

# Supplemental to New Product Information (SNPI)



Everything is designed to maximize headphone potential.  
Full-Analog Dual Monaural Headphone Amplifier

## ■ Main Features

- A lavishing Class-A Amplifier for superior sound quality. (Full-analog Dual Monaural Discrete design)
- Active DC Servo Technology to eliminate Offset Electrical Potential, to achieve stable drive.
- Switchable Damping Factor, to dive diaphragm under the best conditions. (5 positions)
- 1,400mA/ch (32 ohm loaded) of high output power to drive a high impedance headphones as high as 600 ohms.
- A Toroidal-Core Power Transformer for stable current supply.
- Full-metal jacket. Gorgeous aluminum panels for front top and sides. Small footprint fits your desktop.



Brand	TEAC
Series	Reference 501
Model No.	HA-501-B (Black)
Launching Date	September 19, 2012
Delivery Date	Late-September, 2012
UPC Code	043774028375
EAN Code	4907034217809
Overall Dimensions / NW W x H x D	290 x 81.2 x 244 / 4.1 (mm/kg) 11.4 x 3.2 x 9.6 / 9.0 (inch/lbs)
Package Dimensions / GW W x H x D	440 x 190 x 340 / 5.7 (mm/kg) 17.3 x 7.5 x 13.4 / 12.6 (inch/lb)
Quantity per Master Carton	Not Ready



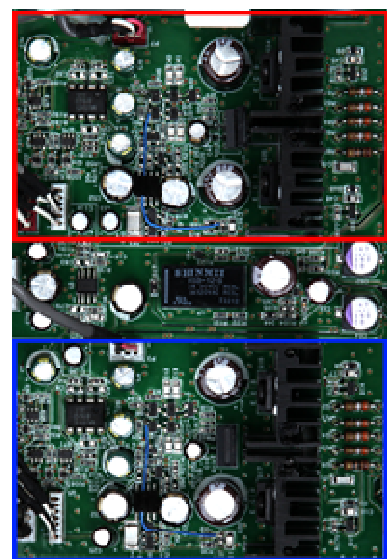
Brand	TEAC
Series	Reference 501
Model No.	HA-501-S (Silver)
Launching Date	September 19, 2012
Delivery Date	Late-September, 2012
UPC Code	043774028382
EAN Code	4907034217885
Overall Dimensions / NW W x H x D	290 x 81.2 x 244 / 4.1 (mm/kg) 11.4 x 3.2 x 9.6 / 9.0 (inch/lb)
Package Dimensions / GW W x H x D	440 x 190 x 340 / 5.7 (mm/kg) 17.3 x 7.5 x 13.4 / 12.6 (inch/lb)
Quantity per Master Carton	Not Ready

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## **Supplemental to New Product Information (SNPI)**

- **A headphone Amplifier to Achieve peak headphone performance**

In general, a headphone output from conventional hi-fi components does not allow even high-quality headphones to perform at their peak potential. The same way one chooses an amplifier to match with your favorite speakers, it is very important to choose an appropriate headphone amplifier that matches your favorite headphones. A headphone amplifier is a "must-have" listening device for audiophiles.



- **Active DC Servo Technology for decreased distortion, and discrete Class-A Amplifier**

In order to develop a first-class low distortion Class-A headphone amplifier, TEAC held a series of sound evaluations during the development. These tests led to the careful choosing of parts and discrete circuit design. In addition, like most full-size hi-fi components, in order to eliminate Offset Electrical Potential, Active DC Servo Technology is utilized.

- **A Large Toroidal-core Power Transformer**

An over-sized Toroidal-core power transformer is also employed to supply stable current to the every part of the circuit.



- **Dual Monaural Design that eliminates interference between Left and Right channels**

In regards to the circuit design, each channel is completely designed on an individual basis to avoid signal interface to/from another. This contribution eliminates cross-talk, crucial headphone listening.

- **MUSES8920 Op-Amps - for high-end quality**

A couple of MUSES8920 Op-Amp chip-sets are designed for high-end audio. Employed individually on the Left and Right channels, they help achieve superior sound.



- **Total 2,800mA of output power drives your high impedance headphones**

The HA-501 achieves a remarkable 1,400mW output power per channel at 32 ohms impedance. The device delivers not only enough power to drive standard headphones with an impedance range from 80 to 250 ohms, but also high-class 600 ohms hi-fi headphones.



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### ● Damping Factor Selector to optimize headphones' characteristic

Each pair of headphones has its Damping Factor, a resisting force against non-intentional movement of the diaphragm moving air forwards and backwards as sound. The value of the Damping Factor varies model by model, as diaphragms are made by different materials, in different shapes or different construction designs. Since headphones' diaphragms are activated by a very small current compared to conventional speakers, the damping factor increases, the sound is lean and crisp, and has a close relationship with headphones' impedance. Therefore, selecting the right Damping Factor is crucial in order for your headphones to perform at their peak potential. The HA-501 provides 5 selectable Damping Factors, so users have the best suited signal for multiple headphones.



### ● Robust Aluminum Body with a Classy Appearance

Re-defining high class hi-fi components, the HA-501 has a small footprint, classy appearance and is constructed with aluminum panels to create an authentic but modern looking hi-fi component. A robust metal construction helps eliminate vibrations that may affect the sound quality. The bottom and sidewalls are formed with a steel chassis, aluminum for the front panel and the rear panel out of steel. In order to ensure it's rugged design, each panel is connected with a beam that runs through the center of the unit. Normally, this type of construction is only for full-size components, particularly CD players that generate inherent motor vibrations. This construction ensures the HA-501 is an authentic hi-fi component that will last you for many years. Choose between a handsome black version and a brilliant silver version to match with any interior or design.

### ● Well-designed User Interface

Another remarkable feature of the HA-501 is the user-friendly. The firm-torqued volume control allows users to adjust the volume level with ease and precision while the toggle-type power switch assures ON/OFF operation at a glance. Auto-muting function protects your ears from unexpected loud sound when switching between headphones with different levels of impedance.



### ● Professional grade Input/Output connectors

On the rear panel, a pair of NEUTRIK brand XLR input connectors allow users to connect high-end components or professional audio equipment, while wider-pitch RCA pin jacks allow user to connect large-shaft RCA pin cables from other markets. A detachable type 3-polar power inlet socket is also available. On the front, a 3.5mm stereo mini-jack allows users to connect a portable music player such as an iPod, conveniently.

### ● Switchable Output Mode for flexibility

Line output level from the rear panel can be switched amongst "Fixed Level", "Variable Level (coupled with volume)" and "Off".



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## **Supplemental to New Product Information (SNPI)**

### ■ Features at-a-glance

- Full analog circuit design
- Discrete design Class-A Amplifier
- Dual Monaural design
- Active DC Servo technology
- Dual MUSES8920 Op-amps for Left and Right channels
- 1,400mW + 1,400mW Output Power (at 32 ohms)
- Damping Factor Selector
- Over-sized Toroidal-core Power Transformer
- Full-metal Jacket, Rigid construction
- A pair of XLR connectors by Neutrik for balanced audio input
- 2 pair of RCA pin connectors for unbalanced audio input on rear (Gold-plated)
- 1 stereo audio input on front (1/8" or 3.5mm Stereo Mini Jack)
- **1 stereo headphone out on front (1/4" or 6.35mm Stereo Jack)**
- 1 pair of RCA pin connectors for stereo unbalanced audio output (Gold-plated)
- **Switchable output line level (Fixed, Variable, Off)**
- $\pm 15V$  high voltage operation current achieved high S/N ratio
- Precisely machined aluminum knobs (Volume, Input Selector, Damping Factor Selector)
- Auto-muting when headphone plug is disconnected
- A 3-pole AC socket with a detachable AC cable

### ■ Jargon Buster

Damping Factor is a valuable specification for power amplifiers, calculated by dividing load impedance by output impedance. This value indicates how much the amplifier damps the connected speakers/headphones. As damping factor increase, the sound is typically described as "lean and crisp". On most hi-fi products, matching speakers/headphones to the amplifier is crucial to maximize its potential, and the HA-501 allows users to change the tone by changing the Damping Factor, allowing them to enjoy music listening with a matched Damping Factor on various headphones.

### ■ AWARD

In Japan, the HA-501 have received some prizes of an audio equipment.

**The VGP(Visual Grand Prix)** is a prize of equipments of audio and visual that is most famous prize in the market of the AV equipments. The HA-501 received the silver award of the VGP.

**The AEx(Audio Excellence Award)** is a prize of pure audio equipments. The HA-501 received the AEx award and the AEx extra award.



特別賞 EXTRA PRIZE



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### ■ Key Specifications

#### Audio Input

##### Balanced Input (Rear, XLR)

Connectors:	XLR 3-31 Female (1: GND, 2: HOT, 3: COLD)
Impedance:	20k ohms
Sensitivity:	2 Vrms

##### Line Input (Rear, LINE1, LINE2)

Connectors:	RCA Pin Jack (Gold-plated)
Impedance:	10k ohms
Sensitivity:	1 Vrms

##### Auxiliary Input (Front, AUX)

Connectors:	1/8" (3.5mm) Stereo Mini Jack
Impedance:	13k ohms
Sensitivity:	0.5 Vrms

#### Audio Output

##### Headphone Output (Front)

Connectors:	1/4" (6.35mm) Stereo Jack
Supported Headphone Impedance	
:	16 – 600 ohms
Max Output Level:	1,400mW + 1,400mW (at 32 ohms) 135mW + 135mW (at 600 ohms)
Rated Output Level	600mW + 600mW (at 32 ohms) 34mW + 34mW (at 600 ohms)
THD:	0.002% (Input 1V, Output 1V, at 32 ohms) 0.01% (Input 1V, Output 600mW, at 32 ohms)
S/N Ratio:	110dB (RCA Input, 2Vrms 1kHz, A-weighted)
Frequency Response:	2Hz – 100kHz (+0dB/-3dB) 10Hz – 100kHz (±3dB)

##### Line Output (Rear)

Connectors:	RCA Pin Jack (Gold-plated)
Impedance:	100 ohms
Output Level:	316 mV
Output Level Selector:	Fixed, Variable, Off



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### General

Operation Power:	120V AC, 60Hz (US/Canada) 230V AC 50Hz (UK/Europe)
Power Consumption:	22W (Standby: 0W)
Operating Temperature:	+5°C to +35°C +41°F to +95°F
Operating Humidity:	5% to 85% (no condensation)
Storage Temperature:	-20°C to +55°C -4°F to +131°C
Overall Dimensions:	290 (W) x 81.2 (H) x 244 (D) mm, 11.4" (W) x 3.2" (H) x 9.6" (D)
Net Weight:	4.1kg, 9 lbs.
Accessories:	AC Cable, AC Plug Adapter (3P-2P), Owner's Manual, Warranty Card

