

SONY

Noise Canceling Headphones

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사용설명서	KR

MDR-1RNCMK2

DIGITAL NC



4-472-116-21(1)

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If you install the Smart Key app* from Google Play store, the track and volume adjustment on your smartphone will be enabled with Multi-function button.

* Only for Xperia™ phones. The app may not be available in some countries and/or regions. Depending on the music playback application, it may not operate as you set. In this case, change the headset setting on the music playback application. You may need to update the application according to the Android OS version-upgrade in the future.

如果您從Google Play商店安裝了Smart Key應用程式*, 可用多功能按鈕啟用智慧型手機的曲目和音量調整。

* 僅適用Xperia手機。在某家國家和/或地區, 可能無法使用該應用程式。視音樂播放應用程式而定, 它可能無法按您的設定來操作。在此情況下, 請變更音樂播放應用程式上的耳機設定。根據未來的Android OS版本升級, 您可能需要更新應用程式。

Google Play 상점에서 Smart Key 앱을 다운로드하여 설치하면 다기능 버튼으로 스마트폰의 트랙 및 볼륨을 조절할 수 있습니다.

* Xperia폰 전용입니다. 이 앱은 특정 국가나 지역에서 다운로드가 불가능할 수 있습니다. 음악 재생 앱에 따라 설정대로 작동하지 않을 수 있습니다. 이 경우 음악 재생 앱에서 헤드셋 설정을 변경하십시오. 나중에 Android OS 버전 업그레이드에 따라 앱을 업데이트해야 할 수 있습니다.

https://play.google.com/store/apps/details?id=com.sonymobile.extras.liveware.extension.smartkey&feature



English Noise Canceling Headphones

WARNING

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

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.

Checking the charging status

Status	Charging indicator
Charging	On
Full	Off
Charging malfunction	Blinks

Compatible products of inline remote and microphone cord for smartphones

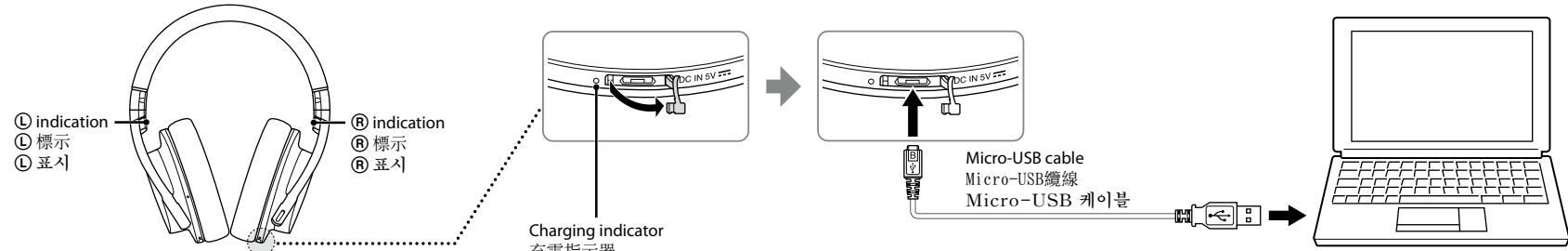
Use this unit with smartphone.

Notes

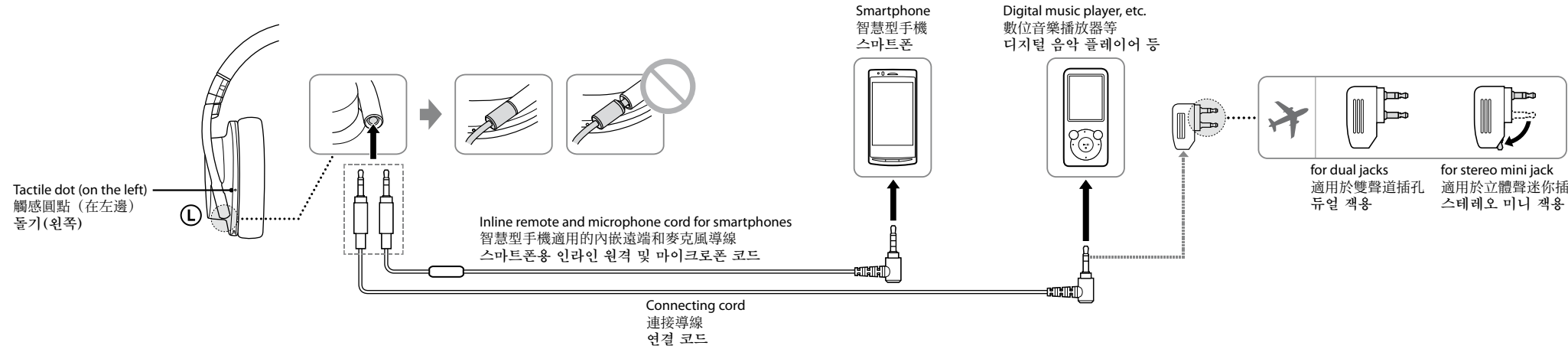
- Depending on the model of smartphone, the microphone of this unit may not function, or the volume level may be low.
- This unit is not guaranteed to operate digital music players.

How to use/使用方式/사용 방법

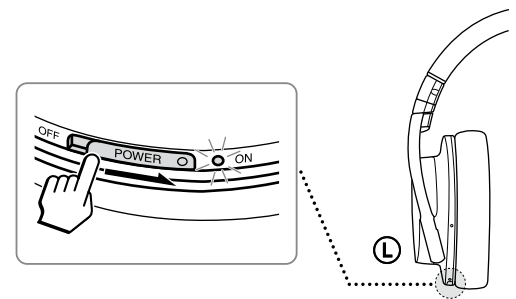
1 Charging the headphones/對耳機充電/헤드폰 충전하기



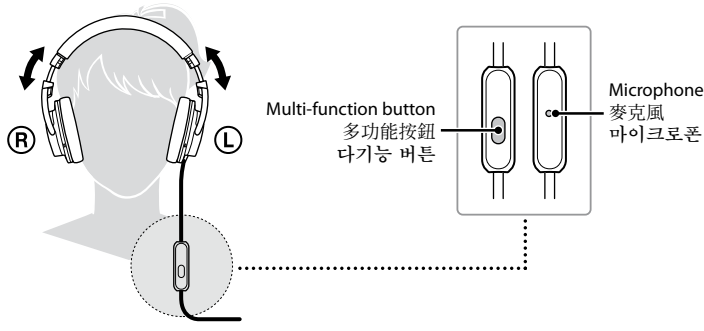
2 Connecting/連接/연결하기



3 Turning on the power/開啟電源/전원 켜기



4 Wearing and controlling/配戴和控制/착용 및 제어하기



After use

Turn off the power of the headphones.

使用後
關閉耳機電源。
헤드폰을 사용한 후
헤드폰의 전원을 끕니다.

Using the Multi-function button

Press once to answer the call, press again to end; press to play/pause a track.

Available operations for iPhone

Plays/pauses a track of the connected iPhone with a single press. Skips to the next track with a double press. Skips to the previous track with a triple press. Starts the "VoiceOver" feature with a long press (if available). Hold down for about two seconds to reject an incoming call. When you let go, two low beeps confirm the call was rejected.

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

Notes

- The button function may vary depending on the smartphone. Access the following web site to check for compatibility. <http://www.sony-asia.com/support/headphones/compatibility>
- Be careful not to unintentionally press the button when you carry your smartphone with the inline remote and microphone cord connected.

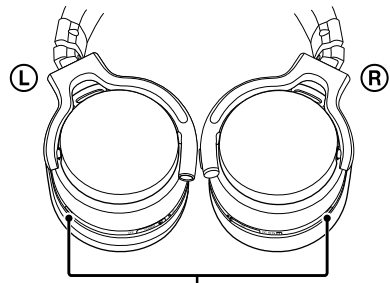
Notes on use

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.



- 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.

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 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 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

- To disconnect the cord, pull it out by the plug, not the cord. Otherwise the cord may break.
- When connecting the cord, make sure to fully insert the plug. If the plug is not fully inserted, no sound may result.
- Because of the difference in pin configuration of four-conductor stereo mini plugs, some smartphones cannot be used with the headphones.
- 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.

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, 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 smartphone does not work

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

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 tail 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 ¹⁾	Approx. 25 dB ²⁾
Power source	DC 3.7 V Built-in lithium-ion rechargeable battery or DC 5 V USB
Mass	Approx. 330 g (without cord)
Talk microphone Open circuit voltage level	–40 dB (0 dB = 1 V/Pa)

Headphones charging and usage time

Approx. charging hours	Approx. usage hours ³⁾
4 hours ⁴⁾	22 hours ⁵⁾

Included items

- Headphones (1)
- Connecting cord (1.5 m, gold plated L-shaped stereo mini plug) (1)
- Connecting cord (3 m, gold plated L-shaped stereo mini plug) (1)
- Inline remote and microphone cord for smartphones (1.2 m, four-conductor gold plated L-shaped stereo mini plug) (1)
- Micro-USB cable (1.5 m) (1)
- Plug adaptor for in-flight use ⁶⁾ (single/dual) (1)
- Carrying case (1)
- Operating Instructions (1)

¹⁾ Under the Sony measurement standard.

²⁾ Equivalent to approx. 99.7% reduction of energy of sound compared with not wearing headphones.

³⁾ At 1 kHz, 0.1 mW + 0.1 mW output

⁴⁾ Hours required to fully charge an empty battery

⁵⁾ Time stated above may vary, depending on the temperature or conditions of use.

⁶⁾ May not be compatible with some in-flight entertainment services.

Design and specifications are subject to change without notice.

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Android is a trademark of Google Inc.

Xperia is a trademark of Sony Mobile Communications AB.

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® 8 / Windows® 8 Pro
 - 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)

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