

EX Series

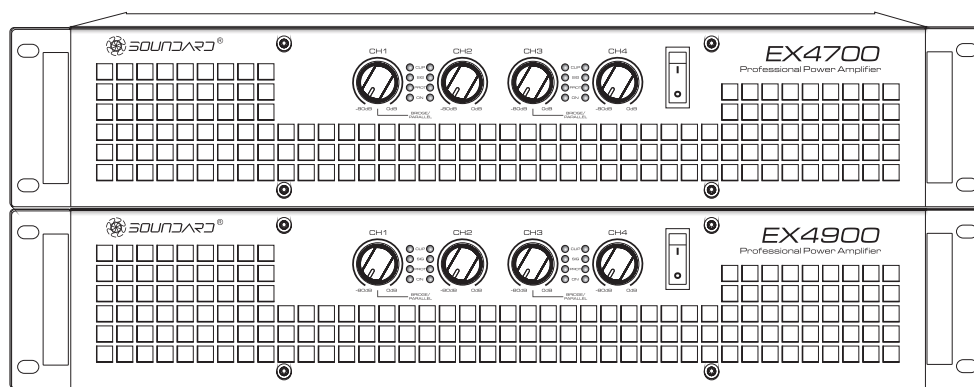












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Important safety matters for power amplifier products:

1. Read these regulations, pay attention to all warnings, follow these regulations, otherwise the product will be damaged.
2. Do not place or install the product near the water source and avoid contact with liquid in any form. For example, do not spray liquid around the product or place liquid containers above the product.
3. Do not place or install the product near the heat source or fire source, and try to ensure that the ambient temperature of the product is below 35 degrees Celsius.
4. Do not install the product in small, closed, air can not be normal convection or less flow space, to avoid the formation of hot air circulation.
5. Before powering on the product, check that the appearance of the product is complete and that there is no distortion, damage, or blurred silkscreen. Ensure that effective grounding protection measures are taken before powering on the product.
6. Protect the power cable and plug to avoid deformation and wear caused by trampling or squeezing. Check regularly to ensure that the power cable is in proper condition for use.
7. ⚠️ Serious warning: Power plugs and device couplers are circuit cutting devices and must be kept in stable and protected running state.
8. Power amplifier products shall be used in the following switching sequence:
Open: start the previous equipment first -- then start the power amplifier product;
Shut down: First shut down the power amplifier product - then shut down the preceding equipment.
9. Pay attention to the rated voltage marked on the product. Before powering on the product, ensure that the power supply voltage meets the requirements of the product.
10. If the input signal and connected to more than three products, it is recommended to use the signal distributor, can avoid the input signal distortion.
11. Do not connect the output interface of one channel of the product to the input interface of another channel. Do not connect the output of a power amplifier in parallel or in series to the output interface of another power amplifier.
12. When the design system is configured with power amplifier, the product power should be 50%-100% larger than the nominal power of the sound box under the same impedance, and the bridge mode should be used with caution.
13. Due to the high output current to the speaker, it is recommended to use the screw socket plug of type NI4 speaker in accordance with the specifications.
14. When multiple products are used, the appropriate amount of power distribution should be calculated to ensure a qualified operating environment.
15. When repairing the product, it is forbidden to connect the probe of the oscilloscope to the output end of the product in the bridging state, so as to avoid damage to the product and oscilloscope.
16. This equipment is not suitable for use in places where children may be present.

Safety instructions

 When stacking non-horizontally, the air outlet should be upward or be straight to the vent.	 This product is suitable for safe use below altitudes 2000m.(Only for our company Switching Mode Power Supply equipments)
 Input/output connection cables can not be stacked on the air outlet of the product. They should be tied up on both sides of the amplifier.	 This product is suitable for safe use of non tropical climate conditions.
 The ambient temperature should be lower than 35°C while running the amplifier	 The materials which need to be technically recycled and can not be placed in the trash can.
 Please verify the temperature in the cabinet when the project is debugged, and should be kept below 35°C even though in the extreme conditions.	 The lightning bolt triangle is used to alert the user To the risk of electric shock. Non-professional Qualified technicians do not open top or bottom covers for maintenance
 The product should be grounded.	 Hot parts mark, the parts should be turned off for half an hour before touching.



WARNING: To reduce the risk of fire or electric Shock, do not expose this apparatus To rain or moisture.

Welcome

Thank you for purchasing our products. The EX series professional power amplifier, simple to operate, stable, high performance-cost rate. Special design for KARAOK ROOM, sound reinforcement, small performances, lectures and other places. Please take the time to study this manual so that you can obtain the best possible service from your amplifier.

Unpacking

Please unpack and inspect your amplifier for any damage that may have occurred during transit. Confirm the preset voltage of the power amplifier matches your local voltage rating (Please refer to the print on the rear panel for detailed information). We also recommend that you save all packing materials so you will have them when need to return the power amplifier.

Important safety precautions

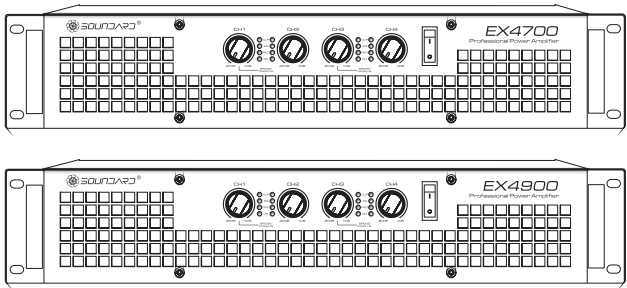
Our products has already taken the safe requirement in to consideration and all the finished products have been tested under the requirement of the government before sale. Due to the inner dangerous high voltage and electricity, we strongly recommend you read all instructions, warnings and cautions contained in this manual. It will increase the chance of getting shock by the electricity if the product falls down, recess in the appearance, soaked or there were some parts loose internal. If there are problems above, please turn off power immediately and send the defective units to local distributor for service.

Power & Wiring distribution

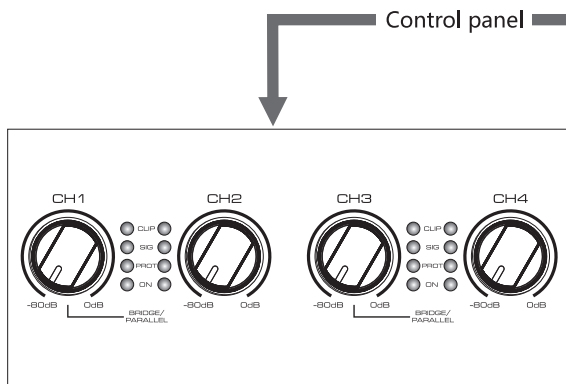
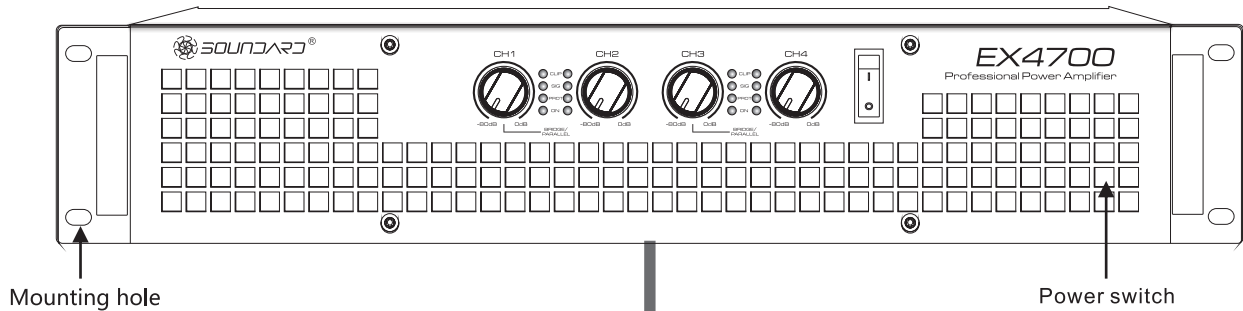
Referring to the power dissipation and power supply/AC of different product for wiring We suggest the users to match not less than the following wiring size specifications, to obtain the better comprehensive properties.

The Standard Voltage : 220V/240V ~

Model	Dissipation Power	Cable size
EX4700	3500W	≥2.5mm ²
EX4900	4000W	≥2.5mm ²



Front Panel



- CLIP → Illuminates when compressor / limiter is protecting the amplifier from input overload.
- PROT → Illuminates when either protection circuit action.
- SIG → The signal light
- ON → Illuminates when the amplifier start.
- CH1-CH2 → Gain Controller Knob
300° volume knob from 0 to -80dB.

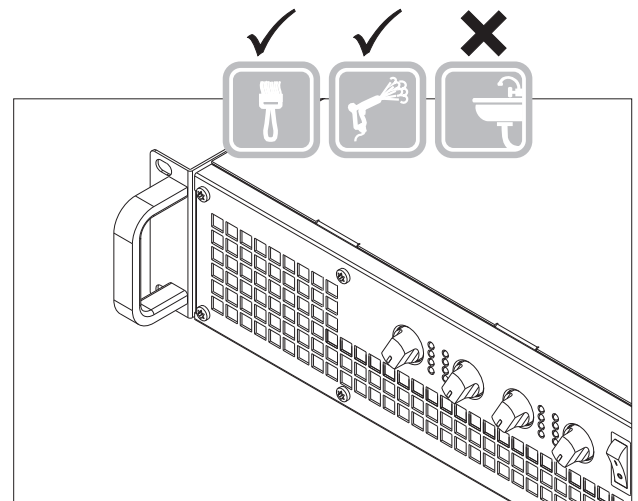
Cleaning guide of the dust filter



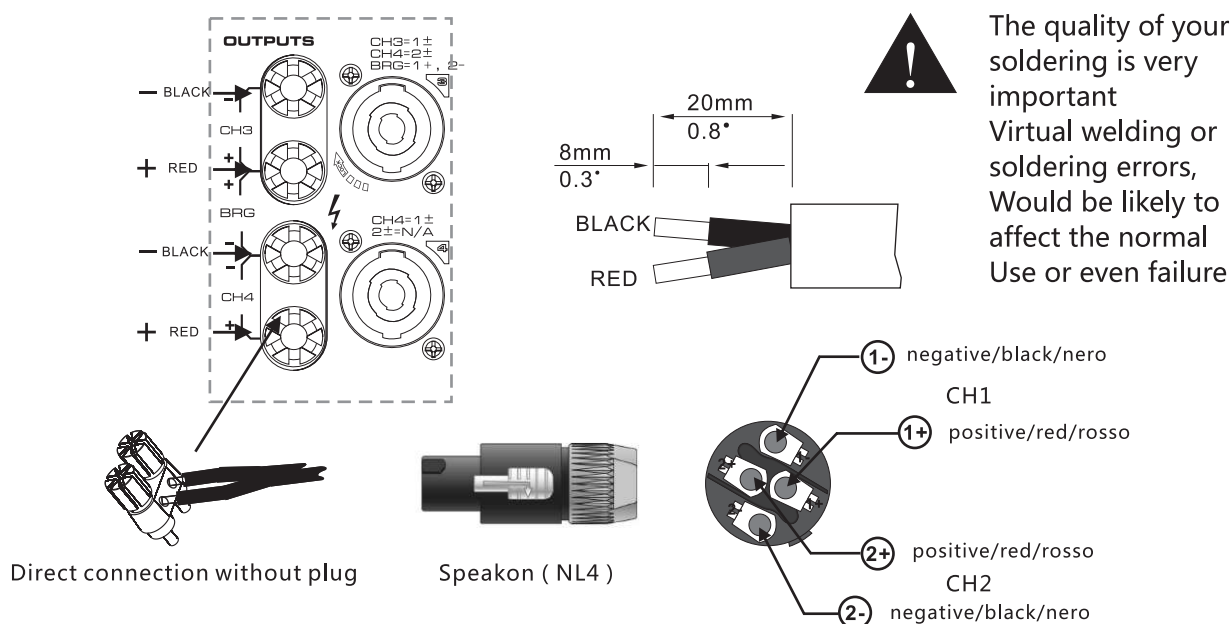
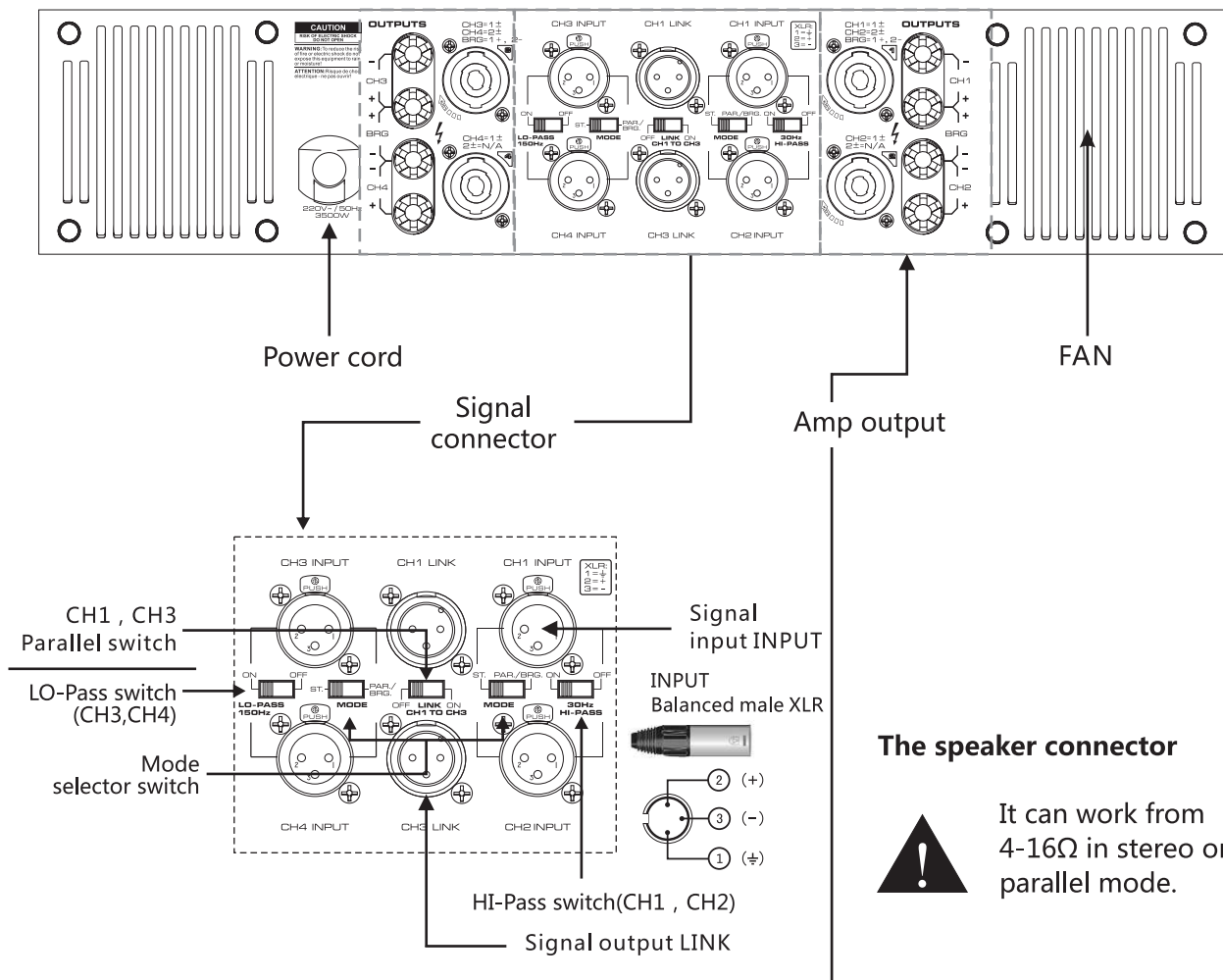
The first time cleaning of the strainer mesh should be right after installation. Recommend to clean the strainer mesh quarterly.

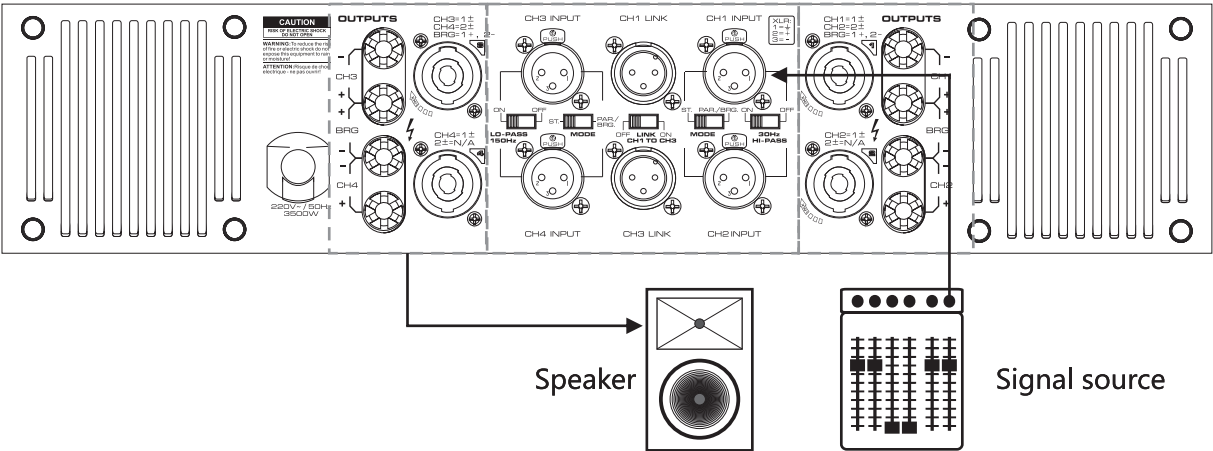
Please do not run the product without the dust filter, or it makes the service life of the product shorten.

Such condition will be considered as no warranty.

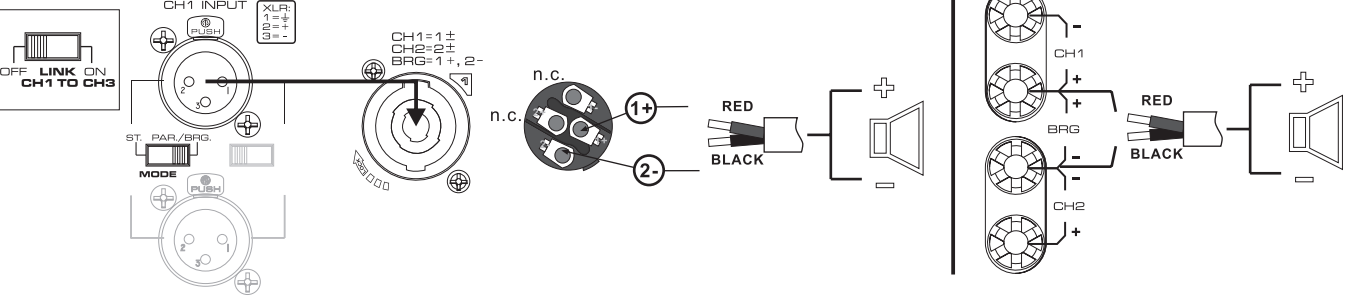


Rear Panel

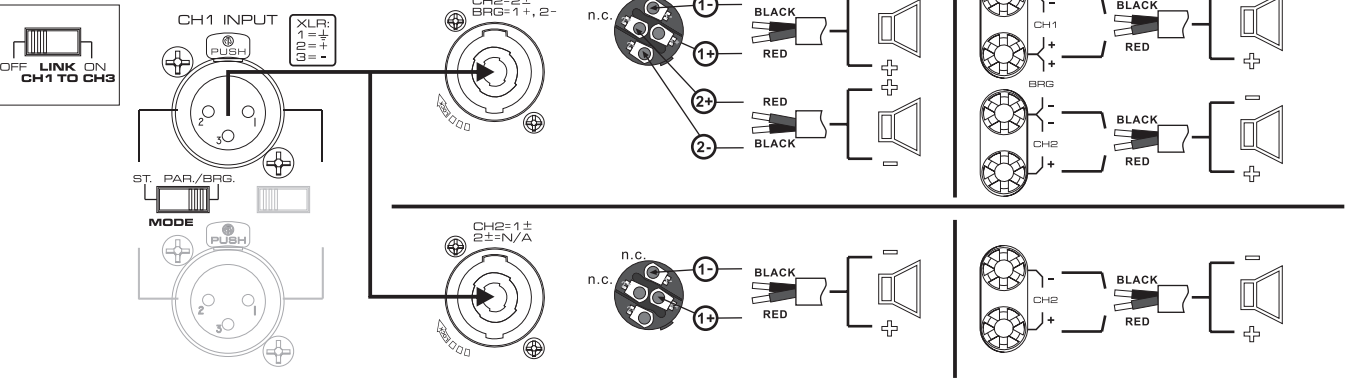




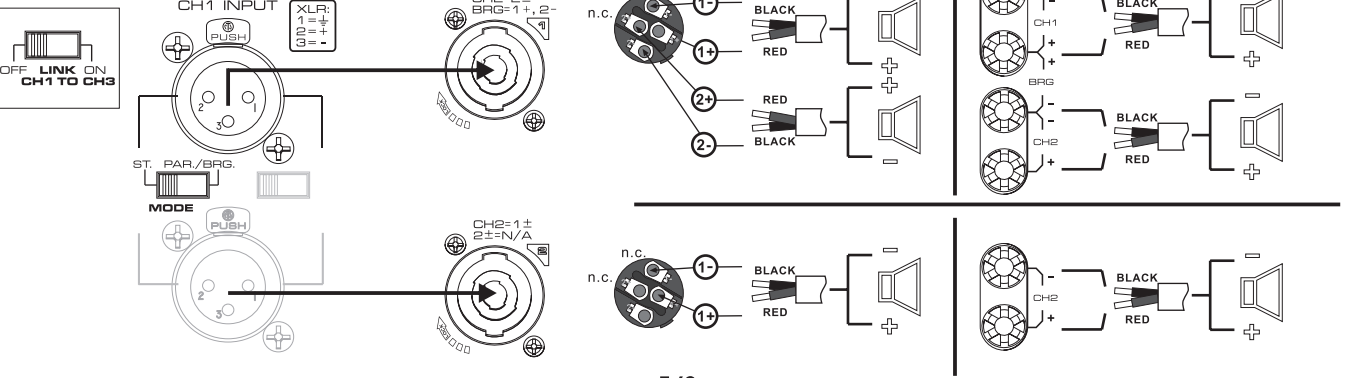
Bridge mode



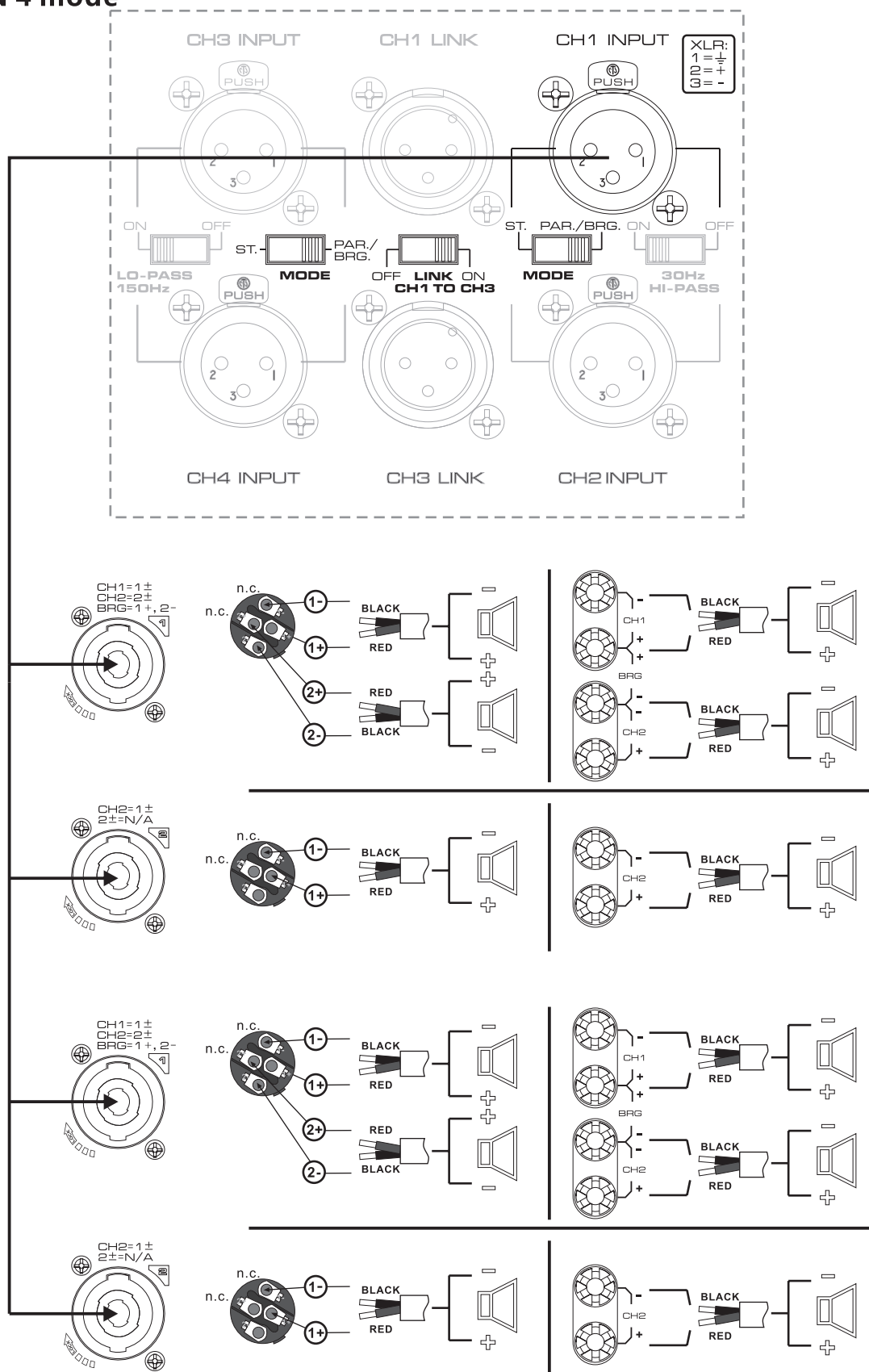
Parallel mode



Stereo mode



1 IN 4 mode



Model	EX4700	EX4900
Output power		
8Ω stereo *	700Wx4	900Wx4
4Ω stereo *	1200Wx4	1500Wx4
8Ω bridge ***	2400Wx2	3000Wx2

Other Specifications

Frequency response	20Hz-20kHz(+0/-1dB)	20Hz-20kHz(+0/-1dB)
THD+N	≤0.05%	≤0.05%
S/N rate	≥96dB	≥96dB
Input sensitivity	0.775	0.775
Input impedance(bal/unbal)	20kΩ/10kΩ	20kΩ/10kΩ
Voltage gain (8 ohm)	40dB	40.8dB
Output circuitry	Class 2H	Class 2H
Cooling	Air flow from front to rear	
Protection	Soft start, short circuit, over load, clip limit, over heat, progressive volume	

Connection

Input	Balance input XLR-F, Balance output XLR-M
Output	Two red and black Binding posts

Function

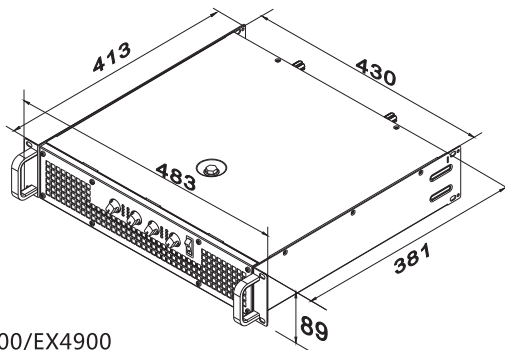
Front panel	Front panel indicator: Working indicator Signal/Clip/Protection/Power on/ volume control knob
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Dimensions

Product Dimension(mm)	483x451x89	483x451x89
Packaging Dimension(mm)	595x570x170	595x570x170

Remark : 1、*,The power is tested under the condition of 40ms burst,1kHz sine wave and 1% THD
2、***,The power is tested under the condition of 10ms burst,1kHz sine wave and 1% THD

Product dimension(mm)



Suitable model:EX4700/EX4900

The manufacturer reserves the rights to make changes in specification without prior notice.
The final specification is subject to the user's manual.

After powered without any response

Measure the outlet with a multimeter to check if there is power available and when no multimeter, you can have a test pencil. If the power supply is normal and the amplifier still no response when powered then there is something wrong with the amplifier, need professional person to check it.

No signal output

1. First check if the signal input is right.

⚠️ Check the connect of XLR, if the 2 and 3 reverted or the ground is reliable. Different circuitry design will have different connect way of the XLR, please follow the 2+, 3- to soldering.

It can not be judged by comparing with other amplifiers (including other amplifiers in the same factory).

2. The signal light don't lights up

If all the signal input is fine and the signal light don't lights up then may the amplifier has failure, you need to ask the professional person to check it.

3. Signal input normal but no sound

The signal light will flash with the change of input Volume, but now sound out, then you can check the connect of speakon if it is connect good and the wires are connect right (some times the problem of the wires connect, check its ± 1 and ± 2 connect), after the check above if still no sound out, please change a speaker cable and check again. Because some times also caused by the bad quality of the Speakon connector problem of the amplifier.

⚠️ Through experiences, it may caused by the bad connection of some plugs and the socket.

Output sound distortion

1. After check the signal and loudspeaker they are fine and still can hear distortion when small sound, then may the amplifier has failure, need professional person to check it.

2. Some frequency band has distortion

First, check if the loudspeaker already overload, normally judge it in 95~105dB for higher SPL we don't comment here. Here we just think about the failure recovery of the amplifier. If in the middle have some rupture sound and more smaller volume more obvious, then it should be crossover distortion of the amplifier and this kind of distortion is easy to confuse with the failure of loudspeaker itself. If the amplifier have problem then you should send back to the manufacture for repair.

3. Distortion is High SPL

If the sound is normal when small volume and then you need to check the limit SPL of the loudspeaker. You can listen it in suitable volume and if clip light works, then you need reduce the output. Both loudspeaker and amplifier have limit, you should use them in their limit if in very high SPL they have distortion you should take care of them and reduce the output to the right position.

The protection light blinks

When the PROT light works, the amplifier into the protection mode.

1. Maybe the temperature is too high or output short or near short and they are not failure they can recovery after you can use it normally. But over heat will take more time to recovery. Also when over heat happened you should check the fan and the temperature of the install environment, if does you should solve the problem then can use amplifier. If you think the speaker was short, you can with a multimeter to check if the resist is lower than 2 ohm or 1 ohm with DC (Please calibrate the multimeter to measure for accuracy because of the small resistance).

2. If the PROT light always light up then it should be the problem of amplifier, you should send it back to professional person for repair.

Hum in the system

1. Hum exists even when there is no signal

Please keep the amplifier away from earth wire of power supply cables, just connect the fire wire and zero wire, no ground wire. If the hum is still existing, it can be judged that there are some problems in the amplifier. Please get in touch with professionals.

2. Hum exists when the system is completely connected

This is caused by the different ground voltages in difference devices in the system, mainly happens when the power supply is under three-phase distribution condition, each device is connected to different phase. This is not caused by amplifier.

Solution experiences, just for reference

- Combining the electricity, the power distribution box using the same one for all if possible.
- Make sure the grounding wire potential is zero and force the different grounding wire to the same level, if the grounding wire itself charged, indicates that the wire may be connected with the zero line. Please solve this problem.
- If unavailable above, then only to disconnect the ground wires of all devices, which helps to reduce the AC. But this is not meet the safe use of electricity, users must know what will happen if to do in this way. We do not recommend the floating use.

The amplifier is required maintenance in the condition below:

- If the amplifier smokes or smells burning.
- If the cabinet has severe indentation and deformation
- If the amplifier are dipped into the water
- If the internal components loosen
- If AC breaker skips out when current increases.

Disclaimer

SAE Audio Co., Ltd. is not responsible for any damage of loudspeakers or other equipments caused by negligence or improper installation.

SAE Audio Co., Ltd. offers 2 years limited warranty for this product.

SAE Audio Co., Ltd. Guarantees that this product has no material defect during two years from the sales date; if the damage caused under the normal installation and operation, SAE Audio Co., Ltd. shall change the defective component and repair faulty product for free according to this Quality Guarantee Agreement. However, users must send the product to our factory or any authorized maintenance points or designated distributors, affording the re-paid freight, together with buying proof (including customer copy of product warranty card and payment receipt or invoice copy).

As per this Quality Guarantee Agreement, the returned product must be judged having manufacturing defect it self after our inspection. This agreement doesn't apply for products with damage caused by any wrong operation negligence, accident, inappropriate installation or products with no date code and sequence no or damaged ones beyond recognition.

SAE Audio Co., Ltd. shall not afford responsibility for any damage caused by accident or indirect factors. The agreement authorized you specific legal rights.

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