

# AVR-990

AV Surround Receiver

# DENON

With an elegantly styled cosmetic design and sophisticated features, the new AVR-990 7.1 channel A/V Surround Receiver features a single cable HDMI connection to your TV, Network Audio and Photo Streaming and an advanced GUI interface for easy setup and control.

The AVR-990 features Denon's newly designed Graphical User Interface with overlay via the HDMI connection, along with the latest Dolby Pro Logic IIz decoding that provides front channel height effects, analog-to-HDMI video conversion and upscaling that converts SD sources to HD and 24-bit 192-kHz high resolution audio DACs.



## Features

### Key Features

- HDMI full compatibility
  - 5 x HDMI inputs
  - HDMI one cable connection to your HDTV
  - Dolby TrueHD and DTS-HD master audio decoders
  - Graphical User Interface
- 7ch Discrete Mono Amp Construction
- Clock Jitter Reducer available for all digital inputs
- 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
- Network capability
  - Internet Radio and network audio/photo streaming from PC/MAC, server
  - Napster and Rhapsody online support
  - 'Party Mode'
  - Web control
- Dolby Pro Logic IIz

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

- Identical quality and power for all 7 channels, 120 W x 7ch
- Dynamic Discrete Surround Circuit, D.D.S.C.-HD
  - Latest high speed 32-bit floating point high precision DSP processor
  - AL24 Plus processing, to dramatically enhance the music listening experience (L/R channels)
  - Differential D/A Converters
- 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
- Video digital noise reduction, to optimize picture quality for both SD and HD content
- Bi-amp capability

### Connectivity & Future-ready Expandability

- Internet Radio and Network audio/photo streaming from PC/MAC, server
- Mass storage support USB for audio and photo playback (MTP compatible)
- HD Radio
- Sirius satellite radio ready
- 2 source / 2 zone capability
- Power amplifier assign for zone 2

### Ease-of-use

- On-Board GUI via HDMI output (up to 1080p)
- Audyssey Dynamic Volume, for real-time volume adjustment
- Audyssey Dynamic EQ selects the correct frequency response and surround volume levels on a moment by moment basis
- Audyssey MultEQ Auto setup and Room EQ room acoustic correction system
- 2-line fluorescent display on front panel
- Sleep timer function
- Three Quick Select Buttons
- Pre-memory remote control unit

### Others

- Remote Installer Access via DPMS
- PC setup via Ethernet (Web control)

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

- Anchor Bay VRS analog to HDMI up-conversion, I/P converter and scaler on HDMI to HDMI

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 HDMI output even when multiple HDMI devices such as a video camera or a game console are connected to the AVR-990. One HDMI cable is all that's needed to connect the AVR-990 to a TV (monitor).

### • 7ch Discrete Mono Amp Construction

New construction design (discrete amp construction for each channel) is adopted for more precise sound reproduction.

### • Clock Jitter Reducer available for all digital inputs

The Clock Jitter Reducer thoroughly suppresses fluctuations on the clock waveform to remove distortion from the digital audio signal and minimize adverse influences on sound quality.

### • High-bit I/P Converter and Scaler up to 1080p

The AVR-990 uses a high-performance Anchor Bay VRS video up-scaler to convert SD (standard definition) video material to HD (high definition) quality. This means that the 480i/480p (SD quality) video signals of DVD programs and other material are converted to the high quality 1080p signal of HD video, and output to the HDMI port. The fuzziness in the details of SD video is removed to produce a clearer picture. Now you can enjoy not only your DVDs but also your VCR tapes and games with much greater clarity and detail.

### • Support for new surround extensions

The power amplifier channels can be assigned to allow different configurations including PLIIz front height effects, SBR/SBL, etc.

### -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 for clear audio and video signal

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

- Digital / analog separate transformer windings

- Compressed Audio Restorer to enhance digital music files

- Pure Direct function

## Connectivity & Future-ready Expandability

- Party Mode

The 'Party Mode' allow you to supply same music (iPod / Internet Radio / PC music / NAS) up to five rooms including its local music system at the same time among Denon 'Party Mode' compliant products on the network.

- Audio/video playback and control for iPod with optional dock (ASD-111R)

- HD Radio built-in - with HD Radio AM sounds like FM and FM sounds like CD

## Ease-of-use

- On-Board GUI via HDMI output (up to 1080p)

The AVR-990 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-990 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 EQ

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

- Variable subwoofer crossover switching

- Supports HDMI Consumer Electronics Control (CEC)

## Others

- AMX, Crestron third party IP control support with RS-232C port

- 150mA Trigger output

- IR Remote in/out ports

## Main Specifications

Power amplifier section		Preamplifier section	
Rated output	*THD figures are power amp stage values.	Input sensitivity/impedance	
Front L/R	120 W + 120 W (8 ohms, 20 Hz - 20 kHz, THD 0.05 %) 160 W + 160 W (6 ohms, 1 kHz, THD 0.7%)	PHONO (MM)	2.5 mV
Center	120 W (8 ohms, 20 Hz - 20 kHz, THD 0.05 %) 160 W (6 ohms, 1 kHz, THD 0.7%)	Audio inputs	200 mV / 12 kohms (except for EXT. IN (SW, S, SB), CD, PHONO, V. AUX) 200 mV / 47 kohms (EXT. IN (SW, S, SB), CD, PHONO, V. AUX)
Surround L/R	120 W + 120 W (8 ohms, 20 Hz - 20 kHz, THD 0.05 %) 160 W + 160 W (6 ohms, 1 kHz, THD 0.7%)	Output level/Load impedance	
Surround Back L/R	120 W + 120 W (8 ohms, 20 Hz - 20 kHz, THD 0.05 %) 160 W + 160 W (6 ohms, 1 kHz, THD 0.7%)	Audio outputs	1.2 V
		FM section	
		Tuning frequency range	87.5 - 107.9 MHz
		Usable sensitivity	1.5 µV (14.8 dBf)
		AM section	
		Tuning frequency range	530 - 1710 kHz
		Usable sensitivity	20 µV
		General	
		Power supply	AC 120 V, 60 Hz
		Power consumption	7.0 A (Standby 0.1 W)
		Dimensions (W x H x D)	17-3/32" x 6-47/64" x 16-19/64" 434 x 171 x 414 mm
		Weight	28 lbs 7 oz 12.9 kg

## Ports

In		
	HDMI	x 5
	Component	x 3
	S-Video	x 7
	Composite (Video)	x 7
	Analog Audio (Tuner included)	x 10
	Analog EXT. Input	7.1ch
	Digital Optical	x 3
	Digital Coaxial	x 3
Out		
	HDMI Monitor	x 1
	Component Monitor	x 1
	S-Video Monitor	x 1
	S-Video	x 2
	Composite Monitor	x 1
	Composite (Zone2)	x 1
	Analog Audio REC	x 2
	Audio Preout (Zone2 / 7.1ch)	x 2
	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
	Ethernet	x 1
	USB	x 1
	RS-232C	x 1
	Remote Control In/Out	In 1 / Out 1
	DC12V 150mA MAX. trigger out	x 2



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