New model information

PMA-720AE

Integrated Amplifier

DENON

Superior Speaker Drive Capabilities for High-quality Sound

The PMA-720AE integrated amplifier is a master at driving speakers with amplitudes that change instantaneously. This model is equipped with the Advanced HC (High Current) Single Push-Pull Circuit that incorporates improvements over conventional amplifier circuitry to reproduce sound with greater speed and dynamism. The power circuit that supports the amplifier circuitry employs a new schottky barrier diode with superior capabilities to supply current instantaneously, resulting in stable sound playback even of musical passages containing sudden bursts of sound or extended periods of intense sound. To ensure that the audio and power circuits operate at their maximum potential, Denon's Direct Mechanical Ground Construction has been adopted for the chassis of the PMA-720AE. The use of shortened signal paths from input to output enhances the amplifier's ability to faithfully reproduce the original sound. From the beautiful sound that you hear to the volume knob and other details in the physical design, meticulous care has been taken to ensure that the PMA-720AE is a pleasure to use and listen to.

ADVANCED
High Current
SINGLE PUSH-PULL CIRCUIT

S.L.D.C
SIGNAL LEVEL DIVIDED CONSTRUCTION

Features

Denon Technologies for superior sound

✓Advanced High Current (HC) Single Push-Pull Circuit with New Schottky barrier diode, for musical detail and power (New Schottky barrier diode, 1.5-times more high current capacity than previous model)
✓Dual FET for amplification input stage
• High-speed, High-capacity power supply circuit
• Thoroughly vibration-resistant design with Direct Mechanical Ground Construction
• Main transformer with separate power supplies for audio and control circuit
• S.L.D.C (Signal Level Divided Construction) and Minimum Signal Paths
• Micro-processor stop mode, for higher sound quality
✓High quality speaker terminal
• Gold plated audio terminals for high-quality sound
• Wide dynamic range playback, supporting a high-grade audio source

Ease of use

✓New remote control handset also operates a Denon CD and network player
• Phono equaliser amplifier (MM), for connecting an analog record player
• Headphone jack

Others

• Aluminium panel design, befitting the elegance of an audio component
• Design matches the new DCD-720AE CD player
✓Auto-standby, to minimise power consumption
• Low power consumption in standby mode

High quality sound

✓Advanced High Current (HC) Single-Push-Pull Circuit to balance musical detail and power

The amplifier circuitry employs an HC transistor with 3 times greater current capacity compared with conventional transistors, a significant new advance. A strictly-selected Dual FET is used in the input stage of the power amp to achieve greater stability in operation. And a new schottky-barrier diode, with 1.5 times the current capacity of conventional models and superior capability to supply current instantaneously, has been incorporated in the power circuit to ensure a consistently stable, beautiful sound.

• High-speed, high-capacity power supply circuit for Advanced HC Single-Push-Pull

The PMA-720AE's power circuit uses a block capacitor that Denon engineers have jointly developed with a parts manufacturer and a Schottky-barrier diode that features low internal resistance for low loss, short recovery time, and negligible rectifying noise. This highly stable electrical current supply further brings out the expressive power of sound produced by the Advanced HC Single-Push-Pull Circuit.

• Thoroughly vibration-resistant design with Direct Mechanical Ground Construction

The power transformer alone produces considerable vibration. A new 1.6 mm thick copper plate has therefore been added between the chassis bottom and the power transformer to suppress vibration from the power transformer and also prevent external vibrations from affecting the transformer. The positioning of the power transformer to a location near the insulating feet directs vibration as quickly as possible away from the chassis bottom to the feet, minimizing its effects on other electrical circuits nearby and the heat sink.

• Main transformer with separate power supplies for analog and digital circuits

The coiled wire of the power transformer for the audio signal and control circuits has been separated to eliminate mutual interference and adverse influences on sound quality. The PMA-720AE also has a prepared transformer to minimize power consumption during remote power-off standby and improve environmentally friendly performance.

• Signal Level Divided Construction

The PMA-720AE employs Denon's Signal Level Divided Construction (SLDC) in which the circuits for small and large signals, the microprocessor, and other circuits are separated in an ideal manner to minimize mutual interference.

• Microprocessor stop mode, for higher sound quality

The Microprocessor Stop Mode automatically stops all operations of the microprocessor when it is not needed during playback. By stopping the oscillation of the microprocessor's clock during normal listening, the audio signal is protected from noise and the quality of sound is improved.

✓High quality speaker terminal

The screw-type transparent terminals hold cables securely to minimize signal degradation. Switching between A and B speaker systems is also possible.

• Wide dynamic range playback, supporting a high-grade audio sources

The PMA-720AE's tone circuit, power amplifier circuit and other areas have been fine-adjusted to secure a frequency response of up to 100 kHz during actual use. Also, improvements in the volume circuit suppress noise in the amplifier to achieve high sonic resolution. These features and others give the PMA-720AE plenty of latitude to handle the wide dynamic range of high-grade audio sources such as Super Audio CD and DVD-Audio.

• "Source Direct" function, for clean pure audio playback (simple & straight signal)

The PMA-720AE includes a Source Direct function that allows the audio signal to bypass the Bass, Treble, Loudness, and Balance control circuits and maintain its purity for optimum sound transparency during playback. This Source Direct function works for all input sources.

• Every detail of the design devoted to high-quality sound

The relay switch used for CD and Phono input contains an inert gas to prevent the occurrence of noise that can negatively affect the signal. In addition, highly reliable parts strictly selected for their contribution to sound quality, such as the large-capacity block capacitor for the power supply circuit, high-quality sound carbon resistors, and high-quality sound capacitors, are also used. Each individual part employed in configuring the circuits reflects this emphasis on high sound quality.

Ease of use

✓Newly-designed System remote handset

The PMA-720AE's system remote handset controls the main volume, function switching, muting, and remote power on/off (linked with an AC outlet). The system remote also controls Denon CD players and network players.

Others

✓Auto-standby, to minimise power consumption

When no signals or operations are detected for a certain period of time, the PMA-720AE automatically switches to standby mode where power consumption is at its lowest level. Auto-standby ensures that electricity is not wasted.

Main Specifications

Power amplifier section	
Rated output	50 W + 50 W (8 ohms, 20 Hz - 20 kHz, THD 0.07%) 85 W + 85 W (4 ohms, 1 kHz, THD 0.7%)
Total harmonic distortion	0.01% (8 ohms, 1 kHz)
Preamplifier section	
Phono equalizer rated output	150 mV (REC out terminal)
Input sensitivity / Impedance	
Line	100 mV/30 kohms (Source Direct: OFF) 100 mV/16 kohms (Source Direct: ON)
Phono	2.5 mV/47 kohms
RIAA deviation	
Phono	20 Hz - 20 kHz, ±0.5 dB
Signal-to-noise ratio (IHF A network)	
Line	107 dB (Source Direct: ON)
Phono (MM)	86 dB (input terminals shorted, input signal 5 mV)
Tone controls	
Bass	100 Hz, ±8 dB
Treble	10 kHz, ±8 dB
Loudness	100 Hz : +6 dB, 10 kHz : +6 dB
General	
Power supply	AC 230 V, 50/60 Hz
Power consumption	200 W
Power consumption in standby mode	0.3 W
Power Outlet	3 switched outlets 100 W
Dimensions (W x H x D)	434 x 121 x 308 mm
Weight	7.1 kg

Ports

In	Phono (MM)	1
	CD	1
	Tuner	1
	AUX	1
	Network	1
	Recorder (Playback)	1
Out	Recorder (REC)	1
	Preout (L/R)	1
Others	AC outlet	3
	Remote control (IN/OUT)	1/1

*Black version is also available

*Design and specifications are subject to change without notice.

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