Dolby Digital and DTS A/V Receiver

# DENON AVR-1603

## With Dolby Pro Logic II for a New Way To Enjoy Home Theater

The AVR-1603 A/V receiver with Dolby Pro Logic II and powerful output of 80 watts per channel lets you enjoy multi-channel home theater entertainment in a new dimension. In addition to Dolby Digital and DTS, you can now also enjoy existing Dolby Surround programs and conventional stereo sources such as CD in convincing 5.1-channel likeness. And if you have only two speakers, one for each stereo channel, you can use the AVR-1603's Virtual Surround mode to give yourself the sensation of being completely surrounded by sound as you would in a real theater.





## ■ Fully Discrete, Equal Power Five Amplifier Channels, 70 Watts Each

Front	80 W + 80 W	(8 ohms, 20 Hz - 20 kHz, 0.08 % THD)
Center	80 W	(8 ohms, 20 Hz - 20 kHz, 0.08 % THD)
Surround	80 W + 80 W	(8 ohms, 20 Hz - 20 kHz, 0.08 % THD)

For optimum Dolby Digital and DTS reproduction, the AVR-1603 features high quality, wideband audio amplification, providing 70 watts power output for each of the five main channels. A large capacity power supply includes a high current power transformer along with discrete power output devices on all five amplifier channels for highest dynamic range and superb reproduction clarity.

#### Dolby Pro Logic II Decoder

Enjoy 2-channel stereo recordings in stunning 5.1-channel surround playback.

The Dolby Pro Logic II decoder reproduces dynamic 5.1-channel surround sound not only from normal 5.1-channel DVD but from 2-channel sources such as videos and CDs, too. Dolby Pro Logic II uses matrix decoding technology that has been dramatically improved over Pro Logic. With Pro Logic II, for instance, the Surround (Rear) channels are in stereo (only mono with Pro Logic) and playback covers the full frequency range (only up to 7 kHz with Pro Logic). These improvements let you enjoy a wide variety of 2-channel sources with the exciting effects of 5.1-channel surround sound.

#### Dolby Digital and DTS Decoders

Equipped with both Dolby Digital and DTS 5.1 channel decoding, the AVR-1603 provides thrilling surround sound with the thousands of Dolby Digital and DTS encoded DVDs, as well as the growing library of DTS 5.1 channel music recordings available on CD.

#### Cinema Equalizer

The sound from movie sources recorded in Dolby Digital, DTS or other formats emphasizes high-frequency range due to a theater's front speakers being placed behind the movie screen. If this sound is reproduced in the home theater without correction, the high-frequency range is too strong. The AVR-1603 features a Cinema Equalizer to correct these high-frequency components so that the sound is clearer and easier to listen to. (For Dolby Digital, Dolby Pro Logic II, and DTS surround modes)

#### ■ 5 Channel Stereo Mode

DENON's popular 5 Channel Stereo mode transforms your favorite 2-channel sources such as CD, tape, stereo radio and stereo video sources into exciting surround sound, free of delay effects and unnatural artifacts, from all five speakers. This 5 Channel Stereo mode was originally developed by DENON to enhance music lovers' enjoyment of home theater ambience.

#### Virtual Surround Mode

Surround yourself with sensational 3D soundfield envelopment using just one pair of speakers. The AVR-1603's Virtual Surround mode provides a dramatic psychoacoustic surround sound effect, using two speakers with Dolby Digital 5.1 encoded sources.

### DENON DSP Surround Modes Add Listening Excitement

Put yourself in the middle of your favorite concert hall and music environments with DENON's DSP acoustic environment simulation modes. These DSP modes add spacious surround sound enhancements to your favorite music and video sources, and include these distinctly different sounding effects:

- 1. 5 Channel Stereo 2. Virtual Surround
- Video Game
   Matrix
- 3. Rock Arena
- 4. Jazz Club
- 7. Mono Movie
- Club

#### Versatile Input & Output Terminals Digital Optical Output

The AVR-1603 provides 1 digital optical output terminal where you can connect a CD recorder or other digital recording device to make highquality digital recordings directly from digital sources such as CD.

#### Front Panel Inputs

The AVR-1603's front panel includes 1 set of video audio and digital optical input terminals where you can easily connect your video camera, game machine or other video or pure audio device.

#### Audio Inputs

	7 Analog Inputs	CD, TUNER, DVD/VDP, TV/DBS, AUX,
		VCR, CDR/TAPE, V.AUX(FRONT)
	6 Analog EXT. Input	FRONT L/R, CENTER,
		SURROUND L/R, SUBWOOFER
	3 Digital (Optical) Input	OPTICAL X 3 (FRONT: 1)
	1 Digital (Coaxial) Input	COAXIAL X 1
•	Audio Outputs	
	1 Analog PRE OUT Terminals	SUBWOOFER
	2 Analog REC OUT Terminals	VCR. CDR/TAPE

2 Analog REC OU	I Terminals	VCR, CDR/TAI
1 Digital (Optical)	Output	OPTICAL X 1

#### Video Inputs

4 Composite Inputs	. DVD/VDP, TV/DBS, VCR, V.AUX(FRONT)
3 S-Video Inputs	. DVD/VDP, TV/DBS, VCR
2 Component Inputs	. DVD/VDP, TV/DBS

#### Video Outputs

2 Composite Outputs	VCR, MONITOR
2 S-Video Outputs	VCR, MONITOR
1 Component Output	MONITOR

#### ■ Front A/B Speaker Terminals

Two sets of speaker terminals are provided for the main (left and right) speakers. This allows the use of a second pair of stereo speakers in another room in the home.

### ■ High-grade Speaker Terminals (for speakers A):

Large binding post speaker terminals has been provided for all 5 channels (Front L/R, Center, Surround L/R) to accommodate thick, high-grade speaker cables and banana plugs.

#### ■ Personal Memory Plus, for Easy Operation

The AVR-1603 includes the Personal Memory Plus function that automatically remembers the surround mode you last used for each program source, so that you do not need to select the mode again for that program.

#### Multi-Function Preset Memory Remote Controller

The supplied system remote controller features a large selection of remote control codes to operate other components in your home theater system, including codes for selected DENON models, along with remote control

codes from other manufacturers. The most frequently used buttons are laid out separately for TV, VCR and DVD, for maximum ease-of-use.

#### Acclaimed Customization Feature

As with all of DENON's high-grade A/V receiver, the AVR-1603 lets you adjust delay times and other parameters so that you can customize the performance of the AVR-1603 to suit your own home theater and enhance operating ease. The adjustments are easy to make via a dialog format on the fluorescent display on the front panel. These customized features are then stored, for each source input and surround mode, in Personal Memory Plus so constant readjustments are not required.

- Frequency Synthesis Tuning
- · 40-Station AM/FM Random Preset Memory Tuning
- Auto Preset Memory

#### Specifications

#### Power Amplifier Section

Rated output	*THD figures	are power amp stage values.
Front	80 W + 80 W	(8 ohms, 20 Hz - 20 kHz, 0.08 % THD)
	110W + 110W	(6 ohms, 1 kHz, 0.7 % THD)
Center	80 W	(8 ohms, 20 Hz - 20 kHz, 0.08 % THD)
	110 W	(6 ohms, 1 kHz, 0.7 % THD)
Surround	80 W + 80 W	(8 ohms, 20 Hz - 20 kHz, 0.08 % THD)
	110W + 110W	(6 ohms, 1 kHz, 0.7 % THD)

#### Preamplifier Section

Input sensitivity/Impedance		
CD, DVD/VDP, TV/DBS, VCR, CDR/TAPE, AUX		
V.AUX(FRONT) 200 mV/47 kohms		
Output level/Load impedance		
SUBWOOFER 1.2 V/10 kohms		
CDR/TAPE, VCR 200 mV/47 kohms		
Frequency response 10 Hz - 100 kHz (+1, -3 dB) (Tone Defeat On)		
Signal-to noise ratio		
Tone control Treble: ±12 dB at 10 kHz		
Bass: ±12 dB at 100 Hz		

#### FM Section

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

#### AM Section

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Tuning frequency range..... 520 - 1710 kHz
Usable sensitivity ..... 18 µV
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#### General

Power supply	AC 120 V, 60 Hz
Power consumption	4.0 A
Dimensions	434 (W) x 147 (H) x 417 (D) mm
	17.1" (W) x 5.8" (H) x 16.4" (D)
Weight	10.4 kg, 22.9 lbs





\*Design and specifications are subject to change without notice.

\*"Dolby", "Dolby Digital", "Pro Logic II", and the double-D device are registered trademarks of Dolby Laboratories Licensing Corporation. \*DTS is registered trademarks of DTS Technology.

DENON ELECTRONICS. DIVISION OF DENON CORPORATION (USA) 19 CHAPIN ROAD, P.O. BOX 867, PINE BROOK, NJ 07058-9777 USA TEL: 973-98-0810 www.denon.com

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

DENON, LTD. 3-16-11, YUSHIMA, BUNKYO-KU, TOKYO 113-0034, JAPAN