

A/V Surround Receiver

AVR-985**DENON**

The AVR-985 is Denon's latest addition of versatile A/V Receivers, which incorporate all current surround formats and enhanced installation flexibility, all with great simplicity of setup and operation.



■ **DENON's Latest Surround Technology Faithfully Recreates the Surround Sound Produced at the Dubbing Stage.**

• **Finest DSP employed for faster processing better sound quality**

AVR-985 features latest generation 32bit floating point DSP to decode all current surround formats, 96kHz signals and also to process room equalization. This DSP's processing power allows even the analogue input signals in all surround modes to be handled at 96kHz, which undoubtedly assures never-before-experienced high quality.

• **Various Decoding**

DTS 96/24 Decoding for DVD-Video/ DTS-ES Discrete 6.1 and Matrix 6.1
DTS NEO:6/ Dolby Digital EX/ Dolby ProLogic IIX

• **Fully Discrete, Equal Power Seven Amplifier Channels, 100 Watts Each**

Front 100 W + 100 W (8 ohms, 20Hz - 20kHz, 0.05% THD)
Center..... 100 W (8 ohms, 20Hz - 20kHz, 0.05% THD)
Surround..... 100 W + 100 W (8 ohms, 20Hz - 20kHz, 0.05% THD)
Surround Back 100 W + 100 W (8 ohms, 20Hz - 20kHz, 0.05% THD)

The AVR-985 features an equal power 7-channel amplifier section, with identical amplifier design and high current discrete output devices on all 7 channels. Each of the 7 amplifier channels is rated at 100 watts, into 8 ohms, from 20 Hz - 20 kHz with no more than 0.05% THD.

■ **Component Video Conversion**

• **Up Conversion**

This video conversion technology lets you enjoy the highest picture quality from all video sources connected to the AVR-985. Since composite and S-video signals are converted up to component video signals and output to the monitor, this allows you to connect all your video sources to a monitor using only one cable.

• **Down Conversion from S-Video to Composite**

• **3 Sets of Component Video Inputs**

The AVR-985 is equipped with 3 sets of assignable, component video inputs and 1 set of monitor outputs with on screen display.

• **High Definition Quality Video Switching**

The high-performance relay that is used to switch component video signals, features an extended bandwidth range up to 100 MHz.

■ **Auto Setup and Auto Room EQ Function with Microphone**

The AVR-985 is equipped with an Auto Setup and Room Equalization function, to achieve the most ideal sound field for your room. With the accompanying microphone placed at your listening position, the powerful new 32bit floating point DSP automatically and accurately analyzes, adjusts and sets the speaker configurations of your system. Also, the AVR-985 analyzes and adjusts the frequency response of the speakers to the room with an 8 band parametric equalizer. The microphone (DM-S305) is a especially designed, high performance unit with a heavy duty base to suppress vibrations for accurate analyzing.



• **Room EQ Memory**

The AVR-985 provides for a maximum of 4 equalizing curves called "normal", "front", "flat" and "manual" to be stored into memory. Normal, front and flat are automatically memorized during the 'Auto Room EQ' Setup, allowing you easy selection of your favorite EQ curve without having to run 'Auto Setup' again.

• **Assignable Room EQ**

The AVR-985 permits assigning of an EQ curve for each surround mode as well as selecting the EQ to be 'On' or 'Off' for the Direct/Pure Direct modes.

■ **Support for Multi Zone Configurations**

• **ZONE2 audio capability**

The AVR-985 provides a Multi Zone Output function and a Select function that let you output different sources to multiple zones. Sources can be selected for output to an additional zone, in addition to the main room. Multi-room Zone 2 can have variable pre-amp output along with composite video feed.

• **ZONE2 composite video output capability**

• **Powered Zone2**

The AVR-985's Power Amplifier Assign function lets you assign the 2 Surround Back (SB L/R) amplifier channels when the system is not configured for 7.1, to instead drive the Multi-room Zone 2 speakers, with 100 Watts per channel output power, while still providing 5 discrete amplifier channels to drive all speakers in a 5.1 configured home theater room.

• **RS232C Control Port to support an AMX, Crestron integrated control system**

• **+12 V Trigger Output x 2 (Assignable)**

• **Remote In/Out Ports**

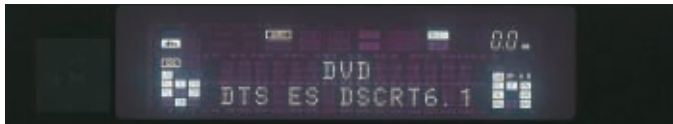
■ Features That Enhance Operating Ease

• Auto Surround

The AVR-985 can automatically store the surround mode for any of three inputs signals: (1) Analog and PCM 2 channel, (2) Bit stream 2-channel (Dolby Digital, DTS) and (3) Bit stream multi-channel. If the type of input signal changes, the most appropriate surround mode is automatically selected for the signal.

• New Front Panel Design with Larger Display

Larger display area is now capable of displaying a broad range of information including character icons for an intuitive recognition of input signal channels and output speaker channels.



• Audio Delay Function

The Audio Delay function corrects slight lags between sound and picture that can occur when a video signal is processed, such as in a Progressive Scan DVD player or outboard video processor.

• Adjustable Cross-Over Switching

The AVR-985 supports subwoofer cross-over switching with a choice of 8 cross-over frequencies: 40, 60, 80, 100, 120, 150, 200 and 250 Hz. This lets you more accurately match the performance characteristics of the subwoofer to the main speaker system.

• A/B switching between front speakers

• Pre-programmed remote controller with learning feature

■ Designed for high sound quality

• Pure Direct and AL24 Processing

DENON's Pure Direct mode was designed for those who want the ultimate in sonic quality from their audio sources. Depending on input signal type, Pure Direct will turn off any unneeded circuitry of the AVR-985.

• When listening to PCM based sources, DENON's waveform technology AL24 Processing brings out all the delicate nuances of the source material.

• Hefty Power Transformer for Stable Supply of Power

A huge power transformer has been connected in the power section where it is combined with a rectifier diode and an oversized block capacitor to ensure a large, stable supply of electrical current. Accordingly, this design allows the AVR-985 to achieve high output power of 100 W for each of the 7 channels.

• Variable Gain Volume

S/N in the usable area has been improved. Finer adjustments are also possible in 0.5 dB steps across the extended range of -80 dB to +18 dB.

• Block Capacitor

A large-capacity block capacitor was developed for the AVR-985 to ensure a rock stable supply of power.

• Detachable AC Power Cord

■ Frequency Synthesis Tuning

- 56-Station AM/FM Random Preset Memory Tuning
- Auto Preset Memory

Front panel with cap for front A/V input (Silver version is available)



(*1) Note on Movie mode:
On DENON A/V receivers, this Movie mode is displayed as "MODE CINEMA".

*Design and specifications are subject to change without notice.
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■ Input/Output Terminals For Every A/V System

• Audio Inputs

11 Sets Analog Input	PHONO, CD, (TUNER), DVD, VDP, TV, DBS, VCR-1, VCR-2, V.AUX(FRONT), CDR/TAPE
1 Set 8-ch Analog EXT. Input.....	FRONT L/R, CENTER, SURROUND L/R, SURROUND BACK L/R, SUBWOOFER
5 Sets Digital (Optical) Input	OPTICAL x 5(FRONT x 1) (Assignable)
2 Set Digital (Coaxial) Input	COAXIAL x 2 (Assignable)

• Audio Outputs

8 Sets Analog PRE Output	FRONT L/R, CENTER, SURROUND L/R, SURROUND BACK L/R, SUBWOOFER
3 Sets Analog REC Output	VCR-1, VCR-2, CDR/TAPE
1 Set Analog Multi Zone PRE Output ...	ZONE2 L/R
2 Set Digital (Optical) Output	OPTICAL x 2

• Video Inputs

3 Sets Component Video Input	VIDEO-1, VIDEO-2, VIDEO-3
7 Sets S-Video Input	DVD, VDP, TV, DBS, VCR-1, VCR-2, V.AUX(FRONT)
7 Sets Composite Input	DVD, VDP, TV, DBS, VCR-1, VCR-2, V.AUX(FRONT)

• Video Outputs

1 Set Component Video Output	MONITOR
3 Sets S-Video Output	VCR-1, VCR-2, MONITOR
3 Sets Composite Output	VCR-1, VCR-2, MONITOR
1 Multi Zone Composite Video output ...	ZONE2 VIDEO x 1

Specifications

■ Power Amplifier Section

Rated output	*THD figures are power amp stage values.	
Front.....	100 W + 100 W	(8 ohms, 20 Hz - 20 kHz, 0.05 % THD)
	135 W + 135 W	(6 ohms, 1 kHz, 0.7 % THD)
Center.....	100 W	(8 ohms, 20 Hz - 20 kHz, 0.05 % THD)
	135 W	(6 ohms, 1 kHz, 0.7 % THD)
Surround.....	100 W + 100 W	(8 ohms, 20 Hz - 20 kHz, 0.05 % THD)
	135 W + 135 W	(6 ohms, 1 kHz, 0.7 % THD)
Surround Back.....	100 W + 100 W	(8 ohms, 20 Hz - 20 kHz, 0.05 % THD)
	135 W + 135 W	(6 ohms, 1 kHz, 0.7 % THD)

■ Preamplifier Section

Analog

Input sensitivity / impedance	200mV/47kohms
Frequency response	10Hz-100kHz(+0,-3dB direct mode)
S/N	102dB(direct mode)
Rated output	1.2V

Digital

D/A output	2.0V
Phono	
Input sensitivity / impedance	2.5mV
RIAA deviation	+/-1dB(20Hz to 20kHz)
Rated output	150mV

■ Video Section

Frequency response	
Composite video/S-video	5Hz-10MHz(+0,-3dB)
Component video	DC-100MHz(+0,-3dB)

■ FM Section

Tuning frequency range	87.5 - 107.9 MHz
Usable sensitivity	1.0 μV (11.2 dBf)

■ AM Section

Tuning frequency range	520 - 1710 kHz
Usable sensitivity	18 μV

■ General

Power supply	AC120V, 60Hz
Power consumption.....	5.6A (1W max at standby mode)
Dimensions	434 (W) x 171 (H) x 429 (D) mm
	17.1" (W) x 6.7" (H) x 16.9" (D)
Weight	13.5kg (29lbs 12oz)



DENON ELECTRONICS (USA), LLC.

19C Chapin Road, Suite 205 Pine Brook, N.J. 07058-9385 USA
TEL: 973-396-0810 www.usa.denon.com

DENON CANADA INC.

17 DENISON STREET, MARKHAM ONTARIO, CANADA L3R 1B5
TEL: 905-475-4085 www.denon.ca

DENON, LTD.

13-16-11 YUSHIMA, BUNKYO-KU, TOKYO 113-0034 JAPAN