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HOME THEATER COMPONENTS

2012 / 2013

DENON



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Fill your living room with unequaled inspiration.

This is Denon's new-generation home theater component that was developed in the pursuit of sound quality worthy of next-generation standard 4K ultra high-definition video. It will transform your relaxation space into the most up-to-date theater or a live hall. The unprecedented beautiful video projected into your viewing room is created by 4 times the resolution than is available with full HD. The home theater sound demanded by such beauty must be able to reproduce exquisite sound with such vivid dynamism that it takes your breath away. The redesigned new-generation AV Receiver with 4K display support and advancement to Denon Link HD will take you to a new dimension in entertainment whether for enjoying movies, music, or sports. A truly impressive experience that far exceeds the conventional awaits you.



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This new-generation AV Surround Receiver puts high-definition 4K display age high image quality and high sound quality technology into a solid, well-designed body.

AV Surround Receiver

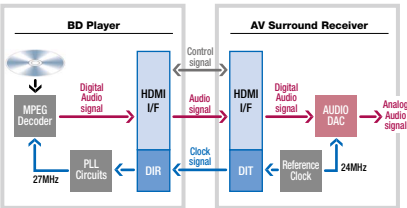
Denon Link HD Reproduces All Signals with High-Fidelity

AVR-4520 AVR-3313



Using the HDMI standard where signals are transmitted using a packet method it is easy for jitter to occur frequently in the clock, the standard for digital/analog conversion, which induces offset in the regenerated waveform and thus inhibits accurate music reproduction. Denon addressed this problem early on by developing and incorporating Denon Link as a proprietary transmission standard. In 2012, Denon Link was upgraded to the more powerful Denon Link HD. This successfully eliminates jitter during transmission by connecting an HDMI cable and a special clock synchronous cable to supported Blu-ray players to completely synchronize the clock between the AV amp and the player. In addition to Blu-ray, this is also effective during DVD, CD, and Super Audio CD audio transmissions allowing you to enjoy your favorite contents at maximum quality regardless of the media.

Denon Link HD circuit



Suppresses Jitter Occurrence for All Devices

Hybrid PLL Jitter Reducer

AVR-4520 AVR-3313

Jitter in the clock used as the standard for digital/analog conversions will cause offset in the regenerated waveform, preventing accurate regeneration. Denon's unique clock jitter reducer decreases jitter occurrence by comparing the input signal and output signal phases. Further, many general jitter suppression functions only support digital signals whereas Denon's Clock Jitter Reducer works effectively for all input signals to be digitally processed (including analog signals), so you can enjoy high-fidelity sound from all sources.

Dynamic Discrete Surround Circuit D.D.S.C.-HD DIGITAL

AVR-4520 AVR-3313



Denon's AV amp design concept is to "reproduce the sound exactly as intended by the movie producers" and to achieve that we have taken the signal processing circuits required to accomplish this and put them in individually independent blocks to make them discrete using specialized circuits. These circuits are configured and carefully tuned to provide the same power, response, and quality for all channels to reproduce high-fidelity sound that is comparable to pure audio. The latest 32-bit floating point DSP is used on the decoder — the heart of the digital circuit. A master clock design that generates a high accuracy clock is placed close to the D/A converter that converts the digital signal into a music signal. This suppresses residual jitter generation and clearly reproduces the audio image profile.

Power Stage Uses a Discrete Configuration to Refine the Sound

All Models

This power stage is equipped with a power amp uniquely configured of carefully selected components to produce rich sound not possible using ICs or power packs. To bring out the maximum potential of the connected speakers by getting the full performance from the power amp we have equipped it with a power supply that utilizes high speed rectifier diodes and high capacity block capacitors.

Ideal Waveform Reproduction

AVR-4520 AVR-3313

Alpha Processor

Denon's proprietary technology, the Alpha Processor, was originally developed as technology for extending 16-bit CD audio to 20-bit accuracy and has been well received by many pure audio users. The AVR-3313 extends PCM digital signals on all channels to 24-bit accuracy. The AVR-4520 is also capable of extending PCM and bit stream signals such as Dolby and DTS to 32-bit. The original sound of the recording location is reproduced as faithfully as possible by interpolating the signal lost during digitalization.

Firmly Rooted High-Fidelity Direct Mechanical Ground Construction & Minimum Signal Path

All Models

Thorough anti-vibration construction is used to suppress the effect of vibration on image and sound quality. The signal circuit has also been simplified and shortened to prevent signal degradation from the way circuitry is routed.

Automatically Adjusts to the Optimum Surround Sound Settings

AVR-4520 AVR-3313 AVR-2313
AVR-2113 AVR-1713



Audyssey MultEQ XT/XT32

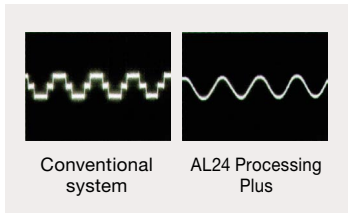
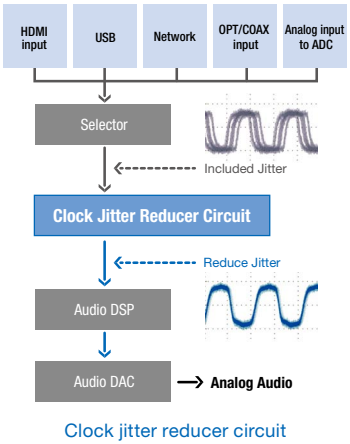
Unlike a movie theater, there is a wide variation in the viewing environments in homes. The included microphone is used to measure the room environment and then automatically check the speaker settings and make basic settings as needed. The Audyssey sound field correction technology focuses on the room's acoustic echo characteristics. This suppresses unnecessary reflected sound that causes sound turbidity, such as the difference in the echo characteristics between the right and left and other walls or the flutter echo between the ceiling and floor, which are problems that tend to occur easily during playback at home because making corrections is difficult using a general equalizer. A maximum of 8 locations can be measured to provide the optimum surround sound experience at any viewing point even when many people are viewing such as during movies.

Good Sound from Compressed Audio

All Models

Compressed Audio Restorer

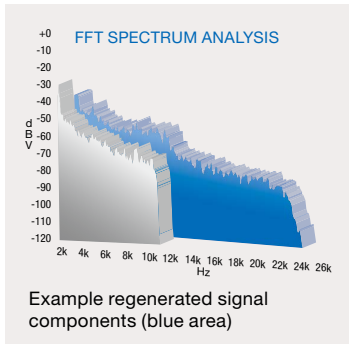
Compression processing, such as WMA, MP3, and AAC, omits the sounds that are difficult for humans to hear. The compressed audio restorer regenerates the omitted signal to restore and play the pre-compression sound as close to the original sound as possible. Richer music playing is made possible by generating the high frequency signal that tends to be lost during compression while correcting the low range depth.



1 kHz, -90 dB sine wave regenerated waveform (CD playing)

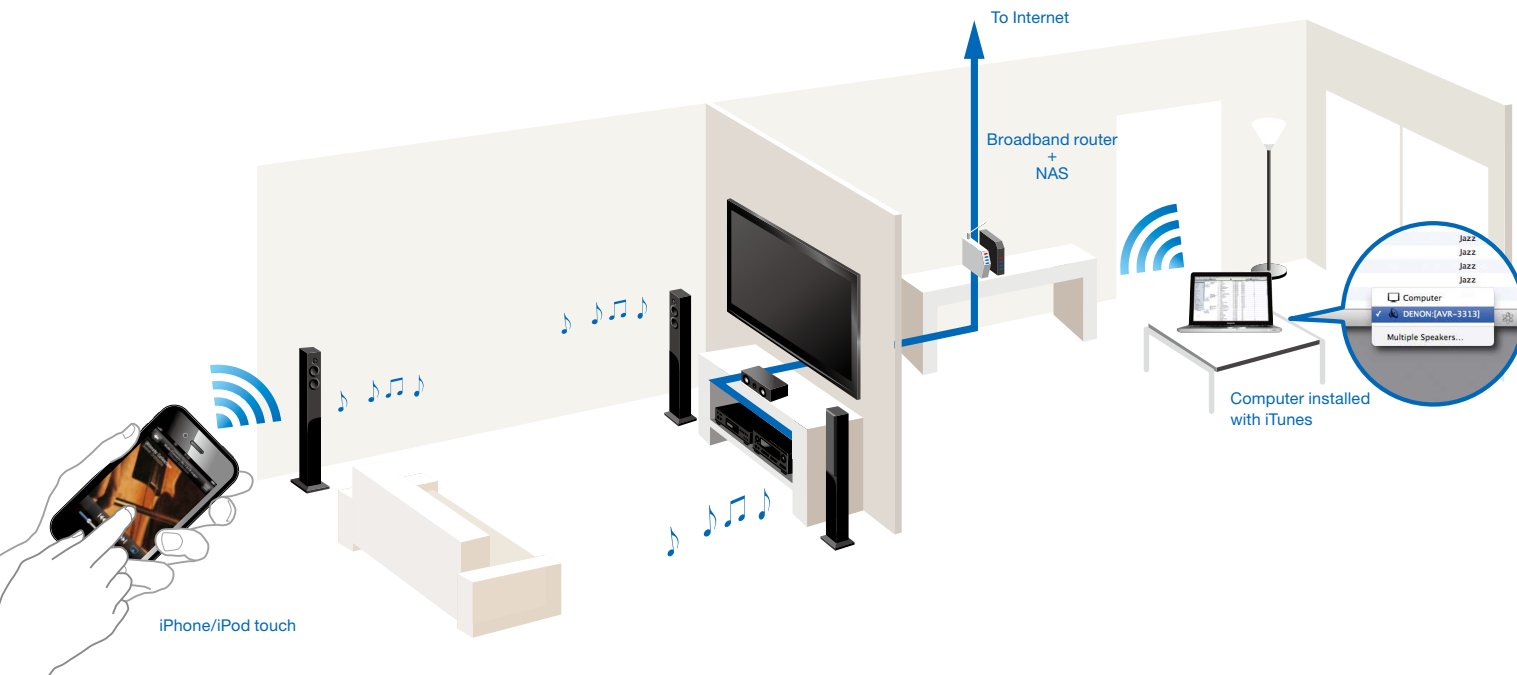


Audyssey MultiEQ Room equalization for clear and balanced sound



Compressed Audio Restorer graph

AV SURROUND RECEIVER



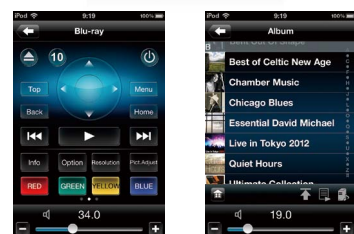
“AirPlay” for Enjoying iPhone and iTunes Libraries

AVR-4520 AVR-3313 AVR-2313
AVR-2113 AVR-1713

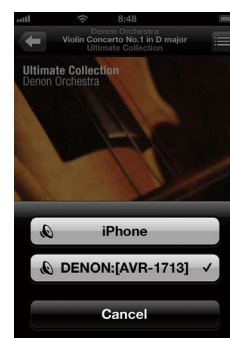


If you have already used iTunes to listen to music with your home computer, to use the AV receiver to enjoy the music in your iTunes library all you need to do is connect an AV receiver equipped with AirPlay function to the network linked to your computer.

Further, iPod touch, iPhone, and iPad users can send the music they play using a music app to the AV receiver by wireless transmission (when connected to Wi-Fi). The music app can be used to adjust the AV receiver volume as well as select music to make it easy to listen to music even for people who have difficulty operating the AV receiver.



Denon Remote App



AirPlay iPhone screen

Control the AV Receiver Using Denon Remote App

AVR-4520 AVR-3313 AVR-2313
AVR-2113 AVR-1713



This application can be downloaded free of charge from the AppStore or Google Play and installed in your iOS device or Android device to control Denon supported products via Wi-Fi.

In addition to such basic operations as turning the power on and off, changing input, and adjusting the volume, the app can be used to easily select Internet radio stations and search for music files. The redesigned home screen supports customization and provides great convenience by allowing up to 8 often-used functions to be recorded and displayed. It is now also possible to operate Denon supported BD players which is connected with 2012 AV receiver supporting network functions via HDMI cable.



Music Server Function for Enjoying the Music in Your Computer

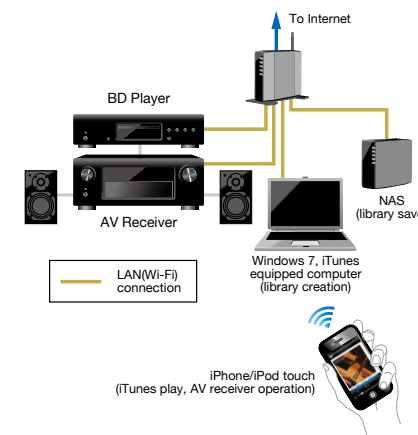
AVR-4520 AVR-3313 AVR-2313
AVR-2113 AVR-1713



This function plays the music files stored in a computer or NAS equipped with a DLNA1.5 certified digital media server function. The 2012 models newly supports studio master quality 192 kHz/24-bit FLAC and WAV file playback. They also supports Apple Lossless file playback and gapless playback^(*) for FLAC and WAV.

^(*) AVR-1713 supports gapless playback for FLAC and WAV up to 96 kHz/24-bit

Network connection diagram



Internet Radio for Enjoying Music from Around the World

AVR-4520 AVR-3313
AVR-2313 AVR-2113 AVR-1713



You can enjoy Internet radio broadcasts from around the world without using a computer. Use the vTuner radio station database to select stations viewed in the GUI screen from a list customized for Denon products.

Use a remote controller to register and recall up to 3 of your favorite broadcast stations with one touch. At the vTuner site you can also register broadcast stations you like for personal use.



Other network functions

AVR-4520 AVR-3313 AVR-2313 AVR-2113
AVR-1713

- Web control function for controlling the AV receiver from a Web browser (*except AVR-1713)
- Display JPEG image files contained in a computer, NAS and USB memory device.
- Access the flickr photograph sharing site

Easy-to-use iPod Direct Playing USB Terminal

AVR-4520 AVR-3313 AVR-2313 AVR-2113
AVR-1713

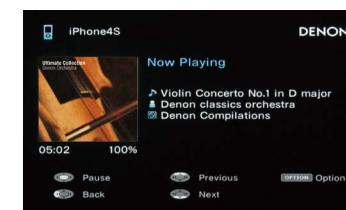
The USB terminal on the front of the unit is used to directly connect and enjoy audio sources in a USB memory or music in an iPod or iPhone.

List of playable file formats

	Internet Radio	Music Server	USB Memory
MP3	●	●	●
WMA	●	●	●
AAC		●	●
Apple Lossless		●	●
FLAC		●	●
WAV		●	●
JPEG		●	●



GUI while playing Internet radio



GUI while playing iPod/iPhone



AV SURROUND RECEIVER



High-definition Image Circuitry to Support Next-Generation Displays

AVR-4520 AVR-3313
AVR-2313 AVR-2113

4K

4K displays that were introduced last year are built according to the next-generation video standard that exceeds the Full HD specifications. Denon was quick to equip its products with the latest video processors that fully support the 4K video transmission standards.

4K upscaling function

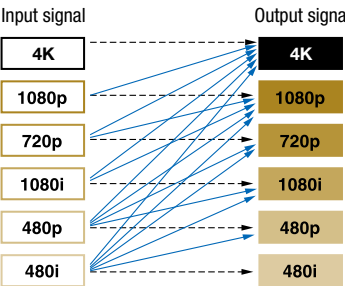
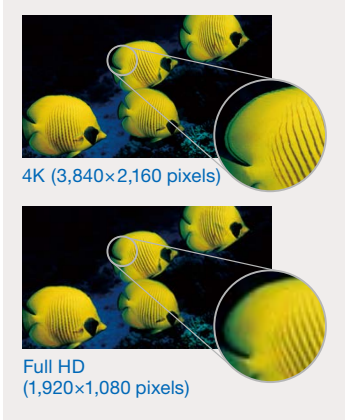
This function upscales SD/HD video signals to 4K signals so that you can enjoy all contents in ultra high resolution. In addition, the latest 4K supporting video processors are used to greatly improve upscale image quality to HD video signals.

4K signal pass-through function

The AV receiver is capable of passing the 4K video signals from the source device to the display.

Graphical user interface (GUI) that can produce an overlay display even on 4K signals

This is the latest version of the graphical user interface (GUI), which can be operated while viewing the setting screen to allow for more intuitive operation. In addition, it supports overlay display during 4K video signal pass through and upscaling.



Scaling conversion graph

Only One HDMI Cable is Required for Connecting with the TV

AVR-4520 AVR-3313
AVR-2313 AVR-2113

HDMI

Video conversion function

The AV receiver has video input terminals that support up to 4 standards. The signals input using various standards are converted to signals of another standard, such as HDMI, to make it possible to connect to a TV with only one cable to make wiring and operation simple.

3D Signal Pass-through Function

All Models

The AV receiver is able to pass through 3D video signals from the source device to the display.

Support for ARC and CEC

AVR-4520 AVR-3313 AVR-2313 AVR-2113
AVR-1713

If a TV that supports ARC is HDMI connected, the TV audio can be played by the AV receiver via the HDMI cable. There is no need to add an optical cable. HDMI connecting with a TV that supports CEC allows the power On/Off and switch sources operation to be linked. The TV remote controller can also be used to control the AV receiver sound volume.

Intuitive Operation Graphical User Interface (GUI)

All Models

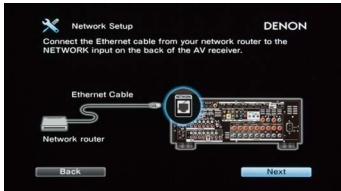
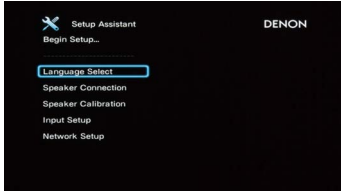
The settings menu and operation status of the AV receiver can be displayed on the TV screen. The GUI menus are displayed on top of the contents being viewed to allow the volume to be adjusted and the surround mode to be changed without inhibiting viewing the contents.

Make Connections and Settings Easily While Viewing the Screen

AVR-4520 AVR-3313 AVR-2313 AVR-2113
AVR-1713

This popular connection setting support function has evolved into an even easier to use "Setup Assistant". The procedure for making the connection with the speakers or source devices or for making the settings is displayed on the TV screen, so even first-time users can easily install the AV receiver.

View of the "Setup Assistant"



Even Complex Settings Can Be Called Up with One Touch

All Models

Quick Select Button

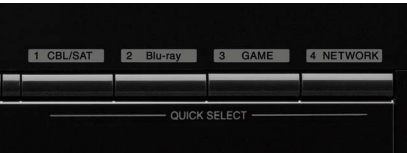
Pressing the Quick Select button located on the front of the unit for approximately 3 seconds will save the current operating state.

The input function, surround mode, Audyssey settings, and volume level can be registered and recalled with one touch.

Just pressing this button, even when in the power standby state, will restore the unit from power on to the registered conditions.

Three to four often used states can be registered so that even family members who have difficulty operating AV equipment can easily operate the unit.

View the Quick Select button



Front panel (AVR-1713)



Remote controller (AVR-1513)

Eco-friendly Design

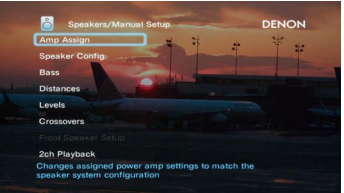
All Models

All models comes equipped with a new automatic power off function. In addition to the regular standby power, the standby power when the convenient HDMI link function is used reduces power consumption by 75% compared to previous models. This eco design is easy on the wallet as well as the environment.



Standby power consumption

	AVR-1912	AVR-2113	AVR-1612	AVR-1713
CEC OFF	0.1 W	0.1 W	0.1 W	0.1 W
CEC ON	3 W → 0.5 W	3 W → 0.5 W	3 W → 0.5 W	3 W → 0.5 W



AVR-2113's GUI

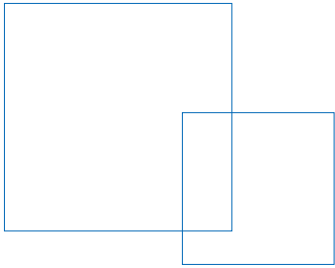


AVR-1713's GUI



AVR-1513's GUI

AV SURROUND RECEIVER



Network capable 9.2-ch AV Receiver with 11.2-ch Processing Circuit, Denon Link HD, Audyssey Mult EQ XT32, Network-Hub, 4K Video and triple HDMI Output. Supports the full Network functionality including DLNA1.5, AirPlay, Internet Radio and Spotify to allow you to enrich your entertainment world.



AVR-4520

9.2-ch AV Surround Receiver



220 W (6 ohms JEITA) Fully Discrete Power Amplifier with identical Quality and Power for All 9-Channels

To faithfully reproduce the original surround sound, each 9-ch power amplifier is equipped with identical power specification and sound quality. Since these power amps also use discrete circuits configured with parts strictly selected for their contribution to high sound quality, the surround sound playback is of impeccably high quality. Signal paths are as short as possible to keep signal degradation in the audio circuitry to an absolute minimum.

Equipped with an input terminal for the newly developed Denon Link HD

Jitter during digital transmission is reduced significantly by Denon Link HD. The clock for the digital transmission is supplied from AV receiver to Blu-ray player through an additional link cable for complete synchronization between 2 units. Denon Link HD is supported by the DBT-3313UD in Blu-ray player category.

AL32 Processing Multi Channel

The acclaimed AL32 Processing Multi Channel processing improves the fidelity of 2-ch and multi channel sources including PCM and bit streaming signals such as Dolby and DTS by sophisticated DSP processing algorithms that improves low level detail and enhances fidelity by adaptive filtering techniques. AL32 Processing Multi Channel also provides increased dynamic range and spatial information, bringing out all the nuances with optimum clarity and fidelity.

Equipped with advanced multi-channel surround sound, Audyssey DSX, Dolby Pro Logic IIz and DTS Neo:X

This unit supports the Dolby Pro Logic IIz that extends the space in the height direction and the Audyssey DSX that also extends it forward to allow you to enjoy surround sound with the spread and depth worthy of large-screen, high-definition displays. DTS Neo:X delivers the most flexible upmixing solution up to 11.1-ch for high-end home theater systems.

Audyssey MultEQ XT32

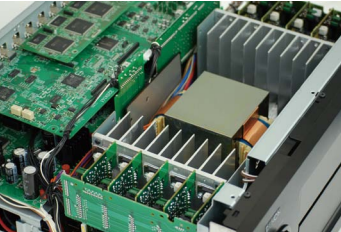
It is the most accurate room equalization solution with more than ten thousand individual control points allowing finer details of the room's problems to be captured and optimized. The ultra high resolution filters are applied to all channels including the subwoofers, with the most obvious benefit being heard in the low frequency range where correction is needed the most.

Equipped with 7 input and 2+1 output HDMI terminals that fully support next-generation 4K displays

Seven systems are provided for the 4K video signal supporting HDMI input. One of these systems is located at the front so that you can easily enjoy video from a movie camcorder, game console, or smart phone. The HDMI output has a new terminal for zone output in addition to 2 systems capable of simultaneous output to allow the HDMI input video and audio to be output to a sub-zone independently.

Other functions

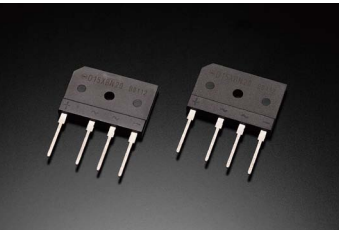
- Stable power supply for high-quality sound and image playback
- Dynamic Discrete Surround Circuit, D.D.S.C.-HD32 Digital with AL32 Processing Multi Channel, to dramatically enhance the listening experience
- 192 kHz/32-bit D/A converters for all channels
- Supports DSD audio signal input from HDMI
- Pure direct mode for enjoying high-fidelity sound
- Minimum signal path for clear audio and video signal
- Supports 4 ohms speakers
- Compressed Audio Restorer
- GUI overlay on HDMI
- InstaPrevue
- MHL Interface Compatible
- 4 Quick Select buttons
- Supports multi-zone output for up to 4 zones
- PHONO input
- FM radio tuner
- Sleep timer
- Remote controller with Backlite and LCD display



9-ch discrete monaural construction power amplifier



Large-capacity block capacitor

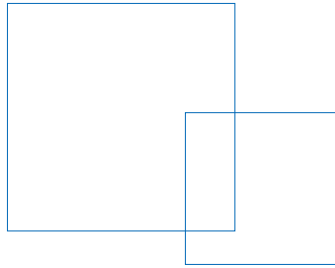


High-current schottky barrier diode



Inside of trap door

9.2-ch AV SURROUND RECEIVER AVR-4520



Full support for next-generation 4K displays.

Denon Link HD — a more advanced jitter-free audio transmission technology.

7.2-ch AV Receiver merges high performance and multi-functionality into a higher dimension.



AVR-3313

7.2-ch AV Surround Receiver



Equipped with a 195 W (6 ohms JEITA) discrete configuration power amp that provides the same quality for all 7-channels

This unit uses a discrete power amp made of pure audio quality components. Each channel is equipped with a high sound quality amplifier that compares well even with a Hi-Fi amplifier to allow you to fully enjoy even multi-channel contents at high quality.

Equipped with an input terminal for the newly developed Denon Link HD audio transmission technology to realize jitter-free transmission

Jitter during transmission has been successfully eliminated by connecting both an HDMI cable and special clock synchronization cable to supported Blu-ray players to completely synchronize the clock between the AV receiver and the player. (See page 3 for details.)

Network function supports 192 kHz/24-bit FLAC and WAV files, AirPlay, and Internet radio

This unit supports Apple Lossless file and 192 kHz/24-bit FLAC/WAV file playback to allow you to enjoy studio master quality high-fidelity files. (See page 5-6 for details.)

Smart control using the Denon Remote App. Also supports iPod touch, iPhone, and Android

Easily perform Internet radio station selection and music file searches as well as such basic operations as power on/off, input changes, and volume control via Wi-Fi.

New-generation Denon AV component design features an aluminum panel and a trap door

The external appearance was redesigned for the first time in 5 years to achieve a design worthy of the 4K and high resolution age. This Denon new-generation AV component design is simple but powerful in keeping with the Denon audio component concept of “achieving a refined yet powerful reproduction that is as close as possible to the original sound.”

Equipped with 7 input and 2+1 output HDMI terminals that fully support next-generation 4K displays

Six systems are provided for the 4K video signal supporting HDMI input. One of these systems is located at the front so that you can easily enjoy video from a movie camcorder, game console, or smart phone. The HDMI output has a new terminal for zone output in addition to 2 systems capable of simultaneous output to allow the HDMI input video and audio to be output to a sub-zone.

Equipped with advanced multi-channel surround sound, Audyssey DSX, and a Dolby Pro Logic IIz processor

This unit supports the Dolby Pro Logic IIz that extends the space in the height direction and the Audyssey DSX that also extends it forward to allow you to enjoy surround sound with the spread and depth worthy of large-screen, high-definition displays.

Front wide and front height supporting speaker terminals for 11-channels

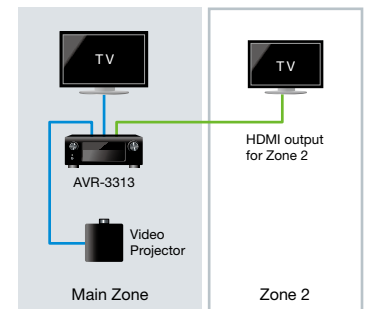
This unit is equipped with special front height and wide speaker terminals in addition to surround back. The output channel is changed automatically among a maximum of 7-channels to match the surround sound mode.

Surround sound back channel amplifier assignment function

The surround sound back channel left and right amplifiers can be assigned to the front left/right (biamp), 2-channel special front left/right, front B left/right, or zone 2/3.

Other functions

- Supports multi-zone output for up to 3 zones
- Phonograph input that can be connected to a record player
- FM radio tuner
- Sleep timer
- Can be connected to 2 subwoofers
- Supports DSD audio signal input from HDMI
- Remote controller with pre-set functions



2 + 1 HDMI outputs



Supports simultaneous connection of 11-channel speakers

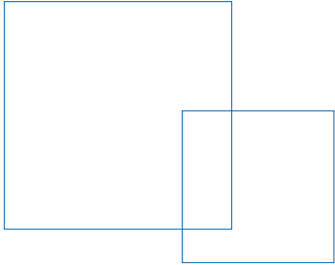


Front wide and front height special speaker terminals



Inside of trap door

7.2-ch AV SURROUND RECEIVER AVR-3313



HDMI 2 System Outputs with Full 4K Video Signal Support
7.2-ch AV Surround Sound Receiver for Users Who Refuse to
Compromise on Performance or Expandability



AVR-2313

7.2-ch AV Surround Receiver



High Grade Discrete Power Amplifier & Highly Stable Power Supply Circuit

Equipped with a discrete power amplifier of audio grade components and a highly stable power circuit. You will be mesmerized by the deep, rich low-frequency sound and the very dense surround sound space.

HDMI with full support for next- generation 4K displays and equipped with 6 input, 2 simultaneous output terminals

Comes with 6 systems for 4K video signal supporting HDMI input. One of these systems is located at the front to provide easy enjoyment of video from movie camcorders, game consoles, and smart phones.

Also equipped with HDMI output terminals for 2 systems capable of simultaneous output.

Network function supports 192 kHz/24-bit FLAC and WAV files, AirPlay, and Internet radio

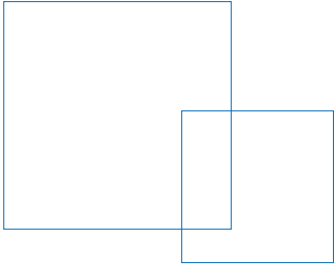
Now Apple Lossless file playback is supported and 192 kHz/24-bit FLAC/WAV file can also be played. Enjoy playing studio master quality high-fidelity files. (See page 5-6 for details.)

Advanced multi-channel surround sound, Audyssey DSX, Dolby Pro Logic IIz

Supports Dolby Pro Logic IIz to expand the upward space and Audyssey DSX to expand the forward. Enjoy a magnificent sound field worthy of large-screen, high-definition video.

Other functions

- 170 W x 7-ch (6 ohms JEITA) High quality discrete power amplifier for powerful sound
- GUI overlay on HDMI
- "Setup Assistant" on GUI
- iPod touch/iPhone, Android supporting "Denon Remote App"
- Supports DSD audio signal input from HDMI
- Subwoofer pre-out x 2
- Compressed Audio Restorer
- 4 Quick Select buttons
- Multi-zone output support for up to 2 zones
- FM radio tuner
- Sleep timer
- Remote controller newly designed for easier use



This Futurist Standard 7.1-ch AV Surround Sound Receiver
Supports 4K Video Signals and Advanced Network Functions



AVR-2113

7.1-ch AV Surround Receiver



140 W (6 ohms JEITA) Discrete Configuration Power Amplifier with the Same Quality for All 7-Channels

Employs a discrete power amplifier built with pure audio quality parts. All of the channels have clamped type speaker terminals to support banana plugs. You can also fully enjoy multi-channel contents at high quality.

HDMI with full support for 4K video signals and equipped with 6 input and 1 output terminals

Supports 4K video signal pass-through and up conversion of HD and SD resolution video signals to a 4K video signal. Equipped with 6 systems for HDMI input. One of these systems is located at the front to provide easy enjoyment of video from movie camcorders, game consoles, and smart phones.

Advanced Multi-channel surround sound: Dolby Pro Logic IIz

Supports Dolby Pro Logic IIz to expand the upward space. Enjoy impressive surround sound with depth worthy of large-screen, high-definition video.

Network function supports 192 kHz/24-bit FLAC and WAV files, AirPlay, and Internet radio

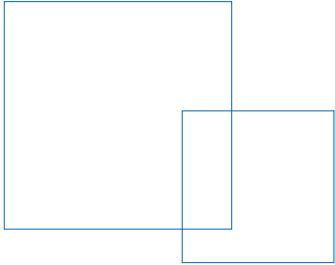
Now Apple Lossless file playback is supported and 192 kHz/24-bit FLAC/WAV file can also be played. Enjoy playing studio master quality high-fidelity files. (See page 5-6 for details.)

Other functions

- GUI overlay on HDMI
- "Setup Assistant" on GUI
- iPod touch/iPhone, Android supporting "Denon Remote App"
- Compressed Audio Restorer
- 4 Quick Select buttons
- Multi-zone output support for up to 2 zones
- FM radio tuner
- Sleep timer
- 329 mm deep space-saving body
- Remote controller newly designed for easier use

7.2-ch AV SURROUND RECEIVER AVR-2313

7.1-ch AV SURROUND RECEIVER AVR-2113



Equipped with Network Functions that Support AirPlay
AV Surround Sound Receiver with Wide Connectivity to
Enhance the Enjoyment of Home Entertainment



AVR-1713
5.1-ch AV Surround Receiver



Network function supports 192 kHz/24-bit FLAC and WAV files, AirPlay, and Internet radio

As with high-end models, supports playing of 192 kHz/24-bit FLAC/WAV files despite being an entry model. Enjoy playing studio master quality high-fidelity files. (See page 5-6 for details.)

Smart Control using “Denon Remote App” that also supports iPod touch, iPhone, and Android

Provides easy operation for Internet radio channel selection and music file searching as well as for basic operations including power on/off, input switching, and volume control all via WiFi. (See page 5 for details.)

Automatically Adjusts to the Optimum Surround Sound Settings Audyssey MultEQ XT

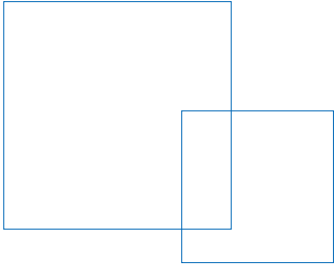
Utilizes the included microphone to take precision measurements of the home viewing environment, which differs from that in movie theaters, to optimize the settings and produce the ideal acoustic space for your home. (See page 4 for details.)

Easy-to-use iPod direct play USB terminal

The USB terminal on the front of the unit supports direct playing of music in a USB memory device, iPod, or iPhone. It can also be used to charge an iPod or iPhone.

- Other functions**
- 135 W x 5-ch (6 ohms JEITA) High quality discrete power amplifier for powerful sound
 - 5 input/1 output HDMI terminals that support 3D video signals
 - GUI overlay on HDMI
 - “Setup Assistant” on GUI
 - Compressed Audio Restorer
 - 4 Quick Select buttons
 - FM radio tuner
 - Sleep timer
 - 329 mm deep space-saving body
 - Remote controller newly designed for easier use

5.1-ch AV SURROUND RECEIVER AVR-1713



5.1-ch AV Surround Receiver — Denon Surround Sound
Technology Condensed into a Compact Body



AVR-1513
5.1-ch AV Surround Receiver



130 W (6 ohms JEITA) Discrete Configuration Power Amplifier with the Same Quality for All 5-Channels

This entry level model inherited its circuitry design from high-end models. The discrete power amplifier is made of Hi-Fi audio quality parts to allow you to fully enjoy high quality stereo sound and multi-channel contents.

192 kHz/24-bit D/A Converter

Equipped with a high performance D/A converter that can process up to 192 kHz/24-bit for all channels. Accurately converts HD sound sources, such as Dolby TrueHD and DTS-HD Master Audio, to analog audio signals.

Intuitive Operation Graphical User Interface (GUI)

The settings menu and operation status can be displayed on the TV screen. The GUI menus are displayed on top of the contents being viewed to allow the volume to be adjusted and the surround mode to be changed without inhibiting viewing the contents.

4 Quick Select Buttons

The function, sound volume, surround mode, and Audyssey setting states can be registered to 4 quick select buttons. The registered states can be recalled by pressing one of these buttons for easy operation by even those not familiar with the AV receiver operation.

- Other functions**
- 4 input/1 output HDMI terminals that support 3D video signals
 - Setup assistant on GUI
 - Compressed Audio Restorer
 - FM/AM radio tuner
 - Sleep timer
 - 319 mm deep space-saving body
 - Remote controller newly designed for easier use

5.1-ch AV SURROUND RECEIVER AVR-1513

The perfect match for your home theater entertainment: this thoroughly concerted combination of the AVR-1312 and the SYS-1312HT 5.1 speaker gets you ready to dive into cinema action.



DHT-1312 XP Home Theater System

3D HDMI DOLBY TRUEHD DOLBY PRO LOGIC IIz dts HD Master Audio CINEMA EQ RDS RadioTEXT

SYS-1312HT 5.1 Speakers System // **SC-F1312** Identical “Front” and “Surround” speakers // Wideband 8 cm driver // High gloss cabinet // **SC-C1312** “Center” speaker // Wideband 8 cm driver // High gloss cabinet // **DSW-1312 Subwoofer** // 100W powerful subwoofer with a large cabinet for rich sound

Comprehensive Blu-ray receiver accompanied by its perfect speakers:

The D-X1000BD is a precisely balanced combination that satisfies even experienced home theater fans. Its digital content friendliness makes the system a smart choice for today – and tomorrow.



D-X1000BD Blu-ray Mini System

Made for iPod iPhone

Blu-ray Disc DVD VIDEO COMPACT Disc BD LIVE BONUS VIEW™ HDMI AVCHD DOLBY TRUEHD DOLBY VIRTUAL SPEAKER dts HD Master Audio

RBD-X1000 Blu-ray Receiver // **Serious Hi-Fi quality** // Denon hi-fi component sound engineering in the most compact size // European sound tuned // “Simple & straight” circuit design and minimum signal path, to optimise performance in sound and video quality // 70 W x 2, high power output (6 ohms) // Strictly selected sound parts // Support Blu-ray Disc/DVD/CD playback // Supports HD audio formats Dolby TrueHD and DTS-HD Master Audio // Dolby Virtual Speaker, Dolby Headphone // Support Full HD 1080p/24 HDMI output // Equipped speaker Optimiser for best matching with Denon SC-X1000 speaker system // **Digital Content Friendliness** // iPod direct connectivity via USB port (Digital transfer) // Front PORTABLE IN for any portable device (analogue) // Network ready, connectivity for Denon networked control dock for iPod (ASD-51W/51N) // Ease of use // GUI (Graphical User Interface) for Disc and USB source // 2-line FL display for easily identify musical or broadcast stations // Easy timer setting by 2-line display and remote cursor keys // New remote controller, large & unique key design for frequently used keys // Compact size of 280mm wide and 313mm deep lets you easily set up the system at any place // **SC-X1000 Speaker System** // D.D.L. (Denon Double Layer) cone // High-definition tweeter with ventilation hole

Your one-stop key to network entertainment. Just plug-in your iPod and the ASD 51 connects your computer, the internet and your stereo system to let you enjoy music, images, and more.



Made for iPod

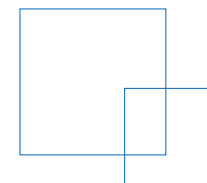
ASD-51W wireless and wired Control Dock for iPod

WiFi CERTIFIED .Network dlna CERTIFIED

Playback Music/Photo Files from PC or Music Server // ASD-51W/N can access Windows Media Player^(*) to get music, photos and playlists coming from your PC. // ASD-51W features Wi-Fi connectivity supporting IEEE802.11b and g and Wi-Fi Protected Setup (WPS) for an easier security setup^(*) // Supported formats: WMA, AAC^(*), MP3, WAV, FLAC for audio and JPEG for photos // **Internet Radio** // You can access radio stations via “vTuner” service, and enjoy your favorite music channels without a PC // **The ‘Party Mode’ Function** // Multi-zone Network Streaming // The ASD-51W can supply the same music (iPod/Internet Radio/PC music/NAS) in up to five rooms including its local music system at the same time, when connected to other Denon devices on the network // **GUI (Graphical User Interface) Operation** // To allow easier browsing and playback of your files, the ASD-51W provides an intuitive GUI with album artwork via S-Video connection. Multi language for both GUI and Meta Data are available. (English, French, Spanish, German, Japanese) // The iPhone is not included in delivery

(*1) Windows Media Player version 11 or latest version is required (*2) The access point needs to support WPS (*3) Non-DRM files only

With integrated high quality pre-amplifier.



ASD-11R Control Dock for iPod

Made for iPod

Enjoy photos and videos from your iPod // The ASD-11R lets you connect your iPod to a Denon component with Dock Control and play the photos and videos stored in your iPod // **Enjoy music from your iPod with high quality sound** // The ASD-11R allows you to connect your iPod to a Denon component with Dock Control and play the music stored in your iPod without losing sound quality // **Display iPod information on your TV** // You can monitor iPod text information, such as menus and track names, on a TV screen, or the front display of a Denon component with Dock Control // **Recharge your iPod** // The battery is charged automatically when the iPod is inserted into the ASD-11R // **Supported iPods** // The ASD-11R supports iPods equipped with Dock Connector Port (4th-generation iPod or later (including iPod classic), iPod nano and iPod touch) // Dimensions (W x H x D): 104 x 28.5 x 76.5 mm/Weight: 220g // The iPod is not included in delivery

Supports Blu-ray 3D and the latest surround sound formats including Dolby TrueHD and DTS-HD. You will be mesmerized by the high image quality and sound quality of the Universal Player.

Universal player supports a wide range of disc media

DBT-3313UD DBT-1713UD



Plays Super Audio CD and DVD-Audio as well as Blu-ray Disc and DVD-Video. The HDMI output terminal can directly output DSD signal, which is the audio format for Super Audio CD. Plays a wide range of disc media including Blu-ray 3D, and recording media such as AVCHD.

Blu-ray Disc, Blu-ray 3D, DVD-Audio, DVD-Video, Super Audio CD, CD, DivX, AVCHD

Main supported discs and formats

Precision mechanism developed by Denon

DBT-3313UD DBT-1713UD

We newly developed an original precision mechanism optimized for each model to accurately read signals from the disc media and minimize the effect on the audio/video circuit of the vibration from disc rotation.

Low center of gravity construction

DBT-3313UD DBT-1713UD

The mechanical module designed with a low center of gravity is firmly mounted to a low position in the center of the chassis. Unnecessary vibration is dissipated to the ground to achieve stable reading and suppress the negative effect on sound and image quality.

Network functions support audio and video streaming

DBT-3313UD DBT-1713UD



By connecting to home network this unit can play video, still images, and audio files including 192 kHz/24-bit FLAC and WAV stored in a computer or NAS. It can also access the YouTube video sharing site without using a computer to enjoy HD resolution video. Audio and video files stored in a USB memory can also be played by connecting the memory to the USB port on the front of the unit.

Fast Startup & loading

DBT-3313UD DBT-1713UD

High speed loading and quick play greatly shorten the wait time when turning on the power or loading a disc. Compared with previous models the reading time has even been greatly shortened for discs with a long loading time like Blu-ray discs.

1080/24p output support

DBT-3313UD DBT-1713UD

Supports 1080/24p output to bring out the maximum film feeling. Faithfully reproduces the 24 frames/sec images recorded on film just by connecting to a display that supports 1080/24p input so you can fully enjoy the appeal of movies recorded on film.

High bit, high performance i/p scaler

DBT-3313UD DBT-1713UD

Equipped with a high performance i/p scaler capable of 10-bit processing. SD video (480i) and HD video (1080i) can be upscaled to full HD video (1080p) and output from the HDMI terminal to allow you enjoy detailed and beautiful images even when playing recorded HD broadcasts, DVD or similar media.

Support for HDMI control

DBT-3313UD DBT-1713UD

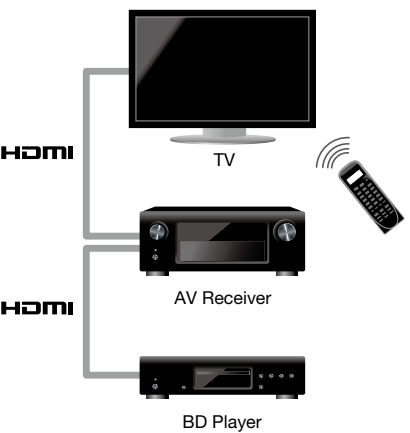


The power and input can be linked with just by connecting to a television or an AV receiver that supports the HDMI control function.

Operating this unit will automatically turn on the power of the television or AV receiver and change the input.

And even if the unit's power is off it remains linked to the television, and additionally the remote controller of the television can be used to operate the unit.

**It might not be possible to operate or link with some or all of the above functions depending on the television or AV receiver model or the settings of the connected device.*



Precision mechanism developed by Denon



GUI during network playback



Screen when viewing YouTube

Universal Audio/Video Player

UNIVERSAL AUDIO/VIDEO PLAYER

Universal Blu-ray Disc Player with Denon Link HD and Network Audio/Video Streaming



DBT-3313UD

Universal Audio/Video Player



Denon Technologies for superior sound and video quality

The direct Mechanical Ground Construction suppresses vibration and ensures high-quality HD sound and video. The fully Shielded SVH loader mechanism in DBT-3313UD features an aluminum top cover and twin shafts that suppress internal and external vibration and electromagnetic noise to ensure highly precise disc playability. Protein-blast disc tray further absorbs unwanted vibration. The Independent Block Construction further supports this. The electronic circuits have been mounted in separate locations inside of the player to ensure that the different types of signals do not affect each other and cause electronic or magnetic noise. A further noise reduction has been achieved by a fan less construction.

Denon Link HD

DBT-3313UD is equipped with Denon Link HD to achieve digital audio signal transmission with negligible jitter over an HDMI connection. Denon Link HD works not only with Blu-ray disc but with all HDMI digital output signals, including DVD, DVD-Audio, Super Audio CD, music CD, and music streamed from a network. The adoption of Denon Link HD in the DBT-3313UD achieves more clearly defined sound localization and a beautifully spacious 3D sound.

HDMI Audio/Video separate output

DBT-3313UD supports "AV Pure Direct" output mode, where audio signals and video signals are output separately from dedicated HDMI terminals. It achieves to eliminate Interference between audio and video signals and transmit high-quality signals without degradation.



Other functions

- Comes with a high speed HDMI cable
- DSD signal direct output (HDMI)
- High speed loading & quick play
- Pure Direct function for good sound quality when playing music
- Supports the HDMI control function
- 600 MB internal memory for BD-Live
- USB terminal for playing video, photographs, and music files stored in a USB memory
- App control support

UNIVERSAL AUDIO/VIDEO PLAYER DBT-3313UD

Universal Player Utilizes Transporter Concept to Improve HDMI Output Quality



DBT-1713UD

Universal Audio/Video Player



Transporter concept

We minimize the analog audio and video circuitry to improve the HDMI output to meet the needs of the HDMI age. The power supply is stabilized and the inter-circuit interference is minimized to achieve a clear and stable sound approaching that of a high-end model.

Newly design high quality mechanical module

The mechanical module is covered with a full shield cover to suppress the mechanical module vibration to allow high precision reading of video and audio signals from the disc. The disc rotating sound has also been reduced to improve the quietness.

Fanless construction and large feet used to suppress vibration

For a disc player, not generating vibration and not being subjected to external vibration are important elements in realizing high quality audio and video. This is one of the few Blu-ray players with a fanless design. This eliminates the fan noise and the vibration caused by fan rotation. The unit also employs a large insulator like that used in a CD player. This minimizes the effect of external vibrations.

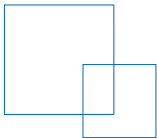
App control support

This player can be controlled using the Denon Remote App by connecting to a Denon AV receiver (2012 model) that supports the Denon original smart phone application software "Denon Remote App" via a HDMI connection.

Other functions

- Comes with a high speed HDMI cable
- DSD signal direct output (HDMI) support 3D video signals
- High speed loading & quick play
- Supports the HDMI control function
- 600 MB internal memory for BD-Live
- USB terminal for playing video, photographs, and music files stored in a USB memory

UNIVERSAL AUDIO/VIDEO PLAYER DBT-1713UD

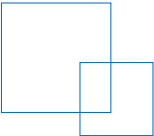


AV Surround Receiver Features

		AVR-4520	AVR-3313	AVR-2313	AVR-2113	AVR-1713	AVR-1513
HDMI Functionality	HDMI Version	1.4a	1.4a	1.4a	1.4a	1.4a	1.4a
	4K support	●	●	●	●	-	-
	3D support	●	●	●	●	●	●
	ARC (Audio Return Channel)	●	●	●	●	●	-
	CEC	●	●	●	●	●	-
	Standby HDMI pass through	●	●	●	●	●	●
	Audio delay (Lip sync)	●	●	●	●	●	-
	Deep Color	●	●	●	●	●	●
Surround format & mode	x.v.Color	●	●	●	●	●	●
	DOLBY	Dolby TrueHD Dolby Digital Plus Dolby Digital EX Dolby Pro Logic II/IIx/IIz Dolby Digital	Dolby TrueHD Dolby Digital Plus Dolby Digital EX Dolby Pro Logic II/IIx/IIz Dolby Digital	Dolby TrueHD Dolby Digital Plus Dolby Digital EX Dolby Pro Logic II/IIx/IIz Dolby Digital	Dolby TrueHD Dolby Digital Plus Dolby Digital EX Dolby Pro Logic II/IIx/IIz Dolby Digital	Dolby TrueHD Dolby Digital Plus Dolby Pro Logic II Dolby Digital	Dolby TrueHD Dolby Digital Plus Dolby Pro Logic II Dolby Digital
	DTS	DTS HD Master Audio DTS HD High Resolution Audio DTS Digital Surround DTS 96/24 DTS Express DTS Neo:X	DTS HD Master Audio DTS HD High Resolution Audio DTS Digital Surround DTS 96/24 DTS Express DTS Neo:6	DTS HD Master Audio DTS HD High Resolution Audio DTS Digital Surround DTS 96/24 DTS Express DTS Neo:6	DTS HD Master Audio DTS HD High Resolution Audio DTS Digital Surround DTS 96/24 DTS Express DTS Neo:6	DTS HD Master Audio DTS HD High Resolution Audio DTS Digital Surround DTS 96/24 DTS Express DTS Neo:6	DTS HD Master Audio DTS HD High Resolution Audio DTS Digital Surround DTS 96/24 DTS Express DTS Neo:6
	Audyssey DSX	●	●	●	-	-	-
Sound mode		Multi ch Stereo, Super Stadium, Rock Arena, Jazz Club, Classic Concert, Wide Screen, Mono Movie, Video Game, Matrix, Virtual	Multi ch Stereo, Rock Arena, Jazz Club, Mono Movie, Video Game, Matrix, Virtual	Multi ch Stereo, Rock Arena, Jazz Club, Mono Movie, Video Game, Matrix, Virtual	Multi ch Stereo, Rock Arena, Jazz Club, Mono Movie, Video Game, Matrix, Virtual	Multi ch Stereo, Rock Arena, Jazz Club, Mono Movie, Video Game, Matrix, Virtual	Multi ch Stereo, Virtual
Processor & converter	32-bit floating point DSP	High grade x 3	High grade x 1	High grade x 1	High grade x 1	High grade x 1	x 1
Circuit & construction	D/A Converter	192 kHz/32-bit	192 kHz/24-bit	192 kHz/24-bit	192 kHz/24-bit	192 kHz/24-bit	192 kHz/24-bit
	D.D.S.C.-HD	HD32	HD	-	-	-	-
	ALPHA processing	AL32 Multi Channel	AL24 Plus	-	-	-	-
	Denon Link HD	●	●	-	-	-	-
	Clock Jitter Reducer	●	●	-	-	-	-
	Pure direct	●	●	●	●	●	-
	Compressed Audio Restorer	●	●	●	●	●	●
	Variable gain volume control	●	●	●	●	●	●
	Direct Mechanical Ground Construction	●	●	●	●	●	●
	Minimum Signal Path	●	●	●	●	●	●
Video feature	All ch binding post SP terminal	●	●	●	●	●	-
	Analogue video to HDMI Up conversion	●	●	●	●	-	-
	Video scaler	up to 4K (3840 x 2160)	up to 4K (3840 x 2160)	up to 4K (3840 x 2160)	up to 4K (3840 x 2160)	-	-
	Component video band width	60 MHz	60 MHz	60 MHz	60 MHz	-	-
	Analogue video to Componet conversion	●	-	-	-	-	-
Setup & operation	Auto setup/Room EQ with microphone	Audyssey MultEQ XT32 Audyssey Sub EQ HT	Audyssey MultEQ XT	Audyssey MultEQ XT	Audyssey MultEQ XT	Audyssey MultEQ XT	-
	Audyssey LFC	●	-	-	-	-	-
	Audyssey Dynamic EQ	●	●	●	●	●	-
	Audyssey Dynamic Volume	●	●	●	●	●	-
	Variable subwoofer crossover switching	40/60/80/90/100/110/120/150/200/250Hz	40/60/80/90/100/110/120/150/200/250Hz	40/60/80/90/100/110/120/150/200/250Hz	40/60/80/90/100/110/120/150/200/250Hz	40/60/80/90/100/110/120/150/200/250Hz	40/60/80/90/100/110/120/150/200/250Hz
	Cinema EQ	●	●	●	●	●	●
	User interface	Advanced GUI	Advanced GUI	Advanced GUI	Advanced GUI	GUI	GUI
	GUI/OSD overlay on HDMI	●	●	●	●	●	●
	InstaPrevue	●	-	-	-	-	-
	MHL	●	-	-	-	-	-
	Menu Language	English, German, French, Italian, Spanish, Dutch, Swedish, Russian, Polish	English, German, French, Italian, Spanish, Dutch, Swedish	English, German, French, Italian, Spanish, Dutch, Swedish	English, German, French, Italian, Spanish, Dutch, Swedish	English, German, French	English
	Setup Assistant	●	●	●	●	●	-
	Remote Handset	Learning handset with LCD & Back Light	Pre memory handset with Glo-Key	Simple handset with Glo-Key	Simple handset with Glo-Key	Simple handset	Simple handset
	Multi Zone/Multi Source	4/4	3/3	2/2	2/2	-/-	-/-
	Personal memory plus	●	●	●	●	●	●
	Quick Select buttons	4	4	4	4	4	4
Network	Network music/photo streaming (DLNA1.5)	●	●	●	●	●	-
	Support Formats (Network)	MP3, WMA, AAC, Apple Lossless 96/24, FLAC 192/24, WAV 192/24, JPEG	MP3, WMA, AAC, Apple Lossless 96/24, FLAC 192/24, WAV 192/24, JPEG(*1)	MP3, WMA, AAC, Apple Lossless 96/24, FLAC 192/24, WAV 192/24, JPEG(*1)	MP3, WMA, AAC, Apple Lossless 96/24, FLAC 192/24, WAV 192/24, JPEG(*1)	MP3, WMA, AAC, Apple Lossless 96/24, FLAC 192/24, WAV 192/24, JPEG(*1)	-
	Gapless Playback for FLAC, WAV (Network)	●	●(*1)	●(*1)	●(*1)	●(up to 96 kHz/24-bit) (*1)	-
	Album Art Browsing	●	●	●	●	●	-
	AirPlay	●	●	●	●	●	-
	Internet Radio	vTuner (MP3/WMA)	vTuner (MP3/WMA)	vTuner (MP3/WMA)	vTuner (MP3/WMA)	vTuner (MP3/WMA)	-
	Spotify(*2)	●	●(Update)	●(Update)	●(Update)	-	-
	Flickr	●	●	●	●	●	-
	Remote App	●	●	●	●	●	-
	iPod/USB Direct Play	●/●	●/●	●/●	●/●	●/●	-/-
Others	Support Formats (USB)	MP3, WMA, AAC, Apple Lossless 96/24, FLAC 192/24, WAV 192/24, JPEG	MP3, WMA, AAC, Apple Lossless 96/24, FLAC 192/24, WAV 192/24, JPEG(*1)	MP3, WMA, AAC, Apple Lossless 96/24, FLAC 192/24, WAV 192/24, JPEG(*1)	MP3, WMA, AAC, Apple Lossless 96/24, FLAC 192/24, WAV 192/24, JPEG(*1)	MP3, WMA, AAC, Apple Lossless 96/24, FLAC 192/24, WAV 192/24, JPEG(*1)	-
	Tuner FM/AM	●/-	●/-	●/-	●/-	●/-	●/●
	RDS (Radio Data System)	●	●	●	●	●	●
	Radio Text	●	●	●	●	●	●
	Sleep timer	●	●	●	●	●	●
	Auto Standby	●	●	●	●	●	●

(*1) A firmware update is required to support for 192 kHz/24-bit FLAC and WAV file playback, Apple Lossless file playback, and gapless playback for FLAC and

WAV file. (*2) Not available in all region



AV Surround Receiver Specifications

		AVR-4520	AVR-3313	AVR-2313	AVR-2113	AVR-1713	AVR-1513
Technical information							
Power amplifier section	Type	Same quality amplifier for all 9-channel		Same quality amplifier for all 7-channel		Same quality amplifier for all 5-channel	
	Maximum effective output power*(1)	6 ohms, 1kHz, T.H.D. 10%, 2-ch driven	6 ohms, 1kHz, T.H.D. 10%, 2-ch driven	6 ohms, 1kHz, T.H.D. 10%, 2-ch driven	6 ohms, 1kHz, T.H.D. 10%, 2-ch driven	6 ohms, 1kHz, T.H.D. 10%, 2-ch driven	6 ohms, 1kHz, T.H.D. 10%, 2-ch driven
	Front (L+R)	220 W + 220 W	195 W + 195 W	170 W + 170 W	140 W + 140 W	135 W + 135 W	130 W + 130 W
	Centre	220 W	195 W	170 W	140 W	135 W	130 W
	Surround (L+R)	220 W + 220 W	195 W + 195 W	170 W + 170 W	140 W + 140 W	135 W + 135 W	130 W + 130 W
	Surround Back (L+R)	220 W + 220 W	195 W + 195 W	170 W + 170 W	140 W + 140 W	-	-
	Front Height (L+R)	220 W + 220 W	-	-	-	-	-
	Rated output*	6 ohms, 1kHz, T.H.D. 0.7%, 2-ch driven	6 ohms, 1kHz, T.H.D. 0.7%, 2-ch driven	6 ohms, 1kHz, T.H.D. 0.7%, 2-ch driven	6 ohms, 1kHz, T.H.D. 0.7%, 2-ch driven	6 ohms, 1kHz, T.H.D. 0.7%, 2-ch driven	6 ohms, 1kHz, T.H.D. 0.7%, 2-ch driven
	Front (L+R)	190 W + 190 W	165 W + 165 W	135 W + 135 W	125 W + 125 W	120 W + 120 W	110 W + 110 W
	Centre	190 W	165 W	135 W	125 W	120 W	110 W
	Surround (L+R)	190 W + 190 W	165 W + 165 W	135 W + 135 W	125 W + 125 W	120 W + 120 W	110 W + 110 W
	Surround Back (L+R)	190 W + 190 W	165 W + 165 W	135 W + 135 W	125 W + 125 W	-	-
Amplifier	Front Height (L+R)	190 W + 190 W	-	-	-	-	-
	Full discrete all ch equal power amplifier	●	●	●	●	●	●
	Wide range frequency	●	●	●	●	●	●
	Surround Back ch amplifier assign	Front B/ Front SP Bi amp/ Height/ Wide /Multizone	Front B/ Front SP Bi amp/ Height/ Wide /Multizone	Front B/ Front SP Bi amp/ Height/ Wide /Multizone	Front B/ Front SP Bi amp/ Height/ /Multizone	-	-
FM section	Power amplifier assign	for zone 2 or 3	for zone 2 or 3	for zone 2	for zone 2	-	-
	Tuning frequency range / Usable sensitivity	87.5 - 108.0 MHz/1.2 µV, (12.8 dBf)	87.5 - 108.0 MHz/1.2 µV, (12.8 dBf)	87.5 - 108.0 MHz/1.2 µV, (12.8 dBf)	87.5 - 108.0 MHz/1.2 µV, (12.8 dBf)	87.5 - 108.0 MHz/1.2 µV, (12.8 dBf)	87.5 - 108.0 MHz/1.2 µV, (12.8 dBf)
AM section	Tuning frequency range / Usable sensitivity	-	-	-	-	-	522 - 1611 kHz/18 µV
General	Power supply	AC 230 V, 50/60 Hz	AC 230 V, 50/60 Hz	AC 230 V, 50/60 Hz	AC 230 V, 50/60 Hz	AC 230 V, 50/60 Hz	AC 230 V, 50/60 Hz
	Power consumption	780 W (Standby: 0.1 W)	670 W (Standby: 0.1 W)	600 W (Standby: 0.1 W)	500 W (Standby: 0.1 W)	390 W (Standby: 0.1 W)	330 W (Standby: 0.5 W)
	Dimensions (W x H x D)	434 x 195 x 423 mm	434 x 167 x 379 mm	434 x 167 x 379 mm	434 x 167 x 329 mm	434 x 151 x 329 mm	434 x 151 x 319 mm
	Weight	16.5 kg	12.0 kg	10.9 kg	9.5 kg	8.3 kg	7.8 kg
Ports							
IN	HDMI	x 7 (incl. 1 front panel)	x 7 (incl. 1 front panel)	x 6 (incl. 1 front panel)	x 6 (incl. 1 front panel)	x 5 (incl. 1 front panel)	x 4 (incl. 1 front panel)
	Component	x 3	x 2	x 2	x 1	-	-
	Composite (Video)	x 4 (incl. 1 front panel)	x 4 (incl. 1 front panel)	x 4 (incl. 1 front panel)	x 3 (incl. 1 front panel)	x 2	x 2
	Analogue audio	x 7 (incl. 1 front panel)	x 6 (incl. 1 front panel)	x 6 (incl. 1 front panel)	x 5 (incl. 1 front panel)	x 2	x 3 (incl. 1 front panel)
	Analogue EXT. In	7.1 ch	-	-	-	-	-
	Digital Optical	x 2	x 2	x 2	x 1	x 1	x 1
	Digital Coaxial	x 2	x 2	x 2	x 1	x 1	x 1
	Denon Link HD	x 1	x 1	-	-	-	-
	Phono MM	x 1	x 1	-	-	-	-
OUT	HDMI monitor	Monitor x 2 (Repeater and 4K scaler) Zone 4 x 1 (Repeater and 4K scaler)	Monitor x 2 (Repeater and 4K scaler) Zone 2 x 1 (Repeater and 4K scaler)	x 2 (Repeater and 4K scaler)	x 1 (Repeater and 4K scaler)	x 1 (Repeater)	x 1 (Repeater)
	Component	Monitor x 1 Zone 2 x 1	Monitor x 1	Monitor x 1	-	-	-
	Composite (Video)	Monitor x 1 REC x 1 Zone 2 x 1	Monitor x 1 REC x 1 Zone 2 x 1	Monitor x 1 REC x 1 -	Monitor x 1 - -	Monitor x 1 - -	Monitor x 1 - -
	Analogue audio	REC x 1	REC x 1	REC x 1	-	-	-
	Analogue preout	11.2-ch x 1 Zone 2 x 1 Zone 3 x 1	7.2-ch x 1 Zone 2 x 1 Zone 3 x 1	7.2-ch x 1 Zone 2 x 1 -	0.1-ch - -	0.1-ch - -	0.1-ch - -
	Digital optical	x 1	-	-	-	-	-
	Head Phones	x 1	x 1	x 1	x 1	x 1	x 1
	Trigger +12 V, 150 mA	x 2	x 2	x 1	-	-	-
	RS-232C/IP control	1/1	1/1	1/1	-/1	-/1	-/-
OTHER	Tuner antenna FM/AM	1/-	1/-	1/-	1/-	1/-	1/1
	Remote In/Out	1/1	1/1	1/1	-/-	-/-	-/-
	Network	x 4 (switching hub function)	x 1	x 1	x 1	x 1	-
	USB	x 2 (front/rear selectable)	x 1 (front panel)	x 1 (front panel)	x 1 (front panel)	x 1 (front panel)	-
	Setup mic	x 1	x 1	x 1	x 1	x 1	-

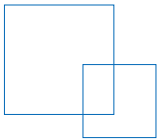
(*1) T.H.D. figures are power amp stage values

AVR-4520



AVR-3313





AV Surround Receiver & Universal Audio/Video Player

AVR-2313



AVR-2113



AVR-1713



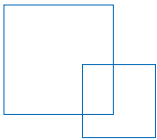
AVR-1513



DBT-3313UD



DBT-1713UD



Universal Audio/Video Player Specifications & Features

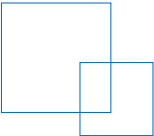
	DBT-3313UD	DBT-1713UD
Technical information		
Video	Signal system	PAL/NTSC
	S/N	125 dB
Audio	Total harmonic distortion	0.0008%
	Dynamic Range	110 dB
		100 dB
General	Power supply	AC 100 V - 240 V, 50/60 Hz
	Power consumption	25 W (Standby: 0.3 W)
	Dimensions W x H x D (incl. protrusions)	434 x 115 x 298 mm
	Weight	7.9 kg
Features		
HDMI Functionality	3D support	●
	CEC support	●
Decoder	Dolby TrueHD (Bitstream/LPCM)	●/●
	Dolby Digital Plus (Bitstream/LPCM)	●/●
	Dolby Digital (Bitstream/LPCM)	●/●
	DTS-HD Master Audio (Bitstream/LPCM)	●/●
	DTS-HD High Resolution Audio (Bitstream/LPCM)	●/●
	DTS Digital Surround (Bitstream/LPCM)	●/●
Processor & Converter	Audio DAC	192 kHz/32-bit
	Progressive scan circuit	●
Construction & Circuit	PAL/NTSC	●/●
	Multi layered construction	●
	Loader mechanism	SVH (Suppress Vibration Hybrid)
Video output terminals	AV Pure Direct / Pure Direct	●/●
	HDMI (*1)	x 2
Audio output terminals	Analogue	2 ch x 1
	HDMI multi channel audio (*1)	●
Other terminals	Denon Link HD	x 1
	Network	x 1
	USB	x 1 (front panel)
	RS-232C	x 1
	Remote In/Out	x 1/1
	BD-Video	●
Playable discs (*2)	Super Audio CD	●
	DVD-Audio	●
	DVD-Video	●
	DVD-R/RW/DVD+R/RW	●
	CD-R/RW (MP3/WMA/AAC/DivX/JPEG/PNG/Kodak Picture CD)	●
	DVD-R/RW (MP3/WMA/AAC/DivX/AVCHD/JPEG/PNG)	●
	DivX Plus HD	●
Network	Network capability	●
	Network server	DLNA/WMP11 (audio/video/picture)
	Audio file	MP3, WMA, AAC, FLAC 192/24, WAV 192/24
	Video file	DivX Plus HD, MPEG-1/2/4, H.264/VC-1
	Picture file	JPEG/PNG
Memory	Online Contents Service	YouTube
	Type	built-in (600MB) & USB port

(*1) HDMI output is HDCP compliant. Video cannot be viewed if connected to a monitor that does not support HDCP; video can be viewed only on HDCP-compliant monitors.
(*2) Discs that have been poorly finalized following recording may be only partially playable or not playable at all.

Design and specifications are subject to change without notice.

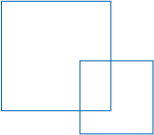
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Home Theater System Specifications

DHT-1312XP		
AVR-1312		
Power amplifier section	Rated output	*T.H.D. figures are power amp stage values.
	Front L/R	110 W + 110 W (6 ohms, 1 kHz, T.H.D. 0.7%)
	Center	110 W (6 ohms, 1 kHz, T.H.D. 0.7%)
	Surround L/R	110 W + 110 W (6 ohms, 1 kHz, T.H.D. 0.7%)
Preamplifier section	Input sensitivity/impedance	200 mV/47 kohms
	Frequency response	10 Hz - 100 kHz — 0, -3 dB (DIRECT mode)
	S/N Ratio	98 dB (IHF-A weighted, DIRECT mode)
FM section	Tuning frequency range	87.5 - 108 MHz
	Usable sensitivity	1.2 µV (12.8 dBf)
AM section	Tuning frequency range	522 - 1611 kHz
	Usable sensitivity	18 µV
General	Power supply	AC 230 V, 50 Hz/60 Hz
	Power consumption	330 W (Standby 0.5 W)
	Dimensions (W x H x D)	434 x 162 x 382 mm
	Weight	8.9 kg
SC-F1312 (FR / FL / SR / SL)		
Type	Full-range, 1 speaker	
Frequency range	150 Hz - 20 kHz	
Input impedance	6 ohms	
Dimensions (W x H x D)	105 x 200 x 150 mm	
Weight	0.8 kg	
SC-C1312 (center)		
Type	Full-range, 1 speaker	
Frequency range	150 Hz - 20 kHz	
Input impedance	6 ohms	
Dimensions (W x H x D)	200 x 105 x 150 mm	
Weight	0.8 kg	
DSW-1312 (subwoofer)		
Type	Built-in amplifier	
Frequency range	35 Hz - 150 Hz	
Dynamic power	100 W	
Input impedance	22 kohms	
Power supply	230 V/50 Hz	
Power consumption	65 W	
Dimensions (W x H x D)	250 x 387 x 420 mm	
Weight	11 kg	



Blu-ray Mini System Specifications

D-X1000BD (RBD-X1000 + SC-X1000)	
RBD-X1000	
Rated output power	70 W + 70 W (6 ohms, 1 kHz, T.H.D. 10%)
FM section: Frequency range	87.50 MHz – 108.00 MHz
AM section: Frequency range	522 kHz – 1611 kHz
Video signal type	PAL/NTSC
Power supply	230 V, 50 Hz
Power consumption	67 W (Normal standby 0.5 W)
Dimensions (W x H x D)	280 x 105 x 313 mm
Weight	4.6 kg
SC-X1000	
Type	2way 2speakers, Low-leakage-flux, Reflex box
Drivers	12 cm cone bass-midrange x 1
	2.5 cm soft dome high range x 1
Frequency range	45 Hz - 40 kHz
Dimensions (W x H x D)	145 x 233 x 234 mm
Weight (kg/unit)	3.9 kg