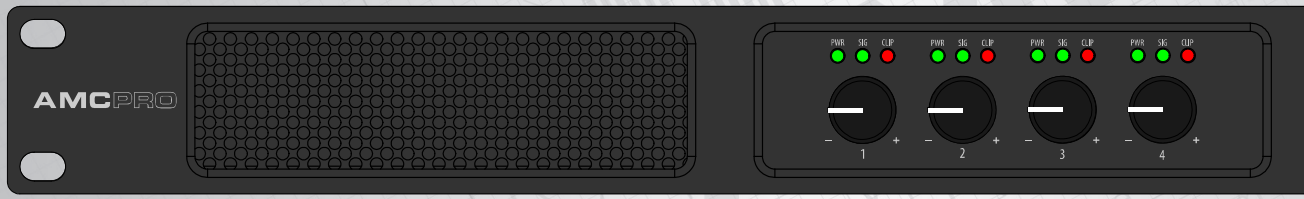
User Manual

AMP Power Amplifier



Safety instructions

When using this electronic device, basic precautions should always be taken, including the following:

1 Read all instructions before using the product.

2 Do not use this product near water (e.g., near a bathtub, washbowl, kitchen sink, in a wet basement or near a swimming pool etc).

3 Use this device when you are sure that amplifier has a stable base and it is fixed securely.

4 This product, in combination with loudspeakers and amplifier may be capable of producing sound levels that could cause permanent hearing loss. Do not operate for a long period of time at a high volume level or at a level that is uncomfortable. If you experience any hearing loss or ringing in the ears, you should consult with otorhinolaryngologists.

5 The product should be located away from heat sources such as radiators, heat vents, or other devices that produce heat.

6 The product should be connected to a power supply that is described in the operating instructions or are marked on the product.

7 The power supply should be undamaged and never share an outlet or extension cord with other devices. Never leave device plugged into the outlet when it is not being used for a long period of time.

8 Care should be taken that objects do not fall into liquids and liquids would not be spilled on the device.

9 The product should be serviced by qualified service personnel if:

- The power supply or the plug has been damaged.
- Objects have fallen into or liquid has been spilled on the product.
- The product has been exposed tor ain.
- The product has been dropped or the enclosure damaged.

10 There are some areas with high voltage inside, to reduce the risk of electric shock do not remove cover of the microphone receiver or power supply. The cover should be removed by the qualified personnel only.

CAUTION

RISK OF ELECTRIC SHOCK DO NOT OPEN

To reduce the risk of electric shock, do not remove screws. No user-serviceable parts inside. Refer servicing to qualified service personnel. To reduce the risk of fire, electric shock or product damage, do not expose this apparatus to rain, moisture, dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the apparatus.

Table of contents

Before you start

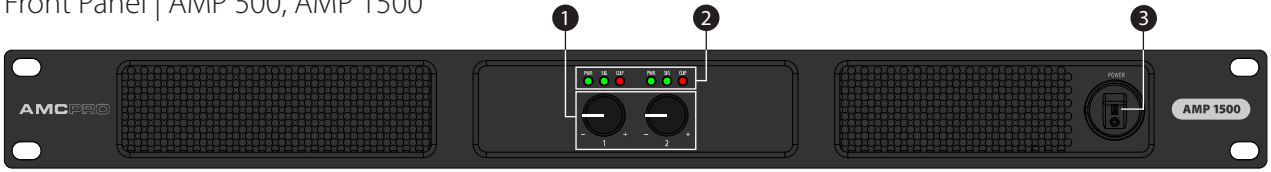
Highly efficient Class D amplifier designed in a slim 1 rack unit gives a choice to drive 8 Ω, 4 Ω, and 2 Ω speakers also ensures increased power density and better audio performance. Amplifiers are customized to use in live sound systems, great for night clubs and discos.

FEATURES

- D class power amplifier
- Switching power supply
- Designed to drive 2 Ω speakers
- Soft start
- 1 rack unit size
- Variable speed cooling FAN
- Balanced XLR inputs
- LINK outputs
- Powercon for connecting mains power
- Signal clipping indicator
- Overload protection

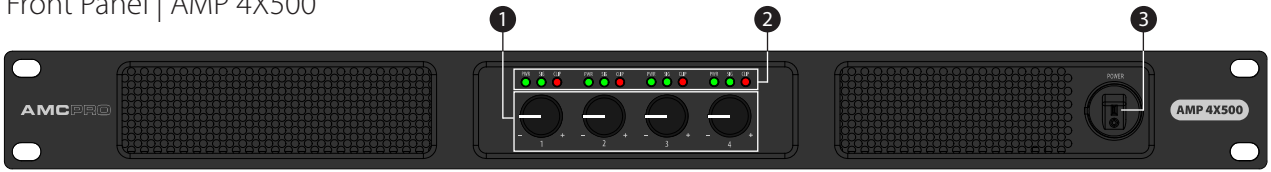
Operation

Front Panel | AMP 500, AMP 1500



1. Volume controls | 2. LED indicators | 3. Power switch

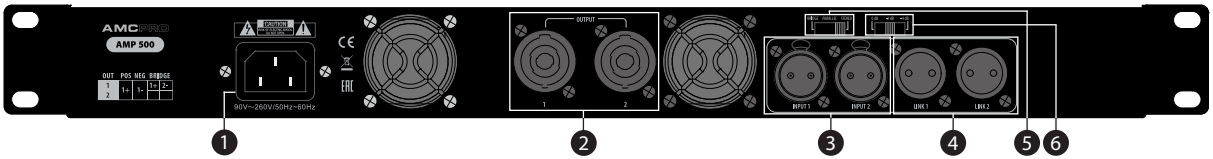
Front Panel | AMP 4X500



1. Volume controls | 2. LED indicators | 3. Power switch

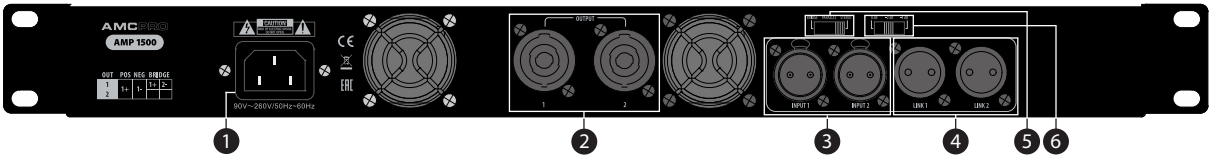
Operation

Rear Panel |AMP 500



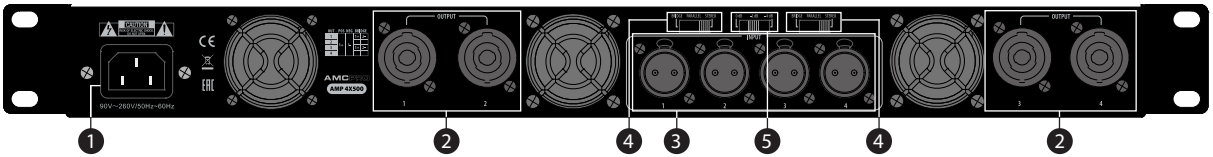
1. Mains power connector | 2. Output connectors | 3. Input connectors | 4. Link connectors | 5. Operation modes | 6. Input gain

Rear Panel | AMP 1500



1. Mains power connector | 2. Output connectors | 3. Input connectors | 4. Link connectors | 5. Operation modes | 6. Input gain

Rear Panel | AMP 4X500



1. Mains power connector | 2. Output connectors | 3. Input connectors | 4. Operation modes | 5. Input gain

Operation

Front panel functions

VOLUME CONTROLS
Rotary knobs for adjusting the volume level of the selected channel.

LED INDICATORS
The power LED indicator illuminates when the power is turned "ON".
The signal LED indicator illuminates when the input signal is greater than -14 dBu is present.
The clip LED indicator when the input signal is greater than +3 dBu is present. Occasional blinking is acceptable, but if LED lights on more than intermittently, turn down either the power amplifier level or reduce the output level of the preceding component to avoid audible distortion.

POWER SWITCH
Switch amplifier power ON or OFF.

Rear panel functions

MAINS POWER CONNECTOR
Power connector for mains power.

AMPLIFIER OUTPUT CONNECTORS
Audio outputs designed to connect speakers by using Speakon type connector.

AMPLIFIER INPUT CONNECTORS
Input connector designed to connect external audio signals.

AMPLIFIER LINK CONNECTORS
Connect outgoing audio signal from input connectors to additional amplifier. Input and link connectors are connected with each other directly.

OPERATION MODES
There are 3 available modes of operation: stereo, bridge, and parallel. Turn off the amplifier before switching these modes.

Stereo mode: This is a general mode. In this mode all amplifier channels are separate from each other and can be used individually. All inputs require an audio signal and all volume controls are active. The minimum loudspeaker impedance is specified in the general specification table on the user manual's last page.

Bridge mode: This mode combines power from two channels to drive a single loudspeaker. If bridge mode is activated the audio signal to AMP 500 and AMP 1500 amplifiers should be connected to Input1. Connect audio to Input3 to bridge 2 and 3 AMP 4X500 amplifiers' outputs. The minimum loudspeaker impedance should be 4 Ω for AMP 500 and AMP 1500 models and 8 Ω for AMP 4X500 model. Before enabling Bridge mode pay attention to the wiring diagram on the rear panel of the amplifier. Bridge mode requires specific wiring.

Parallel mode: This mode allows to operation of two amplifier channels in parallel with the same audio signal. Two inputs are internally connected, so only Input1 and Input3 require an audio signal for the AMP4X500 amplifier. Use Input1 only for two-channel amplifiers AMP 500 and AMP 1500. In parallel mode all volume controls are active. Do not use parallel mode then feed the amplifier with separate audio signals. Please note that only amplifier inputs are connected in parallel. Do not connect output connectors in parallel! This is not an output parallel mode.

INPUT GAIN
This switch is designed to select a proper input gain in order to match audio source level and amplifier input.

General Specifications

AMP 500, AMP 1500, AMP 4X500 Power Amplifiers

	AMP 500	**AMP 1500**	**AMP 4X500**
Power supply	AC 90 V~260 V, 50/60 Hz		
Channels	2	2	4
Output power 8 Ω	2 x 350 W	2 x 800 W	4 x 350 W
Output power 4 Ω	2 x 580 W	2 x 1500 W	4 x 580 W
Output power 2 Ω	2 x 800 W	2 x 1800 W	
Output power bridge mode 8 Ω	1 x 1160 W	1 x 2600 W	2 x 1160 W
Output power bridge mode 4 Ω	1 x 1600 W	1 x 3500 W	
Output connectors	Speakon		
Input/Link	Balanced XLR		
Input Impedance	20 kΩ		
Input gain	0 dBu / -2 dBu / -4 dBu		
Frequency Response	20 Hz – 20 kHz		
THD+N	< 0.1 %		
S/N ratio	> 105 dB		
Crosstalk	> 75 dB		
Cooling	Forced air cooling		
Dimensions (H x W x D)	45 x 481 x 265 mm		
Weight	4.1 kg	4.4 kg	5 kg

The specifications are correct at the time of printing this manual. For improvement purposes, all specifications for this unit, including design and appearance, are subject to change without prior notice.