

DENON

DVD Audio/Video Player

DVD-3800

DVD A/V Player with 12-bit, 108-MHz Video D/A Converter and PureProgressive™ Circuit

The DVD-3800 is endowed with PureProgressive™ technology to unleash the full impact of DVD-Video picture quality. The DVD-3800 also uses a 12-bit, 108-MHz video D/A converter to faithfully preserve the delicate low-level signals often lost during D/A conversion. With these advanced video image technologies, the DVD-3800 will reproduce with the highest resolution, DVD images on Progressive-compliant monitors and projectors. For sound, it is Denon's high-end AL24 Processing Plus, high quality audio D/A conversion, HDCD decoding, and Digital Bass Management that will bring out the best of not only DVD-Audio discs, but your entire CD collection as well.



AL24 Processing Plus



MP3



■ New PureProgressive™ Circuit

The DVD-3800's interface to progressive converter is the new Sil504 Converter with PureProgressive™ circuitry from Silicon Image. The Sil504 features faster moving picture detection and improved film/video mode recognition capability.

High-speed processing: This Sil504 Progressive Converter is capable of processing 6 billion operations per second, providing the finest in motion-adaptive de-interlacing.

Moving picture detection: PureProgressive™ features 2:3 pulldown detection, which converts 24-fps Film based material to 60-fps TV/Video playback, while also detecting Video based material, animation and graphics. PureProgressive™ is capable of reproducing DVD-Video discs containing both Film and Video material, as well as high picture quality progressive video sources, while avoiding the flickering caused by detection delays of these different formats. In processing moving video signals, a conventional progressive converter performs detection on a full frame-by-frame basis, while PureProgressive™ stores 4 fields of video signals in a 64-Mbit SDRAM buffer, enabling the detection and processing on a pixel-by-pixel basis to achieve greater precision in discriminating between moving and still pictures.

Improved 2:3 pulldown detection: There are cases in which 2:3 pulldown data signals on DVD-Video discs are not in sync. The PureProgressive™ converter will quickly detect the non-sequential points and perform appropriate corrective measures at high speed to minimize picture flickering.

It is now also possible to select Level Detection or Flag Detection as the detection method used for Film and Video material. If an incorrect flag was recorded or the difference between the video level and noise level is very small and distinctions on the disc are difficult to detect, this selection ensures optimum detection capability and minimizes picture quality degradation.

■ 12-bit, 108-MHz Video D/A Converter

An extremely high-speed video D/A converter is a critical component in superior quality digital video playback. The DVD-3800 therefore uses a 12-bit, 108-MHz video D/A converter to ensure highly accurate playback of delicate, low-level video signals and give you a vivid picture that is faithful in every detail. Oversampling of 4x is used for both Progressive and Interlaced video signals, allowing more detailed D/A conversion. Higher quality picture reproduction is also possible thanks to a filter with flexible shutout characteristics that is used for the analog filter in the latter stage. Furthermore, the DVD-3800 uses two separate video D/A converters to process Progressive and Interlaced signals. This eliminates mutual interference between the Progressive and Interlaced signals.

■ Noise Shaped Video (NSV)

The NSV feature works in the digital domain to reduce noise in the video signal frequency band in order to enhance video signal linearity.

■ Super Sub Alias Filter

The S/N ratio can be improved when unwanted signals of higher than 6.75 MHz following D/A conversion are cut. The DVD-3800 thus uses a Super Sub Alias Filter that produces flat characteristics, ensuring that adverse influences do not affect video signals inside the essential frequency band, and folding noise is eliminated. In the DVD-3800, the Super Sub Alias Filter is applied to the chroma signal as well as the luminance signal, improving color reproduction.

■ Brilliant Black

DVD-3800 can pass below black video (PLUGE) via the progressive or interlace video outputs for correct monitor setup and optimum picture quality.

■ A Wealth of Picture Quality Adjustment Functions

Contrast, Brightness, Hue, Sharpness, and Gamma can be adjusted as desired by the user.

■ AL24 Processing Plus

Denon has further developed its proprietary AL24 Processing, an analog waveform reproduction technology, to support the 192-kHz sampling frequency of DVD-Audio. This new technology, AL24 Processing Plus, thoroughly suppresses quantization noise associated with D/A conversion of LPCM signals to reproduce the low-level signals with optimum clarity that will bring out all the delicate nuances of the music.

■ Burr-Brown 24-bit, 192-kHz Audio D/A Converter

The DVD-3800 uses a 24-bit, 192-kHz audio D/A converter that is well protected from noise caused by fluctuations in current from the power supply. Since the level of quantization noise within the frequency range is uniform for all frequencies, this D/A converter ensures that all the sound you hear is as clear and noise-free as possible.

■ Pure Direct Mode

The DVD-3800 includes two Pure Direct modes that further improves sound quality. For example, during analog audio output, Pure Direct can turn off digital signal outputs, video signal outputs, and the front panel display which can easily influence the sound quality of the analog audio signals. The user can define which operations are to be turned off and store those preferences in memory.

■ Digital Bass Management

When playing multi-channel Dolby Digital, LPCM or DVD-Audio/MLP sources, it is possible to preset speaker configurations and delay times. The crossover point is fixed at 80 Hz with 12 dB high and 24 dB low pass filter slopes.

■ HDCD Decoder

■ Virtual Surround Mode

■ Thorough Vibration-resistant Design

Since the high-density data recorded on DVD must be read with absolute accuracy, vibrations from outside or from internal sources, such as the power supply, will adversely affect sound and picture quality. A variety of designs have been incorporated in the DVD-3800 to suppress these unwanted vibrations:

- 1) A dual-layered construction incorporating two 1.6-mm thick steel plates is used for the bottom plate that forms the chassis' foundation.
- 2) The DVD mechanism section in the main chassis has been divided in a two-box construction to further protect it from vibrations.
- 3) A cover has been added to the top of the DVD mechanism section to suppress vibrations there and improve noise absorption.

■ Newly-Developed Loading Mechanism for Suppression of Vibrations

The newly-developed loading mechanism uses a guide and tray painted with protein material that is highly resistant to vibrations in order to prevent unwanted vibrations to the tray.

■ Independent Power Supplies

Independent power supplies have been provided for the audio signal processing block, the video signal block and other areas to eliminate mutual distortion with other blocks. Clean supplies of power to the various circuits contribute to high picture and sound quality.

■ Specially Selected Parts for High Sound and Picture Quality

■ DVD-R/RW (DVD-Video Recording Mode) Playback (*1)

■ CD-R/RW (MP3 / JPEG) Playback (*1)

The DVD-3800 supports the CD-R/RW format. It plays finalized CD-R/RW discs containing MP3 audio files. It also reads still photos in the JPEG format taken by a digital camera.

■ Kodak Picture CD

The DVD-3800 also plays Picture CDs (Kodak format only).

■ On Screen Display

■ RS-232C Port (Third-party system controls only)

Includes a RS-232C port to support an AMX, Crestron integrated control system.

■ Remote IN/OUT Terminals

(*1) Discs that have been poorly finalized following recording may be only partially playable or not playable at all.

Specifications

■ Video Section

Signal system	NTSC
Disc played	DVD Audio, DVD Video, DVD-R/RW (DVD Video), Video CD, Music CD, CD-R/RW (AUDIO/MP3/JPEG), Picture CD
Video outputs.....	2 sets composite video output: 1 Vp-p (with 75 ohms load) 2 sets S-Video output: Y; 1 Vp-p (with 75 ohms load), C; 0.286 Vp-p (NTSC) Component Video Output: Y, Cb/Pb, Cr/Pr: Y; 1.0 Vp-p (with 75 ohms load), Cb/Pb; 0.7 Vp-p (with 75 ohms load), Cr/Pr; 0.7 Vp-p (with 75 ohms load)

■ Audio Section

Audio outputs	1 Set Analog Front Channel (FL/FR) Output, 1 Set Analog Multi Channel (SL/SR/C/SW) Output, 1 Set Optical Digital Output, 1 Set Coaxial Digital Output,
Signal-to-noise ratio	116 dB (DVD/CD)
Dynamic range	108/100 dB (DVD/CD)
Total harmonic distortion	0.0015/0.0018 % (DVD/CD)

■ General

Power supply	AC 120 V, 60 Hz
Power consumption	30 W
Dimensions	434 (W) x 132 (H) x 343 (D) mm, 17.1" (W) x 5.2" (H) x 13.5" (D)
Weight.....	10 kg, 22 lbs



*Design and specifications are subject to change without notice.

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DENON ELECTRONICS (USA), INC.

19 CHAPIN ROAD, P.O. BOX 867, PINE BROOK, NJ 07058-9777 USA
TEL: 973-396-0810 www.denon.com

DENON CANADA INC.

505 APPLE CREEK BLVD. UNIT 5 MARKHAM, ONTARIO L3R 5B1 CANADA
TEL: 905-475-4085 www.denon.ca

DENON, LTD.

3-16-11 YUSHIMA, BUNKYO-KU, TOKYO 113-0034 JAPAN
www.denon.co.jp