

# AVR-689

AV Surround Receiver

# DENON

## AV Surround Receiver featuring HD Video connectivity, that enhances your level of entertainment enjoyment.

The AVR-689 monitors the structural elements of sound sources and uses Audyssey Dynamic Volume to adjust volume without sacrificing dynamic range. This A/V receiver masterfully controls a variety of media for optimum playback of high-quality audio and video content.



### Features

#### New Features

- 7 Amplifier Channels, 80W Each
- Audyssey Dynamic Volume and Dynamic EQ
- 3 HDMI inputs
- VED (Versatile Entertainment Driver ver. 1.0)
  - Reproduce as perfect as a content producer intend to express (Denon Circuitry and Construction for Hi-Fi Sound Quality/Compressed Audio Restorer)
  - Easy to use (QUICK SELECT/Audyssey DYNAMIC EQ + DYNAMIC VOLUME)
  - Connectivity (HDMI/Dock control terminal (Network ready))

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

##### High quality Sound

- Identical quality and power for all 7 channels, 80W x 7ch
- Discrete devices for ultimate performance in each block
- New 32-bit floating point high precision DSP
- Minimum signal path design
- Direct Mechanical Ground for stable drive
- Dual power transformers
- Denon customized block capacitors
- Compressed Audio Restorer

#### High quality Video

- HDMI (ver. 1.3a supporting Deep Color (30/36-bit), "x.v.Color")
- 1080p video pass through

#### Connectivity & Future-ready Expandability

##### Digital Media Connectivity

- Network Audio/Photo Ready (optional ASD-3N/3W)
- iPod Audio/Photo and Video playback (optional ASD-11R/3N/3W)

#### Multi-Zone Capability

- 2 source/2 zone capability

#### Ease-of-Use

- Dynamic Volume and Dynamic EQ
- MultEQ Auto setup and Room EQ

## 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-689 has a dedicated CPU transformer that are separate from the audio and video circuitry. The AVR-689 is endowed with a powerful rectifier circuit with 10,000µF block capacitors and bridge diodes, surpassing typical models in this price range, to supply stable current with negligible noise.

### • Minimum Signal Path

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

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.

### • Compressed Audio Restorer

Denon's new audio technology for MP3/WMA/AAC compressed audio formats restores higher frequency sounds, along with rich, deeper bass.

## Connectivity & Future-ready Expandability

- Power amplifier assign for zone 2
- Remote in/out

## Ease-of-Use

- Audyssey Dynamic Volume, for real-time volume adjustment

Large changes in volume sometimes occur between documentaries where the sound is mainly narrative and movies which often contain loud sound effects. Viewers often raise the volume for documentaries to hear the narrative more easily but then turn it down again when a commercial with loud sound effects comes on. They do this numerous times during a program of this type. 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-689 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

- Three Quick Select Buttons
- Auto setup, auto surround, auto signal detection
- Auto Surround Back Channels on for auto-detection of supporting sources
- Auto Surround mode
- Audio Delay function (max. 6 frames or 200 msec)
- Night Mode for neighbour friendly listening
- Muting level settings (Full/-40dB/-20dB)
- Audio Level Memory, capable of correcting different signal levels for each input device
- Volume Level Limiter, for setting maximum volume levels
- Power-ON Volume Level Memory
- Variable subwoofer crossover switching

## Main Specifications

### Power amplifier section

Rated output	*THD figures are power amp stage values.
Front L/R	80 W + 80 W (8 ohms, 20Hz - 20kHz, THD 0.08 %) 115 W + 115 W (6 ohms, 1 kHz, THD 0.7%)
Centre	80 W (8 ohms, 20Hz - 20kHz, THD 0.08 %) 115 W (6 ohms, 1 kHz, THD 0.7%)
Surround L/R	80 W + 80 W (8 ohms, 20Hz - 20kHz, THD 0.08 %) 115 W + 115 W (6 ohms, 1 kHz, THD 0.7%)
Surround Back L/R	80 W + 80 W (8 ohms, 20Hz - 20kHz, THD 0.08 %) 115 W + 115 W (6 ohms, 1 kHz, THD 0.7%)

### Preamplifier section

Input sensitivity/impedance	200 mV / 47 kΩ/kohms
Frequency response	10 Hz - 100 kHz - +1, -3 dB (DIRECT mode)
S/N Ratio	98 dB (IHF-A weighted, DIRECT mode)

### FM section

Tuning frequency range	87.5 - 108.0 MHz
Usable sensitivity	1.0 µV (11.2 dBf)

### AM section

Tuning frequency range	522 - 1611 kHz
Usable sensitivity	18 µV

### General

Power supply	AC 230 V, 50 Hz
Power consumption	420 W (Standby 0.3W)
Dimensions (W x H x D)	434 x 171 x 377 mm
Weight	11.2 kg

## Input / Output Terminals:

IN		
HDMI		3
Component		3
S-Video		3
Composite		4
Analog Audio (Tuner included)		7
Analog EXT. Input		7.1ch
Digital OPTICAL		2
Digital COAXIAL		2
OUT		
HDMI Monitor		1
Component Monitor		1
S-Video Monitor		1
REC		1
Composite Monitor		1
REC		1
Analog Audio REC		2
Audio PRE out (Sub woofer)		1
Others		
Dock Control Port		1
FM Tuner Antenna		1
AM Tuner Antenna		1
Remote In/Out		1



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