

USER GUIDE



AUDIO-POD

Dual Headphone Amplifier Modules
Model AP-DHA

Version 1.0

DM Engineering

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Overview:

The Audio-Pod Dual Headphone Amplifier is a high quality stereo headphone amplifier pair which is ideal for remote and talk studio applications. The two independent amplifiers are fed from a single ended mono or stereo source either via a Eurostyle rear screw terminal block or a 3.5mm stereo jack. Output levels are designed to feed 16Ω to 600Ω stereo headphones at levels that will satisfy the most demanding talent. Both ¼ inch and 3.5mm front panel stereo connectors are provided for each amplifier. A rear panel Maximum Gain Set control is provided that allows restricting the maximum gain to levels that will not cause possible hearing damage. Rear panel 180° Phase shift capability is provided for each amplifier to correct for bone conduction issues that may cause an out of phase condition for some users.

The Audio-Pod Dual Headphone Amplifier is powered by an external Power Supply, model AP-PS. One Power Supply will supply power for up to four Audio-Pod modules, and the modules may include any of the available variety of types and options. 10 foot Power Supply cables, hook and loop mounting pads and a trimpot adjustment tool are supplied.

Optional permanent table top tilt mounting brackets, under table brackets, and recessed flush mounting bezels for permanent flush mount solutions for the Audio-Pod modules are also available.

The stereo headphone amplifiers feature:

- Voltage Controlled Amplifier (VCA) circuitry employed (no “dirty” pots)
- Power Op-Amp headphone output stage providing both the power and P-P voltage required to drive headsets ranging from 16 to 600 ohms
- Rear panel output phase switch (0-180°) to address bone conduction cancellation issues sometimes experienced by users
- ESD protected front panel 3.5mm and ¼” stereo headphone output jacks
- Rear panel maximum headphone gain set control to restrict the maximum headset output to prevent possible hearing damage and liability issue avoidance
- Single ended L&R inputs via a rear panel 3.5mm jack for quick connect applications and on Eurostyle screw terminal connectors for more permanent connections
- Precision metal film resistors and low-noise IC’s are used throughout the amplifiers for low noise and stability

Installation:

Mount the Power Supply within 10’ of the Audio-Pod Module locations. Mounting may be table top or under the desk mounting using the supplied mounting screws and “keyhole” slots located on the bottom of the power supply cabinet. (3” center to center mounting holes) Orientation may be in two different axes depending upon user preference.

1. The Audio-Pod modules are normally desk top mounted using the supplied rubber feet and/or the supplied hook and loop strips for a more secure installation. It is not necessary to remove the rubber feet when using the hook and loop strips. Cleaning the mounting surface with alcohol is recommended before applying the strips. Allow the alcohol to dry completely before

application. If the optional table top or flush mounting brackets are used, refer to the installation instructions that accompany them



Fig. 1

2. Connect the Power Supply to the Audio-Pod modules using the supplied 10ft.-8 pin Mini-Din cables. The orientation of the connector has the flat side facing the top of the enclosures. **IMPORTANT:** Assure that the Mini-Din connectors are fully engaged with the sockets. Insert, wiggle and press firmly! Failure to completely insert the power cables will result in hum or non-operation of the Audio-Pod module.

Setup

1. Connect the AC power cord to an 115VAC outlet. The LED indicator on the power supply should light as well as the yellow LED on each of the Audio-Pod Dual Headphone Amplifier modules.
2. Select the type of headset desired and insert the jack into the appropriate "Phones" receptacle. The rear panel "PHONES MAX GAIN SET" is factory pre-set to about mid range and may be adjusted to the users desired maximum level.
3. To reset the maximum headset level, have the headset audio input source active, slowly adjust the front panel "GAIN" control to maximum while using the trimpot adjusting tool to set the rear panel "PHONES MAX GAIN SET" to the maximum level that you feel is safe for the user. This feature is included to protect the user from possible damaging volume levels to their hearing which may lead to possible litigation in the future.
- 4.

WARNING: Listening to earphones too loudly may cause hearing loss. To prevent hearing loss, adjust the volume to comfortable levels and avoid prolonged use.

Operation:

The Audio-Pod front panel control functions are as follows:

GAIN CONTROL: Sets the headset gain and is adjusted by the user to a comfortable volume level.

PHONE JACKS: Both ¼" and 3.5mm stereo headphone jacks are supplied. The jacks are connected in parallel and employs ESD protection circuitry for protection from static build-up on the earphone plug that is being connected.

The Audio-Pod rear panel headset control adjustments are as follows: (refer to Fig. 1)

PHASE: Depressed for 180° phase shift in the headphone output to correct for bone conduction issues that may arise, and left in the outermost position for 0° phase shift.

PHONES MAX GAIN SET: Factory pre-set to approximately mid range and may be

adjusted to the users desired maximum level. (Refer to headphone section setup instructions above.)

All other rear panel connections and functions are discussed in the *INSTALLATION* section starting on page 2.

Note: *It is imperative that the “PHASE” switches be depressed prior to opening the Audio-Pod enclosure or damage to the switches will result. This type of damage is not covered under our warranty.*

Warranty Information:

The DM Engineering Audio-Pod Dual Headphone Amplifiers are warranted for a period of one year from the date of purchase. This warranty covers materials and workmanship only. Any misapplication, physical or electrical damage from outside sources or by the customer is not covered. For factory warranty repairs, the customer must pay shipping costs to the factory, and DME will pay standard ground transportation shipping costs to return the warranted equipment to the customer. “Loaner” units, if available, will have shipping paid both ways by the customer, and must be returned within 20 days after return shipment of the repaired unit. Failure to do so will result in billing to the customer for the full retail amount. Any priority shipping costs are to be the responsibility of the customer as ground service is standard. Please contact the factory for an RMA number prior to any returns. Items returned without an RMA may be sent back to the customer unopened.

Technical Support

If you have questions, experience difficulties with the product or require further information please contact DME at: 805-987-7881, toll free 800-249-0487, or E-mail technical support at: support@dmengineering.com, or visit www.DMEngineering.com for the latest User Guide.

Specifications:

Case dimensions: Audio-Pod modules and Power Supply: 5.09" W X 5.95" L X 2.2" H
Case material and color: ABS flame retardant plastic, black
Power supply to Audio-Pod DC power connection method: 8 pin mini-din connector
AC input operating voltage: 105-125 VAC, 60 Hz
Headphone gain control circuitry: VCA (voltage controlled amplifier)
Headphone amplifier input level: Stereo L & R, -20dBu to +4dBu
Headphone amplifier frequency response at -10 dBu input level: ± 2 dB, 20Hz-20kHz
Headphone amplifier input impedance: 10K Ω
Headphone output: (ESD protected) 700MW, 20VP-P max per channel).
Power supply AC cord length: approx. 6 ft. total
Power interface cables: 10 ft. 8 pin mini-din M-M
Mounting method: Power supply and Audio-Pod modules are supplied with rubber feet. Screws for “key hole” type mounting of the power supply and hook & loop fastener material for more secure desk top mounting of the Audio-Pod modules are supplied. Optional desk-top or under desk mounting brackets for mounting the Audio-Pods and flush mounting bezels for recessed module mounting in table tops are available.
Operating temperature: 32 to 110F
Humidity: 0 to 95% non-condensing