

USER'S MANUAL

Professional Power Amplifier



5. TECHNICAL SPECIFICATIONS

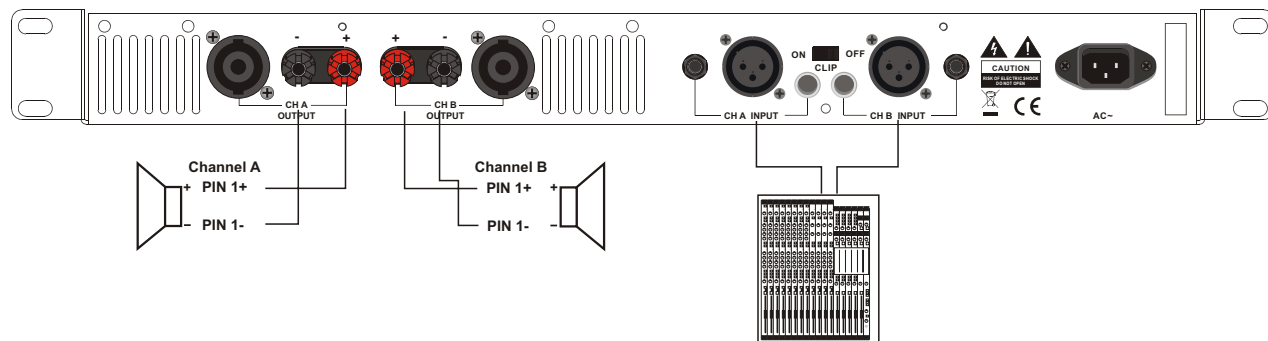
ELECTRICAL SPECIFICATIONS					
		500W	400W	300W	200W
Stereo mode, 1KHz (Both channels driven)	4ohms	250W×2	200W×2	150W×2	100W×2
	8ohms	140W×2	120W×2	85W×2	60W×2
Input sensitivity		Balanced 1/4" TRS and XLR: 0.89V(-1dBV); unbalanced RCA: 1.67V (4.5dBV)			
Input impedance		10KΩ Unbalanced 20KΩ Balanced			
Frequency response (at 10dB below rated output power)		5Hz ~ 20kHz, +0/-1dB			
Voltage gain		30dB	29dB	27.5dB	26dB
Distortion (10W, 1kHz, 4ohms)		<0.05%	<0.05%	<0.05%	<0.05%
S/N ratio (A-Weighted)		>100dB	>100dB	>100dB	>100dB
Damping factor		300 @4Ω			
Protections		DC protection, short-circuit protection, thermal protection, overload protection, clip limiter			
Controls		Front: AC switch, input level control for each channel. Rear: clip ON/OFF selector			
Indicators		SIGNAL: 2×green LED CLIP: 2×red LED POWER: 2×blue LED			
Connectors		INPUT: Active balanced XLR, 1/4"(6.3mm)TRS and unbalanced RCA OUTPUT: "Touch-proof" binding posts and Speakon			
Power supply		Available for 110-120V or 220~240V AC 50/60Hz			
Dimensions		480×330×43mm			
Weight		9.5kg	8.5kg	8kg	7.5kg

4. QUICK START

When operate the amplifier, please make sure:

- Please check the AC voltage available in your country before connecting your amplifier to the AC socket.
- All connections have been made correctly.
- Set the volume control to a proper position. General, turn down the both volume control before switching on the amplifier for avoiding damaging your loudspeaker system or excessive noise.
- Turn on the amplifier via the power switch.
- Then, adjust the volume slowly for getting the best signal to noise ratio.
- After using, please turn off the device.

500W/400W/300W/200W professional power amplifier can be used in a wide variety of sound reinforcement applications. When connecting the speaker, please pay attention to the speaker impedance. The speaker impedance will vary according to the connection method and number of speaker. Please be sure that your speaker's impedance is not less than the relevant Minimum value indicated "SPECIFICATIONS" chapter.



IMPORTANT SAFETY SYMBOLS



The symbol is used to indicate that some hazardous live terminals are involved within this apparatus, even under the normal operating conditions, which may be sufficient to constitute the risk of electric shock or death.



The symbol is used in the service documentation to indicate that specific component shall be replaced only by the component specified in that documentation for safety reasons.



Protective grounding terminal



Alternating current/voltage



Hazardous live terminal

ON: Denotes the apparatus is turned on

OFF: Denotes the apparatus is turned off.

WARNING: Describes precautions that should be observed to prevent the danger of injury or death to the operator.

CAUTION: Describes precautions that should be observed to prevent danger of the apparatus.



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.

IMPORTANT SAFETY INSTRUCTIONS

- Read these instructions.
- Keep these instructions.
- Heed all warning.
- Follow all instructions.

Water & Moisture

The apparatus should be protected from moisture and rain, can not used near water, for example: near bathtub, kitchen sink or a swimming pool, etc.

Heat

The apparatus should be located away from the heat source such as radiators, stoves or other appliances that produce heat.

- **Ventilation**

Do not block areas of ventilation opening. Failure to do could result in fire. Always install accordance with the manufacturer's instructions.

- **Object and Liquid Entry**

Objects do not fall into and liquids are not spilled into the inside of the apparatus for safety.

- **Power Cord and Plug**

Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus. 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 is provided for your safety. If the provided plug does not fit into your outlet, refer to electrician for replacement.

- **Power Supply**

The apparatus should be connected to the power supply only of the type as marked on the apparatus or described in the manual. Failure to do could result in damage to the product and possibly the user. Unplug this apparatus during lightning storms or when unused for long periods of time.

- **Fuse**

To prevent the risk of fire and damaging the unit, please use only of the recommended fuse type as described in the manual. Before replacing the fuse, make sure the unit turned off and disconnected from the AC outlet.

- **Electrical Connection**

Improper electrical wiring may invalidate the product warranty.

- **Cleaning**

Clean only with a dry cloth. Do not use any solvents such as benzol or alcohol.

- **Service**

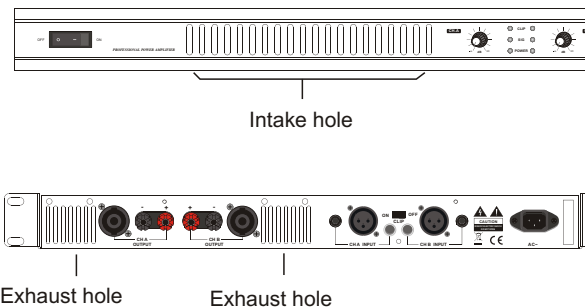
Do not implement any servicing other than those means described in the manual. Refer all servicing to qualified service personnel only.

- **Only use accessories/attachments or parts recommended by the manufacturer.**

3. INSTALLATION AND CONNECTION

3.1 Installing in A Standard Rack

All models are standard 1U size, which can be mounted in 19" standard rack with good ventilation. Please ensure that there are enough space for cooling, and do not block the ventilation, because the heat from the amplifier may cause the interior of the amplifier to become very hot, in this way, it will cause the performance of the amplifier to be impaired.

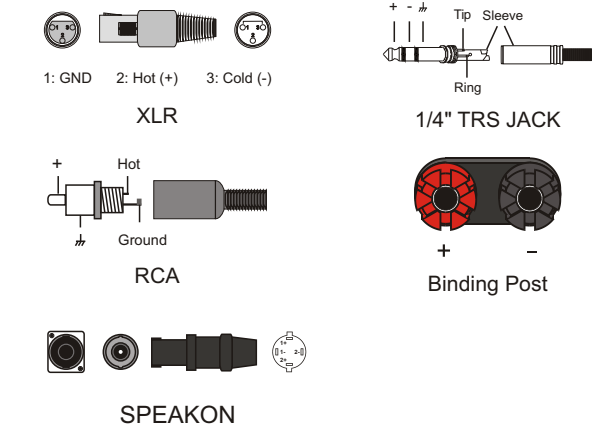


All models provide the variable fan for cooling the inside temperature of amplifier. The cooling fan draw air in from the front and exhaust it through the rear. Please be sure that do not block the air intakes or exhaust vents.

3.2 Audio Connection

All models present with XLR, 1/4" phone jack, RCA and binding post connectors, it can be interfaced by several ways to support a variety of applications without any signal loss.

- **Wiring configurations**



3.3 Power Connection

Please ensure that the amplifier is set to the correct supply voltage before plug the power cord into the wall outlet. The mains connection of the amplifier is made by using the enclosed mains cord and a standard IEC receptacle. It meets the international safety certification requirements.

7. AC Inlet socket

Standard 3-conductor type IEC power connector, serve to connect the amplifier to the mains supply via the enclosed power cord. Please make sure the voltage available in your country and how the voltage for your amplifier is configured before attempting to connect the mains supply.

Note: To prevent the risk of shock or fire hazard, always be sure that the amplifier and all associated equipment is properly grounded.

8. Audio INPUT connectors

All models provide electronically balanced XLR (F), 1/4" phone jacks and unbalanced RCA connectors, designed for connection of external audio signal.

For satisfying various connection requirements, it use low-noise, electronically balanced/unbalanced circuit, which can accept balanced and unbalanced audio signal and offer a very wide dynamic range capable of handling virtually any signal level.

9. Audio OUTPUT connectors

Professional binding posts and Speakon connectors, serve to output the powered signal to external loudspeakers.

Note: Please make sure that the impedance does not fall below this specified impedance.

10. CLIP switch

Set this switch at ON position to activate the limiter circuit on output stage, once the output signal exceeds the rated power, the CLIP limiter will compress the output signal to normal for protecting your speaker system from damage.

11. Ventilation

The ventilation is used to vent the heat. The built-in variable speed fans, serve to cool the internal temperature of amplifier for reducing the noise.

Note: The fan operates at initial power-on, and the fan speed will vary automatically as the internal temperature changes.

1. INTRODUCTION

Thank you very much for expressing your confidence in our product by purchasing 500W/400W/300W/200W professional Power amplifier. The series of products are simple, conventional amplification facilities, which are based on many years R&D experience and employ several advanced technologies, including clever clip limiter, short circuit protection, DC protection and thermal protection and so on, these features can protect the amplifier from damage and /or overload. Besides, 500W/400W/300W/200W professional power amplifier also provided with following smart features:

- Robust and compact design
- Standard 1U rack size
- Easy to operate front/rear panel control interface
- Each channel provides SIGNAL LED, CLIP LED and POWER LED indicators
- Volume control for each channel
- Electronically balanced XLR, 6.3 Φ jack and RCA input connectors
- Binding post and Speakon output connectors
- Protection circuit design (DC protection, short-circuit protection, thermal protection, overload protection, clip limiter)
- Variable-speed low noise fan ensures high reliability even under demanding conditions
- Light-weight for easier racking and shipping

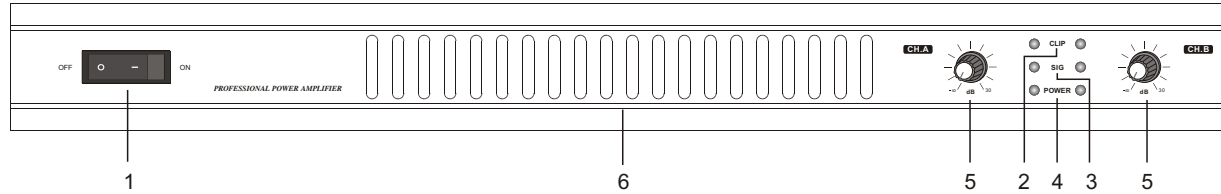
In short, 500W/400W/300W/200W power amplifier is the optimum combination of performance, reliability and value in an ultra-light weight package, all these features make it well suitable for small venue, studio/broadcast, recording and general applications.

This manual covers the four models: 500W, 400W, 300W, 200W power amplifiers. Please read this manual carefully before use, in such a way, you will get the best out of the amplifier and enjoy long and trouble-free operation

2. CONTROL ELEMENTS

2.1 Front Panel

The front control elements of all models are identical, so we have used the 500W as the representation to assure simplicity.



1. POWER Switch

This is the main power switch, which is used to turn ON or OFF the amplifier. The POWER LED lights up when the amplifier is turned ON.

Note: For avoiding damaging your device, please turn down the volume before turning on the power switch.

2. CLIP Indicator

The red LED indicator lights up when the corresponding channel's output signal reaches or exceeds the clipping level. Output signal clipping is usually due to excessive input signal level.

3. SIG Indicator

Each channel provides a SIG LED indicator. These green LED indicators light up when the channel's output signal exceeds 500mV rms.

4. POWER Indicator

These blue LED indicators light up when the power switch is turned ON.

5. Volume Control

These volume controls are used to adjust the volume of corresponding channel (CHA or CHB) in 40 steps in the range of $-\infty$ dB to 30dB. Turning the control fully counterclockwise is the off setting ($-\infty$), which is always a good idea to power up any new installation for protecting the system loudspeakers from the damage.

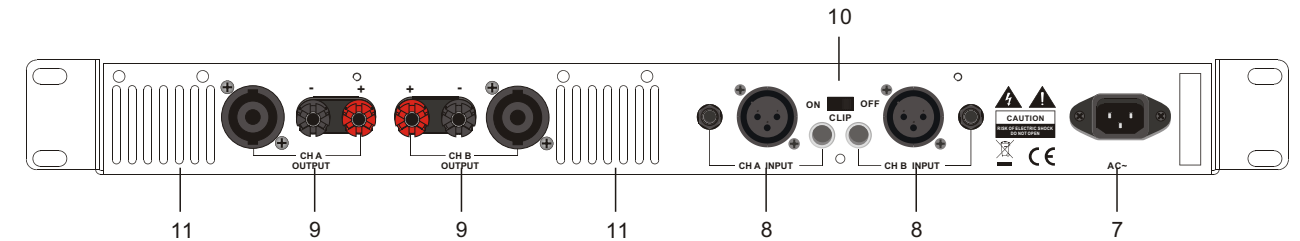
6. Air Intake

The series of amplifiers use air cooling system. The cooling fan draw air in from the front and exhaust it through the rear. Please be sure that the air intakes can not be blocked.

2.2 Rear Panel

The series of power amplifiers provide the identical panel, equip with balanced 1/4" TRS, XLR and unbalanced RCA input connectors, and professional Binding post and speakon output connectors to make connections quick and easy.

For further details, please refer to following illustration:



Rear Panel illustration