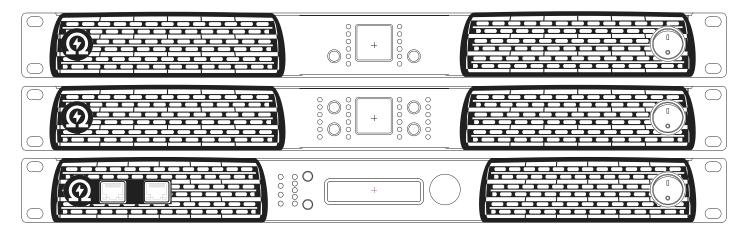




HIGH-END PROFESSIONAL AUDIO POWER AMPLIFIER

OHM SERIES OHM D SERIES



DIGITAL AMPLIFIER
User Guide V1.0

This manual does not include all of the details of design, production, or variations of the equipment. Nor does it cover every possible situation which may arise during installation, operation or maintenance. READ THESE INSTRUCTIONS BEFORE UNPACK

WARNING!

- IF THE POWER CORD IS DAMAGED, PLEASE GET A REPLACEMENT FROM THE DISTRIB-UTOR. OTHERWISE, CONTINUED USE OF THE EQUIPMENT MAY LEAD TO FIRE OR ELEC-TRIC SHOCK.
- IF THE DEVICE FALLS FROM A HEIGHT OR THE SHELL IS DAMAGED, PLEASE IMMEDIATELY TURN OFF THE POWER SWITCH AND UNPLUG THE POWER PLUG. AND CONTACT THE AGENT DEALER TO SOLVE THE PROBLEM.
- WHEN ANY ABNORMALITY OCCURS, SUCH AS SMOKE, ODOR, ETC.
- PLEASE TURN OFF THE POWER SWITCH IMMEDIATELY AND UNPLUG THE POWER PLUG TO CHECK THE PROBLEM. AT THE SAME TIME, PLEASE CONTACT THE DISTRIBU-TOR TO CHECK THE REASON FOR THE ABNORMALITY.
- TO PREVENT ELECTRIC SHOCK DO NOT REMOVE TOP OR BOTTOM COVERS.
- THE EQUIPMENT IS ONLY TESTED AND EVALUATED AT THE HIGHEST
- ALTITUDE OF 2.000 METERS.

All information provided in this manual is accurate at the time of delivery. Due to version change or design change, it cannot be timely notified. The latest information can be obtained of contacting the distributor.

Notice these symbols:



The exclamation point triangle symbol prompts the user for important operation and maintenance instructions.



Lightning, or the lightning triangle symbol, warns the user of the risk of electric shocks.

DESIGN CHANGES

WE RESERVE THE RIGHT TO CHANGE THE DESIGN OF ANY PRODUCT FROM TIME TO TIME WITHOUT NOTICE AND WITH NO OBLIGATION TO MAKE CORRESPONDING CHANGES IN PRODUCTS PREVIOUSLY MANUFACTURED.

BEFORE INSTALLING OR OPERATING THE EQUIPMENT, READ ALL SAFETY INSTRUCTIONS, WARNINGS AND OPERATING INSTRUCTIONS. HEED ALL WARNINGS. FOLLOW ALL INSTRUCTIONS. KEEP ALL SAFETY, INSTALLATION AND OPERATING INSTRUCTIONS FOR FUTURE REFERENCE

Environmental precaution

Electrical and electronic equipment may contain hazardous substances for humans and their environment. The "crossed out wheelie bin" symbol present on the device and represented above is there to remind one of the obligation of selective collection of waste. This label is applied to various products to indicate that the product is not to be thrown away as unsorted municipal waste. At the end of life, dispose of this product by returning it to the point of sale or to your local municipal collection point for recycling of electric and electronic devices. Customer participation is important to minimize the potential affects on the environment and human health that can result from hazardous substances that may be contained in this product. Please, dispose of this product and its packaging in accordance with local and national disposal regulations including those governing the recovery and recycling of waste electrical and electronic equipment. Contact your local waste administration, waste collection company or dealer.

Installing and operation location

Do not use this apparatus near water. Do not expose this apparatus to drips or splashes. Do not place any objects filled with liquids, such as vases, on the apparatus.

Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat. No naked flames, such as lighted candles, should be placed on the apparatus. Do not install the apparatus in a confined space such as a book case or similar unit. Do not block any ventilation openings.

Ensure that foreign objects and liquids cannot get into the equipment.

Install in accordance with the manufacturer's instructions. Only use attachments/accessories specified by the manufacturer. 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.

The apparatus should be located close enough to the AC outlet so that you can easily grasp the power cordplug at anytime.

The mains plug, the appliance coupler or the mains switch is used as the disconnect device. Either device

shall remain readily operable when the apparatus is installed or used.

Cleaning, maintenance and servicing

Unplug the apparatus from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning. Do not attempt to service this product yourself, as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personal. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug 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.

Power source and grounding

This product should be operated only from the power source indicated on the apparatus or in the operating instructions. If you are not sure of the type of power supply to the premises where the equipment is to be used, consult your product dealer or local power company.

Do not defeat the safety purpose of the polarised or grounding-type plug. A polarised 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.

Connect Class I construction apparatus to an AC outlet with a protective grounding connection. Do not overload wall outlets, extension cords or integral convenience receptacles, as this can result in a risk of fire or electric shock.

Protect the power cord from being walked on or pinched, particularly at plugs, 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.

POWER SUPPLY AND POWER CORD REQUIRE-MENTS:

Power supply class I grounding requirements: For protection from fault currents, the equipment shall be connected to a grounding terminal. Plug the system power cord into an AC outlet that provides a ground connection. Substitute cords may not provide adequate fault protection. Only use the power cord supplied with this product or an authorized/equivalent replacement

Intended use

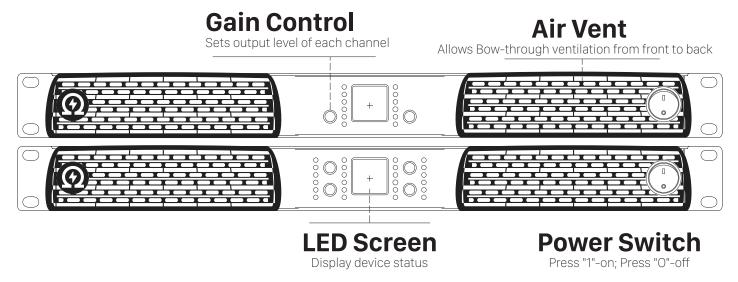
The equipment may only be used for the purpose described in the operation instructions. Never carry out any work on the equipment other than as specified in the operating manual. Never push objects of any kind into this product through openings, as they may touch dangerous voltage points or short-cut parts, which could result in a fire or electric shock. Children should never use the apparatus without close adult supervision.

WARNING: excessive sound pressure levels can cause hearing loss.

Front panel Features

Note: For the convenience of introducing the front panel, this schematic diagram is a simplified schematic diagram after removing the exterior decorative panel. Due to the change of version, it may be inconsistent with the real thing, please refer to the product. The vent area and layout of this product have been strictly tested of experiments to meet the cooling needs.

Please make sure not to block the vent during use.



Dual Signal LED

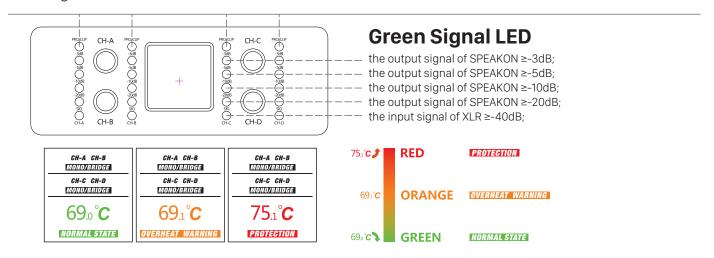
The red LED turns on: This channel turn on protective state, stop working.

Please wait for around a minute, if the device still stops working, please restart the device.

The yellow LED flashes: This channel signal is audibly distorting. It may damage the tweeter.

The yellow LED turns on:

- 1. The temperature of the equipment ≥70°C;
- 2. The signal over load.



LED Screen

- 1. Display per channel operation mode: Mono mode, Bridge mode and Stereo mode;
- 2. Display the temperature of the equipment:

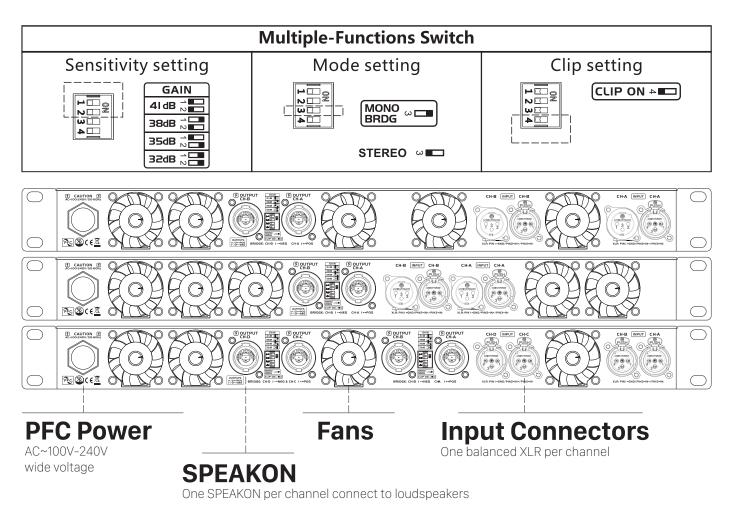
Green: the normal status, and the temperature of the equipment <69°C;

Orange: the warning of overheat, and the temperature of the equipment between 69°C and 75°C;

Red: the device turns on protective state, and the temperature of the equipment >75°C;



Front panel Features



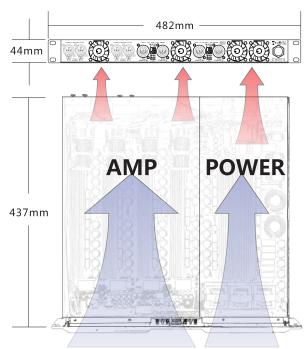
Front panel Features

NOTE:

The size is 437mm inside of the device(without the cover plate and front panel).

The size is around 472mm of the complete device, but a little bit different size in the different front panel.

Some series with different size that had not shown, please learn it in the parameter.



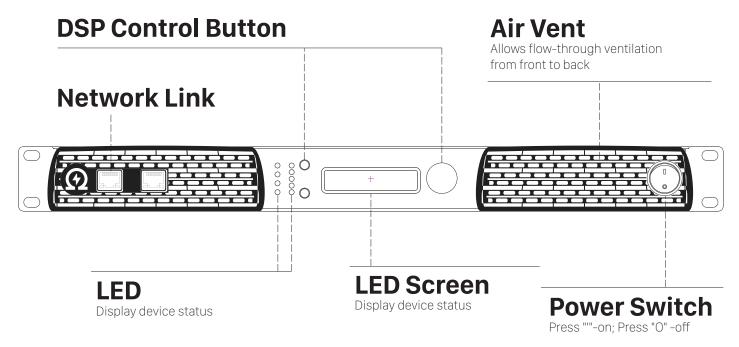
Tunnel through cooling system

Cold air comes in from the front panel of the equipment, forms a duct through the radiator to take the heat away and out from the rear panel of the equipment.

Front panel Features with DSP

Note: For the convenience of introducing the front panel, this schematic diagram is a simplified schematic diagram after removing the exterior decorative panel. Due to the change of version, it may be inconsistent with the real thing, please refer to the product. The vent area and layout of this product have been strictly tested of experiments to meet the cooling needs.

Please make sure not to block the vent during use.



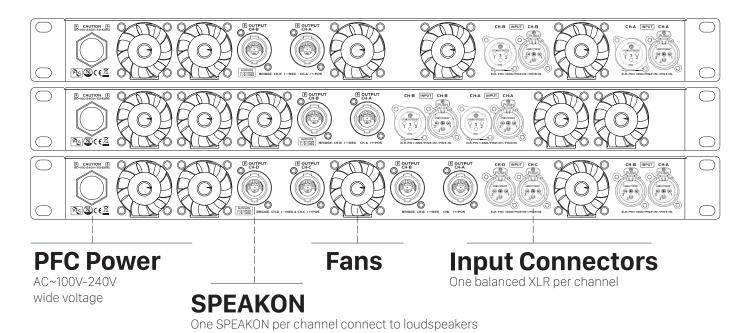
Network Link

DSP chip and software designed by ALLDSP in **Germany**. https://alldsp-oem.com.

Professional audio applications for over 23 years.



Rear panel Features with DSP



To create a Loudspeaker Library file

Please do the following:

- Enter Developer mode
- Use the output channels starting at output one (1, 2, 3, .. and not 4, 5, 6)
- Mute all outputs that are not part of the system (for a one way use out 1 and mute the rest)
- You can define one-way, multi-way systems, setup a one loudspeaker of a stereo set
- Set-up the DSP to your liking for one system.
- Turn off "Show full graphics" for administrator mode. (The administrator needs it see the right skin)
- Name each output appropriately with clear labels that enable an easy check by the administrators
- Store the setting with a name starting with # in the highest position on the device (i.e. 100, 99, 98, 97,

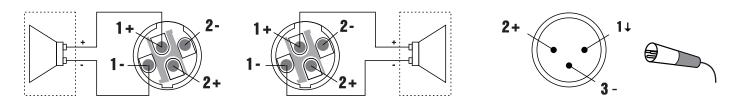
To create a Loudspeaker Library file

- Enter Administrator mode
- Click on the appropriate loudspeaker icon for the output channel that you want to load the loudspeaker to. This does not have to start at channel 1. (e.g. it is possible to define a two way loudspeaker, which must be done on output 1 and 2, and to load that to output 5 and 6 later)
- Select the appropriate loudspeaker file from the pull down list
- Check for each output if the correct signal is applied to that channel
- Unmute the channels and slowly turn up the signal and check to make sure that each driver gets the right signal

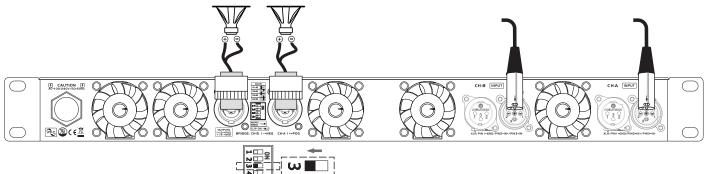
For more information about dsp features, please visit the official website (https://alldsp-oem.com) or contact your supplier.

Application introduction

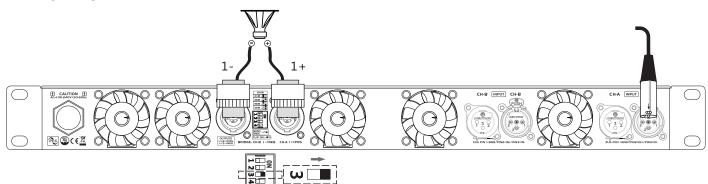
2 channel Series



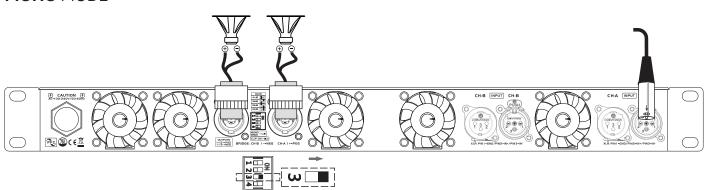
STEREO MODE



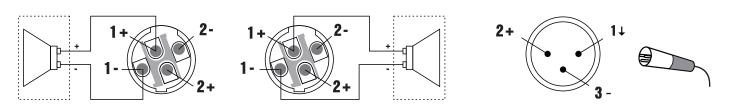
BRIDGE MODE

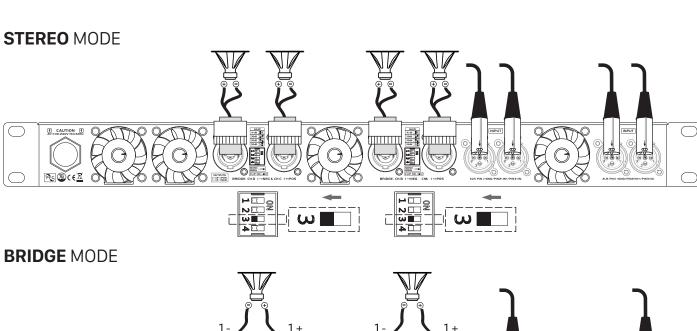


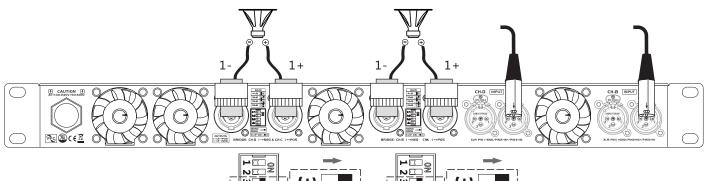
MONO MODE



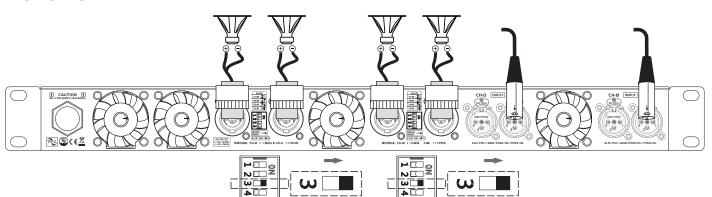
4 channel Series







MONO MODE



Performance parameter

•	
Alternating Current Power Supply	
Power	PFC Power
Rated power demand	100-240 V ±10%, 50/60 Hz
Operation voltage	90V-270V
Power correction factor cos (q)	>0.95 @ >500 W
Standby	47W and 0.8A
Gain, Sensitivity Maximum Output	32dB, 35dB, 38dB, 41dB
Voltage/Current Power Comsumption	185V/85A 370V in the BRIDGE MODE
Temperature	
Environment temperature	0°- 45C / 32°-113°F
Cooling system	Tunnel through cooling system
Performance	
Frequency Response	20 Hz - 20 kHz (1 W @ 8 N, ‡0.5 dB)
Signal-to-Noise Ratio	>110 dBA (20 Hz - 20 kHz, A weighted)
Crosstalk	> 66 dB @ 1 kHz
Input Impedance	10 kΩ balanced
Total Harmonic Distortion (THD)	<0.5% from 1 W to full power (Typical value <0.05%)
Intermodulation Distortion(IMD)	<0.5% from 1 W to full power (Typical value <0.05%)
Damping Factor (8 ohms)	>5000 @ 20-200 Hz
Slew Rate	50 V/us @ 8 Ω
Front Panel	
Indicator LED/per channel	One PCS Green LED: the input signal of XLR ≥-40dB;
	Four pieces Green LED:
	display the output signal (-20dB,-10dB,-5dB,-3dB) of SPEAKON
	1 piece dual LED (Yellow and Red):
	Protective state/Clip state/Over heat/Over load
LED Screen	1.Display per channel operation mode:
	Mono mode, Bridge mode and Stereo mode;
	Display the temperature of the equipment:
	the device turns on protective state, and the temperature of the equip-
	ment >75°C;
Power Switch	Press" I" -on; Press" O" -off.
	Two pieces dust-proof cotton,
Dust-proof	it can take off to clearn from the bottom of front pannel
Application	
Signal in-connection	4 Channel: One balanced XLR(with lock) female per channel;
	2 Channel: One balanced XLR(with lock) female and one balanced XLR
	male per channel.
Signal out-connection	One SPEAKON per channel connect to loudspeakers.
Power cord	Fixed to the device, and the CSA(cross sectional area of the cord is 3 x
Multiple Functions O. W.L	2.5mm and the cord is 1.5 meters long.
Multiple-Functions Switch	Two Sensitivity Switches, one Mode Switch and one Clip Switch.
	ond on different series and shipping demand)
Dimensions	482x44x380mm / 482x44x470mm
Net weight	10Kg/12Kg
Packing size	580x580x119mm / 615x615x119mm
Shipping weight	12Kg/14Kg

Power parameter - 2 CHANNEL

OHM-2250 (2*2500W)	2 Channel Mode			Bridge Mode		
EIAJ Test Standard, 1 kHz, 1% THD	Ω8	4Ω	2Ω	Ω8	4Ω	
	2*2500W	2*4800W	2*6800W	8500W	11900W	
1/8 Maximum Power Output in 4Ω	1271W, 7 A			1271W, 13,7 A		
1/4 Maximum Power Output in 4Ω	2232W, 14 A			2232V	V, 28,5 A	

OHM-2300 (2*3000W)	2	Channel Mod	Bridge Mode			
EIAJ Test Standard, 1 kHz, 1% THD	8Ω	4Ω	2Ω	8Ω	4Ω	
	2*3000W	2*5100W	2*7140W	10200W	14280W	
1/8 Maximum Power Output in 4Ω	1457W, 8 A			1457W, 15,6 A		
1/4 Maximum Power Output in 4Ω	2564W, 16 A			2564W, 16 A 2564W, 31,8		V, 31,8 A

OHM-2350 (2*3500W)	2 Channel Mode			Bridge	e Mode	
EIAJ Test Standard, 1 kHz, 1% THD	8Ω	4Ω	2Ω	Ω8	4Ω	
	2*3500W	2*6500W	2*7500W	13000W	15000W	
1/8 Maximum Power Output in 4Ω	1857W, 10 A			1857W, 19,2 A		
1/4 Maximum Power Output in 4Ω	3268W, 20 A			3268V	V, 38,9 A	

OHM-2420 (2*4200W)	2 Channel Mode			Bridge	Mode
EIAJ Test Standard, 1 kHz, 1% THD	8Ω	4Ω	2Ω	2Ω	4Ω
	2*4200W	2*7800W	2*8500W	15600W	17000W
1/8 Maximum Power Output in 4Ω	2228W, 12 A			2228W, 24,6 A	
1/4 Maximum Power Output in 4Ω	3920W, 23 A			3920W	I, 47,1 A

Power parameter - 4 CHANNEL

OHM-4100 (4*1000W)	4 Channel Mode			Bridge Mode		
EIAJ Test Standard, 1 kHz, 1% THD	Ω8	4Ω	2Ω	2Ω	4Ω	
	4*1000W	4*1700W	4*2890W	2*3400W	2*5780W	
1/8 Maximum Power Output in 4Ω	1020W, 6 A			1020W, 10,8 A		
1/4 Maximum Power Output in 4Ω	1800W, 9,36 A			1800W	, 24,96 A	

OHM-4130 (4*1300W)	4	Channel Mod	Bridge Mode		
EIAJ Test Standard, 1 kHz, 1% THD	8Ω	4Ω	2Ω	8Ω	4Ω
	4*1300W	4*2150W	4*3195W	2*4300W	2*6390W
1/8 Maximum Power Output in 4Ω	1360W, 7,5 A			1360W, 14,4 A	
1/4 Maximum Power Output in 4Ω	2400W, 12,48 A			2400W,	25,08 A

OHM-4160 (4*1600W)	4	Channel Mod	Bridge	Mode	
EIAJ Test Standard, 1 kHz, 1% THD	8Ω	4Ω	2Ω	8Ω	4Ω
	4*1600W	4*2600W	4*3500W	2*5200W	2*7000W
1/8 Maximum Power Output in 4Ω	1700W, 9,1 A			1700W, 18 A	
1/4 Maximum Power Output in 4Ω	3000W, 15,6 A			3000V	V, 31,2 A

OHM-4160 (4*2000W)	4	Channel Mod	Bridge Mode		
EIAJ Test Standard, 1 kHz, 1% THD	8Ω	4Ω	2Ω	8Ω	4Ω
	4*2000W	4*3400W	4*4760W	2*6800W	2*9520W
1/8 Maximum Power Output in 4Ω	2125W, 11,375 A			2125W, 22,5 A	
1/4 Maximum Power Output in 4Ω	3750W, 19,5 A			3750V	V, 39 A

OHM-4300 (4*3000W)	4	Channel Mod	Bridge Mode		
EIAJ Test Standard, 1 kHz, 1% THD	2Ω	4Ω	2Ω	2Ω	4Ω
	4*3000W	2*5000W	2*6500W	2*10000W	2*13000W
1/8 Maximum Power Output in 4Ω	2857W, 14 A			2857W, 28,2 A	
1/4 Maximum Power Output in 4Ω	5000W, 23,8 A			5000W	/, 45,8 A

Important Safety Instructions

Common symbols and meanings



THE TRIANGLE WITH THE LIGHTNING BOLT IS USED TO ALERT THE USER TO THE RISK OF ELECTRIC SHOCK



THE TRIANGLE WITH THE EXCLAMATION POINT IS USED TO ALERT THE USER TO IMPORTANT OPERATING OR MAINTENANCE INSTRUCTIONS.

THE CE-MARK INDICATES THE COMPLIANCE OF THE PRODUCT TO ALL THE APPLICABLE EUROPEAN DIRECTIVES

SYMBOL FOR EARTH/GROUND CONNECTION



SYMBOL INDICATING THAT THE EQUIPMENT IS FOR INDOOR USE ONLY.



SYMBOL FOR CONFORMITY WITH DIRECTIVE 2012/19/EC OF THE EUROPEAN PARLIAMENT ON WASTE ELECTRICAL AND ELECTRONIC EQUIPMENT (WEEE).

Safety Warnings



OPERATING TEMPERATURE RANGE: 0°C TO +35°C - DERATING ABOVE 35°C



STORAGE RELATIVE HUMIDITY RANGE: 10% TO 85% HUMIDITY (NON CONDENSING)



DO NOT USE THE UNIT AT ALTITUDES ABOVE 2000 M.



DO NOT USE THE UNIT IN TROPICAL ENVIRONMENT.



TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT ATTEMPT TO OPEN ANY PART OF THE UNIT. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



CONNECTION TO THE MAINS SHALL BE DONE ONLY BY A ELECTROTECHNICAL SKILLED PERSON ACCORDING THE NATIONAL REQUIREMENTS OF THE COUNTRIES WHERE THE UNIT IS SOLD.



DO NOT USE THIS AMPLIFIER IF THE ELECTRICAL POWER CORD IS FRAYED OR BROKEN



TO AVOID ELECTRICAL SHOCK, DO NOT TOUCH ANY EXPOSED SPEAKER WIRING WHILE THE AMPLIFIER IS OPERATING



DO NOT SPILL WATER OR OTHER LIQUIDS INTO OR ON THE AMPLIFIER.



THIS DEVICE MUST BE POWERED EXCLUSIVELY BY EARTH CONNECTED MAINS SOCKETS IN ELECTRICAL NETWORKS COMPLIANT TO THE IEC 364 OR SIMILAR RULES



DISCONNECT THE AC MAINS SOURCE BEFORE ATTEMPTING TO CLEAN ANY PART OF THE AMPLIFIER



PROPERLY FIT THE AC MAINS PLUG TO THE AMPLIFIER INLET.
BEFORE POWERING THIS AMPLIFIER, VERIFY THAT THE CORRECT VOLTAGE RATING IS BEING USED.



TAKE CARE TO LOCK THE OUTPUT TERMINAL BEFORE SWITCHING THE DEVICE ON.



VERIFY THAT YOUR MAINS CONNECTION IS CAPABLE OF SATISFYING THE POWER RATINGS OF THE



NO NAKED FLAME SOURCES SUCH AS LIGHTED CANDLES SHOULD BE PLACED ON THE AMPLIFIER.



IT IS HIGHLY RECOMMENDED TO UNPLUG THE OUTPUT CONNECTORS BEFORE PROCEEDING WITH THE SELF CHECK PROCEDURE



THE TESTING SIGNALS MIGHT CAUSE LOUDSPEAKER IMPAIRMENTS



TO PREVENT INJURY, THIS APPARATUS MUST BE SECURELY RACK MOUNTED IN ACCORDANCE WITH THE INSTALLATION INSTRUCTIONS. THE MANUFACTURER CANNOT BE HELD RESPONSIBLE FOR DAMAGES CAUSED TO PERSONS,



THINGS OR DATA DUE TO AN IMPROPER OR MISSING GROUND CONNECTION.



IT IS ABSOLUTELY NECESSARY TO VERIEY THESE FUNDAMENTAL REQUIREMENTS OF SAFETY AND IN

Technical Service

This product is covered by a limited warranty

This **Ohmtech** product contains no user-serviceable parts. All warranty repairs must be carried by a certified technician operating in a Ohmtech Authorized Service Centre

Contact The Authorized Service Center For Ordinary And Extraordinary Maintenance

To learn more about warranty terms and conditions, visit ohmtechpro.c



Please read and keep all safety and use instructions.

This product is intended for installation by professional installers only! This document is intended to provide professional installers with basic installation and

safety guidelines for this product in typical fixed-installation systems. Please read this

document and all safety warnings before attempting installation.

1. Read these instructions before unpack

- · Keep these instructions.
- · Heed all warnings
- · Follow all instructions.
- Please keep the accessories (such as feet, instructions, desiccant and plastic bags) away from children.
- The packaging of the equipment is guaranteed of the drop test, ensuring that the original packaging is used in the transportation.

2. The installation operation

- Do not use this apparatus near water.
- · Do not block any ventilation openings.
- · Do not install near any heat sources
- Do not damage the safety function of the device with the polarity plug or grounding plug.
- · Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where they exit from the apparatus

Unplug this apparatus during lighting storms or when unused for long periods of time

• Do not expose this equipment to dripping or splashing and ensure that no object filled with liquids.

3. Use equipment

- Please make sure to turn the volume control knob to the minimum before turning on the power of the device. Otherwise, sudden bursts of sound may damage your hearing.
- · Please avoid using the equipment on unstable surfaces or bevels.
- Please avoid using the equipment in the environment with high air humidity or dust accumulation.
- Please avoid using the equipment in an overheated environment.
- When connecting to the device, turn off all audio devices and speakers.

Warranty

SUMMARY OF WARRANTY

The warranty period provided by our company is one year (The warranty period is calculated from the purchase date of the original purchaser). During the warranty period, you can obtain the free maintenance if the product material and process caused by the problem.

WHAT THE WARRANTOR WILL DO

We will remedy any defect, regardless of the reason for failure (except as excluded), by repair, replacement. Warranty work can only be performed at our authorized service centers or at the factory.

WHAT SITUATION INVALID BY THE WARRANTY SERVICE

- · Exceeds warranty period posterior product.
- The warranty does not cover any product which has been damaged because of any intentional misuse, accident, negligence, or loss which is covered under any of your insurance contracts.
- This Warranty also does not extend to the new product if the serial num ber has been defaced, altered, or removed
- The equipment has been repaired or modified by people who does not belong to our company.
- The equipment broken in case of force majeure such as earthquake and fire, etc.
- · Damage in transit caused by not using the original packaging, such as scratches, deformation or falls

SUMMARY OF NON-WARRANTY SERVICE

The company provides paid maintenance services for products that have passed the warranty period. We'll show you the test report. And we will not start the repair until we get your approval and receive the cost for replacement parts. If you do not agree to repair, please take back the equipment. THE COMPANY HAS NO OBLIGATION TO KEEP YOUR EQUIPMENT.

IF THE EQUIPMENT IS NOT TAKEN BACK WITHIN 30 DAYS WITHOUT SPECIAL REASONS, THE COMPANY SHALL HAVE THE RIGHT TO DISPOSE OF IT AT ITS OWN DISCRETION.



Ω OHMTECH