

USER MANUAL

PMA-200

POWER AMPLIFIER



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INTRODUCTION:

Taking this opportunity, we express our sincere thanks to clients who purchased our products.

Whole member of our Company, with a pride of long history and tradition, are paying hardest efforts to turn out products which can go with consumers' taste under continuous R&D and QC based on long-accumulated know-how.

We are sure this product will enhance the function of your systems one level higher, your further interests in our products and continuous encouragement would be very much appreciated.

SAFETY INSTRUCTIONS

The following safety instructions have been included in compliance with safety standard requirements.

1. Read instructions

All the safety and operating instructions should be read before the appliance is operated.

2. Retain instructions

The safety and operating instructions should be retained for future reference.

3. Heed warnings

All warning on the appliance and in the operating instructions should be adhered to.

4. Follow instructions

All operating and use instructions should be followed.

5. Water and Moisture

The appliance should not be used near water-for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, etc.

6. Cart and Stands

The appliance should be used only with a cart or stand that is recommended by manufacturer.

7. Ventilation

The appliance should be situated so that its location or position does not interfere with its proper ventilation. For example, the appliance should not be situated on a bed, sofa, rug or similar surface that may block the ventilation opening or placed in a built-in installation, such as a bookcase or cabinet that may impede the flow of air through the ventilation openings.

8. Heat

The appliance should be situated away from heat sources such as radiators, heat resisters, stoves, or other appliances(including amplifiers) which product heat.

9. Power Source

The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.

10. Grounding or polarization

Precautions should be taken so that the grounding or polarization means of a appliance is not defeated.

11. Cleaning

The appliance should be cleaned only as recommended by the Manufacturer.

12. Object and Liquid Entry

Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.

13. Power Lines

An outdoor antenna should be located away from power lines.

14. Damage Requiring Service

The appliance should be serviced by qualified service personnel when:

A. The power-supply cord or the plug has been damaged: or

B. Objects have fallen, or liquid has been spilled into the appliances: or

C. The appliance has been exposed to rain: or

D. The appliance does not appear to operate normally or exhibits a marked change in performance: or

E. The appliance has been dropped: or the enclosure damaged.

15. Servicing

The user should not attempt to service the appliance beyond that described in the operating instruction. All other servicing should be referred to qualified service personnel.

OPERATTING PRECAUTIONS

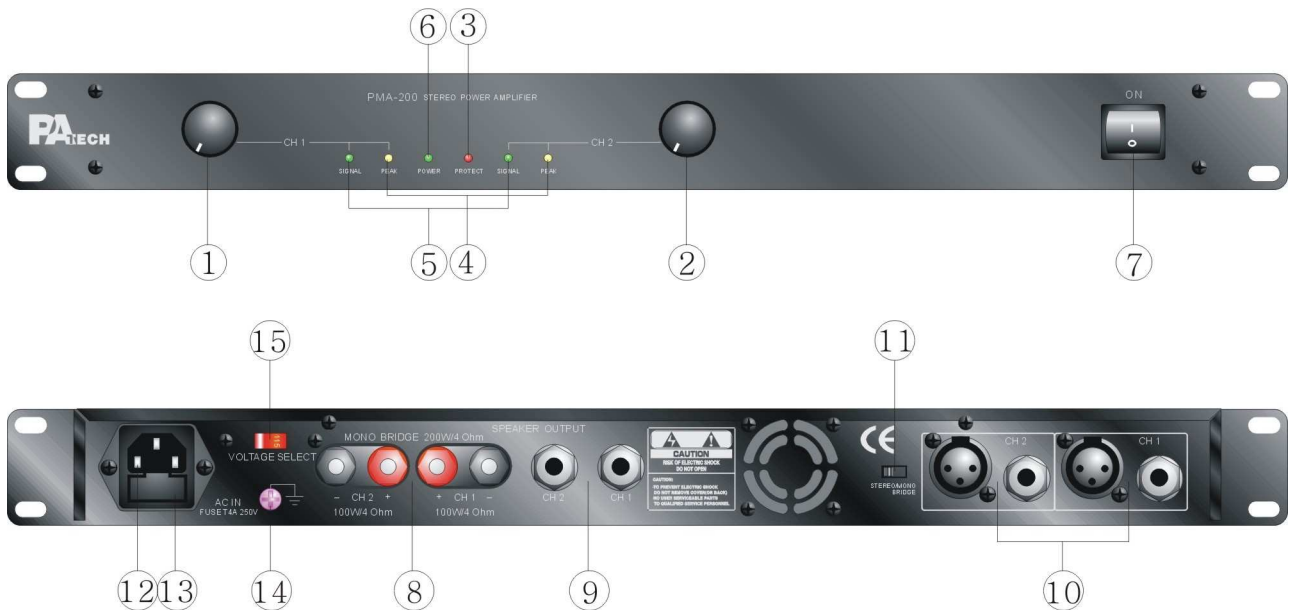
Make sure the mains voltage is correct and is the same as that printed on the rear of the amplifier. Unless otherwise specified when ordered, amplifiers shipped to customers in North America operate on 120VAC 60Hz; those shipped to customer in Europe and Asia operate on 220-240VAC 50Hz and those shipped to customers in Japan operate on 100VAC 50Hz. Damage caused by connecting the amplifier to improper AC voltage is not covered by any warranty.

Always power down and disconnect the amplifier from mains voltage before making connections. It is always a good idea to have the gain controls turned down during

power-up to prevent speaker damage if there is a high signal level at the inputs.

Whether you buy them or make them, use good-quality input and speaker cables. The Most intermittent problems are caused by faulty cables. Use good-quality connectors and wire along with good soldering technique to ensure trouble-free reliability. See the sections on Stereo Operation and Bridged-Mono Operation for more information.

FRONT & REAR PANEL DISPLY



FEATURES ON PANEL CONTROLS

1~2. VOLUME CONTROL

The two input attenuator controls (located at the front panel) adjust gain for their respective amplifier channels in all modes. The Main amplifiers have input sensitivities of 1.15 Volts for rated power at 8 ohms, and have standard voltage gains.

3. PROTECT LED

Protect LED lights when protect function is active.

4. PEAK LED

All Main amplifiers features four front panel LED indicators (two per channel: Peak, Signal) to inform the user of each channel's operating status and warn of possible abnormal function. A channel's Peak LED will light dimly at the onset of peak and increase in brilliance as peak becomes more severe, staying on until the peak cases. If the Peak LED's are flashing quickly and intermittently, the channel is just at the peak threshold, while a steady, bright glow means the amp is "peak limiting" or reducing gain to prevent severely peak-wave form reaching the loudspeakers.

5. SIGNAL LED

This green LED lights when its channel produces an output signal of about 4 volts RMS or more (1 volt or more at the input, with 0dB attenuation), indicating that there is amplified signal present in the amplifier. It is useful in determining whether a signal is reaching and being amplified by the power amplifier.

Note: If the signal reaching the power amplifier is bellow 50-100mV, the LED will not be active. Also, if the amplifier goes into protective mode, this LED will not active.

6. POWER LED

The green Power LED indicates that the channel is operational. It lights under normal operation, when a channel is not in protection mode. If the Power LED goes off, there is no signal at the module output point.

7. AC POWER SWITCH

Power ON/OFF switch

8~9. SPEAKER JACK

Connect same polarity of speaker(+,-)as terminal of connection of Left, Right speakers.

10. CH 1, 2 INPUT JACK

Balanced & Unbalanced signal input of CH 1 & 2. Can use XLR plug & 6.3 mm plug.

11. STEREO, MONO(BRIDGE) SWITCH

Slide switch to select stereo or bridged mono mode.

12. AC Mains Power Input Socket

AC115~230V, 50/60Hz

*Check the power source of AC Voltage before connections

13. Power Fuse

When power is overload, this Current will auto broken circuit and all LED at front panel will turn off. Now, you should turn off the POWER SWITCH at front panel, then change fuse at rear panel to recovery setting. Then pressing POWER SWITCH again to power-up the amp.

14. GROUND TERMINAL

This is ground terminal to be connected with chassis of the turntable etc, to reduce hum to the minimum. To further minimize hum, it may necessary to connect this terminal with a wire to the nearest water pipe which goes directly to real ground.

15. Voltage Selector 115V~230V 50/60 Hz

CONNECTING INPUTS

Example:

1. Driving a single 8 ohm speaker with the combined 4 ohm power of both channel
2. Driving a single 4 ohm speaker with the combined 2 ohm power of both channel

Precautions:

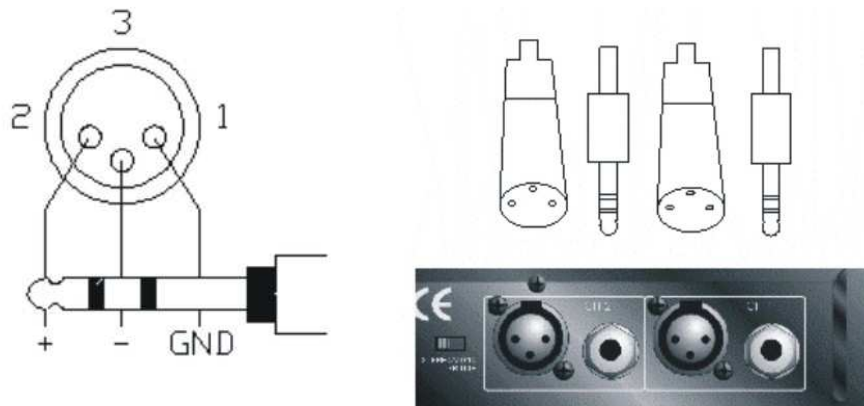
1. Bridge mono mode makes it possible to drive thousands of watts into a single speaker. AC current consumption will usually be higher. Avoid excessive signal level and make sure the wiring speaker can handle the power.
2. Do not use 2-ohm loads.

Installation:

Rack mounting of the amplifier is optional. Use four screws and washers when mounting the amplifier to the front rack rails.

Connections inputs:

Each channel has active balanced XLR and 1/4" (6.3mm) inputs wired in parallel. The input impedance is 20k ohms balanced, 10k ohms unbalanced.



Balanced signals are less prone to AC hum, but unbalanced signals can be suitable for short cable runs. The signal source's output impedance should be less than 600 ohms to avoid high frequency loss in long cables.

Balanced inputs: Use the XLR.

Unbalanced inputs: Connect the unused side of the balanced input to ground, as shown above left. A tip-sleeve 1/4"(6.3mm) connector will correctly terminate the unused side of the input without modification.

For two-channel (stereo) operation, use the inputs for both Channel 1 and Channel 2; for parallel or bridged mono operation, use the Channel 1 input. To patch the audio signal to other amps (parallel and bridged modes only).

SPEAKER CONNECTIONS

Connect the left-side loudspeaker to the left-channel speaker terminals and the right side loudspeaker to the right-channel speaker terminals of this unit, take care to observe connect (+) and (-) polarity. If the polarity of one speaker is reversed, the speakers will be out of phase, causing a loss in bass response and unstable, irregular stereo imaging.

Double-check to make sure that both speakers have the same polarity.

- It is recommended that you use high-quality, heavy gauge speaker cable with low resistance. Designed specially for audio applications, using thin cable with high resistance may impair sound quality and prevent the amplifier from delivering its full potential.
- The speaker cables for both channels should be approximately equal in length, as a marked difference can result in improper left/right balance.
- Speaker Polarity note

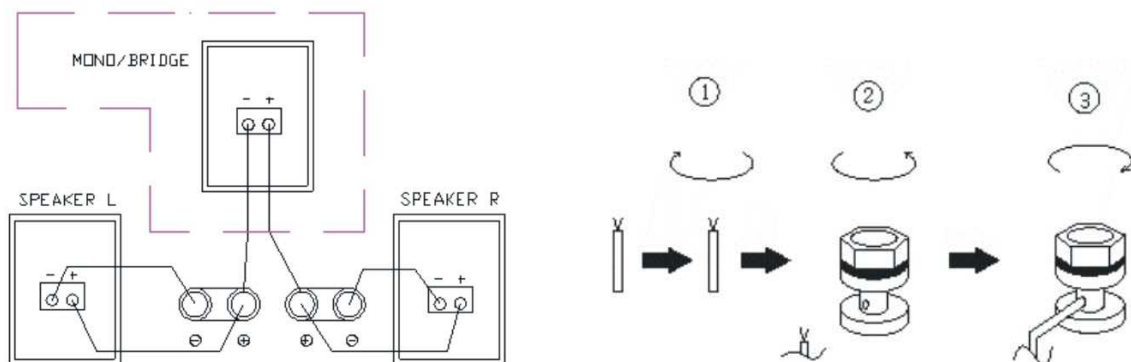
Be sure to observe speaker polarity(+,- leads) throughout your system. Getting them wrong can result in missing bass, massive distortion, or blown speakers!

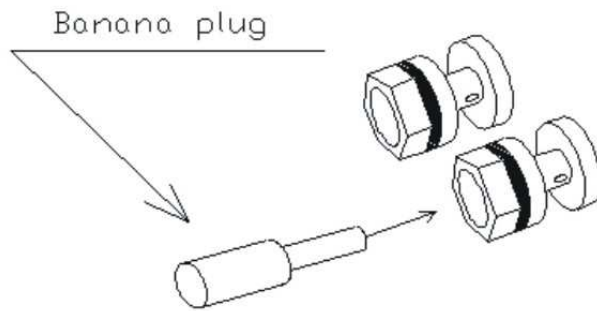
Left positive (+) terminal to left speaker positive (+).

Left negative (-) terminal to left speaker negative (-).

Right positive (+) terminal to right speaker positive (+).

Right negative (-) terminal to right speaker negative (-).





Speaker TM Output:

The PMA amplifier offers a choice of output connections, with two 6.3mm Phone jacks.

The 6.3mm Phone jack connector is designed specially for high-power speaker connections. For easier insertion, insert 6.3mm Phone jack to break banana jack output.



SPEAKER CABLING:

Larger wire size and shorter length minimize both loss of power and degradation of damping factor. Do not place speaker cables next to input wiring.



WARNING: To prevent electric shock, do not operate the amplifier with any of the conductor portion of the speaker wire exposed.

Binding post outputs:

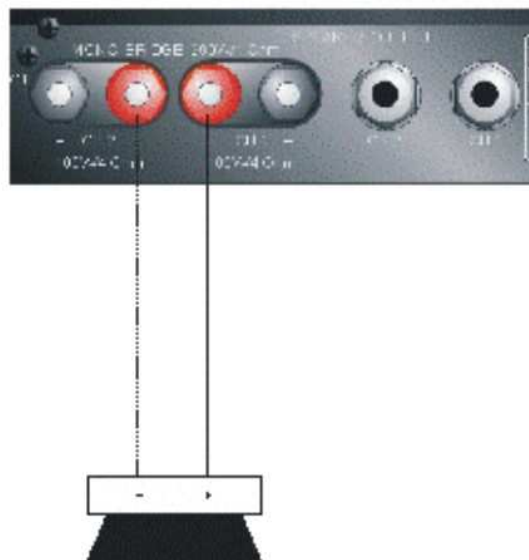
1. Strip back insulation not more than 13mm(1/2 inch)
2. Insert wire fully so that none of the conductor is exposed: tighten barrel (use coin if necessary)
3. Non-European models only...
4. Spade lugs must have insulated barrels to prevent electric shock.

Warning: To prevent electric shock, do not operate the amplifier with any of the conductor portion of the speaker wire exposed.

Connections for stereo and parallel operations



Connections for bridged mono operation



SPEAKER CABLING

Larger wire sizes and shorter length minimize both loss of power and degradation of damping factor. Do not place speaker cables next to input wiring.

PMA 200 Technical Specifications

Type	Power Amplifier	
Model	PMA200	
Supply	Mains Voltage	AC 115V or 230V, 50 / 60Hz \pm 10% Switchable
Output power Rated:	100Wx2 @8 Ω 1%THD 130Wx2 @4 Ω 280W @4 Ω (Bridged) 200W @8 Ω (Bridged)	
Total harmonic distortion	<=0.05% at 20Hz ~ 20KHz	
Sensitivity	1V (full power)	
Signal to noise ratio	>100dB	
Frequency response	20 Hz ~ 20 KHz	
Inputs Impedance	10K Ω (Unbalanced) 1/4" Phone Jack 20K Ω (Balanced) XLR	
Indicators	Signal, Protect, Peak, Power	
Speaker Output	Binding Type or Phone Jack	
AC power consumption	500W	
Dimensions	44mmX483mmX290mm(HWD)	
Weight	5 KGS	
Color	Black	
Mounting options	Table top or 19" rack mountable	