

Features

High quality sound

Powerful 9-channel Amplifier with the Latest Home Cinema Specs

Featuring discrete high-current amplifiers on all channels, this unit delivers high-power performance at 105 watts per channel (8 Ω /ohms, 20 Hz - 20 kHz, T.H.D.: 0.08 %, 2ch. driven) to ensure a powerful and precise entertainment experience, every time. Upgrade your expectations in home theater entertainment.

Dolby Atmos

This unit is equipped with a decoder that supports Dolby Atmos audio format. The placement or movement of sound is accurately reproduced by the addition of overhead speakers, enabling you to experience an incredibly natural and realistic surround sound field.

Speaker Virtualizer

Speaker Virtualizer enables you to access a more immersive entertainment experience from traditional channel based speaker layouts through digital signal processing including Dolby Atmos height virtualization and surround virtualization.

- Speaker Virtualizer is not for use when both height speakers and surround speakers are connected.
- Height Virtualization may be applied when surround speakers are connected.

DTS:X

This unit is equipped with the DTS:X decoder technology. DTS:X brings the home theater experience to new heights with its immersive object based audio technology which removes the bounds of channels. The flexibility of objects allows for sound to be scaled large or small and moved around the room with greater accuracy than ever before leading to a richer immersive audio experience.

DTS Virtual:X

DTS Virtual:X technology features DTS's proprietary virtual height and virtual surround processing to deliver an immersive sound experience from any type of input source (stereo to 7.1.4 channel) and speaker configuration.

- DTS Virtual:X is not for use when Height speakers are connected.

IMAX Enhanced

This IMAX Enhanced product have met stringent performance standards established by IMAX and DTS in order to create a consistent and higher bar for sound performance. DTS

has developed a special method for reproducing an IMAX signature sound experience in the consumer's home. This method combines a unique conversion process for IMAX theatrical audio mixes utilizing an enhanced DTS codec technology. The IMAX theatrical audio format with point source surround speakers closely matches the speaker configuration most consumers have in their homes today. Coupled with DTS audio technology, IMAX Enhanced audio products will ensure the best and most accurate audio reproduction over 5.1 or more speaker channels.

Audyssey LFC™ (Low Frequency Containment)

Audyssey LFC™ solves the problem of low frequency sounds disturbing people in neighboring rooms or apartments. Audyssey LFC™ dynamically monitors the audio content and removes the low frequencies that pass through walls, floors and ceilings. It then applies psychoacoustic processing to restore the perception of low bass for listeners in the room. The result is great sound that no longer disturbs the neighbors.

Discrete subwoofers and Audyssey Sub EQ HT™

The unit has two subwoofer output capability and can adjust the level and delay for each subwoofer individually.

Audyssey Sub EQ HT™ makes the integration seamless by first compensating for any level and delay differences between the two subwoofers and then applying Audyssey MultEQ® XT32 to both subwoofers together for improved deep bass response and detail.

High performance

Ultimate Home Theater Experience – 8K Ready

This unit delivers the ultimate home theater experience with 8K/60Hz pass-through, 4K/120Hz pass-through for gaming, and support for the latest HDMI specifications. This unit allows you to build the best 4K home theater system, and offers the convenience of knowing that the used AV receiver is ready for 8K format whenever the user decides to use it.

Enjoy the highest quality 3D audio and video for even the most demanding entertainment needs.

HDCP 2.3

This unit is compatible with HDCP 2.3 copyright protection standard.

Digital video processor upscales SD (resolution) or HD (720p/ 1080p) / 4K to 8K

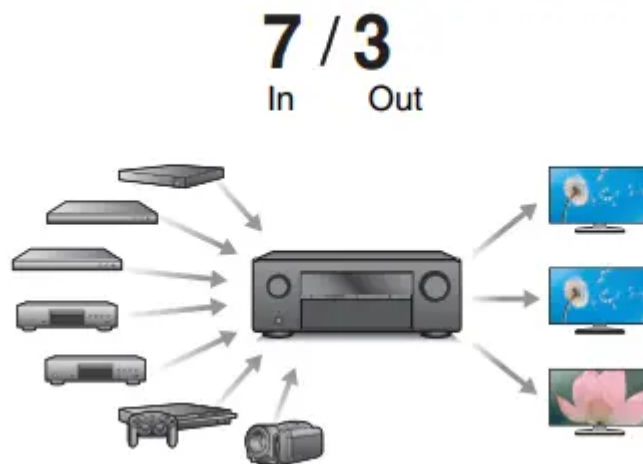


This unit is equipped with a 8K video upscaling function that allows SD (Standard Definition) or HD (High Definition)/4K 60Hz video to be output via HDMI at 8K (7680 × 4320 pixels) resolution. This function enables the device to be connected to a TV using a single HDMI cable, and produces high definition images for any video source.

Equipped with HDMI ZONE2 output

The ZONE2 multi-room output includes an HDMI output that lets you enjoy a different A/V source in that room, with another program playing in the main room.

HDMI connections enable connection to various digital AV devices (7 inputs, 3 outputs)



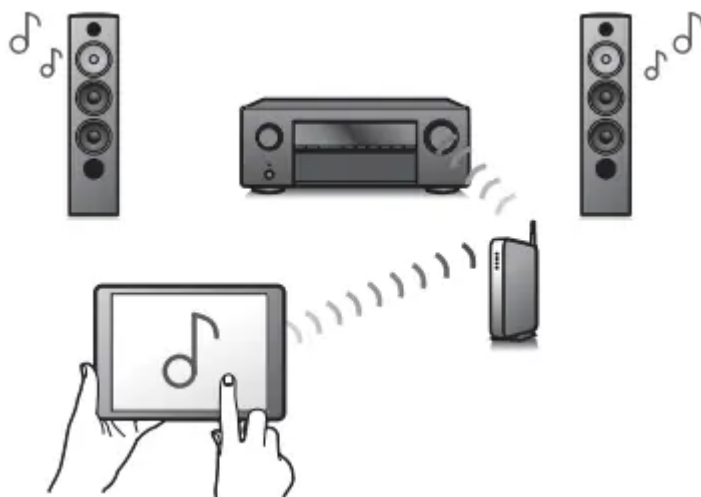
For connection to a broad range of digital sources, this unit features 7 HDMI inputs, that lets you quickly and conveniently connect a camcorder, game console or other HDMI-equipped device. There are dual HDMI outputs for the main room, and a third HDMI output for ZONE2.

eARC (Enhanced Audio Return Channel) function compatibility

The eARC function is compatible with conventional ARC function-compatible audio formats in addition to multichannel linear PCM, Dolby TrueHD, Dolby Atmos, DTS-HD Master Audio, DTS:X and other audio formats a conventional ARC function cannot transmit.

Additionally, connecting to an eARC function-compatible television enables enjoyment of higher-quality surround playback of the audio content played from your television.

The device is equipped with a AirPlay® function in addition to network functions such as Internet radio etc.



You can enjoy a wide variety of content, including listening to Internet Radio, playing audio files stored on your PC.

This unit also supports Apple AirPlay which lets you stream your music library from an iPhone®, iPad®, iPod touch® or iTunes®.

Supports AirPlay 2® wireless audio

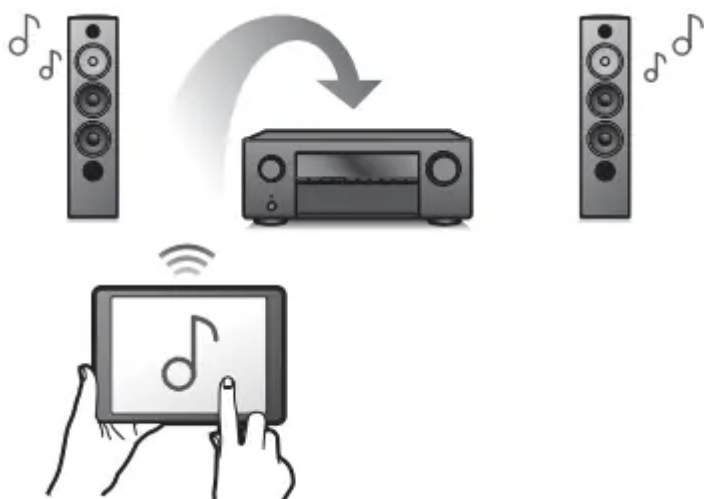
Sync multiple AirPlay 2 compatible devices/speakers for simultaneous playback.

This unit supports AirPlay 2 and requires iOS 11.4 or later.

Playback of DSD and FLAC files via USB and networks

This unit supports the playback of high resolution audio formats such as DSD (5.6 MHz) and FLAC 192 kHz files. It provides high quality playback of high resolution files.

Wireless connection with Bluetooth devices can be carried out easily

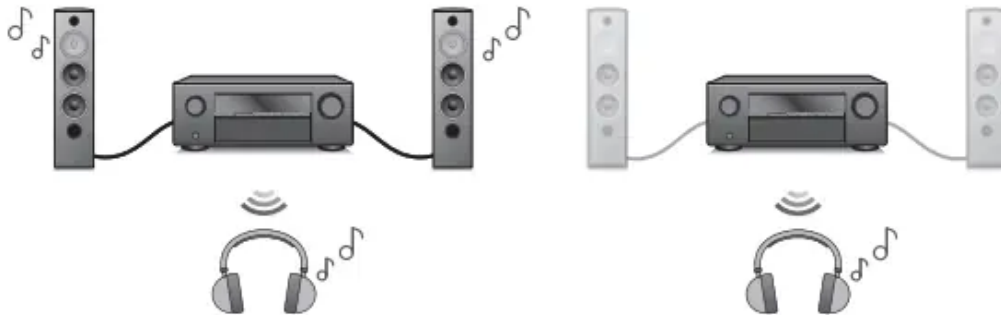


You can enjoy music simply by connecting wirelessly with your smartphone, tablet, PC, etc.

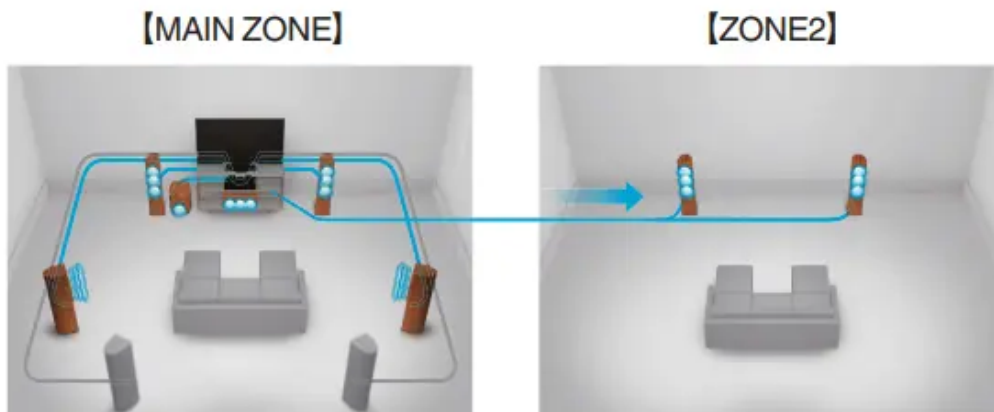
Connect Bluetooth headphones

This unit can transmit Bluetooth so you can enjoy audio wirelessly through your Bluetooth headphones.

Playback can be performed using connected speakers and Bluetooth headphones simultaneously, or only using Bluetooth headphones.



Multi-Room audio



You can select and play back the respective inputs in MAIN ZONE and ZONE2.

In addition, when the All Zone Stereo function is used, the music being played back in MAIN ZONE can be enjoyed in all the zones at the same time. This is useful when you want to let the background music propagate throughout the whole house.

Energy-saving design

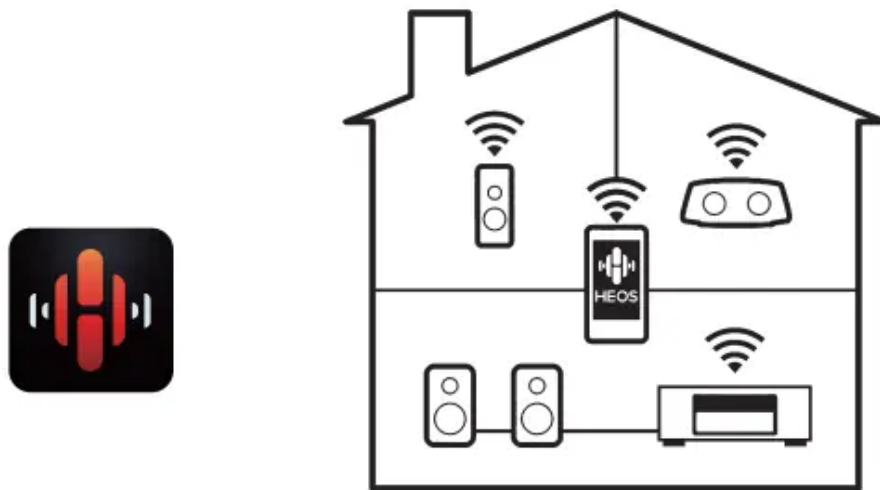
This unit is equipped with an ECO Mode function that allows you to enjoy music and movies while reducing the power consumption during use, and also an auto-standby function that automatically turns off the power supply when the unit is not in use. This helps reduce unnecessary power use.

Compatible with the “Denon 2016 AVR Remote” Appz for performing basic operations of the unit with an iPad, iPhone or Android™ devices (Google, Amazon Kindle Fire)



Along with many new features, the graphics and user interface have been completely overhauled. The new app gives you full control of this unit as well as access to its setup menu for detailed adjustments from your phones or tablets. “Denon 2016 AVR Remote” App also gives you quick access to the receiver’s status display, option menus, Denon Bluray Disc player control, and online owner’s manual for your convenience.

HEOS provides streaming music from your favorite online music sources



HEOS wireless multi-room sound system that enables you to enjoy your favorite music anywhere and everywhere around your home. By utilizing your existing home network and the HEOS App (available for iOS, Android and Amazon devices), you can explore, browse, and play music from your own music library or from many online streaming music services.

When multiple products with HEOS Built-in are connected to the same network, they can be grouped to play the same music on all products simultaneously, or different music can be played on each one.

Easy operation

“Setup Assistant” provides easy-to-follow setup instructions

First select the language when prompted. Then simply follow the instructions displayed on the TV screen to set up the speakers, network, etc.

Easy to use Graphical User Interface

This unit is equipped with a Graphical User Interface for improved operability

Connecting speakers

Before connecting speakers

Connecting the speaker cables

Carefully check the left (L) and right (R) channels and + (red) and – (black) polarities on the speakers being connected to this unit, and be sure to connect the channels and polarities correctly.

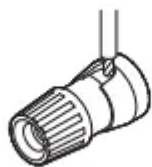
1 Peel off about 3/8 inch (10 mm) of sheathing from the tip of the speaker cable, then either twist the core wire tightly or terminate it.



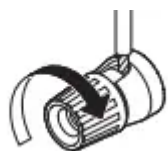
2 Turn the speaker terminal counterclockwise to loosen it.



3 Insert the speaker cable's core wire to the hilt into the speaker terminal.



4 Turn the speaker terminal clockwise to tighten it.

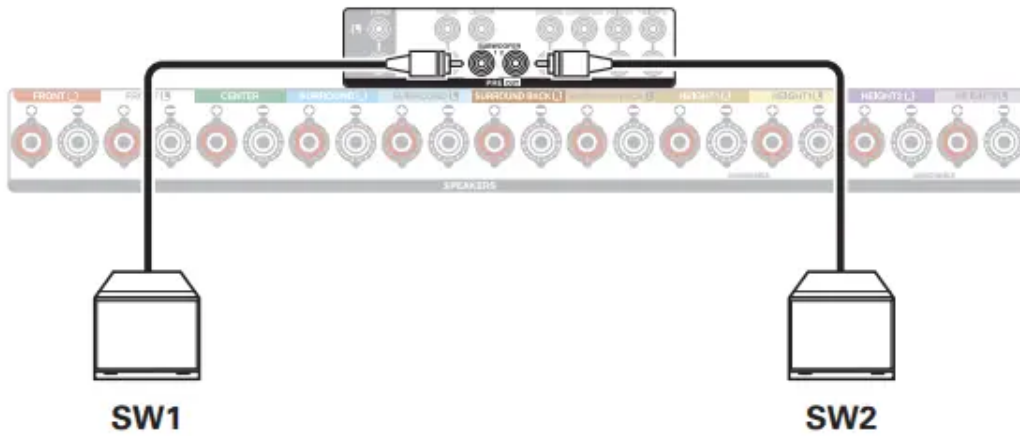


Connecting the subwoofer

Use a subwoofer cable to connect the subwoofer. Two subwoofers can be connected to this unit.

To use two subwoofers, set "Subwoofer" to "2 spkrs" in the "Speaker Config." setting.

The level and distance can be set separately for Subwoofer 1 and Subwoofer 2.



About the cable labels (supplied) for channel identification

The channel display section for speaker terminals on the rear panel is color-coded for each channel to be identifiable.

Attach the cable label corresponding to each speaker to each speaker cable.

This makes it easy to connect the correct cable to the speaker terminals on the rear panel.

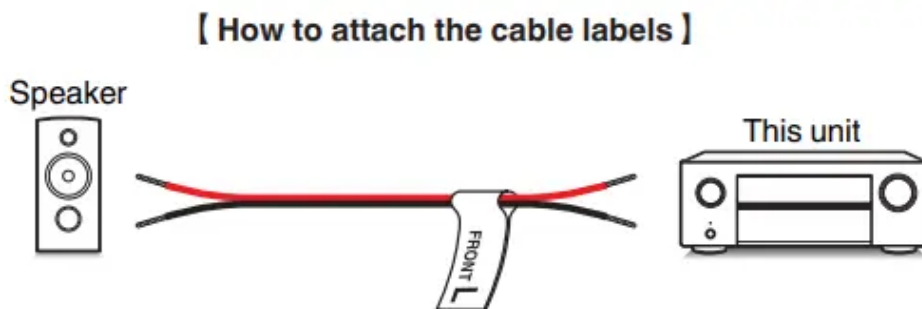
Speaker	Color
FRONT L	White
FRONT R	Red
CENTER	Green
SURROUND L	Light Blue
SURROUND R	Blue
SURROUND BACK L	Beige
SURROUND BACK R	Brown
FRONT HEIGHT L	Light Yellow
FRONT HEIGHT R	Yellow
TOP FRONT L	Light Yellow
TOP FRONT R	Yellow
TOP MIDDLE L	Light Purple
TOP MIDDLE R	Purple

Speaker	Color
TOP REAR L	Light Purple
TOP REAR R	Purple
REAR HEIGHT L	Light Purple
REAR HEIGHT R	Purple
FRONT DOLBY L	Light Yellow
FRONT DOLBY R	Yellow
SURROUND DOLBY L	Light Purple
SURROUND DOLBY R	Purple
BACK DOLBY L	Light Purple
BACK DOLBY R	Purple
SUBWOOFER 1	Black
SUBWOOFER 2	Black

Attach the cable label for each channel to its speaker cable as shown in the diagram.

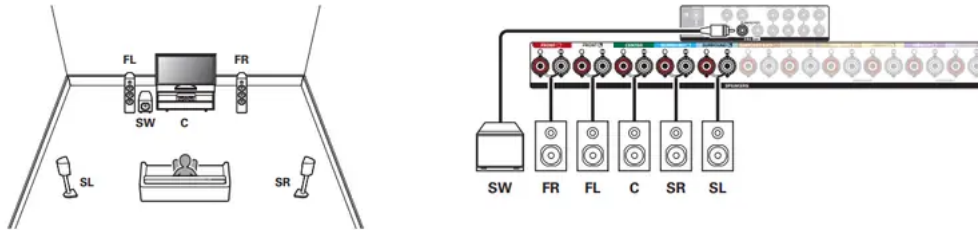
Refer to the table and attach the label to each speaker cable.

Then, make connection so that the color of the speaker terminal matches that of the cable label.



Connecting 5.1-channel speakers

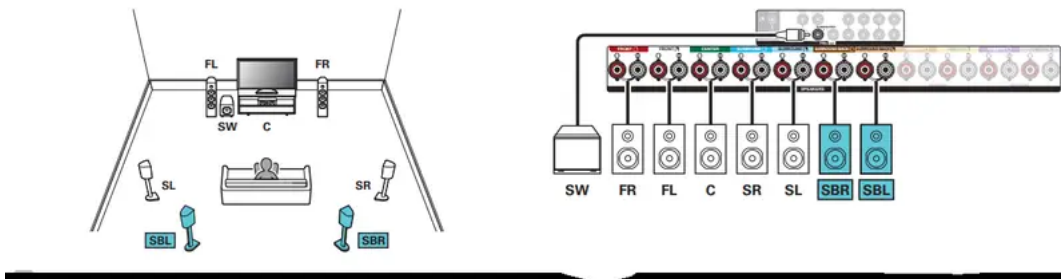
This serves as a basic 5.1-channel surround system.



Connecting 7.1-channel speakers

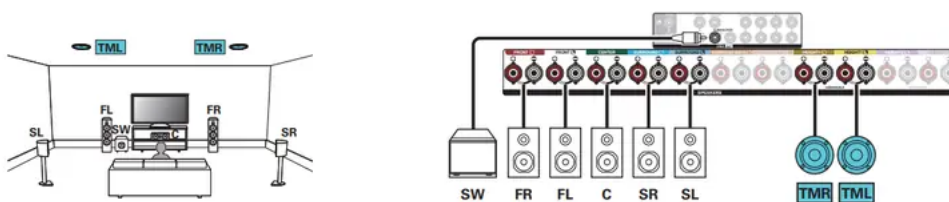
Example connections when using surround back speakers

This 7.1-channel surround system is the same as a basic 5.1-channel system but with surround back speakers.



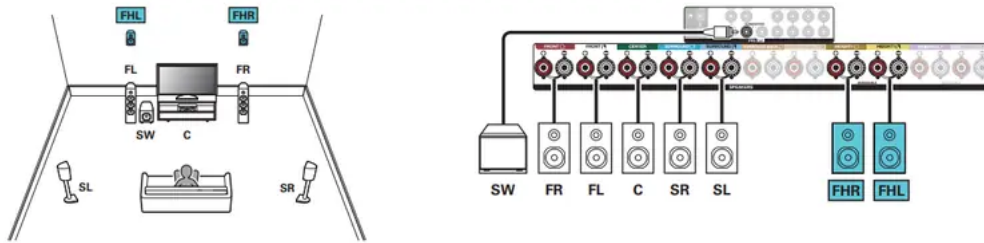
Example connections when using ceiling speakers

This 7.1-channel surround system is the same as a basic 5.1-channel system but with ceiling speakers



Example connections when using height speakers

This 7.1-channel surround system is the same as a basic 5.1-channel system but with front height speakers.



Troubleshooting

Power does not turn on / Power is turned off

Power does not turn on.

- Check whether the power plug is correctly inserted into the power outlet

Power automatically turns off.

- The sleep timer is set. Turn on the power again.
- “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”.

Power turns off and the power indicator flashes in red approx. every 2 seconds.

- The protection circuit has been activated due to a rise in temperature within this unit. Turn the power off, wait about an hour until this unit cools down sufficiently, and then turn the power on again.
- Please re-install this unit in a place having good ventilation.

Power turns off and the power indicator flashes in red approx. every 0.5 seconds.

- Check the speaker connections. The protection circuit may have been activated because speaker cable core wires came in contact with each other or a core wire was disconnected from the connector and came in contact with the rear panel of this unit. After unplugging the power cord, take corrective action such as firmly re-twisting the core wire or taking care of the connector, and then reconnect the wire.
- Turn down the volume and turn on the power again.
- This unit’s amplifier circuit has failed. Unplug the power cord and contact our customer service center.

Power does not turn off even when the power button is pressed, and the display shows “ZONE2 On”.

- The power supply of ZONE2 is turned to ON. To turn off the power supply of this unit (standby), press the ZONE2 ON/OFF on the main unit, or press the POWER X button after pressing the ZONE2 button on the remote control unit to turn off the power supply of ZONE2.

Operations cannot be performed through the remote control unit

Operations cannot be performed through the remote control unit.

- Batteries are worn out. Replace with new batteries.
- Operate the remote control unit within a distance of about 23 ft/7 m from this unit and at an angle of within 30°.
- Remove any obstacle between this unit and the remote control unit. 0 Insert the batteries in the proper direction, checking the q and w marks.
- 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.
- The operation target zone does not correspond to the zone setting specified on the remote control unit. Press the MAIN or ZONE2 button to select the operating zone of the remote control.
- 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

Display is off.

- Set "Dimmer" on the menu to something other than "Off".
- When the sound mode is set to "Pure Direct", the display is off.

No sound comes out

No sound comes out of speakers.

- Check the connections for all devices.
- Insert connection cables all the way in.
- Check that input connectors and output connectors are not reversely connected.
- Check cables for damage.
- Check that speaker cables are properly connected. Check that cable core wires come in contact with the metal part on speaker terminals.
- Securely tighten the speaker terminals. Check speaker terminals for looseness.
- Check that a proper input source is selected.
- Adjust the volume.

- Cancel the mute mode.
- Check the digital audio input connector setting.
- Check the digital audio output setting on the connected device. On some devices, the digital audio output is set to off by default.
- When a headphone is plugged into the PHONES jack on the main unit, sound is not output from the speaker terminal and PRE OUT connector.
- Audio is output to your Bluetooth headphones, but not to speakers or pre-outs when “Output Mode” set to “Bluetooth Only”. Change “Output Mode” to “Bluetooth + Speakers” to output audio from your Bluetooth headphones as well as your speakers or pre-outs.

No sound comes out when using the DVI-D connection.

- When this unit is connected to a device equipped with a DVI-D connector, no sound is output. Make a separate audio connection

Desired sound does not come out

The volume does not increase.

- The maximum volume is set too low. Set the maximum volume using “Limit” on the menu.
- Appropriate volume correction processing is performed according to the input audio format and settings, so the volume may not reach the upper limit.

The volume of Bluetooth headphones does not decrease.

- Bluetooth headphones volume cannot be adjusted from this unit. Use a Bluetooth headphones with volume adjustment

No sound comes out with the HDMI connection.

- Check the connection of the HDMI connectors.
- When outputting HDMI audio from the speakers, set “HDMI Audio Out” on the menu to “AVR”. To output from the TV, set “TV”.
- When using the HDMI Control function, check that the audio output is set to the AV amplifier on the TV.

When an eARC function-compatible television is connected, television audio is not output from the speaker connected to this unit

- eARC function settings may be required depending on the eARC function-compatible television you are using. Make sure eARC is set to on if this setting exists on your television. For more information, check your television’s owner’s manual.
- Make sure the input source of this unit is “TV Audio”



- The eARC function does not operate when the HDMI input connector is set to the “TV Audio” input source. To enable eARC function operation, remove the HDMI input connector setting, then restart this unit and the television.

No sound comes out of a specific speaker.

- Check that speaker cables are properly connected.
- Check that a selection other than “None” is set for the “Speaker Config.” setting in menu.
- Check the “Assign Mode” setting in the menu.
- When the sound mode is “Stereo” and “Virtual”, audio is only output from the front speakers and subwoofer.
- Audio is not output from the surround back speaker if “Speaker Virtualizer” is set to “On” when “Speaker Config.” - “Surr. Back” is set to “1 spkr” in the menu.
- When “Speaker Config.” - “Surr. Back” is set to “2 spkrs”, “Speaker Config.” - “Center” is set to “Large” or “Small”, and sound mode is set to “IMAX DTS”, surround audio is output from the surround back speaker. Audio is not output from the surround speaker

No sound is produced from subwoofer.

- Check the subwoofer connections.
- Turn on the subwoofer’s power.
- Set “Speaker Config.” - “Subwoofer” in the menu to “1 spkr” or “2 spkrs”.
- When “Speaker Config.” - “Front” in the menu is set to “Large”, depending on the input signal and the sound mode, no sound may be output from the subwoofer.
- When no subwoofer audio signal (LFE) is included in the input signals, no sound may be output from the subwoofer.
- You can make the subwoofer always output sound by setting the “Subwoofer Mode” to “LFE+Main”.

DTS sound is not output.

- Check that the digital audio output setting on the connected device is set to “DTS”

Dolby Atmos, Dolby TrueHD, DTS-HD, Dolby Digital Plus audio is not output.

- Make HDMI connections.
- Check the digital audio output setting on the connected device. On some devices, “PCM” is set by default.

DTS Neural:X mode cannot be selected.

- DTS Neural:X cannot be selected when using the headphones

Dolby Surround mode cannot be selected.

- Dolby Surround cannot be selected when using the headphones.

IMAX DTS:X cannot be selected.

- IMAX DTS:X and IMAX DTS cannot be selected but DTS:X and DTS can be selected, when the headphones are used.

Sound modes other than “Stereo” or “Direct” cannot be selected.

- Only “Stereo” or “Direct” can be selected for the sound mode if Headphone:X signals are input.

Audyssey MultEQ® XT32, Audyssey Dynamic EQ®, Audyssey Dynamic Volume® and Audyssey LFC™ cannot be selected.

- These cannot be selected when you have not performed Audyssey® Setup.
- Switch to a sound mode other than “Direct” or “Pure Direct”.
- Audyssey Dynamic EQ®, Audyssey Dynamic Volume® and Audyssey LFC™ cannot be selected when sound mode is “DTS Virtual:X” or sound mode that have “+ Virtual:X” in the sound mode name.
- These cannot be selected when using the headphones.

“Restorer” cannot be selected.

- Check that an analog signal or PCM signal (Sample Rate = 44.1/48 kHz) is input. For playback of multichannel signals such as Dolby Digital or DTS surround, “Restorer” cannot be used.
- Switch to a sound mode other than “Direct” or “Pure Direct”.

No audio is output from PRE OUT or speakers for ZONE2.

- In ZONE2, the audio can be played back when signals input from digital connectors (OPTICAL/COAXIAL) are in 2ch PCM format.
- In ZONE2, the audio can be played back when signals input from the HDMI connector are in 2ch PCM format. To play back the audio in ZONE2 irrespective of the input signal format, set “HDMI Audio” in the menu to “PCM”. Depending on the played back device, the audio may not be played back even with this setting. In that case, set the audio format to “PCM (2ch)” on the played back device.
- When listening to audio from a Bluetooth device in ZONE2, remove any obstructions between the Bluetooth device and this unit and use it within a range of about 98.4 ft/30 m.

Sound mode settings are not available when using Bluetooth headphones. Audio menu settings are also not available.

- This unit cannot change sound mode or audio menu settings for audio output to Bluetooth headphones.

Sound is interrupted or noise occurs

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 0.7 ft/20 cm or longer between iPhone and this unit.

Noise often occurs in FM/AM broadcasting.

- Change the antenna orientation or position.
- Separate the AM loop antenna from the unit.
- Use an outdoor antenna.
- Separate the antenna from other connection cables.

The sounds appear to be distorted.

- Lower the volume.
- Set "Off" to the "ECO Mode". When "On" or "Auto" is in the "ECO Mode", the audio may be distorted when the playback volume is high.

Sound cuts out when using Wi-Fi connection

- The frequency band used by the wireless LAN is also used by microwave ovens, cordless telephones, wireless game controllers and other wireless LAN devices. Using such devices at the same time as this unit may cause sound to cut out due to electronic interference. Sound cut out can be improved using the following methods.
 - Install devices that cause interference away from this unit.
 - Turn off the power supply to devices that cause interference.
 - Change the settings of the router channel to which this unit is connected to. (See the instruction manual of the wireless router for details on how to change the channel.)
 - Switch to a wired LAN connection
- 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.

No video is shown on the TV

No picture appears.

- Check the connections for all devices.
- Insert connection cables all the way in.
- Check that input connectors and output connectors are not reversely connected.
- Check cables for damage.
- Match the input settings to the input connector of the TV connected to this unit.
- Check that the proper input source is selected.
- Check the video input connector setting.
- Check that the resolution of the player corresponds to that of the TV.
- Check whether the TV is compatible with copyright protection (HDCP). If connected to a device not compatible with HDCP, video will not be output correctly.
- To enjoy content that is copyright protected by HDCP 2.2 or HDCP 2.3, use a playback device and TV compatible with HDCP 2.2 or HDCP 2.3.
- To play back a 4K video, use a “High Speed HDMI Cable” or an “High Speed HDMI Cable with Ethernet”. In order to achieve a higher fidelity for 4K videos, it is recommended to use a “Premium High Speed HDMI Cables” or an “Premium High Speed HDMI Cables with Ethernet” that has an HDMI Premium Certified Cable label on the product package.
- Use an “Ultra High Speed 48 Gbps HDMI cable” to enjoy 8K or 4K 120Hz video.

No video is shown on the TV with the DVI-D connection.

- With the DVI-D connection, on some device combinations, devices may not function properly due to the copy guard copyright protection (HDCP).

While the menu is being displayed, no video is shown on the TV.

- The video being played will not appear in the background of the menu when the menu is operated during playback of the following video signals.
 - Some images of 3D video contents
 - Computer resolution images (example: VGA)
 - Video with an aspect ratio other than 16:9 or 4:3
 - 4K or 8K video
 - Some kind of HDR signals
 - Some kind of game contents
 - Compressed video

When using HDMI ZONE2, the video output in MAIN ZONE is interrupted.

- When ZONE2 is operated with the same input source selected for MAIN ZONE and ZONE2, video in MAIN ZONE may be interrupted.

The menu screen is not displayed on the TV

The menu screen or status information screen is not displayed on the TV.

- The menu screen is only displayed on this unit and a TV connected with an HDMI cable. If this unit is connected to a TV using a different video output connector, operate while watching the display on this unit.
- The status information will not appear on the TV when the following video signals are being played.
 - Some images of 3D video content
 - Computer resolution images (example: VGA)
 - Video with an aspect ratio other than 16:9 or 4:3
 - Some kind of HDR signals
 - Some kind of game contents
 - Compressed video
- When a 2D video is converted to a 3D video on the TV, the menu screen or status information screen is not displayed properly.
- In the pure direct playback mode, the menu screen or status information is not displayed. Switch to a sound mode other than the pure direct mode.
- Set the “TV Format” setting in the menu to a selection that is appropriate for the TV.

The color of the menu screen and operations content displayed on the television is different from normal

The color of the menu screen and operations content displayed on the television is different.

- Performing operations on this unit during playback of a Dolby Vision signal may cause variance in the color display of the menu screen and operations content. This is a characteristic of the Dolby Vision signal and is not a malfunction.

AirPlay cannot be played back

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.

- The firmware on iTunes / iPhone / iPod touch / iPad is not compatible with AirPlay. Update the firmware to the latest version.

Audio is not output.

- The volume on iTunes / iPhone / iPod touch / iPad is set to the minimum level. The volume on iTunes / iPhone / iPod touch / iPad is linked with the volume on this unit. Set a proper volume level.
- 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.

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

USB memory device is not recognized.

- Disconnect and reconnect the USB memory device
- Mass storage class compatible USB memory devices 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 “FAT32” or “NTFS”.
- 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.
- This unit is able to display files in a maximum of eight folder layers. A maximum of 5000 files (folders) can also be displayed for each layer. 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.

iOS and Android devices are not recognized.

- The USB port of this unit does not support playback from iOS and Android devices.

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.
- You are attempting to play a file that is copyright protected. Files that are copyright protected cannot be played on this unit. Playback may not be possible if the album art file size exceeds 2 MB.

Bluetooth cannot be played back

Bluetooth devices cannot be connected to this unit.

- The Bluetooth function in the Bluetooth device has not been enabled. See the Owner's Manual of the Bluetooth device to enable the Bluetooth function. Bring the Bluetooth device near to this unit.
- The Bluetooth device cannot connect with this unit if it is not compatible with the A2DP profile.
- Turn the power of the Bluetooth device off and on again, and then try again.

Smartphones and other Bluetooth devices cannot be connected.

- Smartphones and other Bluetooth devices cannot be connected when "Transmitter" is set to "On". Press Bluetooth on the remote control to switch the input source to Bluetooth, then connect the device.

Cannot connect Bluetooth headphones.

- Bring the Bluetooth headphones near to this unit.
- Turn the power of the Bluetooth headphones off and on again, and then try again.
- Go to "General" - "Bluetooth Transmitter", and set "Transmitter" to "On" within the menu.
- Make sure this unit is not already connected to another pair of Bluetooth headphones. Check the currently connected Bluetooth headphones by pressing INFO on the remote control or STATUS button on the unit. Disconnect the connected Bluetooth headphones before connecting the ones you want to use.
- Bluetooth headphones cannot be connected if Bluetooth is being used as an input source in any zone.
- Bluetooth headphones cannot be connected if this unit is grouped in the HEOS App. Remove this unit from the group to enable Bluetooth headphones connection.

- The Bluetooth headphones cannot connect with this unit if it is not compatible with the A2DP profile.
- Connection and operation are not guaranteed for all Bluetooth-enabled devices.
- This unit can only connect to one Bluetooth headphone at a time. However, up to 8 Bluetooth headphones can be registered. You can switch between registered devices from “Device List” in the “Bluetooth Transmitter” menu.

The sound is cut off.

- Bring the Bluetooth device near to this unit.
- Remove obstructions between the Bluetooth device and this unit.
- To prevent electromagnetic interference, locate this unit away from microwave ovens, wireless LAN devices and other Bluetooth devices.
- Reconnect the Bluetooth device.

The sound is cut off or noise occurs when using Bluetooth headphones.

- Move the Bluetooth headphones closer to this unit.
- Remove obstructions between the Bluetooth headphones and this unit.
- Reconnect the Bluetooth headphones.
- To prevent electromagnetic interference, locate this unit away from microwave ovens, wireless LAN devices and other Bluetooth devices.
- We recommend using wired LAN to connect this unit and other devices.
- Bluetooth transmits on the 2.4 GHz band which may interfere with Wi-Fi transmitted on this band. Connect this unit and other devices to Wi-Fi network on a 5 GHz band if available on your Wi-Fi router.

Audio is delayed on my Bluetooth headphones.

- This unit cannot adjust audio delay on Bluetooth headphones.

The Internet radio cannot be played back

A list of broadcasting stations is not displayed.

- The LAN cable is not properly connected, or the network is disconnected. Check the connection status.
- Perform the network diagnostic mode.

Internet Radio cannot be played.

- 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.
- The firewall function is enabled on the router. Check the firewall setting.

- The IP address is not properly set.
- Check the power of the router is on.
- To obtain the IP address automatically, enable the DHCP server function on the router. Also, set the DHCP setting to “On” on this unit.
- To obtain the IP address manually, set the IP address on this unit.
- 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.
- The selected radio station is not in service. Select a radio station in service.

Cannot connect to favorite radio stations.

- Radio station is not currently in service. Register radio stations in service.

Music files on PC or NAS cannot be played back

Files stored on a computer cannot be played.

- Files are stored in a non-compatible format. Record in a compatible format.
- Files that are copyright protected cannot be played on this unit.
- The USB port of this unit cannot be used for connection to a computer.
- Media sharing settings on the server or NAS do not allow this unit. Change the settings to allow this unit. For details, see the owner’s manual of the server or NAS

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.
- IP address of this unit is wrong. Check the IP address of this unit.

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.

Files on PC or NAS are not displayed.

- Files of a type not supported by this unit are not displayed

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.
- If connection is restricted, set audio equipment as the connection target.

Various online services cannot be played

Various online services cannot be played.

- The online service may have been discontinued.

The HDMI Control function does not work

The HDMI Control function does not work.

- Check that "HDMI Control" in the menu is set to "On".
- You cannot operate devices that are not compatible with the HDMI Control function. In addition, depending on the connected device or the settings, the HDMI Control function may not work. In this case, operate the external device directly.
- Check that the HDMI Control function setting is enabled on all devices connected to this unit.
- When you make connection related changes such as connecting an additional HDMI device, the link operation settings may be initialized. Turn off this unit and devices connected via HDMI, and turn them on again.
- The HDMI MONITOR 2 connector is not compatible with the HDMI Control function. Use the HDMI MONITOR 1 connector to connect to the TV.

Cannot connect to a wireless LAN network

Cannot connect to the network

- The network name (SSID), password and encryption setting have not been set up correctly. Configure the network settings according to the setting details of this unit.
- Shorten the distance from the wireless LAN access point and remove any obstructions to improve access first before re-connecting again. Place the unit away from microwave ovens and other network access points.
- Configure the access point channel settings away from channels that are being used by other networks
- This unit is not compatible with WEP (TSN).

Cannot connect to a WPS Router.

- Check that the WPS mode of the router is operating.

- Press the WPS button on the router and then press the “Connect” button displayed on the TV within 2 minutes. 0 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).
- If the router encryption method is WEP/WPA-TKIP/WPA2-TKIP, you cannot connect by using the WPS button on the router. In this case, use the “Scan Networks” or “Manual” method to connect

Cannot connect to the network using iPhone/iPod touch/iPad.

- Update the iPhone/iPod touch/iPad firmware to the latest version.
- When configuring the settings via a wireless connection, iOS 7 or later needs to be supported.

When using HDMI ZONE2, the devices does not function properly

When using MAIN ZONE, video output is interrupted in HDMI ZONE2.

- With the same input source selected for MAIN ZONE and ZONE2, when you operate MAIN ZONE, video may be interrupted in HDMI ZONE2.

When using HDMI ZONE2, no video or audio is output from the TV in ZONE2.


- Check that the power is on for ZONE2.
- Check the input source for ZONE2.
- The AUX-HDMI and HDMI 7 connector does not support the HDMI ZONE2 function.
- In ZONE2, playback is only possible when the input signals are HDMI signals.
- When the TV does not support the input audio format, audio is not output. Set the audio format to “PCM” on the playback device. Alternatively, set “ZONE2 Setup” - “HDMI Audio” in the menu to “PCM”.
- When the TV is not compatible with the resolution of the input video, no video is output. Set the output resolution on the playback device to a resolution that is compatible with the TV.

When using HDMI ZONE2, MAIN ZONE audio is played back as PCM.

- When the same input source is selected for MAIN ZONE and ZONE2, the audio format is limited according to the specifications of the TV in ZONE2.

Update/upgrade error messages

If an update/upgrade is interrupted or fails, an error message appears.

Display	Description
<p>Connection failed. Please check your network, then try again.</p>	<p>The network connection is unstable. Connection to the server failed. Check your network environment and try the update again</p>
<p>Update failed. Please check your network, then try again.</p>	<p>The download of the firmware failed. Check your network environment and try the update again.</p>
<p>Upgrade failed. Please check your network, then try again.</p>	<p>The download of the firmware failed. Check your network environment and try the upgrade again.</p>
<p>Please check your network, unplug and reconnect the power cord, and try again.</p>	<p>The update failed. Press and hold the  on the main unit for more than 5 seconds, or remove and re-insert the power cord. The update restarts automatically.</p>
<p>Please contact customer service in your area.</p>	<p>This unit may be broken. Contact our Customer Service Center in your area.</p>

Specifications

Audio section

Power amplifier



Rated output:	Front:
	105 W + 105 W (8 Ω /ohms, 20 Hz – 20 kHz with 0.08 % T.H.D.) 135 W + 135 W (6 Ω /ohms, 1 kHz with 0.7 % T.H.D.)
	Center:
	105 W (8 Ω /ohms, 20 Hz – 20 kHz with 0.08 % T.H.D.) 135 W (6 Ω /ohms, 1 kHz with 0.7 % T.H.D.)
	Surround:
	105 W + 105 W (8 Ω /ohms, 20 Hz – 20 kHz with 0.08 % T.H.D.) 135 W + 135 W (6 Ω /ohms, 1 kHz with 0.7 % T.H.D.)
	Surround back / Height1 / Height2:
	105 W + 105 W (8 Ω /ohms, 20 Hz – 20 kHz with 0.08 % T.H.D.) 135 W + 135 W (6 Ω /ohms, 1 kHz with 0.7 % T.H.D.)
Output connectors:	4 – 16 Ω /ohms

Analog

Input sensitivity:	200 mV
Frequency response:	10 Hz – 100 kHz — +1, -3 dB (Direct mode)
S/N:	100 dB (IHF-A weighted, Direct mode)
Distortion:	0.008 % (20 Hz – 20 kHz) (Direct mode)
Rated output:	1.2 V

Digital

D/A output:	Rated output — 2 V (at 0 dB playback)
	Total harmonic distortion — 0.008 % (1 kHz, at 0 dB)
	S/N ratio — 102 dB
	Dynamic range — 100 dB
Digital input:	Format — Digital audio interface

Phono equalizer

Input sensitivity:	2.5 mV
RIAA deviation:	± 1 dB (20 Hz to 20 kHz)
S/N:	74 dB (IHF-A)
Distortion factor:	0.03 % (1 kHz, 3 V)

Video section

Standard video connectors

Input/output level and impedance:	1 Vp-p, 75 Ω /ohms
Frequency response:	5 Hz – 10 MHz — 0, -3 dB

Color component video connector

Input/output level and impedance: Y signal — 1 Vp-p, 75 Ω/ohms
P_B / C_B signal — 0.7 Vp-p, 75 Ω/ohms
P_R / C_R signal — 0.7 Vp-p, 75 Ω/ohms

Frequency response: 5 Hz – 60 MHz — 0, –3 dB

Tuner section	[FM]	[AM]
	(Note: μV at 75 Ω/ohms, 0 dBf = 1 x 10 ⁻¹⁵ W)	
Reception frequency range:	87.5 MHz – 107.9 MHz	520 kHz – 1710 kHz
Effective sensitivity:	1.2 μV (12.8 dBf)	18 μV
50 dB sensitivity:	MONO – 2.8 μV (20.2 dBf)	
S/N ratio:	MONO – 70 dB (IHF-A weighted, Direct mode) STEREO – 67 dB (IHF-A weighted, Direct mode)	
Distortion:	MONO – 0.7 % (1 kHz) STEREO – 1.0 % (1 kHz)	

Wireless LAN section

Network type (wireless LAN standard): Conforming to IEEE 802.11a/b/g/n (Wi-Fi® compliant) *1

Security: WEP 64 bit, WEP 128 bit
WPA/WPA2-PSK (AES)
WPA/WPA2-PSK (TKIP)

Used frequency range: 2.4 GHz, 5 GHz

Bluetooth section

Communications system: Bluetooth Specification Version 4.2

Transmission power: Bluetooth Specification Power Class 1

Maximum communication range: Approx. 98.4 ft/30 m in line of sight *2

Used frequency range: 2.4 GHz

Modulation scheme: FHSS (Frequency-Hopping Spread Spectrum)

Supported profiles: Receiver function
A2DP (Advanced Audio Distribution Profile) 1.2
AVRCP (Audio Video Remote Control Profile) 1.5
Transmitter function
A2DP (Advanced Audio Distribution Profile) 1.2

Corresponding codec: SBC

Transmission range (A2DP): 20 Hz – 20,000 Hz

General

Operating temperature: 41 °F - 95 °F (5 °C - 35 °C)

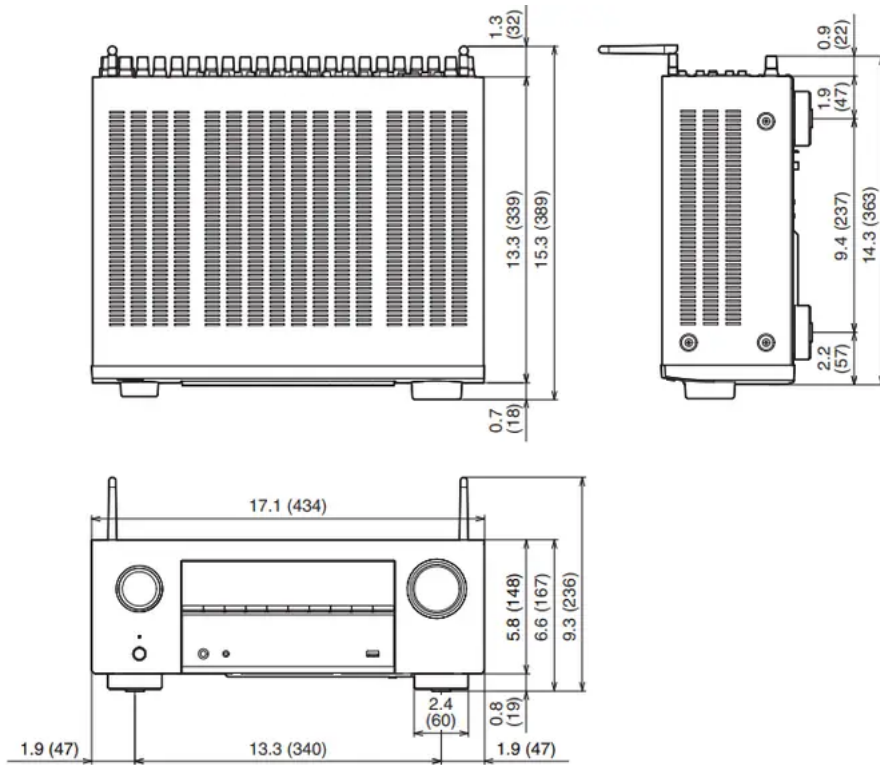
Power supply: AC 120 V, 60 Hz

Power consumption: 660 W

Power consumption in standby mode: 0.1 W *

Power consumption in CEC standby mode: 0.5 W

Dimensions (Unit : in. (mm))



Weight: 27.6 lb (12.5 kg)

Warning

This content is compiled from multiple sources and is provided for reference purposes only. It may not be complete or fully applicable to all situations. If you are unable to resolve your issue, please contact the product manufacturer or an authorized service provider for official support.