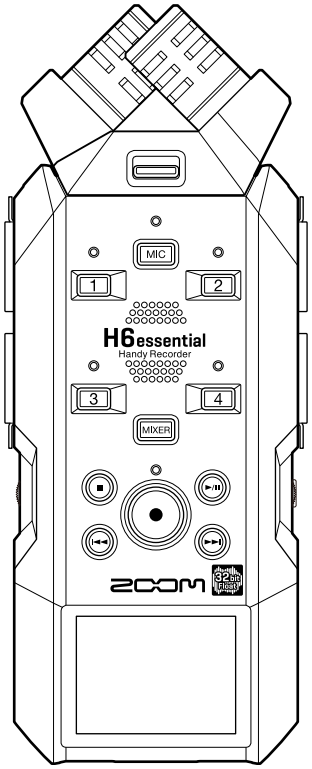
H6essential

Handy Recorder



Version 4.0 Supplementary Manual

You must read the Usage and Safety Precautions before use.

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Proper display is not possible on grayscale devices.

Functions added since Version 1.1

■ Function added or changed in Version 4.0

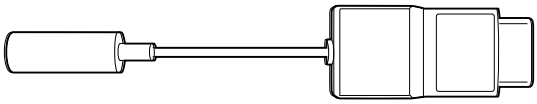
An MTR mode that enables use as a multitrack recorder has been added.

■ Features added and changed from Version 3.30

- **Function added in Version 3.30**

Support for SMPTE timecode input/output using a ZOOM TCA-1 timecode adapter (sold separately) has been added.

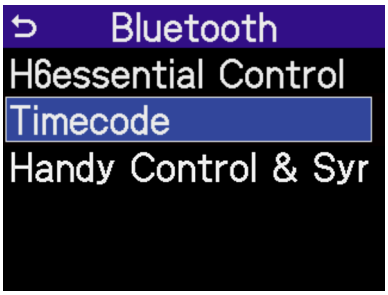
TCA-1



- **Function Modified in Version 3.30**

The item names in the Bluetooth menu have been changed.

Previous firmware versions



Firmware Ver. 3.30 and later



■ Functions added in Version 3.0

• Input gain setting function added
• AI Noise Reduction function added to analyze and reduce environmental sounds and other noise
• Functions added to enable recording and playback of MP3 files
• Functions added to export files in MP3 format
• Mix file recording setting added
• Support for the ZOOM Handy Control & Sync controller application added

■ Functions added in Version 2.0

• Support added for SSH-6e and EXH-6e mic capsules

Support has been added for the SSH-6e and EXH-6e mic capsules, which are sold separately.

• Pause recording function added

A function has been added that enables recording to be paused by pressing the (PLAY/PAUSE) button.

■ Function added in Version 1.1

• Function added to turn the guide sound on/off with a shortcut

A function has been added that enables the guide sound to be turned on/off immediately by pressing and holding the 

(ENTER) button.

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Function added in Version 4.0

The H6essential can be used as a multitrack recorder (MTR) that can record on other tracks while playing back previously recorded tracks. This operating mode is called MTR mode.
In MTR mode, data recorded and played back is managed in units called “projects.” Each track can be recorded separately or just portions of recorded tracks can be rerecorded. Then, the completed tracks can be exported as a single stereo file (mixdown).

Overview of MTR Mode

What you can do in MTR mode

- You can record or play back each track for the MIC (mic capsule) and INPUT 1–4 inputs.
- You can record other tracks while playing back recorded tracks. (→ Recording while playing back recorded tracks (overdubbing))
- You can re-record just parts of recorded tracks. (→ Re-recording parts of tracks (punching in/out))
- You can restore re-recorded content to its state before re-recording. (→ Restoring the state before re-recording (Undo/Redo))
- You can assign files recorded in RECORDER mode or tracks from other projects to tracks. (→ Assigning files to tracks (file assignment))
- You can adjust the pan and volume of each track and export stereo files. (→ Adjusting the mix of all tracks, Mixing down)

Projects and Tracks

In MTR mode, tracks and their settings are saved together as a “project.” One project has the following five tracks.

Track	Recorded input	Track type
MIC	Mic capsule (MIC L / MIC R)	Stereo
1–4	Inputs 1–4	Mono

- The input and track combinations are fixed. The sound from INPUT 1 will be recorded on Track 1, and the sound from INPUT 2 will be recorded on Track 2.
- Up to 999 projects can be created. Project names are automatically assigned sequentially, starting with “PRJ001.”
- Choose either 44.1 kHz or 48 kHz as the sample rate for each project. (Select it when creating the project; it cannot be changed afterward.) The recorded files are 32-bit float WAV files.
- The project length is the length of the longest track in the project.

Recording Workflow in MTR Mode

Conduct recording as follows.

■ Prepare

- Switch to MTR mode (→ Switching to MTR mode)
- Create a new project or load an existing project (→ Creating new projects, Loading projects)
- Set the input gain (→ Setting input gain)

■ Record the first track

- Set a track to record-ready (red) using the track button. Then, press the  (REC) button to start recording and the  (STOP) button to stop recording (→ Recording the first track).

■ Overdub tracks

- Set a recorded track to play (green) and record onto another track (→ Recording while playing back recorded tracks (overdubbing))

■ Re-record

- Re-record only part of a track, return to the state before re-recording (→ Re-recording parts of tracks (punching in/out), Restoring the state before re-recording (Undo/Redo))

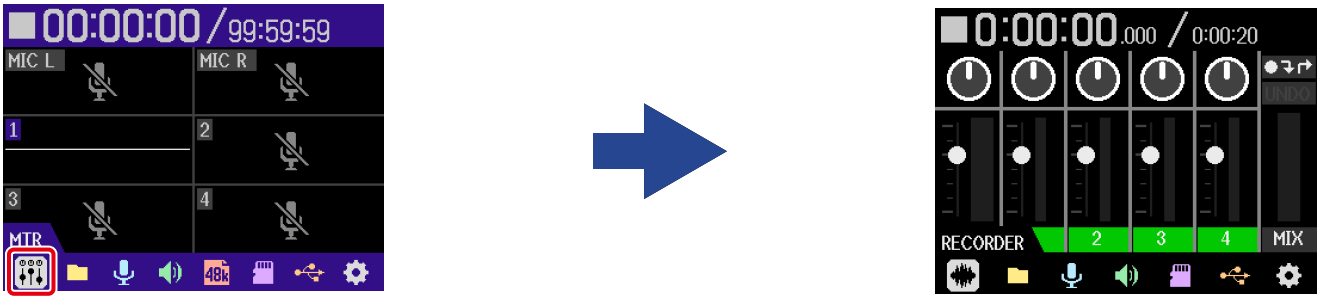
■ Finish the mix

- Adjust the mix with the pan knobs and faders, then export it to a stereo file (→ Adjusting the mix of all tracks, Mixing down)

Switching to MTR mode

Switch the H6essential's operating mode from RECORDER to MTR.

1. On the Home Screen, use the (selection) dial to select "MTR" and press the ENTER (ENTER) button.
   This switches to MTR mode, and opens the MTR Home Screen.



NOTE

- The following functions are unavailable in MTR mode. To use them, return to RECORDER mode.
  - Audio interface functions
  - Timecode (including timecode input/output using a TCA-1)
  - Operation from apps connected via BTA-1 (H6essential Control, ZOOM Handy Control & Sync)
  - Starting/stopping recording from an UltraSync BLUE (connection will not be lost)
  - AI Noise Reduction (turns off and is not applied to recordings in MTR mode)
- In MTR mode, settings for input, output, and recording become as follows. RECORDER mode settings remain unchanged and will be reapplied when RECORDER mode is reactivated.
  - Stereo links for INPUT 1/2 and 3/4 (including MS stereo) are treated as off. Sounds from INPUT 1–4 are recorded in mono on their respective tracks.
  - All inputs are turned on regardless of track on/off settings in RECORDER mode.
  - The sample rate will be that of the open project.
  - MTR mode settings are used for the mono, phantom power, low cut, and input gain settings for the mic capsule as well as the A-B link and stereo width settings for the EXH-6e. (The default settings for mono, phantom power, low-cut, and A-B link are off.) Settings for MTR mode are retained even when the power is turned off. When the mic capsule input is set to mono, the same sound is recorded on both the left and right channels of the MIC track (stereo).
  - If Guide Sound (Accessibility) is on, messages will not be spoken aloud, but beeps will sound. During recording and playback (except when paused), beeps will not sound either (messages will be shown).

HINT

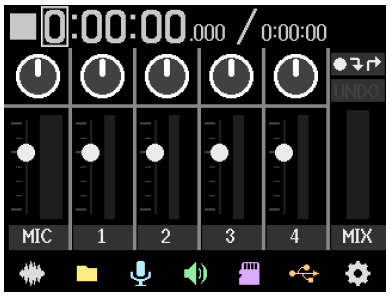
- When MTR mode is activated, the project last used opens. If the project most recently used is unavailable, the first project in the project list will open. If no project exists, a screen for confirming the creation of a new project will be shown. (→ When no project exists)
- If the power is turned off while in MTR mode, the device will also start up in MTR mode the next time it is turned on. After restoring factory settings, it will start in RECORDER mode. The settings for MTR mode will also be restored to default values.
- In MTR mode also, the power will not turn off automatically while recording or playing back (including when paused), exporting a mixdown, copying files, or applying rerecorded content. After recording or playback stops, or processing completes, the set time will be counted again from that point.

When no project exists

If no project exists on the microSD card, switching to MTR mode (including starting up in MTR mode) will open a screen to confirm creation of a new project. The same confirmation screen will also be shown if you insert a microSD card with no project in MTR mode, or if the MTR Home Screen is reopened after initializing the microSD card. When switching from RECORDER mode or inserting a microSD card, the MTR Home Screen will open for approximately one second, followed by a confirmation screen.



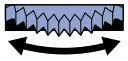
1. Use the (selection) dial to select “Yes”, and press the ENTER (ENTER) button.
   This opens the New Project Screen. Select “Sample Rate” and create a project. (→ Creating new projects)
   Select “Cancel” and press the ENTER (ENTER) button to open the MTR Home Screen with no project open.
   In this state, recording and playback are not possible. Create or load a project before proceeding. (→ Managing projects)



NOTE

- When no microSD card is inserted or it cannot be used, a confirmation screen will not be shown.
- A confirmation screen is shown each time you switch to MTR mode. This is not shown when returning to the MTR Home Screen from an MTR mode settings screen (except when returning after inserting a microSD card or after initializing).

Returning to RECORDER mode

1. While stopped on the MTR Home Screen, use the  (selection) dial to select  “RECORDER” and press the 

(ENTER) button.

This returns to RECORDER mode and opens the Home Screen.

If selected while paused, it will stop and then return to RECORDER mode.

NOTE

- When returning to RECORDER mode, it may take several seconds for the Home Screen to appear because settings such as the sample rate are restored to those for RECORDER mode.

HINT

Files recorded in RECORDER mode can be assigned to tracks in MTR mode for use. (→ Assigning files to tracks (file assignment))

MTR Home Screen overview

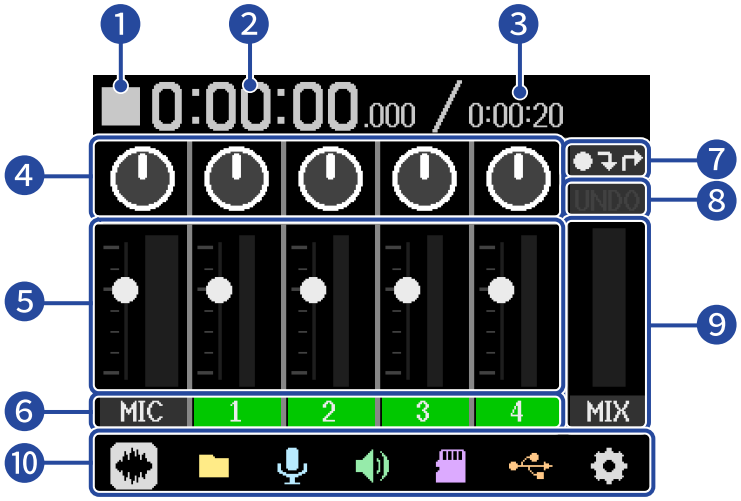
This section explains the screen shown when in MTR mode.

MTR Home Screen

This screen is shown when MTR mode is activated. This shows the MTR mode status, including each track's state and level, as well as the recording/playback position.

Turning the (selection) dial moves the cursor in the following order: Menu Bar → Counter (hours, minutes, seconds, milliseconds) → (auto punch in/out) → UNDO/REDO → knobs (MIC – 4) → faders (MIC – 4) → track labels (MIC – 4) → MIX → Menu bar.

Move the cursor to an item and press the ENTER (ENTER) button to use it. For operation details, refer to the descriptions of each part.



1 Status icon

This icon shows the recording/playback status.

- Stopped
- Playing back
- Paused
- Recording

2 Counter

The current position is shown as hours: minutes: seconds: milliseconds. During recording, it is shown in red.

Position the cursor to specify where recording or playback should begin. (→ Specifying the playback position)

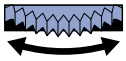
3 Project length

This shows the length of the open project (the length of the longest track).

When (auto punch in/out) is selected, this shows the position of the punch-in (IN) or punch-out (OUT) point instead. (→ Automatically re-recording (auto punch-in/out))

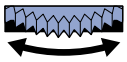
4 Knobs

The orientation of these knobs show the track pan positions (balance for MIC track). When pointed straight up, they are at center (C).

Select one using the  (selection) dial and press the  (ENTER) button to adjust the pan (balance for the MIC track). (→ Setting panning)

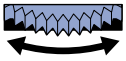
5 Faders and level meters

These show the level settings and level meters for each track.

Select one with the  (selection) dial, then press the  (ENTER) button to adjust the level. (→ Adjusting levels with faders)

6 Track labels

These show the track names (MIC, 1–4) and indicate track states by color. While adjusting a pan knob or fader, that value is shown instead of the track name. When phantom power is on for tracks 1–4,  (phantom power) is shown to the right of the track name. (→ Switching track states)

Select with the  (selection) dial and press the  (ENTER) button to open the file assignment screen. (→ Assigning files to tracks (file assignment))

7  (Auto punch-in/out)

Set the range to be re-recorded (with punch-in and punch-out points). (→ Automatically re-recording (auto punch-in/out))

8 Undo/Redo

Undo or redo the most recent re-recording. This is shown in gray and cannot be used while recording or playing (including when paused) or if there is nothing to undo. (→ Restoring the state before re-recording (Undo/Redo))

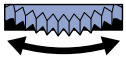
9 MIX

These level meters show the levels of the stereo mix of all tracks.

Select “MIX” and press the  (ENTER) button to open the Mix Down Screen. (→ Mixing down)

10 Menu bar

Various settings items are shown as icons, allowing you to navigate to screens for configuring input and output settings, managing projects, and more.

When you select an icon with the  (selection) dial, its name appears (as a tab) above the icon. After a tab disappears, press the  (ENTER) button to show it again. Press the  (ENTER) button to show the screen for the selected icon. By pressing the  (ENTER) button you can perform the operations below.

-  RECORDER: Return to RECORDER mode. (→ Returning to RECORDER mode)
-  PROJECT LIST: This opens the Project List Screen. (→ Managing projects)

- INPUT: This opens the Input Settings Screen. Stereo link options for INPUT 1/2 and 3/4 are not shown. (→ Switching to MTR mode)
- OUTPUT: This opens the Output Settings Screen. In MTR mode, only the line output level is shown.
- SD CARD: This shows the microSD card settings screen (same as in RECORDER mode).
- USB: This opens the file transfer screen. In MTR mode, the only USB function available is file transfer. After file transfer completes, the open project will be reloaded.
- SYSTEM: This opens various device settings screens, including date/time and display settings. Bluetooth and timecode items are not shown.



"REC" is not shown in the MTR mode menu bar. The sample rate is selected when creating a project. (→ Creating new projects)

NOTE

- During recording and playback, the project list, file assignment, Mix Down, SD CARD, USB, and SYSTEM screens cannot be opened. Returning to RECORDER mode is also not possible. Do these operations after stopping with the (STOP) button.
- If these screens are opened while paused (including when returning to RECORDER mode), recording or playback will stop before the screen changes.
- The 8 level meters shown are MIC (L/R), Tracks 1–4 and MIX (L/R).
- If the input of a track being recorded (shown in red) becomes excessive, a warning indicating this will be shown as "MIC INPUT OVERLOAD!" or "INPUT 1 OVERLOAD!" for example, just as on the RECORDER mode home screen (this will be shown in English regardless of the display language), and that input's status indicator will flash.
- In MTR mode, pressing the MIXER (MIXER) button will not open the Mixer Screen. The level of each track can be adjusted using the faders on the MTR Home Screen. (→ Adjusting levels with faders)

HINT

- The input gain, INPUT and OUTPUT screens can also be shown during recording and playback.
- During recording or playback, you cannot configure the mic capsule's mono mode or the EXH-6e's A-B link on the INPUT Screen. Input settings, such as phantom power, cannot be changed while recording.
- On the input gain, INPUT and OUTPUT screens, the REC, PLAY/PAUSE, REW and FF buttons work in the same way as on the MTR Home Screen.
- When a settings screen is open, press the (STOP) button to return to the MTR Home Screen. Pressing it during recording or playback will also stop the recording or playback. To return from the input gain screen while continuing recording or playback, press the ENTER (ENTER) button.

Functions of buttons in MTR Mode

In MTR mode, each button operates as follows. Some buttons function differently from when in RECORDER mode.

Button	Explanation
Track buttons (MIC, 1–4)	Press these to switch track states (no recorded file / muted / playback ready / recording target). This also applies to the INPUT and input gain screens. During playback or when paused, you can only toggle recorded tracks between playback ready (green) and muted (gray). They cannot be switched while recording. Press and hold to show the input gain screen for that track. (It can also be shown during recording and playback.) The status indicator will light only for tracks selected for recording (red). (→ Switching track states, Setting input gain)
MIXER button	This cannot be used in MTR mode.
STOP button	This stops recording/playback. The counter remains at the position where it stopped. Pressing it while a setting screen is open returns to the MTR Home Screen (except from some screens).
REC button	Pressing this while stopped starts recording on tracks designated for recording (red), from the counter position. If a range to re-record is set, re-recording will occur automatically. Press this during playback to start recording from that position (punch-in). Press this during recording to end only recording while continuing playback (punch-out). Punching in and out can each be performed only once while recording or playing back. This can also be used on the input gain screen. (→ Recording the first track, Re-recording parts of tracks (punching in/out))
PLAY/PAUSE button	This plays playback (green) tracks from the counter position. Pressing this during playback pauses it. Pressing it again resumes playback from where it was paused. Playback does not stop at the end of the project. The counter will continue (but no sound will be output) until you press the ⏹ (STOP) button. (→ Playing back tracks)
REW/FF buttons	Briefly press these to move to the previous/next division (project beginning/end or punch-in/out point). Press and hold this to search backward/forward. These do not function when recording (including while waiting for recording to start after pressing the ⏺ (REC) button). (→ Moving the playback position (REW/FF))

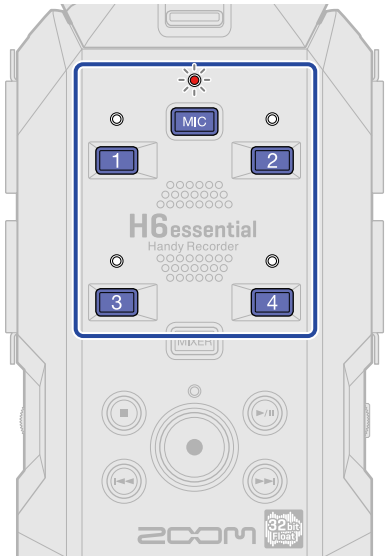
Recording

Tracks selected for recording (red) can be recorded to. Any playback (green) tracks will be played back during recording.

Switching track states

In MTR mode, you can switch each track between recording target, playback ready and muted states. You can check track states by the track label colors on the MTR Home Screen.

1. On the MTR Home Screen, press the button of the track that you want to switch the state of.
   The status indicators of tracks selected for recording (red) will light.



MIC MIC Track

1 – 4 Tracks 1–4

Each time you press it, the track's status switches as follows.

■ Recorded tracks

Playback (green) → muted (gray) → recording target (red) → playback (green)

■ Unrecorded tracks

No recorded file (dark gray) → recording target (red) → no recorded file (dark gray).



Track label color	Status	Explanation
Dark gray	No recorded file	This track has no recorded file.
Gray	Muted	There is a recorded file, but it will not be played.
Green	Playback	An already recorded file will be played back.
Red	Recording target	This track will be recorded. The input sound can be monitored.

NOTE

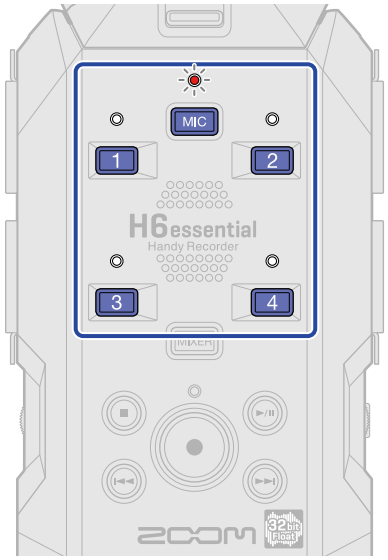
- While playing or paused, you can only switch recorded tracks between playback (green) and muted (gray). You cannot switch them to recording mode (red). You cannot change track status while recording.
- When no mic capsule is attached, the MIC track cannot be set as the recording target (red). It can be switched from muted (gray) to playback (green).
- When the MIC track is selected for recording (red), removing the mic capsule deselects it for recording. If it has already been recorded, it becomes playback (green). If it has not been recorded, it becomes no recorded file (dark gray).
- Pressing a track button also switches the track status on the input settings screen (INPUT) that was opened from the MTR Home Screen. Inputs cannot be switched on or off.
- On screens opened from OUTPUT, SD CARD, and SYSTEM, nothing will change if you press a track button.

HINT

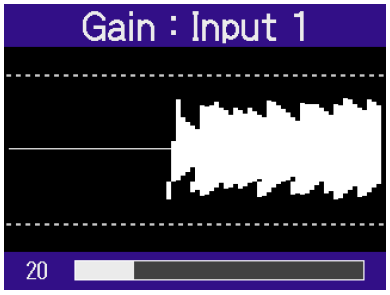
- Press and hold a track button to show the input gain screen for that track. (→ Setting input gain)
- Pressing track buttons on the input gain screen also switches track states.

Setting input gain

1. On the MTR Home Screen, press and hold the track button for the track for which you want to adjust the gain.
This will also be shown if you press and hold the track button on the INPUT screen. In this case, the INPUT screen will reopen in Step 2.



This opens the Input Gain Screen. At the top of the screen, “Gain: MIC”, “Gain: Input 1”–“Gain: Input 4” will be shown.



2. Use the (selection) dial to adjust the gain and press the ENTER (ENTER) button.
This reopens the MTR Home Screen.

Setting item	Setting range	Initial value
Gain	0–100	20

NOTE

- Gain values in MTR mode are saved separately from gain values in RECORDER mode. Changing the gain in MTR mode does not change the gain in RECORDER mode. Both values are retained even when the power is turned off.
- Gain is not saved separately for each project.
- Gain adjusts the level of the sound being recorded. The playback volumes of recorded tracks and the mixdown volume are not changed.

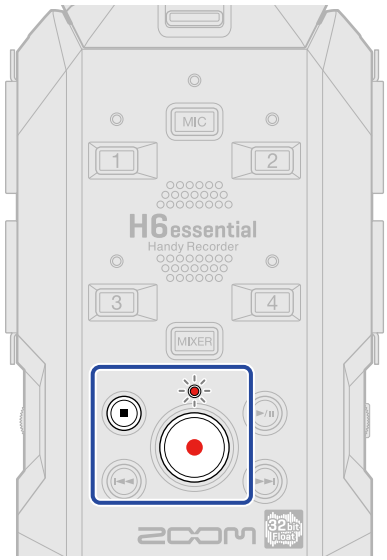
HINT

- The input gain screen can also be opened during recording and playback. Recording and playback will continue uninterrupted.
- Pressing track buttons on the input gain screen also switches track states. On this screen, the  (REC),  (PLAY/PAUSE),  (REW) and  (FF) buttons work in the same way as on the MTR Home Screen. Press the  (STOP) button to stop recording or playback and return to the MTR Home Screen.

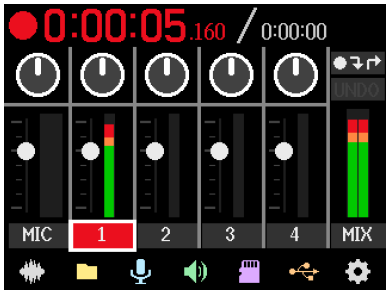
Recording the first track

1. On the MTR Home Screen, press the track button of the track to be recorded to make it a recording target (red).
   You will be able to monitor the input sound of the track being recorded. (→ Switching track states)

2. Press the ⏺ (REC) button.



   The REC indicator lights and recording begins from the counter position.



3. To stop, press the ⏹ (STOP) button.

NOTE

- When a recorded track is selected for recording and you start recording from a stopped state using the  (REC) button, the section from the counter position to where you press the  (STOP) button will be replaced with the new recording. The previous recordings before and after that will remain.
- Recording cannot be undone in a project with no recorded tracks. (→ Restoring the state before re-recording (Undo/Redo))
- Pressing the  (REC) button during recording stops only the recording while the counter continues running (punching out). Press the  (STOP) button to stop recording.
- Removing the mic capsule while recording the MIC track will stop the recording.
- The recordable length varies depending on the available space on the microSD card and the number of tracks recorded simultaneously. When recorded tracks already exist, or when recording from a position other than the beginning, additional free space is required to incorporate the recording into the track, so the recordable length is reduced (approximately half the free space when recording only one track).
- Removing the microSD card while recording may result in the loss of the data being recorded.
- If writing to the microSD card cannot keep up during recording, “SD card write error!” will be shown. Parts that were missed will be recorded as silence, so the recording’s length and position remain unchanged. The same applies during overdubbing and punch-in/out recording.
- The power cannot be turned off during recording. Stop recording before turning off the power.

HINT

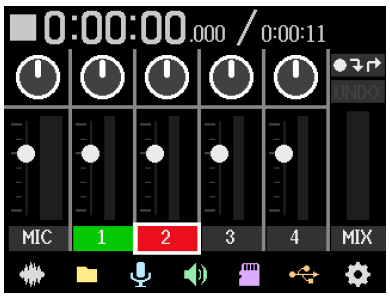
- Recording will stop automatically in the following situations. The content recorded up until stopping will be retained.
  - When the available space on the microSD card runs out during recording (the same applies when recording additional audio)
  - When the maximum length of a single track (1 hour 30 minutes) is reached (→ MTR mode specifications)
  - When the battery runs out during recording (recording stops before the power turns off)
- You can record up to five tracks simultaneously.
- After recording stops, the counter remains at the position where it stopped. You can check the recorded content by returning to the beginning of the project with the  (REW) button, or by specifying a position with the counter, and then pressing the  (PLAY/PAUSE) button.

Recording while playing back recorded tracks (overdubbing)

You can record onto another track while listening to a previously recorded track.

1. On the MTR Home Screen, press the track buttons of recorded tracks you want to play to turn them green for playback.

2. Press the track button of the track to record to, turning it red to select it for recording.



3. If necessary, specify the counter position where recording should begin. (→ Specifying the playback position)

4. Press the ● (REC) button.

   Playback of the playback tracks (green) and recording onto the recording target tracks (red) start simultaneously from the counter position.

5. To stop, press the ■ (STOP) button.

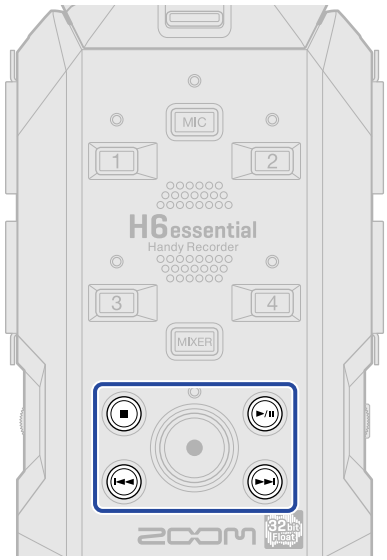
NOTE

- Recording will continue even after playback (green) tracks have finished playing. Recording will continue until you press the ■ (STOP) button. (It will stop automatically when the microSD card runs out of free space.) After pressing the ● (REC) button to finish recording (punch out), press the ■ (STOP) button to stop.
- The counter advances during recording according to the length of the recording. The project length shown is updated when playback is stopped with the ■ (STOP) button.
- There is no limit to the number of tracks that can be set to playback (green).
- While recording, input audio is output from recording tracks (red), and recorded audio is output from playback tracks (green).

Playing back tracks

Starting and stopping playback

1. On the MTR Home Screen, press the (PLAY/PAUSE) button.



The playback (green) tracks will play from the position (value) shown by the counter.
Adjust the headphone or speaker volume using VOLUME. The levels of tracks can be adjusted with their faders. (→ Adjusting levels with faders)
To pause, press the (PLAY/PAUSE) button again. Press the (PLAY/PAUSE) button again to resume playback from where it was paused.

2. Press the (STOP) button.
This stops playback. The counter remains at the position where it stopped. To return to the beginning of the project, press the (REW) button.

NOTE
If there is even one track set to record (shown in red), sound will not be output from the unit (speaker) unless headphones are connected. Use headphones to monitor.

HINT

- When there is a track selected for recording (shown in red), its input sound is monitored even during playback.
- Playback does not stop after the end of the project, and the counter continues advancing (without sound) until you press the (STOP) button.
- Unplugging headphones during playback will pause it. (Unplugging headphones will not stop recording.)
- When there is a track designated for recording (in red), pressing the (REC) button during playback starts recording from that position (punch in). (→ Re-recording manually)

Moving the playback position (REW/FF)

On the MTR Home Screen, press the (REW) or (FF) button to move the playback position.

Button	Operation	Function
(REW) button	Press	Move to the previous division (project beginning or punch-in/out point). During playback, pressing this within approximately 0.75 seconds after passing a division moves to the division preceding that one.
	Press and hold	Search backward (rewind). Press and hold this to accelerate. Playback will stop at the beginning of the project.
(FF) button	Press	Move to the next division (punch-in/out point or project end). Beyond the end of the project, it moves to the punch-in or punch-out point before it if one exists. Otherwise, it does not move.
	Press and hold	Search forward (fast-forward). Press and hold this to accelerate. Beyond the end of the project, it moves forward by one second at a time without speeding up (stopping at 1 hour and 30 minutes).

NOTE

- No sound is produced while fast-forwarding or rewinding. When you fast-forward or rewind during playback, playback resumes from the position where you release the button.
- You cannot use these while recording (including while waiting for recording to start after pressing the (REC) button).
- After punching in and out, returning to the position with the (REW) button, for example, will play the sound after re-recording without stopping.
- If pressed while specifying a position at the counter, it confirms the specified position and then moves.

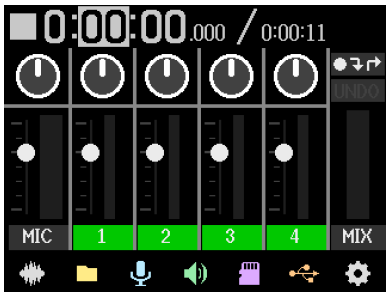
HINT

- If pressed while stopped or paused, only the position will move. Pressing it during playback resumes playback from the position moved to.
- By setting punch-in and punch-out points, you can quickly move to the beginning or end of a section to be re-recorded using the (REW) and (FF) buttons. (→ Automatically re-recording (auto punch-in/out))

Specifying the playback position

Change the counter value to specify the position at which recording or playback begins.

1. While stopped or paused on the MTR Home Screen, select the counter unit (hours, minutes, seconds, or milliseconds) to change using the (selection) dial. Then, press the ENTER (ENTER) button.
The selected unit is shown highlighted.



2. Use the (selection) dial to change the value and press the ENTER (ENTER) button.
Turn the (selection dial) counterclockwise to increase or clockwise to decrease the value.
Turning it quickly increases the change.
Confirm the specified position.
Repeat steps 1 and 2 to set the other units.

NOTE

- Pressing the (STOP) button while changing a value restores the original value.
- The specified position remains unchanged even when you navigate from the MTR Home Screen to another screen (such as the input gain screen or INPUT screen) and then return. When a project is loaded, a new project is created, or the microSD card is reinserted, it returns to the beginning.

HINT

- You can also specify positions beyond the length of the project (up to 1:30:00.000). Pressing the (PLAY/PAUSE) button from this position advances the counter without producing sound. Press the (REC) button to record from that position (the section from the end of the project to the position where recording begins will be silent). For information on how it works when setting the range to re-record, refer to the NOTE on automatic re-recording (auto punch-in/out). (→ Automatically re-recording (auto punch-in/out))
- You can specify the position using the counter even while paused. Press the (PLAY/PAUSE) button to start playback from the specified position.

Re-recording parts of tracks (punching in/out)

You can re-record only parts of recorded tracks.

There are two ways to re-record: press the  (REC) button during playback (manual) (→ Re-recording manually), or preset the range to be re-recorded (automatic) (→ Automatically re-recording (auto punch-in/out)).

NOTE

- Punching in and out can each be performed only once per recording/playback operation (from starting with the  (REC) or  (PLAY/PAUSE) button until stopping with the  (STOP) button).
- The REC indicator lights while recording. In auto punch-in/out mode, it flashes while waiting for the punch-in point and after passing the punch-out point. It does not light after manually punching out or during rehearsal playback.
- When there is a track designated for recording (shown in red), pressing the  (REC) button while playback is paused starts recording from the paused position. When setting the range for re-recording, recording starts from the paused position if it is within the range, or from the punch-in point if it is before the punch-in point.
- To apply the re-recorded content to the track, you need additional free space on the microSD card roughly equivalent to the size of the re-recorded section (for tracks that have not been recorded or are short, you also need space for the portion from the end of the track to the punch-in point). If there is insufficient free space, the re-recorded content will not be applied, and the track will remain in its state from before the re-recording. If the available storage space runs out during re-recording, the recording will stop, and the content recorded up to that point will be applied.

HINT

- Re-recorded content can be restored to its state before re-recording. (→ Restoring the state before re-recording (Undo/Redo))
- Tracks that have not been recorded (with no recorded files) can also be recorded from the punch-in position using the same operation.

Re-recording manually

1. On the MTR Home Screen, press the track buttons of tracks to be re-recorded to select them as recording targets (red).

2. Press the (PLAY/PAUSE) button to play from before the position you want to re-record.
   On the track being recorded (shown in red), both the recorded sound and the input sound are monitored together.

3. Press the (REC) button at the position where you want to re-record.
   Recording begins from the point you pressed (punch-in). While recording, the previously recorded audio on the track being re-recorded will stop, and only the input audio will be monitored.

4. Press the (REC) button again at the point where you want to finish the re-recording.
   Recording ends, and playback continues as is (punch out).
   After punching out, the recorded audio on the re-recorded track plays back again.

5. Press the (STOP) button.
   This stops playback.

Automatically re-recording (auto punch-in/out)

By setting the start (punch-in) and end (punch-out) points in advance, you can automatically re-record only that section between them.

■ Setting the range to re-record

1. On the MTR Home Screen, specify the position at which to start recording using the counter. (→ Specifying the playback position)

While (auto punch in/out) is selected, the positions of the punch-in (IN) and punch-out (OUT) points are shown to the right of the counter. Unconfigured sides are shown as "-:--:--:---". At this time, the battery level icon is not shown.

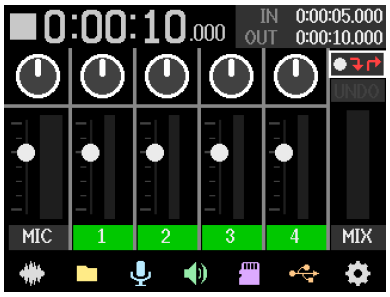
2. Use the (selection) dial to select (auto punch in/out) and press the ENTER (ENTER) button.

The counter position is set to the punch-in point.

3. Use the counter to specify the position at which to end recording.

4. Use the (selection) dial to select (auto punch in/out) and press the ENTER (ENTER) button.

The counter position will be set as the punch-out point.



Steps 3–4 can be skipped. If no punch-out point is set, recording continues from the punch-in point until you press the (STOP) button.

Specify the position on the counter, select (auto punch in/out), and press the ENTER (ENTER) button. The result will be as follows, depending on the current settings and the counter position.

Current settings	Counter position	Action when the ENTER (ENTER) button is pressed
Punch-in point only	Before punch-in point	This resets the punch-in point.
	At punch-in point	This clears the punch-in point.
	After punch-in point	This sets the punch-out point (step 4).

Current settings	Counter position	Action when the ENTER (ENTER) button is pressed
Both points	Before punch-in point	This resets the punch-in point only. The punch-out point remains unchanged.
	Other than the above (at the same position as the punch-in point, within the range, or after the punch-out point)	This clears both points.

NOTE

- The set punch-in and punch-out points remain even after leaving the MTR Home Screen and returning to it, as well as after recording. They will be cleared when another project is loaded, a new project is created, the microSD card is removed, or file transfer is used.
- During recording, you cannot set or clear the punch-in or punch-out points. (“Recording in progress!” will be shown.) They can be set or cleared during playback or while paused.

■ Checking with rehearsal playback

With a range set, press the (PLAY/PAUSE) button to rehearse the re-recording (rehearsal playback) without recording.
For tracks selected for recording (in red), recorded sound and input sound can be monitored outside the range, while only input sound can be monitored within the range.
If you press the (REC) button during rehearsal playback, what happens depends on where you press it.

- Before the punch-in point: Recording starts at the punch-in point and ends at the punch-out point. Until then, the (REW) and (FF) buttons will not work. To cancel, press the (STOP) button.
- Within the range: Recording begins at that position and ends at the punch-out point.
- After the punch-out point: Nothing happens.

■ Re-recording

1. Press the buttons of the tracks to be re-recorded to make them recording targets (red).

2. Specify a position before the punch-in point on the counter.
   When a position after the punch-in point is specified, the following will occur.
   - Within the range (including when paused): Recording starts from that position.
   - After the punch-out point: Only playback will occur without recording.

3. Press the (REC) button.
   Playback starts from the counter position, and recording starts at the punch-in point. Recording will end at the punch-out point, and playback will continue as is.

4. Press the (STOP) button.

NOTE

When you start by pressing the (REC) button, the (REW) button and (FF) button cannot be operated until punch-out. You can operate them during rehearsal playback started with the (PLAY/PAUSE) button.

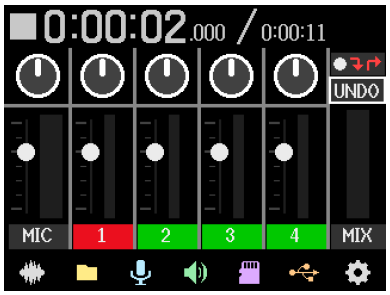
HINT

The punch-in point can also be set after the end of the project. In this case, pressing the (REC) button advances only the counter without recording from the end of the project to the punch-in point. Then, recording begins at the punch-in point. After rerecording, the section from the end of the project to the punch-in point will be silent and increase the project's length.

Restoring the state before re-recording (Undo/Redo)

You can undo the content recorded using punch-in and punch-out, returning it to the state it was in before re-recording. You can also restore undone content to its re-recorded state (redo). In a project with recorded tracks, recordings made from a stopped state using the (REC) button can also be undone in the same way. Recording cannot be undone in a project with no recorded tracks.

1. While stopped on the MTR Home Screen, select “UNDO” using the (selection) dial and press the ENTER (ENTER) button.



The most recent re-recording is canceled, and the display changes to “REDO.”

2. To return to the re-recorded state, use the (selection) dial to select “REDO” and press the ENTER (ENTER) button.

This restores the re-recorded state, and the display changes back to “UNDO.”

NOTE

- You can only undo the immediately preceding recording (a punch-in/out retake or recording from a stopped state in a project with previously recorded tracks). When multiple tracks have been re-recorded simultaneously, all of them will be undone.
- After the following operations, you will no longer be able to undo or redo any retakes made before it.
  - Re-recording another track
  - Recording from the stopped state using the  (REC) button (including overdubbing).
  - Assigning a file
  - Loading another project or creating a new project
  - Using file transfer
  - Removing the microSD card
  - Turning off the power
- The tracks that were recorded or assigned are the same even if they are different from the re-recorded tracks.
- Undo and redo are unavailable during recording and playback.
- No confirmation screen is shown. Press the 

(ENTER) button with “UNDO” or “REDO” to execute it immediately.
- If the power is turned off during an undo/redo operation, the next time you load the project, it will automatically revert to the state either before or after the undo/redo.
- If writing to the microSD card fails, the track will be in the state either before or after the undo/redo.

HINT

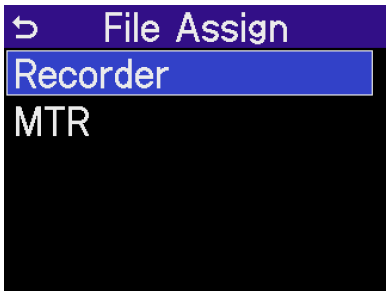
After re-recording, stop and listen. If you do not like it, undo it, then listen to both versions again and redo the recording if a new one could be better.

Assigning files to tracks (file assignment)

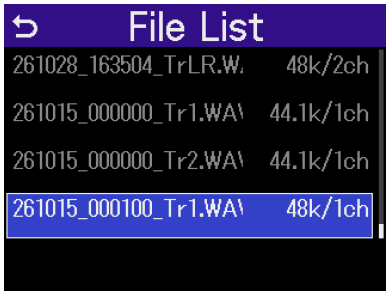
You can assign files recorded in RECORDER mode or tracks from other projects to tracks in the open project.
Assigned files are copied into the project, so the original files remain unaffected.

Assigning files recorded in RECORDER mode

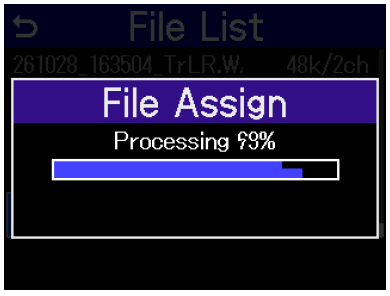
1. On the MTR Home Screen, use the (selection) dial to select the track label of the track you want to assign and press the ENTER (ENTER) button.
This opens the File Assign Screen.



2. Use the (selection) dial to select “Recorder” and press the ENTER (ENTER) button.
Files recorded in RECORDER mode are shown in a list in the order they were recorded, from oldest to newest. Files recorded in MP3 format and files exported using Export do not appear.
To the right of the file name, the sample rate and number of channels (e.g., 48k/1ch) are shown. Files with a sample rate different from that of the project are shown in gray and cannot be assigned.



3. Use the (selection) dial to select the file to assign and press the ENTER (ENTER) button.



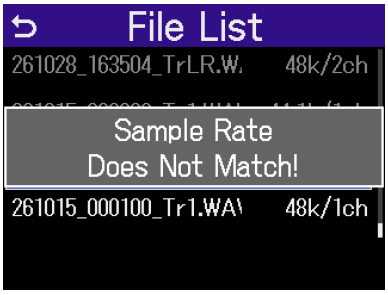
If assigning it to a recorded track, a screen prompting you to confirm overwriting will be shown. Select “Execute” and press the ENTER (ENTER) button to begin copying the file.



Once copying is complete, the file will be assigned to the track, and the MTR Home Screen will reopen. Tracks that had not been recorded (dark gray) will become ready for playback (green).

Files that can be assigned must meet the following conditions. If you select a file that does not meet the requirements, a message will appear and the file will not be assigned.

Condition	Message shown when it is not met
The sample rate must match that of the open project. (Files recorded at 96 kHz cannot be assigned.)	"Sample Rate Does Not Match!"
The bit depth is 32-bit float (the same as files recorded in RECORDER mode).	"Invalid Bit Depth!"
The file must be stereo for the MIC track.	"Stereo Files Only for MIC Track!"
Tracks 1–4 must have mono files.	"Mono Files Only for Tracks 1-4!"
It must not be longer than 1 hour and 30 minutes.	"Track Size Limit Reached!"



NOTE

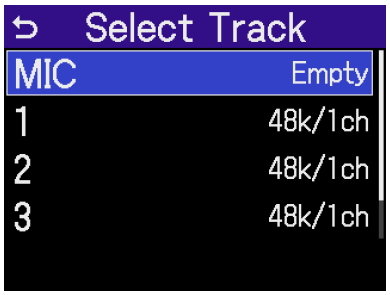
- Up to 1,000 files can be shown in the list. (The newest ones are shown if there are more than 1,000.) If file names are long, it may be fewer than that. Files with names that exceed 63 characters, as well as files in folders with long names, will not be shown. Long file names that do not fit in the column are shown scrolling across the row with the cursor.
- Characters other than alphanumeric characters in the file name are shown as "☒".
- If the power is turned off during copying, the tracks will revert to their state before copying the next time you load the project. If the battery runs out during copying, the power will turn off after copying has completed. The power will not turn off automatically while copying.
- Once a file is assigned, you can no longer undo retakes made before assignment. (This applies even if the assigned track is different from the retaken track.) (→ Restoring the state before re-recording (Undo/Redo))
- WAV files created with a DAW or other software on a computer can also be assigned from the "Recorder" list if they meet the conditions above. Copy them to the root of the microSD card or to a folder directly under the root.

Assigning tracks from other projects

1. On the MTR Home Screen, use the (selection) dial to select the track label of the track you want to assign and press the ENTER (ENTER) button.
   This opens the File Assign Screen.

2. Use the (selection) dial to select “MTR” and press the ENTER (ENTER) button.
   This opens a list of projects.

3. Use the (selection) dial to select the project containing the track you want to assign and press the ENTER (ENTER) button.
   The Select Track Screen will open, showing a list of the tracks in that project.



4. Use the (selection) dial to select the track to assign and press the ENTER (ENTER) button.
   If assigning it to a recorded track, a screen prompting you to confirm overwriting will be shown. Select “Execute” and press the ENTER (ENTER) button to start copying the track.



   Once copying completes, the track is assigned, and the MTR Home Screen reopens. Tracks that had not been recorded (dark gray) will become ready for playback (green).

NOTE

- Tracks in the open project can also be assigned. Nothing will happen if you select the same track as the track to be assigned (the same track in the open project) and press the 

(ENTER) button.
- Tracks that have not been recorded are shown as “Empty.”
- The requirements for the sample rate, number of channels and bit depth, as well as the behavior when there is insufficient free space on the microSD card or when copying fails, are the same as when assigning files in RECORDER mode.

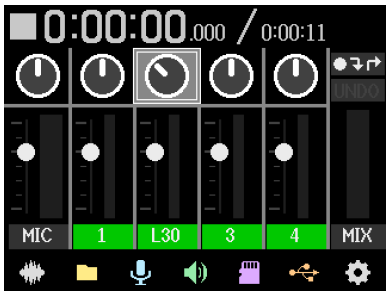
Adjusting the mix of all tracks

On the MTR Home Screen, you can adjust the pan and level (fader) of each track. The adjusted mix will be reflected in the file created during mixdown. Panning and levels are saved for each project. (→ Mixing down)

Setting panning

1. On the MTR Home Screen, use the (selection) dial to select the knob for the track that you want to pan, and press the ENTER (ENTER) button.

When the knob is selected (its background turns gray), the pan value is shown where the track label is located.



2. Adjust the panning with the (selection) dial.

Turning it counterclockwise moves it toward the L side, while turning it clockwise moves it toward the R side. The knob's orientation also changes.

3. Press the ENTER (ENTER) button again.

The selection is cleared, and the track name is shown again.

Setting item	Setting range	Initial value
Pan (tracks 1–4)	L100 – C (center) – R100	C
Balance (MIC track)	L100 – C (center) – R100	C

NOTE

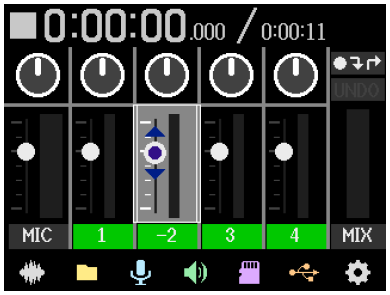
Since the MIC track is a stereo track, adjust the left-right balance instead of panning.

HINT

- You can adjust the panning during recording and playback.
- When stopped, pressing the (STOP) button will deselect the item.

Adjusting levels with faders

1. On the MTR Home Screen, use the (selection) dial to select the fader of the track for which you want to adjust the level, and press the ENTER (ENTER) button.
   You can now adjust the level. Its value will be shown at the track label position.



2. Use the (selection) dial to adjust the level and press the ENTER (ENTER) button.
   This confirms the adjusted level and shows the track name again.

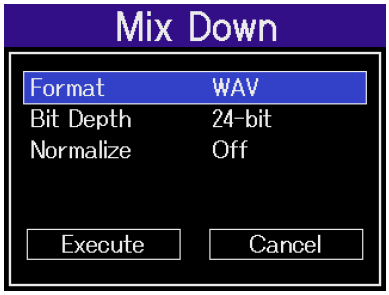
3. Repeat steps 1–2 to adjust the overall mix.

HINT
Each track can be set to “Mute” or adjusted within the range of −80 to +40. Levels can be adjusted even during recording and playback.

Mixing down

The recorded tracks for playback (green) and recording (red) can be exported as a single stereo file (mixdown) using the mix adjusted on the MTR Home Screen. Muted (gray) tracks will not be exported. WAV and MP3 files can be exported.

1. On the MTR Home Screen, use the (selection) dial to select “MIX” and press the ENTER (ENTER) button.
This opens the Mix Down Screen. “Execute” and “Cancel” are shown at the bottom of the screen.

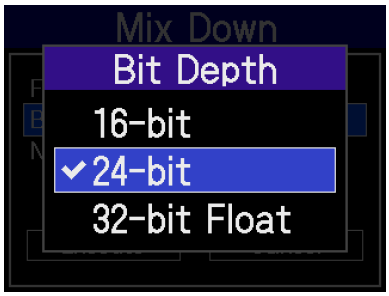


2. Select the format.
Select “Format” with the (selection) dial and press the ENTER (ENTER) button to show the options in the center of the screen.



Use the (selection) dial to select “WAV” or “MP3” and press the ENTER (ENTER) button.

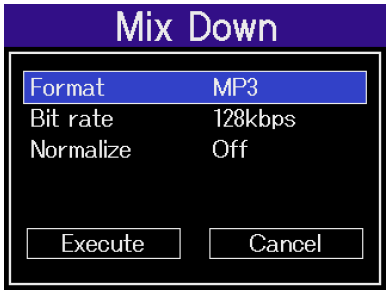
3. Select the bit depth or bit rate.
When “WAV” is selected, use the (selection) dial to select “Bit Depth” and press the ENTER (ENTER) button. Then, use the (selection) dial to select the format and press the ENTER (ENTER) button.



When “MP3” is selected, use the (selection) dial to select “Bit Rate” and press the (ENTER) button. Then, use the (selection) dial to select the bit rate and press the (ENTER) button.

Format	Setting item	Setting values
WAV	Bit Depth	16-bit, 24-bit, 32-bit float
MP3	Bit Rate	128 kbps, 256 kbps, 320 kbps

The default value is 24-bit for WAV and 128 kbps for MP3.



4. Select whether or not to normalize.

Use the (selection) dial to select “Normalize” and press the (ENTER) button. Then, use the (selection) dial to select “On” or “Off” and press the (ENTER) button.

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

The default value is “Off”. When the Mix Down Screen is shown for the first time after turning on the power, this is set to “Off”.

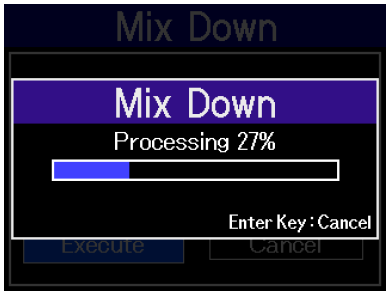


NOTE

Normalization is a function that reads the maximum level of the audio data and evens out the level without causing distortion. The volume is adjusted so that the loudest sound (peak) in the data reaches 0 dBFS.

5. After completing all settings, use the (selection) dial to select “Execute” and press the (ENTER) button.

The mixdown will begin. A processing screen will be shown. To cancel the export, press the (ENTER) button.



When the export is finished, “Done! Saved to MIX DOWN folder” is shown. Press the ENTER (ENTER) button to return to the MTR Home Screen.



Select “Cancel” and press the ENTER (ENTER) button to return to the MTR Home Screen without mixing down.

NOTE

- The Mix Down Screen cannot be opened while recording or playing back.
- If exporting is canceled or the power is turned off during the export (including when the battery runs out), the file exported up to that point will not be saved. If the power is turned off while cancellation is being processed, it will be deleted the next time the project is loaded.

HINT

- The exported file will be saved in the “MIX DOWN” folder inside the project folder under the name “PRJnnn_MIX” (where nnn is the project number). If a file with the same name already exists, a number from “_2” to “_99” will be appended. WAV files and MP3 files are counted separately. (→ MTR mode folder/file structure)
- The sample rate of the exported file is the same as the project’s sample rate.
- The mixdown settings are retained even after closing the Mix Down Screen.
- Pressing the (STOP) button when no options are shown reopens the MTR Home Screen.
- Exported files cannot be played on this device. Copy them to a computer or similar device to play them.

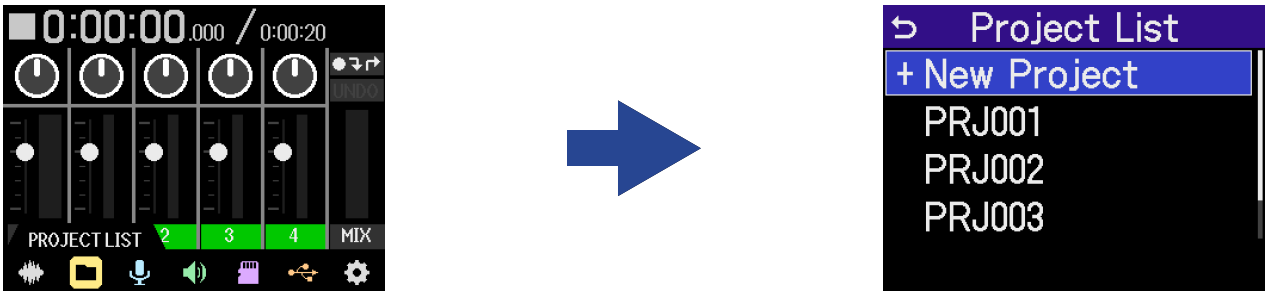
Managing projects

Projects can be created, loaded, checked for details and deleted from the Project List Screen.

Project List Screen

To open this, select “PROJECT LIST” using the (selection) dial on the MTR Home Screen and press the ENTER (ENTER) button.

You can select projects using the (selection) dial.



- At the top of the list, “New Project” with a “+” is shown, followed by the projects you have created. The open project is marked with a “✓”.
- When there are too many projects to fit on the display, a scrollbar appears on the right edge.

NOTE

- When no microSD card is inserted or it cannot be used, “No SD card” or “Invalid SD card!” will be shown and the Project List Screen will not open.
- If you remove the microSD card while the Project List Screen is open, “No SD card” will appear and the MTR Home Screen will reopen. (→ Inserting and removing microSD cards in MTR mode)
- MTR mode projects are not shown in the RECORDER mode file list. Check the Project List Screen in MTR mode.

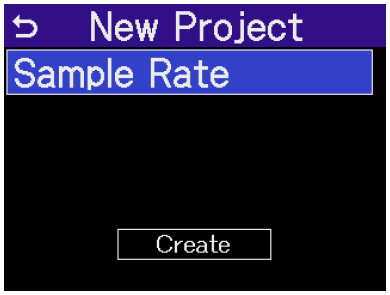
HINT

Press the (STOP) button to return to the MTR Home Screen.

Creating new projects

1. On the MTR Home Screen, use the (selection) dial to select “PROJECT LIST” and press the ENTER (ENTER) button.
   This opens the Project List Screen.

2. Use the (selection) dial to select “New Project” and press the ENTER (ENTER) button.
   This opens the New Project Screen.



3. Select “Sample Rate” using the (selection) dial and press the ENTER (ENTER) button.



4. Use the (selection) dial to select the sample rate and press the ENTER (ENTER) button.
   You can choose 44.1 kHz or 48 kHz.

5. Use the (selection) dial to select “Create” and press the ENTER (ENTER) button.
   This creates a new project and reopens the Project List Screen. The created project is marked with a “✓”.

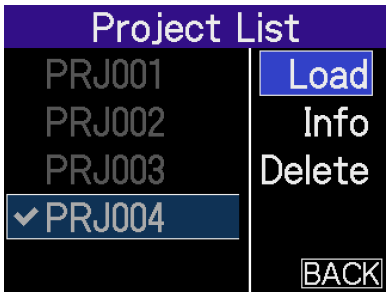
NOTE

- Project names are automatically assigned sequentially from “PRJ001” to “PRJ999.” They will be assigned the number following the highest number already created and added to the end of the project list. If “PRJ999” is in use, an available number will be assigned. Project names cannot be changed.
- Up to 999 projects can be created. If there are 999 files, selecting “Create” will show “The file limit has been reached!” and a project will not be created.
- In new projects, all tracks will be in a “No recorded file” state. (→ Switching track states)
- When new projects are created, all track faders are set to 0 dB, and pannings are set to C (center). The MIC track’s balance will also be centered. The gain does not change.
- The sample rate can only be selected when creating a project. Once created, it cannot be changed.

Loading projects

1. On the MTR Home Screen, use the (selection) dial to select “PROJECT LIST” and press the ENTER (ENTER) button.
   This opens the Project List Screen.

2. Use the (selection) dial to select the project to load and press the ENTER (ENTER) button.



3. Use the (selection) dial to select “Load” and press the ENTER (ENTER) button.
   This loads the project and reopens the Project List Screen. Loaded projects are marked with a “✓”.

NOTE

- When you load a project, the state of each track (playback, muted, recording target, etc.) is restored to the state it was in when the project was saved.
- Fader and pan (or balance for MIC tracks) settings are saved for each project. When you load a project, it restores the last values adjusted in that project. Gain settings are not saved for each project, so even when another project is loaded, the previous settings remain in effect.
- When you load another project or create a new project, you can no longer undo or redo actions from the previously open project. (→ Restoring the state before re-recording (Undo/Redo))
- If the power is turned off during a retake, the project will automatically revert to either its pre-retake or post-retake state the next time it is loaded.

Checking project information

1. On the Project List Screen, use the (selection) dial to select the project with information that you want to check, and press the ENTER (ENTER) button.

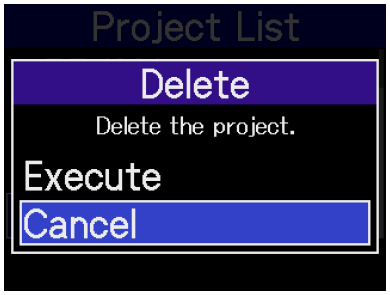
2. Use the (selection) dial to select “Info” and press the ENTER (ENTER) button.
The project’s sample rate and length are shown.



Deleting projects

1. On the Project List Screen, use the (selection) dial to select the project to delete and press the ENTER (ENTER) button.

2. Use the (selection) dial to select “Delete” and press the ENTER (ENTER) button.



3. Use the (selection) dial to select “Execute” and press the ENTER (ENTER) button.
This deletes the project.

NOTE

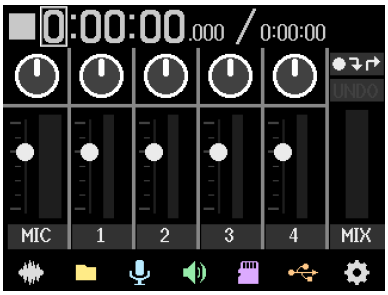
- Deleting a project will also delete all of its tracks and mixdown files.
- When you delete the open project, the first project in the project list will open (and be marked with a “✓”). If all projects have been deleted, opening the MTR Home Screen will show a screen confirming the creation of a new project.

Inserting and removing microSD cards in MTR mode

In MTR mode, when a microSD card is not inserted, unavailable or removed, the device operates as follows.

Operation	Result
When you press the (REC) or (PLAY/PAUSE) button on the MTR Home Screen	"SD card not found" will be shown, and recording or playback will not start.
When attempting to open the Project List Screen (including when attempting to create or load a project)	"No SD card" or "Invalid SD card!" will be shown, and the Project List Screen will not open. (Project creation or loading will also fail).
When the card is removed while the Project List Screen is open	"SD card not found" will be shown, and the MTR Home Screen will reopen. The MTR Home Screen will be shown when no project is open.
When the card is removed while the File Assign Screen or Mix Down Screen is open	Recording/playback will stop and the screen will close. Then, the MTR Home Screen will reopen and "No SD card" will be shown. The MTR Home Screen will be shown when no project is open.
When the card is removed while the MTR Home Screen is open (including during recording or playback)	Recording/playback will stop, and "No SD card" will be shown. The MTR Home Screen will be shown when no project is open.
When the card is removed while on the microSD card settings screen ("SD CARD") that was opened from the MTR Home Screen	The MTR Home Screen will reopen.
When a microSD card is initialized from the microSD card settings screen ("SD CARD") that was opened from the MTR Home Screen	All data on the microSD card, including MTR mode projects and files recorded in RECORDER mode, will be erased. The project that was open will be closed, and the track status indicators will turn off. When you reopen the MTR Home Screen, a screen appears asking whether you want to create a new project.
When the card is removed while on an input, output, or unit settings screen ("INPUT," "OUTPUT," or "SYSTEM") that was opened from the MTR Home Screen	"No SD card" will be shown on that screen. No project will be open when the MTR Home Screen is reopened.
When the card is removed during recording or playback while on an input/output settings screen ("INPUT" or "OUTPUT") that was opened from the MTR Home Screen	Recording/playback will stop, the MTR Home Screen will reopen and "No SD card" will be shown. The MTR Home Screen will be shown when no project is open.

Operation	Result
When inserting a microSD card for the first time in MTR mode (when the SD card test screen is shown)	The SD Card Test Screen appears over the MTR Home Screen. Selecting “Cancel” reopens the MTR Home Screen. When you select “Execute,” the microSD card settings screen appears. (“Quick Test” is selected.) After performing the test, press the (STOP) button to reopen the MTR Home Screen. If there is no project on the microSD card, a screen asking whether to create a new project will appear after reopening the MTR Home Screen. (→ When no project exists)

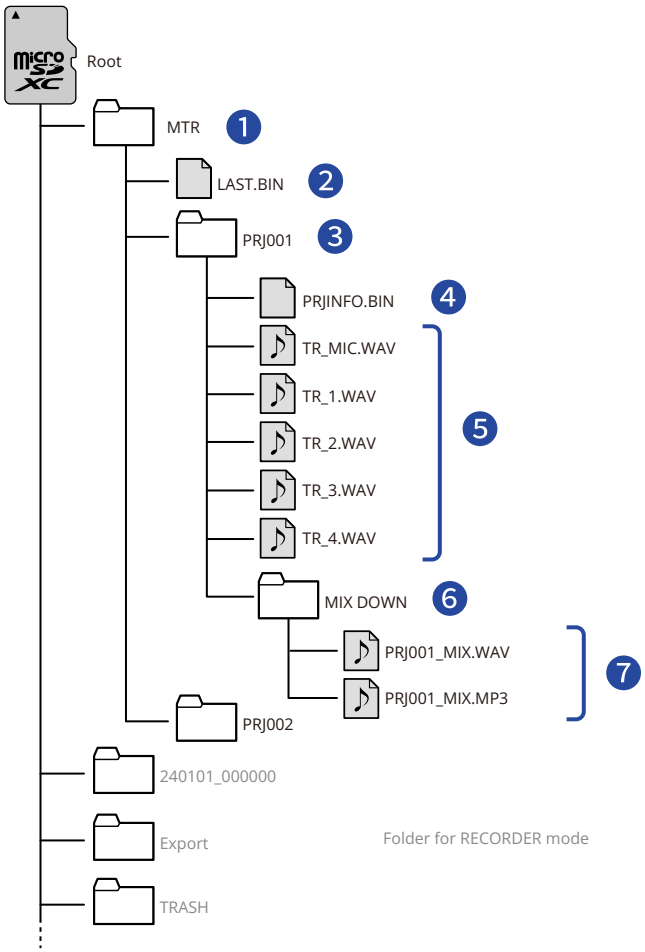


NOTE

- Do not remove the microSD card while recording, copying files, or exporting a mixdown. Removing it during recording could cause recorded data to be lost.
- When you reinsert a microSD card, the project you were using previously will reopen. The counter will return to the beginning, and the punch-in and punch-out points will be cleared. You will also not be able to undo or redo.
- When a microSD card that does not contain a project is inserted, a screen appears asking whether you want to create a new project. (→ When no project exists)

MTR mode folder/file structure

Projects created in MTR mode are saved in the “MTR” folder on the microSD card.



1 MTR folder

MTR mode projects are saved here.

2 LAST.BIN file

This file records the project used last time.

3 Project folder

These are created each time a project is created. The folder name will be the project name (PRJ001–PRJ999).

4 Project configuration file

The project’s sample rate and length, along with settings such as track fader and pan positions, are saved in this.

5 Track files

These are the recording files for the tracks.

- TR_MIC.WAV: MIC track (stereo)
- TR_1.WAV–TR_4.WAV: tracks 1–4 (mono)

6 MIX DOWN folder

This is created when mixdown is conducted. (→ Mixing down)

7 Mixdown files

These are files exported from mixdowns. The file name will be “PRJnnn_MIX”. If a file with the same name already exists, a number from “_2” to “_99” will be appended.

NOTE

- Do not modify, move, or delete any files or folders in the project folder (except the MIX DOWN folder) using a computer or other device. There is a risk that the project might stop loading correctly.
- Working files and folders may be created within the project folder for re-recording or undoing actions.

Messages shown in MTR mode

The following messages are shown when the MTR mode cannot accept an operation or when the result of processing is reported. Messages are automatically deleted after a certain amount of time.

Message	Meaning and response
No Project Loaded!	With no project open, you pressed the (REC), (PLAY/PAUSE) or a track button. Or, you selected (auto punch-in/out), “UNDO/REDO,” a track label or “MIX” and pressed the ENTER (ENTER) button. Create or load a project. (→ Managing projects)
No Rec Tracks!	You pressed the (REC) button when there was no track to record (red). (If pressed during playback, playback continues as is.) Select a track to be recorded using its track button. (→ Switching track states)
Connect Mic Capsule!	You tried to arm the MIC track for recording (red) while no mic capsule was attached. Attach the mic capsule.
No Tracks to Mix Down!	You selected “MIX” and pressed the ENTER (ENTER) button in a project with no recorded tracks, or there are no tracks to export. Set a recorded track to playback (green) or recording (red).
Punch In/Out Limit Reached!	You tried to perform a second punch-in during a single recording/playback pass. Please stop once with the (STOP) button. (→ Re-recording parts of tracks (punching in/out))
This Track Is Empty!	You tried to assign a track that has not been recorded.
Sample Rate Does Not Match!	You tried to assign a file with a sample rate that is different from the project.
Invalid Bit Depth!	You attempted to assign a file that is not 32-bit float.
Mono Files Only for Tracks 1-4!	You tried to assign a stereo file to tracks 1–4.
Stereo Files Only for MIC Track!	You tried to assign a mono file to the MIC track.
No File!	There are no files recorded in RECORDER mode for file assignment. Alternatively, in a project with recorded tracks, you pressed the (PLAY/PAUSE) button when there were no playback (green) or recording-target (red) tracks. Set a recorded track to playback (green).

Message	Meaning and response
Assign Failed!	Failed to assign (copy) the file. The recording that was on the track will remain as is. Try assigning it again. If this message keeps appearing, check the microSD card.
Mix Down Failed!	The mixdown failed. Check the microSD card and try again.
File Index Full!	You attempted to create a project when there were already 999 projects, or you attempted to mix down when mixdown files with the same name up to "_99" already existed. Delete unnecessary projects or reduce the number of mixdown files with the same name. Then, try again.
MP3 Encode Failed!	Failed to export as an MP3. Check the settings and try again.
Now Recording!	During recording, you attempted to show the Project List, File Assignment, Mix Down, SD CARD, USB or SYSTEM screen, or you attempted to return to RECORDER mode. This is also shown when you select the counter or Auto Punch In/Out during recording and press the ENTER (ENTER) button, or when you select an item that cannot be changed during recording on the INPUT screen. This is also shown when you try to turn off the power while recording. Do these operations after stopping with the (STOP) button.
Now Playing!	During playback, you attempted to show the Project List, File Assign, Mix Down, SD CARD, USB or SYSTEM screen, or attempted to return to RECORDER mode. This is also shown when you select the counter during playback and press the ENTER (ENTER) button. (You can specify the position using the counter while paused.) It is also shown when you select mono for the mic capsule or A-B link for the EXH-6e on the INPUT screen. Do these operations after stopping with the (STOP) button.
No SD Card!	No microSD card is loaded. Insert a microSD card correctly. (→ Inserting and removing microSD cards in MTR mode)
Invalid SD Card!	The microSD card format is invalid. Format the microSD card or use a different one.

Message	Meaning and response
SD Card Full!	There is not enough free space on the microSD card. This is shown when recording cannot be started (including punching in), recording stops because there is no free space remaining, a re-recorded take cannot be applied, a file cannot be assigned (copied), a project cannot be created, or mixing down cannot be performed. Check the available space on the microSD card.
Track Size Limit Reached!	Recording stopped because the maximum length for a single track was reached. This also appears when attempting to assign a file longer than 1 hour and 30 minutes. It is also shown when recording cannot be started during punch-in because the position for re-recording is too close to the track's upper limit. (→ MTR mode specifications)
SD Write Error!	Writing to the microSD card failed, or writing could not be completed in time. If this is shown during recording, any portions that were missed will be recorded as silence. This is also shown when recording or punching in could not be started, when re-recorded content could not be applied, when undo/redo could not be performed, or when a project could not be created or deleted. Check the microSD card.
SD Read Error!	Reading from the microSD card failed during playback. Parts that could not be loaded will be silent.

MTR mode specifications

Item	Description
Number of projects	Up to 999 (PRJ001–PRJ999)
Number of tracks	5 (stereo for MIC and mono for tracks 1–4)
Number of tracks recorded/played simultaneously	5 maximum
Recording formats	WAV, 44.1 kHz/48 kHz, 32-bit float
Maximum recording time	Up to the available capacity of the microSD card (varies depending on the number of tracks recorded simultaneously). The maximum length of a single track is 1 hour and 30 minutes, regardless of the sample rate. Recording will stop automatically when there is no remaining storage space or when the limit is reached.
Recording from a stopped state	From the counter position (only the recorded range will be replaced)
Punching in/out	Once per recording/playback session
Undo/Redo	Only usable with the immediately preceding recording (punch-in/out re-recording and recording from a stopped state in a project with tracks already recorded). Recording in projects with no recorded tracks is not supported.
Overdubbing	Recording does not stop automatically when the track being played ends. (It will stop when the microSD card runs out of free space). After punching out with the  (REC) button, stop with the  (STOP) button.
Mixing down	WAV (16-bit, 24-bit and 32-bit float) and MP3 (128, 256 and 320 kbps) formats are supported. You can cancel while exporting. Files with the same name may be numbered up to "_99" (WAV and MP3 files are counted separately).
File assignment list	This shows up to 1,000 WAV files from RECORDER mode in the order they were recorded. (MP3 files, exported files, and files with names exceeding 63 characters are not shown.)
Sample rate	Choose this when creating a project. It cannot be changed after creation.
Stereo linking	INPUTS 1/2 and 3/4 are treated as off while in MTR mode (including MS stereo).

Item	Description
Screens that cannot be shown during recording or playback	Project List, File Assign, Mix Down, SD Card, USB, System. RECORDER mode also cannot be reopened.
Functions unavailable in MTR mode	Audio interface, timecode (including TCA-1), operation from apps connected via BTA-1 (H6essential Control, ZOOM Handy Control & Sync), operation from UltraSync BLUE, mixer screen, recording settings screen (pre-recording, recording start tone, recording source settings, metadata writing), AI Noise Reduction, stereo linking, 96 kHz sample rate, and guide voice announcements (even when turned on, no voice is used but beep sounds are output).

Troubleshooting

Issue	Response
Cannot record in MTR mode.	Check whether there is a track selected for recording (in red) and whether a project is open. (→ Switching track states, Managing projects)
Punching in a second time is not possible.	Punch-in and punch-out can each be performed only once per recording or playback session. Stop once with the (STOP) button. (→ Re-recording parts of tracks (punching in/out))
Unable to assign a file.	Check the sample rate, number of channels, bit depth, and duration (up to 1 hour and 30 minutes). Files recorded at 96 kHz cannot be assigned. MP3 format files and files exported using Export do not appear in the list. (→ Assigning files to tracks (file assignment))
The sample rate cannot be changed.	The project's sample rate cannot be changed after it has been created. (→ Creating new projects)
Mixer Screen does not open / use as an audio interface is not possible.	These cannot be used while in MTR mode. Return to RECORDER mode. (→ Returning to RECORDER mode)
The recording stopped midway.	Recording will stop automatically when the microSD card runs out of free space or when the maximum length for a single track is reached. (→ MTR mode specifications)
Cannot set the MIC track as a recording target (red).	Check whether the mic capsule is attached.
Pressing the (REC) button during recording stops the recording but the counter continues to advance.	Pressing the (REC) button during recording stops only the recording (punch out). To stop, press the (STOP) button. (→ Recording the first track)
No sound is output from the built-in speaker.	When there is a track selected for recording (shown in red), no sound is output from the speaker. Use headphones to monitor. (→ Playing back tracks)

Issue	Response
The guide audio is not reading aloud.	In MTR mode, messages will not be spoken aloud, but beeps will sound. No beeps sound during recording or playback, except when paused. (→ Switching to MTR mode)
Playback does not stop at the end of the project.	Even after the end of the project, the counter continues advancing until you press the (STOP) button. (No sound is output.) (→ Playing back tracks)

Functions added in Version 3.30

Timecode Overview

Timecode is supplementary time information written into files when recording video or audio.
When recording with multiple cameras or recorders, synchronizing the timecode allows editing software to automatically align footage based on the timecode, significantly streamlining synchronization work.
The format is represented as "hh:mm:ss:ff" (hours:minutes:seconds:frames).

NOTE

- The same frame rate settings must be used by all equipment and all video and audio data.
- The SMPTE timecode standard supports frame rates up to 30 fps. When shooting at high frame rates (60 fps, 59.94 fps, etc.), set the value to half the camera's setting. (→ Setting the frame rate for the internal timecode)

HINT

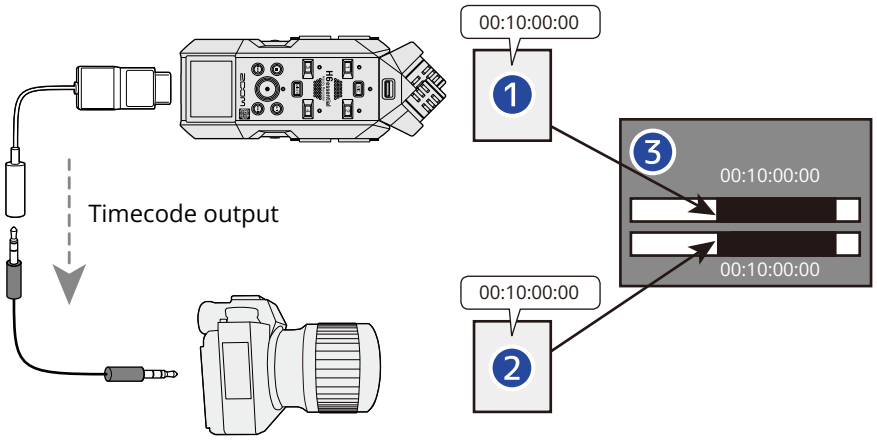
The TCA-1 utilizes a high-precision oscillator to generate accurate timecode with an error margin of ±0.5 frames every 24 hours.

Connection Examples

As examples of timecode connection, we explain two methods: Using an H6essential as the reference and Using an external timecode generator as the reference.

■ Using an H6essential as the reference (synchronizing with a camera)

Use the TCA-1 to output timecode from the H6essential to the camera. By setting the H6essential as the "reference," timecode can be recorded that matches (synchronizes) the audio data from this unit with the video data from the camera.
For this connection, the following modes can be selected: Int Free Run, Int Rec Run, Time of Day (→ Setting the mode)



1 **Recorder**
Records the timecode output by the TCA-1 together with the audio into the file.

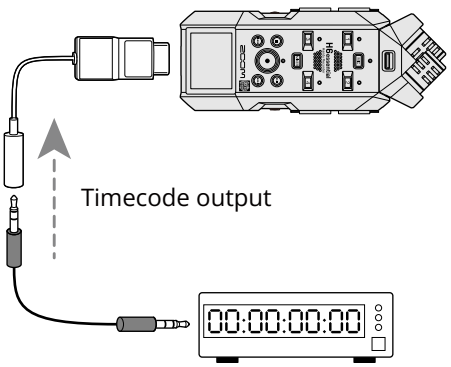
2 **Camera**
Records the received timecode into the file along with the video.

3 **During Editing**
Video and audio can be synchronized based on the timecode.

■ Synchronization when using a timecode generator or external device as the reference

Connect the TCA-1 to an external timecode generator.
Use the timecode generator as the "reference" to synchronize the H6essential and camera, recording the same timecode to the audio and video.

■ Using in jam mode



NOTE: No cable needed after jamming

The H6essential receives timecode once from an external timecode generator, synchronizing (jamming) to it. After jamming, the H6essential's clock maintains the timecode even if the connection is disconnected.

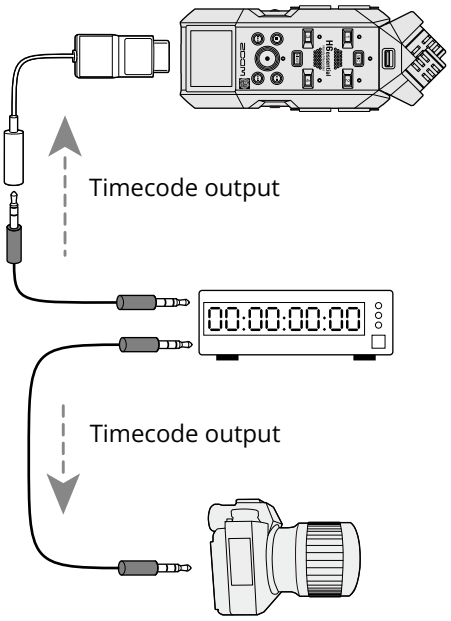
- Set the operating mode to match other devices used at the same time.
- The default sync mode is "Int Free Run". In this mode, the timecode continuously advances. Jamming before recording video allows maintaining synchronization across multiple devices. (→ Setting the mode)

HINT

Jamming overview

This function synchronizes the timecode of the connected device with the timecode of the reference device. Jamming matches the H6essential's timecode with the externally input value. Once synchronized, even if the cable is disconnected, the unit will continue counting (running free) using its internal high-precision clock.

■ Using with a constant connection



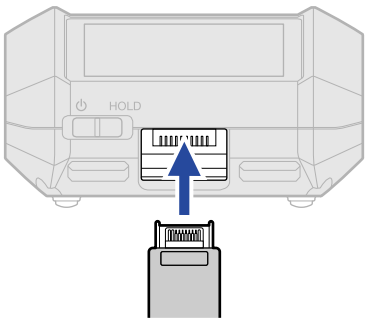
Synchronize by continuously receiving timecode from a timecode generator or similar source.
For this connection, you can select the following modes: "Ext" or "Ext Auto Rec". (→ Setting the mode)
Selecting "Ext Auto Rec" automatically starts/stops recording in sync with the external timecode output.

- Use "Auto Rec Delay" to adjust the delay time between receiving the timecode and starting recording. (→ Setting the delay time for automatic timecode recording)
- The behavior when timecode output is interrupted can be selected using the "Ext Continuous" setting. (→ Making internal timecode run on its own when external timecode input is lost)

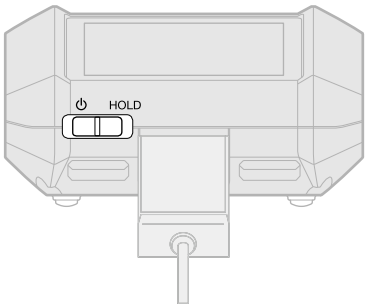
Synchronize with external devices using a TCA-1 timecode adapter

Connecting the TCA-1 to the H6essential

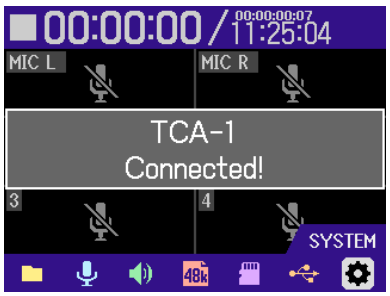
1. With the H6essential powered off, remove the cover from the REMOTE terminal on the front panel and connect the TCA-1.
Ensure the side with the visible terminals is facing up.



2. Slide the HOLD (Power/HOLD) switch toward the ⏻ (INPUT 1/INPUT 3 jacks) until the power turns on, activating the display.



Confirm that "TCA-1 Connected!" is shown.



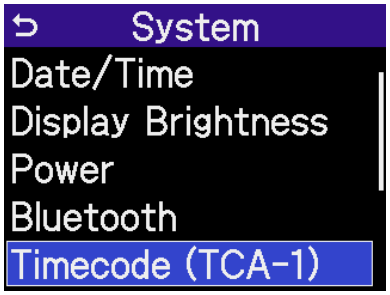
Setting the mode

The following settings can be made, for example.

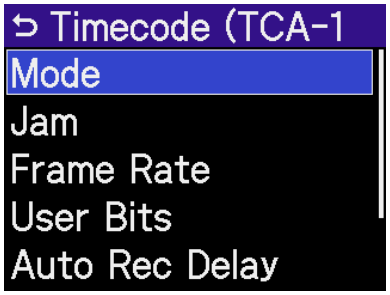
- Outputting timecode from the TCA-1 and inputting timecode from an external source
- Enable/disable timecode running independently outside of recording

1. On the Home Screen, select ⚙ "SYSTEM" using the (selection) dial and press the ENTER (ENTER) button.
The System Settings Screen will appear.

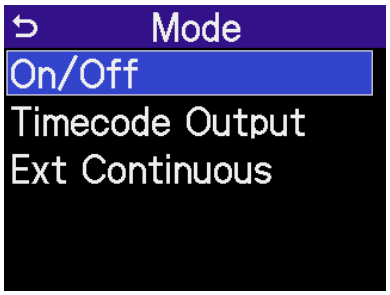
2. Use the (selection) dial to select "Timecode (TCA-1)" and press the ENTER (ENTER) button.



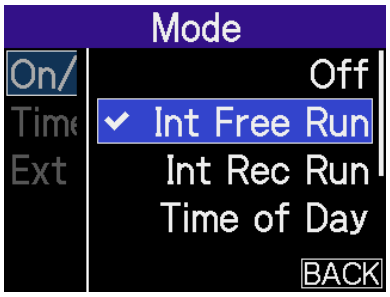
3. Use the (selection) dial to select "Mode" and press the ENTER (ENTER) button.



4. Use the (selection) dial to select "On/Off" and press the ENTER (ENTER) button.



5. Use the (selection) dial to select the desired setting item and press the ENTER (ENTER) button.



Setting Value	Description
Off	Timecode is not recorded to the recording file. Timecode is not output from the TCA-1.
Int Free Run	The internal timecode continues counting regardless of the recording start/stop state. The start timecode can be set from the following menu items. • Jam (→ Jamming the internal timecode) • Restart (→ Restarting the internal timecode at any set value) Timecode output can be switched between "Always" and "Rec Only" using the "Timecode Output" setting.
Int Rec Run	The internal timecode advances only during recording and stops when recording is paused. The start timecode can be set from the following items. • Jam (→ Jamming the internal timecode) • Restart (→ Restarting the internal timecode at any set value) After resuming recording, timecode will restart from the value at the time it stopped. Timecode is only output while recording and is not output when stopped.
Time of Day	This mode synchronizes the internal timecode with the H6essential's internal clock (current time). This is applied automatically when this mode is selected or when the H6essential's date/time (Date/Time) is changed. This time-based timecode is continuously output from the TCA-1.
Ext	This mode operates using timecode input from an external device as the reference. When external timecode is input, the internal timecode follows that external signal. The internal timecode can be set to run independently if the external timecode signal is interrupted. (→ Making internal timecode run on its own when external timecode input is lost)

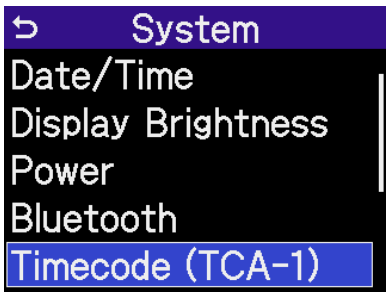
Setting Value	Description
Ext Auto Rec	In addition the functions of Ext mode, this mode automatically switches the recording state using external timecode detection. Recording starts when external timecode input is detected and stops when the external timecode stops.

Outputting timecode only during recording

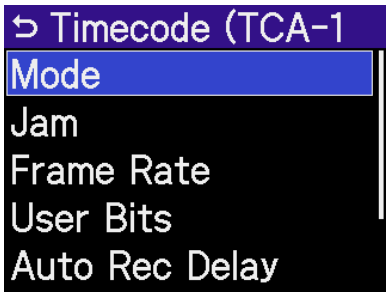
Whether or not timecode is output from the TCA-1 when the recorder is stopped can be set.

1. On the Home Screen, select ⚙ "SYSTEM" using the (selection) dial and press the ENTER (ENTER) button.
   The System Settings Screen will appear.

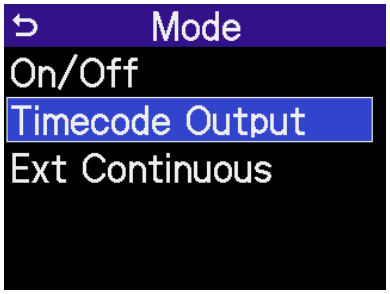
2. Use the (selection) dial to select "Timecode (TCA-1)" and press the ENTER (ENTER) button.

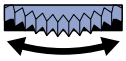


3. Use the (selection) dial to select "Mode" and press the ENTER (ENTER) button.

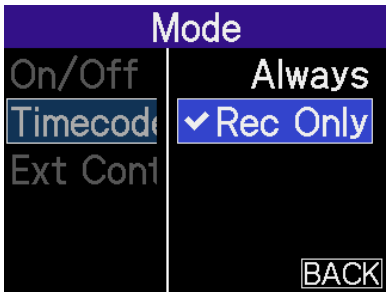


4. Use the (selection) dial to select "Timecode Output" and press the ENTER (ENTER) button.



5. Use the  (selection) dial to select "Rec Only" and press the 

(ENTER) button.



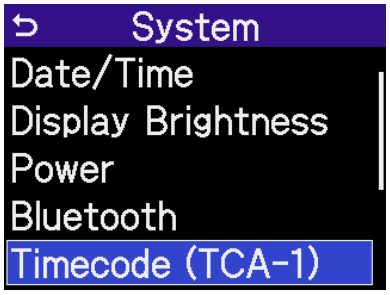
NOTE
Timecode continues to be output when recording is paused.

Making internal timecode run on its own when external timecode input is lost

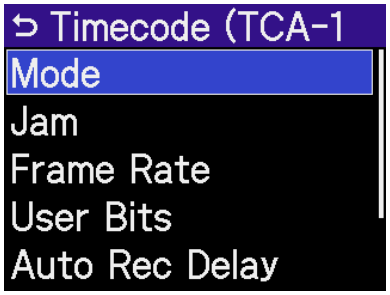
Internal timecode can be set to run independently to maintain continuity when external timecode is lost.

1. On the Home Screen, select "SYSTEM" using the (selection) dial and press the ENTER (ENTER) button.
   The System Settings Screen will appear.

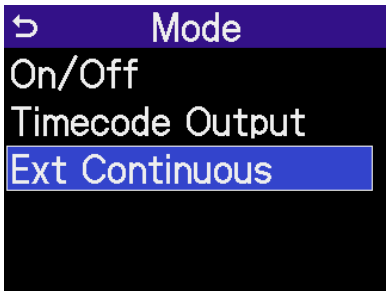
2. Use the (selection) dial to select "Timecode (TCA-1)" and press the ENTER (ENTER) button.



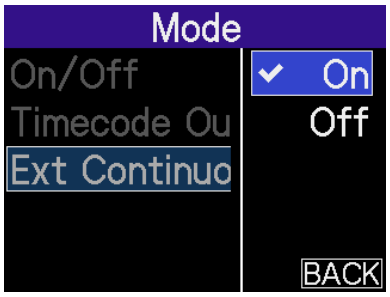
3. Use the (selection) dial to select "Mode" and press the ENTER (ENTER) button.



4. Use the (selection) dial to select "Ext Continuous" and press the ENTER (ENTER) button.



5. Use the (selection) dial to select "On" and press the ENTER (ENTER) button.



Synchronizing (jamming) the timecode

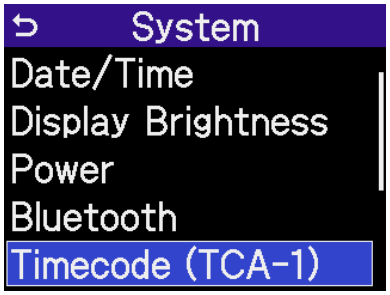
■ Jamming the internal timecode

You can synchronize the H6essential's internal timecode with the timecode from an external device.
After jamming, it will automatically continue counting up (running free) even if the cable is disconnected.

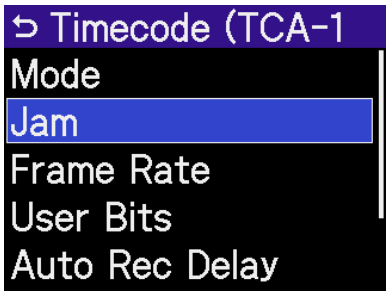
> **NOTE**
> First, connect the external device to the TCA-1. Set the mode to "Int Free Run" or "Int Rec Run".

1. On the Home Screen, select ⚙ "SYSTEM" using the (selection) dial and press the ENTER (ENTER) button.
   The System Settings Screen will appear.

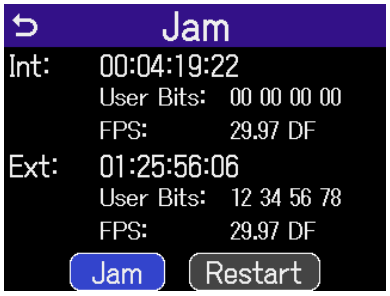
2. Use the (selection) dial to select "Timecode (TCA-1)" and press the ENTER (ENTER) button.



3. Use the (selection) dial to select "Jam" and press the ENTER (ENTER) button.



4. Use the (selection) dial to select "Jam" and press the ENTER (ENTER) button.



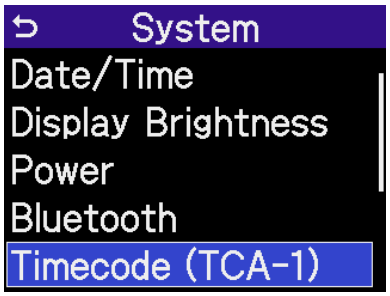
■ Restarting the internal timecode at any set value

The H6essential's internal timecode can be set to any value, and counting up can be resumed from that value.

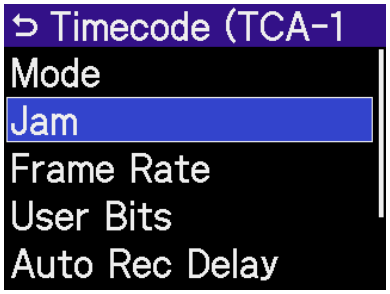
> **NOTE**
> Set the mode to "Int Free Run" or "Int Rec Run".

1. On the Home Screen, select ⚙ "SYSTEM" using the (selection) dial and press the ENTER (ENTER) button.
   The System Settings Screen will appear.

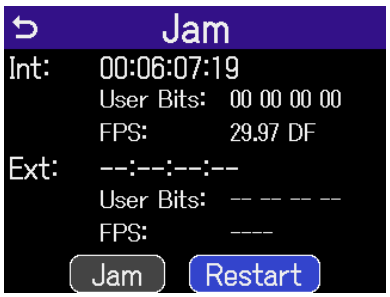
2. Use the (selection) dial to select "Timecode (TCA-1)" and press the ENTER (ENTER) button.



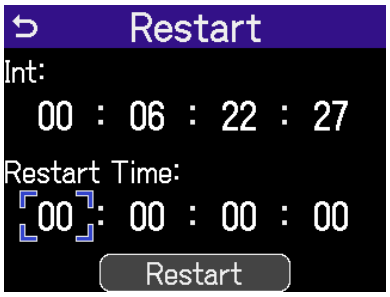
3. Use the (selection) dial to select "Jam" and press the ENTER (ENTER) button.



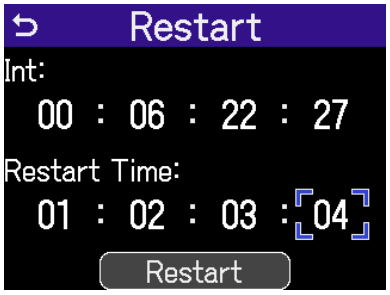
4. Use the (selection) dial to select "Restart" and press the ENTER (ENTER) button.



5. Use the (selection) dial to select the desired setting item and press the ENTER (ENTER) button.

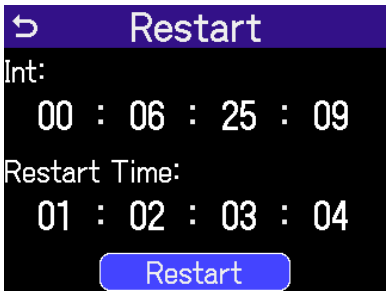


6. Use the (selection) dial to change the value and press the ENTER (ENTER) button.



7. Repeat steps 5 and 6 to change all setting values.

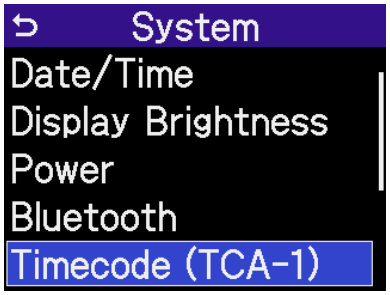
8. After setting all values, use the (selection) dial to select "Restart" and press the ENTER (ENTER) button.



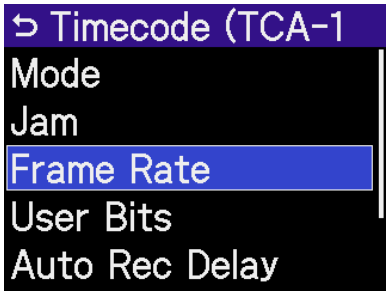
Setting the frame rate for the internal timecode

1. On the Home Screen, select ⚙ "SYSTEM" using the (selection) dial and press the ENTER (ENTER) button.
The System Settings Screen will appear.

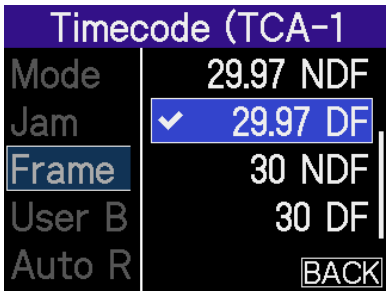
2. Use the (selection) dial to select "Timecode (TCA-1)" and press the ENTER (ENTER) button.



3. Use the (selection) dial to select "Frame Rate" and press the ENTER (ENTER) button.



4. Use the (selection) dial to select the frame rate and press the ENTER (ENTER) button.



Setting Value	Description
23.976 NDF	This common frame rate is used for high-definition recording, such as with HD cameras. It counts 0.1% slower than real time.
24 NDF	This standard frame rate is used for film shooting and in HD cameras.
25 NDF	This frame rate is for PAL format video, which is used in Europe and other regions.
29.97 NDF	This frame rate is for NTSC color video and HD cameras. It counts 0.1% slower than real time. This is used for NTSC-format video, which is used in Japan, the United States, and other countries.
29.97 DF	This frame rate is adjusted using drop frame timing to match NTSC to the actual time. This is used for broadcast video that requires synchronization with actual time frames.
30 NDF	This is used to synchronize sound to film being transferred to NTSC video. This is the standard frame rate for black-and-white television in Japan, the United States, and other regions.
30 DF	This specialized frame rate is used to synchronize film sound to NTSC using 29.97fps drop frame timing. It counts 0.1% faster than actual time.

NOTE

- Frame rate settings must be the same across all equipment, video data, and audio data used.
- The SMPTE timecode standard supports frame rates up to 30 fps. When shooting at high frame rates (60 fps, 59.94 fps, etc.), set the value to half the camera's recording frame rate.
  - When shooting at 60fps: "30 NDF" or "30 DF"
  - When shooting at 59.94fps: "29.97 NDF" or "29.97 DF"

Setting the User Bits of the Internal Timecode

HINT

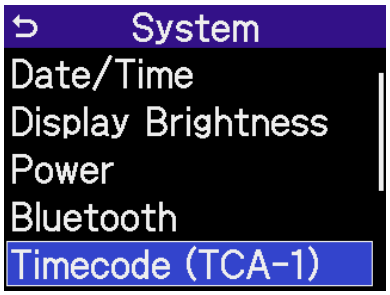
Definition of User Bits

"User Bits" refers to an 8-digit data field that can be recorded in the timecode signal, separately from the "Hour:Minute:Second:Frame" time information. Using the digits 0-9 and the letters A-F (hexadecimal), this field can be used to record identifying information such as the shooting date, camera ID, or scene number. This information can be read by video editing software and is useful for organizing footage from multiple cameras or recorders.

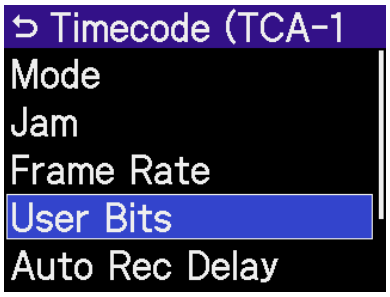
■ Setting the user bit mode

1. On the Home Screen, select "SYSTEM" using the (selection) dial and press the ENTER (ENTER) button.
The System Settings Screen will appear.

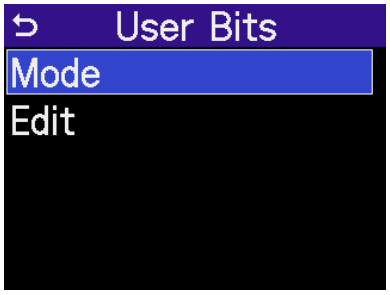
2. Use the (selection) dial to select "Timecode (TCA-1)" and press the ENTER (ENTER) button.



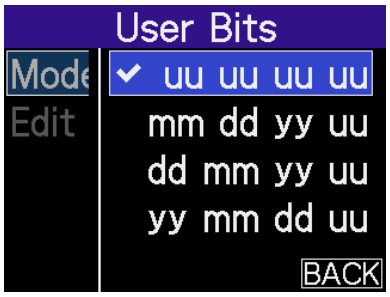
3. Use the (selection) dial to select "User Bits" and press the ENTER (ENTER) button.



4. Use the (selection) dial to select "Mode" and press the ENTER (ENTER) button.



5. Use the (selection) dial to select the item to set and press the ENTER (ENTER) button.

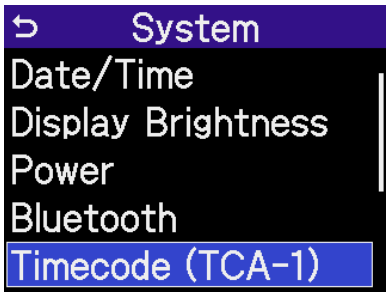


Setting Value	Description
uu uu uu uu	This can be set to any value on the “Edit” Screen.
mm dd yy uu	The date set in the H6essential is automatically entered in the order of month, day, year, and user bit, which can be set to any value on the "Edit" Screen.
dd mm yy uu	The date set in the H6essential is automatically entered in the order of day, month, year, and user bit, which can be set to any value in the "Edit" Screen.
yy mm dd uu	The date set in the H6essential is automatically entered in the order of year, month, day, and user bit, which can be set to any value in the "Edit" Screen.

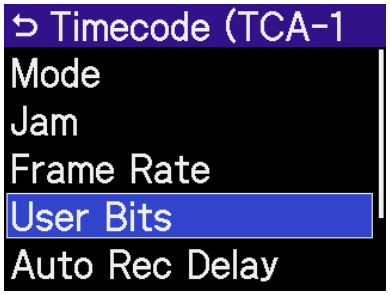
■ Setting User Bits

1. On the Home Screen, select ⚙ "SYSTEM" using the (selection) dial and press the ENTER (ENTER) button.
The System Settings Screen will appear.

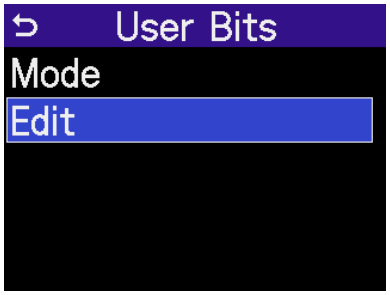
2. Use the (selection) dial to select "Timecode (TCA-1)" and press the ENTER (ENTER) button.



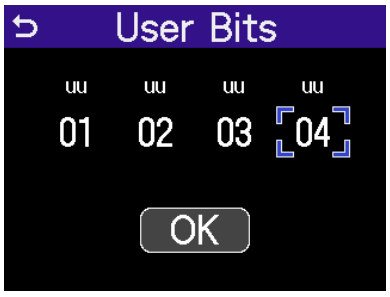
3. Use the (selection) dial to select "User Bits" and press the ENTER (ENTER) button.



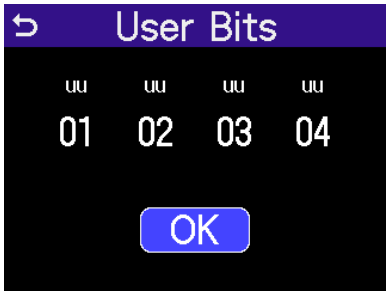
4. Use the (selection) dial to select "Edit" and press the ENTER (ENTER) button.



5. Use the (selection) dial to change the value and press the ENTER (ENTER) button.



6. After setting all values, use the (selection) dial to select "OK" and press the ENTER (ENTER) button.



NOTE
Only items set to "uu" in "Mode" can be changed.

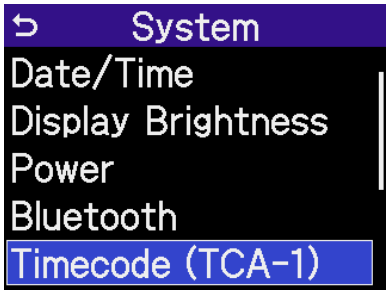
HINT
Values can be set within the range 00 to FF.

Setting the delay time for automatic timecode recording

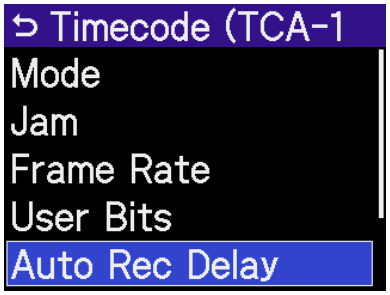
When configured to automatically record upon receiving external timecode, momentary timecode reception may trigger unwanted recordings.
To avoid this, a delay can be set between receiving the timecode and starting recording.

1. On the Home Screen, select "SYSTEM" using the (selection) dial and press the ENTER (ENTER) button.
   The System Settings Screen will appear.

2. Use the (selection) dial to select "Timecode (TCA-1)" and press the ENTER (ENTER) button.



3. Use the (selection) dial to select "Auto Rec Delay" and press the ENTER (ENTER) button.



4. Use the (selection) dial to select the value and press the ENTER (ENTER) button.



5. Use the (selection) dial to change the value and press the ENTER (ENTER) button.



6. Use the (selection) dial to select "OK" and press the ENTER (ENTER) button.



HINT

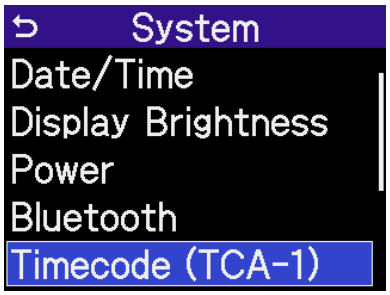
This can be set in a range from 0.0 to 8.0 seconds.

Changing connector settings to match the connected device

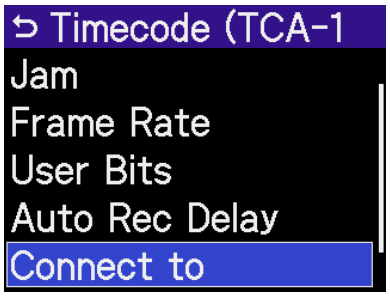
Configure whether the 3.5mm jack connected to the TCA-1 handles signals via the tip or ring to suit the external device.

1. On the Home Screen, select ⚙ "SYSTEM" using the (selection) dial and press the ENTER (ENTER) button.
   The System Settings Screen will appear.

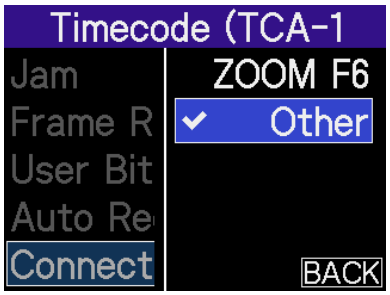
2. Use the (selection) dial to select "Timecode (TCA-1)" and press the ENTER (ENTER) button.



3. Use the (selection) dial to select "Connect to" and press the ENTER (ENTER) button.

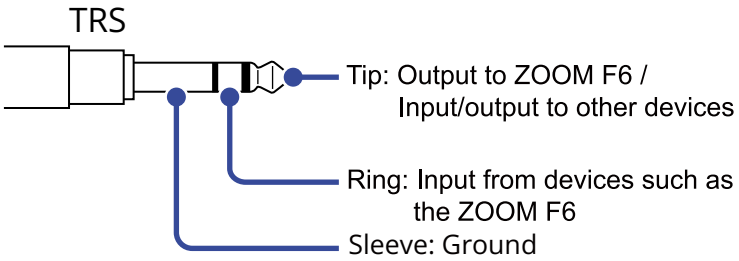


4. Use the (selection) dial to select the item for the connected device and press the ENTER (ENTER) button.



Setting Value	Description
ZOOM F6	This mode assigns the tip for output and the ring for input. Select this when connecting to a ZOOM F6 or another device with similar connector specifications. **Signal passing through the tip:** This outputs the timecode signal generated by the TCA-1 to external devices. **Signal passing through the ring:** This inputs the timecode signal generated by an external device into the TCA-1.
Other	This mode handles timecode input/output solely through the tip. On the Jam Screen, the signal passing through the tip switches automatically. **Signal passing through the tip:** • This outputs the timecode signal generated by the TCA-1 to external devices. • This inputs the timecode signal generated by an external device into the TCA-1.

Timecode Input / Output

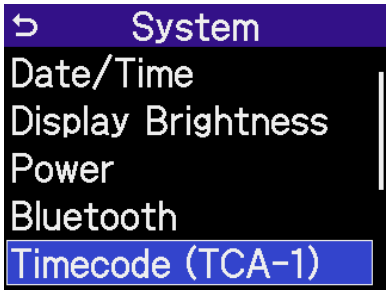


Managing the TCA-1 firmware

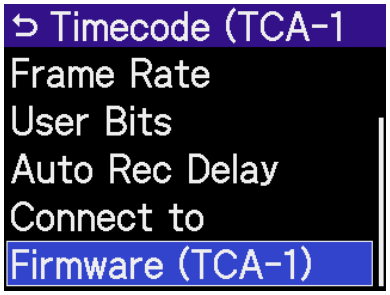
■ Checking the firmware version

1. On the Home Screen, select ⚙ "SYSTEM" using the (selection) dial and press the ENTER (ENTER) button.
The System Settings Screen will appear.

2. Use the (selection) dial to select "Timecode (TCA-1)" and press the ENTER (ENTER) button.



3. Use the (selection) dial to select "Firmware (TCA-1)" and press the ENTER (ENTER) button.



■ Updating the firmware

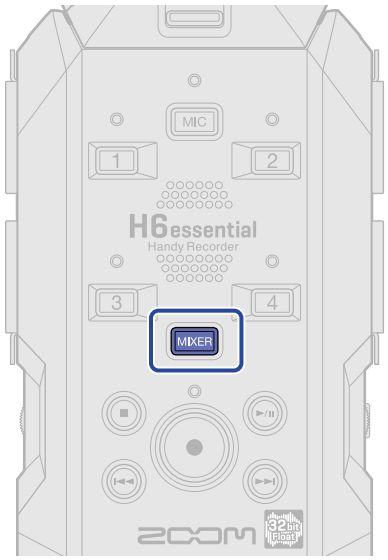
The TCA-1 firmware can be updated to the latest version.
The latest firmware update file can be downloaded from the ZOOM website (zoomcorp.com/help/tca-1).
Follow the instructions in the "TCA-1 Firmware Update Guide" on the TCA-1 download page.

Functions added in Version 3.0

Setting input gain

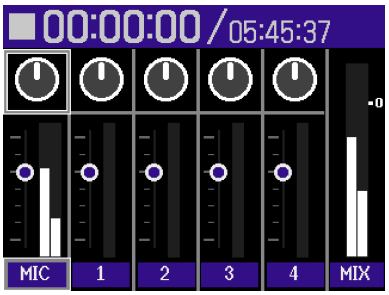
Setting input gain for each track on the Mixer Screen

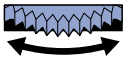
1. Press the MIXER (MIXER) button when the Home Screen is open.



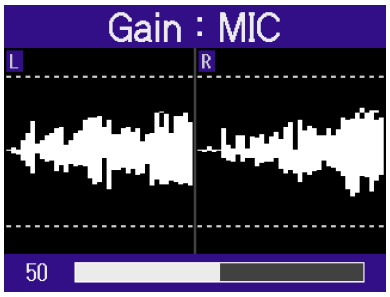
This opens the Mixer Screen.

2. Use the (selection) dial to select the track for gain adjustment and press the ENTER (ENTER) button.



3. Use the  (selection) dial to adjust the gain and press the 

(ENTER) button.

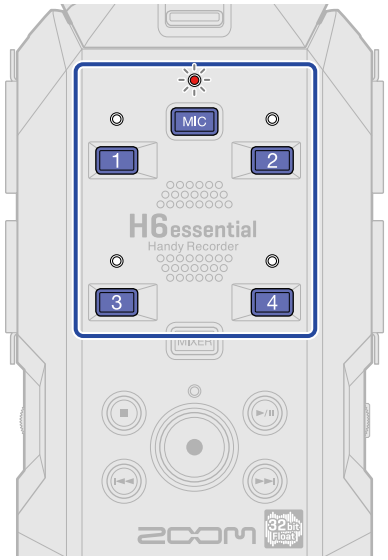


NOTE
When “Format” is set to “MP3”, adjust the input gain so that the waveform fits within the dashed lines to prevent clipping in recording files.

4. Repeat steps 2–3 to adjust the gain of each input.

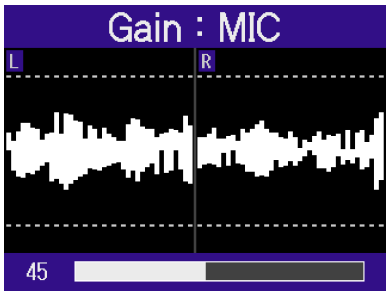
Setting input gain using a shortcut

1. When the Home Screen is open, press and hold the button of the track for input gain adjustment.



- MIC : Mic capsule
- 1 – 4 : Inputs 1–4

2. Use the (selection) dial to adjust the gain and press the ENTER (ENTER) button.



This confirms the gain setting and reopens the Home Screen.

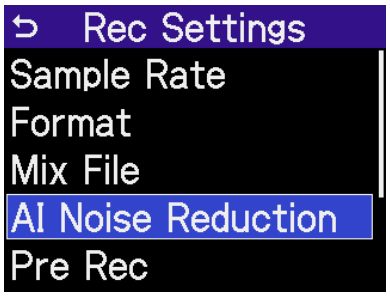
Using AI Noise Reduction

This function can analyze and reduce environmental sounds and other noise.

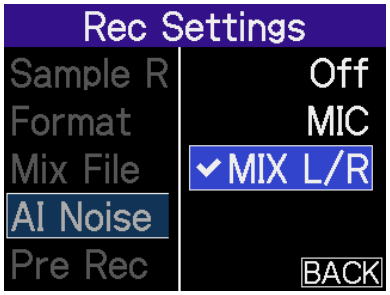
Using the Menu to set AI Noise Reduction

1. On the Home Screen, use the (selection) dial to select (REC) and press the (ENTER) button.
   This opens the Rec Settings Screen.

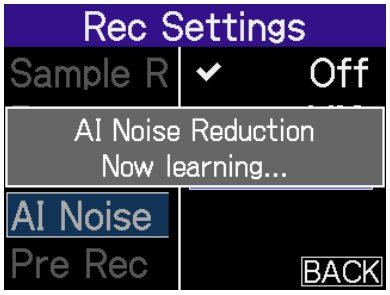
2. Use the (selection) dial to select “AI Noise Reduction” and press the (ENTER) button to confirm.



3. Use the (selection) dial to select the track for AI Noise Reduction activation and press the (ENTER) button.



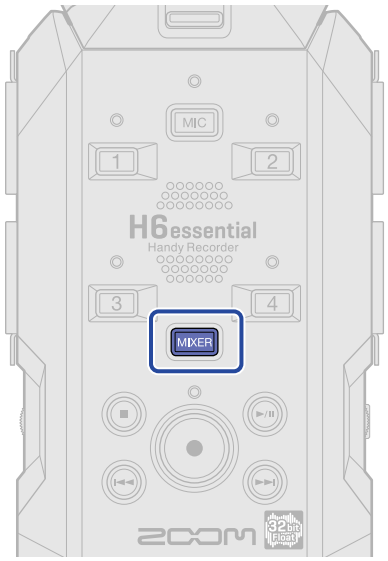
Turning this “ON” will start noise analysis. During analysis (for three seconds) input only environmental sounds and other noise.
Turning this “OFF” will reset the analysis results.



Turning AI Noise Reduction on/off using a shortcut

This function allows AI Noise Reduction to be turned on/off anytime to suit the use situation.

1. When the HOME screen is open, press and hold the MIXER (MIXER) button.

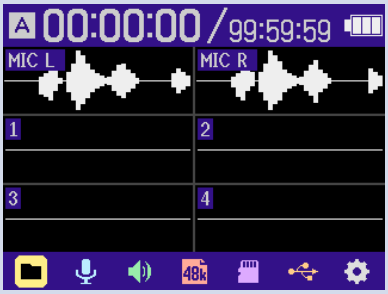




Turning this “ON” will start noise analysis. During analysis (for three seconds) input only environmental sounds and other noise.
Turning this “OFF” will reset the analysis results.

NOTE

- Use the Menu Screen to select the tracks for which AI noise reduction is enabled. (→ Using AI Noise Reduction)
- AI Noise Reduction will always be off at startup.
- When AI Noise Reduction is on, “A” will appear on the Home Screen status icon.

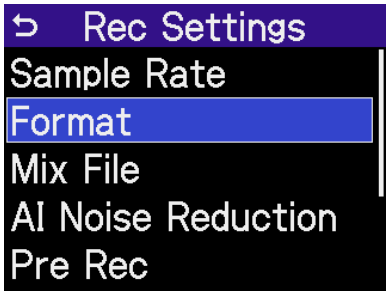


Recording with MP3 format

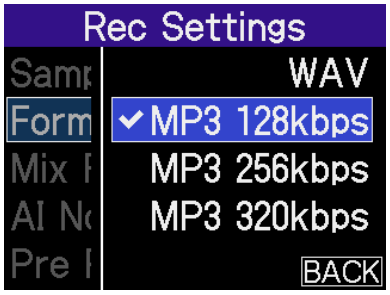
The recording data format can be set to MP3.

1. On the Home Screen, use the (selection) dial to select (REC) and press the (ENTER) button.
   This opens the Rec Settings Screen.

2. Use the (selection) dial to select “Format” and press the (ENTER) button to confirm.



3. Use the (selection) dial to select the desired setting item and press the (ENTER) button to confirm.



The following formats can be selected.
MP3 128kbps, MP3 256kbps, MP3 320kbps

NOTE

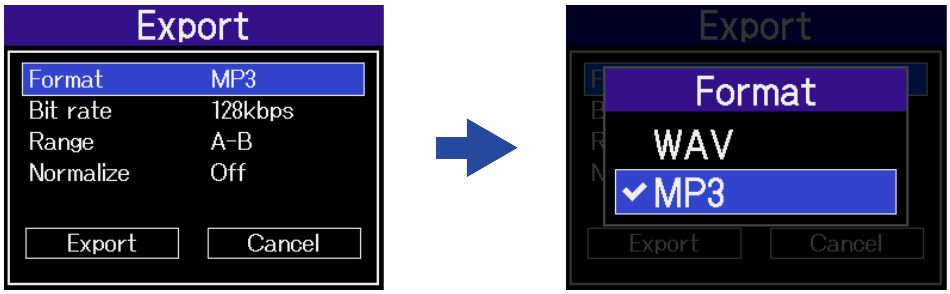
- The sample rate cannot be set to 96 kHz when MP3 is selected.
- Recording with MP3 format is not possible when the sample rate is set to 96 kHz.
- A-B Repeat Playback is supported with MP3 files, but the setting range cannot be saved.

Exporting files in MP3 format

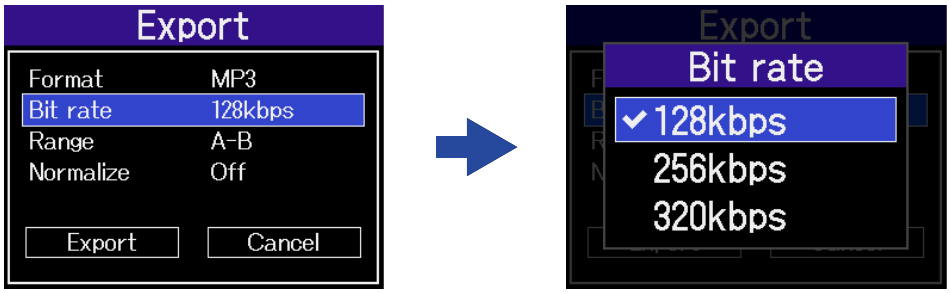
Recorded WAV files can be converted to MP3 and exported.
In addition, recorded files can be normalized to optimize their levels.

1. On the Playback Screen, use the (selection) dial to select (EXPORT) and press the ENTER (ENTER) button.
This opens the Export Screen.

2. Select “MP3” for the format.
Use the (selection) dial to select the format and press the ENTER (ENTER) button. Then, use the (selection) dial to select “MP3” and press the ENTER (ENTER) button.



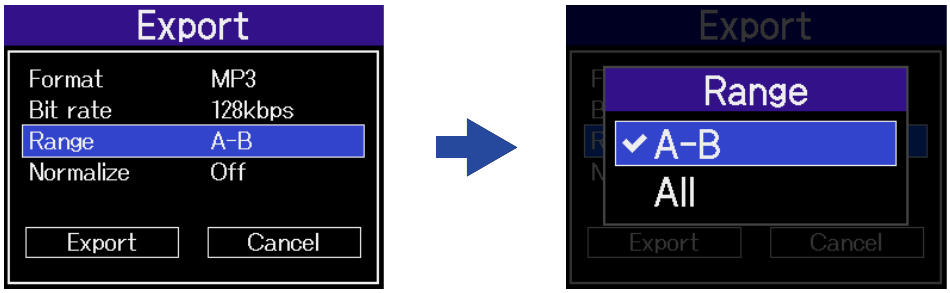
3. Select the bit rate.
Use the (selection) dial to select “Bit rate” and press the ENTER (ENTER) button. Then, use the (selection) dial to select the format and press the ENTER (ENTER) button.



The following formats can be selected.
MP3: 128 kbps, 256 kbps, 320 kbps

4. Select whether or not to export using a specified range.

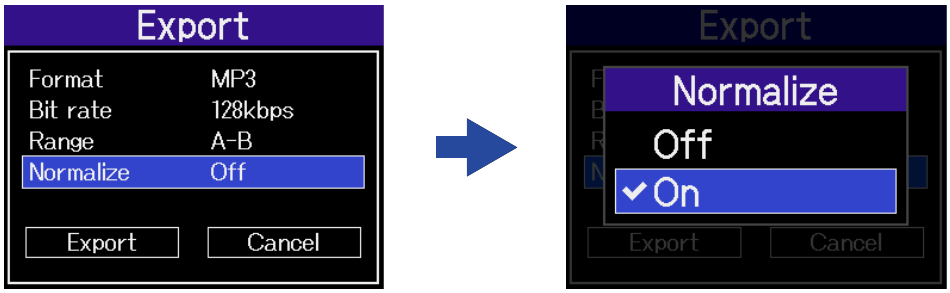
Use the (selection) dial to select “Range” and press the ENTER (ENTER) button. Then, use the (selection) dial to select the setting and press the ENTER (ENTER) button.



Setting value	Explanation
A-B	This exports the range between the two points set as explained in “Repeat playback of a set interval (A-B repeat)”.
All	This exports the entire track.

5. Select whether or not to normalize.

Use the (selection) dial to select “Normalize” and press the ENTER (ENTER) button. Then, use the (selection) dial to select “On” or “Off” and press the ENTER (ENTER) button.

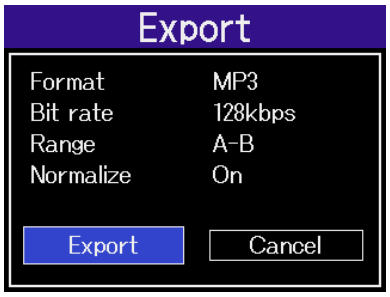


If “On” is selected, the file will be normalized during export.

NOTE

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

When done making all settings, use the (selection) dial to select “Export” and press the (ENTER) button.



NOTE
MP3 files cannot be exported (as WAV or MP3).

Setting whether to record mix files

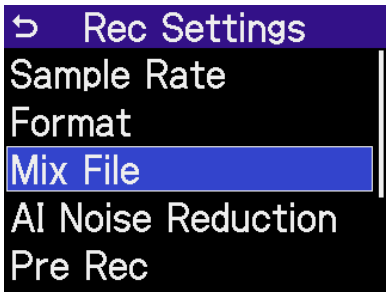
In addition to recording each track separately, a stereo mix file of those tracks can also be recorded. The recording of stereo mix files can be disabled to save SD card space.

NOTE

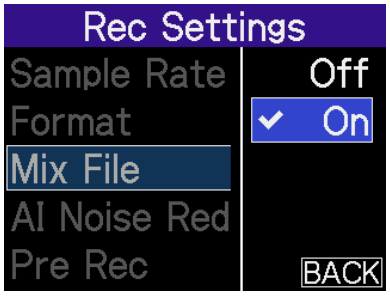
- Even when mix file recording is on, mix files will not be recorded in the following cases.
  - When the sampling rate is 96 kHz
  - When AI Noise Reduction is set to Off or MIC and only one file would otherwise be generated (for example, when only one track or a stereo-linked pair of tracks is being recorded)
- Use the export function to create mixed 96kHz stereo files. (→ Changing formats and exporting files)

1. On the Home Screen, use the (selection) dial to select (REC) and press the ENTER (ENTER) button.
This opens the Rec Settings Screen.

2. Use the (selection) dial to select “Mix File” and press the ENTER (ENTER) button.

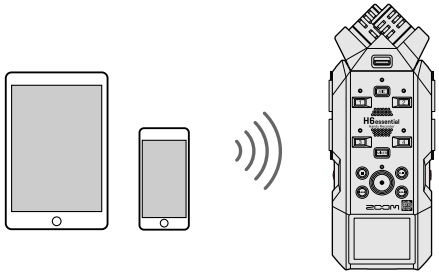


3. Use the (selection) dial to select “On” or “Off” and press the ENTER (ENTER) button.



Operating the H6essential from a smartphone/tablet (ZOOM Handy Control & Sync)

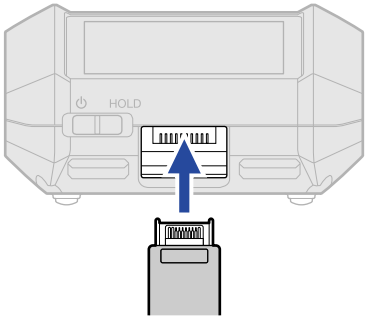
The H6essential can be operated wirelessly from a smartphone or tablet by connecting a BTA-1 or another dedicated wireless adapter and using the ZOOM Handy Control & Sync app designed to control it.
ZOOM Handy Control & Sync can be connected to multiple recorders and used to simultaneously start and stop recording, synchronize timecode and set the date and time.



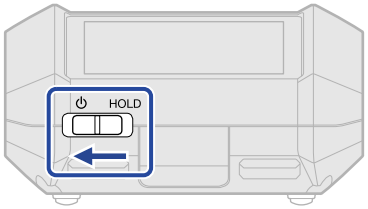
NOTE

- 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, for example. Refer to the manual for the ZOOM Handy Control & Sync app for details about app settings and operation procedures.
- The H6essential cannot be controlled wirelessly from a smartphone or tablet during audio interface operation (→ Using as an audio interface).
- An H6essential cannot have both ZOOM Handy Control & Sync and an UltraSync BLUE connected at the same time.

1. With the H6essential power off, remove the REMOTE connector cover on its front. Then, connect a BTA-1 or another dedicated wireless adapter.

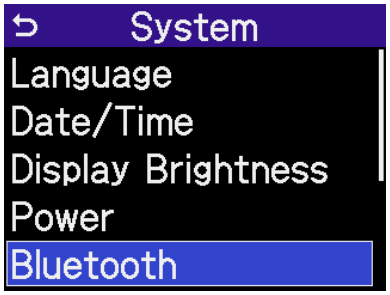


2. Slide the HOLD (POWER/HOLD) switch toward ⏻ (in the direction of the INPUT 1 and 3 jacks) until the power turns on and the display becomes active.

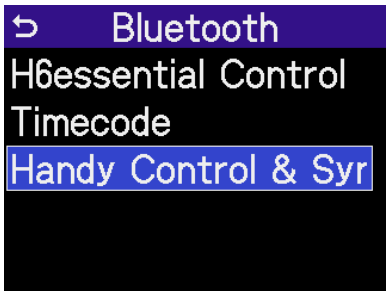


3. On the Home Screen, use the (selection) dial to select (SYSTEM) and press the ENTER (ENTER) button.
This opens the System Settings Screen.

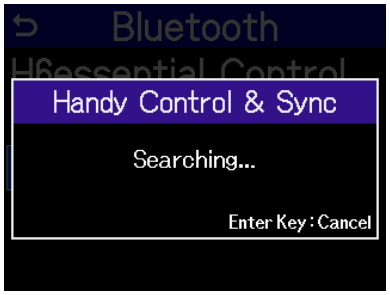
4. Use the (selection) dial to select “Bluetooth” and press the ENTER (ENTER) button.



5. Use the (selection) dial to select “Handy Control & Sync” and press the ENTER (ENTER) button.



Searching for the device to connect will begin and “Searching...” will appear on the display.



HINT

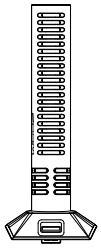
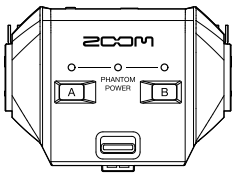
Searching can be canceled by pressing the ENTER (ENTER) button.

Disconnecting from smartphones and tablets

Disconnection is possible by quitting the app on the smartphone or tablet.
Removing the BTA-1 from the H6essential will also disconnect it from ZOOM Handy Control & Sync.

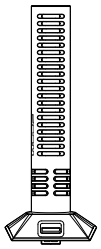
Functions added in Version 2.0

The mic capsule included with the H6essential can be swapped with a different mic capsule (sold separately) according to recording needs.
The display and operation when using an optional mic capsule are fundamentally the same as when using the included mic capsule. Settings specific to each mic capsule, however, can be changed.
The following optional mic capsules are compatible with the H6essential.

Mic capsule		Explanation
	SSH-6e Shotgun Mic Capsule	Mid-side stereo shotgun mic that supports 32-bit float recording
	EXH-6e External Input	2-channel XLR/TRS input capsule that supports 32-bit float recording

Using optional mic capsules

Using an SSH-6e

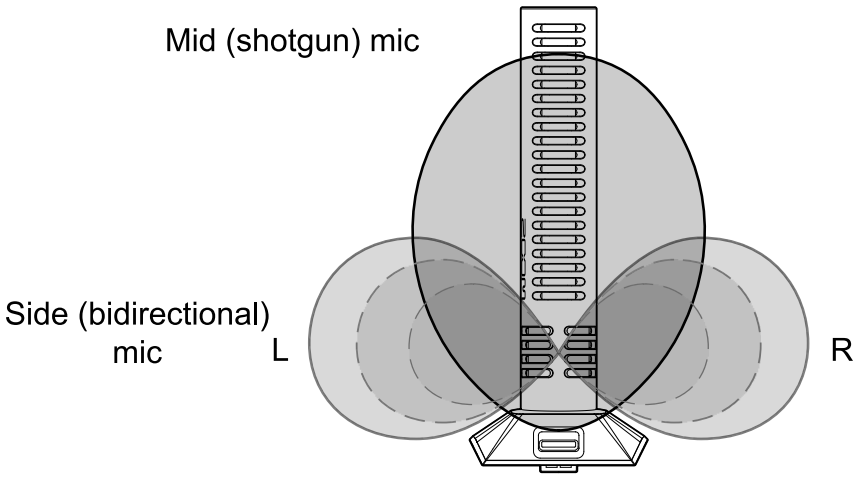


The SSH-6e is a mid-side stereo shotgun mic capsule. Along with a super-directional shotgun mic for capturing sound in the center (mid), it has a bidirectional mic for capturing sound from the left and right (side). The stereo width can be changed freely by adjusting the side level.

NOTE
For details about the SSH-6e, see its manual.
Download the SSH-6e manual from the ZOOM website (zoomcorp.com/help/ssh-6e).

Setting the SSH-6e mode

The operation mode of the SSH-6e can be set.
By setting the mode, a wide range of recording styles can be supported, from super-directional mono to stereo, which would normally require using an additional mic.



1. On the Home Screen, use the (selection) dial to select (INPUT) and press the ENTER (ENTER) button.
This opens the Input Settings Screen.

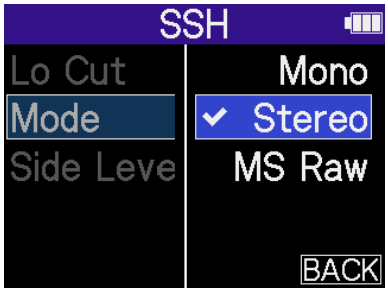
2. Use the (selection) dial to select “SSH” and press the ENTER (ENTER) button.



3. Use the (selection) dial to select “Mode” and press the ENTER (ENTER) button.



4. Use the (selection) dial to select the mode to use and press the ENTER (ENTER) button.



Setting value	Explanation
Mono	This turns off the side mic, enabling use as a mono shotgun mic. This is useful for situations when recording only specific sounds is desired.
Stereo	This uses the mid and side mics together as a stereo shotgun mic that keeps stereo width while having directional focus. This is useful for situations when recording sounds from the surrounding environment is also desired.
MS Raw	The mid mic signal will be recorded to the L channel and the side mic signal will be recorded to the R channel of the stereo file. This function is useful for changing the side level during post-production after recording.

Setting the SSH-6e side level

When using the SSH-6e as a stereo shotgun mic, the side mic level can be set before recording, enabling the stereo width to be adjusted.

> **NOTE**
> Side level can only be adjusted when the SSH-6e mode is set to “Stereo”.

1. On the Home Screen, use the (selection) dial to select (INPUT) and press the ENTER (ENTER) button.
   This opens the Input Settings Screen.

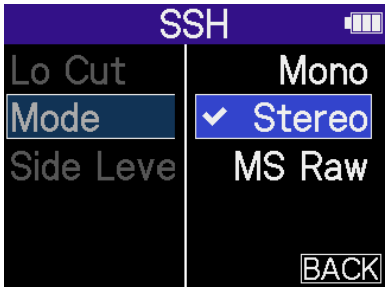
2. Use the (selection) dial to select “SSH” and press the ENTER (ENTER) button.



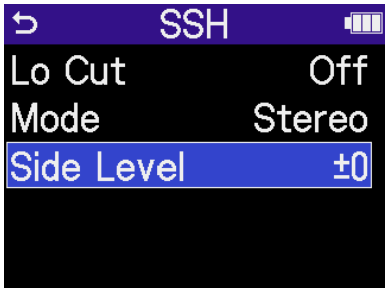
3. Use the (selection) dial to select “Mode” and press the ENTER (ENTER) button.



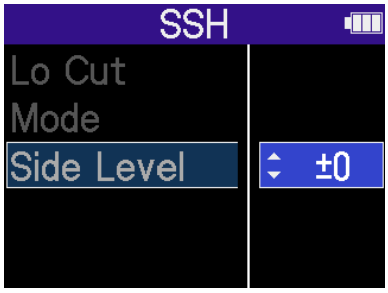
4. Use the (selection) dial to select “Stereo” and press the ENTER (ENTER) button.



5. Use the (selection) dial to select “Side Level” and press the ENTER (ENTER) button.



6. Use the (selection) dial to select the side level and press the ENTER (ENTER) button.



The setting range is –24 to +6. The higher the number is the wider the sound becomes to the left and right.

Reducing noise when using an SSH-6e (Lo Cut)

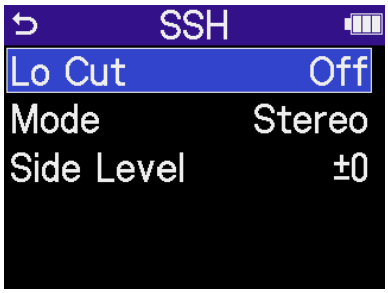
Low frequencies can be cut to reduce the sound of wind and vocal pop noises, for example.

1. On the Home Screen, use the (selection) dial to select (INPUT) and press the ENTER (ENTER) button.
This opens the Input Settings Screen.

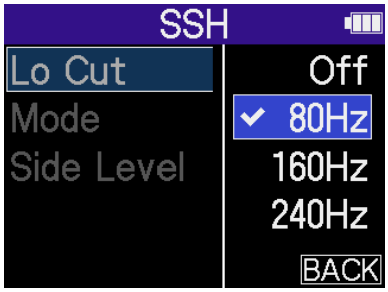
2. Use the (selection) dial to select “SSH” and press the ENTER (ENTER) button.



3. Use the (selection) dial to select “Lo Cut” and press the ENTER (ENTER) button.

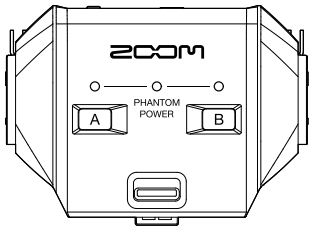


4. Use the (selection) dial to select the cut-off frequency and press the ENTER (ENTER) button.



Lo Cut can be set to Off, 80 Hz, 160 Hz or 240 Hz.

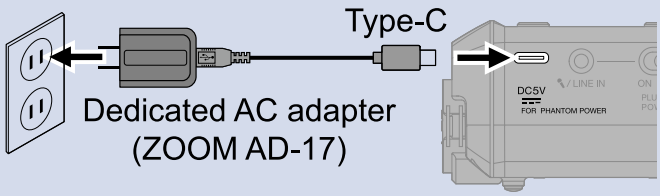
Using an EXH-6e



The EXH-6e XLR/TRS combo capsule adds 2 channels of external input. Signals can be input from dynamic mics, line level instruments, mixers and audio players, for example. Phantom power supply is supported, so condenser mics can also be used. In addition, a stereo mini MIC/LINE input jack is built in and supports plug-in power.

NOTE

- When connecting condenser mics and other devices that require phantom power, use an external power supply.

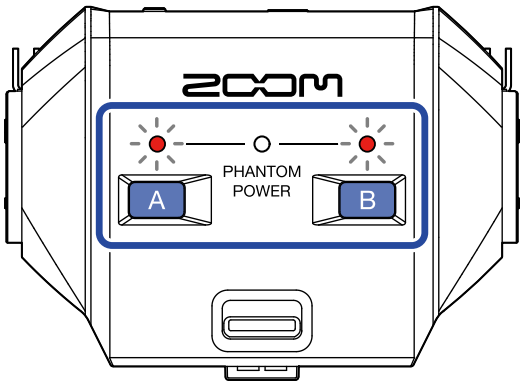


- When connecting a mic that requires plug-in power to the MIC/LINE jack, set the PLUG-IN POWER ON/OFF switch to ON.
- For additional details about the EXH-6e, see its manual.
  Download the EXH-6e manual from the ZOOM website (zoomcorp.com/help/exh-6e).

Enabling the EXH-6e inputs

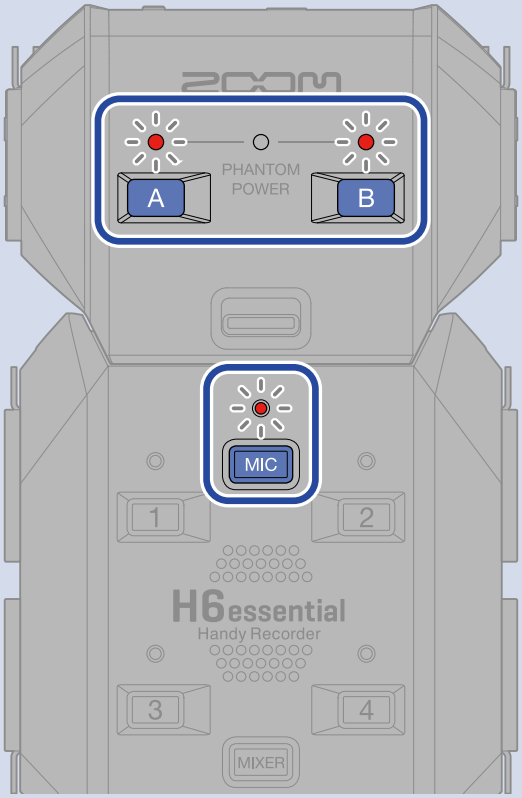
INPUT A and INPUT B of the EXH-6e need to be enabled for use.

1. Press the INPUT A/B button.
   This will enable that input jack and light the INPUT A/B status indicator.



NOTE

To record sound input from an EXH-6e, the mic capsule track must be enabled on the H6essential itself. Confirm that the mic capsule track indicator on the H6essential is lit.

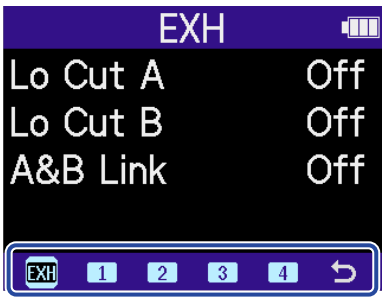


Setting EXH-6e stereo linking

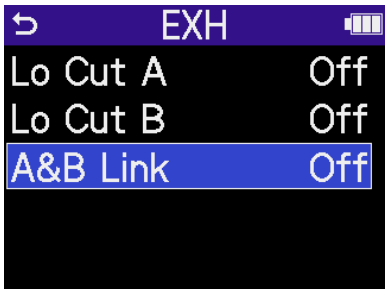
By stereo-linking the EXH-6e inputs, their signals can be handled as stereo audio.

1. On the Home Screen, use the (selection) dial to select (INPUT) and press the ENTER (ENTER) button.
   This opens the Input Settings Screen.

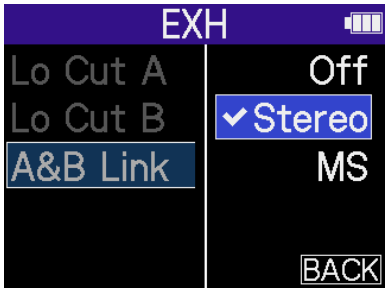
2. Use the (selection) dial to select “EXH” and press the ENTER (ENTER) button.



3. Use the (selection) dial to select “A&B Link” and press the ENTER (ENTER) button.



4. Use the (selection) dial to select the desired item to set and press the ENTER (ENTER) button.



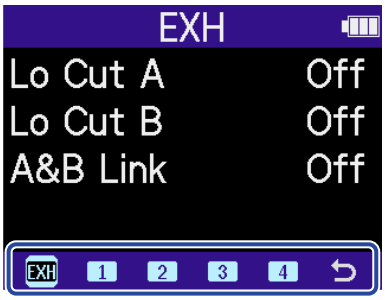
Setting value	Explanation
Off	Input signals will be handled as mono audio.
Stereo	The two EXH-6e input signals will be handled as stereo audio. INPUT A will become the L channel and INPUT B will become the R channel.
MS	The two EXH-6e input signals will be handled as audio captured in mid-side format. INPUT A will be used for the mid signal and INPUT B will be used for the side signal.

Setting the EXH-6e side level

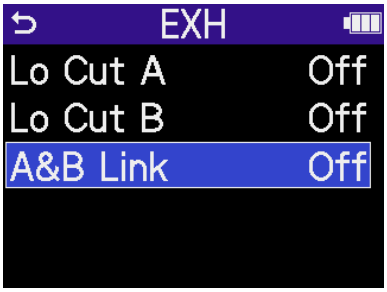
With the EXH-6e, if the input signal is set to “MS”, the side level can be set before recording, allowing the stereo width of the input sound to be adjusted.

1. On the Home Screen, use the (selection) dial to select (INPUT) and press the ENTER (ENTER) button.
   This opens the Input Settings Screen.

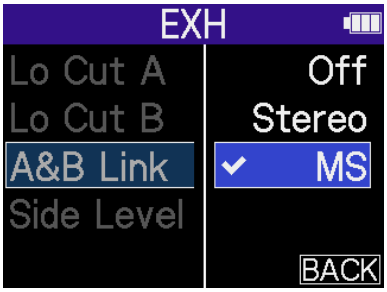
2. Use the (selection) dial to select “EXH” and press the ENTER (ENTER) button.



3. Use the (selection) dial to select “A&B Link” and press the ENTER (ENTER) button.



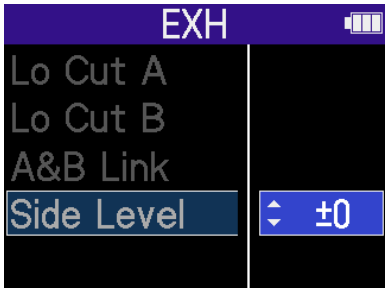
4. Use the (selection) dial to select “MS” and press the ENTER (ENTER) button.



5. Use the (selection) dial to select “Side Level” and press the ENTER (ENTER) button.



6. Use the (selection) dial to select the side level and press the ENTER (ENTER) button.



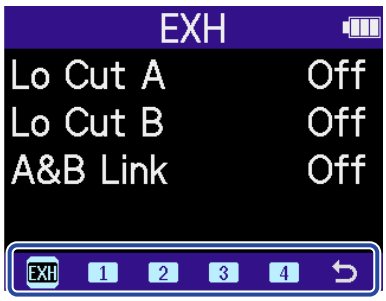
Setting value	Explanation
−24 – +6	The higher the number is the wider the sound becomes to the left and right.
Mute	The side mic will be muted.
Raw	The mid signal will be recorded to the L channel and the side signal will be recorded to the R channel of the stereo file. This setting is useful for changing the side level during post-production after recording.

Reducing noise when using an SSH-6e (Lo Cut)

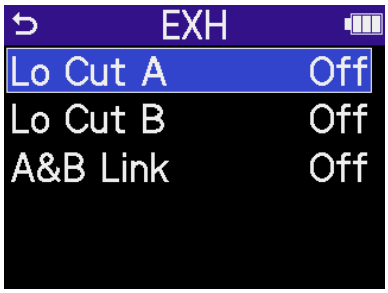
Low frequencies can be cut to reduce the sound of wind and vocal pop noises, for example.

1. On the Home Screen, use the (selection) dial to select (INPUT) and press the ENTER (ENTER) button.
   This opens the Input Settings Screen.

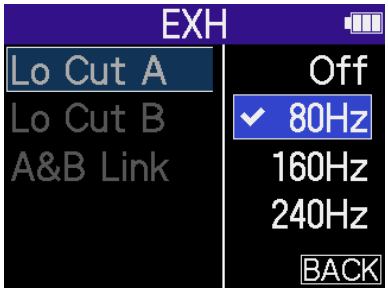
2. Use the (selection) dial to select “EXH” and press the ENTER (ENTER) button.



3. Use the (selection) dial to select “Lo Cut A” or “Lo Cut B” and press the ENTER (ENTER) button.



4. Use the (selection) dial to select the cut-off frequency and press the ENTER (ENTER) button.



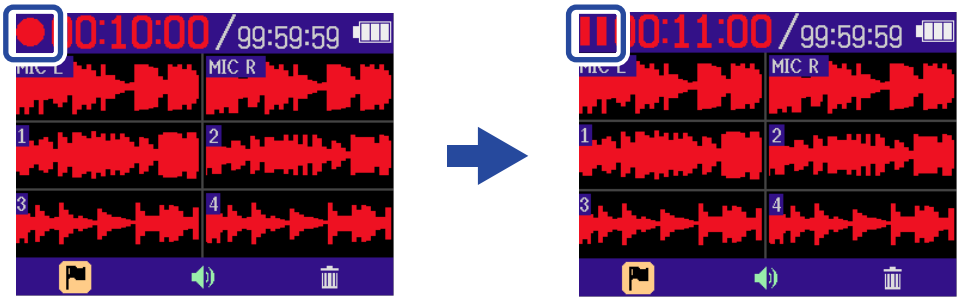
   Lo Cut can be set to Off, 80 Hz, 160 Hz or 240 Hz.

Pausing recording

By pausing recording and not recording unwanted intervals, microSD card capacity can be conserved.

1. Press the (PLAY/PAUSE) button when recording.

This pauses recording.



Press the (PLAY/PAUSE) button again to resume recording.

NOTE
Resuming recording will automatically add a mark at that point.

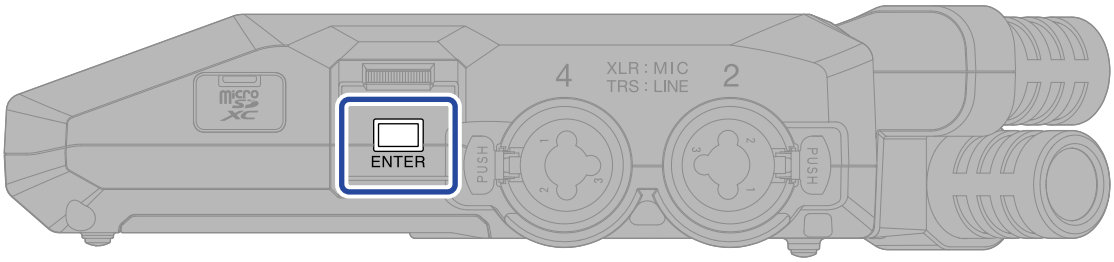
Function added in Version 1.1

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

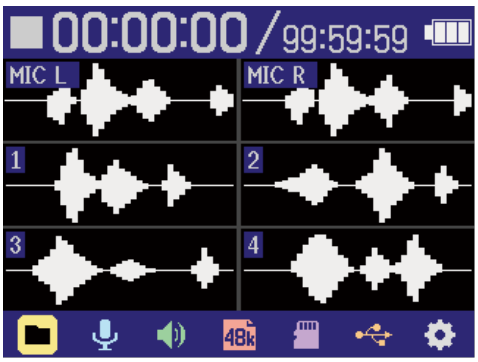
Turning guide sounds on/off with a shortcut

Turning the guide sound on/off

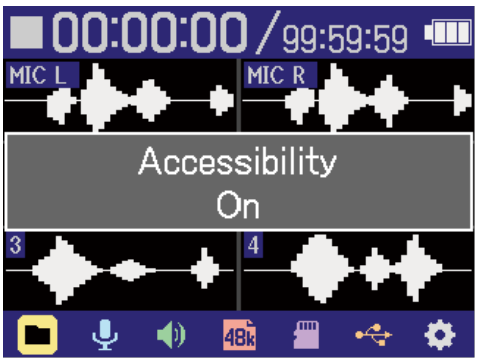
1. When the HOME screen is open, press and hold the ENTER (ENTER) button.



This turns on/off guide sounds.



Home Screen



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

Notes about this manual

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