

# HP DSP™ MANUAL

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The HPH DSP™ is a studio quality DSP controlled class AB headphone amplifier with gain control, three-band EQ and limiter.

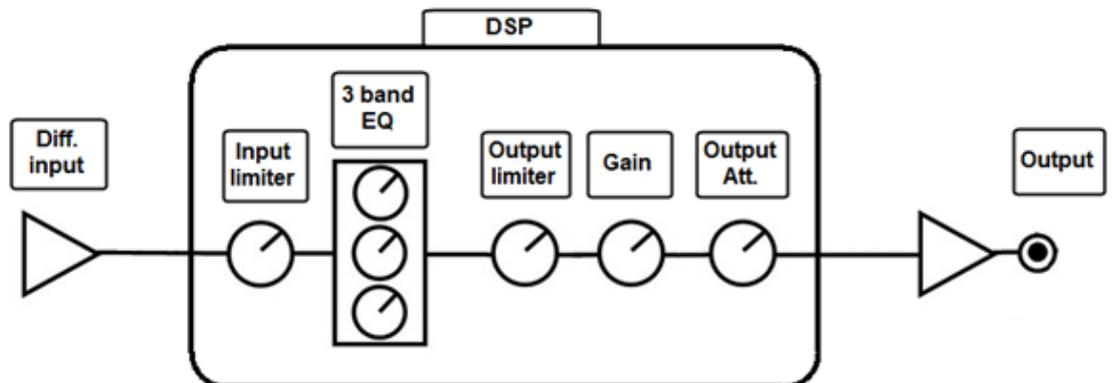
Three key features make this amplifiers outstanding for studio use. The first feature is the high slew rate that prevents odd order distortion anomalies.

The second feature is current-on-demand at the output that enables the amplifier to respond quickly and linearly when necessary without risk of output distortion. When large amounts of output power are suddenly needed, the amplifier can respond extremely quickly without raising the noise floor of the system and degrading the signal-to-noise ratio.

The third feature is the gain-independent frequency response that allows the full bandwidth of the amplifier to be used over a wide range of gain settings.



## SIGNAL PATH



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On power up the DSP amp will load stored EQ, limiter and output attenuation settings. Gain will be at mute. In normal use a user can only use the volume control (Gain). By pressing the control encoder for approximately 4 seconds the settings menu will be displayed.

The settings menu contains the following submenus:

- Gain
- EQ Low
- EQ Mid
- EQ High
- LIM TH (threshold)
- LIM ON (Limiter on or off)
- ATTENUATE (Output attenuation)

By pressing the encoder again the selected submenu will be entered and settings can be live adjusted. After a short press the new setting will be stored and the menu falls back into volume control. If the encoder is untouched for approximately 3 minutes, the open (sub)menu closes and control falls back into normal volume control. Adjusted settings will be stored and active. After a power cycle all stored settings will be loaded.

## WARNING!

On shipping and by default the output limiter and output attenuation are disabled. Without proper adjustment to the type of headphone used the HPH DSP can produce over 100dBA @ +6dBu input level and can cause ear damage! Take proper precautions and make proper settings to ensure the maximum legally allowed output level is not exceeded. AeroAudio strongly advises to adjust limiter and output attenuation to be set at 85dBA maximum output level.

AeroAudio can not be held responsible for any type of damage or injuries in short- or long-term caused by improper installation or use.



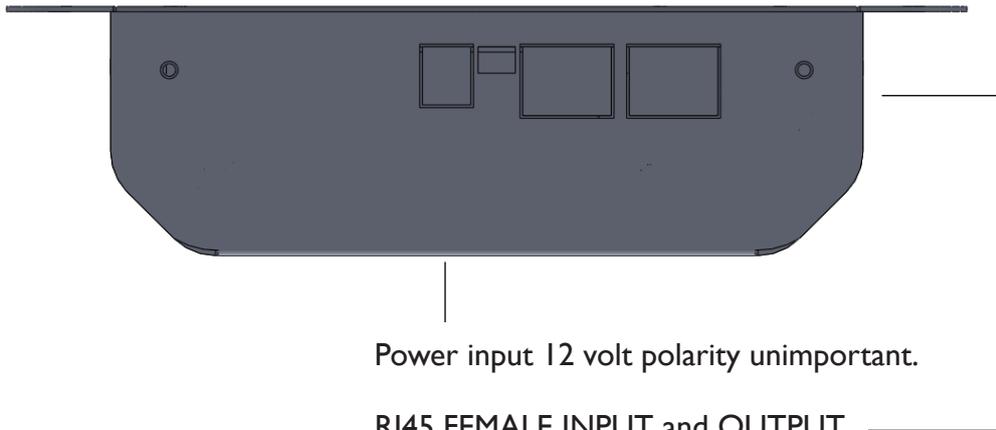
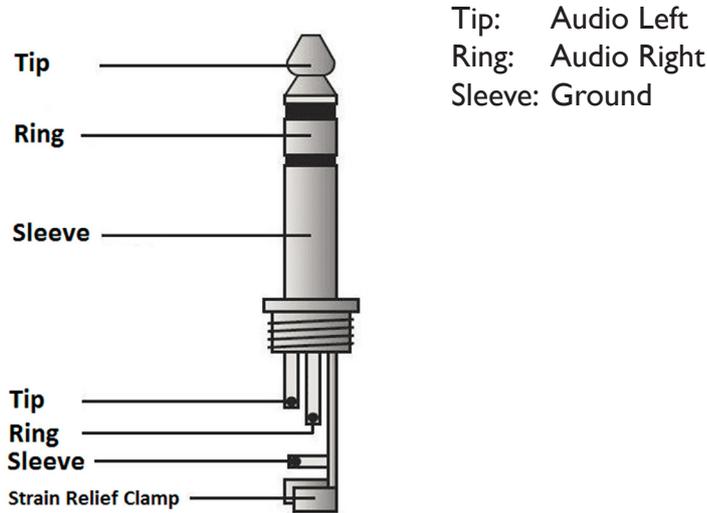


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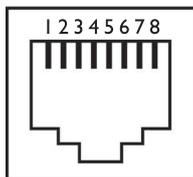
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Connections: 6.35mm and 3.5mm stereo jack



RJ45 FEMALE INPUT and OUTPUT



Pin	Funcie	Type
1	Left phase +	Audio
2	Left phase -	Audio
3	Right phase +	Audio
4	Ground	Power
5	+ 12 volt	Power
6	Right phase -	Audio
7	Ground	Power
8	+ 12 volt	Power
Shield	Shield	Shield



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### TECHNICAL SPECIFICATIONS

Power supply: 12 volt DC, 500mA

Power consumption: 300mA (nominal)

Maximum output power per channel (without limiter) @1Khz:  
300mW at 32 ohm

Distortion @ 1Khz, 100mW: < 98dB

Channel separation @1Khz: < 101dB

Frequency response: 22Hz – 22KHz

Gain: -60 ~ 0dB

EQ: -12 ~ +12dB

EQ Low centre frequency: 200Hz

EQ Mid centre frequency: 800Hz

EQ High centre frequency: 1800Hz

Limiter: -24 ~ 0dB

Output attenuation -24 ~ 0dB

Balanced audio input L/R at +6dBu

Input load: 33Kohm





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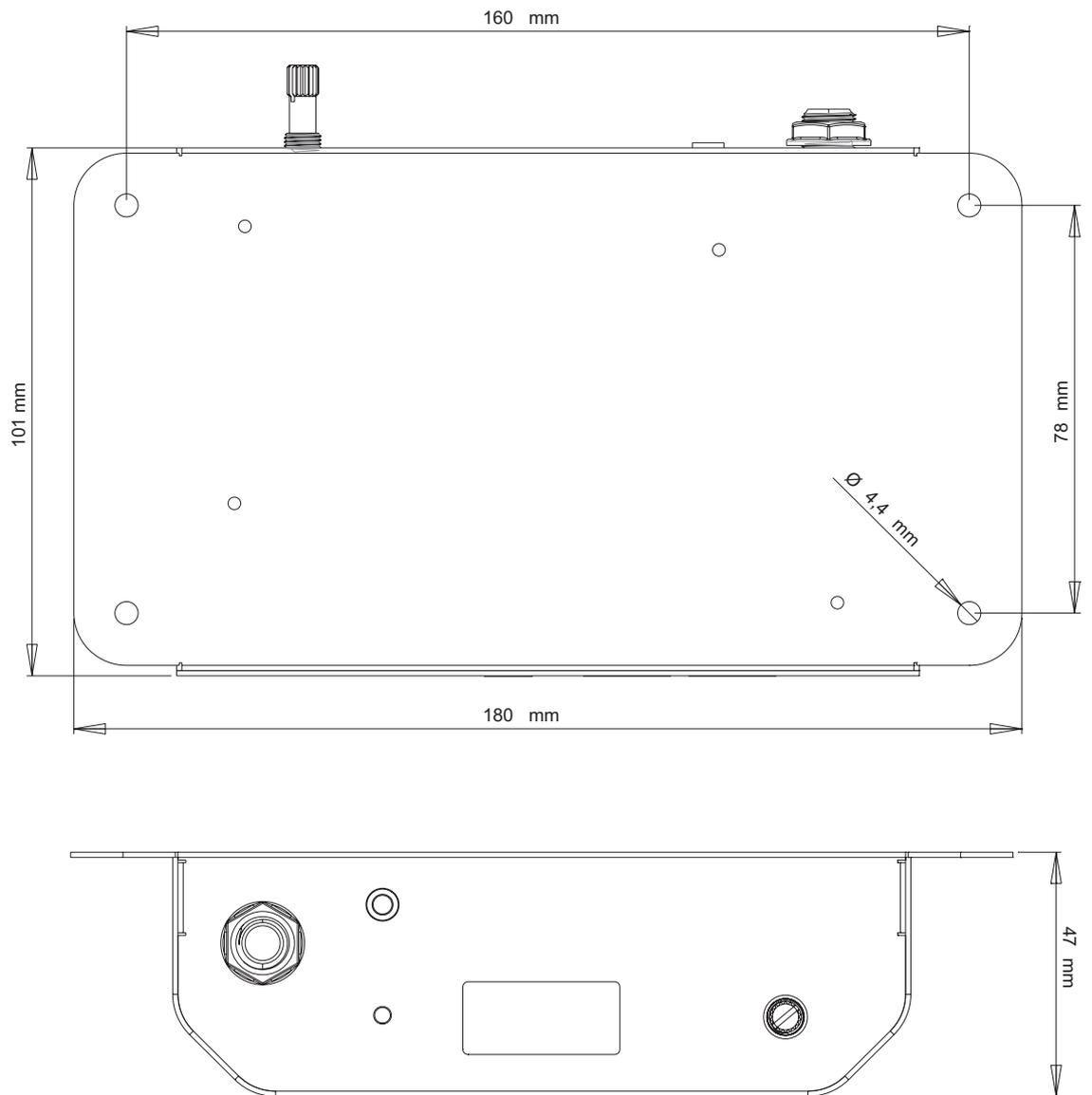
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### INSTALLATION DETAILS AND DIMENSIONS



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## Safety First!

- Caution: hot and sharp surfaces! This professional device may only be installed by qualified personnel.
- Check the cardboard box for any damage upon receipt of the goods. In case of a damaged box, please contact your distributor before opening it.  
contact your distributor before opening the box.
- Read all documentation before using the unit.
- Keep all documentation for future reference.
- Keep the box and the packaging material even if the equipment has arrived in good condition.
- Should you ever need to ship the appliance, use only the original factory packaging.
- Do not spill water or other liquids in or on the device.
- Always use the power supply provided.
- Make sure that the power outlets correspond to the power requirements indicated on the back of the power supply.
- Do not use the device if the power cord is frayed or broken.
- Turn off and disconnect the devices from the mains before making any connections.
- Do not use the device near heaters, heating grills, radiators or other heat producing devices.
- Do not use the unit on a surface or in an environment that may interfere with the normal flow of air around the unit.  
If the unit is used in an extremely dusty or smoky environment, the unit should be "dusted" regularly.
- Do not remove the cover. Removing the cover will expose you to potentially dangerous voltages.
- In case of malfunction, this unit should only be serviced by qualified service personnel.
- Always follow the instructions of the supplier and manufacturer - Only use accessories, spare and replacement parts specified by the manufacturer.
- Only use the device for the purpose intended by the manufacturer.



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