

H6n六路高功率耳机放大器

H6n 6 CHANNEL HEADPHONE AMPLIFIER

用户手册

Owner's Manual

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PLEASE READ CAREFULLY BEFORE PROCEEDING

* Please keep this manual in a safe place for future reference.



WARNING

Always follow the basic precautions listed below to avoid the possibility of serious injury or even death from electrical shock, short-circuiting, damages, fire or other hazards. These precautions include, but are not limited to, the following:

Power supply/Power cord

- Only use the voltage specified as correct for the device. The required voltage is printed on the name plate of the device.
- Use only the included power cord.
- Do not place the power cord near heat sources such as heaters or radiators, and do not excessively bend or otherwise damage the cord, place heavy objects on it, or place it in a position where anyone could walk on, trip over, or roll anything over it.

Do not open

- Do not open the device or attempt to disassemble the internal parts or modify them in any way. The device contains no user-serviceable parts. If it should appear to be malfunctioning, discontinue use immediately and have it inspected by qualified ALCTRON service personnel.

Water warning

- Do not expose the device to rain, use it near water or in damp or wet conditions, or place containers on it containing liquids which might spill into any openings.
- Never insert or remove an electric plug with wet hands.

If you notice any abnormality

- If the power cord or plug becomes frayed or damaged, or if there is a sudden loss of sound during use of the device, or if any unusual smells or smoke should appear to be caused by it, immediately turn off the power switch, disconnect the electric plug from the outlet, and have the device inspected by qualified ALCTRON service personnel.
- If this device should be dropped or damaged, immediately turn off the power switch, disconnect the electric plug from the outlet, and have the device inspected by qualified ALCTRON service personnel.



CAUTION

Always follow the basic precautions listed below to avoid the possibility of physical injury to you or others, or damage to the device or other property. These precautions include, but are not limited to, the following:

Power supply/Power cord

- Remove the electric plug from the outlet when the device is not to be used for extended periods of time, or during electrical storms.
- When removing the electric plug from the device or an outlet, always hold the plug itself and not the cord. Pulling by the cord can damage it.

Location

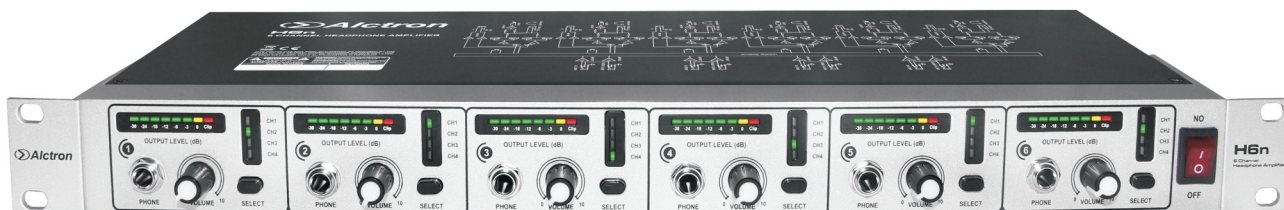
- Before moving the device, remove all connected cables.
- Do not expose the device to excessive dust or vibrations, or extreme cold or heat (such as in direct sunlight, near a heater, or in a car during the day) to prevent the possibility of panel disfiguration or damage to the internal components.
- Do not place the device in an unstable position where it might accidentally fall over.
- Do not use the device in the vicinity of a TV, radio, stereo equipment, mobile phone, or other electric devices. Otherwise, the device, TV, or radio may generate noise.

Water warning

- Before connecting the device to other devices, turn off the power for all devices. Before turning the power on or off for all devices, set all volume levels to minimum.

Handling caution

- Do not insert your fingers or hand in any gaps or openings on the device.
- Avoid inserting or dropping foreign objects (paper, plastic, metal, etc.) into any gaps or openings on the device. If this happens, turn off the power immediately and unplug the power cord from the AC outlet. Then have the device inspected by qualified ALCTRON service personnel.
- Do not rest your weight on the device or place heavy objects on it, and avoid use of excessive force on the buttons, switches or connectors.



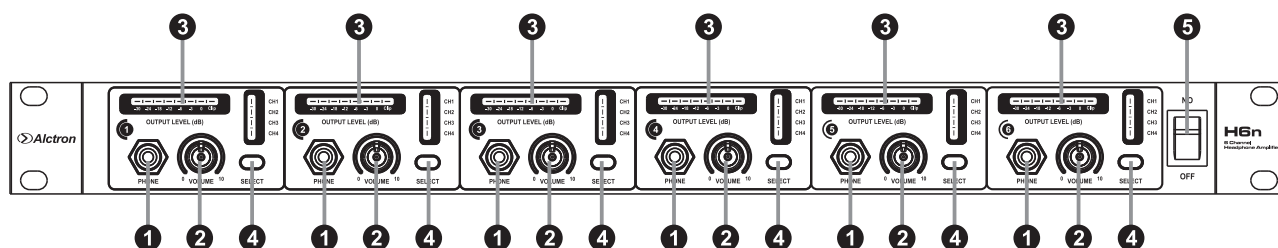
With extensive switching functions, extreme efficiency, and unmatched sound quality, the ultra-versatile H6n is an univesal 6-channel multi-purpose headphone amplifier - perfect for the most demanding professional stage and studio applications.

FEATURES

- Six totally independent stereo high-power headphone amplifier channels in a convenient single rack package-an ingenious, easy to operate unit allowing a maximum variety of useful monitoring.
- Input Source Select switches and Headphone 1/4" TRS stereo outputs on each channel, and 4 independent stereo input sections (each with servo-balanced L&R 1/4" TS jacks) enable independent selection of any of the 6 stereo signals for each headphone amplifier channel. This allows selecting from up to 4 completely independent monitor signals for each set of headphones connected to the H6 for optimum monitoring flexibility.
- Separate Volume control for each channel adjusts the level to outputs.
- No-compromise circuit design, stringently selected tight-tolerance components and low-noise, extremely linear or amps for reference-quality, transparent audio with maximum headroom even at extremely high headphone volume levels
- High-quality, rugged construction for maximum reliability.
- Shelded internal dual regulated power supply with ~115V (60Hz) or ~230V (50Hz) select switch and fused IEC power cord connector.

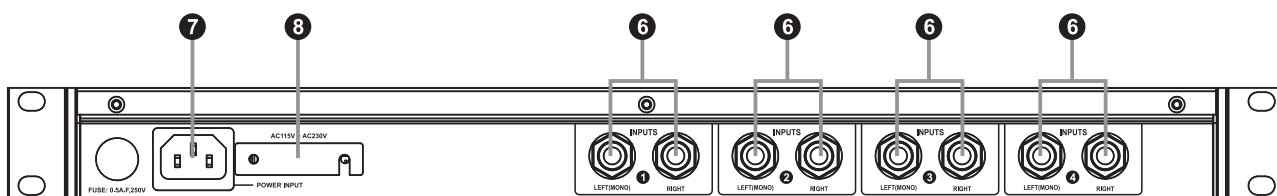
FRONT & REAR CONNECTIONS

FRONT PANEL



1. PHONE: six stereo 1/4" output jacks for connecting stereo headphones.
2. VOLUME: each channel features a rotary volume pot for variable adjustment of the desired output level.
3. OUTPUT LEVEL: the 8-digit output level display informs you about signal level of each individual channel and displays it in the range between -30 and 0dB. When the clip LED lights up, lower the amount of gain applied to the individual channels to avoid distortion.
4. SELECT: each channel features a button selector which allows you to select any of the 4 stereo input source signals to monitor. When select the related channel (the related channel LED lits up), when press the button and LED not lit, it indicating all channels are closed and headphones are in mute situation. When next time running it keeps the last situation you used (Power off memory function), it is very convenient.
5. ON/OFF: to turn the unit on or off, press the upper or lower portion of this button as indicated. The LED in ON/OFF switch will lit when turn on the unit. Before turning on this unit, verify connection to proper voltage AC source, check all connections and turn down the level equipment connected to the outputs.

REAR PANEL



6. INPUTS: four stereo-pair balanced, line level 1/4" TS jack for 4 stereo (L & R) input signals. If only the LEFT (MONO) channel input is used, the mono signal will be provided automatically at both the left and right sides of the PHONE (2) .

7. POWER INPUT: Standard IEC power cord receptacle used to connect the AC power to your unit. It features a built-in fuse holder for a 5x20mm, 0.5A/250V slow-blow fuse. If the fuse continuously blows, shut off the unit and have it serviced by qualified service personnel.

8. AC 115V-AC230V: before plugging in the power cord, check to see that the unit is set for the proper voltage for your area: 115v(60hz) or 230V (50hz).

INSTALLATION

To ensure of enjoyment from your Alctron H6n, please read and understand this manual thoroughly before using the unit.

INSPECTION

Your H6n was carefully packed at the factory in packaging designed to protect the units in shipment. Before installing and using your int, carefully examine the packaging and all contents for any signs of physical damage that may have occurred in transit.

(Note: Alctron Systems is not responsible for shipping damage. If the unit is damaged, do not return to us, but notify your dealer and the shipping company immediately to make a claim. Such claims must be made by the consignee in a timely manner.)

CONTENTS:

Instruction manual

H6n (verify that the unit's serial number is same as shown on shipping carton)

AC Power cord

RACK MOUNTING

The H6n fits into one standard 19" rack unit of space. Parts of the unit can become very warm during use. This is normal during operation. Care should be taken to ensure that there is enough space around the unit for cooling (at least 12" or 30cm). Do not place the H6n on high temperature devices such as power amplifiers, etc., or the unit may overheat in operation. Also, do not place the unit on speakers as this may cause them to move and/or fall due to speaker vibrations.

Although the units chassis is shielded against radio frequency (RF) and electromagnetic interference (EMI), extremely high fields of RF and EMI should be avoided.

POWER CONNECTION

The H6n has an internal power supply and is designed to operate from an external AC source. Power requirements for electrical equipment differ from area to area. Be sure to confirm that the voltage selected by the voltage selector switch on the back panel is proper for your area (120VAC/60 Hz or 230VAC/50Hz) per the information below:

Europe (except UK): 230V, 50Hz

UK and Australia: 240V, 50Hz

USA and Canada: 120V, 60Hz

For other areas, please check with local authorities.

When ready to operate, plug the AC cord into the power source. Make sure that the unit is turned off before connection to the ac power source to avoid possible loud transients which can damage your speakers or your ears, especially when monitoring with headphones.

APPLICATIONS

Connect a stereo (L&R) Program source (2*1/4" plugs) to the rear of the H6n using one of the available 4* stereo INPUT (6) pairs on the rear panel.

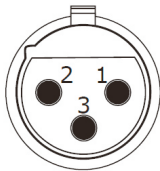
Connect a set of headphones using a stereo 1/4" cable to any of the HEADPHONE OUTPUTS (1) on the front panel of the H6n.

Select the source signal from the rotary SELECTOR (4) switch for the channel in use. Set to an appropriate level for monitoring. (Note: If only the LEFT (MONO) channel input is used, the mono signal will be provided automatically at both the Left and Right sides of the HEADPHONE (1) outputs.)

Since the H6n offers 6 independent channels, you can have 6 individual mixes for six musicians with a single unit. In studio recording applications, you can configure sub-groups, aux sends or single outputs of your audio mixer to feed signals independently to the H6n. This enables each musician to receive a specific configuration of instruments of their choice in their headphones.

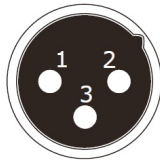
AUDIO CONNECTION

Balanced use with XLR connectors



input

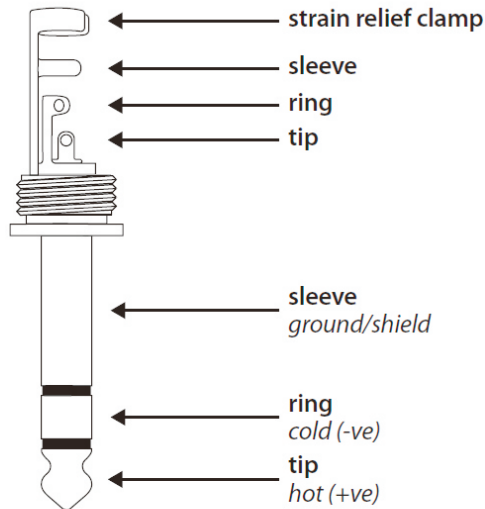
1 = ground/shield
2 = hot (+ve)
3 = cold (-ve)



output

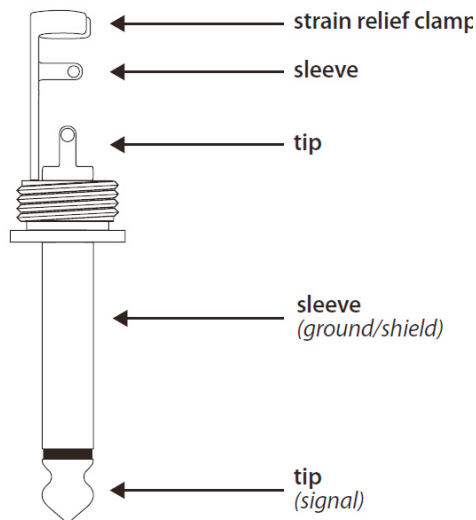
For unbalanced use,
pin 1 and pin 3
have to be bridged

Balanced 1/4" TRS connector



For connection of balanced and unbalanced plugs,
ring and sleeve have to be bridged at the stereo plug.

Unbalanced 1/4" TS connector



SPECIFICATIONS

Audio inputs

Connectors: 1/4"TS

Type: unbalanced Impedance: 47K Ω

Max output: 12dB

Headphone power amplifier outputs

Max output level: 350mV@47 Ω

Output impedance: 22 Ω

Gain: 12.5dB

Distortion, frequency response, S/N ratio & crosstalk

Distortion: 0.02%

Frequency response: 20hz-20khz

S/N ratio: >80dB

Crosstalk rejection: >68dB@1khz; 20dB input

Function control

Volume: per channel, variable

Signal selector: per channel, variable

Power supply

AC requirements: selectable, 100-120V AC, 200-240V AC, 50-60HZ

Fuse: 100-120V AC : 1000mA ; 200-240V AC : 500mA

Power cord connector: standard IEC receptacle with built-in fuse holder

Physical

Size: 44.5mm * 482.6mm * 217mm

SERVICE

If your H6n 6 Channel Headphone Amplifier needs servicing, follow these instructions.

1. Ensure the problem is not related to operation error or external system devices.
2. Keep this owner's manual. We don't need it to repair the unit.
3. Pack the unit in its original packaging including end card and box. This is very important. If you have lost the packaging, please make sure you have packed the unit properly. ALCTRON is not responsible for any damage that occurs due to non-factory packing.
4. Ship to the ALCTRON tech support center or the local return authorization.

请在操作试用前，首先仔细阅读下述内容

*请将本说明书存放在安全的地方，以便将来随时参阅



警告

为了避免因触电、短路、损伤、火灾或其它危险可能导致的严重受伤甚至死亡，请务必遵守下列基本注意事项。这些注意事项包括但不限于下列情况：

电源/电源线

- 只能使用本设备所规定的额定电压。所要求的电压被印在本设备的铭牌上。
- 只能使用附带的电源线。
- 请勿将电源线放在热源如加热器或散热器附近，不要过分弯折或损伤电源线，不要在其上加压重物，不要将其放在可能被踩踏引起绊倒或可能被碾压的地方。

当意识到任何异常情况时

- 若电源线出现磨损或损坏，使用设备过程中声音突然中断或因此而发出异常气味或冒烟，请立即关闭电源开关，从电源插座中拔出电源线插头，并请有资格的爱克创维修人员对设备进行检修。
- 若本设备发生摔落或损坏，请立即关闭电源开关，从电源插座中拔出电源线插头，并请有资格的爱克创维修人员对设备进行检修。

关于潮湿的警告

- 请勿让本设备淋雨或在水附近及潮湿环境中使用，或将盛有液体的容器放在其上，否则可能会导致液体溅入任何开口。如果任何液体如水渗入本设备，请立即切断电源并从AC电源插座拔下电源线。然后请有资格的爱克创维修人员对设备进行检修。
- 切勿用湿手插拔电源线插头口

请勿打开

- 请勿打开本设备并试图拆卸其内部零件或进行任何方式的改造。本设备不含任何用户可自行修理的零件。若出现异常，请立即停止使用，并请有资格的爱克创维修人员进行检修。



小心

为了避免您或周围他人可能发生的人身伤害、设备或财产损失，请务必遵守下列基本注意事项。这些注意事项包括但不限于下列情况：

电源/电源线

- 当准备长期不使用本设备或发生雷电时，请从电源插座中拔出电源线插头。
- 当从本设备或电源插座中拔出电源线插头时，请务必抓住插头而不是电源线。直接拽拉电源线可能会导致损坏。

安放位置

- 移动本设备之前，请先拔下所有连接的电缆。
- 为了避免操作面板发生变形或损坏内部组件，请勿将本设备放在有大量灰尘、震动、极端寒冷或炎热(如阳光直射，靠近加热器或烈日下的汽车里)的环境中。
- 请勿将本设备放在不稳定的地方，否则可能会导致突然翻倒。
- 请勿在电视机、收音机，立体声设备，手机或其他电子设备附近使用本设备。否则，本设备、电视机或收音机可能会产生噪音。

连接

- 将本设备连接到其它设备之前，请关闭所有设备的电源开关。在打开或关闭所有设备的电源开关之前，请将所有音量都调到最小。

小心操作

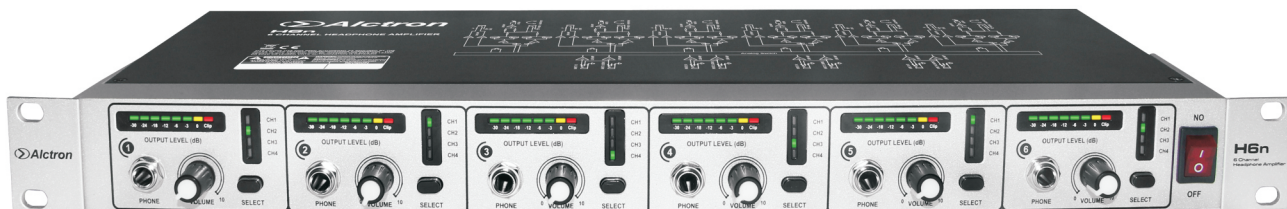
- 请勿将手指或手插入本设备的任何间隙或开口。
- 请避免在设备上的任何间隙或开口插入或落进异物(纸张、塑料、金属等)。万一发生这种情况，请立即关闭电源开关，从AC电源插座中拔出电源插头。然后请有资格的爱克创维修人员进行检修。
- 请勿将身体压在本设备上或在其上放置重物，操作按钮，开关或插口时要避免过分用力。

经常动态接触的零部件，如开关、控制旋钮、接口等，随着时间的推移，其性能会逐渐下降。请让有资格的爱克创维修服务人员为您更换有缺陷的零部件。

当不使用本设备时，请务必关闭其电源。

XLR型插口应按下图所示进行布线（IEC60268标准）：针1：地线，针2：热线（+）和针3：冷线（-）。

对于由于不正常使用或擅自改造本设备所造成的损失、数据丢失或破坏，爱克创 不负任何责任。



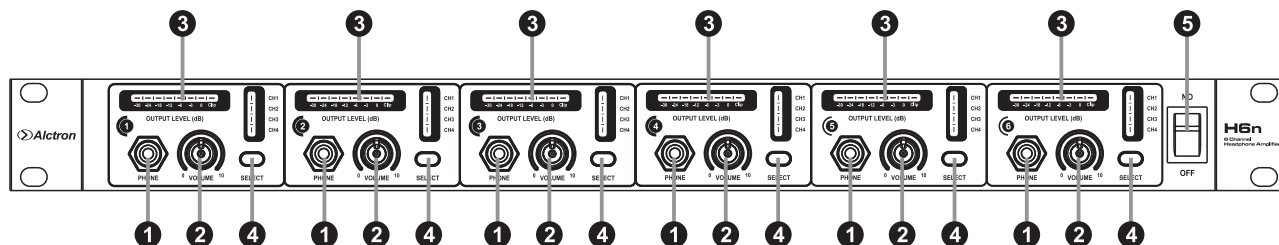
H6n是一款6路高功率耳机放大器，几乎适用于所有耳机。具有4路立体声输入。每路设有独立的音量电位器，用来控制耳机的输出电平。每路设有一个开关，通过该选择开关可以单独监听任一路输入信号，并且具有开断功能，可以在任何情况下关掉耳机信号。

特征

- * 六路完全独立的立体声高功率耳机放大器线路安装在一个方便独立的外壳内，巧妙的，易操作的设计使得产品功能多样化。
- * 每个通道都有输入源选择开关和耳机输出。4组独立的立体声输入（每组都有两个1/4英寸TS接口）能够方便的通过输入信号源开关分配到每个耳机输出。友好而又易于操作的界面能够使监听或线路分配的任务变得十分简单高效。
- * 每路设有独立的音量电位器，用来控制耳机的输出电平。
- * 采用精密的电路设计和精良的电子元件，使H6n具有低噪声和高稳定性等特点。
- * 高品质，坚固的结构给您最大的保证。
- * 内部有双电压供给115V (60Hz) ~230V (50Hz)选择开关和带IEC熔断保护器的电源接口。

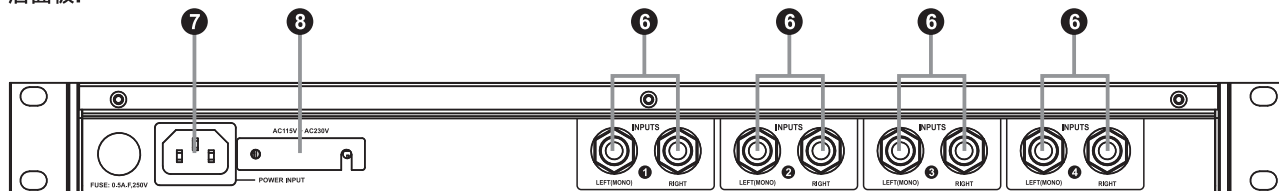
前后面板连接

前面板:



1. PHONE：前面板上拥有六个立体声耳机输出接口。
2. VOLUME：每一个通道都有一个可调的输出音量旋钮，通过这个旋钮，您可以控制耳机输出的音量。
3. OUTPUT LEVEL：8段式电平表能够让您知道每个通道的输出电平，电平表的范围从-30-0dB。在信号过大的时候通过相应的调节能够避免信号的失真。当发生削波失真时，CLIP灯会亮起。
4. SELECT：每个输出通道的选择按键都允许您在输入1-4之中选择任意一路信号来进行监听。使用时只需要按下按键选择相应通道（相应通道指示灯会被点亮），当按键按下并且所有通道指示灯都熄灭时，此时所有通道都被关闭耳机处于静音状态。在下次启动时会保持您最后一次使用的状态（即断电记忆功能），十分便利。
5. ON/OFF：开关本产品，只需要将电源开关拨至靠上或靠下位置。并且开关里的指示灯会被点亮/灯灭。在打开电源之前，请务必检查与电源的连接，并且把所有的音量旋钮调至最小。

后面板:



6. INPUTS: 后面板拥有四组（八个）单声道输入接口，每组接口分别是此通道的左右两个声道。如果输入只有左声道，那么单声道信号将会被分配到耳机输出的左右声道。

7. POWER INPUT: 使用标准的IEC电源线连接电源与您的耳机放大器。内置缓动式熔断器的规格为5*20mm，0.5A/250V。如熔断器熔断，请关闭设备，询问当地专业的维修服务商。

8. 在您试图将电源线连接到本产品之前，请确认电源电压选择开关上显示的数字是您当前地区的电压：~115V（60Hz）或者~230V（50Hz）。

安装指示

确保您能很好的使用我们这款产品，请在使用之前阅读并且理解使用手册。

为了确保您的H6n能够长久使用，请您在使用前阅读此手册。

为了保护产品，您的H6n在出厂前经过了仔细的包装。在您安装和使用设备之前，请仔细的检查外包装和包装内物品有没有任何在运输过程中造成的物理性损伤的痕迹。（提示：Alctron对运输中所造成的损伤概不负责。如果您的设备损伤了，请立即与您的采购商或物流公司联系）。

目录：

安装手册

交流电压电源

机架安装

H6n能够被安装在19英寸规格的机架中。在使用过程中，部分可能会变得很热，这是非常正常的。请确保您的设备有足够的散热空间（最少12英寸或30cm）。请不要把H6n放在某些会产生高热量的设备上，如后级放大器等，否则设备可能在运行中过热。

也不要将设备放在扬声器等会导致震动跌落的设备上。虽然本产品有着对无线电，电磁干扰的良好屏蔽，但也不要将其置于强干扰的环境中。虽然机箱对于射频和电子干扰有一定屏蔽作用，但是还是请远离这些高射频和电子干扰器。

开关连接

H6n有一个内部开关，用于操作外部交流电源。开关对于不同区域的电子设备的要求不同。请确保后挡板电压选择开关选择的电压是适合你所在的区域的(120VAC/60 Hz or 230VAC/50Hz)每个区域的信息如下：

欧洲（除了英国）：230V，50Hz

英国和澳大利亚：240V，50Hz

美国和加拿大：120V，60Hz

关于其他那些区域，请跟当地实际的来。

当您准备好去操作的时候，请将设备连上电源。在您接通电源前请确保这个设备是关掉的，避免这些噪音可能会对您的扬声器或者耳朵造成伤害，尤其是您带着耳机的时候。

运用

将立体设备插入后挡板上的1/4"接口。

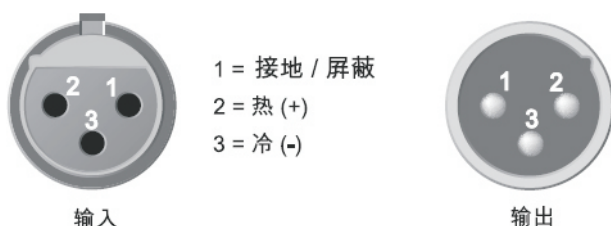
在H6n的前挡板上用一个立体1/4"的耳机线来连接耳机和任意一路的耳机输出电平(1)。

输入信号源选择开关。可以选择收听自己想要的声音。（如果输入只有左声道，那么单声道信号将会被分配到耳机输出的左右声道）。

由于H6n有6个独立的通道，可以同时供6个人使用。在工作室录音的时候，混频器将唱歌的声音和背景音乐融合在一起了，H6n的6个独立信号通道将声音分离出来，每个人通过耳机都可以听到他们想要的声音。

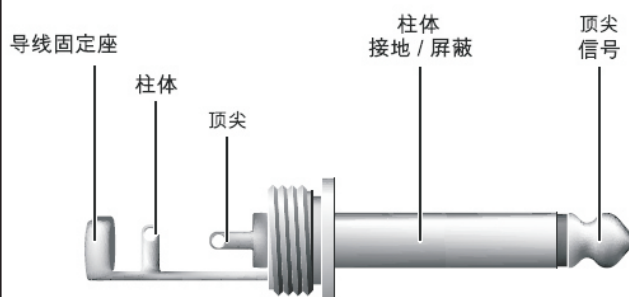
音频连接

卡依插头的平衡式连接

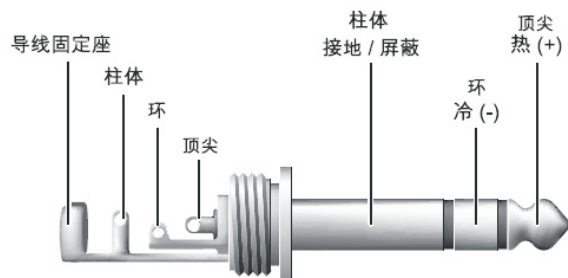


不平衡运行时PIN1和PIN3必须接通

不平衡式6.3 mm 单声道接驳插头



平衡式6.3 mm 立体声接驳插头



从平衡运行到不平衡运行时立体声接驳插头的环和柱体必须接通。

产品参数

音频输入

接口：1/4"TS
形式：非平衡
阻抗：47K Ω
最大输出：12dB

耳机放大器输出

最大输出功率：350mV@47 Ω
输出阻抗：22 Ω
增益：12.5dB

失真度，频率响应，信号比和信号串扰

失真：0.02%
频率响应：20hz-20khz
信噪比：>80dB
串扰屏蔽：>68dB@1khz; 20dB 输入

控制旋钮

音量：每个通道，可调
信号选择：每个通道，可调

电源

交流电规格：可选，100-120V AC, 200-240V AC, 50-60HZ
熔断保护器：100-120V AC：1000mA；200-240V AC：500mA
电源接口：带有熔断器的标准IEC接口

物品规格

尺寸：44.5mm * 482.6mm * 217mm

保修

如果您的H6n 六路耳机放大器需要维修，请按照以下说明操作。

1. 请确保不是因为操作不当或外部设备所造成。
2. 请保存好我们的说明书，返修的时候不必把说明书寄回给我们。
3. 返修的时候请用产品原来的包装箱来包装，这是非常重要的。如果你已丢失原包装，请确保您正确包装和保护好本机爱克创将不负责由于非原厂包装造成任何损害。
4. 运送到爱克创技术支持中心或当地的授权经销商。