batteries

Use 2 AA batteries when operating the H2essential on battery power.

1. When the power is off, open the battery cover by sliding it down while pushing it.



2. Install 2 AA batteries.



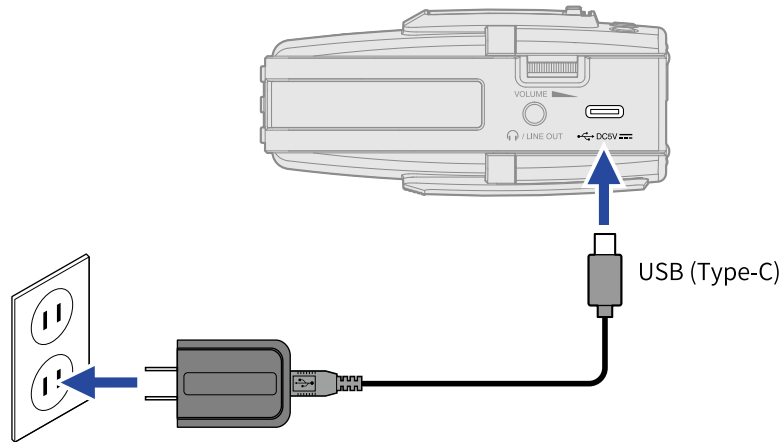
3. Replace the battery cover.

NOTE

- Use only one type of battery (alkaline, NiMH or lithium) at a time.
- Set the type of battery used correctly so that the amount of remaining battery charge can be shown accurately. (→ [Setting the type of batteries used](#))
- If the batteries run out of charge, turn the power off immediately and install new batteries. The battery charge will always be shown when operating on battery power.

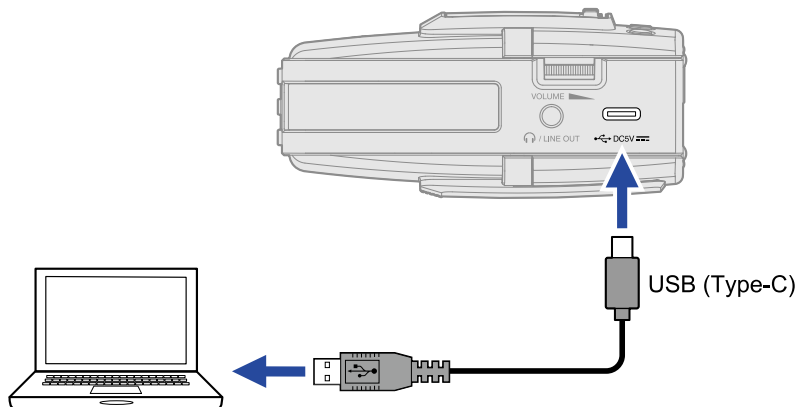
Connecting an AC adapter

Connect the cable of a dedicated AC adapter (AD-17) to the USB port (Type-C) and connect the adapter to an outlet.



Using other power sources

By connecting the USB port (Type-C) to a computer, the H2essential can be operated using USB bus power. Moreover, it can also be powered by a 5V portable battery (commercially-available).



Connecting input devices

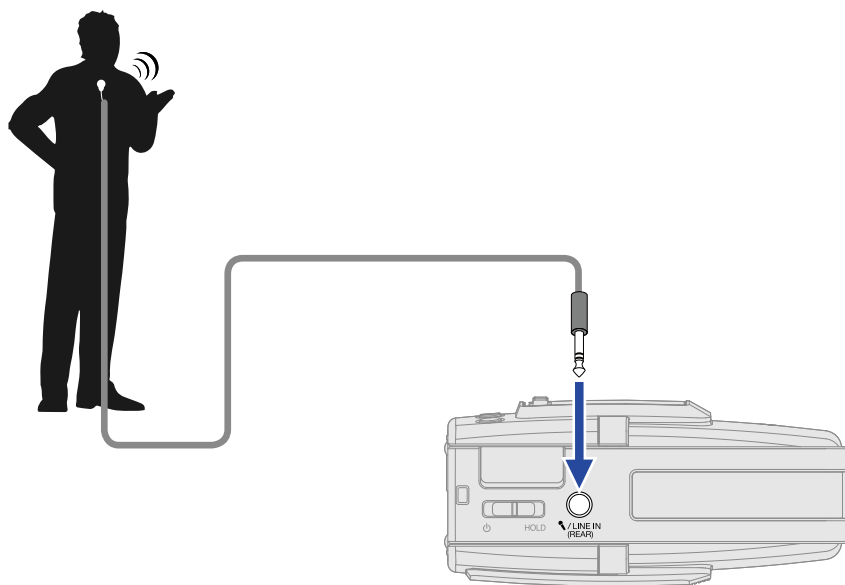
Using the built-in mics

The H2essential has three mic capsules, and is capable of recording to both the front and rear with hypercardioid pickup patterns and in mid-side stereo.

With independent unidirectional mics for both the front and rear directions and a bidirectional mic to the sides, in addition to mono recording, mid-side stereo recording is also possible with selectable stereo widths of 120° and 90°.

Connecting a lavalier mic, for example, to the MIC/LINE IN jack

The H2essential has a MIC/LINE IN jack that can be used to connect an external mic or line-level device. This jack can also provide plug-in power to mics that use it.

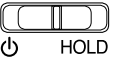



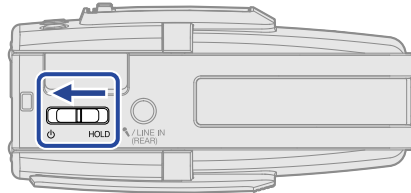
NOTE

- When using a lavalier mic, enable plug-in power. (→ [Using plug-in power](#))
- When using the MIC/LINE IN jack, the REAR mic cannot also be used.

Turning the power on/off

Turning the power on

1. Slide the  (POWER/HOLD) switch toward  (toward the unit bottom) until the display becomes active.



After the Startup Screen is shown, the [Home Screen](#) will open on the display.





The first time the power is turned on after purchase as well as when the H2essential has been reset to factory defaults, setting screens for the guide sound, display language and date and time will be shown. Make these settings. (→ [Setting the guide sound \(first time starting up\)](#), [Setting the language shown \(first time starting up\)](#), [Setting the date format \(first time starting up\)](#), [Setting the date and time \(first time starting up\)](#), [Setting the type of batteries used \(first time starting up\)](#))

NOTE

- The H2essential can be set so that its power will automatically turn off if it is not used for a set amount of time. (→ [Setting the time until the power turns off automatically](#))
- If “No SD Card!” appears on the display, confirm that a microSD card is inserted properly. (→ [Inserting microSD cards](#))
- If “Invalid SD Card!” appears on the display, the card is not formatted correctly. Format the microSD card or use a different microSD card. (→ [Formatting microSD cards](#), [Inserting microSD cards](#))

■ Turning the power off




1. Slide the  (POWER/HOLD) switch toward  (away from the unit bottom) until "Please wait. Saving data..." appears on the display.
The display will darken and the power will turn off.

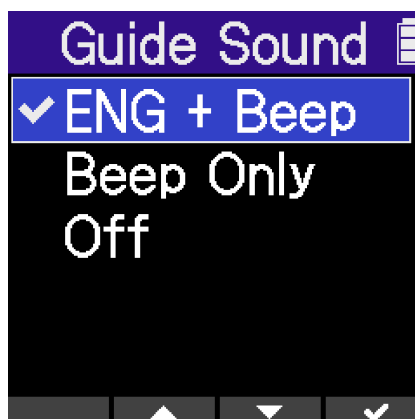
NOTE

- While "Please wait. Saving data..." is shown, the current settings of the H2essential are being saved. While "Please wait. Saving data..." is shown, do not disconnect the AC adapter or remove the batteries.
- The power cannot be turned off while recording. Turn the power off after recording stops.

Setting the guide sound (first time starting up)

Set the guide sound when a screen to set it is shown the first time the power is turned on after purchase or after the H2essential has been reset to factory defaults.

1. Use  (operation button 2) and  (operation button 3) to select a setting, and press  (operation button 4) to confirm it.




Setting	Explanation
ABC + Beep (“ABC” shows the installed language.)	Setting items will be read aloud in the installed language. A beeping sound will be used to notify the occurrence of error messages, recording starting/stopping and volume adjustment, for example. English is installed at the time of purchase, but other languages can be installed and used for reading as desired. (→ Installing guide sounds)
Beep Only	A beeping sound will be used to notify when error messages occur, recording starts/stops and the volume changes, for example. Nothing will be read aloud.
Off	This turns off the guide sound.

After the guide sound setting is confirmed, set the language shown when a screen to set it opens. (→ [Setting the language shown \(first time starting up\)](#))

NOTE




The volume of the guide sound can also be adjusted. (→ [Setting the guide sound volume](#))

HINT

- The guide sound setting can also be changed later on the Menu Screen. (→ [Setting the guide sound \(Accessibility\)](#))
- The guide sound can be turned on/off immediately by pressing and holding the  (MENU) button when the Home Screen is open. (→ [Turning the guide sound on/off with a shortcut](#))

Setting the language shown (first time starting up)


Set the display language when a screen to set it is shown after setting the guide sound the first time the power is turned on after purchase or after the H2essential has been reset to factory defaults.

1. Use  (operation button 2) and  (operation button 3) to select the language shown, and press  (operation button 4) to confirm it.



After the display language setting is confirmed, set the date format when a screen to set it opens.
(→ [Setting the date format \(first time starting up\)](#))

HINT

- The language shown setting can also be changed later on the Menu Screen. (→ [Setting the language shown](#))
 - Select  (operation button 1) to return to the previous settings screen.
-

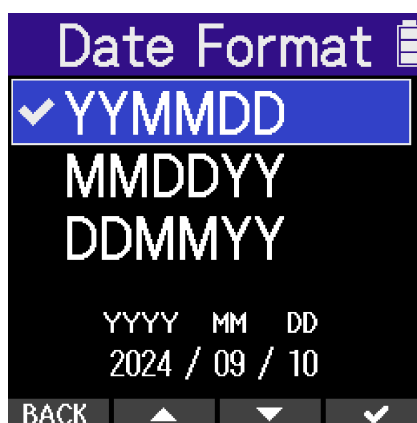
Setting the date format (first time starting up)

Set the date format when a screen to set it is shown after setting the display language the first time the power is turned on after purchase or after the H2essential has been reset to factory defaults.

The date written to recorded files will use the date format selected here.

1. Use **▲** (operation button 2) and **▼** (operation button 3) to select "Date Format", and press **✓** (operation button 4) to confirm.

A specific example of the set date format will be shown at the bottom of the screen using the current date setting.



Setting	Explanation
YMMDD	The date is shown in year, month, day order.
MMDDYY	The date is shown in month, day, year order.
DDMMYY	The date is shown in day, month, year order.




After the date format setting is confirmed, set the date and time when a screen to set them opens. (→ [Setting the date and time \(first time starting up\)](#))

HINT




- The date format setting can also be changed later on the Menu Screen. (→ [Setting the date format](#))
- Select **BACK** (operation button 1) to return to the previous settings screen.

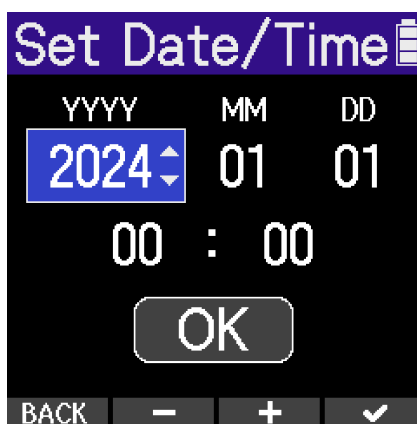
Setting the date and time (first time starting up)





Set the date and time when a screen to set them is shown after setting the date format the first time the power is turned on after purchase or after the H2essential has been reset to factory defaults. The date and time are stored in recording files.

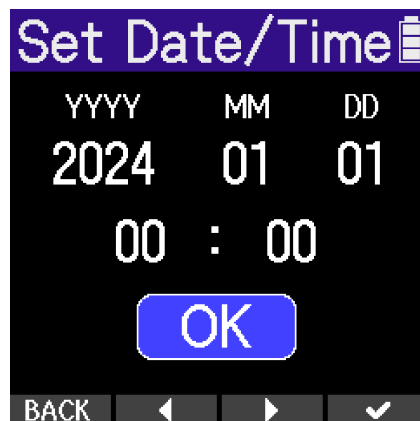
1. Use  (operation button 2) and  (operation button 3) to select the desired setting item, and press  (operation button 4) to confirm selection.



2. Use  (operation button 2) and  (operation button 3) to change the value, and press  (operation button 4) to confirm it.



3. Repeat steps 1-2 to set the date and time.
4. After setting all items, use  (operation button 2) and  (operation button 3) to select the  (OK) button, and press  (operation button 4) to confirm them.



After the date and time setting is confirmed, set the battery type when a screen to set it opens.
(→ [Setting the type of batteries used \(first time starting up\)](#))

NOTE

If power is not supplied for a long time, the date and time settings stored in the unit will be reset. If the Set Date/Time Screen appears during startup, set them again.

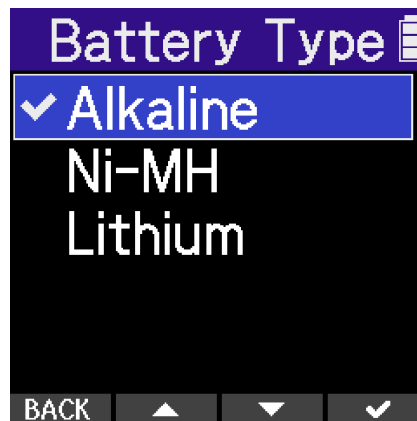
HINT

- The date and time setting can also be changed later from the Menu Screen. (→ [Setting the date and time](#))
- Select **BACK** (operation button 1) to return to the previous settings screen.

Setting the type of batteries used (first time starting up)

Set the type of batteries used in the H2essential when a screen to set it is shown after setting the date and time the first time the power is turned on after purchase or after the H2essential has been reset to factory defaults. This is necessary to accurately show the remaining battery charge on the display.

1. Use **▲** (operation button 2) and **▼** (operation button 3) to select the type of battery used, and press **✓** (operation button 4) to confirm it.



Setting	Explanation
Alkaline	Alkaline batteries
Ni-MH	Nickel-metal hydride batteries
Lithium	Lithium batteries

After first-time settings are complete, the [Home Screen](#) will open.

HINT

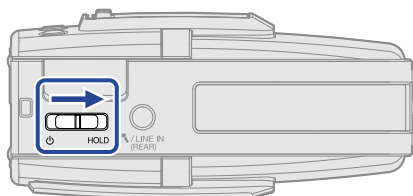
- The battery type setting can be changed later on the Menu Screen. (→ [Setting the type of batteries used](#))
- Select **BACK** (operation button 1) to return to the previous settings screen.

Preventing misoperation (HOLD function)

In order to prevent misoperation, the hold function can be used to disable the buttons on the H2essential.

1. Slide the  (POWER/HOLD) switch toward "HOLD" (toward the unit top).

This turns on the HOLD function, disabling operations using all buttons.



To deactivate the HOLD function, slide the  (POWER/HOLD) switch back to the center position.

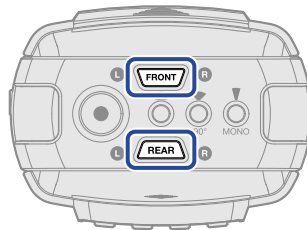
Making input settings

Setting the recording direction and mic pickup pattern

Enabling recording directions

FRONT (toward the front) and REAR (toward the rear) can be selected as directions for recording.

1. Press the **FRONT** (FRONT) button to enable recording in the front direction and the **REAR** (REAR) button to enable recording in the rear direction.



Pressing these buttons switches them between enabled (button lit) and disabled (button unlit).

NOTE

When the MIC/LINE IN jack is connected, REAR recording cannot be enabled.

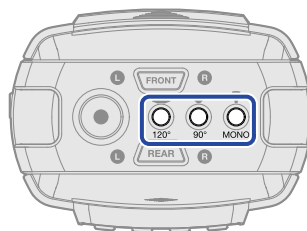
Selecting mic pickup patterns

Whether tracks are recorded in mono or stereo and the stereo width can be selected.

Select one of the following pickup patterns.

Setting	Explanation
120°	Stereo recording (120° MS stereo)
90°	Stereo recording (90° MS stereo)
MONO	Mono recording (hypercardioid pickup pattern)


1. Press a pickup pattern button to select the pickup pattern used for recording.






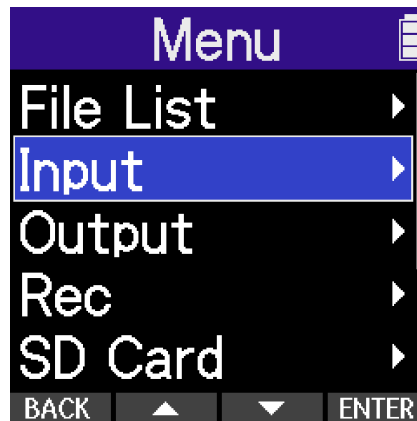
Pressing these buttons switches them between enabled (button lit) and disabled (button unlit).




Using plug-in power

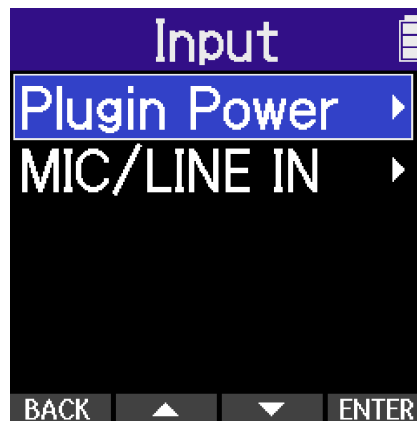
Make the following setting when a mic that is compatible with plug-in power is connected to the MIC/LINE IN jack.




1. Press the  (MENU) button when the [Home Screen](#) is open.
This opens the [Menu Screen](#).

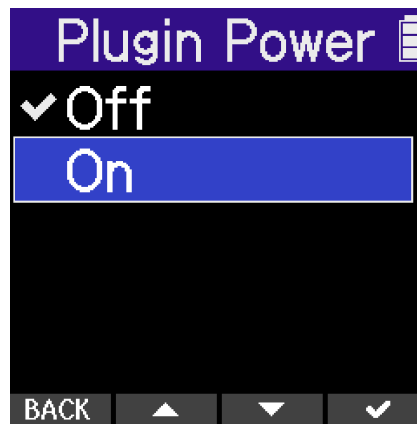
2. Use  (operation button 2) and  (operation button 3) to select "Input" and press  (operation button 4) to confirm.



3. Use  (operation button 2) and  (operation button 3) to select "Plugin Power" and press  (operation button 4) to confirm.




4. Use  (operation button 2) and  (operation button 3) to select "On", and press  (operation button 4) to confirm.



Reducing noise (Lo Cut)

Low frequencies can be cut to reduce the sound of wind and vocal pop noises, for example.

1. When the [Home Screen](#) is open, press the  (LO CUT) button repeatedly to select the cutoff frequency.



The cutoff frequency can be selected and set to OFF, 80 Hz, 160 Hz or 240 Hz.






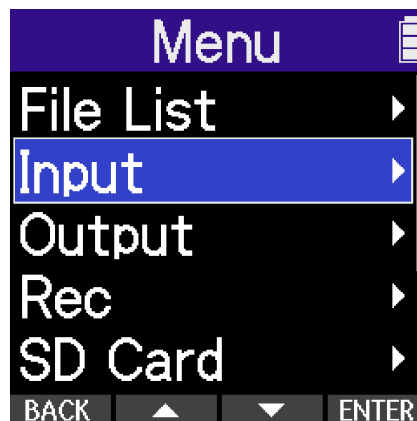
Switching the stereo/mono setting for mics connected to the MIC/LINE IN jack




The channel format used for recording audio with a mic connected to the MIC/LINE IN jack can be selected. The L and R channels will be recorded together as stereo audio when set to "Stereo". The L and R channels will be mixed to one channel and recorded as mono audio when set to "Mono Mix".

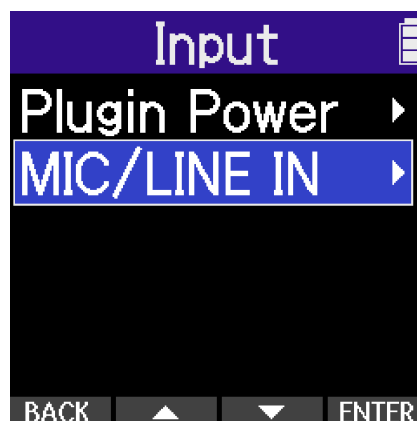
1. Press the  (MENU) button when the [Home Screen](#) is open.




This opens the [Menu Screen](#).

2. Use  (operation button 2) and  (operation button 3) to select "Input" and press  (operation button 4) to confirm.



3. Use  (operation button 2) and  (operation button 3) to select "MIC/LINE IN" and press  (operation button 4) to confirm.



4. Use  (operation button 2) and  (operation button 3) to select "Stereo" or "Mono Mix" and press  (operation button 4) to confirm.



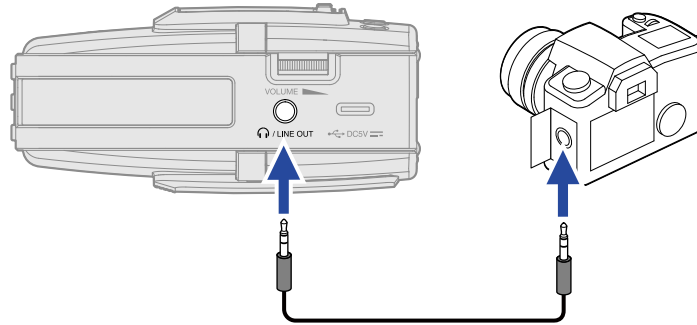
NOTE

The sound output from the PHONE/LINE OUT jack and the sound during USB mic operation is also switched.

Making output settings

Settings can be made for output to headphones and connected devices.

When connecting another device, minimize its input gain and use an audio cable to connect its external mic jack to the PHONE/LINE OUT jack on the H2essential.




HINT

When output to an external device is unnecessary, disconnecting the cable from the PHONE/LINE OUT jack can increase the amount of operation time when using batteries.




Changing how the output level is adjusted

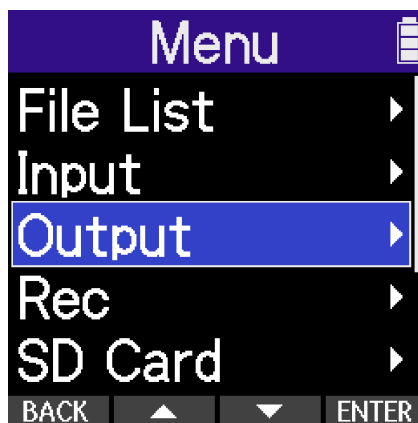
How the level is adjusted for output from the PHONE/LINE OUT jack to other devices can be changed.




When connecting another device, for example, select "Fixed" if you do not want use of  (VOLUME) to change the volume. This will cause sound to be output at the level set as explained in "[Adjusting the output level when set to fixed volume control](#)".

1. Press the  (MENU) button when the [Home Screen](#) is open.




This opens the [Menu Screen](#).

2. Use  (operation button 2) and  (operation button 3) to select "Output" and press  (operation button 4) to confirm.


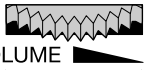


3. Use  (operation button 2) and  (operation button 3) to select “Volume Control”, and press  (operation button 4) to confirm.



4. Use  (operation button 2) and  (operation button 3) to select the output level adjustment method, and press  (operation button 4) to confirm it.




Setting	Explanation
Knob	Use the  (VOLUME) dial to adjust the output level.
Fixed	Adjustment of the  (VOLUME) dial has no effect. The output level can be adjusted as explained in “Adjusting the output level when set to fixed volume control” .




NOTE

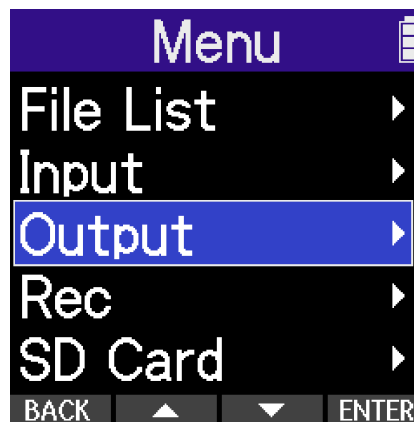
The speaker volume can be adjusted using the  (VOLUME) dial regardless of this setting.




Adjusting the output level when set to fixed volume control

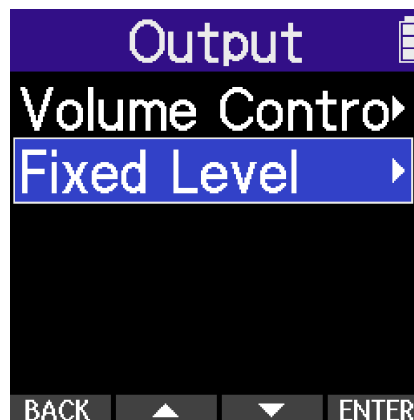
The output level when “Volume Control” is set to “Fixed” can be adjusted. (→ [Changing how the output level is adjusted](#))

1. Press the  (MENU) button when the [Home Screen](#) is open.
This opens the [Menu Screen](#).

2. Use  (operation button 2) and  (operation button 3) to select “Output” and press  (operation button 4) to confirm.



3. Use  (operation button 2) and  (operation button 3) to select “Fixed Level”, and press  (operation button 4) to confirm.



4. Use **-** (operation button 2) and **+** (operation button 3) to set the fixed level, and press **✓** (operation button 4) to confirm.

The setting value is shown on the display.



HINT

- This can be set to "Mute" or from -40 to +40.
- Selecting "Mute" silences output from the PHONE/LINE OUT jack.

NOTE

- See the manual of the connected device for information about its operation.
- If the automatic gain control function on the other device is on, turn it off.
- The level adjusted here does not affect the recorded audio or the audio level output from the USB port.

Recording

When recording with the H2essential, every selected track is recorded separately. In addition, all signals are mixed and simultaneously recorded as a stereo file.

The stereo file is recorded with the mix of signals set on the [Mixer Screen](#). (→ [Adjusting the monitoring mix of the mic inputs](#))

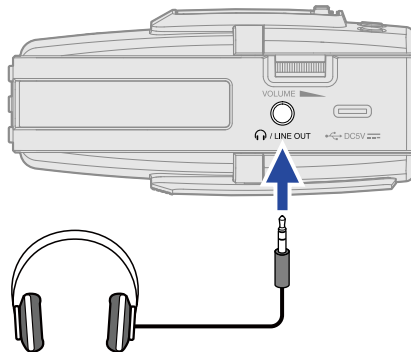
NOTE

- The recorder can be set to not record a mixed stereo file. (→ [Setting whether to record mix files](#))
- For details about recorded files, see "[H2essential folder and file structure](#)".

Monitoring input sounds

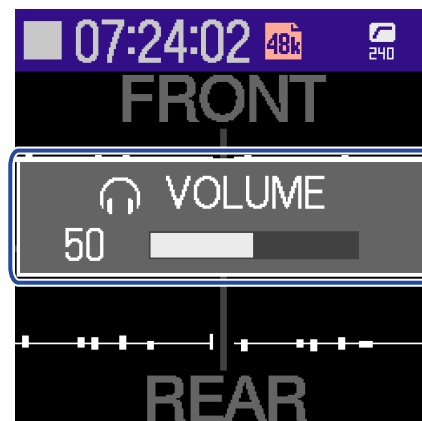
Use headphones, for example, to monitor input sounds and adjust the volume.

1. Connect headphones, for example, to the PHONE/LINE OUT jack.

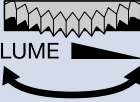
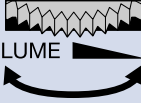
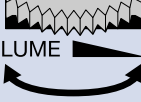


2. Use the  (VOLUME) dial to adjust the volume.

The volume is shown on the display while the volume is being adjusted.



NOTE

- The volume output from the PHONE/LINE OUT jack is also affected by volume adjustments made on the [Mixer Screen](#). (→ [Adjusting the monitoring mix of the mic inputs](#))
- When nothing is connected to the PHONE/LINE OUT jack, operating the  (VOLUME) dial will change the speaker volume.
- The built-in speaker cannot be used for monitoring while recording.
- When "Volume Control" is set to "Fixed", the  (VOLUME) dial cannot be used to adjust the volume. To use the  (VOLUME) dial for volume adjustment, set "Volume Control" to "Knob". (→ [Making output settings](#))

HINT

- When monitoring with headphones is unnecessary, disconnecting headphones from the PHONE/LINE OUT jack can increase the amount of operation time when using batteries.
- The level of each input can also be adjusted separately. (→ [Adjusting the monitoring mix of the mic inputs](#))



Adjusting the monitoring mix of the mic inputs

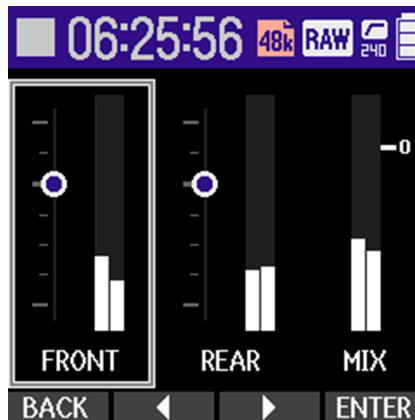
On the H2essential [Mixer Screen](#), the monitoring mix of all input mics can be adjusted. Moreover, the levels of the mic input sounds and their stereo mix signal can be checked with the level meters.




1. Press the  (MIXER) button when the [Home Screen](#) is open.



This opens the [Mixer Screen](#).

2. Use  (operation button 2) and  (operation button 3) to select the input for level adjustment, and press  (operation button 4) to confirm selection.




3. Use  (operation button 2) and  (operation button 3) to set the level, and press  (operation button 4) to confirm. This confirms the adjusted level.



4. Repeat steps 2–3 to balance the levels overall.

When done adjusting press the  (MIXER) button to return to the [Home Screen](#).

NOTE

- On the [Mixer Screen](#), the  (REC) button can be used to start recording in the same way as on the [Home Screen](#).
- Level adjustments on the [Mixer Screen](#) do not affect the signals recorded from each input.


HINT




Each input can be set to “Mute” or from -80 to +40.

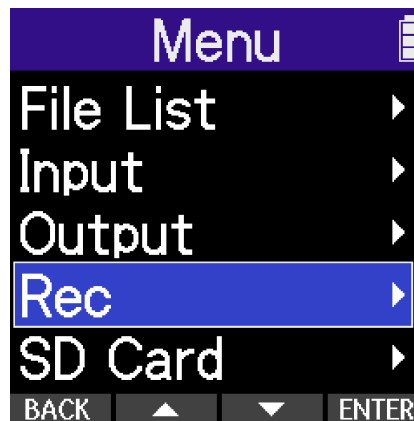
Making recording settings




Setting the sample rate

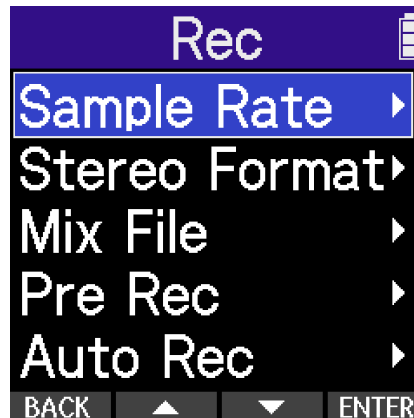
The sample rate used to record files can be set.




1. Press the  (MENU) button when the [Home Screen](#) is open.
This opens the [Menu Screen](#).

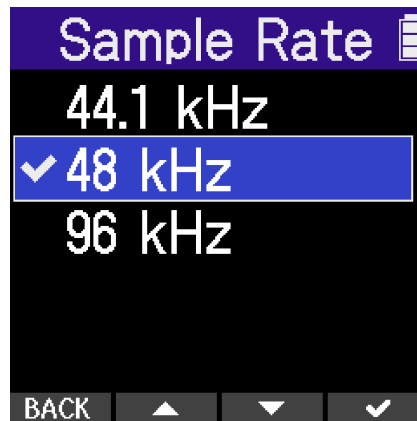
2. Use  (operation button 2) and  (operation button 3) to select "Rec", and press  (operation button 4) to confirm.



3. Use  (operation button 2) and  (operation button 3) to select "Sample Rate", and press  (operation button 4) to confirm.



4. Use  (operation button 2) and  (operation button 3) to select the sample rate, and press  (operation button 4) to confirm.



The following sample rates can be selected.
44.1 kHz, 48 kHz, 96 kHz


NOTE




- The only bit depth that can be used for recording is 32-bit float.
- To use the H2essential to record while using it as an audio interface, set the sample rate to 44.1 kHz or 48 kHz. (→ [Using as an audio interface](#))

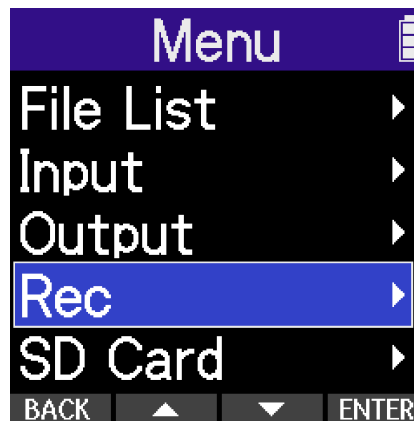
Recording with MS RAW format




The H2essential supports mid-side stereo recording.

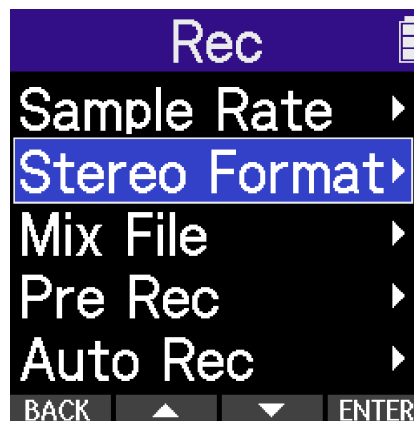
When the “Stereo Format” is set to “MS RAW”, the sound captured front and center by the mid mic is recorded to the L channel and the sound from the left and right captured by the side mic is recorded to the R channel. The stereo width can be adjusted during post-production




1. Press the  (MENU) button when the [Home Screen](#) is open.
This opens the [Menu Screen](#).

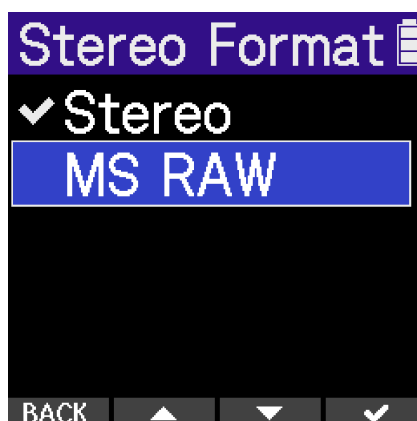
2. Use  (operation button 2) and  (operation button 3) to select “Rec”, and press  (operation button 4) to confirm.



3. Use  (operation button 2) and  (operation button 3) to select “Stereo Format”, and press  (operation button 4) to confirm.



4. Use  (operation button 2) and  (operation button 3) to select the stereo format, and press  (operation button 4) to confirm.



Setting	Explanation
Stereo	L and R will be recorded as stereo audio.
MS RAW	The mid signal will be recorded to the L channel and the side signal will be recorded to the R channel of the stereo file.

NOTE


- When recording in MS RAW, use a pickup pattern button to select 120° or 90°.
- Files recorded in MS RAW will have “_RAW” added to the ends of their file names.
- MS raw is not supported when recording mics connected to the MIC/LINE IN jack. In this case, recording will be in normal stereo even if “MS RAW” is selected.

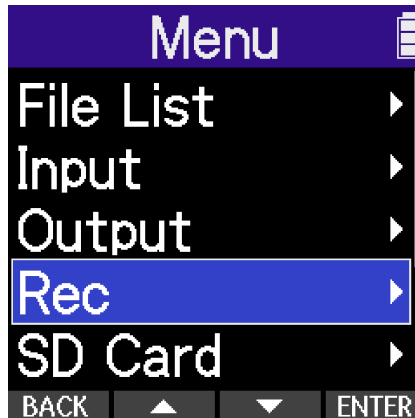
Setting whether to record mix files




When both inputs are enabled, the H2essential will simultaneously record a stereo mix of them. Recording of mix files can be disabled, however, to conserve space on the SD card.

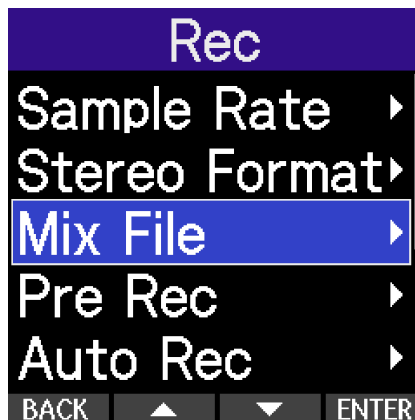
1. Press the  (MENU) button when the [Home Screen](#) is open.




This opens the [Menu Screen](#).

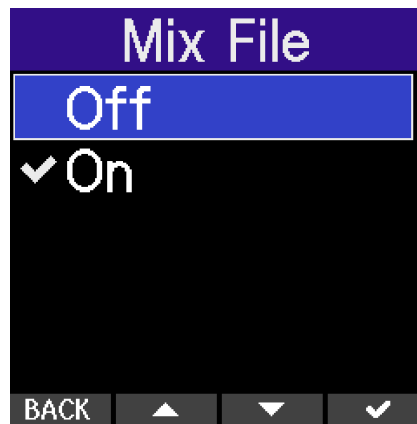
2. Use  (operation button 2) and  (operation button 3) to select “Rec”, and press  (operation button 4) to confirm.



3. Use  (operation button 2) and  (operation button 3) to select “Mix File”, and press  (operation button 4) to confirm.





4. Use  (operation button 2) and  (operation button 3) to select "Off", and press  (operation button 4) to confirm.



This disables recording of mix files.




Capturing audio before recording starts (pre-recording)

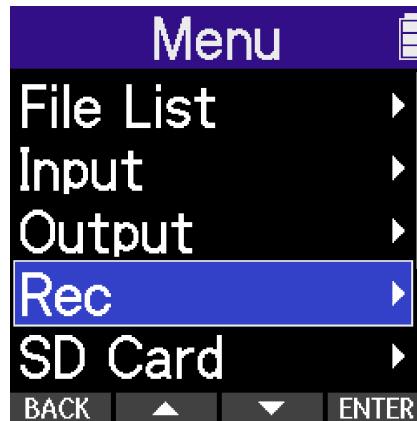
The input signal is always buffered for a set amount of time, so it can be captured (pre-recorded) for up to 2 seconds before the time when the  (REC) button is operated to start recording.




This is useful when the  (REC) button is operated late, for example.

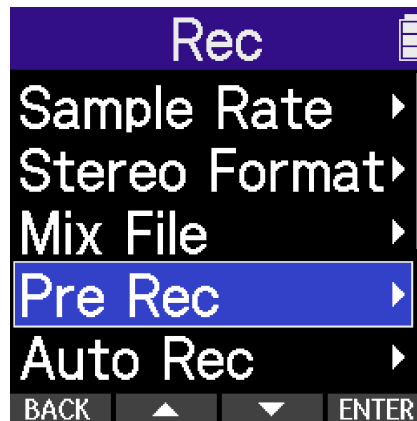
1. Press the  (MENU) button when the [Home Screen](#) is open.




This opens the [Menu Screen](#).

2. Use  (operation button 2) and  (operation button 3) to select "Rec", and press  (operation button 4) to confirm.



3. Use  (operation button 2) and  (operation button 3) to select "Pre Rec" and press  (operation button 4) to confirm.



4. Use  (operation button 2) and  (operation button 3) to select "On", and press  (operation button 4) to confirm.



The amount of time that can be pre-recorded when this is set to "On" depends on the sample rate setting (→ [Setting the sample rate](#)).




Sample rate	Pre-recording time
44.1 kHz	2 seconds
48 kHz	2 seconds
96 kHz	1 second

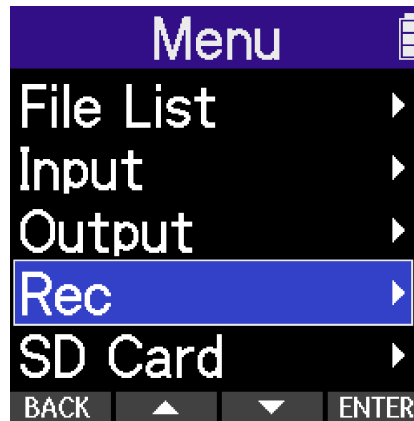
Recording automatically (Auto Rec)




Recording can start automatically when the input sound exceeds a set level.

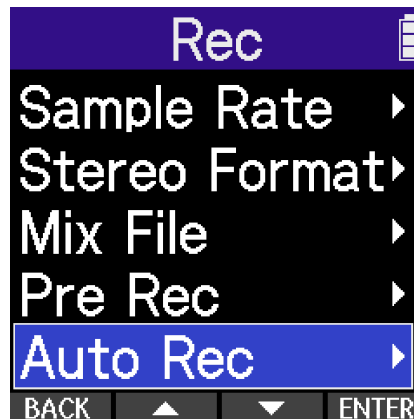
1. Press the  (MENU) button when the [Home Screen](#) is open.

This opens the [Menu Screen](#).

2. Use  (operation button 2) and  (operation button 3) to select "Rec", and press  (operation button 4) to confirm.



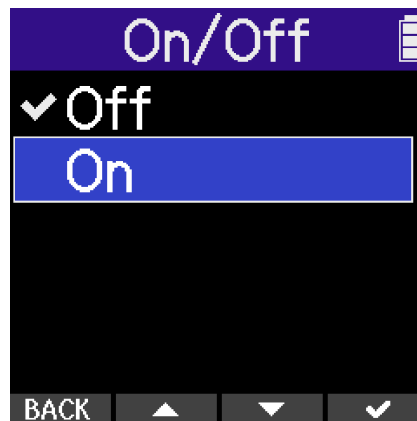
3. Use  (operation button 2) and  (operation button 3) to select "Auto Rec" and press  (operation button 4) to confirm.



4. Use **▲** (operation button 2) and **▼** (operation button 3) to select "On/Off", and press **ENTER** (operation button 4) to confirm.



5. Use **▲** (operation button 2) and **▼** (operation button 3) to select "On", and press **ENTER** (operation button 4) to confirm.

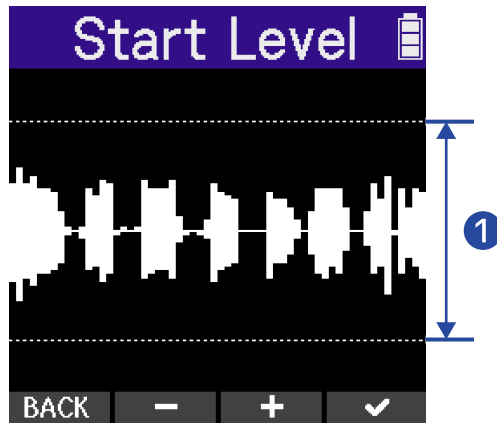


6. Use **BACK** (operation button 1) to return to the previous screen.

7. Use **▲** (operation button 2) and **▼** (operation button 3) to select "Start Level", and press **ENTER** (operation button 4) to confirm.



8. Use **-** (operation button 2) and **+** (operation button 3) to set the recording start level (1), and press **✓** (operation button 4) to confirm selection.



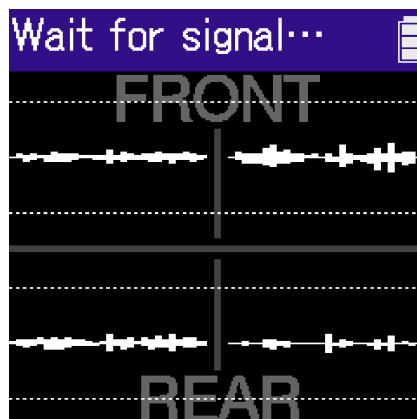
9. Press the **(MENU)** (MENU) button.

This opens the Recording Standby Screen.

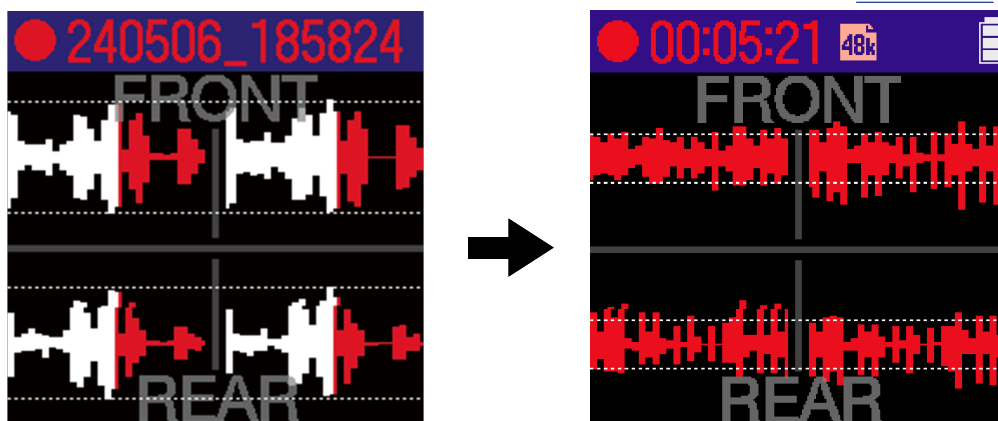


10. Press the **(REC)** (REC) button on the Recording Standby Screen.

Automatic recording standby will start and the REC button will light red.




Recording will start automatically when the input level set in step 8 is exceeded. The Recording Screen will be shown after the name of the file being recorded is shown. (→ [Recording](#))






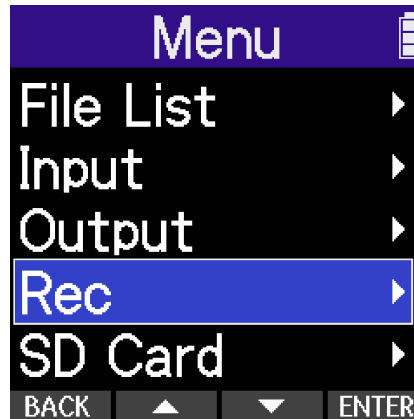
NOTE




Pressing the  (REC) button when the Automatic Recording Standby Screen is open will start recording regardless of the input level.

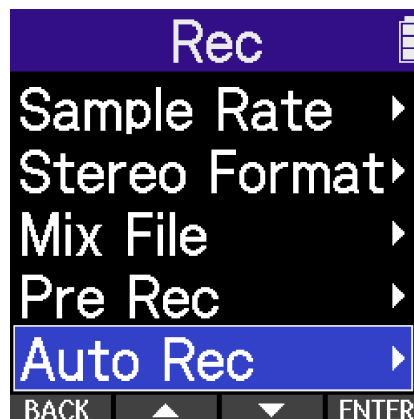
Stopping recording automatically (Auto Stop)




1. Press the  (MENU) button when the [Home Screen](#) is open.
This opens the [Menu Screen](#).

2. Use  (operation button 2) and  (operation button 3) to select "Rec", and press  (operation button 4) to confirm.



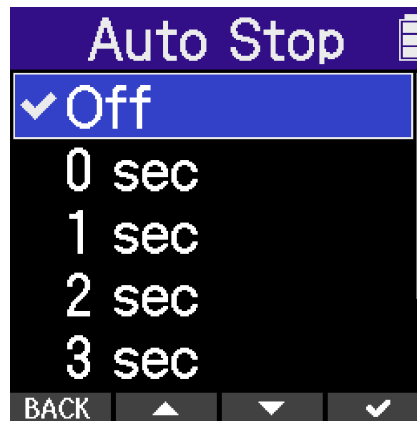
3. Use  (operation button 2) and  (operation button 3) to select "Auto Rec" and press  (operation button 4) to confirm.



4. Use  (operation button 2) and  (operation button 3) to select "Auto Stop" and press  (operation button 4) to confirm.



5. Use **▲** (operation button 2) and **▼** (operation button 3) to select the automatic stopping time, and press **✓** (operation button 4) to confirm.



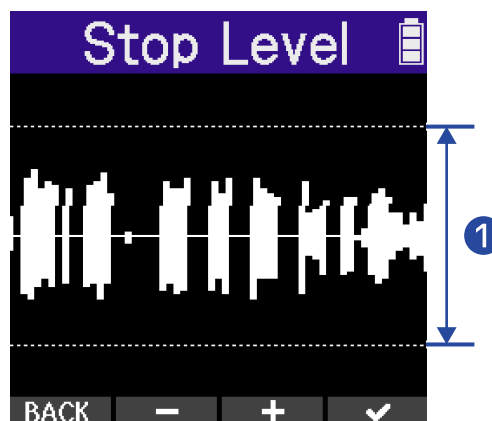
This can be set to OFF or between 0 and 5 seconds.

6. Use **BACK** (operation button 1) to return to the previous screen.

7. Use **▲** (operation button 2) and **▼** (operation button 3) to select "Stop Level", and press **ENTER** (operation button 4) to confirm.



8. Use **-** (operation button 2) and **+** (operation button 3) to set the recording stop level (①), and press **✓** (operation button 4) to confirm selection.







Recording will stop automatically when the input signal stays below the set level for the amount of time set in step 5.

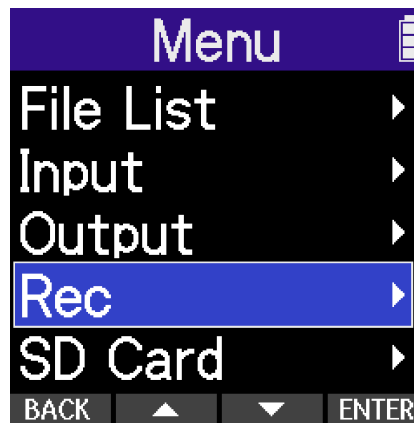
Enabling the recording start tone




Half-second tone signals (recording start tones) can be output from the PHONE/LINE OUT jack when recording is started.

Since recording start tones are also written to recording files, when recording audio for video with the H2essential, sending its output signal to the camera input can make synchronizing audio and video easier.




1. Press the  (MENU) button when the [Home Screen](#) is open.
This opens the [Menu Screen](#).

2. Use  (operation button 2) and  (operation button 3) to select "Rec", and press  (operation button 4) to confirm.



3. Use  (operation button 2) and  (operation button 3) to select "Rec Start Tone", and press  (operation button 4) to confirm.



4. Use  (operation button 2) and  (operation button 3) to select the volume of the recording start tone, and press  (operation button 4) to confirm.

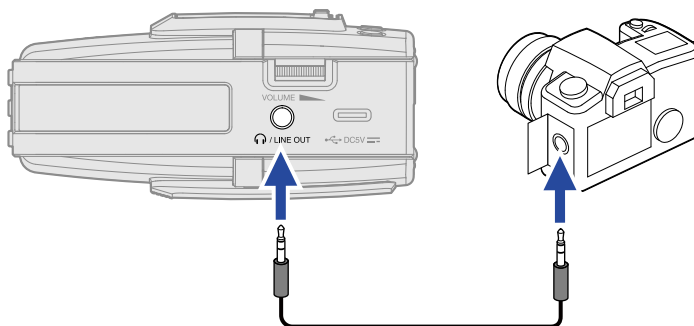


The following volumes can be selected.

OFF, -40 dBFS, -20 dBFS, -12 dBFS, -6 dBFS

No recording start tone will be played if "OFF" is selected.


5. Use a stereo mini jack cable to connect the input jack of the camera to the H2essential PHONE/LINE OUT jack.



NOTE




Be careful with the volume if you are monitoring the input sound with headphones connected to the camera, for example.

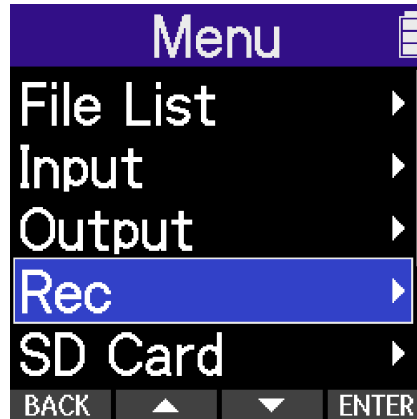
Setting the self-timer




After pressing the  (REC) button, recording will start automatically after the set time passes.

1. Press the  (MENU) button when the [Home Screen](#) is open.




This opens the [Menu Screen](#).

2. Use  (operation button 2) and  (operation button 3) to select "Rec", and press  (operation button 4) to confirm.




3. Use  (operation button 2) and  (operation button 3) to select "Self Timer", and press  (operation button 4) to confirm.



4. Use  (operation button 2) and  (operation button 3) to set the time until recording starts, and press  (operation button 4) to confirm.



The following times can be selected.
Off, 3 sec, 5 sec, 10 sec

5. Press the  (MENU) button.
This opens the [Home Screen](#).

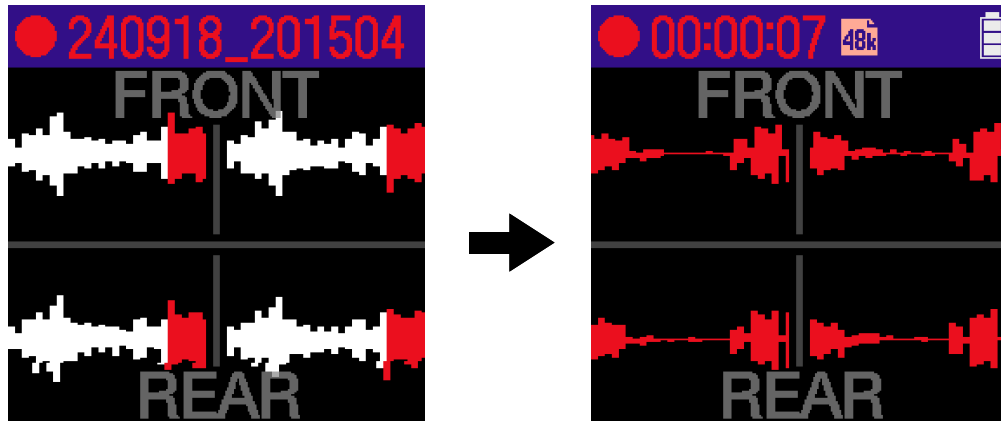


6. Press the  (REC) button.
This starts a countdown.



① Countdown (seconds)



Recording will start automatically after the time set in step 4 passes. The Recording Screen will be shown after the name of the file being recorded is shown. (→ [Recording](#))



NOTE

This cannot be used with the automatic recording function. When the self-timer is enabled, AUTO REC will be disabled. (→ [Recording automatically \(Auto Rec\)](#))

HINT




- During the countdown, the  (REC) button can be pressed to start recording immediately.
- During the countdown, the  (STOP) button can be pressed to cancel it.

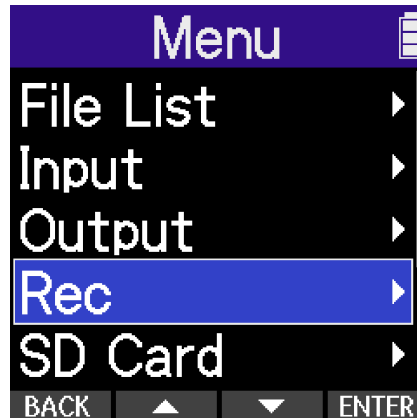
Setting the recording time display




Whether the elapsed recording time or the remaining available recording time is shown during recording can be selected.

1. Press the  (MENU) button when the [Home Screen](#) is open.




This opens the [Menu Screen](#).

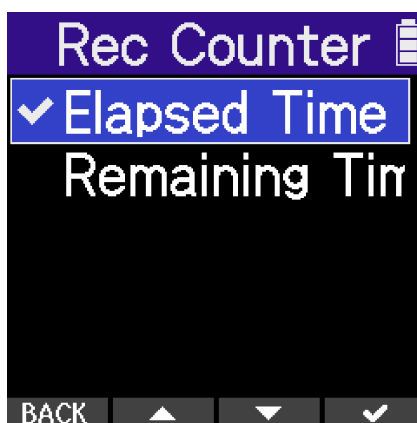
2. Use  (operation button 2) and  (operation button 3) to select "Rec", and press  (operation button 4) to confirm.



3. Use  (operation button 2) and  (operation button 3) to select "Rec Counter" and press  (operation button 4) to confirm.

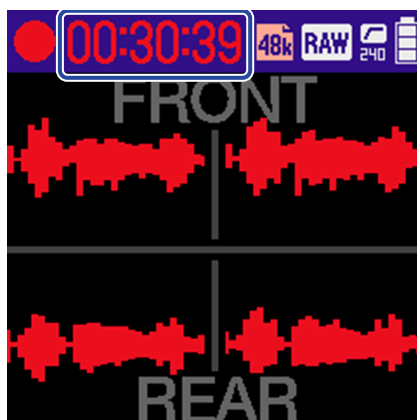


4. Use  (operation button 2) and  (operation button 3) to select the time to be shown, and press  (operation button 4) to confirm it.



Setting	Explanation
Elapsed Time	The current elapsed recording time will be shown.
Remaining Time	The remaining available recording time will be shown.

The Elapsed/Remaining Time will be shown at the top of the display when recording.






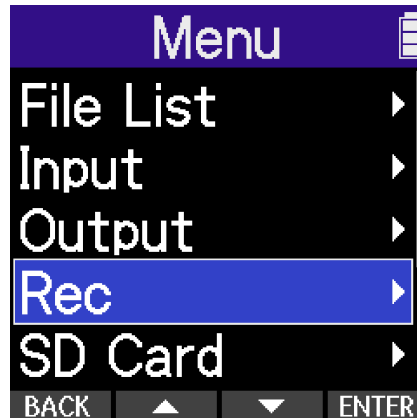
Writing metadata (iXML chunks) to recording files




Various related information (metadata) stored in iXML chunks can be written to recorded files. (→ [Metadata contained in iXML chunks in WAV files](#))

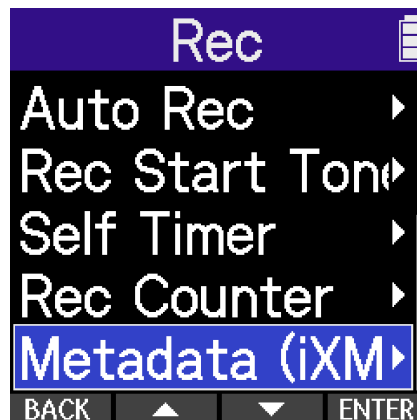
1. Press the  (MENU) button when the [Home Screen](#) is open.




This opens the [Menu Screen](#).

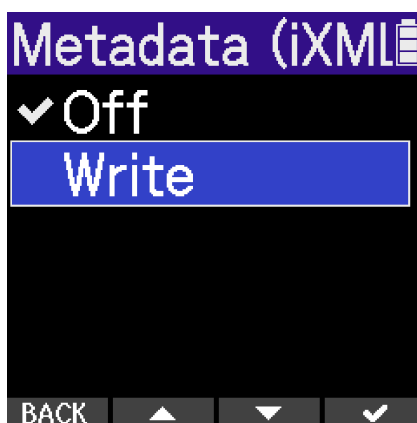
2. Use  (operation button 2) and  (operation button 3) to select "Rec", and press  (operation button 4) to confirm.



3. Use  (operation button 2) and  (operation button 3) to select "Metadata (iXML)", and press  (operation button 4) to confirm.



4. Use  (operation button 2) and  (operation button 3) to select a setting, and press  (operation button 4) to confirm it.

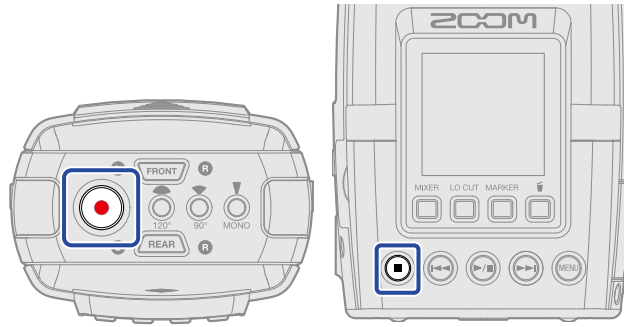



Setting	Explanation
Off	Metadata (iXML chunks) will not be added to recording files.
Write	Metadata (iXML chunks) will be added to recording files.

NOTE

Some applications might not be compatible with files that have data embedded in them. If problems occur with files when using an application, turning off metadata writing might resolve them.

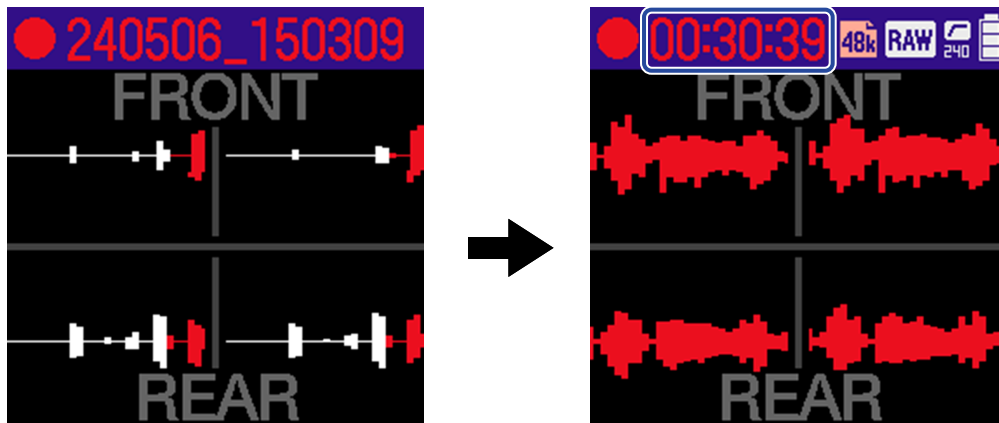
Recording



1. Press the  (REC) button when the Home Screen is open.

The REC button will light red, the name of the recording file will appear on the display and recording will start.

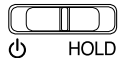
The elapsed recording time or the remaining recordable time is shown when recording. (→ [Setting the recording time display](#))



NOTE

The file name will be the date followed by the hour, minute and second using the set date and time ([Setting the date and time](#)). The date will be shown using numbers in the set order ([Setting the date format](#)). For details about file names, see "[Recording file names](#)".



2. To stop, press the  (REC) or  (STOP) button.

Slide the  (POWER/HOLD) switch toward HOLD (toward the unit top) to prevent misoperation while recording. (→ [Preventing misoperation \(HOLD function\)](#))

NOTE

If the file size exceeds 2 GB during recording, a new file will be created automatically and recording will continue without pause. No gap in sound will occur between the two files when this happens.

HINT

- Files are automatically saved at regular intervals during recording. If the power is interrupted or another problem occurs during recording, an affected file can be restored to normal by turning on the power again.
 - Recording can be paused by pressing the  (PLAY/PAUSE) button. Press the  (PLAY/PAUSE) button again to resume recording. Pausing will automatically add a marker at that point.
-

Adding markers during recording

Markers can be added to files while recording.

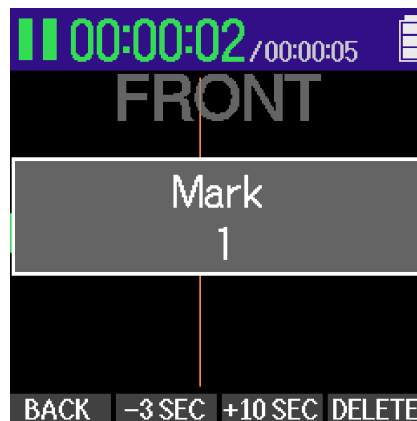
Added markers are shown on the [Playback Screen](#), and the ⏮ (REW) and ⏭ (FF) buttons can be used to move the playback position to markers.

In addition, software that supports markers in recording files can also use these added markers

1. Press the  (MARKER) button during recording.



This will add a marker at the position of the current elapsed recording time.



NOTE




- A maximum of 99 markers can be added to a single file.
- Use the Playback Screen to delete markers. (→ [Deleting markers](#))

Moving the file being recorded to the TRASH folder

The file being recorded can be moved to the trash. This function is convenient when, for example, a recording was not good enough.


1. Press the  (TRASH) button during recording.



2. Use  (operation button 2) and  (operation button 3) to select "Execute", and press  (operation button 4) to confirm.



This will stop recording and move the file being recorded to the trash. (→ [H2essential folder and file structure](#))

Select "Cancel" and press  (operation button 4) to cancel the operation and continue recording.

NOTE

- Files moved to the trash are saved in the TRASH folder created on the SD card, but their information cannot be checked and they cannot be played back by the H2essential. To check or play them, connect and use a computer, smartphone or tablet. (→ [Transferring files to computers and other devices](#))
- The files in the trash can all be deleted at the same time. (→ [Deleting files in the TRASH folder](#))

Playing recordings


Starting and stopping playback



1. Press the  (PLAY/PAUSE) button when the [Home Screen](#) is open.

This opens the [Playback Screen](#) on the display and starts playback of the most recently recorded file.



Use the  (VOLUME) dial to adjust the headphone or speaker volume. Levels can also be

adjusted separately for each track. (→ [Adjusting the levels of mics](#))


Files can be selected from the File List Screen for playback. (→ [Selecting files for playback \(File List Screen\)](#))

NOTE

When "Volume Control" is set to "Fixed", the  (VOLUME) dial cannot be used to adjust the


headphone volume. To use the  (VOLUME) dial for volume adjustment, set "Volume Control"

to "Knob". (→ [Changing how the output level is adjusted](#))

2. Press the  (STOP) button.

This stops playback and returns to the beginning of the file.

Press the  (STOP) button again to return to the [Home Screen](#).

Pressing the  (MENU) button will also reopen the [Home Screen](#).

NOTE

- The FRONT and REAR buttons can be pressed to turn on/off playback of those tracks. Tracks with lit buttons will be played back. This operation is only possible with tracks that have been recorded.
- The stereo width of files that have been recorded using the MS RAW setting can be changed by pressing the 90° and 120° buttons during playback.
- These settings are also applied when exporting.

Adjusting the levels of mics

1. Press **OPTION** (Operation button 1) on the [Playback Screen](#).



2. Use **▲** (operation button 2) and **▼** (operation button 3) to select "Mixer", and press **ENTER** (operation button 4) to confirm.



This opens the [Mixer Screen](#).

3. Use **◀** (operation button 2) and **▶** (operation button 3) to select the track for level adjustment, and press **ENTER** (operation button 4) to confirm selection.



4. Use **-** (operation button 2) and **+** (operation button 3) to set the level, and press **✓** (operation button 4) to confirm.

This confirms the adjusted level.



5. Repeat steps 2-3 to balance the levels overall.

NOTE

Volume adjustments made on the [Mixer Screen](#) can be applied to files created when exporting. (→ [Changing the file format and exporting files](#))

Selecting files for playback (File List Screen)

The File List Screen can be opened and playback files selected.

1. Press **OPTION** (operation button 1) on the [Playback Screen](#) of the file you want to view in a list.
This opens the [Playback Options Screen](#).
2. Use **▲** (operation button 2) and **▼** (operation button 3) to select "File List", and press **ENTER** (operation button 4) to confirm.



3. Use **▲** (operation button 2) and **▼** (operation button 3) to select a file, and press **ENTER** (operation button 4) to confirm.



This opens the [Playback Screen](#) and starts playback of the selected file.

HINT

The **◀▶** (REW) and **▶▶** (FF) buttons can also be used to select files.

Changing the file format and exporting files

The H2essential can only record using 32-bit float format, but recorded files can be converted to other formats and exported.

This is convenient, for example, when loading files recorded on the H2essential to a computer, smartphone or tablet if the application being used does not support 32-bit float format.

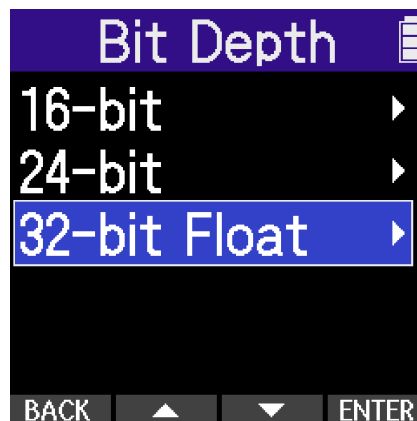
In addition, exported tracks can be normalized to optimize the volumes of recorded files.

1. Press **OPTION** (operation button 1) on the [Playback Screen](#) of the file you want to export.
This opens the [Playback Options Screen](#).

2. Use **▲** (operation button 2) and **▼** (operation button 3) to select “Export”, and press **ENTER** (operation button 4) to confirm.






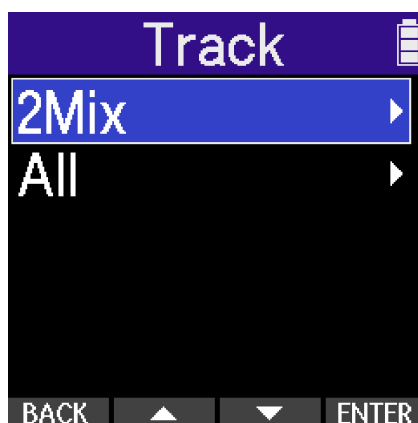
3. Use **▲** (operation button 2) and **▼** (operation button 3) to select the bit depth, and press **ENTER** (operation button 4) to confirm.



The following formats can be selected.




16-bit, 24-bit, 32-bit Float

4. Use  (operation button 2) and  (operation button 3) to select the tracks to export, and press  (operation button 4) to confirm.



The following options can be selected.




Setting	Explanation
2Mix	This exports a stereo file that uses the mix adjusted on the Mixer Screen. (→ Adjusting the monitoring mix of the mic inputs)
All	This exports all the tracks separately.

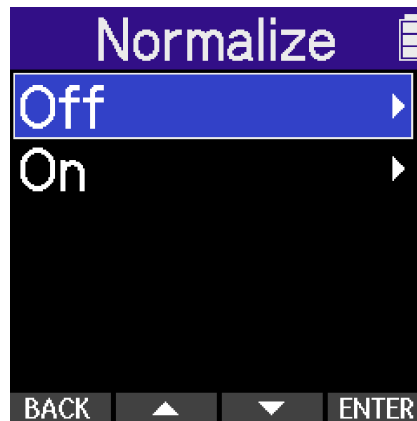
5. Use  (operation button 2) and  (operation button 3) to select "Range", and press  (operation button 4) to confirm.



The following options can be selected.

A-B, All




6. Use  (operation button 2) and  (operation button 3) to select a normalization setting, and press  (operation button 4) to confirm.

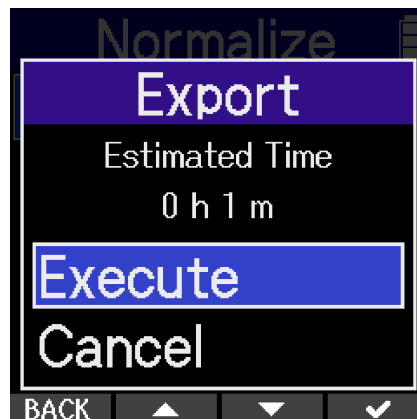


If "On" is selected, the file will be normalized during export.


NOTE

Normalization is a function that reads the maximum volume of the audio data and levels the volume without causing distortion. The volume is adjusted to the maximum possible without causing the loudest sound (peak) in the data to distort.

7. Use  (operation button 2) and  (operation button 3) to select "Execute", and press  (operation button 4) to confirm.



Select "Cancel" and press  (operation button 4) to cancel the operation.

To cancel during an export, press  (operation button 1).

8. When “Done!” appears after exporting finishes, press **BACK** (operation button 1). This reopens the Playback Screen.

NOTE

- Exported files saved in the Export folder are named in this format: FF_BB_NN.WAV.
 - FF: Name of original file that was exported
 - BB: Bit depth (“16” when 16-bit selected, “24” when 24-bit selected)
 - NN: Normalization setting (“NORM” when on or nothing when off)
- The H2essential cannot play files in the Export folder.
- When exporting a file that exceeded 2 GB during recording, exporting will occur for all the separate files.
- In this case, normalization will be applied to all the separate files together and use the highest overall level as the reference level.

Adding/deleting markers in recorded files

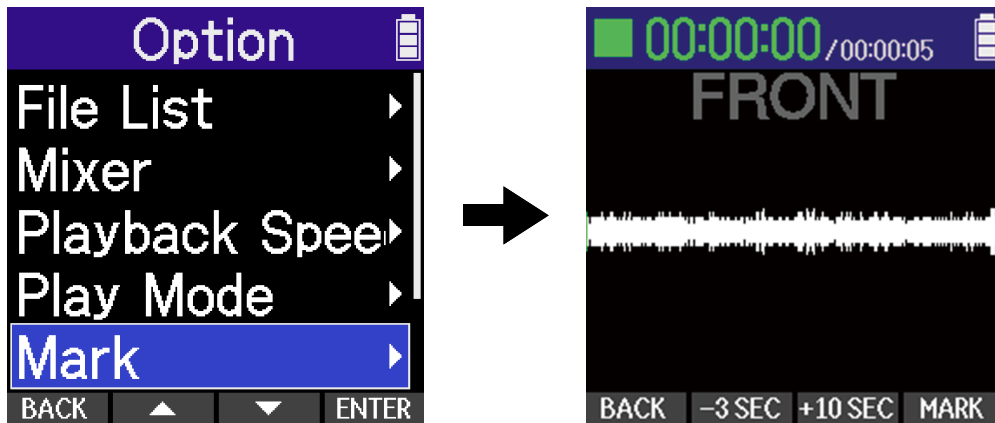
Markers can be added to recorded files.

Added markers are shown on the Playback Screen, and the ⏮ (REW) and ⏭ (FF) buttons can be used to move the playback position to markers.

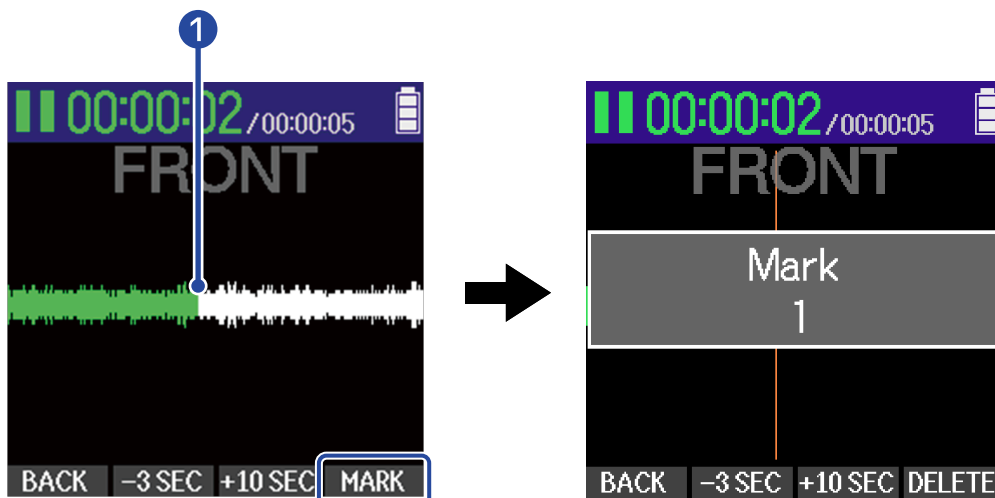
Adding markers

1. Press **OPTION** (operation button 1) on the [Playback Screen](#) of the file you want to add markers to. This opens the [Playback Options Screen](#).

2. Use **▲** (operation button 2) and **▼** (operation button 3) to select "Mark", and press **ENTER** (operation button 4) to confirm. This opens the Marker Operation Screen.



3. Use **▶/⏸** (PLAY/PAUSE), **⏭** (FF), **⏮** (REW), **-3 SEC** (operation button 2) and **+10 SEC** (operation button 3) to move the playback position to where you want to add a marker, and press **MARK** (operation button 4) to confirm.



1 Current playback position

A marker will be added at the current playback position.

4. Press **BACK** (operation button 1).
This reopens the Playback Options Screen.

NOTE

A maximum of 99 markers can be added to a single file.

HINT

In step 3, **MARK** (operation button 4) can be used during playback to add markers while continuing to play.

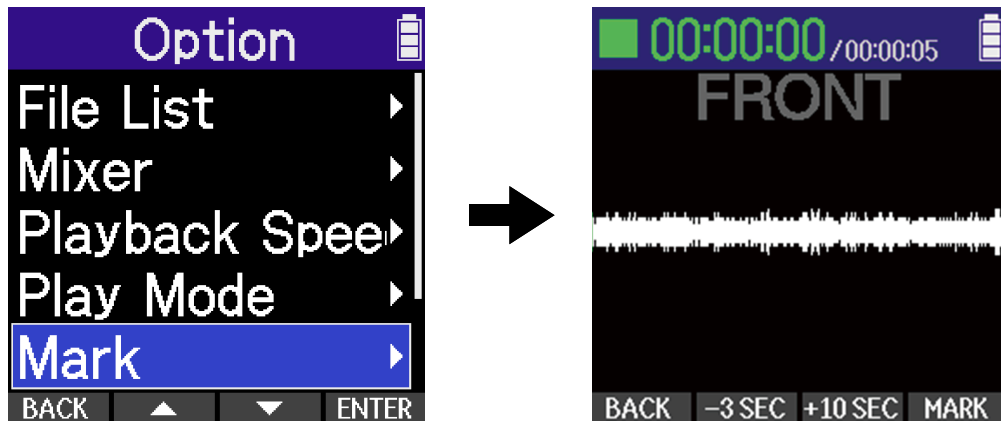
Deleting markers

1. Press **OPTION** (operation button 1) on the [Playback Screen](#) of the file you want to remove markers from.

This opens the [Playback Options Screen](#).

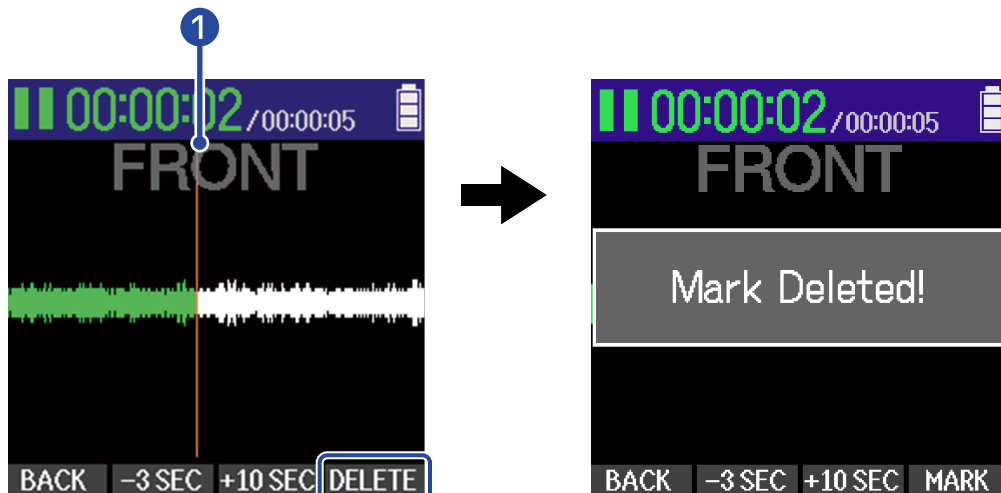
2. Use **▲** (operation button 2) and **▼** (operation button 3) to select "Mark", and press **ENTER** (operation button 4) to confirm.

This opens the Marker Operation Screen.



3. Use **▶▶** and **◀◀** to move the playback position to the marker you want to delete, and press **DELETE** (operation button 4) to confirm.

When the playback position has moved to a marker, **MARK** (operation button 4) becomes **DELETE** (operation button 4).



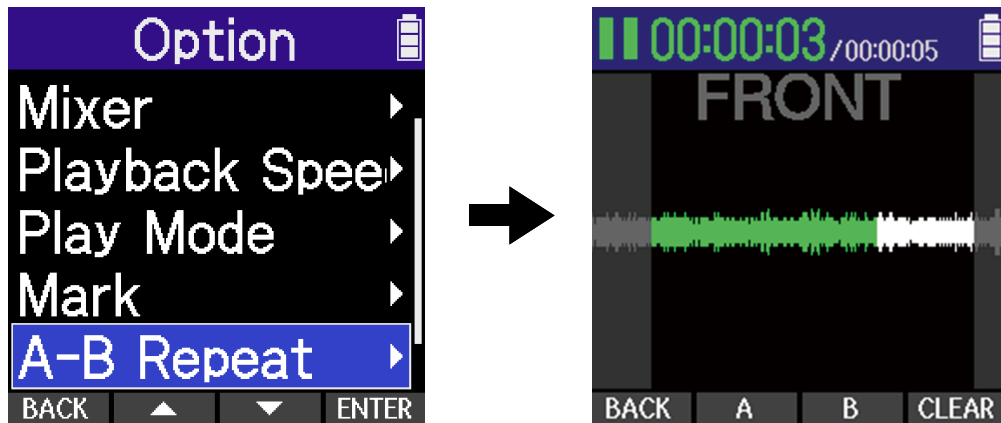
① Position of marker to be deleted

4. Press **BACK** (operation button 1).
This reopens the Playback Options Screen.

Repeating playback of a set interval (A-B repeat)

Playback can be repeated between two set points.




1. Press **OPTION** (operation button 1) on the [Playback Screen](#) of the file you want to set for repeat playback.
This opens the [Playback Options Screen](#).
2. Use **▲** (operation button 2) and **▼** (operation button 3) to select "A-B Repeat", and press **ENTER** (operation button 4) to confirm.
This opens the A-B Repeat Screen.



3. Press the **▶/⏸** (PLAY/PAUSE) button to start playback or press and hold the **⏮** (REW) or **⏭** (FF) button to move to the desired starting position (A point) for repeat playback. Then, press **A** (operation button 2) to confirm it.



The section before the set point will appear gray.

4. Press  to start playback or press and hold the  (REW) or  (FF) button to move to the desired ending position (B point) for repeat playback. Then, press **B** (operation button 3) to confirm it.



The section after the set point will appear gray. The A-B interval will appear green and repeat playback of the A-B interval will start.

5. Press **BACK** (operation button 1) when finished setting.
This reopens the Playback Options Screen.

NOTE

To cancel or change A-B repeat settings, press **CLEAR** (operation button 4) to reset the settings.

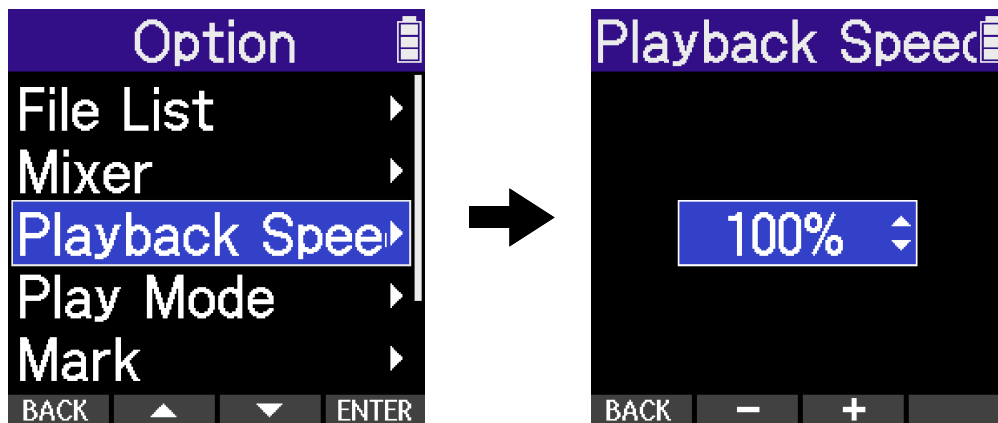
HINT

Since moving the A (playback start) and B (playback end) points during playback allows these positions to be confirmed in real time, they can be set while checking the playback sound.

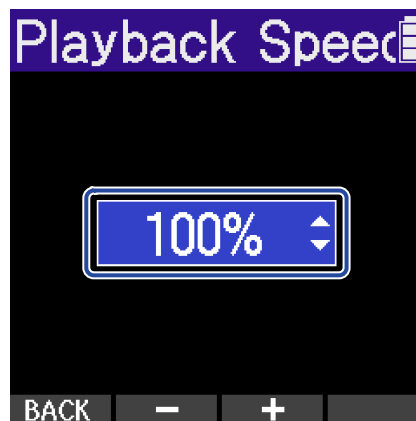
Changing the playback speed (Playback Speed)

The playback speed can be changed.

1. Press **OPTION** (operation button 1) on the [Playback Screen](#) of the file for which you want to set the playback speed.
This opens the [Playback Options Screen](#).
2. Use **▲** (operation button 2) and **▼** (operation button 3) to select "Playback Speed", and press **ENTER** (operation button 4) to confirm.
This opens the Playback Speed Screen.



3. Use **-** (operation button 2) and **+** (operation button 3) to set the playback speed.



The following speeds can be selected.
50% (1/2× speed) – 200% (2× speed)




4. Press **BACK** (operation button 1) when finished setting.
This reopens the Playback Options Screen.

Moving the file being played to the TRASH folder

The file being played can be moved to the TRASH folder.


1. Press  (operation button 4) on the [Playback Screen](#) of the file you want to move to the trash.



2. Use  (operation button 2) and  (operation button 3) to select "Execute", and press  (operation button 4) to confirm.

This moves the file being played to the trash. (→ [H2essential folder and file structure](#))



After the file is moved, "Done!" will appear and the Playback Screen will reopen. Select "Cancel" and press  (operation button 4) to cancel the operation.

NOTE

- Files moved to the trash are saved in the TRASH folder created on the SD card, but their information cannot be checked and they cannot be played back by the H2essential. To check or play them, connect and use a computer, smartphone or tablet. (→ [Transferring files to computers and other devices](#))
- The files in the trash can all be deleted at the same time. (→ [Deleting files in the TRASH folder](#))

Setting repeat playback (Play Mode)

Playback can be set so that after one file completes the next file will be played without stopping.

1. Press **OPTION** (operation button 1) on the [Playback Screen](#) of the file for which you want to set the play mode.

This opens the [Playback Options Screen](#).

2. Use **▲** (operation button 2) and **▼** (operation button 3) to select "Play Mode", and press **ENTER** (operation button 4) to confirm.



3. Use **▲** (operation button 2) and **▼** (operation button 3) to set the play mode, and press **✓** (operation button 4) to confirm.



Setting	Explanation
Play One	Playback stops after one file completes playing.
Play All	After one file completes playing, the next file will start playback without pause. Files will be played in name order. Playback will stop after the most recent file completes.
Repeat One	After one file completes playing, the same file will play again repeatedly.
Repeat All	After one file completes playing, the next file will start playback without pause. Files will be played in name order. After the most recent file completes, playback will continue from the first file.

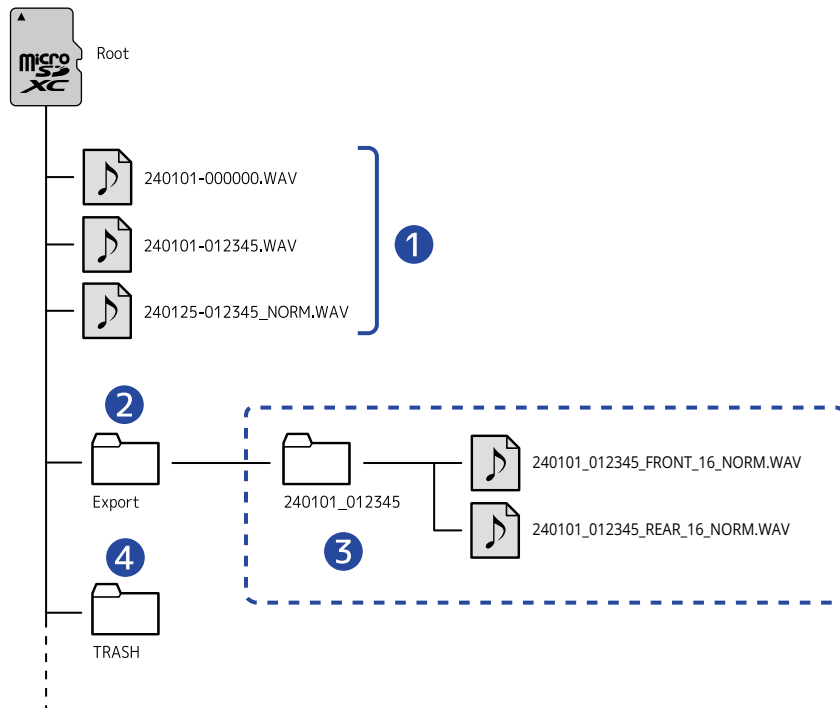
Managing files

Files created on the H2essential will be saved on the microSD card.
Recording files on the microSD card can be checked and deleted.

H2essential folder and file structure

Folder and file structure

When recording with the H2essential, files are created on microSD cards in the following manner.



1 Recording files

Files recorded by the H2essential will be saved on the microSD card.
For details about recording file names, see ["Recording file names"](#).

2 Export folder

This is created when files are exported. Files created by exporting are saved in the Export folder.
(→ [Changing the file format and exporting files](#))

3 Exported files

These are created when files are exported. Files created by exporting are saved in the Export folder.
(→ [Changing the file format and exporting files](#))

4 TRASH folder

The TRASH folder is created automatically when an SD card is loaded in the H2essential. Files that have been moved to the TRASH folder are saved inside it. (→ [Moving the file being recorded to the TRASH folder](#), [Moving the file being played to the TRASH folder](#))

The files in the TRASH folder can all be deleted at the same time. (→ [Deleting files in the TRASH folder](#))

Recording file names

Files are named with the following format.

File name example	Explanation
<u>2420101</u> - <u>000000</u> .WAV 1 2	<ol style="list-style-type: none">1 Date The date of recording is included numerically. The numbers follow the set order (Setting the date format).2 Time The hour, minute and second are included numerically.

NOTE

If the file size exceeds 2 GB, a new file will be created automatically and recording will continue without pause. New files created this way will be named by adding "_001" to the end of the original file name.

Using as an audio interface

Signals input to the H2essential can be sent to a computer, smartphone or tablet, and playback signals from that device can be output from the H2essential.

Moreover, the H2essential can record even when it is being used as an audio interface.

No driver is necessary for use with smartphones, tablets or Mac computers.

A driver is necessary for use with Windows computers.

Installing the driver for Windows computers

1. Download the H2essential Driver to the computer from zoomcorp.com/help/h2essential.

NOTE

The latest H2essential Driver can be downloaded from the above website.

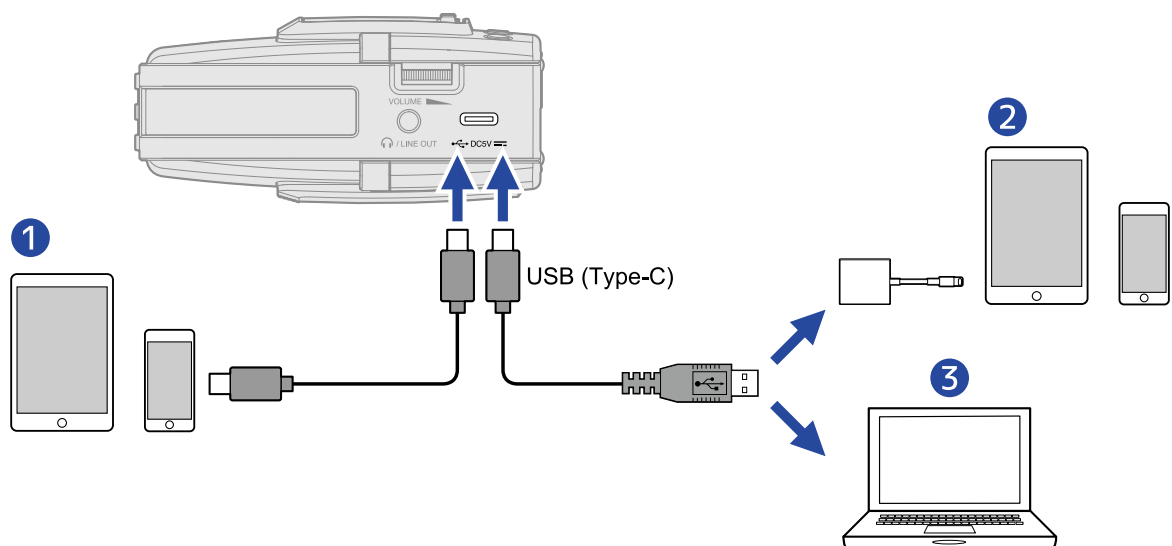
2. Launch the installer and follow the instructions to install the H2essential Driver.

NOTE

See the Installation Guide included in the driver package for detailed installation procedures.

Connecting to computers, smartphones and tablets

1. Use a USB (Type-C) cable to connect the H2essential with a computer, smartphone or tablet.



- 1 Smartphone/tablet (USB Type-C)
- 2 Smartphone/tablet (Lightning)




3 Computer (Windows/Mac)

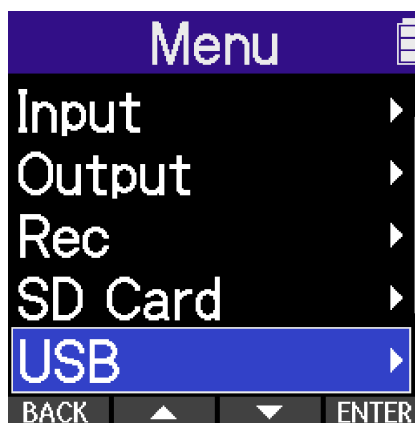
NOTE




- Use a USB cable that supports data transfer.
- A Lightning to USB 3 Camera Adapter is necessary to connect to an iPhone/iPad with a Lightning connector.
- Connection is not possible using a Type-C to Lightning cable.

2. Press the  (MENU) button when the [Home Screen](#) is open.




This opens the [Menu Screen](#).

3. Use  (operation button 2) and  (operation button 3) to select "USB", and press  (operation button 4) to confirm.



4. Use  (operation button 2) and  (operation button 3) to select "Audio I/F", and press  (operation button 4) to confirm.



5. Use  (operation button 2) and  (operation button 3) to select the channels to output to the computer, smartphone or tablet, and press  (operation button 4) to confirm.



Setting	Explanation
Stereo mix	This will make a stereo mix of all inputs with the volume adjustments on the Mixer Screen and output two channels to the computer, smartphone or tablet. (→ Adjusting the monitoring mix of the mic inputs)
Multi Track	This will output each input separately as 4 channels to the computer, smartphone or tablet.

6. Use  (operation button 2) and  (operation button 3) to set whether to record simultaneously on the H2essential, and press  (operation button 4) to confirm.






Setting	Explanation
Audio I/F + REC	The H2essential can record and play back even when it is being used as an audio interface.
Audio I/F Only	The H2essential will not be able to record or play back when it is being used as an audio interface.

NOTE

- “Audio I/F + REC” can be selected only when the sample rate is set to 44.1 kHz or 48 kHz. (→ [Setting the sample rate](#))
- All sample rate options can be used when “Audio I/F Only” is selected. The sample rate, which can be set from the computer, smartphone or tablet, has 44.1 kHz, 48 kHz and 96 kHz options.

HINT

Using “Audio I/F + REC” mode, the H2essential sample rate setting cannot be changed from the computer, smartphone or tablet. To set the sample rate from a computer, smartphone or tablet, use “Audio I/F Only” mode.

7. Use  (operation button 2) and  (operation button 3) to select the power source, and press  (operation button 4) to confirm.



Setting	Explanation
USB	Power will be supplied using USB bus power.
Batteries	The batteries in the unit will be used.

NOTE

- When “USB” is selected, power is supplied through the USB cable from the computer. Depending on the USB bus power supply capacity of the computer, operation using bus power might not be possible. If this is the case, select “Batteries” and operate using batteries when connected.
- When “Batteries” is selected, power will not be supplied from the other device. Instead, the H2essential will operate using the batteries in it.

8. Launch an application on the computer, smartphone or tablet, and select “H2essential” as the “Audio” or “Input/Output” device.

NOTE

- If “H2essential” cannot be selected for the “Sound” setting on a computer, it can still be used as a 32-bit float audio interface by selecting “H2essential” as the “Audio” or “Input/Output” device in an application that supports 32-bit float format.
- See the application operation manuals for information about their operation.

Adjusting the input settings and monitoring mix

When using the H2essential as an audio interface, input settings and monitoring adjustments can be made in the same way as when using it as a recorder.

See the references below and make input settings and monitoring adjustments.

Reference	Explanation
Using plug-in power	Make this setting when a mic that is compatible with plug-in power is connected to the MIC/LINE IN jack.
Reducing noise (Lo Cut)	Low frequencies can be cut to reduce the sound of wind and vocal pop noises, for example.
Monitoring input sounds	Use headphones, for example, to monitor input sounds and adjust the volume.
Adjusting the monitoring mix of the mic inputs	On the Mixer Screen , the monitoring mix of all input sounds can be adjusted. Moreover, the volumes of the input sounds and their stereo mix signal can be checked with the level meters.

Making output settings

Adjusting the output level

The line output level used for output from the PHONE/LINE OUT jack to headphones or another device during use as an audio interface can be adjusted.

For details about operation, see "[Making output settings](#)".

NOTE

This does not affect the recorded audio or the audio levels output from the USB port.

Making audio interface settings




Enabling the loopback function

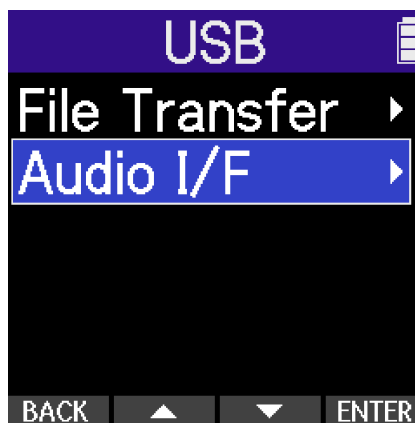
This function allows playback sound from a computer, smartphone or tablet and sounds input to the H2essential to be mixed and sent again (looped back) to the computer, smartphone or tablet.




This function can be used to add narration to music played back from a computer and to record the mix or stream it on that computer, for example.

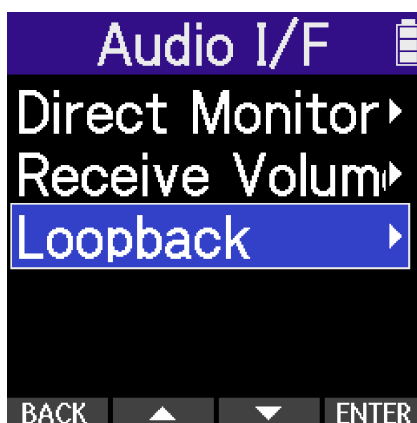
1. When in audio interface mode, press  (MENU) button on the [Home Screen](#).




This opens the [Menu Screen](#).

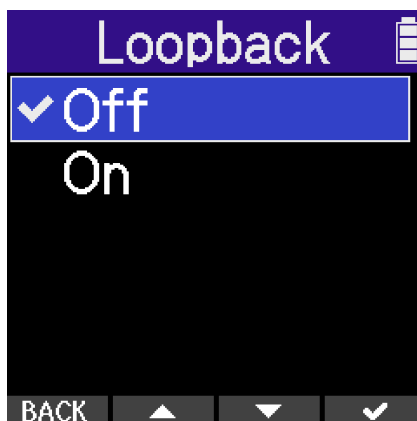
2. Use  (operation button 2) and  (operation button 3) to select "Audio I/F", and press  (operation button 4) to confirm.



3. Use  (operation button 2) and  (operation button 3) to select "Loopback", and press  (operation button 4) to confirm.




4. Use  (operation button 2) and  (operation button 3) to select "Off", and press  (operation button 4) to confirm.
Selecting "On" turns on the loopback function.






Enabling direct monitoring




The sound being input to the H2essential can be directly output from it before sending the sound to the computer, smartphone or tablet. This enables monitoring without latency (direct monitoring function).

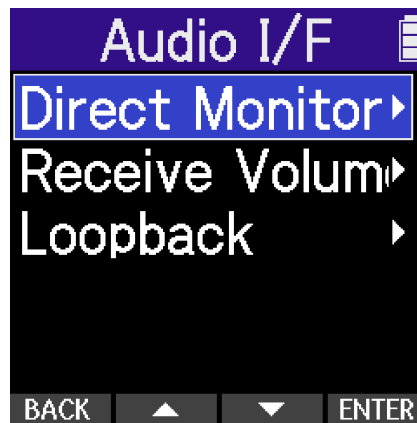
1. When in audio interface mode, press the  (MENU) button on the [Home Screen](#).




This opens the [Menu Screen](#).

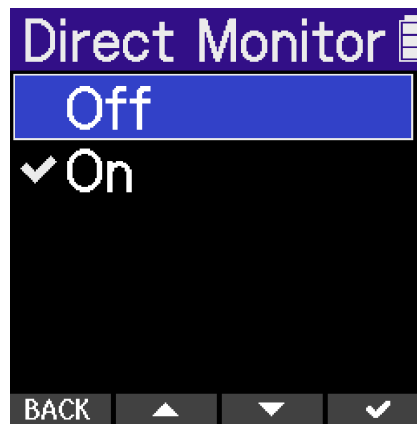
2. Use  (operation button 2) and  (operation button 3) to select "Audio I/F", and press  (operation button 4) to confirm.



3. Use  (operation button 2) and  (operation button 3) to select "Direct Monitor", and press  (operation button 4) to confirm.




4. Use  (operation button 2) and  (operation button 3) to select "On", and press  (operation button 4) to confirm.






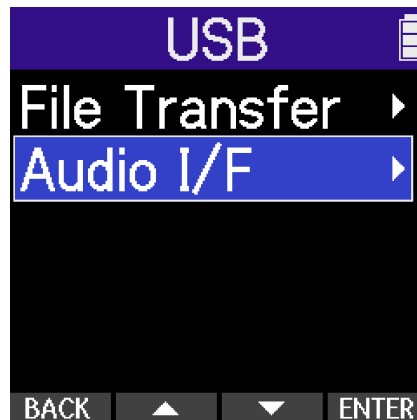
Adjusting the USB input level




If the playback sound from the computer is too loud, for example, the received volume setting can be changed to adjust the level.

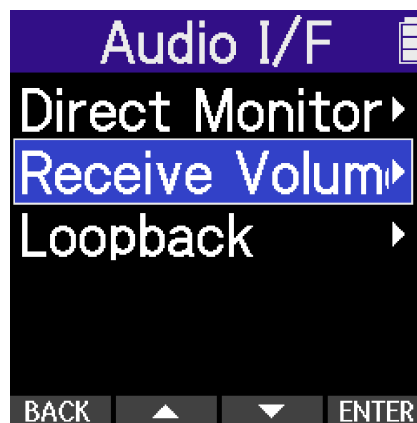
1. When in audio interface mode, press the  (MENU) button on the [Home Screen](#).

This opens the [Menu Screen](#).

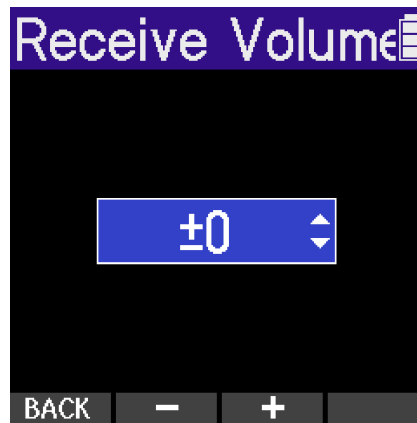
2. Use  (operation button 2) and  (operation button 3) to select "Audio I/F", and press  (operation button 4) to confirm.



3. Use  (operation button 2) and  (operation button 3) to select "Receive Volume", and press  (operation button 4) to confirm.




4. Use **-** (operation button 2) and **+** (operation button 3) to set the USB input level, and press **✓** (operation button 4) to confirm.






This can be set to Mute or from -40 dB to +40 dB.




Disconnecting from computers, smartphones and tablets

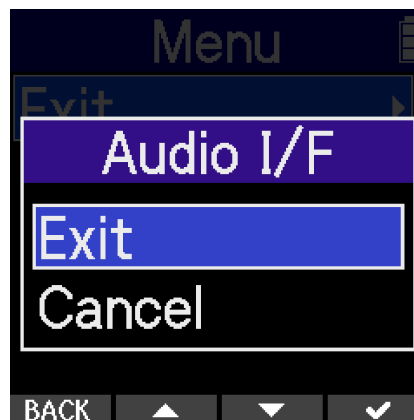
1. When in audio interface mode, press the  (MENU) button on the [Home Screen](#).

This opens the [Menu Screen](#).

2. Use  (operation button 2) and  (operation button 3) to select "Exit", and press  (operation button 4) to confirm.




3. Use  (operation button 2) and  (operation button 3) to select "Exit", and press  (operation button 4) to confirm.






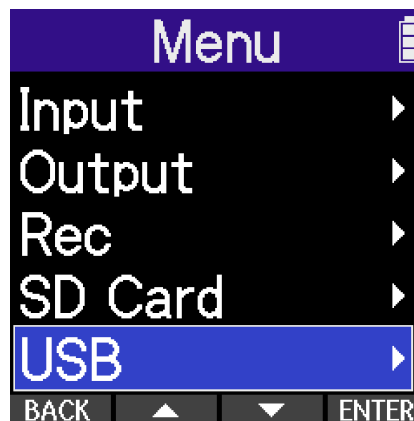
Transferring files to computers and other devices




By connecting the H2essential with a computer, smartphone or tablet, files on the microSD card can be checked and moved.

Connecting to computers, smartphones and tablets




1. Press the  (MENU) button when the [Home Screen](#) is open.
This opens the [Menu Screen](#).

2. Use  (operation button 2) and  (operation button 3) to select "USB", and press  (operation button 4) to confirm.



3. Use  (operation button 2) and  (operation button 3) to select "File Transfer", and press  (operation button 4) to confirm.

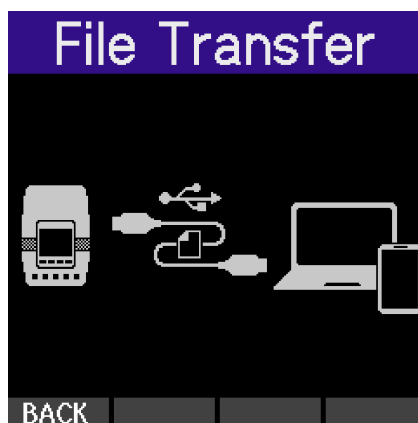


4. Use  (operation button 2) and  (operation button 3) to select the power source, and press  (operation button 4) to confirm.



Setting	Explanation
USB	Power will be supplied using USB bus power. Select this when connecting with a computer.
Batteries	The batteries in the unit will be used. Select this when connecting with a smartphone or tablet.

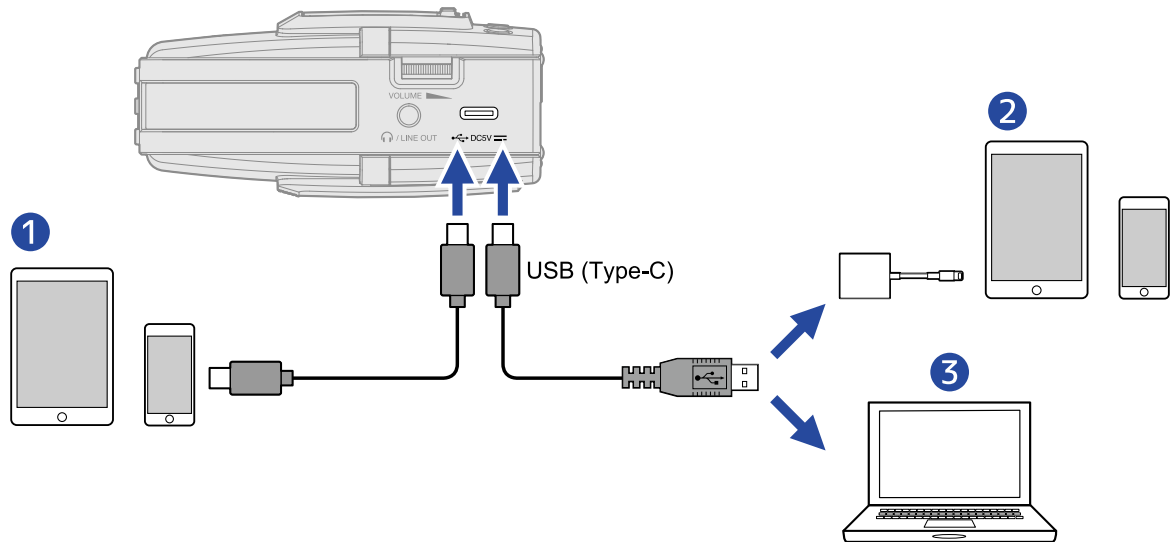
The File Transfer Screen will open.



NOTE

- When "USB" is selected, power is supplied through the USB cable from the computer. Depending on the USB bus power supply capacity of the computer, operation using bus power might not be possible. If this is the case, select "Batteries" and operate using batteries when connected.
- When "Batteries" is selected, power will not be supplied from the other device. Instead, the H2essential will operate using the batteries in it.

- 5.** Use a USB (Type-C) cable to connect the H2essential with a computer, smartphone or tablet.



- 1** Smartphone/tablet (USB Type-C)
- 2** Smartphone/tablet (Lightning)
- 3** Computer (Windows/Mac)

NOTE

- Use a USB cable that supports data transfer.
- A Lightning to USB 3 Camera Adapter is necessary to connect to an iPhone/iPad with a Lightning connector.

- 6.** Use the computer, smartphone or tablet to work with the files saved on the microSD card.

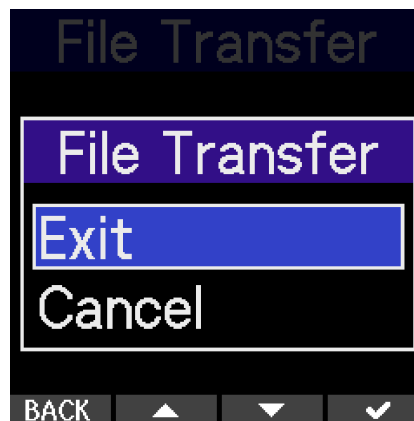
Disconnecting from computers, smartphones and tablets

1. Conduct disconnection procedures on the computer, smartphone or tablet.

- Windows:
Select the H2essential from “Safely Remove Hardware”.
- macOS:
Drag the H2essential icon to the Trash and drop it.
- Smartphone/tablet:
See the operation manual for the device.

2. Press **BACK** (operation button 1).
This opens a confirmation screen.

3. Use **▲** (operation button 2) and **▼** (operation button 3) to select “Exit”, and press **✓** (operation button 4) to confirm.




The [Home Screen](#) will reopen.




Managing microSD cards

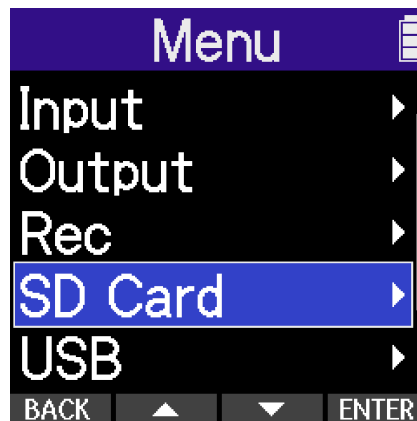
Formatting microSD cards




To maximize the performance of a microSD card, use the H2essential to format it.

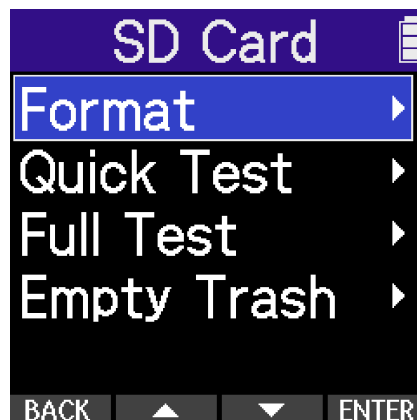
1. Press the  (MENU) button when the [Home Screen](#) is open.




This opens the [Menu Screen](#).

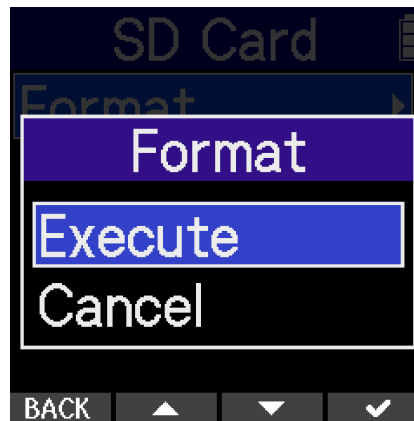
2. Use  (operation button 2) and  (operation button 3) to select "SD Card", and press  (operation button 4) to confirm.



3. Use  (operation button 2) and  (operation button 3) to select "Format", and press  (operation button 4) to confirm.




4. Use  (operation button 2) and  (operation button 3) to select "Execute", and press  (operation button 4) to confirm.



This formats the microSD card.

NOTE

- The microSD card formatting screen can also be opened by pressing the  (REC) button while turning the power on.
- Always format microSD cards in order to maximize their performance after purchasing them new or using them with a different device.
- Be aware that all data on the microSD card will be deleted when it is formatted.

Testing microSD cards




The writing speed of microSD cards can be tested to check if performance is good enough to save data recorded by the H2essential.

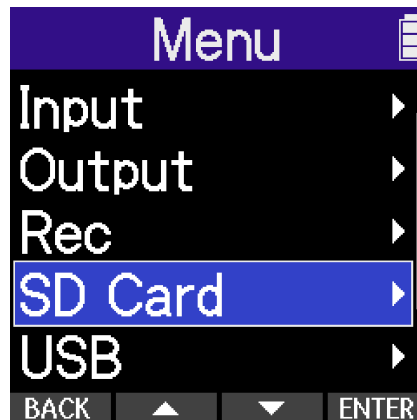
A Quick Test can be done in a short amount of time, while a Full Test examines the entire microSD card.




Conducting a quick test

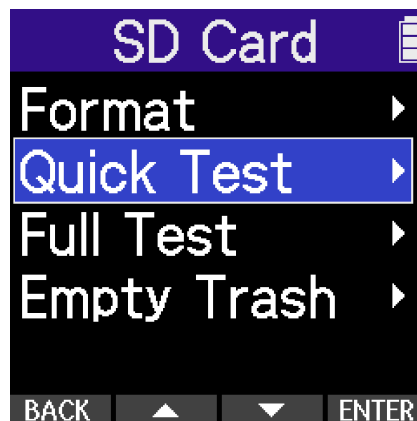
1. Press the  (MENU) button when the [Home Screen](#) is open.

This opens the [Menu Screen](#).

2. Use  (operation button 2) and  (operation button 3) to select "SD Card", and press  (operation button 4) to confirm.

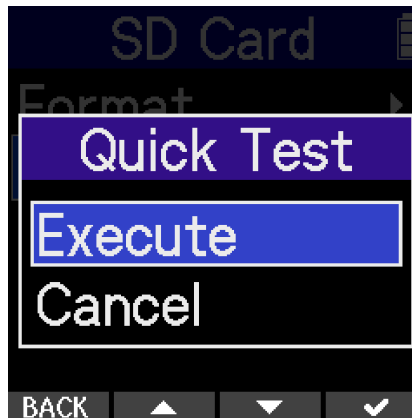


3. Use  (operation button 2) and  (operation button 3) to select "Quick Test", and press  (operation button 4) to confirm.

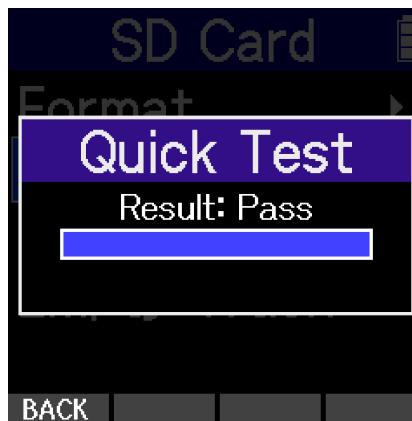


4. Use **▲** (operation button 2) and **▼** (operation button 3) to select "Execute", and press **✓** (operation button 4) to confirm.

The card performance test will start.



The result of the test will be shown when it completes.



NOTE

Even if a performance test result is "Pass", there is no guarantee that writing errors will not occur. This information is just to provide guidance.




HINT

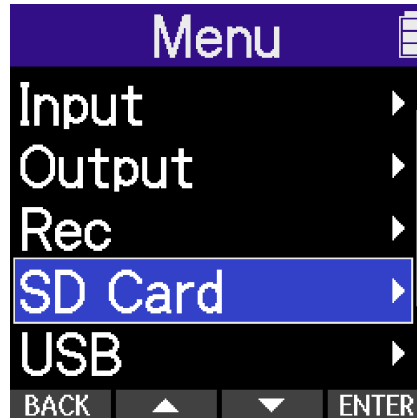
During a test, **BACK** (operation button 1) can be pressed to stop it.




Conducting a full test

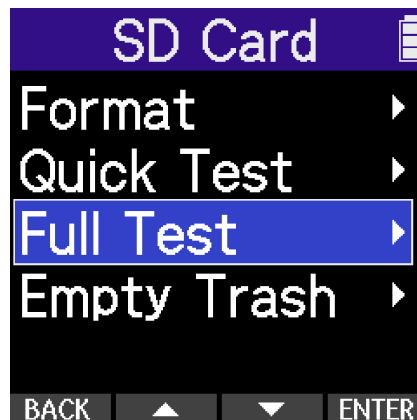
1. Press the  (MENU) button when the [Home Screen](#) is open.

This opens the [Menu Screen](#).




2. Use  (operation button 2) and  (operation button 3) to select "SD Card", and press  (operation button 4) to confirm.



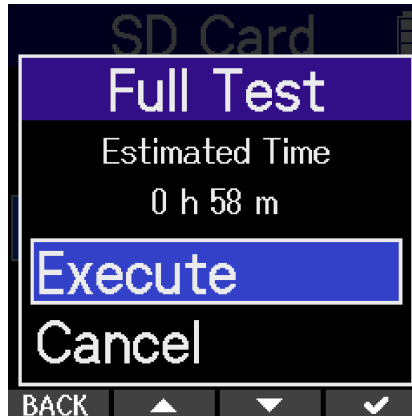
3. Use  (operation button 2) and  (operation button 3) to select "Full Test", and press  (operation button 4) to confirm.



The amount of time required for the full test will be shown.

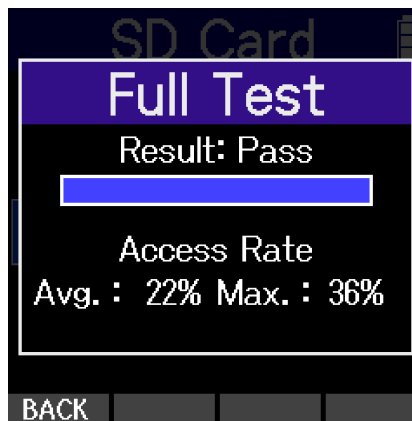
4. Use  (operation button 2) and  (operation button 3) to select "Execute", and press  (operation button 4) to confirm.

The card performance test will start.



The result of the test will be shown when it completes.

If Access Rate Max. reaches 100%, the card will fail (NG).



NOTE

Even if a performance test result is "Pass", there is no guarantee that writing errors will not occur. This information is just to provide guidance.

HINT




During a test, use  (operation button 1) to cancel it.

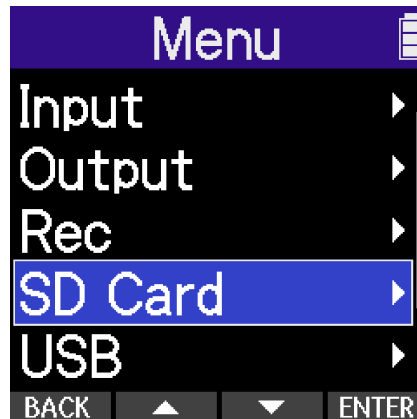
Deleting files in the TRASH folder




Files moved to the trash can be deleted to empty the trash and increase open space on the SD card.

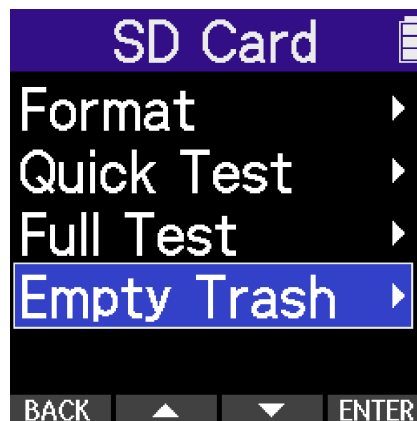
1. Press the  (MENU) button when the [Home Screen](#) is open.




This opens the [Menu Screen](#).

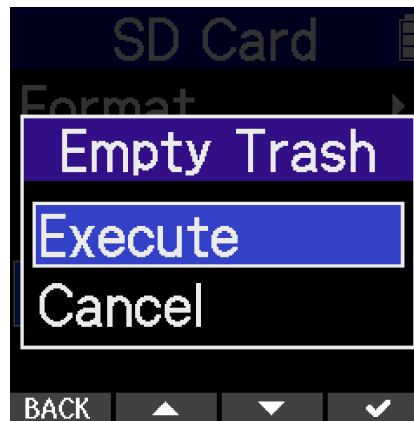
2. Use  (operation button 2) and  (operation button 3) to select "SD Card", and press  (operation button 4) to confirm.



3. Use  (operation button 2) and  (operation button 3) to select "Empty Trash", and press  (operation button 4) to confirm.



4. Use  (operation button 2) and  (operation button 3) to select "Execute", and press  (operation button 4) to confirm.



This deletes all files in the trash.


NOTE

This operation cannot be undone. Be certain beforehand.




Making various settings

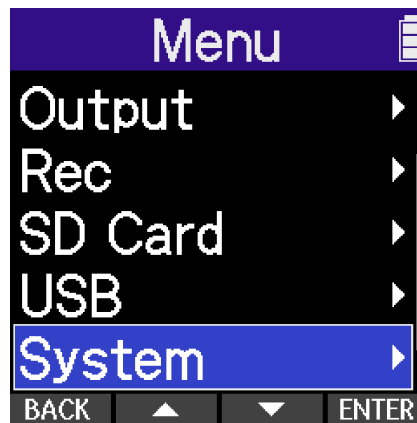
Setting the language shown




The language shown on H2essential screens can be changed.

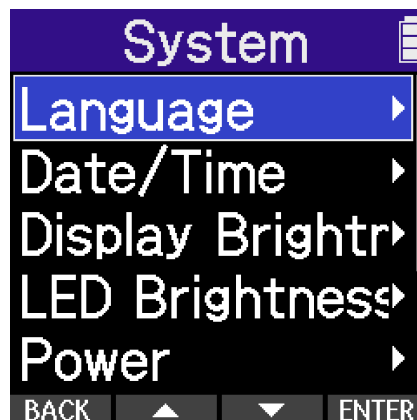
1. Press the  (MENU) button when the [Home Screen](#) is open.




This opens the [Menu Screen](#).

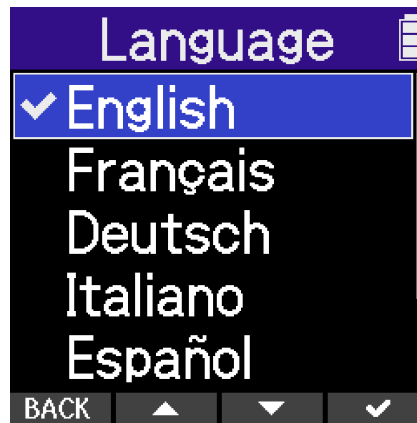
2. Use  (operation button 2) and  (operation button 3) to select "System", and press  (operation button 4) to confirm.



3. Use  (operation button 2) and  (operation button 3) to select "Language" and press  (operation button 4) to confirm.



4. Use  (operation button 2) and  (operation button 3) to select the language to use on screens, and press  (operation button 4) to confirm selection.



HINT




The first time you turn the power on after purchase or restoring default settings, this screen opens automatically after setting the guide sound.

Setting the date and time




The date used for file names and the date and time added as data to recording files can be set.

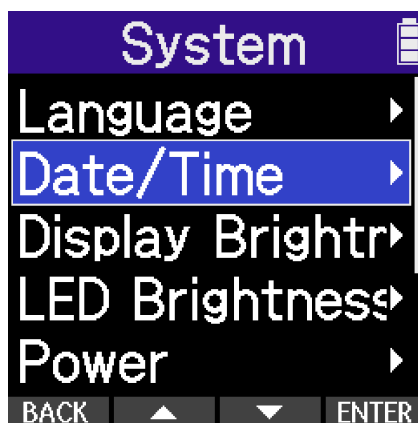
1. Press the  (MENU) button when the [Home Screen](#) is open.




This opens the [Menu Screen](#).

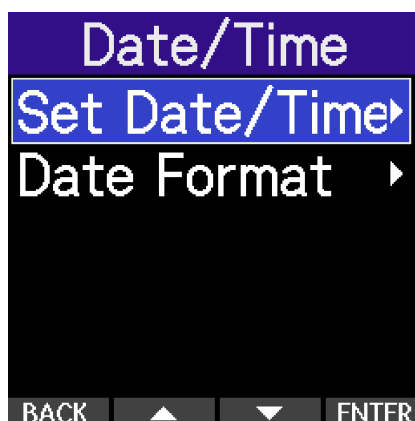
2. Use  (operation button 2) and  (operation button 3) to select "System", and press  (operation button 4) to confirm.






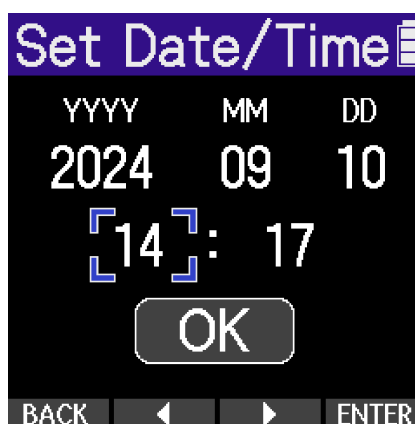
3. Use  (operation button 2) and  (operation button 3) to select "Date/Time", and press  (operation button 4) to confirm it.






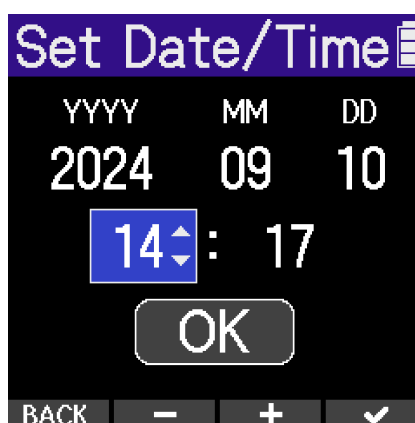
4. Use  (operation button 2) and  (operation button 3) to select "Set Date/Time" and press  (operation button 4) to confirm.







5. Use  (operation button 2) and  (operation button 3) to select the desired setting item, and press  (operation button 4) to confirm selection.

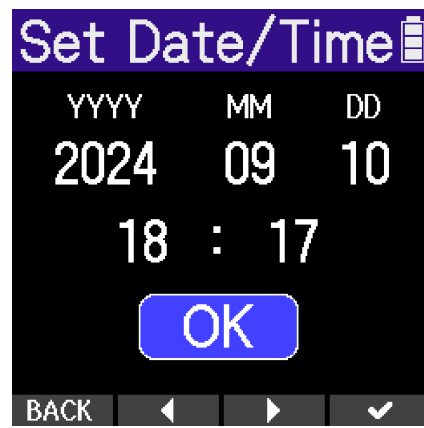


6. Use  (operation button 2) and  (operation button 3) to change the value, and press  (operation button 4) to confirm it.



7. Repeat steps 5-6 to set the date and time.

8. After setting all items, use  (operation button 2) and  (operation button 3) to select the  (OK) button, and press  (operation button 4) to confirm them.







HINT

The first time you turn the power on after purchase or restoring default settings, this screen opens automatically after setting the date format.




Setting the date format

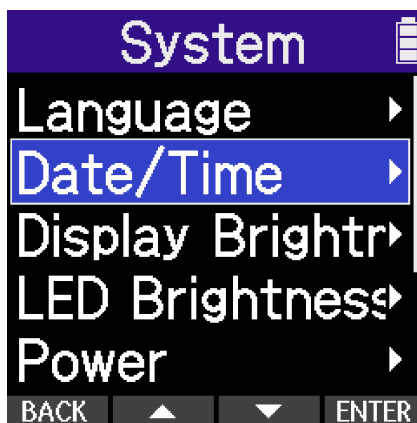
The date format can be changed. This date format is used for file names and as data added to recording files.




1. Press the  (MENU) button when the [Home Screen](#) is open.
This opens the [Menu Screen](#).

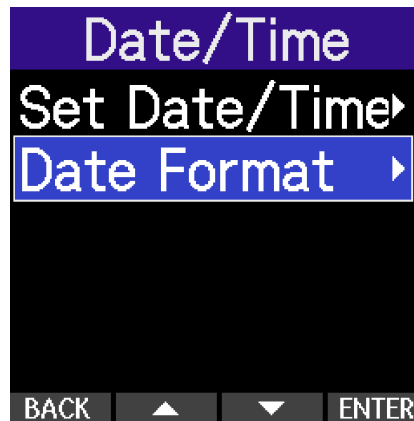
2. Use  (operation button 2) and  (operation button 3) to select "System", and press  (operation button 4) to confirm.






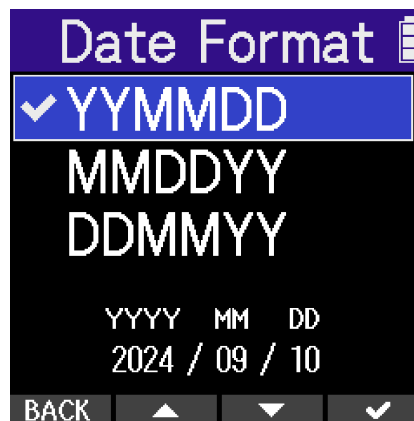
3. Use  (operation button 2) and  (operation button 3) to select "Date/Time", and press  (operation button 4) to confirm it.



4. Use  (operation button 2) and  (operation button 3) to select “Date Format”, and press  (operation button 4) to confirm.



5. Use  (operation button 2) and  (operation button 3) to select the date format, and press  (operation button 4) to confirm.
A specific example of the set date format will be shown at the bottom of the screen using the current date setting.



Setting	Explanation
YYMMDD	The date is shown in year, month, day order.
MMDDYY	The date is shown in month, day, year order.
DDMMYY	The date is shown in day, month, year order.

HINT




The first time you turn the power on after purchase or restoring default settings, this screen opens automatically after setting the language shown.

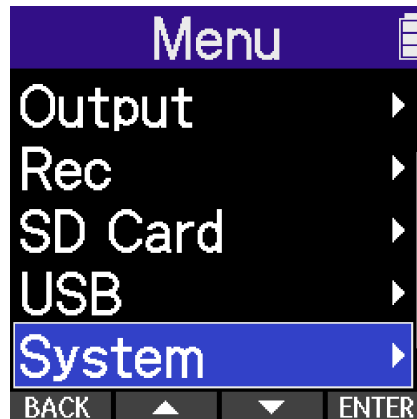
Setting the display brightness




The brightness of the display can be adjusted if it is difficult to see because it is too dim or too intense.

1. Press the  (MENU) button when the [Home Screen](#) is open.




This opens the [Menu Screen](#).

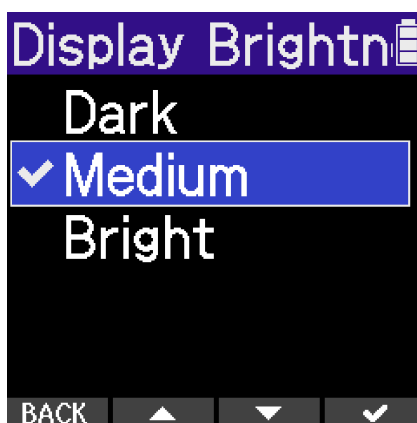
2. Use  (operation button 2) and  (operation button 3) to select "System", and press  (operation button 4) to confirm.



3. Use  (operation button 2) and  (operation button 3) to select "LED Brightness", and press  (operation button 4) to confirm.




4. Use  (operation button 2) and  (operation button 3) to set the display brightness, and press  (operation button 4) to confirm.






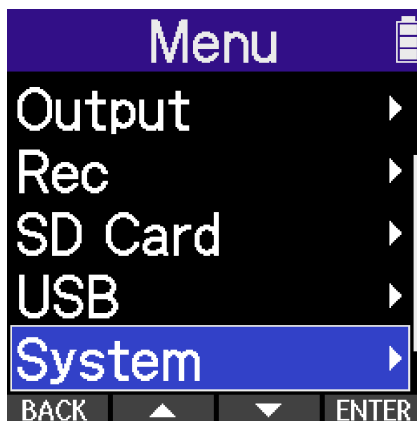
Setting	Explanation
Dark	The display backlight will always be dark.
Medium	The display brightness will be normal.
Bright	The display will be even brighter.




Setting the LED brightness

If the LED brightness is too high, making the H2essential conspicuous, it can be made dimmer so that it is less noticeable.




1. Press the  (MENU) button when the [Home Screen](#) is open.
This opens the [Menu Screen](#).

2. Use  (operation button 2) and  (operation button 3) to select "System", and press  (operation button 4) to confirm.



3. Use  (operation button 2) and  (operation button 3) to select "LED Brightness", and press  (operation button 4) to confirm.



4. Use  (operation button 2) and  (operation button 3) to set the LED brightness, and press  (operation button 4) to confirm.






Setting	Explanation
Dark	This LED brightness is dimmest.
Medium	This LED brightness is medium.
Bright	This is the default brightness.

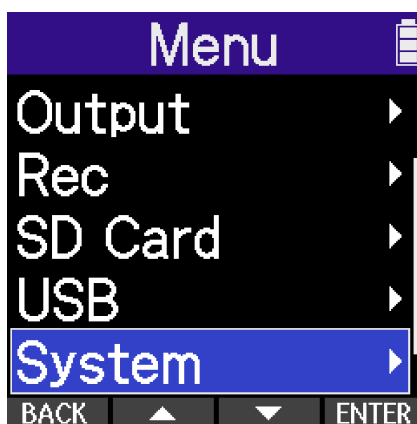
Setting the type of batteries used




Set the type of batteries used by the H2essential so that the amount of remaining battery charge can be shown accurately.

1. Press the  (MENU) button when the [Home Screen](#) is open.




This opens the [Menu Screen](#).

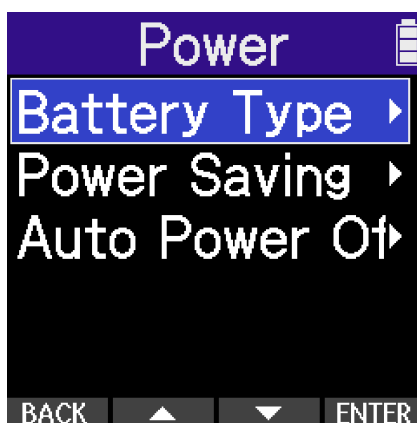
2. Use  (operation button 2) and  (operation button 3) to select "System", and press  (operation button 4) to confirm.






3. Use  (operation button 2) and  (operation button 3) to select "Power", and press  (operation button 4) to confirm.



4. Use  (operation button 2) and  (operation button 3) to select “Battery Type”, and press  (operation button 4) to confirm.



5. Use  (operation button 2) and  (operation button 3) to select the type of battery used, and press  (operation button 4) to confirm it.



Setting	Explanation
Alkaline	Alkaline batteries
Ni-MH	Nickel-metal hydride batteries
Lithium	Lithium batteries

HINT




The first time you turn the power on after purchase or restoring default settings, the battery type setting appears automatically after setting the date and time.

Setting display power saving




In order to conserve energy, the display backlight can be set to dim if no operation is conducted for a specific amount of time.

1. Press the  (MENU) button when the [Home Screen](#) is open.




This opens the [Menu Screen](#).

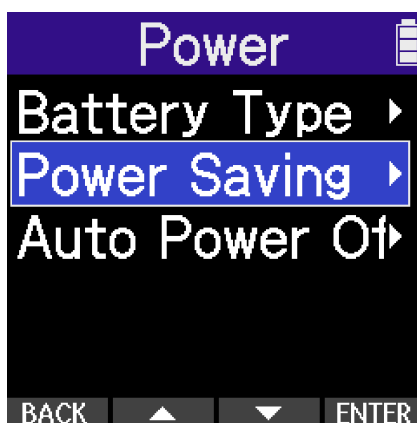
2. Use  (operation button 2) and  (operation button 3) to select "System", and press  (operation button 4) to confirm.






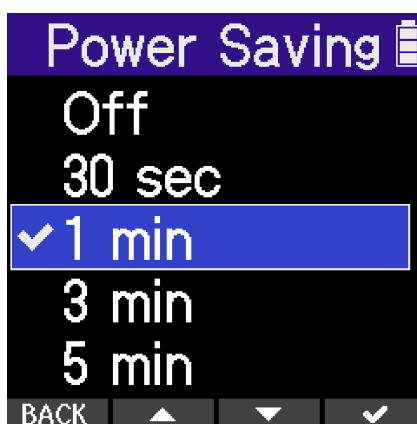
3. Use  (operation button 2) and  (operation button 3) to select "Power", and press  (operation button 4) to confirm.



4. Use  (operation button 2) and  (operation button 3) to select “Power Saving” and press  (operation button 4) to confirm.



5. Use  (operation button 2) and  (operation button 3) to select the time until the display backlight becomes dark, and press  (operation button 4) to confirm.



Setting	Explanation
30 sec, 1 min, 3 min, 5 min	The display backlight will become dark after the set time has elapsed without any operation.
Off	The display backlight always stays bright.




Setting the time until the power turns off automatically

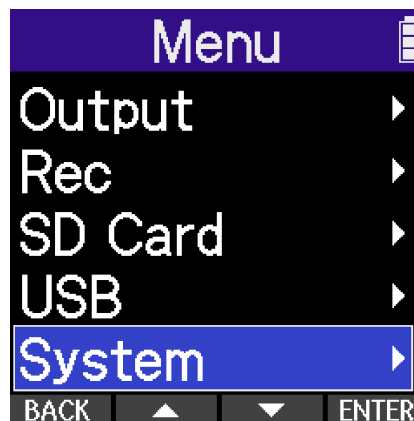
The H2essential can be set so that its power will automatically turn off if it is not used for a set amount of time.




To keep the power on at all times, turn off the automatic power saving setting.

1. Press the  (MENU) button when the [Home Screen](#) is open.




This opens the [Menu Screen](#).

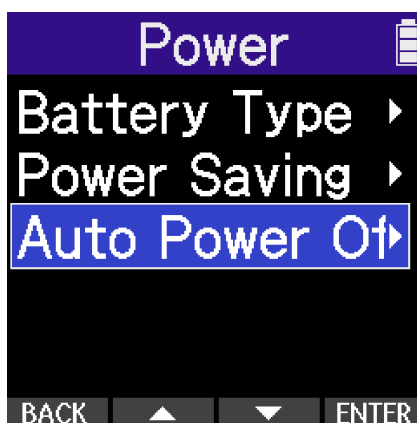
2. Use  (operation button 2) and  (operation button 3) to select "System", and press  (operation button 4) to confirm.






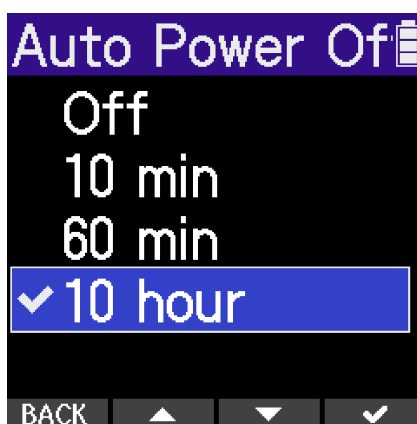
3. Use  (operation button 2) and  (operation button 3) to select "Power", and press  (operation button 4) to confirm.



4. Use  (operation button 2) and  (operation button 3) to select “Auto Power Off”, and press  (operation button 4) to confirm.



5. Use  (operation button 2) and  (operation button 3) to select the time until the power turns off, and press  (operation button 4) to confirm.



Setting	Explanation
Off	The power will not turn off automatically.
10 min, 60 min, 10 hour	The power will automatically turn off if no operation occurs for the set time.

NOTE

The power will not turn off automatically under the following conditions regardless of the Auto Power Off setting.

- During recording or playback
- When the H2essential is in use as an audio interface
- When the H2essential file transfer function is in use
- During card tests
- During execution of firmware updates




Using the guide sound accessibility feature

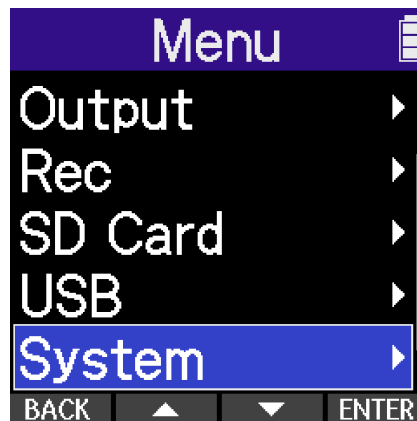
Setting the guide sound (Accessibility)




With this function, the names of selected setting items can be read aloud and a beeping sound can be used to notify the occurrence of error messages, recording starting/stopping and volume adjustment, for example.

1. Press the  (MENU) button when the [Home Screen](#) is open.




This opens the [Menu Screen](#).

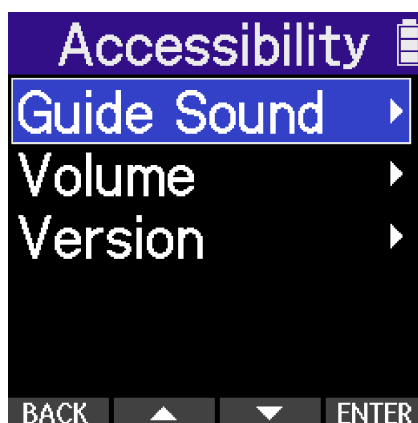
2. Use  (operation button 2) and  (operation button 3) to select "System", and press  (operation button 4) to confirm.






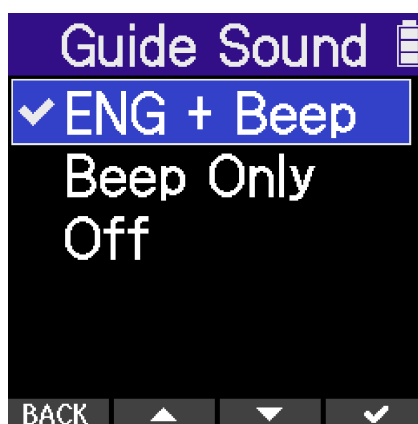
3. Use  (operation button 2) and  (operation button 3) to select "Accessibility", and press  (operation button 4) to confirm.



4. Use  (operation button 2) and  (operation button 3) to select “Guide to Sound”, and press  (operation button 4) to confirm.



5. Use  (operation button 2) and  (operation button 3) to select a setting, and press  (operation button 4) to confirm it.




Setting	Explanation
ABC + Beep (“ABC” shows the installed language.)	Setting items will be read aloud in the installed language. A beeping sound will be used to notify the occurrence of error messages, recording starting/stopping and volume adjustment, for example. English is installed at the time of purchase, but other languages can be installed and used for reading as desired. (→ Installing guide sounds)
Beep Only	A beeping sound will be used to notify when error messages occur, recording starts/stops and the volume changes, for example. Nothing will be read aloud.
Off	This turns off the guide sound.

NOTE

- The volume of the reading voice and beep sounds can also be adjusted. (→ [Setting the guide sound volume](#))
- The language and version used for the guide sound can be checked on the Version Screen. (→ [Checking guide sound information](#))

HINT




- The first time you turn the power on after purchase, this screen opens automatically.
 - The guide sound can be turned on/off immediately by pressing and holding the  (MENU) button when the Home Screen is open. (→ [Turning the guide sound on/off with a shortcut](#))
-

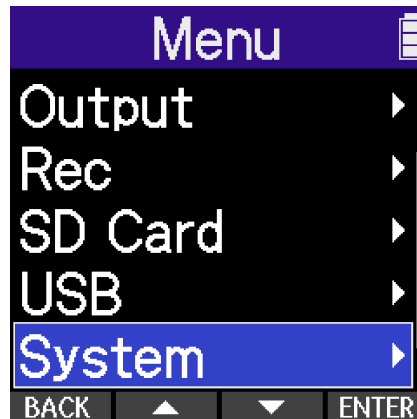
Setting the guide sound volume




The volume of the reading voice and beep sounds can be adjusted.

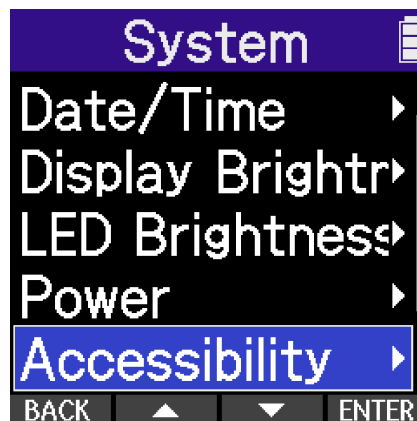
1. Press the  (MENU) button when the [Home Screen](#) is open.




This opens the [Menu Screen](#).

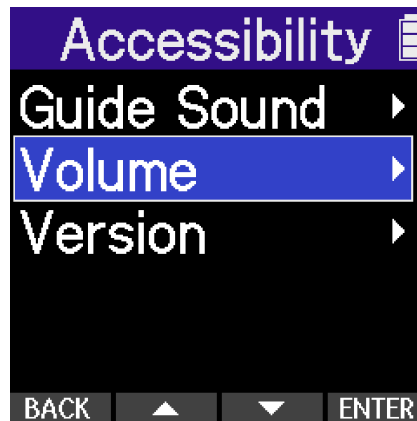
2. Use  (operation button 2) and  (operation button 3) to select "System", and press  (operation button 4) to confirm.






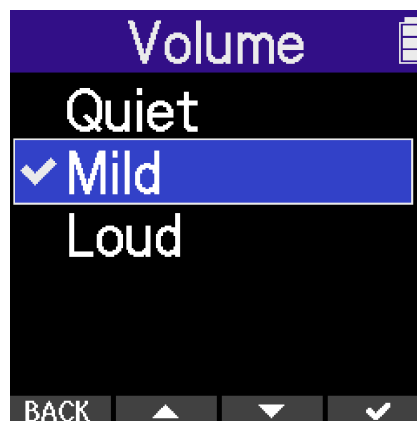
3. Use  (operation button 2) and  (operation button 3) to select "Accessibility", and press  (operation button 4) to confirm.



4. Use  (operation button 2) and  (operation button 3) to select “Volume”, and press  (operation button 4) to confirm.







5. Use  (operation button 2) and  (operation button 3) to select the volume, and press  (operation button 4) to confirm.



The volume can be set to Quiet, Mild or Loud.

NOTE




The volume determined here is also affected before output by adjustments made using  VOLUME  (VOLUME). Consider volume adjustments using  VOLUME  (VOLUME) when making this setting.

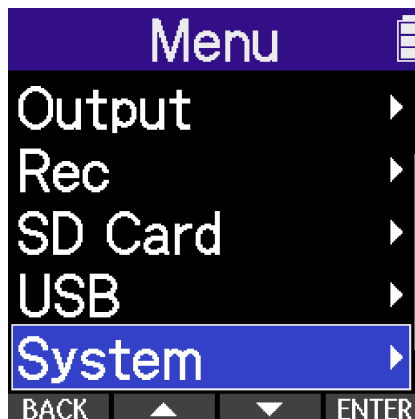
Checking guide sound information




The language and version used for the accessibility guide sounds can be checked.

1. Press the  (MENU) button when the [Home Screen](#) is open.




This opens the [Menu Screen](#).

2. Use  (operation button 2) and  (operation button 3) to select "System", and press  (operation button 4) to confirm.

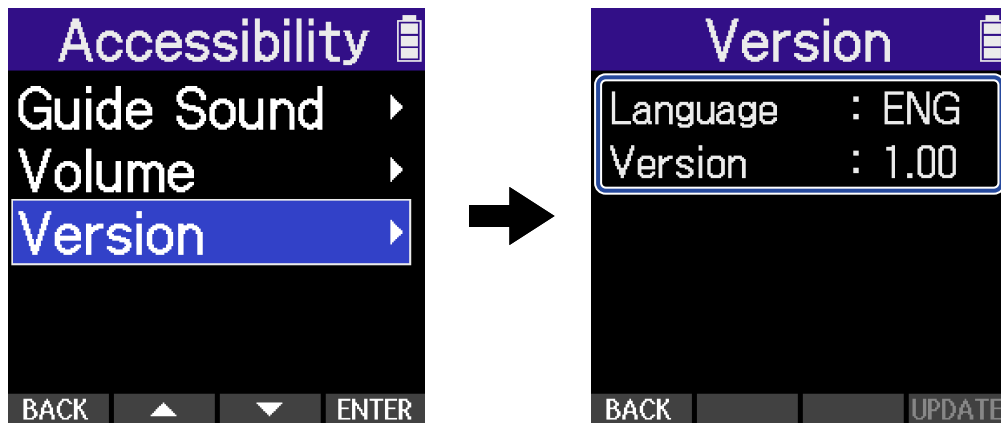


3. Use  (operation button 2) and  (operation button 3) to select "Accessibility", and press  (operation button 4) to confirm.




4. Use  (operation button 2) and  (operation button 3) to select "Version", and press  (operation button 4) to confirm.

This opens the Version Screen where the language and version used for the accessibility guide sounds can be checked.



Turning the guide sound on/off with a shortcut

This function allows the guide sound to be turned on/off anytime to suit the use situation.

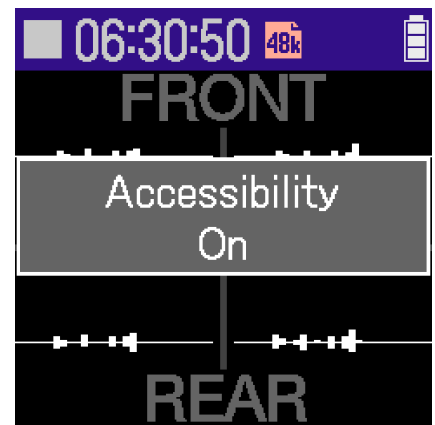
1. When the [Home Screen](#) is open, press and hold the  (MENU) button.



This turns on/off the guide sound.



Home Screen



A notification about the switch will be shown (and announced with the guide sound).

Installing guide sounds

The guide sound language is English at the time of purchase.


Guide sound installation can be used to change the language and update the feature.




Download the most recent accessibility installation file necessary to install the guide sound from the ZOOM website (zoomcorp.com/help/h2essential).

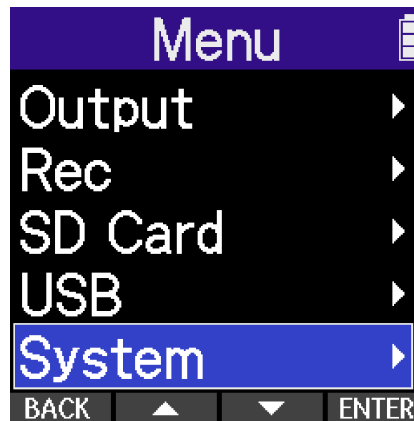
Follow the instructions in the "H2essential Accessibility Installation Guide" on the H2essential download page.




Restoring the factory default state

The H2essential can be restored to its factory default state.




1. Press the  (MENU) button when the [Home Screen](#) is open.
This opens the [Menu Screen](#).

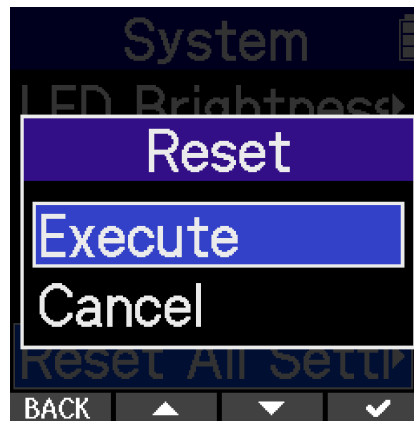
2. Use  (operation button 2) and  (operation button 3) to select "System", and press  (operation button 4) to confirm.



3. Use  (operation button 2) and  (operation button 3) to select "Reset All Settings", and press  (operation button 4) to confirm it.



4. Use  (operation button 2) and  (operation button 3) to select “Execute”, and press  (operation button 4) to confirm.



This will restore the H2essential to its factory default state and turn the power off.

NOTE

Initializing settings will overwrite all settings with their factory defaults. Be certain before using this function.




Managing the firmware

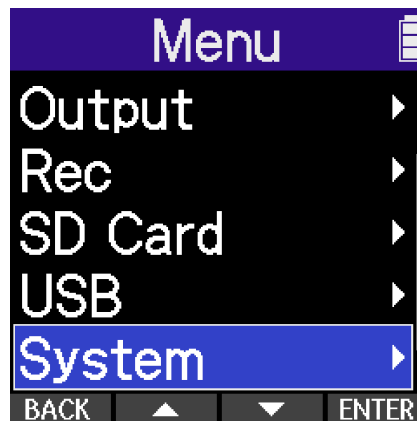
Checking firmware versions




The firmware versions used by the H2essential can be checked.

1. Press the  (MENU) button when the [Home Screen](#) is open.

This opens the [Menu Screen](#).

2. Use  (operation button 2) and  (operation button 3) to select "System", and press  (operation button 4) to confirm.



3. Use  (operation button 2) and  (operation button 3) to select "Firmware", and press  (operation button 4) to confirm.



This shows the firmware version.



Updating the firmware

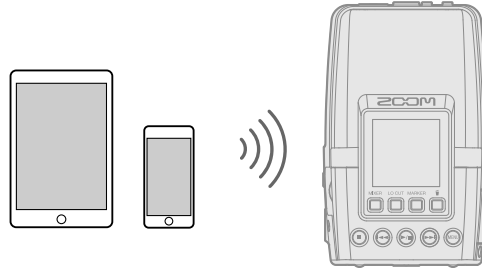
The H2essential firmware can be updated to the latest versions.

Files for the latest firmware updates can be downloaded from the ZOOM website (zoomcorp.com/help/h2essential).

Follow the instructions in the "H2essential Firmware Update Guide" on the H2essential download page.

Operating the H2essential from a smartphone/tablet

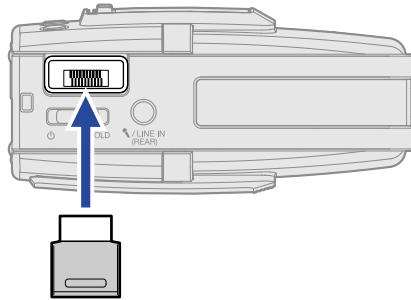
The H2essential can be operated wirelessly from a smartphone or tablet by connecting a BTA-1 or another dedicated wireless adapter and using the ZOOM Handy Control & Sync app designed to control it.



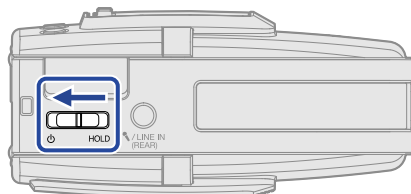
NOTE

- The ZOOM Handy Control & Sync app must be installed on the smartphone or tablet beforehand. The ZOOM Handy Control & Sync app can be downloaded from the App Store. Refer to the manual for the ZOOM Handy Control & Sync app for details about app settings and operation procedures.
- When controlling remotely from the app is unnecessary, disconnecting the BTA-1 can increase the amount of operation time when using batteries.

1. With the H2essential power off, remove the REMOTE connector cover on the right side. Then, connect the BTA-1 or another dedicated wireless adapter.



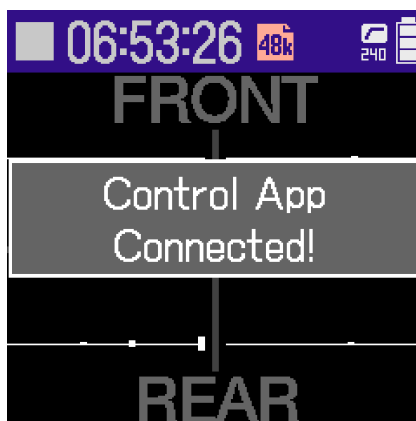
2. Slide the  (POWER/HOLD) switch toward  (toward the unit bottom) to turn on the power.



This will ready the H2essential for connection.

3. Launch the ZOOM Handy Control & Sync app on the smartphone or tablet. Then, conduct connection procedures from the app.

When connection completes "Control App Connected!" will appear on the display.



Refer to the manual for the ZOOM Handy Control & Sync app for details about app settings and operation procedures.

Disconnecting from smartphones and tablets

Disconnection is possible by quitting the app on the smartphone or tablet.



Removing the BTA-1 from the H2essential will also disconnect it from ZOOM Handy Control & Sync.

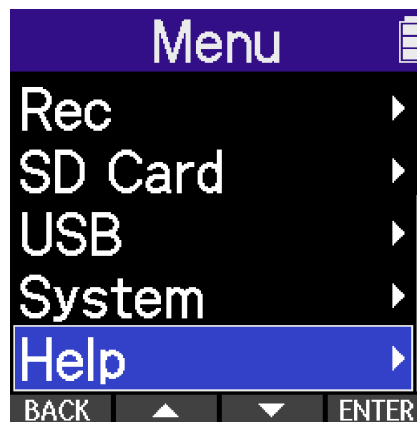
Checking the latest information for the H2essential

A 2D code for help related to the product can be shown on the H2essential display.

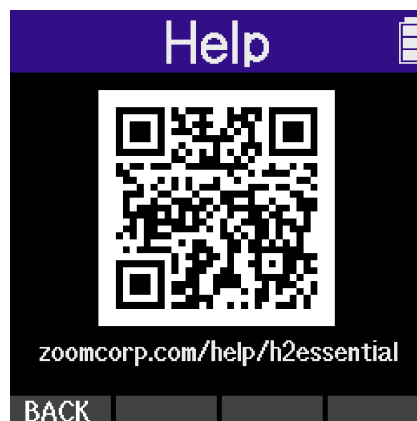
1. Press the  (MENU) button when the [Home Screen](#) is open.

This opens the [Menu Screen](#).

2. Use  (operation button 2) and  (operation button 3) to select "Help", and press **ENTER** (operation button 4) to confirm.



3. Use a smartphone or tablet, for example, to scan the 2D code shown on the Help Screen.



zoomcorp.com/help/h2essential

Appendix

Troubleshooting

If you think that the H2essential is operating strangely, check the following items first.

Recording/playback trouble

There is no sound or it is very quiet

- Check the orientation of the mic or the volume settings of the connected equipment.
- Confirm that the headphone volume and line output level are not too low. (→ [Monitoring input sounds](#), [Adjusting the output level when set to fixed volume control](#))
- Plug-in power must be supplied if the mic connected to the MIC/LINE IN jack supports plug-in power. (→ [Using plug-in power](#))
- Check the volume on the [Mixer Screen](#). (→ [Adjusting the monitoring mix of the mic inputs](#), [Adjusting the levels of mics](#))

Sound from connected equipment or inputs cannot be heard or is very quiet

- Check the headphone volume.
- If a CD player or other device is connected to the input jack, raise the output level of that device.
- Check the input signal monitoring settings. (→ [Monitoring input sounds](#))

Monitored sound is distorted

- Use the  (VOLUME) dial to adjust the volume.


Recording is not possible

- Confirm that the REC button is lit red. (→ [Recording](#))
- Confirm that the microSD card has open space. The available recording time can be checked on screen when recording is paused. (→ [Home Screen](#))
- Confirm that a microSD card is loaded properly in the card slot. (→ [Inserting microSD cards](#))
- Check the volume on the [Mixer Screen](#). (→ [Adjusting the monitoring mix of the mic inputs](#))

“MIC INPUT OVERLOAD!” appears

- The input sound is too loud. Increase the distance between the mic and the sound source.
- Wind can also cause loud noises to be input. We recommend using the Lo Cut setting to reduce noise if air is blown directly at the mic, for example, when recording outdoors or when the mic is near the mouth of a speaker. (→ [Reducing noise \(Lo Cut\)](#))

Output volume cannot be adjusted

- Check the Output menu “Volume Control” setting. To use the  (VOLUME) dial to adjust the output volume, set it to “Knob”. When set to “Fixed”, use “Fixed Level” to adjust the volume. (→ [Making output settings](#))

Other trouble

The recorder is not recognized by a computer, smartphone or tablet even though it is connected through the USB port

- Use a USB cable that supports data transfer.
- The operation mode must be set on the H2essential to allow the computer, smartphone or tablet to recognize it. (→ [Using as an audio interface](#), [Transferring files to computers and other devices](#))
- Confirm that the computer, smartphone or tablet and the application being used are compatible with 32-bit float format.
- Even if “H2essential” cannot be selected for the “Sound” setting on a computer, it can still be used as a 32-bit float audio interface by selecting “H2essential” as the “Audio” or “Input/Output” device in an application that supports 32-bit float format.
- A driver is necessary to use 32-bit float format with Windows. The driver can be downloaded from the ZOOM website (zoomcorp.com/help/h2essential).

Battery operation time is short

Making the following settings could increase the battery operation time.

- Set the type of batteries used correctly. (→ [Setting the type of batteries used](#))
- Reduce the display brightness. (→ [Setting the display brightness](#))
- Set the display to dim when not operated for a specific amount of time. (→ [Setting display power saving](#))
- Reduce the sample rate used to record files. (→ [Setting the sample rate](#))
- Disconnect unnecessary cables from the PHONE/LINE OUT jack.
- Due to their characteristics, using nickel metal hydride batteries (especially high-capacity ones) or lithium batteries should enable longer use than alkaline batteries when power consumption is high.

An accessibility update is recommended

- Use the latest accessibility installation file to update. (→ [Installing guide sounds](#))

H2essential metadata list

Metadata contained in BEXT chunks in WAV files

Tag	Explanation	Remarks
zSPEED=	Frame rate	
zTAKE=	Take number	
zUBITS=	User bits	
zSCENE=	Scene name	System > Date/Time
zTAPE=		
zCIRCLED=		
zTRKn=	Track name	
zNOTE=		

Metadata contained in iXML chunks in WAV files

○ = YES × = NO

iXML master tag	iXML sub tag	Written	Read	Remarks
<PROJECT>		○	×	
<SCENE>		○	○	System > Date/Time
<TAKE>		○	×	
<TAPE>		○	×	
<CIRCLED>		○	×	
<WILD TRACK>		×	×	
<FALSE START>		×	×	
<NO GOOD>		×	×	
<FILE UID>		○	×	
<UBITS>		○	×	
<NOTE>		○	×	
<BEXT>		×	×	
<USER>		×	×	

iXML master tag	iXML sub tag	Written	Read	Remarks
<SPEED>				
<SPEED>	<NOTE>	○	×	
<SPEED>	<MASTER_SPEED>	○	×	
<SPEED>	<CURRENT_SPEED>	○	×	
<SPEED>	<TIMECODE_RATE>	○	×	
<SPEED>	<TIMECODE_FLAG>	○	×	
<SPEED>	<FILE_SAMPLE_RATE>	○	○	Rec > Sample Rate
<SPEED>	<AUDIO_BIT_DEPTH>	○	×	
<SPEED>	<DIGITIZER_SAMPLE_RATE>	○	×	Rec > Sample Rate
<SPEED>	<TIMESTAMP_SAMPLES_SINCE_MIDNIGHT_HI>	○	×	
<SPEED>	<TIMESTAMP_SAMPLES_SINCE_MIDNIGHT_LO>	○	×	
<SPEED>	<TIMESTAMP_SAMPLE_RATE>	○	×	Rec > Sample Rate

iXML master tag	iXML sub tag	Written	Read	Remarks
<SYNC_POINT_LIST>				
<SYNC_POINT>	<SYNC_POINT_TYPE>	x	x	
<SYNC_POINT>	<SYNC_POINT_FUNCTION>	x	x	
<SYNC_POINT>	<SYNC_POINT_COMMENT>	x	x	
<SYNC_POINT>	<SYNC_POINT_LOW>	x	x	
<SYNC_POINT>	<SYNC_POINT_HIGH>	x	x	
<SYNC_POINT>	<SYNC_POINT_EVENT_DURATION>	x	x	

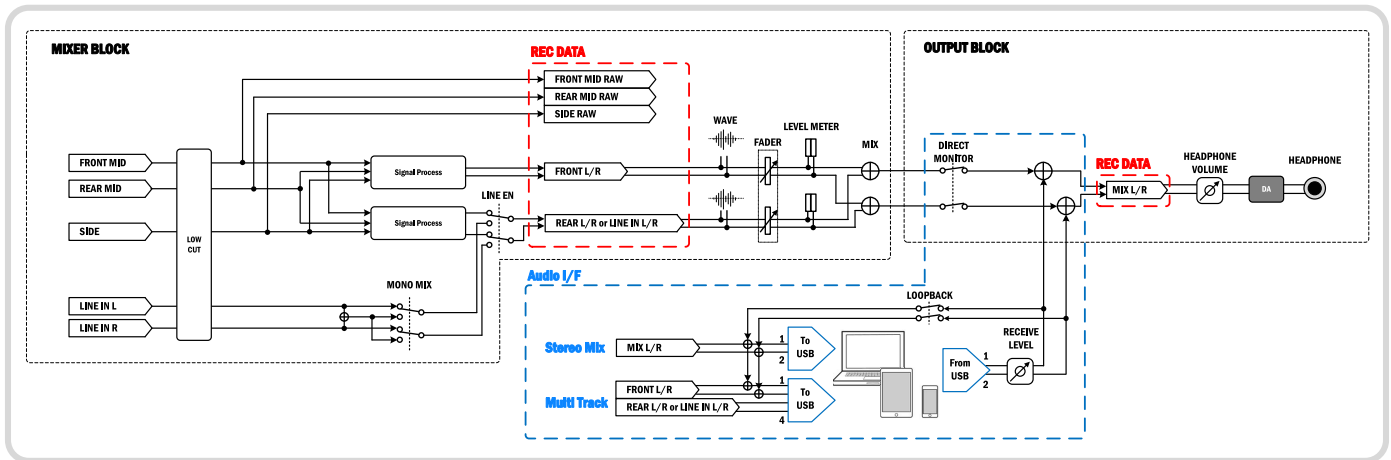
iXML master tag	iXML sub tag	Written	Read	Remarks
<HISTORY>				
<HISTORY>	<ORIGINAL_FILENAME>	○	x	
<HISTORY>	<PARENT_FILENAME>	x	x	
<HISTORY>	<PARENT_UID>	x	x	

iXML master tag	iXML sub tag	Written	Read	Remarks
<FILE_SET>				
<FILE_SET>	<TOTAL_FILES>	○	x	
<FILE_SET>	<FAMILY_UID>	○	x	
<FILE_SET>	<FAMILY_NAME>	x	x	
<FILE_SET>	<FILE_SET_START_TIME_HI>	x	x	
<FILE_SET>	<FILE_SET_START_TIME_LO>	x	x	
<FILE_SET>	<FILE_SET_INDEX>	○	x	

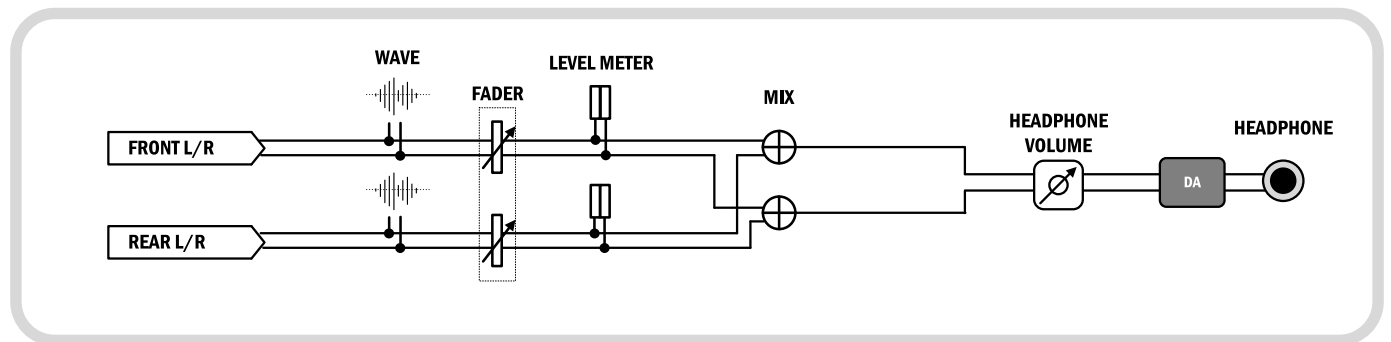
iXML master tag	iXML sub tag	Written	Read	Remarks
<TRACK_LIST>				
<TRACK_LIST>	<TRACK_COUNT>	○	×	
<TRACK>	<CHANNEL_INDEX>	○	×	
<TRACK>	<INTERLEAVE_INDEX>	○	×	
<TRACK>	<NAME>	○	×	
<TRACK>	<FUNCTION>	×	×	

Mixer block diagrams

Recording/recording standby



Playback



Specifications

Inputs	Built-in mic (mid) (FRONT/REAR)	Pickup pattern	Unidirectional	
		Sensitivity	-37 dB/Pa at 1 kHz	
		Maximum sound pressure input	120 dB SPL	
	Built-in mic (side)	Pickup pattern	Bidirectional	
		Sensitivity	-39 dB/Pa at 1 kHz	
		Maximum sound pressure input	122 dB SPL	
	MIC/LINE IN jack	Connector	Stereo mini jack	
		Input impedance	2 k Ω	
		Maximum input level	-7 dBu	
		Plug-in power	3.3 V	
	Output	PHONE/LINE OUT jack	Connector	Stereo mini jack
			Maximum output level	20 mW + 20 mW (when 32 Ω load)
Output impedance			10 Ω or less	
Built-in speaker		Type	20 mm \times 30 mm elliptical dynamic speaker	
		Effective maximum output	250 mW	
Recorder	Recording format	WAV 44.1, 48 or 96 kHz / 32-bit float Stereo/mono BWF and iXML formats supported		
	Recording media	microSDHC memory cards microSDXC memory cards See the ZOOM website (zoomcorp.com/help/h2essential) for information about microSD cards that have been confirmed to work with this unit.		
Display		1.3" full-color LCD (240 \times 240)		
USB	Connector	USB Type-C • Use a USB cable that supports data transfer. USB bus power is supported.		
	Audio interface	USB 2.0 High Speed		
	Input and output channels	4 in / 2 out (Multi) 2 in / 2 out (Stereo)		

	Sampling frequencies	44.1/48/96 kHz (audio interface only) 44.1/48 kHz (audio interface + onboard recording)
	Bit depths	24-bit, 32-bit float
File transfer		USB 2.0 High Speed
Power		2 AA batteries (alkaline, lithium, or rechargeable NiMH) AC adapter (ZOOM AD-17): DC 5V/1A • USB bus power is supported.
<p>Estimated continuous operation times using batteries</p> <ul style="list-style-type: none"> • These values are approximate. • Continuous battery operation times were determined using in-house testing methods. They will vary greatly according to use conditions. 	FRONT stereo recording at 48kHz/32-bit float, no headphones or remote, Power Saving time set to 1 minute	Alkaline batteries: about 11 hours NiMH batteries (1900 mAh): about 9 hours Lithium batteries: about 20.5 hours
	FRONT+REAR stereo recording at 48kHz/32-bit float, no headphones or remote, Power Saving time set to 1 minute	Alkaline batteries: about 8 hours NiMH batteries (1900 mAh): about 8 hours Lithium batteries: about 17.5 hours
	FRONT stereo + external mic recording at 96kHz/32-bit float with headphones (33Ω load) and remote, Power Saving time set to Off	Alkaline batteries: about 4 hours NiMH batteries (1900 mAh): about 4.5 hours Lithium batteries: about 9.5 hours
Power consumption		3 W maximum
Dimensions		60 mm (W) × 44 mm (D) × 97 mm (H)
Weight (including batteries)		170 g

Note: 0 dBu = 0.775 Vrms



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