



هوالرزاق

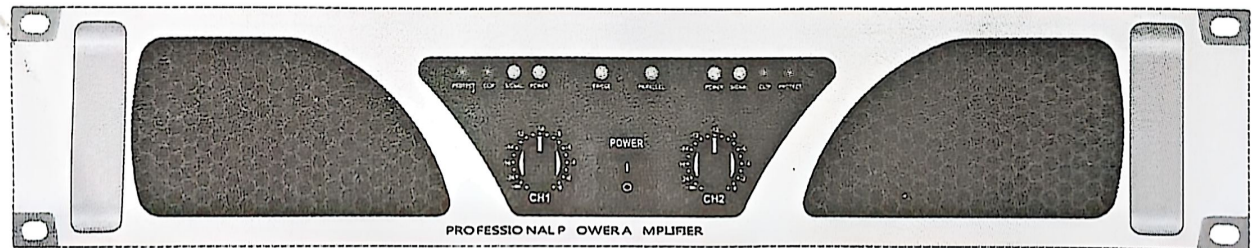
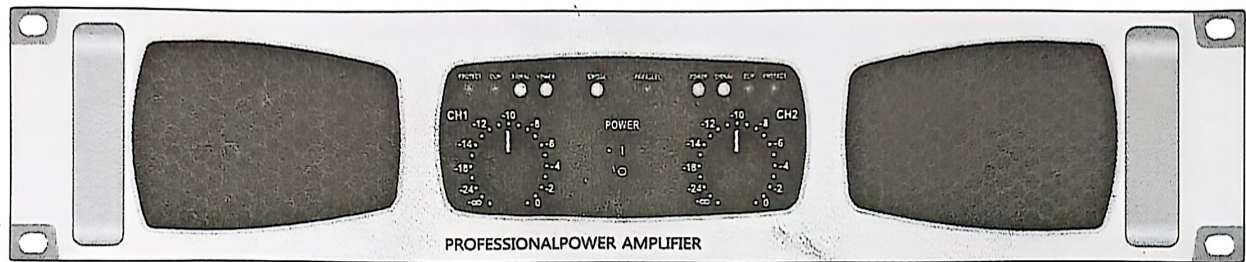
کاتالوگ پاور آمپلی فایر

ProMax Maxtor S-4800

SPL

تولیدکننده تجهیزات صوتی و تصویری

Professional Power Amplifier Owner's Manual



Professional Power Amplifier

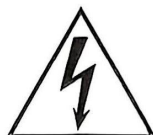
Before attempting to connect, operate or adjust this product, please read these instructions completely

HY-3060010 REV. 001



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 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 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.



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

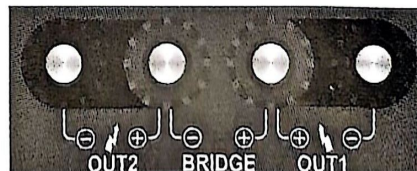
As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug proceed as follows:

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.

This applies only to products distributed by Yamaha-Kemble Music (U.K.) Ltd. (3 wires)

WARNING

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



This ⚡ mark indicates a dangerous electrically live terminal. When connecting an external wire to this terminal, it is necessary either to have "a person who have received appropriate guidance on handling" make the connection or to use leads or a cord that have been manufactured in such a way that the connection can be made simply and without problem.

Precautions

— For safe operation —

⚠ WARNING

Installation

- Connect this unit's power cord only to an AC outlet of the type stated in this Owners Manual or as marked on the unit. Failure to do so is a fire and electrical shock hazard.
- Do not allow water to enter this unit or allow the unit to become wet. Fire or electrical shock may result.
- Do not place a container with liquid or small metal objects on top of this unit. Liquid or metal objects inside this unit are a fire and electrical shock hazard.
- Do not place heavy objects, including this unit, on top of the power cord. A damaged power cord is a fire and electrical shock hazard. In particular, be careful not to place heavy objects on a power cord covered by a carpet.
- Be sure to connect to an appropriate outlet with a protective grounding connection. Improper grounding can result in electrical shock.

Operation

- Do not scratch, bend, twist, pull, or heat the power cord. A damaged power cord is a fire and electrical shock hazard.
- Do not remove the unit's cover. You could receive an electrical shock. If you think internal inspection, maintenance, or repair is necessary, contact your dealer.

- Do not modify the unit. Doing so is a fire and electrical shock hazard.
- If lightning begins to occur, turn off the power switch of the unit as soon as possible, and unplug the power cable plug from the electrical outlet.
- If there is a possibility of lightning, do not touch the power cable plug if it is still connected. Doing so may be an electrical shock hazard.

In case an abnormality occurs during operation

- If the power cord is damaged (i.e., cut or a bare wire is exposed), ask your dealer for a replacement. Using the unit with a damaged power cord is a fire and electrical shock hazard.
- Should this unit be dropped or the cabinet be damaged, turn the power switch off, remove the power plug from the AC outlet, and contact your dealer. If you continue using the unit without heeding this instruction, fire or electrical shock may result.
- If you notice any abnormality, such as smoke, odor, or noise, or if a foreign object or liquid gets inside the unit, turn it off immediately. Remove the power cord from the AC outlet. Consult your dealer for repair. Using the unit in this condition is a fire and electrical shock hazard.

⚠ CAUTION

Installation

Keep this unit away from the following locations:

- - Locations exposed to oil splashes or steam, such as near cooking stoves, humidifiers, etc.
- Unstable surfaces, such as a wobbly table or slope.
- Locations exposed to excessive heat, such as inside a car with all the windows closed, or places that receive direct sunlight.
- Locations subject to excessive humidity or dust accumulation.
- Do not place the power cord close to a heater. It may melt, causing fire or electrical shock.
- Hold the power cord plug when disconnecting it from an AC outlet. Never pull the cord. A damaged power cord is a potential fire and electrical shock hazard.
- Do not touch the power plug with wet hands. Doing so is a potential electrical shock hazard.
- This unit has ventilation holes at the front and rear to prevent the internal temperature rising too high. Do not block them. Blocked ventilation holes are a fire hazard.
In particular, do not
 - place the unit on its side or upside down,
 - place the unit in any poorly-ventilated location such as a bookcase or closet (other than on the dedicated rack),
 - cover the unit with a table cloth or place it on a carpet or bed.
- Allow enough free space around the unit for normal ventilation. This should be: 5 cm at the sides, 10 cm behind, and 10 cm above. If the airflow is not adequate, the unit will heat up inside and may cause a fire.
- To mount several of these units in a standard EIA rack, refer to the rack mounting instructions on page 11.

- To relocate the unit, turn the power switch off, remove the power plug from the AC outlet, and remove all connecting cables. Damaged cables may cause fire or electrical shock.
- When setting up the product, make sure that the AC outlet you are using is easily accessible. If some trouble or malfunction occurs, immediately turn off the power switch and disconnect the plug from the outlet. Even when the power switch is turned off, electricity is still flowing to the product at the minimum level. When you are not using the product for a long time, make sure to unplug the power cord from the wall AC outlet.
- Do not place the device in a location where it may come into contact with corrosive gases or salt air. Doing so may result in malfunction.

Operation

- Use only speaker cables when connecting speakers to amplifier outputs. Using other types of cables is a fire hazard.
- Turn off all musical instruments, audio equipment, and speakers when connecting to this unit. Use the correct connecting cables and connect as specified.
- Always lower the volume control to minimum before turning on the power to this unit. A sudden blast of sound may damage your hearing.
- Do not use this amplifier for any purpose other than driving loudspeakers.
- If you know you will not use this unit for a long period of time, such as when going on vacation, remove the power plug from the AC outlet. Leaving it connected is a potential fire hazard.

Connector pin assignments

- XLR-type connectors are wired as follows
Pin 1: ground; Pin 2: hot (+); Pin 3: cold (-)

Interference from Cell Phones

- Use of a mobile phone near this unit may induce noise. If noise

Introduction

Thank you for your purchase of the power amplifier. This series amplifiers fully incorporate own technological expertise, and offer high reliability, rock-solid stability, and superb acoustic characteristics all in a trim, 2U/3U sized package.

Features

- With two types of input jacks (balanced XLR and balanced phone) and three types of output jacks (Speakon, 4-way binding post, and phone), this series is suitable for a wide variety of applications and installed systems.
- The unit offers three operating modes: STEREO (where CH1 and CH2 operate independently), PARALLEL (where the unit outputs a CH1 source through twin amplifier systems, Volume control independently), and BRIDGE (where the unit operates as a single high-power amp).
- Each channel is equipped with an independent SIGNAL/CLIP/Protect switch indicate.
- The Protect indicator lights up and sound output is automatically muted whenever the unit's protective circuitry is operating.
- Variable-speed low-noise fans ensure high reliability when the unit is running hot.

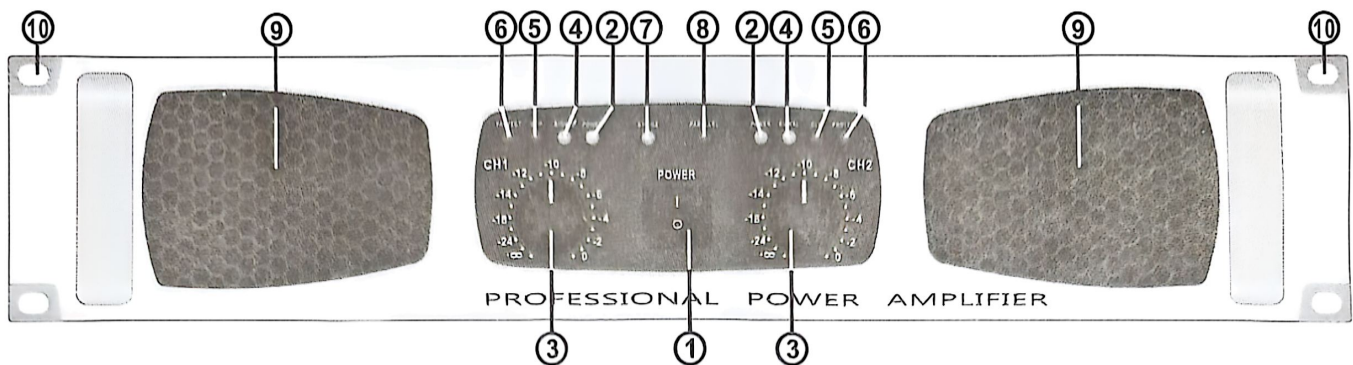
This Owner's Manual covers the whole series power amplifiers. Please read through this manual carefully before beginning use, so that you will be able to take full advantage of the amplifier's superlative features and enjoy trouble-free operation for years to come. After reading through the manual, please store it in a safe place.

Contents

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Rear Panel	6
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Controls and Functions

■ 2U 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. Power source indicator

The indicator light up when unit is turn on ,the power amplifier is connect with power and will be running works within 3-5 seconds . .

3. Volume control knobs

Each control knob adjusts the volume of the corresponding channel from -8 dB to 0 dB.

4. SIGNAL indicator

Lights up green when the corresponding channel's output level exceeds 5 Vrms (equivalent to 3 W into an 8 Ω load, or 6 W into a 4 Ω load)

5. CLIP indicator

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

6. Protect indicator

Lights up red to indicate that protection is in effect. Specifi-cally, lights up if the heat sink overheats, or if a DC voltage is detected at the amplifier outputs. Also lights up for about 5 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.

7. BRIDGE indicator

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

8. PARALLEL indicator

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

9. Air intakes

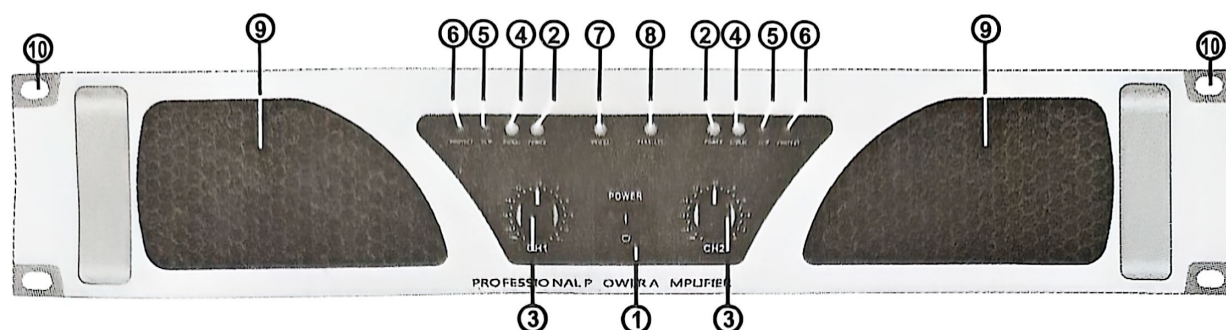
The amplifier uses forced-air cooling. The cooling fans draw air in from the front and exhaust it through the rear. Please be sure that you do not block the air intakes or exhaust vents.

10. Install the security cover

When install 19"inch (2RU) rack mounting, please use the #10 or 6mm screws from amplifier

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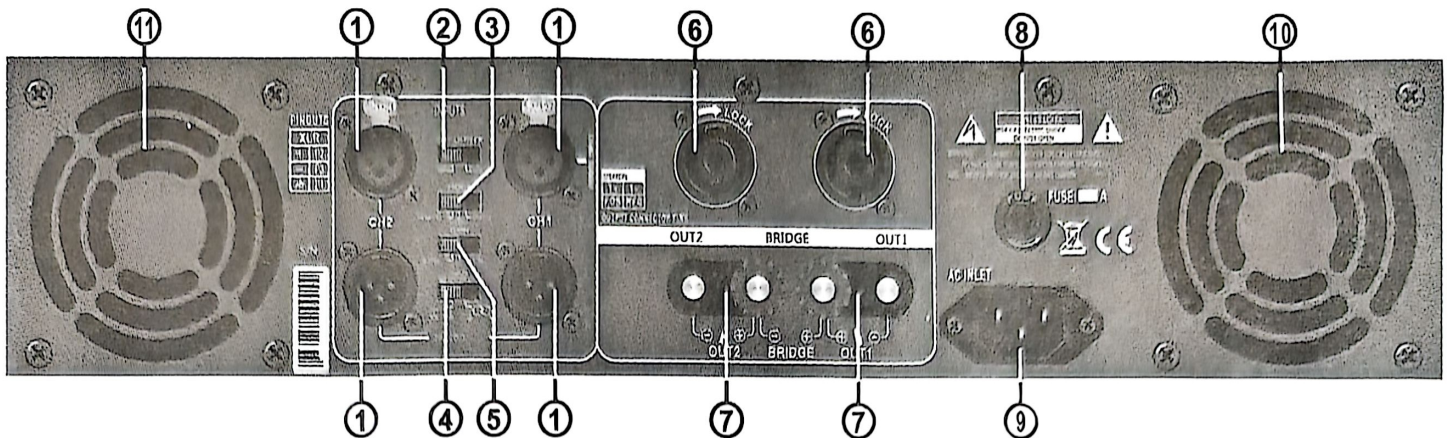
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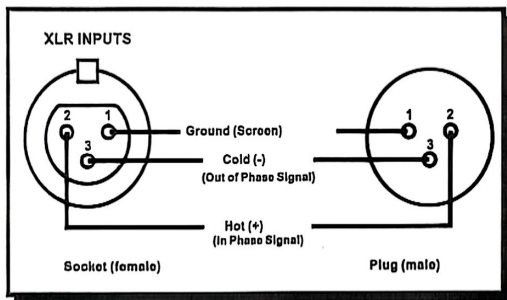
■ 2U Rear Panel



1. INPUT button

If the amplifier is set to BRIDGE or PARALLEL mode , only the switch and knob for Channel 1 are effective , each channel XLR jack as internal connected .

XLR-3-31 input connected diagram :



2. CLIP LIMITER compress button

Compress function when the turn to CLIP LIMITER button

3. MODE switch

Use these control to select the mode type

- STEREO mode :
where CH1 and CH2 operate independently
- PARALLEL mode :
where the unit outputs a CH1 source through twin amplifier systems, Volume control independently
- BRIDGE mode :
here the unit operates as a single high-power amp

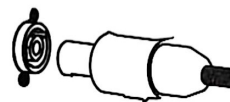
4. INPUT GROUND button

Use these control to select the mode type in different occasion .

5. GAIN input button

Use these control select the mode during 0.775V/1.0V /1.4V .

6. OUT1、OUT2 SPEAKON output



CH1 ,CH2 SPEAKON output , connect in the output hold , and turn around the button to lock in .

7. Wiring Terminal



According each output mode , connect with split plug or bare wire to Out 1, Out 2 , BRIDGE

8. Fuse

If the amplifier work overload for a long time or cause a failure, the fuse will be broken, please replace the fuse of the same model.

9. AC input

Use the local area AC source

10. Air intakes

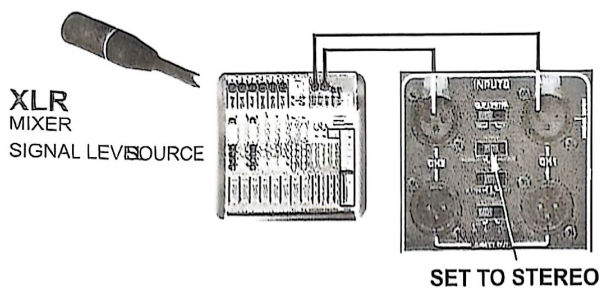
Must don't cover the air intakes

■ Speaker impedance

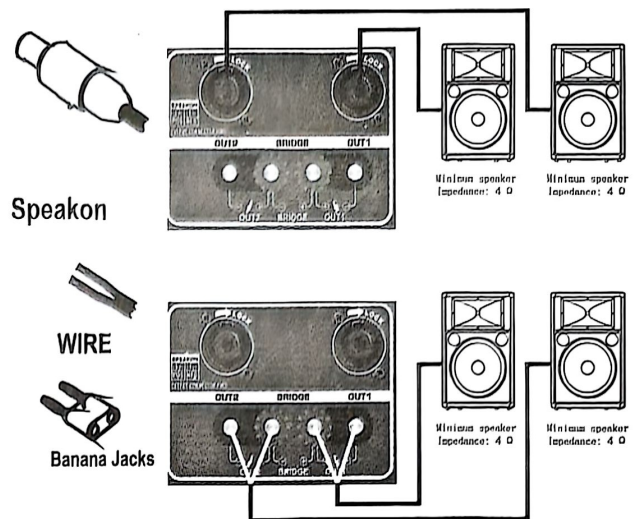
Speakers can be connected to the amplifier as shown below. Note that speaker impedance will vary according to the connection method and the number of speakers. Please be sure that your speaker impedance is not less than the relevant minimum value indicated below.

1 Connection configurations or STEREO

A Input connections

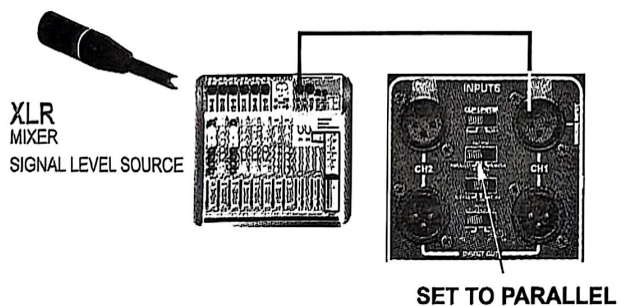


B SPEAKER CONNECTIONS

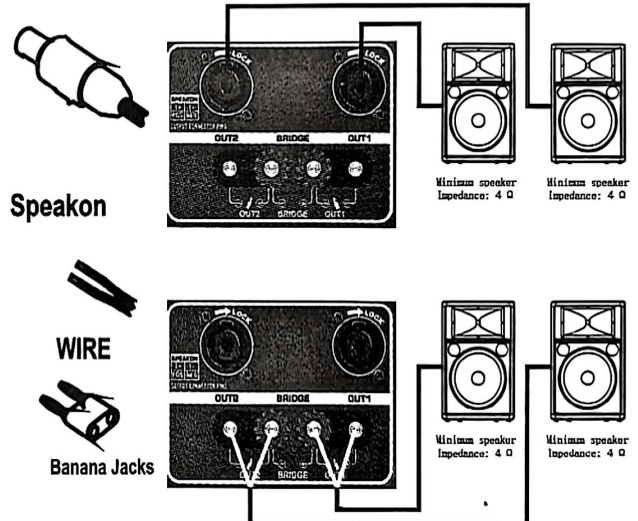


2 Connection configurations or PARALLEL

A Input connections

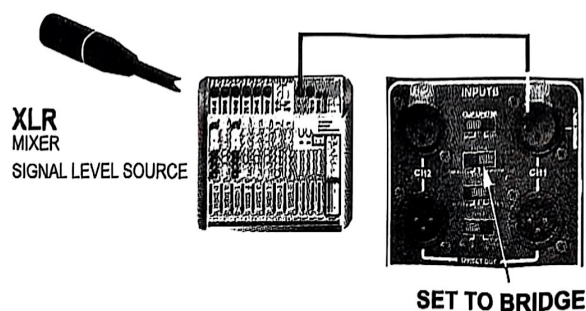


B SPEAKER CONNECTIONS

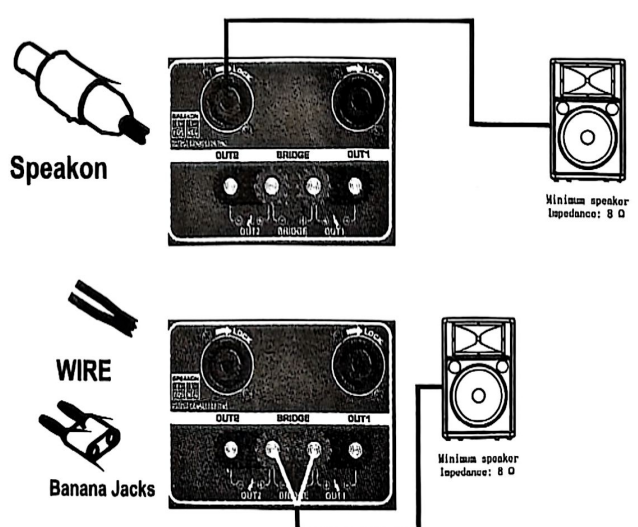


3 Connection configurations or BRIDGE

A Input connections



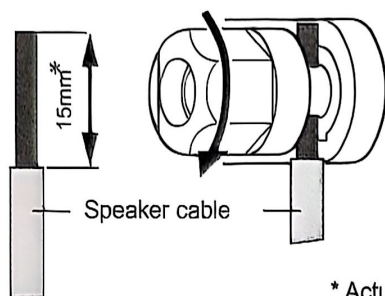
B SPEAKER CONNECTIONS



■ Wiring

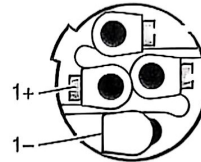
4-way binding post

- (1) Turn off the POWER switch.
- (2) Remove about 15 mm of insulation from the end of each speaker cable, and pass the bare wire through the holes in the appropriate speaker terminals. Tighten the terminals to securely clamp the wires. Refer to page 9 for speaker Polarities.



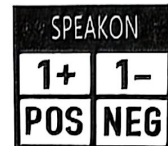
Speakon connector

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

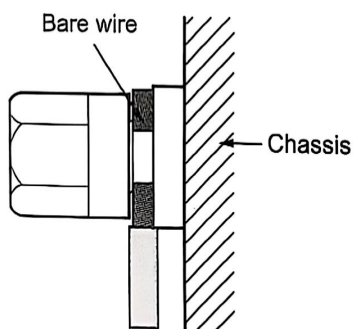


Neutrik NL4FC plugs

Neutrik NL4FC plugs



Be sure that the bare wire ends do not jut out from the terminals and touch the chassis. The following shows how the cable should look when correctly attached.



Rack Mounting

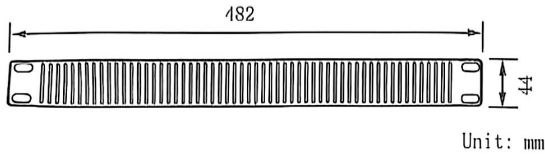
Mounting in a standard EIA rack

If you are mounting multiple power amplifiers in a rack, be sure to install ventilation panel(s) as shown below. Also be sure to use metal brackets (one on each side) to support the rear of each amplifier.

Note: EIA stands for Electronic Industries Alliance.

Ventilation panel(s)

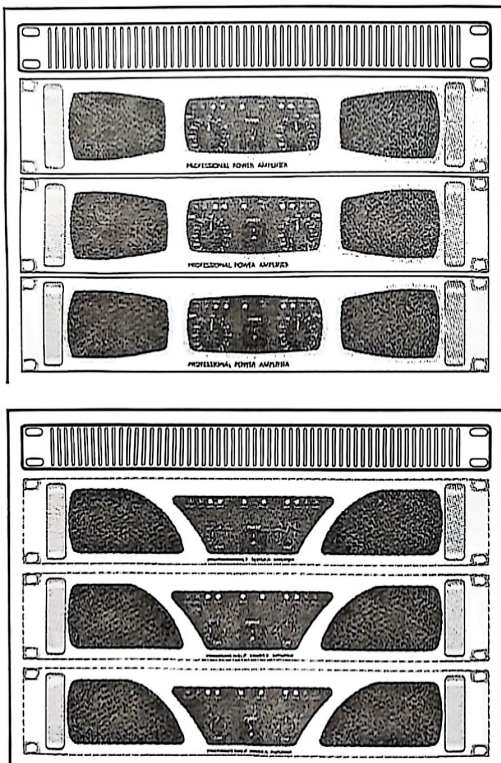
Use 1U-size blank panel(s).



If mounting up to four amplifiers in an open-backed rack

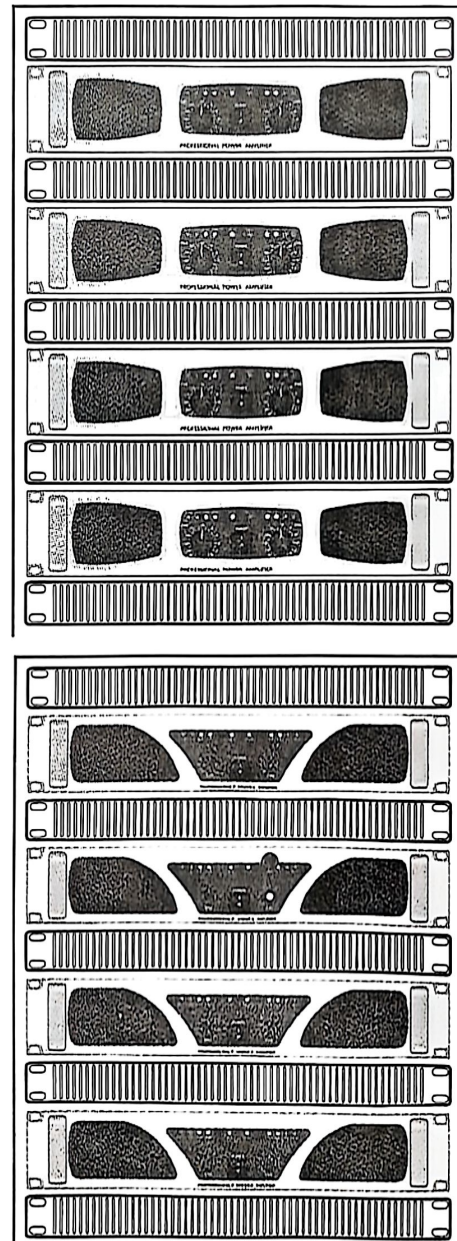
Install a ventilation panel as shown below.

Ventilation panel
(Attach to the front
or rear of the rack.)



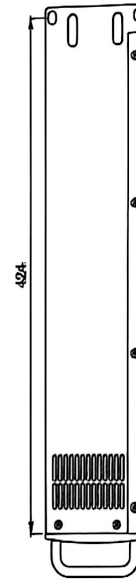
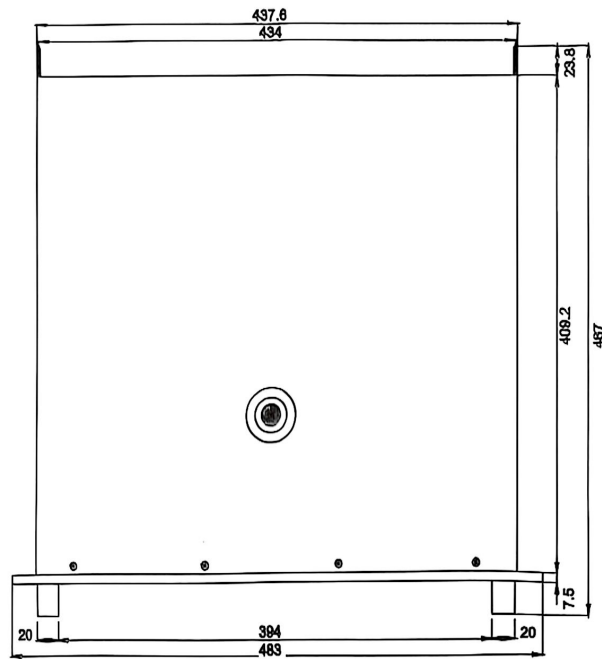
When mounting five or more amplifiers in an open-backed rack, and when mounting any number of amplifiers in a close-backed rack

Install ventilation panels above and below each amplifier, as shown below.



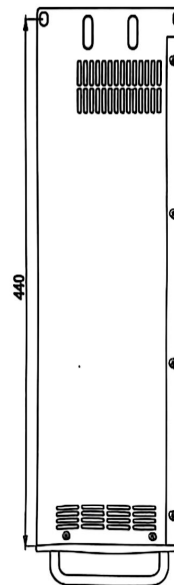
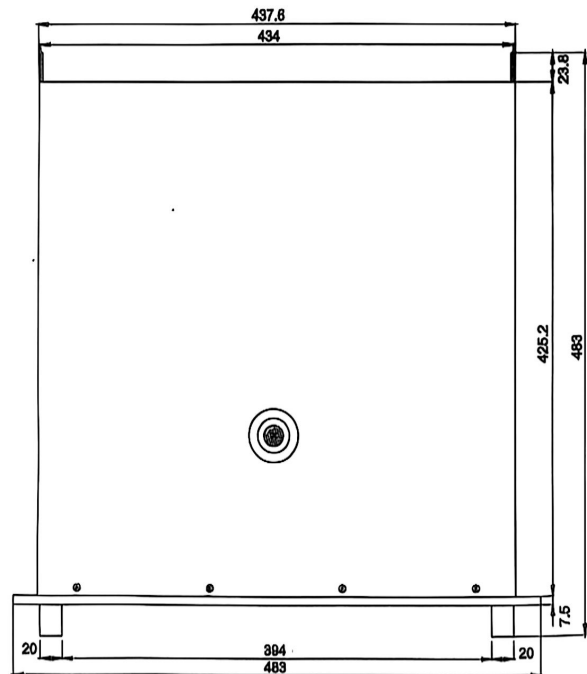
Dimensions

■ 2U Amplifier Dimensions



Unit: mm

■ 3U Amplifier Dimensions



Unit: mm

Troubleshooting

The following table lists the main causes of abnormal operation and the corrective measures required, as well as the protective circuit operation in each case.

Indicator(s)	Possible Cause	Remedy	Protection Circuit
CLIP indicator lights.	There is a short at a speaker terminal, amplifier terminal, or wire.	Locate and correct the cause of the short.	The PC limiter circuit operates to protect the power transistors.
	The amplifier load is excessive.	Use a speaker system with an impedance of at least 4 Ω (STEREO/PARALLEL mode) or 8 Ω (BRIDGE mode).	
PROTECTION indicator lights.	The heat sink temperature has exceeded 95°C (203°F)	Check the ventilation slots, and provide better airflow around the amplifier.	The thermal protection circuit operates to protect the power transistors.
	Amplifier output overload more than $\pm 2V$ or more than this	Consult your dealer or the nearest service center.	The protection circuitry shut off the power to protect the speaker system.

- Amplifier maintain :

The unit must repair when as below un-security case . please disconnected the amplifier from AC power source .

- Amplifier is smoking and scorching
- Unit cover case deformation
- Unit wet by fluid
- Unit accessories had been fetch away
- AC Circuit Breaker is disconnected always
- Please check the unit should be fetch away or damage after drop somewhere

Specifications

■ General Specifications

Out Power (8Ω)	2x200W	2x300W	2x400W	2x500W	2x600W	2x700W	2x800W	2x900W	2x1000W	2x1200W	2x1400W
Out Power (4Ω)	2x300W	2x450W	2x650W	2x750W	2x900W	2x1050W	2x1200W	2x1350W	2x1500W	2x1800W	2x2100W
Out Power (2Ω)	2x400W	2x600W	2x800W	2x1000W	2x1200W	2x1400W	2x1600W	2x1800W	2x2000W	2x2400W	2x2800W
Out Power (8Ω) (BRIDGE)	600W	900W	1200W	1500W	1800W	2100W	2400W	2700W	3000W	3600W	4200W
Out Power (4Ω) (BRIDGE)	800W	1200W	1600W	2000W	2400W	2800W	3200W	3600W	4000W	4800W	5600W
Frequency Response	20Hz-20KHz (±0.25dB)										
THD 20Hz-20kHz 8Ω	0.03%					0.035%					
Signal to Noise	-105dB					-102dB					
Slew Rate	45V/uS										
Damping Factor	>400					>300					
Input Sensitivity	0.775V/1.0V/1.4V										
Input Impedance	20KΩ Balanced or Unbalanced										
Output Circuitry	Class AB					Class H					
Input Connectors	XLR socket, balanced/unbalanced signal input										
Output Connectors	SPEAKON, binding posts										
Protection	Short circuit,open circuit,thermal,R F protection Load protected against DC faults										
Cooling Pattern	High/low Automatism Control										
Power Supply Voltage	(115V/230V) Can offer different voltage according client's requirement.										
Power Supply Fuse	3A	5A	8A	10A	10A	15A	15A	15A	20A	20A	25A
Dimensions (W*D*H)	483x441x88.8mm(2U)							483x456x132mm(3U)			

Due to continuous development these specifications are subject to change without notice.