



CLASS DS

Professional Audio Power Amplifier
User' s Manual



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Tag description

Within the triangle, the "lightning" mark indicated by the arrow indicates that the user is warned. Here, the machine is a dangerous voltage and must be used safely.

An exclamation point in the triangle is used to remind the user of important operations. Please follow the instructions carefully.

Do not open the body without authorization

High voltage components are used in the body. Do not open the case and attempt to inspect or modify the body to avoid the risk of electric shock. Due to the user's modification, the performance of the machine is degraded or mishandled, it will not be within the scope of product quality assurance.

Do not damage the power cord

Hold the plug part of the power cord when plugging in or unplugging the power cord. Do not use wet hands to remove or touch the power cord, which can cause a short circuit or electric shock. Do not lay the power cord under the body and furniture, between objects. Also, do not bundle the power cord with other power cords. Do not tie the cord or place it where people are moving.

Water droplets and foreign objects are strictly prohibited

Do not insert or drop metal objects such as hairpins, nails, and coins, and flammable materials such as paper, matches, etc. from the vents or other openings in the body. Because this can cause misuse or fire and electric shock. In case a water droplet or foreign matter enters the body, please have it inspected by a repair center or dealer.

In case an abnormality is found

If abnormal noise or odor is detected during use, immediately turn off the power, unplug the power cord from the outlet, and consult the dealer or maintenance for a check.

Not used for a long time

When you are away from home for a long time, such as traveling, turn off the power and unplug the power cord from the power outlet. This will prevent a fire caused by an unexpected situation on the body.

● 1U two-channel

Applications

- Mobile performance / portable sound reinforcement
- KTV/Bar/Concert Hall
- Gymnasium / Arena

Features

- 1U height standard chassis, compact, lightweight and compact
- 1Class D power amplifier module with fixed switching frequency
- Soft Switch LLC Resonant Switching Power Supply Module
- Active Power Factor Correction (PFC) for stable operation over full voltage (90-264V)
- Efficient speaker back EMF absorption system
- Unique peak clipping limiter and ripple elimination network
- Temperature-controlled variable speed fan, airflow from front to back
- Backplane connection mode selection (stereo/parallel/bridge)
- The back panel is equipped with input sensitivity selection switching (0.775v/1v/32dB)
- Complete circuit protection, including: soft start, DC, sub audio, high frequency, overheat, short circuit, power on/off mute
- Low frequency and powerful, very low dive depth, medium and high frequency transparent, clear and pleasant
- Integrated design of power amplifier module and power module, more than 85% of the devices use automation to ensure product consistency

Power parameter EIAJ Test Standard

type	DS800	DS1000	DS1200	DS1800	DS2400
8Ω Stereo power	800W x2	1000W x2	1200W x2	1800W x2	2400W x2
4Ω Stereo power	1480W x2	1850W x2	2000W x2	3000W x2	4000W x2
2Ω Stereo power	2800W x2	3600W x2	4000W x2	6000W x2	8000W x2
8Ω Bridge power	2950W x1	3700W x1	4000W x1	3800W x1	7000W x1

Technical specifications

Frequency response 8Ω 20Hz--20kHz 1/8 rated power	± 0. 5dB					
Total harmonic distortion 8Ω 1kHz 1/8 rated power	≤0. 035%	≤0. 035%	≤0. 05%	≤0. 05%	≤0. 1%	≤0. 1%
Intermodulation distortion 8Ω 60+7kHz 1/8 rated power	≤0. 15%					
Signal to noise ratio A 8Ω 1kHz 1v Sensitivity	≥106dB					
Input sensitivity	0. 775V/1V/32dB					
Input impedance (balanced/unbalanced)	20K Ω /10K Ω					
Conversion rate	≥ 20V/μS					
Damping coefficient	≥5000					
Resolution	≥70dB					
Product dimension W x L x H	483x238x45mm			483x290x45mm		

● 1U Four-channel

Applications

- Mobile performance / portable sound reinforcement
- KTV/Bar/Concert Hall
- Gymnasium / Arena

Features

- 1U height standard chassis, compact, lightweight and compact
- 1Class D power amplifier module with fixed switching frequency
- Soft Switch LLC Resonant Switching Power Supply Module
- Active Power Factor Correction (PFC) for stable operation over full voltage (90-264V)
- Efficient speaker back EMF absorption system
- Unique peak clipping limiter and ripple elimination network
- Temperature-controlled variable speed fan, airflow from front to back
- Backplane connection mode selection (stereo/parallel/bridge)
- The back panel is equipped with input sensitivity selection switching (0.775v/1v/32dB)
- Complete circuit protection, including: soft start, DC, sub audio, high frequency, overheat, short circuit, power on/off mute
- Low frequency and powerful, very low dive depth, medium and high frequency transparent, clear and pleasant
- Integrated design of power amplifier module and power module, more than 85% of the devices use automation to ensure product consistency

Power parameter EIAJ Test Standard

type	DS41200	DS41800	DS42000
8Ω Stereo power	1200W x4	1800W x4	2000W x4
4Ω Stereo power	2100W x4	2800W x4	3000W x4
2Ω Stereo power	4400W x4	6000W x4	6200W x4
8Ω Bridge power	4100W x2	5500W x2	5700W x2

Technical specifications

Frequency response 8Ω 20Hz--20kHz1/8 rated power	±0. 5dB							
Total harmonic distortion 8Ω 1kHz 1/8 rated power	≤0. 035%	≤0. 035%	≤0. 05%	≤0. 05%	≤0. 1%	≤0. 1%	≤0. 1%	≤0. 1%
Intermodulation distortion 8Ω 60+7kHz 1/8 rated power	≤0. 15%							
Signal to noise ratio A 8Ω 1kHz 1v Sensitivity	≥104dB							
Input sensitivity	0. 775V/1V/32dB							
Input impedance (balanced/unbalanced)	20K Ω /10K Ω							
Conversion rate	≥20V/μS							
Damping coefficient	≥5000							
Resolution	≥70dB							
Product dimension(W x L x H)	483x238x45mm				483x290x45mm			

● Features

- Efficient and stable synchronous fixed-frequency CLASS-D solution, clock-synchronized ZVS and CS quasiresonant switching power supply system
- Integrated active power factor correction circuit (PFC) with global voltage
- Perfect protection system to effectively reduce damage caused by improper use and further improve machine reliability
- The rear panel has input sensitivity selection (0,775v/1v/32dB), three link modes can be set (stereo/parallel/bridge)
- Extremely lightweight overall weight and minimal space usage
- The bass is thick and powerful, and the medium and high frequency is clear and sweet.
- XLR input socket and link socket, Speak ON NL4 output socket



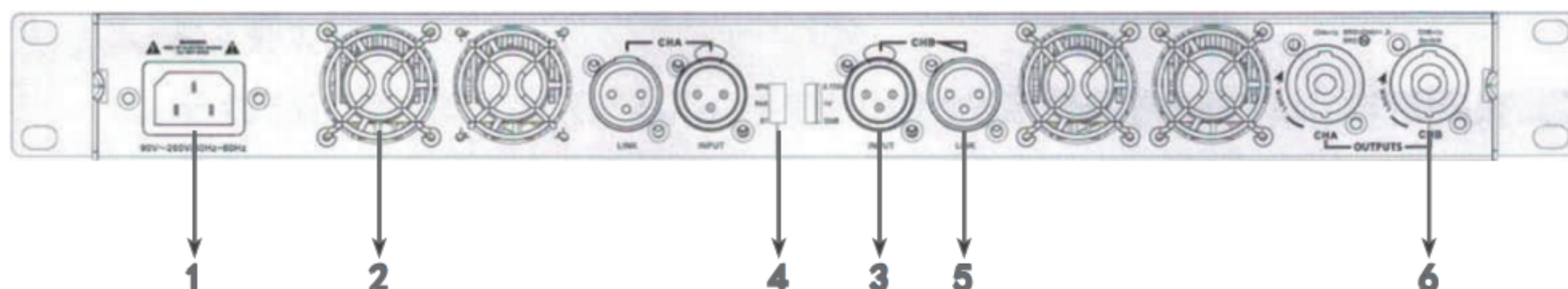
1 switch 1-open 0-off

2 Status indication LED :The ON light indicates that the channel is working normally, -3dB indicates the output signal amplitude to the maximum -3dB, CLIP indicates the voltage limit circuit action, PROT indicates any protection circuit action; -24dB indicates the full power is -24dB (and so on)

3 Volume potentiometer Rotate the volume to the left to become smaller, to the right, the volume of CH1 and CH2 is controlled independently in stereo mode. Bridge/parallel mode: CH1 controls the volume at-tenuation of both channels at the same time, CH2 volume control is invalid, and it is best to keep the maximum at work.(0dB)

4 Dust blocking air inlet: Please keep the vents open, and the internal dust-proof filter should be cleaned for about half a year.

4 Introduction to the functions of each part of the rear panel



1 Power outlet with fuse holder

2 Fan air outlet

3 Signal output

4 Independent and bridge/parallel pull switch: ST is stereo, that is, each channel works independently, BRG, PAR is bridge/connected state

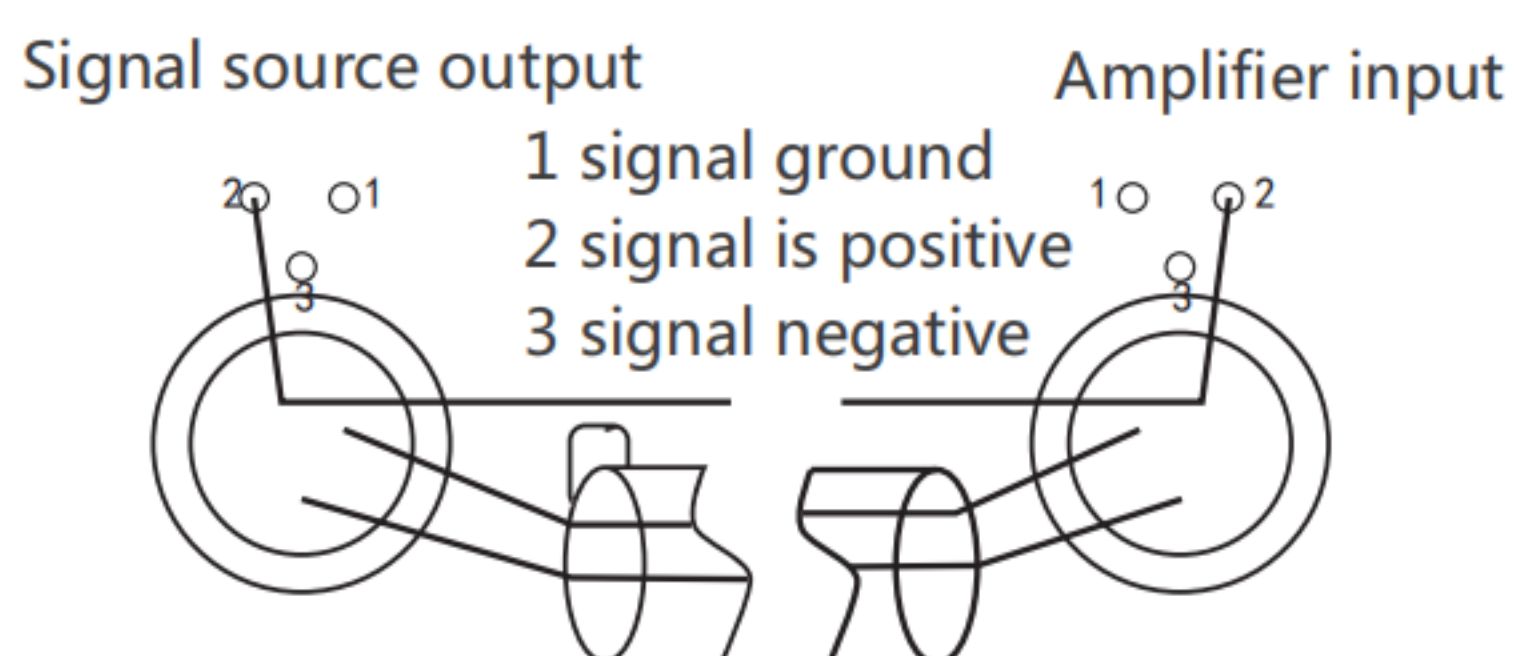
5 Signal pre-output

6 Signal input card holder (XLR socket): for balanced input, pin1-signal ground, pin2-signal positive, pin3-signal negative:

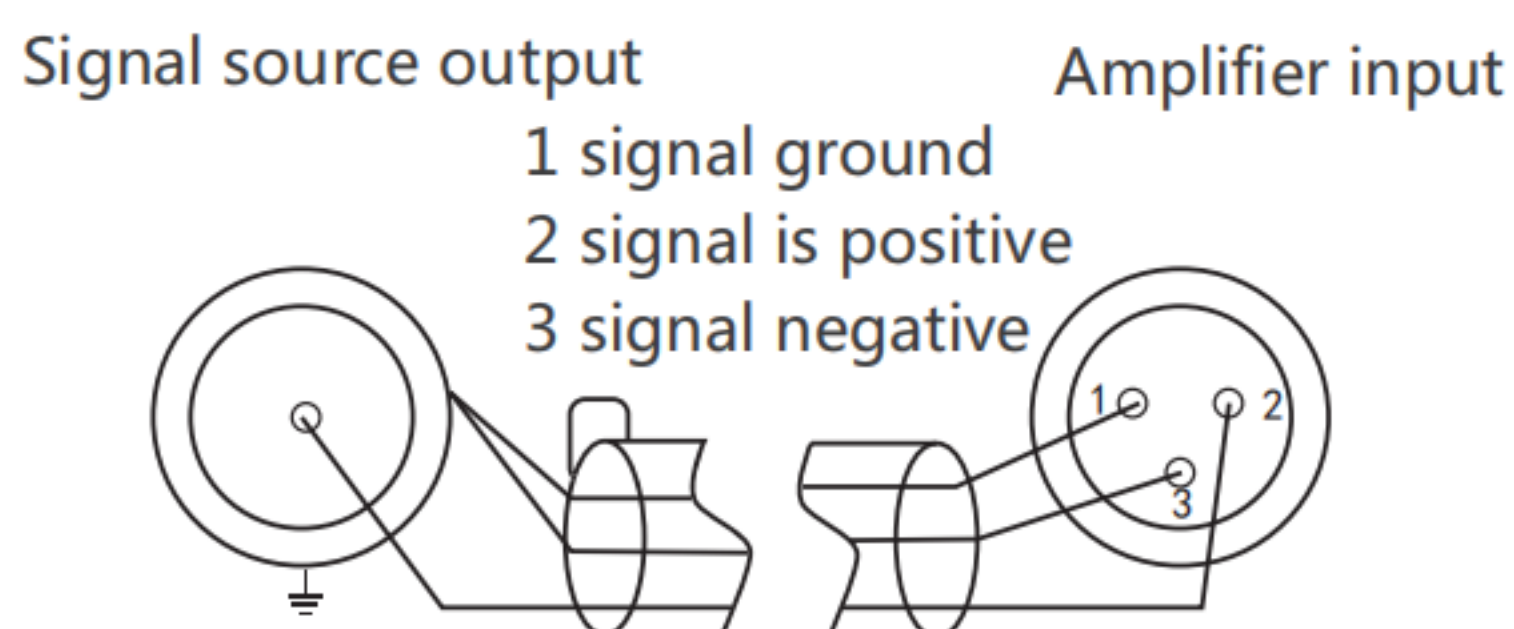
NOTE: It can work in 4-16 ohms in dual channel mode, 8-16 ohms in bridge mode, 4 ohms in bridge mode, 4 ohm bridges Equal to 2 ohms per channel, which will result in shortened life of the amplifier or unnecessary failure.

- Turn off the power switch of the amplifier before connecting AC power.
- Before connecting the amplifier to the power outlet, make sure that the local grid voltage is the same as the voltage indicated on the back of the amplifier.
- The minimum operating voltage allowed by the amplifier is 90V AC, and the maximum operating supply voltage allowed is 264V AC. Exceeding this voltage range, the amplifier may not work properly or even be damaged.
- Before connecting the amplifier to the power socket, please make sure that the socket is not damaged, the power cord is not damaged, and the power cord plug and the power socket specifications are consistent.
- Once the amplifier is connected to the power outlet, secure the power cord to the rack handle with a cable tie or similar tool.
- For safety reasons, when the amplifier is not in use for a long time, unplug the power cord from the power outlet.
- For the power supply capacity of the amplifier, please refer to the power consumption table in the appendix. We recommend to reserve 1.5 times the power supply margin for actual use. Use a short, thick AC cable as far as possible, and do not plug too many amplifiers into the same power outlet.
- This series of amplifiers uses the XLR input interface. We strongly recommend using balanced connections when connecting to a signal source.
- The series of professional power amplifiers use balanced circuit design, which is beneficial to the noise reduction when using the balanced circuit scheme. Please use the connection method on the right.
- When your source output device is an unbalanced line design, use the connection method as shown on the right.
- Note: The negative terminal of the signal in the double-core shielded wire can only be connected to the ground at the signal source end. Do not connect to the ground at the input of the amplifier.
- To avoid additional noise, even if the signal output device is an unbalanced line, do not use a single-core shielded cable. The same noise suppression effect as balanced transmission can be achieved by using the connection method as shown on the right.

Balanced connection



Unbalanced connection



Fault phenomenon	number	Method of exclusion
Silent, the power indicator is off	1	Check if the machine power switch is turned on
	2	Check if the machine's power plug is in good contact with the power outlet.
	3	Whether the power socket has AC 90-264V, 50/60Hz AC voltage
	4	Check if the overload switch of the machine is located on the rear panel.
Silent, the power indicator is normal Signal indicator is not lit	1	Check if the music signal cable connected to the machine is in good contact.
	2	Whether the audio source that provides the music signal is turned on, and the volume is turned on.
	3	Is the volume potentiometer of this machine turned on?
The overload indicator is always on and the sound is abnormal.	1	Is the output of the sound source that provides the music signal too large?
	2	Whether the mechanical rear plate gain switch is set properly and is set too high
	3	Check if there is a short circuit fault in the output connection, if the load impedance is correct, and then restart after checking.
Other failure	1	Please check the machine settings and wiring according to the instructions.
	2	Please consult factory technical support or local special maintenance point

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1 The company has the right of final interpretation of the manual

2 To retain the right to modify this manual without prior notice

3 Such as the contents of this manual do not match your product, please prevail in kind

4 In the case of late reservations prior notice of the right to modify product specifications
