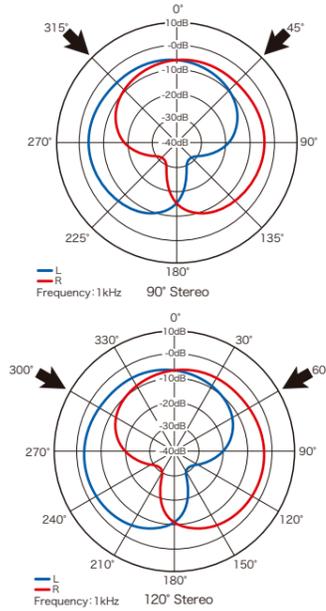


H4n Names of Parts



Built-in Mic, Polar Pattern

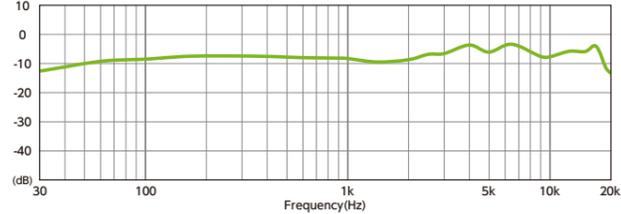


Specifications

	Stereo Mode	4CH Mode	MTR Mode
Recorder	Simultaneous recording tracks	2	4
	Simultaneous playback tracks	2	4
Effects	Maximum file size	2GB	
	Locate function	Hours / Minutes / Seconds / Milliseconds	
Metronome	Modules	2	
	STEREO MODE / 4CH MODE : LO CUT, COMP / LIMITER	MTR MODE : PRE AMP module, EFX module	
A/D conversion	Types	50	
	Patches	60	
D/A conversion	Tuners	Chromatic, Guitar, Bass, Open A/D/E/G, DADGAD	
	Metronome sounds	5	
Recording media	Beat	1/4 - 8/4, 6/8, unaccentuated	
	Tempo	40.0 ~ 250.0 BPM	
Recording / Playback	WAV Format	24bit x 128 oversampling	
	MP3 Format	24bit x 128 oversampling	
Data type	Recording	Quantization 16 / 24bit	
	Playback	Sampling frequency 44.1 / 48 / 96kHz	
Display	MP3 Format	Bit rate 48, 56, 64, 80, 96, 112, 128, 160, 192, 224, 256, 320kbps, VBR	
	MP3 Format	Sampling frequency 44.1kHz	
Inputs	Recording	Bit rate 32, 40, 48, 56, 64, 80, 96, 112, 128, 160, 192, 224, 256, 320kbps, VBR	
	Playback	Sampling frequency 44.1/48kHz	
Outputs	INPUT [1][2]	Back-lit LCD	
	Built-in stereo mic	XLR (balanced) / 1/4" phone (unbalanced) combo jack	
Included Accessories	EXT MIC	Input impedance (balanced input) 1kΩ balanced, pin 2 hot (unbalanced input) 480kΩ unbalanced	
	LINE/PHONE	Input level (balanced input) -10dBm ~ -42dBm (unbalanced input) +2dBm ~ -32dBm	
Power requirements	LINE/PHONE	Unidirectional condenser microphone	
	PHONE	Gain +7dB ~ +47dB	
USB	Monaural speaker	1/8" stereo phone jack	
	AA size (LR6) battery x 2, or AC adaptor (DC5V / 1A / center positive)	Input impedance / 2kΩ	
Battery life	48V, 24V, OFF	Input level / -7dBm ~ -47dBm	
	6 hours (Normal mode), 11 hours (Stamina mode)	Output load impedance 10kΩ or more	
Dimensions	400mW 8Ω	Rated output level -10dBm	
	73(W) x 156.3(D) x 35(H)mm	20mW + 20mW (into 32Ω load)	
Weight	400mW 8Ω	400mW 8Ω	
	280g (without batteries)	400mW 8Ω	

*0dBm=0.755Vrms

Built-in Mic, Frequency Response



Maximum Recordable Time

REC Format	SD/SDHC Card Capacity				
	1GB	4GB	8GB	16GB	32GB
MP3 128kbps	17hrs 21min.	69hrs 26min.	138hrs 53min.	277hrs 46min.	555hrs 33min.
MP3 320kbps	6hrs 56min.	27hrs 46min.	55hrs 33min.	151hrs 6min.	342hrs 13min.
WAV 16bit/44.1kHz	1hr 34min.	6hrs 17min.	12hrs 35min.	25hrs 11min.	50hrs 23min.
WAV 16bit/48kHz	1hr 26min.	5hrs 47min.	11hrs 34min.	23hrs 8min.	46hrs 17min.
WAV 24bit/96kHz	28min.	1hr 55min.	3hrs 51min.	7hrs 42min.	15hrs 25min.

4CH Mode

REC Format	SD/SDHC Card Capacity				
	1GB	4GB	8GB	16GB	32GB
WAV 16bit/44.1kHz	47min.	3hrs 8min.	6hrs 17min.	12hrs 35min.	25hrs 11min.
WAV 24bit/48kHz	28min.	1hr 55min.	3hrs 51min.	7hrs 42min.	15hrs 25min.

MTR Mode (Monaural tracks)

REC Format	SD/SDHC Card Capacity				
	1GB	4GB	8GB	16GB	32GB
WAV 16bit/44.1kHz	3hrs 8min.	12hrs 35min.	25hrs 11min.	50hrs 23min.	100hrs 46min.

*Recording times are approximations. Actual times may differ according to recording conditions. *The maximum file size is limited to 2GB.

Included Accessories



H4n
HANDY RECORDER

HANDY RECORDER



World-Class Recording for Everyone.

Turn your world into a world-class recording studio with the H4n, the next level of portable recording from Zoom.

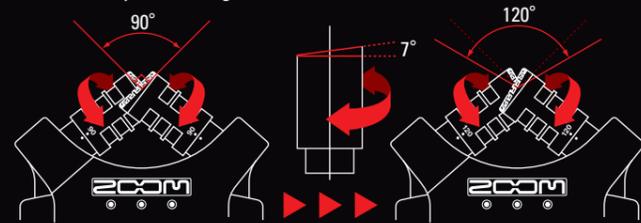


World-Class Recording for Everyone.

Turn your world into a world-class recording studio with the H4n, the *next* level of portable recording from Zoom.

Unmatched versatility from selectable recording patterns

Custom designed, onboard X/Y stereo condenser mics allow variable recording patterns at either 90° or 120°. Our unique design lets you rotate each mic capsule from 90° (standard) to 120° (wide-angle) stereo for the ultimate versatility in any recording situation. Now your recordings can be richer than ever before.



Unique X/Y mic arrangement captures perfect stereo images

Its onboard X/Y stereo condenser mics are arranged with the right and left mics on the same axis. This design ensures that the mics are always an equal distance from the sound source for perfect localization without phase shifting. Frequency response remains uniform throughout your recording. The result is great stereo recording with natural depth and accurate imaging every time.



High resolution, 24-bit/96-kHz linear PCM recording

Choose up to 24-bit/96-kHz linear PCM WAV files for audio resolution that surpasses CD quality. Or, when maximum recording time with smaller file size is desired, select a variety of MP3 formats to produce smaller files suitable for web or e-mail distribution.

Secure your digital memories on SD and SDHC cards

The H4n uses compact SD or high-capacity SDHC memory cards up to 32GB. Unlike other media such as tape or discs, SD cards produce no mechanical noise, are not disturbed by vibrations and are readily available for your convenience.



We're all about the preamp...

Our new, digitally controlled, high-quality preamplifier renders audio so precise, you'll sound like you recorded in a world-class studio. And this new preamp means you can make recording level adjustments on the fly. Of course, an automatic level setting function is also built in to optimize the level quickly as the situation requires.

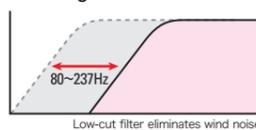
Phrase trainer with speed control playback

Learning new songs is now a breeze with the H4n's adjustable playback speed that ranges from 50 to 150 percent, while keeping pitch the same. This is also a great feature for learning a language, conference recording, and various electronic news gathering (ENG) situations.



Low-cut filter and limiter for better recordings

With its low-cut filter, the H4n effectively reduces unwanted background noise like wind or air-conditioning noise. A variety of compressors and limiters help to optimize the dynamic range while preventing distortion.



Stamina mode extends battery life to 11 hours

For situations where you require maximized, continuous recording operation you can select stamina mode which effectively doubles battery life, letting you record continuously for about 11 hours in 16-bit/44.1-kHz linear PCM format.



Combined XLR/Phone connectors for direct mic or guitar input

The H4n is the only handheld recorder that features built-in combination XLR/Phone connectors with phantom voltage source capability. With its Hi-Z inputs, you can record guitars or other line output sources such as mixing consoles. A separate external mic input supports plug-in power microphones.



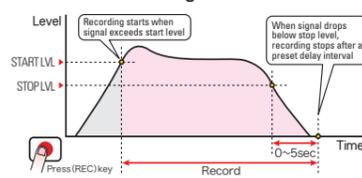
Why four channels are better than two.

Proper miking is essential to making a great recording. The H4n is the only handheld recorder that allows recording on four channels simultaneously by using your own external mics with its onboard mixer. Use its built-in mixer to blend the channels for perfectly balanced recordings of extraordinary depth and clarity.



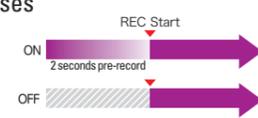
Capture everything with automatic recording

You can set your H4n to automatically record whenever sound above your designated level is detected. This ensures that you capture everything of importance while minimizing blank sections such as when recording a conference or lecture.



Pre-record feature means no surprises

The H4n can also be set to continuously record the most recent two seconds of audio in memory. Now, you never miss the beginning of anything you want to record, even when it begins suddenly.



Edit audio, even without a computer

Even without external software, you can divide a recorded file at any desired point, right on the H4n. A built-in normalizing feature lets you optimize the volume level, and you can convert WAV files into MP3 directly on the unit as well.

Versatile playback options

You can choose between single-song playback, single-song repeat, all-songs playback, or all-songs repeat. This is great when you want to use the H4n as a personal trainer for learning new music. A-B repeat even lets you zoom in on a specified section of a song.

Broadcast ready with time stamping and track markers

The H4n supports Broadcast Wave Format (BWF) used in broadcasting and other professional A/V applications. Recorded files carry time stamp information and you can set markers (cue points) during recording or playback.

Monaural mix function great for interviews

A stereo input signal can be mixed down to mono to reduce unwanted sound source position shifts between right and left channels. This is ideal for recording interviews.

Four-track MTR mode

The MTR mode allows simultaneous 2-track recording and 4-track playback. With this feature, creating songs by overdubbing vocals and instruments is a snap. Level and panning can be adjusted individually for each track on the built-in mixer, and you can even do a mixdown right on the H4n.



*In the MTR mode, the recording format is fixed to 16-bit/44.1kHz WAV files.

Center cancel and pitch control functions

With its center cancel function, the H4n even lets you suppress audio that is recorded with center imaging. And because the H4n also lets you alter pitch without changing playback speed, you can choose source material, suppress the center audio and use it as a backing track while recording a vocal or guitar track.

Onboard effects include studio effects and guitar amp models

The H4n offers a choice of 50 studio-quality DSP effects including compressor, chorus, phaser, delay, and reverb. In addition, models of the most famous guitar amps are included. Find tone perfection with classic amp models during your recording sessions.

Amp Models For Guitar: FD Clean, VX Clean, HW Clean, US Blues, BG Crunch, MS #1959, PV Drive, Rect Vnt, DZ Drive, TS+FD_Comb, SD+MS_Stack, FZ+MS_Stack
For Bass: SVT, Bassman, Hartke, SuperBass, Sansamp, Tube Pre

Musician friendly tools for better practice

The H4n has a number of useful tools that will be welcomed by musicians. The built-in tuner allows for quickly checking the pitch of a vocalist or tuning an instrument. The selectable metronome sound can serve as a guide rhythm during recording and is also great for practicing.



Mid-Side stereo decoder

The built-in M/S stereo decoder allows the use of an external Mid-Side microphone setups. The H4n converts the mid and side channel signals into a conventional stereo (L/R) signal for even more versatility, and it's only found on the H4n.

Integrated reference speaker

The H4n even has a built-in reference speaker to let you check recordings without earphones. It is also handy to preview playback when selecting recorded files.



Large display and rubberized chassis

A large, 1.9 inch LCD screen with backlit graphic display shows all the tracking information at a glance and makes it easy to navigate the functions of the unit. And its new rubberized, shock resistant chassis also improves durability while reducing handling noise.

USB 2.0 Hi-Speed support for faster file transfer

The H4n is now a USB 2.0 Hi-Speed device, meaning that files can be transferred to a computer at the highest rate available. Then use recording software for editing, create your own original CDs, post your recordings on your myspace page or send out your recordings by e-mail... the possibilities are endless.

It's still a USB audio interface!

The H4n also functions as a USB audio interface, letting you record directly to your computer. Use your favorite recording software or the bundled Cubase LE 4 from Steinberg, so you can start to produce and edit music right away.



*Supported operating systems: Windows® XP and Vista, Mac OS X 10.4 and later.

Power from battery, AC adaptor, or USB bus power

The H4n can record continuously for about six hours on a set of two IEC R6 (size AA) alkaline batteries. Use the supplied AC adaptor when working at home. The H4n also runs on USB bus power when using the H4n as an audio interface.

Everything you need to get started

A 1 GB SD card, windscreens, mic clip adapter, AC adaptor, USB cable, protective case and Cubase LE 4 recording software are included. The windscreens are especially helpful to reduce wind noise. A mic clip adapter for attaching the unit to a standard mic stand is also included, or you can use the built-in tripod mount with a standard camera tripod.



Usage Examples
*A tripod is not included.

Go remote with the RC4

An optional remote controller (RC4) gives you access to a range of functions including recording start, play, stop, fast forward/reverse, recording level adjustment, and input source switching. It is also useful for preventing any handling noise.



H4next

H4n HANDY RECORDER

