# **DENON**

# A/V Surround Receiver featuring Dolby TrueHD, DTS-HD Master Audio and Multi Room functionality that enhances your level of entertainment enjoyment.



The AVR-2310Cl is a versatile A/V surround receiver with a 7.1-channel surround amp that supports Dolby True HD and DTS-HD Master Audio decoding. The AVR-2310Cl provides a Graphical User Interface (GUI) that lets you check the unit's status in color for easier operation. The AVR-2310Cl is also equipped with a variety of Denon technologies such as Direct Mechanical Ground Construction and Minimum Signal Paths for faithful reproduction of HD sound and HD picture quality.





























# Features

### New features

- High bit i/p converter and scaler up to 1080p featuring Anchor Bay VRS processing
- -Multi cadence detection for SD and HD video signals
- -Digital noise reduction and enhancer
- Dolby Pro Logic IIz processing
- 5 x HDMI in / 1 x HDMI out (Repeater and Scaler)
- Sleep timer function
- On-Board GUI via HDMI output

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

- Identical quality and power for all 7 channels, 105 W x 7ch
- 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
- Denon's high picture quality circuitry, to enhance enjoyment of existing DVDs

# Connectivity & Future-ready Expandability

- Sirius satellite radio ready
- $\bullet \ Power \ amplifier \ assign \ for \ zone \ 2$

#### Ease-of-use

- Audyssey Dynamic Volume, for real-time volume adjustment
- Audyssey MultEQ Auto setup and Room EQ room acoustic correction system
- Three Quick Select Buttons
- Pre-memory main remote control unit + zone remote control unit included

### Custom Integration

- AMX, Crestron third party IP control support with RS-232C port
- 150mA Trigger output
- IR Remote in/out ports

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

• High-bit I/P Converter and Scaler up to 1080p
The AVR-2310Cl features state-of-the-art Anchor Bay
Technologies ABT-2010 VRS precision 12-bit video
deinterlacing and upconversion that processes SD sources
such as DVD and converts them to HD (high definition)
quality for improved sharpness and clarity. Now you can enjoy
not only your DVDs but also your VCR tapes and standard
definition (480i/480p) games with much greater clarity and
detail. And, the ABT VRS technology includes both SD as well as

 Analog to HDMI up-conversion, I/P converter and scaler on HDMI to HDMI

HD video noise reduction to mimimize compression artifacts.

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-2310CI. One HDMI cable is all that's needed to connect the AVR-2310CI to a TV (monitor).

#### · Dolby Pro Logic IIz processing

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.

#### •Minimum Signal Path forclear audio and videosignal

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

 Power Amp Assign function, for versatility in using the AVR-2310Cl for different purposes

The AVR-2310Cl supports up to 7.1 channels (FL/ FR/ C/ SL/ SR/ SBL/ SBR/ SW) for surround playback defined by the Blu-ray disc format. To enjoy surround playback with the AVR-2310Cl's Dolby Pro Logic Ilz, you can reassign the power amp from the two surround back channels (SBL/SBR) to the two front height channels (FLH/FRH). Or by assigning the SBL/SBR power amp to Zone 2, you can enjoy multi-room audio playback, or to achieve higher-quality sound for 2-channel stereo playback, you can configure the AVR-2310Cl for front bi-amp operation. These are just some of the ways you can arrange the AVR-2310Cl's amps to suit various listening styles.

Audio/video playback and control for iPod with optional dock (ASD-11R/3N/3W)

#### Ease-of-use

•On-Board GUI via HDMI output

The AVR-2310CI is equipped with an easy-to-view Graphical User Interface (GUI) featuring visual menu displays. These menu displays can also be output to the monitor over HDMI.

• 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-2310Cl 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.

- MultEQ Auto setup and room acoustic correction
- -Tower type microphone for more accurate measuring
- -Up to six measurement points
- -High level resolution filters for satellite speakers and also 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		Preamplifier section	
Rated output Front L/R	*THD figures are power amp stage values. 105 W + 105 W (8 ohms, 20 Hz - 20 kHz, THD 0.08 %) 135 W + 135 W	Input sensitivity/impedance Frequency response S/N Ratio	200 mV / 47 k $\Omega$ /kohms 10 Hz $\sim$ 100 kHz $-$ +1, $-$ 3 dB (DIRECT mode) 100 dB (IHF-A weighted, DIRECT mode)
	(6 ohms, 1 kHz, THD 0.7%)	FM section	
Center	105 W (8 ohms, 20 Hz - 20 kHz, THD 0.08 %) 135 W	Tuning frequency range Usable sensitivity	87.5 - 107.9 MHz 1.0 μV (11.2 dBf)
	(6 ohms, 1 kHz, THD 0.7%)	AM section	
Surround L/R	105 W + 105 W (8 ohms, 20 Hz - 20 kHz, THD 0.08 %) 135 W + 135 W	Tuning frequency range Usable sensitivity	520 - 1710 kHz 18 μV
	(6 ohms, 1 kHz, THD 0.7%)	General	
Surround Back L/R	105 W + 105 W (8 ohms, 20 Hz - 20 kHz, THD 0.08 %) 135 W + 135 W (6 ohms, 1 kHz, THD 0.7%)	Power supply Power consumption Dimensions (W x H x D)	AC 120 V, 60 Hz 6.0 A (Standby 0.3 W) 434 x 171 x 377 mm 17-3/32" x 6-47/64" x 14-27/32"
		Weight	11.3 kg 24 lbs 14.6 oz



ln	HDMI	x 5
	Component	x 2
	S-Video	x 3
	Composite (Video)	x 4
	Analog Audio (Tuner included)	x 8
	Analog EXT. Input	7.1ch
	Digital Optical	x 2
	Digital Coaxial	x 2
Out	HDMI Monitor	x 1
	Component Monitor	x 1
	Composite Monitor (Monitor / DVR)	x 2
	Analog Audio REC	x 2
	Analog Audio (Zone2)	x 1
	Audio Preout (SW)	x 1
	Digital Optical	x 1
	Phones	x 1
Other	Microphone Port	x 1
	Dock Control Port	x 1
	FM Tuner Antenna	x 1
	AM Tuner Antenna	x 1
	Sirius Connector	x 1
	RS-232C	x 1
	Remote Control In/Out	In 1 / Out 1
	DC12V 150mA MAX. trigger out	x 1

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