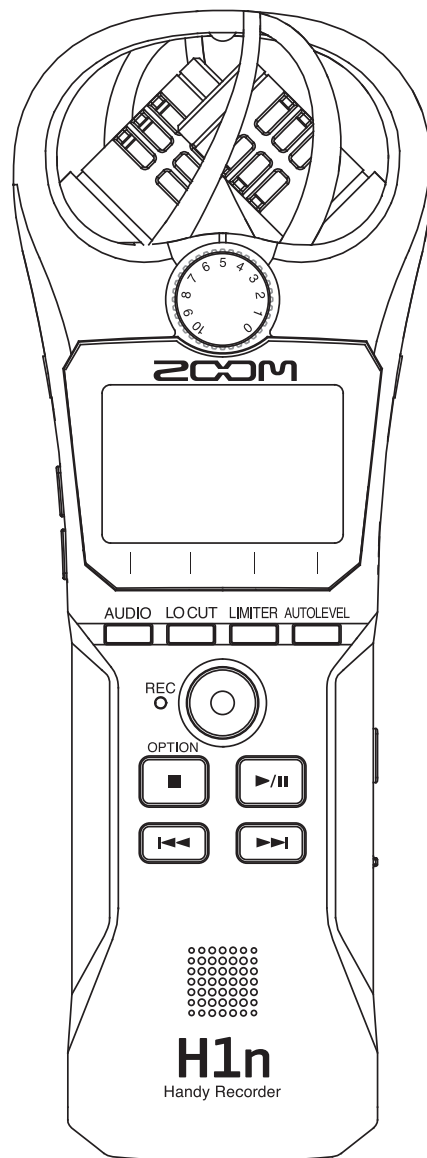


## Handy Recorder

# H1n



## Operation Manual

You must read the Usage and Safety Precautions before use.

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# Usage and Safety Precautions

In this operation manual, symbols are used to highlight warnings and cautions that you must read to prevent accidents. The meanings of these symbols are as follows.

 WARNING	Something that could cause serious injury or death	 CAUTION	Something that could cause injury or damage to the equipment
---	--	--	--

## Other symbols used

	An action that is mandatory		An action that is prohibited
--	-----------------------------	---	------------------------------

## WARNING

### ■ Operation with batteries

- ❗ Use 2 commercially-available AAA batteries (alkaline dry cell batteries, NiMH batteries or lithium dry cell batteries).
- ❗ Carefully study the warning indications of the batteries before use.
- ❗ Always keep the battery and SD card covers closed during use.

### ■ Alterations

- ⊘ Do not open the case or modify the product.

## CAUTION

### ■ Product handling

- ❗ Do not drop, bump or apply excessive force to the unit.
- ❗ Be careful not to allow foreign objects or liquids to enter the unit.

### ■ Battery handling

- ❗ Install batteries with the correct +/- orientations.
- ❗ Use the specified batteries.  
Do not use new and old batteries together. Do not use batteries of different brands or types together.
- ❗ Remove the batteries when the unit will not be used for a long time.  
If a leak occurs, thoroughly wipe the battery case and battery terminals to remove the leaked fluid.

### ■ Operating environment

- ⊘ Do not use in extremely high or low temperatures.
- ⊘ Do not use near heaters, stoves and other heat sources.
- ⊘ Do not use in very high humidity or where it could be splashed by water.
- ⊘ Do not use in places with frequent vibrations.
- ⊘ Do not use in places with much dust or sand.

### ■ Volume

- ⊘ Do not use at a loud volume for a long time.

### ■ Interference with other electrical equipment

In consideration of safety, the **H1n** has been designed to minimize its emission of electromagnetic waves and to suppress interference from external electromagnetic waves. However, equipment that is very susceptible to interference or that emits powerful electromagnetic waves could result in interference if placed nearby. If this occurs, place the **H1n** and the other device farther apart.

With any type of electronic device that uses digital control, including the **H1n**, electromagnetic interference could cause malfunction, corrupt or destroy data and result in other unexpected trouble. Always use caution.

## ■ Cleaning

Use a soft cloth to clean the exterior of the unit if it becomes dirty. If necessary, use a damp cloth that has been wrung out well to wipe it.

Never use abrasive cleansers, wax or solvents such as alcohol, benzene or paint thinner.

## ■ Breakdown and malfunction

If the unit becomes broken or malfunctions, immediately disconnect the AC adapter, turn the power off and disconnect other cables. Contact the store where you bought the unit or ZOOM service with the following information: product model, serial number and specific symptoms of breakdown or malfunction, along with your name, address and telephone number.

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### **FCC regulation warning (for U.S.A.)**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

### **For EU Countries**



**Declaration of conformity**

## Introduction

Thank you very much for purchasing a ZOOM **H1n** Handy Recorder (hereafter, "**H1n**"). The **H1n** has the following features.

### **90° XY mic**

---

The 90° XY mic captures three-dimensional images of sound.

This stereo mic uses a matched pair and can handle a maximum sound pressure of 120 dB SPL, enabling it to record clearly without distortion even during band rehearsals and club performances.

### **Straightforward interface**

---

The input level can be adjusted simply by turning a dial, and recording settings can be changed without complicated procedures.

After learning it once, the simple user interface allows settings to be made without hassle.

### **Display with great visibility and language localization**

---

The full-dot display allows the interface to change as needed.

Moreover, parameter names, messages and other information can be shown in the set language using the capabilities of this display.

### **USB audio interface that uses asynchronous transfer**

---

The asynchronous transfer system used is not impacted by computer jitter, enabling faithful reproduction of the original sound.

### **Additional recording functions from other models**

---

The features include automatic recording that monitors the input level to determine when to start, pre-recording to prevent missing beginnings, and sound marks that are useful for synchronizing with external equipment.

The **H1n** also has a new self-timer function that is convenient when recording alone.

### **Overdubbing function**

---

New sounds can be recorded over existing recordings nondestructively.

Since a new file is created and the original file is left unchanged, you can overdub without worrying about mistakes.

### **Advanced playback functions**

---

Speed adjustment, A-B repeat, playback position skipping and other functions are useful for transcribing, studying and learning pieces of music. This recorder is useful even after recording.



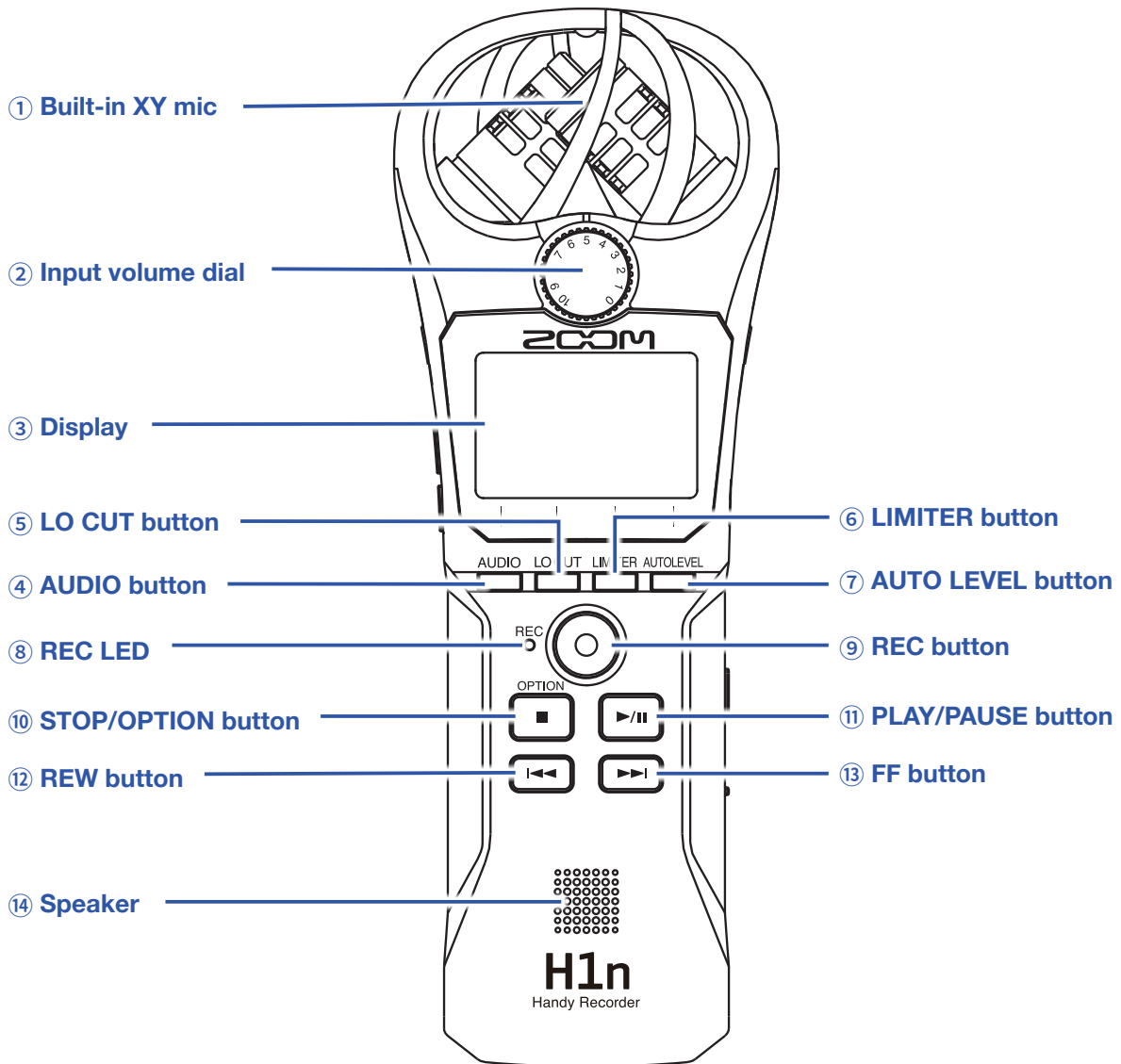
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# Names of parts

## ■ Front



### ① Built-in XY mic

This has two crossing directional mics. This mic can record a three-dimensional sound with natural depth and width.

### ② Input volume dial

Use to adjust the input level.

### ③ Display

This shows various types of information.

### ④ AUDIO button

Use this to operate the function shown 1st from the left at the bottom of the display.

### ⑤ LO CUT button

Use this to operate the function shown 2nd from the left at the bottom of the display.

⑥ **LIMITER button**

Use this to operate the function shown 3rd from the left at the bottom of the display.

⑦ **AUTO LEVEL button**

Use this to operate the function shown 4th from the left at the bottom of the display.

⑧ **REC LED**

This lights during recording. It blinks rapidly when the input sound level is high.

⑨ **REC button**

Use to start recording.

⑩ **STOP/OPTION button**

Use to stop file playback and show various functions.

⑪ **PLAY/PAUSE button**

Use to start and pause playback of recorded files.

⑫ **REW button**

Use to skip files and search backward to a playback position.

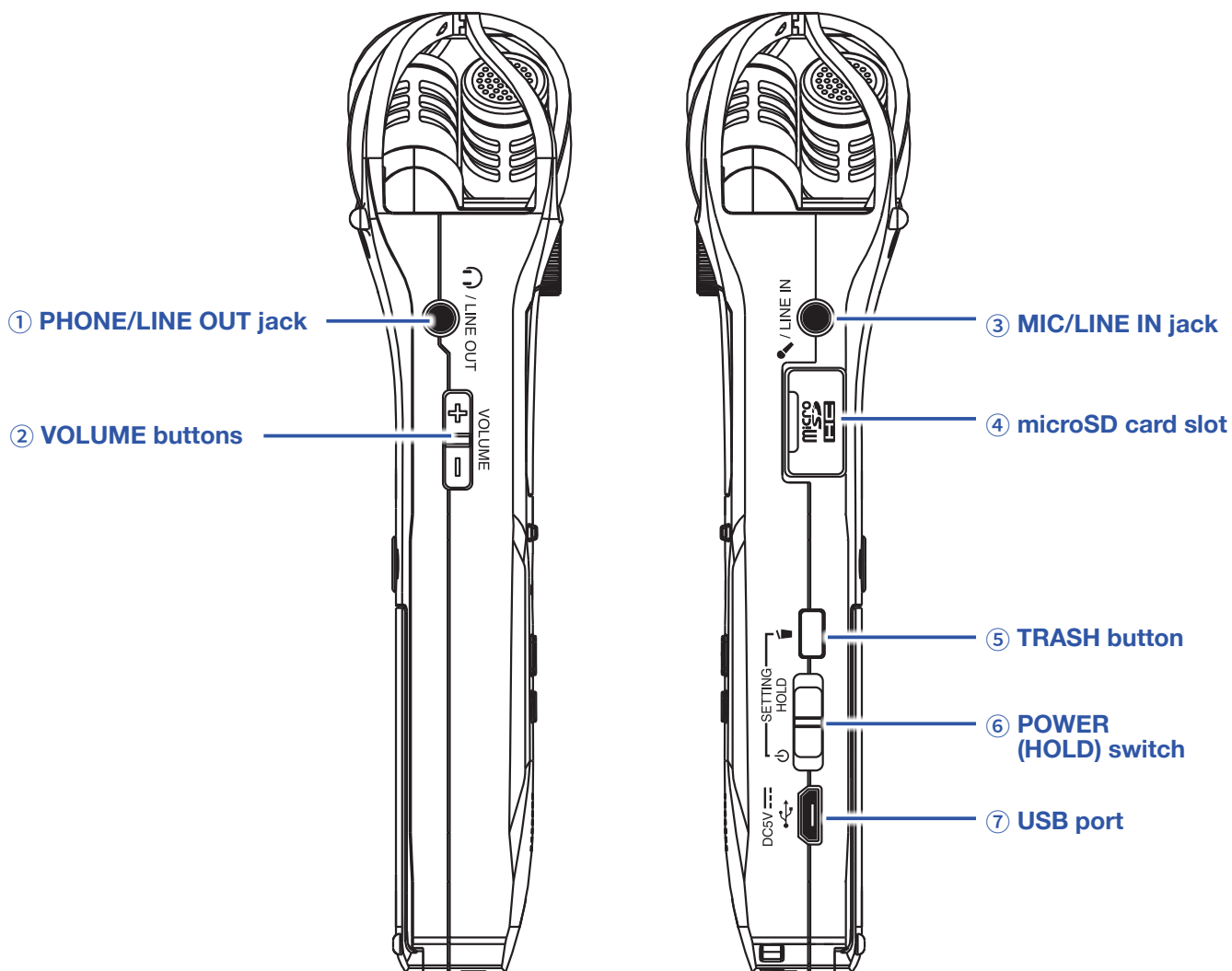
⑬ **FF button**

Used to skip files and search forward to a playback position.

⑭ **Speaker**

Sound is output here during file playback.

## ■ Left and right sides



### ① PHONE/LINE OUT jack

This can output sound to headphones or a connected device.

### ② VOLUME buttons

Use to adjust the volume.

### ③ MIC/LINE IN jack

A connected mic can be used to record. Mics that require plug-in power can be used with this jack.

### ④ microSD card slot

Insert a microSD card here.

### ⑤ TRASH button

Use to delete recorded files.

### ⑥ POWER (HOLD) switch

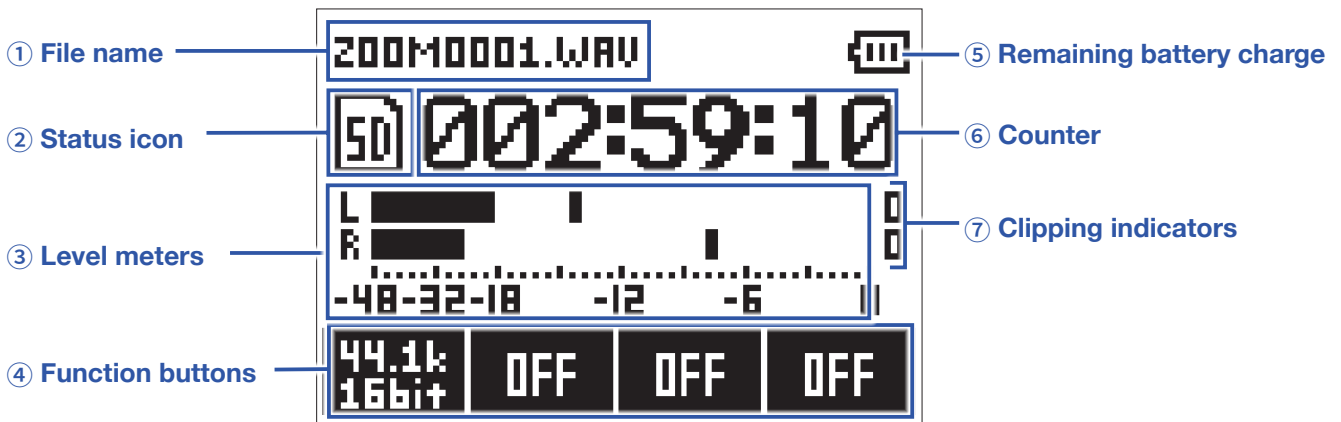
Use this to turn the power ON/OFF and to disable button operation.

### ⑦ USB port

Connect this to a computer or iOS device to use the **H1n** as an audio interface or card reader.

# Display overview

## Recording Screen



### ① File name

This shows the name of the file being recorded.

### ② Status icon

This shows the recording status.

Ready   Recording   Paused   Overdubbing (→ ["Overdubbing"](#))

### ③ Level meters

These shows the current input levels.

### ④ Function buttons

These show functions that can be set on the Recording Screen.

From left to right, these correspond to AUDIO , LOCUT , LIMITER  and AUTOLEVEL .

To change the setting, press the same key again while the parameter appears enlarged.

### ⑤ Remaining battery charge

This shows the remaining battery charge. When the remaining battery charge becomes low, replace the batteries (→ ["Using batteries"](#)) or connect an AC adapter (→ ["Using an AC adapter"](#)).

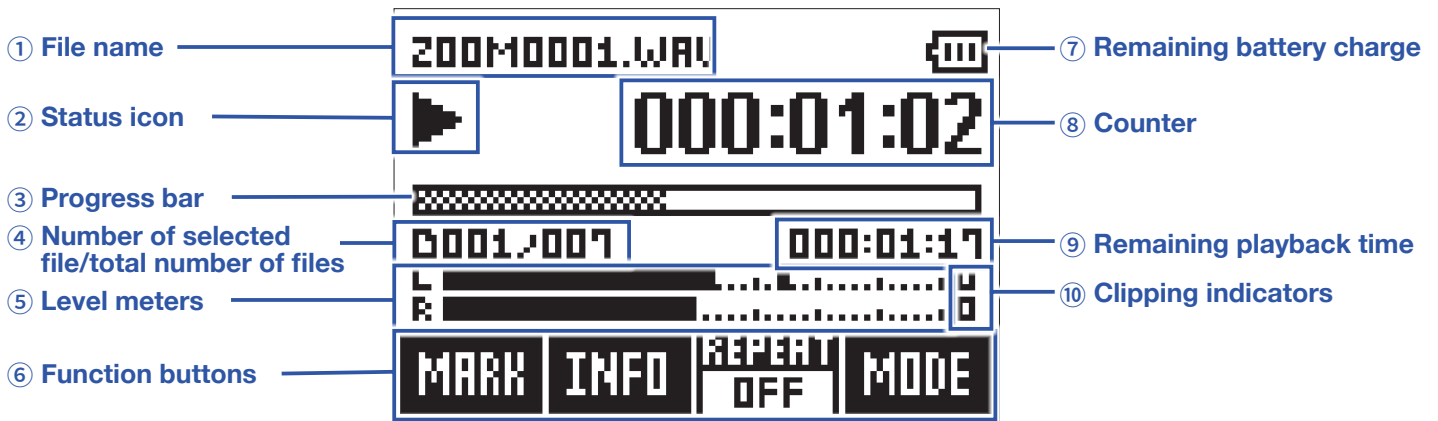
### ⑥ Counter

This shows either the current elapsed recording time or the remaining available recording time (→ ["Setting how the counter appears"](#)).

### ⑦ Clipping indicators

These appear lit when loud sounds are input. If the clipping indicators light, adjust the input level (→ ["Adjusting input levels"](#)) or set the limiter (→ ["Setting the limiter"](#)).

# Playback Screen



## ① File name

This shows the name of the file being played.

## ② Status icon

This shows the playback status.

▶ Playing    || Paused    ◀ Searching backward    ▶ Searching forward  
⏮ Jumping to the previous file/mark    ⏭ Jumping to the next file/mark

## ③ Progress bar

This shows the current playback location.

## ④ Number of selected file/total number of files

## ⑤ Level meter

These show the input levels of the playing audio.

## ⑥ Function buttons

These show functions that can be set on the Playback Screen.

From left to right, these correspond to  AUDIO,  LO CUT,  LIMITER and  AUTOLEVEL

To change the setting, press the same key again while the parameter appears enlarged.

## ⑦ Remaining battery charge

This shows the remaining battery charge. When the remaining battery charge becomes low, replace the batteries (→ ["Using batteries"](#)) or connect an AC adapter (→ ["Using an AC adapter"](#)).

## ⑧ Counter

This shows the playback time from the file beginning.

## ⑨ Remaining playback time

This shows the remaining time of the playing file.

## ⑩ Clipping indicator

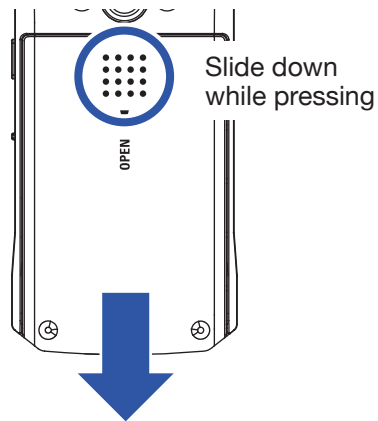
These appear lit when the output levels are high.

# Preparations

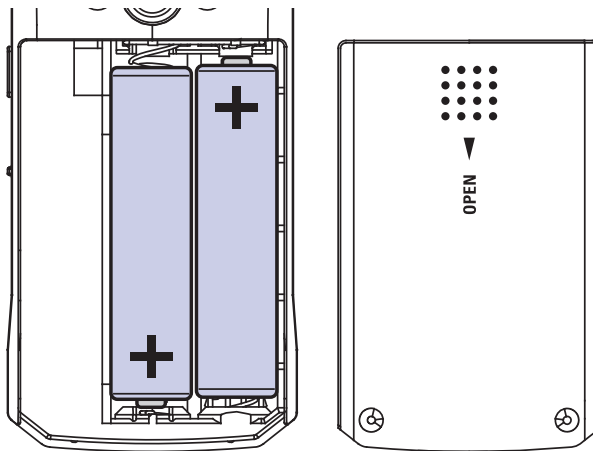
## Providing power

### Using batteries

1. Turn the power off and then remove the battery cover.



2. Install the batteries.



3. Replace the battery cover.

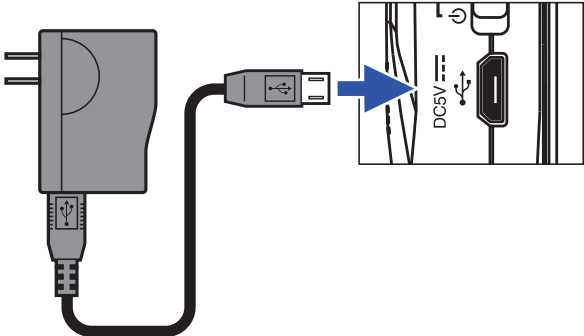
#### NOTE

- Use only one type of battery (alkaline, NiMH or lithium) at a time.
- If the remaining battery power indicator becomes 0, turn the power off immediately and install new batteries.
- After installing the batteries, set the battery type correctly (→ "[Setting the type of battery used](#)").

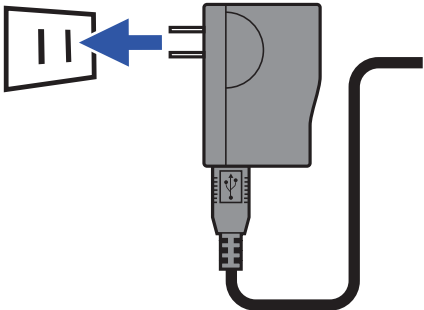
# Using an AC adapter

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**1.** Connect the cable of an AD-17 AC adapter to the USB port.



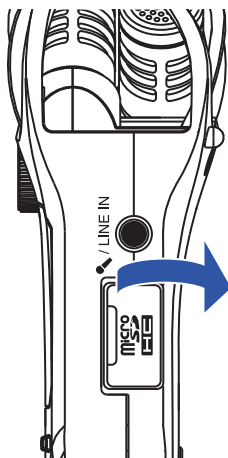
**2.** Plug the AC adapter into an outlet.



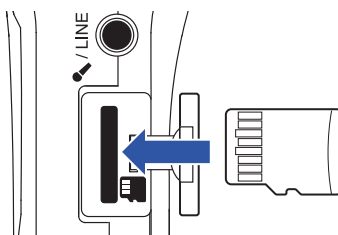


## Inserting microSD cards

1. Turn the power off and then open the microSD card slot cover.



2. Insert the microSD card into the card slot.



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

3. Close the microSD card slot cover.

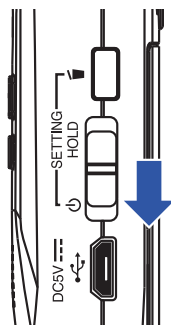
### NOTE

- 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 as shown.
- Recording and playback are not possible when a microSD card is not loaded in the **H1n**.
- To format a microSD card, see "[Formatting microSD cards](#)".

# Turning the power on/off

## Turning the power on

1. Slide  toward .



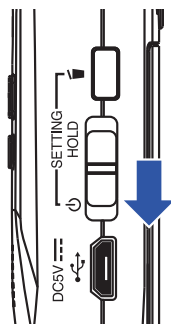
This turns the power on and opens the Recording Screen.

### NOTE

- The first time you turn the power on after purchase, you must set the language (→ ["Setting the language shown"](#)) and the date/time (→ ["Setting the date and time"](#)).
- If "No SD Card!" appears on the display, confirm that a microSD card is inserted properly.
- If "Invalid SD Card!" appears on the display, the card is not formatted correctly. Format the microSD card (→ ["Formatting microSD cards"](#)) or use a different microSD card (→ ["Formatting microSD cards"](#)).

## Turning the power off

1. Slide  toward .



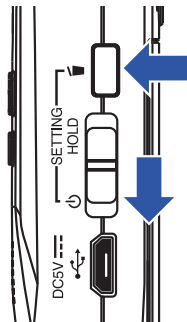
### NOTE

Keep sliding the switch until "Goodbye See You!" appears.

## Setting the language shown

Set the language shown on the display.




1. While pressing , turn the power on.



This opens the SETTING screen.

2. Use  and  to select "Language", and press .



3. Press  and  to select the language to use, and press .



This completes setting the language.

---

### HINT

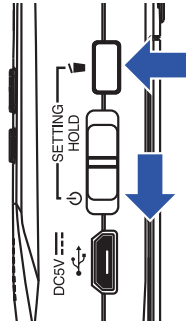
The first time you turn the power on after purchase, this screen opens automatically.

---

# Setting the date and time

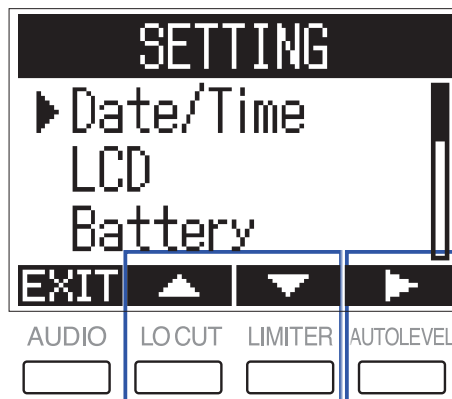
Set the date and time so the recorder can add this data to recording files.




1. While pressing , turn the power on.

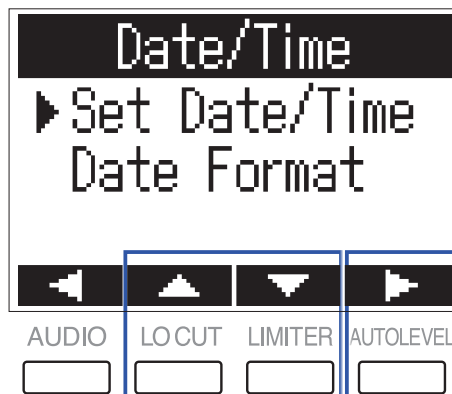


This opens the SETTING screen.

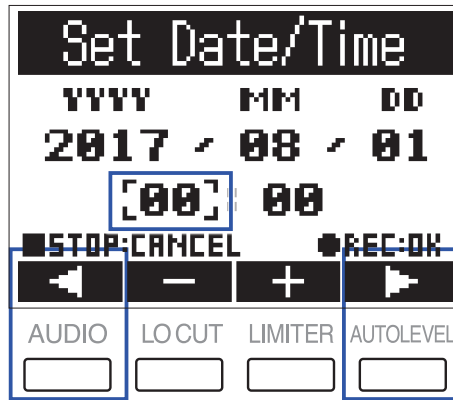
2. Use  and  to select "Date/Time", and press .



3. Use  and  to select "Set Date/Time", and press .





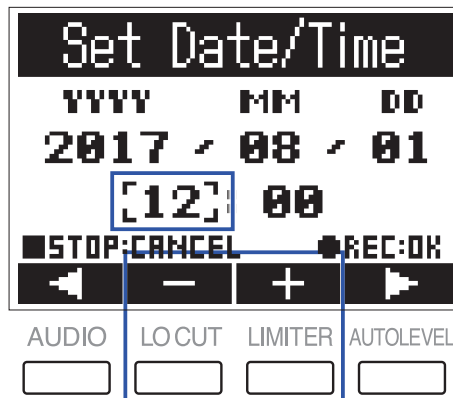
4. Use  and  to move the cursor.



**HINT**

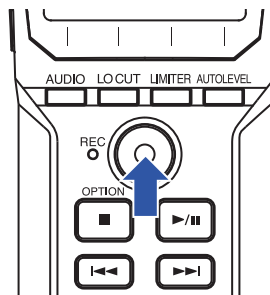
The first time you turn the power on after purchase, this screen opens automatically after you set the language used.

5. Use  and  to change the value selected by the cursor.



6. Press .

This completes setting the date and time.




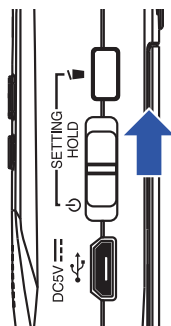
## Preventing misoperation

Misoperation during recording can be prevented by using the HOLD function to disable use of the **H1n** buttons.

### Activating the HOLD function

---

1. Slide  to HOLD.



### Deactivating the HOLD function

---

1. Slide  back to the middle.

# Recording

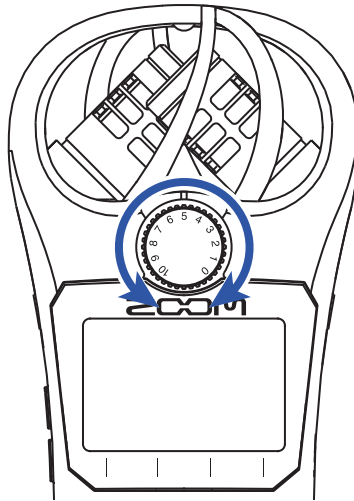
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## Adjusting input levels

### Adjusting levels manually

---

1. Turn the input volume dial.



---

#### HINT

- Adjust so that the peak level stays around  $-12\text{dB}$ .
- If the sound distorts even when you lower the input level, try changing mic positions and adjusting the output levels of connected devices.
- To cut noise from wind and other sources during recording, see ["Reducing noise"](#).
- To stop input signal clipping, see ["Setting the limiter"](#).

---

#### NOTE

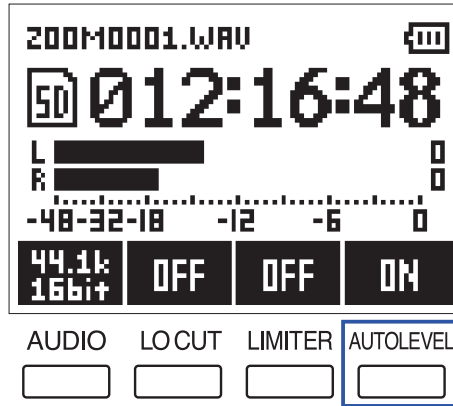
If the REC LED is blinking, the sound could be distorted, so lower the input level.

---

## Using automatic level adjustment

This function automatically adjusts the input level according to the input signal.

1. Press  <sup>AUTOLEVEL</sup> to select ON.



### NOTE

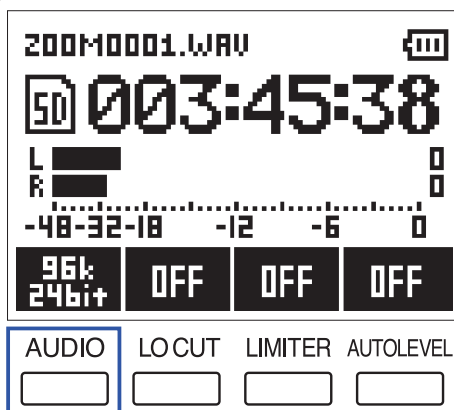
When automatic level adjustment is ON, turning the input volume dial has no effect.



## Selecting the recording format

The recording format can be selected in consideration of audio quality and file size.

1. Press  <sup>AUDIO</sup> to select the recording format.



The display shows the selected recording format and the remaining possible recording time.

The following recording formats can be set.

Setting	Recording format	Audio quality	File size
96k 24bit	96 kHz/24-bit WAV	High ↑	Large ↑
48k 24bit	48 kHz/24-bit WAV		
48k 16bit	48 kHz/16-bit WAV		
44.1k 16bit	44.1 kHz/16-bit WAV		
MP3 320k	320 kbps MP3		
MP3 256k	256 kbps MP3	↓ Low	↓ Small
MP3 192k	192 kbps MP3		
MP3 128k	128 kbps MP3		
MP3 48k	48 kbps MP3		

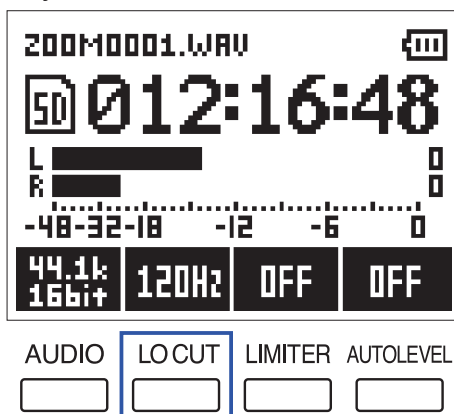
### NOTE

- WAV format is better for recording when audio quality is important.
- Since the MP3 format uses compression, the audio quality is reduced, but the file size is smaller. This is convenient when you want to save large amounts of recordings and use less space on the microSD card, for example.

## Reducing noise

This function can reduce low-frequency noise, including wind and vocal pops.

1. Press  <sup>LOCUT</sup> to set the cutoff frequency.



---

### HINT

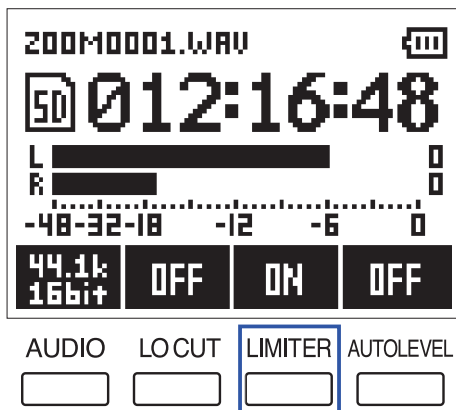
Select OFF, 80Hz, 120Hz or 160Hz as the frequency.

---

## Setting the limiter

The limiter can prevent distortion by controlling input signals that have excessively high levels.

1. Press  <sup>LIMITER</sup> to select ON.

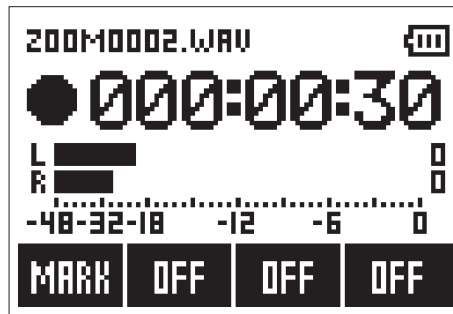
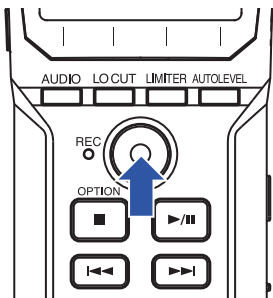


### NOTE



When the input sensitivity is high (input volume dial is set to a large value), noise will be more noticeable when the signal level is low.

# Recording



1. Press .



The following operations are possible during recording.

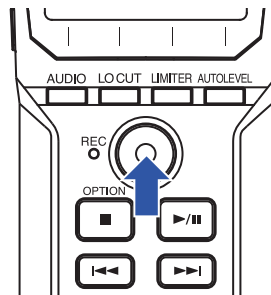
Pause/resume	Press 
Add a mark	Press 

## NOTE

- Marks are used as cue points. During playback, press  or  to jump to a mark position.
- When recording is paused, a mark will be added automatically at that point.
- Up to 99 marks can be added to each recording.
- If the file size exceeds 2 GB during recording, a new file will be created automatically and recording will continue without pause.

2. Press .

This ends recording.



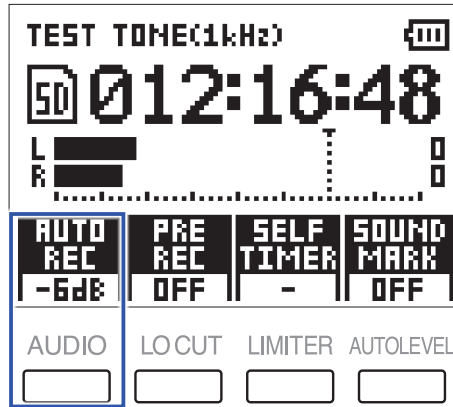
## Using additional recording functions

When the Recording Screen is open, press  to enable use of additional recording functions.

### Recording automatically (AUTO REC)

Recording will start automatically when the input level exceeds the set value.

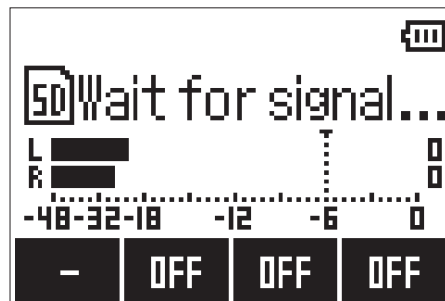
1. While pressing , press  to set the recording starting level.



#### HINT


The input level can be set to Off, -48 dB, -24 dB, -12 dB or -6 dB.

2. Press .



This will start automatic recording standby.

#### HINT


You can press  again to start recording immediately.

3. Press  to end recording standby or stop recording.

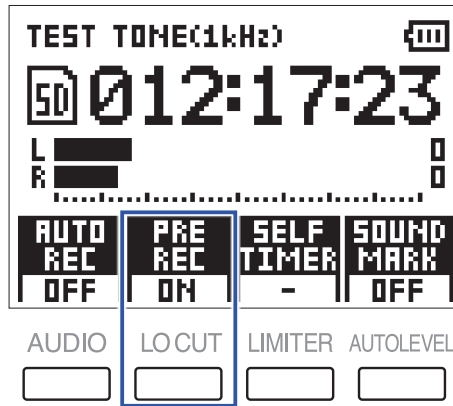
#### NOTE

This cannot be used with the SELF TIMER function. When automatic recording is enabled, the self timer will be disabled.

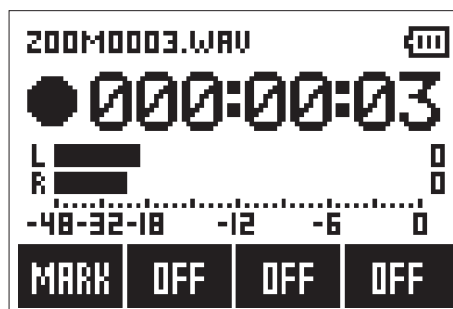
## Capturing audio before recording starts (PRE REC)

The input signal can be captured for about 2 seconds before  is pressed. This is useful when a performance starts suddenly, for example.

1. While pressing , press  to turn it ON.



2. Press .



This starts recording the input signal from 2 seconds earlier.

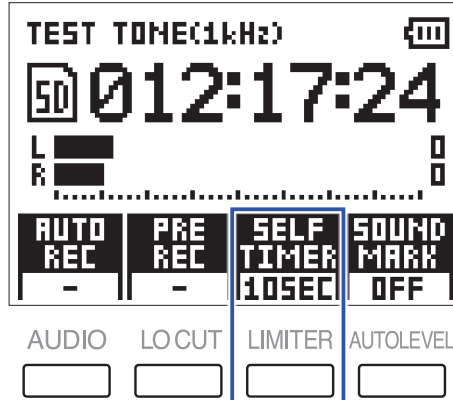
### NOTE

This cannot be used with the SELF TIMER function. When PRE REC is enabled, SELF TIMER will be disabled.

# Recording with the SELF TIMER

Recording starts automatically after the set time passes.

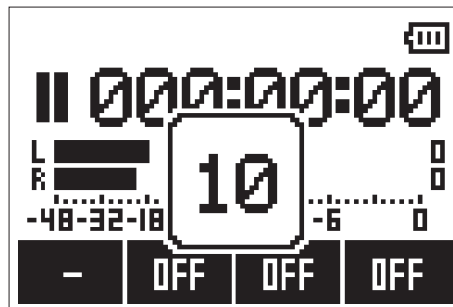
1. While pressing , press  to set the timer.



## HINT

The timer can be set to OFF, 3SEC, 5SEC or 10SEC.

2. Press .



This starts the self timer countdown, and the REC LED blinks.

## HINT

During the countdown, you can press  again to start recording immediately.

3. Press  to end recording standby or stop recording.

## NOTE

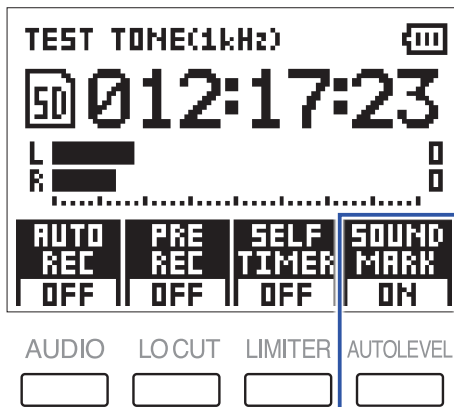
- This cannot be used with the AUTO REC function. When the SELF TIMER is enabled, AUTO REC will be disabled.
- This cannot be used with the PRE REC function. When the SELF TIMER is enabled, PRE REC will be disabled.

## Enabling the SOUND MARK function

---

Tone signals (sound markers) can be output from the LINE OUT jack when recording is started and stopped. When recording audio for video with the **H1n**, sending the **H1n** output signal to the camera input can make aligning audio and video easier.

1. While pressing , press  to turn it ON.





## Adjusting connected equipment levels (playing test tones)

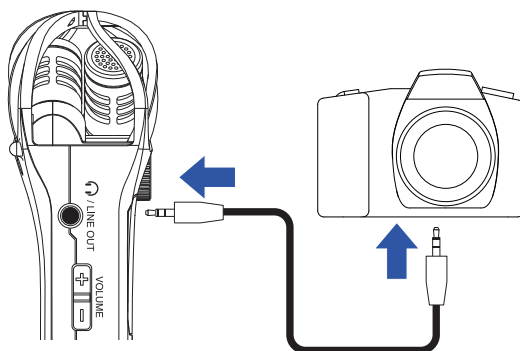
When the **H1n** is connected to a digital SLR camera or other external device, a test tone can be played to match their output levels.

1. Minimize the input gain of the other device.

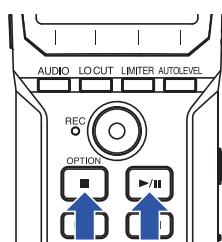
### NOTE

If the automatic gain control function on the other device is on, turn it off.

2. Use an audio cable to connect the external mic jack of the other device with the PHONE/LINE OUT jack of the **H1n**.



3. While pressing , press .



This plays a test tone from the PHONE/LINE OUT jack.

### NOTE

Be careful of the volume if you are monitoring the sound with headphones, for example.

### HINT

The test tone is a 1kHz sine wave at -6 dBFS.

4. Adjust the input gain of the other device.

While checking the audio level meter of the connected device, make small adjustments to the input gain of that device until the audio signal level is about -6 dB.

5. Press .

This stops the test tone.

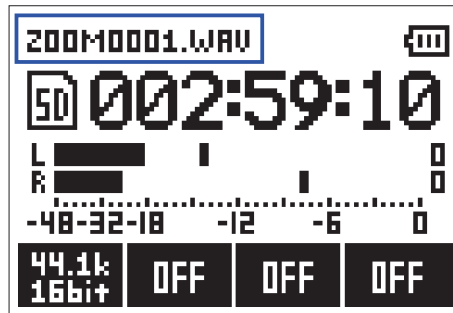
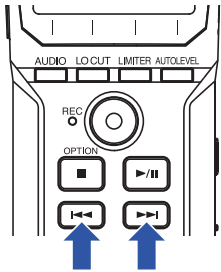
### NOTE



See the operation manual of the other device for information about its operation.

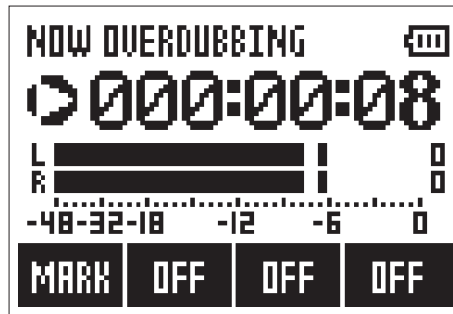
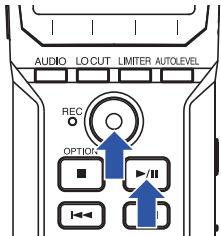
# Overdubbing

You can record over a file as it is playing back and save it as a new file. This is convenient when, for example, recording a performance one part at a time.

1. Press  and  to select a file.



2. While pressing , press .



This starts overdubbing.

3. Press .

This stops overdubbing.

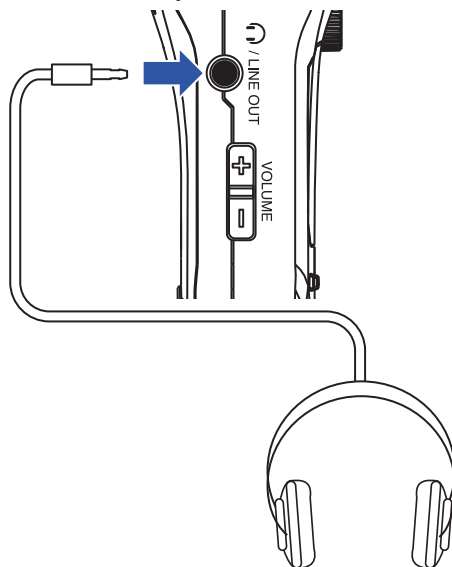
## NOTE

- The AUTO REC, PRE REC, SELF TIMER and SOUND MARK functions will be disabled.
- Overdubbing is not possible if the recording format of the file is MP3.
- Overdubbing will record a file with the same format as the original file.

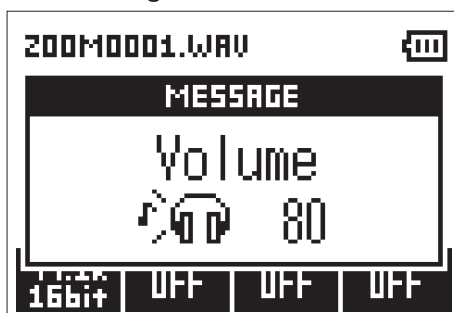
## Monitoring recording

The sound being recorded can be monitored using headphones.

1. Connect headphones to the PHONE/LINE OUT jack on the **H1n**.



2. Press **+** and **-** to adjust the monitoring volume.



---

### HINT

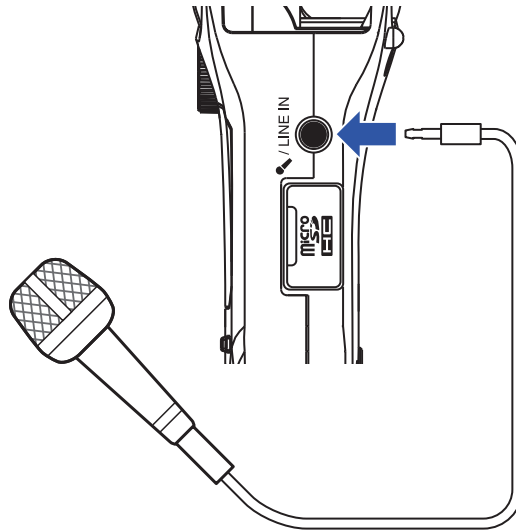
The monitoring volume can be set from 0 to 100.

---

## Using external mics

A connected mic can be used to record sound.

1. Connect an external mic to the MIC/LINE IN jack on the **H1n**.



2. Press .



This starts recording.

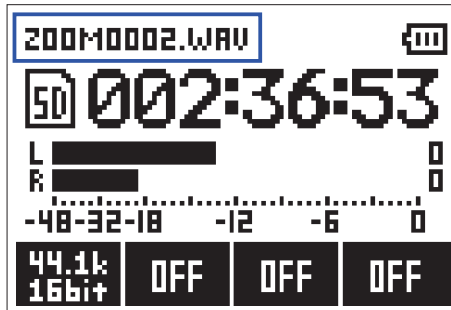
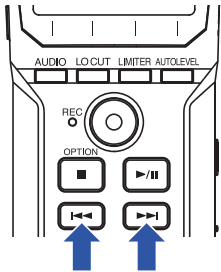
### NOTE

- The built-in XY mic is disabled when an external mic is connected.
- The **H1n** can supply plug-in power if the connected mic uses it.

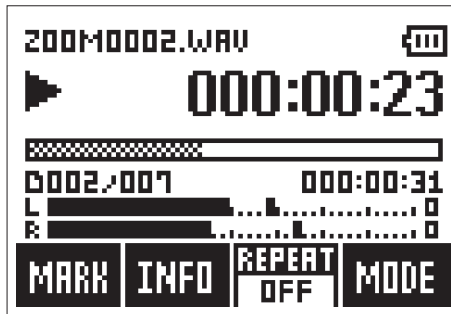
# Playback

## Playing recordings






1. Press  and  to select the file for playback.




2. Press .



The following operations are possible during playback.

Pause/resume	Press 
Search forward	Press and hold 
Search backward	Press and hold 
Add a mark	Press <b>MARK</b> during playback
Jump to the next mark (if one exists) Play the next file (if no mark exists)	Press 
Jump to the previous mark (if one exists) Play the previous file (if no mark exists)	Press 

### HINT

- Marks are used as cue points.
- If you press  after the last mark during playback, the next file will be played.

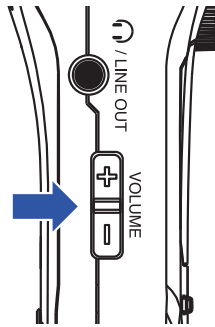
If you press  before the first mark during playback, the previous file will be played.

3. Press .

Playback stops and the Recording Screen opens.

## Adjusting the volume

1. Press **+** and **-**.



---

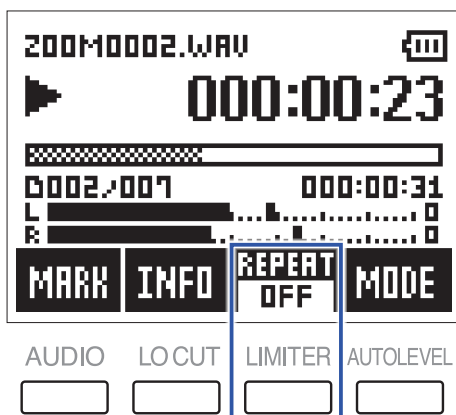
### HINT

- The volume can be adjusted separately for the speaker and headphones.
  - The volume can be set from 0 to 100.
-

## Using repeat playback

Just the file currently playing or all the files saved on the microSD card can be played back repeatedly.

1. Press **REPEAT** to set the repeat type.





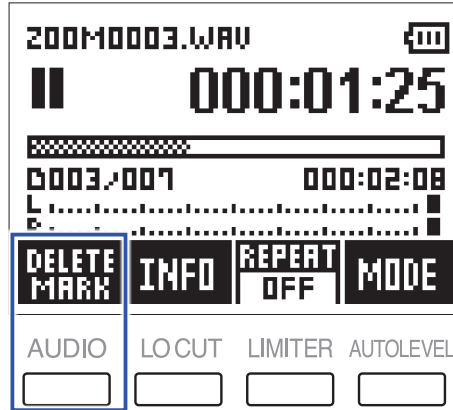
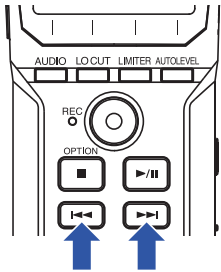
The following repeat types can be used.

Setting value	Explanation
OFF	Every file from the selected one to the last one will be played back.
ONE	The selected file will be played repeatedly.
ALL	All files will be played back repeatedly.





## Deleting marks

Marks added to files can be deleted when not needed.

1. Pause playback.
2. Use  and  to jump to the mark that you want to delete.



The function button on the far left changes from "MARK" to "DELETE MARK".

3. Press .
4. Use  and  to select "Delete", and press .



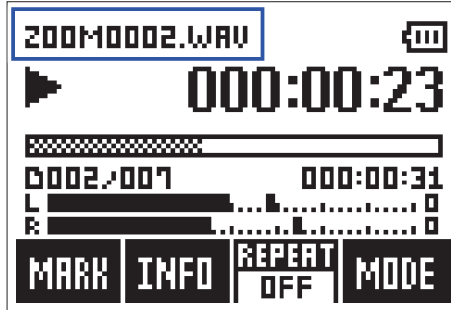
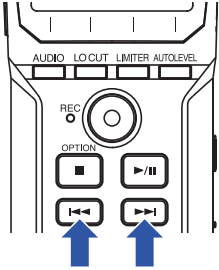
The selected mark will be deleted.



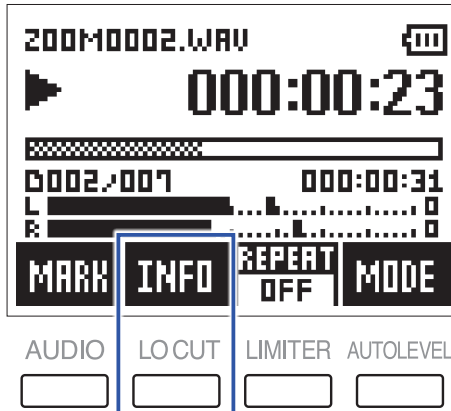
# Checking file information

You can view a variety of information about the selected file.

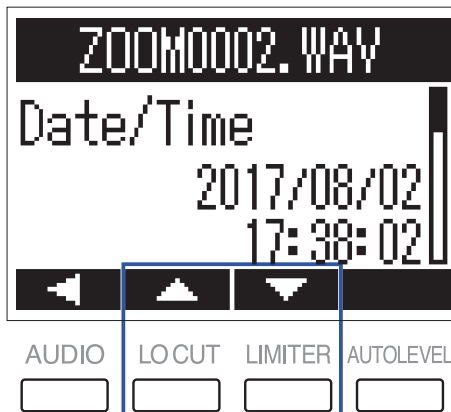
1. Press  and  to select a file.



2. Press .



3. Check the file information.



Press  and  to change the page.

## HINT

The information items that can be viewed are the date and time, the recording format, the file size, and the recording length.

4. Press .

This reopens the Playback Screen.

## Using additional playback functions

Press **MODE** to switch to Play Mode, which allows you to use functions that are useful for listening to passages and transcribing words.

### Adjusting the playback position precisely

The playback position can be adjusted a few seconds at a time.

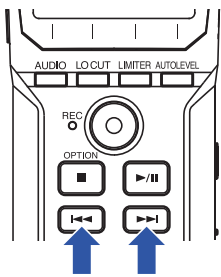
1. Press **MODE** on the Playback Screen.

This activates Play Mode.

2. Use  and  to adjust the playback position precisely.

Go back 3 seconds: Press 

Go forward 10 seconds: Press 



#### NOTE

If there is a mark before the amount of time, playback will stop at the mark position instead.

3. Press  to exit Play Mode.

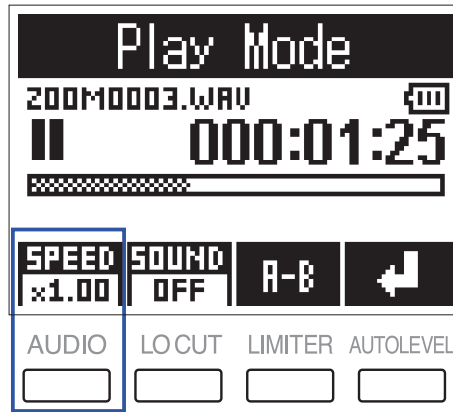
## Changing the playback speed

---

1. Press **MODE** on the Playback Screen.

This activates Play Mode.

2. Press **SPEED** to change the playback speed.



---

### HINT

The playback speed can be set to  $\times 0.50$ ,  $\times 0.75$ ,  $\times 1.00$ ,  $\times 1.50$  or  $\times 2.00$ .

---

3. Press **↩** to exit Play Mode.

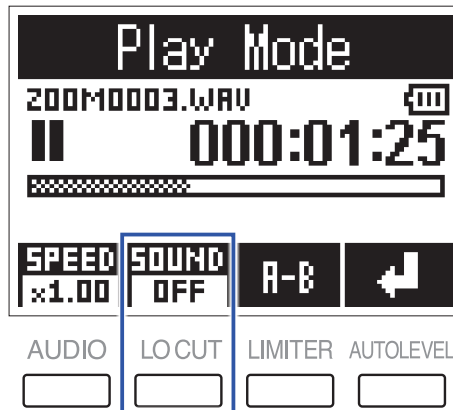
## Using sound effects

These effects can be applied to change the sound during playback.

1. Press **MODE** on the Playback Screen.

This activates Play Mode.

2. Press **SOUND** to select the sound effect to use.



The following sound effects can be activated.

Setting value	Explanation
OFF	The sound will not be changed.
SPEECH	This makes recordings of speeches and meetings sound better.
Vo CUT	This cuts vocals.
BASS	This cuts frequencies other than low frequencies.
ROCK	This emphasizes low and high frequencies.

3. Press **←** to exit Play Mode.

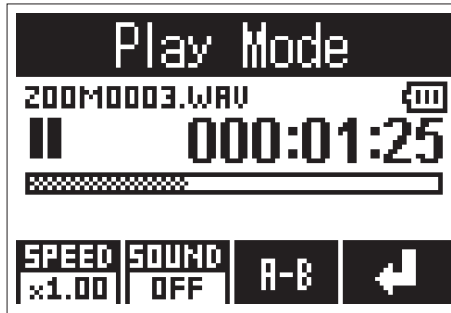
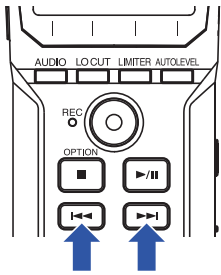
# Repeat playback of a set interval (A-B repeat)

Playback can be repeated between two set points.

1. Press **MODE** on the Playback Screen.

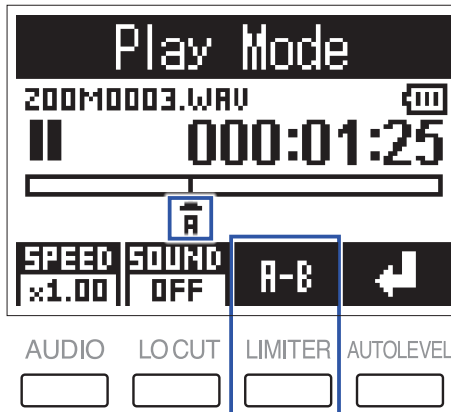
This activates Play Mode.

2. Press  and  to move the position where you want repeat playback to start.



You can also press  and move the position during playback.

3. Press **A-B** to set the starting point.



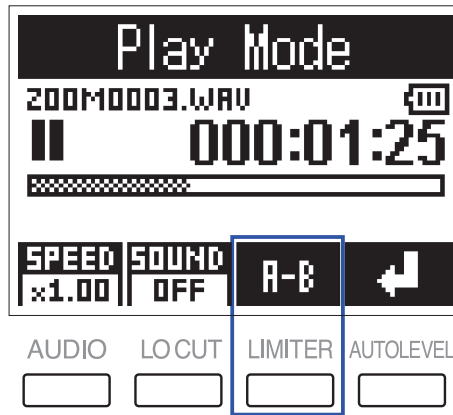
"A" will appear at the set point.

4. Press **A-B** at the point where you want repeat playback to stop to set the ending point.



"B" will appear at the set point, and repeat playback between the A and B points will start.

5. Press **A-B** to stop repeat playback.



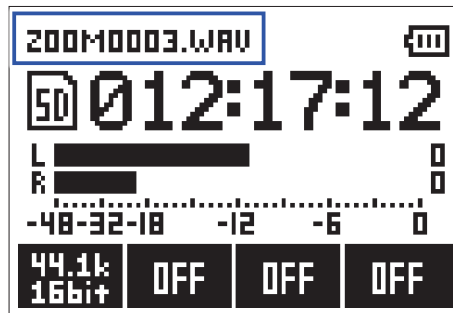
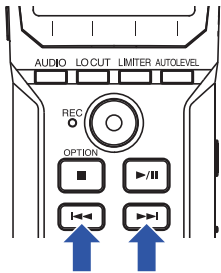
6. Press **←** to exit Play Mode.

# Working with files

## Deleting files





Files that are not needed can be deleted.

1. Press  and  to select a file.



### HINT

Files can be deleted on both the Recording Screen and the Playback Screen.

2. Press .
3. Use  and  to select "Delete", and press .



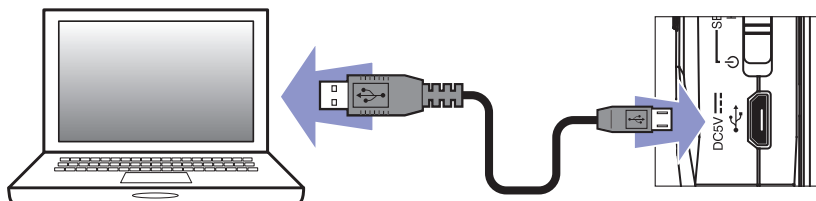
The selected file will be deleted.

# Using USB functions

## Connecting with other devices

The **H1n** can be used as a card reader or audio interface when the **H1n** is connected to a computer, iOS device or other equipment.

1. When the Recording Screen is open, use a USB cable to connect the **H1n** and the other equipment.



The USB screen will open.

### NOTE

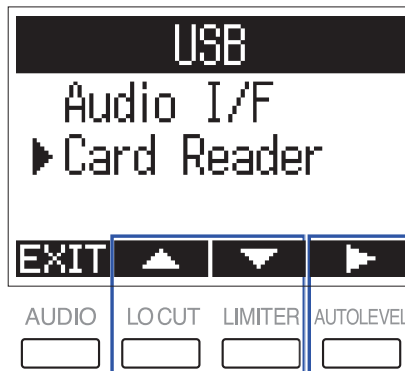
A Lightning to USB Camera Adapter is necessary to connect an iOS device.



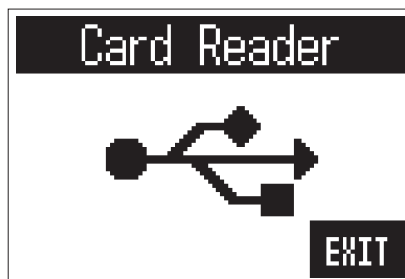
## Using as a card reader

You can use a computer to check the files saved on the microSD card and copy those files to the computer.

1. Press  or  on the USB screen to select "Card Reader", and press .





2. Use the computer to work with the files saved on the microSD card.



3. When you want to disconnect, use the computer to end the USB connection with the **H1n**.  
Windows: Select **H1n** from "Safely Remove Hardware".  
Mac OS: Drag the **H1n** icon to the Trash and drop it.

### NOTE

Always conduct computer disconnection procedures before removing the USB cable.

4. Press .
5. Use  and  to select "Exit", and press .



This ends card reader operation and reopens the Recording Screen.




6. Disconnect the USB cable from the **H1n** and the other equipment.

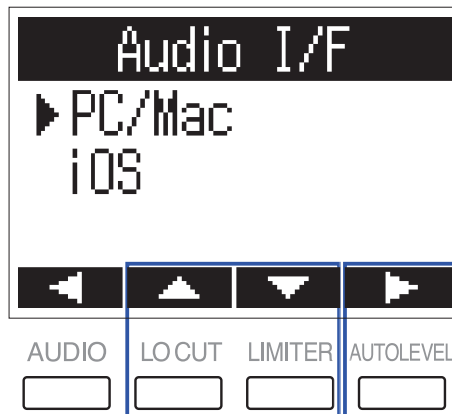
## Using as an audio interface

H1n input signals can be input directly to a computer, iOS device or other equipment, and playback signals on a computer, iOS device or other equipment can be output from the H1n.

1. Press  or  on the USB screen to select "Audio I/F", and press .






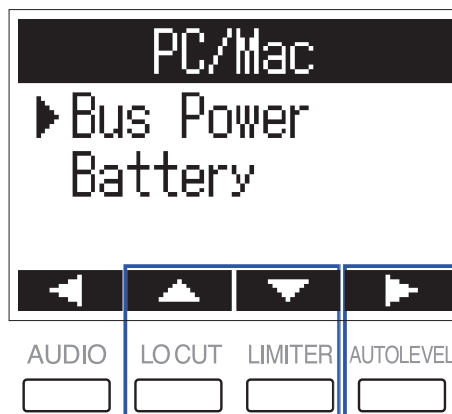
2. Use  and  to select the type of device, and press .



### NOTE

After selecting "iOS", follow the instructions on screen and disconnect the cable once. Then, select "iOS" again and reconnect the cable.

3. Use  and  to select the power source, and press .



The following power sources can be selected.

Setting value	Explanation
Bus Power	Power is supplied from the connected device through the USB cable.
Battery	Power is supplied by the batteries in the <b>H1n</b> . Select this when connected to a computer that has low USB bus power supply capability.

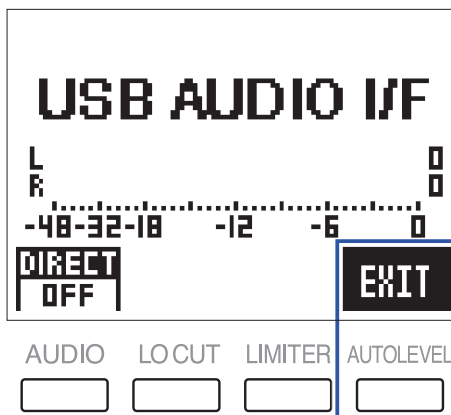
**NOTE**

When "iOS" is selected, power is supplied by the batteries in the **H1n**. This screen will not be shown.

**4.** Monitoring playback signals from connected devices



**5.** To disconnect, while pressing  <sup>OPTION</sup>, press **EXIT**.



**6.** Use and to select "Exit", and press .




This ends audio interface operation and reopens the Recording Screen.

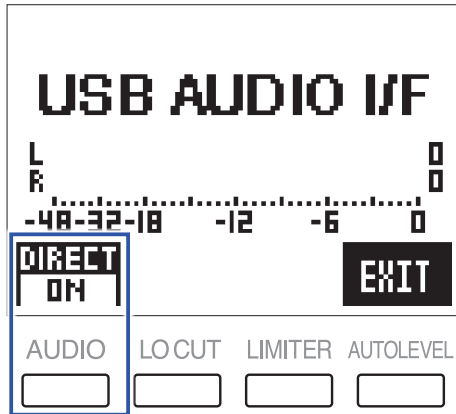
**7.** Disconnect the USB cable from the **H1n** and the other equipment.

## Enabling direct monitoring

---

This directly outputs the **H1n** input signal from the **H1n** before sending it to the computer or iOS device. This enables monitoring without latency

1. During audio interface operation, while pressing , press **DIRECT** to turn it ON.

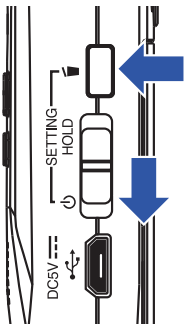


# Making various settings

## Opening the SETTING screen

Various settings can be made on the SETTING screen.

1. While pressing , turn the power on.

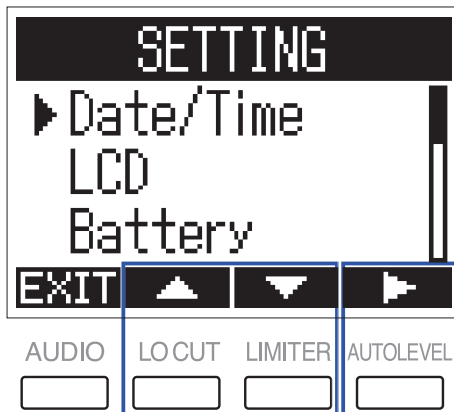


This opens the SETTING screen.

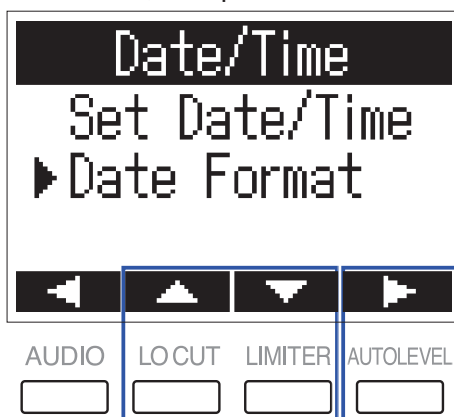
## Setting the date format




The date format, which is used when adding dates to file names and when showing the date on the Playback Screen, can be changed.

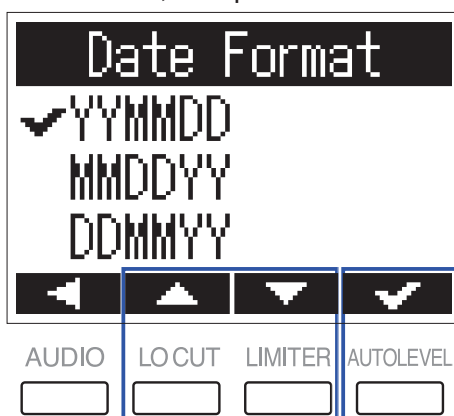
1. On the SETTING screen, use  and  to select "Date/Time", and press .



2. Use  and  to select "Date Format", and press .



3. Use  and  to select the date format, and press .






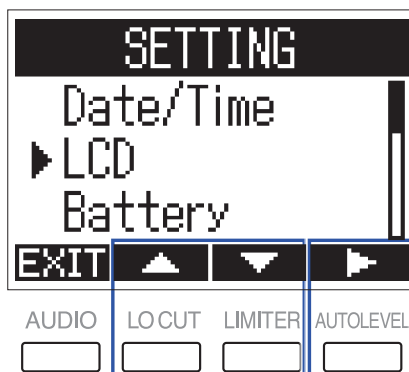
The following date formats can be used.

Setting value	Explanation
YYMMDD	Year, month, day order
MMDDYY	Month, day, year order
DDMMYY	Day, month, year order

## Setting the display backlight


The display backlight can be set to turn off after a specific amount of time without use.

1. On the SETTING screen, use  and  to select "LCD", and press .



2. Use  and  to select "Backlight", and press .






3. Use  and  to set the amount of time until the backlight turns off, and press .

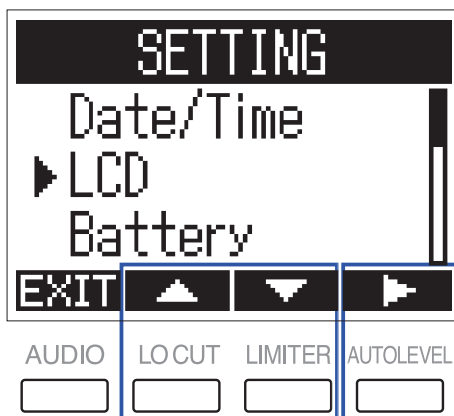


The time until the backlight turns off can be set as follows.

Setting value	Explanation
Off	The backlight always stays off.
On	The backlight always stays on.
30 sec	The backlight turns off if no operation occurs for 30 seconds.
1 min	The backlight turns off if no operation occurs for 1 minute.
2 min	The backlight turns off if no operation occurs for 2 minutes.
3 min	The backlight turns off if no operation occurs for 3 minutes.
4 min	The backlight turns off if no operation occurs for 4 minutes.
5 min	The backlight turns off if no operation occurs for 5 minutes.

## Adjusting the display contrast

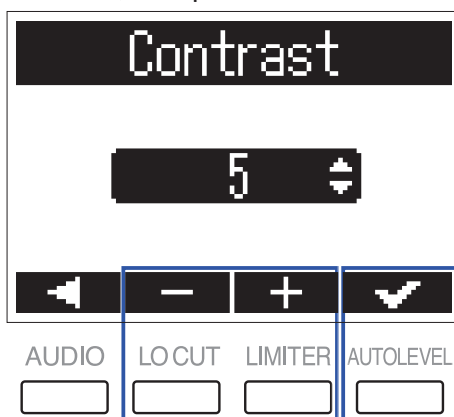
1. On the SETTING screen, use  and  to select "LCD", and press .



2. Use  and  to select "Contrast", and press .



3. Use  and  to adjust the contrast, and press .



---

### HINT

This can be set from 1 to 10.

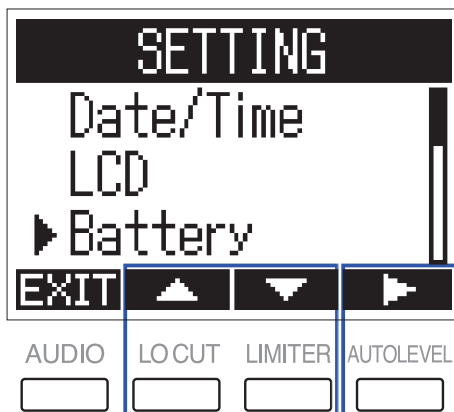
---




## Setting the type of battery used

Set the type of battery used so that the amount of remaining battery charge can be shown accurately on the display.

1. On the SETTING screen, use  and  to select "Battery", and press .



2. Use  and  to select the battery type, and press .



---

### HINT

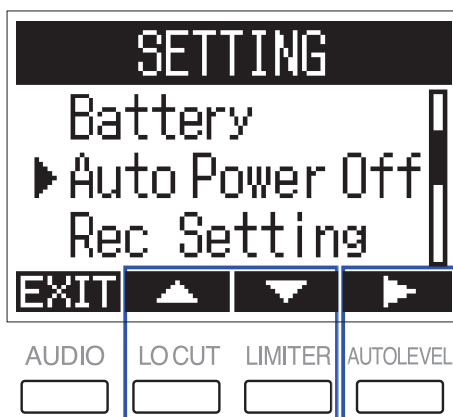
The options are Alkaline, Ni-MH and Lithium.




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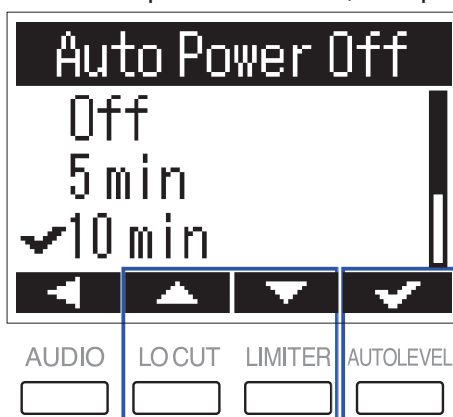
## Setting the Auto Power Off function

When operating with batteries, the power will automatically turn off if it is not used for a set amount of time.

1. On the SETTING screen, use  and  to select "Auto Power Off", and press .



2. Use  and  to set the time until the power turns off, and press .

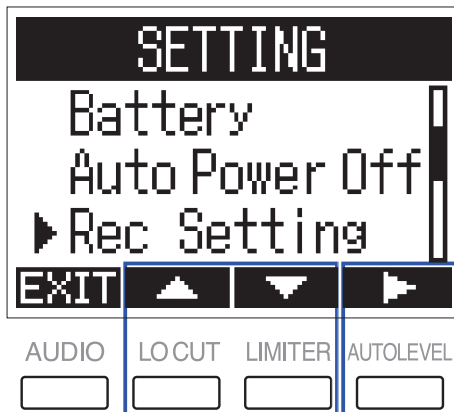


Setting value	Explanation
Off	The Auto Power Off function is disabled.
5 min	The power will turn off automatically 5 minutes after the last button operation.
10 min	The power will turn off automatically 10 minutes after the last button operation.
30 min	The power will turn off automatically 30 minutes after the last button operation.
60 min	The power will turn off automatically 60 minutes after the last button operation.

## Setting how the counter appears

The recording time shown during recording (counter) can be set to either the current elapsed recording time (count up) or the remaining possible recording time (count down).

1. On the SETTING screen, use  and  to select "Rec Setting", and press .



2. Use  and  to select "Counter", and press .



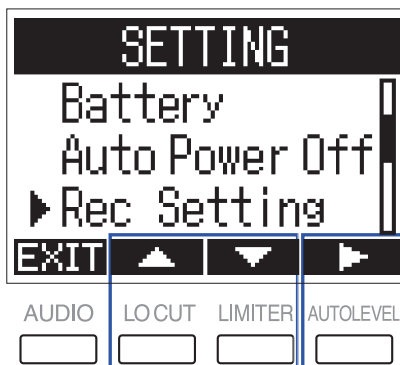
3. Press  and  to select how it is shown, and press .



## Setting how files are named




The way that files are named automatically during recording can be changed.

1. On the SETTING screen, use  and  to select "Rec Setting", and press .



2. Use  and  to select "File Name", and press .



3. Use  and  to select the file name format, and press .



The following file name formats can be used.

Setting value	Explanation
ZOOM****	Files are named with consecutive numbers from "ZOOM0001.WAV/MP3" to "ZOOM9999.WAV/.MP3".
YYMMDD-HHMMSS	Files are named with the date and time, using a "YYMMDD-HHMMSS.WAV/MP3" format.

### NOTE

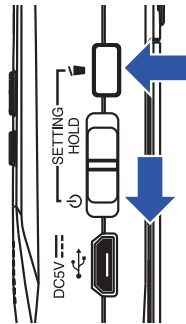
- If set to "YYMMDD-HHMMSS", files will be named with the date and time when recording started.
- When set to "YYMMDD-HHMMSS", the "Date Format" setting will be used (→ ["Setting the date format"](#)).

# Other functions

## Formatting microSD cards

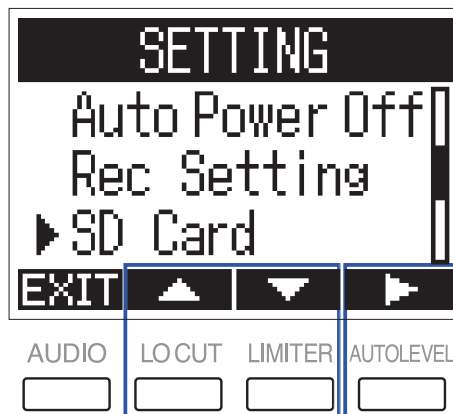
A microSD card that has been purchased or formatted by a computer should be formatted for use with the **H1n**.

1. While pressing , turn the power on.

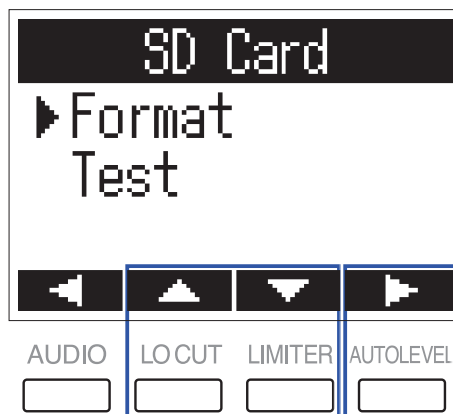


This opens the SETTING screen.

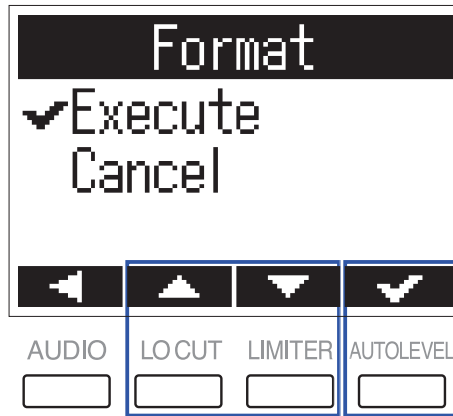
2. Use  and  to select "SD Card", and press .



3. Use  and  to select "Format", and press .



4. Use  and  to select "Execute", and press .



This formats the microSD card for use with the **H1n**.

**NOTE**

- Before using microSD cards that have just been purchased or that have been formatted on a computer, they must be formatted by the **H1n**.
- Be aware that all data saved on the microSD card will be deleted when it is formatted.

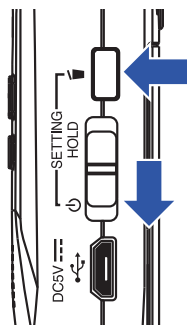
# Testing microSD card performance

A microSD card can be tested for usability with the H1n.

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

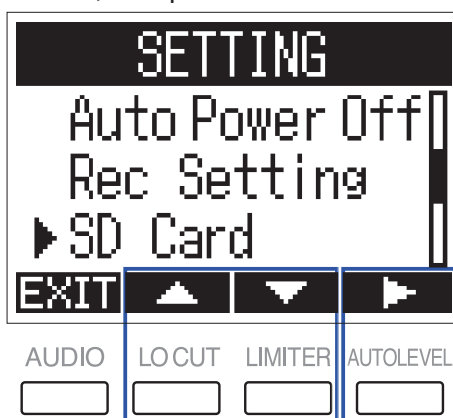
## Conducting a Quick Test




1. While pressing , turn the power on.

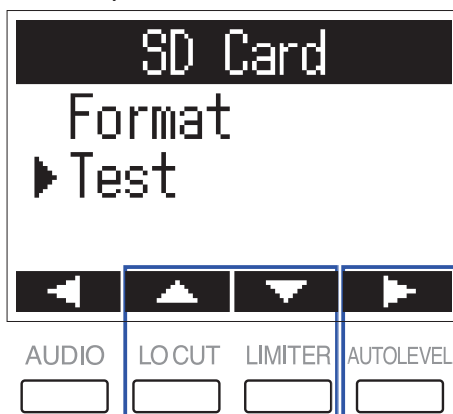


This opens the SETTING screen.

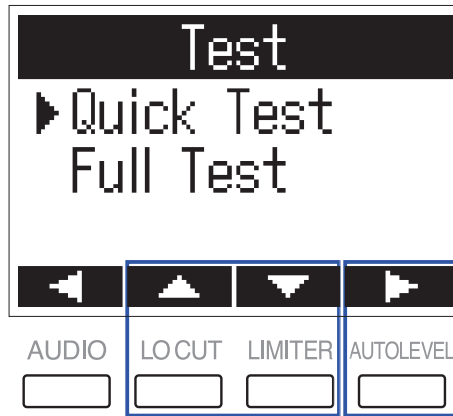
2. Use  and  to select "SD Card", and press .



3. Use  and  to select "Test", and press .



4. Use  and  to select "Quick Test", and press .

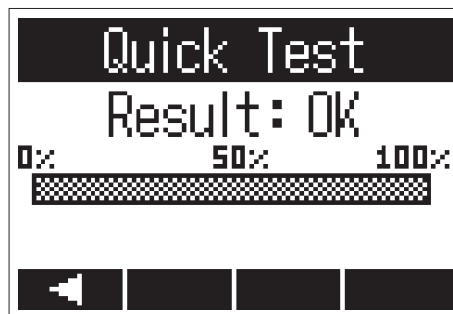


5. Use  and  to select "Execute", and press .



This starts a quick test of the microSD card.

6. Check the result when the test completes.



The result of the evaluation is shown.

**NOTE**

Even if a performance test result is "OK", there is no guarantee that writing errors will not occur. Use this information as a guide.

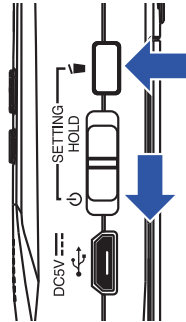


# Conducting a Full Test

## NOTE

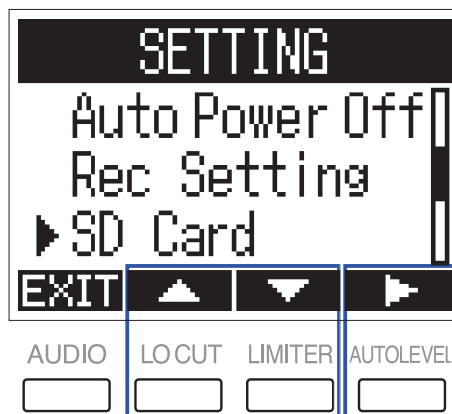
Use the AC adapter to supply power when conducting a full test (→ ["Using an AC adapter"](#)).




1. While pressing , turn the power on.

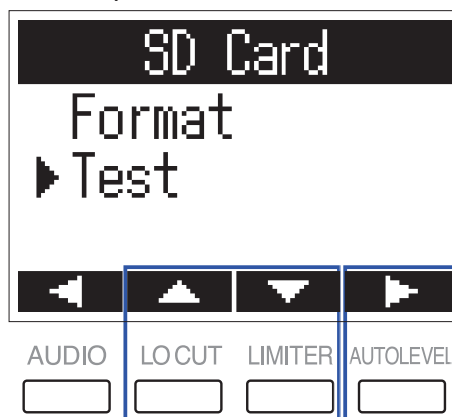


This opens the SETTING screen.

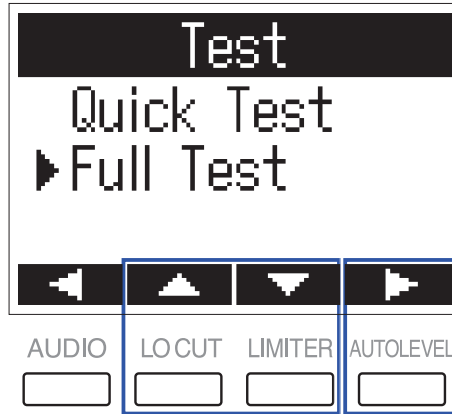
2. Use  and  to select "SD Card", and press .



3. Use  and  to select "Test", and press .



4. Use  and  to select "Full Test", and press .



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

5. Use  and  to select "Execute", and press .

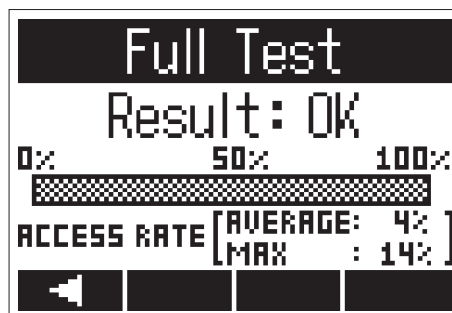


This starts a full test of the microSD card.

**HINT**

You can press  to pause and resume a test.

6. Check the result when the test completes.



The result of the evaluation is shown.

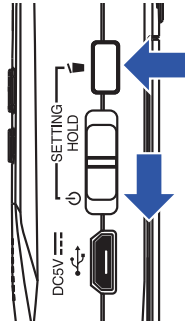
**NOTE**

Even if a performance test result is "OK", there is no guarantee that writing errors will not occur. Use this information as a guide.

## Checking the versions

You can check the firmware versions.

1. While pressing , turn the power on.

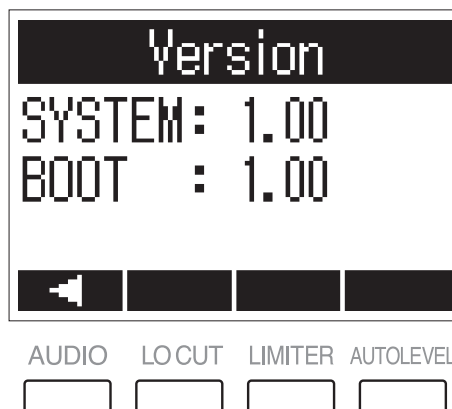


This opens the SETTING screen.

2. Use  and  to select "Version", and press .



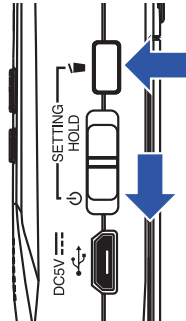
3. Check the firmware versions.






## Restoring default setting values

The **H1n** settings can be restored to their factory defaults.

1. While pressing , turn the power on.



This opens the SETTING screen.

2. Use  and  to select "Factory Reset", and press .



3. Use  and  to select "Execute", and press .



This starts resetting the **H1n**.

After the settings are reset, the power will automatically turn off.

### NOTE

Input level settings will not be reset.


# Updating the firmware

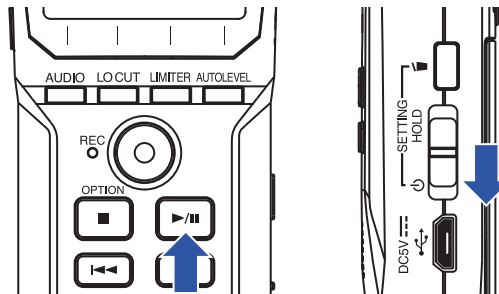
The **H1n** firmware can be updated to the latest versions.

1. Install new batteries in the **H1n** (→ ["Using batteries"](#)) or connect the dedicated AC adapter (→ ["Using an AC adapter"](#)).
2. Copy the firmware update file to the root directory on a microSD card.


## NOTE

Files for the latest firmware updates can be downloaded from the ZOOM website ([www.zoom.co.jp](http://www.zoom.co.jp)).

3. Insert the microSD card into the **H1n** (→ ["Inserting microSD cards"](#)).
4. While pressing , turn the power on.



This opens an update execution confirmation screen.

5. Use  and  to select "Update", and press .

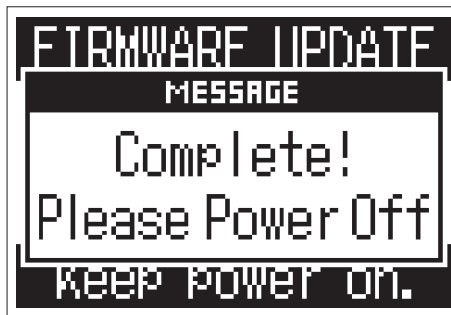


The firmware update starts.

## NOTE

During the firmware update, do not turn the power off or remove the microSD card. Doing so could cause the **H1n** to become unstartable.

6. After the firmware update completes, turn the power off.



**NOTE**

Executing a firmware update is not possible if the remaining battery power is low. Replace the batteries with new ones (→ ["Using batteries"](#)) or connect the AC adapter (→ ["Using an AC adapter"](#)).


# Adding languages

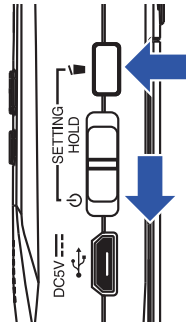
By adding new languages, the language displayed by the **H1n** can be changed.

1. Copy the file for the language you want to add to the root directory on a microSD card.

## NOTE

Download language files from the ZOOM website ([www.zoom.co.jp](http://www.zoom.co.jp)).

2. Insert the microSD card into the **H1n** (→ "[Inserting microSD cards](#)").
3. While pressing , turn the power on.




This opens the SETTING screen.

4. Use  and  to select "Language", and press .



5. Use  and  to select "Add Language", and press .



6. Use  and  to select the language you want to add, and press .



The selected language will be added.

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**HINT**

Added languages will be deleted if the **H1n** is reset (→ ["Restoring default setting values"](#)).

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# Troubleshooting

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If you think that the **H1n** is operating strangely, check the following items first.

## Recording/playback trouble

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### ■ No sound is output/volume is low

- Confirm that the volume of the **H1n** is not set too low (→ ["Adjusting the volume"](#)).
- Check the volume of the computer, iOS device or other equipment connected to the **H1n**.

### ■ Recorded sound cannot be heard or is very quiet

- Confirm that the mic is oriented in a suitable direction.
- Check the input level settings (→ ["Adjusting input levels"](#)).

### ■ Recording not possible

- Confirm that the REC LED is lit (→ ["Names of parts"](#)).
- Check the remaining recordable time with the recording time (counter) shown on the Recording Screen (→ ["Recording Screen"](#)).
- Confirm that a microSD card is loaded properly in the card slot (→ ["Inserting microSD cards"](#)).
- If the HOLD function is on, buttons operations will be disabled. Disable the HOLD function (→ ["Preventing misoperation"](#)).

## Other trouble

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### ■ Computer does not recognize the **H1n** even though they are connected by a USB cable

- Confirm that the OS of the connected computer is supported (→ ["Connecting with other devices"](#)).
- The USB function must be set on the **H1n** to allow the computer to recognize the **H1n** (→ ["Connecting with other devices"](#)).
- Confirm that the USB cable being used is not just for charging.

# Specifications

Recording media		microSD/microSDHC cards (Class 4 or higher, up to 32 GB)
Recording formats		WAV: 44.1 kHz/16-bit, 48 kHz/16-bit, 48 kHz/24-bit, 96 kHz/24-bit MP3: 48 kbps, 128 kbps, 192 kbps, 256 kbps, 320 kbps
Display		1.25" monochrome LCD (96×64) with REC LED (red)
Inputs	Built-in mic	90° XY stereo format, 120 dB SPL maximum input sound pressure -∞ dB – +39 dB input gain
	MIC/LINE IN	Input connector: stereo mini jack -∞ dB – +39 dB input gain 2 kΩ or higher input impedance plug-in power (2.5 V) supported
Outputs		Combined line/headphone stereo mini jack
Built-in speaker		500 mW 8Ω mono speaker
USB		microUSB
		Mass storage class operation: USB 2.0 High Speed  Audio interface operation: USB class compliant 44.1/48kHz sampling rate, 16-bit depth, 2-in/2-out Transfer method: asynchronous
Power		2 AAA batteries (alkaline, NiMH or lithium) AC adapter (ZOOM AD-17): DC 5V/1A
Estimated continuous recording time using batteries		About 10 hours (alkaline batteries, using built-in mic, 44.1 kHz/16-bit) Note: The above value is approximate. Note: The continuous battery operation time was determined using in-house testing methods. It will vary greatly according to use conditions.
External dimensions		50.0 mm (W) × 137.5 mm (D) × 32.0 mm (H)
Weight (main unit only)		60 g



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