adertech

PAMP-4200

Professional Class-D Four Channel Amplifier



User manual

SAFTY WARNINGS!

1. Read and keep these instructions.
2. Heed all warnings and follow all instructions.
3. Do not use this apparatus near water.
4. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
5. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus that produce heat.
6. 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, consult an electrician for replacement of the obsolete outlet.
7. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
8. Only use attachments/accessories specified by the manufacturer.
9. 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.
10. Unplug this apparatus during lightning storms or when unused for long periods of time.
11. 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.
12. This appliance shall not be exposed to dripping or splashing water and that no object filled with liquid such as vases shall be placed on the apparatus.
13. Plug this apparatus to the proper wall outlet and make the plug to be disconnected readily operable.
14. Main plug is used as disconnected device and it should remain readily operable during intended use. In order to disconnect the apparatus from the mains completely, the mains plug should be disconnected from the mains socket outlet completely.
15. WARNING: To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.
16. An appliance with a protective earth terminal should be connected to a mains outlet with a protective earth connection.

WARNING!

TO PREVENT FIRE OR SHOCK HAZARD, DO NOT USE THE PLUG WITH
AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES
CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.
TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE
THIS APPLIANCE TO RAIN OR MOISTURE.
TO PREVENT ELECTRICAL SHOC
K, MATCH WIDE BLADE PLUG TO WIDE SLOT, FULLY INSERT.



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.

CAUTION

RISK OF ELECTRIC SHOCK DO NOT OPEN

WARNING: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



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 appliance.

INTRODUCTIONS

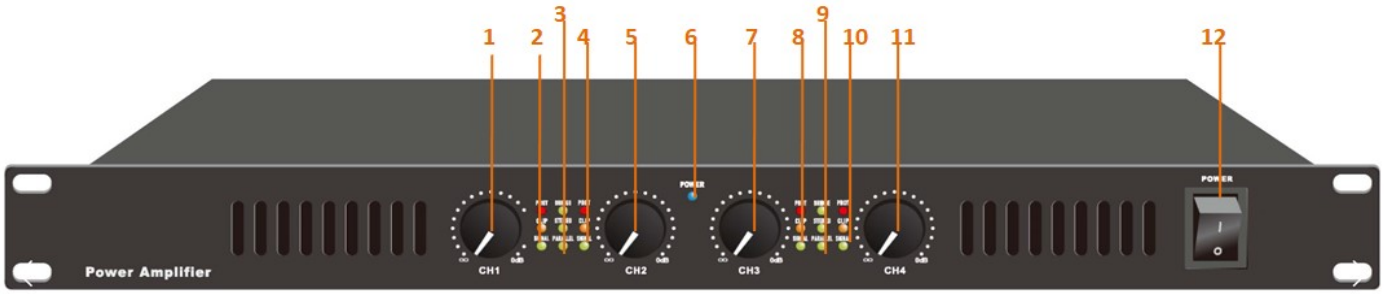
Description

The PAMP-4200 series four channel power amplifier is designed for professional audio application and fix installation sound system, it is digital class-D technology which helps the amplifier generate powerful output while keep less heat because of its high efficiency up to 85%. The power amplifier is designed with PWM special power supply to ensure its extreme stability, less noise and minimum heat. Its rated power from 4×200W Wat stereo 8Ω, the amplifier support 8Ω & 4Ω and versatile mode of stereo, parallel and bridge makes it work well with line array speaker, subwoofer and professional loudspeakers. With complete protection of clip, high temp, overload and short circuit to ensure this amplifier work under severe working environment.

Features

- Switching power technology digital Class-D power amplifier
- Green technology amplifier of 85% efficiency
- With PWM special power circuit to ensure excellent cooling system
- 19” universal rack mount type in 1U height
- Support stereo output at 8Ω & 4Ω
- Output mode selector of stereo, parallel and bridge
- 4×Input by balanced XLR male connector
- 4×Output by balanced Speakon female connector
- Complete protection include clip, high temp, overload and short circuit

FRONT PANEL



1. CH1 volume knob
2. CH1 protect, clip & signal indicators
3. Bridge, stereo & parallel indicators
4. CH2 protect, clip & signal indicators
5. CH2 volume knob
6. Power indicator
7. CH3 volume knob
8. CH3 protect, clip & signal indicators
9. Bridge, stereo & parallel indicators
10. CH4 protect, clip & signal indicators
11. CH4 volume knob
12. AC power switch

REAR PANEL



1. AC Power Socket.
2. CH4 speaker output
3. CH3 speaker output
4. CH2 speaker output
5. CH1 speaker output
6. CH4 XLR Input, balanced
7. Bridge, stereo & parallel selector
8. CH3 XLR Input, balanced
9. CH2 XLR Input, balanced
10. Bridge, stereo & parallel selector
11. CH1 XLR Input, balanced



Male XLR-3P:
Pin1-Ground
Pin2-Positive signal
Pin3- Negative signal

AMPLIFIER OPERATION GUIDANCE

Setup

Before operating the PAMP-4200 series amplifier, check the mains supply voltage and connect the IEC inlet to the mains power supply using the power lead supplied (or equivalent). Ensure that the cooling vents at front and rear are not covered or obstructed in any way with adequate space for air-flow through the unit.

Each side of the PAMP-4200 series amplifier can be operated as an independent pair of channels or as a single combined output in Bridge mode. Set the mode using the selector switch for the relevant pair of channels (rear panel 7 & 10).

Bridge mode offers the option of operating the PAMP-4200 as a stereo amplifier into 2 larger 8Ω speakers.
It is also possible to operate one side in Bridge mode to give 1 high output channel with the other side in stereo, which can be useful to power a large sub and a pair of satellite speakers (left + right).

Standard dual stereo or quad mode

Connect speakers to **Channel 1**, **2**, **3** and **4** outputs via the SPK connectors (rear panel 2, 3, 4 & 5)
For standard output mode SPK wiring, connect **+** and **-** wires to pins **1+** and **1-** (most common configuration)
Ensure that the combined load on each channel is no lower than 4Ω (for speakers in parallel, 8Ω + 8Ω = 4Ω) Connect line level inputs to the **CH 1**, **2**, **3** and **4** XLR inputs (rear panel 6, 8, 9 & 11)
Each output is governed by its own channel gain control on the front panel.

Bridge mode

Bridge mode is different to standard mode in that it combines 2 of the output channels to a single mono output.
This mode enables double the power to a single speaker output compared with standard mode.
The difference is that the speaker load must be no lower than 8Ω, whether a single speaker or combined load. Bridge mode can be useful especially when driving a large, high power subwoofer.
Connect the speaker(s) for Bridge mode to the **Channel 1/3** SPK output(s).
Note that the SPK wiring in Bridge mode is different to standard mode.
Connect the "**+**" speaker wire to amplifier **1+ (rear panel 5)** and the "–" speaker wire to amplifier **2+ (rear panel 5)**.
Note: For reference, this wiring is printed on the rear panel. Incorrect speaker wiring can damage the amplifier!
In Bridge mode, **CH 1** and **3** XLR inputs send mono signal to the **CH 1** and **3** SPK outputs (pins 1+/2+)

Operation

With channel gain controls (front panel 1, 5, 7, 11) turned fully down (anti-clockwise), switch on the power (front panel 12) and the LED POWER indicator will light (front panel 6)
Playing the input signal into the connected channel inputs, gradually increase the relevant gain controls (only CH 1 and 3 will have an effect in Bridge mode). The amplified signal should be heard through the speakers and the SIG indicators (front panel 2, 4, 8, 10) should respond to the audio output. Increase the volume controls to the required level.
Alongside the SIG indicators are CLIP indicators, which should only light very briefly on the loudest transients or spikes in the audio. If the CLIP LEDs light for more than a fraction of a second at a time, the volume controls should be turned down or input signal will need to be reduced.

Before powering down, turn down the volume controls to avoid loud pops or noises through the speaker.

SPECIFICATION

Model	PAMP-4200			
Description	Four Channel Power Amplifier			
Rated Output 4Ω	4×350W			
Rated Output 8Ω	4×200W			
Bridge Out 4Ω	2×600W			
Bridge Out 8Ω	2×330W			
Frequency Response	20Hz~20KHz			
THD	<0.3%			
S/N Ratio	>105dB			
Input Impedance	20KΩ (bal.), 10KΩ (unbal.)			
Crosstalk	>75dB			
Connector	Input by XLR, 1V, 20KΩ (bal.), 10KΩ (unbal.)			
Power Supply	AC 100~240V, 50/60Hz			
Dimension	484×375×44mm			
Net Weight	5.0kg			

TROUBLESHOOTING

No power light on front panel switch	Ensure IEC inlet is connected to mains and lead is in good condition
	Ensure mains outlet is switched on
Power light is on but no other LEDs and no output	Check input signal and connection leads
	Ensure channel gain controls are not turned fully down
Power light and Signal LEDs are lit but no output	Check speaker leads are in good condition and connected properly
	If speakers/leads OK, switch off again and refer to qualified service personnel
	Check speakers are in good working order and not shorted (use a multi-tester)
Case getting hot	Ensure cooling vents are clear and fan is working (refer to technician if not)
Output is very distorted and CLIP LEDs are lighting	Check the speaker impedance is not below the rated Ohms
	Turn down the input level from audio source
	Turn down channel gain controls
Output is working but at very low level	Ensure input source is at line level
	Increase input level from audio source
	Turn up channel gain controls

SERVICE

Procedures

Ensure the problem is not related to operator error, or system devices that are external to this unit. Information provided in the troubleshooting portion of this manual may help with this process. Once it is certain that the problem is related to the product contact your warranty provider as described in the warranty section of this manual.

Schematic

A Schematic is available by contacting your warranty provider.

Parts List

A Parts List is available by contacting your warranty provider.

Variations and Options

Variations

Products supplied through legitimate sources are compatible with local AC power requirements.

Options

No optional items are available for this product.

Warranty

Warranty terms of global three years. While the term and warranty may vary by country and may not be the same for all products. Terms and conditions of warranty for a given product may be determined first by locating the appropriate country which the product was purchased in, then by locating the product type.

Specifications may change without pre-notice.

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