

SM PRO AUDIO HP12E

HP12E

HEADPHONE AMPLIFIER



Manual V1.0

SAFETY INSTRUCTIONS

CAUTION: To reduce the risk of electrical shock, do not remove the cover or rear panel of this unit. No user serviceable parts inside. Refer servicing to qualified personnel only.

WARNING: To reduce the risk of fire or electrical shock, do not expose this equipment to rain or moisture.

All safety and operation instructions of this manual should be read and adhered to before operating this equipment.

Retain Instructions: Please retain all safety and operating instructions for future reference.

Follow Instructions: All operation and user instructions should be followed.

Water, Liquid, and Moisture: The equipment should not be used near water, rain, or other liquids. Make sure that no liquid can leak, spill, or otherwise seep into the equipment.

Ventilation: Please place the equipment so that no obstacles interfere with or impede the flow of air through the ventilation openings.

Heat: The equipment should be situated away from heat sources such as heaters, radiators, ovens, and other appliances that produce heat.

Power Source: Make sure your equipment is set to the correct voltage for the country in which it will be used.

Grounding and Polarization: Precautions should be taken so that the equipment's electrical grounding or polarization is not defeated.

Power Cord Protection: Power supply cords should be routed so that they are not likely to be walked on, pinched, damaged, worn, or rubbed by any other device or obstacle.

Cleaning: The equipment should be cleaned only with a light soft cloth. Do not use harsh or corrosive products on the unit.

Periods of Inactivity: The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.

Damage Requiring Service: The equipment should be serviced by qualified service personnel when:

- The power supply cord or plug has been damaged; or
- Objects have fallen onto, or liquid spilled into the equipment; or
- The equipment has been exposed to rain; or
- The equipment does not appear to operate normally or exhibits a marked change in performance; or
- The equipment has been dropped, or the enclosure damaged.

Servicing:

The user should not attempt to service the equipment beyond what is described in the Operating Instructions.

All other servicing should be referred to qualified service personnel.

FOREWORD

Dear Customer,

Thank you very much for expressing your confidence in SM Pro Audio products by purchasing this unit. The HP12E is a solid “workhorse” headphone amplifier designed for home, project, and professional studios, live sound contractors, rental companies, repair centers, schools, and fixed installations—in short, virtually any and all venues where audio products are used. Drawing on years of hands-on experience in the audio industry and valuable suggestions from our customers, our engineers have developed a product that we are certain will more than meet your expectations. As with all SM Pro Audio equipment, the HP12E was designed to provide you with a superb performance, excellent technical specifications and uncompromising audio quality at an extremely affordable price.

Regards,
SM Pro Audio

WARNING! High volume levels can permanently damage your ears and your headphones. Turn down the LEVEL controls before your turn on the HP12E.

INSTALLATION

Your SM Pro Audio HP12E was carefully packed in the factory and the packaging was designed to protect the unit from rough handling. Nevertheless, we recommend that you carefully examine the packaging and its contents for any signs of physical damage that may have occurred in transit.

If the unit is damaged, please do not return it to us, but notify your dealer and the shipping company immediately, otherwise claims for damage or replacement may not be granted. Shipping claims must be made by the consignee.

PLACEMENT

The SM Pro Audio HP12E utilizes an electronic circuit. Be sure that there is enough air space around the unit for cooling. To avoid overheating, please do not place the units on high temperature devices such as power amplifiers or near other units, such as wireless, that may transmit high frequencies.

MAINS VOLTAGE

The HP12E can be used with voltages ranging from 100V AC to 250V AC, please make sure that you have selected the correct voltage range on the back of the unit and that the required fuse setting is correct as well before switching the unit ON. Any damage occurring as a result of incorrect voltage selection may not be granted a warranty repair.

SM PRO AUDIO HP12E

The HP12E is a high-quality, powerful, flexible, and reliable 12-channel headphone amplifier housed in a sturdy 1U 19" rack-mountable metal chassis. The HP12E boasts a variety of improvements over standard headphone amplifiers, including expanded frequency response and added power for driving a variety of headphone types. The HP12E's flexible design allows any of the two available audio input sources to be routed to any of the unit's on-board six Class A headphone amps. This makes the unit suitable for a wide variety applications, including studio, live, and in-ear monitoring, signal distribution, and more.



FEATURES

- 2 x 1/4" TRS inputs
- 2 x XLR inputs
- 2 x 1/4" TRS link outputs
- 12 x 1/4" headphone outputs via six class A stereo headphone amplifiers
- Selectable source input per channel
- Rotary volume control per channel
- Nominal output 680mw per channel into 32ohm
- Frequency response 20Hz – 20kHz $\pm 0.3\text{dB}$ @ 100mw output
- Sturdy all-metal construction
- 1U 19" rack-mountable

SM PRO AUDIO HP12E

HP12E FRONT PANEL

Each of the six independent amplifiers in the HP12E features a rotary level control, an A/B source selector switch, and two 1/4" (6.5mm) TRS headphone output jacks.

4.1 Source Selector Switch

Use this switch to select the input source you wish to monitor, A or B. Input A is the unbalanced rear-panel input and input B is the XLR balanced input.

4.2 Headphone Output Connectors

Connect your headphones to these outputs. Make sure that your headphones are not rated below below 8 Ohms in resistance, or you may damage the HP12E.

4.3 Headphone Volume Control

Use this control to adjust the headphone output level. Note that the level control sets the level for both outputs of each channel simultaneously.

4.4 Power Switch

This switch is used to power the HP12E On or Off. Make sure the correct voltage for your location (115V/220V) is selected on the HP12E's rear panel before switching the power ON.



HP12E REAR PANEL

The HP12E's rear panel features dual left/right 1/4" (6.5mm) TRS inputs, left/right 1/4" TRS link outputs, left/right balanced XLR input, AC power input, and a voltage selector switch.

5.1. Input Channel A

The left and right 1/4" TRS inputs can accept either balanced or unbalanced sources. Signals appearing at the A inputs are routed to the headphone outputs when an output channel's front-panel source selector switch is set to A. Use the left input for mono sources; the signal will be routed equally to both the left and right sides of the headphone outputs.

5.2. Input Channel B

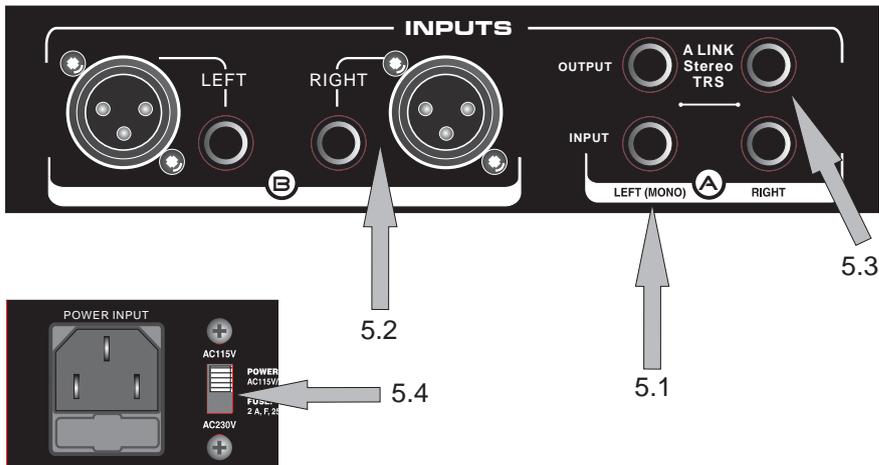
The left and right 1/4" TRS inputs can accept either balanced or unbalanced sources. The left and right XLR signals accepted balanced line-level signals. Signals appearing at the B inputs are routed to the headphone outputs when an output channel's front-panel source selector switch is set to B.

5.3 LINK Outputs

Left/right inputs A are mirrored at the left/right LINK outputs. This allows you to feed the source signals, daisy-chain style, to additional units, for expanding the system beyond 12 outputs.

5.4 Voltage Selector

Make sure the correct voltage for your location is selected before using or connecting power to the HP12E. Operating the unit at the wrong voltage setting for your location will cause serious damage to the unit. Damage caused by such usage is not covered under warranty.



USING THE HP12E

- Make sure the HP12E is switched OFF and that all of the output levels controls are set to minimum (fully counter-clockwise) before connecting any headphones to the unit.
- Check that the correct voltage for your location has been selected on the HP12E rear panel before powering the unit ON.
- Connect an audio signal to either inputs A or B on the HP12E's rear panel, and your headphones to one of the outputs on the front of the unit. Set the output channel's Select switch to corresponding input and slowly increase the output level control of the headphones.

WARNING! High volume levels can permanently damage your ears and your headphones. Use the HP12E with caution!

Never switch the unit ON or OFF while wearing headphones.

WARRANTY

SM Pro Audio warrants the mechanical and electronic components of this product to be free of defects in material and workmanship for a period of one (1) year from the original date of retail purchase, in accordance with the warranty regulations. If any defects occur within the specified warranty period that are not caused by normal wear or inappropriate use, SM Pro Audio shall, at its sole discretion, either repair or replace the product.

- Warranty is enforceable only by the original retail purchaser.
- Warranty services will be furnished only if the product is accompanied by an original retail dealer's invoice. Any product deemed eligible for repair or replacement by SM Pro Audio under the terms of this warranty will be repaired or replaced at SM Pro Audio's sole discretion.
- If the product needs to be modified or adapted in order to comply with applicable technical or safety standards on a national or local level, in any country that is not the country for which the product was originally developed and manufactured, this modification/adaptation shall not be considered a defect in materials or workmanship.
- The warranty does not cover any such modification/adaptation, irrespective of whether it was carried out properly or not. Under the terms of this warranty, SM Pro Audio shall not be held responsible for any cost resulting from such a modification/adaptation.
- Free inspections, maintenance/repair work, and replacement of parts are expressly excluded from this warranty, in particular if caused by inappropriate use. Likewise, the warranty does not cover defects of expendable parts caused by normal wear of the product. Expendable parts are typically pots, potentiometers, switches and similar components.

WARRANTY CONT'

- Damages/defects caused by the following conditions are not covered by this warranty: Misuse and/or abuse; Neglect or failure to operate the unit in compliance with the instructions given in the user or service manuals; Connection or operation of the unit in any way that does not comply with the technical or safety regulations applicable in the country where the product is used; Damages/defects that are caused by any other condition beyond the control of SM Pro Audio.
- Repairs and modifications performed by unauthorized personnel will void the warranty
- Products that do not meet the terms of this warranty will be repaired solely at the buyer's expense. SM Pro Audio will inform the buyer of any such circumstance. If the buyer fails to submit a written repair order within 4 weeks after notification, SM Pro Audio will return the unit C.O.D. with a separate invoice for freight and packing. Such cost will also be invoiced separately when the buyer has sent in a written repair order.

CLAIM FOR DAMAGES

Failure of SM Pro Audio to provide proper warranty service shall not entitle the buyer to claim (consequential) damages. In no event shall the liability of SM Pro Audio exceed the invoiced value of the product.

OTHER WARRANTY RIGHTS

This warranty does not exclude or limit the buyer's statutory rights provided by national law, in particular, any such rights against the seller that arise from a legally effective purchase contract.

RETURN AUTHORIZATION NUMBER

To obtain warranty service, you must contact SM Pro Audio for a Return Authorization number **before** returning the product (Tel.: +61 3 9555 8081; service@smproaudio.com). All inquiries must be accompanied by a description of the problem. **No products will be accepted for warranty service without a Return Authorization number**

The product must be returned in its original shipping carton, together with the Return Authorization number, to:

SM Pro Audio Service Department, W25 26-28 Roberna St., Moorabbin, Melbourne, Victoria, Australia 31892.

If the warranty claim proves to be justified, the product will be returned freight prepaid by SM Pro Audio within Australia.

Outside of Australia, please contact your local distributor for a Return Authorization number and shipping instructions.

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SM Pro Audio Service Department

W25, 26-28 Roberna St., Moorabbin, Melbourne, Victoria, Australia 3189