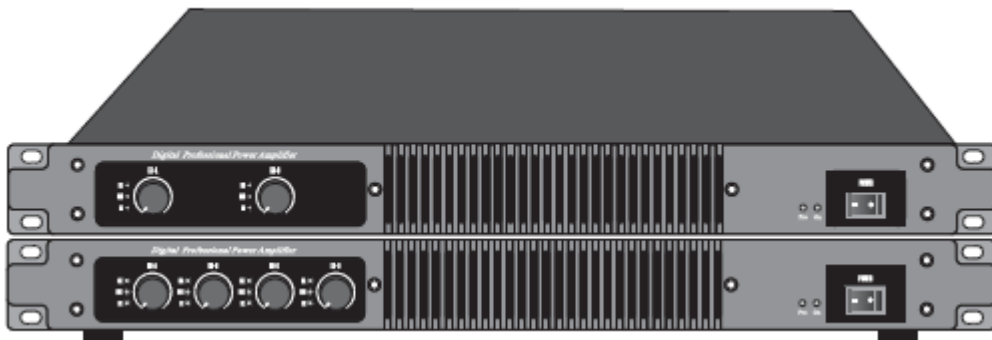


AUDEIA

AM421D

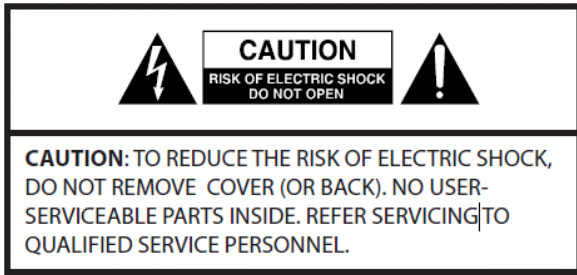
4 channel professional power amplifier



USER MANUAL



SIMBOLS



The lightning flash with arrowhead symbol (as the one in the left) is intended to alert the user to the presence of dangerous voltage within the product enclosure that may constitute a risk of electric shock to person.

The exclamation point within an equilateral triangle (as the one in the left), is intended to alert the user to the presence of important instruction concerning the use of the appliance.



SAFETY INSTRUCTIONS

- Read these instructions
- Keep these instructions
- Heed all warnings
- Trail all instructions
- Do not use this apparatus near water
- Clear only with dry cloth
- Install in accordance with the manufacturers instructions
- Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat
- No naked flame sources, such as lighted candles, should be placed on the apparatus.
- Do not block any ventilation openings.
- Do not defeat the safety purpose of the polarized or grounding type plug
- Ensures the source voltage matches the voltage of the power supply before turning ON the apparatus.
- If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- Protect the power cord from being walked on or pinched particularly at the plug, convenience receptacles, and the point where they exit from the apparatus.
- Unplug this apparatus during lightning storms or when unused for long periods of time.
- There are maybe some areas with high voltages inside, to reduce the risk of electric shock, do not remove any cover if the power supply is connected. The cover should be

removed by qualified personnel only. No user serviceable parts inside.

- This apparatus shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on this apparatus.
- To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.
- Only use attachments/accessories specified by the manufacturer.
- Refer all servicing to qualified personnel. To reduce the risk of electric shock, do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so.
- Servicing is required when the apparatus has been damaged in any way, such as the 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.
- Make sure to connect the protective grounding to prevent any electric shock before turning ON the apparatus.
- The external wiring connected to the output hazardous live terminals requires installation by an instructed person, or the use of ready-made leads or cords.
- Never cut off the internal or external protective grounding wire or disconnect the wiring of protective grounding terminal.

DISPOSAL OF ELECTRICAL AND ELECTRONIC EQUIPMENT

- All the electrical and electronic equipment should be disposed separately from the municipal waste via collection facilities designed by the government or local authorities.
- By disposing of electrical and electronic equipment correctly you help to save valuable resources and prevent any potential negative effects on human health and the environment.
- Improper disposal of waste electrical and electronic equipment can have serious effect on the environment and human health because of the presence of hazardous substances in this type of equipment.



- The waste electrical and electronic equipment (WEEE) symbol, which show a bin that has been crossed out, indicates that electrical and electronic equipment must be collected and disposed of separately

from household waste.

- Return and collection systems are available to end users. For more detailed information about the disposal of old electrical and electronics equipment, please contact your city office of waste disposal service or the shop where you purchased the equipment.

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Thank you for purchasing the AUDEIA AM421D 4 channel amplifier. The AM421D system is an high quality power amplifier, 4x150W in a 1U rack and with a very low weight. For the best use of the AM421D central unit please read this user's manual carefully, and keep it in safe place for future reference.

INCLUDED ITEMS

Following are listed included items, please contact the store where you purchased this unit if any of listed items are missing or have been damaged during transportation.

- The AM421D unit Q.ty 1
- AC power cord Q.ty 1
- Owner's manual (this manual) Q.ty 1

ABOUT THIS MANUAL

This manual is composed of five main section: "SAFETY PRECAUTION" in witch there are safety information and instructions; "CONTENTS" with the table of contents; "INTRODUCTION" a brief description to introduce you in the use of apparatus; "INSTRUCTION" with technical information concerning installation and usage; "TECHINICAL DATA" with thecnical specifics.

Each section name is printed on the top side of the manual.

LEGAL DISCLAIMER

AUDEIA, RSS, AASER and the other names of apparatus or components are trademarks or registered trademarks of respective owner.

No part of this manual may be reproduced or copied without write permission of AUDEIA.

AASER technology is world patented solution.

Technical specification and appearance are subject to change without notice.

PRECAUTION FOR INSTALLATION AND USE

- The operating temperature should be between 4°C and 36°C
- To prevent degrade of sound quality and malfunction do not install in places with significant vibration, exposed to direct sunlight, in extremely hot places, in

places with high humidity or bad ventilation, places exposed to rain or other water.

- Do not place anything on the unit
- Do not expose to fast reduction of temperature because condensation could occur with possible damaging of the apparatus. If this happen, leave the unit for one or two hours before turning the unit on.
- Avoid installing this unit on top of any heat-generating devices as power amplifiers also to avoid condensation.
- To clean the unit, wipe it lightly with a soft dry cloth. Do not wipe with cleaning cloths, paint thinner, benzene, athyl alcohol or other agents. Tis could damage the surface.

WARRANTY

To obtain Warranty Service, the buyer should first fill out and return the enclosed Warranty Registration Card compiled in every parts within 10 days of the Purchase Date.

In case of return for any warranty service, please make sure that the product is well packed in its original shipping carton, and it can protect your unit from any other extra damage.

Please provide a copy of your sales receipt and give detail information about your return address and contact telephone number.

The warranty service is only available to the original consumer, who purchased this product directly from the retail dealer, and it can not be transferred.

The warranty does not apply to the damages to this product that occurred as the following conditions:

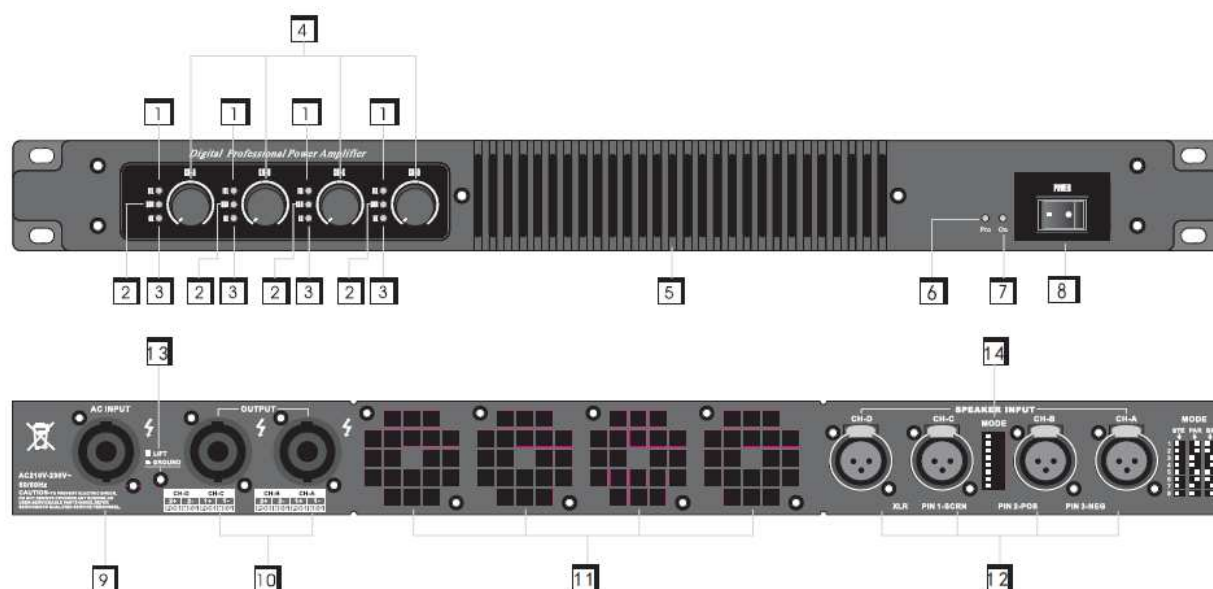
- Normal tear and wear.
- Any abuse or misuse of this product, or use not in accordance with this manual.
- The product has been altered or modified in any way.
- Damage which may have been caused either directly or indirectly by external and independent cause as other products malfunctions, shocks, and so on
- Abnormal service or repairing by not authorized technicians.
- In no event shall AUDEIA be liable for any incidental damages (if not specifically prescribed by the states laws).

Brief Introduction

It is very grateful for you to purchase our power amplifier. Please read the following instructions to get the best performance of the product.

- 1U Super Slim Design
- Speakon Output Connector
- Stereo,(Bridge Connection Operation Mode)
- 2/4/8 Sound Track
- Each channel is equipped with an independent clipping limiter.
- Reliability Design
- XLR, TRS Input Connector
- Complete amplifier protection

Control,connector and function



1. Clipping Indicator Light
2. Signal Indicator Light
3. LED Indicator Light
4. Gain Control
5. Cooling Vent
6. Protected Mode Indicator Light
7. Power Indicator Light
8. Power Switch
9. Power Cord Connector
10. Speakon Output Connector
11. Cooling Air Intake
12. XLR and TRS(1/4") Input Connector
13. Signal Grounding Switch
14. Stereo and Bridge Connection Mode Selector Switch

Rack Installation

The amplifier is mounted to the equipment rack rail with four screws and washers. To use the amplifier outside the rack, the self-adhesive rubber washer shall be fitted at its bottom. For easy carrying purpose, the amplifier can be supported by rear rack struts.

When mounting the equipment to the rack, please place in each set evenly. Otherwise, danger may occur due to the weight unbalance.

Cooling

Air flows through the race to the back of the amplifier, and out at the front, This keeps the rack cool. Do not block the front or rear air vent! Ventilation inside the amplifier: cold air goes into the rear cover of amplifier through cooling fan. Hot air flows out from the front cover of the amplifier.

The correct AC voltage is indicated on the voltage mark at the rear panel.

connection with wrong voltage may damage the amplifier or increase the risk of electric shock.

AC Power

Put the AC power on the power slot at the back of the amplifier. Notice: Before connecting the AC power, make sure that the AC power switch is OFF.



XLR and TRS (1/4') input

1. There are balanced 3-core XLR and TRS input end for each sound track. The input ends are all standard connections that can be changed quickly.

Legend 1:



2. There are balanced Female XLR and Male XLR input ends for each sound track.

Legend 2:



The input impedance is 20k ohms(balanced) or 10k ohms(unbalanced). It is recommended to reduce AC noise and interference by balanced connection, especially when using long cables, Unbalanced connection applies to short cables. Signal source impedance shall be less than 600 ohms. During inserting, the unbalanced TRS connector (2-core) will automatically connect the cathode(-) with the grounding end.

Mode Switch

The amplifier has a mode switch for switching the stereo or bridge connection mode. In addition, there is independent clipping limit for each sound track.

Select stereo or bridged connection mode.

The amplifier can be set as the normal stereo operation mode or bridge connection mono mode. Stereo mode - each sound track keeps independent.

The amplifier is available for two different signals. Bridge type-the setting uses double output power to merge two sound tracks into one. Set the gain control for the input ends of the first and second sound tracks to the maximum. For higher output power, the rated load must be set and connected as indicated on the output part.

Select stereo, parallel or bridge connection mode

The amplifier can be set to a normal stereo, parallel input mode or bridge connection mono mode.

Stereo mode-each soundtrack remains independent, and the amplifier can be used for two different signals.

Parallel-Mode-This set connects two input signals together, A signal inputs into two sound tracks, and

the gain control of each sound track and speaker connections remain independent.

Bridge type-the setting uses double output power to merge two sound tracks into one. Only use the input end and the gain control of the first sound track, and set the gain control of the second sound track to the minimum. For higher output power, the rated load must be set and connected as indicated on the output part.

When operating in parallel mode or bridge connection mode, do not connect different input ends to any side of the sound track line pair.



When operating in the bridge connection mode, do not connect the different types of input ends with any side of the soundtrack line pair.



Stereo and bridge connection mode? the mode configuration switch must be set. Bridge connection mode? the sound track pair of bridge connection mode shall be configured to drive a single voice-frequency circuit. For bridge connection mode, you must select the selector switch.

When using bridge connection mode, the minimum impedance is 8 ohms; do not use the load less than 8 ohms in bridge connection mode! Please pay attention to the connection polarity in bridge connection mode.



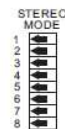
3. Each channel has a balanced input end.

Legend 3:



Stereo Mode:

1,2,3,4,5,6,7 and 8 are set on the left side, and CHA, CHB, CHC and CHD are connected to signal.



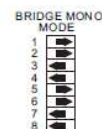
Parallel Mode:

1,2,5 and 6 are set on the right side, 3,4,7 and 8 on the left side, while CHA and CHC are connected to signal.



Bridge Connection Mode:

3,4,7 and 8 are set on the right side, 1,2,5 and 6 on the left side, while CHA and CHC are connected to signal.



Output

SPEAKON Output

Each sound track is available to general 2-wire cable. In addition, soundtrack 1 or 2 is available to 4-wire cable for single-line stereo or bi-amplifier bi-amp connection.



Safety warning of output end! Do not touch the output end while the amplifier power is ON. Turn

Legend 1:



Legend 2:



When using bridge connection mode, the minimum impedance is 8 ohms; do not use the load less than 8 ohms in bridge mode! Please pay attention to the connection polarity in bridge connection mode.



Gain Control

Turn the gain control clockwise, and the gain increases; turn the gain control counter clockwise, and the gain decreases.

The thermal protection circuit can be activated in case of continuous operation at high power,

allowing the amplifier to stop operating, and the protection indicator lights are lit up. When the amplifier is cooled enough, the operation will restart.



Gain Control and Indicator Light.

Legend 1:



Signal: Green shows that in each of the first two position gain control on the left.

- Normal display: blink when the input signal exceeds -35dB. When the signal is close to full power, the indicator light will blink continuously.
 - If there is no display: check the input end connection and audio source of the signal. If the clipping indicator light only blinks few times or no signal blinks, please check if the output wiring is in short circuit.
 - Abnormal display: If the signal indicator lights up without signal input, it may be caused by the system vibration or other faults. Disconnect the load and reduce the gain control completely. If the signal indicator light is lit up, the amplifier may need to repair.
- Clipping: Clipping: red, at the top of each gain control on the left.
- Normal display: when the amplifier goes beyond the full power drive, it will blink at any time, LED brightness
 - Abnormal display: if bright red blink occurs when the amplifier is working, it indicates that it is the hot mute or short-circuits output. short circuit or overload output circuit will cause excessive clipping flash and possible overheating, if you can feel the distortion without clipping display, the problem may exist at the front or rear of the amplifier. Check whether there is any damaged speaker or overload signal source. Amplifier gain control shall be in the upper half of this range to prevent put overload.
- Power abnormal display: AC power switch is turned on, OK indicator light will be lit up.
- If there is no display: check the AC power wiring and AC power socket, Check the rear panel breaker.
 - Abnormal display: the indicator light does not work under normal conditions.
 - Abnormal display: if the amplifier overheats, the protected indicator light will be lit up when the temperature exceeds 100°C . Keep the power on to allow the fan cool the amplifier.
- Protection: red is on the left side of the gain control group.
- Normal display: the light goes up when the amplifier switches to protection mute status, The indicator light does not work under normal conditions.
 - Abnormal display: If the protection LED is lit up, check whether the amplifier is in the protection mute status.

Technical Parameter

Channel Number	FOUR		
8ohms	150W		
4ohms	250W		
Frequency Response	20Hz-20KHz \pm 3dB		
THD + N	<0.05% @ 8ohms 1KHz		
S/N Ratio	>90dB		
Slewing Rate	40V/us		
Damping Coefficient	>600 @ 8ohms		
Channel Isolation	>100dB @ 8ohms 1KHz		
Input Impedance	20K(balance) / 10K(unbalance)		
Input Sensitivity	1.0V		
Protection Function	DC, short circuit, over heat,softstart		
Control function	Front Panel: power Switch/CH volume Rear Panel: mode/low pass/grounding		
Height	1U		
Volume	2.35kg	5.25kg	5.25kg

* 0 dB=0.775Vrms

* The specifications and appearance of this equipment may be changed without prior notice due to improvement.

