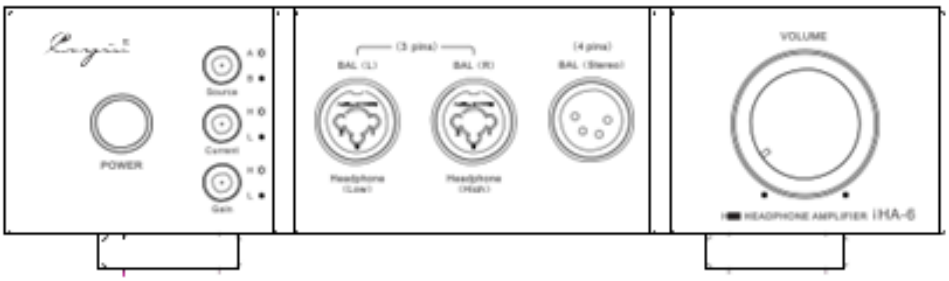
Cayin®



iHA-6

高保真耳机放大器

HIFI HEADPHONE AMPLIFIER

Audiophile Headphone Amplifier

使用說明書

User Manual

We want to thank you sincerely for choosing iHA-6 HiFi Headphone Amplifier. We have prepared this user manual to help you understand the features and get familiar with the operation of the amplifier. We suggest all customers read through this manual before they start to use the device.

Attention

- Please make sure the serial number on the package, chassis and warranty card are intact and identical. In case of damage, missing or tempered on warranty card or serial number, Cayin reserves the right to refuse warranty service for the machine.
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- The user manual is a documentation of the product based on the specification at the time of print. Cayin reserves the right to change product specification without prior notice.

Package Content

Please examine the product package before you open it, the package should be free from any physical damage or water stain. You should find the following items when you open the package:

1. IHA-6 Headphone Amplifier (1 unit)
2. User Manual (1 copy)
3. Replacement Fuss (2 units)
4. Warranty Card (1 copy)
5. Power Cord (1 piece)

Attention: the product package should include only the items in the list.

Design Features

- Quadruple amplifier circuit with full discrete components and fully-balanced circuit design.
- Independent power supply to Left and Right channel, reduce power interference in left and right channel.
- Innovative Current and Gain control to maxima the compatibility with high or low impedance dynamic headphones and the latest planar headphones.
- Two sets of audio inputs: one for RCA single-end and one for XLR balanced audio.
- Four sets of headphone outputs: two sets of 6.3mm (High/Low impedance) TRS, 1 set of twin 3-pins XLR (balanced) and 1 set of 4-pins XLR (balanced).
- Fashionable design, compact and minimal, can easily blend into SOHO or household environment.

Technical Highlight

- Push-pull amplification design with high power ultra-low on-resistance power MOSFET at power amplification stage, offers excellent dynamic performance.
- Toshiba audio-grade FET were used in differential input circuit, to ensure common-mode noise and high quality audio performance
- Premium grade ALPS 4 channel rotary potentiometer imported from Japan directly, durable, reliable and reputable audio quality.
- Extensive protection to amplifier and headphone through comprehensive protection circuit including output DC offset voltage, delay mute when power up, and noise compensation when power down.
- In-house designed premium grade toroidal transformer with low magnetic leakage and high power efficiency.
- High capacitance filter capacitors were used (in excess of 40000uF)
- Solid chassis with aluminum alloy and sand blast finishing, can eliminate exterior interference effectively.

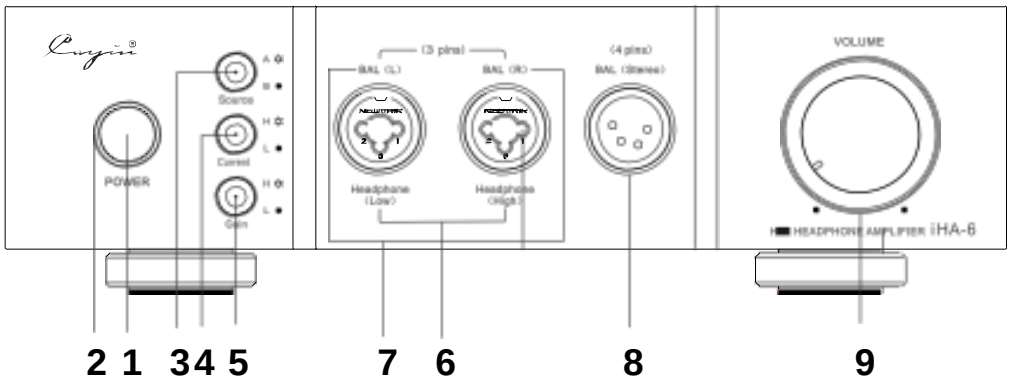

Diagram 1：iHA-6 Front Panel illustration

Front Panel Functional Description

1. POWER On/Off
   Turn on and off. Press Down the button to turn on the amplifier, Press again the button will resume to original position and the amplifier will power off.
2. Power indicator, indicate the working status of the amplifier
   a. Indicator flashing: in the process of initialization
   b. Indicator always on: machine in regular operation
   c. Indicator flashing rapidly: machine malfunction
3. Source：When LED lighted up, the amplifier is using Source A, and this is responsible to the AUX (A) input at the back panel. When the LED is off, the amplifier is using Source B, and that is responsible to the BAL (B) input at the back panel.
4. Current： When LED lighted up, the amplifier is at “H” model, meaning the amplifier is operated at high Quiescent Current (static current). When LED is off, the amplifier is at “L” mode, meaning the amplifier is operated at low Quiescent Current (static current).
5. Gain: When LED lighted up, the amplifier is at “H” mode, meaning the amplifier is operated at high gain. When LED is off, the amplifier is at “L” mode, meaning the amplifier is operated at low gain.
6. Single-ended Headphone connector
   a. “Low”: can work with headphone terminated with 6.3mm phone connector, recommended for low impedance headphones.
   b. “High” can work with headphone terminated with 6.3mm phone connector, recommended for high impedance headphones.
7. Dual 3 pins Balanced Headphone connectors
   Can work with headphone terminated with TWO 3-pins XLR connectors, with the

Left channel XLR plug into BAL (L) connector, and right channel XLR plug into BAL (R) connector.

8. 4 pins Balanced Headphone connector
   Can work with headphone terminated with a 4-pins XLR connector.
9. Volume Control
   Control the volume of the amplifier, turn clockwise to increase volume, turn anti-clockwise to decrease volume.

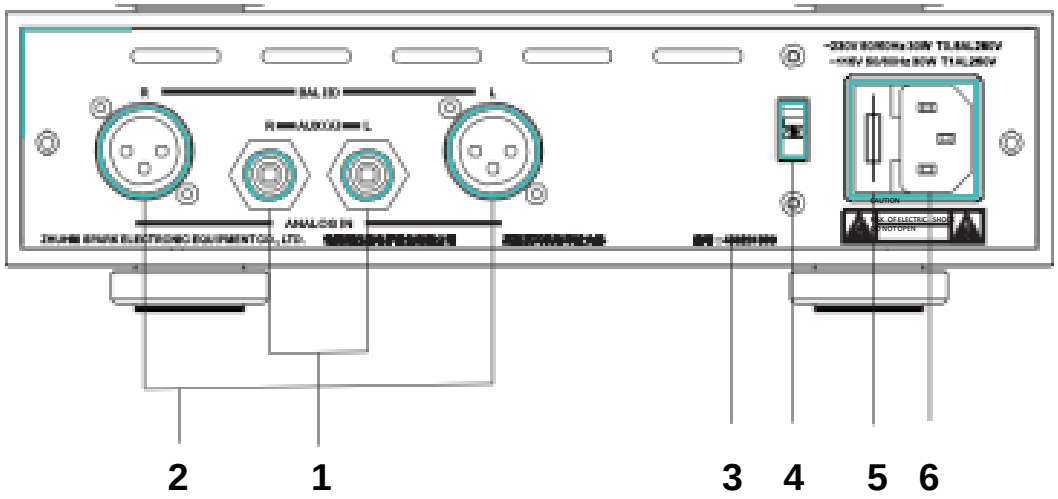

Diagram 2：iHA-6 Rear Panel illustration

Rear Panel Functional Description

1. Single-ended connector (RCA)
   Connect a single-ended audio input to the amplifier, please make sure the left and right channel is connected correctly.
2. Balanced connector (XLR)
   Connect a balanced audio input to the amplifier, please make sure the left and right channel is connected correctly.
3. Serial number
   An unique number for each machine, you need to fill this number onto the product warranty card
4. AC voltage selector
   “230”: recommended for 220V-240V power supply voltage
   “115”: recommended for 110V-120V power supply voltage
   Default setting is 230V

5. FUSE
   If in case you need to change the fuse, please resort to replacement fuse with same specification with the original.
6. Power input connector

Note: Please make sure the AC Voltage Selector is setup correctly for your local power supply voltage. Incorrect input voltage setting will cause damage to the machine or might even lead to serious household accident, Cayin reserves the right to refuse service or responsibility on related instances.

Preparation

1. Connect Power source
   a. Verify that the AC input voltage selector has been set correctly for your local power supply voltage
   b. Plug in a power cord and connect to a AC power outlet

Connection Diagram (to be provided)

2. Connect to Audio Source
   Connect your audio source to the amplifier by an appropriate audio cable. You can choose either BAL or AUX input according to the connection facilitated by your audio source equipment (selectable from the “Source” button on the front panel). You can connect both BAL and AUX if so desired.
   a. When connecting a RCA (single-ended) audio cable, please connect the Right channel to the Red connector of the AUX (A) connection, and then the Left channel to the White connector, connect the other side of the audio cable to the RCA output of your source equipment (DAC or CD player)
   b. When connect a XLR (Balanced) audio cable, insert the male connector to the BAL (B) connection, please make sure the Left and Right channel are connected properly. Please refer to the following diagram for detail.

Connection Diagram (to be provided)

3. Connect to Headphone
   a. Single-ended Headphone
      Connect the 6.3mm phone connector of your headphone to the headphone output (connection “6”) on front panel. You can select either Headphone

"Low" or Headphone "High" according to the impedance of your headphone. Adjust volume to appropriate level before you enjoy music from the amplifier.

b. Balanced Headphone with 3 pins XLR
Connect the 3pin XLR connector of your headphone to the headphone out (connection "7") on front panel, please make sure the Left and Right channel are connected properly. Adjust volume to appropriate level before you enjoy music from the amplifier.

c. Balanced Headphone with 4 pins XLR
Connect the 4pin XLR connector of your headphone to the headphone out (connection "8") on front panel. Adjust volume to appropriate level before you enjoy music from the amplifier.

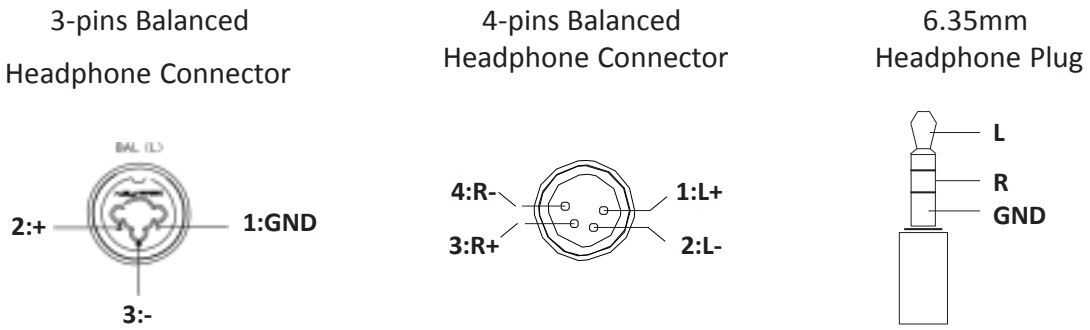

Diagram 6：Headphone Pin Definition

Note:

- If your want to connect a 3.5mm terminated headphone to the amplifier, you need a 3.5mm to 6.3mm adapter (not included in the package)
- Listening through headphones at a high volume for extended periods of time can result in hearing impairments.
- Please do not use headphone when you are in dangerous environment
- Please do not use mono (TS) phone plug with this amplifier as this might cause serious damage such as short circuit in the amplifier.

Basic Operation

1. Please make sure the AC Voltage Selector is setup correctly for your local power supply voltage. When selector is set at “230” (as displayed on the selector), the amplifier is set to work with 220V-240V power supply voltage. When selector is set at “115” (as displayed on the selector), the amplifier is set to work with 110V-120V power supply voltage.
2. Confirm all cables are properly connected and functional
   - Set the volume control at the front panel to the lowest position
   - Press down the Power button, the amplifier will start up, power indicator will flash as the amplifier entered initialization process
   - Indicator stay on, the amplifier is ready for operation.

   Note: Please do not remove any audio cable when the amplifier is normal operation, this might cause damage to the amplifier or other associated equipment.
3. Play music at your source equipment, put on your headphone and turn up the volume, you can enjoy your music now.

Safety Precautions

1. Please make sure the AC Voltage Selector is setup correctly for your local power supply voltage.
2. Unplug the power cord if you are not going to use the amplifier for an extended period of time, and keep the machine in proper condition
3. Please handle with care, avoid tempering to the machine
4. The amplifier will not functional appropriately if moistures has developed inside the amplifier, please avoid operate the machine until internal moistures has cleared. Moistures can be caused
   - Placing the amplifier at a location when heater or steamer has just turned on;
   - Moving the machine from a cold environment to a warm location;
   - Moving the machine from a chilled (e.g., air conditioned room) to a hot and humidity environment.
5. Do not attempt to service this product yourself. Opening the cover may expose you to electric shock or other hazards.
6. The amplifier must be keep away from water dripping or water splitting, do not place any object filled with liquid such as vases on the top or around the amplifier.
7. Do not attempt to disassembly the machine, all service and maintenance must be

conducted by authorized service technician.

8. Please disconnect power cable before you attempt to clean the machine. Please use soft clean cloth to wipe clean the chassis, do not use volatile solution or corrosive cleaning product.
9. Place the amplifier at a flat surface, make sure all four supporting tips are evenly loaded.
10. Do not place any flammable material on the amplifier
11. Do not operate the amplifier under direct sunlight or high temperature, will cause serious deviation or even damage to the electronic components.
12. The machine will become hot during operation, Please keep the amplifier at a well-ventilated environment and do not cover the amplifier with anything.
13. Please Contact your Cayin agent or retail shop, or our after-sales service if the machine is not working properly.

Trouble Shooting

To ensure the amplifier will function at premium condition, please follow the basic operation and safety precaution as advice. Improper operation might lead to malfunction, if you run into trouble as stated below, please check before you panic. Sometime the problem are related to associated equipment or cables, please also check and make sure everything is in proper condition. Please contact your Cayin agent or retail shop, or our after-sales service if the problem cannot be rectified.

Problem		Cause	Remedy
No sound from headphone after power on	Power Indicator is OFF	Power is not connected	Make sure power cable is properly connected to a power outlet and there is proper power supply from the outlet.
		Main fuse is out	Replace fuse with same specification with the original.
	Power Indicator is ON	No signal input	Make sure you have selected the correct source from the front panel Check if the source equipment is functioned properly.
		Audio cable has not connected properly	Connect audio cable properly
		Headphone has not connected properly	Connect headphone properly
		Volume at lowest position	Turn up the volume control to appropriate level

Specification

Power Rating	Single-Ended Headphone: 1100mW+1100mW (High Current, RMS,RL=32Ω) 2200mW+2200mW (Low Current, RMS,RL=32Ω)
	Balanced Headphone: 5000mW+5000mW (High Current, RMS,RL=32Ω) 7000mW+7000mW (Low Current, RMS,RL=32Ω)
Frequency Respond	10Hz~80kHz (-0.5dB)
THD+N	≤0.02%(1kHz, RL=32Ω)
S/N	Single-Ended Headphone : ≥105dB (A weighted) Balanced Headphone : ≥110dB (A weighted)
Input Sensitivity	620mV（High Current, High Gain）
Headphone Output	6.35mm TRS x 2 Dual 3pins XLR (Balanced) 4 pins XLR (Balanced)
Max. Power Consumption	30W
Dimension	240mm x 252mm x 69mm (WxDxH)
Weight	Approx. 3.8kg