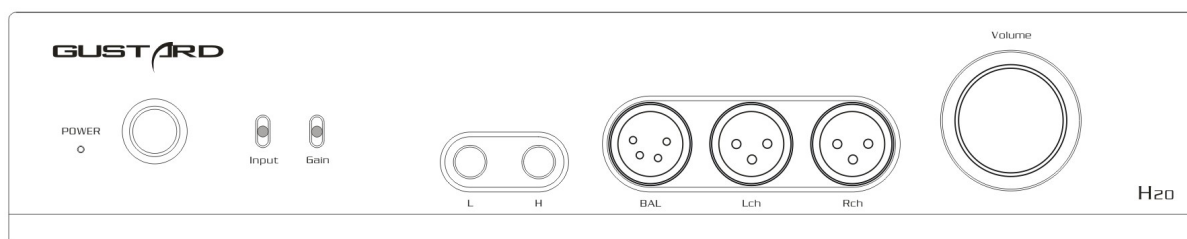


# GUSTARD

## H20

Balanced Headphone Amplifier

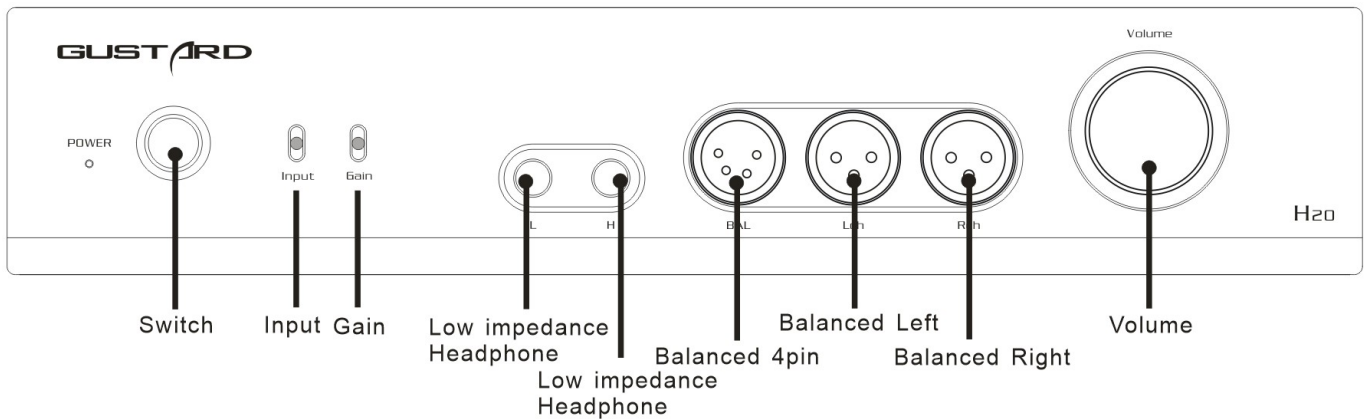
User manual



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## Front Panel



1. Power switch is a button switch. Press it to power it on. Press it again to turn it off.
2. The input channel is selected by the upper, middle, and lower third gear switches. The top is the RCA input, and the middle and the bottom are each a group of XLR inputs.
3. The gain adjustment is the same as above, where the lower is the normal gain, the middle is the middle gain, and the upper is the high gain.
4. Single-ended low-impedance headphones output is recommended for connecting single-ended low-impedance headphones.
5. Single-ended high-impedance headphones output is recommended for connecting single-ended high-impedance headphones. If you feel that a pair of low-impedance headphones is difficult to drive, this headphones output provides maximum power.
6. Four-pin balanced headphones output is recommended for connecting to a four-pin balanced headphones.

Pin 1=Left+      Pin 3=Right+  
 Pin 2=Left-      Pin 4=Right-

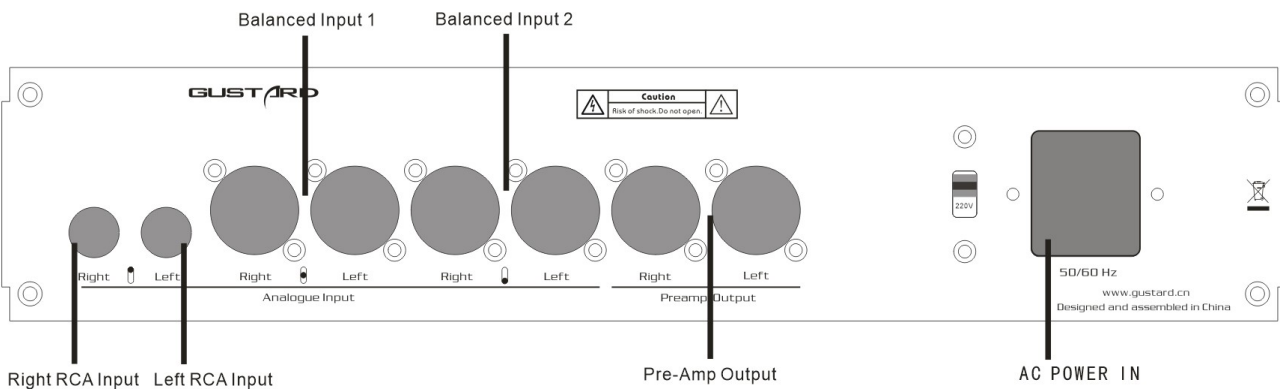
7. The left and right dual three-pin balanced headphones output is recommended for connecting a pair of three-pin balanced headphones. The dual three-pin balanced headphones output and the four-pin balanced headphones output are internally connected in parallel.

Pin 1 Floating      Pin 2 +      pin 3 -

See page 4 for more details.

8. The volume knob can increase or decrease the output volume by rotating clockwise/ counterclockwise.

## Rear panel



1. **RCA input.** When the input selector switch is set to the top gear, the RCA input is selected.  
**Balance input group 1.** When the input selector switch is set to the middle position, this input is selected.  
**Balanced input using American Standard XLR connection.**

Pin 1 = ground Pin 2 = positive phase / hot Pin 3 = negative phase / cold

2. **Balance input group 2.** When the input selector switch is set to the bottom gear, this input is selected.  
This balanced input also uses American Standard XLR connection. The pin definition is the same as above.
3. **Preamplifier output.** This output is the buffer amplified output after the volume adjustment of the original line input signal. This output can be connected to a power amplifier or active monitor and used as a preamplifier.

The preamplifier output uses American Standard XLR connection.

Pin 1 = ground Pin 2 = positive phase / hot Pin 3 = negative phase / cold

4. **AC international voltage switch** is a double switch because there are 2 transformers inside. When you need to switch the AC power supply voltage, you must switch the two gears of the switch together when the power is off.  
If you make a mistake, it will damage the transformer that is not properly configured.

## Balanced headphones Connection Guide

For optimal headphones drive performance, it is recommended to use a separate pair of wires (positive phase and negative phase) per channel to drive the headphones. Any wire connected to the headphone unit cannot be connected to a neutral or ground wire.

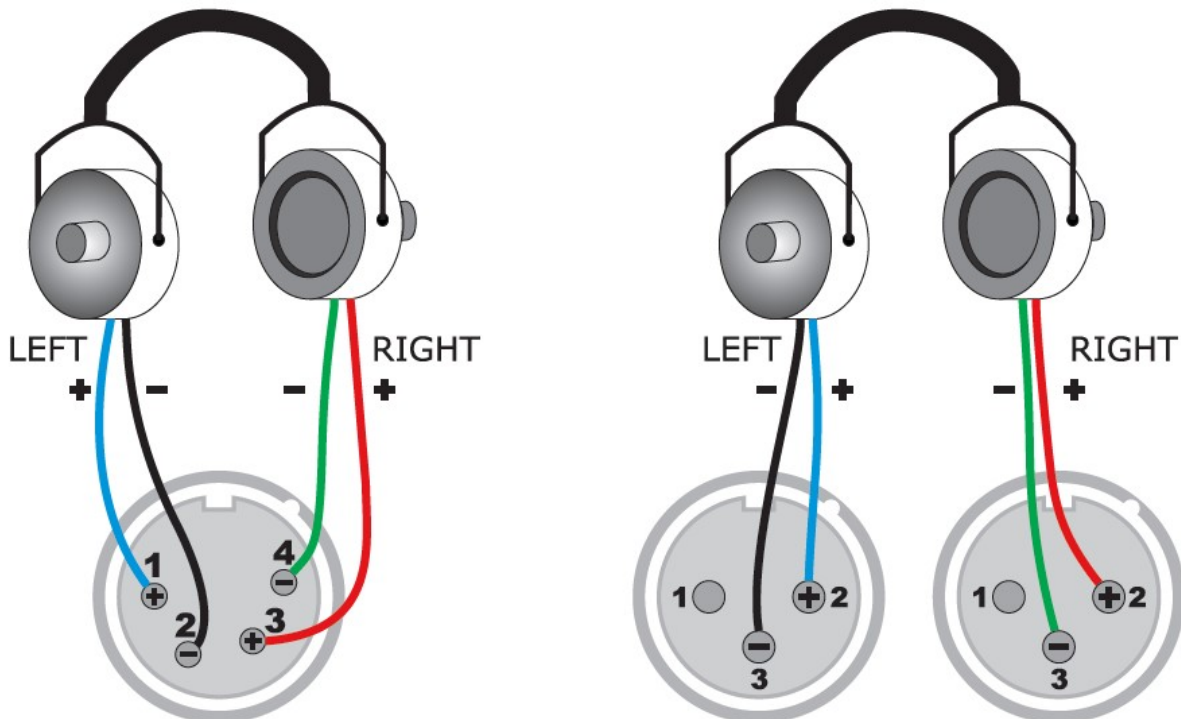
The H20 headphone amplifier provides two different headphone outputs for connecting balanced headphones.

1. Use a single four-pin XLR connector (male). For example: Neutrik NC4MC-B connector.  
The signal connection is as follows:

Pin 1=Left+      Pin 3=Right+  
Pin 2=Left-      Pin 4=Right-

2. Use two 3-pin XLR connectors (male). For example: Neutrik NC3MX-B connector.  
The signal connection is as follows:

Left channel + = Pin2      Right channel + = Pin2  
Left Channel - = Pin3      Right Channel - = Pin3



## Specification

### Analog Input:

RCA One group of standard input. Sensitivity: 2Vrms(Typical) ; Impedance:47k $\Omega$

XLR Two groups of balanced inputs. Sensitivity: +18dBu(Typical) ; Impedance:10k $\Omega$

### Preamp (Rear Output) Output(XLR):

Output Impedance:100 $\Omega$

Frequency response: 20-80kHz /-0.1dB

SNR: >122dB

Crosstalk: -120dB @ 1kHz

THD+N: <0.0004%

IMD: <0.0004%

### Headphone (Front Output) Amplifier output:

Output Impedance(6.35mm) "L" (For Low Impedance Headphone) :50 $\Omega$

Output Impedance(6.35mm) "H" (For High Impedance Headphone):0.05 $\Omega$

Output Impedance(XLR):0.1 $\Omega$

Frequency response: 20-80kHz /-0.1dB

SNR: >120dB

Crosstalk: -120dB @ 1kHz

THD+N: <0.0005% @6000mW into 32 $\Omega$  LOAD

IMD: <0.0005% @6000mW into 32 $\Omega$  LOAD

Maximum undistorted output power:6000mW into 32 $\Omega$  LOAD

Maximum output power:12000mW @32 $\Omega$  (THD=1%)

### Maximum power with load:

64 $\Omega$  5360mW

150 $\Omega$  2680mW

300 $\Omega$  1340mW

600 $\Omega$  670mW

### Others:

Power supply: AC 115V/230V 50/60Hz

Power consumption: about 50W

Size: 330mm \* 65mm \* 260mm

Weight: 7Kg (including Packing boxes)

## Warranty

Thank you for your choice. In order to protect your interests, please read the following text carefully. After that you can enjoy our thoughtful service.

### 1. warranty period:

You will enjoy the 2-year free warranty and lifetime maintenance after the date purchasing GUSTARD's H2O product.

\* The manufacturer bears only the freights from Chinese mainland. Part of the freight and tax generated from overseas will be solved by the user with the dealer negotiation.

### 2. Free terms:

GUSTARD H2O from the purchasing date in the free warranty period, the user uses the product in normal, and the product fails due to component quality or manufacturing problems.

### 3. Out of range:

Belonging to one of the following circumstances, products are no longer provided warranty service.

- a. Products from the date of purchase has exceeded a predetermined warranty period.
- b. Model, barcodes and purchase date do not match the actual product and warranty card.
- c. Without GUSTARD technician permission, unauthorized modifications to the circuit, components or self-repaired product.
- d. Damaging caused by irresistible natural forces.
- e. Beyond the permitted use of environmental damage.
- f. Damaging due to incorrect use or improper storage. Including but not limited to: the voltage is too high to burn the circuits or components; Bumping and resulting in damaging the shell or internal; damaging due to water, oil, liquid and excessive dust; product oxidation or corrosion, etc.
- g. Beyond the warranty period, such as an individual component damage, appearance due to human damage, firmware modifications lead to unable to work by unauthorized users. GUSTARD commits to take reasonable maintenance fees (except large area components or circuit board burned beyond repair). Freight and maintenance costs, material costs are required the user to bear.

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