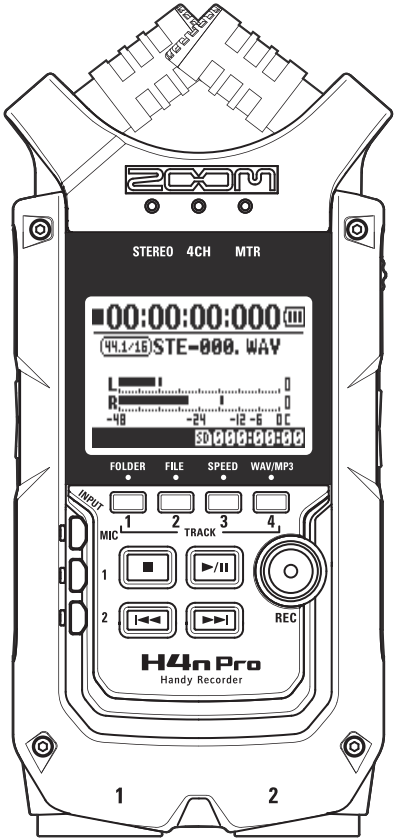


H4n Pro Handy Recorder

OPERATION MANUAL

H4n Pro features

Thank you very much for purchasing our ZOOM H4n Pro Handy Recorder.
The H4n Pro has the following special features.

• An all-in-one handy recorder.

The H4n Pro is lightweight (294 g) with a very compact design and is equipped with high quality stereo condenser microphones arranged in an XY pickup pattern, a built-in speaker, SD card recording, a mixer and internal effects.
You can enjoy recording and creating your own music anytime, anywhere with the H4n Pro.

• Versatile field recorder with multi-track capability.

The H4n Pro is capable of recording in several different operation modes. STEREO mode enables high-quality stereo recording. 4CH mode can record 2 sound sources simultaneously in stereo. MTR mode allows playback of 4 tracks and recording of 2 tracks simultaneously. You can use it as a field recorder to record melodies and band performances on-the-fly and to capture sound effects. You can also use it as a multitrack recorder to make songs by overdubbing instruments and vocals. Furthermore, in STAMINA mode you can record in stereo for up to 11 hours using batteries only.

• New 90/120°-variable XY stereo mic

The H4n Pro allows you to adjust the angle of the onboard microphones to address a wider range of recording scenarios. Set the microphones to 120° for a wider area of sound, or set them to 90° for a more focused sound source. Either way, the mics retain their XY configuration, so you can record natural stereo sound with no phase cancellation.

• Connect mics and guitars directly using combined XLR/ standard phone jacks

The H4n Pro includes input jacks for connections that can accommodate a variety of recording styles. Microphones, including stereo mics and condensers, electric guitars, basses and keyboards can all be connected directly.

• Use as an audio interface and SD card with a computer

An onboard USB 2.0 Hi-Speed port allows direct connection to a computer. You can use it as an audio interface with built-in effects (sampling rate limited to 44.1 kHz when using the effects). You can also use the H4n Pro as an SD card reader for your computer. You can transfer recorded files to your computer and use them to create audio CDs or work with them in DAW software.

• Tuner, metronome, karaoke and various other functions

The tuner functions include not only a standard chromatic tuner, but also support less common tunings, such as for 7-string guitars and 5-string basses. The metronome function is convenient for practice and multitrack recording. You can also use the H4n Pro as a practice device.
Use the SPEED function to adjust the playback speed from 50–150%. The KARAOKE functions include center canceling for stereo files and variable key control, making it valuable for language learning and voice training.

Please read this manual carefully to fully understand the functions of the H4n Pro so that you can make the most of it for many years.
After reading this manual, please keep it with the warranty in a safe place.

The H4n Pro is ideal for these applications

Vocal recording

Recording acoustic guitars

Piano recitals

Recording live performances

Band practices

Transferring analog sound sources to digital

Recording meetings

Field recording

Drum practice recording

Contents

Getting started

Operations

Reference

Safety precautions for users

SAFETY PRECAUTIONS

In this manual, warning and caution symbols are used to highlight dangers of accidents and troubles. Users should read them to prevent accidents. The meanings of these symbols are as follows:

Warning	If the users ignore this symbol and handle the device the wrong way, serious injury or death could result.
Caution	If the users ignore this symbol and handle the device the wrong way, bodily injury and damage to the equipment could result.

!	An action that is mandatory
⃠	An action that is prohibited

Please read through the following safety tips and precautions to ensure hazard-free use of the H4n Pro.

Power requirements

Warning

AC adapter operation

- ! Make sure to use only a DC5 center plus 1A (ZOOM AD 14) AC adapter. The use of other than the specified type could damage the unit and pose a safety hazard.
  Connect the AC adapter only to an AC outlet that supplies the rated voltage required by the adapter.
- ! When disconnecting the AC adapter from the AC outlet, make sure to grasp the adapter itself. Never pull on the cable.
- ! During lightning or when not using for an extended period, disconnect the AC adapter from the AC outlet.

Battery operation

- ! Use 2 commercially-available 1.5V AA batteries (alkaline dry cell batteries or nickel metal hydride batteries).
- ! When not using for an extended period, remove the batteries from the unit.
- ! If battery leakage has occurred, wipe the battery compartment and battery terminals carefully to remove all remnant of battery fluid.
- ! When using the unit, the battery compartment cover should be closed.

Caution

- ! Install batteries with the correct +/– orientations.
- ⃠ Do not use new and old batteries together. Do not use batteries of different brands or types together.

Environment

Warning

- ⃠ To prevent unexpected troubles and malfunctions, avoid using the H4n Pro in environments where it will be exposed to:
  - Extreme temperatures
  - Heat sources such as radiators or stoves
  - High humidity or moisture
  - Excessive dust or sand
  - Excessive vibration or shock

Handling

Caution

- ⃠ The H4n Pro is a precision instrument. Do not exert undue pressure on the keys and other controls. Take care not to drop or bump it, and do not subject it to shock or excessive pressure, which can cause serious trouble.
- ⃠ Take care that no foreign objects (coins, pins, etc.) or liquids (water, alcoholic drinks or juice) enter the unit.
- ⃠ Do not place the H4n Pro speaker close to other precision instruments (watches and computers), electronic medical instruments or magnetic cards.

Connecting cables and input and output jacks

Caution

- ! You should always turn off the power to the H4n Pro and all other equipment before connecting or disconnecting any cables. Make sure to disconnect all connection cables and the power cord before moving the H4n Pro.

Alterations

Warning

- ⃠ Never open the case of the H4n Pro or attempt to modify the product in any way since this could result in damage to the unit.

Volume

Caution

- ! Do not use the H4n Pro at a loud volume for a long time since this could cause hearing impairment.

USAGE PRECAUTIONS

Electrical interference

For safety considerations, the H4n Pro has been designed to provide maximum protection against the emission of electromagnetic radiation from inside the device, and protection from external interference. However, equipment that is very susceptible to interference or that emits powerful electromagnetic waves should not be placed near the H4n Pro, as the possibility of interference cannot be ruled out entirely.
With any type of digital control device, the H4n Pro included, electromagnetic interference could cause malfunction and could corrupt or destroy data. Care should be taken to minimize the risk of damage.

Cleaning

Use a soft, dry cloth to clean the H4n Pro. If necessary, slightly moisten the cloth. Do not use abrasive cleanser, wax, or solvents (such as paint thinner or cleaning alcohol), since these may dull the finish or damage the surface.

Breakdown and malfunction

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

Please keep this manual in a convenient place for future reference.

Copyright warnings

■ Recording of live performances

Many artists and most live venues do not allow recording and photography and will check for cameras and recorders at the entrance. Even if recording is allowed, it is prohibited to sell, distribute, or upload to the Internet without the organizers authorization. Copyright violation is a crime.

■ Music CDs and downloaded sound sources

Using music recorded on CDs and other media as well as downloaded sound sources for purposes other than personal enjoyment (including, for example, playing them in a concert hall or other location and altering songs) could be a violation of copyright laws.

Zoom Corporation will not assume any responsibility related to infringements of copyrights.

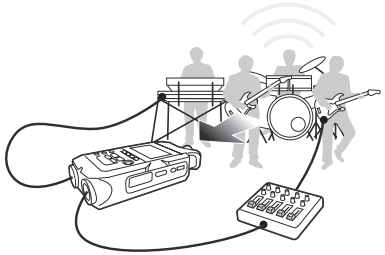
Getting started

1-1 Recording flow using the H4n Pro

The following is the basic flow of recording operations for the H4n Pro. Depending on the recording application, you can select which recording mode and audio quality setting is right for the situation.

Connect to other audio devices

In addition to the built-in mic, you can use the external stereo mic input jack and INPUT 1 and 2 external input jacks. Phantom power and plug in power are also supported.



›››› P.027

Turn the power on

P.017

Set-up

Select the mode

You can select among 4 modes according to the input source types, and post-recording editing and output needs.

- STEREO Mode
- 4CH Mode
- MTR Mode
- STAMINA Mode

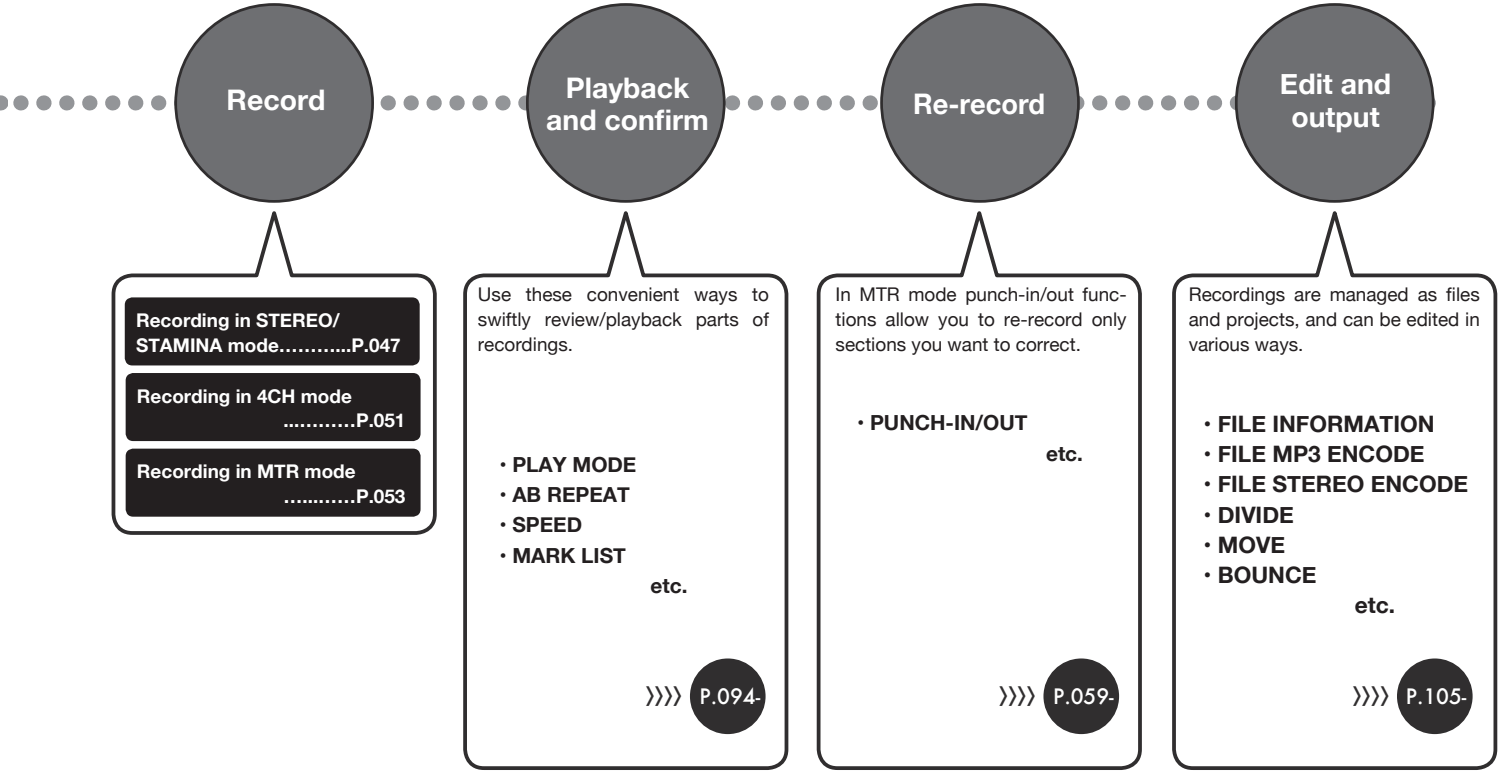
›››› P.035

Set the recording method

Set the recording level and other settings as you like.

- **AUTO REC**
- **REC LEVEL AUTO**
- **LO CUT**
- **COMP/LIMIT**
- **MONO MIX**
- **METRONOME**
- **EFFECT/PATCH**
- **KARAOKE** **etc.**

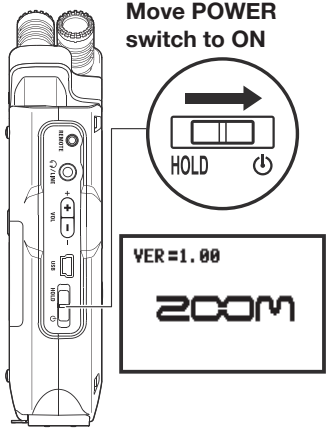
›››› P.063-


Record
Playback and confirm
Re-record
Edit and output
Recording in STEREO/ STAMINA mode.....P.047
Recording in 4CH mode P.051
Recording in MTR mode P.053
Use these convenient ways to swiftly review/playback parts of recordings.
• PLAY MODE
• AB REPEAT
• SPEED
• MARK LIST
etc.
P.094-
In MTR mode punch-in/out functions allow you to re-record only sections you want to correct.
• PUNCH-IN/OUT
etc.
P.059-
Recordings are managed as files and projects, and can be edited in various ways.
• FILE INFORMATION
• FILE MP3 ENCODE
• FILE STEREO ENCODE
• DIVIDE
• MOVE
• BOUNCE
etc.
P.105-

1-2 Easy recording guide (STEREO mode)

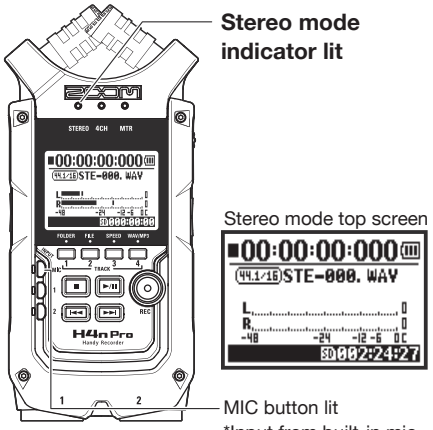
The following are basic recording instructions using the built-in stereo mic and built-in speaker in STEREO mode.

1 Turn the power on



Left side

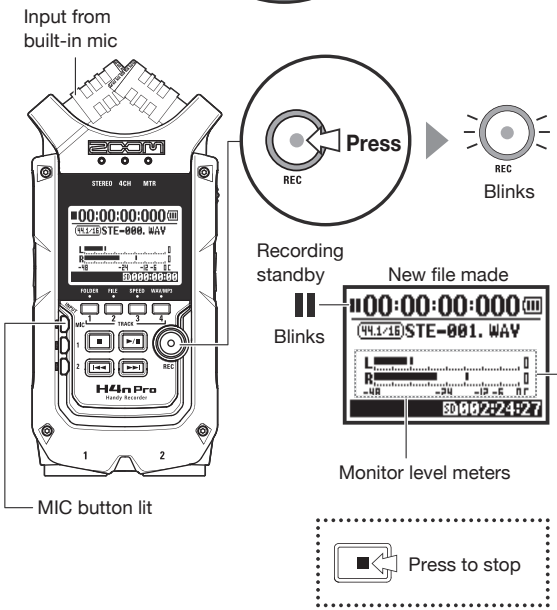
2 Confirm stereo mode



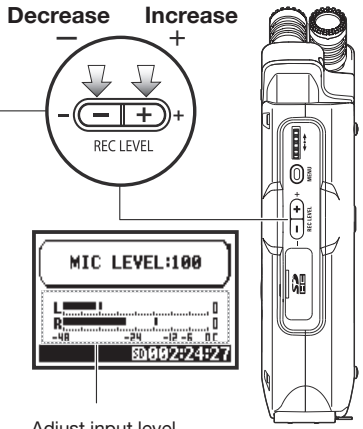
Front panel

If mode indicator or screen different ›››› P.036

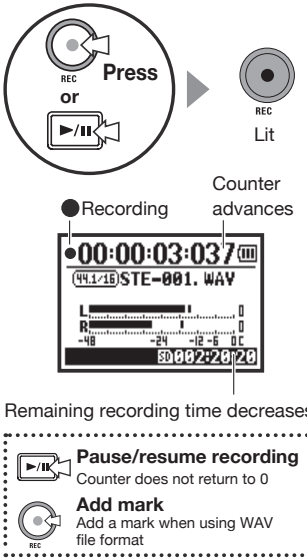
3 Start recording standby



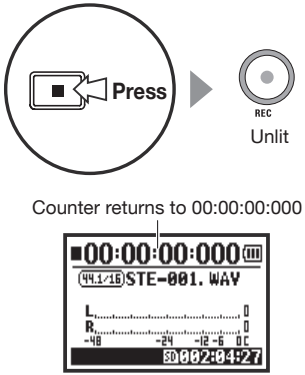
4 Adjust input level



5 Start recording

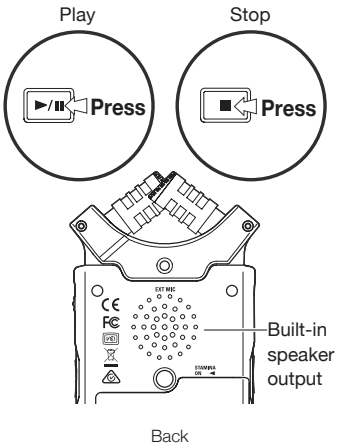


6 Stop recording



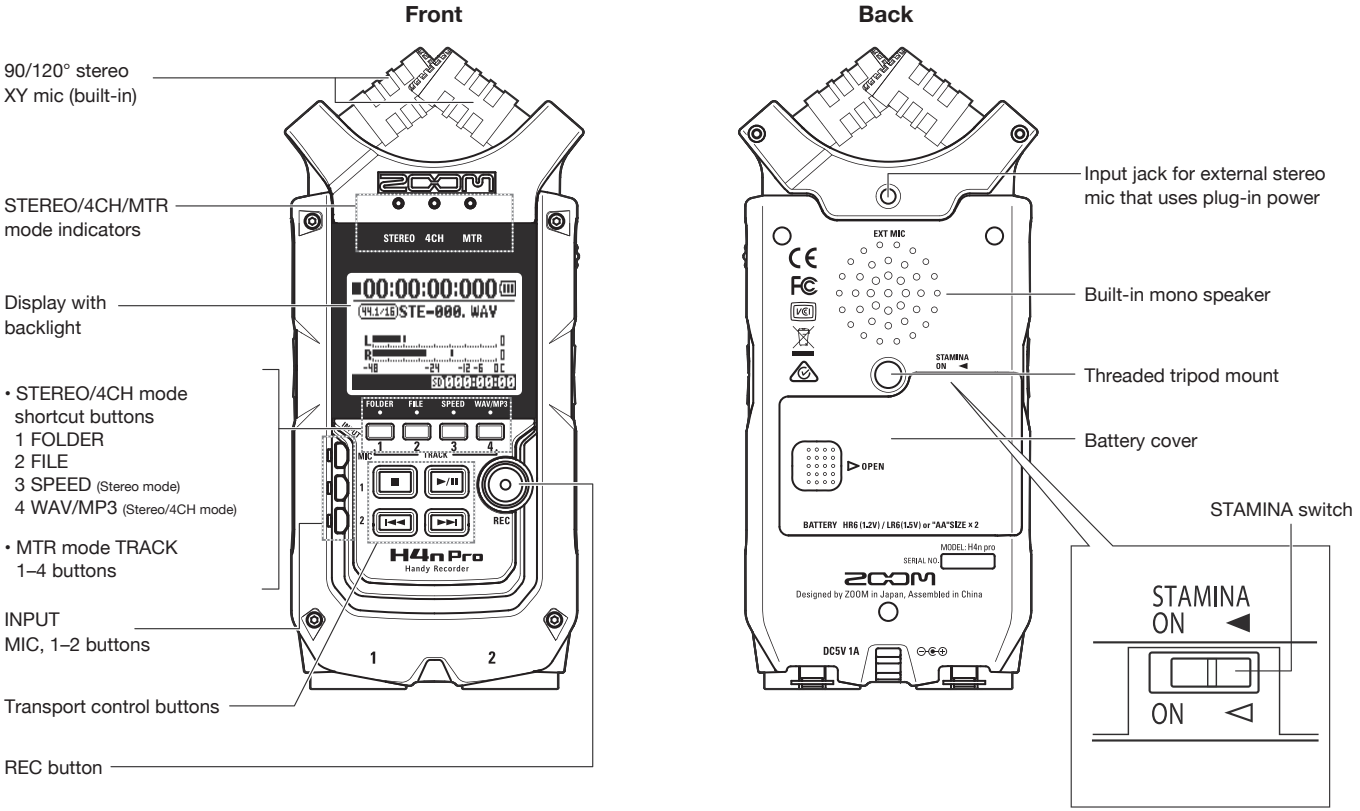
Stereo mode recording ›››› P.047

7 Play it back

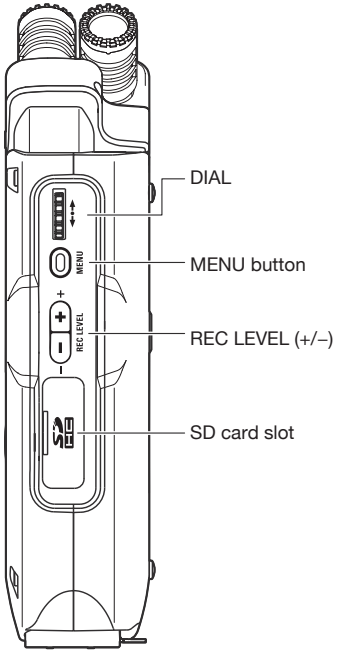


Stereo mode playback ›››› P.094

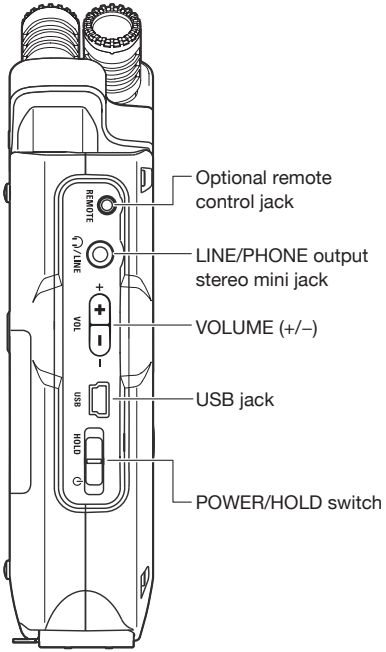
2-1 Names and functions of parts



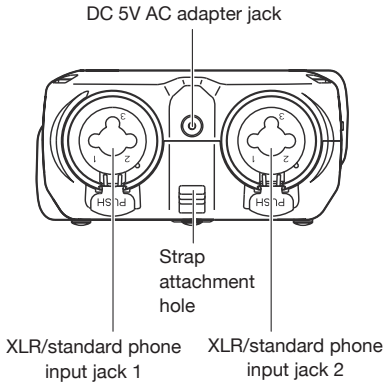
Right side



Left side



Bottom

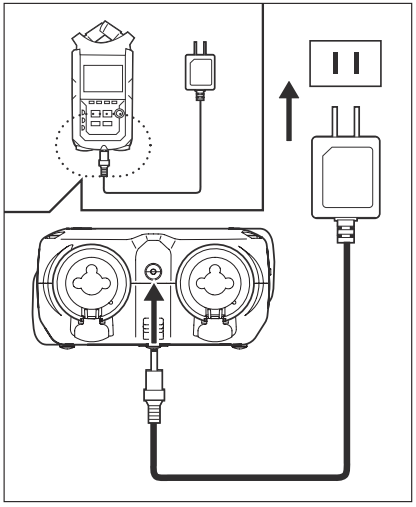


3 Battery/Power setting

The H4n Pro can be powered by a standard power outlet or batteries.

• Using a standard power outlet

Always use the specified AC adapter.

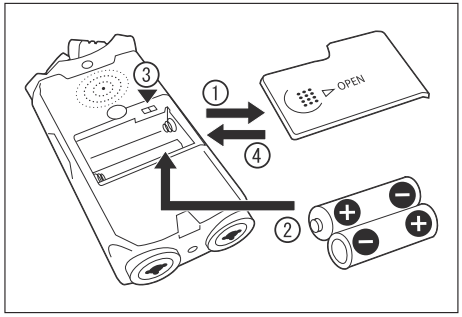


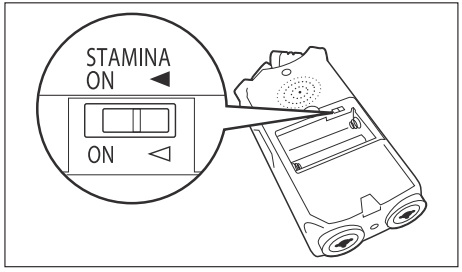
Specified AC adapter:
ZOOM AD-14A/D

Use of an AC adapter other than the specified model could cause malfunction.

• Using batteries

Install two AA batteries.





1 Open the battery compartment cover.

NOTE:

Make sure the power is off!

Confirm that the power is off whenever you open the battery compartment cover or connect/disconnect the AC adapter. Failure to do so could damage recording data.

2 Insert the batteries.

(Follow the +/– orientation.)

3 Set the STAMINA switch.

◀: Ordinary use
(using AC adapter or batteries)

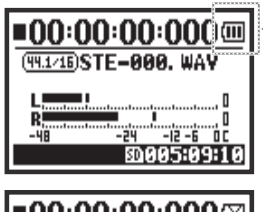
ON: STAMINA mode on
(conserves power when using batteries)

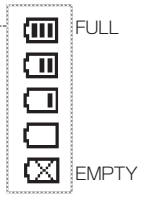
4 Close the battery compartment cover.

Ref. ☞ Stamina mode explanation P.035

• Remaining battery charge

When a “Low Battery!” warning appears, immediately turn the unit off and replace the batteries, or switch to an AC adapter.





If the remaining battery charge becomes low, “Low Battery” will be shown every two seconds and the unit will soon turn off.

NOTE:

Usable batteries

You can use conventional alkaline and nickel metal hydride rechargeable batteries.

Power supply from USB

Connect a USB cable that is already connected to the computer to the unit while it is off. Power will be supplied by USB bus power and the unit will turn on automatically. This function is only available when the H4n Pro is used as an SD card reader or an audio interface.

HINT:

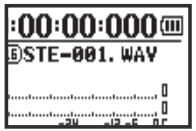
To measure the battery charge accurately

The remaining battery charge can be measured more precisely by using the H4n Pro battery type setting.

Date and time setting retention

If the batteries die or the power supply is interrupted, the H4n Pro will retain the date and time setting for about three minutes. After this, these settings will be reset to their default values.

Power supply indicator



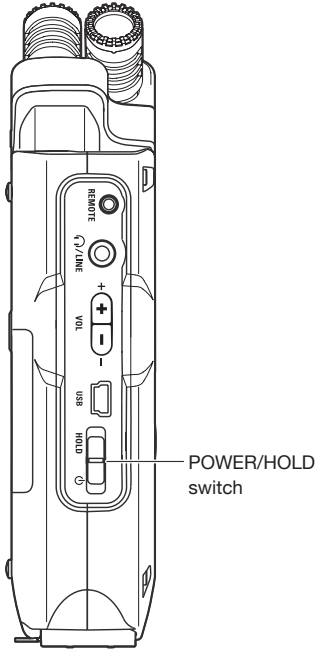
Using batteries

Using AC adapter

Ref. ☞ USB bus power P.033
Ref. ☞ Battery type P.130

4-1 Using the POWER/HOLD switch and turning the power on/off

Left side

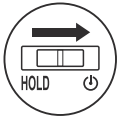


Turning the power on and starting up

1 **Turn all connected equipment off first.**

2 **Insert an SD card.**

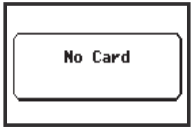
3 **Slide the POWER switch to turn the power on and start up.**



4 **Turn connected instruments and monitoring equipment on in that order.**

NOTE:

- Before turning the power on, lower the volume of instruments and monitors connected to the H4n Pro.
- If the display reads "No Card" when starting up, make sure that an SD card is inserted correctly.

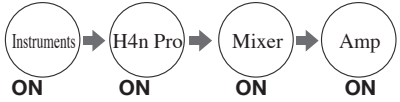


- If the display says "Reset DATE/TIME" when starting up, the date and time have been set to their default values.

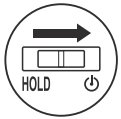
Ref. ☞ P.026
Date and time setting

HINT: Turning multiple devices on

When many devices are connected, turn them on in the following order.



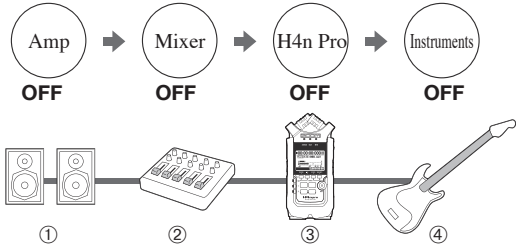
Turning the power off and shutting down



1 **Turn the monitoring system and connected instruments off in that order first.**

2 **Slide the POWER switch to turn the power off.**

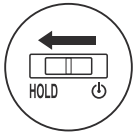
HINT: Order for turning off equipment



HOLD Function

The H4n Pro features a HOLD function that disables button operation to prevent misoperation during recording.

Activating the HOLD function



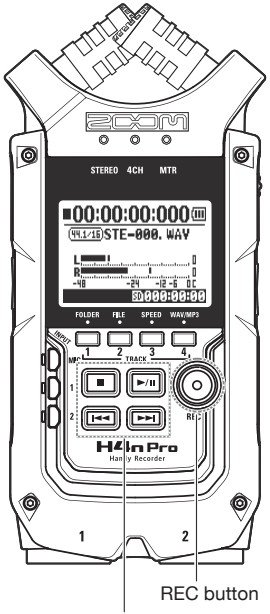
Slide the POWER switch toward HOLD.

If you press any button while HOLD is active, the screen will display “Key Hold” for two seconds. To deactivate HOLD, slide the POWER switch away from HOLD.

4-2 Using recording and transport buttons

The functions of the REC, STOP, PLAY/PAUSE, FF and REW buttons depend on the mode.

Front



STEREO/4CH/STAMINA modes

REC button

Stopped	Enter recording standby and reset counter
Recording standby	Start recording and counter
Recording / Playing	Add mark (WAV files only)

Transport buttons

STOP button

Recording/recording standby/paused	Stop recording and reset counter
Playing/paused	Stop playback and stop counter

PLAY/PAUSE button

Stopped	Start playback and start counter
Recording/paused	Resume paused recording
Recording standby	Start recording and counter
Playing/paused	Resume paused playback

FF/REW buttons

Stopped	Press for less than a second	FF: Show next file REW: Return to file beginning (If there are marks, FF and REW jump to the nearest mark)
Playing		
Playback paused	Press for more than a second	Search forward/backward The longer the button is pressed, the faster the search speed. Searching will stop at the beginning or end of the file.

MTR mode

REC button (Only when a track is in recording standby)

OVER WRITE recording

Stopped	Enter recording standby
Recording/standby	Stop recording (playback continues)
Playing	Recording starts and counter continues

ALWAYS NEW recording

Stopped	Enter recording standby and reset counter
Recording standby	Start recording and start counter

Transport buttons

STOP button

Recording		Stop recording and stop counter
Playing		Stop playback and stop counter
Recording paused	Playback paused	Stop recording/playback

PLAY/PAUSE button

Stopped	Start playback
Recording	Pause recording (only when ALWAYS NEW recording)
Recording standby	Start recording and counter
Playing	Resume paused playback

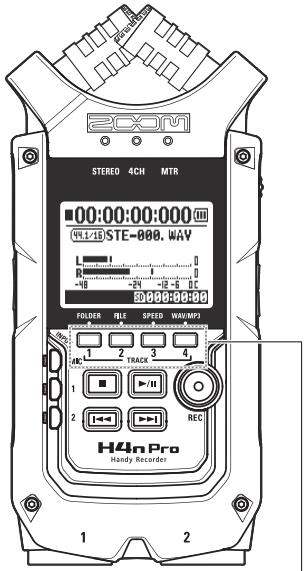
FF/REW button

Stopped	Press for less than a second	FF: Skip forward one second REW: Return to beginning
Playing		
Playback paused	Press for more than a second	Search forward/backward

4-3 Using TRACK 1–4 buttons

The of TRACK 1-4 buttons have different functions depending on the MODE.

Front



TRACK 1-4

MTR MODE

Switch between track recording and playback.

When you start recording, press the track number you want to record and the track becomes Recording Standby status. That track button will then become illuminated.

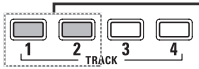
Make track and the input source settings

After selecting the track, use the input source buttons to select the input for that track. Using the INPUT button you can record in mono, stereo or a combination of both.

Selecting one track

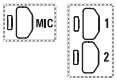
Same for tracks 2-4

Selecting two tracks



Same for tracks 3 and 4

For stereo input select MIC or 1 and 2



For mono input select either 1 or 2

These are the four possible input selections.

Note: These operations are not possible during recording and playback.

STEREO/4CH/STAMINA MODE

Move to the FOLDER SELECT menu

Move to the FILE menu

Move to the SPEED menu (only STEREO MODE)

Move to the REC FORMAT menu (STEREO MODE, 4CH MODE)

These operations are not available during recording and playback.

HINT:

When stereo link active

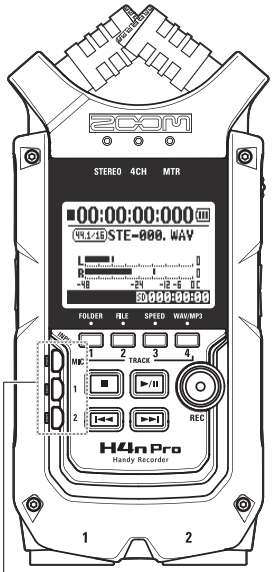
When tracks are stereo-linked, pressing the button for one track will have the same effect on the linked track.

Ref. ☞Stereo link P.058

4-4 Using INPUT MIC, 1 and 2 buttons

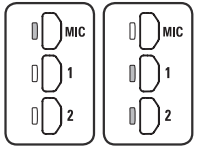
These buttons have different functions depending on the various modes.

FRONT



INPUT 1 & 2 buttons

STEREO/STAMINA MODE

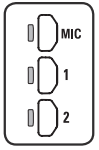


Select INPUT MIC, 1 or 2 and the corresponding button lights.

If you select INPUT 1 or 2, buttons will light after the selection. (Once lit, the buttons do not respond.) Any other input source settings, such as REC LEVEL, will be made for the lit source.

Note: If the selected input clips, its button will blink.

4CH MODE

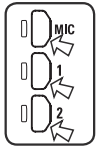


Use all input sources. MIC, 1 and 2 all light.

When you switch to 4CH, the H4n Pro will receive two stereo inputs: one from MIC and one from 1 and 2 together. When you press a lit button, the channel input level is shown and you can adjust its recording level (REC LEVEL).

Note: When an input clips the corresponding button blinks.

MTR MODE



Set MIC, 1 and 2 individually for stereo and mono input. The corresponding button lights.

You can select INPUT MIC, 1 and 2 individually.

- When you use the built-in or an external stereo microphone, select INPUT MIC.
- For stereo input using the external input jacks, use both INPUT 1 and 2. Press either INPUT 1 or 2 button and then press another button.

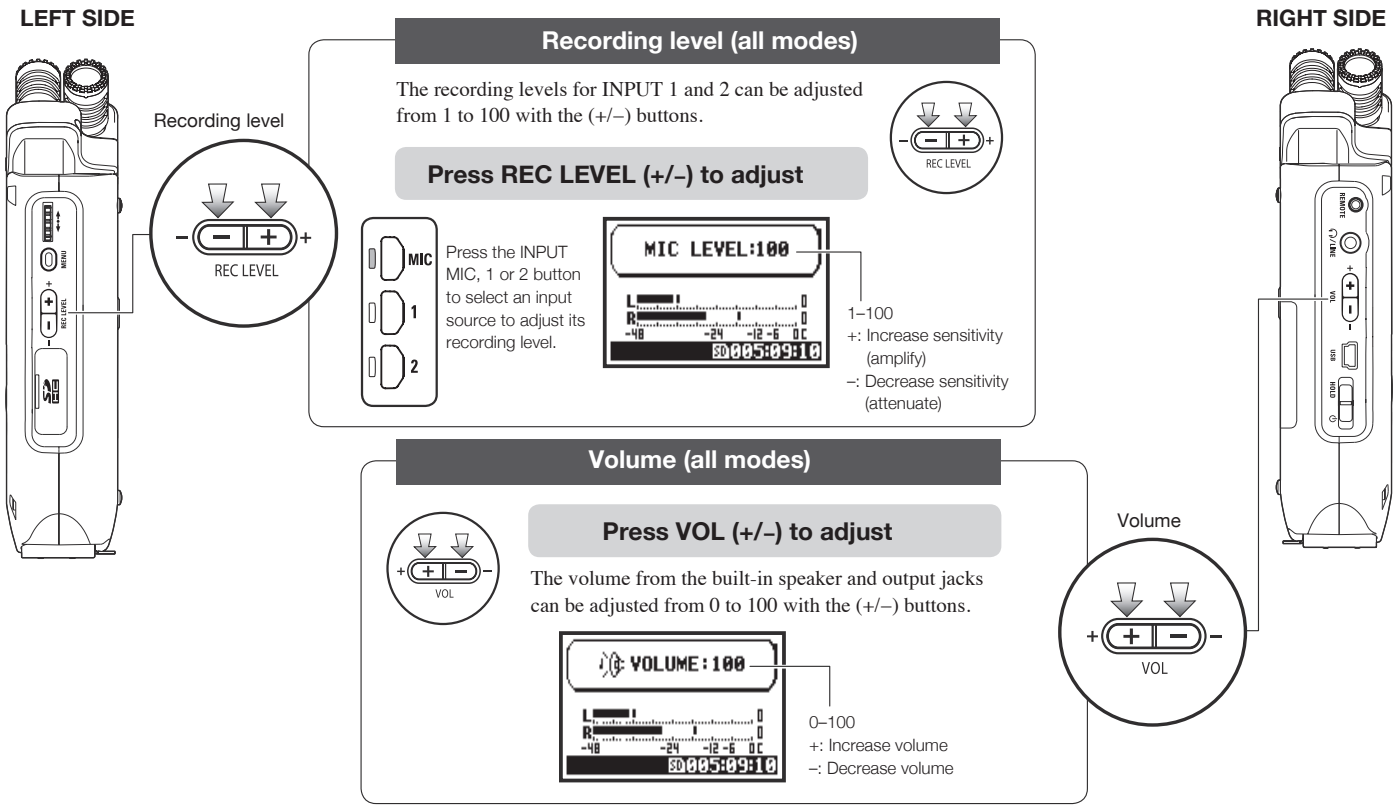
Note: If the selected input clips, its button will blink.

HINT:

What is clipping? If the input level reaches the maximum that the H4n Pro can record (0 dB), the recorded sound could be distorted. The recording level should be adjusted.

4-5 Using REC LEVEL and VOLUME buttons

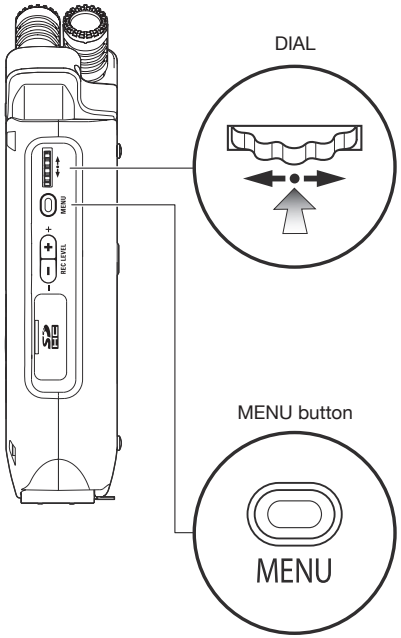
These keys allow you to adjust the levels of recording input and output volume.
(All the modes are the same.)



4-6 Using the DIAL and the MENU button

The DIAL and the MENU button are used for various settings while recording and during playback.
Here are explanations about their basic operations.

RIGHT SIDE



Basic DIAL operations

Select

Rotate the DIAL to select an item

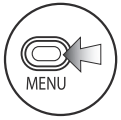
Rotate the DIAL, and the cursor on the display will move with the DIAL

Press

Press the DIAL to confirm the selection

Press to DIAL and your selection will be confirmed.
→ When there are additional selections, press to move to the next screen.
→ When you complete selection, the screen returns to the previous one.

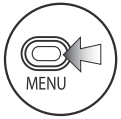
Basic MENU button operation



Select

Opening the MENU screen

Press the MENU button to make settings for recording, playback and other functions.



Long Press

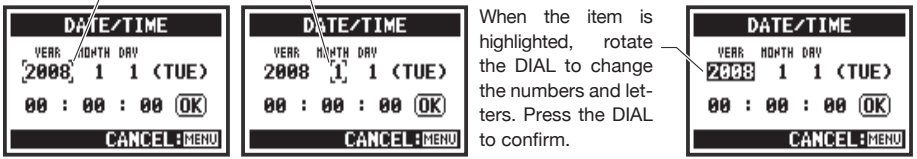
Canceling a setting change

Press the MENU button during any setting operation, to cancel the operation and return to the previous screen.
To cancel a setting operation and return to the top screen of the mode, press the MENU button for more than 2 seconds.

Operation when the [ ] cursor appears (date and time setting, changing file names, etc)

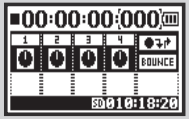
Turn the DIAL to move the cursor.

Press the DIAL to change numbers and letters.



When the item is highlighted, rotate the DIAL to change the numbers and letters. Press the DIAL to confirm.

DIAL operation on the top screen

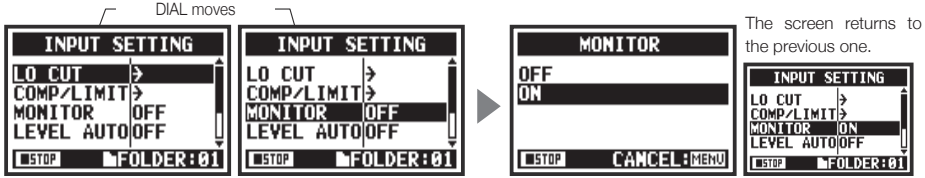


Turn the DIAL to move the cursor on the top screen. Press to enable counter adjustment or open the setting menu. (Only in MTR mode.)

Selecting items in lists

Turn the DIAL to scroll through a list.

Push the DIAL to confirm a selection.



About the → in selection lists

When you see an →, there are more selections on the next screen. Select the arrow and press the DIAL to move to the next screen.

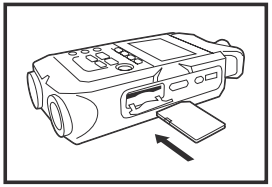
5-1 Loading an SD card

The SD card is required to record. Make sure to turn off power before inserting or removing the SD card.

How to install an SD card

1 **Make sure power is off.**

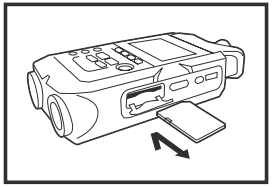
2 **Insert the SD card into the slot.**



How to remove an SD card

1 **Make sure power is off.**

2 **Push the SD card in to remove it from the slot.**



SD card recording capacity (approximate)

4GB SDHC card	Recording time (approximate)
44.1 kHz/16-bit WAV (stereo track)	380 minutes
44.1kHz/128kbps MP3 (stereo track)	68 hours

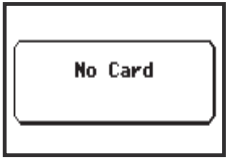
NOTE:

TURN THE POWER OFF!

Never insert or remove an SD card while the power is on. This could destroy data.

CAUTIONS WHEN INSERTING SD CARDS

- You can use 16MB to 32GB SD cards. For a list of operation-certified SD cards please refer to the ZOOM website: http://www.zoom.co.jp/
- If you use an SD card that was used by a computer, digital camera or other machine, formatting in the H4n Pro is required.
- If “No Card” appears on the display at startup, check if the SD card is correctly inserted.
- When “Format Card” appears on the display at startup, this means the SD card has not been formatted in the H4n Pro. To format it, press the DIAL and select YES.
- When the startup screen says “Card Protect”, the card is write-protected. To disable this, slide the lock switch on the SD card.



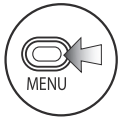
No SD card warning when starting up.

This warning will appear if an SD card is not in a recognized format. Select YES to format the card. This will delete all of its data.

Ref. ☞ Using H2 and H4 SD cards P.136

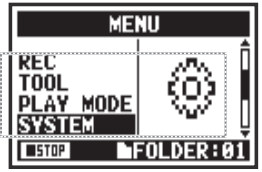
5-2 Setting the date and time (DATE/TIME)

Each file will automatically record the date/time.
To facilitate searching for files by date, be sure to set the date/time after every battery change.

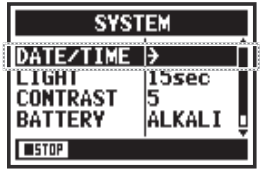


1 **Press.**

2 **Select SYSTEM and press.**



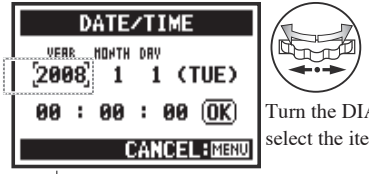
3 **Select DATE/TIME and press.**



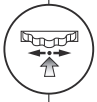
5 **Select OK and press.**

4 **Set YEAR → MONTH → DAY → TIME (hour: minute: second)**

Select the item on DATE/TIME:

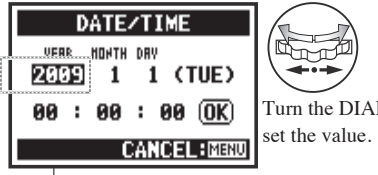


Turn the DIAL to select the item.



Press the DIAL.
The selected item value is highlighted.

Change the value.



Turn the DIAL to set the value.

Press the DIAL.
The cursor appears again.

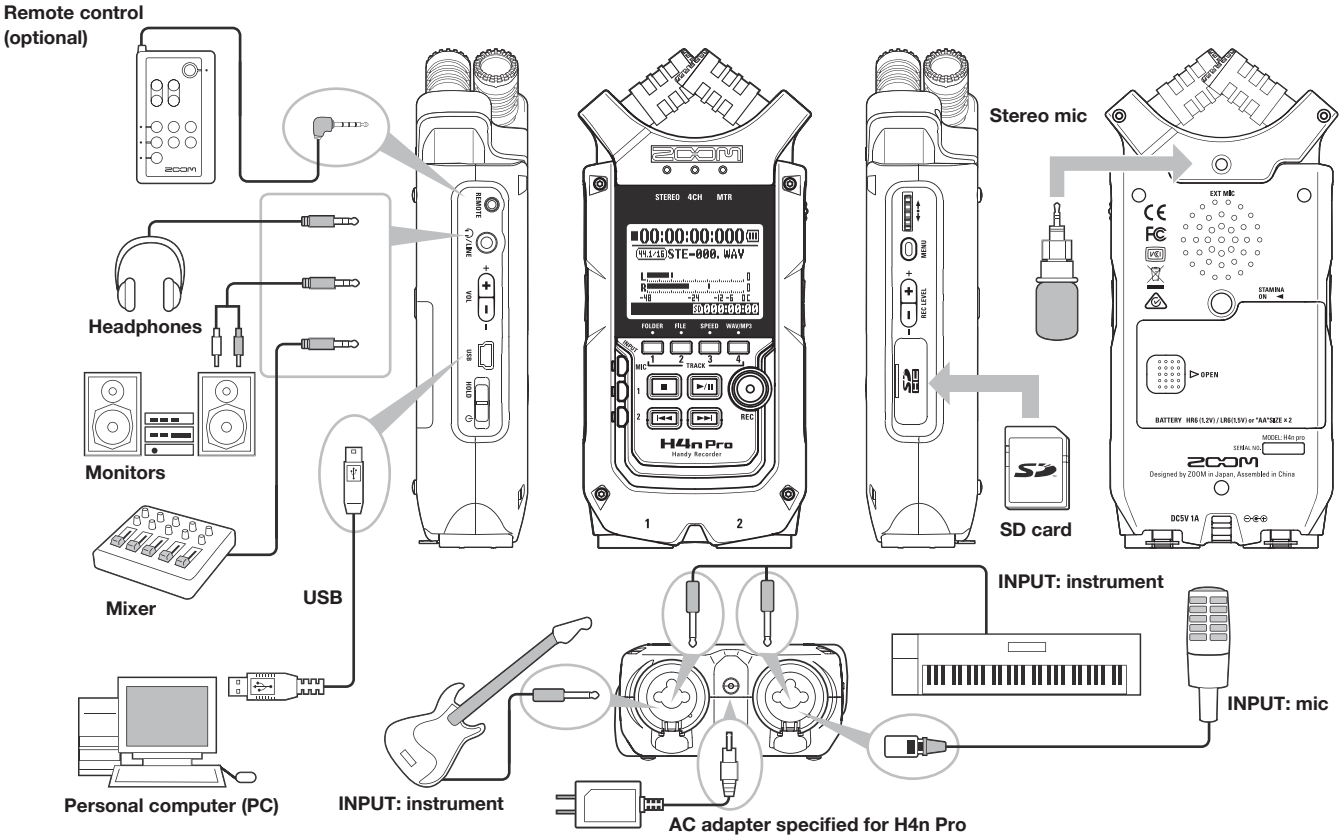
NOTE:

If "Reset DATE/TIME" appears during startup, the date/time needs to be set.

- If no power source is connected for more than three minutes, the DATE/TIME setting will reset to the default value.
- You cannot set this during recording and playback.

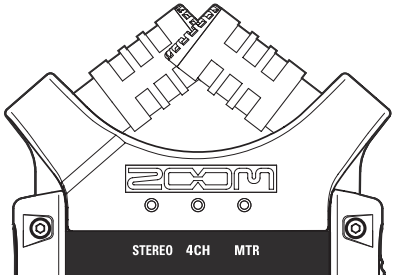
6-1 Setup: Connecting external devices

The H4n Pro offers versatile connectivity with options for any recording application.



6-2 Setup: Built-in microphones

These are the special features of the H4n Pros built-in microphones.



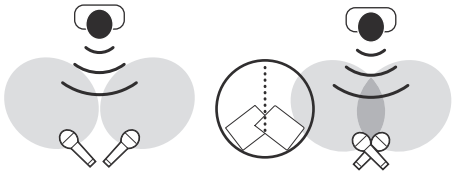
High quality microphones in an XY pattern ensure a natural stereo image when recording sounds.

Stereo recording is often done by placing two microphones in a V-shaped configuration. Pointing microphones outward will result in stereo separation, but the recording will lack definition around the center, resulting in a poor stereo image.

The H4n Pro utilizes an XY stereo mic configuration. By placing two microphones in a crossed pattern (opposite angles), the H4n Pro can cover a wide area and capture sound sources in the center with clarity and definition. Sounds reach both mics simultaneously, so no phase cancellation occurs between right and left channels.

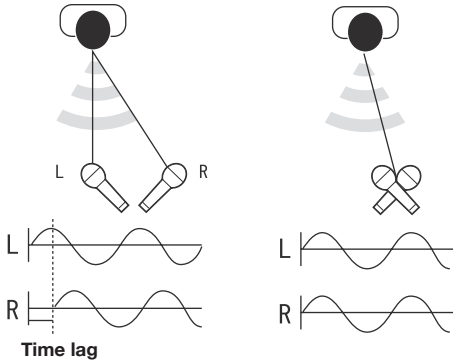
XY mic placement

Capturing the stereo image center



Ordinary stereo mic placement — **H4n Pro stereo mic pair**

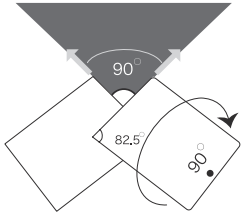
Stereo images without phase cancellation.



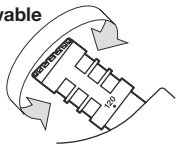
Ordinary stereo mic placement — **H4n Pro stereo mic pair**

90° or 120° directivity

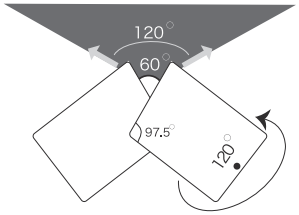
Centered 90°



Movable



Wide 120°

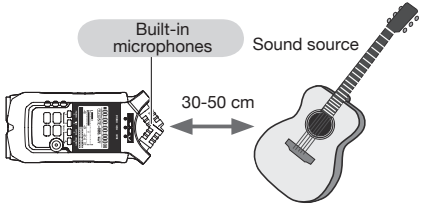


6-3 Setup: Built-in microphones/external mic with plug-in power

The input jack for the external microphone is suitable for microphones that require plug-in power.

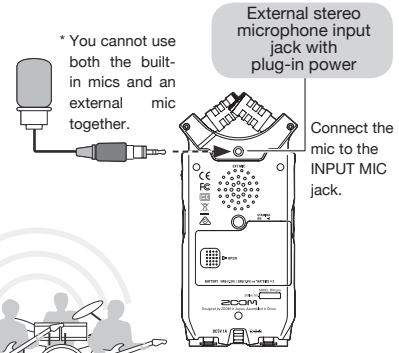
Close microphone recording

Put the H4n Pro 30-50 cm from the sound source.



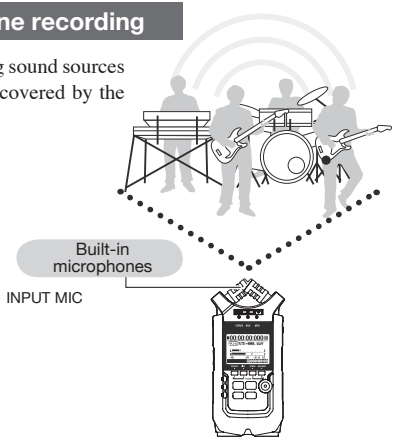
Close microphone recording

When you use an external microphone, be sure to select the correct setting.



Off microphone recording

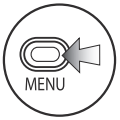
Make sure the recording sound sources are all located in zone covered by the built-in microphones.



NOTE:

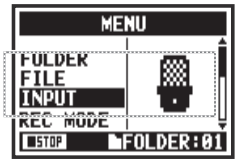
Plug-in and phantom power cannot be set during recording and playback.

Setting PLUG-IN power



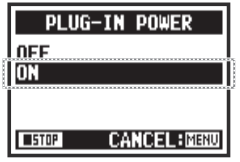
1 **Press.**

2 **Select INPUT and press.**



3 **Select PLUG-IN and press.**

4 **Select ON and press.**

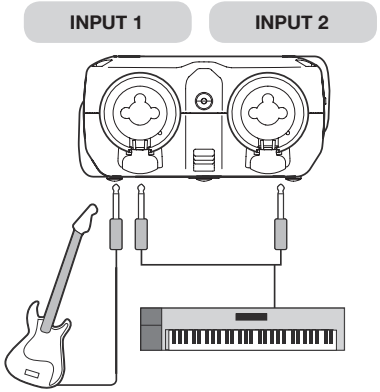


6-4 Setup: INPUT 1/2 connections and phantom power

Use INPUT 1 and 2 to connect to a guitar, bass or keyboard, for example.

Connecting instruments

You can directly plug a guitar or a bass into either INPUT 1 or INPUT 2.
Plug a keyboard with stereo output into both INPUT 1 and 2.



Connecting microphones

Connect microphones with XLR plugs to INPUT 1 and INPUT 2. If you need phantom power, such as when using a condenser microphone, make the following setting.

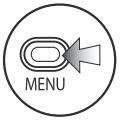

Dynamic microphone


Condenser microphone (phantom power)

NOTE:

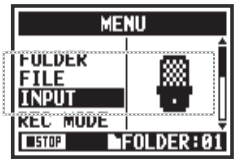
Some condenser microphones cannot operate with +24V phantom power, but compared to the +48V setting this reduces power consumption during battery operation.

Setting PHANTOM power



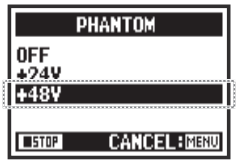
1 Press.

2 Select INPUT and press.



3 Select PHANTOM and press.

4 Select the voltage and press.



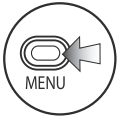
6-5 Using as a USB audio interface

The H4n Pro can be used as a two-in/two-out USB interface at 44.1 or 48 kHz.

Power ON already

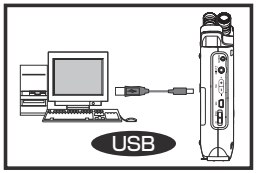
Connect H4n Pro to computer with USB cable.

Power OFF



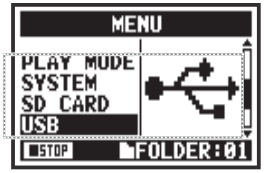
H4n Pro starts up using USB bus power, and USB setting screen opens

1 Connect H4n Pro to computer with USB cable.

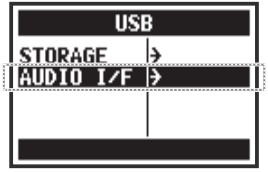


2 Press when on the top screen.

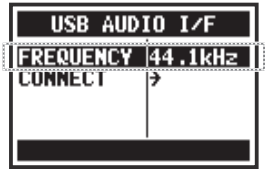
3 Select USB and press.



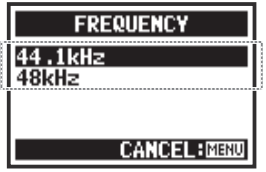
4 Select AUDIO I/F and press.



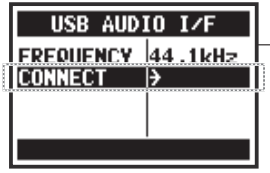
5 Select FREQUENCY and press.



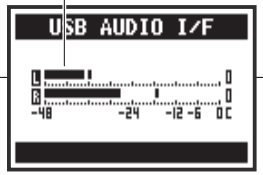
6 Select a sampling rate and press.



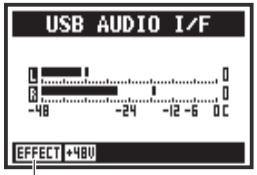
7 Select CONNECT and press.



Input or output levels



Two channels can be sent and received at 44.1 or 48 kHz while connected to a computer.

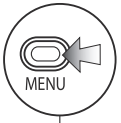


Active function

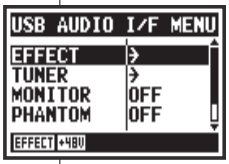
Ref. ☞

EFFECT	P.083
TUNER	P.075
MONITOR	P.070
PHANTOM	P.030
PLUG-IN	P.029

Button operation in AUDIO I/F menu



Press.

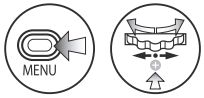


AUDIO I/F MENU

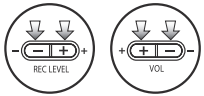
EFFECT	Use effects (only 44.1 kHz)
TUNER	Use tuner
MONITOR	Enable monitoring
PHANTOM	Enable phantom power
PLUG-IN	Enable plug-in power
DISCONNECT	End connection

Select and press.

These buttons are usable during setting



Open MENU and make settings



Adjust input and output levels

NOTE:

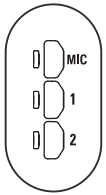
- You cannot change the sampling rate while the computer identifies the H4n Pro as an audio interface.
- When connecting as an interface, make sure the sampling rate (step 6) matches the recording software and playback file.
- You cannot changed this setting during recording and playback.

HINT:

Audio interface use

- You can record and playback signals directly to and from your DAW software using the H4n Pro.
- In this mode, you can use the H4n Pros built-in effects on input signals if the sampling rate is set to 44.1kHz.
- No specific driver is needed to use the H4n Pro as a USB audio interface.
- When using a DAW or other software, refer to its manual.

Selection of input source



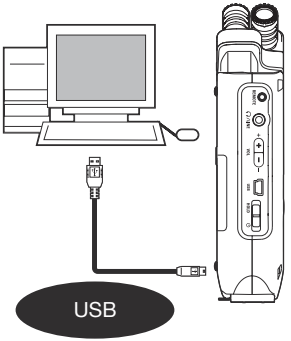
When you select an input the corresponding button lights, confirming the selection. To turn off the input, press the corresponding button so the light turns off.

To monitor input signals, you must turn MONITOR on.

Note: If no input is selected and no input buttons are lit, no signal is being sent to the computer.

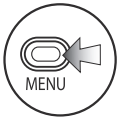
6-6 Setup: Using as a USB SD card reader

When you use the H4n Pro as an SD card reader, make the following settings.



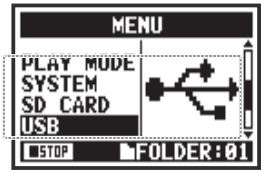
Power ON already

1 Connect H4n Pro to computer with USB cable.



2 Press on the top screen.

3 Select USB and press.

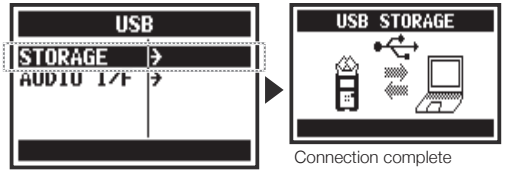


Power OFF

Connect H4n Pro to computer with USB cable.

H4n Pro starts up using USB bus power, and USB setting screen opens

4 Select STORAGE and press.



Connection complete

NOTE:

- Before physically unplugging the USB cable (and H4n Pro) from the computer, be sure to use the “Safely Remove Hardware” function on the computer first. Unplugging the USB cable (and H4n Pro) without doing this could damage files.
- Compatible operating systems:
  Windows Vista and newer
  Mac OS X (10.6 and newer)

HINT:

USB bus power

USB bus power is a way to supply power from a computer through the USB cable.

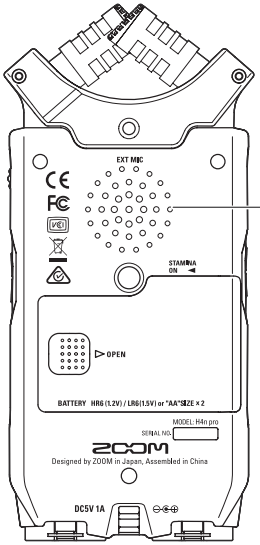
Connecting the H4n Pro by USB when its power is off causes it to automatically start up and show the USB menu.

SD card reader use

- Use files recorded by the H4n Pro on your computer.
- Use audio files created on a computer on the H4n Pro.

6-7 Setup: Built-in speaker

The H4n Pro is equipped with a built-in mono speaker.



H4n Pro built-in speaker

This is a mono speaker for playback. Use it to easily play and listen to recorded data without connecting headphones to the LINE/PHONE jack.

NOTE:

Speaker output is disabled:

- When the LINE/PHONE jack is connected
- When MONITOR setting is ON
- When in recording standby in MTR mode

Speaker can be used:

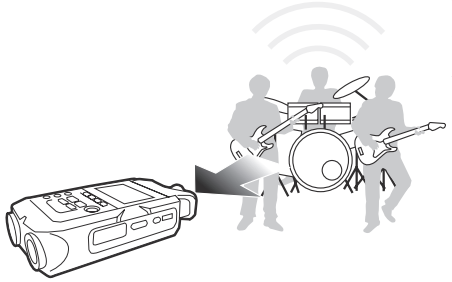
- During file playback
- When used as an audio interface
- When nothing is connected to the LINE/PHONE jack

7-1 Mode overview

The H4n Pro has four operation modes: STEREO, STAMINA, 4CH (4-channel) and MTR (multitrack). Choose the mode according to your need.

• STEREO mode

You can easily create a stereo recording using the built-in microphones or an external microphone.
The STEREO mode is convenient for recording live band performances, acoustic instruments, voices, lectures, and subtle soundscapes. You can then use it to play stereo WAV and MP3 files.



- One-pass stereo recording of live performances and rehearsals
- Direct recording of a single instrument
- Field recording
- Voice memos
- Recording meetings

• STAMINA mode

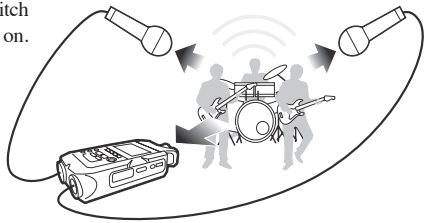
This mode enables longer battery life. STAMINA mode is similar to STEREO mode, but has less functions.
The continuous usage time with alkaline batteries is approximately 11 hours (but could be less depending on usage).
When in STAMINA mode, the H4n Pro can only record/playback in WAV 44.1kHz/16-bit and MP3 formats.

To enable STAMINA mode when using batteries, set the STAMINA switch before turning the power on.
▸P015

- Field recording
- Live outdoor recording
- At conferences and in other situations when changing batteries is difficult

• 4CH mode

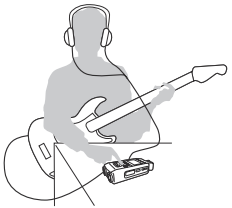
In 4CH mode, you can record two stereo signals simultaneously. You can capture live sounds via the built-in mics and direct instruments via external inputs at the same time.



- Simultaneous recording with both line input and mics
- Surround recording via front and rear microphone placement
- Simultaneous recording of both ambient and direct sound sources
- Recording both ambient and direct sounds to add a live feel to recorded performances

• MTR mode

You can record using effects in this mode. You can also overdub recordings and use sound files previously recorded using the other modes.
When creating a demo, you can record backing tracks at home and record instrumental tracks in the studio while listening to the backing tracks.

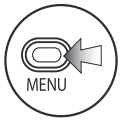


- Recording parts one track at a time
- Overdubbing
- Recording using effects
- Mixing track levels after recording
- Indoor and outdoor rehearsals

7-2 Switching and confirming modes

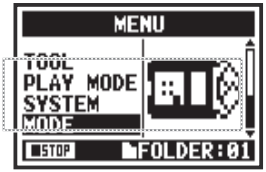
Be sure to select the appropriate mode for your application.

Press the MENU button for more than 2 seconds, and start operation from the top screen.



1 Press.

2 Select MODE and press.



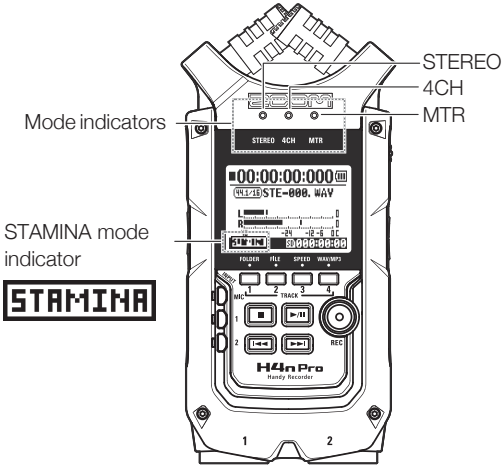
3 Select among STEREO, 4CH and MTR modes and press.

Note: To engage STAMINA mode, use the switch located in the battery compartment.

HINT:

Mode confirmation

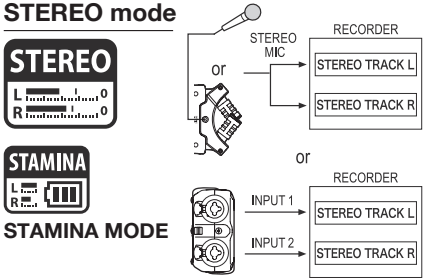
- The current mode is indicated by a mode indicator LED on the front panel.
- The H4n Pro will power up in the same mode it was in when turned off.
- When starting up for the first time, the default mode is STEREO.



7-3 Mode details

Input and output levels as well as saving and file formats are different in each mode.

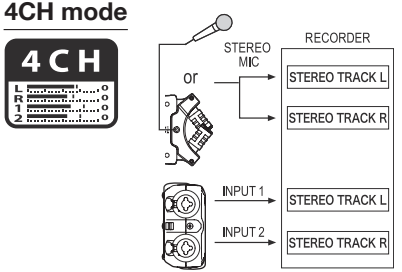
STEREO mode



In STEREO mode, you can select 2 different inputs either INPUT MIC or INPUT 1 and 2, and record and play one stereo file at a time.
Files are saved in one of the ten sub-folders in the STEREO folder.

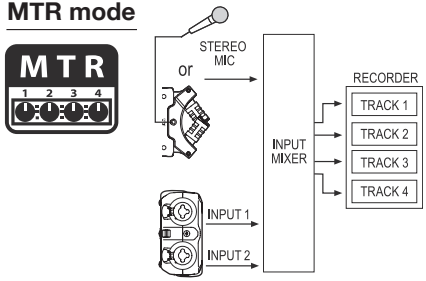
In STAMINA mode, the functions are limited to maximize the battery life time.

4CH mode

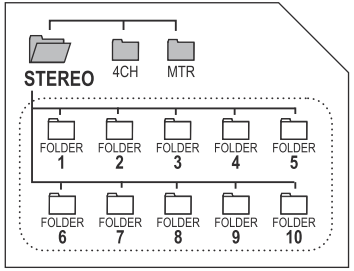


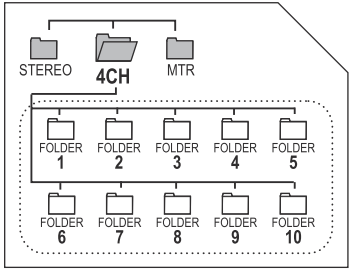
In 4CH MODE, the H4n Pro records two stereo WAV files: one stereo WAV file for the built-in mic or stereo mic input and one stereo WAV file for INPUT 1 and 2.
These FILES are saved in one of the ten 4CH sub-folders.

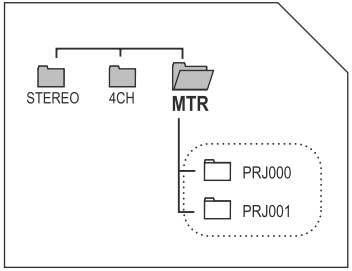
MTR mode



You can record tracks in MONO or STEREO from INPUT 1, INPUT 2 and a stereo microphone.
You can combine them with tracks recorded in other modes and overdub existing tracks.
In MTR mode, project data and settings are saved as a project in the MTR folder.



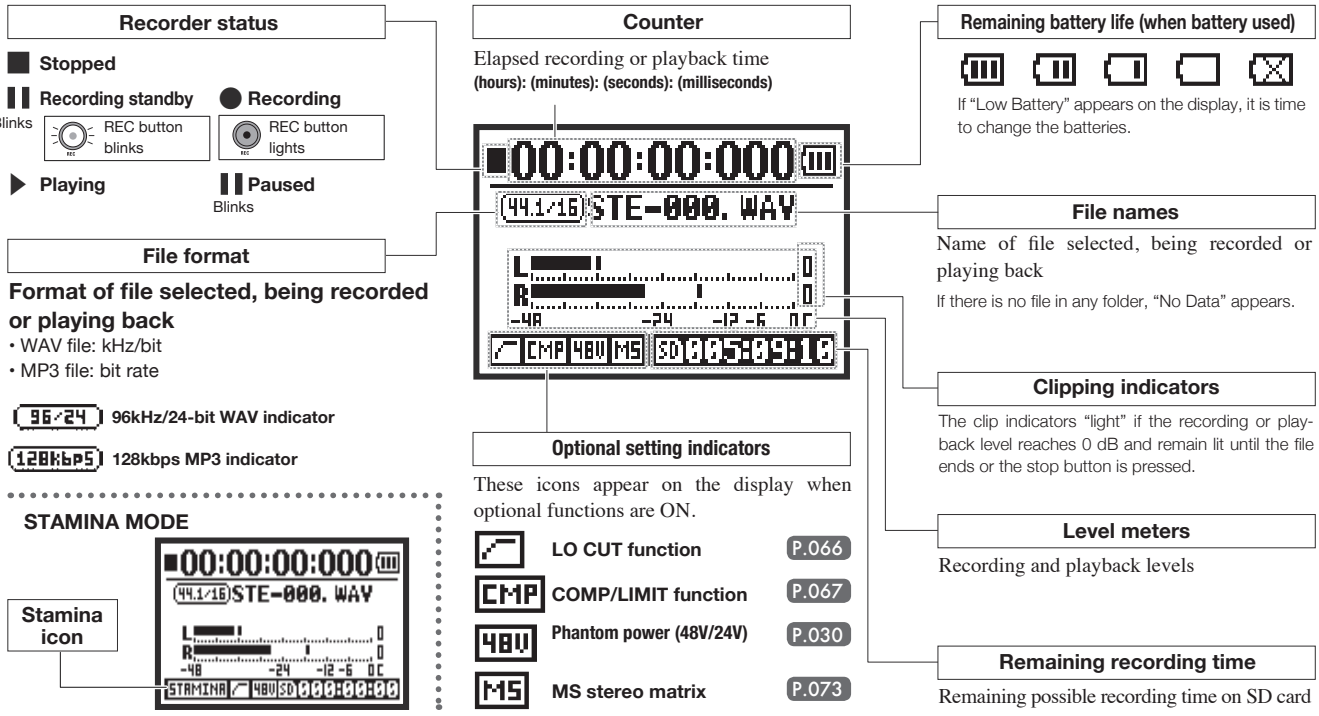




8-1 Mode screens: STEREO and STAMINA modes

STEREO STAMINA

• Explanation of the top screen



8-2 Mode screens: 4CH mode

• Explanation of the top screen

Recorder status

- ■ Stopped
- ❚❚ Recording standby (Blinks) — REC button blinks
- ● Recording — REC button lights
- ▶ Playing
- ❚❚ Paused (Blinks)

File format

Format of file selected, being recorded or playback

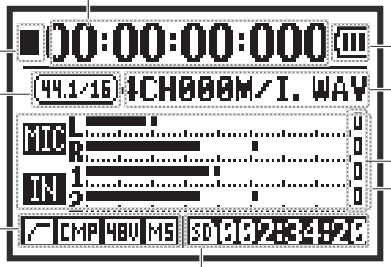
Optional setting indicators

These icons appear on the display when optional functions are ON.

	LO CUT function	P.066
CMP	COMP/LIMIT function	P.067
48V	Phantom power (48V/24V)	P.030
MS	MS stereo matrix	P.073

Counter

Elapsed recording or playback time
(hours): (minutes): (seconds): (milliseconds)



Remaining recording time

Remaining possible recording time on SD card

Remaining battery life (when battery used)

If “Low Battery” appears on the display, it is time to change the batteries.

File names

Name of file selected, being recorded or playing back

If there is no file in any folder, “No Data” appears.

Clipping indicators

The clip indicators “light” if the recording or playback level reaches 0 dB and remain lit until the file ends or the stop button is pressed.

Input sources and level meters

Input sources and recording and playback levels

MIC ..... Input from either the built-in mics or an external stereo mic

IN ..... Input from INPUT 1 and INPUT 2

8-3 Mode screens: MTR mode

MTR

• Explanation of the top screen

DIAL operations on top screen

① 00:000 ② ③ ④ BOUNCE

Recorder status

- **Stopped**
- **Recording** — REC button lights
- **Recording Standby** — Blinks — ALWAYS NEW recording only — REC button blinks
- **Paused** — Blinks — ALWAYS NEW recording only
- **Playing**

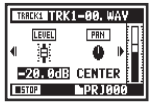
Track numbers

Icons are highlighted for tracks in recording standby.

② Track menu icons

Select an icon to access the track menu where settings, including volume, panning and stereo/mono, can be made.

P.057



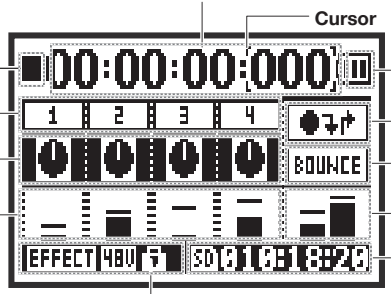
Level meters

These show the recording or playback levels of tracks 1-4.

① Counter

Elapsed recording or playback time
(hours): (minutes): (seconds): (milliseconds)

Cursor



Counter function: Specify a time

Ref. ☞ P.102

Optional setting indicators

These icons appear on the display when optional functions are ON.

- EFFECT **Effects** P.083
- 48V **Phantom power (48V/24V)** P.030
- **Protect function** P.125

Remaining recording time

Remaining possible recording time on SD card.

Remaining battery life (when battery used)

If "Low Battery" appears on the display, it is time to change the batteries.

③ Auto punch in/out icon

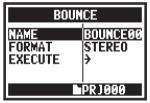
Selecting this icon brings up the PUNCH IN/OUT settings.

The icon only appears when recording in OVER WRITE mode. P.056

④ BOUNCE ICON

Selecting this icon brings up BOUNCE settings.

P.123

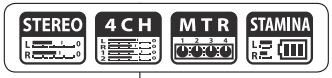


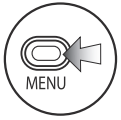
L/R level meters

These show the master left and right output levels.

8-4 Mode screens: MAIN MENU

This is a list of the menu items that appear for each mode when the MENU button is pressed.





1 Press.

2 Select item and press.

Cancelling:
To return to the top, press the MENU button more than 2 seconds.

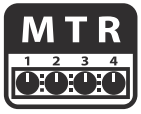
HINT:

The ▼ icon marks the item first shown in the MENU after the unit is started or the mode is switched. After the menu has been opened previously, the last used item will be shown first.

STEREO mode

STAMINA mode

4CH mode



MTR mode

	FOLDER	FILE	INPUT	REC	TOOL
STEREO mode	▼				
STAMINA mode					
4CH mode	▼				

	PROJECT	FILE	EFFECT	INPUT	REC MODE
MTR mode	▼				

PLAY MODE SYSTEM SD CARD USB MODE

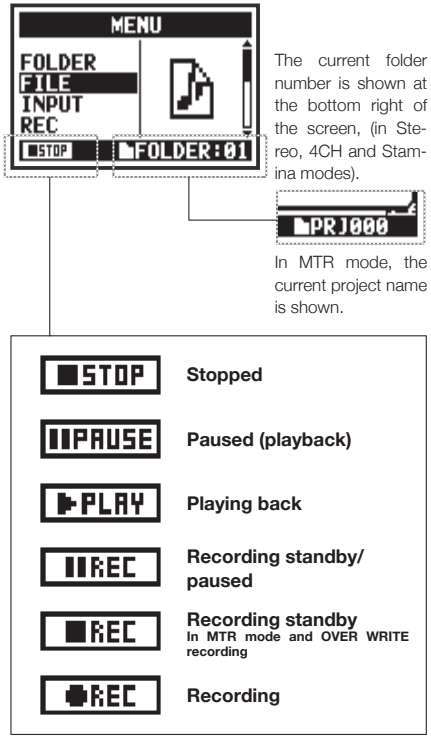
Enable STAMINA mode with the STAMINA switch before starting the unit when running on batteries. P.015

MIXER PLAY MODE SYSTEM SD CARD USB MODE

TOOL SYSTEM SD CARD USB MODE

Information at MENU screen bottom

On menu pages where recording and playback are possible, the current status is shown at the bottom left of the screen.



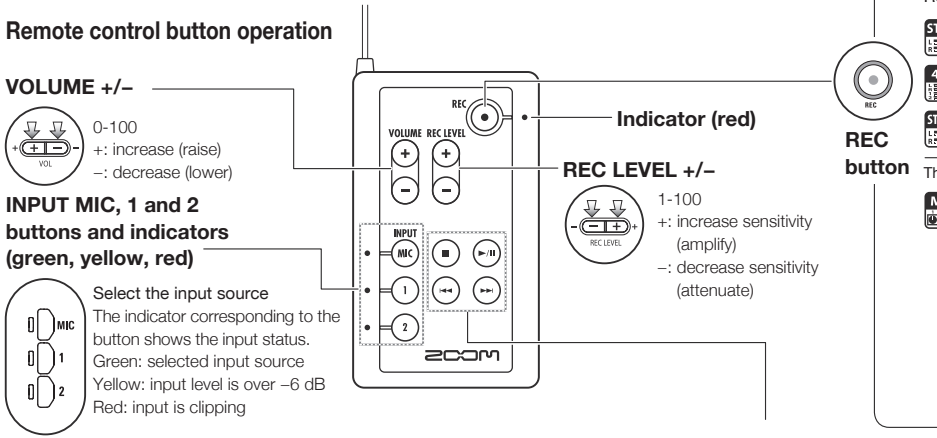
The current folder number is shown at the bottom right of the screen, (in Stereo, 4CH and Stamina modes).

In MTR mode, the current project name is shown.

9 Optional remote control operation

You can operate the H4n Pro from a distance with the optional remote control.

Remote control button operation



Recording and placing marks.

STEREO / 4CH / STAMINA	Stopped	Enter recording standby and reset counter to 0.
	Recording standby	Start recording and counter.
	Recording / Playing	Add mark (WAV files only)

This can be used only when a track is in recording standby.

MTR		
	OVER WRITE recording	
	Stopped	Enter recording standby
	Recording/standby	Stop recording (playback continues)
	Playing	Recording starts and counter continues
	ALWAYS NEW recording	
	Stopped	Stop recording and counter
	Recording standby	Start recording and start counter

Transport buttons

FF and REW buttons

STEREO / 4CH / STAMINA	Stopped / Playing / Playback paused	**Press for less than one second** FF: Show next file REW: Return to file beginning (If there are marks, FF and REW jump to the nearest mark)
		Press for more than one second Search forward/backward The longer the button is pressed, the faster the search speed. Searching will stop at the beginning or end of the file.
MTR	Stopped / Playing / Playback paused	**Press for less than one second** FF: Skip forward one second REW: Return to beginning
		Press for more than one second Search forward/backward

STOP button

STEREO / 4CH / STAMINA	Recording/recording standby/paused	Stop recording and reset counter to 0
	Playing/paused	Stop playback and stop counter
MTR	Recording	Stop recording and stop counter
	Playing	Stop playback and stop counter
	Recording paused / Playback paused	Stop recording/playback

PLAY/PAUSE button

STEREO	Stopped	Start playback and start counter
4CH	Recording standby	Start recording and counter
	Recording/paused	Resume paused recording
STAMINA	Playing/paused	Resume paused playback
MTR	Stopped	Start playback
	Recording	While overwrite setting: Stops recording While always new setting: Pauses recording
	Recording standby	Start recording and the counter begins to move
	Playing	Pause playback

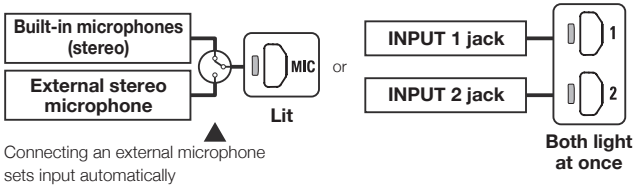
Operations

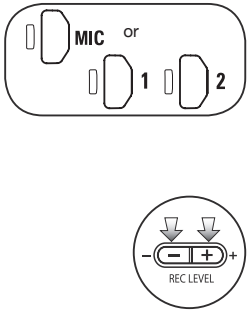
1-01 Settings/recording: Setting input sources and recording levels

Make recording settings for the built-in mics and external input jacks.

STEREO MODE

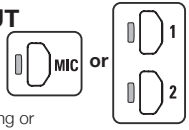
Use either MIC or INPUT 1 and 2 as the stereo input source.



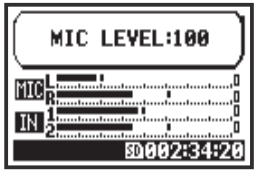


1 Select INPUT and press.

* Selection is possible when stopped, recording or in recording standby.



2 Use REC LEVEL to adjust the levels.



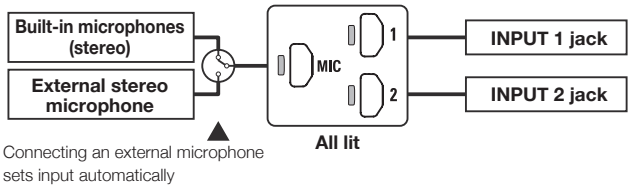
HINT:

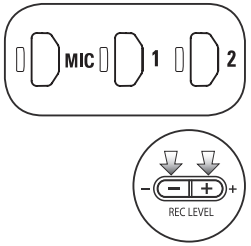
INPUT 1 and 2 recording levels can be set independently.

Ref. ☞Recording functions: INPUT 1/2 LEVEL LINK P.071

4CH MODE

Use both MIC and INPUT 1 and 2 as stereo inputs.





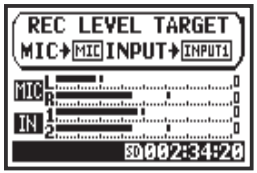
1 Select INPUT and press.

The recording level of the selected is shown

2 Use REC LEVEL to adjust the levels.

HINT:

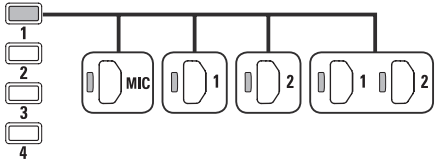
On the 4CH mode top screen, if you press a REC LEVEL button, “REC LEVEL TARGET” appears. Select the input and adjust it.



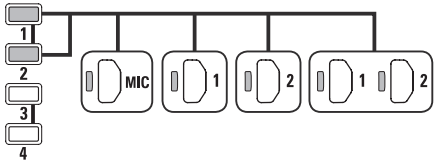
MTR MODE

All tracks can be independently set for mono or stereo input.

Select input for each individual track and adjust.

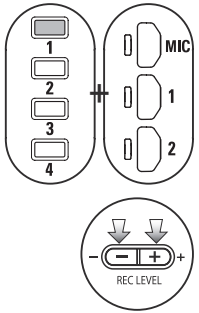


Select input for two tracks and adjust.



TRACK 1	TRACK 2	TRACK 3	TRACK 4
Mono	Stereo	Mono	Mono
Stereo		Mono	Mono
Mono	Mono	Stereo	
Stereo		Stereo	

Set the REC LEVEL



1 Press the selected track and input button.

2 Use REC LEVEL to adjust the level.

HINT:

In MTR mode, you can record multiple tracks separately. You can also select any input for each track when recording.

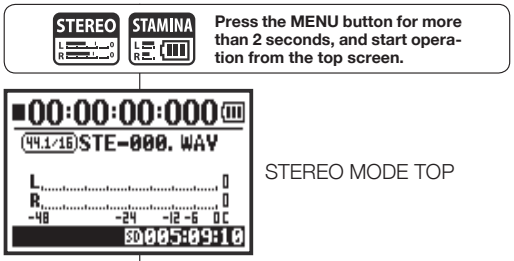
1-02 Settings/recording: Recording in STEREO and STAMINA modes

These are the steps to record in STEREO or STAMINA mode.

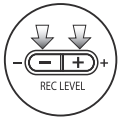
Recording process

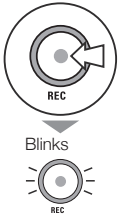
- Confirm the mode is STEREO.
- Change recording settings.* REC FORMAT, FILE NAME TYPE
- Use recording functions.* AUTO REC/STOP, PRE REC, REC LEVEL AUTO
- Use METRONOME*
- 1. Enter recording standby 2. Select input source 3. Adjust recording level of source
- Record 4. Start recording. (Pause, resume recording, add marks.)
- 5. End recording

*You can record without making these settings.

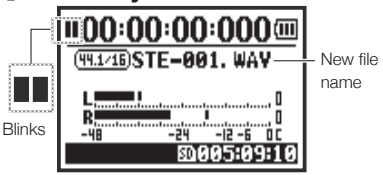


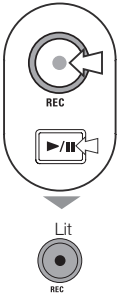
STEREO MODE TOP

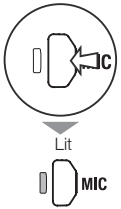




1 Press to enter recording standby.

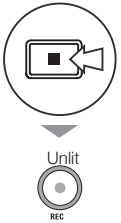




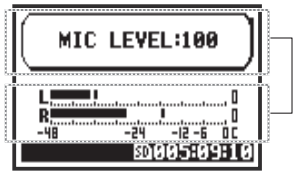


2 Select input source and press.

Press MIC to use the built-in mics, or press INPUT 1 or 2 to use external inputs.

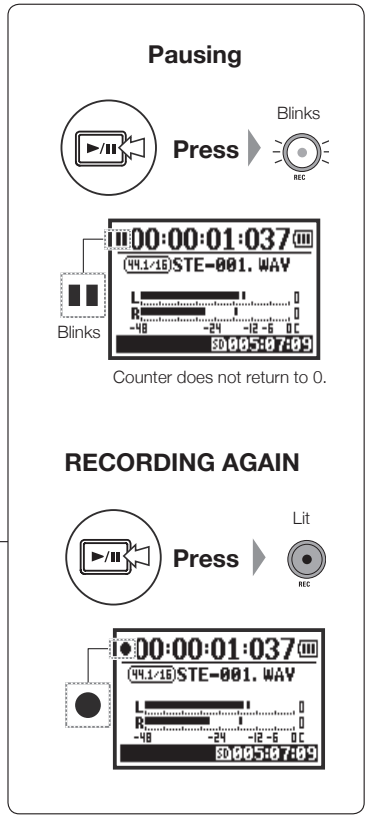


3 Adjust the recording level of the input source.



4 Press to start recording.

5 Press to end recording.



HINT:

Recording format

In STEREO mode you can record in 19 different WAV and MP3 file formats. The recording format must be selected before recording a file begins.

File naming

Recorded files are named automatically. Choose from two formats. The default format is DEFAULT.
DEFAULT: STE-xxx
DATE: 090531-xxx
The recording date is in yymmdd format.

Marks

When the recording format is WAV, you can mark a file by pressing the REC button while recording. You can move swiftly to marked positions during playback. When you pause recording of a WAV file, a mark will be added at the paused point.

NOTE:

During recording and playback, the recording format and file name type cannot be changed.

Ref. ☞

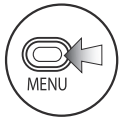
REC FORMAT	P.049	FILE NAME	P.050
Mark setting	P.096	METRONOME	P.079
AUTO REC	P.063	PRE REC	P.065
REC LEVEL AUTO	P.069		

1-03 Settings/recording: Recording format (REC FORMAT)

Set the recording format (REC FORMAT) before recording.

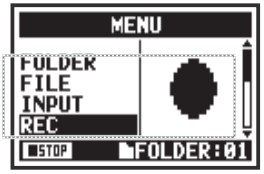
STEREO 4CH

Press the MENU button for more than 2 seconds, and start operation from the top screen.

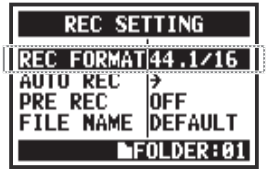


1 Press.

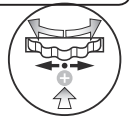
2 Select REC and press.



3 Select REC FORMAT and press.



Shortcut
Press TRACK 4 on the top screen.



4 Select one and press.

Default:
WAV44.1 kHz/16bit

NOTE:

How to use WAV and MP3 format

- WAV files with no compression are used for high-quality sound recording. Since data is not compressed, files are larger than MP3 files.
- MP3 files have lower sound quality because of data compression, but are useful to save SD card capacity and record more.

HINT:

Types of WAV files

44.1/48/96 kHz indicates the sampling rate of the analog-to-digital conversion. 16/24-bit indicates the bit depth of the analog-to-digital conversion.
The larger the number, the higher the sound quality,and the larger the file size.
WAV files recorded in STEREO/4CH/STAMINA mode comply with BWF (Broadcast Wave Format) and include marks and creation dates.

Types of MP3 files

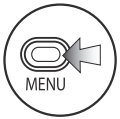
Select the bit rate, which is the amount of data per second. The higher the number, the lower the rate of compression and the better the sound quality. MP3 files that are more compressed occupy less space on SD cards.
VBR (Variable Bit Rate) means the bit rate is automatically adjusted based on the input information.

REC FORMAT	
STEREO mode	
WAV	44.1kHz/16bit 44.1kHz/24bit 48kHz/16bit 48kHz/24bit 96kHz/16bit 96kHz/24bit
MP3	48kbps 56kbps 64kbps 80kbps 96kbps 112kbps 128kbps 160kbps 192kbps 224kbps 256kbps 320kbps VBR
4CH mode	
WAV	44.1kHz/16bit 44.1kHz/24bit 48kHz/16bit 48kHz/24bit

1-04 Settings/recording: File name (FILE NAME)

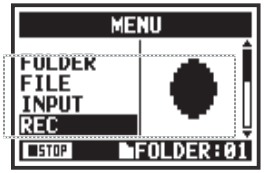
When recording, the file name is automatically assigned. Follow these procedures to change the format.

Press the MENU button for more than 2 seconds, and start operation from the top screen.

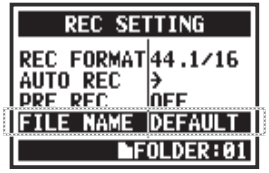


1 Press.

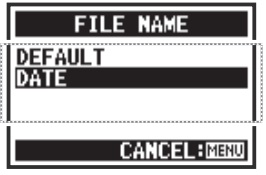
2 Select REC and press.



3 Select FILE NAME and press.



4 Select and press.



The default setting is DEFAULT.

File Name	
STEREO mode	
DEFAULT	STE/MONO--xxx.wav/mp3 (STE: stereo, MONO: mono; XXX: 3-digit number; wav/mp3 extension)
DATE	090531-xxx.wav/mp3 (yymmdd; 3-digit number; wav/mp3 extension)

4CH mode	
No change	4CH-xxxM.wav File recorded using the built-in microphones 4CH-xxxI.wav File recorded using the external input

MTR mode	
Stereo and mono files	TRK1-××.wav (TRK: track number; 2-digit number, extension) For stereo tracks, track numbers like 12 for L and R are used.

NOTE:

- You can set the DATE type only in STEREO mode.
- You can use other file names in STEREO and MTR mode. Use FILE RENAME to make these settings.

Ref. ☞
FILE RENAME
P.109

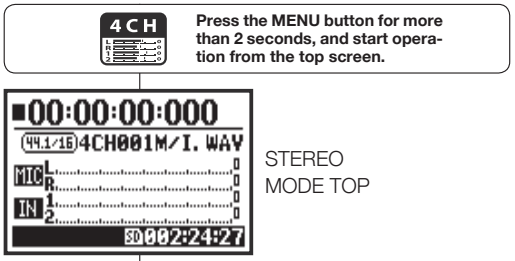
1-05 Settings/recording: 4CH mode recording

This is the method to record 4 channels (2 stereo) from the built-in mic and the external input jacks.

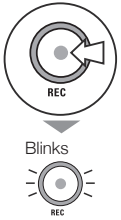
Recording process

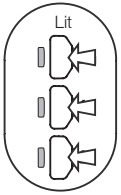
- Switch to 4CH mode
- Change recording setting.* REC FORMAT
- Use recording functions.* AUTO REC/STOP, PRE REC, REC LEVEL AUTO
- Use METRONOME*
- 1. Enter recording standby 2. Select input source 3. Adjust recording level of source
- Record 4. Start recording. (Pause, resume recording, add marks.)
- 5. End recording

*You can record without making these settings.

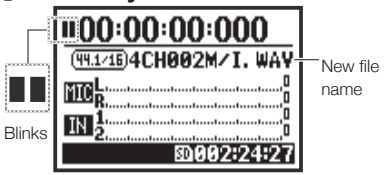


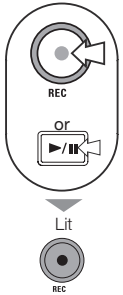
STEREO MODE TOP





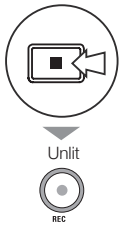
1 Press to enter recording standby.

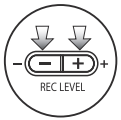




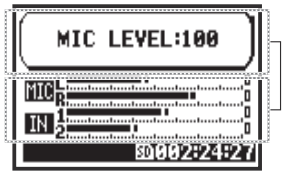
2 Select the input sources and press.

Select mic for the built-in microphones
Select INPUT 1 or 2 for external inputs





3 Adjust the recording level of the input source.



4 Press to start recording.

5 Press to end recording.

Pausing

Counter does not return to 0.

RECORDING AGAIN

Continue recording from the paused position in the same file.

HINT:

File naming

In 4CH mode the input from the built-in and the external inputs are saved separately as stereo WAV files.

Those 2 files are always managed as a pair and named as follows according to the input.

MIC file: 4CHxxxM.wav

INPUT 1/2 file: 4CHxxxI.wav

On screen, the 2 files are shown together as M/I.

* You cannot change the file names.

File name

Recording format

Change before recording.

Marks

When the recording format is WAV, you can mark a file by pressing the REC button while recording. You can move swiftly to marked positions during playback. When you pause recording of a WAV file, a mark will be added at the paused point.

NOTE:

During recording and playback, the recording format and file name type cannot be changed.

Ref. ☞

REC FORMAT	P.049	FILE NAME	P.050
Mark setting	P.096	METRONOME	P.079
AUTO REC	P.063	PRE REC	P.065
REC LEVEL AUTO	P.069	Mode change	P.036

1-06-1 Settings/recording: MTR mode recording (REC MODE)

Using multiple tracks, you can combine mono and stereo recordings.

Recording flow

Change to MTR mode

↓

Create a new PROJECT

↓

Record the first track

Select the REC mode

OVER WRITE (overwrite recordings)	ALWAYS NEW (create new recordings)
Set up PUNCH IN/OUT*	
Use the METRONOME*	Use the METRONOME*
Set up EFFECT*	Set up EFFECT*
Recording Standby	
Select the track to record • Select the input source • Adjust the recording level of the source	Select the track to record • Select the input source • Adjust the recording level of the source
Start recording	
	Pause Resume
End recording	
Make settings (mix) • TRACK MENU settings Adjust the track • LEVEL • PAN	Make settings (mix) • TRACK MENU settings Adjust the track • LEVEL • PAN

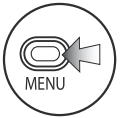
↓

Record the second track

*You can record without making these settings.

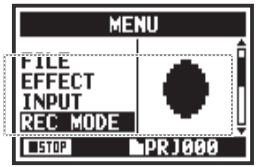
Set REC MODE to OVER WRITE or ALWAYS NEW

Press the MENU button for more than 2 seconds, and start operation from the top screen.



1 Press.

2 Select REC MODE and press.



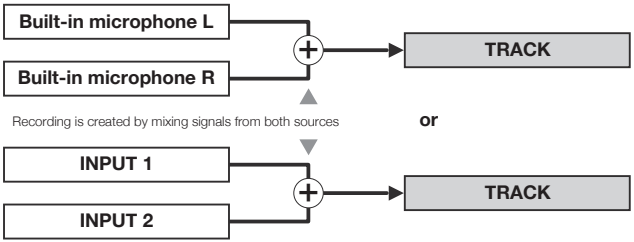
3 Select either OVER WRITE or ALWAYS NEW and press.

Input sources and tracks

When recording only one track

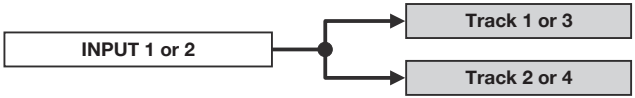
1. Input source is either INPUT 1 or INPUT 2

2. Input source is MIC or INPUT 1 and 2



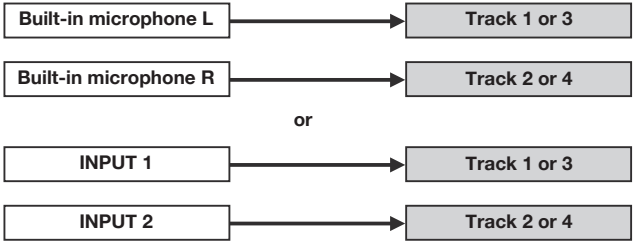
When recording two tracks

1. Input source is either INPUT 1 or INPUT 2



The same signal is sent to both tracks.

2. Input source is MIC or INPUT 1 and 2

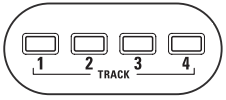


1-06-2 Settings/recording: MTR mode recording (OVER WRITE)

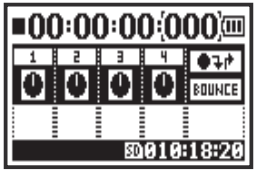
You can select from two recording modes.
Using the OVER WRITE mode, you can overwrite new sounds on the existing file.

Press the MENU button for more than 2 seconds, and start operation from the top screen.

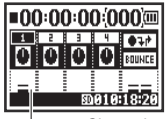
Make settings as needed
☞ Input setting ... P.054
☞ Recording functions ... P.057–



1 Select the TRACK.



MTR mode top

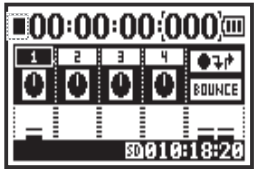


Shows input level

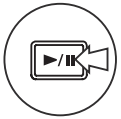
The selected TRACK lights

2 Press.

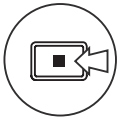
Lit



Counter will not reset to 0.

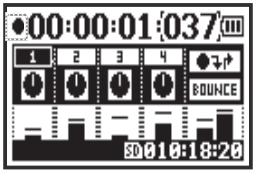


Lit

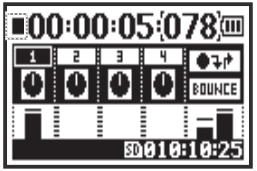


Unlit

3 Press to start recording.



4 Press to stop recording.



Counter does not reset to 0.

Use the REW button to return to the beginning of the file. Then, press the PLAY/PAUSE button to listen to what you have just recorded.

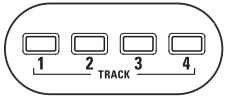
1-06-3 Settings/recording: MTR mode recording (ALWAYS NEW)

In ALWAYS NEW mode, a new file is made for every recording.

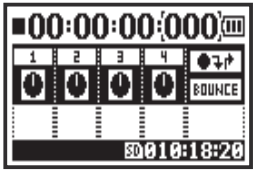
Press the MENU button for more than 2 seconds, and start operation from the top screen.

Make settings as needed

☞ Input setting ... P.054
☞ Recording functions ... P.057–

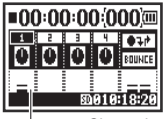


1 Select the TRACK.



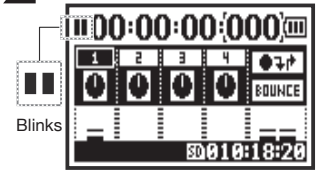
MTR mode top

The selected TRACK lights



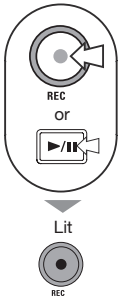
Shows input level

2 Press.

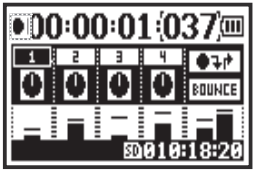


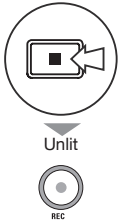
Blinks

Counter will not reset to 0.

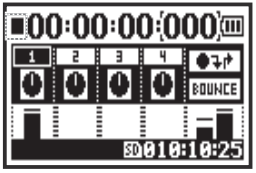


3 Press to start recording.





4 Press to stop recording.



Counter does not reset to 0.

Use the PLAY/PAUSE button to listen to the recorded file.

1-07 Settings/recording: TRACK MENU

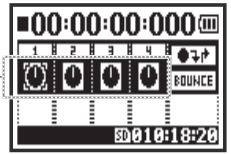
This menu to set tracks is available only in MTR mode.
Link tracks to create stereo track and set output effects.

Press the MENU button for more than 2 seconds, and start operation from the top screen.

Select a project and start P.119

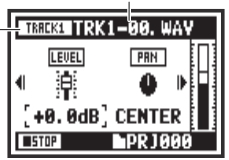
Select TRACK MENU

1 On the top screen select a track menu icon and press.



Track menu icon

TRACK MENU
Name of file assigned to track



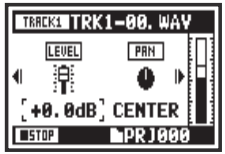
Currently selected track

HINT: LEVEL

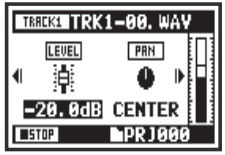
Set the track output level
Setting values: Mute, –48.0dB – +12.0dB
Default: 0.0dB

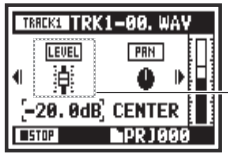
Adjust the track output level

Select LEVEL and press.



Set the value and press.





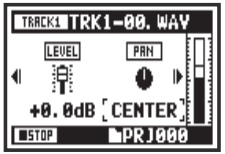
Fader icon changes

HINT: PAN

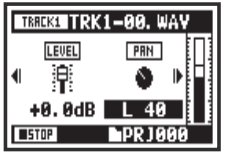
Set the left–right position of the track.
Setting values: L100 – C – R100
Default: C (Center)

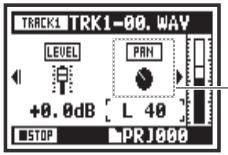
Adjust the panning

Select PAN and press.



Set the value and press.





Pan icon changes

NOTE:

STEREO LINK, FILE and KARAOKE settings are not available during recording or playback for tracks that are record ready.

HINT: Stereo link

Turning stereo link ON creates a stereo track from tracks 1 and 2 or 3 and 4. Setting stereo link OFF creates mono tracks. Setting values: ON/OFF (default: OFF)

NOTE:

- You can only play mono files on mono tracks and stereo files on stereo tracks.
- When LINK is turned ON, no file will be assigned to the track, so "NO DATA" will appear.
- If you change it from ON to OFF, the previous PAN setting is restored.
- When you change from OFF to ON, the LEVEL and PAN settings are reset to their defaults.

NOTE:

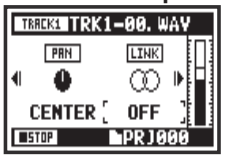
- You cannot record on the KARAOKE track.
- If LINK is turned ON automatically when set to a mono track, "NO DATA" will result.
- When a KARAOKE track has been set, you cannot set other tracks to KARAOKE.

HINT: Karaoke

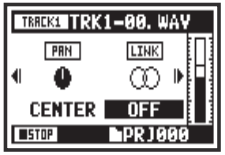
You can only use the KARAOKE setting on one pair of stereo tracks: either 1 and 2 or 3 and 4. In KARAOKE mode, you can use KEY CONTROL and CENTER CANCEL functions.
Setting values: ON/OFF (default: OFF)

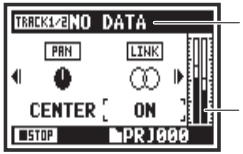
Setting stereo link

Select LINK and press.



Set the value and press.



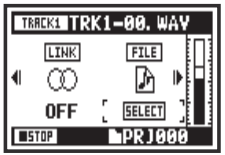


Since format changed, "NO DATA" appears.

Level meter becomes stereo.

Assigning files to tracks

Select FILE and press.

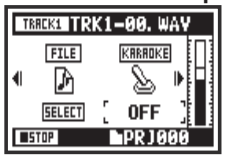


Select the file to be assigned and press.

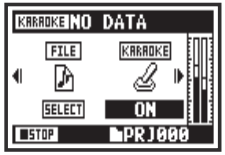
List of files with the matching format that can be assigned

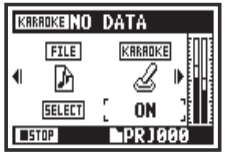
Setting KARAOKE

Select KARAOKE and press.



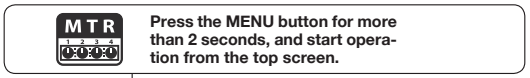
Set the value and press.





1-08-1 Settings/recording: Automatic re-recording (PUNCH IN/OUT)

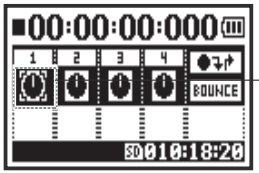
The PUNCH IN/OUT function allows you to partially re-record a recorded file.
Here we explain how to use PUNCH IN and PUNCH OUT automatically.



Change the REC MODE to OVER WRITE P.053

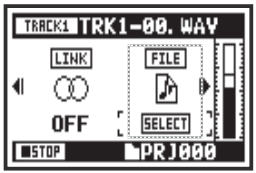
Assign files to tracks

1 On the top screen select the track menu icon and press.

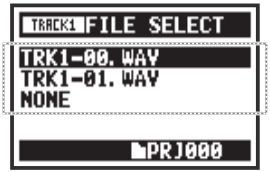


Track menu icon

2 Select FILE and press.

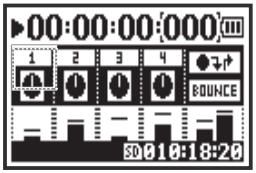


3 Select the desired file and press.

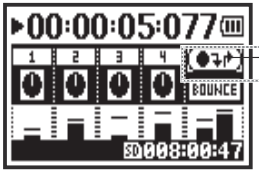


Set the recording start (punch in) point

4 Press to start playback.

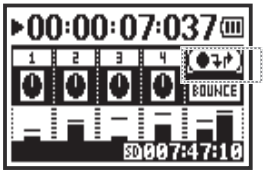


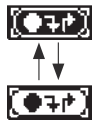
5 Select the punch in/out icon and press.



Punch in/out icon

6 Find the desired punch in point and press.





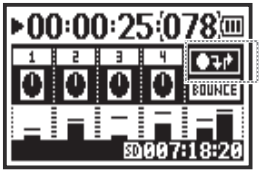
Icon changes

NOTE:

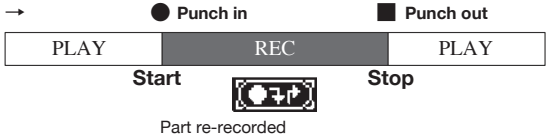
Setting available only for OVER WRITE recording in MTR mode.

Set the recording end (punch out) point

7 Press the desired punch out point.



PUNCH OUT setting confirmed

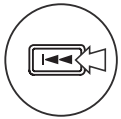


Part re-recorded

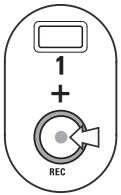
HINT:

- You can set the punch in/out points while stopped by using the counter. First set a time and move the cursor to the punch in/out icon, and then press the DIAL.
- After setting the punch out point in step 7, pressing the DIAL again will cancel all the settings.

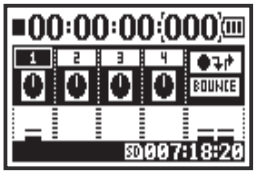
Re-recording



8 Rewind to the file beginning (counter at 0) or to a position before the punch in point.

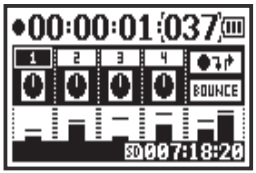


9 Press to put TRACK 1 into recording standby.



1 When in punch in/out mode, the track button lights during recording and blinks in recording standby.

10 Press to start TRACK 1 playback/recording.



When the track reaches the punch in point, the REC light will turn on and recording will start.

When the track reaches the punch out point, the light will blink and recording will stop.

Ref. ☞ Specifying a counter time P.102

1-08-2 Settings/recording: Manual re-recording (PUNCH IN/OUT)

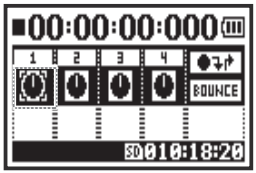
Using OVER WRITE recording in MTR mode, you can manually punch in and out.
Press the REC button during playback to start re-recording from that point.

Press the MENU button for more than 2 seconds, and start operation from the top screen.

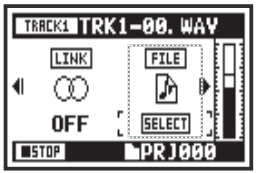
Change the REC MODE to OVER WRITE P.053

Assign files to tracks

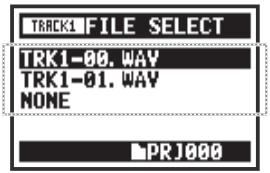
1 On the top screen select the track menu icon and press.



2 Select FILE and press.

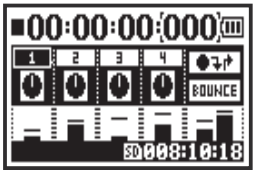


3 Select the desired file and press.

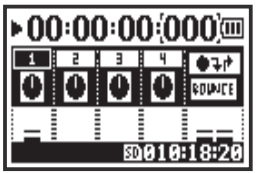


Playback

4 Press to enter recording standby.



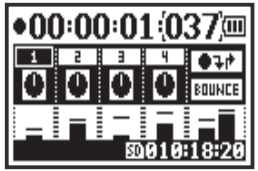
5 Press to start playback.



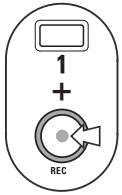
Re-recording (manually punching in/out)

6 Perform (not recording).

7 Press to start recording.

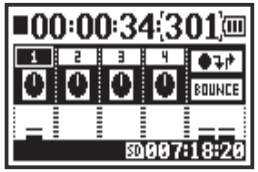


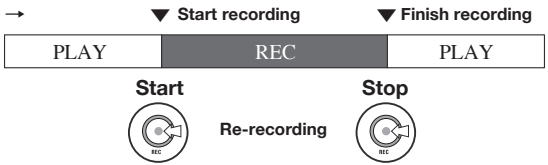
8 Perform (recording).



9 Press to finish recording.

10 Press to stop playback.

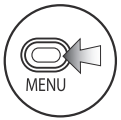




2-01-1 Recording functions: AUTO REC

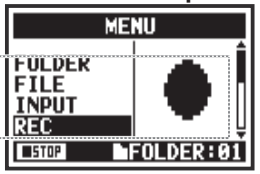
The H4n Pro can detect when the input level exceeds a preset level and automatically start recording from recording standby.

Press the MENU button for more than 2 seconds, and start operation from the top screen.

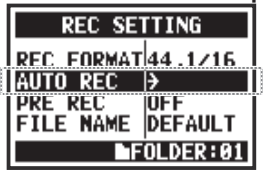


1 Press.

2 Select REC and press.

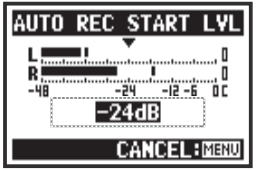


3 Select AUTO REC and press.



4 Select START LVL (starting level) and press.

5 Adjust the level.



Set the input level that will start recording automatically.

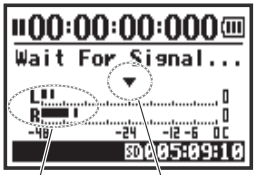
6 Select ON/OFF and press.

7 Select ON and press.

HINT:

"Wait for Signal" message

If the AUTO REC function is ON, "Wait for Signal" appears when in recording standby. The unit is sensing whether the input level exceeds the recording start level.



When "Wait for Signal" appears, you can press the REC button to start recording manually.

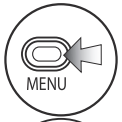
NOTE:

- You cannot make this setting during recording or playback.
- You cannot use this function together with REC LEVEL AUTO, PRE REC or PRE COUNT.

2-01-2 Recording functions: AUTO REC STOP

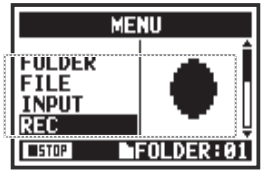
When AUTO REC is ON and the H4n Pro is recording, it will automatically stop when the input level goes below the preset level.

Press the MENU button for more than 2 seconds, and start operation from the top screen.

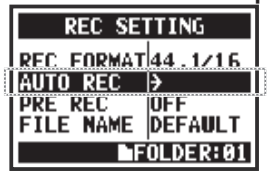


1 Press.

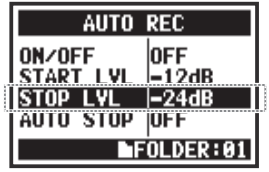
2 Select REC and press.



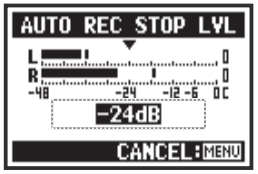
3 Select AUTO REC and press.



4 Select STOP LVL (stop level) and press.

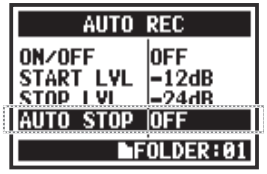


5 Adjust the level.

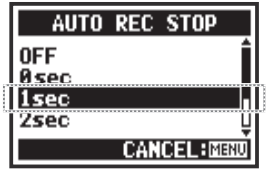


Set the input level at which recording will stop

6 Select AUTO STOP and press.



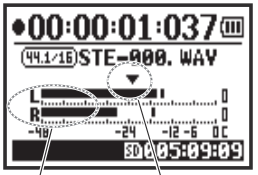
7 Set the time.



Set the time (1-5 seconds) until recording stops after the level becomes lower than the STOP LEVEL.

HINT:

When AUTO STOP is on, a stop level indicator appears during recording.



Stop level

Current input level

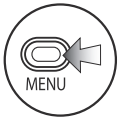
HINT:

- You cannot make this setting during recording or playback.
- Even when AUTO STOP is on, you can press the STOP button to stop recording.

2-02 Recording functions: PRE REC

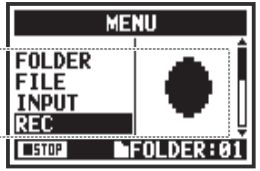
When PRE REC is ON, up to 2 seconds before the REC button is pressed will automatically be captured in the recording.

Press the MENU button for more than 2 seconds, and start operation from the top screen.

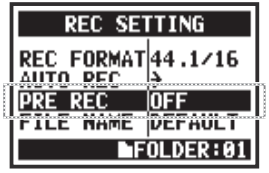


1 Press.

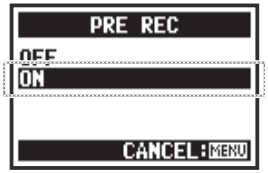
2 Select REC and press.



3 Select PRE REC and press.



4 Select ON and press.



HINT:

When PRE REC is ON, the H4n Pro will pre-record audio two seconds before the record button is pressed.

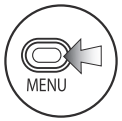
NOTE:

- You cannot make this setting during recording and playback.
- When recording at 96 kHz in 4CH mode, the maximum PRE REC time is one second.
- You cannot use this function together with AUTO REC and PRE COUNT.

2-03 Recording functions: LO CUT

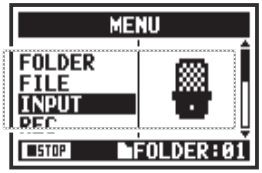
The LO CUT filter setting allows you to eliminate wind or blowing noises.

Press the MENU button for more than 2 seconds, and start operation from the top screen.

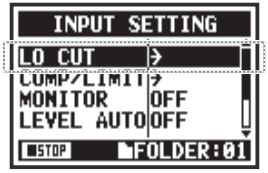


1 Press.

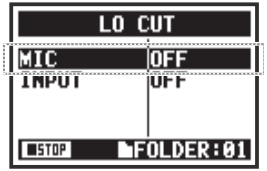
2 Select INPUT and press.



3 Select LO CUT and press.



4 Select the input source and press.



5 Select the cutoff frequency and press.

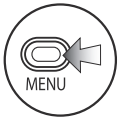
HINT:

- You can select from eleven LO CUT filter frequencies: OFF, 80, 98, 115, 133, 150, 168, 185, 203, 220, and 237 Hz. When using higher values, you should test the effect before recording.
- The smaller the number, the lower the cut-off frequency.

2-04 Recording functions: COMP/LIMIT

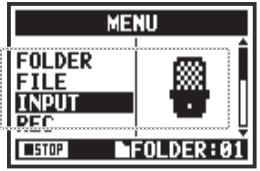
The COMP/LIMIT function can compensate for volume differences. For each input source, low-level input signals are raised and high-level input signals are lowered when recording.

STEREO 4CH **Press the MENU button for more than 2 seconds, and start operation from the top screen.**

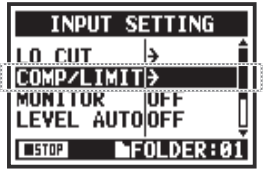


1 Press.

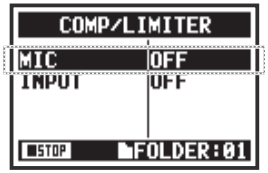
2 Select INPUT and press.



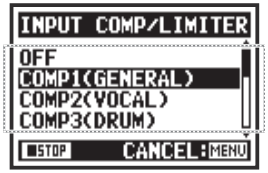
3 Select COMP/LIMIT and press.



4 Select the setting input source.



5 Select the setting target.



HINT

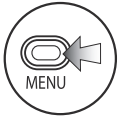
Type	Explanation		Threshold (dB)	Ratio	Output level (dB)	Attack time (ms)	Release time (ms)
OFF	Compressor and limiter OFF		-	-	-	-	-
COMP1 (GENERAL)	Standard compressor	These compressors reduce high-level sounds and raise the minimum level.	-48.7	9:1	+6.0	7.2	968
COMP2 (VOCAL)	This compressor is good for vocals.		-8.4	16:1	0	1.8	8.7
COMP3 (DRUM)	This compressor is good for drums and percussion.		-48.2	7:1	+3.6	12.3	947
LIMIT1 (GENERAL)	Standard limiter	Limiters compress when input signals exceed the fixed level.	-14.4	60:1	0	6.4	528
LIMIT2 (CONCERT)	Limiter good for live performance		-13.8	32:1	+1.2	1.9	8.5
LIMIT3 (STUDIO)	Limiter good for studio recording		-12.0	8:1	+1.2	6.5	423

2-05 Recording functions: REC LEVEL AUTO

STEREO 4CH

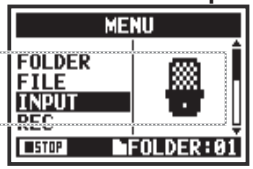
This function automatically sets the level for recording.

STEREO 4CH **Press the MENU button for more than 2 seconds, and start operation from the top screen.**

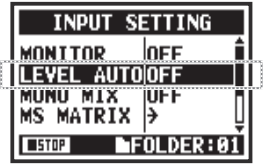


1 Press.

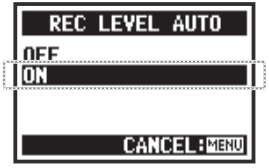
2 Select INPUT and press.



3 Select LEVEL AUTO and press.



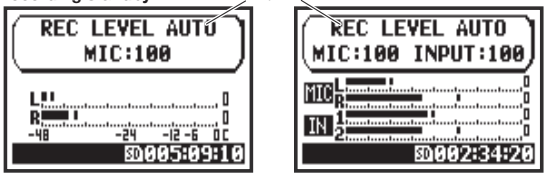
4 Select ON.



HINT:

When REC LEVEL AUTO is used, the unit automatically sets recording levels using signals present during recording standby. If the volume surpasses 6 dB during recording, the input level is automatically adjusted with the new level shown on the screen for two seconds.

Display in recording standby Current input level



Stereo mode 4CH mode

Display when -6 dB is exceeded while recording

NOTE:

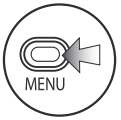
- You cannot use this function together with AUTO REC.
- You cannot make this setting during recording and playback.

2-06 Recording functions: MONITOR

Turning on the MONITOR function allows you to monitor input signals at all times.

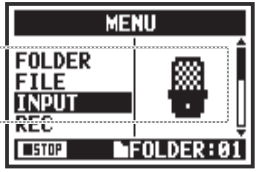
STEREO 4CH MTR STAMINA

Press the MENU button for more than 2 seconds, and start operation from the top screen.

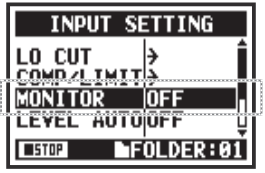


1 Press.

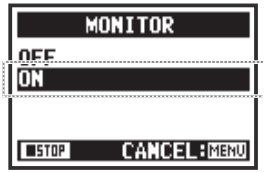
2 Select INPUT and press.



3 Select MONITOR and press.



4 Select ON and press.



HINT:

You can always monitor the input source through the LINE/PHONE stereo out mini jack when in recording standby.

NOTE:

You cannot monitor input sounds through the built-in speaker.

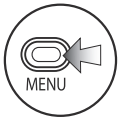
2-07 Recording functions: INPUT 1/2 LEVEL LINK

STEREO 4CH STAMINA

The recording levels for INPUT 1 and 2 can be set separately.
This is useful when connecting different types of mics to these jacks.

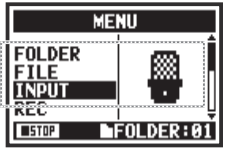
STEREO 4CH STAMINA **Press the MENU button for more than 2 seconds, and start operation from the top screen.**

Preparation

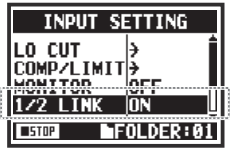


1 Press.

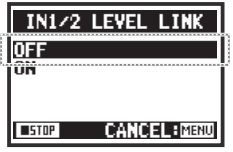
2 Select INPUT and press.



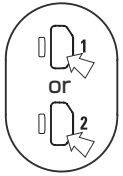
3 Select 1/2 LINK.



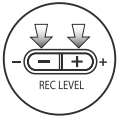
4 Select OFF and press.



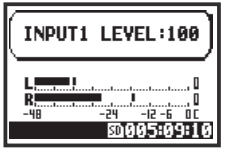
Set recording levels separately

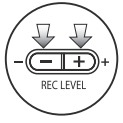


5 Press INPUT 1 or INPUT 2.

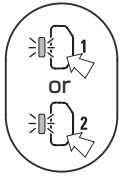


8 Use the REC LEVEL buttons to adjust the recording level.





6 Press the REC LEVEL buttons.



7 Press the button for the input to adjust.

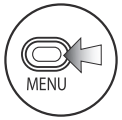
NOTE:

This function can be used in STEREO, 4CH and STAMINA modes only when MS MATRIX and MONO MIX are OFF.

2-08 Recording functions: MONO MIX

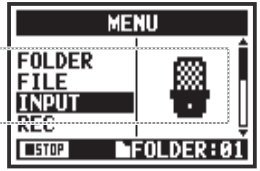
STEREO

Press the MENU button for more than 2 seconds, and start operation from the top screen.

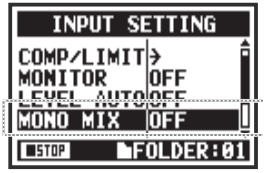


1 Press.

2 Select INPUT and press.



3 Select MONO MIX and press.



4 Select ON and press.

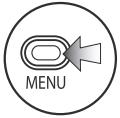
NOTE:

- The names of files recorded with MONO MIX are formatted like “MONO-xxx”.
- You cannot use this function together with MS STEREO MATRIX.
- You cannot use this setting during recording and playback.

2-09 Recording functions: MS STEREO MATRIX

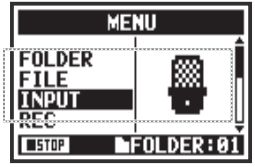
This function enables you to convert stereo microphone signals when using a mid-side recording configuration.

STEREO 4CH **Press the MENU button for more than 2 seconds, and start operation from the top screen.**

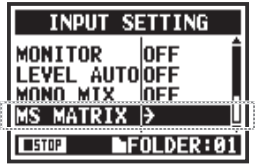


1 Press.

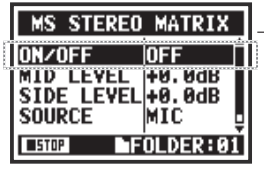
2 Select INPUT and press.



3 Select MS MATRIX and press.

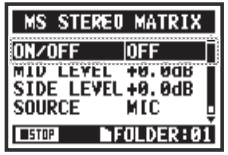


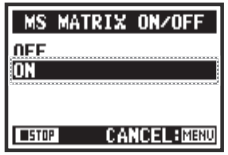
4 Make each setting accordingly.



ON/OFF

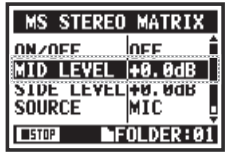
Set MS STEREO MATRIX to ON or OFF.

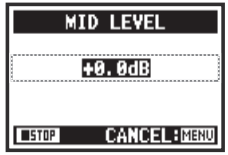




MID LEVEL

Set the level of the directional MID mic that is pointed at the recording target.
Setting values: MUTE, –48.0 – +12.0 dB
Default: +0.0dB

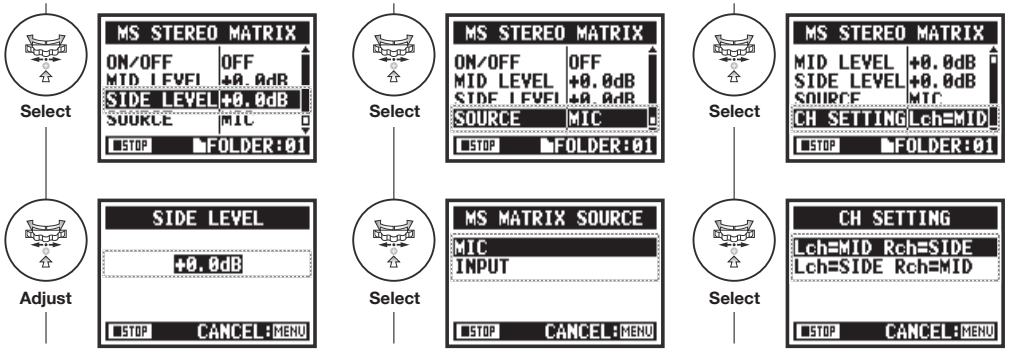




SIDE LEVEL
Set the level of the bidirectional SIDE mic, which is perpendicular to the MID mic.
Setting values: MUTE, –48.0 – +12.0dB
Default: +0.0dB

SOURCE
Set the input used (only in 4CH mode).

CH SETTING
Assign the MID and SIDE inputs to the left (INPUT 1) and right (INPUT 2) channels.



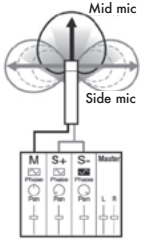
NOTE:

You cannot use this function together with MONO MIX.

NOTE

MS stereo format overview

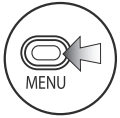
This technique converts input from a directional mid mic, which captures sound in the center, and a bidirectional side mic, which captures sounds from the left and right, to stereo. You can change the stereo width as you like by adjusting the side mic level.
Since this technique can capture a wide stereo image, it is ideal for recording large open spaces with numerous sound sources, including orchestras, live concerts and soundscapes. This technique is also extremely effective when you want to adjust room ambience. Since it offers a high degree of freedom, it is used not only for studio recording but also for a wide range of recording—even of rehearsals and live performances.



3-01-1 Tuner: CHROMATIC TUNER

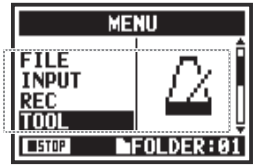
The H4n Pro features a tuner with multiple tuning modes.

Press the MENU button for more than 2 seconds, and start operation from the top screen.

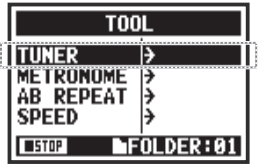


1 Press.

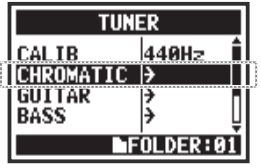
2 Select TOOL and press.



3 Select TUNER and press.

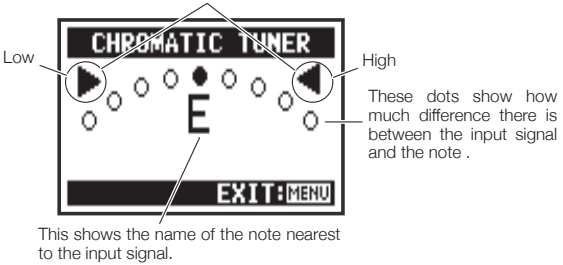


4 Select CHROMATIC and press.



5 Tune the instrument.

The indicators show whether the input signals are higher or lower than the note shown.
Both marks light when the input signal matches the note.



HINT:

- The input source signal that is currently selected is used for tuning.
- In 4CH mode, at Step 4 select INPUT and set the input source, and then continue to step 5.

NOTE:

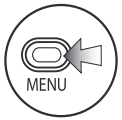
This cannot be used during recording and playback.

Ref. ☞ Tuner display
String number/note name P.078

3-01-2 Tuner: other TUNER types

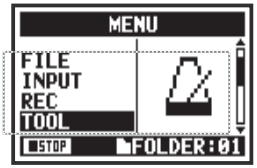
In addition to CHROMATIC, the other tuning modes are GUITAR, BASS, OPEN A, OPEN D, OPEN E, OPEN G and DADGAD.

Press the MENU button for more than 2 seconds, and start operation from the top screen.

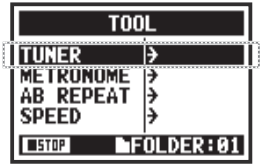


1 Press.

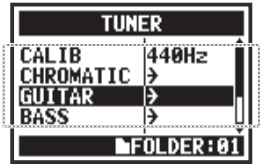
2 Select TOOL and press.



3 Select TUNER and press.

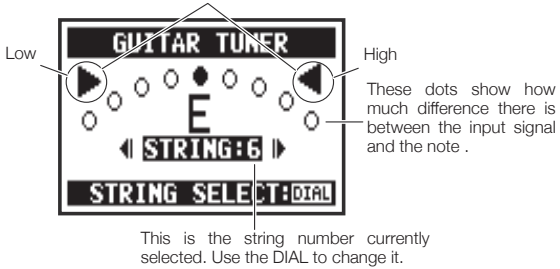


4 Select the tuning mode and press.



5 Tuning.

The indicators show whether the input signals are higher or lower than the note shown.
Both marks light when the input signal matches the note.



HINT:

- The input source signal that is currently selected is used for tuning.
- In 4CH mode, at Step 4 select INPUT and set the input source, and then continue to step 5.

NOTE:

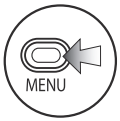
This cannot be used during recording and playback.

Ref. ☞ Tuner display
String number/note name P.078

3-01-3 Tuner: TUNER CALIB

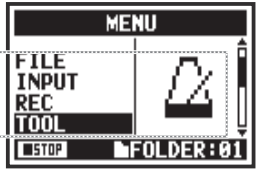
This function allows you to calibrate the tuner.

Press the MENU button for more than 2 seconds, and start operation from the top screen.

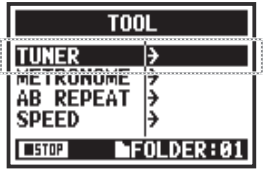


1 Press.

2 Select TOOL and press.

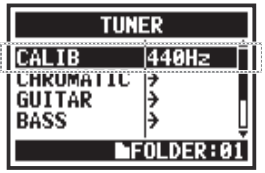


3 Select TUNER and press.

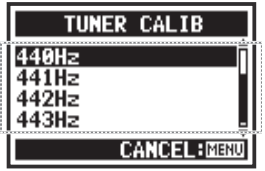


Use steps 1–3 for all TUNER operations.

4 Select CALIB and press.



5 Select the frequency.



HINT:

- The default setting is 440Hz.
- Set this between 435Hz and 445Hz in 1Hz increments.

NOTE:

This cannot be used during recording and playback.

3-01-4 Tuner: TUNER INPUT

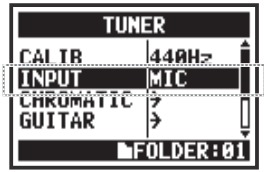
4CH mode only

In 4CH mode you can select the input source for the tuner.

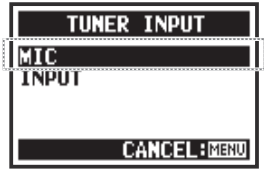
Press the MENU button for more than 2 seconds, and start operation from the top screen.

TUNER … P.075

4 Select INPUT and press.

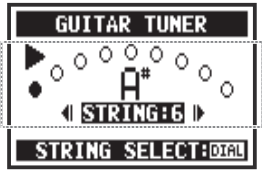


5 Select the input source and press.

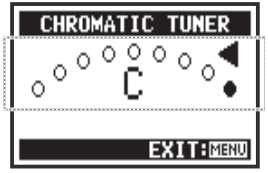


HINT:

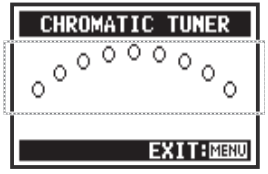
Tuner display



When pitch is low



When pitch is high



No input sound (chromatic)

Tuner types and string notes

Tuner type	String number/note name						
	1	2	3	4	5	6	7
GUITAR	E	B	G	D	A	E	B
BASS	G	D	A	E	B		
OPEN A	E	C#	A	E	A	E	
OPEN D	D	A	F#	D	A	D	
OPEN E	E	B	G#	E	B	E	
OPEN G	D	B	G	D	G	D	
DADGAD	D	A	G	D	A	D	

NOTE:

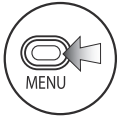
This cannot be used during recording and playback.

3-02 Metronome (METRONOME)

The metronome has convenient functions such as a pre-count.

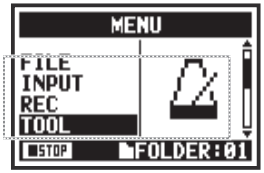
STEREO 4CH MTR

Press the MENU button for more than 2 seconds, and start operation from the top screen.

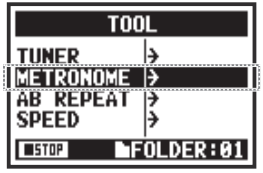


1 Press.

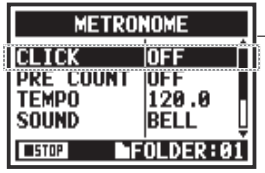
2 Select TOOL and press.



3 Select METRONOME and press.

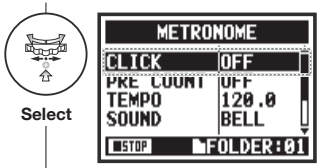


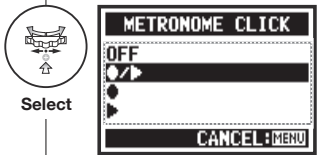
4 Set each item.



CLICK

This setting turns the metronome off or on during recording, playback or both. This setting must be made before recording or playback.



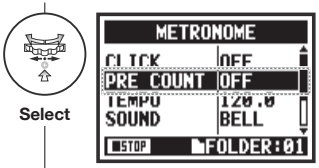


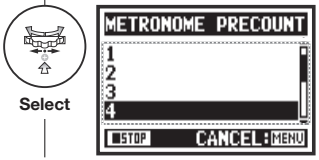
Select the condition

OFF
●／▶ ---Recording/playback
● ---Only when recording
▶ ---Only when playback

PRE COUNT

Set the count used before recording starts. This cannot be set if PRE REC or AUTO REC is ON.





Set the count to OFF, 1-8 beats or SPECIAL.

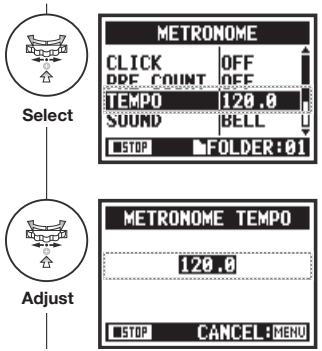
Count of SPECIAL

NOTE:

The metronome starts at the beginning of recording and playback. If you start in the middle of a song or track, the metronome beats may not be in sync with the song.

TEMPO

Set the metronome speed.

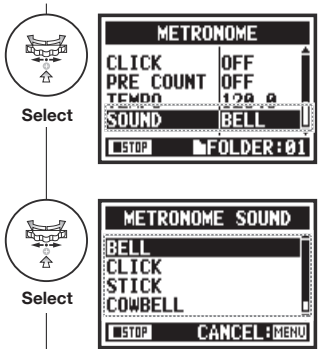


Default: 120.0

You can set this between 40.0 and 250.0 BPM in 0.1 increments.

SOUND

Set the metronome tone.

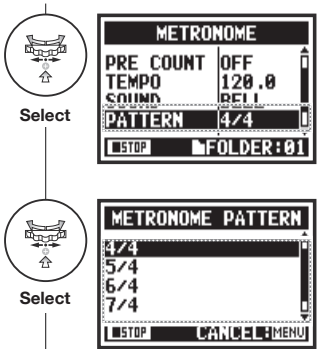


Default: bell

You can select BELL, CLICK, STICK, COWBELL or HI-Q.

PATTERN

Set the pattern of the metronome.

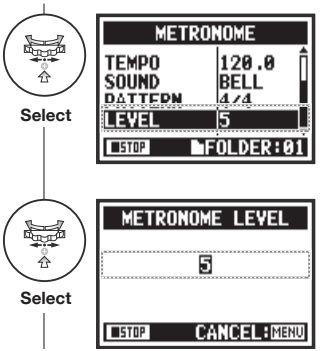


Default: 4/4.

You can this to 0/4 (no accent), 1/4 – 8/4 or 6/8.

LEVEL

Set the volume of the metronome.

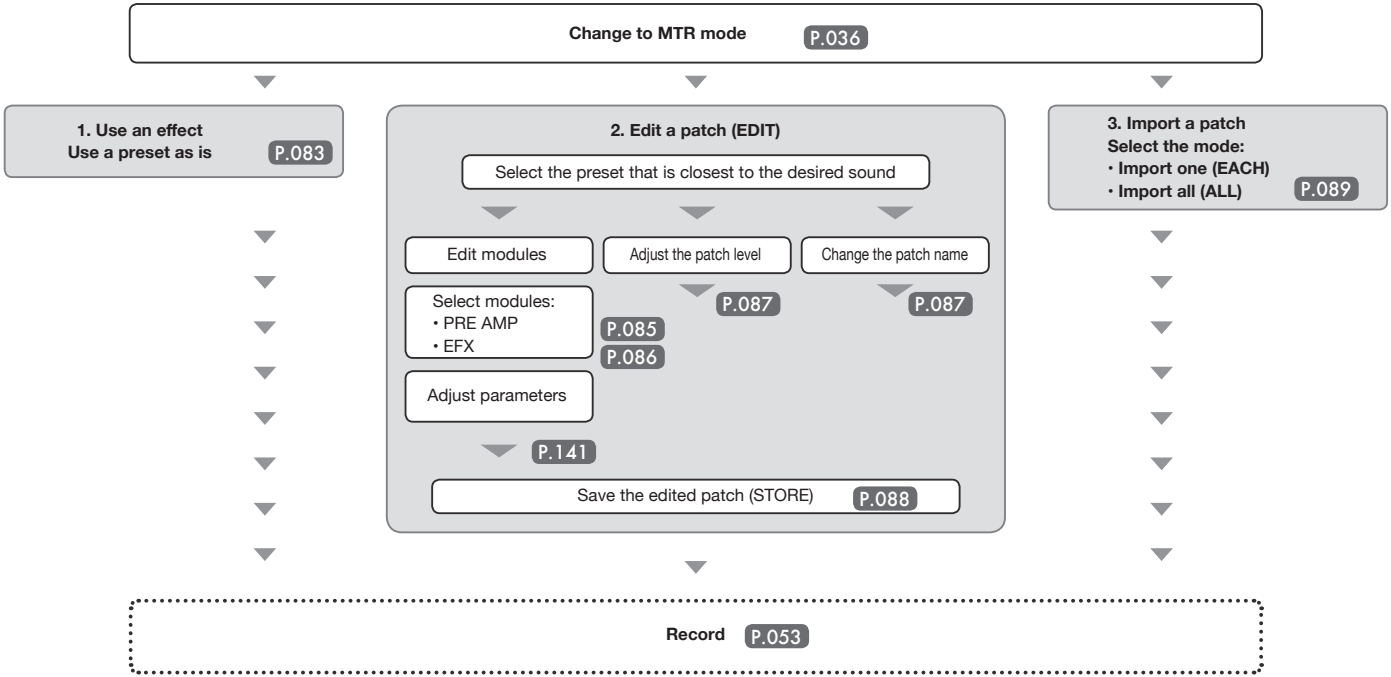


You can select from eleven levels.

3-03-1 Effects overview

This is an overview about how to use effects, including the process and input and output.

Effect use process



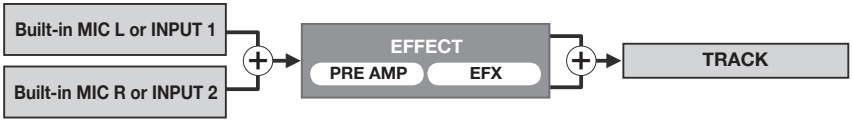
Effect input and output

You can use effects in MTR mode for mono and stereo signals. The flow of the signals will change according to the input sources and recording tracks.

One recording track

1. Input source is either INPUT 1 or 2

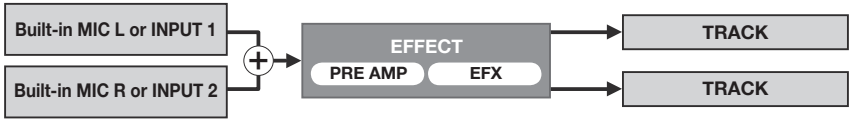
2. Input source is either MIC or INPUT 1 and 2



Two recording tracks

1. Input source is either INPUT 1 or 2

2. Input source is either MIC or INPUT 1 and 2

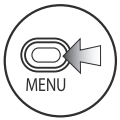


3-03-2 Effects (EFFECT)

MTR mode only

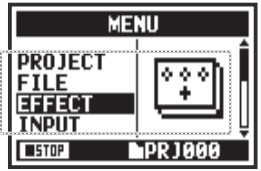
Using the 2 EFFECT modules in MTR mode, you can add various effects to the input signals.

Press the MENU button for more than 2 seconds, and start operation from the top screen.



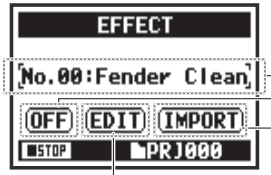
1 Press.

2 Select EFFECT and press.



3 Press ON and press.

4 Select No.: (patch name) and press.



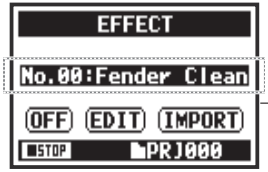
Patch number: patch name.

Turn EFFECT ON or OFF

IMPORT: Import a patch from another project

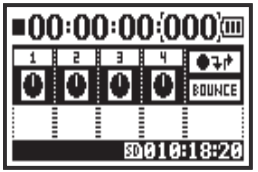
EDIT: Create a new patch or edit a patch

5 Select PATCH and press.



Ref. ☞
Patch list P.141 P.147

6 Press MENU for more than two seconds to return to the top screen.



NOTE:

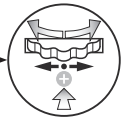
PATCH

Effects module settings are saved as a patch.
60 patches are available with 50 already programmed.

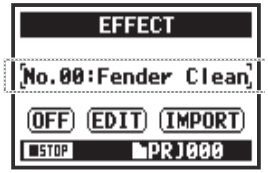
3-03-3 Patch editing (EFFECT EDIT)

MTR mode only

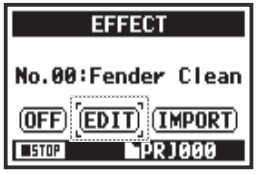
You can create your own patch by combining effects and adjusting the parameter settings.



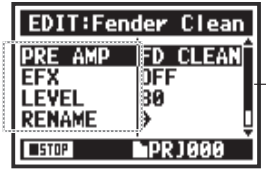
5 Select the desired No.:(patch name) and press.



6 Select EDIT and press.



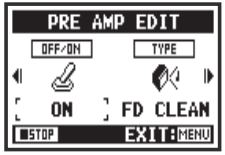
7 Select the parameter that you want to change and press.



EDIT MENU

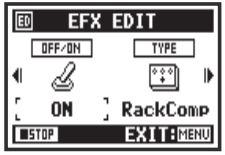
PRE AMP

The PRE AMP module has guitar and bass amp modeling effects.



EFX

The EFX module has modulation, chorus and delay effects.



LEVEL

Adjust the patch level.

RENAME

Change the patch name.

STORE

Save the edited patch.

3-03-4 PRE AMP module editing (EFFECT EDIT: PRE AMP)

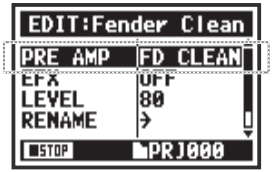
MTR mode only

You can edit preset effect patches as you like.

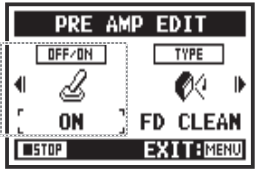
Select the desired PATCH and edit it P.084

Adjust the PRE AMP module

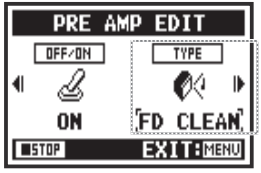
7 Select PRE AMP and press.



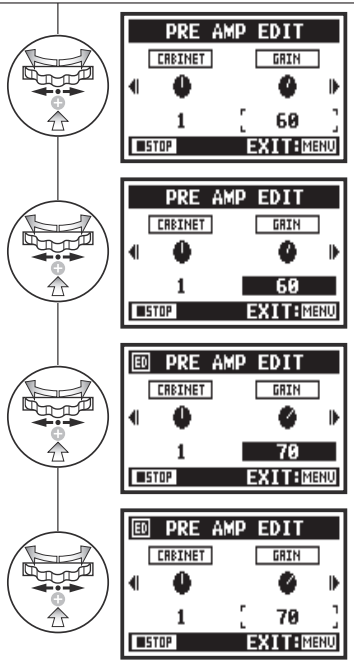
8 Press OFF/ON to turn the PRE AMP module on.



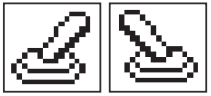
9 Select the parameter to edit and press.



Adjust a parameter



Icons



PRE AMP module ON/OFF status

Set effect AMP type

CABINET, EQ, LEVEL, etc.

ZNR icon

Ref. ☞
PRE AMP module parameters
P.141

3-03-5 EFX module editing (EFFECT EDIT: EFX)

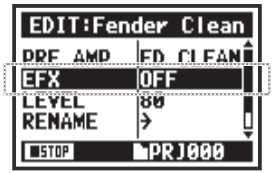
MTR mode only

Edit patch parameters to make the sound closer to the desired effect.

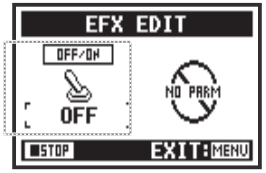
Select a patch close to the desired sound and edit it....P.084

Adjust the EFX module

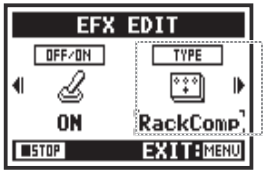
7 Select EFX and press.



8 Press OFF/ON to turn the EFX module on.



9 Select the parameter to edit and press.



HINT:

To select PRE AMP and EFX modules, make setting after changing the module status ON.
Default: When a module is OFF, no parameters or settings are shown.
When OFF, you cannot select modules.

Icons

EFX module ON/OFF status

Set effect EFX type

Various parameters

Ref. ☞
EFX module parameters
P.143

3-03-6 EFFECT EDIT: LEVEL/RENAME

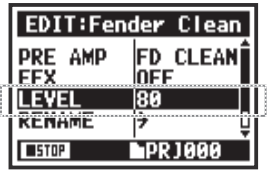
MTR mode only

Adjust the patch level and change the patch name.

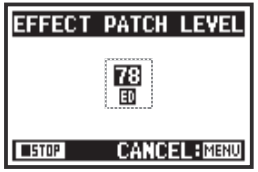
EFFECT EDIT … P.084

LEVEL

1 Select LEVEL and press.

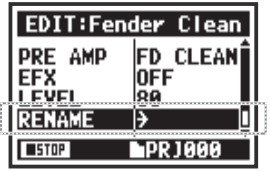


2 Change the number and press.



RENAME

1 Select RENAME and press.



2 Change the PATCH name and press.

3 Select OK and press.

NOTE:

Select STORE to save the patch. To return to the top without saving the change, select MENU.

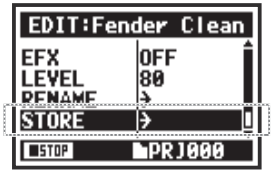
3-03-7 EFFECT EDIT: STORE

MTR mode only

EFFECT EDIT ... P.084

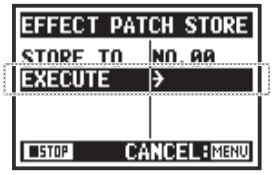
STORE

10 **Select STORE and press.**



11 **Select the PATCH No. where you want to save it and press.**

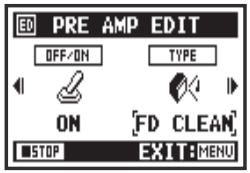
12 **Select EXECUTE and press.**

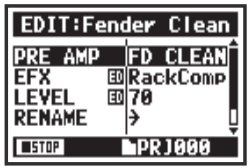


HINT:

ED appears next to items you have edited until confirmed by the STORE operation.

Not stored (not saved)





Confirm with STORE

Selecting "YES" will overwrite the current patch. To save without overwriting an existing patch, select an empty patch during the STORE operation. Patches are saved by project.

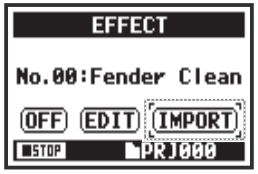
3-03-8 Importing patches from other projects (EFFECT IMPORT)

You can apply an edited and saved effect patch used in another project to the current project.

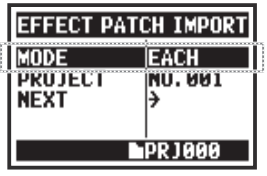
Select effect ... P.083 (EFFECT)

Import all patches (ALL)

1 Press IMPORT on the EFFECT screen.

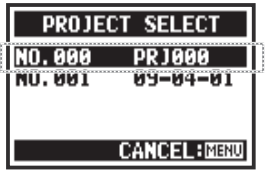


2 Select MODE and press.



3 Select the desired mode and press.

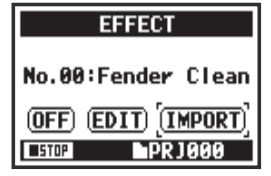
4 Select the project and press.



5 Select NEXT and press.

6 Select YES and press.

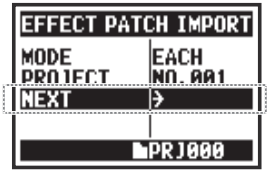
▼



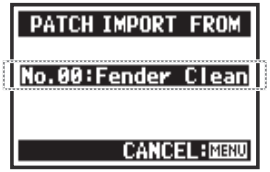
All the patches from the project selected at step 4 are imported into the current project.

Import one patch (EACH)

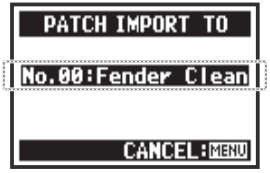
5 Select NEXT and press.



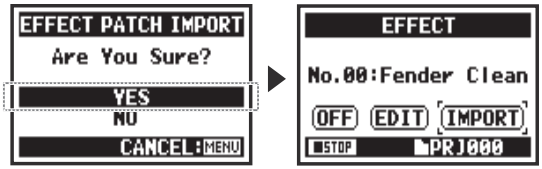
6 Select a patch to import and press.



7 Select the patch you want to import it to in the current project and press.



8 Select YES and press.

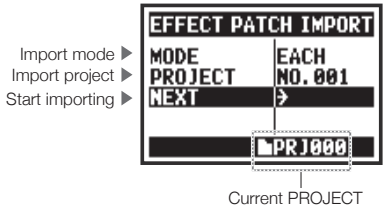


The patch selected in step 6 is imported into the current project.

NOTE:

If there is no other project when you press IMPORT, “No Other Project!” will appear.

HINT:



3-04-1 Karaoke preparation (KARAOKE)

Use music files of your choice for karaoke, then record vocals or additional guitar sounds with those files.

Karaoke process

Preparation

Prepare stereo files for the background

Create a new project for karaoke P.118

Import the file to the project

- Copy the file to the project folder P.037
- Use the MOVE function P.117

Karaoke setup

(Prepare tracks for karaoke)

1. Select a track menu icon and open the TRACK menu
2. Turn KARAOKE ON.
3. Assign files.

Adjust the karaoke tracks

- **LEVEL**
- **CENTER CANCEL**
- **KEY**
- **FINE**

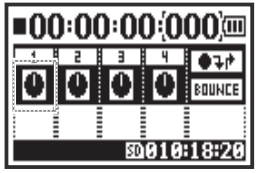
Perform with karaoke

4. Connect a microphone
5. Make recording track settings
6. Enable recording
- **Playback**
- **Record**

Press the MENU button for more than 2 seconds, and start operation from the top screen.

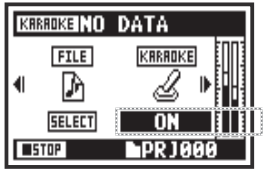
Karaoke track preparation

1 Select a track menu icon and press.



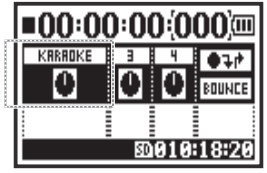
2 Select KARAOKE and press.

3 Select ON and press.

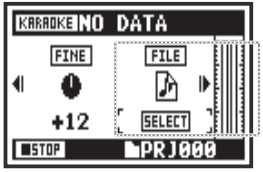


Assign the desired file to the KARAOKE track

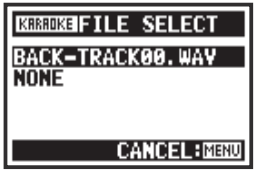
4 Select the track menu icon and press.



5 Select FILE and press.

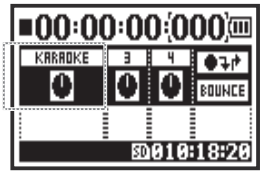


6 Select the desired file and press.

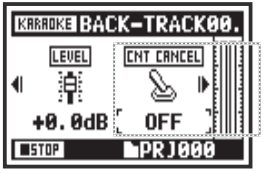


Enable center cancelation on the KARAOKE track

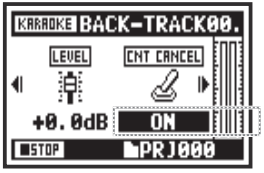
7 Select the track menu icon and press.



8 Select CNT CANCEL and press.



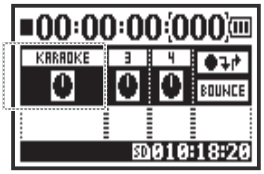
9 Select ON and press.



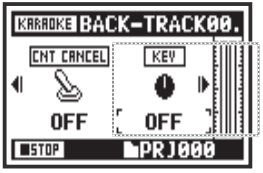
Change the key of the KARAOKE track

Continued on the next page

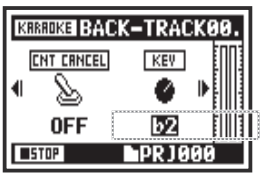
10 Select the track menu icon and press.



11 Select KEY and press.

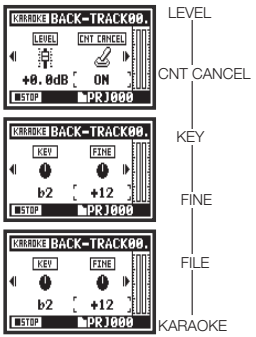


12 Adjust and press.



HINT:

The KARAOKE track menu has different contents than other tracks.

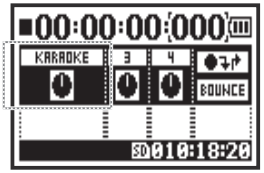


3-04-2 Karaoke recording (KARAOKE)

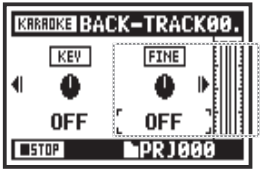
MTR mode only

Fine adjustment of the KARAOKE track key

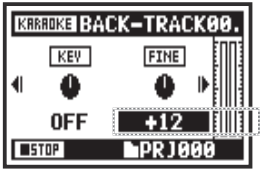
13 Select the track menu icon and press.



14 Select FINE and press.



15 Adjust it and press.

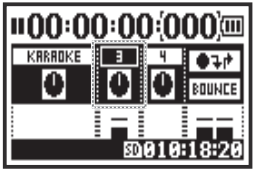


Recording with KARAOKE

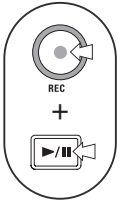
1 Connect a microphone.

Press the INPUT button corresponding to the connected input jack.

2 Select the track menu icon and press.



3 Press to practice (no recording).



4 Press the REC button to enter recording standby.

Then, press the PLAY/PAUSE button to start recording.

NOTE:

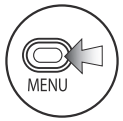
You cannot use this function together with the EFFECT.

Ref. ☞
TRACK MENU
P.057

4-01 Playback: File Playback (STEREO, 4CH and STAMINA modes)

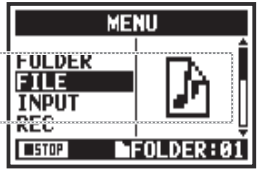
Immediately after recording, you can play the file by pressing the PLAY/PAUSE button.
Follow these steps to call up a file later for playback.

Press the MENU button for more than 2 seconds, and start operation from the top screen.



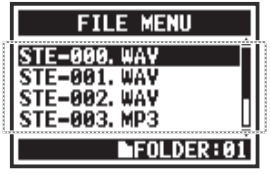
1 Press.

2 Select FILE and press.



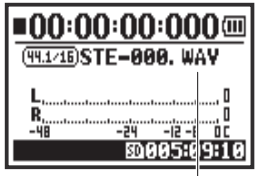
Shortcut
Press TRACK 2 on the top screen.

3 Select the desired file and press.



4 Select SELECT and press.

5 Press to start playback.



Shortcut
You can select files in folders on the top screen.

Confirm the file name.

HINT:

- On the top screen you can move directly to step 3, by pressing the TRACK 2 button."
- If you press the PLAY/PAUSE button after selecting a file, that file starts playback immediately.
- You can select files in folders directly using the DIAL on the top screen.

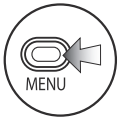
Ref. ☞
FILE SELECT P.104

4-02 Playback: PLAY MODE

STEREO 4CH STAMINA

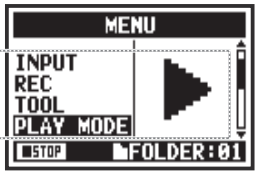
In addition to ordinary playback, you can also play just one file, repeat playback of one file, and repeat playback of all files.

STEREO 4CH STAMINA **Press the MENU button for more than 2 seconds, and start operation from the top screen.**



1 Press.

2 Select PLAY MODE and press.

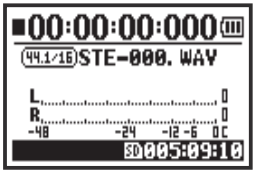


3 Select a play mode and press.

Select the desired mode.

PLAY ALL	Play all the files in the folder.
PLAY ONE	Play one file.
REPEAT ONE	Play one file repeat repeatedly.
REPEAT ALL	Play all files in the folder repeatedly.

4 Press to start playback.



NOTE:

You cannot change this setting during recording and playback.

4-03 Playback: Setting marks

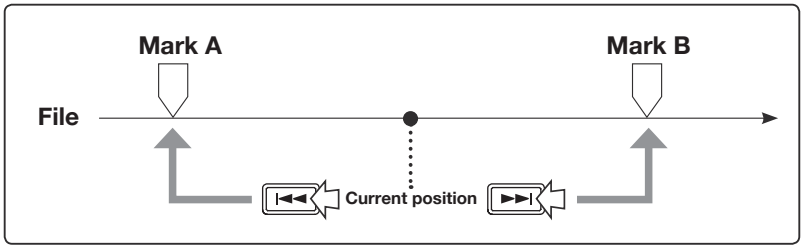
During file playback you can add marks at desired points.
You can move easily to those points during playback.

Adding marks ..... 

During playback, press the REC button.

Playing files with marks .....

Press the FF and REW buttons to move to mark positions in files with marks.



NOTE:

- The mark function can only be used for WAV format files.
- The maximum number of marks in one file is 99.
- Once a mark has been created it cannot be deleted.

HINT:

- Press the REC button during recording to add a mark.
- You can check marks in the file in the MARK LIST.

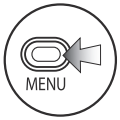
Ref. ☞ MARK LIST P.115

4-04 Playback: AB REPEAT

The AB REPEAT function allows you to play between two points in a file repeatedly.

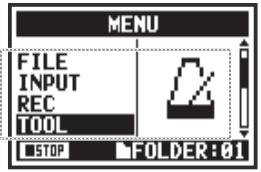
STEREO 4CH

Press the MENU button for more than 2 seconds, and start operation from the top screen.

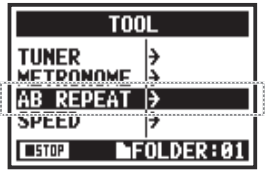


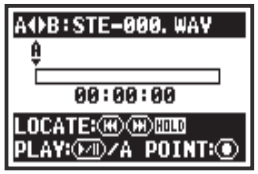
1 Press.

2 Select TOOL and press.

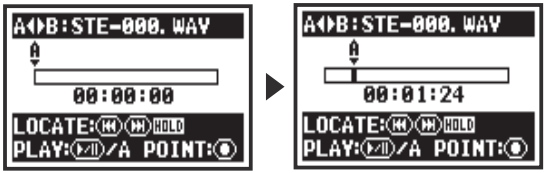


3 Select AB REPEAT and press.



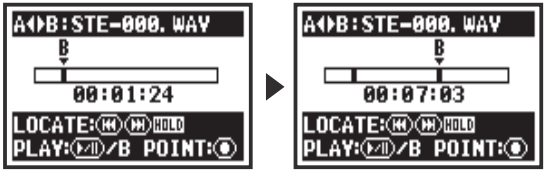


4 Press to start playback.



Point A moves.

5 Press to set point A.



A mark is placed at point A, then mark B appears and moves until set.

6 Press to set point B.

Playback repeats between the points.

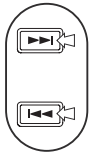
HINT:

You can also set point A and B while stopped.

NOTE:

During recording and playback, you cannot make any settings after Step 3 of AB REPEAT.

HINT:



Press and hold to search.

Caution:

When moving around using FF and REW buttons, if you press the button for less than 2 seconds (quick press), it will move to the next file. If there is a mark, it will move to the next mark.

Press the FF and REW buttons for more than 2 seconds to search for a desired point.

After setting up A and B points, press the REC button to cancel all settings.

Button functions with AB REPEAT

Set/clear A and B points	REC
Stop	■
Play/Pause the file	►/II
Hold for more than one second to search backward or forward	I◄◄ ►►I
Press briefly to skip to the next file in order (If there is a mark in a WAV file, however, this will move to the nearest mark instead)	I◄◄ ►►I

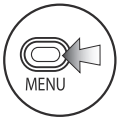
4-05 Playback: SPEED

STEREO mode only

You can adjust the playback speed of a file.

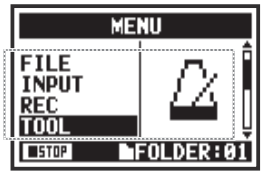
Press the MENU button for more than 2 seconds, and start operation from the top screen.

Shortcut
Press TRACK 3 on the top screen.

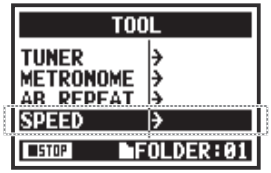


1 Press.

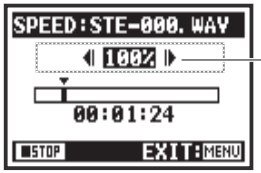
2 Select TOOL and press.



3 Select SPEED and press.

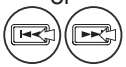


4 Adjust the playback speed.

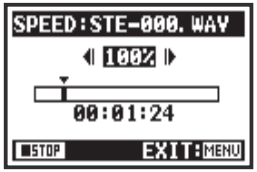


You can set the playback speed between 50% and 150% in increments of 5%.

or



5 Press to start playback.



NOTE:

During recording and playback, you cannot make any settings after Step 3 of SPEED.

HINT:

- You can open this menu quickly by pressing the TRACK 3 button on the top screen of the mode.
- You can set the playback speed between 50% and 150% in increments of 5%. (default: 100%)
- You can move the playback location using the FF and REW buttons.

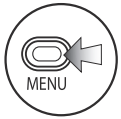
4-06 Playback: MIXER

4CH mode only

In 4CH mode you can use the mixer to adjust the playback LEVEL and PAN settings of two stereo files.

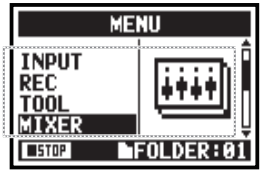
STEREO

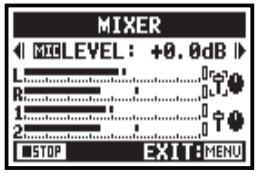
Press the MENU button for more than 2 seconds, and start operation from the top screen.



1 Press.

2 Select MIXER and press.

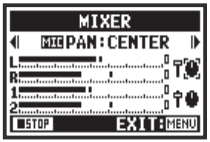


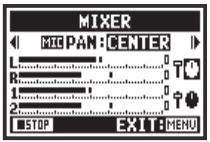


LEVEL setting

MUTE, –48.0dB – +12.0dB
(default: 0.0dB)

PAN setting

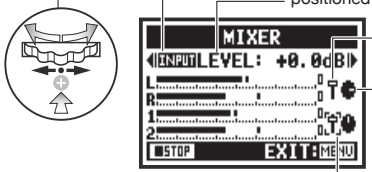




L 100 – C – R 100
(default: C (center))

Shows if you are setting a MIC or INPUT track

Name of parameter where cursor is positioned and its setting value



Fader icon

Pan pot icon

Cursor shows parameter selected

After setting, confirm with icons

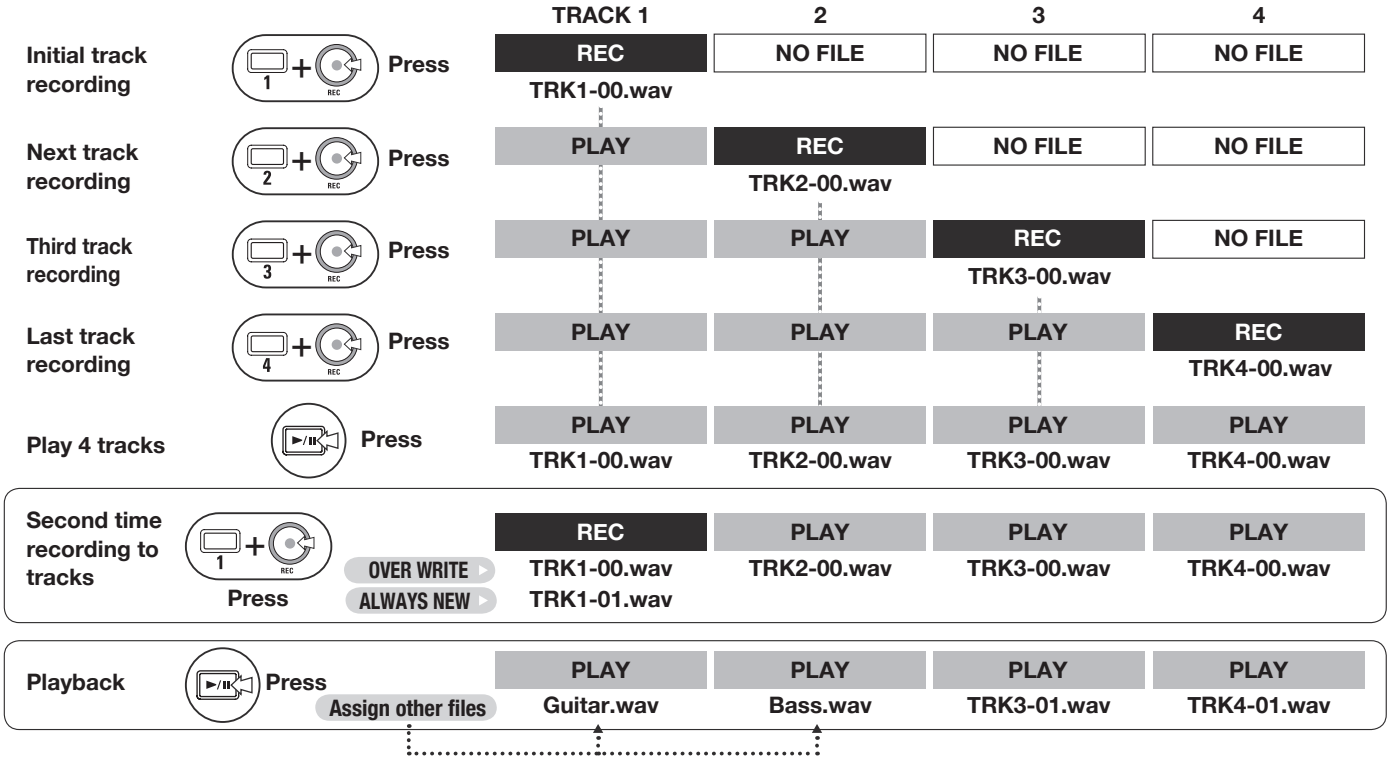
HINT:

The cursor cycles on the MIXER screen from MIC LEVEL to MIC PAN to INPUT LEVEL to INPUT PAN.

4-07 Playback: Playing files (MTR mode)

MTR mode only

MTR has various ways to play files. You can, for example, create and record files separately, assign them to tracks and play them back simultaneously.



Ref. ☞ TRACK MENU P.057

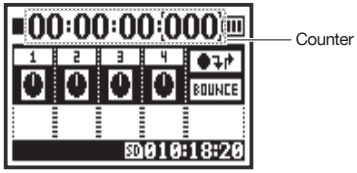
4-08 Playback: Specifying a counter time

MTR mode only

Using the counter, you can specify any desired point in a recording.

Press the MENU button for more than 2 seconds, and start operation from the top screen.

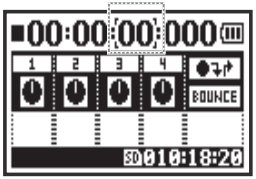
1 Select the counter on the top screen and press.



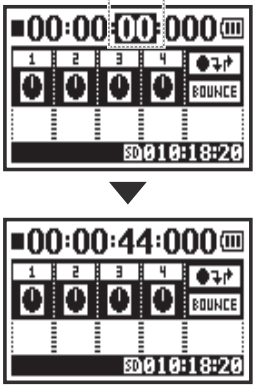
HINT:

Hour: minute: second: millisecond

2 Select the time to set (hour, minute or second).



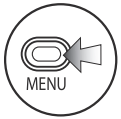
3 Change the value and press.



5-01 Editing/Output: FOLDER SELECT

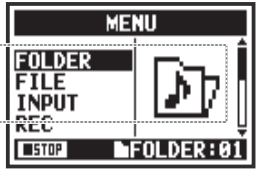
Select the folder that contains the file you want to record with or play.

Press the MENU button for more than 2 seconds, and start operation from the top screen.



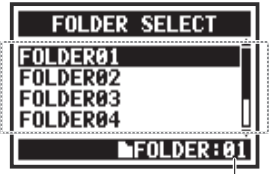
1 **Press.**

2 **Select FOLDER and press.**



Shortcut
Press TRACK 1 on the top screen.

3 **Select a folder and press.**



Current folder

NOTE:

- You cannot use this setting during recording and playback.
- You can select any one of ten folders in STEREO, STAMINA and 4CH modes.

HINT:

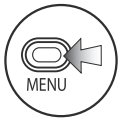
You can open the FOLDER SELECT screen by pressing the TRACK 1 button on the top screen.

5-02 Editing/Output: FILE SELECT

You can select files for playback from a file list.

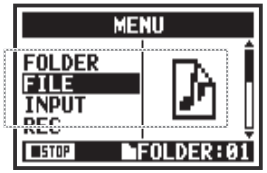
STEREO 4CH MTR STAMINA

Press the MENU button for more than 2 seconds, and start operation from the top screen.



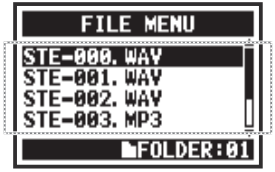
1 Press.

2 Select FILE and press.



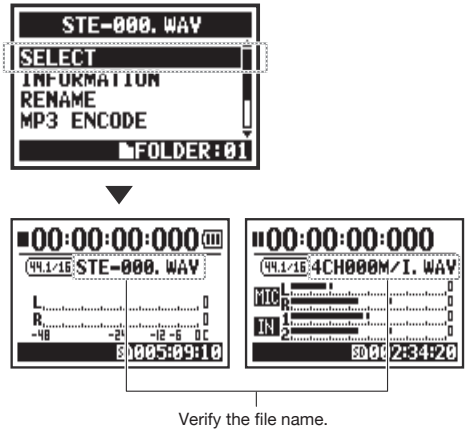
Shortcut
Press TRACK 2 on the top screen.

3 Select a file and press.



All FILE operations are the same to here

4 Select SELECT and press.



Verify the file name.

HINT:

- You can also select files in the folder directly using the DIAL on the top screen.
- You can press the TRACK 2 button on the top screen to jump to file selection in step 3.

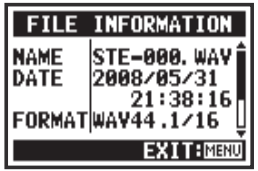
5-03 Editing/Output: FILE INFORMATION

STEREO 4CH MTR STAMINA

This function displays the selected file information.

Selecting files . . . P.104 FILE SELECT

4 **Select INFORMATION and press.**



NAME	Name of file
DATE	Recorded date of file (or modification date when created by a computer or other device)
FORMAT	Format of file (in MTR mode, MONO or STEREO shown)
SIZE	File size (kB or MB)
TIME	Recording time of file

5-04 Editing/Output: FILE DELETE

You can delete a selected file.

Selecting files . . . P.104 FILE SELECT

4 **Select DELETE and press.**

5 **Select YES and press.**

File to delete

NOTE:

Be careful!

Once deleted, a file cannot be recovered.

5-05 Editing/Output: FILE DELETE ALL

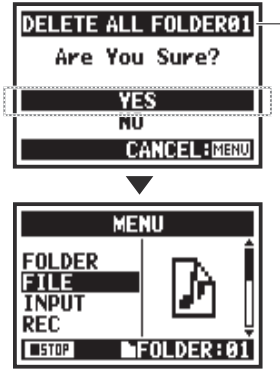
STEREO 4CH MTR STAMINA

You can delete all the files in a folder or project.

Selecting files . . . P.104 FILE SELECT

4 **Select DELETE ALL and press.**

5 **Select YES and press.**



The name of the folder or project selected. All files in it will be deleted.

NOTE:

Be careful!

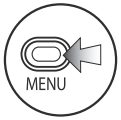
Once deleted, files cannot be recovered.

5-06 Editing/Output: FILE COPY

MTR mode only

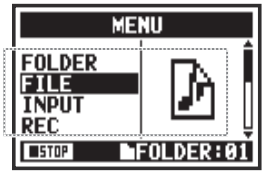
In MTR mode you can copy files. The copies are saved in the same project as the original files.
This function is useful when you want to preserve the original copy.

Press the MENU button for more than 2 seconds, and start operation from the top screen.



1 Press.

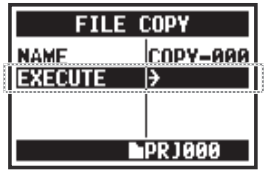
2 Select FILE and press.



3 Select the desired file and press.

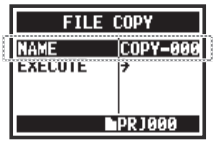
4 Select COPY and press.

5 Select EXECUTE and press.



HINT:

Changing file names: The default name given to copied files is COPY-XXX. You can change it if necessary.



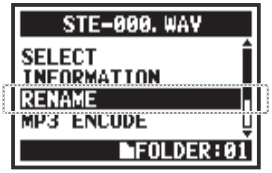
Ref. ☞ FILE RENAME P.109

5-07 Editing/Output: FILE RENAME

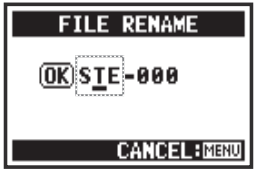
In STEREO, MTR and STAMINA modes, you can change the names of files.
If recorded in 4CH mode, file names cannot be changed.

Selecting files . . . P.104 FILE SELECT

4 Select RENAME and press.



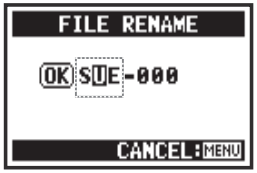
5 Select a character and press.



Select a character to change

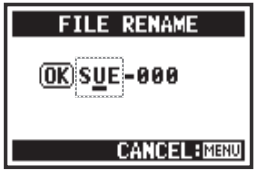
Press the DIAL to highlight the character

6 Input a character and press.



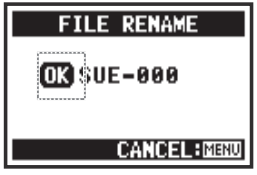
Select a character with the DIAL

7 Press.



Press the DIAL to confirm the change.

8 Select OK and press.



HINT:

Display when more than 12 characters

When the name of a file has more than 12 characters, a triangle mark appears showing that letters that can be selected are off the screen.

When changing letters, they appear in the following order.

(space)!#$%&()+,-01234
56789;=@ABCDEFGHIJ
KLMNOPQRSTUVWXYZ
^_`abcdefghijklmnopqrst
uvwxyz{}~

NOTE:

If two files in the same folder would have the same name, “This File Name Already Exists!” appears on the display, and the previous screen reopens and you will need to change the name.

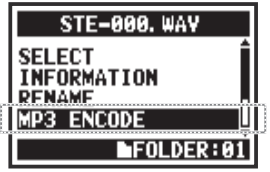
5-08 Editing/Output: FILE MP3 ENCODE

STEREO mode only

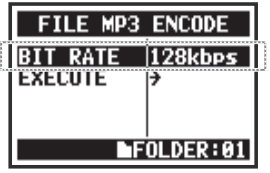
In STEREO mode you can convert WAV files to MP3 format at various bit rates.

Selecting files . . . P.104 FILE SELECT

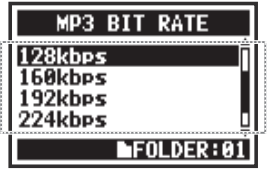
4 Select MP3 ENCODE and press.



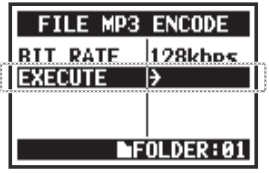
5 Select BIT RATE and press.



6 Select the desired bit rate and press.



7 Select EXECUTE and press.



HINT:

- The name of the encoded file automatically becomes "(original file name).mp3".
- You cannot have two files with the same name. If the screen says, "File Name Exists!" select RENAME and create a different name.

Bit rate that can be selected (kbps)	48, 56, 64, 80, 96, 112, 128, 160, 192, 224, 256, 320, VBR (default: 128 kbps)

Ref. ☞ FILE RENAME P.109

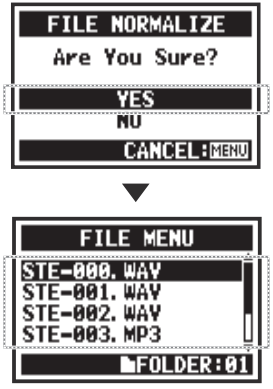
5-09 Editing/Output: FILE NORMALIZE

This function automatically adjusts the volume level of a recorded file for enhanced sound quality and audio consistency.

Selecting files . . . P.104 FILE SELECT

4 **Select NORMALIZE and press.**

5 **Select YES and press.**



NOTE:

NORMALIZE function is only available for files recorded in WAV format

5-10 Editing/Output: FILE STEREO ENCODE

This function will mix down a 4CH file to a stereo file. The file will be saved in the folder in STEREO mode.

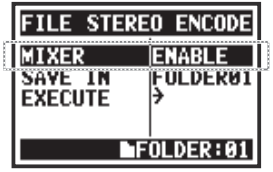
Selecting files . . . P.104 FILE SELECT

Select STEREO ENCODE

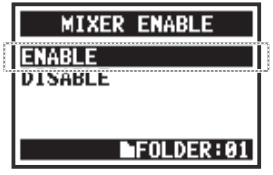
4 Select STEREO ENCODE and press.

Setup MIXER: Enable the MIXER before encoding.

5 Select MIXER and press.



6 Select and press.



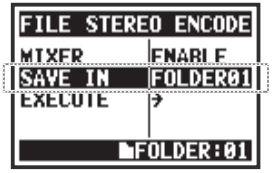
Ref. ☞
MIXER P.100

ENABLE	Use MIXER settings.
DISABLE	Do not use MIXER settings. Two files are mixed equally.

Select SAVE IN

Select the STEREO mode folder where you want to save the encoded file.

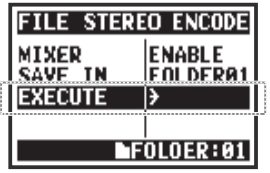
7 Select SAVE IN and press.



8 Select the folder to save in and press.

Execute

9 Select EXECUTE and press.



HINT:

You cannot have two files with the same name. If the screen says “File Name Exists!” select RENAME and change the name.

The encoded file is stored in the folder.

The file name automatically given is the same as the one in 4CH mode but M/I is changed to MIX.

Ref. ☞
MIXER P.109

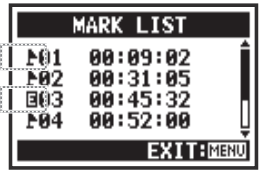
5-11 Editing/Output: MARK LIST

STEREO 4CH STAMINA

You can view a list of the marks put in a WAV file.

Selecting files . . . P.104 FILE SELECT

4 Select MARK LIST and press.



This mark shows a sound dropout.

This mark is user created.

NOTE:

The H4n Pro will automatically place a mark at point where sound drops out during recording.

HINT:

If there are no marks in the file,
"No Mark!" will appear on the display.

Sound dropouts (skipping) with SD cards

When recorded data is transferred to an SD card, sometimes the processing speed is not fast enough and the sound drops out.

The processing speed depends on the mode, REC FORMAT setting, type of SD card, etc. If the processing load is light, sound dropouts rarely happen, but it the load is heavy, they often happen. In this case, change the REC FORMAT to a lighter setting.

	Stereo mode	4CH mode
Heavy ▲	WAV96kHz/24bit	WAV48kHz/24bit WAV44.1kHz/24bit
	WAV96kHz/16bit	WAV48kHz/16bit WAV44.1kHz/16bit
	WAV48kHz/24bit WAV44.1kHz/24bit WAV48kHz/16bit WAV44.1kHz/16bit	
▼ Light	MP3	

Ref. ☞
REC FORMAT P.049
Setting marks P.096

5-12 Editing/Output: DIVIDE

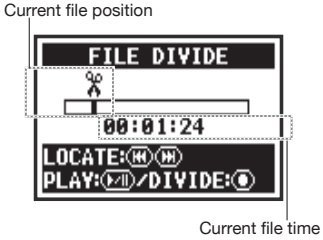
STEREO mode only

In STEREO MODE, you can divide files at any desired position.

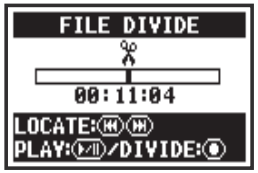
Selecting files . . . P.104 FILE SELECT

4 Select DIVIDE and press.

5 Press to start playback.



6 Press at the desired division point.



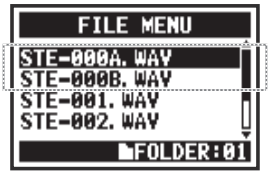
7 Select Yes and press.

Operation of buttons with DIVIDE function

DIVIDE	
Play or pause the file	
Holding for more than one second to search forward/ backward	
Press briefly to skip one second or jump to the next mark in a file with marks.	

HINT:

The DIVIDE operation creates 2 files. “A” will be added to the end of the file name of the first part and “B” will be added to the second.



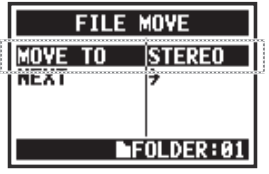
5-13 Editing/Output: MOVE

This function is used to move files to different folders and modes.

Selecting files . . . P.104 FILE SELECT

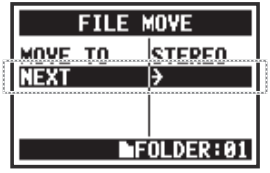
4 Select MOVE and press.

5 Select MOVE TO and press.

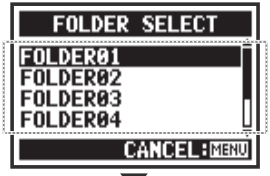


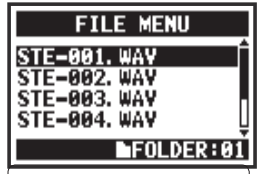
6 Select the destination.

7 Select NEXT and press.



8 Select the destination folder (project).





Ref. ☞
REC FORMAT P.118
FILE RENAME P.109

HINT:

Movable file formats

- Only stereo files can be moved to a stereo folder. Mono files cannot be moved to stereo folders.
- Only 4CH files can be moved to 4CH folders.
- Only 44.1kHz/16bit files can be moved MTR projects.
- If you try to move a file in another format, “44.1 kHz/16 bit WAV Format Only!” will appear on the screen.

MOVE TO MTR PROJECT

To move a folder to an MTR project, a project folder must exist. If there is no project folder, “No Project!” will appear on the screen.

5-14 Editing/Output: NEW PROJECT

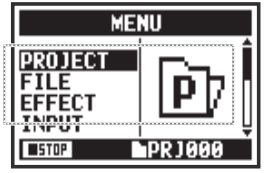
MTR mode only

In MTR mode, settings, including for audio tracks and effects, are saved in projects. First, we will make a new project

Press the MENU button for more than 2 seconds, and start operation from the top screen.

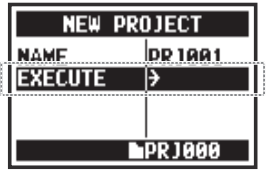
1 Press.

2 Select PROJECT and press.



3 Select NEW PROJECT and press.

4 Select EXECUTE and press.

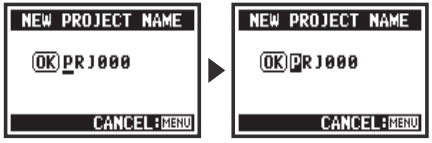


HINT:

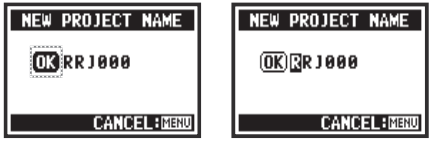
To change the name of the new project.

Select NAME and press.

Select a letter to change and press.



Select OK and press.



Project numbering

- The H4n Pro numbers new projects automatically.
- You cannot change this number.
- You can use the same name in multiple projects

Maximum number of projects

You can create a maximum of 1000 projects. Each project name can be up to 8 characters long.

(space)!"#$%&()*+,-./0123456789:;=?@ABCDEF GHIJKLMNOPQRSTUVWXYZ \ ^_`abcdefghijklmnop qrstuvwxyz{¦}~

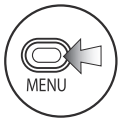
Characters are changed in the order above.

5-15 Editing/Output: PROJECT SELECT

MTR mode only

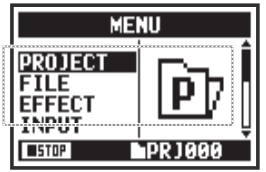
Select a project stored on the SD card.

Press the MENU button for more than 2 seconds, and start operation from the top screen.



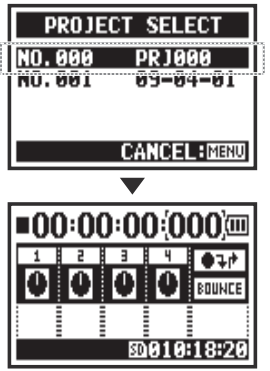
1 Press.

2 Select PROJECT and press.



3 Select SELECT and press.

4 Select the desired project and press.

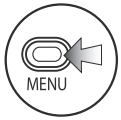


5-16 Editing/Output: PROJECT DELETE

MTR mode only

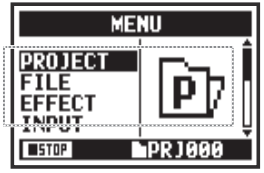
This function will delete a project.

Press the MENU button for more than 2 seconds, and start operation from the top screen.



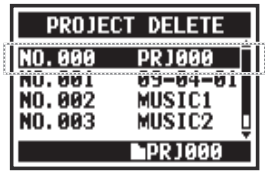
1 Press.

2 Select PROJECT and press.

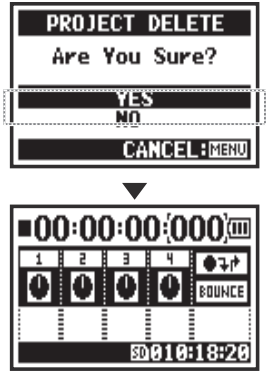


3 Select DELETE and press.

4 Select a project to be deleted and press.



5 Select YES and press.



NOTE:

Once deleted, you cannot restore a project.

HINT:

You cannot delete a protected project. You need to end protection before deletion.

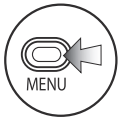
Ref. ☞ PROTECT P.125

5-17 Editing/Output: PROJECT RENAME

MTR mode only

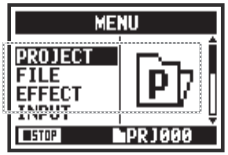
You can change the name of a project.

Press the MENU button for more than 2 seconds, and start operation from the top screen.



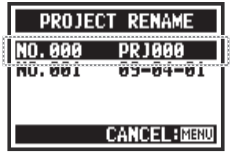
1 Press.

2 Select PROJECT and press.

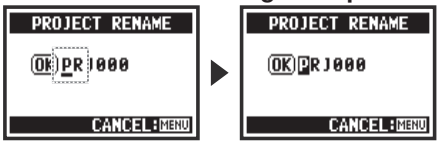


3 Select RENAME and press.

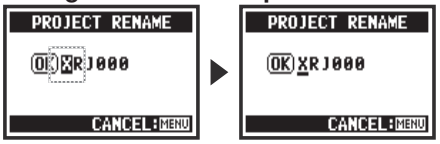
4 Select the project with the name to change and press.



5 Select a letter to change and press.



6 Change the letter and press.



7 Select OK and press.

Characters are changed in the following order.

(Space)!"#$%&()*+,-./0123456789:;=
?@ABCDEFGHIJKLMNOPQRSTUVWXY
Z \ ^_`abcdefghijklmnopqrstuvwxyz{¦}~

HINT:

Project number

- The H4n Pro numbers new projects automatically.
- You cannot change the number.
- You can use the same name in multiple projects.

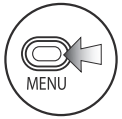
5-18 Editing/Output: PROJECT COPY

MTR mode only

You can copy a project to create a new project with a new number.

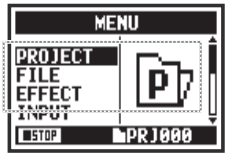
Select a project and start operation. . . P.119

Press the MENU button for more than 2 seconds, and start operation from the top screen.



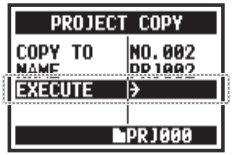
1 Press.

2 Select PROJECT and press.



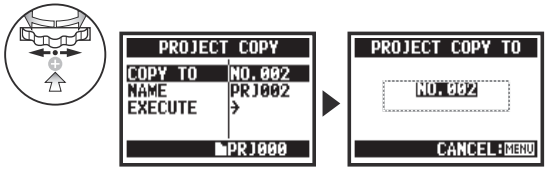
3 Select COPY and press.

4 Select EXECUTE and press.



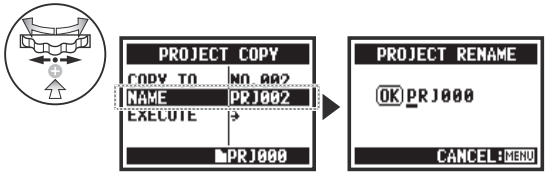
HINT:

Change the number of the destination project



Automatically shows the lowest unused number

Change the name of the target project.



Ref. ☞ PROJECT (RENAME) P.121

5-19 Editing/Output: PROJECT BOUNCE

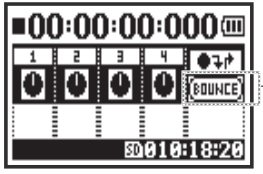
You can combine tracks created in MTR mode and mix them down to one mono or stereo track.

Select a project and start operation. . . P.119

Press the MENU button for more than 2 seconds, and start operation from the top screen.

Select BOUNCE

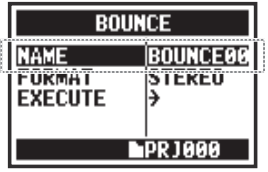
1 Select BOUNCE on the top screen and press.



BOUNCE icon

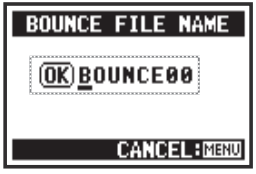
Set the bounce file name Proceed to next step if no change. →

2 Select NAME and press.



The file will automatically be given a name in “BOUNCEXX” format.

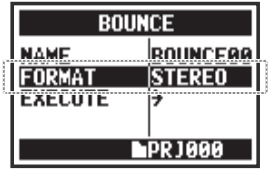
3 Change the name of the file.



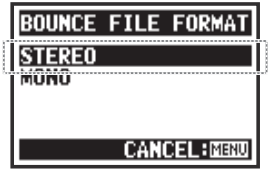
Ref. ☞ FILE RENAME P.109

Select output file format: mono or stereo

4 Select FORMAT and press.



5 Select the file type and press.



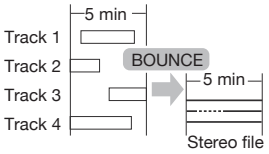
STEREO	Stereo file
MONO	Mono file

Execution

6 Select EXECUTE and press.

HINT:

"Bouncing" means to combine various music data from different tracks and files into a stereo or mono file.



Bouncing creates a new file in the same project.

NOTE:

You cannot use this function during recording or playback.

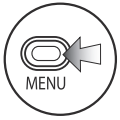
5-20 Editing/Output: PROJECT PROTECT

MTR mode only

Using the PROTECT function on a project prevents the dividing of tracks and changing files in the project.

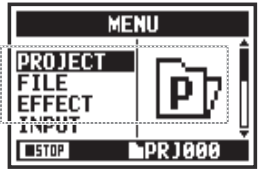
Select a project and start operation . . . P.119

Press the MENU button for more than 2 seconds, and start operation from the top screen.



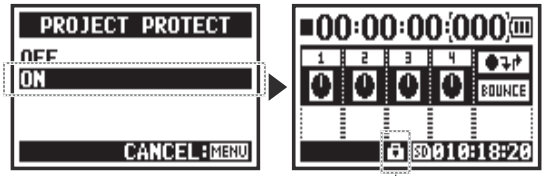
1 Press.

2 Select PROJECT and press.



3 Select PROTECT and press.

4 Select ON and press.



The mark shows the project is protected.

HINT:

If you try to change a file assigned in a track, "Project Protected" will appear on the display.

HINT:

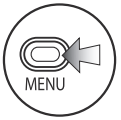
PROTECT is useful to prevent completed music from being accidentally changed.

6-01 Utilities: DISPLAY BACK LIGHT

You can set the time that the display backlight stays lit.

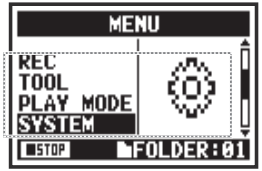
STEREO 4CH MTR STAMINA

Press the MENU button for more than 2 seconds, and start operation from the top screen.



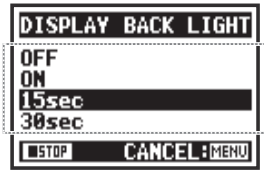
1 Press.

2 Select SYSTEM and press.



3 Select LIGHT and press.

4 Select the desired time and press.



OFF	The backlight stays off all the time.
ON	The backlight stays on all the time.
15sec (default)	The backlight stays on for 15 seconds after the last key operation.
30sec	The backlight stays on for 30 seconds after the last key operation.

NOTE:

You cannot change this setting during recording or playback.

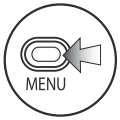
6-02 Utilities: MEMORY REC

Even without an SD card, the built-in memory can record up to 35 seconds.
This is useful for voice memos, for example.

Change the recording mode

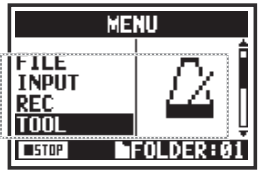
MTR

When no SD card is loaded, press the MENU button for at least 2 seconds and start from the top screen.

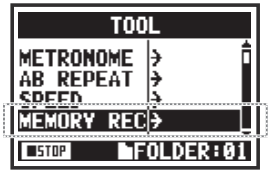


1 Press.

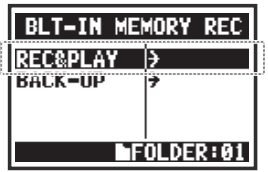
2 Select TOOL and press.



3 Select MEMORY REC and press.



4 Select REC&PLAY.



Switch to MEMORY REC mode

Recording and playback

☞ Record P.047
☞ Playback P.094

NOTE:

Only one file can be recorded and the maximum time is 35 seconds. Each time you record will erase the previous contents. Please be aware of these restrictions.

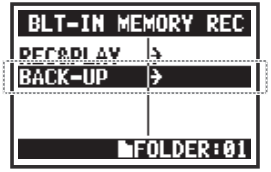
Transferring recordings to SD cards

MTR

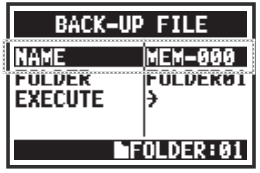
After loading an SD, press the MENU button for at least 2 seconds and start from the top screen.

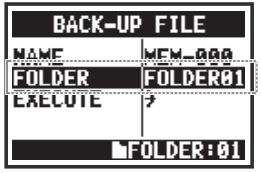
Open BLT-IN MEMORY REC screen ... P.127

1 Select BACKUP and press.



2 Select NAME to change the file name, or select FOLDER to change the destination folder.

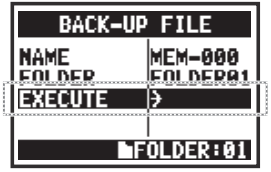




HINT:

The destination folder is a stereo mode folder.

3 Select EXECUTE and press.



NOTE:

If a file with the same name already exists in the destination folder, a screen where you can select RENAME or CANCEL appears.

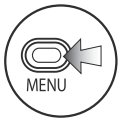
4 When the confirmation screen opens, select YES and press.

This transfers the file to the SD card and deletes it from the built-in memory.

6-03 Utilities: DISPLAY CONTRAST

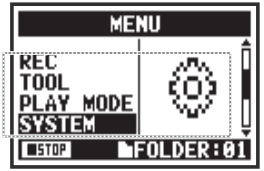
Follow these steps to adjust the display contrast.

Press the MENU button for more than 2 seconds, and start operation from the top screen.

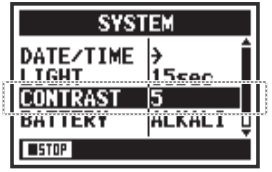


1 Press.

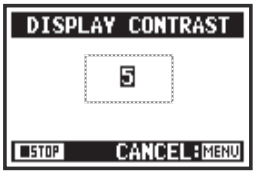
2 Select SYSTEM and press.



3 Select CONTRAST and press.



4 Change the number and press.



This can be set from 1 to 8. The higher the number, the greater the contrast (default: 5).

1 | 8	Low contrast ↑ ↓ High contrast

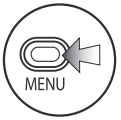
NOTE:

You cannot change this setting during recording and playback.

6-04 Utilities: BATTERY TYPE

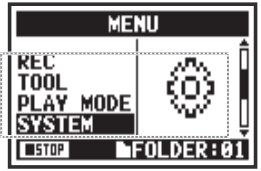
By setting the battery type, the H4n Pro can accurately display the remaining battery life.

STEREO 4CH MTR STAMINA **Press the MENU button for more than 2 seconds, and start operation from the top screen.**



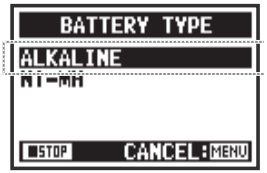
1 Press.

2 Select SYSTEM and press.



3 Select BATTERY and press.

4 Select the battery type and press.



ALKALINE	Alkaline batteries (default)
Ni-MH	Nickel metal hydride rechargeable batteries

NOTE:

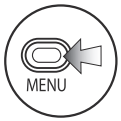
Batteries that can be used

- Use alkaline batteries or NiMH rechargeable batteries.
- You cannot change this setting during recording and playback.

6-05 Utilities: VERSION

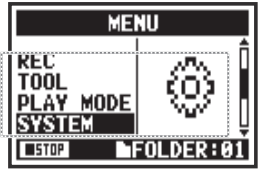
After startup, you can check the H4n Pro version.

Press the MENU button for more than 2 seconds, and start operation from the top screen.

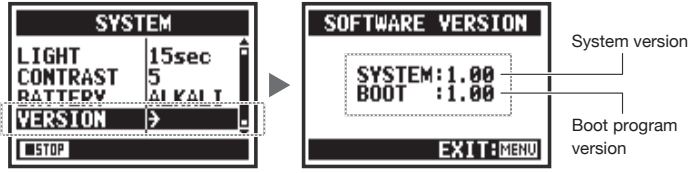


1 **Press.**

2 **Select SYSTEM and press.**



3 **Select VERSION and press.**



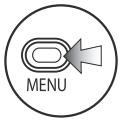
NOTE:

You cannot use this during recording and playback.

6-06 Utilities: FACTORY RESET

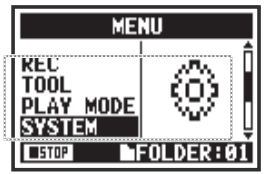
This function restores all settings to their original defaults.

Press the MENU button for more than 2 seconds, and start operation from the top screen.



1 Press.

2 Select SYSTEM and press.



3 Select FAC RESET and press.

4 Select YES and press.

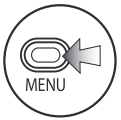
NOTE:

- You cannot use this function during recording and playback.
- Warning: if you use the FACTORY RESET function, all the settings stored in this unit will be deleted. The settings will be restored to their original defaults.

6-07 Utilities: REMAIN

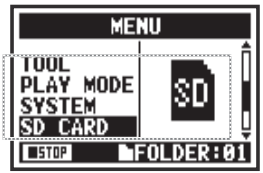
Do this to confirm the remaining capacity of the SD CARD.

Press the MENU button for more than 2 seconds, and start operation from the top screen.

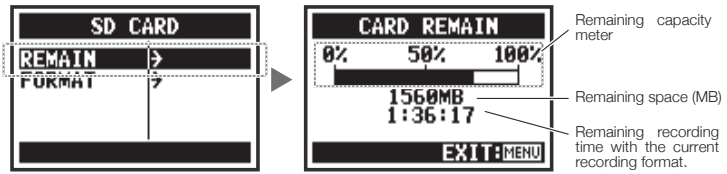


1 **Press.**

2 **Select SD CARD and press.**



3 **Select REMAIN and press.**



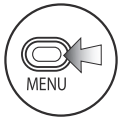
NOTE:

You cannot use this during recording and playback.

6-08 Utilities: FORMAT

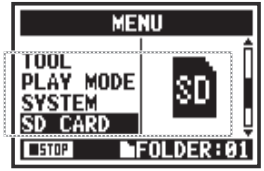
Use this function to format SD cards for the H4n Pro.

Press the MENU button for more than 2 seconds, and start operation from the top screen.

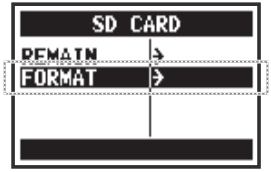


1 **Press.**

2 **Select SD CARD and press.**



3 **Select FORMAT and press.**



4 **Select YES and press.**

HINT:

"Format Card?"

"Format Card?" appears during startup if the loaded SD card is not formatted for the H4n Pro.

NOTE:

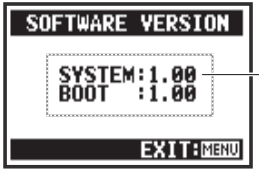
- You cannot use this function during recording and playback.
- Warning: All data will be deleted when you format the SD card.
- SD cards used in a computer or a digital camera should be formatted by the H4n Pro before use with it.

Ref. ☞ Using H2 and H4 SD cards P.136

6-09 Utilities: VERSION UP

If the H4n Pro (with an SD card) is connected to a computer (PC) that has access to the internet, you can download H4n Pro software upgrades.

You can check the H4n Pro version on the SYSTEM (SOFTWARE) VERSION screen.



Main system version

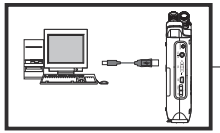
1 PC

Open the ZOOM website on a computer and download the most recent system software. (http://www.zoom.co.jp)

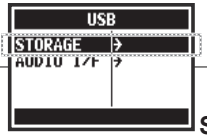
2 PC — H4n Pro

Connect the H4n Pro and computer with a USB cable.

Use a USB cable to connect the H4n Pro and a computer.



Connect the H4n Pro to a computer with a USB cable.



Select STORAGE and press.

You can work with data on the SD card in the H4n Pro from the computer.

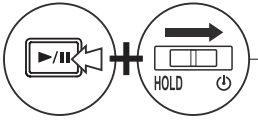
3

Copy the downloaded system software to the root directory of the SD card in the H4n Pro.

4 PC — H4n Pro

Disconnect the PC and H4n Pro.

5



Turn on while holding down the PLAY/PAUSE button.

Select OK and press.

HINT:

Connect to a computer and select STORAGE. The H4n Pro will be recognized as an SD card reader and can be used as one.

NOTE:

Follow the computer procedures to disconnect from it.

Ref. ☞
SYSTEM (VERSION) P.131

6-10 Utilities: Using H2 and H4 SD cards

If you load SD cards from H2 and H4 recorders in the H4n Pro, you can move their files and projects to the H4n Pro.

1 Insert an H2/H4 SD card into the H4n Pro and turn it on.

2 Select YES to move the files.

"H4" if from an H4.

Startup continues

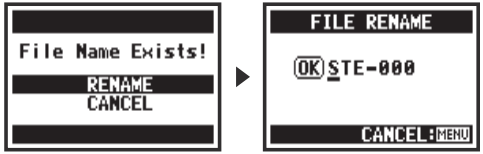
NOTE:

- H2/H4 stereo files and H4 projects will be moved to H4n Pro stereo folders and MTR projects.
- After moving files to the H4n Pro folder, those SD cards will not be recognized in the H2/H4 again.
- The projects are move in order from the lowest numbered to the highest numbered.
- If the H4n Pro has more than 1000 projects in the unit after transfer, "Project Full!" appears and transfer stops.
- You must reduce the number of projects on the H4n Pro to continue transfer.

HINT:

"File Name Exists!"

If a file with the same name already exists in the destination folder, select RENAME and change the name.



Ref. ☞ FILE RENAME P.109

Reference

Main specifications by mode

■ Main specifications by mode

	STEREO	4CH	MTR	STAMINA
Recording formats	Stereo WAV: 44.1/48/96kHz, 16/24-bit Stereo MP3: 48, 56, 64, 80, 96, 112, 128, 160, 192, 224, 256 and 320 kbps, VBR 44.1kHz	Stereo WAV × 2: 44.1/48kHz, 16/24-bit	44.1kHz/16-bit stereo and mono WAV (4 tracks total)	44.1kHz/16-bit WAV (fixed)
Maximum simultaneous recording tracks	2 (one stereo track)	4 (two stereo tracks)	2 (one stereo or two mono tracks)	2 (one stereo track)
File capacity limit	2 GB (If a recording exceeds 2 GB, a new file will be created when recording in STEREO and 4CH modes.)			
File creation during recording	Always save new files (overwrite recording not possible)	Always save new files (overwrite recording not possible)	Select either to overwrite recordings or save new files	Always save new files (overwrite recording not possible)
File saving locations	Save in 10 dedicated folders for STEREO mode	Save in 10 dedicated folders for 4CH mode	Manage multiple files together as projects	Save in 10 dedicated folders for STEREO mode
Changing file names	Possible	Not possible	Possible	Possible
Changing folder names	Not possible	Not possible	Not possible	Not possible
Mark functions	Possible (WAV files only)	Possible (WAV files only)	Not possible	Possible (WAV files only)

Settings available in each mode

■ Menu items

SYSTEM	STEREO	4CH	MTR	STAMINA
DATE/TIME	Δ	Δ	Δ	Δ
LIGHT	○	○	○	○
LCD CONTRAST	○	○	○	○
BATTERY TYPE	○	○	○	○
FACTORY RESET	Δ	Δ	Δ	Δ

SD CARD	STEREO	4CH	MTR	STAMINA
FORMAT	Δ	Δ	Δ	Δ
REMAIN	Δ	Δ	Δ	Δ

USB	STEREO	4CH	MTR	STAMINA
AUDIO IF	Δ	Δ	Δ	—
STORAGE	Δ	Δ	Δ	—

MODE	STEREO	4CH	MTR	STAMINA
MODE	Δ	Δ	Δ	—

FOLDER SELECT	STEREO	4CH	MTR	STAMINA
FOLDER SELECT	Δ	Δ	—	Δ

FILE	STEREO	4CH	MTR	STAMINA
FILE INFORMATION	Δ	Δ	Δ	Δ
FILE RENAME	Δ	Δ	Δ	Δ
FILE MP3 ENCODE	Δ	—	—	—
NORMALIZE	Δ	Δ	—	—
DIVIDE	Δ	—	—	—
MOVE	Δ	Δ	Δ	—
MARK LIST	Δ	Δ	—	Δ
FILE DELETE	Δ	Δ	Δ	Δ
FILE DELETE ALL	Δ	Δ	Δ	Δ
FILE STEREO ENCODE	—	Δ	—	—
FILE COPY	—	—	Δ	—

INPUT SETTING	STEREO	4CH	MTR	STAMINA
LO CUT	○	○	—	○
COMP/LIMIT	○	○	—	—
MONITOR	○	○	○	○
REC LEVEL AUTO	Δ	Δ	—	Δ
MONO MIX	Δ	—	—	Δ
MS STEREO MATRIX	○	○	—	—
PHANTOM	○	○	○	○
PLUG-IN POWER	○	○	○	○

REC SETTING	STEREO	4CH	MTR	STAMINA
REC FORMAT	Δ	Δ	—	—
AUTO REC	Δ	Δ	—	Δ
PRE REC	Δ	Δ	—	—
FILE NAME	Δ	—	—	Δ

TOOL	STEREO	4CH	MTR	STAMINA
TUNER	Δ	Δ	Δ	—
METRONOME*	○	○	○	—
A-B REPEAT	Δ	Δ	—	—
SPEED	Δ	—	—	—

PLAY MODE	STEREO	4CH	MTR	STAMINA
PLAY MODE	Δ	Δ	—	Δ

REC MODE	STEREO	4CH	MTR	STAMINA
REC MODE	—	—	Δ	—

EFFECT	STEREO	4CH	MTR	STAMINA
EDIT	—	—	○	—
IMPORT	—	—	Δ	—

PROJECT	STEREO	4CH	MTR	STAMINA
NEW PROJECT	—	—	Δ	—
SELECT	—	—	Δ	—
RENAME	—	—	Δ	—
COPY	—	—	Δ	—
DELETE	—	—	Δ	—

PUNCH IN/OUT	STEREO	4CH	MTR	STAMINA
PUNCH IN/OUT	—	—	○*	—

BOUNCE	STEREO	4CH	MTR	STAMINA
BOUNCE	—	—	Δ	—

○ ...This can be set during recording and playback (* indicates some exceptions).
Δ ...This cannot be set during recording and playback.

MTR mode effect types and parameters

■ PREAMP module

● Guitar preamp effects

FD TWNR	Models the sound of the Fender '65 Twin Reverb.
UK 30A	Models the sound of an early class A British combo amp.
HW 100	Models the sound of the HIWATT CUSTOM 100.
FD TWEED	Models the sound of the Fender '59 Bassman.
BGcrunch	Models the sound of the Mesa Boogie Mark III combo amp.
MScrunch	Models the crunch sound of the Marshall JCM800 2203.
MS DRIVE	Models the drive sound of the Marshall JCM800 2203.
XTASY BL	Models the sound of the Bogner Ecstasy Blue channel.
SD+XTASY	Combination of Bogner Ecstasy and SweetDrive.
TS+FDcmb	Combination of Fender Combo amp and Ibanez TS-808.
GD+MSstk	Combination of Marshall JCM800 and GoldDrive.
FZ+MSstk	Combination of Marshall JCM800 and Fuzz.

The 12 effects above have the same parameters.

(1) CABINET	0–2	Adjusts the depth of the speaker cabinet sound.
(2) GAIN	0–100	Adjusts the preamp gain (distortion depth).
(3) BASS	–12–+12	Adjusts the low-frequency boost/cut.
(4) MIDDLE	–12–+12	Adjusts the middle-frequency boost/cut.
(5) TREBLE	–12–+12	Adjusts the high-frequency boost/cut.
(6) LEVEL	1–100	Sets the level of the signal after the PREAMP module.
(7) ZNR (ZOOM Noise Reduction)	OFF, 1–16	Adjusts the sensitivity of ZOOM's original ZNR noise reduction effect.

ACO SIM	Makes electric guitar sound like an acoustic guitar	
(1) TOP	0–10	Adjusts the string sound characteristic of acoustic guitars.
(2) BODY	0–10	Adjusts the body sound characteristic of acoustic guitars.
(3) BASS	–12–+12	Adjusts the low-frequency boost/cut.
(4) MIDDLE	–12–+12	Adjusts the middle-frequency boost/cut.
(5) TREBLE	–12–+12	Adjusts the high-frequency boost/cut.
(6) LEVEL	1–100	Sets the level of the signal after the PREAMP module.
(7) ZNR (ZOOM Noise Reduction)	OFF, 1–16	Adjusts the sensitivity of ZOOM's original ZNR noise reduction effect.

● Bass preamp effects

SVT	Models the sound of the Ampeg SVT.
BASSMAN	Models the sound of the Fender Bassman 100.
SMR	Models the sound of the SWR SM-900.
SUP-BASS	Models the sound of the Marshall Super Bass.
SANSAMP	Models the sound of the SansAmp Bass Driver DI.
TUBE PRE	ZOOM original tube preamp sound

The 6 effects above have the same parameters.

(1) CABINET	0–2	Adjusts the depth of the speaker cabinet sound.
(2) GAIN	0–100	Adjusts the preamp gain (distortion depth).
(3) BASS	–12–+12	Adjusts the low-frequency boost/cut.
(4) MIDDLE	–12–+12	Adjusts the middle-frequency boost/cut.
(5) TREBLE	–12–+12	Adjusts the high-frequency boost/cut.
(6) BALANCE	0–100	Adjusts the balance between the signals before and after they pass through the module The higher the value, the greater the post-module signal amount.
(7) LEVEL	1–100	Sets the level of the signal after the PREAMP module.
(8) ZNR (ZOOM Noise Reduction)	OFF, 1–16	Adjusts the sensitivity of ZOOM's original ZNR noise reduction effect.

● Mic preamp effects

VO MPRE	Preamp with characteristics good for vocal recording
AG MPRE	Preamp with characteristics good for acoustic guitar recording
FlatMPRE	Preamp with flat characteristics

The 3 effects above have the same parameters.

(1) COMP	OFF, 1–10	Adjusts the compression of the total signal level by lowering high-level signals and raising low-level signals.
(2) DE-ESSER	OFF, 1–10	Adjusts the amount that sibilant sounds are cut.
(3) LOW CUT	OFF, 1–10	Adjusts the frequency of the filter that cuts low-frequency noise, which is easily picked up by mics.
(4) BASS	–12–+12	Adjusts the low-frequency boost/cut.
(5) MIDDLE	–12–+12	Adjusts the middle-frequency boost/cut.
(6) TREBLE	–12–+12	Adjusts the high-frequency boost/cut.
(7) LEVEL	1–100	Sets the level of the signal after the PREAMP module.
(8) ZNR (ZOOM Noise Reduction)	OFF, 1–16	Adjusts the sensitivity of ZOOM's original ZNR noise reduction effect.

MTR mode effect types and parameters

■ EFX modules

● Compressor/limiter effects

RackComp	Compressors reduce high-level signals and raise the minimum level.	
(1) THRSHOLD	0–50	Sets the base level from which the compressor operates.
(2) RATIO	1–10	Sets the compression ratio.
(3) ATTACK	1–10	Sets how quickly compression starts.
(4) LEVEL	2–100	Sets the level of the signal after the EFX module.

LIMITER	Limiters compress when input signals exceed the fixed level.	
(1) THRSHOLD	0–50	This sets the base level from which the limiter operates.
(2) RATIO	1–10	Sets the compression ratio.
(3) RELEASE	1–10	Sets how quickly the limiter stops functioning after the signal goes below the base level.
(4) LEVEL	2–100	Sets the level of the signal after the EFX module.

● Modulation effects

AUTO WAH	This wah effect responds to changes in input signal strength.	
(1) POSITION	Before, After	Sets the insertion point of the EFX module. Select before or after the PREAMP.
(2) SENSE	–10––1, 1–10	Sets the effect sensitivity.
(3) RESONANC	0–10	Sets the amount of resonance.
(4) LEVEL	2–100	Sets the level of the signal after the EFX module.

PHASER	This effect varies the sound with phasing.	
(1) POSITION	Before, After	Sets the insertion point of the EFX module. Select before or after the PREAMP.
(2) RATE	0–50, ♪ (See P.146)	Adjusts the speed of modulation.
(3) COLOR	4STAGE, 8STAGE, INVERT4, INVERT8	Select the effect sound type.
(4) LEVEL	2–100	Sets the level of the signal after the EFX module.

TREMOLO	This effect raises and lowers the volume cyclically.	
(1) DEPTH	0–50	Adjusts the modulation depth.
(2) RATE	0–50, ♪ (See P.146)	Adjusts the speed of modulation.
(3) WAVE	UP 0–9 DOWN 0–9 TRI 0–9	Select the modulation waveform from UP (rising sawtooth), DOWN (falling sawtooth) and TRI (triangle) types. The higher the number, the more the wave peaks are clipped, emphasizing the effect.
(4) LEVEL	2–100	Sets the level of the signal after the EFX module.

RING MOD	This effect creates a metallic sound. The FREQ setting can drastically change the tone.	
(1) POSITION	Before, After	Sets the insertion point of the EFX module. Select before or after the PREAMP.
(2) FREQ	1–50	Sets the frequency of modulation.
(3) BALANCE	0–100	Adjusts the balance of the original and effect sounds.
(4) LEVEL	2–100	Sets the level of the signal after the EFX module.

SLOW ATK	This effect makes the attack of each note gradual, creating a violin-like sound.	
(1) POSITION	Before, After	Sets the insertion point of the EFX module. Select before or after the PREAMP.
(2) TIME	1–50	Adjusts the attack time.
(3) CURVE	0–10	Sets the volume change curve of the attack.
(4) LEVEL	2–100	Sets the level of the signal after the EFX module.

CHORUS	This mixes an effect sound that varies from the original pitch, creating a varying thick sound.
ENSEMBLE	This chorus ensemble effect features three-dimensional movement.

The 2 effects above have the same parameters.

(1) DEPTH	0–100	Adjusts the modulation depth.
(2) RATE	0–50	Adjusts the speed of modulation.
(3) TONE	0–10	Adjusts the tone.
(4) MIX	0–100	Adjusts the amount of effect sound mixed with the original sound.

FLANGER	This effect adds modulation and strong undulations to the sound.	
(1) DEPTH	0–100	Adjusts the modulation depth.
(2) RATE	0–50, ♪ (See P.146)	Adjusts the speed of modulation.
(3) RESONANC	-10–+10	Sets the amount of modulation resonance.
(4) MANUAL	0–100	Adjusts the frequency band affected.

STEP	This special effect changes the tone in steps.	
(1) DEPTH	0–100	Adjusts the modulation depth.
(2) RATE	0–50, ♪ (See P.146)	Adjusts the speed of modulation.
(3) RESONANC	0–10	Sets the amount of modulation resonance.
(4) SHAPE	0–10	Sets the effect sound envelope.

VIBE	This effect automatically adds vibrato.	
(1) DEPTH	0–100	Adjusts the modulation depth.
(2) RATE	0–50, ♪ (See P.146)	Adjusts the speed of modulation.
(3) TONE	0–10	Adjusts the tone.
(4) BALANCE	0–100	Adjusts the balance of the original and effect sounds.

CRY	This effect varies the sound like a talking modulator.	
(1) RANGE	1–10	Adjusts the frequency band affected.
(2) RESONANC	0–10	Sets the amount of resonance.
(3) SENSE	–10––1, 1–10	Sets the effect sensitivity.
(4) BALANCE	0–100	Adjusts the balance of the original and effect sounds.

PITCH	This effect shifts the pitch up or down	
(1) SHIFT	–12–+12, 24	Sets the pitch shift in semitones.
(2) TONE	0–10	Adjusts the tone.
(3) FINE	–25–+25	Adjusts the pitch shift in cents (1/100 semitone).
(4) BALANCE	0–100	Adjusts the balance of the original and effect sounds.

● Delay/reverb effects

AIR	This effect reproduces the reverberant atmosphere of a room and provides spatial depth.	
(1) SIZE	1–100	Sets the size of the space.
(2) REFLEX	0–10	Sets the amount of wall reflections.
(3) TONE	0–10	Adjusts the tone.
(4) MIX	0–100	Adjusts the amount of effect sound mixed with the original sound.

DELAY	This delay supports long delay times of up to 5000 ms.
ECHO	This tape echo simulation supports long delay times of up to 5000 ms.
ANALOG	This warm analog delay simulation supports long delay times of up to 5000 ms.

The 3 effects above have the same parameters.

(1) TIME	1–5000 ms, ♪ (See P.146)	Sets the delay time.
(2) FEEDBACK	0–100	Adjusts the amount of feedback.
(3) HIDAMP	0–10	Adjusts the damping of high frequencies in the delay sound.
(4) MIX	0–100	Adjusts the amount of effect sound mixed with the original sound.

RvsDelay	This delay supports long delay times of up to 2500 ms.	
(1) TIME	10–2500 ms,* ♪ (See P.146)	Sets the delay time.
(2) FEEDBACK	0–100	Adjusts the amount of feedback.
(3) HIDAMP	0–10	Adjusts the damping of high frequencies in the delay sound.
(4) MIX	0–100	Adjusts the amount of effect sound mixed with the original sound.

*milliseconds

HALL	This reverb simulates the acoustics of a concert hall.
ROOM	This reverb simulates the acoustics of a room.
SPRING	This is a spring reverb simulation.
ARENA	This simulates the acoustics of an arena-sized venue.
T ROOM	This simulates the acoustics of a tiled room.
M SPRING	This is a spring reverb simulation with a bright and clear tone.

The 6 effects above have the same parameters.

(1) DECAY	1–30	Sets the reverb duration.
(2) PRE DLY	1–100	Sets the time between when the original sound is input and reverb starts.
(3) TONE	0–10	Adjusts the tone.
(4) MIX	0–100	Adjusts the amount of effect sound mixed with the original sound.

Note durations

Parameters with ♪ values allow you to make settings in note units based on the metronome tempo. The lengths of the notes are as follows.

	Thirty-second note	3	Half note triplet	x 3	Quarter note x 3
	Sixteenth note		Dotted eighth note	⋮	⋮
3	Quarter note triplet		Quarter note		
	Dotted six-teenth note		Dotted quarter note		
	Eighth note	x 2	Quarter note x 2	x 20	Quarter note x 20

NOTE

- The note values that can be selected depend on the parameter.
- Certain combinations of tempo and note values could exceed parameter ranges. If this occurs, the value will be halved or even quartered to achieve the allowed range.

H4n Pro patch list

The patches in this list can be used in 4CH mode and when the H4n Pro is functioning as an audio interface (at 44.1kHz sampling rate).

Category	No.	Patch name	Description	PREAMP module	EFX module
Guitar	00	Tweed Clean	This FD TWEED clean sound goes great with Stratocasters.	FD TWEED	SPRING
	01	Liverpool	A 60s revival sound is created by gently driving a Class A British combo amp.	UK 30A	AIR
	02	Clean Chorus	This clean sound is good for muted rhythmic and arpeggio playing.	FD TWNR	CHORUS
	03	Clean Delay	Using a long delay, this clean sound is good for sustained chords and arpeggios.	FD TWNR	ECHO
	04	Clean Trem	This clean sound varies the volume and can be said to be the original effect.	HW 100	TREMOLO
	05	Aco.Simulate	This acoustic guitar simulation is ideal for stroking.	Aco Sim	AIR
	06	Spy's Shadow	Wrapped in spring reverb, this twangy guitar sound is perfect for electric instruments.	FD TWNR	M SPRING
	07	Wah Cutting	This funky rhythmic tone uses FD TWNR and AUTO WAH.	FD TWNR	AUTO WAH
	08	Glossy Blues	This bewitching Fender '59 BASSMAN crunch sound follows the dynamics of the player.	FD TWEED	ROOM
	09	UK Crunch	A sense of AIR is added to the natural crunch of a Class A British combo amp.	UK 30A	AIR
	10	Box Of Edge	U2's The Edge popularized this distinctive dotted-eighth-note delay effect (at 130 BPM).	UK 30A	ECHO
	11	HW Crunch	Crunch sound of a HIWATT CUSTOM 100.	HW 100	ROOM
	12	Melody	Analog delay adds a natural sense of space to TS+FDcmb for a sound that suits simple melodies.	TS+FDcmb	ANALOG
	13	ZEP Drive	A classic Marshall crunch re-creates the sound of Led Zeppelin.	MScrunch	RackComp
	14	Mellow Vibe	MScrunch and Vibe combine to create a laid-back sound.	MScrunch	VIBE
	15	70's Drive	The sound of 70s rock.	MS DRIVE	ECHO
	16	Boogie Drive	The Mesa Boogie Mark III sound creates a mid-range thickness in this drive that is good for soloing.	BGcrunch	ROOM
	17	MS Drive	For the early sound of Van Halen, the Marshall is turned all the way up.	GD+MSstk	ARENA
	18	XTASY Riff	SD+XTASY makes this great for metal riffs.	SD+XTASY	OFF
	19	Jet MS Drive	Heavy Marshall distortion is combined with a flanger for this epic sound.	GD+MSstk	FLANGER
	20	Talking Guy	This talking sound follows the guitar pickup position and picking dynamics.	GD+MSstk	CRY
	21	Oct Lead	Octave doubling below the original pitch creates a heavy impactful drive sound.	GD+MSstk	PITCH
	22	Dirty Drive	Fuzz gives this classic 70s progressive rock sound its powerful sustain.	FZ+MSstk	ANALOG
	23	Fuzz Lead	Vintage Marshall and fuzz effects combine to re-create the sweet and beautiful fuzz tone used by Eric Johnson.	FZ+MSstk	ARENA
	24	XTASY Lead	This metal lead sound uses XTASY BL and ECHO effects.	XTASY BL	ECHO

Category	No.	Patch name	Description	PREAMP module	EFX module
Bass	25	SVT	This is the perfect Ampeg SVT rock sound.	SVT	OFF
	26	SMR	The SWR SM-900 modeling provides a tight sound.	SMR	LIMITER
	27	BASSMAN	This classic sound uses Fender BASSMAN 100 modeling.	BASSMAN	OFF
	28	SUP-BASS	The showy drive sound of a Marshall Super Bass.	SUP-BASS	OFF
	29	SANSAMP	The SansAmp sound plays well with other instruments.	SANSAMP	OFF
	30	TUBE PRE	A thick TUBE PRE distortion sound.	TUBE PRE	OFF
	31	Funk Wah	Responding to changes in touch dynamics, this funk wah sound can be used in many situations.	SMR	AUTO WAH
	32	Slap Comp	Combining RackComp and TUBE PRE, this clean sound is perfect for slapping and tapping.	TUBE PRE	RackComp
	33	Bass Phaser	This go-to phaser sound combines PHASER and TUBE PRE effects.	TUBE PRE	PHASER
	34	Fuzz Room	The combination of SUP-BASS and ROOM effects make this fuzz sound for soloing.	SUP-BASS	ROOM
Mic	35	StandardComp	Standard compressor optimized for recording.	FlatMPRE	RackComp
	36	Studio Comp	Compressor suitable for vocal recording.	VO MPRE	RackComp
	37	Chorus Vocal	Deep chorus sound for solo vocals.	VO MPRE	CHORUS
	38	Flange Vocal	Flanger sound for soothing pop vocals.	VO MPRE	FLANGER
	39	Light Vocal	Perfect when seeking bright and articulate vocals.	FlatMPRE	ROOM
	40	Spring	Sound made distinctive with the effect of spring reverb.	VO MPRE	SPRING
	41	Arena	Deep reverb sounds like singing in an arena.	VO MPRE	ARENA
	42	Doubling	Conventional doubling effect.	VO MPRE	DELAY
	43	Lead Vocal	Delay suitable for main vocal parts.	VO MPRE	DELAY
	44	Analog Echo	Analog style echo sound for vocals using an analog delay model.	VO MPRE	ANALOG
	45	Reverse Trip	Trippy sound using a reverse delay.	VO MPRE	RvsDelay
	46	AG Reverb	Preamp and reverb combination optimized for mic recording of acoustic guitars.	AG MPRE	ARENA
	47	AG Arpeggio	Preamp and chorus combination optimized for mic recording of acoustic guitar (playing arpeggios).	AG MPRE	CHORUS
	48	AG Ensemble	Preamp and ensemble combination optimized for mic recording of acoustic guitar (playing arpeggios).	AG MPRE	ENSEMBLE
	49	AG Lead	Preamp and delay combination optimized for mic recording of acoustic guitars (playing lead).	AG MPRE	DELAY
50–59		EMPTY			

Note: Company and product names in this patch list are trade names and trademarks of their respective owners and do not indicate any affiliation with Zoom Corporation.
All product names and explanations identify products that were used for reference in the development of this product.

H4n Pro specifications

Recorder		STEREO mode	4CH mode	MTR mode
	Simultaneous recording tracks	2	4	2
	Simultaneous playback tracks	2	4	4
	Recording time	4GB (SDHC) About 380 minutes (44.1kHz/16-bit stereo WAV tracks) About 68 hours (44.1kHz/128kbps Stereo MP3 tracks) Note: These recording times are approximations. Actual times might be slightly shorter according to recording conditions.		
	Maximum recording file size	2 GB		
	Projects	1000/card		
	Counter	Hour: minute: second: millisecond		
	Other functions	Punch-in/out, bounce, A-B repeat		
Effects	Modules	2		
	Stereo/4CH mode: LO CUT, COMP/LIMITER MTR mode: PRE AMP module, EFX module			
	Types	53		
	Patches	60		
	Tuners	Chromatic, Guitar, Bass, Open A/D/E/G		
Metronome	Sounds	5		
	Rhythmic patterns	Unaccented, 1/4–8/4, 6/8		
	Tempo range	40.0–250.0 BPM		
A/D conversion	24-bit	128× oversampling		
D/A conversion	24-bit	128× oversampling		
Recording media	SD cards (16MB – 2GB), SDHC cards (4GB – 32GB)			
Data types	WAV format			
	Recording/playback	Quantization: 16/24-bit		
		Sampling frequencies: 44.1/48/96 kHz		
	MP3 format			
	Recording	Bit rates: 48, 56, 64, 80, 96, 112, 128, 160, 192, 224, 256, 320 kbps, VBR		
		Sampling frequency: 44.1 kHz		
	Playback	Bit rates: 32,40 48, 56, 64, 80, 96, 112, 128, 160, 192, 224, 256, 320 kbps, VBR		
		Sampling frequencies: 44.1/48 kHz		
Display	128×64 dot matrix	Full-dot LCD (with backlight)		

Inputs	Built-in mics	Directionality	Unidirectional
		Sensitivity	–45dB/1Pa at 1kHz
		Input gain	–16 dB – +51 dB
		Maximum sound pressure input	140 dBspl
	EXT MIC	Input gain	–16 dB – +51 dB
		Input impedance	2 kΩ or more
		Supports plug-in power	
	INPUT 1 and 2 balanced input	Connector	XLR (pin 2 hot)
		Input gain	–16 dB – +43 dB
		Input impedance	3.0 kΩ or more
		Maximum permissible input level	–6 dBu
		EIN	–120 dBu or less
	INPUT 1 and 2 unbalanced input	Connector	Standard phone
		Input gain	–30 dB – +32 dB
		Input impedance	470 kΩ or more
		Maximum permissible input level	+2 dBu
Outputs	LINE/PHONE stereo mini jack	LINE output load impedance	10 kΩ or more
		LINE rated output level	–10 dBu
		PHONE 20 mW + 20 mW (into 32Ω load)	
	Built-in speaker	400mW 8Ω mono speaker	
Phantom power	48 V, 24 V, OFF		
USB	USB 2.0 High Speed Operation as mass storage or audio interface USB functions can be powered using USB bus power		
Power	DC 5V 1A AC adapter (ZOOM AD-14), 2 AA batteries		
Continuous recording time	STEREO mode Using built-in mics at 44.1kHz/16-bit without headphones connected About 6 hours using alkaline batteries or about 8 hours using NiMH (2450mAh) batteries		
	STAMINA mode Using built-in mics at 44.1kHz/16-bit without headphones connected About 10 hours using alkaline batteries or about 12 hours using NiMH (2450mAh) batteries		
External dimensions	73 (W) × 157.2 (D) × 37 (H) mm		
Weight	294 g		

Notes: 0 dBm = 0.755 Vrms

For the purpose of improvement, product specifications and appearance are subject to change without notice.

Troubleshooting

If you think that the H4n Pro is operating strangely, check the following items first.

Recording/playback trouble

◆ There is no sound or output is very quiet

- Check the connections to your monitoring system and its volume setting.
- Confirm that the volume levels of tracks 1–4 are not too low.

◆ Recorder stops during playback

- If playback is started when a track is in recording standby, a temporary file is created on the H4n Pro. If the remaining capacity of the SD card is low, the temporary file may use all the remaining space, causing playback to stop. In this case, end recording standby of the track.

◆ Sound from connected instruments cannot be heard or is very quiet

- Check the input source settings. (→ P045)
- Confirm that the recording level settings are suitable. (→ P045)
- If INPUT 1 or 2 jacks are used, raise the output level of the connected device.
- When the monitor function (→ P070) is off, an input signal can only be monitored if its track is set to recording standby or if the recorder is in recording standby.

◆ Cannot record on a track

- Confirm that the REC button and that TRACK button are lit red.
- If a project is protected, recording is not possible. Use another project or turn protection off. (→ P125)
- Confirm that an SD card is loaded in the slot.
- Confirm that the hold function is not activated. (→ P018)
- If “Card Protected!” appears on the display, the SD card write-protection is enabled. Slide the write-protection switch on the SD card to disable write-protection.

◆ Cannot bounce

- Confirm that the volume levels of tracks 1–4 are not too low.
- Confirm that the SD card has enough open space.

Other trouble

◆ Cannot use effects

- Confirm that the effects are on. Effects are off in MTR mode by default.

◆ Cannot use tuner

- Confirm that the jack to which the instrument is connected is selected as the input source.

◆ Computer does not recognize it even though it is connected to a USB port

- Confirm that the operating system is compatible. (→ P033)
- The operation mode must be set on the H4n Pro to allow the computer to recognize it. (→ P031)

Index

R

S

T

U

V

The FCC regulation warning (for U.S.A.)

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

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

For EU Countries

CE Declaration of Conformity

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