

# Noise Canceling Headphones

Operating Instructions **GB**

Mode d'emploi **FR**

Manual de instrucciones **ES**

**DIGITAL NOISE**

Made for **iPod iPhone iPad**

MDR-1RNC



4-448-091-51(1)

**English** Noise Canceling Headphones

## WARNING

Do not expose the battery to excessive heat such as direct sunlight, fire or the like.

Excessive sound pressure from earphones and headphones can cause hearing loss.

**Notice for customers: the following information is only applicable to equipment sold in countries applying EU directives**

The manufacturer of this product is Sony Corporation, 1-7-1 Konan Minato-ku Tokyo, 108-0075 Japan. The Authorized Representative for EMC and product safety is Sony Deutschland GmbH, Hedelfinger Strasse 61, 70327 Stuttgart, Germany. For any service or guarantee matters please refer to the addresses given in separate service or guarantee documents.

**Disposal of Old Electrical & Electronic Equipment (Applicable in the European Union and other European countries with separate collection systems)**

This symbol on the product or on its packaging indicates that this product shall not be treated as household waste. Instead it shall be handed over to the applicable collection point for the recycling of electrical and electronic equipment. By ensuring this product is disposed of correctly, you will help prevent potential negative consequences for the environment and human health, which could otherwise be caused by inappropriate waste handling of this product. The recycling of materials will help to conserve natural resources. For more detailed information about recycling of this product, please contact your local Civic Office, your household waste disposal service or the shop where you purchased the product.

**Disposal of waste batteries (applicable in the European Union and other European countries with separate collection systems)**

This symbol on the battery or on the packaging indicates that the battery provided with this product shall not be treated as household waste. On certain batteries this symbol might be used in combination with a chemical symbol. The chemical symbols for mercury (Hg) or lead (Pb) are added if the battery contains more than 0.0005% mercury or 0.004% lead. By ensuring these batteries are disposed of correctly, you will help prevent potentially negative consequences for the environment and human health which could otherwise be caused by inappropriate waste handling of the battery. The recycling of the materials will help to conserve natural resources.

In case of products that for safety, performance or data integrity reasons require a permanent connection with an incorporated battery, this battery should be replaced by qualified service staff only. To ensure that the battery will be treated properly, hand over the product at end-of-life to the applicable collection point for the recycling of electrical and electronic equipment.

For all other batteries, please view the section on how to remove the battery from the product safely. Hand the battery over to the applicable collection point for the recycling of waste batteries.

For more detailed information about recycling of this product or battery, please contact your local Civic Office, your household waste disposal service or the shop where you purchased the product.

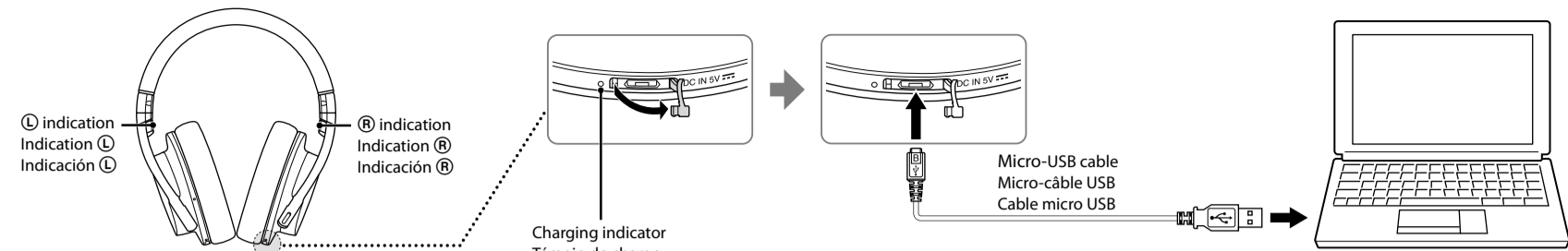
## Checking the remaining battery

Status	POWER Indicator	Beep sound
Full	Blinks 3 times *	No beep
↓	Blinks 2 times *	No beep
Low	Blinks 1 time *	No beep
Empty	Blinks quickly (30 seconds)	Long beep (2 seconds)

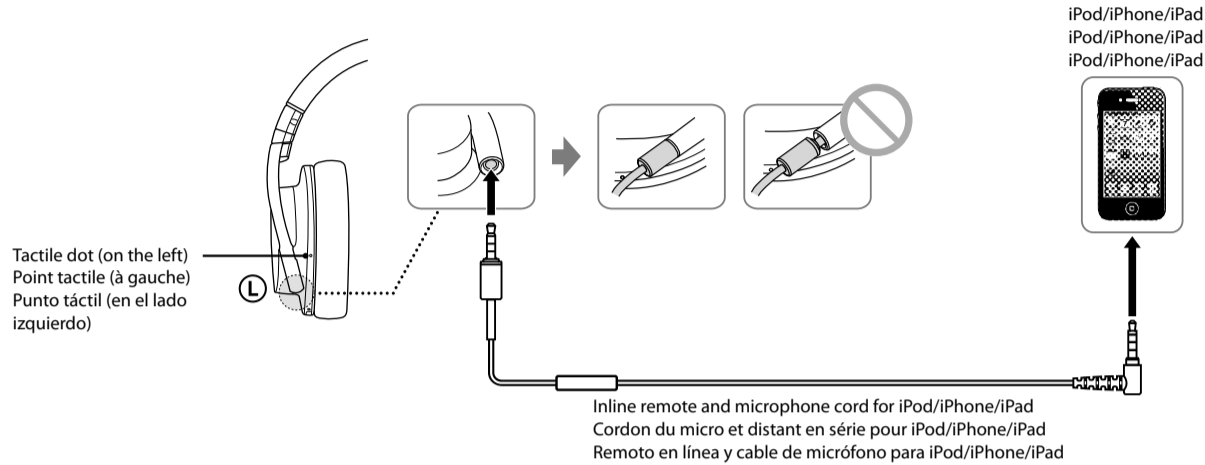
\* When turning off the power of the headphones.

## How to use/Mode d'utilisation/Utilización

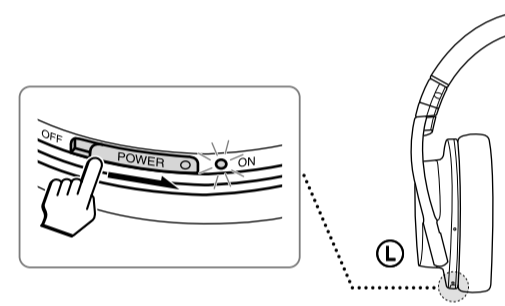
### 1 Charging the headphones/Chargement du casque/Cómo cargar los auriculares



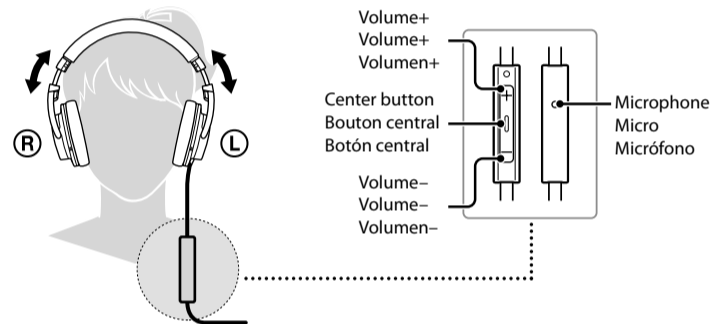
### 2 Connecting/Raccordement/Conexión



### 3 Turning on the power/Mise sous tension/Encendido



### 4 Wearing and controlling/Port et contrôle/Colocación y control



**After use**  
Turn off the power of the headphones

**Après utilisation**  
Éteignez le casque

**Después del uso**  
Apague los auriculares

## Checking the charging status

Status	Charging indicator
Charging	On
Full	Off
Charging malfunction	Blinks

## Using the Center button (Inline remote and microphone cord for iPod/iPhone/iPad)

Operation	Explanation
Single press	Plays/pauses a track of the connected iPod.
Double press	Skips to the next track.
Triple press	Skips to the previous track.
Long press	Starts the "VoiceOver**" feature (if available).
Press once when call is incoming	Answers the call.
Press again	Ends the call.
Hold down for about two seconds and release	Rejects an incoming call (two low beeps confirm the call was rejected).

\* Availability of the "VoiceOver" feature depends on iPod and its software version.

**Note**  
Be careful not to unintentionally press any buttons when you carry your iPod with this headphones connected.

## Automatic AI Noise Canceling

The Automatic AI Noise Canceling function constantly analyzes environmental ambient sound components and automatically selects the most effective noise canceling mode.

### Noise canceling mode types

- NC Mode A: Noise mainly in an airplane is effectively reduced.
- NC Mode B: Noise mainly in a bus or a train is effectively reduced.
- NC Mode C: Noise mainly found in an office environment (PC, copier, air ventilation, etc.) is effectively reduced.

### Tips

- When the headphones are turned on, NC Mode A is set.
- It may take a few seconds to analyze the environmental ambient sound.

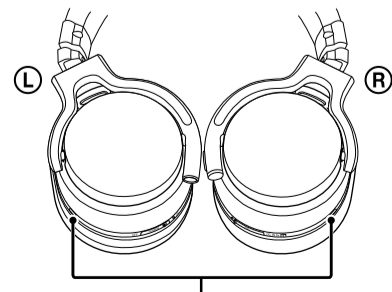
## Notes on use

### What is noise canceling?

The noise canceling circuit actually senses outside noise with built-in microphones and sends an equal-but-opposite canceling signal to the headphones.

### Notes on the noise canceling function

- Adjust the earpads so that they cover your ears, otherwise noise canceling will not function properly.
- The noise canceling effect may vary depending on how you wear the headphones.
- Do not cover the microphone of the headphones with your hands. The noise canceling function may not work properly.



Microphone

After you turn on the power of the headphones, you may hear a slight hiss. This is the operating sound of the noise canceling function, not a malfunction.

- The noise canceling function works for noise in the low frequency band primarily. Although noise is reduced, it is not canceled completely.
- The noise canceling effect may not be pronounced in a very quiet environment, or some noise may be heard.
- When you use the headphones in a train or a car, noise may occur depending on street conditions.
- Howling may occur if you do not wear the headphones correctly.
- Howling may occur if you place an object such as finger close to inside of the headphones. Keep it away from the headphones.
- Mobile phones may cause interference and noise. Should this occur, locate the headphones further away from the mobile phone.

### Notes on using on the airplane

Do not use the headphones when use of electronic equipment is prohibited or when use of personal headphones for in-flight entertainment services is prohibited.

### Notes on charging the headphones

- Charge the headphones using the supplied micro-USB cable. Otherwise, it may cause a malfunction.
- Charge in an environmental temperature of between 5°C and 35°C. Otherwise, the battery may not fully charge.
- Do not store the headphones in hot places for a long time. When storing it for more than a year, charge the battery once a year to prevent over discharge.
- For system requirements for a computer that can charge the battery using USB, see "System requirements for battery charge using USB".
- If you recharge the headphones by connecting to an AC outlet, use the separately-sold USB AC Adaptor specific in "Recommended accessory (sold separately)". For details, refer to the operating instructions supplied with the adaptor.
- If the headphones are malfunctioning, charging will not start and the charging indicator will blink. In this case, disconnect the unit from the connected device, and consult your place of purchase, or a Sony dealer.

### Notes on handling

- Because the headphones are designed to fit closely in your ears, forcing them against your ears may result in eardrum damage. Avoid using the headphones where they are liable to be struck by people or other objects, such as a ball, etc.
- Pressing the headphones against your ears may produce a diaphragm click sound. This is not a malfunction.
- Clean the headphones with a soft dry cloth.
- Do not leave the plug dirty otherwise the sound may be distorted.
- Be sure to consult a Sony dealer when the earpads become dirty or damaged, or when the headphones require repair work.

- Do not leave the headphones in a location subject to direct sunlight, heat or moisture.
- Do not subject the headphones to excessive shock.
- Handle the driver units carefully.
- If you feel drowsy or sick while using this headphones, stop use immediately.

### Notes on headphones

High volume may affect your hearing. For traffic safety, do not use while driving or cycling.

As headphones reduce outside sounds, they may cause a traffic accident. Also, avoid listening with your headphones in situations where hearing must not be impaired, for example, a railroad crossing, a construction site, etc.

### Preventing hearing damage

Avoid using headphones at high volume. Hearing experts advise against continuous, loud and extended play. If you experience a ringing in your ears, reduce the volume or discontinue use.

### Note on static electricity

In particularly dry air conditions, noise or sound skipping may occur, or mild tingling may be felt on your ears. This is a result of static electricity accumulated in the body, and not a malfunction of the headphones. The effect can be minimized by wearing clothes made from natural materials.

If you have any questions or problems concerning the system that are not covered in this manual, please consult the nearest Sony dealer.

## Troubleshooting

### No sound

- Recharge the headphones.
- You can listen to the music using the headphones even when the POWER switch is set to "OFF". In this case, the noise canceling function, Digital Equalizer, S-Master and DSEE are not active, and the headphones operate as passive headphones.
- Check that the rechargeable battery is not depleted.
- Check the connection of the headphones and the equipment.
- Check that the connected equipment is turned on.
- Turn up the volume of the connected equipment.

### The noise canceling effect is not sufficient

- The noise canceling function is effective in low frequency ranges such as airplanes, trains, or offices (near air-conditioning, etc.) and is not as effective for higher frequencies, such as human voices.
- Turn on the headphones.

### Distorted sound

- Turn down the volume of the connected equipment.
- Recharge the headphones.

### Power does not turn on or the headphones do not operate properly

- Recharge the headphones.
- If the power does not turn on, even after charging the headphones, the rechargeable battery may be damaged. In this case, consult your place of purchase or a Sony dealer.

### Charging cannot be done

- Check that the charging indicator is lights up.
- Connect the headphones and the micro-USB cable securely.
- Check that the micro-USB cable and the computer are firmly connected.
- Check that the micro-USB cable and the computer are directly connected; not via a USB hub.
- Check the system requirements for a computer that can charge the battery using USB.
- Check that the computer is turned on.
- Check that the computer is not in standby, sleep or hibernation mode.

If the charging indicator blinks (blinking patterns: about 30 seconds on and 3 seconds off), you are using an adaptor other than the recommended one. Use a USB AC Adaptor specified in "Recommended accessory (sold separately)". If the charging indicator blinks, the headphones may be malfunctioning. Disconnect the unit from the connected device, and consult your place of purchase, or a Sony dealer.

### The unit cannot be recognized by a computer

- Check that the micro-USB cable and the computer are firmly connected.
- Disconnect the micro-USB cable from the computer and connect again.
- Check that the micro-USB cable and the computer are directly connected; not via a USB hub.
- There may be a problem with the connected USB port of the computer. Connect to another USB port if it is available.
- Try the USB connection procedure again in cases other than those stated above.

### No operation works

- Set the POWER switch of the headphones to "OFF", confirm the connections, and then set the POWER switch back to "ON".
- Reset the headphones.
- Insert a small pin, etc. into the RESET button on the left housing, and press until the button slightly rebounds.

### The connected iPod does not work

- Check if the cord is connected correctly. Connect the L type plug to the iPod and the other plug to the headphones.

### Included items

- Headphones (1)
- Inline remote and microphone cord for iPod/iPhone/iPad (1.2 m cord, using PCOCC, four-conductor gold plated L-shaped stereo mini plug) (1)
- Micro-USB cable (1.5 m) (1)
- Carrying case (1)
- Operating Instructions (1)
- Warranty card (1)

### Recommended accessory (sold separately) <sup>6)</sup>

USB AC Adaptor: AC-UD10

- <sup>1)</sup> Under the Sony measurement standard.
- <sup>2)</sup> Equivalent to approx. 99.7% reduction of energy of sound compared with not wearing headphones.
- <sup>3)</sup> At 1 kHz, 0.1 mW + 0.1 mW output
- <sup>4)</sup> Hours required to fully charge an empty battery
- <sup>5)</sup> Time stated above may vary, depending on the temperature or conditions of use.
- <sup>6)</sup> Availability depends on the country.

Design and specifications are subject to change without notice.

## Compatible iPod/iPhone/iPad models

You can use the headphones with only the following models supporting remote control. Update your iPod, iPhone or iPad to the latest software before use. In the Operating Instructions, iPod, iPhone and iPad are collectively described as "iPod" except in special cases.

- iPod touch (4th generation)
- iPod touch (3rd generation)
- iPod touch (2nd generation)
- iPod nano (6th generation)
- iPod nano (5th generation)
- iPod nano (4th generation)
- iPod classic 120GB 160GB (2009)
- iPod shuffle (4th generation)
- iPod shuffle (3rd generation)
- iPhone 4S
- iPhone 4
- iPhone 3GS
- iPad (3rd generation)
- iPad 2
- iPad

### On copyright

iPad, iPhone, iPod, iPod classic, iPod nano, iPod shuffle, and iPod touch are trademarks of Apple Inc., registered in the U.S. and other countries. "Made for iPod", "Made for iPhone", and "Made for iPad" mean that an electronic accessory has been designed to connect specifically to iPod, iPhone, or iPad, respectively, and has been certified by the developer to meet Apple performance standards. Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards.

## System requirements for battery charge using USB

Personal Computer with pre-installed with any of the following operating systems and USB port:

### Operating Systems

- When using Windows\*
  - Windows\* 7 (Home Premium / Professional / Ultimate / Starter) (including 64 bit version)
  - Windows Vista\* (Service Pack 2 or later) (Home Basic / Home Premium / Business / Ultimate) (including 64 bit version)
  - Windows\* XP (Service Pack 3 or later) (Home Edition / Professional / Media Center Edition 2004 / Media Center Edition 2005)
- When using Macintosh
  - Mac OS X (version.10.5 or later)

Windows and Windows Vista are registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries. Macintosh and Mac OS are trademarks of Apple Inc., registered in the U.S. and other countries.

## Features

### Digital Noise Canceling with Dual Noise Sensor Technology

Microphones both inside and outside the housings are combined with digital noise canceling software engine to deliver significant noise canceling performance.

### Automatic AI (Artificial Intelligence) Noise Canceling function.

Automatic selection of the optimal noise canceling mode based on intelligent analysis of environmental ambient noise.

### Digital Equalizer and full digital S-Master amplifier

Delivers ideal frequency response and high-quality music reproduction with full digital processing.

### DSEE

Offers natural sound with a spacious feel by restoring high-frequency range sound and the tall shape of the waveform likely to be removed through the audio compression process.

### Passive operation

Allows audio listening even when the headphones power is turned off.

### Detachable cord

## Specifications

### General

Type	Closed, dynamic
Driver units	50 mm, dome type
Power handling capacity	100 mW
Impedance	51 Ω at 1 kHz (when the power is on) 19 Ω at 1 kHz (when the power is off)
Sensitivity	103 dB/mW (when the power is on) 100 dB/mW (when the power is off)
Frequency response	5 Hz – 24,000 Hz
Total Noise Suppression Ratio <sup>1)</sup>	Approx. 25 dB <sup>2)</sup>
Power source	DC 3.7 V Built-in lithium-ion rechargeable battery or DC 5 V USB
Current consumption	500 mA
Mass	Approx. 330 g (without cord)
Talk microphone and microphone cord for iPod/iPhone/iPad	Open circuit voltage level (inline remote and microphone cord for iPod/iPhone/iPad) -42 dB (0 dB = 1 V/Pa)

### Headphones charging and usage time

**Approx. charging hours**    **Approx. usage hours <sup>3)</sup>**

4 hours <sup>4)</sup>	22 hours <sup>5)</sup>
-----------------------	------------------------

