

AVR-790

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-790 is a 7.1-channel A/V surround receiver that brings out the full performance of HD audio and HD video. It also has a high-performance video processor that reproduces the usual SD picture quality of DVD and other sources in the high 1080p resolution of HD video. The highly versatile AVR-790 even supports Dolby Pro Logic IIz that reproduces surround sound with a vertical dimension in the front. Its other features include an easy-to-use remote control unit and numerous Denon technologies such as Direct Mechanical Ground Construction and Minimum Signal Paths that ensure total fidelity in HD audio and video playback and the best possible experience in surround A/V entertainment for you.



Features

New Features

- High bit i/p converter and scaler up to 1080p
 - Multi cadence detection for SD and HD video signal
 - Digital noise reduction and enhancer
- Dolby Pro Logic IIz processing
- 4 x HDMI in / 1 x HDMI out (Repeater and Scaler)
- Sleep timer function

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

- Identical quality and power for all 7 channels, 125W x 7ch (6 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
- Denon's high picture quality circuitry, to enhance enjoyment of existing DVDs

Connectivity & Future-ready Expandability

- Assignable Surround Back amplifier for zone 2
- Audio/video playback and control for iPod with optional dock (ASD-11R)

Ease-of-Use

- On-Screen Display
- Audyssey Dynamic Volume, for real-time volume adjustment
- Audyssey MultEQ Auto setup and Room EQ
- 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-790 has a dedicated CPU transformer that are separate from the audio and video circuitry. The AVR-790 is endowed with a powerful rectifier circuit with 12,000 μF block capacitors and a bridge diode of 8A capacity, surpassing typical models in this price range, to supply stable current with negligible noise.

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

The AVR-790 uses a high-performance video upscaler 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 clear picture. Now you can enjoy not only your DVDs but also your VCR tapes and games with much greater clarity and detail.

- 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-790. One HDMI cable is all that's needed to connect the AVR-790 to a TV (monitor).

- Dolby Pro Logic IIz processing

Dolby Pro Logic IIz introduces a new dimension to home theatre 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

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 windings

- Compressed Audio Restorer to enhance digital music files

Connectivity & Future-ready Expandability

- Power Amp Assign function, for versatility in using the AVR-790 for different purposes

The AVR-790 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-790's Dolby Pro Logic IIz, you can reassign the power amp from the two surround back channels (SBL/SBR) to the two front high 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-790 for front bi-amp operation. These are just some of the ways you can arrange the AVR-790's amps to suit various listening styles.

- 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-790 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 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	90 W + 90 W (8 ohms, 20 Hz - 20 kHz, THD 0.08 %) 125 W + 125 W (6 ohms, 1 kHz, THD 0.7%)
Centre	90 W (8 ohms, 20 Hz - 20 kHz, THD 0.08 %) 125 W (6 ohms, 1 kHz, THD 0.7%)
Surround L/R	90 W + 90 W (8 ohms, 20 Hz - 20 kHz, THD 0.08 %) 125 W + 125 W (6 ohms, 1 kHz, THD 0.7%)
Surround Back L/R	90 W + 90 W (8 ohms, 20 Hz - 20 kHz, THD 0.08 %) 125 W + 125 W (6 ohms, 1 kHz, THD 0.7%)

Preamplifier section

Input sensitivity/impedance	200 mV / 47 k Ω /kohms
Frequency response	10 Hz - 100 kHz \pm +1, -3 dB (DIRECT mode)
S/N Ratio	100 dB (IHF-A weighted, DIRECT mode)

FM section

Tuning frequency range	87.5 - 108.0 MHz
Usable sensitivity	1.2 μV (12.8 dBf)

AM section

Tuning frequency range	522 - 1611 kHz
Usable sensitivity	18 μV

General

Power supply	AC 230 V, 50 Hz
Power consumption	460 W (Standby 0.3 W)
Dimensions (W x H x D)	434 x 171 x 377 mm
Weight	10.6 kg

Ports

In	Quantity
HDMI	x 4
Component	x 2
S-Video	x 1
Composite (Video)	x 4
Analog Audio (Tuner included)	x 7
Analog EXT. Input	7.1ch
Digital Optical	x 2
Digital Coaxial	x 2
Out	Quantity
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	Quantity
Microphone Port	x 1
Dock Control Port	x 1
FM Tuner Antenna	x 1
AM Tuner Antenna	x 1



*Design and specifications are subject to change without notice.
 **Dolby, "Pro Logic" and the double-D symbol are trademarks of Dolby Laboratories.
 *DTS is a registered trademark and the DTS logos, Symbol, DTS-HD and DTS-HD Master Audio are trademarks of DTS, Inc.
 *HDMI, the HDMI logo and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC.
 *Audyssey MultEQ® is a registered trademark of Audyssey Laboratories.
 Audyssey Dynamic EQ™ is a trademark of Audyssey Laboratories.
 Audyssey Dynamic Volume™ is a trademark of Audyssey Laboratories.
 *iPod is a trademark of Apple Inc., registered in the U.S. and other countries.