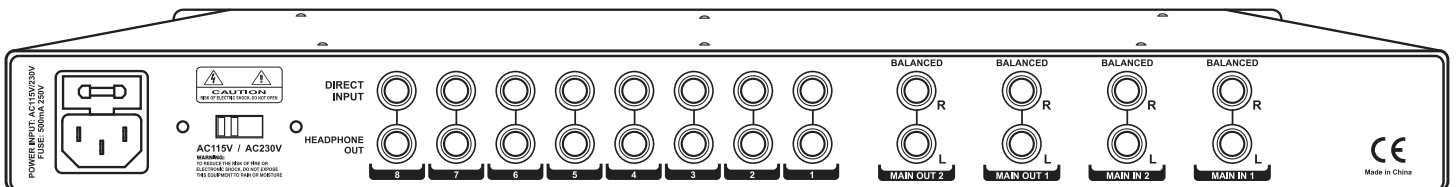
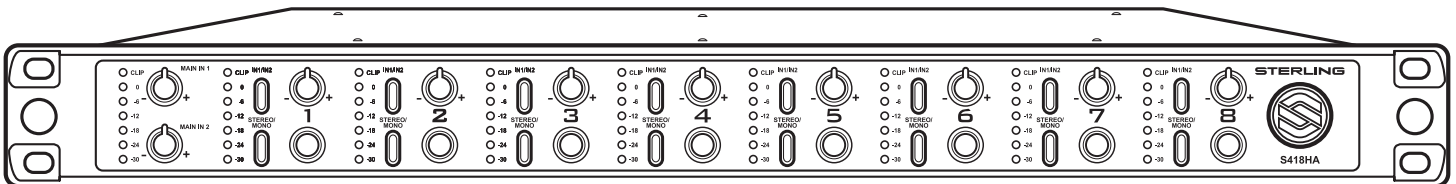




# STERLING™

## OWNER'S MANUAL



# S418HA

PROFESSIONAL  
8-CHANNEL  
HEADPHONE AMP

## INTRODUCTION

Congratulations on the purchase of your Sterling S418HA headphone amp. We are proud to bring our critical design and engineering expertise to you, whether you are in the studio or on stage. This ultra-low noise, high power design ensures precision monitoring of music for up to 8 musicians, with flexible I/O to ensure the best possible mix for everyone. To get the most of your purchase, read this manual carefully and store it for future reference.

## FEATURES

- 8 discrete stereo headphone amplifier sections
- 8 stereo direct inputs for individual, discrete monitor mixes
- 2 stereo main inputs allow for simultaneous two input mix balance across all inputs
- Mono/stereo engage switch for mono/stereo operation
- Output level control and signal LED per channel
- 1RU design for easy integration into existing rack rigs
- Parallel main outputs for cascading multiple S418HAs
- Powerful, 15V toroidal transformer for ultra-low noise operation
- Rugged design for studio or stage use



WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPARATUS TO RAIN OR MOISTURE.  
AVERTISSEMENT: POUR ÉVITER LE RISQUE D'INCENDIE OU DE CHOC ÉLECTRIQUES, NE PAS EXPOSER CET APPAREIL À LA PLUIE OU À L'HUMIDITÉ.

## IMPORTANT SAFETY INSTRUCTIONS

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use the attachments/accessories specified by the manufacturer.
12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid

has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

15. Refer all servicing to a qualified service professional. Servicing is required when the apparatus does not operate normally or has been damaged in any way, including damage to the power cord or plug, damage due to liquids spilled or objects dropped inside the unit, dropping the unit, or anything else that interrupts normal use of the unit.
16. **WARNING:** To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.
17. When the MAINS plug, or an appliance coupler is used as the disconnect device, the disconnect device shall remain readily operable.
18. **Protective Ground Terminal:** The apparatus shall be connected to an AC main socket with a protective earth ground connection.

## APPLICATION GUIDELINES

### USING THE MAIN IN CONNECTORS

Connect a program source with the Main In connectors located on the rear, and connect your headphone to an amp section of your choice. The knobs for Main In 1 and 2 control the level of each separate input signal. The individual output knobs are used for adjusting the desired channel volume only.

### USING THE DIRECT INPUT CONNECTORS

The S418HA has a separate Direct Input connector for each channel, located on the rear of the unit. This separate input allows you to send a separate signal to each channel, rather than the default operation of monitoring the same signal in all channels. This can be useful if, for example, a bass player wants a separate monitor mix that includes more drums and guitar and less vocal, or if a group of vocalists doing harmonies want a monitor mix with more vocals and less instrumentation. These tailored monitor mixes would typically be sent from a mixer or audio interface. The volume of the Direct Input is set by the output source and the connection mutes the volume of the Main In for the selected channel.

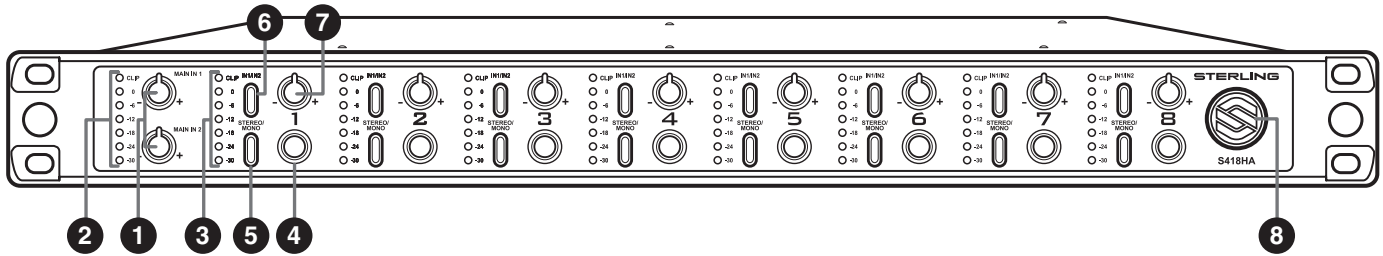
### MONO/STEREO MODE

Stereo signals can often have an irritating effect in certain monitoring applications, especially when performing live. These negative effects are particularly apparent when both channels show great channel separation, i.e. a different information content coupled with varying volume levels. The Stereo/Mono switch allows coupling the left and right channels into a single mono signal, without needing a "Y" adapter or special cable.

### CONNECTING MULTIPLE HEADPHONES

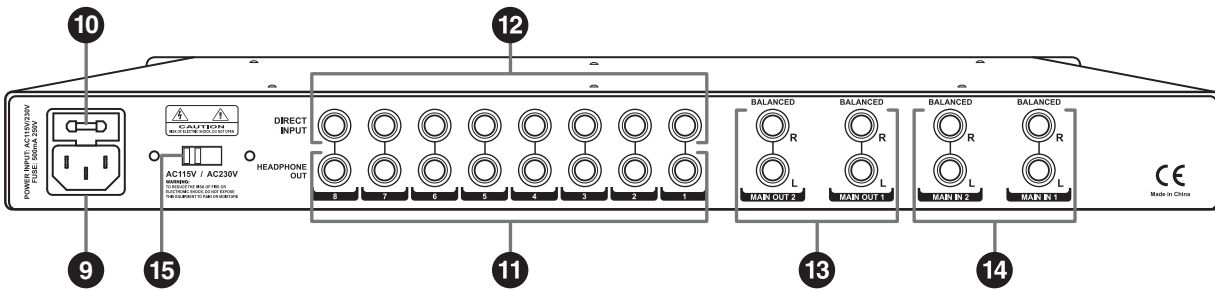
You can connect multiple headphones to a channel simultaneously, provided that the minimal output load impedance of the amp does not fall below 100 Ohms per amp. To avoid this, make sure that when you are connecting two headphones, each individual headphone's impedance is lower than 200 Ohms so that when the impedance is split in half due to the amplifier powering two headphones, it will still be higher than the minimum of 100 Ohms per amplifier. The S418HA will continue to operate beneath this minimum impedance rating, but sound quality will begin to suffer. Check your headphone manufacturer's specifications to determine the impedance of your headphones.





## FRONT PANEL

- 1 The master level knobs control the level of the input signal that is fed through the Main Input or Direct In connectors on the rear panel of the unit. The S418HA features two level controls. Main 1 and Main 2, so that two separately controllable input signals can be connected. You can select which of the two signals is monitored by using the In 1 / In 2 switches in the respective channel sections.
- 2 The 7-digit input level display informs you about the input level signal and displays it in the range between -30dB and 0dB. You achieve the best input signal quality when its level is at the highest level just before it starts distorting. If the red clip LED lights up during use, this indicates distortion.
- 3 The 7-digit output level display informs you about the output signal level of each individual channel and displays it in the range between -30dB and 0dB. You achieve the best output signal quality when its level is at the highest level just before it starts distorting. If the red clip LED lights up during use, this indicates distortion.
- 4 The phones out connector is connected in parallel to the output connectors located on the rear, presenting an easily accessible additional monitor option for individual channels. This function is particularly helpful when the unit is permanently installed in a rack.
- 5 The stereo / mono switch is used to alternate whether input signals are audible in stereo (Not depressed: stereo) or in mono (depressed: mono).
- 6 The main in 1 or main in 2 input signal is selected by using the in 1/2 switch. When the direct input of the channel has a signal connected to it, you can hear the said signal only.
- 7 Headphone Volume of the individual amp section is regulated using level control. Both the left and the right channel are regulated simultaneously.
- 8 The power switch powers the unit on. You should always make sure that the power switch is in the “off” position when initially connecting the unit to the mains. When turning off your audio system, make sure to follow these steps in reverse. You can choose to leave your volume levels where you set them originally, so long as the output on your mixer, audio interface or sound system outputs remains the same as well.

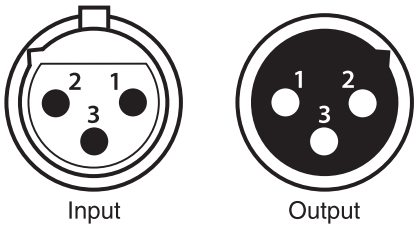


## BACK PANEL

- 9 Power is supplied via an IEC connector. The matching cable is provided with the unit.
- 10 FUSE COMPARTMENT 1 VOLTAGE SELECTION. Before connecting the unit to a power outlet, make sure that the selected voltage matches your local voltage. When replacing fuses, please make sure that you always use fuses of the same type. Some units allow for switching between 230V and 120V. Please note: when connecting a unit intended for the European market to a 120V power outlet, you must also replace the factory fuse with a higher value fuse.
- 11 The headphone out connectors are unbalanced 1/4" stereo outputs of the individual amp sections which can be used for connecting additional headphones.
- 12 Various input signals can be connected to the S418HA by utilizing a separate Direct In connection for each amp section, located on the rear. If a signal is fed into this connector, both Main In signals will be muted on that channel.
- 13 The Main Out 1 and Main Out 2 are balanced 1/4" TRS connectors that replicate the signals fed into the Main In 1 and Main In 2 connectors. You can use these outputs to connect to another S418HA, allowing monitoring by twice as many musicians. The second S418HA can, in turn, be connected to another S418HA, and so on.
- 14 The Main In 1 and Main In 2 connectors are the balanced 1/4" TRS connectors where you connect your primary sound sources to be monitored. The master level of each input is controlled on the front panel by the Main In 1 and Main In 2 level knobs.
- 15 This switch allows you to select the voltage configuration for the device. If you are unsure of the voltage of your AC mains power, please contact a qualified electrician before use, always make sure the unit is powered off and disconnected from AC main power prior to changing voltage or you will damage the device.

**AUDIO CONNECTIONS**

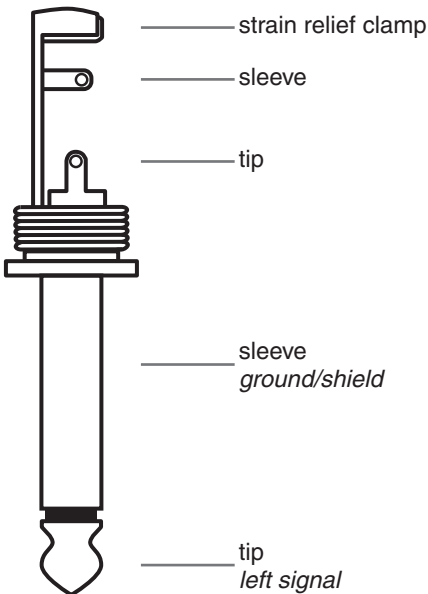
Balanced use with XLR connectors



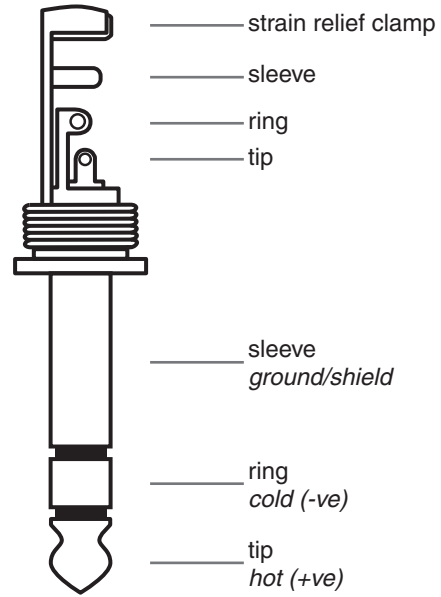
- 1. ground/shield
- 2. hot(+ve)
- 3. cold(+ve)

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

Unalanced 1/4" TS connector

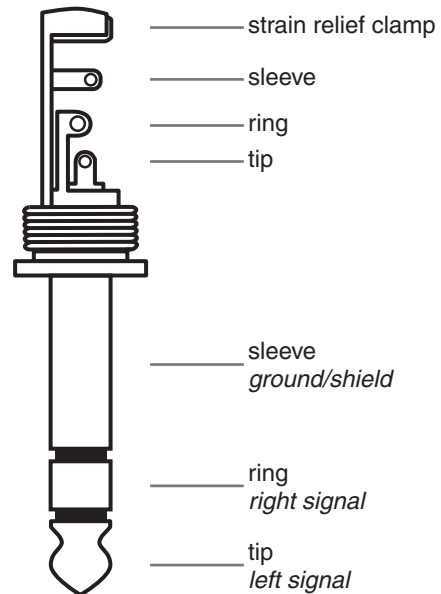


Balanced 1/4" TRS connector

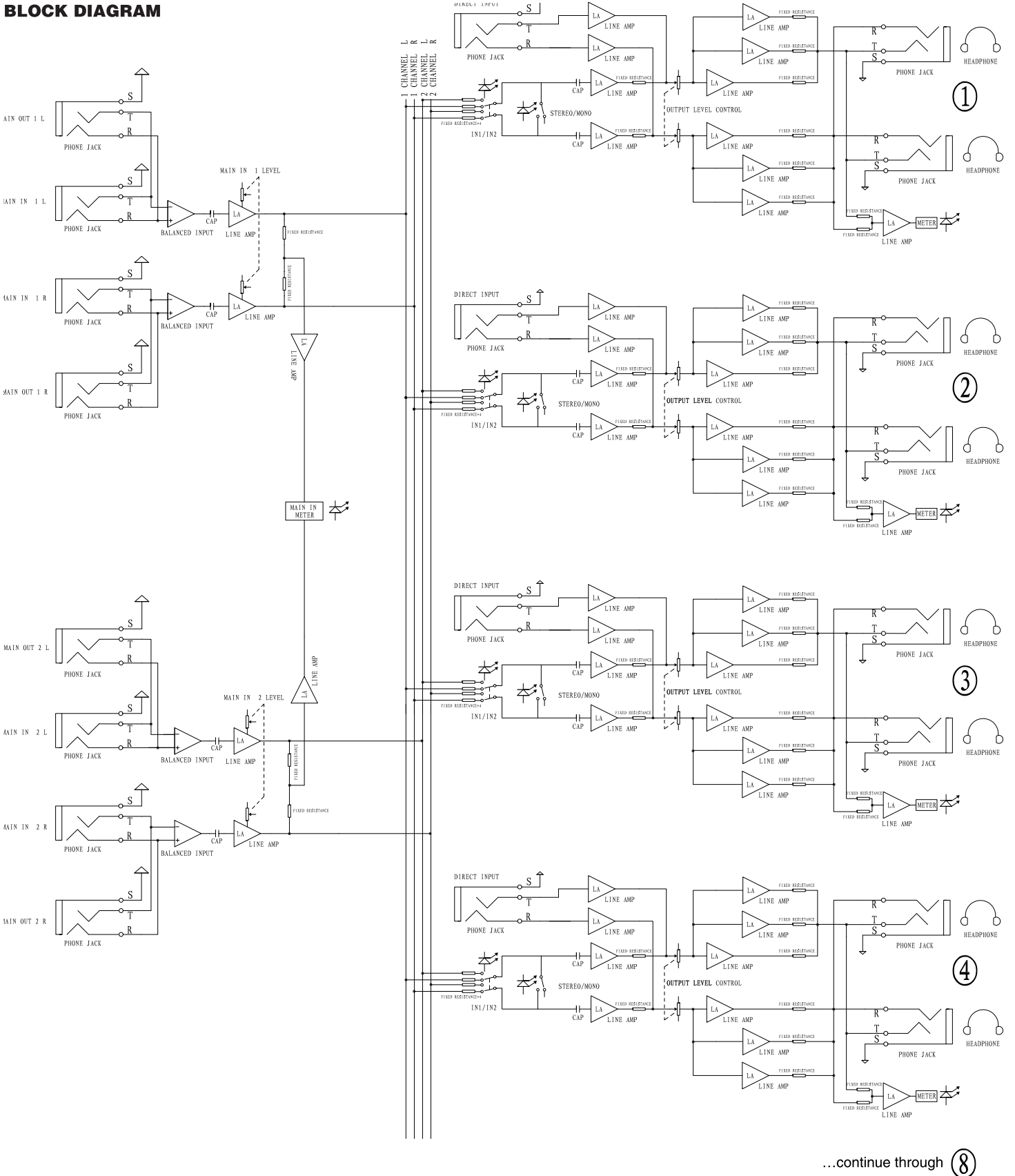


For connection of balanced and unbalanced plugs, ring and sleeve have to be bridged at the stereo plug.

1/4" TRS headphone connector



**BLOCK DIAGRAM**



...continue through ⑧

## NOTES

### **1 YEAR LIMITED WARRANTY:**

Subject to the limitations set forth below, Sterling Audio® hereby represents and warrants that the components of this product shall be free from defects in materials and workmanship, including implied warranties of merchantability or fitness for a particular purpose, subject to normal use and service, for 1 years to the original owner from the date of purchase.

Retailer and manufacturer shall not be liable for damages based upon inconvenience, loss of use of product, loss of time, interrupted operation or commercial loss or any other incidental or consequential damages including but not limited to lost profits, downtime, goodwill, damage to or replacement of equipment and property, and any costs of recovering, reprogramming, or reproducing any program or data stored in equipment that is used with Sterling Audio® products. This guarantee gives you specific legal rights. You may have other legal rights which vary from state to state. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.

Sterling Audio  
P.O. Box 5111, Thousand Oaks, CA 91359-5111

**[sterlingaudio.net](http://sterlingaudio.net)**

All trademarks and registered trademarks mentioned herein are recognized as the property of their respective holders.

1601-1561431