


Portable Headphone Amplifier  
PHA-3



The following explains how to use the headphone amplifier. Select a topic from the navigation pane on the left.

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Getting Started

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[Included items](#)



[Overview](#)



[Parts and controls](#)



[Before connecting to a computer](#)



[Power source](#)





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## Making connections

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[Connecting to a Windows computer](#)



[Connecting to a Mac](#)



[Connecting to a WALKMAN](#)



[Connecting to an Xperia](#)



[Connecting to an iPhone/iPad/iPod](#)

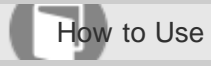


[Connecting to an optical audio output supported device](#)



[Connecting to an analog output device](#)





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Listening to music

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[Headphones](#)



[Amplifier or active speaker](#)



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Information

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[About the indications and settings](#)



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 Troubleshooting

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Troubleshooting

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[Troubleshooting](#)





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## Headphone amplifier

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[Power](#) 

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[Sound](#) 

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Connected device

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[Computer](#)



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## How to Use

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### Getting Started

#### Included items

- [Checking the included items](#)
- [About the supplied manuals](#)
- [How to use the silicone belts](#)

#### Overview

- [What you can do with the headphone amplifier](#)
- [About High-Resolution Audio format files](#)
- [About the balanced connection](#)

#### Parts and controls

- [Parts and controls](#)
- [About the indicators](#)

#### Before connecting to a computer

- [Installing the driver software on a Windows computer](#)
- [Installing “Hi-Res Audio Player” on a computer](#)

#### Power source

- [Charging the battery via a computer](#)
- [Charging the battery via an AC outlet](#)
- [Turning the power on](#)
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### Making connections

#### Connecting to a Windows computer

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#### Connecting to a WALKMAN

- [Connecting to a digital output supported WALKMAN](#)
- [Connecting to WALKMAN models unsupported by digital-out](#)

#### Connecting to an Xperia

- [Connecting to a digital output supported Xperia](#)
- [Connecting to Xperia models unsupported by digital-out](#)

Connecting to an iPhone/iPad/iPod

- [Connecting to an iPhone/iPad/iPod](#)

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- [Connecting to a PCM recorder, etc.](#)

Connecting to an analog output device

- [Connecting to an analog output device](#)

Listening to music

Headphones

- [Listening to music with headphones](#)
- [Listening to music with headphones via balanced connection](#)
- [Setting the sound quality \(DSEE HX\)](#)

Amplifier or active speaker

- [Listening to music with an amplifier or active speaker](#)

Information

About the indications and settings

- [About the indicators](#)
- [Summary of settings and connections](#)

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- [Compatible WALKMAN models](#)
- [Compatible Xperia models](#)
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## Troubleshooting

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### Troubleshooting

#### Troubleshooting

- [What can I do to solve a problem?](#)

### Headphone amplifier

#### Power

- [Unable to turn on the headphone amplifier/The battery life becomes short.](#)
- [Unable to charge the battery.](#)
- [Charging time is too long.](#)

#### Sound

- [There is no sound.](#)
- [The sound is low.](#)
- [The sound is distorted.](#)
- [Noise is generated.](#)

### Connected device

#### Computer

- [Unable to install the driver software on a Windows computer.](#)
- [When connecting to a computer, there is no sound or the sound is not played back properly.](#)
- [Sound is interrupted when connecting to the computer.](#)

#### Other device

- [The remote control of the headset does not work.](#)
- [The microphone of the headset does not work.](#)
- [The connected radio or TV cannot receive a signal/Noise is generated.](#)



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## Included items

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### [Checking the included items](#)

Check that all items are packed with the headphone amplifier before use.

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### [About the supplied manuals](#)

Refer to the supplied manuals depending on your situation.

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### [How to use the silicone belts](#)

You can fasten a connected device to the headphone amplifier using the silicone belts (supplied).

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## Overview

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### [What you can do with the headphone amplifier](#)

Introduction to the main features

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### [About High-Resolution Audio format files](#)

What are High-Resolution Audio format files?

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### [About the balanced connection](#)

What is the balanced connection?

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## Parts and controls

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### [Parts and controls](#)

Introducing the names of switches, jacks and indicators, etc. on the headphone amplifier.

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### [About the indicators](#)

The indicators show the status of the headphone amplifier.

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## Before connecting to a computer

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### [Installing the driver software on a Windows computer](#)

When playing the music files on your Windows computer with the headphone amplifier, you need to download and install the driver software on the computer. >

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### [Installing “Hi-Res Audio Player” on a computer](#)

When playing the High-Resolution Audio format files on your computer (Windows/Mac) with the headphone amplifier, you need to download and install “Hi-Res Audio Player” on the computer. >

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## Power source

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### [Charging the battery via a computer](#)

Connect the headphone amplifier to a computer using the micro-USB cable (supplied) to charge the battery.

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### [Charging the battery via an AC outlet](#)

The battery can be charged via an AC outlet by using the recommended USB AC adaptor (AC-UD20) (sold separately).

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### [Turning the power on](#)

How to turn the headphone amplifier on.

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### [Turning the power off](#)

How to turn the headphone amplifier off.

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### [Checking the battery level](#)

You can check the battery level with the POWER/CHG indicator.

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## Connecting to a Windows computer

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### [Connecting to a Windows computer](#)

You can connect the headphone amplifier to a Windows computer using the micro-USB cable (supplied).

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## Connecting to a Mac

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### [Connecting to a Mac](#)

You can connect the headphone amplifier to a Mac using the micro-USB cable (supplied).

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## Connecting to a WALKMAN


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### [Connecting to a digital output supported WALKMAN](#)

You can connect the headphone amplifier to a WALKMAN that supports digital output using the digital cable for WALKMAN (supplied). 

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### [Connecting to WALKMAN models unsupported by digital-out](#)

You can connect the headphone amplifier to a WALKMAN, which only supports an analog output, using the stereo mini cable (supplied). 

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## Connecting to an Xperia


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### [Connecting to a digital output supported Xperia](#)

You can connect the headphone amplifier to a digital output supported Xperia using the digital cable for Xperia (supplied). 

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### [Connecting to Xperia models unsupported by digital-out](#)

You can connect the headphone amplifier to Xperia models, which only supports an analog output, using the stereo mini cable (supplied). 

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## Connecting to an iPhone/iPad/iPod

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### [Connecting to an iPhone/iPad/iPod](#)

You can connect the headphone amplifier to an iPhone/iPad/iPod using the USB cable supplied with your iPhone/iPad/iPod. 

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## Connecting to an optical audio output supported device

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### [Connecting to a PCM recorder, etc.](#)

You can connect the headphone amplifier to a device with the optical out jack, such as a PCM recorder, using a digital optical cable (sold separately). 

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## Connecting to an analog output device

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### [Connecting to an analog output device](#)

You can connect the headphone amplifier to an analog output device using the stereo mini cable (supplied).

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## Headphones


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### [Listening to music with headphones](#)

You can listen to music from an audio device using the headphones with a standard 3-pole stereo mini plug via the headphone amplifier. 


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### [Listening to music with headphones via balanced connection](#)

You can connect the headphone amplifier to the headphones that are compatible with the balanced connection using a balanced-connection headphone cable. By doing so, you can enjoy music with better sound quality. 

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### [Setting the sound quality \(DSEE HX\)](#)

By setting the DSEE HX select switch to ON, you can enjoy better sound quality from your audio device connected to the headphone amplifier. 

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## Amplifier or active speaker

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### [Listening to music with an amplifier or active speaker](#)

You can listen to music from an audio device by your amplifier or active speaker via the headphone amplifier.

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## About the indications and settings

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### [About the indicators](#)

The indicators show the status of the headphone amplifier.



### [Summary of settings and connections](#)

The settings and connections vary depending on the connected device.



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Compatible device

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[Compatible WALKMAN models](#)



[Compatible Xperia models](#)



[Compatible iPhone/iPad/iPod models](#)



[Compatible operating systems \(Windows\)](#)

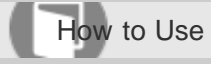


[Compatible operating systems \(Mac\)](#)



[Compatible balanced connection headphones](#)





How to Use

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## Notes on use

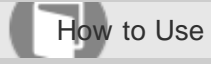
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### [Precautions](#)

Precautions on safety and placement, etc.

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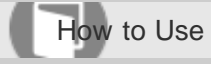
## Trademarks

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### [Trademarks](#)

List of trademarks/registered trademarks





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## Support website

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[Customer support websites](#)

URLs of the customer support websites

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 Troubleshooting

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Troubleshooting

---

[What can I do to solve a problem?](#)







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## Power

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Unable to turn on the headphone amplifier/The battery life becomes short.



Unable to charge the battery.



Charging time is too long.





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## Sound

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[There is no sound.](#)



[The sound is low.](#)



[The sound is distorted.](#)



[Noise is generated.](#)





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## Computer

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[Unable to install the driver software on a Windows computer.](#)



[When connecting to a computer, there is no sound or the sound is not played back properly.](#)



[Sound is interrupted when connecting to the computer.](#)



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Other device

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The remote control of the headset does not work.



The microphone of the headset does not work.



The connected radio or TV cannot receive a signal/Noise is generated.



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## Checking the included items

After unpacking, check that all items in the list below are included in the package.

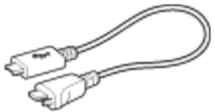
If any items are missing, contact your dealer.

The number in ( ) indicates the item amount.

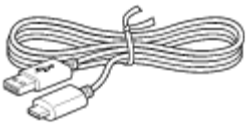
- Portable headphone amplifier (1)
- Digital cable for WALKMAN (1)



- Digital cable for Xperia (1)



- Micro-USB cable (1)



- Stereo mini cable (1)



- Silicone belt (4)



- Protection sheet (1)



- Start Guide (1)
- Reference Guide (1)
- Warranty card (depending on your region/country)

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## About the supplied manuals

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The following three manuals come with the headphone amplifier.

### Help Guide (this data)



Operation manual on the Web, which can be accessed by a PC or smartphone, provides the detailed information on how to use the headphone amplifier and troubleshooting, etc.

### Start Guide (enclosed paper)



Provides basic information on how to connect or use the headphone amplifier.

### Reference Guide (enclosed paper)



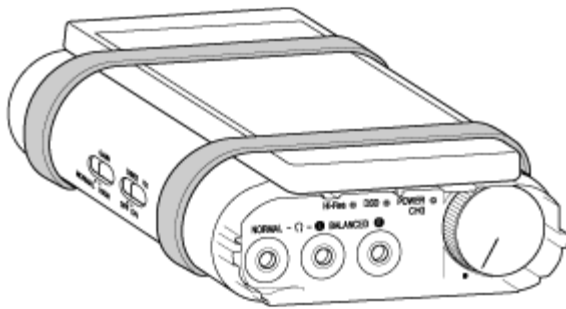
Provides precautions and specifications.

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## How to use the silicone belts

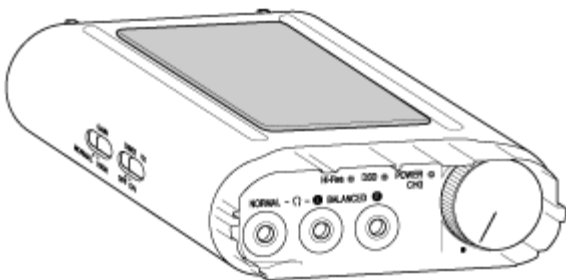
You can fasten a connected device to the headphone amplifier using the silicone belts (supplied).

1. Mount the connected device on the headphone amplifier.
2. Bind the headphone amplifier and the connected device using the silicone belt with its wider part placed under the bottom of the headphone amplifier.  
4 silicone belts are supplied.



If the connected device does not fit on the rubber rails

If the audio device does not mount on the rubber rails of the headphone amplifier, place the protection sheet (supplied) between the headphone amplifier and the audio device to avoid scratching.



- Be careful not to pinch your finger when binding the headphone amplifier and the connected device with the silicone belt. It may cause injury.
- Sony is not liable for damage to an audio device caused by using the silicone belts.
- The silicone belts are not guaranteed to fasten all audio devices.
- Do not over-stretch the silicone belt. It may cause a malfunction.
- Stop using the silicone belt if it is cracked.

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## What you can do with the headphone amplifier

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- Balanced output support for clean signal ground \*  
for balanced output, a balanced-connection headphone cable and balanced headphones are needed.
- Selected parts for high quality sound (ES9018/TPA6120)
- USB Audio PCM 384 kHz/32 bit, DSD compatible
- WALKMAN, Xperia, iPhone/iPad/iPod Digital connection
- All content you hear is enhanced.

The DSEE HX upscales the existing sound file to near High-Resolution sound quality, making you feel as though you are really there at the recording studio or concert.

- High-quality analog circuit with dedicated master clock
- High-quality line-out operation amplifier (LME49860)
- Low-resistance high-quality rotary volume for clear and pure sound

\* Works as a normal headphone amplifier.



## About High-Resolution Audio format files

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High-Resolution Audio, which is typically 96 kHz/24 bit or higher, is made by digitally sampling an original analog audio source. The number of times at which sampling is performed (in one-second increments) is called the sampling frequency, which is expressed in hertz or “Hz.” Digitizing refers to the audio process where the sampled signal is converted (or quantized) into binary digits, consisting of 1’s and 0’s, and expressed as “bits”. The higher the number of bits, the closer the sample is to the original source. CDs are standardized at 44.1 kHz/16 bit, but there is no single standard for High-Resolution Audio.

An alternative way of digitizing an analog source is a method called DSD (Direct Stream Digital) which captures sound information as a sequence of single bit values with an extremely high sampling rate of either 2.8 MHz or 5.6 MHz. This is approximately 64 or 128 times the sampling rate of CD audio and is simply known as DSD 2.8 MHz or DSD 5.6 MHz. For some engineers, this is the closest a digital file sample can get to an original analog source.



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## About the balanced connection

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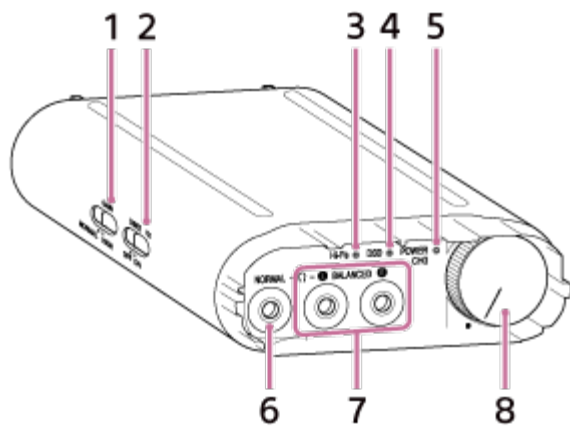
Unbalanced connections have commonly been used for portable audio devices. This connection method works as L+/R+ signals go through an amplifier and L-/R- signals go through the ground. Devices with unbalanced output are normally less expensive and easy to handle compared with the balanced output devices, but unbalanced connections cannot prevent noise occurrence since noise can be picked up if there is a difference in voltage potential on the ground of the chassis of your device.

One of the biggest advantages of balanced connection is that it can stabilize the voltage potential by transmitting the signals as the opposite phase, L+/L- and R+/R-, to an amplifier. Not only does this prevent the signal distortion caused on the ground, but also eliminates noise and hum with opposite polarities relative to each other. As a result of this, balanced connections brings you clear sound with noiseless signals and improved crosstalk.

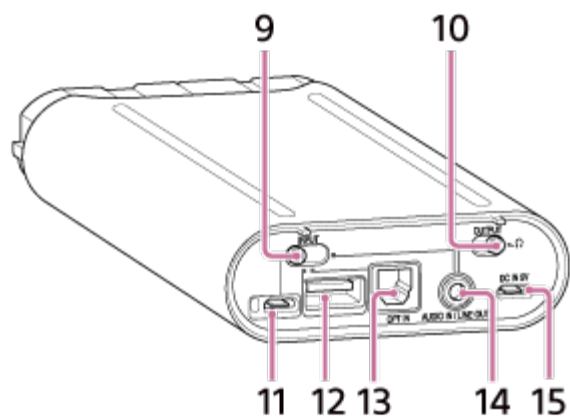
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## Parts and controls

## Front and left side



## Rear side



1. GAIN select switch
2. DSEE HX select switch
3. Hi-Fs (High Sampling Frequency) indicator
4. DSD indicator
5. POWER/CHG (power/charge) indicator
6.  (headphones) NORMAL jack
7.  (headphones) BALANCED L/R jack

8. Power/volume knob
9. INPUT select switch
10. OUTPUT select switch
11. Xperia/WALKMAN/PC (USB AUDIO) connecting port
12. iPhone/iPad/iPod connecting port
13. OPT IN port
14. AUDIO IN/LINE OUT jack
15. DC IN 5V port

#### Related Topic

● [About the indicators](#)

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## About the indicators

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### POWER/CHG (power/charge) indicator

When the headphone amplifier is being charged, the indicator flashes/lights up in red.

When the headphone amplifier is turned on, the indicator flashes/lights up in green.

While the headphone amplifier is being charged

Turns off

The headphone amplifier is fully charged.

Lights up (red)

The headphone amplifier is being charged.

Flashes (red)

The headphone amplifier is not being charged properly.

When the headphone amplifier is not in the battery charge status

You can check the battery level by the number of times that the indicator flashes when the headphone amplifier is turned on.

Turns off

The headphone amplifier is not turned on.

Lights up (green)

The headphone amplifier is turned on.

Flashes three times (green)

The battery is substantially charged.

Flashes twice (green)

The battery is half charged.

Flashes once (green)

The battery level is low. It is necessary to charge the battery.

Always flashing (green)

If you continue to use the headphone amplifier without charging, it will turn off in a few minutes.

### Hi-Fs (High Sampling Frequency) indicator

Turns off

The headphone amplifier is being input with;

- the linear PCM digital signal of sampling frequencies under 48 kHz
- the analog signal

Lights up

The headphone amplifier is being input with;

- the linear PCM digital signal of sampling frequencies not under 48 kHz
- the DSD digital signal of the High-Resolution Audio format

## DSD indicator

Turns off

The headphone amplifier is being input with;

- the linear PCM digital signal
- the analog signal

Lights up

The headphone amplifier is being input with the DSD signal of the High-Resolution Audio format.

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## Installing the driver software on a Windows computer

To play back the music files on your Windows computer with the headphone amplifier, you need to download and install the driver software for Windows “Sony USB Device Driver” on the computer.

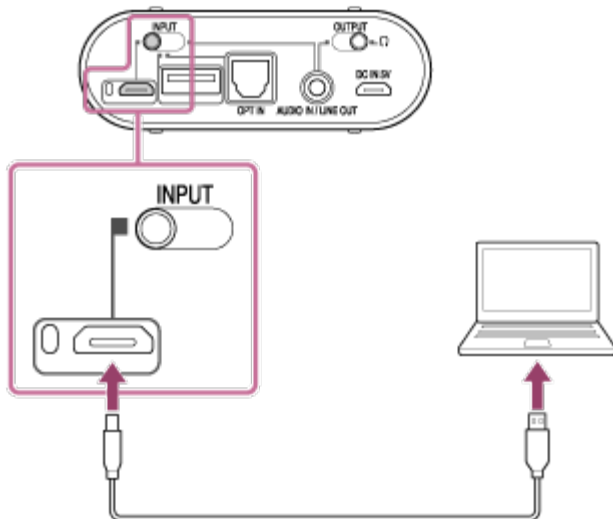
1. Visit the following support website, then download and install the driver software for Windows “Sony USB Device Driver” on your Windows computer.

<http://www.sony.com/support/>

For details on installing, refer to the download pages.

The headphone amplifier needs to be connected to your Windows computer at a certain point while installing the driver software.

In this case, connect the Windows computer to the Xperia/WALKMAN/PC (USB AUDIO) connecting port of the headphone amplifier using the micro-USB cable (supplied).



## Hint

- There is no need to install the driver software on a Mac computer.

## Note

- If the driver software is not installed on your Windows computer, music files cannot be played back via the headphone amplifier.



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## Installing “Hi-Res Audio Player” on a computer

To play back the High-Resolution Audio format files on your computer (Windows/Mac) with the headphone amplifier, you need to download and install “Hi-Res Audio Player” on the computer.

1. Visit the following support website, then download and install “Hi-Res Audio Player” on your computer.

<http://www.sony.com/support/>

For details on installing, refer to the download pages.

### Related Topic

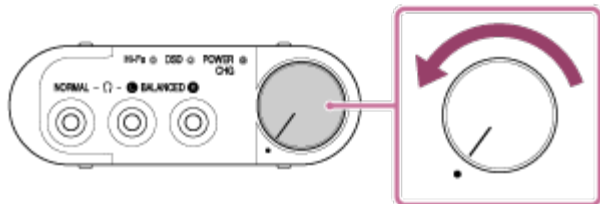
- [About High-Resolution Audio format files](#)

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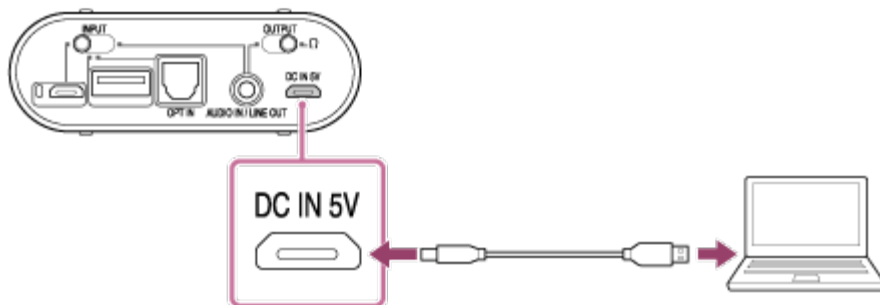
## Charging the battery via a computer

The headphone amplifier contains a rechargeable lithium-ion battery, which should be charged before using it for the first time.

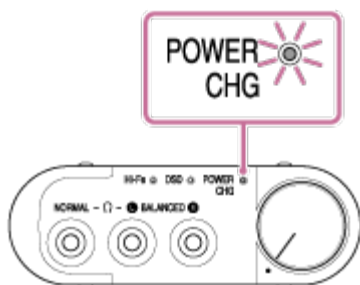
1. Rotate the power/volume knob counterclockwise, until it clicks, to turn off the headphone amplifier. The battery charges only when the headphone amplifier is off. Rotate the power/volume knob clockwise to turn on the headphone amplifier. Rotate it more to adjust the volume.



2. Connect your booted computer to the DC IN 5V port of the headphone amplifier using the micro-USB cable (supplied).



The POWER/CHG indicator lights up in red while the battery is being charged, and the indicator turns off when charging is completed.



Charging is completed in about 15 hours.\*<sup>1</sup>

If the battery is not charged properly, the POWER/CHG indicator will flash in red.

\*<sup>1</sup> Time required for empty battery to recharge.

## When the battery cannot be charged

- Check that the headphone amplifier and your computer are firmly connected via the micro-USB cable (supplied). Use only the supplied micro-USB cable. Do not charge the battery using any other USB cable.
- Check that the computer is turned on and not in standby, sleep or hibernation mode.  
If the computer enters standby, sleep, or hibernation mode while the headphone amplifier is connected to the computer, the POWER/CHG indicator turns off and the battery charge will not be completed properly. In this case, change the computer settings and then charge the battery again.
- Check that the headphone amplifier is directly connected to a computer using the micro-USB cable (supplied). Charging may not be completed properly by an indirect connection, such as via a USB hub.

## Battery life<sup>\*2</sup>

Analog connection: Approx. 28 hours<sup>\*2</sup>

Digital (balanced) connection: Approx. 5 hours<sup>\*2</sup>

<sup>\*2</sup> when using the headphone amplifier at 1 mW + 1 mW output (24 Ω). Time may vary, depending on the immediate environment or conditions of use.

### Hint

- The battery can be charged via an AC outlet by using the recommended USB AC adaptor (AC-UD20) (sold separately). Charging is completed in about 6 hours.

### Note

- The charge will continue for about 10 hours, then the timer function of the charge protection circuit will stop the charging. If you want to continue charging, disconnect and reconnect the micro-USB cable.
- When the headphone amplifier had not been used for a long time, it may take a while for the POWER/CHG indicator to light up in red. In this case, do not disconnect the micro-USB cable from the headphone amplifier. Wait until the POWER/CHG indicator lights up in red.
- Charge the battery in an ambient temperature between 5 °C to 35 °C. If you try to charge the battery outside this range, the POWER/CHG indicator may flash in red, but the battery may not be charged.
- When the battery is full, the POWER/CHG indicator may not light up in red.
- When storing the headphone amplifier for a long time, avoid a place subject to high temperatures. When storing the headphone amplifier for more than a year, charge the battery every six months to prevent over discharge.

### Related Topic

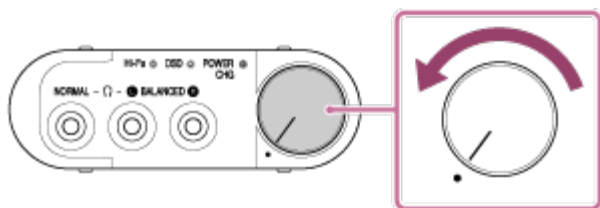
● [Charging the battery via an AC outlet](#)

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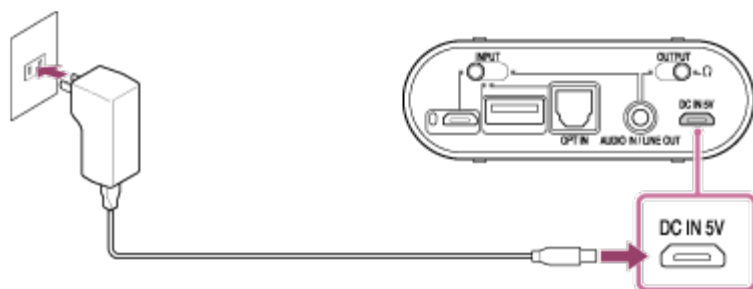
## Charging the battery via an AC outlet

The battery can be charged via an AC outlet by using the recommended USB AC adaptor (AC-UD20) (sold separately). For details on the adaptor, refer to its operation manual.

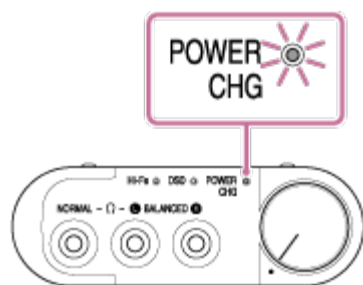
1. Rotate the power/volume knob counterclockwise until it clicks to turn off the headphone amplifier. The battery charges only when the headphone amplifier is off. Rotate the power/volume knob clockwise to turn on the headphone amplifier. Rotate it more to adjust the volume.



2. Connect the DC IN 5V port of the headphone amplifier and the USB AC adaptor (AC-UD20) (sold separately) using the micro-USB cable (supplied), then connect the USB AC adaptor to an AC outlet.



The POWER/CHG indicator lights up in red while the battery is being charged, and the indicator turns off when charging is completed.



Charging is completed in about 6 hours.\*

If the battery is not charged properly, the POWER/CHG indicator will flash in red.

\* Time required for empty battery to recharge.

## Battery life<sup>\*2</sup>

Analog connection: Approx. 28 hours<sup>\*2</sup>

Digital (balanced) connection: Approx. 5 hours<sup>\*2</sup>

<sup>\*2</sup> when using the headphone amplifier at 1 mW + 1 mW output (24 Ω). Time may vary, depending on the immediate environment or conditions of use.

### Note

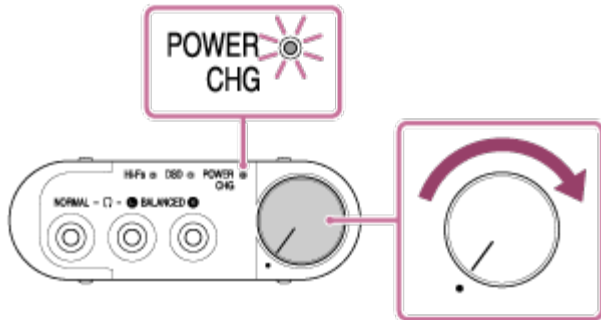
- The charge will continue for about 10 hours, then the timer function of the charge protection circuit will stop the charging. If you want to continue charging, disconnect and reconnect the micro-USB cable.
- When the headphone amplifier had not been used for a long time, it may take a while for the POWER/CHG indicator to light up in red. In this case, do not disconnect the micro-USB cable from the headphone amplifier. Wait until the POWER/CHG indicator lights up in red.
- Charge the battery in an ambient temperature between 5 °C to 35 °C. If you try to charge the battery outside this range, the POWER/CHG indicator may flash in red, but the battery may not be charged.
- When the battery is full, the POWER/CHG indicator may not light up in red.
- When storing the headphone amplifier for a long time, avoid a place subject to high temperatures. When storing the headphone amplifier for more than a year, charge the battery every six months to prevent over discharge.

Portable Headphone Amplifier  
PHA-3

## Turning the power on

When using the headphone amplifier for the first time, charge its battery beforehand. Connect the headphone amplifier to your booted computer using the micro-USB cable (supplied).

1. Rotate the power/volume knob clockwise.  
The POWER/CHG indicator flashes in green then lights up.  
Rotate the power/volume knob further clockwise to increase the volume.



## Hint

- When the headphone amplifier is turned on, you can check the battery level by the number of times the POWER/CHG indicator flashes in green.
  - Flashes three times: Substantially charged
  - Flashes twice: Half charged
  - Flashes once: Battery level is low. It is necessary to charge the battery.
  - Always flashing: It is necessary to charge the battery. If you continue to use the headphone amplifier without charging, it will turn off automatically.

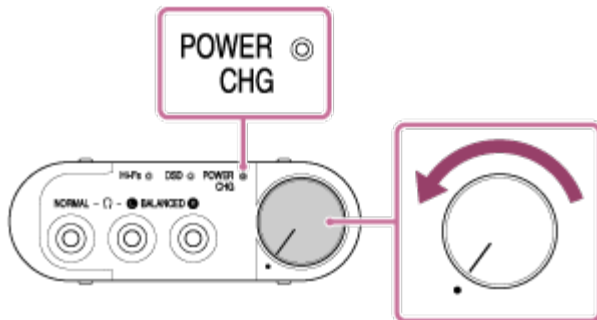
## Related Topic

- [Charging the battery via a computer](#)
- [Charging the battery via an AC outlet](#)

Portable Headphone Amplifier  
PHA-3

## Turning the power off

1. Rotate the power/volume knob counterclockwise until it clicks.  
The POWER/CHG indicator turns off.

**Note**

- The POWER/CHG indicator lights up in red when the DC IN 5V port is connected to your computer or the USB AC adaptor (sold separately). The indicator turns off when battery charge is completed.

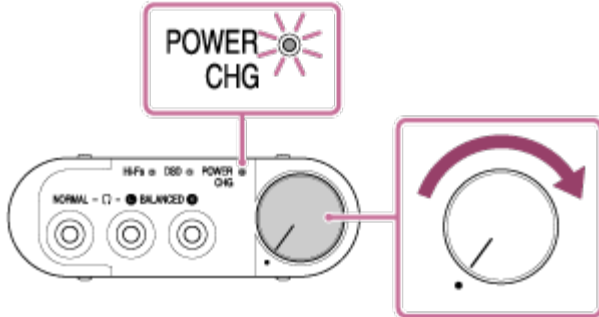


Portable Headphone Amplifier  
PHA-3

## Checking the battery level

Check the battery level before carrying out the headphone amplifier.

1. If the micro-USB cable (supplied) is connected to the DC IN 5V port, disconnect it.
2. Rotate the power/volume knob clockwise to turn the headphone amplifier on, and check how many times the POWER/CHG indicator flashes in green.
  - Flashes three times: Substantially charged
  - Flashes twice: Half charged
  - Flashes once: Battery level is low. It is necessary to charge the battery.
  - Always flashing: It is necessary to charge the battery. If you continue to use the headphone amplifier without charging, it will turn off automatically.

**Note**

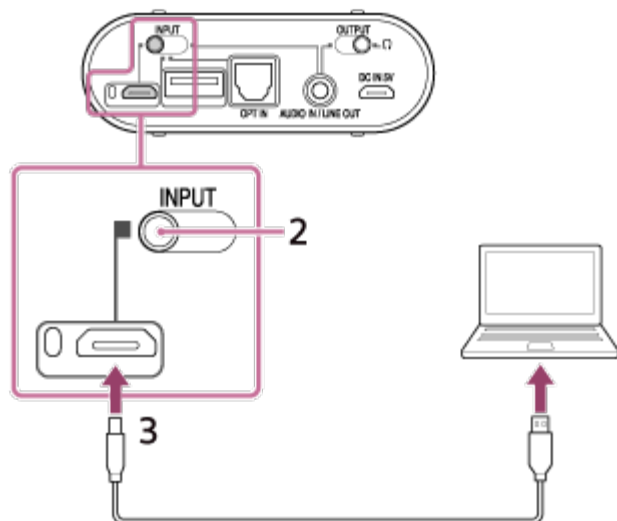
- The battery level that the indicator shows is a rough guide. The actual battery level may differ depending on the condition of use.

Portable Headphone Amplifier  
PHA-3

## Connecting to a Windows computer

You can connect the headphone amplifier to a Windows computer using the micro-USB cable (supplied). The headphone amplifier is compatible with High-Resolution Audio format files, up to 384 kHz/32 bit PCM, DSD 2.8 MHz or DSD 5.6 MHz.

1. Start your computer.
  - You need to download and install the driver software for Windows “Sony USB Device Driver” on your computer to play back music files on the computer with the headphone amplifier.
  - You need to download and install “Hi-Res Audio Player” on your computer to play back High-Resolution Audio format files on the computer with the headphone amplifier.
2. Set the INPUT select switch to the position of the Xperia/WALKMAN/PC (USB AUDIO) connecting port (left edge position).
3. Connect the computer to the Xperia/WALKMAN/PC (USB AUDIO) connecting port using the micro-USB cable (supplied).



## Hint

- The headphone amplifier supports USB 2.0 (USB 2.0 High Speed) as an audio device.

## Note

- If you are listening to music loudly with the headphone amplifier connected to a computer, the POWER/CHG indicator

- may flash in green or the sound may be interrupted. This is not a malfunction. In this case, turn the volume down.
- The headphone amplifier is not guaranteed to operate via a USB hub or USB cable extension. Use the supplied micro-USB cable only.
  - Do not disconnect the computer while operating. Before disconnecting the computer from the headphone amplifier, stop playback and turn the headphone amplifier off to prevent damage to data.
  - Digitally broadcast sound may not be output from a computer's USB port. In this case, connect the AUDIO IN/LINE OUT jack of the headphone amplifier to the analog audio output of the computer. For details on connections, see "Connecting to an analog output device."
  - If you are listening to music too loudly, the battery may drain even if the DC IN 5V port of headphone amplifier is connected to a computer or an AC outlet.
  - Be careful not to trip over the connecting cable.

#### Related Topic

- [Installing the driver software on a Windows computer](#)
- [Installing "Hi-Res Audio Player" on a computer](#)
- [Connecting to an analog output device](#)
- [Compatible operating systems \(Windows\)](#)

Portable Headphone Amplifier  
PHA-3

## Connecting to a Mac

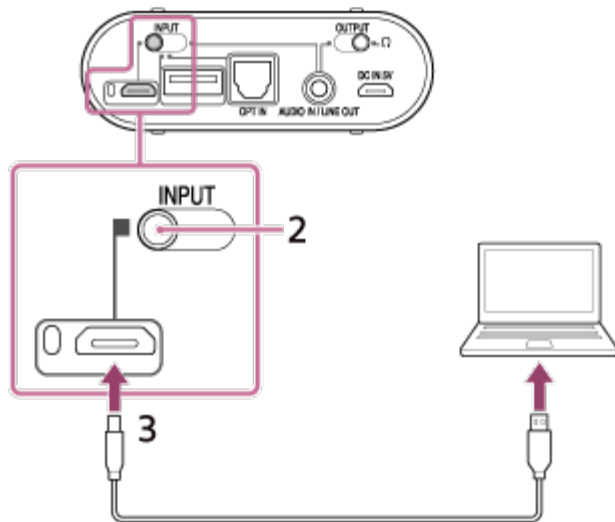
You can connect the headphone amplifier to a Mac using the micro-USB cable (supplied). The headphone amplifier is compatible with High-Resolution Audio format files, up to 384 kHz/32 bit PCM, DSD 2.8 MHz or DSD 5.6 MHz.

## 1. Start your Mac.

You need to download and install “Hi-Res Audio Player” on your Mac to play back High-Resolution Audio format files on the Mac with the headphone amplifier.

## 2. Set the INPUT select switch to the position of the Xperia/WALKMAN/PC (USB AUDIO) connecting port (left edge position).

## 3. Connect the Mac to the Xperia/WALKMAN/PC (USB AUDIO) connecting port using the micro-USB cable (supplied).



## Hint

- The headphone amplifier supports USB 2.0 (USB 2.0 High Speed) as an audio device.

## Note

- If you are listening to music loudly with the headphone amplifier connected to a Mac, the POWER/CHG indicator may flash in green or the sound may be interrupted. This is not a malfunction. In this case, turn the volume down.
- The headphone amplifier is not guaranteed to operate via a USB hub or USB cable extension. Use the supplied micro-USB cable only.
- Do not disconnect the Mac while operating. Before disconnecting the Mac from the headphone amplifier, stop playback and turn the headphone amplifier off to prevent damage to data.

- Digitally broadcast sound may not be output from a Mac's USB port. In this case, connect the AUDIO IN/LINE OUT jack of the headphone amplifier to the analog audio output of the Mac. For details on connections, see "Connecting to an analog output device."
- If you are listening to music too loudly, the battery may drain even if the DC IN 5V port of headphone amplifier is connected to a Mac or an AC outlet.
- Be careful not to trip over the connecting cable.

#### Related Topic

- [Installing "Hi-Res Audio Player" on a computer](#)
- [Connecting to an analog output device](#)
- [Compatible operating systems \(Mac\)](#)

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## Portable Headphone Amplifier PHA-3

### Connecting to a digital output supported WALKMAN

By using the digital cable for WALKMAN (supplied), the headphone amplifier can amplify the signal directly without the built-in amplifier of the WALKMAN.

#### Compatible WALKMAN models

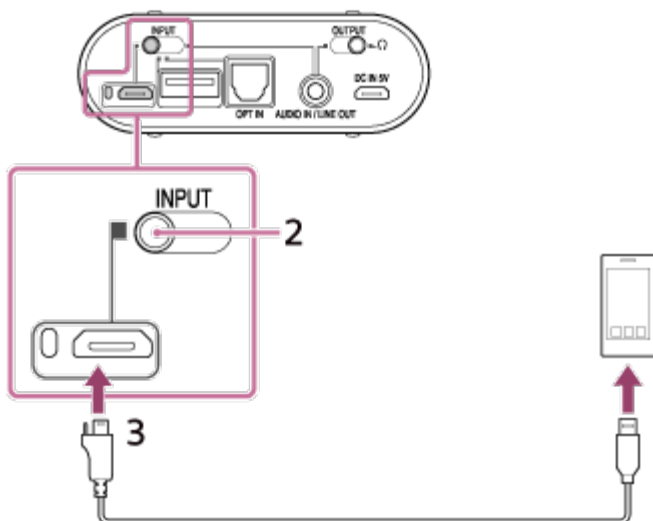
NWZ-A10 series, NWZ-ZX1 and NWZ-F880 series (as of July 2014)

For the latest compatible models, access the following URL:

<http://www.sony.com/support/>

When connecting a WALKMAN other than the compatible models mentioned above, follow the connecting method described in “Connecting to WALKMAN models unsupported by digital-out.”

1. Turn on the WALKMAN.
2. Set the INPUT select switch to the position of the Xperia/WALKMAN/PC (USB AUDIO) connecting port (left edge position).
3. Connect the WALKMAN to the Xperia/WALKMAN/PC (USB AUDIO) connecting port using the digital cable for WALKMAN (supplied).



#### Note

- The headphone amplifier only supports the audio playback function of a WALKMAN.
- Turn on your WALKMAN before operating the headphone amplifier.
- Some operations may not be possible with the headphone amplifier, even if you use a supported WALKMAN.

The following settings of your WALKMAN may be causing the sound distortion. Set these settings off to solve the problem.

- Dynamic Normalizer
  - Equalizer
  - VPT (Virtualphones Technology)
  - DSEE (Digital Sound Enhancement Engine)
  - Speaker output optimizer
- Sound is not output from the headphone jack of the WALKMAN when it is connected to the headphone amplifier.
  - You cannot adjust the volume by the WALKMAN when it is connected to the headphone amplifier.
  - The WALKMAN cannot be charged while it is connected to the headphone amplifier.
  - If you are listening to music too loudly, the battery may drain even if the DC IN 5V port of headphone amplifier is connected to a computer or an AC outlet.


#### Related Topic

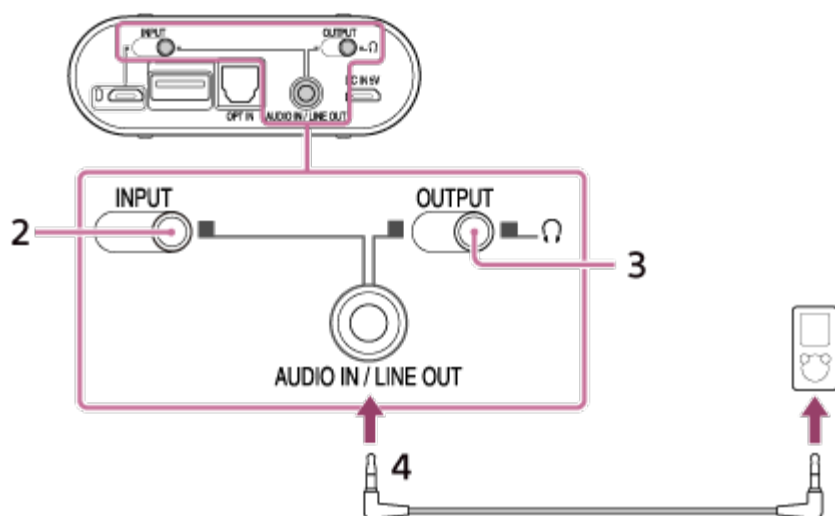
- [Connecting to WALKMAN models unsupported by digital-out](#)
- [Compatible WALKMAN models](#)



Portable Headphone Amplifier  
PHA-3

### Connecting to WALKMAN models unsupported by digital-out

Before connecting, turn the volume of your WALKMAN down, and turn the headphone amplifier off.

1. Turn on the WALKMAN.
2. Set the INPUT select switch to the position of the AUDIO IN/LINE OUT jack (right edge position).
3. Set the OUTPUT select switch to  (right edge position).
4. Connect the WALKMAN to the AUDIO IN/LINE OUT jack using the stereo mini cable (supplied).



5. Connect your headphones to the  (headphones) NORMAL jack on the front side of the headphone amplifier. When the WALKMAN is connected to the AUDIO IN/LINE OUT jack, your headphones cannot be connected to the  (headphones) BALANCED L/R jack.

**Note**

- If you connect the headphone amplifier to a WALKMAN with a built-in radio or tuner, broadcasts may not be received, or sensitivity may be reduced significantly.
- If there is noise in broadcasts, place the headphone amplifier farther away from the connected WALKMAN and check whether reception improves.
- If you are listening to music too loudly, the battery may drain even if the DC IN 5V port of the headphone amplifier is connected to a computer or an AC outlet.



Portable Headphone Amplifier  
PHA-3

## Connecting to a digital output supported Xperia

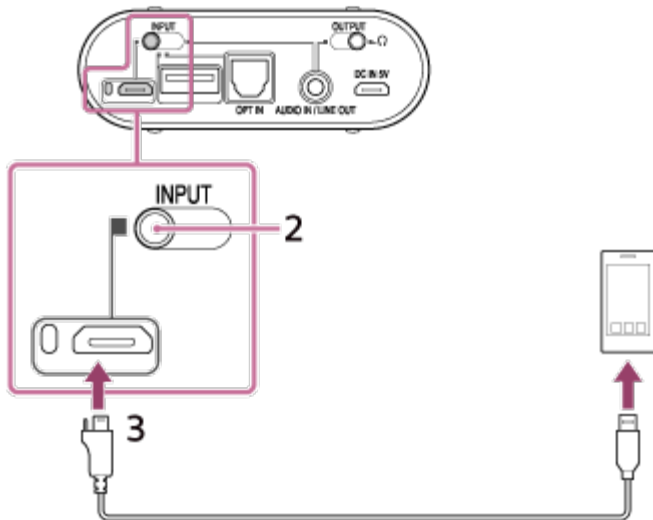
You can connect the headphone amplifier to a digital output supported Xperia using the digital cable for Xperia (supplied).

The compatibility of digital output supported Xperia models depend on the country/region. For the latest compatible models, access the following URL:

<http://www.sony.com/support/>

When connecting an Xperia model that is unsupported by the digital-output, follow the connecting method described in “Connecting to Xperia models unsupported by digital-out.”

1. Turn on the Xperia.
2. Set the INPUT select switch to the position of the Xperia/WALKMAN/PC (USB AUDIO) connecting port (left edge position).
3. Connect the Xperia to the Xperia/WALKMAN/PC (USB AUDIO) connecting port using the digital cable for Xperia (supplied).

**Note**

- The headphone amplifier only supports the audio playback function of the Xperia.
- Turn on your Xperia before operating the headphone amplifier.
- Some operations may not be possible with the headphone amplifier, even if you use a supported Xperia model.
- Depending on your Xperia model, you may not be able to adjust the volume of the Xperia when it is connected to the headphone amplifier.

- If you are listening to music too loudly, the battery may drain even if the DC IN 5V port of headphone amplifier is connected to a computer or an AC outlet.

#### Related Topic

- [Connecting to Xperia models unsupported by digital-out](#)
- [Compatible Xperia models](#)

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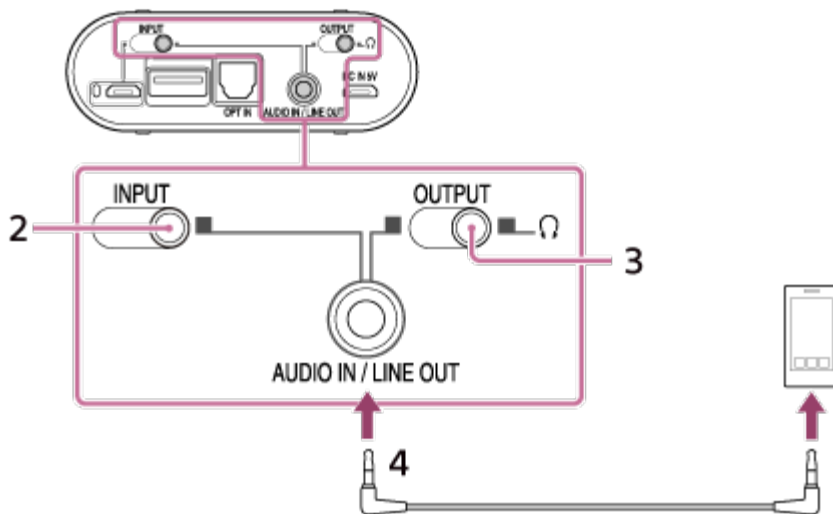
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### Connecting to Xperia models unsupported by digital-out

Before connecting, turn the volume of your Xperia down, and turn the headphone amplifier off.

1. Turn on the Xperia.
2. Set the INPUT select switch to the position of the AUDIO IN/LINE OUT jack (right edge position).
3. Set the OUTPUT select switch to (right edge position).
4. Connect the Xperia to the AUDIO IN/LINE OUT jack using the stereo mini cable (supplied).



5. Connect your headphones to the (headphones) NORMAL jack on the front side of the headphone amplifier. When the Xperia is connected to the AUDIO IN/LINE OUT jack, your headphones cannot be connected to the (headphones) BALANCED L/R jack.

**Note**

- If you connect the headphone amplifier to an Xperia with a built-in radio or tuner, broadcasts may not be received, or sensitivity may be reduced significantly.
- If there is noise in broadcasts, place the headphone amplifier farther away from the connected Xperia and check whether reception improves.
- If you are listening to music too loudly, the battery may drain even if the DC IN 5V port of the headphone amplifier is connected to a computer or an AC outlet.

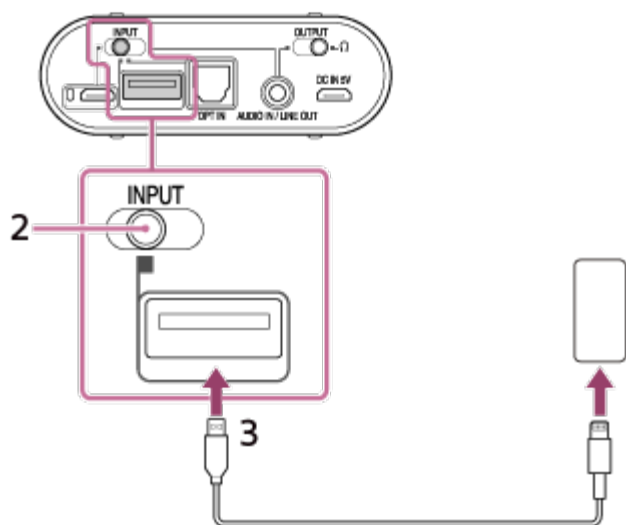
Portable Headphone Amplifier  
PHA-3

## Connecting to an iPhone/iPad/iPod

You can connect the headphone amplifier to an iPhone/iPad/iPod using the USB cable supplied with your iPhone/iPad/iPod. For details on compatible models, see “Compatible iPhone/iPad/iPod models.”

The headphone amplifier is compatible with audio format files, up to 48 kHz/24 bit PCM.

1. Turn on the iPhone/iPad/iPod.
2. Set the INPUT select switch to the position of the iPhone/iPad/iPod connecting port (second position from the left).
3. Connect the iPhone/iPad/iPod to the iPhone/iPad/iPod connecting port using the USB cable supplied with your device.



## Compatible iPhone/iPad/iPod models

You can use the headphone amplifier with only the following models. Update your iPhone, iPad or iPod to the latest software before use. (as of July 2014)

- iPhone 5s
- iPhone 5c
- iPhone 5
- iPhone 4s
- iPhone 4
- iPhone 3GS
- iPad Air
- iPad mini with Retina display

- iPad (4th generation)
- iPad mini
- iPad (3rd generation)
- iPad 2
- iPad
- iPod touch (5th generation)
- iPod touch (4th generation)
- iPod touch (3rd generation)
- iPod touch (2nd generation)
- iPod classic 120GB / 160GB (2009)
- iPod nano (7th generation)
- iPod nano (6th generation)
- iPod nano (5th generation)
- iPod nano (4th generation)
- iPod nano (3rd generation)

#### Note

- If noise is generated, turn off the connected iPhone/iPad/iPod, then turn it on again.
- The headphone amplifier only supports the audio playback function of an iPhone/iPad/iPod.
- You cannot transfer music to your iPhone/iPad/iPod from the headphone amplifier.
- Do not connect an iPhone/iPad/iPod that is not supported. The headphone amplifier is not guaranteed to work with an unsupported iPhone/iPad/iPod.
- Sony is not liable for damage/erasure of recorded data caused by using an iPhone/iPad/iPod with the headphone amplifier.
- Do not disconnect the iPhone/iPad/iPod while operating. Before disconnecting the iPhone/iPad/iPod from the headphone amplifier, stop playback and turn the headphone amplifier off to prevent damage to data.
- If the sound is distorted, set the equalizer to “Off” or “Flat” on your iPhone/iPad/iPod.
- Turn on your iPhone/iPad/iPod before connecting it to the headphone amplifier.
- Depending on an iPhone/iPad/iPod, the sound may become loud suddenly when you adjust the volume.
- If the battery level of an iPhone/iPad/iPod is too low, charge it before use.
- Music volume may vary depending on the ring tone of the iPhone and its application. Refer to the operation manual of your iPhone.
- If the iPhone is set to silent mode, the ring tone may not be heard from the headphones.
- For details on operating an iPhone/iPad/iPod, refer to its operation manual.
- An iPhone/iPad/iPod will not be charged when it is connected to the headphone amplifier.
- If you are listening to music too loudly, the battery may drain even if the DC IN 5V port of headphone amplifier is connected to a computer or an AC outlet.

#### Related Topic

- [Compatible iPhone/iPad/iPod models](#)

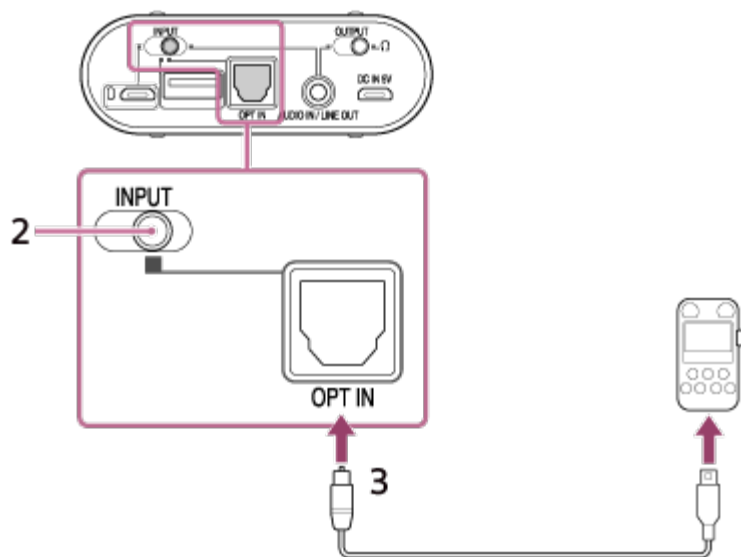
Portable Headphone Amplifier  
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## Connecting to a PCM recorder, etc.

You can connect the headphone amplifier to a device with the optical out jack, such as a PCM recorder, using a digital optical cable (sold separately).

The headphone amplifier is compatible with High-Resolution Audio format files, up to 192 kHz/24 bit PCM.

1. Turn on the device.
2. Set the INPUT select switch to the position of the OPT IN port (second position from the right).
3. Connect the device to the OPT IN port using a digital optical cable (sold separately).



## About a digital optical cable (sold separately)

The OPT IN port of the headphone amplifier is compatible with a square plug of digital optical cable. Choose the appropriate plug type for your device.

**Note**


- The audio files on your device may not be played back via the headphone amplifier even though they are playable with the device itself. This is because there is a restriction on optical media. In this case, refer to the operation manual of your device.

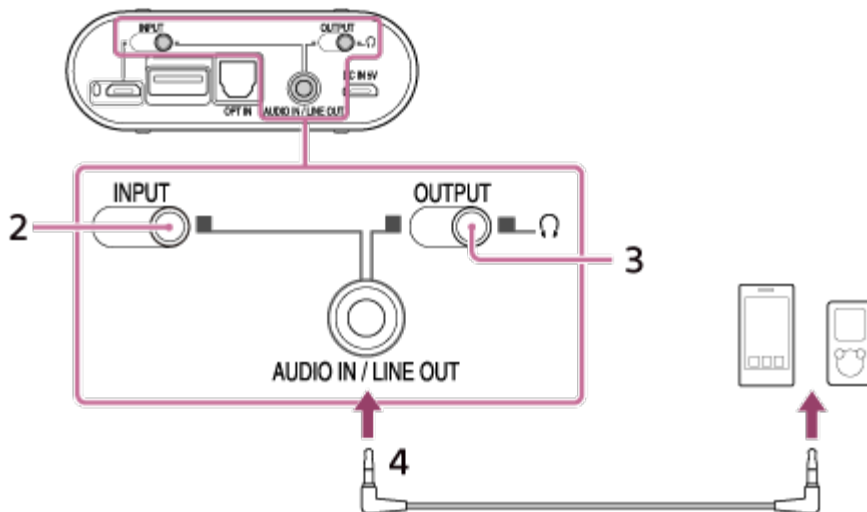
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## Connecting to an analog output device

You can connect the headphone amplifier to an analog output device, such as a smartphone or portable music player, using the stereo mini cable (supplied).

Before connecting, turn the volume of your device down, and turn the headphone amplifier off.

1. Turn on the device.
2. Set the INPUT select switch to the position of the AUDIO IN/LINE OUT jack (right edge position).
3. Set the OUTPUT select switch to  (right edge position).
4. Connect the device to the AUDIO IN/LINE OUT jack using the stereo mini cable (supplied).



5. Connect your headphones to the  (headphones) NORMAL jack on the front side of the headphone amplifier. When the device is connected to the AUDIO IN/LINE OUT jack, your headphones cannot be connected to the  (headphones) BALANCED L/R jack.

**Note**

- If you connect the headphone amplifier to a device with a built-in radio or tuner, broadcasts may not be received, or sensitivity may be reduced significantly.
- If there is noise in broadcasts, place the headphone amplifier farther away from the connected device and check whether reception improves.
- If you are listening to music too loudly, the battery may drain even if the DC IN 5V port of the headphone amplifier is

connected to a computer or an AC outlet.

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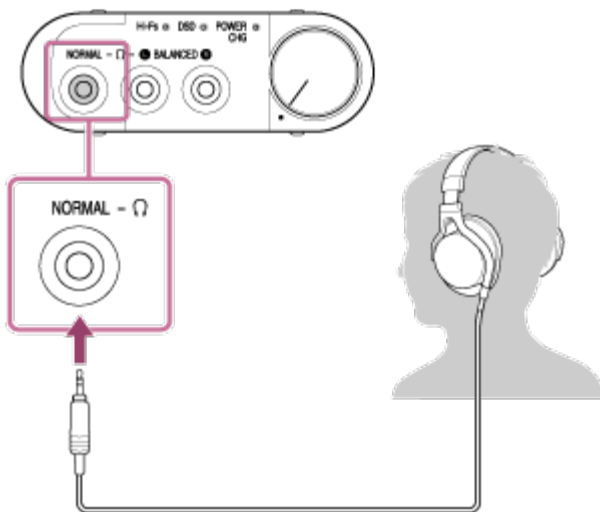
Portable Headphone Amplifier  
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### Listening to music with headphones

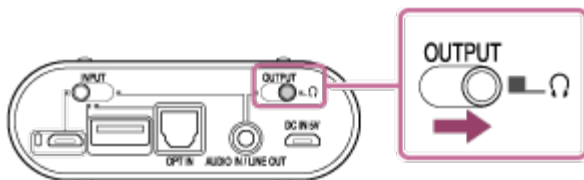
You can listen to music from an audio device with your headphones via the headphone amplifier. Follow the steps below when you connect the headphones with the stereo mini plug to the headphone amplifier.

1. Connect the stereo mini plug of your headphones to the (headphones) NORMAL jack of the headphone amplifier.

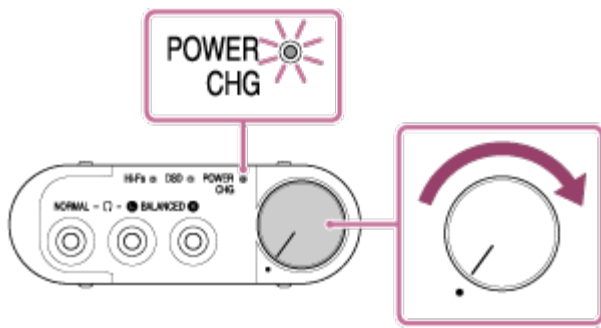
If you connect the headphones which has the L-shaped stereo mini plug to the (headphones) NORMAL jack, position it so that its cable is on the right side of the jack, avoiding the ridge on the left of the jack, and ensure the plug is fully inserted.



2. Connect an audio device to the headphone amplifier.
3. Set the INPUT select switch to the position where the port that your device is connecting to.
4. Set the OUTPUT select switch to “.”



5. Rotate the power/volume knob clockwise to turn on the headphone amplifier.  
The POWER/CHG indicator flashed in green and then lights up.  
Rotate the power/volume knob further clockwise to turn up the volume.



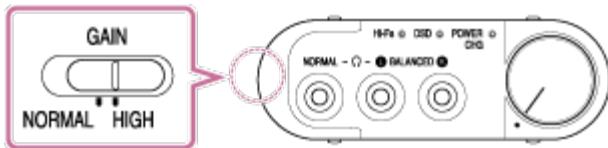
6. Start playback on the connected audio device.

When playing High-Resolution Audio format files on your computer with the headphone amplifier, download and install “Hi-Res Audio Player.”

7. Rotate the power/volume knob to adjust the volume.

When the volume remains low

Depending on the headphones, the volume may remain low, even if you turn the volume up to the max volume. In this case, turn off the headphone amplifier and set the GAIN select switch to HIGH, then turn on the headphone amplifier again. In normal use, the GAIN select switch should be set at NORMAL.



#### Hint

- When the headphone amplifier is turned on, you can check the battery level by the number of times that the POWER/CHG indicator flashes in green.
  - Flashes three times: Substantially charged
  - Flashes twice: Half charged
  - Flashes once: Battery level is low. It is necessary to charge the battery.
  - Always flashing: It is necessary to charge the battery. If you continue to use the headphone amplifier without charging, it will turn off automatically.
- When connecting a device such as a smartphone or portable audio player, adjust the volume on the connected device beforehand. Depending on the device, audio output settings may be required.

#### Note

- The headphone amplifier does not support monaural headphones, headphones with a remote control, or headsets with a microphone. Do not attempt to connect these devices to the headphone amplifier. It may cause malfunctions.
- If you turn the volume up too high, it may damage your hearing. Be careful not to turn the volume up too high.
- In the following cases, the relay in the internal circuit will make a sound.
  - When the unit is turned on
  - When the OUTPUT select switch is moved
  - When the INPUT select switch is moved to/from the position of the AUDIO IN/LINE OUT jack (right edge position)

- Installing “Hi-Res Audio Player” on a computer

- Summary of settings and connections

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Portable Headphone Amplifier  
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## Listening to music with headphones via balanced connection

Connecting the balanced connection compatible headphones to the headphone amplifier upgrades sound quality from an audio device connected to the headphone amplifier.



## Balanced connection compatible headphones



MDR-Z7, XBA-Z5, MDR-1A\*, XBA-H3\* (as of July 2014)

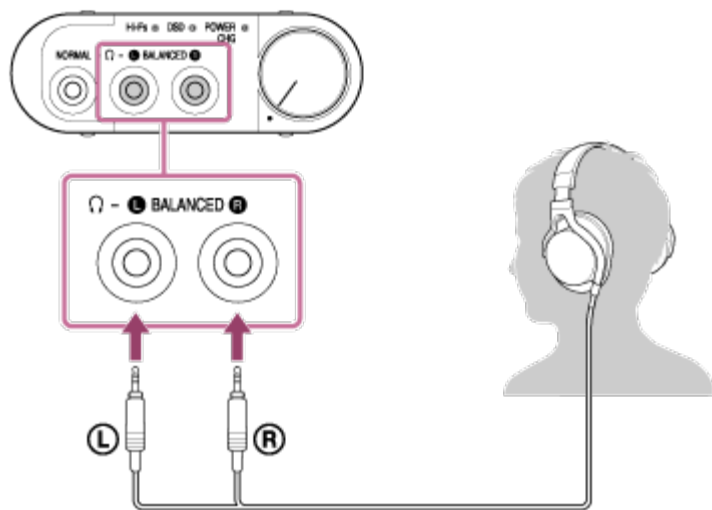
\* The balanced-connection headphone cable (MUC-S20BL1/MUC-M20BL1) (sold separately) is required to connect MDR-1A and XBA-H3.


For the latest compatible models, access the following URL:

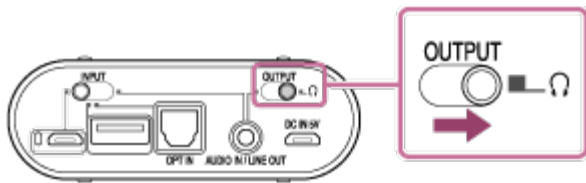
<http://www.sony.com/support/>

You cannot connect your headphones to the  (headphones) BALANCED L/R jack when the device is connected to the AUDIO IN/LINE OUT jack. Connect your headphones to the  (headphones) NORMAL jack.

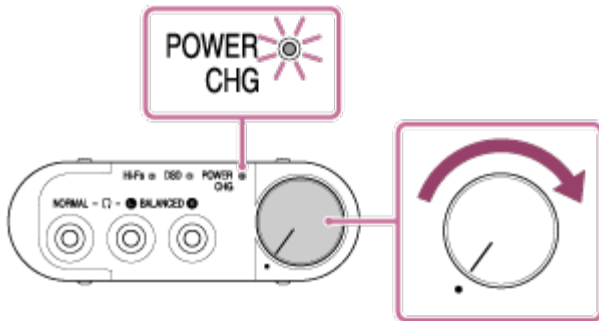
1. Connect the L plug of the balanced-connection headphone cable to the  (headphones) BALANCED L jack and R plug to the  (headphones) BALANCED R jack.



2. Connect an audio device to the headphone amplifier.
3. Set the INPUT select switch to the position where the port that your device is connecting to.
4. Set the OUTPUT select switch to ".



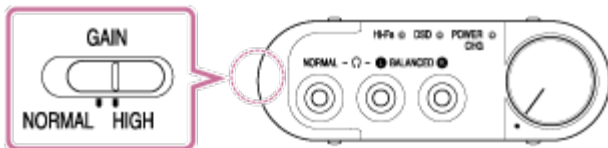
- Rotate the power/volume knob clockwise to turn on the headphone amplifier. The POWER/CHG indicator flashes in green and then lights up. Rotate the power/volume knob further clockwise to turn up the volume.



- Start playback on the connected audio device. When playing High-Resolution Audio format files on your computer with the headphone amplifier, download and install “Hi-Res Audio Player.”
- Rotate the power/volume knob to adjust the volume.

When the volume remains low

Depending on the headphones, the volume may remain low, even if you turn the volume up to the max volume. In this case, turn off the headphone amplifier and set the GAIN select switch to HIGH, then turn on the headphone amplifier again. In normal use, the GAIN select switch should be set at NORMAL.






#### Hint

- When the headphone amplifier is turned on, you can check the battery level by the number of times that the POWER/CHG indicator flashes in green.
  - Flashes three times: Substantially charged
  - Flashes twice: Half charged
  - Flashes once: Battery level is low. It is necessary to charge the battery.
  - Always flashing: It is necessary to charge the battery. If you continue to use the headphone amplifier without charging, it will turn off automatically.

#### Note

- When using balanced connection with headphones that have low impedance (less than 16 ohms), the limiter prevents excessive output, which may cause the sound to be cut off. In this case, turn down the volume of the headphone amplifier.

- If you turn the volume up too high, it may damage your hearing. Be careful not to turn the volume up too high.
- Do not connect your headphones to the  (headphones) NORMAL jack and  (headphones) BALANCED L/R jack simultaneously.
- In the following cases, the relay in the internal circuit will make a sound.
  - When the unit is turned on
  - When the OUTPUT select switch is moved
  - When the INPUT select switch is moved to/from the position of the AUDIO IN/LINE OUT jack (right edge position)
- Connect balanced connection compatible headphones to the  (headphones) BALANCED L/R jack of the headphone amplifier properly. Otherwise sound quality will not be upgraded.

#### Related Topic

- [Installing “Hi-Res Audio Player” on a computer](#)
- [About the balanced connection](#)
- [Summary of settings and connections](#)

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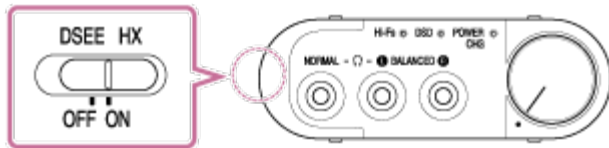
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## Setting the sound quality (DSEE HX)

By setting the DSEE HX select switch to ON, you can enjoy better sound quality from your audio device connected to the headphone amplifier.

1. Set the DSEE HX select switch to ON.



The compressed audio files are upgraded to a sound quality higher than that of a CD, and provides a dynamic sound.

**Note**

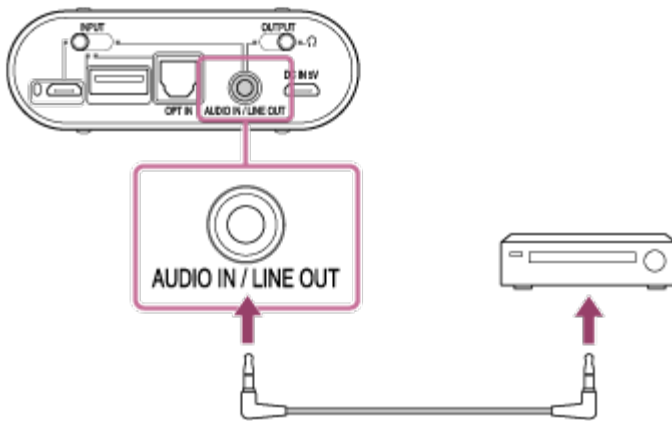
- The DSEE HX function will stop working when the signals below are transmitting to the headphone amplifier.
  - the optical signal
  - the analog signal
  - the linear PCM digital signal of sampling frequencies is more than 88.2 kHz
  - the DSD digital signal

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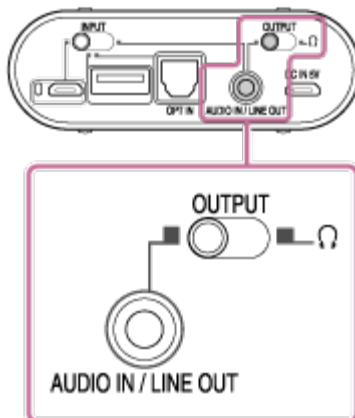
## Listening to music with an amplifier or active speaker

You can listen to music from an audio device that is connected to the Xperia/WALKMAN/PC (USB AUDIO) port, iPhone/iPad/iPod port or OPT IN port via a speaker by connecting an amplifier or an active speaker to the AUDIO IN/LINE OUT jack.

1. Connect an amplifier or active speaker to the AUDIO IN/LINE OUT jack of the headphone amplifier.

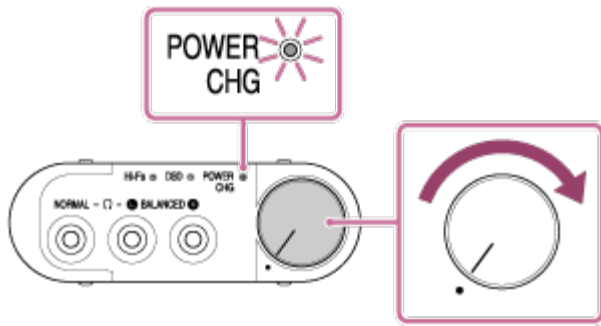


2. Connect an audio device to the headphone amplifier.
3. Set the INPUT select switch to the position where the port that your device is connecting to.
4. Set the OUTPUT select switch to the position of the AUDIO IN/LINE OUT jack (left edge position).



5. Rotate the power/volume knob clockwise to turn on the headphone amplifier.  
The POWER/CHG indicator flashes in green and then lights up.





6. Start playback on the connected audio device.

When playing High-Resolution Audio format files on your computer with the headphone amplifier, download and install “Hi-Res Audio Player.”

7. Adjust the volume on the amplifier or active speaker that is connected to the AUDIO IN/LINE OUT jack.

For details on adjusting the volume on the connected device, refer to its operation manual.

#### Note

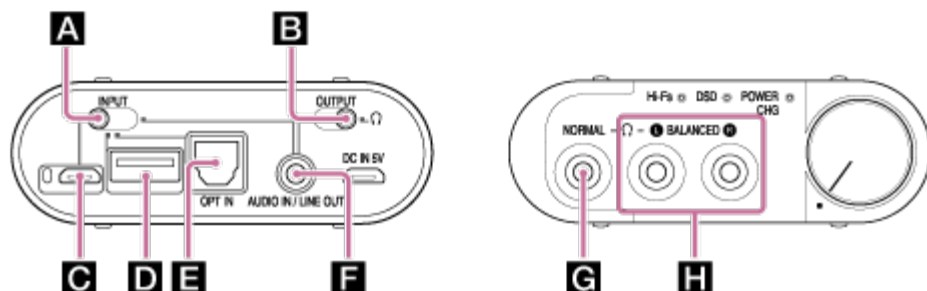
- The sound from the AUDIO IN/LINE OUT jack of the headphone amplifier cannot be adjusted by the power/volume knob or the GAIN select switch of the headphone amplifier.

#### Related Topic

- [Installing “Hi-Res Audio Player” on a computer](#)
- [Summary of settings and connections](#)

Portable Headphone Amplifier  
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## Summary of settings and connections



When connecting a Windows computer, Mac, digital output supported WALKMAN or digital output supported Xperia to the headphone amplifier





The connecting port

Xperia/WALKMAN/PC (USB AUDIO) connecting port **C**

The position of the INPUT select switch

Left edge position where the Xperia/WALKMAN/PC (USB AUDIO) connecting port is **A**

The jack that the audio signal is output from/the position of the OUTPUT select switch

-  (headphones) NORMAL jack **G** /right edge position () **B**
-  (headphones) BALANCED L/R jack **H** /right edge position () **B**
- AUDIO IN/LINE OUT jack **F** /left edge position where the AUDIO IN/LINE OUT jack is **B**

When connecting an iPhone/iPad/iPod to the headphone amplifier





The connecting port

iPhone/iPad/iPod connecting port **D**

The position of the INPUT select switch

Second position from the left where the iPhone/iPad/iPod connecting port is **A**

The jack that the audio signal is output from/the position of the OUTPUT select switch

-  (headphones) NORMAL jack **G** /right edge position () **B**
-  (headphones) BALANCED L/R jack **H** /right edge position () **B**
- AUDIO IN/LINE OUT jack **F** /left edge position where the AUDIO IN/LINE OUT jack is **B**

When connecting an optical out jack supported device to the headphone

## amplifier





The connecting port

OPT IN port **E**

The position of the INPUT select switch

Second position from the right where the OPT IN port is **A**

The jack that the audio signal is output from/the position of the OUTPUT select switch

-  (headphones) NORMAL jack **G**/right edge position () **B**
-  (headphones) BALANCED L/R jack **H**/right edge position () **B**
- AUDIO IN/LINE OUT jack **F**/left edge position where the AUDIO IN/LINE OUT jack is **B**

## When connecting an analog output device to the headphone amplifier

The connecting port

AUDIO IN/LINE OUT jack **F**

The position of the INPUT select switch

Right edge position where the AUDIO IN/LINE OUT jack is **A**

The jack that the audio signal is output from/the position of the OUTPUT select switch

-  (headphones) NORMAL jack **G**/right edge position () **B**



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## Compatible WALKMAN models

Supporting models (as of July 2014)

For the latest compatible models, access the following URL:

<http://www.sony.com/support/>

### Digital output supported WALKMAN

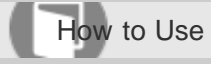
- NWZ-A10 series
- NWZ-ZX1
- NWZ-F880 series

#### Note

- When connecting a WALKMAN other than the compatible models mentioned above, follow the connecting method described in “Connecting to WALKMAN models unsupported by digital-out”

#### Related Topic

- [Connecting to WALKMAN models unsupported by digital-out](#)



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## Compatible Xperia models

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For the latest compatible models, access the following URL:

<http://www.sony.com/support/>

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## Compatible iPhone/iPad/iPod models

iPhone/iPad/iPod models that can be used with the headphone amplifier are shown below. (as of July 2014)  
Update the software of your iPhone/iPad/iPod to the latest version before using it with the headphone amplifier.  
For the latest iPhone/iPad/iPod compatible models, access the following URL:

<http://www.sony.com/support/>

- iPhone 5s
- iPhone 5c
- iPhone 5
- iPhone 4s
- iPhone 4
- iPhone 3GS
- iPad Air
- iPad mini with Retina display
- iPad (4th generation)
- iPad mini
- iPad (3rd generation)
- iPad 2
- iPad
- iPod touch (5th generation)
- iPod touch (4th generation)
- iPod touch (3rd generation)
- iPod touch (2nd generation)
- iPod classic 120GB / 160GB (2009)
- iPod nano (7th generation)
- iPod nano (6th generation)
- iPod nano (5th generation)
- iPod nano (4th generation)
- iPod nano (3rd generation)

### Note

- Sony cannot accept responsibility in the event that data recorded to an iPhone/iPad/iPod is lost or damaged when using an iPhone/iPad/iPod connected to the headphone amplifier.



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## Compatible operating systems (Windows)

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### Supporting Operating Systems

- Windows 8.1
- Windows 8.1 Pro
- Windows 8
- Windows 8 Pro
- Windows 7 Starter (SP1 or later)
- Windows 7 Home Basic (SP1 or later)
- Windows 7 Home Premium (SP1 or later)
- Windows 7 Professional (SP1 or later)
- Windows 7 Ultimate (SP1 or later)
- Windows Vista Home Basic (SP2 or later)
- Windows Vista Home Premium (SP2 or later)
- Windows Vista Business (SP2 or later)
- Windows Vista Ultimate (SP2 or later)

### CPU

Intel Core 2 Processor 1.6 GHz or higher

### Memory

1 GB or higher

### USB

USB port (USB 2.0 High Speed)

- One of the above OS needs to be installed to the computer at the factory.
- The headphone amplifier is not guaranteed to operate with all computers.
- The headphone amplifier is not guaranteed to operate with home built computers, operating systems that are personally upgraded, or multiple operating systems.
- The headphone amplifier is not guaranteed to operate with functions such as system suspend, sleep, or hibernation on any computer.



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## Compatible operating systems (Mac)

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### Supporting Operating Systems

- Mac OS X (v10.6.8 or later)

### CPU

Intel Core 2 Processor 1.6 GHz or higher

### Memory

1 GB or higher

### USB

USB port (USB 2.0 High Speed)

- One of the above OS needs to be installed to the computer at the factory.
- The headphone amplifier is not guaranteed to operate with all computers.
- The headphone amplifier is not guaranteed to operate with home built computers, operating systems that are personally upgraded, or multiple operating systems.
- The headphone amplifier is not guaranteed to operate with functions such as standby, sleep, or hibernation on any computer.





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## Compatible balanced connection headphones

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Supporting models (as of July 2014)

For the latest compatible models, access the following URL:

<http://www.sony.com/support/>

- MDR-Z7
- XBA-Z5
- MDR-1A\*
- XBA-H3\*

\*The balanced-connection headphone cable (MUC-S20BL1/MUC-M20BL1) (sold separately) is required to connect MDR-1A and XBA-H3.



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## Precautions

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### On Safety

- Do not put weight or pressure on the headphone amplifier as it may cause the headphone amplifier to deform during long storage.
- Do not drop the headphone amplifier or subject it to external shock, as it may cause a malfunction.
- Clean the headphone amplifier with a soft dry cloth.
- If there is noise while listening to the radio, etc., move the headphone amplifier farther away from the connected device.

### On placement

Do not place the headphone amplifier in a location where it is:

- Subject to extremely high temperature (such as in a car with its windows closed).
- Subject to direct sunlight or near a heat source.
- Subject to mechanical vibration or shock.
- Subject to a magnetic field. (such as near a magnet, speaker or TV).
- Subject to excessive dust.

### On charging

- When the headphone amplifier is stored for a long period, to prevent excessive discharge, charge the headphone amplifier every half year or so.

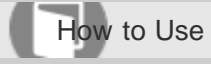


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## Customer support websites

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<http://www.sony.com/support/>

Access the support website to get the information about the supported models, software update or troubleshooting, etc.

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## What can I do to solve a problem?

The headphone amplifier may become warm during use. This is not a malfunction. If the headphone amplifier does not function as expected, try the following steps to resolve the issue.

- Find the symptoms of the issue in this Help Guide, and try any corrective actions listed.
- Look up information on the issue on the customer support website.

If the operations above do not work, consult your nearest Sony dealer.

## Related Topic

- [Customer support websites](#)



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Unable to turn on the headphone amplifier/The battery life becomes short.

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- Charge the battery of the headphone amplifier.
- When the battery life is reduced to half, the battery is approaching the end of its service life. Consult your nearest Sony dealer for replacement.

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## Unable to charge the battery.

- Turn off the headphone amplifier and charge the battery again.
- Check that the headphone amplifier and your computer are firmly connected using the micro-USB cable (supplied).
- Check that the computer is turned on and not in standby, sleep or hibernation mode.
- Check that the headphone amplifier and the computer are directly connected, and not via a USB hub.
- Try the USB connection procedure again in cases other than those stated above.
- The USB port of the connected computer may have a problem. Connect the headphone amplifier to another USB port of the computer if available.
- A USB AC adaptor that is not recommended is being used.
- Connect your computer or a USB AC adaptor to the DC IN 5V port of the headphone amplifier.
- The battery is fully charged.

If the battery is fully charged, the POWER/CHG indicator may blink in red and go off, and charging may not start. This is not a malfunction.

- If the headphone amplifier had not been used for a long time, it may take a while to light up the POWER/CHG indicator in red when the headphone amplifier is connected to your computer or an AC outlet to charge the battery. In this case, do not disconnect the micro-USB cable from the headphone amplifier, and wait until the POWER/CHG indicator lights up in red.
- When Windows 8.1 is used for your computer, update your system to the latest version by Windows update.



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### Charging time is too long.





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- Check that the headphone amplifier and the computer are directly connected, not via a USB hub.
- A cable that is not supplied is used.
- A USB AC adaptor that is not recommended is used.



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There is no sound.

- Check that the headphone amplifier and the audio device are connected correctly.
- Check that the connected device is turned on.
- Check that the headphone amplifier is turned on.
- If the POWER/CHG indicator does not light up in green, charge the battery. When you charge the battery, turn the headphone amplifier off beforehand.
- Check that the INPUT select switch is in the correct position for the connected audio device.
- Check that the OUTPUT select switch is in the correct position for the output jack.
- Turn up the volume of the connected device.
- Turn up the volume of the headphone amplifier.
- Connect the headphone plug firmly to the headphone amplifier.
- Check that the headphone amplifier, amplifier and active speaker are connected correctly.
- Check that the connected headphones are stereo, not monaural.  
The headphone amplifier does not support monaural headphones. Do not connect monaural headphones. It may cause a malfunction.
- When the headphone amplifier is connected to your computer, see “When connecting to a computer, there is no sound or the sound is not played back properly.”
- Sound will be output from the  (headphones) BALANCED L/R jack when the  (headphones) NORMAL jack and the  (headphones) BALANCED L/R jack are used simultaneously and the digital signal is transmitting to the headphone amplifier.
- Sound will be output from the  (headphones) NORMAL jack when the signal is transmitting to the headphone amplifier via the AUDIO IN/LINE OUT jack.
- The headphone amplifier is only compatible with the PCM digital signal as optical signals. Other optical signals such as 7.1 ch. etc, will not be output from the headphone amplifier.

## Related Topic

- [When connecting to a computer, there is no sound or the sound is not played back properly.](#)
- [Summary of settings and connections](#)



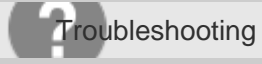
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## The sound is low.

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- Turn up the volume of the connected device.
- Turn up the volume of the headphone amplifier.
- When using high-impedance headphones, set the GAIN select switch to HIGH.
- Use headphones that have a stereo mini plug.

The headphone amplifier only supports headphones that have a stereo mini plug. If you use headphones/headsets with a remote control or microphone, there may be low sound or no sound.



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The sound is distorted.

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- When the audio device is connected to the AUDIO IN/LINE OUT jack of the headphone amplifier, turn down the volume of the connected device.
- Set the equalizer setting of the connected device to off.
- Charge the battery of the headphone amplifier if the battery level is low. When you charge the battery, turn the headphone amplifier off beforehand.

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### Noise is generated.

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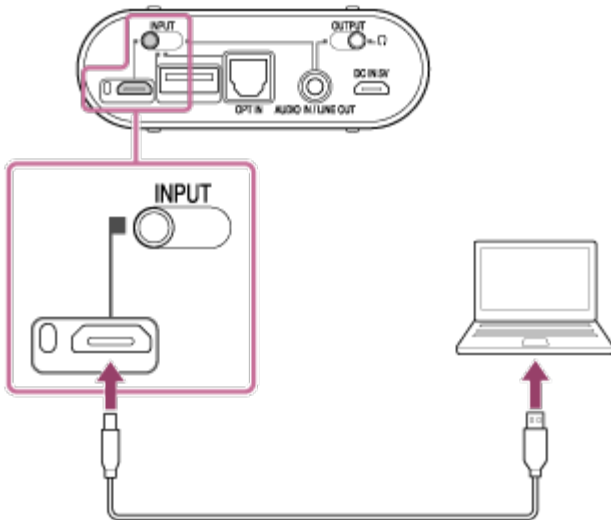
- Connect the headphone amplifier and the device directly, not via a USB hub or USB cable extension.
- The USB port of the connected computer may have a problem. Connect the headphone amplifier to another USB port of the computer if available.
- When the audio device is connected to the AUDIO IN/LINE OUT jack of the headphone amplifier, adjust the volume of the connected device and turn up the volume of the headphone amplifier.
- Keep the computer away from the headphone amplifier.
- Restart the audio playback software.
- Turn off the connected audio device, then turn it on again.
- Noise might occur between the songs because the headphone amplifier reproduces an original source authentically with high sound quality. This is not a malfunction.
- Noise might occur if there are wireless devices near by. Use the headphone amplifier at a distance from those devices.

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Unable to install the driver software on a Windows computer.

- The headphone amplifier needs to be connected to your Windows computer at a certain point while installing the driver software.

In this case, connect the Windows computer to the Xperia/WALKMAN/PC (USB AUDIO) connecting port of the headphone amplifier using the micro-USB cable (supplied).



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When connecting to a computer, there is no sound or the sound is not played back properly.

- The computer does not recognize the headphone amplifier as a USB device.  
Restart your computer.  
Install the driver software for Windows “Sony USB Device Driver” on your Windows computer.
- Turn up the volume of your computer or software.
- If the headphone amplifier was connected to the computer while using audio playback software, restart the audio playback software.
- When playing High-Resolution Audio format files on your computer with the headphone amplifier, use the audio playback software compatible with the High-Resolution Audio format files, such as “Hi-Res Audio Player.”  
When an audio playback software is not installed, install it on your computer.
- If the computer enters standby, sleep, or hibernation mode, while the music is played back by using the audio playback software, restart the audio playback software.
- Check that the sound device settings of your computer are correct.
  - Windows 8/8.1:  
Press and hold the [Windows] and [X] keys to display the menu, select the [Control Panel], [Hardware and Sound], [Sound], [Playback] tab, select [Sony PHA-3] for the playback device, then click [Set default].
  - Windows 7/Windows Vista:  
Click the [Start] menu, select the [Control Panel], [Hardware and Sound], [Sound], [Playback] tab, select [Sony PHA-3] for the playback device, then click [Set default].
  - Macintosh:  
Click the [Apple] menu, select the [System Preferences], [Sound], [Output] tab, then select [PHA-3] for [Select a device for sound output].
- The volume control of your computer or the audio playback software is set to mute. Cancel the setting.
- The CD-ROM drive does not support the digital reproduction function. Use a CD-ROM drive that supports the digital reproduction function.
- Digitally broadcast sound may not be output from a computer’s USB port. In this case, connect the AUDIO IN/LINE OUT jack of the headphone amplifier to the analog audio output of the computer.

## Related Topic

- [Installing the driver software on a Windows computer](#)
- [Installing “Hi-Res Audio Player” on a computer](#)



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Sound is interrupted when connecting to the computer.

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- The CPU of your computer is overloaded. Close other applications.
- Other USB devices are connected to your computer and being used simultaneously. Quit operating other USB devices.

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The remote control of the headset does not work.

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- Remote control operation is not supported by the headphone amplifier.





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The microphone of the headset does not work.

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- Headset microphones are not supported by the headphone amplifier.

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The connected radio or TV cannot receive a signal/Noise is generated.

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- Keep the connected device away from the headphone amplifier.

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