

DENON[®]

DNP-730AE

NETWORK AUDIO PLAYER

Owner's Manual

You can print more than one page of a PDF onto a single sheet of paper.

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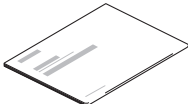
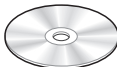
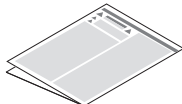
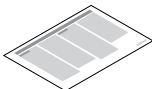
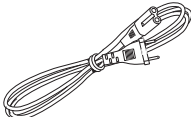
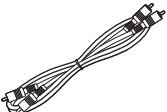

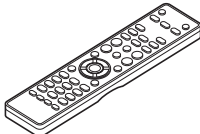

Thank you for purchasing this Denon product.

To ensure proper operation, please read this owner's manual carefully before using the product.

After reading this manual, be sure to keep it for future reference.

Accessories

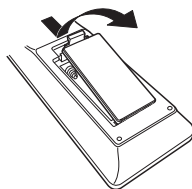
Check that the following parts are supplied with the product.

 Quick Start Guide	 CD-ROM (Owner's Manual)	 Safety Instructions	 Notes on radio	 Power cord
 Audio cable	 IR control cable	 Remote control unit (RC-1197)	 R03/AAA batteries	

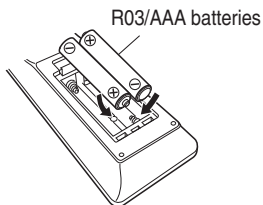


Inserting the batteries

- 1 Remove the rear lid in the direction of the arrow and remove it.



- 2 Insert two batteries correctly into the battery compartment as indicated.



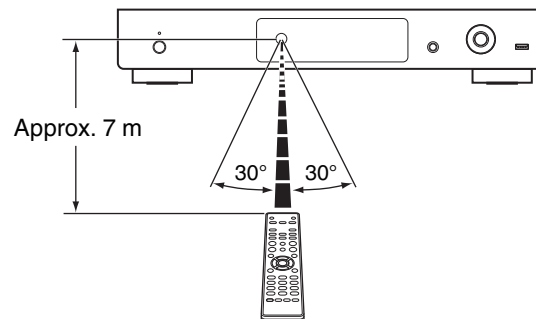
- 3 Put the rear cover back on.

NOTE

- When inserting the batteries, be sure to do so in the proper direction, following the ⊕ and ⊖ marks in the battery compartment.
- To prevent damage or leakage of battery fluid:
 - Do not use a new battery together with an old one.
 - Do not use two different types of batteries.
- Remove the batteries from the remote control unit if it will not be in use for long periods.
- If the battery fluid should leak, carefully wipe the fluid off the inside of the battery compartment and insert new batteries.

Operating range of the remote control unit

Point the remote control unit at the remote sensor when operating it.



Features

High quality sound

- **Audio circuit inherited from high-end devices**

Emulating the audio circuit of a high-end SACD player, this unit provides performance and sound quality that far exceeds its class.

- **Equipped with jitter-reducing circuit**

This unit is equipped with a jitter reducing circuit to achieve even higher definition playback. This enables you to enjoy outstanding S/N with playback that gives you an even more live-sounding listening experience.

- **High sound quality electrolytic capacitor**

The unit's features the same audiophile-grade Denon original high sound quality electrolytic capacitor specifically used in top-range models.

High performance

- **Playback of DSD and FLAC files via USB and networks**

This unit supports the playback of high resolution audio formats such as DSD and FLAC 192 kHz files. It provides high quality playback of high resolution files.

- **Support for High Quality Audio playback**

WAV/FLAC/ALAC (Apple Lossless Audio Codec)/AIFF/DSD

- **Plays USB memory devices (MP3/WMA/AAC/WAV/FLAC/ALAC/AIFF/DSD) and iPod®/iPhone®**

- **DLNA ver. 1.5 support for audio networks**



- **Support for Gapless playback**

Playback with no gap between music files. (for WAV/FLAC/ALAC/AIFF/DSD only)

- **Smart charging control automatically starts charging, and then optimizes power consumption according to the state of this unit when an iPod® is connected**

- **Compatible with Denon “Hi-Fi Remote” App for performing basic operations of the unit with an iPad®, iPhone® or Android smartphone**

- **OLED (Organic Light Emitting Diode) display that can display 3 lines**

- **Equipped with auto standby mode function that reduces power consumption**

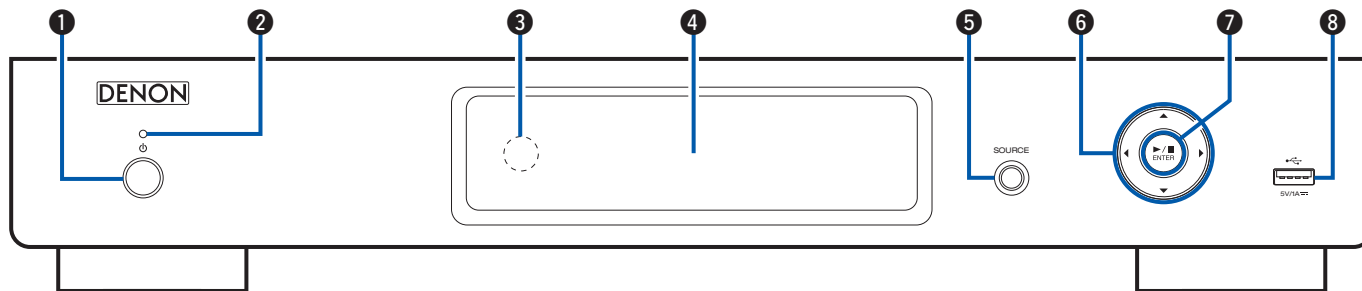
- **Equipped with a REMOTE CONTROL port that enables operation of the newest Denon CD players and integrated amplifiers via apps**

- **Equipped with a Wi-Fi function that supports Wi-Fi Sharing and WPS**



Part names and functions

Front panel



1 Power operation button (⏻)

Turns power to this unit on and off (standby).

2 Power indicator

The power indicator changes as shown below according to the status of the unit.

- Power on : Green
- Normal standby : Off
- When "Network Control" is set to "On" : Red
([🔗 p. 68](#))
- iPod charge standby : Red
([🔗 p. 41](#))

3 Remote control sensor

This receives signals from the remote control unit. ([🔗 p. 6](#))

4 Display

Various information is displayed here.

5 Input source select button (SOURCE)

Selects the input source.

6 Cursor buttons (⬆️⬇️⬆️⬇️)

These select items.

7 Playback/Pause/ENTER button (▶️⏸️/ENTER)

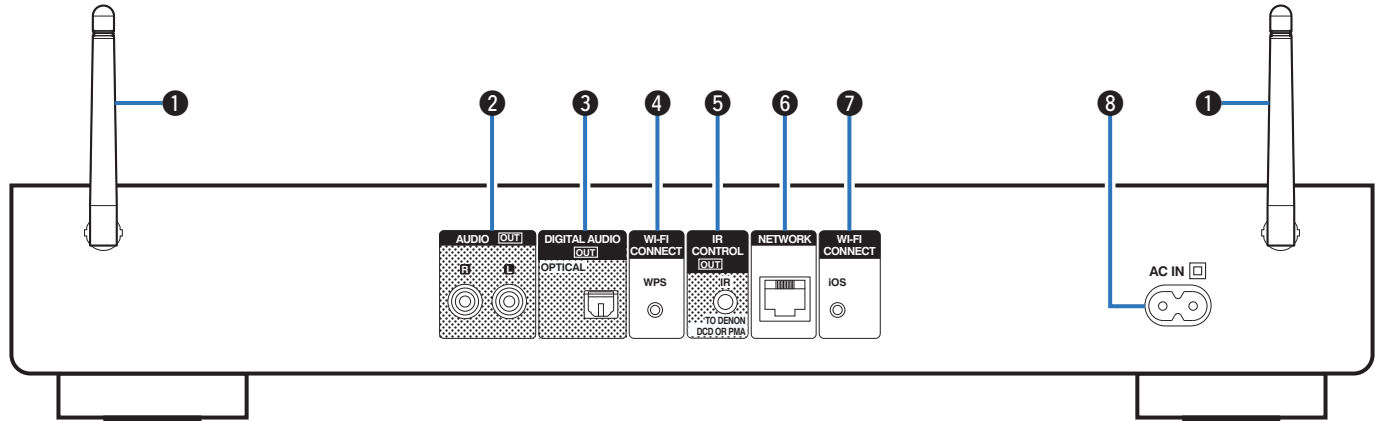
Plays back and pauses tracks, and enters the selected content.

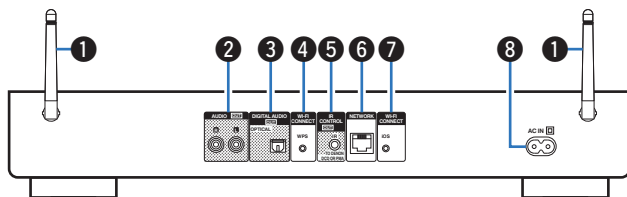
8 USB port

Used to connect iPod or USB memory devices. ([🔗 p. 19](#))



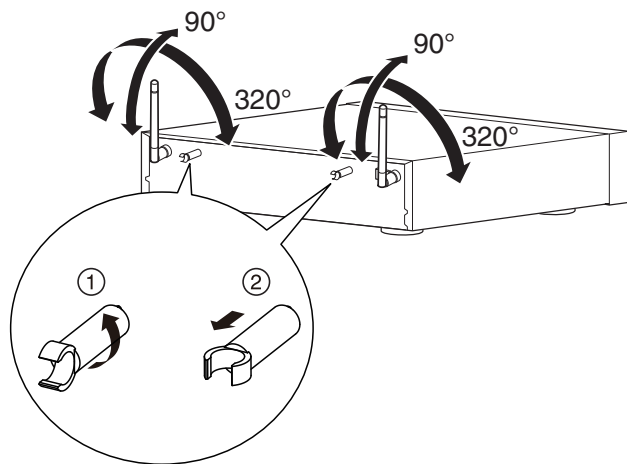
Rear panel





1 Rod antennas for wireless LAN

Stand this antenna upright when connecting to a network via wireless LAN. (☞ p. 22)



The antenna clip can be removed from the rear panel.

- ① Rotate the antenna clip 90 degrees to the left.
 - ② Pull the antenna clip out towards yourself.
- The antenna clip is needed when transporting this unit. Keep it in a safe place.
 - Attach the antenna clip by following the steps for removing it in reverse.

2 AUDIO OUT connectors

Used to connect devices equipped with analog audio inputs connectors or an external pre-main amplifier. (☞ p. 17)

3 DIGITAL AUDIO OUT connector

Used to connect an AV receiver or D/A converter equipped with digital audio input connectors. (☞ p. 18)

4 Wi-Fi Connect Button (Wi-Fi CONNECT WPS)

Connects to a wireless LAN.
(See the separate “Quick Start Guide”).

5 IR CONTROL OUT connector

Connects to a Denon amplifier or CD player that is equipped with a REMOTE CONTROL jack. (☞ p. 24)

6 NETWORK connector

Used to connect this unit to the network. (☞ p. 21)

7 Wi-Fi Connect Button (Wi-Fi CONNECT iOS)

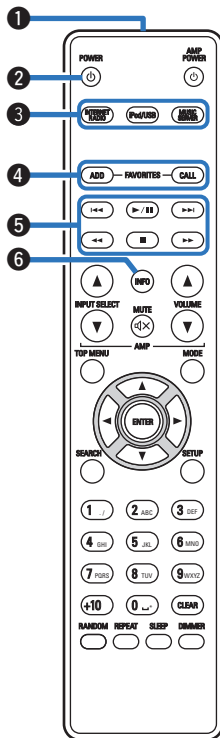
Connects to iOS.
(See the separate “Quick Start Guide”).

8 AC inlet (AC IN)

Used to connect the supplied power cord. (☞ p. 25)



Remote control unit



Operating this unit

1 Remote control signal transmitter

This transmits signals from the remote control unit. (☞ p. 6)

2 POWER button (⏻)

This turns the power on/standby. (☞ p. 27)

3 Input source select buttons

These select the input source. (☞ p. 27)

4 FAVORITES ADD / CALL buttons

- To add radio stations or files to the favorite list, press ADD button. (☞ p. 37)
- To call up a radio station or file registered in the favorite list, press CALL button. (☞ p. 37)

5 System buttons

These perform playback related operations. (☞ p. 34, 40, 43)

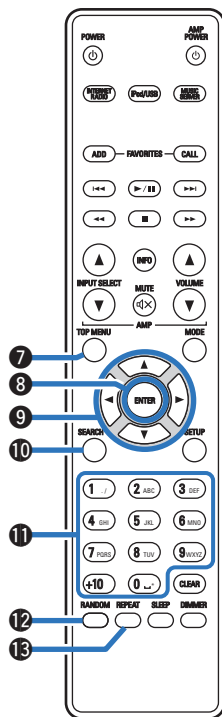
- Reverse-skip / Forward-skip buttons (⏮, ⏭)
- Play/pause button (▶/⏸)
- Fast-reverse / Fast-forward buttons (⏪, ⏩)
- Stop button (■)

6 Information button (INFO)

This switches display items such as the album name and title name in the playback screen.

(☞ p. 30, 34, 40, 43)





7 TOP MENU button

To back to the top of the menu. (☞ p. 61)

8 ENTER button

This determines the selection. (☞ p. 61)

9 Cursor buttons (Δ▽◀▶)

These select items. (☞ p. 61)

10 SEARCH button

This displays the search menu. (☞ p. 30, 34, 43)

11 Number buttons (0 – 9, +10)

These enter letters or numbers into the unit. (☞ p. 62)

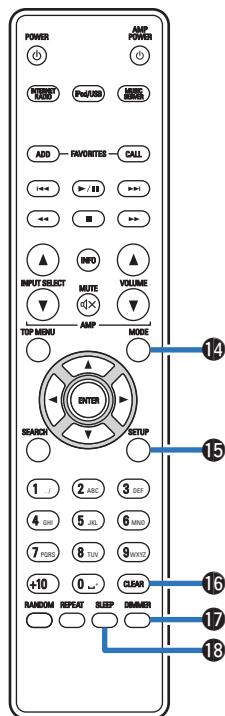
12 RANDOM button

Switches the random playback. (☞ p. 34, 40, 43)

13 REPEAT button

Switches the repeat playback. (☞ p. 34, 40, 43)



**14 MODE button**

This switches the operation mode. (☞ p. 40)

15 SETUP button

The setting menu is displayed on the display. (☞ p. 61)

16 CLEAR button

This cancels the settings. (☞ p. 37, 63)

17 DIMMER button

Adjust the display brightness of this unit. (☞ p. 58)

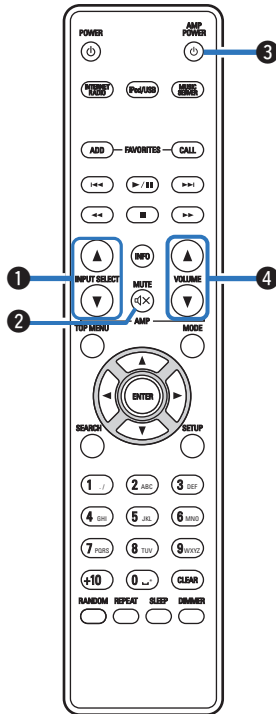
18 SLEEP button

This sets the sleep timer. (☞ p. 58)



Amplifier operations

- 1 Input source select buttons (INPUT SELECT ▲▼)
- 2 MUTE button (M)
- 3 AMP POWER button (⏻)
- 4 Amplifier volume adjustment buttons (VOLUME ▲▼)



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NOTE

- Do not plug in the power cord until all connections have been completed.
- Do not bundle power cords with connection cables. Doing so can result in noise.

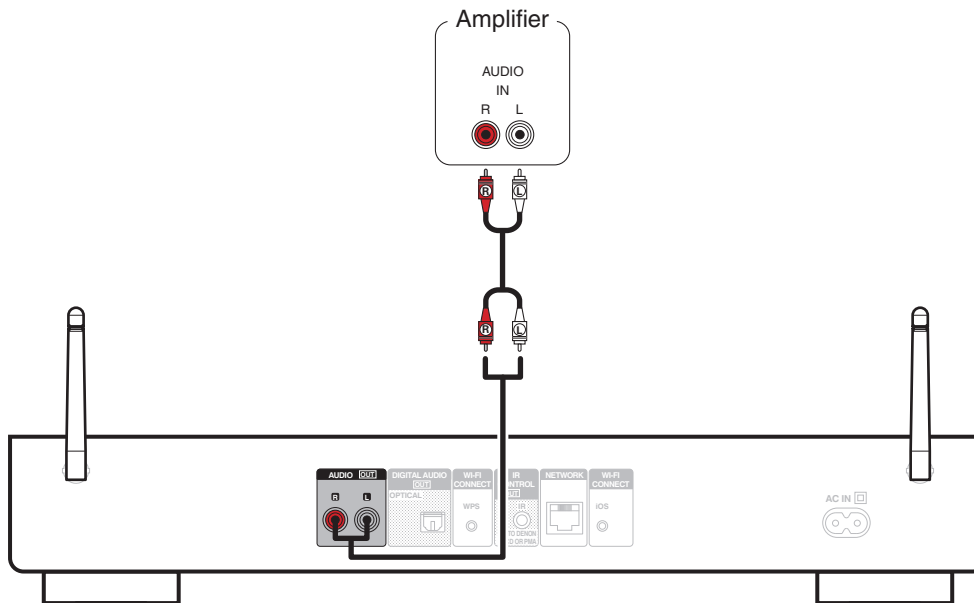
■ Cables used for connections

Provide necessary cables according to the devices you want to connect.

Audio cable (supplied)	
IR control cable (supplied)	
Optical cable (Sold separately)	
LAN cable (Sold separately)	

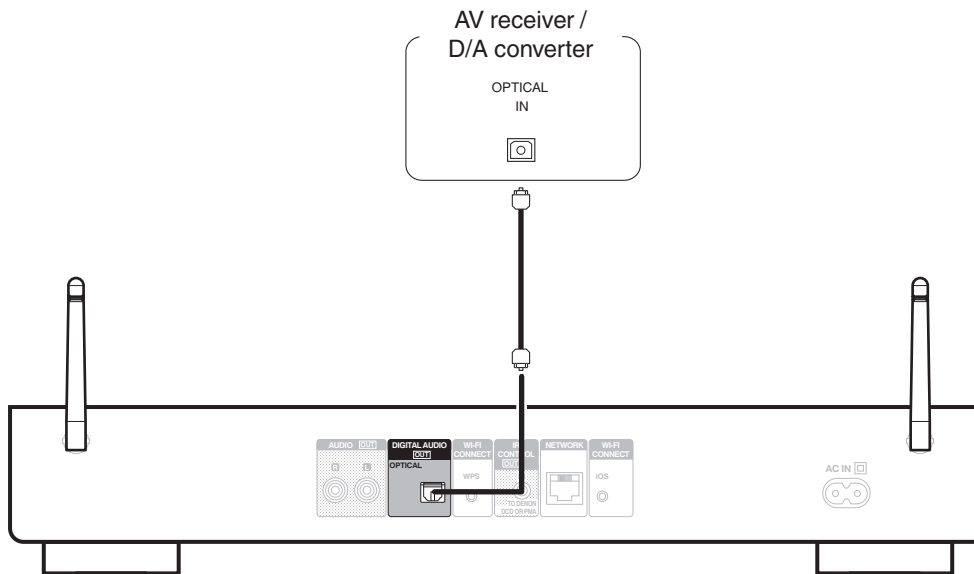


Connecting an amplifier



Connecting to a device with digital audio input connectors

Use this connection to output digital audio signals from this unit, and convert the signals for playback using the D/A converter of a connected device.



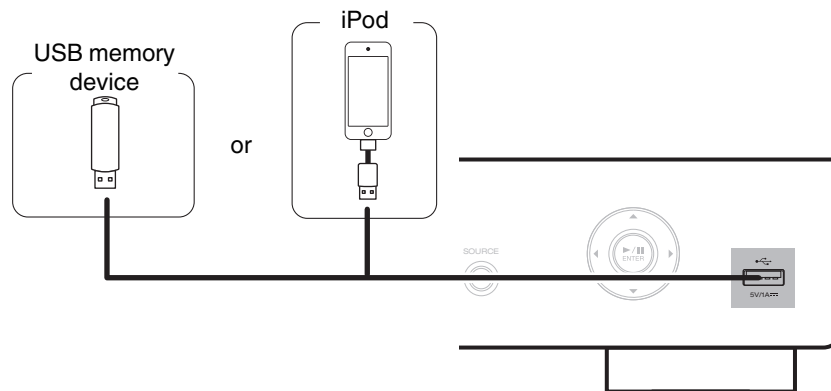
Signals with a sampling frequency of 32 kHz and DSD signals cannot be output from the Digital Audio Out connector of this unit.



Connecting an iPod or USB memory device to the USB port

You can enjoy music stored on an iPod/iPhone or USB memory device.

- To connect an iPod/iPhone to this unit, use the USB adapter cable that was supplied with the iPod/iPhone.
- For operating instructions, see “Playing an iPod” (🔍 p. 38) or “Playing files stored on USB memory devices” (🔍 p. 43).



Denon does not guarantee that all USB memory devices will operate or receive power. When using a portable USB hard disk drive (HDD) which came with an AC adapter, use that device's supplied AC adapter.

NOTE

- USB memory devices will not work via a USB hub.
- It is not possible to use this unit by connecting the unit's USB port to a PC via a USB cable.
- Do not use an extension cable when connecting a USB memory device. This may cause radio interference with other devices.



■ Supported iPod/iPhone models

• iPod classic



iPod classic
80GB



iPod classic
160GB (2007)



iPod classic
160GB (2009)

• iPod nano



iPod nano
3rd generation
(video)
4GB 8GB



iPod nano
4th generation (video)
8GB 16GB



iPod nano
5th generation (video camera)
8GB 16GB



iPod nano
6th generation
8GB 16GB



iPod nano
7th generation
16GB

• iPod touch



iPod touch
2nd generation
8GB 16GB 32GB



iPod touch
3rd generation
32GB 64GB



iPod touch
4th generation
8GB 16GB 32GB 64GB



iPod touch
5th generation
16GB 32GB 64GB

• iPhone



iPhone 3G
8GB 16GB



iPhone 3GS
16GB 32GB



iPhone 4
8GB 16GB 32GB



iPhone 4S
16GB 32GB 64GB



iPhone 5
iPhone 5c iPhone 5s
16GB 32GB 64GB



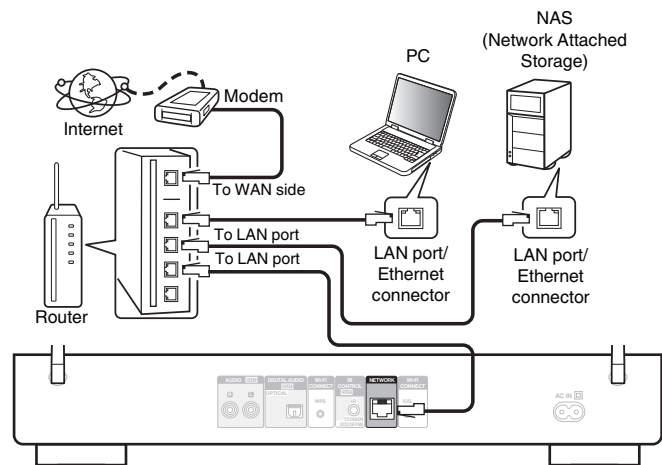
Connecting to a home network (LAN)

You can connect this unit to your home network (LAN) to perform various types of playbacks and operations as follows.

- Playback of network audio such as Internet Radio and from your music server(s)
- Playback of music content from online streaming services
- Using the Apple AirPlay function
- Operation on this unit via the network
- Firmware Update

Wired LAN

To make connections via wired LAN, use a LAN cable to connect the router to this unit as shown in the figure below.

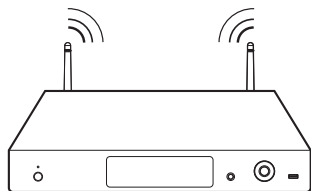
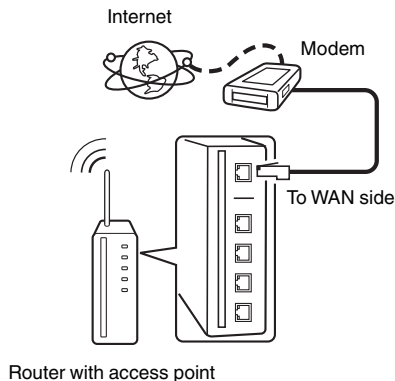


For connections to the Internet, contact an ISP (Internet Service Provider) or a computer shop.



Wireless LAN

When connecting to a wireless LAN network, stand the rod antenna for wireless LAN connection upright on the rear panel. See “Settings” (🔑 p. 69) on how to connect to a wireless LAN router.



- With this unit, it is possible to use the DHCP and Auto IP functions to make the network settings automatically.
- When using this unit with the broadband router's DHCP function enabled, this unit automatically performs the IP address setting and other settings. When using this unit connected to a network with no DHCP function, make the settings for the IP address, etc., at “Network”. (🔑 p. 68)
- When using this unit, we recommend you use a router equipped with the following functions:
 - Built-in DHCP server
This function automatically assigns IP addresses on the LAN.
 - Built-in 100BASE-TX switch
When connecting multiple devices, we recommend a switching hub with a speed of 100 Mbps or greater.
- Use only a shielded STP or ScTP LAN cable which is easily available at electronics stores. (CAT-5 or greater recommended)
- The normal shielded-type LAN cable is recommended. If a flat-type cable or unshielded-type cable is used, other devices could be affected by noise.
- When using a WPS (Wi-Fi Protected Setup) compatible router, you can connect easily to Wi-Fi by pressing the Wi-Fi CONNECT/WPS button on this unit. (See the separate “Quick Start Guide”).



NOTE

- The types of routers that can be used depend on the ISP. Contact your ISP or a computer shop for details.
- This unit is not compatible with PPPoE. A PPPoE-compatible router is required if you have a contract for a type of line set by PPPoE.
- Do not connect a NETWORK connector directly to the LAN port/ Ethernet connector on your computer.
- The antenna cannot be removed.
- Do not carry this unit by the antenna.



Connecting to the IR control connector

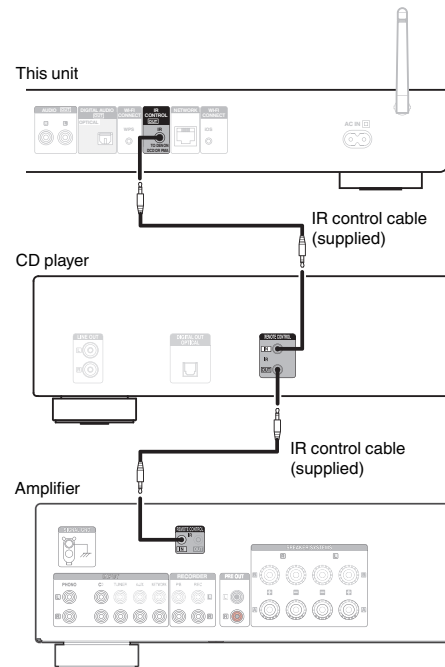
If this unit is connected to a Denon amplifier or CD player, the amp or CD player can be controlled via this unit using the Denon “Hi-Fi Remote” app.

■ Connection

Use the supplied IR control cable to connect the IR CONTROL OUT connector of this unit to REMOTE CONTROL IN connector of the amplifier or CD player.

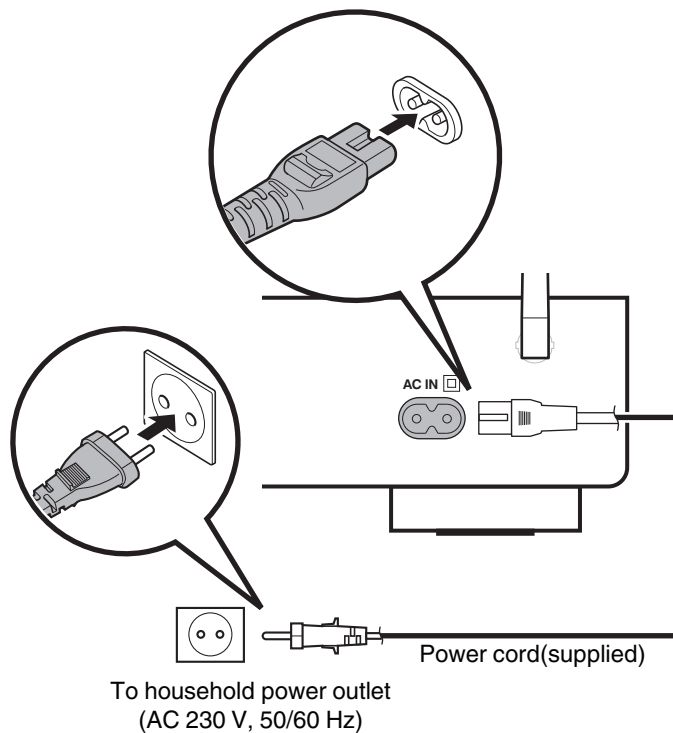


- To use this unit and amplifier by itself without connecting a CD player, connect the IR CONTROL OUT connector of this unit to REMOTE CONTROL IN connector of the amplifier.
- Only the Denon amplifier or CD player which are equipped rear panel with REMOTE CONTROL connector can be connected.



Connecting the power cord

After completing all the connections, insert the power plug into the power outlet.



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Basic operation



Turning the power on

- 1 Press POWER  to turn on power to the unit.



You can also switch the power to standby by pressing  on the main unit.

Selecting the input source

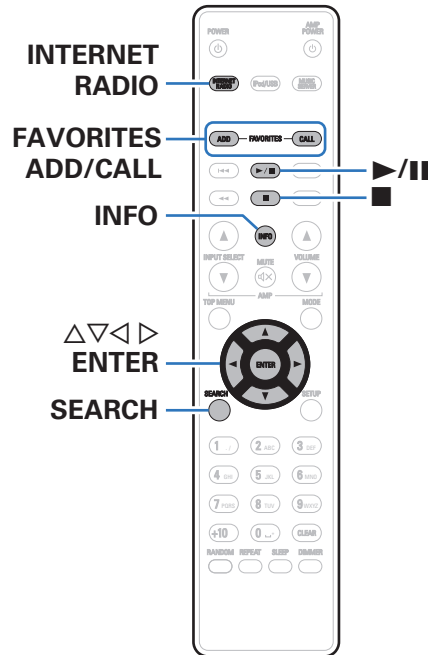
- 1 Press the input source select button to be played back.
The desired input source can be selected directly.



You can also select the input source by pressing SOURCE on the main unit.



Listening to Internet Radio



- Internet Radio refers to radio broadcasts distributed over the Internet. Internet Radio stations from around the world can be received.
- The broadcast station types and specifications supported by this unit for playback are as follows.

- WMA
- MP3
- MPEG-4 AAC



Listening to Internet Radio

This unit memorizes the last played Internet Radio station. If you press INTERNET RADIO to switch to the Internet Radio function from another input source, the last Internet Radio station you listened to is played.

1 Prepare for playback.

- Check the network environment, then turn on this unit's power. (🔗 p. 21)

2 Press INTERNET RADIO.

3 Use $\Delta \nabla$ to select the you want to play, then press ENTER.

Country name :	Displays typical Internet Radio stations.
Search Stations :	Displays all Internet Radio stations that this unit can tune in to.
Search Podcasts :	Displays Internet Radio stations in the podcasts that this unit can tune in to.

Recommended Stations :

Displays recommended Internet Radio stations.

radiodenon.com:

Displays Internet Radio stations added to favorites in vTuner. For instructions on how to add to favorites in vTuner, see "Using vTuner to add Internet Radio stations to favorites" (🔗 p. 30).

Recently Played :

Displays recently played Internet Radio stations. Up to 20 stations can be stored in "Recently Played".




Search by Keyword :

Displays Internet Radio stations searched by keyword. For character input, see "Inputting characters" (🔗 p. 62).

4 Use $\Delta \nabla$ to select the station, then press ENTER.

Playback starts once buffering reaches "100%".



Operation buttons	Function
	Playback
	Stop
FAVORITES CALL	Call from the Favorite list
FAVORITES ADD	Add to the Favorite list
SEARCH	Character search <ul style="list-style-type: none"> If the list is not in alphabetical order, you may not be able to perform a character search.
	Select the item
ENTER	Enter the selected item
INFO	Switching the file type/ bit rate and radio station name etc.



Any characters that cannot be displayed are replaced with "." (period).

NOTE

The radio station database service may be suspended or be otherwise unavailable without notice.

Using vTuner to add Internet Radio stations to favorites

There are many Internet Radio stations in the world, and this unit can tune into these stations. But finding the radio station you want to hear may be difficult, because there are too many stations. If this is the case, then please use vTuner, an Internet Radio station search website specifically designed for this unit. You can use your PC to search Internet Radio stations and add them as your favorites. This unit can play radio stations added to vTuner.

- 1 Check the MAC address of this unit. "Network Information" (🔑 p. 68)**
 - The MAC address is necessary when you create an account for vTuner.
- 2 Use your PC to access the vTuner website (<http://www.radiodenon.com>).**
- 3 Enter the MAC address of this unit, then click "Go".**
- 4 Enter your E-mail address and a password of your choice.**



5 Select the search criteria (genre, region, language, etc.) of your choice.

- You can also enter a keyword to search for a station you want to hear.

6 Select the radio station of your choice from the list, and then click the Add to Favorites icon.

7 Enter the name of the favorite group, then click “Go”.

A new favorite group that includes the selected radio station is created.

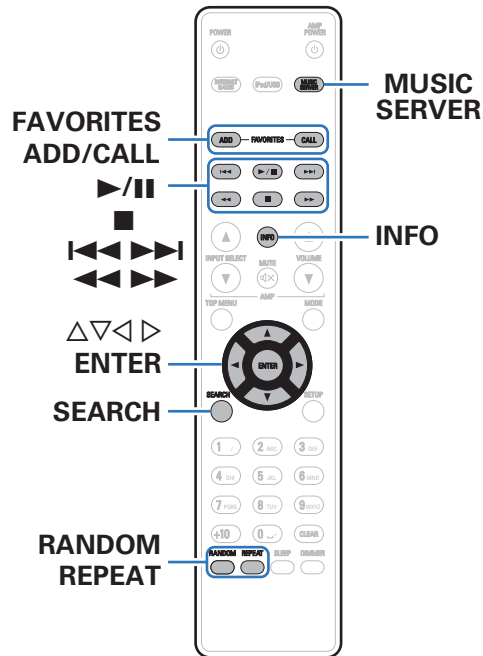
- Internet Radio stations added to favorites in vTuner can be played from “radiodenon.com” (👉 p. 29) with this unit.

■ Files that can be played back

See “Playing back Internet Radio” (👉 p. 89).



Playing back files stored on a PC and NAS



- This unit can play back music files and playlists (m3u, wpl) stored on a PC and on Network Attached Storage (NAS) that supports DLNA.
- The network audio playback function of this unit connects to the server using technologies shown below.
 - Windows Media Player Network Sharing Service
- This unit can play back the following files.
 - WMA
 - MP3
 - WAV
 - MPEG-4 AAC
 - FLAC
 - ALAC
 - AIFF
 - DSD



Applying media sharing settings

Here, we apply the settings to share music files stored on a PC and NAS on the network.

If you are using a Media Server, be sure to apply this setting first.

■ When using Windows Media Player 12 (Windows 7 / Windows 8)

- 1 Start up Windows Media Player 12 on the PC.
- 2 Select “More streaming options...” in the “Stream”.
- 3 Select “Allowed” in the drop-down list for “Denon DNP-730AE”.
- 4 Select “Allowed” in the drop-down list for “Media programs on this PC and remote connections...”.
- 5 Follow the instructions on the screen to complete the settings.

■ When using Windows Media Player 11

- 1 Start up Windows Media Player 11 on the PC.
- 2 Select “Media Sharing” in the “Library”.
- 3 Click the “Share my media” check box, select “Denon DNP-730AE”, and then click “Allow”.
- 4 As you did in step 3, select the icon of the device (other PCs and mobile devices) you want to use as a media controller, and then click “Allow”.
- 5 Click “OK” to finish.

■ Sharing media stored on a NAS device

Change settings on the Network Attached Storage (NAS) device to allow this unit and other devices (PCs and mobile devices) used as media controllers to access the NAS. For details, see the owner’s manual that came with the NAS.



Playing back files stored on a PC and NAS

Use this procedure to play music files or playlists.

1 Prepare for playback.






- ① Check the network environment, then turn on this unit's power. "Connecting to a home network (LAN)" (👉 p. 21)
- ② Prepare the computer (👉 Computer's operating instructions).

2 Press MUSIC SERVER.

3 Use $\Delta \nabla$ to select the server including the file to be played, then press ENTER.


4 Use $\Delta \nabla$ to select the file, then press ENTER.

Playback starts once buffering reaches "100%".

Operation buttons	Function
	Playback / Pause <ul style="list-style-type: none"> • Select a folder and press the  button to play back all of the files in that folder.
	Stop
	Skip to previous track / Skip to next track
	(Press and hold) Fast-reverse / Fast-forward
FAVORITES CALL	Call from the Favorite list
FAVORITES ADD	Add to the Favorite list
SEARCH	Character search <ul style="list-style-type: none"> • If the list is not in alphabetical order, you may not be able to perform a character search.
RANDOM	Random playback
REPEAT	Repeat playback <ul style="list-style-type: none"> • Switching between Single-track repeat and All-track repeat.
$\Delta \nabla \triangleleft \triangleright$	Select the item
ENTER	Enter the selected item
INFO	Switching the file type/bit rate, artist name, and album title.



■ Files that can be played back

See “Playing back files stored on PC or NAS” ( [p. 90](#)).



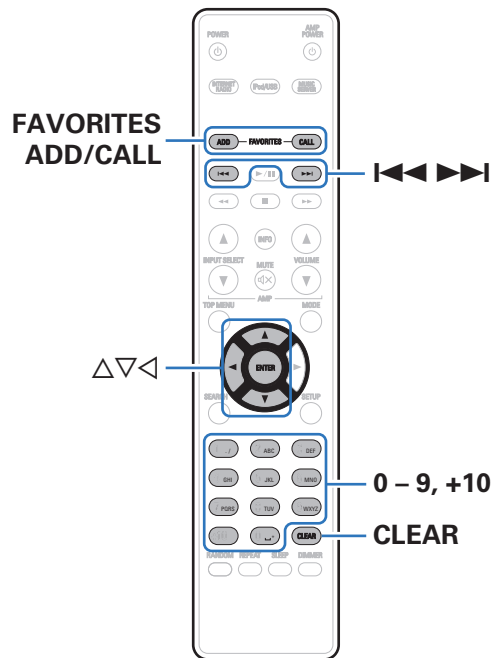
WMA Lossless files can be played when using a server supporting transcoding, such as Windows Media Player Ver. 11 or later.

NOTE

- When playing back music files with your PC or NAS connected through wireless LAN, audio may be interrupted depending on your wireless LAN environment. In this case, play back music files with your PC or NAS connected through wired LAN.
- The order in which the tracks/files are displayed depends on the server specifications. If the tracks/files are not displayed in alphabetical order due to the server specifications, searching by the first letter may not work properly.



Favorite function



This section provides information on the Favorite function.

- The Favorite function allows you to register your favorite broadcast stations and files in the Favorite List in advance so that you can call and listen to the stations or files right away, whenever you want.
- The contents that you can register and call are Internet radio station and music server.
- Up to 50 items can be stored in the Favorite List.



Registering stations or files to the favorites list

- 1 Press **FAVORITES ADD** while the Internet radio station or file to register is played back.
- 2 Use **Δ∇** to select a number to register the station or file, and press **ENTER**.
“Added To Favorites” is displayed and the registration is completed.

Calling stations or files from the favorites list

- 1 Press **FAVORITES CALL**.
- 2 Press **◀◀▶▶** or **Δ∇** to select the station or file that you want to call, and press **ENTER**.
The respective function starts up and playback starts.



Press 0 – 9, +10 to call files registered to the Favorite list by number.

To switch between registered stations and files during playback

- 1 Press **◀◀▶▶** or **Δ∇**.

Deleting stations or files from the favorite list

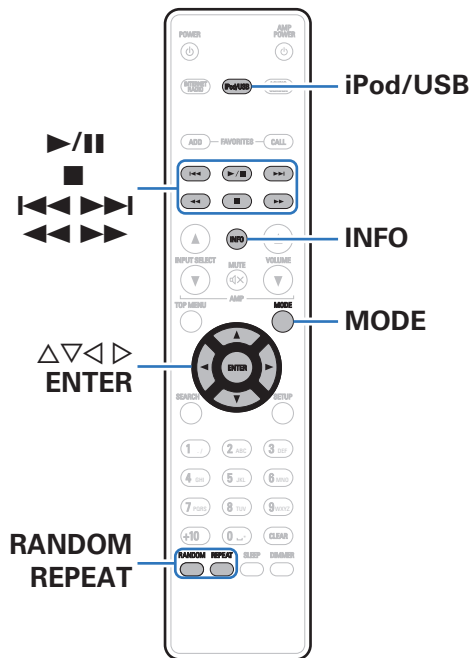
- 1 Press **FAVORITES CALL**.
- 2 Use **Δ∇** to select the station or file that you want to delete, and press **CLEAR**.
- 3 When the prompt “Delete?” appears, press **ENTER**.
“Deleted” is displayed and the deletion is completed.



Press **<** to cancel the operation.



Playing an iPod



- You can use the USB cable provided with the iPod to connect the iPod with the unit's USB port and enjoy music stored on the iPod.
- For information on the iPod models that can be played back with this unit, see "Supported iPod/iPhone models" (🔗 p. 20).



Listening to music on an iPod

- 1 Connect the iPod to the USB port.** (👉 p. 19)
- 2 Press iPod/USB to switch the input source to “iPod/USB”.**
“Remote iPod” is displayed on the display of this unit.
- 3 Operate iPod itself directly while seeing the iPod screen to play back music.**



- The iPod display modes include “Remote iPod” and “Browse iPod”. By default, “Remote iPod”, where you directly operate the iPod itself while looking at the iPod screen, is set.
- To change to “Browse iPod” where operations are performed while the iPod information is displayed on this unit, see “Setting operation mode (Browse iPod mode)” (👉 p. 40).
- You can also listen to iPod music using “AirPlay function” (👉 p. 44).

NOTE

- Depending on the type of iPod and the software version, some functions may not operate.
- Note that Denon will accept no responsibility whatsoever for any problems arising with the data on an iPod when using this unit in conjunction with the iPod.



Setting operation mode (Browse iPod mode)

In this mode, various lists and screens during playback on the iPod are displayed on the body.





This section describes the steps up to playing back tracks on the iPod in "Browse iPod".

- 1 Press **MODE** and display "Browse iPod".
- 2 Use $\Delta \nabla$ to select the file to be played, then press **ENTER**.

Playback starts.

Display mode		Remote iPod	Browse iPod
Playable files	Music file	✓	✓
	Video file	*	
Active buttons	Remote control unit (This unit)	✓	✓
	iPod	✓	

* Only the sound is played.

Operation buttons	Function
	Playback / Pause
	Stop
	Skip to previous track / Skip to next track
	(Press and hold) Fast-reverse / Fast-forward
RANDOM	Random playback
REPEAT	Repeat playback <ul style="list-style-type: none"> • Switching between Single-track repeat and All-track repeat.
MODE	Switching between Browse iPod or Remote iPod mode.
$\Delta \nabla \triangleleft \triangleright$	Select the item
ENTER	Enter the selected item
INFO	Switching the artist name and album title.

NOTE

- Denon will accept no responsibility whatsoever for any loss of iPod data.
- Depending on the type of iPod and the software version, some functions may not operate.



Charging the iPod/iPhone

You can charge your iPod/iPhone by connecting it to USB port.

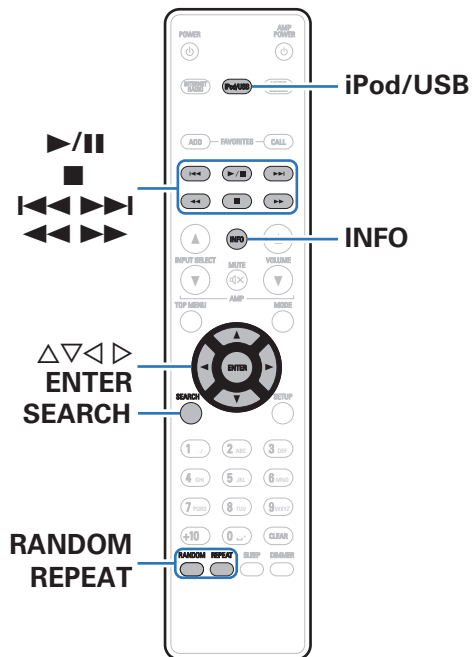
■ Standby charging

If the unit enters power standby mode while the iPod/iPhone is charging, the unit will switch to standby charging mode, and the iPod/iPhone will continue to be charged. When in standby charging mode, the power indicator lights turns red.

When the iPod/iPhone is fully charged, the unit automatically stops supplying power for charging and enters normal power standby mode, and the power indicator lights turns off.




Playing a USB memory device








- Playing back music files stored on a USB memory device.
- Only USB memory devices conforming to mass storage class and MTP (Media Transfer Protocol) standards can be played on this unit.
- This unit is compatible with USB memory devices in “FAT16” or “FAT32” format.
- This unit can play back the following files.
 - WMA
 - MP3
 - WAV
 - MPEG-4 AAC
 - FLAC
 - ALAC
 - AIFF
 - DSD



Playing files stored on USB memory devices

- 1 Connect the USB memory device to the USB port.
( p. 19)
- 2 Press iPod/USB to switch the input source to “iPod/USB”.
- 3 Use $\Delta \nabla$ to select the file to be played, then press ENTER.
Playback starts.

Operation buttons	Function
	Playback / Pause <ul style="list-style-type: none"> • Select a folder and press the  button to play back all of the files in that folder.
	Stop
	Skip to previous track / Skip to next track
	(Press and hold) Fast-reverse / Fast-forward
RANDOM	Random playback
REPEAT	Repeat playback <ul style="list-style-type: none"> • Switching between Single-track repeat and All-track repeat.
SEARCH	Character search <ul style="list-style-type: none"> • If the list is not in alphabetical order, you may not be able to perform a character search.
$\Delta \nabla \triangleleft \triangleright$	Select the item
ENTER	Enter the selected item
INFO	Switching the artist name and album title.

NOTE

- Note that Denon will accept no responsibility whatsoever for any problems arising with the data on a USB memory device when using this unit in conjunction with the USB memory device.

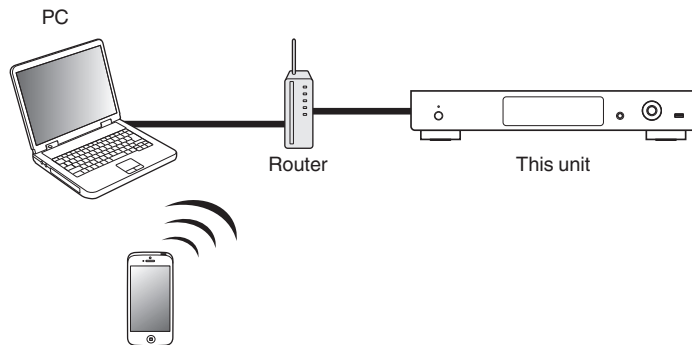
Files that can be played back

See “Playing back USB memory devices” ( p. 87).



AirPlay function


Music files stored on your iPhone, iPod touch, iPad or iTunes can be played on this unit via the network.

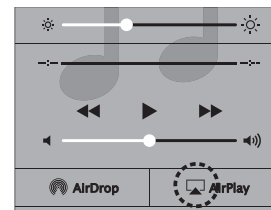


- You can stop AirPlay playback by pressing < or choosing other input source.
- To see song and artist names together, press INFO on the remote control unit.
- For information about how to use iTunes, also see the Help for iTunes.
- The screen may differ depending on the OS and software versions.

Playing songs from your iPhone, iPod touch or iPad

If you update your “iPhone/iPod touch/iPad” to iOS 4.2.1 or later, you can stream music stored in your “iPhone/iPod touch/iPad” directly to this unit.

- 1 Connect your iPhone, iPod touch or iPad Wi-Fi to the same network as this unit.**
 - For details, see your device’s manual.
- 2 Play the song on your iPhone, iPod touch or iPad.**
 - ▣ is displayed on the iPhone, iPod touch or iPad screen.
- 3 Tap the AirPlay icon .**



- 4 Select the speaker (devices) you want to use.**



Playing iTunes music with this unit

- 1 Install iTunes 10, or later, on a Mac or Windows PC that is connected to the same network as this unit.**
- 2 Turn this unit ON.**
Set “Network Control” to “On” for this unit. (👉 p. 68)

NOTE

When “Network Control” is set to “On”, the unit consumes more standby power.


- 3 Start iTunes and click the AirPlay icon  to select the main unit.**



- 4 Choose a song and click play in iTunes.**
The music will stream to this unit.

Selecting multiple speakers (devices)

It is possible to play iTunes songs on your home's AirPlay compatible speakers (devices) other than those of this unit.

- 1 Click the AirPlay icon  and select “Multiple”.**
- 2 Check the speakers you want to use.**



Perform iTunes playback operations with the remote control unit of this unit

With this unit's remote control unit, you can perform iTunes song play, pause, and auto search (cue) operations.

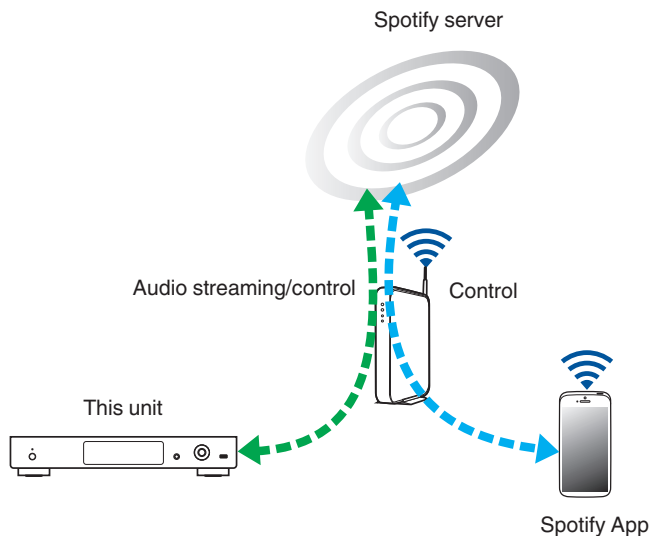
- 1** Select the “Edit” - “Preferences...” in the iTunes menu.
- 2** Select “Devices” in the iTunes setting window.
- 3** Check “Allow iTunes audio control from remote speakers”, and then click “OK”.



Spotify Connect function


Spotify is the world's most popular streaming service. If you subscribe to Spotify Premium, you can control your new speaker with your phone or tablet. Because Spotify is built-in to your speaker, you can still take calls or use other apps - the music never stops.

To try Spotify Premium free for 30 days, or learn more about Connect, please go to www.spotify.com/connect.



Playing Spotify music with this unit

Download the "Spotify App" onto your Android or iOS device beforehand. To play a Spotify track in this unit, you need to register in the Spotify premium account first.

- 1 **Connect the Wi-Fi settings of the iOS or Android device in the same network as this unit.**
- 2 **Launch the Spotify App.**
- 3 **Play back the Spotify track.**
- 4 **Tap the  icon to select the unit.**



The music will stream to this unit.



Remote play function

You can use your home network to play back with this unit music files stored on PC, NAS, smartphones and portable audio players.

In this case, you use PC, smartphones and portable audio players for operations.



- The relevant devices should comply with the DLNA (Digital Living Network Alliance) Ver. 1.5 standard.
- A wireless LAN environment is required for playing back music files on smartphones or portable audio players.
- For some smartphones, you must install an application for DLNA music playback.

Roles each device plays

The following devices are used for Remote Play. As specified in the DLNA standard, these devices are called DMC, DMS or DMR according to their role.

Name	Device example	Role
DMC (Digital Media Controller)	<ul style="list-style-type: none"> • PC • Smartphone • Portable audio player • Denon Remote App 	Performs Remote Play operations. DMC can also play back music files stored on these devices.
DMS (Digital Media Server)	<ul style="list-style-type: none"> • PC • NAS (Network Attached Storage) 	Stores music files. Music files stored on these devices are played back with DMC.
DMR (Digital Media Renderer)	<ul style="list-style-type: none"> • This unit 	Outputs audio of music files played back through Remote Play from speakers. DMR cannot perform playback operations.

Files that can be played back

See “Playing back files stored on PC or NAS” ( p. 90).




Settings required for each device

You must make settings on DMC and DMS for Remote Play. Make the following settings. Also see the owner's manual of each device for settings.

■ Settings on computer and NAS

Make settings on computer and NAS to exchange data with DMR devices.

For details on the settings, see "Applying media sharing settings" ( p. 33).

■ Settings on smartphones

You must install an application for DLNA music playback on your smartphone to perform operations on DMS and this unit (DMR) with your smartphone. The applicable application differs according to your smartphone.





Some smartphones support DLNA music playback with the factory settings. See the owner's manual of your smartphone.

■ Settings on portable audio players

Configure the settings so that this unit (DMR) can play back music files stored on your portable audio player. For details on the settings, see the owner's manual of your portable player.

■ Settings on this unit

Connect this unit to the DLNA network. You do not need to make other settings.

For details on the network connection, see the provided "Quick Start Guide", "Connecting to a home network (LAN)" ( p. 21) and "Settings" ( p. 69).



■ Remote Play operations

Operations are different for each device, but the procedures for preparing for Remote Play are the same. The preparation procedures are shown below.

1 Turn on this unit.

- Make sure that this unit is connected to the network.

2 Display the music file playback screen on DMC.

- For PC, open Windows Media Player 12, etc.
- For smartphones, switch to the music file playback mode.

3 Select the friendly name of this unit for the item that sets the playback device on the playback screen.

- The default Friendly Name of this unit is “Denon DNP-730”.

4 Start playing back a music file on DMC.

- The function on this unit automatically switches to “Music Server” and the Remote Play mark  appears on the display. Remote Play starts.



Press <1 to exit Remote Play mode.

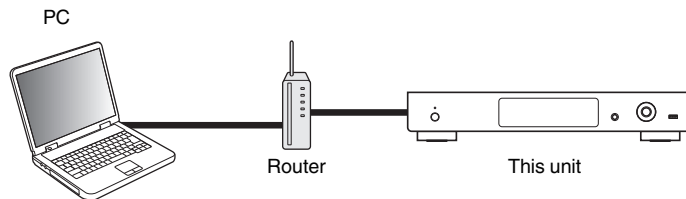
NOTE

During Remote Play, you cannot perform playback operations with this unit. Use the DMC device for these operations.



Web control function

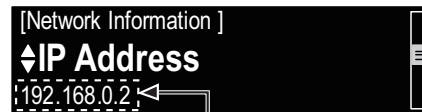
You can control this unit from a web control screen on a web browser.



- This unit and the PC need to be connected to the network properly in order to use the web control function. "Connecting to a home network (LAN)" (☞ p. 21)
- Depending on the settings of your security-related software, you may not be able to access this unit from your PC. If this is the case, then change the settings of the security-related software.

Controlling the unit from a web control

- 1 Switch the "Network Control" setting to "On". (☞ p. 68)
- 2 Check the IP address of this unit with "Network Information". (☞ p. 68)



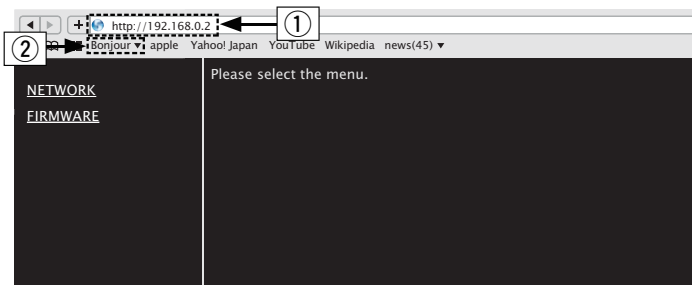
Checking the IP address.

- 3 Start up the web browser.



4 Enter the IP address of this unit in browser's address box.

For example, if the IP address of this unit is "192.168.0.2", enter "http://192.168.0.2".

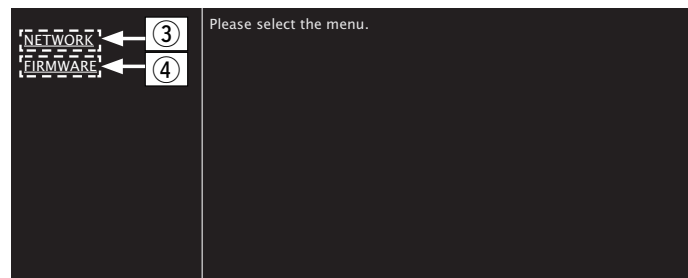


- ① Entering the IP address.
- ② If you are using the Safari web browser, you can select "Bonjour" and directly access the unit's web control screen from the overview section.



By adding this unit's IP address to the browser's bookmark, you can display the web control screen using the bookmark function the next time you use the browser. If you are using a DHCP server and "Network Control" (☞ p. 68) is set to "Off", turning the power on/off changes the IP address.

5 When the top menu is displayed, click on the menu item you want to operate.

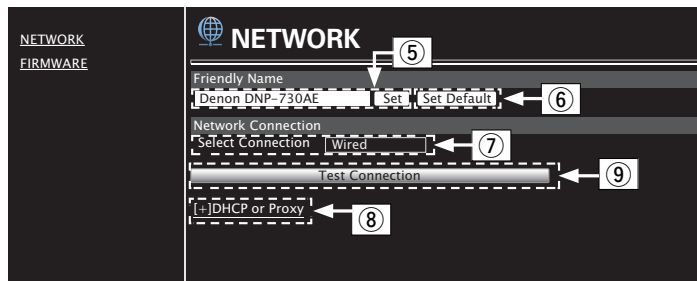


- ③ Click when you setup network settings. (☞ [Example 1])
- ④ Click when you update firmware.



6 Operate.

[Example 1] Network Setting 1



❑ Friendly Name setting

- ⑤ To change the Friendly Name, enter the new name in the text box and click “Set”.
- ⑥ To reset the Friendly Name, click “Set Default”.



Only characters that can be displayed on this unit can be set. (☞ p. 62)

❑ Network connection settings

- ⑦ Click to change the network connection method. If you select “Wi-Fi”, a new item will appear on-screen. (☞ [Example 2])
- ⑧ Click to change DHCP/proxy settings. (☞ [Example 2])
- ⑨ Click to connect using the newly applied settings.



7 Operate.

[Example 2] Network Setting 2

NETWORK FIRMWARE

NETWORK

Friendly Name
Denon DNP-730AE [Set] [Set Default]

Network Connection
Select Connection [Wi-Fi]

Wi-Fi Setup
[Manual]

Manual

S SID []

Security [None] ← ⑩

Security Key []

Default Key [Key1]

[Test Connection]

[] DHCP or Proxy

DHCP [ON] [OFF]

IP Address [192.168.000.001]

Subnet Mask [255.255.255.000]

Gateway [000.000.000.000]

Primary DNS [000.000.000.000] ← ⑪

Secondary DNS [000.000.000.000]

Proxy [ON] [OFF]

Address Or Name [Address] [Name]

Address [000.000.000.000]

Port [00000]

[Save DHCP Proxy Settings]

❑ Network connection settings

- ⑩ [Example 2] - Displayed when “Wi-Fi” is selected in ⑦. Select or input items as necessary, and then click “Test Connection” to apply the changes.
- Items displayed may vary depending on selected items and connection status.
 - After selecting each item, wait a moment for the display to be updated.
- ⑪ [Example 2] - Displayed when “DHCP” or “Proxy” is selected in ⑧. When changing DHCP/proxy settings, input or select for each item.



To apply network connection settings, click “Test Connection” after making changes.



■ Update on web screen

“Web control function” (☞ p. 51) settings must be completed in advance on a computer belonging to the same network. For information on obtaining update files, please contact our customer service center.

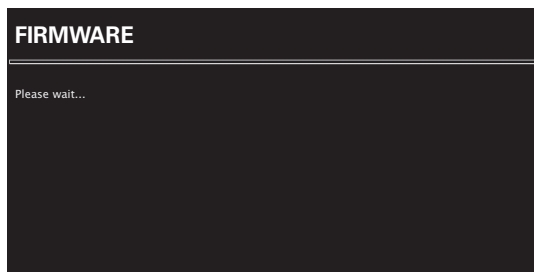
1 Click ④ from step 5 for the “Web control function”. (☞ p. 51)

The PC will display the following screen.

Wait for approximately 1 minute.

You can also gain access by entering the IP address shown by the unit into a web browser.

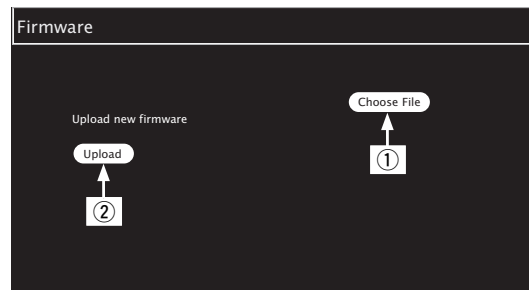
[The web display]



[The unit's screen display]

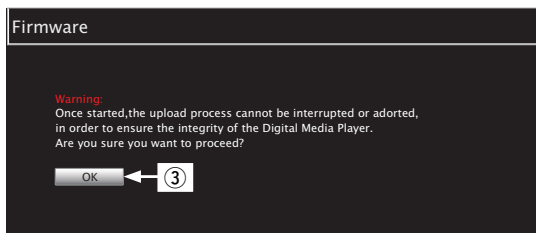


2 When the following screen is displayed by the PC, click the “Choose File” (①) button, select the update file, and click the “Upload” (②) button.



3 Click the “OK” (③) button.

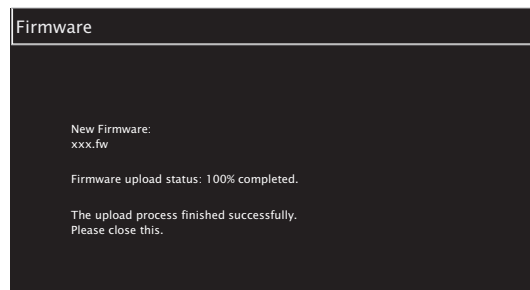
Updating will begin.



NOTE

Do not operate the unit while updating is in progress.

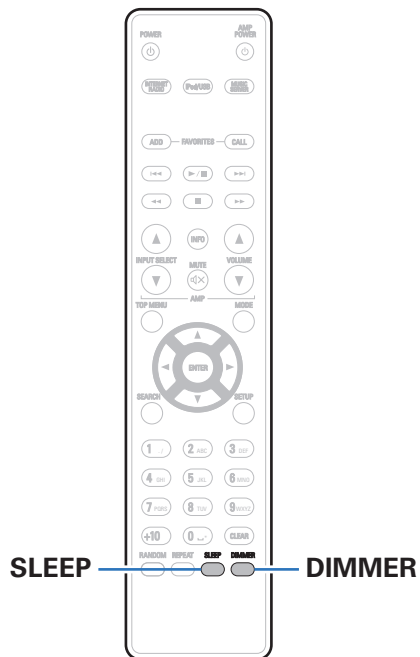
4 When the following screen is displayed, updating is complete.



Button names may vary depending on the OS language used on your computer.



Convenience functions



Sleep timer function 58


Switching the display's brightness 58



Sleep timer function


You can have the power automatically switched to standby once a set time has elapsed. This is convenient for listening while going to sleep.

1 Press SLEEP during playback and select the setting time.

- The  indicator on the display lights.
- You can set the sleep timer in the range from 10 to 90 minutes in steps of 10 minutes.

■ To cancel the sleep timer

Press SLEEP to set "Sleep ▶Off".

The  indicator on the display turns off.



- The sleep timer setting is canceled when the unit switches to standby mode.
- To check the time remaining until the sleep timer is activated, press SLEEP.

Switching the display's brightness

1 Press DIMMER.

- The brightness of the display switches each time the button is pressed (4 levels).



If the buttons are operated when the display is turned off, information is displayed temporarily at a low brightness level.



Menu map

For menu operations, see the following page.

By default, this unit has recommended settings defined. You can customize this unit based on your existing system and your preferences.

■ Quick Setup

Setting items	Description	Page
Quick Setup	Performs the network settings using a Wizard style window. For details on the operations, see the separate "Quick Start Guide".	-

■ General

Setting items	Description	Page
Language	Sets the language for display the menu.	64
Auto-Standby	Sets the unit power to standby when the unit is not in use.	64
Usage Data	Selects whether or not to send anonymous usage data to Denon.	65
Firmware	Set whether or not to check for firmware update, update the firmware, and display update and upgrade notifications.	65
Update	Update the firmware of this unit.	65
Notifications	Set the Update, Upgrade and Alerts notification on/off.	66
Add New Feature	Display new features that can be downloaded to this unit and perform an upgrade.	66

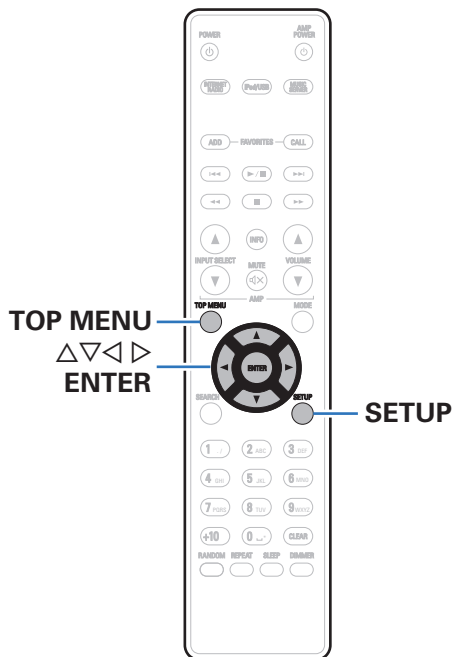


■ Network

Setting items	Description	Page
Network Information	Displays various information about the network.	68
Network Control	Performs the ON/OFF settings for the network function when in standby mode.	68
Friendly Name	Edits a name displayed on the Internet.	69
Settings	Performs the settings for a wired or wireless LAN.	69
Wired Setup	Performs the settings for a wired LAN.	69
DHCP (On) or DHCP (Off)	Performs the DHCP setting.	69
IP Address *	Performs the IP address setting.	70
Subnet Mask *	Performs the subnet mask setting.	70
Gateway *	Performs the gateway setting.	70
Primary DNS *	Performs the primary DNS setting.	70
Secondary DNS *	Performs the Secondary DNS setting.	70
Proxy	Performs the proxy setting.	70
Test Connection	Performs the wired LAN connection.	–
Wi-Fi Setup Method	Performs the wireless LAN connection setting.	71
Auto-Scan	Selects and sets the wireless connections from the access point list.	71
Share Wi-Fi setting from an iOS device	Sets the wireless connection using an iOS device. (iOS version 7 or later)	72
WPS (Wi-Fi Protected Setup)	Sets the wireless connection using WPS (Wi-Fi Protected Setup).	72
Web Browser Setup	Sets the wireless connection using web browser.	72
Manual	Sets the wireless connection manually.	75

* Displayed when the "DHCP" setting is "Off". (🔗 p.69)





Menu operation

- 1 Press SETUP.**
The menu is displayed.
- 2 Use $\Delta \nabla \triangleleft \triangleright$ to select the menu to be set or operated, then press ENTER.**
- 3 Use $\Delta \nabla$ to change to desired setting.**
- 4 Press ENTER to enter the setting.**
 - To return to the previous item, press \triangleleft .
 - Exiting the Menu, press SETUP while the menu is displayed. The menu display disappears.
 - To back to the top of the menu, during menu operation, press TOP MENU.



Inputting characters

On this unit, you can change the name displayed on the following screens to the names that you prefer.

- Text Search (☞ p. 29, 34, 43)
- Friendly Name (☞ p. 69)
- Character input for the network functions (☞ p. 29)

Using the number buttons

- 1 Display the screen for inputting characters.**
 - To change a character, use <⏪> to align the cursor with the character that you want to change.
- 2 Press +10 to select the character type (upper case, lower case, or numeric characters).**

- 3 Press 0 – 9, +10 until the desired character is displayed.**

- The types of characters that can be input are as shown below.

1 ., /	1 . @ - _ / :	6 mno	m n o M N O 6
2 ABC	a b c A B C 2	7 PQRS	p q r s P Q R S 7
3 DEF	d e f D E F 3	8 TUV	t u v T U V 8
4 GHI	g h i G H I 4	9 WXYZ	w x y z W X Y Z 9
5 JKL	j k l J K L 5	0 _.	0 (Space) ! " # \$ % & ' () * + , ; < = > ? [\] ^ ` { }

- 4 Repeat steps 2 and 3 to change the name then press ENTER to register it.**



Using the cursor buttons

- 1 Display the screen for inputting characters.**
 - To change a character, use <Left><Right> to align the cursor with the character that you want to change.
- 2 Use <Up><Down> to change the character.**
 - The types of characters that can be input are as shown below.

[Lower case]

abcdefghijklmnopqrstuvwxy

[Upper case]

ABCDEFGHIJKLMNOPQRSTUVWXY

[Symbols] ! " # \$ % & ' () * + , - . / : ; < = > ? @
[\] ^ _ ` { | } ~

[Numbers] 0123456789 (Space)

- 3 Repeat step 2 to change the name then press ENTER to register it.**



- Press CLEAR to delete the character.
- Press <Right><Left> to insert a space.



General

Make various other settings.

Language

Set the language for display on the menu.

English / Deutsch / Française / Italiano / Nederlands / Español / Svenska / Русский / Polski (Default : English)

Auto-Standby

When “Auto-Standby” is set to “On”, and no operations are made in the stopped state for the set amount of time, this unit automatically enters standby mode.

When the input source is “Remote iPod” and no operation is performed for eight hours, this unit automatically enters the standby mode.

1 min / 5min / 15min (Default) / **Other:** When “Other” is selected, the “Auto-Standby” time can be set within the range of 1 - 99 minutes. Select the value using Δ / ∇ and then press ENTER to enter the setting value.

Off: The unit does not go into standby automatically.



Usage Data

For product improvement purposes, please send information on the device settings and operating conditions of the functions to Denon. Information provided by customers will be used as reference material for product development purposes in the future.

Denon will never provide any information we collect to third parties.

Yes: Provide information on the operating status of this unit.

No: Do not provide information on the operating status of this unit.

Firmware

Set whether or not to check for firmware update, update the firmware, and display update, upgrade and alert notifications.

■ Update

Update the firmware of this unit.

Check For Update: Check for firmware updates.

Update Start: Execute the update process.



Even if the update fails, this unit will automatically try to update again.



■ Notifications

Notification messages are displayed in the screen when the power is switched on when new firmware can be used, or when there are other notification messages.

Update

On (Default): Display update message.

Off: Do not display update message.

Upgrade

On (Default): Display upgrade message.

Off: Do not display upgrade message.

Notification Alerts

On (Default): Displays notification messages from Denon in the popup menu.

Off: Does not display notification messages from Denon in the popup menu.

■ Add New Feature

Display new features that can be downloaded to this unit and perform an upgrade.

Upgrade package: Display the items to be upgraded.

Upgrade Status: Display a list of the additional functions provided by the upgrade.

Upgrade Start: Execute the upgrade process. When the upgrade starts, the menu screen is shut down. During the upgrade, the amount of upgrade time which has elapsed is displayed.

Upgrade ID: The ID number shown on the display is needed when carrying out the procedure.



- See the Denon website for details about upgrades.
- When the procedure is complete, "Registered" is displayed in this menu and upgrades can be carried out. If the procedure has not been carried out, "Not Registered" is displayed.



Notes concerning use of “Update” and “Add New Feature”

- In order to add new functions, the environment and settings required for connecting to broadband internet are needed. (☞ p. 21)
- Perform the add new feature operation after at least 2 minutes has elapsed since turning this unit's power on.
- Do not turn off the power until updating or upgrading is completed.
- Even with a broadband connection to the Internet, approximately 20 minutes is required for the updating/upgrading procedure to be completed.
- Once updating/upgrade starts, normal operations on this unit cannot be performed until updating/upgrading is completed. Furthermore, updating/upgrading the firmware may reset the backup data for the parameters, etc. set for this unit.
- When the update or upgrade failed with a message such as “Update failed” and “Download failed”, remove and re-insert the power cord. “Update Retry” appears on the display and update restarts from the point at which update failed. If the error continues despite this, check the network environment.



Information regarding the “Update” function and “Add New Feature” will be announced on the Denon web site each time related plans are defined.



Network

To use this unit by connecting it to a home network (LAN), you must configure network settings. If you set up your home network via DHCP, set “DHCP” to On (use the default setting). This allows this unit to use your home network.

If you assign an IP address for each device, you must use the “IP Address” setting to assign an IP address to this unit and enter the information about your home network such as the gateway address and subnet mask.

Network Information

Display network information.

Friendly Name / DHCP On or Off / IP Address / MAC Address / SSID*

* This is displayed only while a Wi-Fi connection is enabled.

Network Control

Enables network communication in standby power mode.

On: The network function can be used when in standby power mode. Main unit operable with a network compatible controller.

Off (Default): The network function cannot be used in standby power mode.



Set to “On” when using the web control function or a network compatible controller.

NOTE

When “Network Control” is set to “On”, the unit consumes more standby power.



Friendly Name

The Friendly Name is the name of this unit displayed on the network. You can change the Friendly Name according to your preferences.

■ Friendly Name

When you press ENTER, you can change the Friendly Name according to your preferences.



- Up to 63 characters can be input.
- For character input, see "Inputting characters" (🔗 p. 62).
- The default Friendly Name on first use is "Denon DNP-730AE".

■ Default

Restores Friendly Name, which you had changed, to the default setting.

Settings

You can make detailed settings for the network.

To change the network environment, perform "Quick Setup". (For details on the operations, see the separate "Quick Start Guide".)

- If you are using a broadband router (DHCP function), there is no need to make the settings at "IP Address" and "Proxy", since the DHCP function is set to "On" in this unit's default settings.
- Only set "Settings" when connecting to a network without a DHCP function.

■ When making wired connection

□ DHCP

Selects how to connect to the network.

On (Default): Configure the network settings automatically from your router.

Off: Configure the network settings manually.



❑ IP Address

Set the IP address within the ranges shown below.

- The Network Audio function cannot be used if other IP addresses are set.

CLASS A: 10.0.0.1 - 10.255.255.254

CLASS B: 172.16.0.1 - 172.31.255.254

CLASS C: 192.168.0.1 - 192.168.255.254

❑ Subnet Mask

When connecting an xDSL modem or connector adapter directly to this unit, input the subnet mask indicated in the documentation supplied by your provider. Normally input 255.255.255.0.

❑ Gateway

When connected to a gateway (router), input its IP address.

❑ Primary DNS, Secondary DNS

If there is only one DNS address indicated in the documentation supplied by your provider, enter it for "Primary DNS". If two or more DNS are provided by your provider, enter one for "Secondary DNS".

❑ Proxy

Make this setting when connecting to the Internet via a proxy server. Make the proxy settings only when you connect to the Internet via a proxy server that is on your internal network or provided by your provider, etc.

Proxy (Off) or Proxy (On): Set the proxy server.

Proxy (Address) or Proxy (Name): Select when inputting by address or domain name.

Address or Name: Inputting address or domain name. Up to 38 characters can be input.

Port: Enter port number.



- If you cannot connect to the Internet, recheck the connections and settings. (☞ p. 21)
- If you do not understand about Internet connection, contact your ISP (Internet Service Provider) or the store from which you purchased your computer.



■ When making Wi-Fi connection

In this menu, Wi-Fi settings and connections can be made using any of the five connection methods

Auto-Scan / Share Wi-Fi setting from an iOS device / WPS (Wi-Fi Protected Setup) / Web Browser Setup / Manual



- If a LAN cable is connected, remove it.
- See the Quick Setup Guide for details on how to connect to Wi-Fi using the Wi-Fi CONNECT button on the rear panel.

□ Auto-Scan

This automatically searches for networks.

1 From the list of the networks, select the one you want to connect to.

- Select “Rescan” if the network cannot be found.

2 Make the following settings.

Default Key:	Select the default key.
	• When connecting to a WEP encrypted network, “Default Key” menu is displayed.
Password:	Input the password.
DHCP/Proxy:	Performs the DHCP and proxy setting. (☞ p. 69, 70)
Test Connection:	Test the connection.



❑ Share Wi-Fi setting from an iOS device

You can use an iOS device such as an iPhone or iPad to configure Wi-Fi settings.

After selecting this item, select Settings/Wi-Fi from the iOS device home screen, select “Denon DNP-730AE” displayed at the bottom of the screen, and then follow the setting instructions displayed on the iOS device.

For details, see the “Quick Start Guide”.



The iOS version must be 7 or later.

❑ WPS (Wi-Fi Protected Setup)

1 Register the PIN code of the unit in the router.

❑ Web Browser Setup

Use a web browser to set up Wi-Fi.

A Wi-Fi device that can perform web browse operations is required.

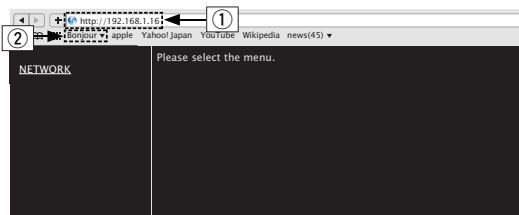
1 Read the precautions on the screen, and press ENTER.

2 Select “Denon DNP-730AE” from the Wi-Fi network list of the Wi-Fi device.

The IP address (192.168.1.16) appears on the unit.



3 Enter the IP address of this unit in browser's address box.



- ① Entering the IP address (192.168.1.16).
- ② If you are using the Safari web browser, you can select “Bonjour” and directly access the unit’s web control screen from the overview section.

4 When the top menu is displayed, click “NETWORK”.

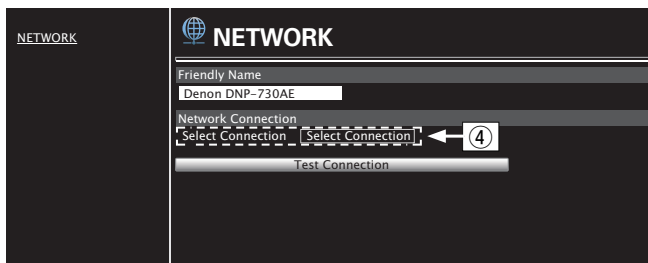


- ③ Click “NETWORK”. (Example 1)



5 Operate.

[Example 1] Network Setting 1

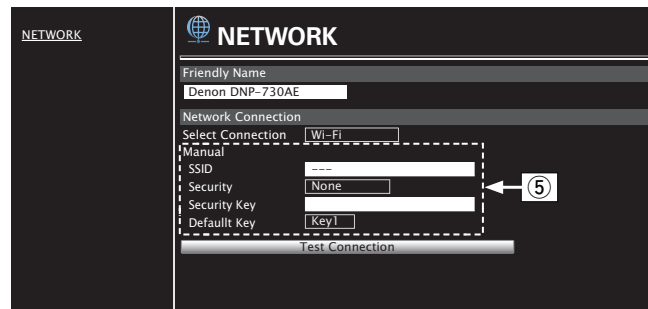


□ Network connection settings

- ④ Click to change the network connection method. If you select “Wi-Fi”, a new item will appear on-screen.

(👉 [Example 2])

[Example 2] Network Setting 2



□ Network connection settings

- ⑤ [Example 2] - Displayed when “Wi-Fi” is selected in ④. Select or input items as necessary, and then click “Test Connection” to apply the changes.

- Items displayed may vary depending on selected items and connection status.
- After selecting each item, wait a moment for the display to be updated.



To apply network connection settings, click “Test Connection” after making changes.



Manual

Sets the wireless connection manually

SSID :	Input the name of the wireless network (SSID).
Security:	Select the encryption method according to the encryption setting of the access point you are using.
Default Key:	Select the Default Key. <ul style="list-style-type: none">• When connecting to a “WEP” encrypted network, “Default Key” menu is displayed.
Password:	Input the password.
DHCP/Proxy:	Performs the DHCP and proxy setting. (☞ p. 69, 70)
Test Connection:	Test the connection.



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Tips

Simple operations in the power off state

- When the “Network Control” is set to “On”, you can perform playback, or other operations through AirPlay, Denon “Hi-Fi Remote” app. (🔗 p. 68)

I only want to recharge my iPod

- Connect the iPod to this unit when the unit power is on. Then turn the unit power off, and the iPod will continue to charge until fully charged. (🔗 p. 41)

Changing or resetting the network environment

- Prepare the provided Quick Start Guide, and run “Quick Setup” from the setup menu. For detailed settings, run Setup - “Network” - “Settings”. (🔗 p. 69)

I want to display the title, etc. of the file currently playing back on the iPod on this unit’s display

- Press the MODE button to set Browse iPod mode. (🔗 p. 40)



Troubleshooting

1. Are the connections correct?
2. Is the set being operated as described in the owner's manual?
3. Are the other devices operating properly?

If this unit does not operate properly, check the items listed in the table below.

Should the problem persist, there may be a malfunction. In this case, disconnect the power immediately and contact your store of purchase.

■ Power does not turn on / Power is turned off

Symptom	Cause / Solution	Page
Power does not turn on.	<ul style="list-style-type: none"> • Check whether the power plug is correctly inserted into the power outlet. 	<u>25</u>
Power automatically turns off.	<ul style="list-style-type: none"> • The sleep timer is set. Turn on the power again. 	<u>58</u>
	<ul style="list-style-type: none"> • "Auto-Standby" is set. "Auto-Standby" is triggered when there is no operation for a set amount of time. To disable "Auto-Standby", set "Auto-Standby" on the menu to "Off". 	<u>64</u>

■ LED is flashing

Symptom	Cause / Solution	Page
Flashing red.	<ul style="list-style-type: none"> • A circuit in the unit has malfunctioned. Disconnect the power and contact the repair center. 	—



■ Operations cannot be performed through the remote control unit

Symptom	Cause / Solution	Page
Operations cannot be performed through the remote control unit.	• Batteries are worn out. Replace with new batteries.	6
	• Operate the remote control unit within a distance of about 7 m from this unit and at an angle of within 30°.	6
	• Remove any obstacle between this unit and the remote control unit.	—
	• Insert the batteries in the proper direction, checking the ⊕ and ⊖ marks.	6
	• The set's remote control sensor is exposed to strong light (direct sunlight, inverter type fluorescent bulb light, etc.). Move the set to a place in which the remote control sensor will not be exposed to strong light.	—
	• When using a 3D video device, the remote control unit of this unit may not function due to effects of infrared communications between units (such as TV and glasses for 3D viewing). In this case, adjust the direction of units with the 3D communications function and their distance to ensure they do not affect operations from the remote control unit of this unit.	—

■ Display on this unit shows nothing

Symptom	Cause / Solution	Page
Display is off.	• Press the DIMMER button on the remote control to set any setting other than OFF.	58

■ No sound comes out

Symptom	Cause / Solution	Page
No sound comes out of speakers.	• Check the connections for all devices.	16
	• Insert connection cables all the way in.	—
	• Check that input connectors and output connectors are not reversely connected.	—
	• Check cables for damage.	—
	• Check that a proper input source is selected.	27





■ Sound is interrupted or noise occurs

Symptom	Cause / Solution	Page
During playback from the Internet radio or USB memory device, sound is occasionally interrupted.	• When the transfer speed of the USB memory device is slow, sound may occasionally be interrupted.	—
	• The network communication speed is slow or the radio station is busy.	—
When making a call on iPhone, noise occurs in audio output on this unit.	• When making a call, keep a distance of 20 cm or longer between iPhone and this unit.	—
Sound cuts out when using Wi-Fi connection.	• If nearby devices cause playback to cut out due to electronic interference, switch to a wired LAN connection.	<u>21</u>
	• Particularly when you play back large music files, depending on your wireless LAN environment, the playback sound may be interrupted. In this case, make the wired LAN connection.	<u>21</u>



■ iPod cannot be played back

Symptom	Cause / Solution	Page
iPod cannot be connected.	• When using iPod by connecting it to the USB port, some iPod variations are not supported.	20
	• When iPod is connected by using a USB cable other than the genuine cable, iPod may not be recognized. Use a genuine USB cable.	—
The AirPlay icon  is not displayed on iTunes / iPhone / iPod touch / iPad.	• This unit and PC / iPhone / iPod touch / iPad are not connected to the same network (LAN). Connect it to the same LAN as this unit.	21
	• The firmware on iTunes / iPhone / iPod touch / iPad is not compatible with AirPlay. Update the firmware to the latest version.	—
No sound is produced.	• The AirPlay playback is not performed, or this unit is not selected. Click the AirPlay icon  on the iTunes / iPhone / iPod touch / iPad screen and select this unit.	44
Audio is interrupted during the AirPlay playback on iPhone / iPod touch / iPad.	• Quit the application running in the background of the iPhone/iPod touch/iPad, and then play using AirPlay.	—
	• Some external factors may be affecting the wireless connection. Modify the network environment by taking measures such as shortening the distance from the wireless LAN access point.	—
iTunes cannot be played back through the remote control unit.	• Enable the “Allow iTunes audio control from remote speakers” setting on iTunes. Then, you can perform playback, pause, and skip operations through the remote control unit.	—



■ USB memory devices cannot be played back

Symptom	Cause / Solution	Page
"No Connection" is displayed.	• The set cannot recognize a USB memory device. Disconnect and reconnect the USB memory device.	19
	• USB memory devices of a mass storage class or those compatible with MTP are supported.	—
	• This unit does not support a connection through a USB hub. Connect the USB memory device directly to the USB port.	—
	• The USB memory device must be formatted to FAT16 or FAT32.	—
	• Not all USB memory devices are guaranteed to work. Some USB memory devices are not recognized. When using a type of portable hard disc drive compatible with the USB connection that requires power from an AC adapter, use the AC adapter that came with the drive.	—
Files on the USB memory device are not displayed.	• Files of a type not supported by this unit are not displayed.	42
	• This unit can display a file structure with up to 8 levels and up to 5000 subfolders and files in total. Modify the folder structure of the USB memory device.	—
	• When multiple partitions exist on the USB memory device, only files on the first partition are displayed.	—
Files on a USB memory device cannot be played.	• Files are created in a format that is not supported by this unit. Check the formats supported by this unit.	42
	• You are attempting to play a file that is copyright protected. Files that are copyright protected cannot be played on this unit.	—

■ File names on the iPod/USB memory device are not displayed properly

Symptom	Cause / Solution	Page
The file names are not displayed properly ("...", etc.).	• Characters that cannot be displayed are used. This is not a malfunction. On this unit, characters that cannot be displayed are replaced with a "." (period).	—



■ The Internet radio cannot be played back

Symptom	Cause / Solution	Page
The radio station list is not displayed.	<ul style="list-style-type: none"> The LAN cable is not properly connected, or the network is disconnected. Check the connection status. 	<u>21</u>
Internet Radio cannot be played.	<ul style="list-style-type: none"> The selected radio station is broadcasting in a format that is not supported by this unit. Formats that can be played back in this unit are MP3, WMA and AAC. 	<u>89</u>
	<ul style="list-style-type: none"> The firewall function is enabled on the router. Check the firewall setting. 	—
	<ul style="list-style-type: none"> The IP address is not properly set. 	<u>69</u>
	<ul style="list-style-type: none"> Check the power of the router is on. 	—
	<ul style="list-style-type: none"> To obtain the IP address automatically, enable the DHCP server function on the router. Also, set the DHCP setting to “On” on this unit. 	<u>69</u>
	<ul style="list-style-type: none"> To obtain the IP address manually, set the IP address and proxy on this unit. 	<u>69</u>
Cannot connect to favorite radio stations.	<ul style="list-style-type: none"> Some radio stations broadcast silently during some time period. In this case, no audio is output. Wait for a while and select the same radio station, or select another radio station. 	<u>29</u>
	<ul style="list-style-type: none"> Radio station is not currently in service. Register radio stations in service. 	—
For some radio stations, “Connection Down” is displayed and station cannot be connected to.	<ul style="list-style-type: none"> The selected radio station is not in service. Select a radio station in service. 	—



■ Music files on PC or NAS cannot be played back

Symptom	Cause / Solution	Page
Files stored on a computer cannot be played.	• Files are stored in a non-compatible format. Record in a compatible format.	90
	• You are attempting to play a file that is copyright protected. Files that are copyright protected cannot be played on this unit.	—
	• The set's USB port cannot be used for connection to a computer.	—
	• Media sharing settings are not correct. Change media sharing settings so that the unit can access the folders on your computer.	33
Server is not found, or it is not possible to connect to the server.	• The computer's or router's firewall is activated. Check the computer's or router's firewall settings.	—
	• Computer's power is not turned on. Turn on the power.	—
	• Server is not running. Launch the server.	—
	• Set's IP address is wrong. Check the set's IP address.	68
Music files on PC cannot be played back.	• Even if PC is connected to the USB port on this unit, music files on it cannot be played back. Connect PC to this unit through the network.	21
Files on PC or NAS are not displayed.	• Files of a type not supported by this unit are not displayed.	90
Music stored on a NAS cannot be played.	• If you use a NAS in conformity with the DLNA standard, enable the DLNA server function in the NAS setting.	—
	• If you use a NAS that does not conform with the DLNA standard, play the music via a PC. Set Windows Media Player's media sharing function and add NAS to the selected play folder.	33
	• If connection is restricted, set audio equipment as the connection target.	—



■ Cannot connect by Wi-Fi

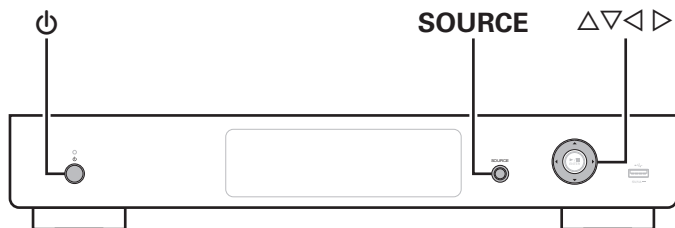
Symptom	Cause / Solution	Page
Cannot connect to the network.	<ul style="list-style-type: none"> The network name and password (WEP, etc.) settings are wrong. Configure the network settings according to the setting details of this unit. 	74
	<ul style="list-style-type: none"> Reduce the distance between the wireless LAN access point and this unit, remove any obstructions and make sure the view to the access point is unobstructed before trying to connect again. Also, install microwave ovens and other network access points as far away as possible. 	—
	<ul style="list-style-type: none"> Check the router power supply. 	—
	<ul style="list-style-type: none"> This unit supports IEEE802.11.b/g/n. 	—
	<ul style="list-style-type: none"> Configure the access point channel settings away from channels that are being used by other networks. 	—
	<ul style="list-style-type: none"> This unit is not compatible with WEP (TSN). 	—
Cannot connect to WPS.	<ul style="list-style-type: none"> Check that the WPS mode of the router is operating. 	—
	<ul style="list-style-type: none"> Press and hold the Wi-Fi CONNECT button on this unit for approximately 3 seconds within 2 minutes of operating the router. 	—
	<ul style="list-style-type: none"> A router/settings that are compatible with WPS 2.0 standards are required. Set the encryption time to “None”, “WPA-PSK (AES)” or “WPA2-PSK (AES)”. 	69
	<ul style="list-style-type: none"> If the router encryption method is WEP/WPA-TKIP/WPA2-TKIP, you cannot connect by using the Wi-Fi CONNECT/WPS button. In this case, use the “Auto-Scan” or “Manual” method to connect. 	60
Cannot connect to the network using iPhone/iPod touch/iPad.	<ul style="list-style-type: none"> Update the iPhone/iPod touch/iPad firmware to the latest version. 	—



Resetting factory settings

Perform this procedure if the display is abnormal or if operations cannot be performed.

Various settings are reset to the factory default values. Make settings again.



- 1** When power is switched to standby.
- 2** Press the power button (⏻) while pressing ▽ and SOURCE together on this unit.
"Initialized" appears on the display.



If "Initialized" does not display in step 3, start over from step 1.



Playing back USB memory devices

- This unit is compatible with MP3 ID3-Tag (Ver. 2) standard.
- This unit is compatible with WMA META tags.
- If the image size of an album artwork exceeds 600 kB, then music may not be played back properly.

Compatible formats

	Sampling frequency	Bit rate	Bit length	Extension
WMA*1	32/44.1/48 kHz	48 – 192 kbps	–	.wma
MP3	32/44.1/48 kHz	32 – 320 kbps	–	.mp3
WAV	32/44.1/48/ 88.2/96/176.4/ 192 kHz	–	16/24 bits	.wav
MPEG-4 AAC*1	32/44.1/48 kHz	16 – 320 kbps	–	.aac/ .m4a/ .mp4
FLAC	32/44.1/48/ 88.2/96/176.4/ 192 kHz	–	16/24 bits	.flac
ALAC*2	32/44.1/48/ 88.2/96kHz	–	16/24 bits	.m4a
AIFF	32/44.1/48/ 88.2/96/176.4/ 192 kHz	–	–	.aif/ .aiff
DSD (2-channel)	2.8/5.6 MHz	–	–	.dsf/ .dff



- *1 Only files that are not protected by copyright can be played on this unit. Content downloaded from pay sites on the Internet are copyright protected. Also, files encoded in WMA format when ripped from a CD, etc. on a computer may be copyright protected, depending on the computer's settings.
- *2 Copyright [2012] [D&M Holdings. Inc.] Licensed under the Apache License, Version 2.0 (the "License"); you may not use this file except in compliance with the License. You may obtain a copy of the License at <http://www.apache.org/licenses/LICENSE-2.0>



Signals with a sampling frequency of 32 kHz and DSD signals cannot be output from the Digital Audio Out connector of this unit.

■ Maximum Number of Playable Files and Folder

The limits on the number of folders and files that can be displayed by this unit are as follows.

Media	USB memory device
Item	
Memory capacity	FAT16 : 2 GB, FAT32 : 2 TB
Number of folder directory levels *1	8 levels
Number of folders	500
Number of files*2	5000

*1 The limited number includes the root folder.

*2 The allowable number of files may differ according to the USB memory device capacity and the file size.



Playing back Internet Radio

■ Playable broadcast station specifications

	Sampling frequency	Bit rate	Extension
WMA	32/44.1/48 kHz	48 – 192 kbps	.wma
MP3	32/44.1/48 kHz	32 – 320 kbps	.mp3
MPEG-4 AAC	32/44.1/48 kHz	16 – 320 kbps	.aac/ .m4a/ .mp4



Playing back files stored on PC or NAS

- This unit is compatible with MP3 ID3-Tag (Ver. 2) standard.
- This unit is compatible with WMA META tags.
- If the image size of an album artwork exceeds 600 kB, then music may not be played back properly.
- A server or server software compatible with distribution in the corresponding formats is required to play music files via a network.



Particularly when you play back large music files, depending on your wireless LAN environment, the playback sound may be interrupted. In this case, make the wired LAN connection.

■ Playback file specifications

	Sampling frequency	Bit rate	Bit length	Extension
WMA*1	32/44.1/48 kHz	48 – 192 kbps	–	.wma
MP3	32/44.1/48 kHz	32 – 320 kbps	–	.mp3
WAV	32/44.1/48/ 88.2/96/176.4/ 192 kHz	–	16/24 bits	.wav
MPEG-4 AAC*1	32/44.1/48 kHz	16 – 320 kbps	–	.aac/ .m4a/ .mp4
FLAC	32/44.1/48/ 88.2/96/176.4/ 192 kHz	–	16/24 bits	.flac
ALAC*2	32/44.1/48/ 88.2/96kHz	–	16/24 bits	.m4a
AIFF	32/44.1/48/ 88.2/96/176.4/ 192 kHz	–	–	.aif/ .aiff
DSD (2-channel)	2.8/5.6 MHz	–	–	.dsf/ .dff



- *1 Only files that are not protected by copyright can be played on this unit. Content downloaded from pay sites on the Internet are copyright protected. Also, files encoded in WMA format when ripped from a CD, etc. on a computer may be copyright protected, depending on the computer's settings.
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Signals with a sampling frequency of 32 kHz and DSD signals cannot be output from the Digital Audio Out connector of this unit.

Last function memory

This stores the settings as they were immediately before going into the standby mode.

When the power is turned back on, the settings are restored to as they were immediately before going into the standby mode.



Explanation of terms

■ Audio

ALAC (Apple Lossless Audio Codec)

This is a codec for lossless audio compression method developed by Apple Inc. This codec can be played back on iTunes, iPod or iPhone. Data compressed to approximately 60 – 70% can be decompressed to exactly the same original data.

AIFF (Audio Interchange File Format)

This is an uncompressed and lossless format for digital audio. Use AIFF files to burn high-quality audio CDs from imported songs. AIFF files use approximately 10 MB of disk space per minute.

DSD (Direct-Stream Digital)

One of the audio data recording methods, it is the signal aspect used to store audio signals on a super audio CD, and is Δ - Σ modulated digital audio. It is configured of an array of single bit values at a 2.8224 MHz sampling rate.

FLAC

FLAC stands for Free lossless Audio Codec, and is a lossless free audio file format. Lossless means that the audio is compressed without any loss in quality.

The FLAC license is as shown below.

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MP3 (MPEG Audio Layer-3)

This is an internationally standardized audio data compression scheme, using the “MPEG-1” video compression standard. It compresses the data volume to about one eleventh its original size while maintaining sound quality equivalent to a music CD.

MPEG (Moving Picture Experts Group), MPEG-2, MPEG-4

These are the names for digital compression format standards used for the encoding of video and audio. Video standards include “MPEG-1 Video”, “MPEG-2 Video”, “MPEG-4 Visual”, “MPEG-4 AVC”. Audio standards include “MPEG-1 Audio”, “MPEG-2 Audio”, “MPEG-4 AAC”.

WMA (Windows Media Audio)

This is audio compression technology developed by Microsoft Corporation.

WMA data can be encoded using Windows Media® Player. To encode WMA files, only use applications authorized by Microsoft Corporation. If you use an unauthorized application, the file may not work properly.

Sampling frequency

Sampling involves taking a reading of a sound wave (analog signal) at regular intervals and expressing the height of the wave at each reading in digitized format (producing a digital signal).

The number of readings taken in one second is called the “sampling frequency”. The larger the value, the closer the reproduced sound is to the original.

Bit rate

This expresses the read amount per 1 second of video/audio data recorded. A larger number means higher sound quality, but also means a larger file size.



■ Network

AES (Advanced Encryption Standard)

This is a next generation standard encryption method replacing the current DES and 3DES, and because of its high security it is expected to be applied widely to wireless LANs in the future. It uses the "Rijndael" algorithm developed by two Belgian cryptographers to divide the data into blocks of fixed lengths and encrypt each block. It supports data lengths of 128, 192 and 256 bits and key lengths of 128, 192 and 256 bits as well, offering extremely high encryption security.

AirPlay

AirPlay sends (plays) contents recorded in iTunes or on an iPhone/iPod touch/iPad to a compatible device via the network.

DLNA

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IEEE 802.11b

This is one wireless LAN standard set by the 802 working group that establishes LAN technology standards at the IEEE (Institute of Electrical and Electronics Engineers) of the United States. It uses the 2.4 GHz band usable freely without a radio frequency license (ISM band), enabling communications at a maximum speed of 11 Mbps. The value indicated above is the maximum theoretical value for the wireless LAN standard, and does not indicate the actual data transfer rate.

IEEE 802.11g

This is another wireless LAN standard set by the 802 working group that establishes LAN technology standards at the IEEE (Institute of Electrical and Electronics Engineers) of the United States, and is compatible with IEEE 802.11b. It also uses the 2.4 GHz band, but enables communications at a maximum speed of 54 Mbps. The value indicated above is the maximum theoretical value for the wireless LAN standard, and does not indicate the actual data transfer rate.

IEEE 802.11n

This is another wireless LAN standard set by the 802 working group that establishes LAN technology standards at the IEEE (Institute of Electrical and Electronics Engineers) of the United States, and is compatible with IEEE 802.11a/bg. It uses the 2.4/5 GHz band, enabling communications at a maximum speed of 600 Mbps. The value indicated above is the maximum theoretical value for the wireless LAN standard, and does not indicate the actual data transfer rate.



TKIP (Temporal Key Integrity Protocol)

This is a network key used for WPA. The encryption algorithm is RC4, the same as for WEP, but the security level is increased by changing the network key used for encryption for each packet.

vTuner

This is a free online content server for Internet Radio. For inquiries about this service, visit the vTuner site below.
vTuner website:

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WEP Key (network key)

This is key information used for encrypting data when conducting data transfer. On this unit, the same WEP key is used for data encryption and decryption, so the same WEP key must be set on both devices in order for communications to be established between them.

Wi-Fi®

Wi-Fi Certification assures tested and proven interoperability by the Wi-Fi Alliance, a group certifying interoperability among wireless LAN devices.

WPA (Wi-Fi Protected Access)

This is a security standard established by the Wi-Fi Alliance. In addition to the conventional SSID (network name) and WEP key (network key), it also uses a user identification function and encrypting protocol for stronger security.

WPA2 (Wi-Fi Protected Access 2)

This is a new version of the WPA established by the Wi-Fi Alliance, compatible with more secure AES encryption.



WPA-PSK/WPA2-PSK (Pre-shared Key)

This is a simple authentication system for mutual authentication when a preset character string matches on the wireless LAN access point and client.

WPS (Wi-Fi Protected Setup)

This is a standard drawn up by the Wi-Fi Alliance to ease the task of setting up wireless LAN connections and configuring security.

There are two methods: push-button and PIN (Personal Identification Number) code.

Network Names (SSID: Security Set Identifier)

When forming wireless LAN networks, groups are formed to prevent interference, data theft, etc. These groups are based on “SSID (network names)”. For enhanced security, a WEP key is set so that communication is unavailable unless both the “SSID” and the WEP key match. This is suitable for temporarily constructing a simplified network.

■ Media player

iTunes

iTunes is the name of the multimedia player provided by Apple Inc. It enables management and playback of multimedia contents including music and movies. iTunes supports many main file formats including AAC, WAV, and MP3.

Windows Media Player

This is a media player distributed free of charge by Microsoft Corporation. It can play playlists created with Ver.11 or later of Windows Media Player, as well as WMA, DRM WMA, WAV, and other files.

■ Others

App Store

App Store is a site that sells application software for such devices as the iPhone or iPod Touch, and is operated by Apple Inc.



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Specifications

■ Audio section

• Analog output	[PCM]	[DSD]
Channels:	2 channels	2 channels
Playable frequency range:	2 Hz – 96 kHz	2 Hz – 100 kHz
Playable frequency response:	2 Hz – 96 kHz (Sampling frequency: 192 kHz) 2 Hz – 20 kHz (Sampling frequency: 44.1 kHz)	2 Hz – 50 kHz (–3 dB)
S/N:	115 dB (Audible Range)	115 dB (Audible Range)
Dynamic Range:	100 dB (Audible Range)	105 dB (Audible Range)
Harmonic Distortion:	0.0020 % (1 kHz, Audible Range)	0.0010 % (1 kHz, Audible Range)
• Output Level	2.0 Vrms	2.0 Vrms
• Digital output		
Output level (optical):	–21 – –15 dBm	–



■ Wireless LAN section

Network type (wireless LAN standard):	Conforming to IEEE 802.11b Conforming to IEEE 802.11g Conforming to IEEE 802.11n (Wi-Fi® compliant)*
Security:	WEP 64 bit, WEP 128 bit WPA/WPA2-PSK (AES) WPA/WPA2-PSK (TKIP)
Radio frequency:	2.4 GHz
No. of channels:	1 – 13 ch

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■ General

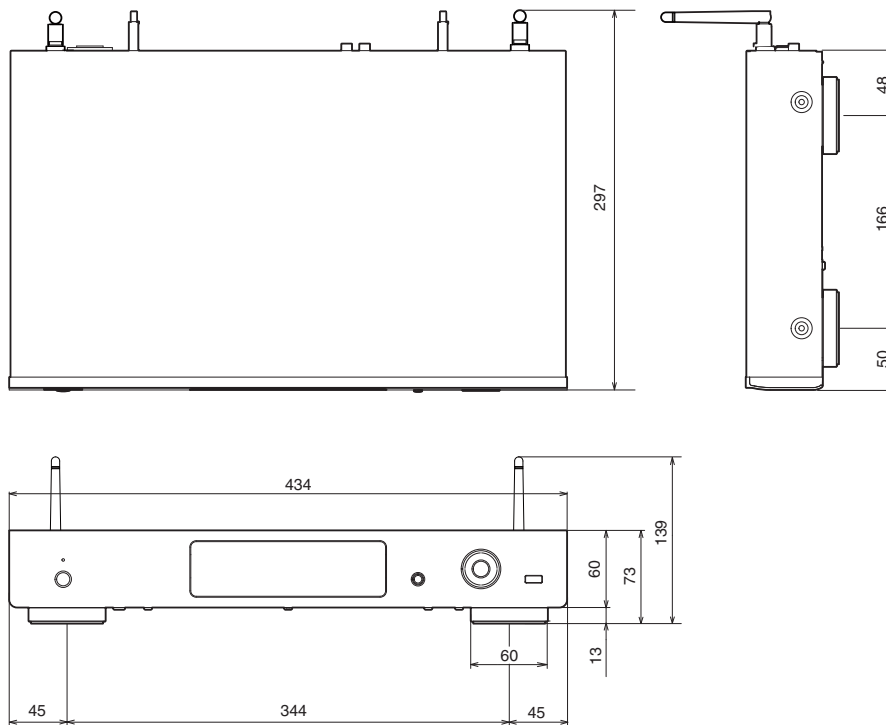
Power supply voltage/frequency:	AC 230 V, 50/60 Hz
Power consumption:	18 W
Power consumption in standby mode:	0.4 W
Power consumption in “Network Control” – “On” mode:	4.0 W

For the purpose of improvement, the specifications and design are subject to change without notice.



■ Dimensions

Unit : mm



■ Weight : 2.9 kg



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■ Mersenne Twister

<http://www.math.sci.hiroshima-u.ac.jp/~m-mat/MT/MT2002/CODES/mt19937ar.c>

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■ zlib

<http://www.zlib.net/>

zlib.h -- interface of the "zlib" general purpose compression library version 1.2.3, July 18th, 2005

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■ cURL

<http://curl.haxx.se>

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