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.
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

H4n Pro features ................................................................. 001
The H4n Pro is ideal for these applications ............................. 002
Contents .................................................................................. 003
Safety precautions for users ................................................... 006
Copyright warnings ................................................................... 007

## Getting started

1-1  Recording flow using the H4n Pro ......................................... 009
1-2  Easy recording guide (STEREO mode) ................................. 011
2-1  Names and functions of parts ............................................ 013
3  Battery/Power setting .......................................................... 015
4-1  Using the POWER/HOLD switch and turning the power on/off... 017
4-2  Using recording and transport buttons ......................... 019
4-3  Using TRACK 1–4 buttons ............................................. 020
4-4  Using INPUT MIC, 1 and 2 buttons .................................. 021
4-5  Using REC LEVEL and VOLUME buttons ...................... 022
4-6  Using the DIAL and the MENU button ......................... 023
5-1  Loading an SD card ......................................................... 025
5-2  Setting the date and time (DATE/TIME) ......................... 026
6-1  Setup: Connecting external devices .............................. 027
6-2  Setup: Built-in microphones ......................................... 028
6-3  Setup: Built-in microphones/external mic with plug-in power..... 029

6-4  Setup: INPUT 1/2 connections and phantom power ............ 030
6-5  Using as a USB audio interface ....................................... 031
6-6  Setup: Using as a USB SD card reader ............................ 033
6-7  Setup: Built-in speaker ................................................ 034
7-1  Mode overview ............................................................. 035
7-2  Switching and confirming modes ................................... 036
7-3  Mode details ............................................................... 037
8-1  Mode screens: STEREO and STAMINA modes ............... 038
8-2  Mode screens: 4CH mode ........................................... 039
8-3  Mode screens: MTR mode ........................................... 040
8-4  Mode screens: MAIN MENU ....................................... 041
9  Optional remote control operation ..................................... 043

## Operations

1-01  Settings/recording: Setting input sources and recording levels... 045
1-02  Settings/recording: Recording in STEREO and STAMINA modes ... 047
1-03  Settings/recording: Recording format (REC FORMAT) ............ 049
1-04  Settings/recording: File name (FILE NAME) ..................... 050
1-05  Settings/recording: 4CH mode recording ......................... 051
1-06-1  Settings/recording: MTR mode recording (REC MODE) ....... 053
1-06-2  Settings/recording: MTR mode recording (OVER WRITE) .... 055
1-06-3  Settings/recording: MTR mode recording (ALWAYS NEW) .... 056
<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-07</td>
<td>Settings/recording: TRACK MENU</td>
<td>057</td>
</tr>
<tr>
<td>1-08-1</td>
<td>Settings/recording: Automatic re-recording (PUNCH IN/OUT)</td>
<td>059</td>
</tr>
<tr>
<td>1-08-2</td>
<td>Settings/recording: Manual re-recording (PUNCH IN/OUT)</td>
<td>061</td>
</tr>
<tr>
<td>2-01-1</td>
<td>Recording functions: AUTO REC</td>
<td>063</td>
</tr>
<tr>
<td>2-01-2</td>
<td>Recording functions: AUTO REC STOP</td>
<td>064</td>
</tr>
<tr>
<td>2-02</td>
<td>Recording functions: PRE REC</td>
<td>065</td>
</tr>
<tr>
<td>2-03</td>
<td>Recording functions: LO CUT</td>
<td>066</td>
</tr>
<tr>
<td>2-04</td>
<td>Recording functions: COMP/LIMIT</td>
<td>067</td>
</tr>
<tr>
<td>2-05</td>
<td>Recording functions: REC LEVEL AUTO</td>
<td>069</td>
</tr>
<tr>
<td>2-06</td>
<td>Recording functions: MONITOR</td>
<td>070</td>
</tr>
<tr>
<td>2-07</td>
<td>Recording functions: INPUT 1/2 LEVEL LINK</td>
<td>071</td>
</tr>
<tr>
<td>2-08</td>
<td>Recording functions: MONO MIX</td>
<td>072</td>
</tr>
<tr>
<td>2-09</td>
<td>Recording functions: MS STEREO MATRIX</td>
<td>073</td>
</tr>
<tr>
<td>3-01-1</td>
<td>Tuner: CHROMATIC TUNER</td>
<td>075</td>
</tr>
<tr>
<td>3-01-2</td>
<td>Tuner: other TUNER types</td>
<td>076</td>
</tr>
<tr>
<td>3-01-3</td>
<td>Tuner: TUNER CALIB</td>
<td>077</td>
</tr>
<tr>
<td>3-01-4</td>
<td>Tuner: TUNER INPUT</td>
<td>078</td>
</tr>
<tr>
<td>3-02</td>
<td>Metronome (METRONOME)</td>
<td>079</td>
</tr>
<tr>
<td>3-03-1</td>
<td>Effects overview</td>
<td>081</td>
</tr>
<tr>
<td>3-03-2</td>
<td>Effects (EFFECT)</td>
<td>083</td>
</tr>
<tr>
<td>3-03-3</td>
<td>Patch editing (EFFECT EDIT)</td>
<td>084</td>
</tr>
<tr>
<td>3-03-4</td>
<td>PRE AMP module editing (EFFECT EDIT: PRE AMP)</td>
<td>085</td>
</tr>
<tr>
<td>3-03-5</td>
<td>EFX module editing (EFFECT EDIT: EFX)</td>
<td>086</td>
</tr>
<tr>
<td>3-03-6</td>
<td>EFFECT EDIT: LEVEL/RENAME</td>
<td>087</td>
</tr>
<tr>
<td>3-03-7</td>
<td>EFFECT EDIT: STORE</td>
<td>088</td>
</tr>
<tr>
<td>3-03-8</td>
<td>Importing patches from other projects (EFFECT IMPORT)</td>
<td>089</td>
</tr>
<tr>
<td>3-04-1</td>
<td>Karaoke preparation (KARAOKE)</td>
<td>091</td>
</tr>
<tr>
<td>3-04-2</td>
<td>Karaoke recording (KARAOKE)</td>
<td>093</td>
</tr>
<tr>
<td>3-05</td>
<td>Playback: File Playback (STEREO, 4CH and STAMINA modes)</td>
<td>094</td>
</tr>
<tr>
<td>3-06</td>
<td>Playback: PLAY MODE</td>
<td>095</td>
</tr>
<tr>
<td>3-07</td>
<td>Playback: Setting marks</td>
<td>096</td>
</tr>
<tr>
<td>3-08</td>
<td>Playback: AB REPEAT</td>
<td>097</td>
</tr>
<tr>
<td>3-09</td>
<td>Playback: SPEED</td>
<td>099</td>
</tr>
<tr>
<td>3-10</td>
<td>Playback: MIXER</td>
<td>100</td>
</tr>
<tr>
<td>3-11</td>
<td>Playback: Playing files (MTR mode)</td>
<td>101</td>
</tr>
<tr>
<td>3-12</td>
<td>Playback: Specifying a counter time</td>
<td>102</td>
</tr>
<tr>
<td>3-13</td>
<td>Editing/Output: FOLDER SELECT</td>
<td>103</td>
</tr>
<tr>
<td>3-14</td>
<td>Editing/Output: FILE SELECT</td>
<td>104</td>
</tr>
<tr>
<td>3-15</td>
<td>Editing/Output: FILE INFORMATION</td>
<td>105</td>
</tr>
<tr>
<td>3-16</td>
<td>Editing/Output: FILE DELETE</td>
<td>106</td>
</tr>
<tr>
<td>3-17</td>
<td>Editing/Output: FILE DELETE ALL</td>
<td>107</td>
</tr>
<tr>
<td>3-18</td>
<td>Editing/Output: FILE COPY</td>
<td>108</td>
</tr>
<tr>
<td>3-19</td>
<td>Editing/Output: FILE RENAME</td>
<td>109</td>
</tr>
<tr>
<td>3-20</td>
<td>Editing/Output: FILE MP3 ENCODE</td>
<td>111</td>
</tr>
</tbody>
</table>
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.

주의
- 사용자가 이 심볼을 무시하고 장치를 잘못 사용하면 심각한 부상을 입거나 사망할 수 있습니다.

⚠️ Caution
- If the users ignore this symbol and handle the device the wrong way, bodily injury and damage to the equipment could result.

주의
- 사용자가 이 심볼을 무시하고 장치를 잘못 사용하면 신체적 부상이나 장비 손상이 발생할 수 있습니다.

An action that is mandatory
- An action that is prohibited

진행해야 할 작업
- 금지해야 할 작업

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

Power requirements

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.

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 remnants of battery fluid.
- When using the unit, the battery compartment cover should be closed.
- 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
- 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
- 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
- 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
- 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
- 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.

Trademarks:
- The SD and SDHC logos are trademarks.
- MPEG Layer-3 audio compression technology is licensed from Fraunhofer IIS and Sisvel S.p.A.
- Windows®, Windows® 10, Windows® 8, Windows® 7 and Windows Vista® are trademarks or registered trademarks of Microsoft® Corporation.
- Macintosh and Mac OS are trademarks of Apple Inc.
- Other product names, registered trademarks and company names in this document are the property of their respective companies.

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

**Operational overview**

- **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.

- **Turn the power on**
  - P.017

- **Set-up**
  - 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**

- **Select the 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.
Operational overview / Recording flow using the H4n Pro

Record
- Recording in STEREO/STAMINA mode...P.047
- Recording in 4CH mode.........P.051
- Recording in MTR mode...........P.053

Playback and confirm
- Use these convenient ways to swiftly review/playback parts of recordings.
  - PLAY MODE
  - AB REPEAT
  - SPEED
  - MARK LIST
  etc.

Re-record
- In MTR mode punch-in/out functions allow you to re-record only sections you want to correct.
  - PUNCH-IN/OUT
  etc.

Edit and output
- 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.094
P.059
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

2. Confirm stereo mode

3. Start recording standby

If mode indicator or screen different >>> P.036
Adjust input level

Start recording

Stop recording

Play it back

Decrease
Increase

REC LEVEL

Adjust input level

Right panel

Remaining recording time decreases

Pause/resume recording
Counter does not return to 0
Add mark
Add a mark when using WAV file format

Recording
Counter advances

Lit

Unlit

Built-in speaker output

Stereo mode recording

Stereo mode playback

Operational overview / Easy recording guide

Operational overview / Easy recording guide

P.047

P.094
2-1 Names and functions of parts

Front

- 90/120° stereo XY mic (built-in)
- STEREO/4CH/MTR mode indicators
- Display with backlight
- • STEREO/4CH mode shortcut buttons
  1 FOLDER
  2 FILE
  3 SPEED (Stereo mode)
  4 WAV/MP3 (Stereo/4CH mode)
- • MTR mode TRACK
  1–4 buttons
- INPUT MIC, 1–2 buttons
- Transport control buttons
- REC button

Back

- Input jack for external stereo mic that uses plug-in power
- Built-in mono speaker
- Threaded tripod mount
- Battery cover
- STAMINA switch
- STAMINA switch
Right side
- DIAL
- MENU button
- REC LEVEL (+/−)
- SD card slot

Left side
- Optional remote control jack
- LINE/PHONE output stereo mini jack
- VOLUME (+/−)
- USB jack
- POWER/HOLD switch

Bottom
- DC 5V AC adapter jack
- Strap attachment hole
- XLR/standard phone input jack 1
- XLR/standard phone input jack 2
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.

- **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.**

Specified AC adapter:
ZOOM AD-14A/D

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

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

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.

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

Amp ➔ Mixer ➔ H4n Pro ➔ Instruments

OFF OFF OFF OFF

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 andREW buttons depend on the mode.

### STEREO/4CH/STAMINA modes

<table>
<thead>
<tr>
<th>Button</th>
<th>Functions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>REC button</strong></td>
<td>- Enter recording standby and reset counter&lt;br&gt;- Start recording and counter&lt;br&gt;- Add mark (WAV files only)</td>
</tr>
<tr>
<td><strong>STOP button</strong></td>
<td>- Stop recording and reset counter&lt;br&gt;- Stop playback and stop counter</td>
</tr>
<tr>
<td><strong>PLAY/PAUSE button</strong></td>
<td>- Start playback and start counter&lt;br&gt;- Resume paused recording&lt;br&gt;- Start recording and counter&lt;br&gt;- Resume paused playback</td>
</tr>
<tr>
<td><strong>FF/REW buttons</strong></td>
<td>- Press for less than a second: FF: Show next file&lt;br&gt;REW: Return to file beginning (if there are marks, FF andREW jump to the nearest mark)&lt;br&gt;- 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.</td>
</tr>
</tbody>
</table>

### MTR mode

<table>
<thead>
<tr>
<th>Button</th>
<th>Functions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>REC button</strong></td>
<td>- (Only when a track is in recording standby) OVER WRITE recording&lt;br&gt;- Recording/standby&lt;br&gt;- Recording/paused&lt;br&gt;- Playback paused</td>
</tr>
<tr>
<td><strong>STOP button</strong></td>
<td>- Stop recording and stop counter&lt;br&gt;- Stop playback and stop counter</td>
</tr>
<tr>
<td><strong>PLAY/PAUSE button</strong></td>
<td>- Start playback and stop counter&lt;br&gt;- Recording/paused&lt;br&gt;- Resume paused playback</td>
</tr>
<tr>
<td><strong>FF/REW button</strong></td>
<td>- Press for less than a second: FF: Skip forward one second&lt;br&gt;REW: Return to beginning&lt;br&gt;- Press for more than a second: Search forward/backward</td>
</tr>
</tbody>
</table>
4-3 Using TRACK 1–4 buttons

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

**MTR MODE**

Switch between track recording and playback.

![Switch between track recording and playback.](image)

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**

1. 2

Same for tracks 2-4

**Selecting two tracks**

1. 2 3 4

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.

---

**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.)

**Recording level (all modes)**

The recording levels for INPUT 1 and 2 can be adjusted from 1 to 100 with the (+/-) buttons.

**Press REC LEVEL (+/-) to adjust**

Press the INPUT MIC, 1 or 2 button to select an input source to adjust its recording level.

**Volume (all modes)**

The volume from the built-in speaker and output jacks can be adjusted from 0 to 100 with the (+/-) buttons.

**Press VOL (+/-) to adjust**
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**

- **DIAL**
  - Rotate the DIAL, and the cursor on the display will move with the DIAL.
  - **Select**: Press to DIAL and your selection will be confirmed.
  - **Press**: When there are additional selections, press to move to the next screen.
  - **Press**: When you complete selection, the screen returns to the previous one.

- **MENU button**
  - **Long Press**: Press the MENU button to make settings for recording, playback and other functions.
  - **Long Press**: Press the MENU button during any setting operation, to cancel the operation and return to the previous screen.
  - **Long Press**: To cancel a setting operation and return to the top screen of the mode, press the MENU button for more than 2 seconds.

**Basic DIAL operations**

- **Rotate the DIAL to select an item**
  - Rotate the DIAL, and the cursor on the display will move with the DIAL.

- **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**

- **Opening the MENU screen**
  - Press the MENU button to make settings for recording, playback and other functions.

- **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.

The screen returns to the previous one.

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.

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.

SD card recording capacity (approximate)

<table>
<thead>
<tr>
<th>Card Type</th>
<th>Recording time (approximate)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4GB SDHC card</td>
<td>Recording time (approximate)</td>
</tr>
<tr>
<td>44.1 kHz/16-bit WAV (stereo track)</td>
<td>380 minutes</td>
</tr>
<tr>
<td>44.1 kHz/128kbps MP3 (stereo track)</td>
<td>68 hours</td>
</tr>
</tbody>
</table>

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.
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.


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

   Select the item on DATE/TIME:

   ![Diagram of DATE/TIME menu]

   - 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.

5. Select OK and press.

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.

Remote control (optional)

- Headphones
- Monitors
- Mixer
- Personal computer (PC)

INPUT: mic
INPUT: instrument
AC adapter specified for H4n Pro

Stereo mic
SD card
USB

INPUT: instrument
INPUT: instrument
Setup: Built-in microphones

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

### Capturing the stereo image center

- **Centered 90°**
- **Wide 120°**

Stereo images without phase cancellation.

- **Movable**
- **Wide 120°**

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.
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.

**Off microphone recording**

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

**Setting PLUG-IN power**

1. Press.
2. Select INPUT and press.
3. Select PLUG-IN and press.
4. Select ON and press.

*You cannot use both the built-in mics and an external mic together.

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

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

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 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.

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.

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

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.
**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.

1. **Connect H4n Pro to computer with USB cable.**
2. **Press on the top screen.**
3. **Select USB and press.**
4. **Select STORAGE and press.**

**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.
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
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.

• 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.

• 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.

• 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.

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

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

• 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

• Recording parts one track at a time
• Overdubbing
• Recording using effects
• Mixing track levels after recording
• Indoor and outdoor rehearsals
Switching and confirming modes

Be sure to select the appropriate mode for your application.

1. Press.

2. Select MODE and press.

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

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.

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

**Stamina Mode**

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**

**Explaination of the top screen**

- **Recorder status**
  - Stopped
  - Recording standby
  - Recording
    - REC button blinks
    - REC button lights
  - Playing
  - Paused
    - Blinks

- **Counter**
  - Elapsed recording or playback time
    - (hours): (minutes): (seconds): (milliseconds)
  - Format of file selected, being recorded or playing back
    - WAV file: kHz/bit
    - MP3 file: bit rate
    - 96kHz/24-bit WAV indicator
    - 128kbps MP3 indicator

- **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.

- **Level meters**
  - Recording and playback levels

- **Remaining recording time**
  - Remaining possible recording time on SD card

**Optional setting indicators**

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

- LO CUT function
- COMP/LIMIT function
- Phantom power (48V/24V)
- MS stereo matrix

**STAMINA MODE**

- Stamina icon


8-2 Mode screens: 4CH mode

• Explanation of the top screen

Recorder status
- Stopped
- Recording standby
- Recording
- Playing
- Paused

File format
Format of file selected, being recorded or playing back

Optional setting indicators
These icons appear on the display when optional functions are ON.
- LO CUT function
- COMP/LIMIT function
- Phantom power (48V/24V)
- MS stereo matrix

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

• Explanation of the top screen

**Recorder status**
- Stopped
- Recording
- Paused

**Playing**

**Track numbers**
Icons are highlighted for tracks in recording standby.

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

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

**Optional setting indicators**
These icons appear on the display when optional functions are ON.

**Counter**
Counter function: Specify a time

**Remaining battery life (when battery used)**
If “Low Battery” appears on the display, it is time to change the batteries.

**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.

**BOUNCE ICON**
Selecting this icon brings up BOUNCE settings.

**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.

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

<table>
<thead>
<tr>
<th>PLAY MODE</th>
<th>SYSTEM</th>
<th>SD CARD</th>
<th>USB</th>
<th>MODE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>MIXER</th>
<th>PLAY MODE</th>
<th>SYSTEM</th>
<th>SD CARD</th>
<th>USB</th>
<th>MODE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TOOL</th>
<th>SYSTEM</th>
<th>SD CARD</th>
<th>USB</th>
<th>MODE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
9 Optional remote control operation

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

Remote control button operation

**VOLUME +/-**

- 0-100
- +: increase (raise)
- -: decrease (lower)

**INPUT MIC, 1 and 2 buttons and indicators**

- Select the input source
- The indicator corresponding to the button shows the input status.
- Green: selected input source
- Yellow: input level is over −6 dB
- Red: input is clipping

**REC**

Button operation

- REC button
-REC LEVEL +/-

- 1-100
- +: increase sensitivity (amplify)
- -: decrease sensitivity (attenuate)

**Transport buttons**

**FF and REW buttons**

- 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.

**STOP button**

- Stop recording and reset counter to 0
- Stop playback and stop counter

**PLAY/PAUSE button**

- Start playback and start counter
- Start recording and counter

- While overwrite setting: Stops recording
- While always new setting: Pauses recording
- Start recording and the counter begins to move

**Recording and placing marks.**

- OVER WRITE recording
- Enter recording standby
- Stop recording (playback continues)
- Recording starts and counter continues

- ALWAYS NEW recording
- Stop recording and counter
- Start recording and start counter
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.

- **Built-in microphones (stereo)**
- **External stereo microphone**

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.

**4CH MODE**

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

- **Built-in microphones (stereo)**
- **External stereo microphone**

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.

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.

<table>
<thead>
<tr>
<th>TRACK 1</th>
<th>TRACK 2</th>
<th>TRACK 3</th>
<th>TRACK 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mono</td>
<td>Stereo</td>
<td>Mono</td>
<td>Mono</td>
</tr>
<tr>
<td>Stereo</td>
<td>Mono</td>
<td>Mono</td>
<td>Mono</td>
</tr>
<tr>
<td>Mono</td>
<td>Mono</td>
<td>Stereo</td>
<td></td>
</tr>
<tr>
<td>Stereo</td>
<td>Stereo</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
1-02 Settings/recording: Recording in STEREO and STAMINA modes

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

1. Press to enter recording standby.
2. Select input source and press.
3. Press MIC to use the built-in mics, or press INPUT 1 or 2 to use external inputs.
4. Press to start recording.
5. Press to end recording.

*You can record without making these settings.

**Operations / Settings/recording:** Recording in STEREO and STAMINA modes

- Confirm the mode is STEREO.
- Change recording settings.*
- Use recording functions.*
- 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.

**Adjust the recording level of the input source.**

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

**Press to start recording.**

- The counter and remaining time start changing.

**Press to end recording.**

- The counter resets to 0.
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
Mark setting P.096
AUTO REC P.065
REC LEVEL AUTO P.069
FILE NAME P.050
METRONOME P.079
PRE REC P.063
1-03 Settings/recording: Recording format (REC FORMAT)

Set the recording format (REC FORMAT) before recording.

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.

<table>
<thead>
<tr>
<th>REC FORMAT</th>
<th>STEREO mode</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>WAV</td>
<td>44.1kHz/16bit</td>
<td>44.1kHz/24bit</td>
</tr>
<tr>
<td></td>
<td>48kHz/16bit</td>
<td>48kHz/24bit</td>
</tr>
<tr>
<td></td>
<td>96kHz/16bit</td>
<td>96kHz/24bit</td>
</tr>
<tr>
<td>MP3</td>
<td>48kbps</td>
<td>56kbps</td>
</tr>
<tr>
<td></td>
<td>64kbps</td>
<td>80kbps</td>
</tr>
<tr>
<td></td>
<td>96kbps</td>
<td>112kbps</td>
</tr>
<tr>
<td></td>
<td>128kbps</td>
<td>160kbps</td>
</tr>
<tr>
<td></td>
<td>192kbps</td>
<td>224kbps</td>
</tr>
<tr>
<td></td>
<td>256kbps</td>
<td>320kbps</td>
</tr>
<tr>
<td></td>
<td>VBR</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>REC FORMAT</th>
<th>4CH mode</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>WAV</td>
<td>44.1kHz/16bit</td>
<td>44.1kHz/24bit</td>
</tr>
<tr>
<td></td>
<td>48kHz/16bit</td>
<td>48kHz/24bit</td>
</tr>
</tbody>
</table>

Default: WAV44.1kHz/16bit
When recording, the file name is automatically assigned. Follow these procedures to change the format.

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

2. Select REC and press.


4. Select and press.

**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.

### File Name

<table>
<thead>
<tr>
<th>Mode</th>
<th>Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>STEREO mode</strong></td>
<td></td>
</tr>
<tr>
<td>DEFAULT</td>
<td>STE/MONO--xxx.wav/mp3 (STE: stereo, MONO: mono; XXX: 3-digit number; wav/mp3 extension)</td>
</tr>
<tr>
<td>DATE</td>
<td>090531-xxx.wav/mp3 (yyyy-mm-dd; 3-digit number; wav/mp3 extension)</td>
</tr>
<tr>
<td><strong>4CH mode</strong></td>
<td></td>
</tr>
<tr>
<td>No change</td>
<td>4CH-xxxM.wav</td>
</tr>
<tr>
<td></td>
<td>File recorded using the built-in microphones</td>
</tr>
<tr>
<td></td>
<td>4CH-xxxI.wav</td>
</tr>
<tr>
<td></td>
<td>File recorded using the external input</td>
</tr>
<tr>
<td><strong>MTR mode</strong></td>
<td></td>
</tr>
<tr>
<td>Stereo and</td>
<td>TRK1-xx.wav (TRK: track number; 2-digit number, extension)</td>
</tr>
<tr>
<td>mono files</td>
<td>For stereo tracks, track numbers like 12 for L and R are used.</td>
</tr>
</tbody>
</table>

**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

1. Enter recording standby
2. Select input source
3. Adjust recording level of source

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

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
4. Start recording.
(Pause, resume recording, add marks.)
5. End recording

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

*You can record without making these settings.
Operations / Settings/recording: 4CH mode recording

**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.

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

**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.

**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
- Mark setting P.096
- AUTO REC P.063
- REC LEVEL AUTO P.069
- FILE NAME P.050
- METRONOME P.079
- PRE REC P.065
1-06-1 Settings/recording: MTR mode recording (REC MODE)

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

**Recording flow**

1. Change to MTR mode
2. Create a new PROJECT
3. Record the first track
   - Select the REC mode
   - OVER WRITE (overwrite recordings)
     - Set up PUNCH IN/OUT*
     - Use the METRONOME*
     - Set up EFFECT*
   - ALWAYS NEW (create new recordings)
     - Use the METRONOME*
     - Set up EFFECT*
4. Recording Standby
   - Select the track to record
     - Select the input source
     - Adjust the recording level of the source
   - Start recording
     - Pause
     - Resume
5. End recording
   - Make settings (mix)
     - TRACK MENU settings
     - Adjust the track
     - LEVEL
     - PAN
   - Make settings (mix)
     - TRACK MENU settings
     - Adjust the track
     - LEVEL
     - PAN

*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.

---

Operations / Settings/recording: MTR mode recording (REC MODE)
Input sources and tracks

When recording only one track

1. Input source is either INPUT 1 or INPUT 2

   INPUT 1 or 2 → TRACK

2. Input source is MIC or INPUT 1 and 2

   Built-in microphone L
   Built-in microphone R

   Recording is created by mixing signals from both sources

   INPUT 1
   INPUT 2

When recording two tracks

1. Input source is either INPUT 1 or INPUT 2

   INPUT 1 or 2

   Track 1 or 3
   Track 2 or 4

   The same signal is sent to both tracks.

2. Input source is MIC or INPUT 1 and 2

   Built-in microphone L
   Built-in microphone R

   or

   INPUT 1
   INPUT 2

   Track 1 or 3
   Track 2 or 4
You can select from two recording modes. Using the OVER WRITE mode, you can overwrite new sounds on the existing file.

1. Select the TRACK.
2. Press.
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.

1. **Select the TRACK.**
   - 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

2. **Press.**
   - The selected TRACK lights
   - Shows input level
   - Counter will not reset to 0.

3. **Press to start recording.**
   - Counter does not reset to 0.

4. **Press to stop recording.**
   - 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.

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

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

1. On the top screen select a track menu icon and press.
2. Select a project and start ……P.119
3. Select TRACK MENU
4. Adjust the track output level
5. Set the value and press.
7. Set the value and press.
8. Adjust the panning

**SELECT TRACK MENU**
Name of file assigned to track

**FADER CHANGE**
Pan icon changes

**LEVEL CHANGE**
Fader icon changes

**CURRENTLY SELECTED TRACK**
Track menu icon

Press the MENU button for more than 2 seconds, and start operation from the top screen.
**NOTE:**
STEREO LINK, FILE and KARAOKE settings are not available during recording or playback for tracks that are record ready.

**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:** 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)

**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.

**Assigning files to tracks**
Select FILE and press.
Select the file to be assigned and press.

**Setting KARAOKE**
Select KARAOKE and press.
Set the value and press.
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.

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

2. Select FILE and press.

3. Select the desired file and press.

4. Press to start playback.

5. Select the punch in/out icon and press.

6. Find the desired punch in point and press.
Set the recording end (punch out) point

7 Press the desired punch out point.

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.

10 Press to start TRACK 1 playback/recording.

NOTE:
Setting available only for OVER WRITE recording in MTR mode.

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.
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.

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

2. Select FILE and press.

3. Select the desired file and press.

4. Press to enter recording standby.

5. Press to start playback.

Change the REC MODE to OVER WRITE .............P.053

Assign files to tracks

Playback

Operations / Settings/recording: Manual re-recording (PUNCH IN/OUT)
6 Perform (not recording).

7 Press to start recording.

8 Perform (recording).

9 Press to finish recording.

10 Press to stop playback.
The H4n Pro can detect when the input level exceeds a preset level and automatically start recording from recording standby.

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.
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.

**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.

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
   - HINT:
     - When AUTO STOP is on, a stop level indicator appears during recording.
     - You cannot make this setting during recording or playback.
     - Even when AUTO STOP is on, you can press the STOP button to stop recording.

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

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.

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.

1. Press.

2. Select INPUT and press.


4. Select the setting input source.

5. Select the setting target.

Press the MENU button for more than 2 seconds, and start operation from the top screen.
### Operations / Recording functions: COMP/LIMIT

<table>
<thead>
<tr>
<th>Type</th>
<th>Explanation</th>
<th>Threshold (dB)</th>
<th>Ratio</th>
<th>Output level (dB)</th>
<th>Attack time (ms)</th>
<th>Release time (ms)</th>
</tr>
</thead>
<tbody>
<tr>
<td>OFF</td>
<td>Compressor and limiter OFF</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>COMP1 (GENERAL)</td>
<td>Standard compressor</td>
<td>-48.7</td>
<td>9:1</td>
<td>+6.0</td>
<td>7.2</td>
<td>968</td>
</tr>
<tr>
<td>COMP2 (VOCAL)</td>
<td>This compressor is good for vocals.</td>
<td>-8.4</td>
<td>16:1</td>
<td>0</td>
<td>1.8</td>
<td>8.7</td>
</tr>
<tr>
<td>COMP3 (DRUM)</td>
<td>This compressor is good for drums and percussion.</td>
<td>-48.2</td>
<td>7:1</td>
<td>+3.6</td>
<td>12.3</td>
<td>947</td>
</tr>
<tr>
<td>LIMIT1 (GENERAL)</td>
<td>Standard limiter</td>
<td>-14.4</td>
<td>60:1</td>
<td>0</td>
<td>6.4</td>
<td>528</td>
</tr>
<tr>
<td>LIMIT2 (CONCERT)</td>
<td>Limiter good for live performance</td>
<td>-13.8</td>
<td>32:1</td>
<td>+1.2</td>
<td>1.9</td>
<td>8.5</td>
</tr>
<tr>
<td>LIMIT3 (STUDIO)</td>
<td>Limiter good for studio recording</td>
<td>-12.0</td>
<td>8:1</td>
<td>+1.2</td>
<td>6.5</td>
<td>423</td>
</tr>
</tbody>
</table>

**HINT**

These compressors reduce high-level sounds and raise the minimum level.
2-05 Recording functions: REC LEVEL AUTO

This function automatically sets the level for recording.

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**

**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.

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

**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.
6. Press the REC LEVEL buttons.
7. Press the button for the input to adjust.
8. Use the REC LEVEL buttons to adjust the recording level.

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

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

**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: +0.0 dB
**NOTE**

You cannot use this function together with MONO MIX.

---

**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.
The H4n Pro features a tuner with multiple tuning modes.

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.
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.

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.
3-01-3 Tuner: TUNER CALIB

This function allows you to calibrate the tuner.

1. Press.

2. Select TOOL and press.

3. Select TUNER and press.

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

4CH mode only

**Tuner: TUNER INPUT**

4- Select INPUT and press.

5- Select the input source and press.

**HINT:**

- **Tuner display**
  - **GUARD TUNER**
  - **STRING SELECT:**
  - When pitch is low
  - **CHROMATIC TUNER**
  - **EXIT:**
  - **NOTE:**
  - No input sound (chromatic)

**Tuner types and string notes**

<table>
<thead>
<tr>
<th>Tuner type</th>
<th>String number/note name</th>
</tr>
</thead>
<tbody>
<tr>
<td>GUITAR</td>
<td>E B G D A E B</td>
</tr>
<tr>
<td>BASS</td>
<td>G D A E B</td>
</tr>
<tr>
<td>OPEN A</td>
<td>E C# A E A E</td>
</tr>
<tr>
<td>OPEN D</td>
<td>D A F# D A D</td>
</tr>
<tr>
<td>OPEN E</td>
<td>E B G# E B E</td>
</tr>
<tr>
<td>OPEN G</td>
<td>D B G D G D</td>
</tr>
<tr>
<td>DADGAD</td>
<td>D A G D A D</td>
</tr>
</tbody>
</table>

**NOTE:**

- This cannot be used during recording and playback.
3-02 Metronome (METRONOME)

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

1. Press.
2. Select TOOL and press.
3. Select METRONOME and press.
4. Set each item.

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

---

CLICK
This setting turns the metronome off or on during recording, playback, or both. This setting must be made before recording or playback. Set the count used before recording starts. This cannot be set when PRE REC or AUTO REC is ON.

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

Select the condition
OFF
○/ / ---Recording/playback
○/ / ---Only when recording
○/ / ---Only when playback

Count of SPECIAL

---

Operations / Metronome (METRONOME)
**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.

- **METRONOME TEMPO**
  - Default: 120.0
  - You can set this between 40.0 and 250.0 BPM in 0.1 increments.

**SOUND**
Set the metronome tone.

- **METRONOME SOUND**
  - Default: bell
  - You can select BELL, CLICK, STICK, COWBELL or HI-Q.

**PATTERN**
Set the pattern of the metronome.

- **METRONOME PATTERN**
  - Default: 4/4
  - You can select 0/4 (no accent), 1/4 – 8/4 or 6/8.

**LEVEL**
Set the volume of the metronome.

- **METRONOME LEVEL**
  - 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

1. Use an effect
   Use a preset as is
   P.083

2. Edit a patch (EDIT)
   - Select the preset that is closest to the desired sound
   - Edit modules
     - PRE AMP
     - EFX
   - Adjust parameters
     - P.085
     - P.086
   - Adjust the patch level
   - Change the patch name
     - P.087

3. Import a patch
   Select the mode:
   - Import one (EACH)
   - Import all (ALL)
   P.089

Save the edited patch (STORE)
   P.088

Change to MTR mode
   P.036

Record
   P.053
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
Using the 2 EFFECT modules in MTR mode, you can add various effects to the input signals.

1. Press.

2. Select EFFECT and press.

3. Press ON and press.

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

5. Select PATCH and press.

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)

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.

LEVEL
Adjust the patch level.

RENAME
Change the patch name.

STORE
Save the edited patch.

EFX
The EFX module has modulation, chorus and delay effects.
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.

Adjust a parameter

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

9 Select the parameter to edit and press.

Icons

PRE AMP module
ON/OFF status

Set effect AMP type

CABINET, EQ, LEVEL, etc.

ZNK icon

Ref.
PRE AMP module parameters
P.141
3-03-5  EFX module editing (EFFECT EDIT: EFX)

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.
Adjust the patch level and change the patch name.

**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.
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.

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.


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.

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

HINT:
Import mode ➤ Import project ➤ Start importing ➤
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

**Import the file to the project**
- Copy the file to the project folder
- Use the MOVE function

Operations / Karaoke (KARAOKE)

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.

Karaoke setup (Prepare tracks for karaoke)

1. Select a track menu icon and open the TRACK menu
2. Turn KARAOKE ON.
3. Assign files.
4. Connect a microphone
5. Make recording track settings
6. Enable recording

Adjust the karaoke tracks
- LEVEL
- CENTER CANCEL
- KEY
- FINE

Perform with karaoke
- Playback
- Record

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

…P.118

Import the file to the project
- Use the MOVE function

…P.037

Prepare stereo files for the background
- Create a new project for karaoke

…P.117

Karaoke setup
- Adjust the karaoke tracks
- Perform with karaoke

…P.116
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)

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. P.057
TRACK MENU
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.

1. Press.

2. Select FILE and press.

3. Select the desired file and press.

4. Select SELECT and press.

5. Press to start playback.

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.
4-02 Playback: PLAY MODE

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

1. Press.

2. Select PLAY MODE and press.

3. Select a play mode and press.

4. Press to start playback.

NOTE:
You cannot change this setting during recording and playback.
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.
4-04 Playback: AB REPEAT

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

1. Press.

2. Select TOOL and press.

3. Select AB REPEAT and press.

4. Press to start playback.

5. Press to set point A.

6. Press to set point B.

HINT:
You can also set point A and B while stopped.

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

Point A moves.

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

Playback repeats between the points.
NOTE:
During recording and playback, you cannot make any settings after Step 3 of AB REPEAT.

HINT:

**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**

<table>
<thead>
<tr>
<th>Function</th>
<th>Icon</th>
</tr>
</thead>
<tbody>
<tr>
<td>Set/clear A and B points</td>
<td><img src="REC_icon.png" alt="REC" /></td>
</tr>
<tr>
<td>Stop</td>
<td>![Stop_icon.png]</td>
</tr>
<tr>
<td>Play/Pause the file</td>
<td>![Play_Pause_icon.png]</td>
</tr>
<tr>
<td>Hold for more than one second to search backward or forward</td>
<td>![Hold_icon.png]</td>
</tr>
<tr>
<td>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)</td>
<td>![Skip_icon.png]</td>
</tr>
</tbody>
</table>
4-05 Playback: SPEED

You can adjust the playback speed of a file.

1. Press.

2. Select TOOL and press.

3. Select SPEED and press.

4. Adjust the playback speed.

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

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

1. Press.

2. Select MIXER and press.

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

LEVEL setting

PAN setting

HINT:
The cursor cycles on the MIXER screen from MIC LEVEL to MIC PAN to INPUT LEVEL to INPUT PAN.
MTR mode has various ways to play files. You can, for example, create and record files separately, assign them to tracks and play them back simultaneously.

**Initial track recording**

Press

![Image of initial track recording](image1)

**Next track recording**

Press

![Image of next track recording](image2)

**Third track recording**

Press

![Image of third track recording](image3)

**Last track recording**

Press

![Image of last track recording](image4)

**Play 4 tracks**

Press

![Image of play 4 tracks](image5)

**Second time recording to tracks**

Press

![Image of second time recording to tracks](image6)

**Playback**

Press

![Image of playback](image7)
4-08 Playback: Specifying a counter time

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

1. Select the counter on the top screen and press.

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

3. Change the value and press.

**HINT:**
- **00:00:00:000**
  - Hour: minute: second: millisecond

Press the MENU button for more than 2 seconds, and start operation from the top screen.
Select the folder that contains the file you want to record with or play.

1. Press.

2. Select FOLDER and press.

3. Select a folder and press.

**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.

1 Press.

2 Select FILE and press.

3 Select a file and press.

4 Select SELECT and press.

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.

Operations / Editing/Output: FILE SELECT
This function displays the selected file information.

Select INFORMATION and press.

Selecting files . . . P.104 FILE SELECT

<table>
<thead>
<tr>
<th>NAME</th>
<th>Name of file</th>
</tr>
</thead>
<tbody>
<tr>
<td>DATE</td>
<td>Recorded date of file (or modification date when created by a computer or other device)</td>
</tr>
<tr>
<td>FORMAT</td>
<td>Format of file (in MTR mode, MONO or STEREO shown)</td>
</tr>
<tr>
<td>SIZE</td>
<td>File size (kB or MB)</td>
</tr>
<tr>
<td>TIME</td>
<td>Recording time of file</td>
</tr>
</tbody>
</table>
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.

NOTE:
Be careful!
Once deleted, a file cannot be recovered.
You can delete all the files in a folder or project.

4. Select DELETE ALL and press.

```
STE-000.WAV
MOVE
MARK LIST
DELETE
DELETE ALL
FOLDER:01
```

5. Select YES and press.

```
DELETE ALL FOLDER01
Are You Sure?
YES
NO
CANCEL: MENU
```

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

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.

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.
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.

Select RENAME and press.

Select a character and press.

Input a character and press.

Select OK and press.

Selecting files . . . P.104 FILE SELECT

Select a character to change

Press the DIAL to confirm the change.
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:
(special)!#$%&()+,-0123456789;=@ABCDEFGHIJ
KLMNOPQRSTUVWXYZ
^_`abcdefghijklmnopqrstuvwxyz{}˜

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.

FILE RENAME

This File Name Already Exists!

CANCEL: M/E/N/D

FILE RENAME

OK TEST MUST

CANCEL: M/E/N/D

FILE RENAME

OK TEST MUST

CANCEL: M/E/N/D
5-08  Editing/Output: FILE MP3 ENCODE

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

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

### 4. Select NORMALIZE and press.

```
4CH000M/1.WAV
SELECT
INFORMATION
STEREO ENCODE
NORMALIZE
```

### 5. Select YES and press.

```
FILE NORMALIZE
Are You Sure?

YES
NO
CANCEL: MENU
```

```
FILE MENU
STE-000.WAV
STE-001.WAV
STE-002.WAV
STE-003.MP3
```

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

Select STEREO ENCODE and press.

Setup MIXER:
Enable the MIXER before encoding.

Select MIXER and press.

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 and press.

Select the folder to save in and press.

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

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

Select MARK LIST and press.

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 if the load is heavy, they often happen. In this case, change the REC FORMAT to a lighter setting.

<table>
<thead>
<tr>
<th></th>
<th>Stereo mode</th>
<th>4CH mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heavy</td>
<td>WAV96kHz/24bit</td>
<td>WAV48kHz/24bit</td>
</tr>
<tr>
<td></td>
<td>WAV96kHz/16bit</td>
<td>WAV44.1kHz/24bit</td>
</tr>
<tr>
<td></td>
<td>WAV48kHz/24bit</td>
<td>WAV48kHz/16bit</td>
</tr>
<tr>
<td></td>
<td>WAV44.1kHz/24bit</td>
<td>WAV44kHz/16bit</td>
</tr>
<tr>
<td>Light</td>
<td>WAV48kHz/24bit</td>
<td>WAV48kHz/16bit</td>
</tr>
<tr>
<td></td>
<td>WAV44.1kHz/24bit</td>
<td>WAV44.1kHz/16bit</td>
</tr>
<tr>
<td></td>
<td>WAV44kHz/16bit</td>
<td>MP3</td>
</tr>
</tbody>
</table>

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

Refer.
- REC FORMAT P.049
- Setting marks P.096
5-12 Editing/Output: DIVIDE

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

4 Select DIVIDE and press.

5 Press to start playback.

6 Press at the desired division point.

7 Select Yes and press.

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).

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/16bit 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

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.

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

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

Characters are changed in the order above.

(space)!"#$%&()*+,-./0123456789;=?@ABCDEFGHIJKLMNOPQRSTUVWXYZ\^_`abcdefghijklmnopqrstuvwxyz{|}"
Select a project stored on the SD card.

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

This function will delete a project.

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
You can change the name of a project.

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;<= ?@ABCDEFGHIJKLMNOPQRSTUVWXYZ\^_`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.
You can copy a project to create a new project with a new number.

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

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
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

Set the bounce file name

Proceed to next step if no change.

Select BOUNCE on the top screen and press.

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

Select NAME and press.

Change the name of the file.

Ref. FILE RENAME P.109
### Select output file format: mono or stereo

4. Select FORMAT and press.

<table>
<thead>
<tr>
<th>BOUNCE</th>
<th>NAME</th>
<th>BOUNCE00</th>
</tr>
</thead>
<tbody>
<tr>
<td>FORMAT</td>
<td>STEREO</td>
<td>EXECUTE</td>
</tr>
</tbody>
</table>

5. Select the file type and press.

<table>
<thead>
<tr>
<th>BOUNCE FILE FORMAT</th>
</tr>
</thead>
<tbody>
<tr>
<td>STEREO</td>
</tr>
<tr>
<td>MONO</td>
</tr>
</tbody>
</table>

### Execution


<table>
<thead>
<tr>
<th>BOUNCE</th>
<th>NAME</th>
<th>BOUNCE00</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXECUTE</td>
<td>STEREO</td>
<td>EXECUTE</td>
</tr>
</tbody>
</table>

**HINT:**
“Bouncing” means to combine various music data from different tracks and files into a stereo or mono file.

**NOTE:**
You cannot use this function during recording or playback.
5-20 Editing/Output: PROJECT PROTECT

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

1. Press.

2. Select PROJECT and press.

3. Select PROTECT and press.

4. Select ON and press.

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.

1. Press.

2. Select SYSTEM and press.

3. Select LIGHT and press.

4. Select the desired time and press.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>OFF</td>
<td>The backlight stays off all the time.</td>
</tr>
<tr>
<td>ON</td>
<td>The backlight stays on all the time.</td>
</tr>
<tr>
<td>15sec</td>
<td>The backlight stays on for 15 seconds after the last key operation.</td>
</tr>
<tr>
<td>30sec</td>
<td>The backlight stays on for 30 seconds after the last key operation.</td>
</tr>
</tbody>
</table>

NOTE:

You cannot change this setting during recording or playback.
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**

1. Press.
2. Select TOOL and press.
3. Select MEMORY REC and press.
4. Select REC&PLAY.

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

**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

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.

3. Select EXECUTE and press.

HINT:
The destination folder is a stereo mode folder.

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.
Follow these steps to adjust the display contrast.

1. Press.
2. Select SYSTEM and press.
3. Select CONTRAST and press.
4. Change the number and press.

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.

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

2. Select SYSTEM and press.

3. Select BATTERY and press.

4. Select the battery type and press.

**BATTERY TYPE**

- **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.
After startup, you can check the H4n Pro version.

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.

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

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.

1 Press.

2 Select SD CARD and press.

3 Select FORMAT and press.

4 Select YES and press.

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.

HINT:
“Format Card?”
“Format Card?” appears during startup if the loaded SD card is not formatted for the H4n Pro.

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.

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

2. Connect the H4n Pro and computer with a USB cable.

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

4. Disconnect the PC and H4n Pro.

5. Turn on while holding down the PLAY/PAUSE button.

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.

   "File Name Exists!"
   If a file with the same name already exists in the destination folder, select RENAME and change the name.

   "Project Full!"
   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.

   "Complete!"

   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.
Reference
# Main specifications by mode

## Reference / Main specifications by mode

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

### Menu items

<table>
<thead>
<tr>
<th>SYSTEM</th>
<th>STEREO</th>
<th>4CH</th>
<th>MTR</th>
<th>STAMINA</th>
</tr>
</thead>
<tbody>
<tr>
<td>DATE/TIME</td>
<td>△</td>
<td>△</td>
<td>△</td>
<td>△</td>
</tr>
<tr>
<td>LIGHT</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>LCD CONTRAST</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>BATTERY TYPE</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>FACTORY RESET</td>
<td>△</td>
<td>△</td>
<td>△</td>
<td>△</td>
</tr>
<tr>
<td>SD CARD</td>
<td>STEREO</td>
<td>4CH</td>
<td>MTR</td>
<td>STAMINA</td>
</tr>
<tr>
<td>FORMAT</td>
<td>△</td>
<td>△</td>
<td>△</td>
<td>△</td>
</tr>
<tr>
<td>REMAIN</td>
<td>△</td>
<td>△</td>
<td>△</td>
<td>△</td>
</tr>
<tr>
<td>USB</td>
<td>STEREO</td>
<td>4CH</td>
<td>MTR</td>
<td>STAMINA</td>
</tr>
<tr>
<td>AUDIO IF</td>
<td>△</td>
<td>△</td>
<td>△</td>
<td>—</td>
</tr>
<tr>
<td>STORAGE</td>
<td>△</td>
<td>△</td>
<td>△</td>
<td>—</td>
</tr>
<tr>
<td>MODE</td>
<td>STEREO</td>
<td>4CH</td>
<td>MTR</td>
<td>STAMINA</td>
</tr>
<tr>
<td>MODE</td>
<td>△</td>
<td>△</td>
<td>△</td>
<td>—</td>
</tr>
<tr>
<td>FOLDER SELECT</td>
<td>STEREO</td>
<td>4CH</td>
<td>MTR</td>
<td>STAMINA</td>
</tr>
<tr>
<td>FOLDER SELECT</td>
<td>△</td>
<td>△</td>
<td>—</td>
<td>△</td>
</tr>
<tr>
<td>FILE</td>
<td>STEREO</td>
<td>4CH</td>
<td>MTR</td>
<td>STAMINA</td>
</tr>
<tr>
<td>FILE INFORMATION</td>
<td>△</td>
<td>△</td>
<td>△</td>
<td>△</td>
</tr>
<tr>
<td>FILE RENAME</td>
<td>△</td>
<td>△</td>
<td>△</td>
<td>△</td>
</tr>
<tr>
<td>FILE MP3 ENCODE</td>
<td>△</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>NORMALIZE</td>
<td>△</td>
<td>△</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>DIVIDE</td>
<td>△</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>MOVE</td>
<td>△</td>
<td>△</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>MARK LIST</td>
<td>△</td>
<td>△</td>
<td>—</td>
<td>△</td>
</tr>
<tr>
<td>FILE DELETE</td>
<td>△</td>
<td>△</td>
<td>△</td>
<td>△</td>
</tr>
<tr>
<td>FILE DELETE ALL</td>
<td>△</td>
<td>△</td>
<td>△</td>
<td>△</td>
</tr>
<tr>
<td>FILE STEREO ENCODE</td>
<td>—</td>
<td>△</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>FILE COPY</td>
<td>—</td>
<td>—</td>
<td>△</td>
<td>—</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>INPUT SETTING</th>
<th>STEREO</th>
<th>4CH</th>
<th>MTR</th>
<th>STAMINA</th>
</tr>
</thead>
<tbody>
<tr>
<td>LO CUT</td>
<td>○</td>
<td>○</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>COMP/LIMIT</td>
<td>○</td>
<td>○</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>MONITOR</td>
<td>○</td>
<td>○</td>
<td>△</td>
<td>—</td>
</tr>
<tr>
<td>REC LEVEL AUTO</td>
<td>△</td>
<td>△</td>
<td>—</td>
<td>△</td>
</tr>
<tr>
<td>MONO MIX</td>
<td>△</td>
<td>—</td>
<td>△</td>
<td>—</td>
</tr>
<tr>
<td>MS STEREO MATRIX</td>
<td>○</td>
<td>○</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>PHANTOM</td>
<td>○</td>
<td>○</td>
<td>△</td>
<td>—</td>
</tr>
<tr>
<td>PLUG-IN POWER</td>
<td>○</td>
<td>○</td>
<td>△</td>
<td>—</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>REC SETTING</th>
<th>STEREO</th>
<th>4CH</th>
<th>MTR</th>
<th>STAMINA</th>
</tr>
</thead>
<tbody>
<tr>
<td>REC FORMAT</td>
<td>△</td>
<td>△</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>AUTO REC</td>
<td>△</td>
<td>△</td>
<td>—</td>
<td>△</td>
</tr>
<tr>
<td>PRE REC</td>
<td>△</td>
<td>△</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>FILE NAME</td>
<td>△</td>
<td>—</td>
<td>—</td>
<td>△</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TOOL</th>
<th>STEREO</th>
<th>4CH</th>
<th>MTR</th>
<th>STAMINA</th>
</tr>
</thead>
<tbody>
<tr>
<td>TUNER</td>
<td>△</td>
<td>△</td>
<td>△</td>
<td>—</td>
</tr>
<tr>
<td>METRONOME*</td>
<td>○</td>
<td>○</td>
<td>△</td>
<td>—</td>
</tr>
<tr>
<td>A-B REPEAT</td>
<td>△</td>
<td>△</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>SPEED</td>
<td>△</td>
<td>—</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PLAY MODE</th>
<th>STEREO</th>
<th>4CH</th>
<th>MTR</th>
<th>STAMINA</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLAY MODE</td>
<td>△</td>
<td>△</td>
<td>—</td>
<td>△</td>
</tr>
<tr>
<td>REC MODE</td>
<td>STEREO</td>
<td>4CH</td>
<td>MTR</td>
<td>STAMINA</td>
</tr>
<tr>
<td>REC MODE</td>
<td>—</td>
<td>△</td>
<td>—</td>
<td>—</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EFFECT</th>
<th>STEREO</th>
<th>4CH</th>
<th>MTR</th>
<th>STAMINA</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDIT</td>
<td>—</td>
<td>—</td>
<td>△</td>
<td>—</td>
</tr>
<tr>
<td>IMPORT</td>
<td>—</td>
<td>—</td>
<td>△</td>
<td>—</td>
</tr>
</tbody>
</table>

○ ...This can be set during recording and playback (* indicates some exceptions).
△ ...This cannot be set during recording and playback.
MTR mode effect types and parameters

■ PREAMP module

● Guitar preamp effects

<table>
<thead>
<tr>
<th>Effect</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>FD TWINR</td>
<td>Models the sound of the Fender '65 Twin Reverb.</td>
</tr>
<tr>
<td>UK 30A</td>
<td>Models the sound of an early class A British combo amp.</td>
</tr>
<tr>
<td>HW 100</td>
<td>Models the sound of the HIWATT CUSTOM 100.</td>
</tr>
<tr>
<td>FD TWEED</td>
<td>Models the sound of the Fender '59 Bassman.</td>
</tr>
<tr>
<td>BGrunch</td>
<td>Models the sound of the Mesa Boogie Mark III combo amp.</td>
</tr>
<tr>
<td>MScrunch</td>
<td>Models the crunch sound of the Marshall JCM800.</td>
</tr>
<tr>
<td>MS DRIVE</td>
<td>Models the drive sound of the Marshall JCM800.</td>
</tr>
<tr>
<td>XTASY BL</td>
<td>Models the sound of the Bogner Ecstasy Blue channel.</td>
</tr>
<tr>
<td>SD+XTASY</td>
<td>Combination of Bogner Ecstasy and SweetDrive.</td>
</tr>
<tr>
<td>TS+FDcmb</td>
<td>Combination of Fender Combo amp and Ibanez TS-808.</td>
</tr>
<tr>
<td>GD+MStk</td>
<td>Combination of Marshall JCM800 and GoldDrive.</td>
</tr>
<tr>
<td>FZ+MStk</td>
<td>Combination of Marshall JCM800 and Fuzz.</td>
</tr>
</tbody>
</table>

The 12 effects above have the same parameters.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CABINET</td>
<td>0–2</td>
<td>Adjusts the depth of the speaker cabinet sound.</td>
</tr>
<tr>
<td>GAIN</td>
<td>0–100</td>
<td>Adjusts the preamp gain (distortion depth).</td>
</tr>
<tr>
<td>BASS</td>
<td>−12–+12</td>
<td>Adjusts the low-frequency boost/cut.</td>
</tr>
<tr>
<td>MIDDLE</td>
<td>−12–+12</td>
<td>Adjusts the middle-frequency boost/cut.</td>
</tr>
<tr>
<td>TREBLE</td>
<td>−12–+12</td>
<td>Adjusts the high-frequency boost/cut.</td>
</tr>
<tr>
<td>LEVEL</td>
<td>1–100</td>
<td>Sets the level of the signal after the PREAMP module.</td>
</tr>
<tr>
<td>ZNR</td>
<td>OFF, 1–16</td>
<td>Adjusts the sensitivity of ZOOM’s original ZNR noise reduction effect.</td>
</tr>
</tbody>
</table>

ACO SIM | Makes electric guitar sound like an acoustic guitar

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOP</td>
<td>0–10</td>
<td>Adjusts the string sound characteristic of acoustic guitars.</td>
</tr>
<tr>
<td>BODY</td>
<td>0–10</td>
<td>Adjusts the body sound characteristic of acoustic guitars.</td>
</tr>
<tr>
<td>BASS</td>
<td>−12–+12</td>
<td>Adjusts the low-frequency boost/cut.</td>
</tr>
<tr>
<td>MIDDLE</td>
<td>−12–+12</td>
<td>Adjusts the middle-frequency boost/cut.</td>
</tr>
<tr>
<td>TREBLE</td>
<td>−12–+12</td>
<td>Adjusts the high-frequency boost/cut.</td>
</tr>
<tr>
<td>LEVEL</td>
<td>1–100</td>
<td>Sets the level of the signal after the PREAMP module.</td>
</tr>
<tr>
<td>ZNR</td>
<td>OFF, 1–16</td>
<td>Adjusts the sensitivity of ZOOM’s original ZNR noise reduction effect.</td>
</tr>
</tbody>
</table>

• Manufacturer and product names shown in these tables are the trademarks and registered trademarks of various companies. The names are used only to explain sonic characteristics and do not indicate any affiliation with Zoom Corporation.
## Bass preamp effects

<table>
<thead>
<tr>
<th>Effect</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SVT</td>
<td>Models the sound of the Ampeg SVT.</td>
</tr>
<tr>
<td>BASSMAN</td>
<td>Models the sound of the Fender Bassman 100.</td>
</tr>
<tr>
<td>SMR</td>
<td>Models the sound of the SWR SM-900.</td>
</tr>
<tr>
<td>SUP-BASS</td>
<td>Models the sound of the Marshall Super Bass.</td>
</tr>
<tr>
<td>SANSAMP</td>
<td>Models the sound of the SansAmp Bass Driver DI.</td>
</tr>
<tr>
<td>TUBE PRE</td>
<td>ZOOM original tube preamp sound</td>
</tr>
</tbody>
</table>

The 6 effects above have the same parameters.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Range</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) CABINET</td>
<td>0–2</td>
<td>Adjusts the depth of the speaker cabinet sound.</td>
</tr>
<tr>
<td>(2) GAIN</td>
<td>0–100</td>
<td>Adjusts the preamp gain (distortion depth).</td>
</tr>
<tr>
<td>(3) BASS</td>
<td>−12→+12</td>
<td>Adjusts the low-frequency boost/cut.</td>
</tr>
<tr>
<td>(4) MIDDLE</td>
<td>−12→+12</td>
<td>Adjusts the middle-frequency boost/cut.</td>
</tr>
<tr>
<td>(5) TREBLE</td>
<td>−12→+12</td>
<td>Adjusts the high-frequency boost/cut.</td>
</tr>
<tr>
<td>(6) BALANCE</td>
<td>0–100</td>
<td>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.</td>
</tr>
<tr>
<td>(7) LEVEL</td>
<td>1–100</td>
<td>Sets the level of the signal after the PREAMP module.</td>
</tr>
<tr>
<td>(8) ZNR (ZOOM Noise Reduction)</td>
<td>OFF, 1–16</td>
<td>Adjusts the sensitivity of ZOOM’s original ZNR noise reduction effect.</td>
</tr>
</tbody>
</table>

- Manufacturer and product names shown in these tables are the trademarks and registered trademarks of various companies. The names are used only to explain sonic characteristics and do not indicate any affiliation with Zoom Corporation.

## Mic preamp effects

<table>
<thead>
<tr>
<th>Effect</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>VO MPRE</td>
<td>Preamp with characteristics good for vocal recording</td>
</tr>
<tr>
<td>AG MPRE</td>
<td>Preamp with characteristics good for acoustic guitar recording</td>
</tr>
<tr>
<td>FlatMPRE</td>
<td>Preamp with flat characteristics</td>
</tr>
</tbody>
</table>

The 3 effects above have the same parameters.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Range</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) COMP</td>
<td>OFF, 1–10</td>
<td>Adjusts the compression of the total signal level by lowering high-level signals and raising low-level signals.</td>
</tr>
<tr>
<td>(2) DE-ESSER</td>
<td>OFF, 1–10</td>
<td>Adjusts the amount that sibilant sounds are cut.</td>
</tr>
<tr>
<td>(3) LOW CUT</td>
<td>OFF, 1–10</td>
<td>Adjusts the frequency of the filter that cuts low-frequency noise, which is easily picked up by mics.</td>
</tr>
<tr>
<td>(4) BASS</td>
<td>−12→+12</td>
<td>Adjusts the low-frequency boost/cut.</td>
</tr>
<tr>
<td>(5) MIDDLE</td>
<td>−12→+12</td>
<td>Adjusts the middle-frequency boost/cut.</td>
</tr>
<tr>
<td>(6) TREBLE</td>
<td>−12→+12</td>
<td>Adjusts the high-frequency boost/cut.</td>
</tr>
<tr>
<td>(7) LEVEL</td>
<td>1–100</td>
<td>Sets the level of the signal after the PREAMP module.</td>
</tr>
<tr>
<td>(8) ZNR (ZOOM Noise Reduction)</td>
<td>OFF, 1–16</td>
<td>Adjusts the sensitivity of ZOOM’s original ZNR noise reduction effect.</td>
</tr>
</tbody>
</table>
### MTR mode effect types and parameters

#### EFX modules

##### Compressor/limiter effects

<table>
<thead>
<tr>
<th>RackComp</th>
<th>Compressors reduce high-level signals and raise the minimum level.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) THRESHOLD</td>
<td>0–50</td>
</tr>
<tr>
<td>(2) RATIO</td>
<td>1–10</td>
</tr>
<tr>
<td>(3) ATTACK</td>
<td>1–10</td>
</tr>
<tr>
<td>(4) LEVEL</td>
<td>2–100</td>
</tr>
</tbody>
</table>

**LIMITER** | Limiters compress when input signals exceed the fixed level. |
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) THRESHOLD</td>
<td>0–50</td>
</tr>
<tr>
<td>(2) RATIO</td>
<td>1–10</td>
</tr>
<tr>
<td>(3) RELEASE</td>
<td>1–10</td>
</tr>
<tr>
<td>(4) LEVEL</td>
<td>2–100</td>
</tr>
</tbody>
</table>

##### Modulation effects

<table>
<thead>
<tr>
<th>AUTO WAH</th>
<th>This wah effect responds to changes in input signal strength.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) POSITION</td>
<td>Before, After</td>
</tr>
<tr>
<td>(2) SENSE</td>
<td>−10−1, 1–10</td>
</tr>
<tr>
<td>(3) RESONANCE</td>
<td>0–10</td>
</tr>
<tr>
<td>(4) LEVEL</td>
<td>2–100</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PHASER</th>
<th>This effect varies the sound with phasing.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) POSITION</td>
<td>Before, After</td>
</tr>
<tr>
<td>(2) RATE</td>
<td>0–50, ♪ (See P.146)</td>
</tr>
<tr>
<td>(3) COLOR</td>
<td>4STAGE, 8STAGE, INVERT4, INVERT8</td>
</tr>
<tr>
<td>(4) LEVEL</td>
<td>2–100</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TREMOLO</th>
<th>This effect raises and lowers the volume cyclically.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) DEPTH</td>
<td>0–50</td>
</tr>
<tr>
<td>(2) RATE</td>
<td>0–50, ♪ (See P.146)</td>
</tr>
<tr>
<td>(3) WAVE</td>
<td>UP 0–9, DOWN 0–9, TRI 0–9</td>
</tr>
<tr>
<td>(4) LEVEL</td>
<td>2–100</td>
</tr>
<tr>
<td>Effect</td>
<td>Description</td>
</tr>
<tr>
<td>--------------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>RING MOD</td>
<td>This effect creates a metallic sound. The FREQ setting can drastically change the tone.</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>SLOW ATK</td>
<td>This effect makes the attack of each note gradual, creating a violin-like sound.</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>CHORUS</td>
<td>This mixes an effect sound that varies from the original pitch, creating a varying thick sound.</td>
</tr>
<tr>
<td>ENSEMBLE</td>
<td>This chorus ensemble effect features three-dimensional movement.</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>FLANGER</td>
<td>This effect adds modulation and strong undulations to the sound.</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>STEP</td>
<td>This special effect changes the tone in steps.</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>VIBE</td>
<td>This effect automatically adds vibrato.</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The 2 effects above have the same parameters.
## MTR mode effect types and parameters

### CRY
This effect varies the sound like a talking modulator.

| 1) RANGE | 1–10 | Adjusts the frequency band affected. |
| 2) RESONANCE | 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.

| 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. |

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

*milliseconds

<table>
<thead>
<tr>
<th>HALL</th>
<th>This reverb simulates the acoustics of a concert hall.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROOM</td>
<td>This reverb simulates the acoustics of a room.</td>
</tr>
<tr>
<td>SPRING</td>
<td>This is a spring reverb simulation.</td>
</tr>
<tr>
<td>ARENA</td>
<td>This simulates the acoustics of an arena-sized venue.</td>
</tr>
<tr>
<td>T ROOM</td>
<td>This simulates the acoustics of a tiled room.</td>
</tr>
<tr>
<td>M SPRING</td>
<td>This is a spring reverb simulation with a bright and clear tone.</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Note</th>
<th>Thirty-second note</th>
<th>Sixteenth note</th>
<th>Half note triplet</th>
<th>Dotted eighth note</th>
<th>Quarter note x 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>♬</td>
<td>♬ x 2</td>
<td>♬</td>
<td>♬ x 20</td>
<td>♬ x 20</td>
<td></td>
</tr>
</tbody>
</table>

**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).

<table>
<thead>
<tr>
<th>Category</th>
<th>No.</th>
<th>Patch name</th>
<th>Description</th>
<th>PREAMP module</th>
<th>EFX module</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guitar</td>
<td>00</td>
<td>Tweed Clean</td>
<td>This FD TWEED clean sound goes great with Stratocasters.</td>
<td>FD TWEED</td>
<td>SPRING</td>
</tr>
<tr>
<td></td>
<td>01</td>
<td>Liverpool</td>
<td>A 60s revival sound is created by gently driving a Class A British combo amp.</td>
<td>UK 30A</td>
<td>AIR</td>
</tr>
<tr>
<td></td>
<td>02</td>
<td>Clean Chorus</td>
<td>This clean sound is good for muted rhythmic and arpeggio playing.</td>
<td>FD TWNRM</td>
<td>CHORUS</td>
</tr>
<tr>
<td></td>
<td>03</td>
<td>Clean Delay</td>
<td>Using a long delay, this clean sound is good for sustained chords and arpeggios.</td>
<td>FD TWNRM</td>
<td>ECHO</td>
</tr>
<tr>
<td></td>
<td>04</td>
<td>Clean Trem</td>
<td>This clean sound varies the volume and can be said to be the original effect.</td>
<td>HW 100</td>
<td>TREMOLO</td>
</tr>
<tr>
<td></td>
<td>05</td>
<td>Aco.Simulate</td>
<td>This acoustic guitar simulation is ideal for stroking.</td>
<td>Aco Sim</td>
<td>AIR</td>
</tr>
<tr>
<td></td>
<td>06</td>
<td>Spy’s Shadow</td>
<td>Wrapped in spring reverb, this twangy guitar sound is perfect for electric instruments.</td>
<td>FD TWNRM</td>
<td>M SPRING</td>
</tr>
<tr>
<td></td>
<td>07</td>
<td>Wah Cutting</td>
<td>This funky rhythmic tone uses FD TWNRM and AUTO WAH.</td>
<td>FD TWNRM</td>
<td>AUTO WAH</td>
</tr>
<tr>
<td></td>
<td>08</td>
<td>Glossy Blues</td>
<td>This bewitching Fender '59 BASSMAN crunch sound follows the dynamics of the player.</td>
<td>FD TWEED</td>
<td>ROOM</td>
</tr>
<tr>
<td></td>
<td>09</td>
<td>UK Crunch</td>
<td>A sense of AIR is added to the natural crunch of a Class A British combo amp.</td>
<td>UK 30A</td>
<td>AIR</td>
</tr>
<tr>
<td></td>
<td>10</td>
<td>Box Of Edge</td>
<td>U2’s The Edge popularized this distinctive dotted-eighth-note delay effect (at 130 BPM).</td>
<td>UK 30A</td>
<td>ECHO</td>
</tr>
<tr>
<td></td>
<td>11</td>
<td>HW Crunch</td>
<td>Crunch sound of a HiWATT CUSTOM 100.</td>
<td>HW 100</td>
<td>ROOM</td>
</tr>
<tr>
<td></td>
<td>12</td>
<td>Melody</td>
<td>Analog delay adds a natural sense of space to TS+FDcmb for a sound that suits simple melodies.</td>
<td>TS+FDcmb</td>
<td>ANALOG</td>
</tr>
<tr>
<td></td>
<td>13</td>
<td>ZEP Drive</td>
<td>A classic Marshall crunch re-creates the sound of Led Zeppelin.</td>
<td>MScrunch</td>
<td>RackComp</td>
</tr>
<tr>
<td></td>
<td>14</td>
<td>Mellow Vibe</td>
<td>MScrunch and Vibe combine to create a laid-back sound.</td>
<td>MScrunch</td>
<td>VIBE</td>
</tr>
<tr>
<td></td>
<td>15</td>
<td>70’s Drive</td>
<td>The sound of 70s rock.</td>
<td>MS DRIVE</td>
<td>ECHO</td>
</tr>
<tr>
<td></td>
<td>16</td>
<td>Boogie Drive</td>
<td>The Mesa Boogie Mark III sound creates a mid-range thickness in this drive that is good for soloing.</td>
<td>BGcrunch</td>
<td>ROOM</td>
</tr>
<tr>
<td></td>
<td>17</td>
<td>MS Drive</td>
<td>For the early sound of Van Halen, the Marshall is turned all the way up.</td>
<td>GD+MSstk</td>
<td>ARENA</td>
</tr>
<tr>
<td></td>
<td>18</td>
<td>XTASY Riff</td>
<td>SD+XTASY makes this great for metal riffs.</td>
<td>SD+XTASY</td>
<td>OFF</td>
</tr>
<tr>
<td></td>
<td>19</td>
<td>Jet MS Drive</td>
<td>Heavy Marshall distortion is combined with a flanger for this epic sound.</td>
<td>GD+MSstk</td>
<td>FLANGER</td>
</tr>
<tr>
<td></td>
<td>20</td>
<td>Talking Guy</td>
<td>This talking sound follows the guitar pickup position and picking dynamics.</td>
<td>GD+MSstk</td>
<td>CRY</td>
</tr>
<tr>
<td></td>
<td>21</td>
<td>Oct Lead</td>
<td>Octave doubling below the original pitch creates a heavy impactful drive sound.</td>
<td>GD+MSstk</td>
<td>PITCH</td>
</tr>
<tr>
<td></td>
<td>22</td>
<td>Dirty Drive</td>
<td>Fuzz gives this classic 70s progressive rock sound its powerful sustain.</td>
<td>FZ+MSstk</td>
<td>ANALOG</td>
</tr>
<tr>
<td></td>
<td>23</td>
<td>Fuzz Lead</td>
<td>Vintage Marshall and fuzz effects combine to re-create the sweet and beautiful fuzz tone used by Eric Johnson.</td>
<td>FZ+MSstk</td>
<td>ARENA</td>
</tr>
<tr>
<td></td>
<td>24</td>
<td>XTASY Lead</td>
<td>This metal lead sound uses XTASY BL and ECHO effects.</td>
<td>XTASY BL</td>
<td>ECHO</td>
</tr>
<tr>
<td>Category</td>
<td>No.</td>
<td>Patch name</td>
<td>Description</td>
<td>PREAMP module</td>
<td>EFX module</td>
</tr>
<tr>
<td>----------</td>
<td>-----</td>
<td>------------</td>
<td>-------------</td>
<td>---------------</td>
<td>------------</td>
</tr>
<tr>
<td>Bass</td>
<td>25</td>
<td>SVT</td>
<td>This is the perfect Ampeg SVT rock sound.</td>
<td>SVT</td>
<td>OFF</td>
</tr>
<tr>
<td></td>
<td>26</td>
<td>SMR</td>
<td>The SWR SM-900 modeling provides a tight sound.</td>
<td>SMR</td>
<td>LIMITER</td>
</tr>
<tr>
<td></td>
<td>27</td>
<td>BASSMAN</td>
<td>This classic sound uses Fender BASSMAN 100 modeling.</td>
<td>BASSMAN</td>
<td>OFF</td>
</tr>
<tr>
<td></td>
<td>28</td>
<td>SUP-BASS</td>
<td>The showy drive sound of a Marshall Super Bass.</td>
<td>SUP-BASS</td>
<td>OFF</td>
</tr>
<tr>
<td></td>
<td>29</td>
<td>SANSAMP</td>
<td>The SansAmp sound plays well with other instruments.</td>
<td>SANSAMP</td>
<td>OFF</td>
</tr>
<tr>
<td></td>
<td>30</td>
<td>TUBE PRE</td>
<td>A thick TUBE PRE distortion sound.</td>
<td>TUBE PRE</td>
<td>OFF</td>
</tr>
<tr>
<td></td>
<td>31</td>
<td>Funk Wah</td>
<td>Responding to changes in touch dynamics, this funk wah sound can be used in many situations.</td>
<td>SMR</td>
<td>AUTO WAH</td>
</tr>
<tr>
<td></td>
<td>32</td>
<td>Slap Comp</td>
<td>Combining RackComp and TUBE PRE, this clean sound is perfect for slapping and tapping.</td>
<td>TUBE PRE</td>
<td>RackComp</td>
</tr>
<tr>
<td></td>
<td>33</td>
<td>Bass Phaser</td>
<td>This go-to phaser sound combines PHASER and TUBE PRE effects.</td>
<td>TUBE PRE</td>
<td>PHASER</td>
</tr>
<tr>
<td></td>
<td>34</td>
<td>Fuzz Room</td>
<td>The combination of SUP-BASS and ROOM effects make this fuzz sound for soloing.</td>
<td>SUP-BASS</td>
<td>ROOM</td>
</tr>
<tr>
<td>Mic</td>
<td>35</td>
<td>Standard Comp</td>
<td>Standard compressor optimized for recording.</td>
<td>FlatMPRE</td>
<td>RackComp</td>
</tr>
<tr>
<td></td>
<td>36</td>
<td>Studio Comp</td>
<td>Compressor suitable for vocal recording.</td>
<td>VO MPRE</td>
<td>RackComp</td>
</tr>
<tr>
<td></td>
<td>37</td>
<td>Chorus Vocal</td>
<td>Deep chorus sound for solo vocals.</td>
<td>VO MPRE</td>
<td>CHORUS</td>
</tr>
<tr>
<td></td>
<td>38</td>
<td>Flange Vocal</td>
<td>Flanger sound for soothing pop vocals.</td>
<td>VO MPRE</td>
<td>FLANGER</td>
</tr>
<tr>
<td></td>
<td>39</td>
<td>Light Vocal</td>
<td>Perfect when seeking bright and articulate vocals.</td>
<td>FlatMPRE</td>
<td>ROOM</td>
</tr>
<tr>
<td></td>
<td>40</td>
<td>Spring</td>
<td>Sound made distinctive with the effect of spring reverb.</td>
<td>VO MPRE</td>
<td>SPRING</td>
</tr>
<tr>
<td></td>
<td>41</td>
<td>Arena</td>
<td>Deep reverb sounds like singing in an arena.</td>
<td>VO MPRE</td>
<td>ARENA</td>
</tr>
<tr>
<td></td>
<td>42</td>
<td>Doubling</td>
<td>Conventional doubling effect.</td>
<td>VO MPRE</td>
<td>DELAY</td>
</tr>
<tr>
<td></td>
<td>43</td>
<td>Lead Vocal</td>
<td>Delay suitable for main vocal parts.</td>
<td>VO MPRE</td>
<td>DELAY</td>
</tr>
<tr>
<td></td>
<td>44</td>
<td>Analog Echo</td>
<td>Analog style echo sound for vocals using an analog delay model.</td>
<td>VO MPRE</td>
<td>ANALOG</td>
</tr>
<tr>
<td></td>
<td>45</td>
<td>Reverse Trip</td>
<td>Trippy sound using a reverse delay.</td>
<td>VO MPRE</td>
<td>RvsDelay</td>
</tr>
<tr>
<td></td>
<td>46</td>
<td>AG Reverb</td>
<td>Preamp and reverb combination optimized for mic recording of acoustic guitars.</td>
<td>AG MPRE</td>
<td>ARENA</td>
</tr>
<tr>
<td></td>
<td>47</td>
<td>AG Arpeggio</td>
<td>Preamp and chorus combination optimized for mic recording of acoustic guitar (playing arpeggios).</td>
<td>AG MPRE</td>
<td>CHORUS</td>
</tr>
<tr>
<td></td>
<td>48</td>
<td>AG Ensemble</td>
<td>Preamp and ensemble combination optimized for mic recording of acoustic guitar (playing arpeggios).</td>
<td>AG MPRE</td>
<td>ENSEMBLE</td>
</tr>
<tr>
<td></td>
<td>49</td>
<td>AG Lead</td>
<td>Preamp and delay combination optimized for mic recording of acoustic guitars (playing lead).</td>
<td>AG MPRE</td>
<td>DELAY</td>
</tr>
<tr>
<td></td>
<td>50–59</td>
<td>EMPTY</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Recorder</th>
<th>STEREO mode</th>
<th>4CH mode</th>
<th>MTR mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>Simultaneous recording tracks</td>
<td>2</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Simultaneous playback tracks</td>
<td>2</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Recording time</td>
<td>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.</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Maximum recording file size</td>
<td>2 GB</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Projects</td>
<td>1000/card</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Counter</td>
<td>Hour: minute: second: millisecond</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other functions</td>
<td>Punch-in/out, bounce, A-B repeat</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Effects</th>
<th>Modules</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stereo/4CH mode: LO CUT, COMP/LIMITER</td>
<td>MTR mode: PRE AMP module, EFX module</td>
<td></td>
</tr>
<tr>
<td>Types</td>
<td>53</td>
<td></td>
</tr>
<tr>
<td>Patches</td>
<td>60</td>
<td></td>
</tr>
<tr>
<td>Tuners</td>
<td>Chromatic, Guitar, Bass, Open A/D/E/G</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Metronome</th>
<th>Sounds</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rhythmic patterns</td>
<td>Unaccented, 1/4–8/4, 6/8</td>
<td></td>
</tr>
<tr>
<td>Tempo range</td>
<td>40.0–250.0 BPM</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>A/D conversion</th>
<th>24-bit</th>
<th>128x oversampling</th>
</tr>
</thead>
<tbody>
<tr>
<td>D/A conversion</td>
<td>24-bit</td>
<td>128x oversampling</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Recording media</th>
<th>SD cards (16MB – 2GB), SDHC cards (4GB – 32GB)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Data types</th>
<th>WAV format</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recording/playback</td>
<td>Quantization: 16/24-bit</td>
</tr>
<tr>
<td>Sampling frequencies</td>
<td>44.1/48/96 kHz</td>
</tr>
<tr>
<td>MP3 format</td>
<td></td>
</tr>
<tr>
<td>Recording</td>
<td>Bit rates: 48, 56, 64, 80, 96, 112, 128, 160, 192, 224, 256, 320 kbps, VBR</td>
</tr>
<tr>
<td>Sampling frequency</td>
<td>44.1 kHz</td>
</tr>
<tr>
<td>Playback</td>
<td>Bit rates: 32, 40, 48, 56, 64, 80, 96, 112, 128, 160, 192, 224, 256, 320 kbps, VBR</td>
</tr>
<tr>
<td>Sampling frequencies</td>
<td>44.1/48 kHz</td>
</tr>
<tr>
<td>Display</td>
<td>128x64 dot matrix</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Built-in mics</th>
<th>Directionality</th>
<th>Unidirectional</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensitivity</td>
<td>−45dB/1Pa at 1kHz</td>
<td></td>
</tr>
<tr>
<td>Input gain</td>
<td>−16 dB – +51 dB</td>
<td></td>
</tr>
<tr>
<td>Maximum sound pressure input</td>
<td>140 dBspl</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EXT MIC</th>
<th>Input gain</th>
<th>−16 dB – +51 dB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input impedance</td>
<td>2 kΩ or more</td>
<td></td>
</tr>
<tr>
<td>Maximum permissible input level</td>
<td>−6 dBu</td>
<td></td>
</tr>
<tr>
<td>EIN</td>
<td>−120 dBu or less</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>INPUT 1 and 2 balanced input</th>
<th>Connector</th>
<th>XLR (pin 2 hot)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input gain</td>
<td>−16 dB – +43 dB</td>
<td></td>
</tr>
<tr>
<td>Input impedance</td>
<td>3.0 kΩ or more</td>
<td></td>
</tr>
<tr>
<td>Maximum permissible input level</td>
<td>−6 dBu</td>
<td></td>
</tr>
<tr>
<td>EIN</td>
<td>−120 dBu or less</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>INPUT 1 and 2 unbalanced input</th>
<th>Connector</th>
<th>Standard phone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Input gain</td>
<td>−30 dB – +32 dB</td>
<td></td>
</tr>
<tr>
<td>Input impedance</td>
<td>470 kΩ or more</td>
<td></td>
</tr>
<tr>
<td>Maximum permissible input level</td>
<td>+2 dBu</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Outputs</th>
<th>LINE/PHONE stereo mini jack</th>
</tr>
</thead>
<tbody>
<tr>
<td>LINE output load impedance</td>
<td>10 kΩ or more</td>
</tr>
<tr>
<td>LINE rated output level</td>
<td>−10 dBu</td>
</tr>
<tr>
<td>PHONE 20 mW + 20 mW (into 32Ω load)</td>
<td></td>
</tr>
<tr>
<td>Built-in speaker</td>
<td>400mW 8Ω mono speaker</td>
</tr>
</tbody>
</table>

| Phantom power | 48 V, 24 V, OFF |

<table>
<thead>
<tr>
<th>USB</th>
<th>USB 2.0 High Speed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operation as mass storage or audio interface</td>
<td></td>
</tr>
<tr>
<td>USB functions can be powered using USB bus power</td>
<td></td>
</tr>
</tbody>
</table>

| Power | DC 5V 1A AC adapter (ZOOM AD-14), 2 AA batteries |

<table>
<thead>
<tr>
<th>Continuous recording time</th>
<th>STEREO mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>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</td>
<td></td>
</tr>
</tbody>
</table>

| 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 V rms
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

#### 4CH MODE
- Details [35·37]
- Mode and top screen [P39]
- Mode selection [P36]
- Playback operation [P94]
- Recording operation [P51]

#### A
- AB repeat [P97]
- Always New recording mode [P56]
- AUDIO I/F (Audio interface), use as [P31]
- AUTO PUNCH IN/OUT [P59]
- AUTO REC [P63]
- AUTO REC STOP [P64]

#### B
- Battery/Power outlet setting [P15]
- BATTERY TYPE [P130]
- Bit rate [P49]
- BOUNCE [P123]
- Built-in microphones [P28]
- Built-in speaker [P34]

#### C
- Copyright warnings [P7]
- CANCEL operation [P23]
- CARIB/TUNER [P77]
- CHROMATIC/TUNER [P75]
- COMP/LIMIT [P67]
- Connections [P30]

#### D
- DATE/TIME [P26]
- DAW software [P32]
- DIVIDE [P116]
- DIAL use as [P23]
- DISPLAY
  - DISPLAY BACK LIGHT [P126]
  - DISPLAY CONTRAST [P129]

#### E
- EFFECT [P81–]
  - EDIT [P84]
  - EDIT (EFX) [P86]
  - EDIT (LEVEL) [P87]
  - EDIT (PRE AMP) [P85]

#### F
- FACTORY RESET [P132]

---

**FILE**
- FILE (COPY) [P108]
- FILE DELETE [P106]
- FILE DELETE ALL [P107]
- FILE INFORMATION [P105]
- FILE MP3 ENCODE [P111]
- FILE NAME [P50]
- FILE NORMALIZE [P112]
- FILE RENAME [P109]
- FILE SELECT [P104]
- FILE STEREO ENCODE [P113]
- FILE/TRACK MENU [P57]
- FOLDER SELECT [P57]
- FORMAT [P103]
H

HOLD switch ➤P17

I

IMPORT/EFFECT ➤P89
INPUT MIC12 buttons operations ➤P21
INPUT/TUNER ➤P78

K

KARAOKE
Preparation ➤P91
Recording ➤P93
Setting/TRACK MENU ➤P57

L

LEVEL/EFFECT ➤P87
LEVEL/TRACK MENU ➤P57
Locator buttons operations ➤P19
LO CUT ➤P66

M

Manual PUNCH IN/OUT ➤P61
MARK ➤P96
MARK LIST ➤P115
MENU
MAIN MENU ➤P41
MENU button operations ➤P23
METRONOME ➤P79
MIXER ➤P100
Mixing ➤P57
MODE ➤P35−42
MONITOR ➤P70
MONO MIX ➤P72
MOVE ➤P117
MP3 ENCODE ➤P111
MP3 file format ➤P49
MS STEREO MATRIX ➤P73
MTR MODE
Always new recording mode ➤P56
Mode and top screen ➤P40
Mode selection ➤P36
Over write recording mode ➤P55
Playback operations ➤P101
Recording operations ➤P53
TRACK MENU ➤P57

N

NEW PROJECT ➤P118
NORMALIZE ➤P112

O

Off-mic recording ➤P29
On-mic recording ➤P29
Over write recording mode ➤P55

P

PATCH EDIT/EFFECT ➤P84
Patch List ➤P147
PAN/TRACK MENU ➤P57
Phantom power ➤P30
PLAY MODE ➤P95
Plug-in power ➤P29
POWER switch ➤P17
Power On and Off ➤P17
PRE AMP/EFFECT ➤P85
PRE REC ➤P65
PROJECT
BOUNCE ➤P123
COPY ➤P122
DELETE ➤P120
Index

NEW PROJECT ➤ P118
RENAME ➤ P121
PROTECT ➤ P125
SELECT ➤ P119
PUNCH IN/OUT (Auto) ➤ P59
PUNCH IN/OUT (Manual) ➤ P61

RENAME/EFFECT ➤ P87
RENAME/FILE ➤ P109
RENAME/PROJECT ➤ P121

S
Safety precautions for users ➤ P6
Setting ➤ P27
SD CARD
Audio Interface, use as ➤ P31
H₂, H₄ SD card, use as ➤ P136
Checking available space on the SD card ➤ P133
SD card reader, use as ➤ P33
Software version upgrading ➤ P135
SPEED ➤ P99
STAMINA MODE
Details ➤ P37, 38
Mode and top screen ➤ P38
Mode setting ➤ P15·36
Playback operation ➤ P94
Recording operation ➤ P47
STEREO ENCODE ➤ P113
STEREO MODE
Details ➤ P37·38
Mode and top screen ➤ P38
Mode selection ➤ P36
Playback operation ➤ P94
Recording operation ➤ P47
STEREO LINK ➤ P58
STORAGE ➤ P33·133
STORE/EFFECT ➤ P88

T
TRACK MENU ➤ P57
TRACK 1234 buttons operations ➤ P20
TUNER
CARIB ➤ P77
CHROMATIC ➤ P75
GUITAR, OPEN G, DAGDAG ➤ P78
INPUT ➤ P78
TUNER types ➤ P78

U
USB connection
H₄n Pro used as a SD card reader ➤ P33
H₄n Pro used as an Audio Interface ➤ P31
USB bus power ➤ P31

V
VOLUME operations ➤ P22
WAV file format ➤ P49
Write-protect ➤ P125
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 television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

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

For EU Countries

Declaration of Conformity