

miniwatt

miniwatt N4

The logo for miniwatt, featuring the word "miniwatt" in a white, lowercase, sans-serif font centered within a dark gray rectangular background.

Congratulations and thank you for choosing miniwatt!

miniwatt N4

You are now the owner of one of the world's most innovative and reliable portable DAC headphone amplifiers.

miniwatt N4 is the perfect companion for your computer, using an intelligent power source technology, it precisely reconstructs the analog audio signal you hear with clean and noise-free music background.

N4 combines a DAC and Hi-End Headphone Amplifier into a compact portable unit. Listen to music direct from your computer USB, lets you listen with your headphones from the 1/4" (6.4mm) jack or send your music directly to your stereo from the RCA outputs.

Here's wishing you many happy hours of musical pleasure!

Derek Shek

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1. DESCRIPTION OF THE MiniWatt N4

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Core Chipsets

- DAC - PCM2702
- Amplifier - PCM2702
- Headamp - Max

Specifications

- Headphone Out: 7.2Vp-p; 16Ω--70mW ; 32Ω--130mW
- Frequency response : 10-100kHz/1dB
- THD+N (total harmonics distortion plus noise) : below 0.009%
- PRSS at 217Hz: 80dB
- Line Out: 4.5Vp-p
- 16bit Stereo DAC
- S/N Ratio: 105dB
- Sampling Rate: 31KHz/44.1KHz/48KHz
- Dynamic Range: 100dB
- Input: USB 1.0 / Line In
- Output: Headphone Jack / Line out
- Battery: Lithium
- Dimensions: 7 (W) x 2.8 (H) x 10.6 (D) cm
- Weight (including battery) : 100g
- Charging duration to fully-charged: 5 hours
- Total playing duration at moderate volume: 150 hours

Operation System

- Windows 98SE, ME, 2000 Professional, XP Home/Professional, Windows Vista, Windows 7
- Mac OS 9.1 or later, Mac OS X 10.0 or later

2. SAFETY INSTRUCTIONS

Before using the MINIWATT N4 for the first time, check the warranty void label is valid!

Do not open the case

There are dangerously high voltages and hot tubes inside this equipment. To avoid a burn or the risk of electric shock, never allow anyone except qualified personnel to open the case.

Servicing and maintenance

For reasons of safety, please ensure that servicing, repairs and other modifications to MiniWatt equipment are carried out only by a qualified technician. If your amplifier requires servicing, please ship or take your equipment directly to MiniWatt or to one of our authorized dealers/distributors.

Modifications to MiniWatt equipment

Use "audio grade" components at your own risk. The use of such devices will invalidate the warranty.

2.1. Placement

2.1.1. Location

MiniWatt equipment is designed strictly for use in a dry domestic environment. Do not use it outdoors or in humid environments!

Never place plants or liquid-filled containers on your MiniWatt equipment. Avoid dropping objects or spilling liquids into the case. Should this happen, remove the mains plug immediately and have your amplifier checked by a qualified service technician.

Condensation may form if the amplifier is taken from a cold environment into a warm one. If you do this, wait until the amplifier has reached room temperature and is dry before switching it on.

Avoid installing the unit close to sources of heat such as radiators or anywhere that may be in direct sunlight.

Do not operate the unit near flammable materials, gases or vapours. Avoid areas where there may be heavy accumulations of dust or where the unit may be subject to mechanical vibration.

The logo for 'miniwatt' is displayed in white lowercase letters on a dark grey rectangular background.

Place your MiniWatt amplifier on a stable, even surface.

2.2. Warranty

MiniWatt can only guarantee the safety, reliability and performance of this unit if modifications and repairs are carried out by specialized personnel and when the amplifier is operated in accordance with the instructions contained in this manual

3. GETTING STARTED

3.1. Connecting power

miniwatt N4 is USB and battery powered (intelligent power source selection), and a high quality Lithium battery is included in the unit.

The power source (USB or Battery) is automatically sensed, N4 will be powered by USB bus when it's connected to a computer, and it will automatically switch to battery once the USB cable is unplugged.

3.2. Battery charging

During charging time, the Red LED at the rear panel will be turn on. When the battery is completely full, the light will be extinguished. It will automatically stop charging when it has been fully charged, avoid over charged and extend the battery life.

Charging duration to fully-charged is around 5 hours, and the total playing duration at moderate volume is around 150 hours.

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4. Quick Start

4.1. Used as an all-in-one USB DAC Headphone Amp

- 1) Set the source to internal "Int" in the rear panel of miniwatt N4
- 2) Connect the USB cable from your PC/notebook computer to Miniwatt N4 USB input port.
- 3) Connect a pair of headphones to the front panel output – [Green Phone Jack]
- 4) Adjust the Volume knob and hear a "click sound", Miniwatt N4 is switched on and green LED is illuminated.
- 5) Adjust the LEVEL knob for a comfortable listening level.

Set "Int"

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4.4. Used as a standalone Headphone Amp

- 1) Set the source to internal "Ext" in the rear panel of Miniwatt N4
- 2) Feed audio output of your audio source (iPod, CD/MD/MP3 Player, etc.) into the Miniwatt N4 "Line In" – [Red Phone Jack] by using 3.5-3.5mm audio cable
- 3) Connect a pair of headphones to the front panel output – [Green Phone Jack]
- 4) Adjust the Volume knob and hear a "click sound", Miniwatt N4 is switched on and green LED is illuminated.
- 5) Adjust the LEVEL knob for a comfortable listening level.

Set "Ext"

4.3. Used as a standalone USB DAC

- 1) Set the source to internal "Int" in the rear panel of Miniwatt N4
- 2) Connect the USB cable from your PC/notebook computer to Miniwatt N4 USB input port.
- 3) Connect "Line out" at the rear panel – [Black Phone Jack] to the audio in of your Hi Fi System

Set "Int"

5. FAQ

5.1. Replacing the battery

Lithium battery can last for several years. The replacement should be carried out only by a qualified technician. If your battery requires servicing, please ship or take your equipment directly to MiniWatt or to one of our authorized dealers/distributors.

5.2. Running in

All MiniWatt equipment is subject to a 28-hour soak test at the factory to burn in the units.

miniwatt N4 sounded coarse for the first 12 hours, improving steadily until they had accumulated about 50 hours. An extended break-in is mandatory for good results, at least 100 hours is highly recommended. After 100 hours the drivers lose an edge to the sound in the upper midrange. Improved high frequency resolution and extension is also apparent. Approaching 150 hours, the sound will become stabilized.

6. SPECIFICATIONS AND DIMENSIONS

Specifications

- Headphone Out: 7.2Vp-p; 16 Ω --70mW ; 32 Ω --130mW
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We reserve the rights to alter and improve the specifications in pursuit of better sound.

MiniWatt is a subsidiary of Legato Group Limited.

