

# marantz®

DVD Player  
DV9600



## DV9600 Multiformat player

The Marantz DV9600 sets the new reference in top quality audio and video playback. It represents cutting edge engineering, enabling you to experience the true emotion of movies and music. The top grade 216MHz/14-bit video DAC together with NSV provides inspiring video performances. The HDMI 1.1 port offers fully digital transmission of the video signal in high definition resolutions scaled up to unbelievable 1080p.

Audio excellence is assured by the renown Marantz engineering skills with endless dedication to deliver the emotional value of the source as its creator intended. Compatibility with virtually all of today's digital video and audio disc formats makes the DV9600 a true universal disc player. It allows you to enjoy the best of two worlds: music and movies, in stereo and multi-channel surround sound. Enjoy the perfect choice in your home entertainment environment.

**NEW**



**R A N G E S E R I E S**

because music matters

## Features

- 216MHz/14-bit video DAC
- High definition video up-scaling up to 1080p
- PAL/NTSC progressive scan with chroma error correction
- HDMI1.1 digital video and audio output
- IEEE1394 digital audio connection
- Noise Shaped Video
- Symmetrical analogue audio board with customized components and dedicated power supply
- HDAMs for all 6 channels
- Dolby headphone
- In-house developed high quality mechanism
- High quality playback of DVD-V, DVD-A, SACD, SVCD, CD, MP3, JPEG, DVD-R/RW

## Benefits

- Faithful and accurate top quality video performance
- Maximum High Definition resolution providing the ultimate match with the latest HD Ready video display devices
- Offers improved picture resolution and eliminates virtually all motion artifacts while chroma upsampling errors are completely removed.
- For a digital full bandwidth, uncompressed digital video and audio signal transmission to any Marantz HD display, projector or AV-Receiver
- Uncompromised jitter-free digital audio data transmission for the high resolution formats as SACD and DVD-A in stereo and multichannel.
- Provides the most accurate signal representation and enhances the picture quality
- Sublime audio quality in stereo and multichannel
- Achieving a more dynamic, accurate and detailed sound reproduction regardless the amount of channels
- Full multichannel enjoyment via your regular stereo headphone
- Near to errorless information retrieval of almost any 12cm disc
- Ultimate disc compatibility; regardless which disc you put in, this dream machine will play it

## Technological glossary:

### Digital and analogue perfection

To enjoy all your video and audio materials, the DV9600 provides ultimate versatility with high quality video and audio performance. Succeeding the acclaimed DV9500 it takes you one step further into the digital revolution. With the latest video DACs, Noise Shaped video and video up-scaling up to an incredible 1080p it offers the ultimate video performance. The special Marantz attention to every component in each circuitry, the symmetrical signal paths and the top quality high speed power supply ensure the transfer of the original emotion in both video and audio.

Connection flexibility has been extended with HDMI 1.1 and IEEE1394 connections for uncompressed digital data transfer. The Marantz DV9600, a worthy successor of the DV9500 and the embodiment of top quality convenience.

### Video scaling up to 1080p

The top quality video scalar used in the DV9600 allow you to generate an output that exactly matches the native resolution of for example the Marantz HDTV Ready DLP projectors or flat panel displays. It produces display-optimized video at a several output resolutions. A video scalar combines the information in the odd and even fields of an incoming video signal into a combined, non-interlaced picture. Performing precision resolution upconversion on 576i (or 480i) DVD's, the DV9600 provides output video quality approaching High Definition standard. Outputs spanning from 480p, 720p 1080i and as a newest feature 1080p are supported. The scaling is done within the digital domain and therefore exclusive for the HDMI output.

### High-Definition Multimedia Interface V1.1 (HDMI)

HDMI assures that pristine high-definition images retain the highest video quality from the source all the way to the display. HDMI combines high-definition video and superb audio in a single digital interface with a bandwidth of up to 5 Gigabits/second. HDMI1.1 on the DV9600 complies with High-bandwidth Digital Content Protection (HDCP) technology protecting high-value content from unauthorized reproduction and distribution. Marantz gives the consumer full digitalized interconnection from source to display and projectors with HDMI on the DVD players, AV Receivers and on our latest generation projectors and flat panel displays.

The HDMI1.1 support the transmission of multichannel digital audio signals like AC-3 and DTS. This makes the connection of DVD player - AV-receiver - display very comfortable and easy.

### Superb video performance

The DV9600 uses the latest and most advanced 216MHz/14-bit video digital/analog converters and Analog Devices' Noise Shaped Video (NSV) for very high-quality picture reproduction. This technology allows video images to be displayed at resolutions and lower effective signal to noise ratios well beyond what would be expected from the data converter by making use of the latest technological advances. The DV9600 provides unsurpassed progressive scanning and is optimized for the high resolution and low noise of the DVD-Video format for both PAL and NTSC software. While most players in the market offer an 8-bit i/p conversion the Marantz DV9600 has a 10-bit. It assures top quality video with a 4 times higher resolution and therefore with less interpolation and less failures compared to any 8-bit solution. The new 10-bit I/P converter utilizes chroma error compensation and incorporate a black noise and a mosquito noise reducer to ensure state of the art video performance. Chroma errors manifests themselves as streaky or spiky horizontal lines running through the chroma channel, most notably on diagonal edges. On the DV9600 this is completely removed. The black level noise is noise in the black part of the image. Blacks appear grainy due to random noise inserted into the luminance (black and white information) signal. Whilst this type of artifact affects all shades of grey in the final image, it is far more noticeable in darker portions of the image. The black noise reducer makes the blacks in the image deep, clear and crisp. The mosquito effect is an MPEG compression artifact. It is a blurring of the outline of sharp objects, with inappropriately-colored pixels appearing around the outline of the object. The commonest area in which the mosquito effect is seen is during end credits, where insufficient bits have been allocated to compressing the data. The mosquito effect reducer ensure clear and razor sharp video. Progressive Scan is provided on both the HDMI as well as on the component output.

### DTS 96/24 and Dolby Headphone

Dolby Headphone technology allows users to listen to music, watch movies, or play video games with the dramatic surround effects of a 5.1-channel soundtrack through any headphone. Best of all, "listener fatigue," a phenomenon commonly associated with headphone playback, is replaced by a spacious, natural sound field that listeners can enjoy for hours. DTS 96/24 allows for 5.1 channel sound track encoding at a rate of 96kHz/24 bits on DVD-Video titles.

### A true multi format player

Enjoy the fabulous world of stereo and multi channel audio! The DV9600 provides ultimate versatility with high quality video and audio performance from virtually any 12cm disc. It plays among others SACD, DVD-Audio, DVD-Video and of course CD DA discs.

### IEEE1394 digital audio output with flow rate control

The IEEE 1394 standard defines a serial interface ideal for the digital age. This easy-to-use and high-speed bus easily handles multimedia bandwidth requirements and provides a universal interface for a variety of devices. By allowing seamless data exchange between the DV9600 and an AV receiver it enables the new generation of Marantz A/V devices to operate in a common environment. This digital connection ensures that data streams of high resolution formats like SACD and DVD-A are transferred without changing the integrity of the digital signal for both multichannel and stereo. To produce the high resolution music of SACD and DVD Audio accurately we have incorporated flow rate control. In combination with the SR9600 the signal transfer speed is controlled and with the high quality clock, build in to the SR9600, the original digital bit stream is regenerated. Any jitter created due to the signal transmission process is eliminated by this clock. The result is an accurate sound reproduction preserving every musical emotion from the creator of the music.

### Marantz HDAMs on all 6 channels

Audio devices are usually equipped with Op-Amps (operational amplifiers) for which Integrated Circuit (IC) are commonly used. Unfortunately these IC's do not match the very high requirements of Marantz. Marantz developed it's own discrete circuit boards doing exactly the same thing as the Op-Amps, but outperform the regular IC Op-amps dramatically in terms of the Slew Rate and signal to noise ratio, resulting in a much more dynamic, accurate and detailed sound.

### Build in multichannel decoders

In order to benefit from the audiophile analogue audio performance from the DV9600 we have incorporated DD, DTS and MPEG multichannel DVD-V audio decoders.

### CI friendly

To optimize equipment in terms of ease of use, Marantz has designed the D-Bus system. Received remote control commands are communicated via this bus. The addition of the RS232c port allows the DV9600 to be integrated with a number of control systems such as AMX and Crestron. Via this interface two-way communication is possible to control and get status feedback for example.

### Environmental friendly

Every electronic equipment product is built of single electrical components that are made of different material and substances. Marantz assure that the components used in our products are free of any dangerous material or substance to keep our environment clean. We have for example removed hazardous substances like lead in the solder.

## Bypacked accessories

- User manual
- Power cable
- Remote control
- Batteries
- AV cable
- D-Bus cable

### RC9600DV



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## FEATURES

### MULTICHANNEL/SURROUND

Built-in decoders: DD / DTS / MPEG / DTS96/24  
 Virtual surround: DPL / DPLII / TruSurround / other  
 Headphone surround Dolby Headphone

### AUDIO/VIDEO ENHANCEMENTS

Pal 60 Conversion  
 Progressive Scan: PAL / NTSC  
 Digital Video Scaling (HDMI output only): 480p / 576p / 720p / 1080i / 1080p  
 CD Compatibility: CD / CD-R / RW / HDCD / SA-CD / WMA / MP3  
 VCD Compatibility: VCD / VCD 2.0 / SVCD  
 DVD Compatibility: DVD-V / DVD-A / DVD-R / DVD-RW (video) / DVD-RW (VR) / DVD+ R/RW

Image Disc Compatibility: JPEG / Picture CD  
 HDAM: Standard / SA / Current Feedback

HDAM cover: Gold plated / Copper plated / Metal / no shield  
 Audio ex.

Display On/Off  
 Dedicated High Grade Audio Power Supply

Power Transformer: Toroidal / El  
 High Grade Audio Components  
 Customised Components

Copper Plated Chassis  
 System block shielding: Copper plated / Metal / none

Chassis : Die-cast / Copper plated / Metal  
 Double Layer Bottom Plate  
 Low Noise LCD display

## OTHERS

HDMI adjustments  
 Selectable HDMI output level (normal / expand)  
 DVi adjustments  
 Selectable DVi output level (normal / expand)  
 Selectable Filters for SA-CD  
 Speaker config (SA-CD/DVD-A)  
 Lip sync control  
 External sync control  
 Auto Aspect Ratio  
 Still Picture  
 Multi Language OSD  
 Multi Channel Down Mix:  
 MPEG2 / DD / DTS / DVD-Audio / SA-CD  
 Video Adjustment  
 Bi-directional control via RS232C

## INPUTS/OUTPUTS

**VIDEO**  
 Composite Out 2  
 S-Video Out 1  
 Component Out 1  
 Gold Plated Cinch 1  
 BNC output: Component / RGBhv / selectable -/-/  
 Scart (RGB) 1  
 DVi-D (with HDCP) - (compatible via HDMI)  
 HDMI (with HDCP) V1.1

**AUDIO**  
 Scart 1  
 Analogue Out (Cinch) 2  
 Multi channel out (5.1) •  
 Digital Coaxial Out / In 1/-  
 Digital Optical Out / In 1/-  
 Digital AES/EBU out -  
 IEEE 1394 •  
 Gold Plated Cinch •

**OTHER**  
 D.Bus In/Out •  
 RS232C •

## SPECIFICATIONS

D/A conversion (video) 216 MHz/14-bit  
 D/A converter (video) ADV7324  
 D/A conversion (audio) 192 kHz/24-bit (all channels)  
 D/A converter (audio) CS4398  
 Frequency response 4 Hz - 44 kHz (DVD fs) 96kHz  
 Frequency response 4 Hz - 100 kHz (SACD); 4 kHz - 88 kHz (DVD-A)  
 Signal to Noise Ratio 130 dB  
 Dynamic Range: CD / DVD 110 dB  
 Total Harmonic Distortion (THD) 0.0008

## GENERAL

Available colors: Platinum/Gold/Silver/Black -/-/  
 Metal Front Panel •  
 Remote Control RC9600DV  
 Power Consumption 24 Watts  
 Detachable Power Cable •  
 Maximum Dimensions 440 x 384 x 115 mm (W x D x H)  
 Weight 8.5 kg

Design and specifications are subject to change by Marantz without notice.

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