

**Clavia**  
PRECISION SERIES  
*Professional Power Amplifier*  
**Owner's Manual**

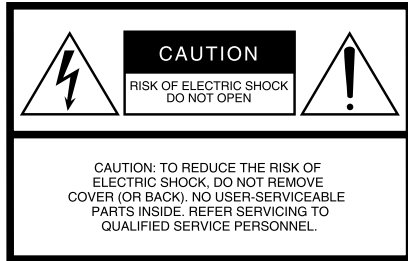


***SX-4CH Series***  
**USER MANUAL**

<http://claviaaudio.com>

Before attempting to connect, operate or adjust this product, please read these instruction completely

# Specifications



The above warning is located on the top of the unit

## Explanation of Graphical Symbols



The lightning flash with arrowhead symbol within an equilateral triangle is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

## 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

- 11 Only use 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.



**WARNING**  
TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK,  
DO NOT EXPOSE THIS APPARATUS TO RAIN OR MOISTURE.

### IMPORTANT NOTICE FOR THE UNITED KINGDOM Connecting the Plug and Cord

**WARNING:** THIS APPARATUS MUST BE EARTHED  
**IMPORTANT:** The wires in this mains lead are coloured in accordance with the following code:

GREEN-AND-YELLOW : EARTH  
BLUE : NEUTRAL  
BROWN : LIVE

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug proceed as follows:

The wire which is coloured GREEN-and-YELLOW must be connected to the terminal in the plug which is marked by the letter E or by the safety earth symbol or colored GREEN or GREEN-and-YELLOW. The wire which is coloured BLUE must be connected to the terminal which is marked with the letter N or coloured BLACK. The wire which is coloured BROWN must be connected to the terminal which is marked with the letter L or coloured RED.

## General Specifications

MODEL	SX-4300IV	SX-4600IV
8Ω Stereo	4x400W	4x600W
4Ω Stereo	4x600W	4x900W
2Ω** Stereo	4x800W	4x1200W
8Ω ** Bridge	2x1200W	2x1600W
4Ω ** Bridge	2x1600W	2x2000W
Output power in constant voltage (when connected to 70V port)	4x300W	4x600W
Output power in constant voltage (when connected to 100V port)	4x150W	4x300W
Frequency response	20Hz - 20KHz( +/-0.3dB )	
Thd(20Hz-20KHz, 8Ω)	0.2%	
Signal to noise	102dB	
Slew rate	45V/uS	
Damping factor	>400	
Input sensitivity	Selectable 1.0V	
Input impedance (Ω )	20Kohm(Balanced)/ 10K ohm (unbalanced)	
Input connectors	XLR-3-31 (two per ch)	
Output circuitry	Class AB	Class H
Front panel	POWER switch(Push on/Push off), Four 41-step Volume control knobs (one per ch)	
Rear panel	MODE switch (STEREO/PARALLEL/BRIDGE), BRIDGE Indicators(2xRed)	
Indicators	POWER(1xGreen), PROTECTION(4xRed), LIMIT(4xOrange), SIGNAL(4xGreen)	
Output connectors	Speakon(one per ch)	
Protection	Overheat short circuits, DC,Limit and softstart, Output relay Zero Current Switch, Intellectual Clip Limiter.	
Cooling pattern	High/Low Automatism Control	
Power supply voltage	220 V, AC/50~60Hz	
Power supply fuse	T15A	T20A
Dimensions ( W x D x H )	483 x 437 x 88.8mm	483 x 488 x 88.8mm
Gross Weight	25.3Kg	30.5Kg

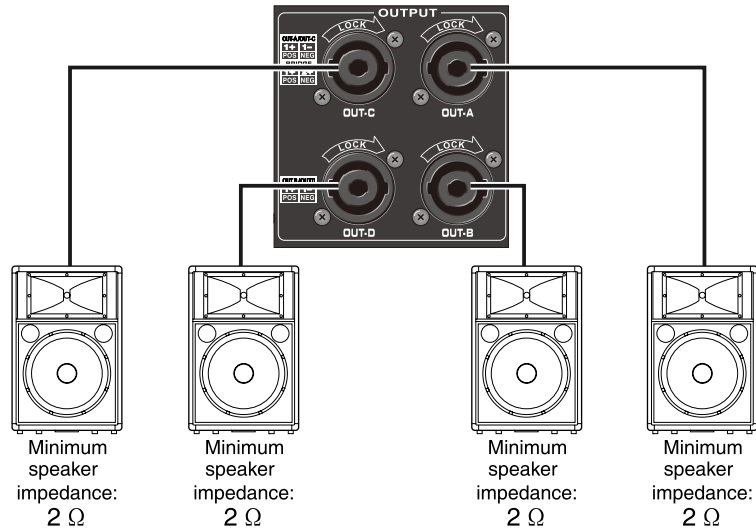
**\*\* , The power is tested under the condition of 40ms burst, 1KHz sine wave and 1% THD  
Due to continuous development these specifications are subject to change without notice.**

# Speaker Connections

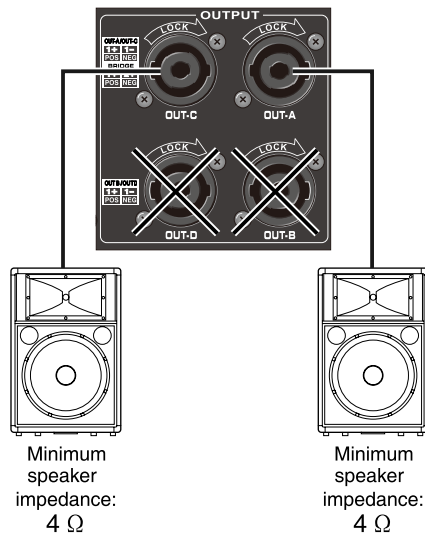
## ■ Speaker impedance

Speakers can be connected to the amplifier as shown below. Note that speaker impedance will vary according to the connection Method and the number of speakers. Please be sure that your speaker's impedance is not less than the relevant minimum value indicated below.

### A. Connection configurations or STEREO and PARALLEL modes , When using Speakon connector

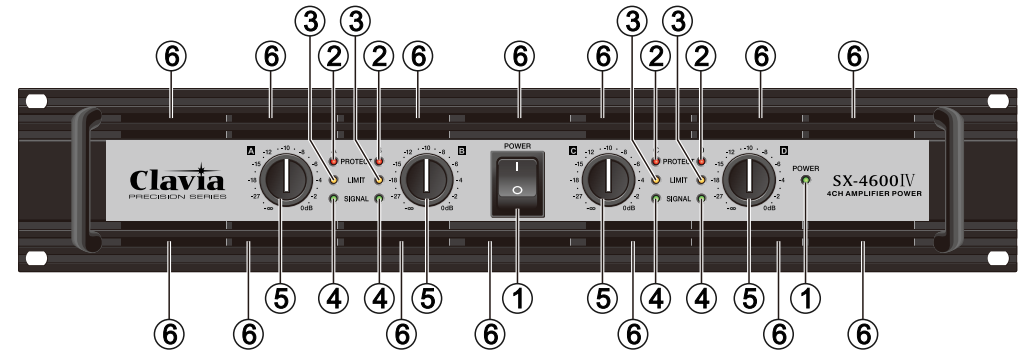


### B. Connection configurations or BRIDGE MODE, When using Speakon connector



# Controls and Functions

## ■ Front Panel



### 1. POWER switch and indicator

Press to toggle the power on or off. The POWER indicator lights up green when the power is ON.

### 2. PROTECTION indicator

Lights up red to indicate that protection is in effect. Specifically, lights up if the heat sink overheats, or if a DC voltage is detected at the amplifier outputs. Also lights up for about three seconds at time of power-on, as the amp gets ready to operate. To provide protection, the unit will not output any sound from the speakers while this indicator is lit up. When start-up is completed or the problem is corrected, the indicator goes off and normal operation resumes.

### 3. LIMIT indicator

Lights up red when the output signal distortion on the corresponding channel rises above 1% indicating that "Clipping" has occurred because the signal level is too high.

### 4. SIGNAL indicator

Lights up green when the corresponding channel's output level exceeds 2 Vrms (equivalent to 1/2 W into an 8 Ω load, or 1 W into a 4 Ω load).

### 5. Volume control knobs

Each control knob adjusts the volume of the corresponding channel, in 41 steps from -30dB to 0 dB.

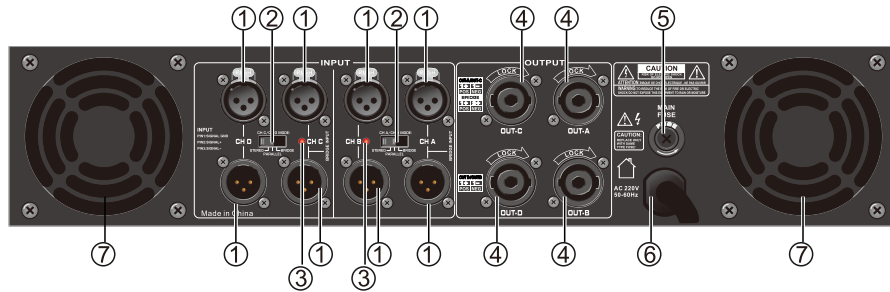
### 6. Air intakes

The amplifier uses forced-air cooling. The cooling fans draw air in from the front and exhaust it through the rear. Please be sure that you do not block the air intakes or exhaust vents.

### NOTE:

The fans do not come on at initial power-on, but will switch on automatically when the temperature of the heat sink rises above 50°C (122 °F). The fan speed will then vary automatically as the temperature changes.

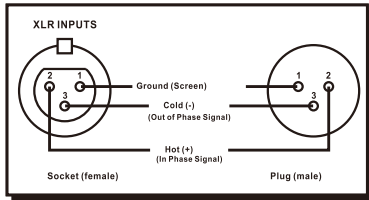
## ■ Rear Panel



### 1. INPUT button

If the amplifier is set to BRIDGE or PARALLEL mode, only the switch and knob for Channel A and Channel C are effective, each channel XLR jack as internal connected.

XLR-3-31 input connected diagram:



### 2. MODE switch

By using the STEREO switch selection, PARALLEL, BRIDGE work mode.

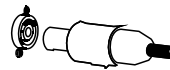
- 2.1 STEREO mode**  
 CHA - CHD each channel independently, each channel signal input and output independent (please refer to Wiring diagram on page 10).
- 2.2 :The PARALLEL mode**  
 CHA input signal through the CHB input socket input, input signal through the CHC  
 CHD input socket input, each independent output channel (please refer to the wiring diagram on page 10).  
 CHA and CHC input pin doesn't work. The volume of the CHA - CH4 can be adjusted independently.
- 2.3 : BRIDGE pattern**  
 From CHB and CHD input socket input signals, output socket output signal from the CHA and CHC (please refer to the wiring diagram on page 10), if you want to adjust the volume, must use the CHB and CHD at this time The volume control knob adjustment.

### 3. BRIDGE indicator

Lights up the Red when the button turn to BRIDGE at MODE on rear panel.

### 4. OUT A- OUT D SPEAKON output

CH A-CH D SPEAKON output, connect in the output hold, and turn around the button to lock in.



### 5. FUSE

The fuse is used to Protect your amplifier from different kinds of AC problems. If the power amplifier is "on" and nothing lights, please verify the fuse compartment. If fuse is broken, please read it and change with a new one of same size and value.

### 6. AC input

Use the local area AC source

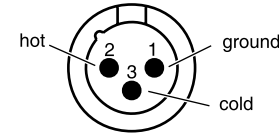
### 7. Air intakes

Must don't cover the air intakes. Please clean your dust filter every 30 days!

## ■ INPUT jacks

### XLR-3-31 jack

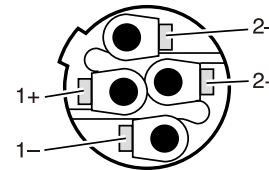
The XLR-3-31 input jacks are wired as shown below.



### Speakon connector

- Turn off the POWER switch.
- Insert the Neutrik NL4FC plugs into the Speakon connector on the rear of the amplifier, and turn clockwise to lock.

### Neutrik NL4FC plugs



### Neutrik NL4FC plugs

### OUT - A

STEREO or PARALLEL

1+	OUT-A+
1-	OUT-A-
2+	OUT-B+
2-	OUT-B-

BRIDGE

1+	OUT-A+
1-	
2+	OUT-A+
2-	

### OUT - B

STEREO or PARALLEL

1+	OUT-B+
1-	OUT-B-
2+	
2-	

### OUT - C

STEREO or PARALLEL

1+	OUT-C+
1-	OUT-C-
2+	OUT-D+
2-	OUT-D-

BRIDGE

1+	OUT-C+
1-	
2+	OUT-D+
2-	

### OUT - D

STEREO or PARALLEL

1+	OUT-D+
1-	OUT-D-
2+	
2-	