



DK SERIES

POWER AMPLIFIER

OPERATION INSTRUCTION



VAKA PRO AUDIO RESERVES THE FINAL RIGHT OF THIS PRODUCT 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



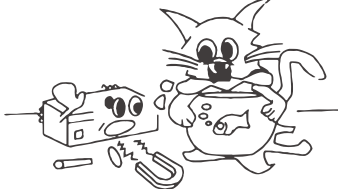
High voltage components are used in the body. Do not open the case and attempt to inspect or modify the body to avoid the risk of electric shock. Due to the user's modification, the performance of the machine is degraded or mishandled, it will not be within the scope of product quality assurance.

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



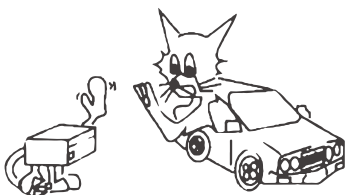
Do not insert or drop metal objects such as hairpins, nails, and coins, and flammable materials such as paper, matches, etc. from the vents or other openings in the body. Because this can cause misuse or fire and electric shock. In case a water droplet or foreign matter enters the body, please have it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

- Touring 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 (50V-350V)
- 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

● 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, Speakon NL4 output socket



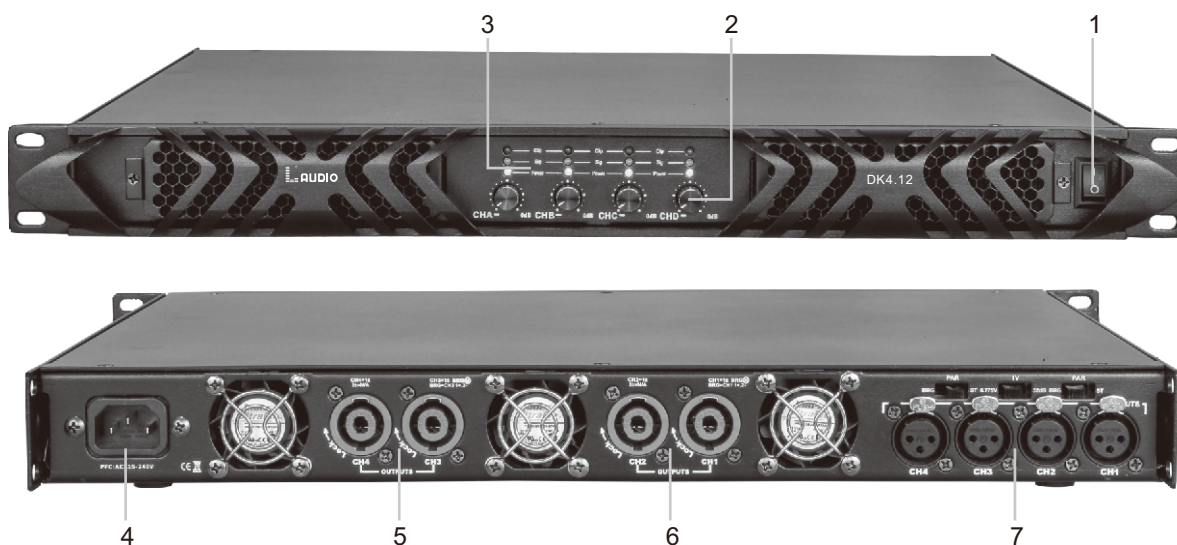
1. Power ON/OFF Switch
2. CHA/CHB Level Control with Indicators LEDs
3. CHA/CHB Level Control
4. AC Power Input
5. INPUT CHA/CHB Connectors: Balanced XLR input connectors
6. BALANCED: Input Mode Switch (Bridge/Parallel/Stereo Switch) for more choice.
Sensitivity Switch (0.775V/1.0V/1.4V Switch)
7. CHA/CHB OUTPUT Connectors: Combo output connectors

Power parameter EIAJ Test Standard

Model No.	DK2.06	DK2.8	DK2.10	DK2.12	DK2.18	DK2.24	DK2.30	DK2.43
8Ω Stereo power	600WX2	800WX2	1000WX2	1200WX2	1800WX2	2400WX2	3000WX2	4300WX2
4Ω Stereo power	1100WX2	1480WX2	1900WX2	2300WX2	3100WX2	4100WX2	5050WX2	8000WX2
2Ω Stereo power	2100WX2	2800WX2	3700WX2	4400WX2	4800WX2	6300WX2	9800WX2	8800WX2
8Ω Bridge power	2200WX1	2900WX1	3800WX1	4600WX1	6600WX1	7400WX1	10000WX1	11000WX1

Technical specifications

Frequency response 8Ω 20Hz--20kHz 1/8 rated power	±0.5dB
Total harmonic distortion 8Ω 1kHz 1/8 rated power	≤0.035%
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)	20KΩ/10KΩ
Conversion rate	≥20V/μS
Damping coefficient	≥600
Resolution	≥70dB
Product dimensions (W x L x H)	483x360x50mm
	483x280x50mm



1. Power ON/OFF Switch
2. CHA/CHB/CHC/CHD Level Control
3. CHA/CHB/CHC/CHD Indicators LEDs
4. AC Power Input
- 5/6. CHA/CHB/CHC/CHD Output Connectors: Combo output connectors
7. CH1/CH2/CH3/CH4 Input Connectors: Balanced XLR input connectors

Model No.	DK4.12	DK4.18	DK4.24	DK4.32
8 Ω Stereo power	1200WX4	1800WX4	2400WX4	3200WX4
4 Ω Stereo power	2100WX4	3500WX4	4400WX4	5500WX4
2 Ω Stereo power	3000WX4	6000WX4	5000WX4	6800WX4
8 Ω Bridge power	3800WX2	6600WX2	7000WX2	8000WX2

Technical specifications

Frequency response 8 Ω 20Hz--20kHz 1/8 rated power	± 0.5 dB
Total harmonic distortion 8 Ω 1kHz 1/8 rated power	$\leq 0.035\%$
Intermodulation distortion 8 Ω 60+7kHz 1/8 rated power	$\leq 0.15\%$
Signal to noise ratio A 8 Ω 1kHz 1v Sensitivity	≥ 106 dB
Input sensitivity	0.775V/1V/32dB
Input impedance (balanced/unbalanced)	20K Ω /10K Ω
Conversion rate	≥ 20 V/ μ S
Damping coefficient	≥ 600
Resolution	≥ 70 dB
Product dimensions (W x L x H)	483x430x50mm



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|------------------------|--|
| 1. Power ON/OFF Switch | 6. CLIP Indicators LEDs |
| 2. Control Knob | 7. RJ45 Connector |
| 3. LCD Display | 8. AC Power Input |
| 4. MENU: Enter Menu | 9. CH1/CH2/CH3/CH4 Input Connectors: Balanced XLR input connectors |
| 5. EXIT: Exit Menu | 10. CHA/CHB/CHC/CHD Output Connectors: Combo output connectors |

Model No.

DK2.43DSP

DK4.32DSP

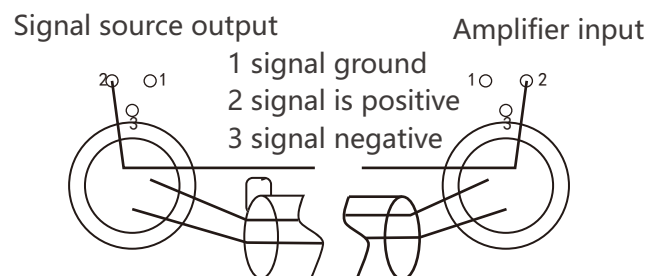
8Ω Stereo power	4300WX2	3200WX4
4Ω Stereo power	8000WX2	5500WX4
2Ω Stereo power	8800WX2	6800WX4
8Ω Bridge power	11000WX1	8000WX2

Technical specifications

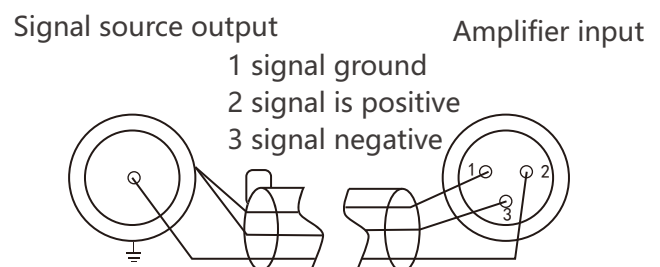
Frequency response 8Ω 20Hz--20kHz 1/8 rated power	±0.5dB	
Total harmonic distortion 8Ω 1kHz 1/8 rated power	≤0.035%	
Intermodulation distortion 8Ω 60+7kHz 1/8 rated power	≤0.15%	
Signal to noise ratio A 8Ω 1kHz 1v Sensitivity	≥106dB	
Input sensitivity	0.775V/1V/32dB	
Input impedance (balanced/unbalanced)	20KΩ / 10KΩ	
Conversion rate	≥20V/μS	
Damping coefficient	≥600	
Resolution	≥70dB	
Product dimensions (W x L x H)	482x438x50mm	482x500x50mm

- 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 185V AC, and the maximum operating supply voltage allowed is 242V 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 50-350V, 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

The company's professional audio amplifiers ensure that failures due to design, material, and process defects will not occur during a certain period of use. From the date of purchase, if there is a product failure within two year of use, the company will provide product repair service free of charge.

The conditions not included in the product warranty service are:

- 1、Product appearance problems.
- 2、Items that have been reported in the Product Parameter Description or Product Operating Manual.
- 3、Failure of the user to use the product beyond the reported scope of use in the Product Parameter Description or Product Operating Manual
- 4、Abuse of the product or malfunction caused by incorrect use.
- 5、Failure to perform repairs by a product service department other than the company's product service department or its designated product service agent.

- If the user requests product after-sales service, he/she must present the sales receipts of the relevant products, purchase invoices and other documents as vouchers.
- The limited warranty period of the company's products is subject to the time indicated on the warranty card.
- The company's accessory limited warranty period is based on the time indicated on the warranty card.

7 Unpacking

As part of our quality system control, each product is carefully and carefully packaged before leaving the factory. After unpacking, please check carefully whether the package is complete and whether the product is physically damaged. Once the machine is found to be physically damaged, notify the distributor immediately to provide a written proof of the damage. In order to facilitate future transportation and to ensure product safety and performance, please save all packaging materials and articles.

The contents of the factory package include :

- Audio Power Amplifier
- Operating Manual



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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
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