

PMA-1510AE

Integrated Amplifier

DENON

Rich sound from various music sources thanks to UHC-MOS single push-pull output circuit

The PMA-1510AE is endowed with a renowned Denon tradition: the simple & straight UHC-MOS single push-pull amplifier circuit. Amplifier construction, the foundation of expressive sound, has also been redesigned to place greater emphasis on low specific gravity and more direct grounding. Rich musical expressiveness in a class of its own is achieved with the same large, 27-mm motor-driven volume control that's used on the high-class PMA-2010AE.



Premium silver



Black

Ultra High Current MOS
SINGLE PUSH-PULL CIRCUIT

Features

New Features

- Newly-developed heat sink, to suppress vibration caused by resonance point
- System remote control unit to control not only the amplifier but also a CD player
- Lower power consumption at stand-by 0.1 W (in Eco Standby)
- The Schottky barrier diode used in the PMA-1510AE has 1.5 times more capacity than previous models.
- High-grade volume control for precise quality management

High quality sound

- Ultra-High Current (UHC)-MOS Single Push-Pull Circuit, for balancing details and power
- High-current, dynamic power supply, to support high speed and large current flow
- Direct Mechanical Ground Construction to minimise unwanted vibration
- Minimum signal paths, to protect signal purity
- Leakage-cancelling-mounted twin transformers
- Wide range playback, supporting Super Audio CD
- Microprocessor Stop Mode, for pure enjoyment of music

Others

- High-performance phono equaliser
- Parts strictly selected for high sound quality
- Gold-plated speaker terminals



High quality sound

Ultra-High Current (UHC)-MOS Single Push-Pull Circuit, for balancing details and power

The PMA-1510AE features UHC (Ultra High Current) -MOS technology that utilises a minimum number of high-current amplifier elements to balance advanced speaker drive capabilities and improved sound quality. UHC-MOS is an ideal amplifier whose power supply performance is superior to that of bipolar transistors and incorporates the sound quality advantages of MOS-FETs. The PMA-1510AE's UHC-MOS is provided in a single push-pull configuration that eliminates deviations in the amplification stage and balances high power with delicate musical details. This circuit masterfully reproduces the full sonic range, from the delicate musical nuances to the powerful climaxes of rich musical expression.

High-current, dynamic power supply, to support high speed and large current flow

A low-noise Schottky barrier diode, well known for its superior switching characteristics, has been used in the rectifier circuit. The Schottky barrier diode used in the PMA-1510AE has 1.5 times more capacity than previous models, which provides ample current capacity to accommodate on-going successions of large bursts in sound while preserving its power and stability. Lower impedance has been achieved by doubling the normal thickness of copper foil used in the power supply circuitry, a design that adds stability to the current supply. The use of custom parts for the block capacitor, thoroughly tested for their contribution to high sound quality, further underscores Denon's uncompromising approach to audio technology and impeccable sound.

Direct Mechanical Ground Construction to minimise unwanted vibration

The PMA-1510AE features a redesigned construction that thoroughly suppresses the adverse influences of vibration and electrical noise. Compared to previous models, the PMA-1510AE has a lower centre of gravity where the power amplifier board has been mounted closer to the bottom of the chassis, a construction that protects the circuitry from vibration. A twin monaural configuration with

L/R symmetry has been adopted for the power amplifier block. And since circuits with different signal levels have been separated, they are thoroughly protected from mutual interference or noise. These design improvements contribute to a highly transparent, expressive sound.

Minimum signal paths, to protect signal purity

Signal paths have been made thoroughly simple and straight to ensure a pure playback sound. The minimisation of signal paths prevents signal degradation between circuits. In the amplifier stage, minimum signal paths reduce noise entering the ground circuit, a fundamental component in signal amplification, and stabilises ground potential. When the operating foundation of the amplifier circuit is clear, the playback sound is also clear.

Leakage-cancelling-mounted twin transformers

Two transformers have been connected in parallel to dramatically improve electrical and magnetic characteristics. The Leakage Cancelling (LC) mount-in system, a method of cancelling mutual magnetic influences, has been used to minimise the leaking of magnetic flux, a source of noise inside the amp. The transformers were mounted with a plate between them and the chassis. Unlike conventional models, this plate is dual-layered. A combination of special resins and vibration-resistant materials has also been used to produce a floating effect that prevents adverse influences from affecting sound quality.

High-grade volume control for precise quality management

The PMA-1510AE's volume control, an element that significantly influences the quality of sound from an amplifier, is the same motor-driven volume used in the high-class PMA-2010AE. Denon engineers carefully tested several types of volume controls before deciding that this was the one that best brought out the expressive power of sound in a class of its own.

Newly-developed heat sink, to suppress vibration caused by resonance point

The PMA-1510AE is equipped with a heat sink of a new shape made up of 3 fins of different thicknesses. Since these fins use the different thick-

nesses to disperse resonance points, they prevent vibration caused by resonance from adversely affecting sound quality and ensure that the sound it produces is beautifully transparent and detailed.

Wide-range playback, supporting Super Audio CD

The PMA-1500AE achieves an effective frequency response of up to 100 kHz. The use of a low-impedance volume control also suppresses noise generated inside the amp during actual use to ensure optimum resolution. This wide-range playback capability is ideal for high-grade audio format such as Super Audio CD.

Microprocessor Stop Mode, for pure enjoyment of music

In this mode, when no operation has occurred, the PMA-1510AE stops microprocessor operation. This stops clock oscillation in the digital circuitry and allows you to enjoy a purer musical sound.

Useful function

System remote control unit to control not only the amplifier but also a CD player^(*)

The supplied remote control unit not only operates the PMA-1510AE but also the Denon DCD-1510AE Super Audio CD player. The buttons used most frequently have been arranged for easy operation when the unit is held in one hand.

(*1) PMA-1510AE's remote control unit is the same as DCD-1510AE's one. RC-1143)

Power Amp Direct Input

Others

- High-performance phono equaliser
- Parts strictly selected for high sound quality
- Gold-plated speaker terminals

The PMA-1510AE provides high-grade, gold-plated speaker terminals that allow bi-wired connections. With these large speaker terminals, you can easily change speaker cables to suit your needs or tastes. You are invited to enjoy the changes in sound that occur when cables are changed.

- Lower power consumption at stand-by
0.1 W (in Eco Standby)

Main Specifications

Power amplifier section

Rated output	70 W + 70 W (8 Ω, 20 Hz - 20 kHz, THD 0.07%) 140 W + 140 W (4 Ω, 1 kHz, THD 0.7%)
Total harmonic distortion	0.01% (rated output -3 dB, 8 Ω, 1 kHz)
Input sensitivity / Impedance	Power Amp Direct : 0.84 V/47 kΩ

Preamplifier section

Phono equaliser	150 mV
rated output	

Input sensitivity / Impedance

CD, TUNER, LINE, RECORDER-1, RECORDER-2	125 mV / 45 kΩ (Source direct OFF)
PHONO MM	2.5 mV / 47 kΩ
PHONO MC	200 μV / 100Ω
RIAA deviation	PHONO 20 Hz - 20 kHz, ±0.5 dB

General Characteristics

Signal-to-noise ratio (IHF A network)	CD, TUNER, LINE, RECORDER-1, RECORDER-2
	108 dB (input terminals short-circuited)
PHONO MM	89 dB (input terminals shorted, input signal 5 mV)
PHONO MC	74 dB (input terminals shorted, input signal 0.5 mV)

Tone controls

BASS	100 Hz, ±8 dB
TREBLE	10 kHz, ±8 dB

General

Power supply	AC 230V, 50 Hz
Power consumption	285 W 0.2 W (Standby) 0.1 W (Eco Standby)
Dimensions (W x H x D)	434 x 134 x 410 mm
Weight	15.5 kg

Ports

In	Phono (MM/MC)	x 1
	CD	x 1
	Tuner	x 1
	Line	x 1
	Recorder-1 (Playback)	x 1
	Recorder-2 (Playback)	x 1
Out	Power amp direct	x 1
	Recorder-1 (REC)	x 1
	Recorder-2 (REC)	x 1
	Preout	x 1



* Design and specifications are subject to change without notice.

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