

# AVR-1610

AV Surround Receiver

# DENON

## A/V Surround Receiver featuring Dolby TrueHD, DTS-HD Master Audio and 1080p HD Video to enhance your level of entertainment pleasure.

The AVR-1610 is a versatile A/V surround receiver with a 5.1-channel amplifier that supports Dolby TrueHD and DTS-HD Master Audio decoding. And, the AVR-1610 is fully equipped with Denon's own proven features for high-quality sound, such as Compressed Audio Restorer, Direct Mechanical Ground Construction, and Minimum Signal Paths. It also features Dolby Pro Logic IIz, a technology that adds a vertical dimension at the front for a more exciting surround sound experience. Last but not least, the high-performance AVR-1610 includes Audyssey MultEQ, Dynamic EQ and Dynamic Volume for optimum tonal balance, with no volume jumps due to commercial interruptions.



### Features

#### New Features

- 3 x HDMI in / 1 x HDMI out (Repeater)
- Dolby Pro Logic IIz processing
- Sleep timer function

#### State-of-the-art Denon Solutions for Maximizing Content Quality

- Identical quality and power for all 5 channels, 75 W x 5ch (8 ohms)
- Stable power supply for high-quality sound and picture playback
- Compressed Audio Restorer to enhance digital music files
- Dolby TrueHD and DTS-HD Master Audio decoders

#### Connectivity & Future-ready Expandability

- Audio/video playback and control for iPod® with optional dock (ASD-11R)

#### Ease-of-Use

- On-Screen Display via HDMI
- Audyssey Dynamic Volume, for real-time volume adjustment
- Audyssey Dynamic EQ automatically tunes the frequency response and surround volume levels on a moment by moment basis
- Audyssey MultEQ Auto setup and Room EQ room acoustic correction system
- Three Quick Select Buttons
- Pre-memory remote control unit

## State-of-the-art Denon Solutions for Maximizing Content Quality

- Robust power source for each block, for stable supply of current

To produce a clear, stable power circuit that prevents unwanted noise from affecting the sound, the AVR-1610 has a dedicated CPU transformer that is separate from the audio and video circuitry. The AVR-1610 is endowed with a powerful rectifier circuit with 10,000  $\mu\text{F}$  block capacitors and a bridge diode of 8A capacity, surpassing typical models in this price range, to supply stable current with negligible noise.

- Analog to HDMI up-conversion

Analog video input signals (composite, S-video, component) are converted to digital video signals and transmitted to the HDMI output port. Digital video signals are sent to the HDMI output even when multiple HDMI devices such as a video camera or a game console are connected to the AVR-1610. One HDMI cable is all that's needed to connect the AVR-1610 to a TV (monitor). You can also use the On-Screen Display to check the AVR-1610's status.

- Dolby Pro Logic IIz processing<sup>(\*)</sup>

Dolby Pro Logic IIz introduces a new dimension to home theater entertainment through the addition of a pair of front height channels. Compatible with stereo, 5.1 and 7.1 content, Dolby Pro Logic IIz provides enhanced spaciousness, depth and dimension to movies, concert video and video game playback while maintaining the full integrity of the source mix.

(\*) Dolby Pro Logic IIz playback requires a separate 2-channel power amplifier.

- Minimum Signal Path for clear audio and video signal

The "simple and straight" design concept has been thoroughly implemented in the signal paths to contribute to immaculately clean audio and video playback. Signal paths are as short as possible to keep signal degradation in the audio and video circuitry to an absolute minimum.

- Direct Mechanical Ground Construction, embodying concepts for thorough vibration resistance

Vibration-resistant construction has been reviewed to thoroughly suppress the adverse influences of vibration on sound quality. The power transformers, a source of vibration, have been securely mounted on the highly rigid bottom chassis. Direct mounting of cast-iron feet to the radiator in near proximity to each other serves to suppress mutual vibration with the power transformers and other sources of vibration.

- Digital /analog separate transformer windings

- Compressed Audio Restorer to enhance digital music files

## Connectivity & Future-ready Expandability

- Audio/video playback and control for iPod with optional dock (ASD-11R)

## Ease-of-use

- Audyssey Dynamic Volume, for real-time volume adjustment

Audyssey Dynamic Volume constantly monitors the sound sources and adjusts the volume to the optimum level for the particular source being heard without sacrificing dynamic range. The AVR-1610 is also equipped with Audyssey MultEQ which measures the acoustic characteristics of the room to obtain the optimum acoustic effects, and Dynamic EQ which reproduces the high and low range with the optimum acoustic effect during low volume levels. Dynamic Volume combines these two functions to achieve maximum performance.

- Audyssey MultEQ Auto setup and Room EQ

- Tower type microphone for more accurate measuring
- Up to six measurement points
- High level resolution filters for satellite speakers and subwoofer

- Auto surround mode

- Audio Delay function (max. 6 frames or 200 mSec)

- Muting level settings (Full/-40dB/-20dB)

- Audio level memory, capable of correcting different signal levels for each input device

- Variable subwoofer crossover switching

## Main Specifications

Power amplifier section	
Rated output	*THD figures are power amp stage values.
Front L/R	75 W + 75 W (8 ohms, 20 Hz - 20 kHz, THD 0.08 %) 110 W + 110 W (6 ohms, 1 kHz, THD 0.7%)
Center	75 W (8 ohms, 20 Hz - 20 kHz, THD 0.08 %) 110 W (6 ohms, 1 kHz, THD 0.7%)
Surround L/R	75 W + 75 W (8 ohms, 20 Hz - 20 kHz, THD 0.08 %) 110 W + 110 W (6 ohms, 1 kHz, THD 0.7%)

Preamplifier section	
Input sensitivity/impedance	200 mV / 47 k $\Omega$ /kohms
Frequency response	10 Hz ~ 100 kHz $\pm$ 1, -3 dB (DIRECT mode)
S/N Ratio	98 dB (IHF-A weighted, DIRECT mode)
FM section	
Tuning frequency range	87.5 - 107.9 MHz
Usable sensitivity	1.2 $\mu\text{V}$ (12.8 dBf)
AM section	
Tuning frequency range	520 - 1710 kHz
Usable sensitivity	18 $\mu\text{V}$

General	
Power supply	AC 120 V, 60 Hz
Power consumption	4.3 A (Standby 0.3 W)
Dimensions (W x H x D)	17-3/32" x 6-47/64" x 14-27/32"
	434 x 171 x 378 mm
Weight	20 lbs 8 oz, 9.3 kg

## Ports

In		
HDMI		x 3
Component		x 2
S-Video		x 1
Composite (Video)		x 4
Analog Audio (Tuner included)		x 6
Digital Optical		x 2
Digital Coaxial		x 1
Out		
HDMI Monitor		x 1
Component Monitor		x 1
Composite Monitor (Monitor / DVR)		x 2
Analog Audio REC		x 2
Audio Preout (Front height L/R, SW)		x 2
Phones		x 1
Other		
Microphone Port		x 1
Dock Control Port		x 1
FM Tuner Antenna		x 1
AM Tuner Antenna		x 1

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