



# **Handy Recorder** for Android™

Version 3.0

## Operation Manual



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Proper display is not possible on grayscale devices.

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## Introduction

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Handy Recorder is a high-performance PCM/AAC recording application that runs on Android. Use it together with ZOOM Am7 stereo mic for Android devices (hereafter, Am7) for high-quality stereo recording. In addition, you can use this app to play back and edit recorded files, to apply reverb and other effects to them and to share them. This app can also start and stop recording automatically in response to the input audio level.

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## Copyrights

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Android is a trademark of Google LLC.

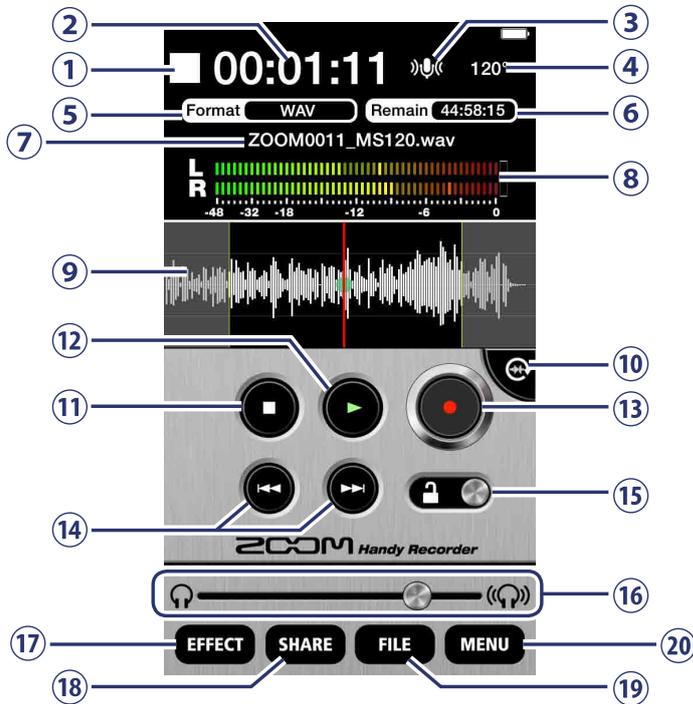
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# Main Screen

When you start Handy Recorder, the Main Screen appears.



## Information display

- ① This shows whether the app is recording, playing back, stopped or paused.
- ② This shows the current playback/recording time.
- ③ This shows the input status. (→P8)
- ④ This shows the width setting. If Am7 is connected, 90°, 120° or M-S will appear.
- ⑤ This shows the current recording format. (→P7)
- ⑥ This shows the remaining possible recording time on the Android device using the current format.
- ⑦ This shows the name of the file that is being recorded or played back.
- ⑧ This shows the playback levels when a file is playing back. Otherwise, it shows the current input levels.
- ⑨ This shows the waveform of the current file. It will be blank if there is no recorded file.

## Controls

- ⑩ **Rotate button** Touch to switch to landscape mode.
- ⑪ **Stop button** Touch when playing back or recording to stop. Touch when stopped to move the playback position to the beginning of the file.

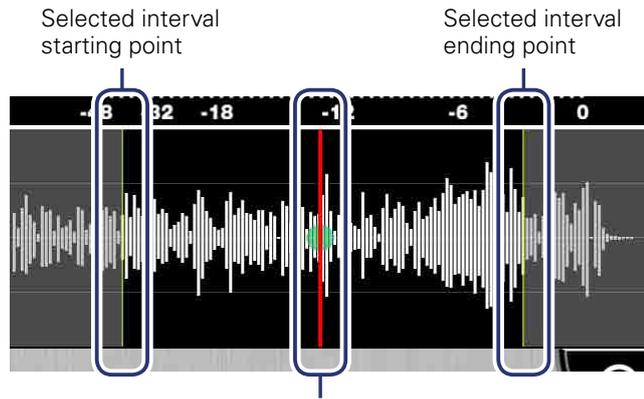
- ⑫ **Play button** Touch to start playing a recorded file. (→P12)
- ⑬ **Record button** Touch to start recording. (→P6)
- ⑭ **FF/REW buttons** Touch to change the current file. Hold during playback to search backward/forward. These do not function when recording or when there is no playback file.
- ⑮ **Lock slider** Lock to disable the Handy Recorder buttons. Unlock to enable use of the buttons. (→P32)
- ⑯ **Volume adjustment bar** Use to adjust the output volume. (This only appears when Am7 is connected.) When it appears, the Android device volume buttons are disabled.

## Menu buttons

- ⑰ **EFFECT** Use effects on recorded files. (→P20)
- ⑱ **SHARE** Share recorded files. (→P28)
- ⑲ **FILE** Manage and edit recorded files.
- ⑳ **MENU** Access automatic recording and other settings. (→P23–27)

## Waveform display

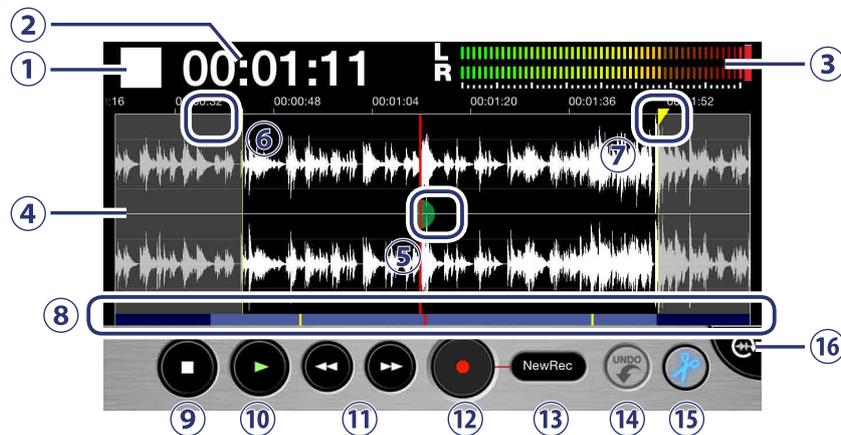
This shows the waveform of the selected file. If the file was recorded with left and right channels, the average value of the two channels will be shown. If the file was recorded in MS-RAW mode, only the mid (M) waveform will be shown. This area will be blank if there is no recorded file.



This shows the current playback position of the file playing. Slide it to a point to play back from there.

## Landscape mode

Press the rotate button to change to landscape mode.



### Indicators

- ① This shows whether the app is recording, playing back, stopped or paused.
- ② This shows the current playback/recording time.
- ③ This shows the playback levels when a file is playing back. Otherwise, it shows the current input levels.
- ④ This shows the waveform of the current file. If the file was recorded in stereo, two waveforms will be shown. The waveforms for files recorded with left and right channels will be shown with the left channel above and the right channel below. The waveforms for files recorded in MS-RAW mode will be shown with the mid (M) channel above and the side (S) channel below. Pinch out/in along the time axis to zoom in/out on the waveform.
- ⑤ This shows the current playback position of the file.
- ⑥ Drag this start locator to set the interval starting point.
- ⑦ Drag this end locator to set the interval ending point.
- ⑧ This shows how much of the entire file is being shown in the waveform display area above. Pinch out/in along the waveform time axis to zoom in/out on the file. The light blue interval is being shown above, while the dark blue parts are not being shown. The red line shows the current playback position, and the yellow lines show the starting and ending points of the selected interval.

### Buttons

- ⑨ **Stop**

Touch when playing back or recording to stop. Touch when stopped to move the playback position to the beginning of the file.
- ⑩ **Play**

Touch to start playing a recorded file. (→P12)
- ⑪ **FF/REW**

Move the playback position forward or backward one second. Hold during playback to search backward/forward. These do not function when recording or when there is no playback file.
- ⑫ **Record**

Touch to start recording. (→P6)
- ⑬ **Recording mode**

Touch to change the recording mode. (→P9)
- ⑭ **UNDO**

Use to undo an additional recording. After a recording is added, it will appear lit. If used to undo, it will become unlit again. (→P9)
- ⑮ **Edit**

Divide at the selected position or erase the selected interval. (→P15)
- ⑯ **Rotate button**

Touch to switch to portrait mode.

# Recording

Follow these steps to use the recording functions of the app.

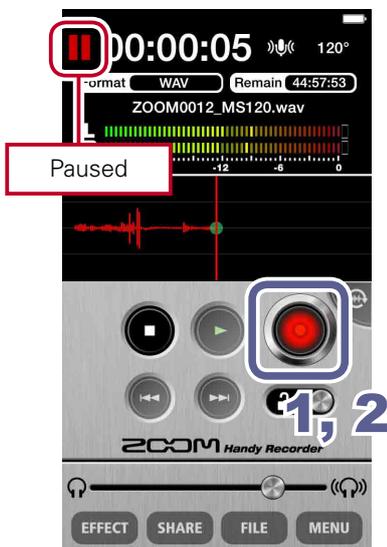


1. Touch   
During recording,  becomes red.
2. Touch   
Recording stops.

## NOTE

- By connecting headphones to Am7, you can listen to audio while it is recorded.
- Turn direct monitoring on to listen to audio as it is recorded without any time lag. (→P23)
- When using landscape mode, confirm that the recording mode is "New Rec" before starting a new recording.

## Pausing recording

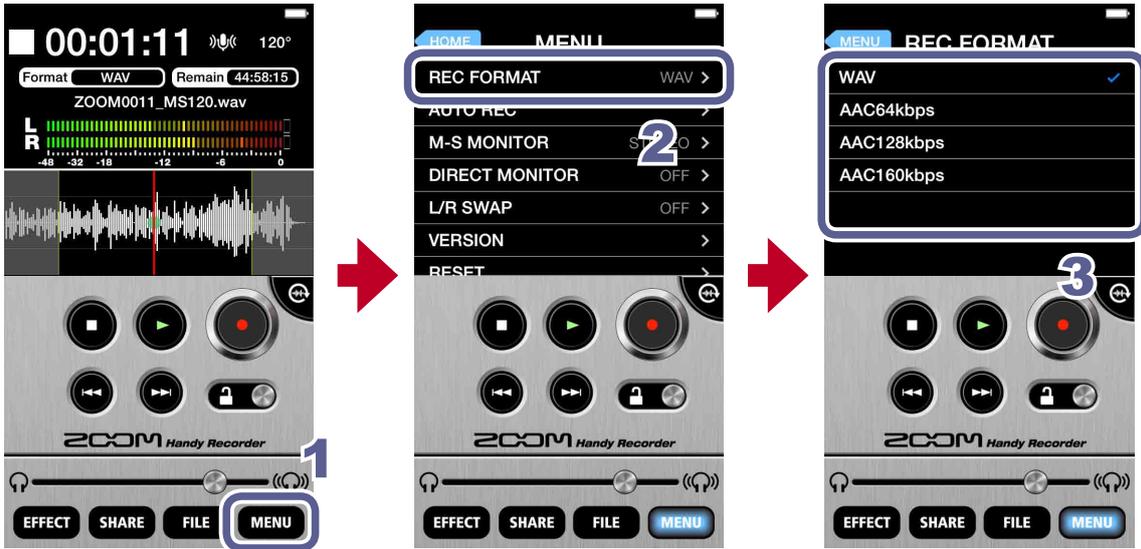


1. Touch  during recording  
When paused,  blinks red.
2. Touch  again  
Recording starts again.

## Adjusting the recording level

Use the MIC GAIN control on Am7 to adjust the recording level.

## Setting the recording format



1. Touch **MENU**
2. Touch **REC FORMAT**
3. Select the recording format

The default setting is WAV.

The options are WAV, AAC64kbps, AAC128kbps and AAC160kbps.

<b>WAV format</b>	Use to record with better audio quality.
<b>AAC format</b>	This lowers audio quality but also reduces file sizes, conserving storage space on the Android device.

### NOTE

- When using the WAV format, if the recording file size exceeds 2 GB, a new recording will be created automatically. When the new file is created, recording will continue without any gap. When using the AAC format, if the recording file size exceeds 400 MB, a new file will be created in the same manner.
- Audio sampling frequency=48kHz

## Muting the input

Follow these procedures to mute the input.



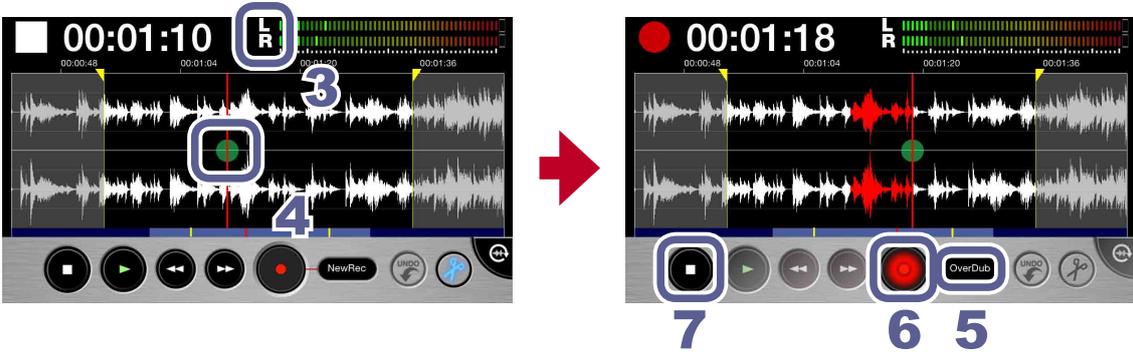
1. Touch 

This mutes the input.

2. Touch 

This unmutes the input.

You can start recording to an already recorded file from any point you like. Additional recordings can overwrite, overdub or be inserted into already recorded files.



1. Select a file on the Main Screen or the FILE screen (→P12)

2. Touch

The screen switches to landscape mode.

3. Check the recording format

If you want to record in standard stereo, confirm that the LR indicator appears between the time and the level meters.

If you want to record in mid-side mode, confirm that the MS indicator appears between the time and the level meters. (→P11)

**NOTE**

- Do not add MS recordings to already recorded stereo files or stereo recordings to already recorded MS files.
- Do not add stereo LR or MS recordings to already recorded mono files or mono recordings to already recorded stereo LR or MS files.

4. Slide to the point where you want to start additional recording

5. Touch **New Rec** and set the recording mode to **Overdub**, **Overwrite** or **Insert**

<b>Overdub</b>	This replaces the original recording with the new recording.
<b>Overwrite</b>	This combines the original recording with the new recording.
<b>Insert</b>	This inserts the new recording into the original recording.

**NOTE**

- If the recording mode is set to **New Rec**, a new file will be recorded.

## 6. Touch

Additional recording starts.

## 7. Touch

Additional recording stops. The waveform of this additional recording is shown in red.

## 8. Touch to undo this additional recording

This reverts the recording to the state before this additional recording was made.

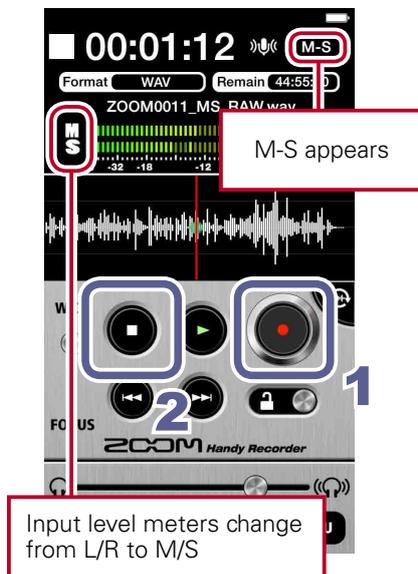
### NOTE

- If multiple additional recordings have been made, only the most recent additional recording can be undone.
- Additional recordings cannot be undone after they have been saved. Additional recordings are saved whenever a file is divided, trimmed or shared, a file with an effect applied is saved, a new recording file is created, a different file is selected or Handy Recorder is closed.
- When using the Overwrite and Overdub functions, you can set the interval of the additional recording. To set this interval, slide the start locator to the starting point and the end locator to the ending point.  
When using Overwrite, the file will be overwritten until the ending point of the selected interval where additional recording will stop automatically.  
When using Overdub, the file will be overwritten until the ending point of the selected interval, and then recording will automatically continue from the starting point, allowing repeated overdubbing.
- The recording format used to save an additional recording is the same as that of the originally recorded file.

## Using mid-side recording

Am7 only feature

This app can be used for mid-side recording. To use this function, connect Am7 and set its stereo width switch to M-S.



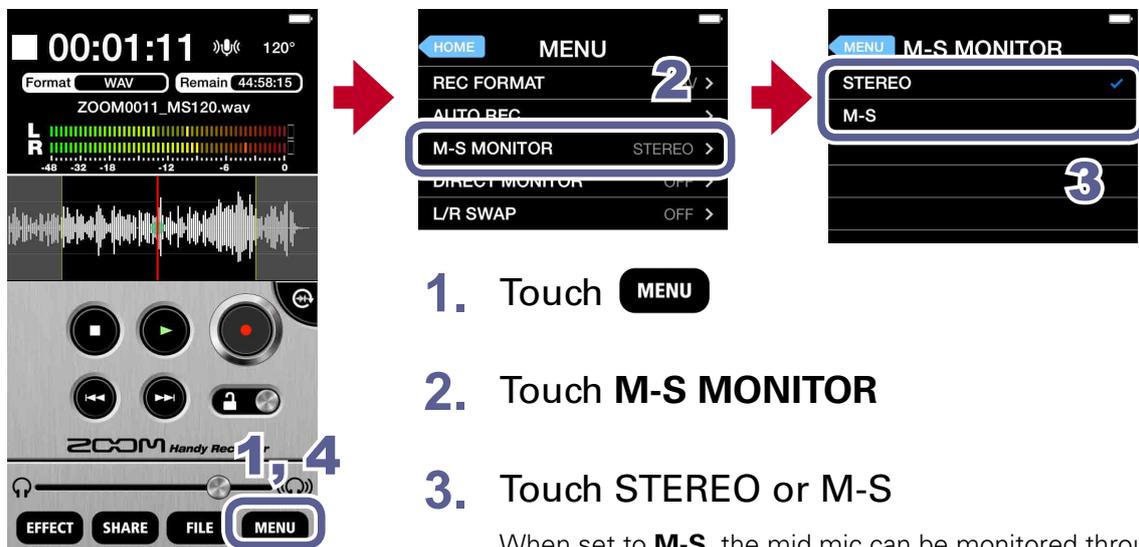
1. Touch 
2. Touch   
Recording starts.

### NOTE

- When you play a file that was recorded in mid-side mode, a stereo width adjustment control appears. Slide this to set the stereo width of the **audio during playback**.

## Setting mid-side monitoring

Set the type of monitoring to use when mid-side recording.



1. Touch **MENU**
2. Touch **M-S MONITOR**
3. Touch **STEREO** or **M-S**

When set to **M-S**, the mid mic can be monitored through the left channel and the side mic through the right channel.

4. Touch **MENU**  
The Main Screen reopens.

### NOTE

- When direct monitoring is on, the M-S MONITOR setting has no effect on the audio heard through Am7. The output will be as though set to M-S.

# Playback

Follow these steps to play back recorded files.

## Selecting and playing files



**NOTE**

- The volume set with the volume control bar is stored in Am7 itself and will be applied when Am7 is used with other applications.

Slide to adjust the output volume

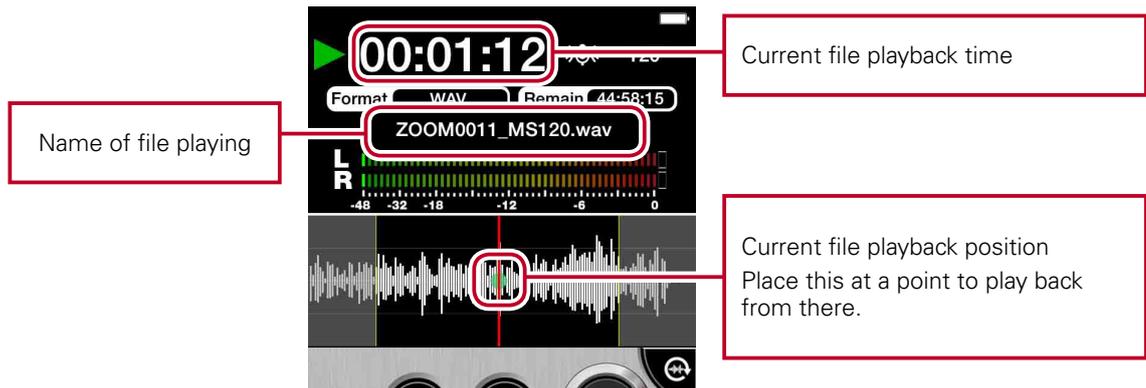
- Left to lower
- Right to raise

(Only appears when Am7 is connected)

1. On the Main Screen, use ◀ / ▶ to show the file you want to play

2. Touch ▶

Playback starts. During playback, ▶ lights green.



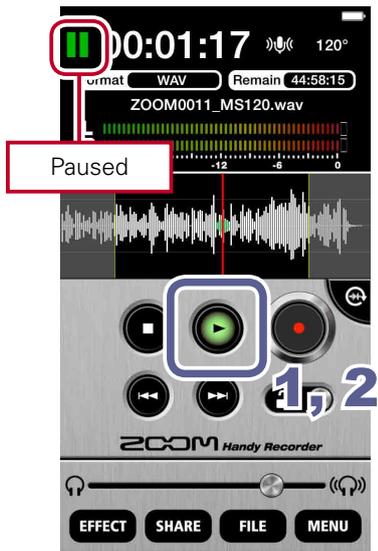
3. Touch ◻

Playback stops.

**NOTE**

- You can change the screen to landscape mode during file playback.
- In landscape mode, you can select the playback interval.
- In landscape mode, you cannot select files.

## Pausing playback

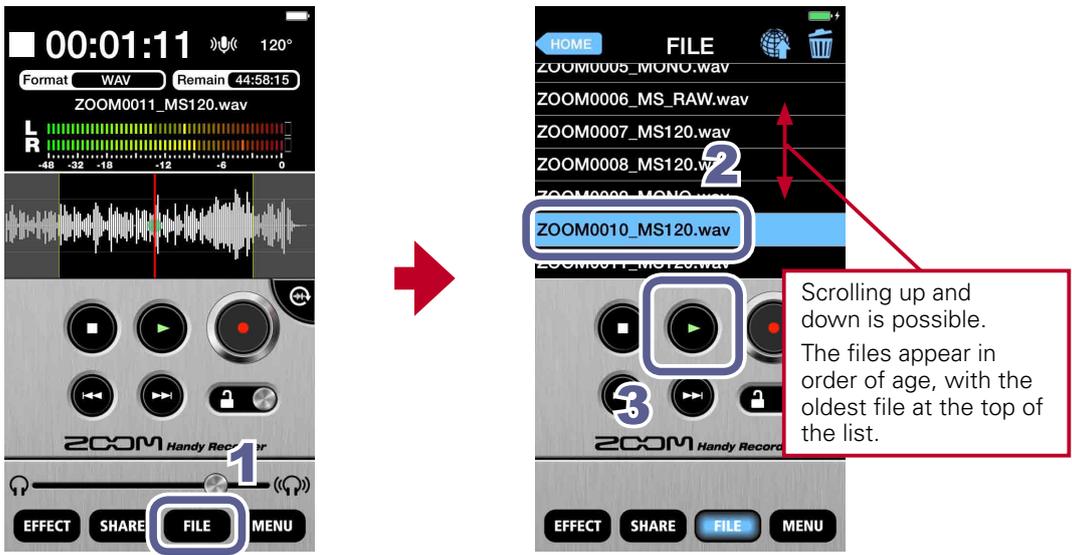


1. During playback, touch   
When paused,  blinks green.
2. Touch  again  
Playback starts again.

**NOTE**

- Pausing works the same way in landscape mode. Touch .

## Playing files from the FILE screen



1. Touch 
2. Touch the file name on the **FILE** screen  
The selected file is highlighted blue.
3. Touch   
During playback,  appears green.

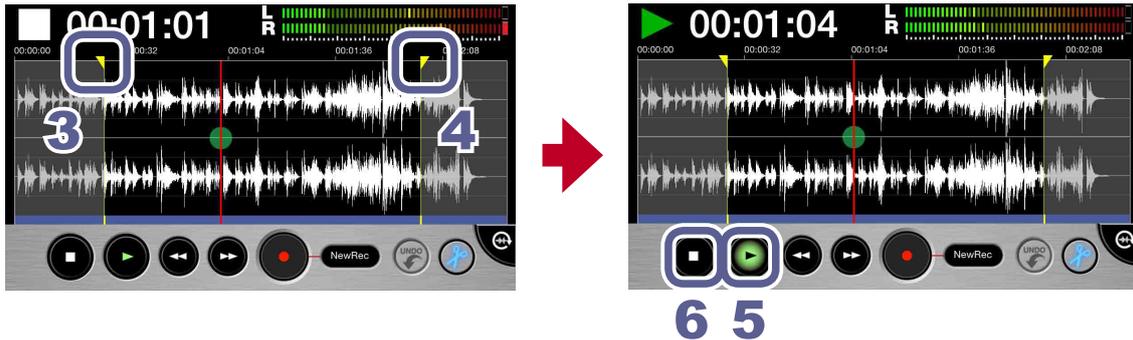
## Adjusting the playback level

When using Am7, slide the volume control.

When not using Am7, use the Android device volume buttons.

## Repeating playback of an interval

You can repeat playback between two set points. These points can only be set when in landscape mode.



1. Select a file from the Main Screen or the FILE screen (→P12)
2. Touch   
The screen switches to landscape mode.
3. Slide the start locator to the starting point  
This sets the starting point of the interval that will be played back repeatedly.
4. Slide the end locator to the ending point  
This sets the ending point of the interval that will be played back repeatedly.
5. Touch   
Repeat playback of the set interval starts.
6. Touch   
Repeat playback stops.

### NOTE

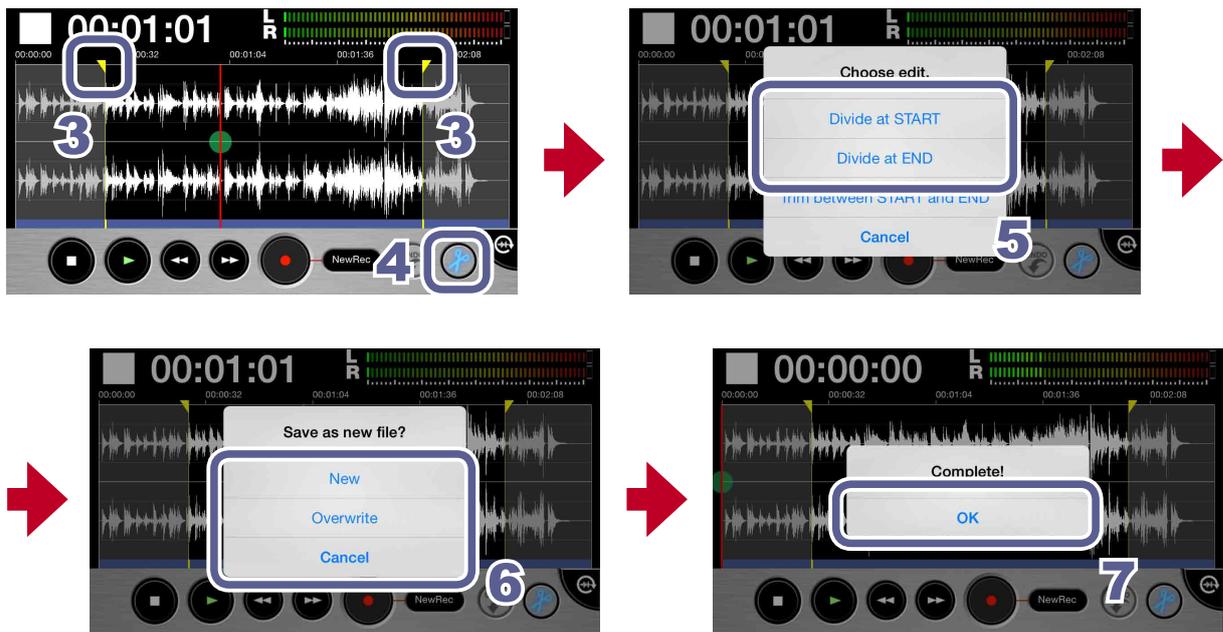
- You can even set the two points while the file is playing.

# Editing and deleting files

The app can be used to divide and delete recorded files, as well as to trim (delete) their beginnings and ends.

## Dividing files Landscape mode only

You can divide a recorded file into two parts. This function can only be used in landscape mode.



1. Select a file from the Main Screen or the FILE screen (→P12)
2. Touch   
The screen switches to landscape mode.
3. Slide the start or end locator to where you want to divide the file

### NOTE

- You can also play a file to confirm the division point.

4. Touch   
A "Choose edit." message appears.
5. Touch **"Divide at START"** or **"Divide at END"**  
A "Save as new file?" message appears.

## 6. Touch **New**, **Overwrite** or **Cancel**

A "Now Processing" message appears.

When file division completes, "Complete!" appears.

<b>New</b>	Create divided files and also save the original file.
<b>Overwrite</b>	Create divided files and delete the original file.
<b>Cancel</b>	Cancel division.

## 7. Touch **OK**

### NOTE

- During division, do not turn off the Android device or quit Handy Recorder. Doing so could cause loss of data.
- The first part of the divided file is saved with "A" added to the end of the original file name, and the second part is saved with "B" added to the end of the original name.

## Deleting file beginnings/ends Landscape mode only

You can delete (trim) unwanted beginnings and endings of files. This function can only be used in landscape mode.



1. Select a file from the Main Screen or the FILE screen (→P12)

2. Touch 

The screen switches to landscape mode.

3. Slide the start locator to the interval starting point

4. Slide the start locator to the interval ending point

5. Touch  to trim the file to the selected interval

A "Choose edit." message appears:

6. Touch "**Trim between START and END**"

A "Save as new file?" message appears.

When trimming completes, "Complete!" appears.

7. Touch **New, Overwrite** or **Cancel**

A "Now Processing" message appears.

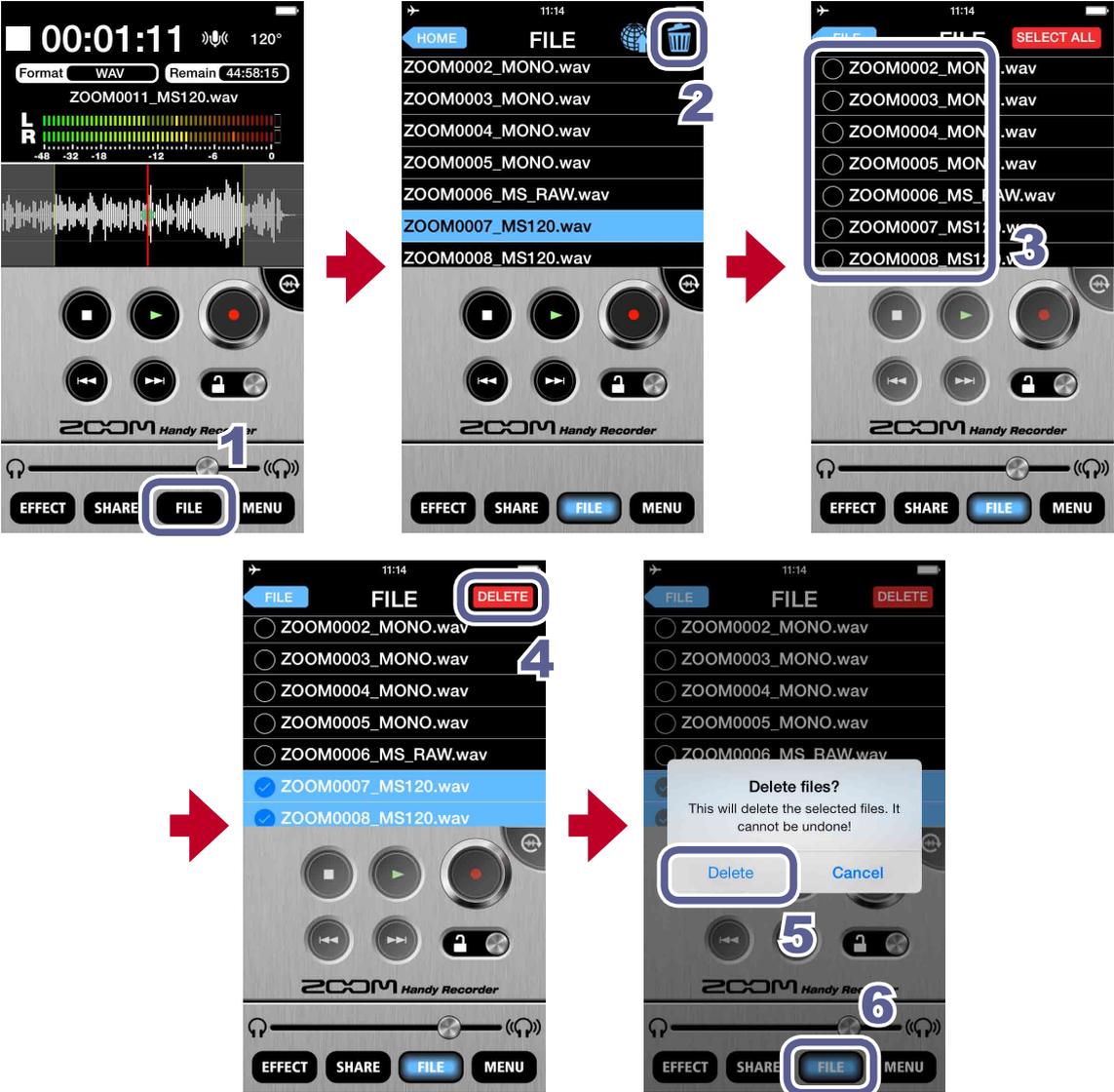
When trimming completes, "Complete!" appears.

<b>New</b>	Create trimmed file and also save the original file.
<b>Overwrite</b>	Create trimmed file and delete the original file.
<b>Cancel</b>	Cancel trimming.

8. Touch **OK**

# Deleting files

The app can be used to delete recorded files.



1. Touch **FILE**
2. Touch   
A screen opens where you can select files to delete.
3. Touch the names of files that you want to delete  
 marks appear next to the names of selected files. You can select multiple files.

#### 4. Touch **DELETE**

A confirmation message appears:

“Delete File? This will delete the selected file(s). It cannot be undone!”

#### 5. Touch **“Delete”**

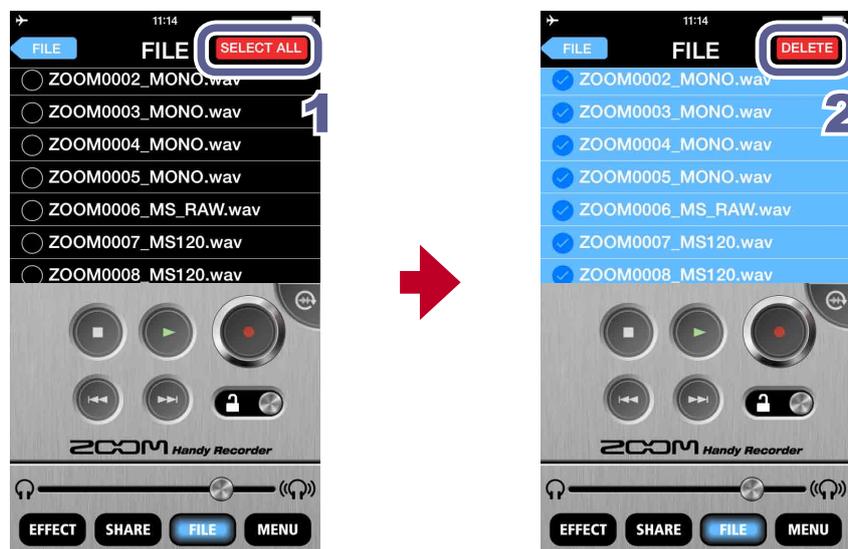
The FILE Screen reappears after deletion completes.

#### 6. Touch **FILE**

The Main Screen reopens.

### Deleting all files

You can delete all the files in the app at the same time.



#### 1. Touch **SELECT ALL** on the file deletion selection screen

This selects all the files.

#### 2. Touch **DELETE**

A confirmation message appears:

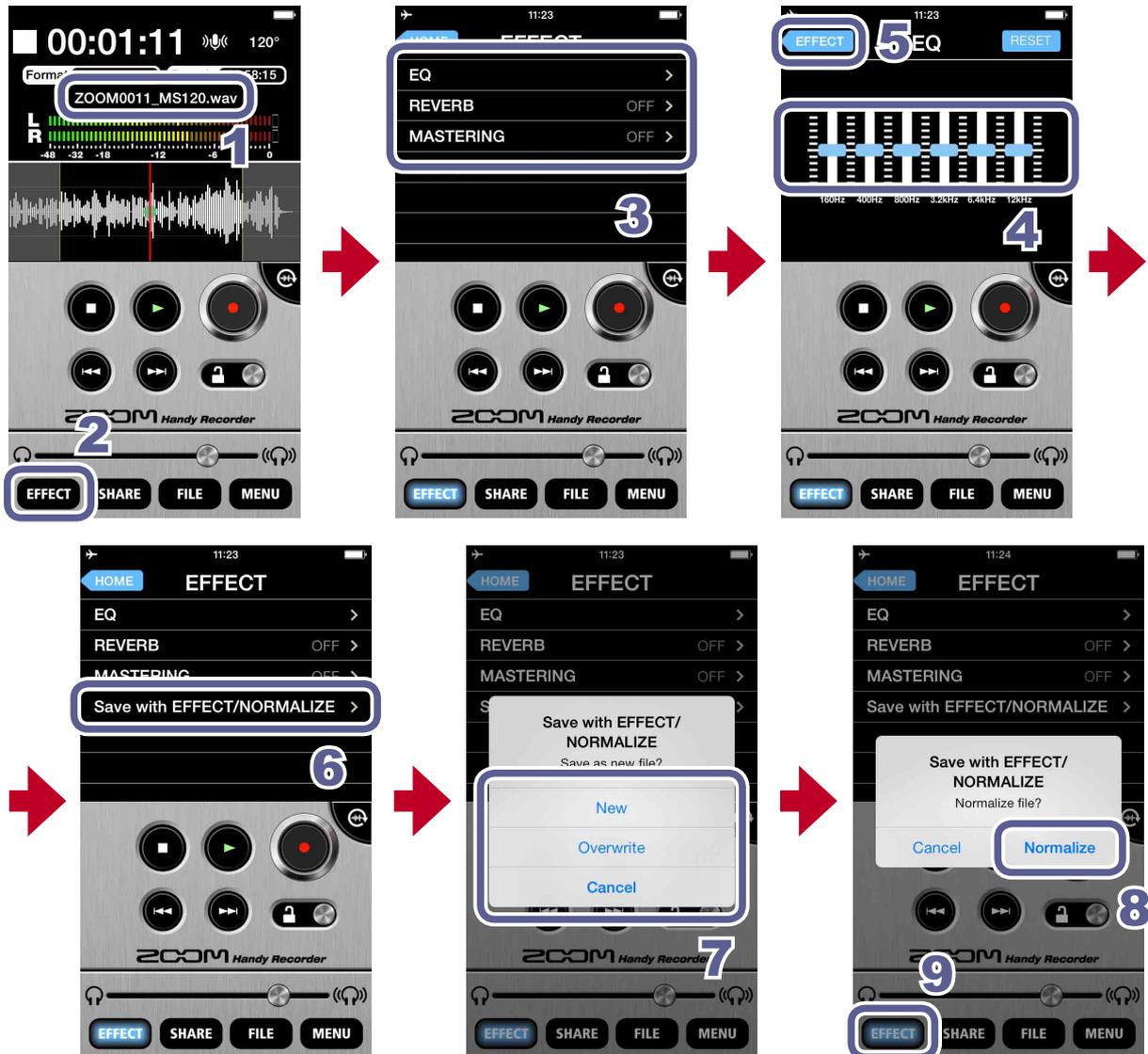
“Delete files? This will delete the selected files. It cannot be undone!”

#### 3. Touch **“Delete”**

All the files are deleted.

# Using effects

The app can be used to apply effects to recorded files.



1. Select a file from the Main Screen or the FILE screen (→P12)
2. Touch **EFFECT**
3. Touch **EQ**, **REVERB** or **MASTERING**
4. Make effect settings

For details about how to use and set each effect, see P22.

5. Touch **EFFECT** on the effect setting screen
6. Touch **“Save with EFFECT/NORMALIZE”**
7. On the **“Save as new file?”** message, touch **New, Overwrite** or **Cancel** to select how the file is saved

<b>New</b>	The original file is not changed. A new file is created with the effect applied. The new file is saved and named with the newest number.
<b>Overwrite</b>	The original file is overwritten with the effect applied.
<b>Cancel</b>	No file is created with the effect applied.

8. To optimize the file volume, touch **YES** on the **“Normalize file?”** message

When normalization completes, “Complete!” appears.  
Touch **CANCEL** to save the file without optimizing the volume.

**NOTE**

- While saving a file, do not turn off the Android device or quit Handy Recorder. Doing so could cause loss of data.

9. Touch **EFFECT**

The Main Screen reopens.

**NOTE**

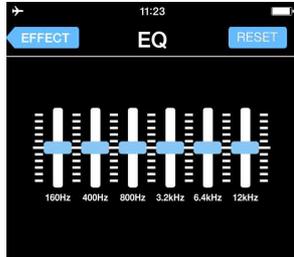
- After making effect settings, you can play back the file to hear the affected audio.
- Effect settings are applied to audio playback. They are not applied to input audio.

# Effect settings

## EQ (adjust/correct sound quality)

Slide the  faders on the frequency bands (160Hz/400Hz/800Hz/3.2kHz/6.4kHz/12kHz) to adjust the sound quality.

Touch **RESET** to restore sound to its flat state (no EQ).



## REVERB (add sound reverberations)

This is **OFF** by default.

Touch **ROOM**, **JAZZ CLUB**, **CONCERT HALL**, **ARENA** or **STADIUM**.



### REVERB

<b>OFF</b>	Off
<b>ROOM</b>	Simulates the reverberations of a room
<b>JAZZ CLUB</b>	Simulates the reverberations of a jazz club
<b>CONCERT HALL</b>	Simulates the reverberations of a concert hall
<b>ARENA</b>	Simulates the reverberations of an arena
<b>STADIUM</b>	Simulates the reverberations of a domed stadium

## MASTERING (increase impact)

This is **OFF** by default.

Touch **MAXIMIZE**, **ULTRA MAXIMIZE**, **CLEAR & POWER**, **WIDE** or **MONO**.



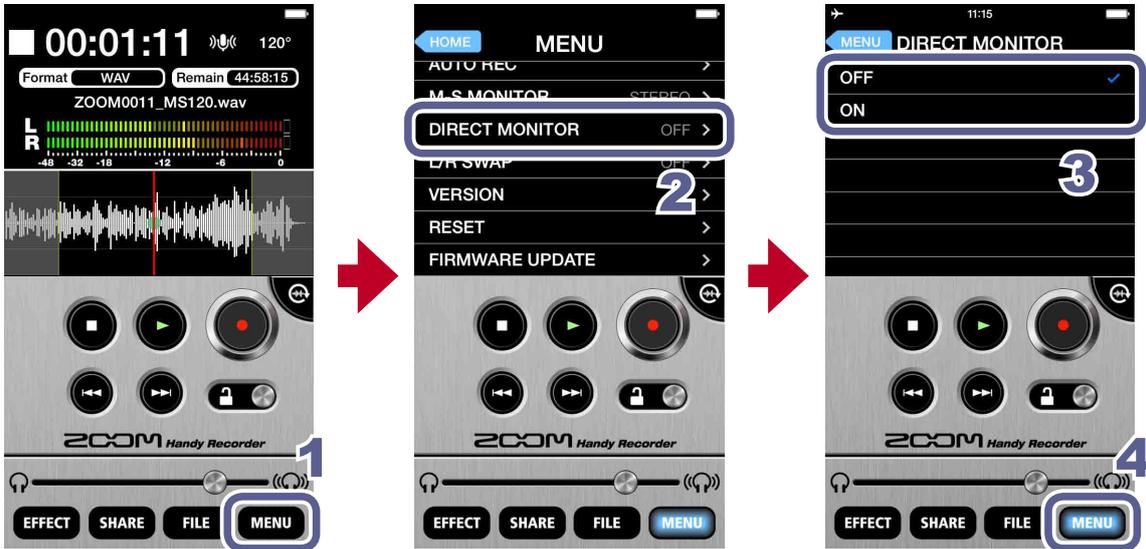
### MASTERING

<b>OFF</b>	Off
<b>MAXIMIZE</b>	Evens the volume level with soft compression
<b>ULTRA MAXIMIZE</b>	Evens the volume level with strong compression
<b>CLEAR &amp; POWER</b>	Emphasizes mid frequencies with compression
<b>WIDE</b>	Emphasizes stereo elements
<b>MONO</b>	Centers all sound dispersed to the left or right

# Enabling direct monitoring

Am7 only feature

Sound can be output directly from the mic for monitoring without any time lag.



1. Touch **MENU**
2. Touch **DIRECT MONITOR**
3. Touch **ON** or **OFF**
4. Touch **MENU**

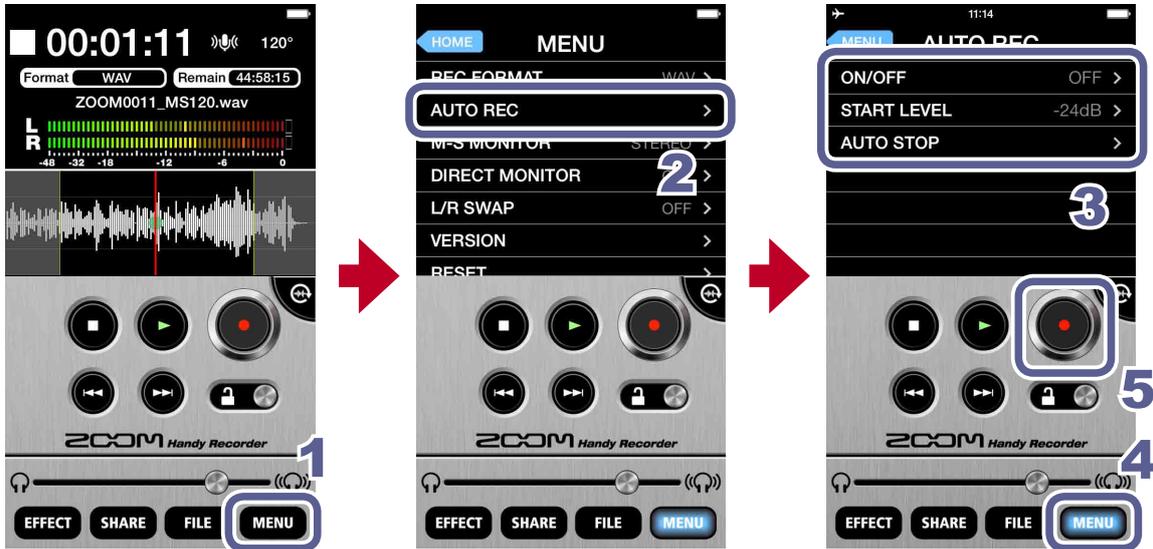
The Main Screen reopens.

## NOTE

- The direct monitoring setting has no effect when using Am7 with any app other than Handy Recorder.
- When direct monitoring is on, you will be able to monitor sounds input through the mic even when a file is playing back.
- When direct monitoring is on, the M-S MONITOR setting has no effect on the audio heard through Am7. The output will be as though set to M-S.

# Using AUTO REC

The AUTO REC function can be set to start and stop recording automatically.



1. Touch **MENU**

2. Touch **AUTO REC**

You can turn automatic recording ON/OFF and set its start level and stop conditions.

3. Touch **ON/OFF**, **START LEVEL** or **AUTO STOP**

See P25–27 for how to make each setting.

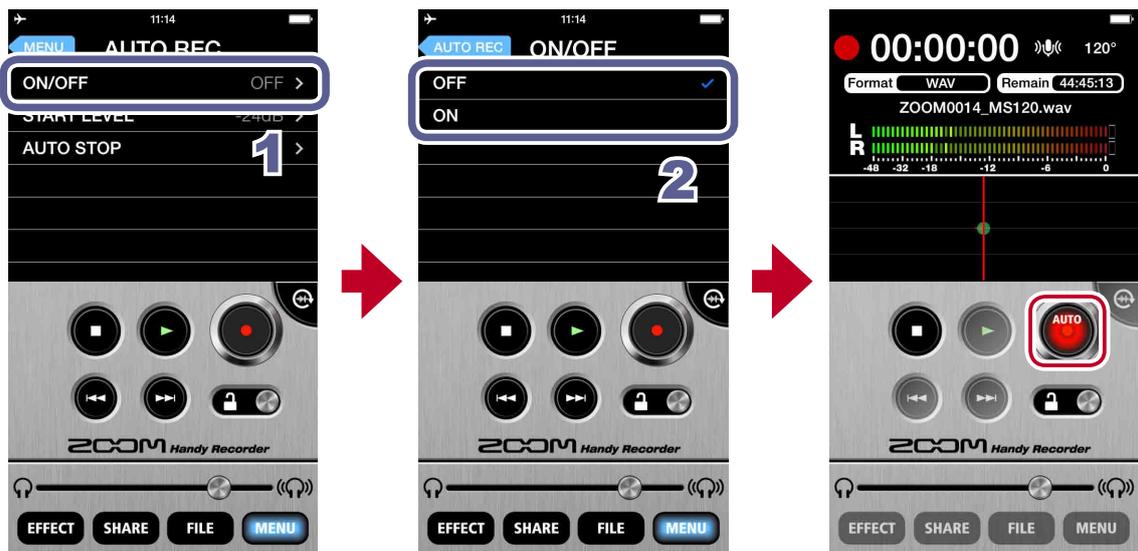
4. Touch **MENU**

The Main Screen reopens.

5. Touch 

Recording will start automatically when the input level exceeds the **START LEVEL**.

## Turning the AUTO REC function ON/OFF



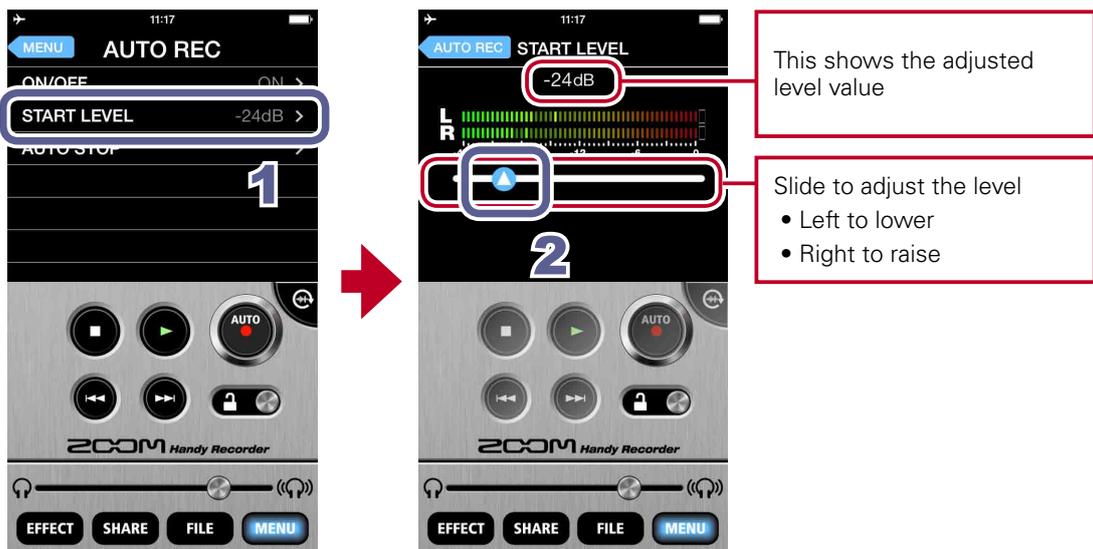
1. Touch **ON/OFF** on the **AUTO REC** screen

2. Touch **ON** or **OFF**

When set to **ON**, "AUTO" will appear on the Record button.

## Setting the START LEVEL

Set the level that causes automatic recording to start.



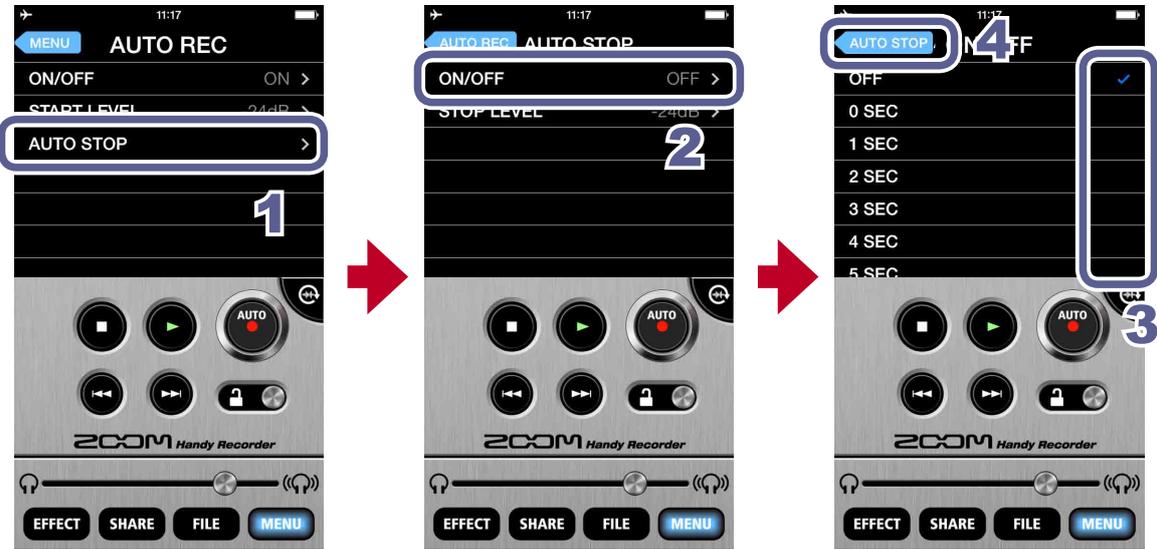
1. Touch **START LEVEL** on the **AUTO REC** screen

2. Slide  to adjust the automatic recording start level

You can set this level between  $-48\text{dB}$  and  $0\text{dB}$ . The default setting is  $-24\text{dB}$ .

## Turning the AUTO STOP function ON/OFF

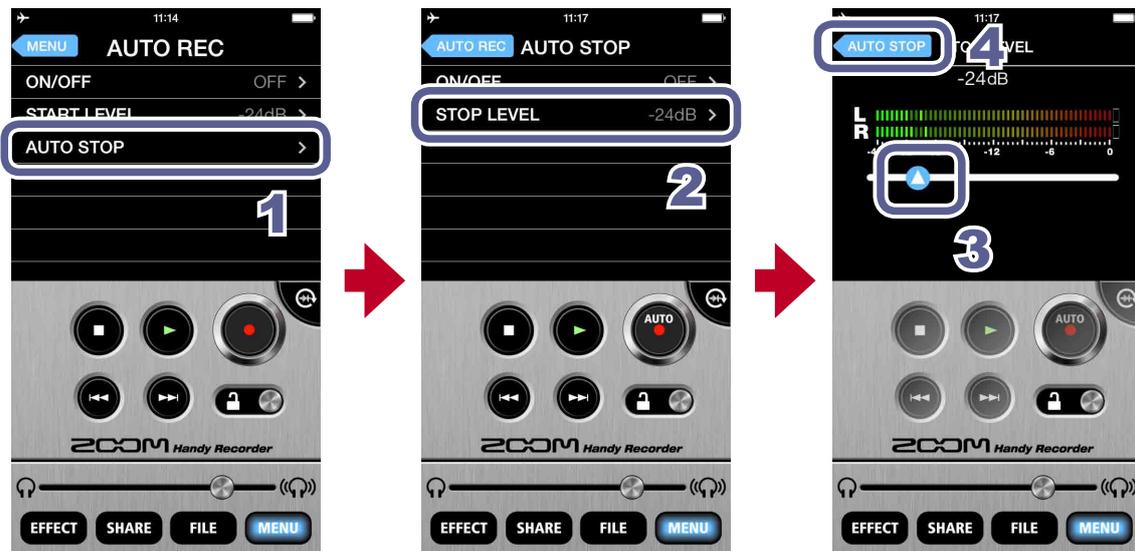
Set the number of seconds until automatic recording stops after the level goes below the set STOP LEVEL.



1. Touch **AUTO STOP** on the **AUTO REC** screen
2. Touch **ON/OFF**
3. Touch the number of seconds until automatic recording stops
4. Touch **AUTO STOP**  
The **AUTO STOP** screen reopens.

## Setting the STOP LEVEL

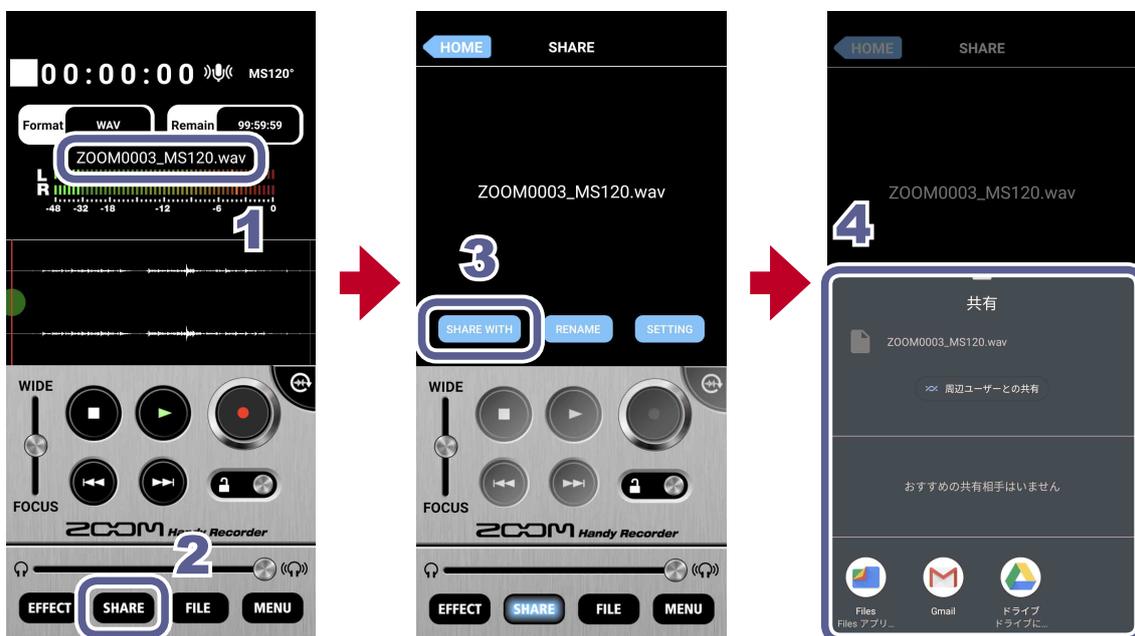
Set the level at which automatic recording stops.



1. Touch **AUTO STOP** on the **AUTO REC** screen
2. Touch **STOP LEVEL**
3. Slide  to adjust the automatic recording stop level  
You can set this level between  $-48\text{dB}$  and  $0\text{dB}$ . The default setting is  $-24\text{dB}$ .
4. Touch   
The **AUTO STOP** screen reopens.

## Sharing recorded files

You can share the recorded file using the Android device's file sharing function.



### 1. Load the file on the Main Screen (→P12)

#### NOTE

- If an interval is selected, the file will be trimmed to that interval before being uploaded.

### 2. Touch **SHARE**

### 3. Touch **SHARE WITH**

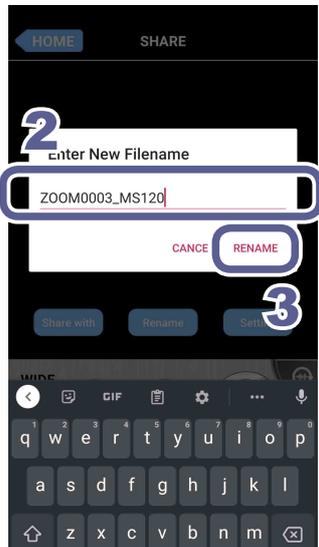
### 4. Operate the Android device's file sharing function to share the file.

## Sharing files from the FILE screen



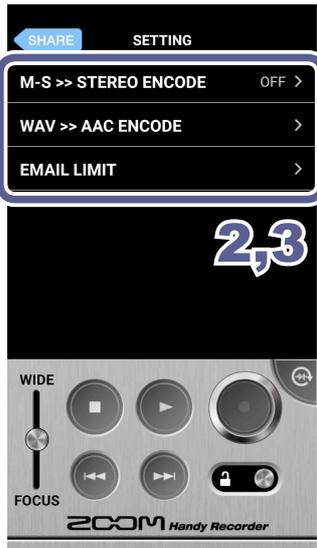
1. Select the file you want to upload on the FILE screen (→P13)
2. Touch   
The SHARE screen opens. See P28 for additional steps.

## Changing the name of a shared file



1. Touch **RENAME** on the **SHARE** screen  
“Enter New File name” appears.
2. Input the file name
3. Touch **RENAME**  
The file name is changed.

## Changing sharing settings



1. Touch **SETTING** on the **SHARE** screen  
The **SETTING** screen appears.
2. Touch **M-S >> STEREO ENCODE**, **WAV >> AAC ENCODE** or **EMAIL LIMIT**
3. Change the setting

<b>M-S &gt;&gt; STEREO ENCODE</b>	Set whether mid-side recording files are converted to stereo before uploading ( <b>ON/OFF</b> ). During conversion, the stereo width adjustment setting is used. (→P11)
<b>WAV &gt;&gt; AAC ENCODE</b>	Set whether WAV format files are converted to AAC format before uploading ( <b>OFF/64kbps/128kbps/160kbps</b> ).
<b>EMAIL LIMIT</b>	Set the maximum size of files attached to email ( <b>1–25MB</b> ).

**NOTE**

- The **EMAIL LIMIT** setting is only for email.

# Updating Am7 firmware

Connect Am7 to update its firmware to the latest versions.



1. Touch **MENU**
2. Scroll down the **MENU**, and touch **FIRMWARE UPDATE**

If Am7 is connected properly, the current version and the latest version will be shown.

## NOTE

- If "Unsupported function." appears, Am7 is not connected properly.

3. Touch **OK**

4. When “Version Update?” appears, touch **Continue**

Touch **Cancel** to stop the update.

**NOTE**

- During a firmware update, do not disconnect Am7 from the Android device or quit Handy Recorder.
- When updating the firmware, use of the Android device’s phone or alarm functions could cause the update to fail and the Android to become unstartable. When updating, always put the Android device into Airplane Mode and turn off any alarms.
- Before starting a firmware update, confirm that the Android device has enough remaining battery power.

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## Locking the controls

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You can disable the Handy Recorder controls by activating the lock.



1. Slide left

This locks the controls.

2. Slide right

This unlocks the controls.

**NOTE**

- Landscape mode cannot be used when locked.

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## Other options

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### Swapping left and right input channels

Am7 only feature

The left and right channels can be swapped when using Am7. Use this function when the left and right channels of Am7 are actually reversed, such as when using the built-in camera of the Android device to record video.

**1. Touch **MENU****

The **MENU** screen opens.

**2. Touch L/R SWAP**

The L/R SWAP screen opens.

**3. Touch ON or OFF**

Turn ON to swap the left and right channels of Am7. The default value is OFF.

The **L/R SWAP** setting made with Handy Recorder is stored in Am7, so the setting will also be applied when using Am7 with other apps.

### Restoring default settings

You can restore Handy Recorder to its default settings.

**1. Touch **MENU****

The **MENU** screen opens.

**2. Touch **RESET****

A "Reset all Handy Recorder settings? It cannot be undone!" message appears.

Touch **Reset** to restore the default settings, or touch **Cancel** to keep the current settings.

When resetting finishes, "Complete!" appears.

System requirements: Android 9.0 or later



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