

The manual

Whale series professional digital power amplifier

Please read the instructions carefully before using the product



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Thank you for purchasing

As the product For your own safety and avoid the warranty is invalid

Please read this manual carefully

Introduction


Thank you for purchasing the company's professional audio products. Please read this user manual before use, it will give you provide when using the equipment effectively, the guidance of the correct data, and can prolong the service life of the product.


We have been working to develop high technology, high performance, competitive price, professional audio equipment. So far, we have different types, covering high, medium and low three levels, and can improve the quality of various occasions. In the research and development process, we have been trying to inject each product will be the soul of the high-tech, and create high quality equipment. We have been taken: ISO quality assurance system, with strict and necessary for professional supervision and every product is qualified, have you received the perfect sales and service.

Do it just for one purpose: hope customers actually benefit from high-tech, high-performance products and competitive price, and good after-sales service and technical support. Has been trying to return customers support for the product, to ensure that customers buy our product is worth it.

Important safety considerations and symbols

- 1 - please read the user manual in detail in the operation and maintenance instructions.
- 2 - keep the rules.
- 3 - pay attention to all warnings.
- 4 - to abide by the rules.
- 5 - warning: to avoid fire or electrical shock, do not use the equipment exposed to rain or damp environment, do not use this device near water.
- 6 - when clean the case, first after shutdown dial down the back of the power plug, use dry cloth to wipe, cannot use any corrosive solvents to scrub.
- 7 - don't pile up objects in amplifiers, distance into and out of FengKouChu do not put other items to 1 cm, to prevent clogging inlet and outlet.
- 8 - machine please do not use under the strong sun.
- 9 - do not install near the equipment will generate heat, such as radiators, heat control device, stoves, or other equipment (including amplifiers).
- 10 - not disable polarization or the safety of the grounding plug, polarized plug has two blades, a wider another narrow, only one field, wide leaf or third claw hand is for the life safety, if the provided plug and socket don't match you, please consult an electrician to learn how to change the old socket.
- 11 - USES a fixed capacity enough power socket for power supply, prevent trampled or extrusion protection wire.
- 12 - machine installation and maintenance, please professional or technical personnel operating companies.
- 13 - amplifier input level of the sensitivity of not more than nominal value.
- 14 - don't put a track of the power amplifier output from another channel input, not to the output of the power amplifier in parallel or in series to another output of the power amplifier is used.
- 15 - to ensure that the grounding is good, the float is not recommended to use.
- 16 - if the input signal and take more than three sets of power amplifier, it is recommended to use signal distributor, to ensure that the input signal distortion.
- 17 - to avoid electric shock, please do not open the lid.
- 18 - if amplifier is abnormal, should be timely shutdown, unplug the power plug and contact with dealers.

 Equilateral triangle within the exclamation mark remind the user of this manual is important for operation and maintenance (maintenance).

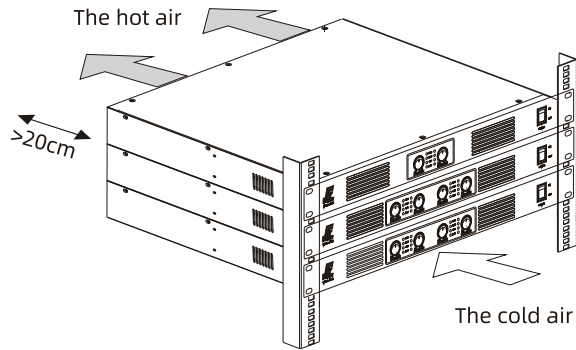
-  1.The amplifier output beside lightning sign warns the user has to get an electric shock risk. Is likely to cause dangerous lightning symbols are marked output connector, power amplifier don't contact output terminals when it is open, for all attachment before closing the amplifier.
- 2.Within an equilateral triangle with lightning signs, warning the user the product has a "dangerous" voltage insulation shell, can produce shock hazard to the human body.
- 3.Caution: to avoid electric shock risk, please do not remove the cover plate, internal users can maintenance parts, contact qualified professionals for repair.
- 4.Warning: to avoid fire or electrical shock, do not make the equipment in the rain or be affected with damp be affected with damp.

 Should be used at an altitude of 2000 m.

Installation guide

Stack installation

To protect thermal environment, please install the products meet the following conditions



The following is the local output port number.



Before project completion, built environment dust because of the many, and there will be a lot of dust accumulation during debugging in dust filtering sponge, the wind road, causing the problems.

If in this case, it is suggested that using high power vacuum cleaners clean strainer sponge directly, but also to do a monthly maintenance to ensure the good heat dissipation.

Input/output connection cable products are stacked to the fan, please tie it on both sides of the amplifier.



Work under the environment temperature should be < 35 °C

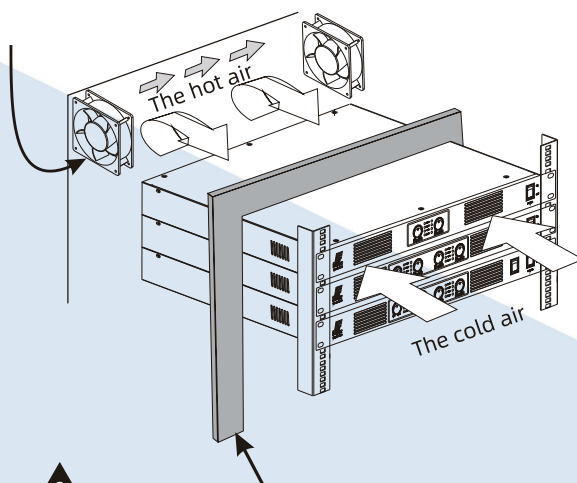


Non horizontal stacked, suggest the tail exhaust outlets up or straight to the vents

The wind to avoid short circuit

To prevent the discharge of hot air exhaust opening loop back to front.

Install exhaust equipment forced to take away the hot air



Keep out hot air Back to the in front of the tuyere



The temperature within the engineering validation when debugging cabinets, under the condition of the limit, also should keep under 35 °C.

Matters needing attention

Unpacking

Carefully opened the box, and check whether there is obvious damage. Every factory amplifier, samples and inspection should be in good condition to reach to your hands. If you find any damage, please immediately notify the transportation company. Only people receiving can occur in the process of transportation damage to lodge a claim against the carrier. Keep the carton and packing materials available for inspection by the shipper.

The installation

Keep the amplifier airflow flowing from front to back. So don't behind the front amplifier or install any block the flow of air amplifier components.

The amplifier can be directly stacked on top of each other. There is no need to leave a gap between the amplifier, although it will be more convenient in the rear panel for the line installation.

Suggestions after stent according to the long-term stability to installation, including stent bracket.

Cooling

Cooling Amplifier using by the former to the later forced air cooling system, keep within the prescribed limits for operation at low temperature. In almost all applications, by the former to the air is cooler air flow in the front. Don't try to change the direction of flow. To ensure that in front of the amplifier has enough air flow, at the same time, the back of the amplifier should have enough space to release the air. If the amplifier installed on the bracket, not in the front or back cover. When the radiator is overheating, the temperature sensor circuit to cool overheated channel. If power supply overheating, another inductive circuit will weaken until the power supply output fell to a safe operating temperature. Make sure the back of the plate in front of the detachable dust filter clean, in order to ensure the biggest circulation of air.

The operating voltage

The operating voltage Panel in the back of the power cord after the amplifier, there is a label, the label indicates the voltage of 220 v ac power amplifier. Just follow labels to connect the power supply. Such as equipment failure caused by the connection error power supply is beyond the scope of the warranty.

The installation Use primary relay switching amplifier. Because the power directly in the front of the transformer rectifier, so there was no amplifier to current frequency induction. It can be connected to 50 or 60 hz power supply, when in fact it is in operation from dc to 400 hz frequency.

If the factory installed power plug is not suitable for your country, it can be pulled out and in the right place on the wire.

If you are looking for your ability to install the power cord is not absolutely confident, please seek help to qualified personnel.

Once the appropriate connect the power cord, press the switch button on the front panel, the amplifier will open. The soft start and amplifier will self test lines. Before closing, will remain the high-speed rotating blades, at the same time, the power lights.

Suspension on the amplifier grounding switch or port, signal ground is always floating, the resistor is connected to the chassis, so the grounding system is automatic.

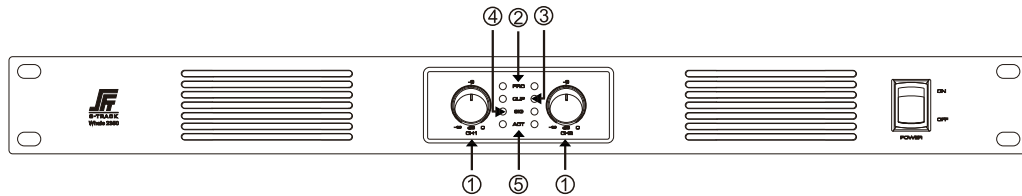
For safety's sake, don't pull on the power cord grounding rods.

Please use the balance input connection to avoid noise and interference.

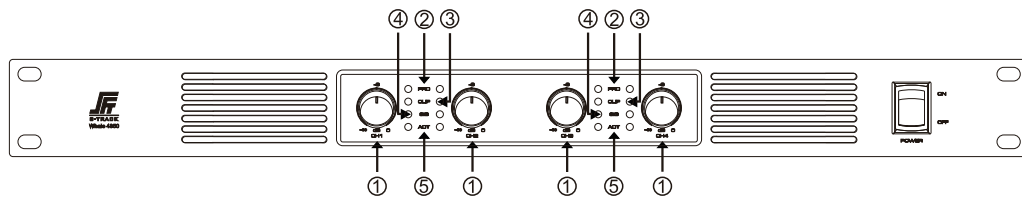
Note: if the amplifier failure caused by the dust filter is not clean, is beyond the scope of the warranty.

The front panel function is introduced

2 channel



4 channel



1. The volume control

- **Channel A outputs volume control**
In stereo mode, this potentiometer allows adjusting channel 1 input level.
- **Channel B outputs volume control**
In stereo mode, this potentiometer allows adjusting channel 2 input level.

2. The protection (PROT) LED (red)

- Said the channel when the light is in the midst of the protection state (the speaker output electric cut off).
- Amplifier mute because of malfunction, the leds emit bright red light. This usually occurs when the power on and off. At other times there is mute said overheating or other protective behaviors.

3. The clipping (CLIP) LED (orange)

- Clipping occurs, the bright orange light LED. The intensity and duration associated with the degree of clipping.
- Limiting this LED brightness is only half. Clipping - limiter circuit is enabled, this phenomenon will occur in all products.

4. The signal light LED (green)

- The indicator light indicates that the channel output level, brightness changes over the amplitude of the output level.

5. The power LED (green) (ACT)

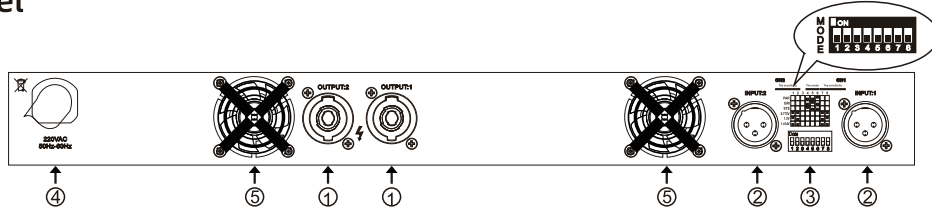
- Power to open the case, the power of the green LED should light up.

6. The power switch

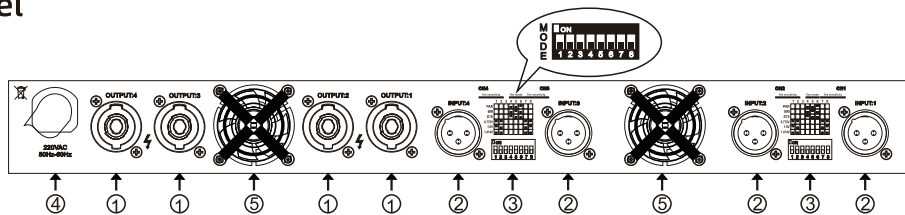
- All the power control amplifier, ac switch must be placed ON (open).

Rear panel function is introduced

2 channel



4 channel



1. The speaker output socket screw

- Channel 1, 2 channel, channel 3, 4 channel 5 channel, 6 channel, channel 7, 8 channels connect the outlet to speakers.

2. The XLR input socket

- 1 channel XLR input, the XLR input for balance. 2 channel XLR input, the XLR input for balance.
- 3 channel XLR input, the XLR input for balance. 4 channel XLR input, the XLR input for balance.
- 5 channel XLR input, the XLR input for balance. 6 channel XLR input, the XLR input for balance.
- 7 channel XLR input, the XLR input for balance. 8 channel XLR input, the XLR input for balance.

3. Stereo mode/bridge models/and/sensitivity toggle switch

4. The power cord

- Please note: power socket must be qualified grounding (before using this amplifier, please check whether the voltage for this equipment rated voltage).

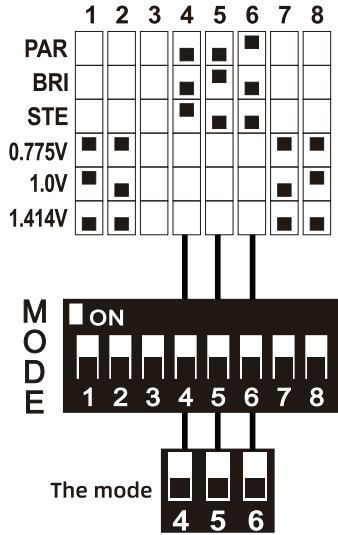
5. The cooling fan

- Please note: please do not keep out, want to leave enough space for equipment for hot and cold air exchange. Equipment service life (growth)

Guide mode/sensitivity switch

CH2 CH1

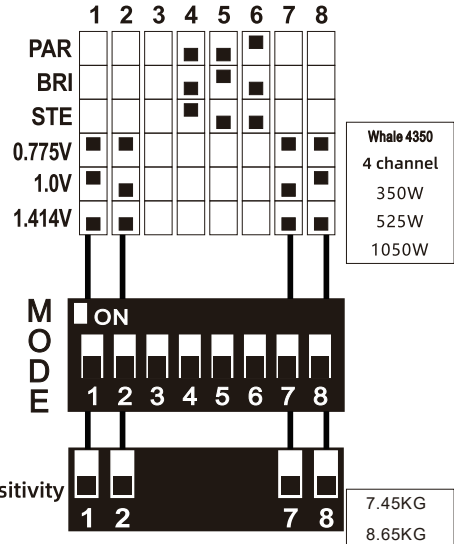
The sensitivity The mode The sensitivity



(4, 5 and 6 switches are responsible for mode switching)

CH2 CH1

The sensitivity The mode The sensitivity



(1,2,7,8 switches are responsible for sensitivity switching)

Stereo mode: turn the 4th bit of the 8-bit switch up (In the direction of ON, the switch of bridge mode -4 and parallel mode -6 needs to be turned off)



Stereo

Bridge mode: turn the 5th bit of the 8-bit switch up (In the direction of ON, the switch of bridge mode -4 and stereo mode -6 needs to be turned off)



The bridge

And mode: turn the 6th bit of the 8-bit switch up (In the direction of ON, the switch of bridge mode -4 and stereo mode -5 needs to be turned off)

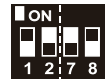


And pick up



1.414V

1.414 V: 1 in the eight switch,2,7,8 position switch to stir, switch seated state.
(Placed beneath the closed, 1,2,7,8 position switch seated sensitivity of 1.414 V)



1.0V

1.0 V: 1-8 of 8 switch switch dial up 2, 7 below the position switch in the closed.
(1, 8 position switch in direction to open ON word, 2, 7 below the position in the closed position)



0.775V

0.775v: the first 1,2,7,8 bit switch in the 8-bit switch upward, switch fully open state
(in the ON word direction open state,1,2,7,8 bit switch fully open sensitivity is 0.775v)

Product parameters

| Model/parameters | Whale 2150 | Whale 2350 | Whale 2650 | Whale 4150 | Whale 4350 |
|-------------------------------------|--|------------|------------|------------|------------|
| The channel number | 2 channel | 2 channel | 2 channel | 4 channel | 4 channel |
| 8Ω per channel output power * | 150W | 350W | 650W | 150W | 350W |
| 4Ω per channel output power ** | 225W | 525W | 975W | 225W | 525W |
| 8 Ω bridge output power ** | 450W | 1050W | 1950W | 450W | 1050W |
| Frequency response (1 w, 80, +1 db) | 20Hz-20KHz | | | | |
| Always swim wave distortion | <0.1% (8 Ω 1 KHZ) 1/8 power | | | | |
| Conversion rate | 30V/us | | | | |
| Damping coefficient (100 hz) | >500:1 | | | | |
| Signal to noise ratio | 110dB | | | | |
| Channel separating degree | >75dB | | | | |
| Input impedance | 20K Ω balanced input /10K Ω unbalanced input | | | | |
| Input net gain range | 0.775V、1.0V、1.414V | | | | |
| Net weight | 6.30KG | 6.35KG | 6.50KG | 7.40KG | 7.45KG |
| Gross weight | 7.50KG | 7.55KG | 7.70KG | 8.60KG | 8.65KG |
| The fuselage size | 483*380*45 | | | | |
| Packing size | 535*500*105 | | | | |
| Working voltage | AC220V/50-60Hz | | | | |

* The power for this symbol is measured using a 20mS pulse 1KHz sine wave at 1% total harmonic distortion.

** The power to mark this symbol is measured using a 10mS pulse 1KHz sine wave at 1% total harmonic distortion.

All product warranty for two years.

Warranty period shall begin on the product sold to end users, and not more than one product production period of 24 months.

If there are any signs of change, the product warranty is void, unless the change is authorized by our agent.

But if by chance the product defective phenomenon, the customer must pay the freight in advance, and will return to guarantee products along with the original packaging center. Such power amplifier with all protection function, but bad to use a power amplifier can be broken, and not included in the warranty scope.

The power amplifier in the mechanical parts, if excessive use, do not belong to the warranty scope.

If this series power amplifier need more information or have more questions, please contact your agent or you buy the product of zero point of pin.



Environmental Protection Use Period

This logo refers to the period (10 years) during which the hazardous substances in electronic and electrical products will not leak or mutate so that the use of these [substances] will not result in any severe environmental pollution, any bodily injury or damage to any assets.