



PHPA1 BRIOSO

Portable headphone amplifier with
ELISA circuit



EN - INSTRUCTION AND WARNINGS MANUAL

Translation from the manufacturer's original language

IMPORTANT: READ CAREFULLY BEFORE USE.

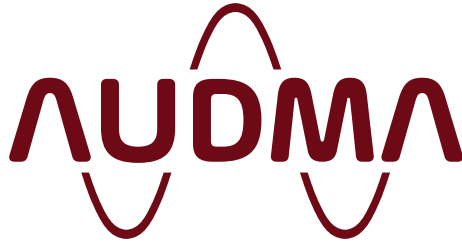
Keep for future reference.

Audma by Hi-Tech Solutions s.r.l.

Via Enrico Giustozi, 37 - Zona Ind.le Paciana
06034 Foligno (PG), Italy - Tel.: (+39) 0742 321111
info@audma.it - mailbox@hts.it



Cod. PHPA1-MUM - Release: 10/2025 - Rev. 0.0



Congratulations on your purchase!

The **AUDMA BRIOSO PHPA1** amplifier allows you to experience the sound of your system through headphones!

AUDMA BRIOSO PHPA1, produced in Italy by a team of high-technology solutions experts, integrates what is considered the most important innovation in headphone listening.

The core of **AUDMA BRIOSO PHPA1** is the ELISA function (Electronic Loudspeaker Imaging Simulating Amplifier), which is based on the scientific observation of open-field listening and accurately reproduces its parameters in headphone listening.

ELISA decomposes the sound message of the right and left channels and mixes them so that a part of these signals also reaches, delayed, the other channel; by acting on three-dimensional parameters such as the distance between the speakers or the distance between the system and the listening point, it is possible to recreate in headphones the listening conditions offered by your own system.

AUDMA BRIOSO PHPA1 integrates what is perhaps the most important innovation applied to headphones since their inception.

AUDMA BRIOSO PHPA1 is produced by a team of experts at the specialized electronic device facility in Foligno, Umbria, Italy.

Trademarks

AKM and VELVETSOUND™ are registered trademarks of Asahi Kasei Microdevices. Other product and company names mentioned in user documents may be trademarks or registered trademarks of their respective owners.

► **MANUFACTURER DATA / TECHNICAL SUPPORT**

For any request for TECHNICAL SUPPORT on the device, refer to the following contacts.

Use only auxiliary devices, accessories, and spare parts provided or recommended by Audma.

In case of requests for information or technical support, it is necessary to specify, in addition to the model and type, also the corresponding serial number (refer to the Par. "3.1 DATA PLATE DATA" on page 10).

 <p>MANUFACTURER</p>	 <p>TECHNICAL SUPPORT</p>	<p>AUDMA by Hi-Tech Solutions s.r.l.</p> <p>Via E. Giustozzi, 37 Z. Ind.le Paciana 06034 Foligno (PG) Italy Tel: (+39) 0742 321111</p> <p>info@audma.it www.audma.it</p>
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The Manufacturer assumes no responsibility for any damage caused by:

- use of non-compliant power supply units;
- surges;
- charging using unapproved third-party accessories.

For safe and long-lasting operation of the device, strictly adhere to the indicated technical specifications.

► **IDENTIFICATION**

Model	AUDMA BRIOSO PHPA1
Type	Electronic device.
Description	Portable headphone amplifier.

► **LIST OF REVISIONS**

Edition	Revision	Description
10/2025	0.0	First issue

FOREWORD

► **EQUIPMENT DOCUMENTATION**

The equipment is supplied with the following documentation:

– **QUICK GUIDE (provided in the packaging)**

The QUICK GUIDE is provided in paper format and is contained within the packaging; it includes the minimum information for using the device.

If you lose the quick guide, contact the manufacturer.

The quick guide should be kept for future reference until the device is disposed of.

All information and warnings for safe use and maintenance are contained in the INSTRUCTION MANUAL (see below).

– **INSTRUCTION MANUAL (downloadable online)**

For correct use of the equipment, the technical reference is this "INSTRUCTION AND WARNINGS MANUAL" (hereinafter referred to as the "Manual"), which can be downloaded via the QR code in the quick guide.



OBLIGATION

Carefully read the instruction manual before using the equipment and keep it carefully.

The pictures are purely indicative and are not binding on the Manufacturer and/or Distributor.

► **INTENDED USE BY THE MANUFACTURER**

This dynamic headphone amplifier has been developed to reproduce music from high-range analog and digital playback devices such as SACD, DVD-A, Blu-ray, and CD players or your Mac or PC for high-resolution music files.

The device is designed **solely for private and domestic use; therefore, it is not suitable for professional use.**

Furthermore, the device is designed in compliance with the regulations in force; to meet the design and safety features it must be used according to the instructions and usage limits indicated in this manual.

Considering the design features, it is not possible to assign the device for other purposes, nor can the manufacturer

foresee other ways of use.

Any other use is considered improper and not permitted by the manufacturer.

Audma is not responsible for damage to USB devices that do not conform to the specifications of such technology. Audma assumes no liability in case of improper use or non-compliance with the intended use of the product, as well as of the auxiliary products/accessories.

► REASONABLY FORESEEABLE INCORRECT USE



PROHIBITION

The use of the product for purposes other than those specified in this instruction manual is prohibited.

NOTE WELL!

The manufacturer declines all responsibility in case of use other than that for which the device was designed and for any installation errors or improper uses of the device.

► INTENDED USE

This device is a portable headphone amplifier, designed for personal use in mobile or home environments.

The features and design are optimised to:

- provide clean, low-noise, and low-distortion audio amplification, suitable for headphones, in-ear headphones (IEMs), dynamic or magnetoplanar drivers.
- Work with digital and/or analogue audio sources (smartphones, tablets, computers, portable players, external DACs, etc.).
- Be powered by an internal rechargeable battery and/or USB, ensuring portability and freedom of use even when away from a power outlet.

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1 SAFETY

Read before use.





The appliance described in this manual is an **ELECTRONIC device**; therefore, the USER must carefully read these warnings before using it for the safety and well-being of persons, animals and property.

NOTE WELL!

The manufacturer is not responsible for damage to property or people caused by failure to comply with the SAFETY WARNINGS.

1.1 SAFETY PICTOGRAMS

The following pictograms are used in the documentation accompanying the device:

Symbol	Definition
 ATTENTION	GENERIC HAZARD. Generally accompanied by an additional signal to provide further information on the danger.
 OBLIGATION	OBLIGATION. Indicates a mandatory action
 OBLIGATION	OBLIGATION. Consult the instruction manual before using the appliance.
 PROHIBITION	GENERAL PROHIBITION. Indicates a prohibited action.

1.2 SAFETY WARNINGS

1.3 Safety warnings for use



ATTENTION!

- **The device must be used:**
 - in premises where environmental conditions respect the values indicated in the Par. 5.4.
 - Away from heat sources such as: radiators, stoves, direct sunlight, etc.
 - Away from direct or indirect water leakage or other types of liquids.

In case of contact with water or other types of liquids there is a risk of fire.



ATTENTION!

- **DO NOT open or disassemble the appliance.**
- **Refrain from any other user behaviour, even if not expressly indicated in this manual, that could cause damage to the appliance, to persons, to property or to animals.**



PROHIBITION

The appliance cannot be used in rooms classified as having explosive or fire risk atmospheres (ATEX).



ATTENTION!

This appliance IS NOT A TOY: It can be used by children aged 8 years and over and by persons with reduced physical, sensory or mental capabilities, or lacking of experience and knowledge, provided they are directly supervised.



OBLIGATION

Read the warnings and instructions carefully before using the appliance.



OBLIGATION

Use only auxiliary devices, accessories, and spare parts provided or recommended by the Manufacturer.

For any further information, refer to the chapter “6 USE OF THE AMPLIFIER” on page 15.

1.4 Safety warnings for the lithium battery

The device is equipped with a built-in rechargeable lithium battery.

Safety precautions



ATTENTION!

- **Avoid extreme heat and cold:** use the appliance according to the environmental conditions permitted by the manufacturer (see para. 5.4).
- **Do not crush or puncture the device:** this may pose a safety risk to people, animals, and property.

Charging Recommendations

To ensure optimal performance and extend battery life, please refer to the following recommendations.

- Use only a Type-C USB charger and cable that comply with safety standards and are compatible with the device.
- Use **ONLY** certified chargers and cables that comply with QC 3.0 or USB Power Delivery specifications (*avoid using non-certified or questionable chargers*).
- **DO NOT** use low-quality power supply units, power supply units that are not CE/FCC-certified, or power supply units with uncontrolled output voltages. Such devices may:
 - **cause irreversible damage to the internal electronics;**
 - **compromise user safety;**
 - **void the warranty.**

Charging the battery.

Refer to para. “6.10 POWER SUPPLY AND BUILT-IN BATTERY” on page 19.

1.5 Maintenance safety warnings



ATTENTION!

- **DO NOT** pour or spray water on the product.
- **DO NOT** clean the surfaces with easily flammable substances (example: alcohol or paint thinners).
- **DO NOT** tamper with the appliance in any way.
- **DO NOT** repair the appliance or any part of it yourself.
- **Other conditions of behavior by the user even if not expressly indicated in this manual, but which may cause damage to the person, property or animals.**





TECHNICAL ASSISTANCE

- **CONTACT TECHNICAL SUPPORT** for checks, repair interventions and/or replacement of components.

Refer to the chap. “7 ROUTINE MAINTENANCE” on page 20.

2 GENERAL INFORMATION

2.1 DOCUMENTATION RECIPIENTS

 USER	Person using the device under normal conditions.
 TECHNICAL ASSISTANCE	Any intervention on the device, including disposal, must be carried out by qualified personnel.

In case of doubts about the correct interpretation of the instructions contained in this Manual, contact the TECHNICAL SUPPORT of the manufacturer for the necessary clarifications.

2.2 HOW TO READ THE MANUAL

The "INSTRUCTION MANUAL AND WARNINGS" (hereinafter referred to as "Manual") defines the purpose for which the device was built and contains all the information necessary to ensure its safe and correct use.

Further technical information not included in this manual is an integral part of the technical file established by the manufacturer available at its headquarters.

In order to comply with the device, the instruction manual has been drafted in accordance with the technical directives in force at the date of the document's edition; more precisely, the manual complies with the following directive:

- IEC/IEEE 82079-1:2019 - Preparation of information for use (instructions for use) of products. Principles and general requirements.

Furthermore, the drafting and composition of the instruction manual comply with the principles dictated by the technical regulations referred to the product.

The thorough analysis performed by the manufacturer has allowed eliminating most of the risks; however, it is recommended to strictly adhere to the instructions contained in this document.



ATTENTION!

The manufacturer is not responsible for damage to property or people caused by failure to comply with the instructions contained in this manual of use and warnings.

2.2.1 Updates

The manual contains the information and specifications in force at the current date of the edition. The manufacturer reserves the right to make changes, changes, or improvements in the manual or on the equipment, at any time and without notice.

2.2.2 Copyright

All rights reserved.

These use instructions contain information protected by copyright.

It is not allowed to photocopy, duplicate, translate, or record on memory media these use instructions, either entirely or in part, without prior authorization from the supplier. Any violations will be subject to compensation for damages.

All rights reserved, including those resulting from the release of patents or the registration of utility models.

2.2.3 Drafting language

The manual was drafted in Italian (IT), the original language of the manufacturer.

Any translations into additional languages must be made starting from the original instructions.

The Manufacturer is responsible for the information contained in the original instructions; translations into other languages cannot be fully verified, therefore if an inconsistency is detected, it is necessary to refer to the text in the original language or contact the manufacturer.

2.3 DECLARATION OF CONFORMITY

The declaration of conformity is provided as an attachment to this instruction manual.

2.4 COMPLIANCE WITH STANDARD REGULATIONS

The appliance is a product intended for domestic use in compliance with the following Directives:

EU Directives (Countries within the European Union)

- **Directive 2014/30/EU OF THE EUROPEAN PARLIAMENT AND THE COUNCIL** of February 26, 2014 concerning the harmonization of the laws of the Member States relating to electromagnetic compatibility.
- **Directive 2009/125/EC** of the European Parliament and the Council, of October 21, 2009, on the establishment of a framework for the setting of ecodesign requirements for energy-related products.
- **Directive 2014/35/EU OF THE EUROPEAN PARLIAMENT AND THE COUNCIL** of February 26, 2014 concerning the harmonization of the laws of the Member States relating to the making available on the market of electrical equipment intended to be used within certain voltage limits.
- **Directive 2011/65/EU** of the European Parliament and the Council, of June 8, 2011, on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

UKCA Directives (UK Conformity Assessed - For Great Britain: England, Wales, and Scotland)

- 2016 No. 1091 ELECTROMAGNETIC COMPATIBILITY
- 2019 No. 539 EXITING THE EUROPEAN UNION - ENERGY CONSERVATION - The Ecodesign for Energy-Related Products and Energy Information (Amendment) (EU Exit) Regulations 2019
- 2016 No. 1101 CONSUMER PROTECTION - HEALTH AND SAFETY - The Electrical Equipment (Safety) Regulations 2016
- 2012 No. 3032 ENVIRONMENTAL PROTECTION - The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012

2.5 WARRANTY

The warranty conditions in force can be consulted on www.audma.it or at an authorized Audma service center.

The Manufacturer reserves the right to modify this product/model in all its parts or functions, at any time and without any prior notice or notification.

The basic warranty is intended from the date of purchase of the product. The warranty automatically expires:

- if the device has been opened, disassembled or tampered with by unauthorized persons;
- if modifications, tampering, or repairs have been carried out by unauthorized personnel;
- in case of improper use of the machine and if non-original spare parts were used.

The Warranty does not include and does not cover faults and/or damage resulting from:

- environmental conditions not conforming or not corresponding to what is indicated in the Par. 5.4;
- incorrect cleaning operations (such as the use of unsuitable and/or corrosive products, etc.).

The warranty shall also not include:

- faults and damages caused by natural calamities;
- induced events such as: fires, thefts, acts of vandalism, tampering.

Activities of inspection and maintenance, even if recommended (see chap. 7), are excluded from the warranty, unless otherwise indicated in the offer.

2.6 EXCLUSION OF LIABILITY

The manufacturer is not responsible for damages attributable to improper use, inappropriate use, or due to unauthorized repairs or modifications.

In the interest of technical improvement, we reserve the right to make constructive changes or technical data at any time. Therefore, any claim for rights based on indications, figures, drawings, or descriptions is excluded.

Any errors are excepted.

3 GENERAL INFORMATION

3.1 DATA PLATE DATA

Consult the appliance data indicated on the specific plate located on the back of the packaging and check that the user manual corresponds to the indicated model.

ATTENTION!

Do not tamper with the data plate in any way.



fig. 1 - Data plate

REF.	DESCRIPTION
1	Model
2	Serial number

The symbols on the back of the device guarantee the conformity requirements in force at the date of publication of this document.



3.2 DESCRIPTION OF SYMBOLS

The symbols shown in the following table may be used in whole or in part in this manual and accompanied by the corresponding description; some of these may be found affixed to the device and/or its packaging.

Symbol	Definition
	RECYCLING / DISPOSAL. Recovery and recycling of materials.
	PROFESSIONAL WASTE. It indicates that this product should not be treated as household waste but should be delivered to a suitable collection centre for the recycling of electrical and electronic equipment (DIRECTIVE 2012/19/EU)
	VISUAL INSPECTION. Indicates visual inspection by the user.
	MANUAL CLEANING. Indicates that cleaning must be carried out manually by the user.

3.3 GLOSSARY OF TERMINOLOGY

TERM	Definition
DEVICE	It indicates the product described in this instruction manual.
MANUFACTURER	Natural or legal person who is responsible for design, construction, packaging or labelling and marketing.
TECHNICAL ASSISTANCE	People or entities responsible towards the responsible organization, who install, assemble, maintain or repair the machine.
INTENDED USE	The use of a product in compliance with the specifications, instructions and information provided by the Manufacturer.
NORMAL USE	Operation including periodic checks according to the instructions for use.
INSTRUCTIONS / PROCEDURE	Defined way of performing an activity.

TERM	Definition
DAMAGE	Physical injury or damage to the health of people or animals, or damage to property and/or to the environment.
HAZARD	A potential source of damage.
MAINTENANCE	Periodic operations aimed at verifying the correct operation (example: cleaning) directed at the qualified person.

3.4 ABBREVIATIONS

Term	Definition
Chap.	Chapter
Para.	Paragraph
Tab.	Table
Fig.	Figure
P.	Page
Ref.	Reference
N°	Number

3.5 PERSONALIZED PROTECTIVE EQUIPMENT

No personal protective devices are provided for the user. Safety for use and maintenance is highlighted by the warnings indicated in this manual.

3.6 NOISE

The noise level refers to when the appliance is in use; the noise level is indicated in para. 4.3.

3.7 VIBRATIONS

The device does not cause vibrations during use.

3.8 RESIDUAL RISKS

The design was carried out to ensure the essential safety requirements for the user.

4 DESCRIPTION OF THE DEVICE

4.1 COMPONENTS IDENTIFICATION

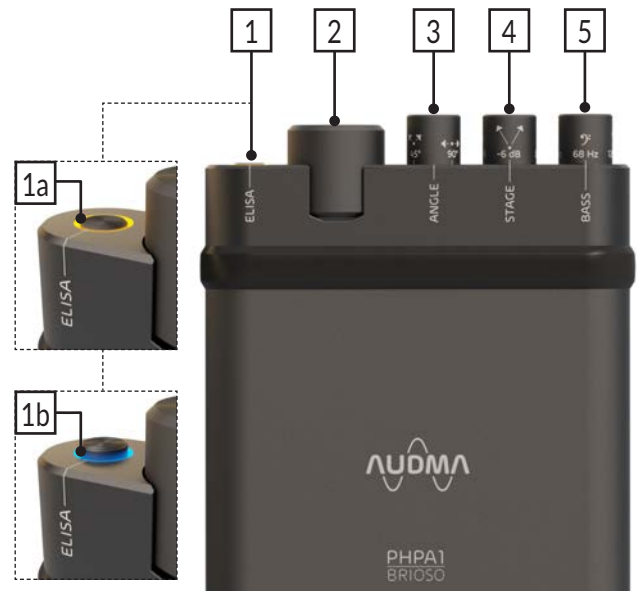


fig. 2 - UPPERVIEW

REF.	DESCRIPTION
1	ELISA circuit and battery charge level display. <ul style="list-style-type: none"> ON button (1) with yellow indicator light on (1a): <ul style="list-style-type: none"> - device on; - ELISA circuit in operation. OFF button (1) with blue indicator light on (1b): <ul style="list-style-type: none"> - device on; - ELISA circuit not in operation; - battery charge level display (ref. para. 6.2).
2	URNS THE DEVICE ON - OFF. Adjusts the output sound intensity (minimum and maximum)
3	ELISA ANGLE. Adjusts the angle between the speakers and the listener.
4	ELISA STAGE. Adjusts the distance of the virtual speakers from the listener.
5	BASS. Bass compensation.

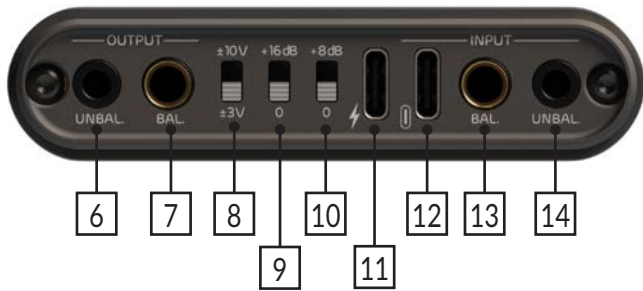


fig. 3 - BOTTOMVIEW

REF.	DESCRIPTION
6	3.5mm unbalanced output
7	Pentaconn 4.4mm balanced output
8	Selectable output switch drive $\pm 3/\pm 10$ V
9	Selectable switch output gain 0/+16 dB
10	Selectable switch output gain 0/+8 dB
11	Device charging (USB-C)
12	Digital input (USB-C)
13	Pentaconn balanced 4.4mm analogue input
14	3.5mm unbalanced analogue input

4.2 MAIN FEATURES

- Innovative "ELISA circuit inside" for delivering a surprising stereo signal listening experience in environment simulation.
- ELISA OFF/ON, STAGE and ANGLE commands for individual and personal adjustment of the ELISA effect.
- Precise and symmetrical signal processing and transmission for the entire frequency spectrum with minimal harmonic distortion.
- Dynamic level over 115 dB and high fidelity to transients thanks to short signal paths and super-fast capacitors positioned where required by the audio signal.
- Excellent DAC - digital-analogue converter model AKM AK4490REQ + AK4191EQ with proprietary VELVET-SOUND™ technology with 32-bit resolution, maximum PCM sampling frequency 768 kHz / DSD64, DSD128, DSD256 and automatic PCM/DSD selection^(*).
() In the DSD audio format the ELISA function is disabled.*
- Automatic sampling frequency adjustment.
- 1 4.4 Pentaconn balanced/symmetrical headphone line.
- 1 asymmetrical/unbalanced headphone line, 3.5 mm jack.
- Maximum flexibility thanks to numerous connection possibilities:

- 1 digital input: USB-C;
- 2 analogue outputs: Pentaconn symmetrical/balanced 4.4 mm and asymmetrical/unbalanced 3.5 mm.
- GAIN switch to increase headphone output power in steps of +8, +16, and +24 dB.
- Output driver switch adjustable $\pm 3/\pm 10$ V.
- Designed and produced in Italy.

Other features:

- ALPS ALPINE volume potentiometer.
- ALPS ALPINE push pull potentiometers.
- Gold-plated input and output terminals.

4.3 TECHNICAL CHARACTERISTICS

ELISA circuit commands:	Off/On, Stage, Angle
Usage range:	Can be used with all dynamic headphones with impedance ≥ 6 ohm.
Analog inputs:	1 unbalanced 3.5 mm line. 1 Pentaconn balanced 4.4 mm line.
Digital inputs:	USB-C
Input resistance:	100 kOhm
Input range:	On unbalanced: 2.1 VRMS FS. Balanced: 4.2 VRMS FS.
Digital section performance:	Resolution up to 32 bit, maximum PCM sampling frequency 768 kHz / DSD256, automatic PCM/DSD selection ^(*) . <i>(*) In the DSD audio format the ELISA function is disabled.</i>
Headphone outputs:	1 balanced Pentaconn 1 unbalanced 3.5 mm jack
Output impedance:	0.1 ohm unbalanced 0.2 ohm balanced
Output gain:	0/+8/+16/+24 db
Output power:	1 kHz, 32 ohm 2x2.0 W 1 kHz, 64 ohm 2x4.0 W 1 kHz, 150 ohm 2x2.7 W
Signal-to-noise ratio:	115 dB
Frequency response:	20 Hz -20 kHz $\pm 0,01$ dB
Dynamic range:	115 dB

Total harmonic distortion:	0,001% at 1kHz
Battery:	Capacity: 1600 mA/h Charging time: 2 hours and 10 min. Duration: 5 hours
Compliance:	CE, ROHS, FCC, UK CA
Dimensions (LxHxP):	8.1 x 1.9 x 13.8 cm
Weight:	240 g
Warranty:	Visit www.audma.it

Pinout legend (with technical illustrations)

- unbalanced JACK 3.5 mm L / R / G
- balanced PENTACONN jack 4.4 mm L+ / L- / R+ / R

Digital Inputs

- USB-C, PCM sample rates 44.1/48/88.2/96/176.4/192 /352.8/384/705.6/768 kHz.
- USB-C, DSD over PCM (DoP), sample rates 2.8 (DSD64), 5.6 (DSD128), 11.2 (DSD256) MHz.

5 UNPACKING

5.1 PACKAGING

The appliance is supplied in a cardboard box.

Package contents:

- Cable tray;
- Brioso tray;
- Quick start guide.

The type of packaging may vary at the discretion of the Manufacturer.

5.2 ENVIRONMENTAL STORAGE CONDITIONS

If the device is not to be used at the time of purchase, keep the intact packaging and store it in a dry place, protected from dust or anything else that may damage it.

Room temperature (min. / max.)	Humidity relative (without condensation) (min. / max.)
+2 °C / +50 °C	20 % / 80 %

5.3 UNPACKING



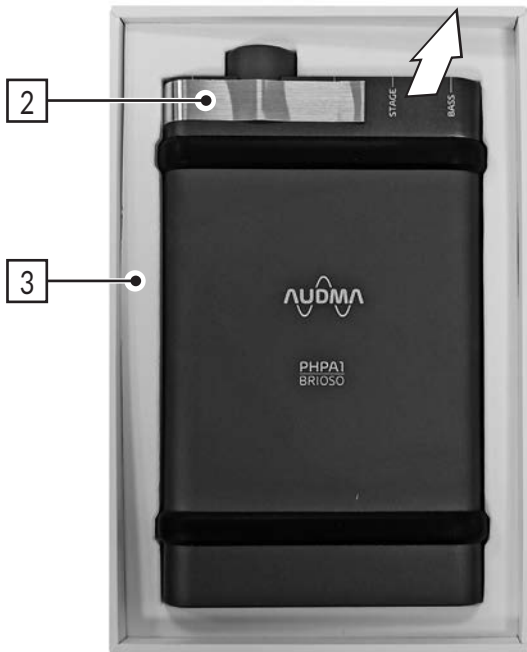
The packaging materials must be disposed of in accordance with the Laws in force in the Country of use.

- Remove the clear adhesive labels holding the cover in place.
- Remove the cover (1).

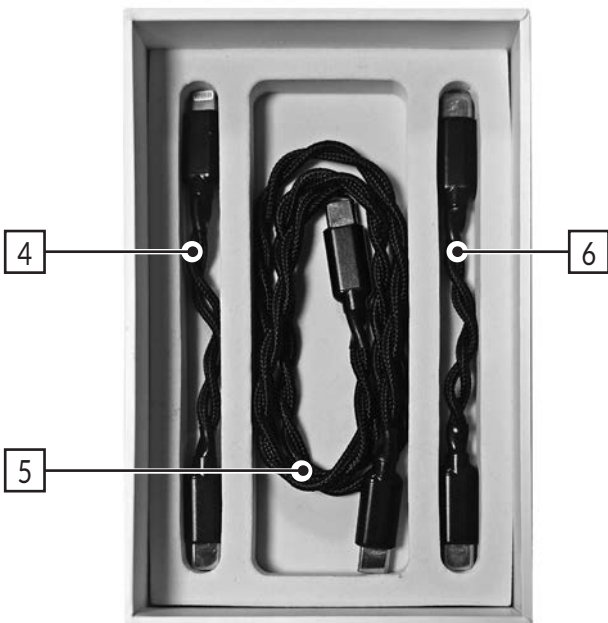


- Remove the device from its housing and remove the safety tape (2).

- Remove the drawer (3).



- Remove the cables from their housing:
 - cable (4): data transmission (USB-C to USB-C) - length 13.5 cm;
 - cable (5): charging and/or data transmission (USB-C to USB-C) - length 70 cm;
 - cable (6): data transmission from iPhone (USB-C to LIGHTNING) - length 13.5 cm.



In case of doubt do not use the device and turn to authorized technical personnel.

5.4 OPERATING ENVIRONMENTAL CONDITIONS



ATTENTION!

The general operation of the device is guaranteed by complying with the environmental conditions indicated by the manufacturer.

The appliance is designed to be used:

- in a closed, dry and dust-free environment,
- not exposed to the elements,
- away from heat sources,
- away from direct sunlight and ventilation systems.

Never place the device outdoors; atmospheric agents would damage it, making it unreliable and dangerous.

The ambient temperature and relative humidity of the installation premises must be between:

Room temperature:	+5 °C / +45 °C
Relative humidity (without condensation):	+30 % / +70 %

6 USE OF THE AMPLIFIER

GENERAL WARNINGS ON USE:



ATTENTION!
Avoid accidents and health risks.

Protect your hearing:

- listen to the sound by adjusting the volume; quality headphones, usually, emit optimal audio even at low and medium volume.
- Adopt a non-excessively prolonged listening time.
- Use the device paying particular attention to the surrounding environment (for example: while performing manual activities).

It is normal for the appliance to generate heat during operation.

In case of excessive heat:

- turn off the appliance and wait for it to cool down.

6.1 TURNING ON

First use:



ATTENTION!
Avoid damage and interference.

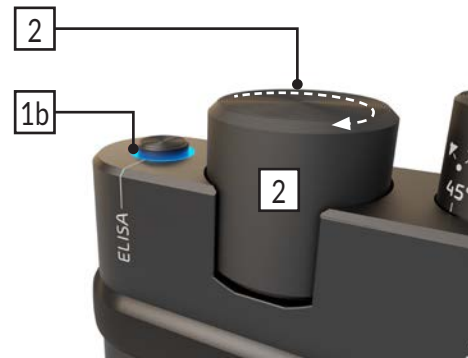
- Wait approximately two hours after unpacking before using the appliance so that the components can adapt to the room temperature.
- Condensation moisture may form inside the product if it is moved from a cold environment to a warmer one.



VISUAL CHECK

- Check that the device is free from direct contact with various objects; if present, remove them.

- Turn the knob (2) clockwise.
- The indicator light (1b) turns blue and flashes for 8 seconds before remaining steady.



For the status of the LED on the Elisa control, refer to the tables in para. 6.2.

6.2 DESCRIPTION OF THE YELLOW-BLUE INDICATOR LIGHT ON THE ELISA CONTROL

At the base of the ELISA control is a light (ref. 1a, 1b - para. 4.1), which provides information on the device's status through different colours (yellow/blue) that are either steady or flashing.

- DEVICE STATUS -

Device OFF.

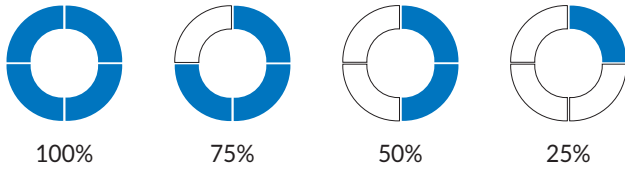
LED	LED STATUS
None.	• Off.

Device turned ON during normal use.

LED	LED STATUS
	<p>Flashing blue for 8 seconds.</p> <ul style="list-style-type: none"> • Device is turning on; then remains on with a steady light.
	<p>Flashing blue with a steady light.</p> <ul style="list-style-type: none"> • Device ON. • ELISA OFF. • Remaining charge: indicated by the BLUE dials^(*).
	<p>Flashing yellow with a steady light.</p> <ul style="list-style-type: none"> • Device ON. • ELISA ON.

- BATTERY CHARGE STATUS -

The indicator light is divided into four segments; each blue segment indicates the remaining charge.



When the device is low, all LEDs flash.
To charge the battery, refer to para. 6.10.2.

Device turned ON and charging.

COLOUR	LED STATUS
	<p>Blue light with progressive light on the dials.</p> <ul style="list-style-type: none"> • Device ON. • ELISA OFF. • Remaining charge: The BLUE dials light up progressively with the level of battery charge.
	<p>Flashing yellow with a steady light.</p> <ul style="list-style-type: none"> • Device ON. • ELISA ON^(*).

^(*)With ELISA ON, the battery charge status cannot be displayed.

The device is OFF and charging.

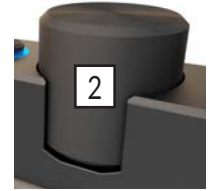
COLOUR	LED STATUS
	<p>Blue light with progressive light on the dials.</p> <ul style="list-style-type: none"> • The BLUE dials light up progressively with the level of battery charge.

6.3 CONNECTION TO AUDIO SOURCES



ATTENTION!
Avoid accidents and health risks.

It is recommended to always lower the VOLUME command (2) when switching from one source to another.



The device comes with 3 types of cables for connection to digital sources and for charging of the internal battery. (ref. 4, 5, 6 - para. 5.3).

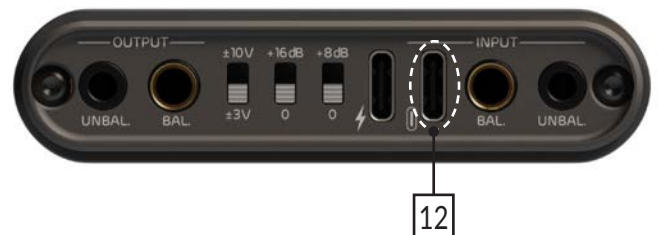
6.3.1 Connection to analog audio sources

- Connect your audio cable:
 - to the 4.4 mm balanced Pentaconn socket (13)
 - to the 3.5 mm jack unbalanced socket (14).



6.3.2 Connection to digital audio sources

- Connect your audio cable to the USB-C socket (12).



6.4 CONNECTION TO AUDIO OUTPUTS

On the bottom of the device, two outputs can be connected individually (not simultaneously):

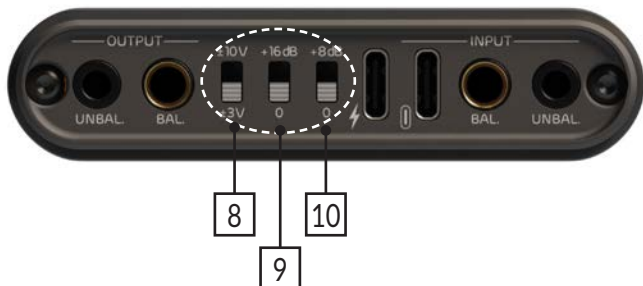


- 3.5 mm Mini Jack (6) for unbalanced headphones.
- Pentaconn connection (7) for balanced/symmetrical headphones with a 4.4 mm jack connector.

6.5 SWITCH

6.5.1 Headphone output GAIN and DRIVE adjustment

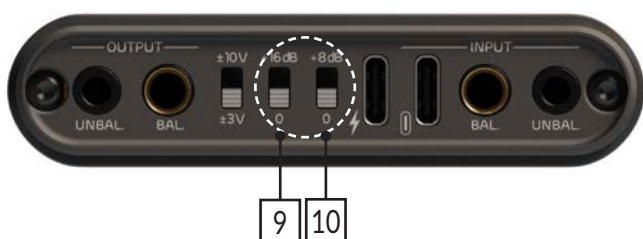
The device is equipped with a bank of switches that are used to adjust the main parameters of the headphone amplifier in order to adapt the output to the specific characteristics of the headphones being used.



- Switch (8): Output voltage adjustment (Drive).
- Switch (9-10): Output gain adjustment (Gain).

6.5.2 GAIN adjustment

The output gain level can be configured using switches (9) and (10).



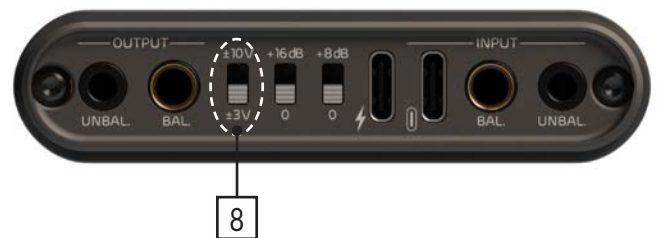
Combinations of the two switches are used to select three amplification levels.

Switch (9)	Switch (10)	Total gain
OFF	OFF	0 dB
OFF	ON	+8 dB
ON	OFF	+16 dB
ON	ON	+24 dB

Technical note: check the output level and adjust the configuration to avoid clipping or background noise.

6.5.3 Output voltage adjustment (DRIVE)

Switch (8) is used to select the **maximum drive voltage** delivered at the output useful to optimise the dynamic response based on the type of headphones being used.



Switch (8)	DRIVE voltage
OFF	±3 V
ON	±10 V



ATTENTION!

Using maximum voltage on sensitive headphones can cause overload or hearing damage.

Always make adjustments with the volume turned down.

6.5.4 User Guidelines

- Set the **GAIN** according to the **impedance** and **sensitivity** of the headphones.
- Adjust the **DRIVE** (voltage) only if necessary to increase dynamics and headroom. Avoid excessive values to avoid distortion.

6.6 ADJUSTMENT OF THE VOLUME OF AUDIO OUTPUTS

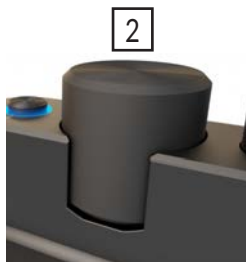


ATTENTION!
DANGER OF DAMAGE TO HEARING.

Prolonged exposure to high volume can cause permanent hearing damage and can also damage the headphones.

- Set a low volume level before wearing the headphones.
- Do not expose yourself to high listening volumes for a long time.

- Adjust the volume of the audio outputs using the VOLUME knob (2).
The volume level affects the headphone outputs.



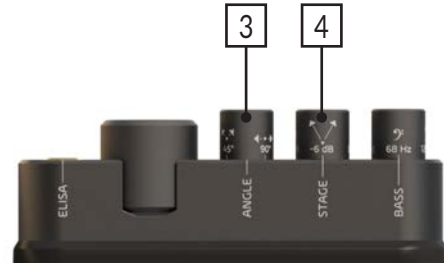
6.7 ELISA EFFECT

Brioso PHPA1 is the first portable headphone amplifier equipped with an ELISA (Electronic Loudspeaker Imaging Simulating Amplifier) circuit; this effect allows for a surprising listening experience in the room, as with speakers, even through headphones.

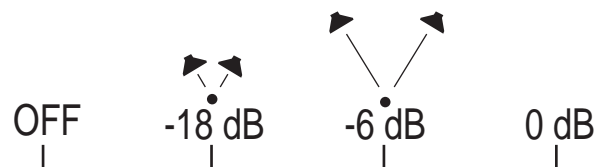
- ELISA OFF/ON

<p>Button (1) released (OFF): ELISA deactivated, blue indicator light on.</p>	
<p>Button (1) pressed (ON): ELISA activated, yellow indicator light on.</p>	

When ELISA is active (ON), the effect is adjusted using the ELISA Angle (3) and ELISA Stage (4) controls.



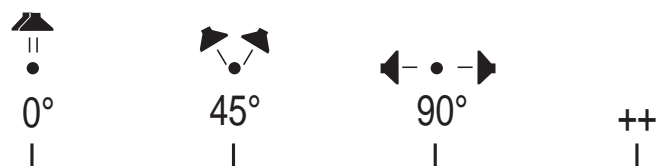
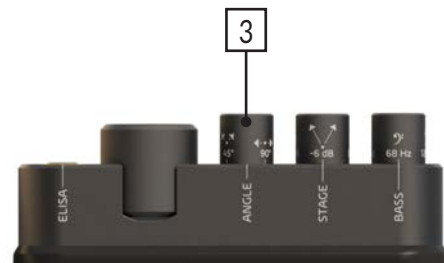
- ELISA STAGE (4), which adjusts the ideal sensation of "distance" from the sound scene



- Press the ELISA STAGE push-pull potentiometer (4).

As a rule, consider that the lower the value used, the greater the personal sensation of proximity to the sound scene. Conversely, the higher the value used, the greater the personal sensation of distance from the sound scene.

- Press the ELISA ANGLE potentiometer (3); it adjusts the placement angle of the virtual speakers in relation to the listener.

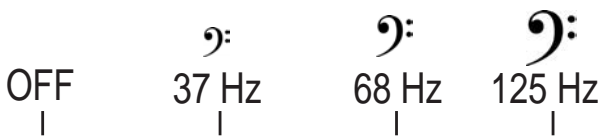


As a rule, consider that the lower the value used, the more contained the sound scene will appear. Conversely, the higher the value used, the greater the sensation of width of the sound scene.

6.7.1 Bass compensation

This is a sound adjustment that is used to emphasise low frequencies below 125 Hz.

The push-pull **BASS** potentiometer (5) is used to optimise the audio response based on the characteristics of the headphones being used, improving the listening experience.



6.8 INSTALLATION AND FIRMWARE UPDATES

The device firmware cannot be modified by the end user but only by the manufacturer. In any case, each device will be supplied with the most up-to-date firmware version for the installed components.

Audma does not provide USB drivers.

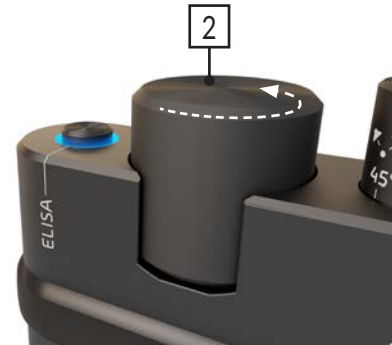
For PCM type signals the PHPA1 device is 100% compatible with UAC2 (Usb Audio Class 2.0) drivers supported natively by:

- Windows 10 ver. 1703 and later, including Windows 11;
- MAC OS 10.6 and later;
- Android 5.0 and later;
- Multiple versions of Linux including Ubuntu and Fedora.

For DSD type signals, the PHPA1 device is compatible with ASIO drivers (for example, the drivers provided by Thesycon).

6.9 SWITCHING OFF

- Turn the knob (2) anti-clockwise.



For the LED status, refer to para. “6.2 DESCRIPTION OF THE YELLOW-BLUE INDICATOR LIGHT ON THE ELISA CONTROL” on page 15.

6.10 POWER SUPPLY AND BUILT-IN BATTERY

Read para. “1.4 Safety warnings for the lithium battery” on page 7.

The device is equipped with a high-performance rechargeable lithium-ion battery.

The battery is designed to provide long-lasting power and reliability for extended mobile use.

6.10.1 Battery specifications

Technology	Rechargeable Li-ion (built-in, non-removable)
Nominal capacity	1600 mAh
Operating time	Up to 5 hours (depending on the type of headphones being used, listening volume and operating conditions).
Charging Time	Approximately 2 hours and 10 minutes (with QC 3.0 fast charger with the device off and the battery completely discharged).

NOTE.

Battery performance may vary depending on the impedance and sensitivity of the connected headphones.

6.10.2 Battery charging

Recommended charging requirements.

To ensure safe, efficient, and standards-compliant charging, we recommend using a **USB-C charger compatible with the Quick Charge 3.0 (QC 3.0) standard.**

Recommended power supply unit specifications

Standard	Qualcomm® Quick Charge 3.0
Output	5V / 2A (minimum) - up to 3A for optimal performance
Connection	USB-C

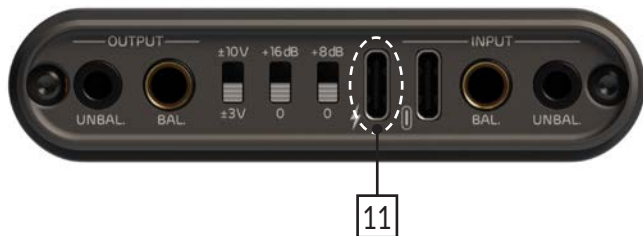
Wall charging compatibility

A separately sold wall charger may be used, provided it complies with the standards listed above.

Use only certified and trusted brand adapters to avoid damaging your device.

Battery charging.

- Use the appropriate cable (ref. 5 - para. 5.3) supplied.
- Connect one end of the cable to the charging device and the other end to the USB-C port (11).



The amplifier can be used normally even while charging.

7 ROUTINE MAINTENANCE



USERS

ROUTINE maintenance is the responsibility of the user of the appliance.



OBLIGATION.

Before proceeding with the following operations READ CAREFULLY the “1.5 Maintenance safety warnings” on page 7.



ATTENTION!

The manufacturer is not responsible for interventions carried out without having viewed the safety warnings.




ATTENTION!

Liquids can destroy the electronic circuits of the product! Liquids can penetrate the casing of the device and cause a short circuit of the electronic system.

- Carry out the maintenance operations indicated in this chapter.
- Turn the appliance on only after having completed the maintenance operation (refer to para. 6.1).

7.1 CLEANING THE APPLIANCE

 MANUAL CLEANING	
Periodicity:	MONTHLY (or in conditions of evident dirt)
Tool:	Dry cloth.
Action:	<ul style="list-style-type: none"> Clean only the exterior surface using a soft, dry cloth.

In particular:

- **DO NOT** pour or spray water or any other liquid directly onto the appliance.
- **DO NOT** use highly flammable substances (e.g. alcohol or thinners).

7.2 OTHER MAINTENANCE INTERVENTIONS (EXTRAORDINARY MAINTENANCE)

In the presence of faults or another condition different from the cleaning of the device, the user must:



- **CONTACT TECHNICAL SUPPORT** for checks, repair interventions and/or replacement of components.

7.2.1 Battery replacement

- Contact an authorized AUDMA service center.

8 INCONVENIENCES AND REMEDIES

If the device does not function properly, before contacting the TECHNICAL SUPPORT of the manufacturer or the AUTHORIZED SERVICE CENTRE, it is advisable to perform the following.

NO AUDIO SIGNAL.

PROBLEM	CAUSE - SOLUTION
The device is off.	<ul style="list-style-type: none"> - Battery low: recharge the battery (para. 6.10.2). - Check that the battery charger and its cable are working properly.
	<ul style="list-style-type: none"> - Turn the knob clockwise (ref. 2, para. 6.1).

NO AUDIO SIGNAL WITH USB-C DIGITAL INPUT.

CAUSE	SOLUTION
The digital audio source's data format does not match PCM or DSD.	<ul style="list-style-type: none"> • Set the audio source to PCM or DSD.

VERY LOW OR DISTORTED AUDIO SIGNAL WITH ANALOG AUDIO SOURCE.

CAUSE	SOLUTION
The audio signal on the audio source is set too low or too high.	<ul style="list-style-type: none"> • If possible, set the audio signal to a medium value on the audio source.
The input signal level is set too low/too high.	<ul style="list-style-type: none"> • Adjust the signal level on the switches (ref. 9 - 10, para. 6.5) and increase or decrease the signal level.

AUDIO SIGNAL ONLY ON ONE SIDE.

CAUSE	SOLUTION
The analog audio cable is not connected correctly.	<ul style="list-style-type: none"> Connect the audio cable correctly to the playback device (para. 6.3).
The headphone jack is not connected properly.	<ul style="list-style-type: none"> Connect the headphones correctly to the amplifier (para. 6.3).

AMPLIFIER NOT RECOGNIZED BY THE PC AS AN AUDIO OUTPUT DEVICE.

CAUSE	SOLUTION
The driver is not installed.	<ul style="list-style-type: none"> Install the USB audio driver. Install the UAC2 driver.

NO AUDIO SIGNAL WITH USB CONNECTION FROM PC OR MAC.

CAUSE	SOLUTION
A different output device has been selected on the PC or Mac.	<ul style="list-style-type: none"> Select Audma PHPA1 as the output device.

AUDIO SIGNAL INTERRUPTION WITH USB CONNECTION.

CAUSE	SOLUTION
The USB cable is not adequately shielded.	<ul style="list-style-type: none"> Use a USB cable certified at least USB 2.0.

In any case, if the problem persists:



- **CONTACT TECHNICAL SUPPORT** for checks, repair interventions and/or replacement of components.

Faults MUST BE ELIMINATED by a qualified technician.

Repairs must be performed if the equipment or parts thereof exhibit any defects, for example:

- damaged electrical cord;
- incorrect operation.

9 DISPOSAL

Disposal operations must only be performed at an **AUTHORISED CENTRE** and in full compliance with the current regulations.

9.1 INFORMATION FOR USERS

The appliance must be disposed of according to the conditions established in the country of use.



The crossed-out wheeled bin symbol on the appliance or on its packaging indicates that, at the end of its useful life, the product must be collected separately from other waste.

At the end of its useful life, the user must take the appliance to appropriate **SEPARATE WASTE COLLECTION CENTRES for waste electrical and electronic equipment**.

Adequate separate waste collection for subsequent treatment and/or environmentally compatible disposal helps avoid possible negative effects on the environment and on health and promotes reuse and/or recycling of the materials the appliance is made of.

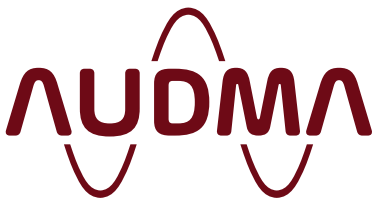
Illegal disposal of the product by the user will result in application of the administrative sanctions provided for by the legislation in force in the country of use.

9.2 END-OF-LIFE DISPOSAL

- Deliver the product to a separate waste collection centre as required in the country where the appliance is used.

9.3 BATTERY DISPOSAL

By the separate waste collection centre or technical assistance service.



Audma by Hi-Tech Solutions s.r.l.

Via Enrico Giustozi, 37 - Zona Ind.le Paciana

06034 Foligno (PG), Italy - Tel.: (+39) 0742 321111

info@audma.it - mailbox@hts.it