



WH1000XM4/B

Wireless Over-ear Industry Leading Noise Canceling Headphones with Microphone

Sony's intelligent industry-leading noise canceling¹ headphones with premium sound elevate your listening experience with the ability to personalize and control everything you hear. Get up to 30 hours of battery life with quick charging capabilities², enjoy an enhanced Smart Listening feature set, and carry conversations hands-free with speak-to-chat.



Bullets

- Industry-leading noise canceling¹ with Dual Noise Sensor technology
- Next-level music with Edge-AI, co-developed with Sony Music Studios Tokyo
- Up to 30-hour battery life with quick charging (10 min charge for 5 hours of playback)²
- Touch Sensor controls to pause/play/skip tracks, control volume, activate your voice assistant⁴, and answer phone calls
- Speak-to-chat technology automatically reduces volume during conversations
- Superior call quality with precise voice pickup
- Wearing detection pauses playback when headphones are removed
- Seamless multiple-device pairing⁶
- Adaptive Sound Control provides a personalized listening experience
- Updated design relieves pressure for long-lasting comfort

Features

Industry-leading noise cancelation

Whether you're flying long haul or relaxing in a café, the WH-1000XM4 headphones deliver our best ever noise-canceling performance, keeping out even more high- and mid-frequency sounds.

The technology behind the noise cancelation

Dual noise sensor technology, featuring two microphones on each earcup, captures ambient noise and passes the data to the HD Noise Canceling Processor QN1. Using a new algorithm, the HD Noise Canceling Processor QN1 then applies noise canceling processing in real time to a range of acoustic environments. Working together with a new Bluetooth Audio SoC (System on Chip), it senses and adjusts to music and noise signals, as well as acoustic characteristics between the driver unit and ears, at over 700 times per second.

Optimizing noise canceling

The WH-1000XM4 headphones incorporate two technologies to maximize noise-canceling performance. Unique Atmospheric Pressure Optimizing delivers optimal sound at high altitude while Personal Noise Cancellation Optimizer analyzes unique sonic characteristics caused by head size, glasses, and hair, then tailors sound to you.



Wireless freedom, premium sound

LDAC transmits approximately three times more data (at the maximum transfer rate of 990 kbps) than conventional BLUETOOTH® audio, allowing you to enjoy High-Resolution Audio content in exceptional quality, as close as possible to that of a dedicated wired connection.

Sound you can believe in

A built-in analog amplifier integrated in the HD Noise-Canceling Processor QN1 realizes an unmatched signal-to-noise ratio for low distortion and exceptional sound quality for portable devices. Powerful 1.57" drivers, with Liquid Crystal Polymer (LCP) diaphragms, make the headphones perfect for handling heavy beats and can reproduce a full range of frequencies up to 40 kHz.

Real-time restoration of all your compressed files

Using Edge-AI (Artificial Intelligence) co-developed with Sony Music Entertainment, DSEE Extreme™ (Digital Sound Enhancement Engine) upscales compressed digital music files in real time. Dynamically recognizing instrumentation, musical genres, and individual elements of each song, such as vocals or interludes, it restores the high-range sound lost in compression for a richer, more complete listening experience.

For everyday convenience, just Speak-to-Chat

As soon as you speak to someone, Speak-to-Chat automatically stops the music and lets in ambient sound so you can conduct a conversation—handy if you want to keep your headphones on, or your hands are full. Based on Precise Voice Pickup Technology, this smart feature uses five microphones built into your headphones and advanced audio signal processing to recognize and react to your voice. And once your chat is over, your music starts playing again automatically.

Adaptive Sound Control automatically adjusts to your location and behavior

Adaptive Sound Control is a smart function that can learn to recognize locations you frequently visit, such as your workplace or favorite café, and tailor sound for the ideal listening experience. In addition, it automatically detects what you're up to—or example, walking, waiting or traveling—then adjusts ambient sound settings to suit the situation.

Headphones that react to you

A proximity sensor in your headphones can detect whether you're wearing them or not, then adapt playback accordingly to help save battery power. Take off your headphones and the music pauses automatically. Put the headphones back on and the music automatically resumes.

Quick Attention

Need to quickly hear voices or sounds around you? Just place your hand over the housing to instantly turn your music volume down and let ambient sound in.

Wear all day in total comfort

WH-1000XM4 headphones blend sophisticated style with exceptional comfort. Super-soft, pressure-relieving ear pads in foamed urethane evenly distribute pressure and increase ear/pad contact for a stable fit. And with a lighter-weight design, you'll barely notice you're wearing them.

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All day power and quick charging

With a huge 30 hours of battery life, you'll have enough power even for long trips. And if you need to top up in a hurry, you can get 5 hours' worth of charge after just 10 minutes with the optional AC adapter.

Be smarter with Voice Assistant

Manage your day, just by asking your assistant. Enjoy entertainment, connect with friends, get information, listen to music and notifications, set reminders, and more.

Clearer hands-free calling

Conversation flows freely with easy, hands-free calling. Leave your phone where it is, just speak with a double tap. Thanks to Precise Voice Pickup Technology, which combines five built-in microphones with advanced audio signal processing, WH-1000XM4 delivers clearer voice quality to the other person on the phone.

Control at your fingertips

Change the track, turn the volume up or down, and take or make calls just by tapping or swiping the panel.

Sony | Headphones Connect app

With the Sony | Headphones Connect app, Ambient Sound Control lets you adjust the volume of background sound and gives you the option to allow voices alone to be heard. Meanwhile the Equalizer lets you customize sound levels to suit your music.

Swivel foldable structure

The ear cups swivel inwards so they pack up neatly in a compact case.

Carry case with cable

The supplied carrying case is durable and includes a cable for wired listening.

Ambient Sound Control

Adjust ambient sound with the Sony | Headphones Connect app to cancel noise while still allowing essential sounds, like transport announcements, through when you're listening on the move.

Multipoint connection

For total convenience, WH-1000XM4 headphones can be paired with two Bluetooth devices at the same time. So when a call comes in, your headphones know which device is ringing and connect to the right one automatically. You'll also be able to quickly, smoothly switch your headphones to either of the two devices at the touch of a button.

Specification

App Function

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Adaptive Sound Control	Yes
App compatible	Yes
Battery level indication icon with %	Yes
Playback Controller	Yes
Product Tutorial	Yes
Battery	
BATTERY LIFE (CONTINUOUS MUSIC PLAYBACK TIME WITH INTERNAL MEMORY)	Max. 30 hours (NC ON), Max. 38 hours (NC OFF)
Battery Charge Method	USB
Battery Charge Time	Approx. 3 Hours (Full charge)
Battery Life (Waiting Time)	Max. 30 hours (NC ON), Max. 200 hours (NC OFF)
Battery Charge Time	-
Bluetooth	
AAC	Yes
LDAC	Yes
SBC	Yes
Supported Audio Format(s)	-
Bluetooth® Specification	
Bluetooth® version	Version 5.0
Effective Range	Line of sight approx. 30 ft (10 m)
Frequency Range	2.4 GHz band (2.4000–2.4835 GHz)
Profile	A2DP, AVRCP, HFP, HSP
Supported Audio Format(s)	SBC, AAC, LDAC
Supported Content Protection	SCMS-T
General Features	
Cord Length	Headphone cable (approx. 3.94 ft, OFC strands, gold-plated stereo mini plug)
Cord Type	Single-sided (detachable)

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DSEE Extreme	Yes
Diaphragm	Aluminum coated LCP
Driver Unit	1.57 ", dome type (CCAW Voice coil)
Frequency Response	4 Hz-40,000 Hz
Frequency Response (Active Operation)	4 Hz-40,000 Hz
Frequency Response (Bluetooth® Communication)	20 Hz–20,000 Hz (44.1 kHz Sampling)/20 Hz–40,000 Hz (LDAC 96 kHz Sampling, 990 kbps)
Headphone Type	Closed, dynamic
Magnet	Neodymium
NFC	Yes
Passive Operation	Yes
Plug	Gold-plated L-shaped stereo mini plug
Sensitivities (dB/mW)	105 dB / mW (1 kHz) (when connecting via the headphone cable with the unit turned on), 101 dB / mW (1 kHz) (when connecting via the headphone cable with the unit turned off)
Wearing Style	Circumaural
Waterproof	-
Frequency Response (Bluetooth® Communication)	-
Hands-free Calling	
Echo Cancellation	Yes
HD Voice	Yes
Hands-free Calling	Yes
Noise Suppression	Yes
Side-tone	Yes
Mechanical	
Foldable	Yes
Weight	254g
Noise Canceling	
Ambient Sound Control (20 steps)	Yes



Ambient Sound Mode	Yes
Ambient Sound Mode - Normal	Yes
Ambient Sound Mode - Voice	Yes
Atmospheric Pressure Optimizing	Yes
Atmospheric Pressure Optimizing	Yes
Digital Noise Canceling	"Industry Leading Noise Canceling"
Dual Noise Sensor Technology	Yes
Noise Canceling ON/OFF Switch	Yes
Personal NC Optimizer	Yes
Personal NC Optimizer	Yes
Quick Attention	Yes
Quick Attention	Yes
Speak-to-Chat	Yes
Wind Noise Reduction	Yes
Other Function	
Amazon Alexa (BTVA)	Yes
Battery remaining amount detection 10 steps	Yes
Battery remaining indication	Yes
Customize Auto Power Off Setting via APP	Yes
Easy pairing via HPC app	Yes
Enable / disable Auto Power Off by wearing detection	Yes
Google Assistant (BTVA)	Yes
Multi Device Connection	Yes
NFC	Yes

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Play/Pause control by wearing detection	Yes
USB type-C compatible	Yes
Voice Assist Function Siri/Google Assistant	Yes
Wearing Detection	Yes
Wired active operation	Yes
Other Specification	
Music playback time (BTNC & w/o sound effect)	30h (AAC)
Standby time (NC OFF)	200h
Supplied Accessory	"- USB Type-C Cable (20cm) - Audio Cable (Color Variation / 1.2m) - Carrying Case (Color Variation) - In-flight Adapter"
[Headphone main unit] Quick Charging or Short-time charging time	10min. Charge -> 5 hours play
Portable Headphone Amplifier	
Volume Control	Touch Sensor
Processor/Transmitter	
Input(s)	Stereo Mini Jack
Sound	
360 Reality Audio compatible	Yes
DSEE Extreme	Yes
Frequency Response	4Hz-40,000Hz
Hi-Res Compatible	Yes
Sound	
Driver Unit	40mm HD Driver Unit
EQ (5 Band + CLEAR BASS) compatible with Hi-Res quality	Yes
EQ Preset	Yes



User Custom EQ	Yes
UI	
Disable Touch Sensor Control	Yes
Disable Voice Guidance via APP	Yes
H/W Buttons	Power, Custom
Touch Sensor Control Panel	Yes

1. As of March 2020. Ambient noise reduction according to research by Sony Corp., measured using JEITA-compliant guidelines for headband style wireless noise cancelling headphones.
2. Actual performance varies based on settings, environmental conditions, and usage.
3. Requires download of Sony | Headphones Connect app for iPhone from the App Store or for Android from Google Play. User must link compatible devices in order to control operation. Subject to app terms and conditions
4. Voice assist function compatible with Android smartphone (Google App) or iPhone (Siri). Bluetooth® connection required
5. For optimal experience, software update recommended.

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