



EHAMP08

High-fidelity remote controlled headphone amplifier

USER MANUAL

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1) Overview

The EHAMP08 is a high performances amplifier for high-end headphones. It use only high grade parts know for their specs and audio transparency. You will rediscover yours audio files !

The output circuit of the EHAMP08 (TPA6120 from TI) allow to get amazing sounding with any headphone impedance. The low noise linear power supply use a oversized toroidal transformer. Each stages are powered by independents voltage regulators and use high performances filtering capacitors (Nichicon, Wima). This result in a high dynamic range and the audio clarity message become obvious!

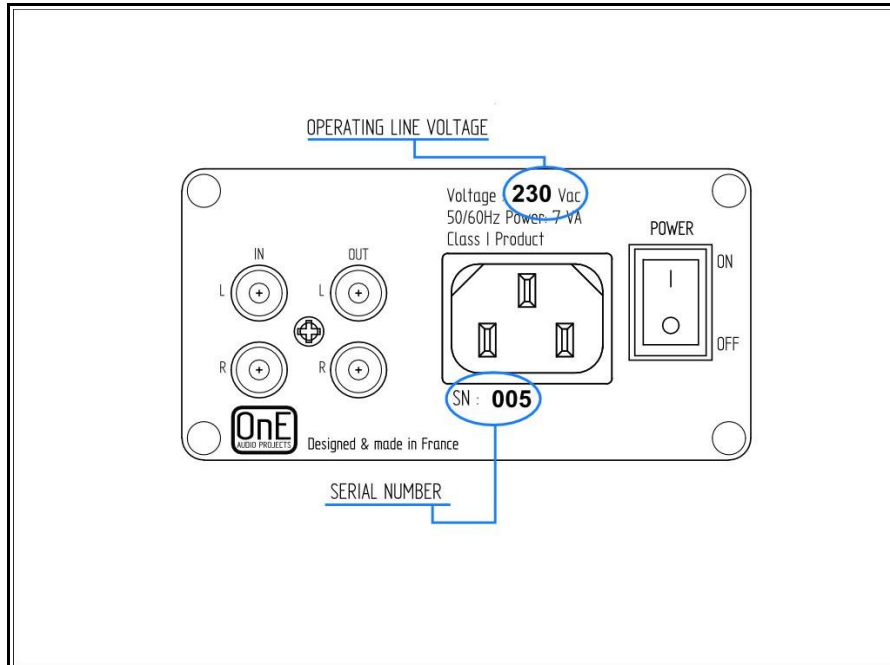
For more convenience, the EHAMP08 include a very fine digital volume control (254 steps of 0.5dB). It can be change directly on front panel (rotary encoder) or using en IR remote control (must be RC5 compliant, not included).

A mute function (-20dB) allow to momentary cute the volume. This can also be done using IR remote control.

The EHAMP08 have a line output that the signal level follow the headphone volume level, so it is possible to use it as volume controlled pre-amplifier (using power amp and analog source).

2) Safety caution

The EHAMP08 can work in 110Vac or 230Vac according to internal jumpers configuration. Operating voltage must be write on rear panel to avoid any incorrect use.



NOTE :

The EHAMP08 is a class 1 device, so it must be connected to earth.
Use only power cord witch include a ground wire.
Using the EHMAP08 on main without earth wire can be dangerous if insulation issue occur.
All metallic parts of the item are connected to the earth in order to avoid personnal injury.

DO NOT USE THE DEVICE ON MAIN WITHOUT HEARTH !



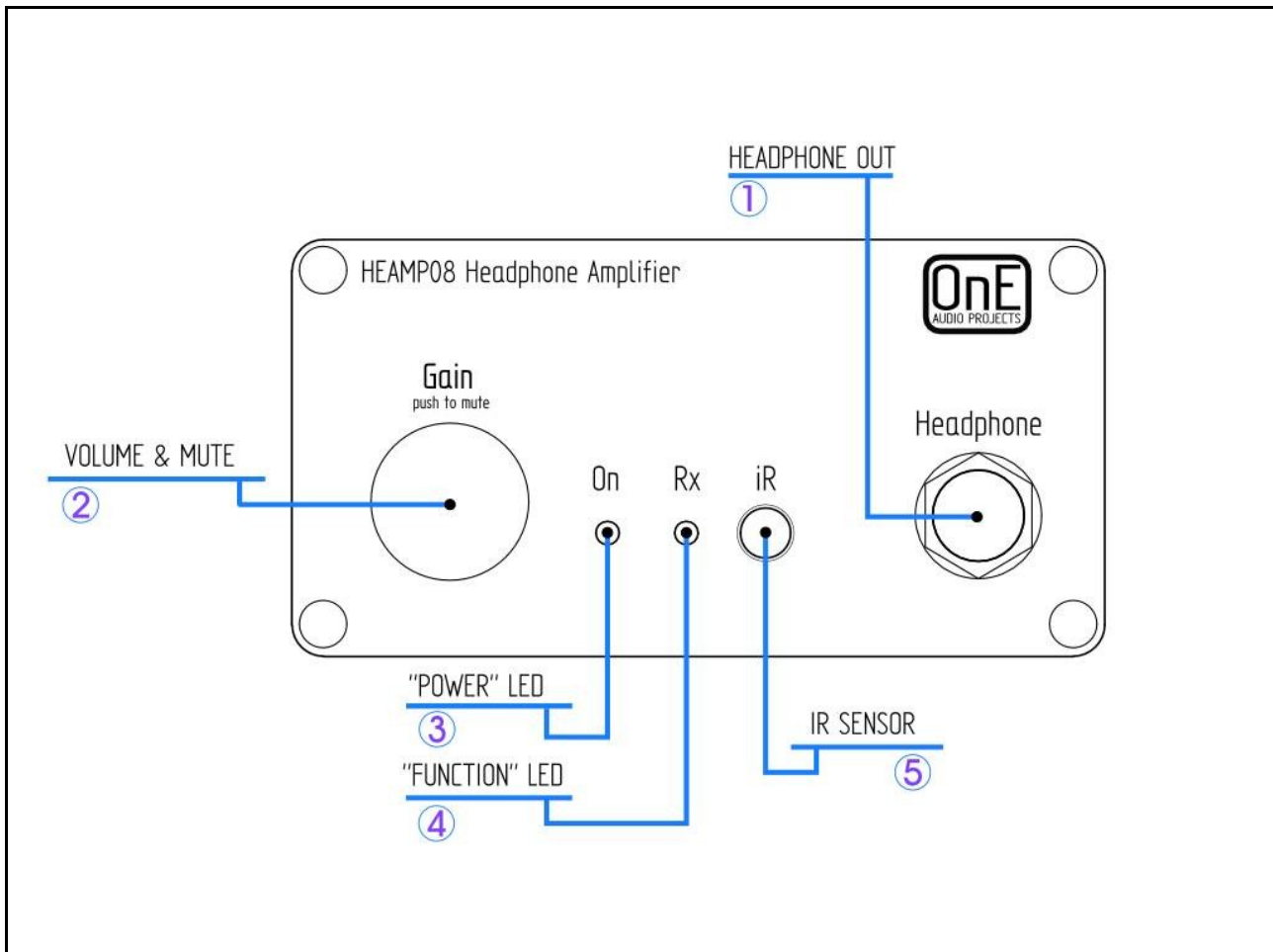
Never open it when power cord is connected !
Risk of electric shock !

3) General note & cleaning

The EHMAP08 can be use in clean and dry environment.
Do not put it near heat source and leave lot of space around to enough ventilate it's own heat.

For cleaning, only use a slightly damp duster.
Using detergent is not recommended, this can degrade the silkscreen and plastic parts.

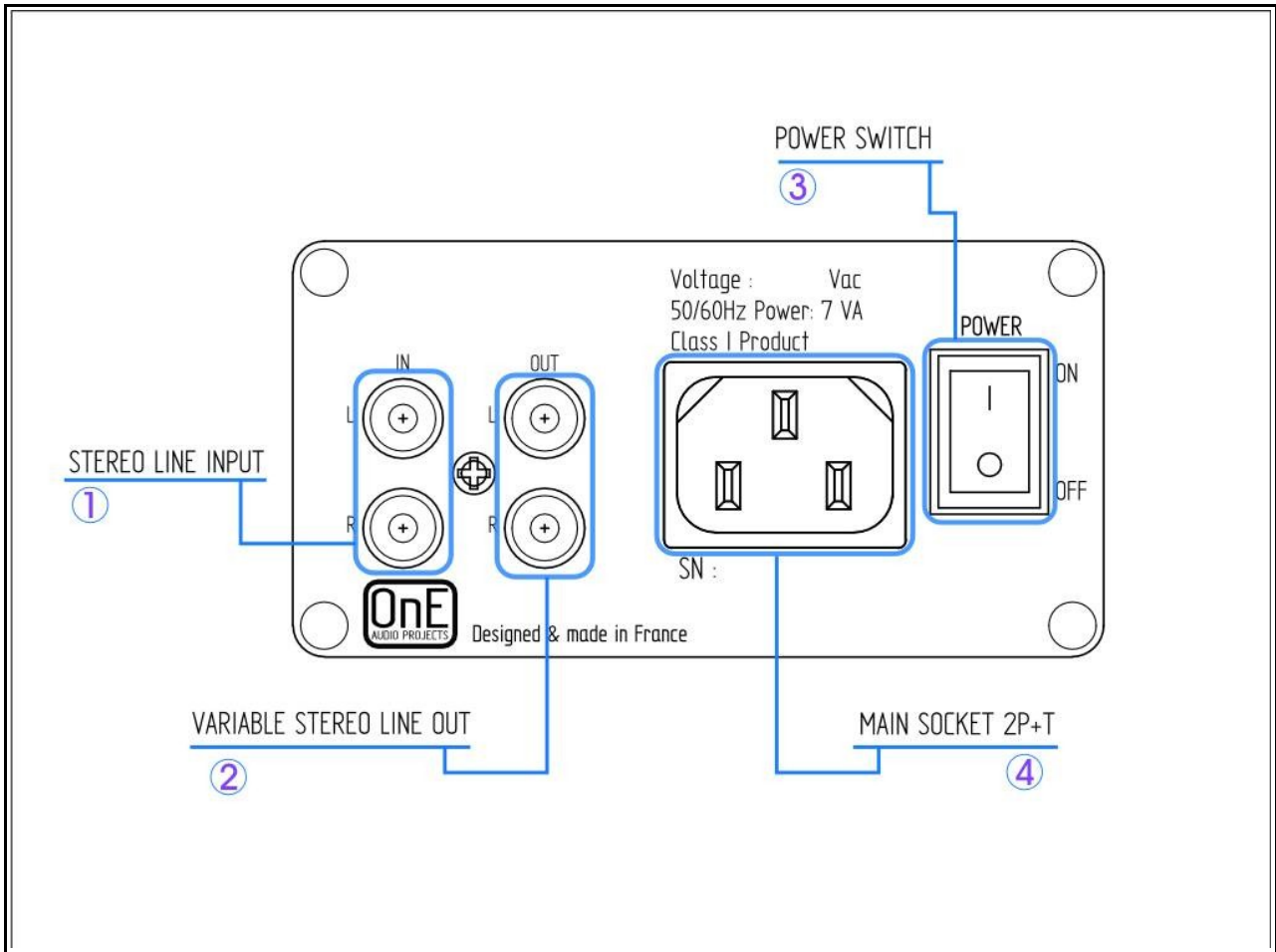
4) Rear panel



Rear panel detailed description :

- 1) Stereo line inputs on Cinch RCA connectors.
- 2) variable Stereo line outputs on Cinch RCA connectors.
(Signal Amplitude on this output is controlled directly by the rotary encoder or the IR remote control).
- 3) Power line switch.
- 4) Power line socket 3 poles+ Earth.
(AC main voltage is 115Vac or 230Vac depending on internal configuration).

5) Rear panel



Front panel detailed description :

- 1) Stereo headphone output on 6,35mm female Jack connector.
- 2) Rotary encoder for volume control with 0,5dB/step (-95dB to +30dB on 254 steps).
Mute function (-20dB) when rotary encoder is pushed.
- 3) Red led for power on.
- 4) Orange led for functions:
Fast blinking when IR frame are received.
Slow blinking (1Hz) when mute is active.
- 5) Fresnel lens of the IR sensor .

6) How to use it

The EHAMP08 can be use with any headphones with high(600Ω) or low(15Ω) impedances (however, it is unable to drive electrostatic headphones!).

It can be controlled with a IR remote control.

For more convenience, and to avoid one more remote control on your Hi-Fi system, the EHAMP08 can be programmed to recognize the three needed keys (VOL+,VOL-,MUTE) of an existing remote control. To work with the EHAMP08, the remote control must be RC5 compatible.

How to program remote keys:

For recording control keys of your IR remote in the EHAMP08 follow these steps :

- Switch off the EHAMP08.
- Push and Hold the rotary encoder and switch on the EHAMP08.
- Release the rotary encoder ;
Now it start in waiting keys mode.
- Put your remote control at ~10cm from the IR receiver of the EHAMP08,
Press on your remote the key you want use for « VOL+ » (increase volume)
⇒When IR frame is recorded the yellow led light on.
- Press on your remote the key you want use for « VOL - » (decrease volume)
⇒When IR frame is recorded the yellow led is faded.
- Press on your remote the key you want use for «MUTE » (decrease volume by -20dB)
⇒When IR frame is recorded the yellow led light on again.
The three keys are now recorded.
- Switch off the EHAMP08.
- At the next start-up , keys VOL+/VOL- and MUTE of your remote control must be functional.

If you IR remote control is not recognize, it is likely that it doesn't comply with RC5 protocol. In that case, try other remote control.

Be careful :

If you have remote programming issue, think to verify it's battery and don't put the remote so close to the EHAMP08. For proper recording, leave about 10~20cm between EHAMP08 and the remote control.

7) Specifications

Uline=230Vac 50Hz, Load=600 Ω. T ambient= 25°C.

Parameter	Min	Typ	Max	Unit
Input gain control (254 x 0,5dB step)	-95,5	-	31,5	dB
Nominal output power (THD<1%)	Rload = 600 Ω	80		mW
	Rload = 70 Ω	600		mW
Inter-channel isolation (Crosstalk)*				
Vin=2Vrms Gain=0dB f=1 kHz		-110		dB
Vin=2Vrms Gain=0dB f=10 kHz		-95		dB
Total harmonic distortion + noise (THD+N)		-91		dB
f=1 KHz Vin=1,5 Vrms (3dBV) Gain = 0 dB		0,003		%
Intermodulation distortion, (ITU-R CCIF method)		-100		dB
Test tones: f ₁ =19 KHz,f ₂ =20 kHz, 1:1 , level +6 dBV		0,001		%
Maximum input voltage before clipping (THD < 1%)		7		Vrms
Gain=0 dB				
Output noise		40		μVrms
Gain=1 , bandwidth 1Hz-100kHz				
Slew rate **		2		V/μs
(Limited by input low-pass filter)				
Frequency bandwidth	20		80000	Hz
(-1dB flatness)				
SINAD		90		dB
f=1 KHz Vin=1,5 Vrms (3dBV) Gain=0 dB				

* : Not used input is shorted to ground with 50Ω.

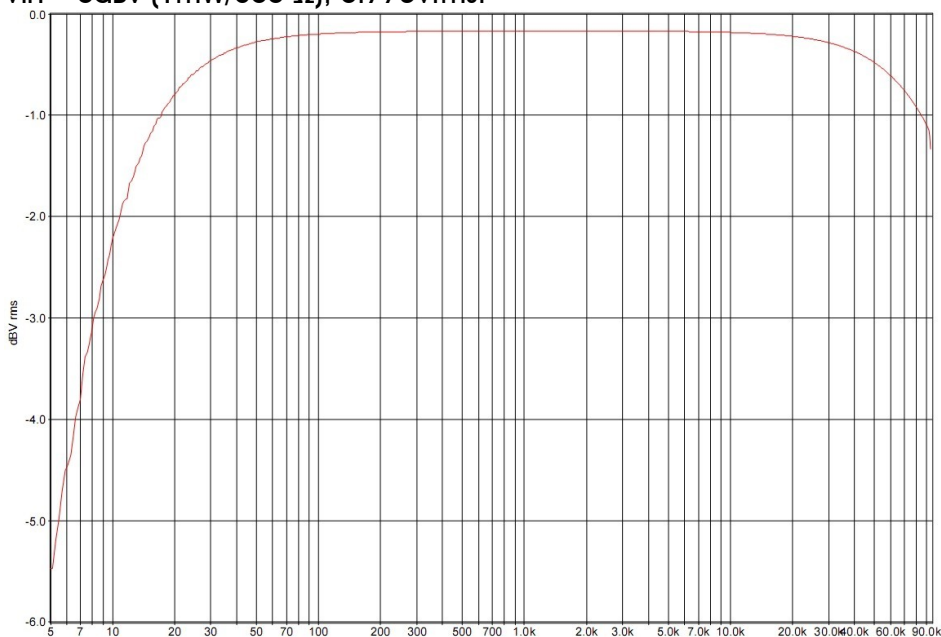
** : Only limited by internal low-pass filter.

8) Measurement graph

Frequency response graph

(230Vac 50Hz, Load=600 Ω. Ta= 25°C.

Vin= 0dBv (1mW/600 Ω), 0.775Vrms.



9) General infos.

Dimensions (all included) : 103 x 163 x 53 mm (Lxlxh).


Weight (without cable) : 1,2 kG

Power consumption : 10W max.

Class I (device connected to earth).

Accessories :

- EHAMP08 Headphone Amplifier
- Line cord.
- Manual

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