

Millenium

HPA In Ear
headphone amplifier



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Table of contents

1	General notes	4
2	Safety instructions	7
3	Installation and starting up	12
	3.1 Pin assignment.....	13
4	Connections and operating elements	16
5	Functions	20
6	Technical specifications	22
7	Protecting the environment	24


1 General notes


This user manual contains important information on safe operation of the device. Read and follow all safety notes and all instructions. Save this manual for future reference. Make sure that it is available to all persons using this device. If you sell the device to other users, be sure that they also receive this manual.

Our products are subject to a process of continuous development. We therefore reserve the right to make changes without notice.

Symbols and signal words

This section provides an overview of the symbols and signal words used in this user manual.

Signal word	Meaning
DANGER!	This combination of symbol and signal word indicates an immediate dangerous situation that will result in death or serious injury if it is not avoided.
CAUTION!	This combination of symbol and signal word indicates a possible dangerous situation that can result in minor injury if it is not avoided.
NOTICE!	This combination of symbol and signal word indicates a possible dangerous situation that can result in material and environmental damage if it is not avoided.
Warning signs	Type of danger
	Warning – high-voltage.

Warning signs	Type of danger
	Warning – danger zone.

2 Safety instructions

Intended use

This device is used to amplify and mix the signals of audio equipment and musical instruments for the output to the connected headphones. Use the device only as described in this user manual. Any other use or use under other operating conditions is considered to be improper and may result in personal injury or property damage. No liability will be assumed for damages resulting from improper use.

This device may be used only by persons with sufficient physical, sensorial, and intellectual abilities and having corresponding knowledge and experience. Other persons may use this device only if they are supervised or instructed by a person who is responsible for their safety.

Safety



DANGER!

Danger for children

Ensure that plastic bags, packaging, etc. are disposed of properly and are not within reach of babies and young children. Choking hazard!

Ensure that children do not detach any small parts (e.g. knobs or the like) from the unit. They could swallow the pieces and choke!

Never let children unattended use electrical devices.



DANGER!

Electric shock caused by high voltages inside

Within the device there are areas where high voltages may be present. Never remove any covers.

There are no user-serviceable parts inside.



CAUTION!

Possible hearing damage

With loudspeakers or headphones connected, the device can produce volume levels that may cause temporary or permanent hearing impairment.

Do not operate the device permanently at a high volume level. Decrease the volume level immediately if you experience ringing in your ears or hearing impairment.



NOTICE!

Risk of fire

Do not cover the device nor any ventilation slots. Do not place the device near any direct heat source. Keep the device away from naked flames.



NOTICE!

Operating conditions

This device has been designed for indoor use only. To prevent damage, never expose the device to any liquid or moisture. Avoid direct sunlight, heavy dirt, and strong vibrations.



NOTICE!

External power supply

The device is powered by an external power supply. Before connecting the external power supply, ensure that the input voltage (AC outlet) matches the voltage rating of the device and that the AC outlet is protected by a residual current circuit breaker. Failure to do so could result in damage to the device and possibly the user.

Unplug the external power supply before electrical storms occur and when the device is unused for long periods of time to reduce the risk of electric shock or fire.



NOTICE!

Possible staining

The plasticiser contained in the rubber feet of this product may possibly react with the coating of your parquet, linoleum, laminate or PVC floor and after some time cause permanent dark stains.

In case of doubt, do not put the rubber feet directly on the floor, but use felt-pad floor protectors or a carpet.

3 Installation and starting up

Unpack and carefully check that there is no transportation damage before using the unit. Keep the equipment packaging. To fully protect the device against vibration, dust and moisture during transportation or storage use the original packaging or your own packaging material suitable for transport or storage, respectively.

Establish all connections as long as the unit is switched off. Use the shortest possible high-quality cables for all connections.

Tripod mounting

On the bottom, the device offers a thread which allows you to screw it to a microphone stand.

Do not place the device on speaker boxes since their vibration could cause the unit to vibrate and fall off.

Even though the device housing is shielded against high-frequency (RF) and electromagnetic (EMI) irradiation, do not operate the device in the area of extreme RF or EMI fields.

Operating voltage supply

Use the included AC adapter to connect the device via the [DC 9V] jack to an AC outlet.

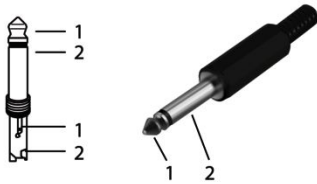
For optional battery operation, open the battery compartment on the left side of the housing and insert a 9 V battery (not supplied) into the battery compartment. Close the compartment.

3.1 Pin assignment

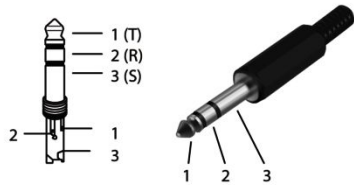
Jack plugs for signal inputs

The figures and tables show the pin assignments of 1/4" phone plugs.

Unbalanced mono phone plug wiring:

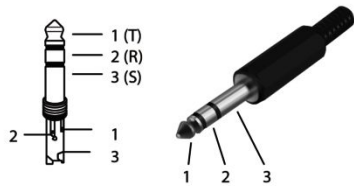


1	Signal
2	Ground, shielding



Unbalanced stereo phone plug wiring:

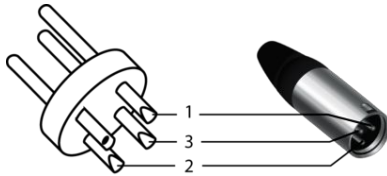
1	Signal
2, 3	Ground, shielding



Balanced stereo phone plug wiring:

1	Positive signal (+)
2	Negative signal (-)
3	Ground, shielding

XLR plugs for signal inputs



Balanced XLR plug wiring

1	Ground, shielding
2	Signal (in phase, +)
3	Signal (out of phase, -)

Phone plugs for signal output

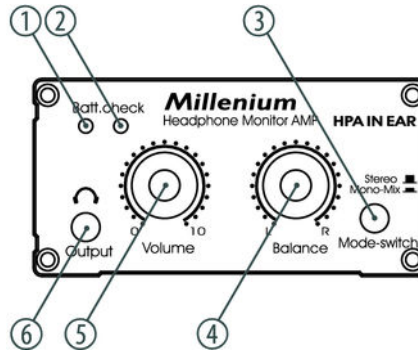


Three-pin 3.5 mm phone plug (stereo, unbalanced)

1	Signal (left)
2	Signal (right)
3	Ground

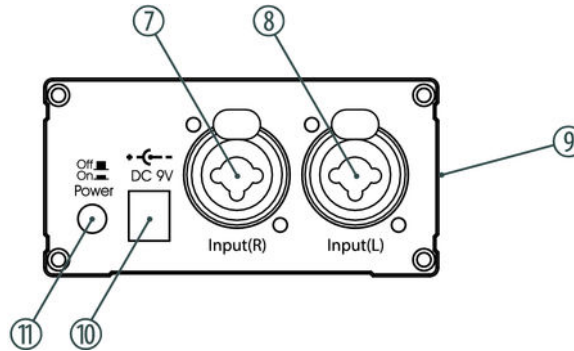
4 Connections and operating elements

Front panel



1	<i>[BATT.CHECK]</i> Green LED of the battery indicator.
2	<i>[BATT.CHECK]</i> Red LED of the battery indicator.
3	<i>[MODE-SWITCH]</i> Operating mode switch.
4	<i>[BALANCE]</i> Balance control to set the volume ratio of left and right input signal.
5	<i>[VOLUME]</i> Volume control to set the output level.
6	<i>[OUTPUT]</i> Headphones output (3.5 mm mini phone socket, stereo).

Rear panel



7 [INPUT (R)]

Balanced XLR / 1/4" TRS combo jack for connecting the right input signal.

8 [INPUT (L)]

Balanced XLR / 1/4" TRS combo jack for connecting the left input signal.

9	Battery compartment with cover.
10	<i>[DC 9V]</i> Connector for the supplied power adapter.
11	<i>[POWER ON OFF]</i> On / off switch.

5 Functions

Checking battery status

The two *[BATT.CHECK]* indicators show the status of an inserted battery. With a new battery or a newly charged rechargeable battery only the green LED lights. When after a few hours of operation the battery power decreases below about 7.3 V, both indicators (green and red) light up. If only the red LED lights up, the battery voltage has dropped to about 6.5 V. Then the battery needs to be replaced or recharged.

Operating mode 'Stereo'

When the *[MODE-SWITCH]* is set to 'Stereo' position the input signals for the left and right channels are provided accordingly at the output. With the *[Balance]* control you can adjust the volume ratio between left and right channel. The *[Volume]* control sets the overall volume.

Operating mode 'Mono-Mix'

When the *[MODE-SWITCH]* is set to 'Mono-Mix' position you can easily provide a custom monitor mix. Do this by creating, for example, a mono mix of the whole band that you feed to one of the two input channels. Feed the signal of the individual musician into the other input of the device used by him. The musician can then use the *[Balance]* control to individually set the volume ratio between the band mix and his own instrument signal. The *[Volume]* control sets the overall volume.

Optimizing the input level

Adjust the level on the signal source from which the device gets the signal (e. g. the mixing console) to about 0 ~ 3 dB in signal peaks. Such an input signal ensures a sufficiently powerful output signal for the headphones connected to the unit. In addition, you prevent a sharp increase of the headphone level at high rising signal levels, that e. g. may be caused by feedback. The device limits the input signal at about +5 dBm.

6 Technical specifications

Audio inputs	2 × XLR / 1/4" TRS jacks (balanced) Input impedance: 15 k Ω Nom. Input level (balanced): 0 dBV Max. input level (balanced): +4 dBV Input level limit (balanced): +5 dB
Headphones output	1 × 3.5 mm phone jack (stereo) Min. load impedance: 16 Ω per channel
Frequency range	30 Hz ... 20 kHz (\pm 2 dB)
Output power	50 mW per channel max. (@ 20 Ω load)
Operating voltage supply	External: via power adapter with 9 V output, minimum 100 mA, polarity: Central connector pin = —, outer connector pin = + Internal: 9 V battery (not supplied) Current consumption: 40 mA max.

Dimensions (W × H × D)	93 mm × 47 mm × 170 mm
Weight	0.4 kg

7 Protecting the environment

Disposal of the packaging material



For the transport and protective packaging, environmentally friendly materials have been chosen that can be supplied to normal recycling.

Ensure that plastic bags, packaging, etc. are properly disposed of.

Do not just dispose of these materials with your normal household waste, but make sure that they are collected for recycling. Please follow the notes and markings on the packaging.

Disposal of your old device



This product is subject to the European Waste Electrical and Electronic Equipment Directive (WEEE). Do not dispose with your normal household waste.

Dispose of this device through an approved waste disposal firm or through your local waste facility. When discarding the device, comply with the rules and regulations that apply in your country. If in doubt, consult your local waste disposal facility.



