

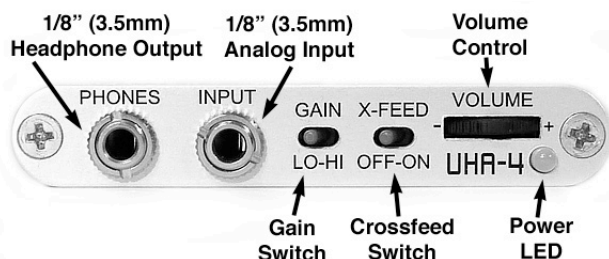
# UHA-4

## Slimline USB DAC and Headphone Amplifier

### User Guide

**Caution:** The UHA-4 amplifier is capable of generating extremely loud signals with most earphones and headphones. Always make sure the volume is at a reasonable and comfortable listening level before starting playback with headphones or earphones. Extended listening at loud volume may cause permanent hearing damage.

#### Front Panel



- 1/8" (3.5mm) Headphone Output** – Connect to any headphones, earphones, or line level input.
- 1/8" (3.5mm) Analog Input** – Connect to any headphone output or line level output.
- Gain Switch** – Gain is -6 dB in "LO" setting, +10 dB in "HI" setting. It is recommended to only use the "HI" setting when the "LO" setting cannot produce sufficient volume with your headphones.
- Crossfeed Switch** – Enables crossfeed (reduces unnatural "inside-your-head" sound). Crossfeed is completely bypassed when off.
- Volume Control** – Press to the right to increment one volume step. Press to the left to decrement. Press and hold to rapidly increment/decrement. Push inward to mute/unmute.
- Power LED** – Power LED is green when the UHA-4 is powered on and the battery has greater than one hour of estimated remaining runtime. Power LED turns red when estimated remaining runtime is less than one hour.

#### Rear Panel



- Power Switch** – Enables power. Battery charging is automatically enabled whenever connected to USB.
- CHRG LED** – Charge LED is orange when battery is charging, off when charging is complete.
- USB Jack** – Connect to a computer using a micro-USB cable for USB audio streaming and battery charging.

#### USB Streaming Configuration

The UHA-4 uses the default USB audio drivers which are included with Windows and Mac OS. In most cases, the UHA-4 is automatically selected as the output sound device upon connection to the computer. It may be required to manually select the UHA-4 as the output device:

In Windows 7, click the **Start Button**, click **Control Panel**, click **System and Maintenance**, then click **Device Manager**. Expand the **Sound, video and game controllers** category and select **USB Audio DAC**.

In Windows XP, select **Start > Settings > Control Panel > Sounds and Audio Devices**. Under the **Audio** tab, select **USB Audio DAC** as the default device under the **Sound playback** tab.

In Mac OS 10.0 or later, select **Sound** in **System Preferences**. On the **Output** tab, select **USB Audio DAC**.

*Note: Do not disconnect the UHA-4 from USB during audio playback. This can cause the music player application or the operating system to become unstable.*

Compatible operating systems are Microsoft Windows 98SE, 98ME, 2000, XP, Vista, Windows 7, Mac OS 9.1 or later, and Mac OS 10.0 or later.

#### Battery Charging

The battery is charged via the USB connection. Charging begins automatically when the UHA-4 is connected to USB and the battery voltage has dipped below a programmed threshold. The UHA-4 on/off switch does **not** need to be on while the battery is charging. During charging, the CHRG LED remains solid orange. Charging is complete when the CHRG indicator turns off.

#### Battery Replacement

The Lithium-ion battery is rated for a lifetime of several hundred complete charge and discharge cycles. After several years of use, the battery may begin to lose its ability to recharge completely. It can be replaced with an equivalent battery (iPod Mini battery, 500 mAh minimum). Send an email to [customer\\_support@leckertonaudio.com](mailto:customer_support@leckertonaudio.com) for instructions on replacing the battery.

**WARNING:** Use only the recommended replacement battery.

#### Technical Specifications

- Dynamic range: 108 dB A-weighted with analog input (100  $\Omega$  load), 93 dB A-weighted with USB input
- Up to 40 mW into 32  $\Omega$ , <1.0% THD
- Up to 50 mW into 100  $\Omega$ , <1.0% THD
- Up to 15 mW into 300  $\Omega$ , <1.0% THD
- THD, A-wtd: <0.025%, 1 mW into 32  $\Omega$
- 10 dBV max output level into high-impedance load (>600 Ohms)
- Frequency response: 13 Hz to 22.5 kHz, +/- 1dB
- Dimensions: 3.3" x 2.75" x 0.47"
- 24 hours typical runtime on full battery
- 32kHz, 44.1kHz, and 48kHz sample rates supported for USB audio streaming (16-bit)
- Enclosure: extruded aluminum, anodized

#### Full Two-Year Warranty

The UHA-4 comes with a Full 2-Year Warranty which covers the cost of repairs (parts and labor) within the first six months after original purchase date. If Leckerton Audio is unable to repair your amplifier, a replacement will be provided. The warranty does not cover damage caused by misuse, neglect, abuse, or failure to follow the operation instructions. The owner is responsible for the cost of shipping the device to Leckerton Audio for repair service. For information on obtaining warranty or repair service, send an email to [repairs@leckertonaudio.com](mailto:repairs@leckertonaudio.com).