

Headphone Amplifier / Preamplifier

HA-507



Pure Analog Headphone Amplifier / Preamplifier to Further Expand the World of Headphone / Speaker Listening

■ Key Features

- High power, wide range, low distortion headphone amplifier
 - Fully balanced/dual mono configuration with extremely powerful/musical amplifier elements
 - Exceptional headphone drive capability of 6.7W + 6.7W (32Ω) at balanced output
 - Preamp pass-through function for use as a separate power amplifier for headphones
 - Fully balanced/dual mono preamplifier built on TEAC's unparalleled excellence in audio design
 - " TEAC-QVCS Advanced" with new super high precision, ladder resistor network
 - Smooth, precise volume control in 0.25dB increments
 - Lossless, long life FET input switching system without mechanical contacts
 - " TEAC-HCLD 2" provides fast and powerful external amplifier drive capability.
 - Large toroidal power transformers with separate left and right windings exclusive for audio circuits
 - 18,800 μ F per channel dual-mono configuration for dynamic, responsive sound
 - Low-feedback, discrete regulated power supply circuit for excellent dynamics and imaging
 - Compact yet rugged A4-size aluminum chassis suitable for both audio rack and desktop applications
 - Semi-floating 2.8mm thick aluminum top plate
 - Stressless metal feet with three-point support for precise imaging and natural sound characteristics
 - High grade aluminum knobs with patent-pending mechanism to prevent off-axis shaft movement
 - RC-1340 dedicated remote control (AAA x 2), motorized volume control
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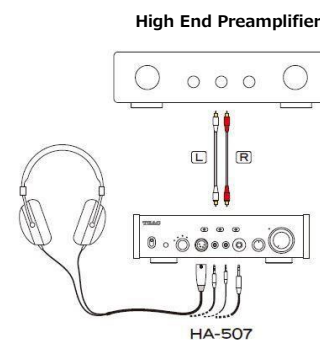
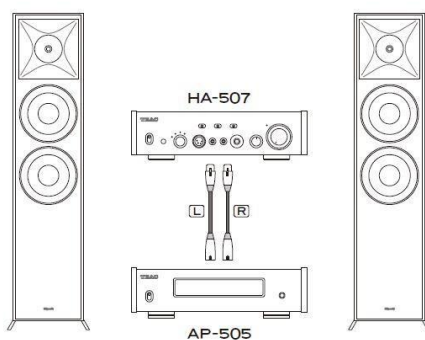
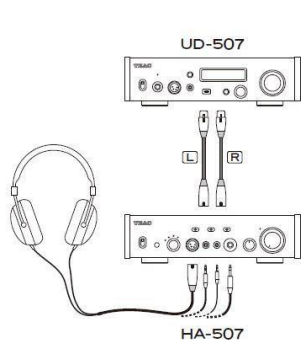
Brand	TEAC	TEAC
Model Name	HA-507-S	HA-507-B
Color	Silver (S)	Black (B)
EAN Code	4907034225262	4907034225255
UPC Code	043774 036165	043774 036158
Release Date	October 30th	October 30th
Estimated Delivery Date	Late January 2025	Late January 2025
Product Dimensions / Weight	290 × 84.5 × 243.9 (WxHxD/mm) / 4.6 kg 11 1/2" × 3 3/8" × 9 5/8" (WxHxD/inch) / 10 1/4 lb	290 × 84.5 × 243.9 (WxHxD/mm) / 4.6 kg 11 1/2" × 3 3/8" × 9 5/8" (WxHxD/inch) / 10 1/4 lb
Package Diminsions / GW	444 × 193 × 345 (WxHxD/mm) / 6.0 kg 17.4 × 7.6 × 13.6 (WxHxD/inch) / 13.2 lbs	444 × 193 × 345 (WxHxD/mm) / 6.0 kg 17.4 × 7.6 × 13.6 (WxHxD/inch) / 13.2 lbs



The HA-507 is a pure analog headphone amplifier/preamplifier that incorporates TEAC's premium audio technologies to achieve the highest level of sound quality.

Equipped with an extensive power supply circuit, the HA-507 has exceptional headphone driving power and an extremely wide frequency response that cannot be imagined from its compact appearance. When connected to the TRDD 5 discrete DAC, model UD-507, you can create a special headphone playback system with separate digital and analog sections.

The HA-507 is a no-compromise headphone amplifier that can also be used as a pure analog preamplifier. When paired with a Reference 500 Series power amplifier, you can create a compact yet full-featured separate amplifier system that further enhances the quality of your loudspeaker listening experience.



**Pure Analog
Headphone Amplifier**

Pair the HA-507 with your favorite DAC or digital player for a complete headphone system.

Compact Premium Preamp

Pair the HA-507 with a Reference 500 Series power amplifier to create a compact, premium separate amplifier system.

※AP-505 is discontinued. Next generation model: TBA

**Headphone Power Amplifier
(Preamp Pass-Through Mode)**

If you already have a higher quality preamplifier in your speaker system, you can pass through the HA-507's preamplifier and add it as a "headphone power amplifier".



The Ultimate Pure Analog Headphone Amplifier of the TEAC Reference 500 Series

Fully Balanced/Dual Mono High Output Headphone Amplifier

The HA-507 employs a high-power analog amplifier circuit with exceptionally wide bandwidth and low distortion characteristics. It features a fully balanced/dual mono configuration with a total of four amplifier elements (left/right/positive/negative).

Originally designed to drive full-size speakers, the amplifier element is not only extremely powerful, but also capable of reproducing the texture of music with extreme subtlety. This amplifier element gives the HA-507 an exceptional headphone drive capability of 6.7W + 6.7W (32Ω) at balanced output, which can fully drive any headphones, including low-sensitivity, high-impedance ones, with unparalleled musicality.

When driving unbalanced headphones, the internal balanced amplifiers are switched to an active-ground configuration. The unbalanced headphone output provides an exceptionally wide soundstage by actively driving the signal ground level to zero voltage.

HA-507 Rated Output Power	
Unbalanced	2.3 W + 2.3 W (into 32 Ω)
	1.2 W + 1.2 W (into 100 Ω)
	480 mW + 480 mW (into 300 Ω)
	250 mW + 250 mW (into 600 Ω)
Balanced	6.7 W + 6.7 W (into 32 Ω)
	4.2 W + 4.2 W (into 100 Ω)
	1.8 W + 1.8 W (into 300 Ω)
	950 mW + 950 mW (into 600 Ω)



Drives All Types of Headphones to the Maximum

Two balanced outputs (Neutrik XLR 4-pin and 4.4mm Pentaconn) and two unbalanced outputs (6.3mm and 3.5mm) are provided. Gain can be switched in three levels (High/Mid/Low) to match the headphones being used.

Can Be Used as a Separate Power Amplifier for the Headphones

For the ultimate head-fi who wants a separate pre/power amplifier system for headphones, the HA-507 can be used as a separate headphone power amplifier by pairing it with high-end external preamplifiers. Preamp pass-through mode can be activated by a switch on the rear panel. This feature is also useful for listeners who already own an ultra-high-end preamp for their speaker system and prefer a single preamp configuration for both speaker/headphone listening. Even in this preamp pass-through mode, the gain and L/R balance functions are enabled for ease of use.



※ AP-505 is discontinued. Next Generation Model: TBA

Premium Compact Preamplifier

Built on TEAC's Unparalleled Excellence in Audio Design

Fully Balanced / Dual Mono Preamplifier

Whether for headphones or speakers, the preamplifier is the heart of an audio system and important component responsible for the overall sound quality of the system. The HA-507 is a premium compact preamplifier that combines TEAC's audio design excellence in a fully balanced/dual mono configuration to provide an unprecedented high quality listening experience.

“ TEAC-QVCS* Advanced” Volume Control Circuit, Which Achieves Even More Advanced Sound Quality and Precision than the Previous Generation Circuit.

We have newly developed "TEAC-QVCS* Advanced", a ladder resistor volume control system with four independent circuits for left/right, positive/negative (L+, L-, R+, and R-). This circuitry provides the shortest signal paths to minimize audio signal degradation. The resistive element inside the volume control, developed using the latest semiconductor process technology, is extremely precise and has achieved even higher sound quality and control precision than the previous generation QVCS. Featuring TEAC-QVCS Advanced, the HA-507 offers smooth volume control in 0.25dB increments, unparalleled channel separation without crosstalk that only dual-mono can provide, and quiet and precise music reproduction created by the precise symmetry of the balanced volume control circuitry.

※Quad Volume Control System

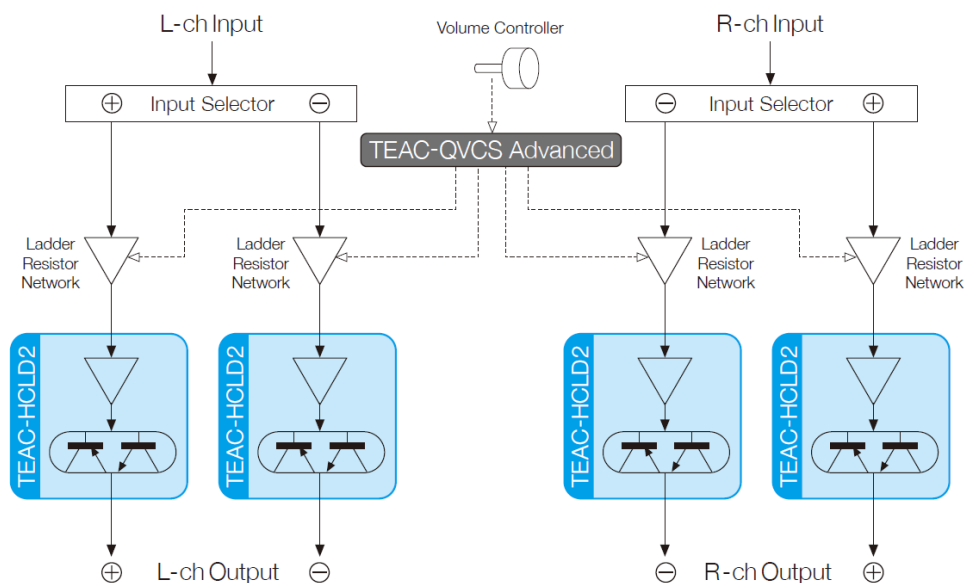


Lossless FET Input Switching for a Variety of Analog Devices

The HA-507 has two XLRx2 and two RCAx2 input connectors, allowing you to connect a variety of analog devices to your Reference 500 system. Input switching uses FET switches with no mechanical contacts to enhance signal purity and ensure long life.

"TEAC-HCLD 2" Circuitry Provides Superior Drive Capability of External Amplifier

The HA-507 is equipped with one XLR and one RCA preamp output. The output buffer amplifier uses the "TEAC-HCLD (High Current Line Driver) 2", which is even more focused on high slew rate/high speed current transfer than the original HCLD, to powerfully drive the connected amplifier + speakers.





High Quality Power Supply, the Key to Sound Quality

18,800 μ F/ch Dual Mono Power Supply

To achieve both excellent drive performance and high sound quality, special attention was paid to the power supply design. Two power supply systems, one dedicated to the audio circuits and the other to the control circuits, are completely independent of each other. The large toroidal core power transformer dedicated to the audio circuits has separate left and right windings and couples 18,800 μ F (4,700 μ F x 4) capacitors per channel to form a high-capacitance dual mono power supply. It is extremely responsive to changes in the dynamics of the music. No compromises were made in the selection of components, such as high-speed Schottky barrier diodes.

Discrete Regulated Power Supply for Improved Dynamic Range and a Wider Soundstage

The regulated power supply circuit is one of the most important components in improving the sound quality of a headphone amplifier/preamplifier. It is a completely discrete, low feedback circuit design to provide excellent dynamics and imaging.



An Ideal Mechanical Design That Combines Sound Quality, Functionality, and Elegance

Form Follows Function

The HA-507's mechanical, massive, yet sleek exterior is perhaps the most obvious example of "form follows function" in industrial design. The A4-sized chassis, which fits on a desktop, is made of aluminum and, although compact, is full of a sense of solidity that quietly asserts the attention to circuit design and sound quality that the HA-507 encompasses.

Mechanical Design That Prioritizes Sound Quality

The 2.8mm thick aluminum top panel, which gives the chassis a heavy texture, is semi-floating, meaning that it is not screwed down, but sits under its own weight in the slots in the aluminum panels on the left and right sides. The screws used to secure the internal circuit board are also minimized to open up the sound. The use of TEAC's original metal Stressless Foot, which has clearance at the joint between the bottom panel and the foot, results in a rich and natural characteristic of the final sound quality of the HA-507.

The HA-507 is a high performance, high quality amplifier in a compact size, carefully designed for heat dissipation efficiency without the use of noisy heat exhaust fans.

Large components such as the top panel grille and internal heat dissipation fins are treated with special medical-grade damping material to reduce frequency peaks and achieve neutral frequency response.

High-Precision Feel and Touch for Volume and Knobs

The volume knobs are all crafted from high grade aluminum, carefully designed for a premium feel and touch. All knob shafts are equipped with a special mechanism (patent pending) to prevent off-axis movement and achieve high precision and robust feel. The torque of the volume knob is also finished to give the best feel to your fingers. The traditional motorized volume control with the included remote control is another detail that symbolizes the HA-507's "pure analog" concept.



Features at a Glance

[Headphone Amplifier]

- High power, wide range, low distortion headphone amplifier
- Fully balanced/dual mono configuration with extremely powerful/musical amplifier elements
- Exceptional headphone drive capability of 6.7W + 6.7W (32 Ω) at balanced output
- Preamp pass-through function for use as a separate power amplifier for headphones
- Two balanced outputs: XLR 4-pin x 1, 4.4mm Pentaconn x 1
- Unbalanced outputs: 6.3 mm x 1, 3.5 mm x 1
- Switchable headphone output gain (high/mid/low)

[Preamplifier]

- Premium compact preamplifier built on TEAC's unparalleled excellence in audio design
- Fully balanced/dual mono configuration
- "TEAC-QVCS Advanced" with new super high precision, ladder resistor network
- Smooth, precise volume control in 0.25dB increments
- Lossless, long life FET input switching system without mechanical contacts
- "TEAC-HCLD 2 (High Current Line Driver 2)" provides fast and powerful external amplifier drive capability.
- Inputs: XLR x 2, RCA x 2
- Outputs: XLR x 1, RCA x 1

[Power Supply]

- Two independent power supplies (one for audio circuits and one for control circuits)
 - Large toroidal power transformers with separate left and right windings exclusive for audio circuits
 - 18,800 μ F per channel dual-mono configuration for dynamic, responsive sound
 - High-quality power components, high-speed Schottky barrier diodes.
 - Low-feedback, discrete regulated power supply circuit for excellent dynamics and imaging
-

[Mechanical Design, Additional Features]

- Compact yet rugged A4-size aluminum chassis suitable for both audio rack and desktop applications
- Semi-floating 2.8mm thick aluminum top plate
- Stressless metal feet with three-point support for precise imaging and natural sound characteristics
- Fanless, highly efficient heat dissipation design
- Preamp pass-through for AV surround systems
- Trigger in/through terminals
- High grade aluminum knobs with patent-pending mechanism to prevent off-axis shaft movement
- RC-1340 dedicated remote control (AAA x 2), motorized volume control
- Available in two colors: silver and black



This document includes information that has not yet been made public. Please do not reveal any of this information before the indicated announcement date. Moreover, this information is still under development and the contents might change before the product announcement date. For information that has been made available to the general public, please see our website, press releases, new product sales announcements and other public documents.