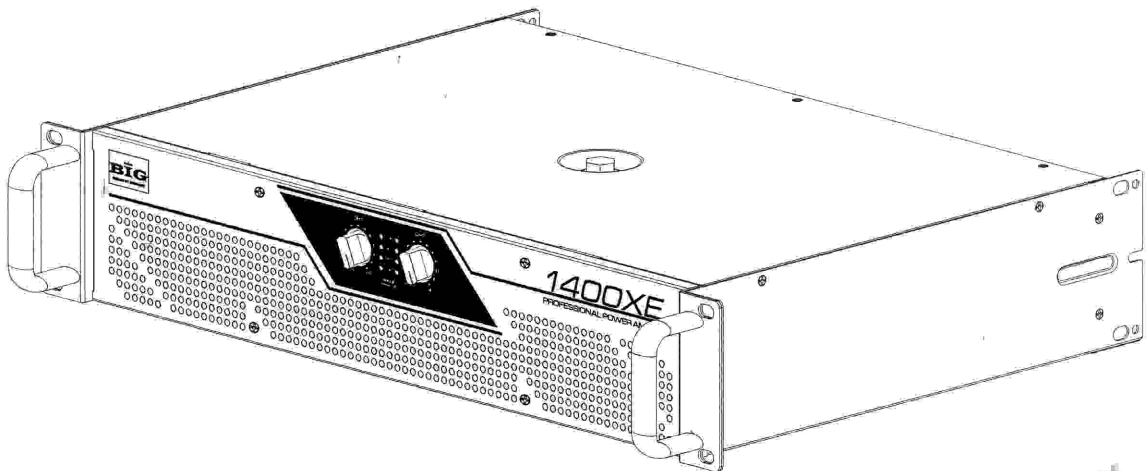




XE Series Power Amplifier User's Manual



1400XE/2000XE/2600XE



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1. Read this user manual before operation.
2. Retain this user manual.
3. Pay attention to all the notice.
4. Comply with these regulation.
5. Warning: To avoid causing fire or hit by the thunder, don't put the equipment in the rain or in the wet environment.
6. Wiped by dry cloth.
7. Don't obstruct the air entrance and exit.
8. Don't install the equipment closed to heat source radiator, heat adjust setting, camp stove etc ,for example.....
9. Don't make the grounded plug invalidation, this equipment should be connected to the socket by protective grounding.
10. Protect the power from being trampled or extruded, especially the socket, power socket and the connectors of it.
11. Please turn off the power cord before taking off the power cord, signal wire or to change the mode and switch off.
12. Please use the equipment under suitable voltage remarked on the rear panel. If the equipment is damaged because of using under wrong voltage, it is not includeed in the warranty ragulat.
13. If there is one signal is used for more than one power amplifiers, we suggest using signal distritor.
14. Don't connect the output of one channel to the input of another channel of the power amplifier. Don't connect one power amplifier to another one by connecting their output in series or parallel connection.
15. When using, the power of the power amplifier should be 50%-100% more than the loudspeaker power.
16. During service of the power amplifier, don't connect the probe of the oscilloscope to the output interface under bridge mode in case of damaging the power amplifier and the oscilloscope.
17. Suggestion: Sequence power should be used when use more than one amplifiers.



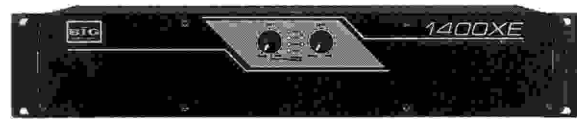
Warning: important notice.



There are non-insulated parts with dangerous voltage, which can make people gotten electricshock . Hence, please don't open the cover. please ask the professional for repair or return to the factory. If maintenance is needed.

Welcome

Thank you very much for buying the products from BIGVOICE Co, XE series professional power amplifier, simple to operate, stable, high performance-cost rate. Special design for KARAOOK ROOM, sound reinforcement, small performances, lectures and other places. To make the product work at excellent situation, please read this manual carefully.



Unpack

Please confirm if the appearance of the power amplifier is damaged during the transportation after you unclosed the pack and if the set voltage matches to your local voltage (Please refer to the print on the back panel for detail information.) Please don't throw away the packing box in case returning the power amplifier when need.

Important precaution

The design of the BIGVOICE products has already taken the safety requirement into consideration and all the finished products have been tested under the requirement of the government before sale. But as there is dangerous high voltage and electricity enter the products, user must read the notice in this manual. If the product falls down, recess in the appearance, soaked or there is some part looses inside, it will create the dangerous of getting electric shock. If there are problems above, please take off the power cord and send the product to the local distributor for service. Don't open the product to check by yourself

Rated Power

Model	8ohm*	4ohm**	8ohm BR.**
1400XE	350WX2	700WX2	1100WX1
2000XE	500WX2	1000WX2	1500WX1
2600XE	650WX2	1300WX2	1900WX1

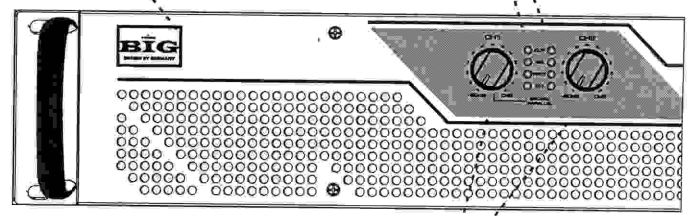


- *. The power is tested under EIA standard.
- **The power is tested under the condition of 40ms burst, 1kHz sine wave and 1% THD. The best performance of this series is at 8ohms loading, in order to avoid overheat protection only use low resistance load at low electric level.

Panel function

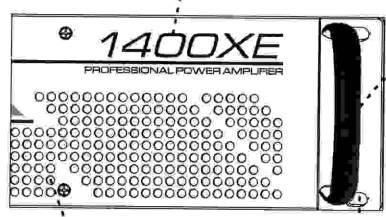
- Working condition indicator
- PROT protection indicator
- CLIP clip indicator
- SIG Signal indicator
- ON power indicator

LOGO



Gain control
 CH1/CH2, 300° volume control knob.
 CH1 and CH2 volume control independently under stereo/parallel mode.
 CH1 mode control two channel volume at the same time when under bridge mode. For normal operation, please keep the controller at max (0 db).

Model
 The rated power of 1400XE/2000XE/2600XE states in the "specification".

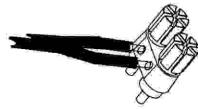


Handle

Installation hole
 Install standard 19" cabinet, 2U.

Intake
 Inter fan will soak the air flow from frontto rear.
 If the power amplifier is used with heavy load, the fan will run more quickly. Please don't block the intake.

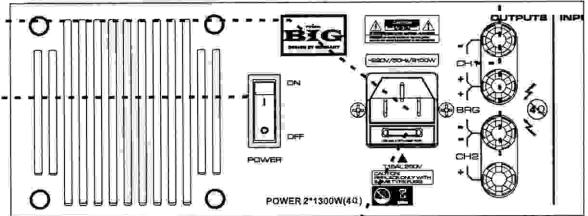
Rear panel function



Speaker connection case
Binding posts, bare wire and terminal can plug in the side connector.

AC input

Power switch
Open upward the switch turn on the amplifier Green ON lamp, red PROT trigger lamp 3 ~ 6 seconds until the amplifier Complete the self-check.
If there is no light, please check the power lines and the breaker on the rear board.



Fuse Holder

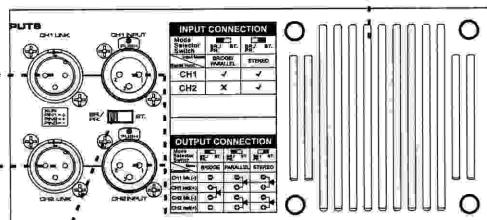
This fuse holder includes a standard specification fuse inside. It is used to protect amplifier from damages.
If the amplifier was connected to power supply but the LED is not illumed, please check the fuse situation.
If you found the fuse broken, please make sure to replace with a same specification fuse after trouble shooting.

Output connection

Balance xlr output
Feet 2 connects positive pole, feet 3 connects Negative pole, and feet 1 connects ground pole
It is recommended to adopt this Way for operation in long or short Distance between the amplifier And signal source.

Vents of fans

Suggestion: don't block the vents during operation.

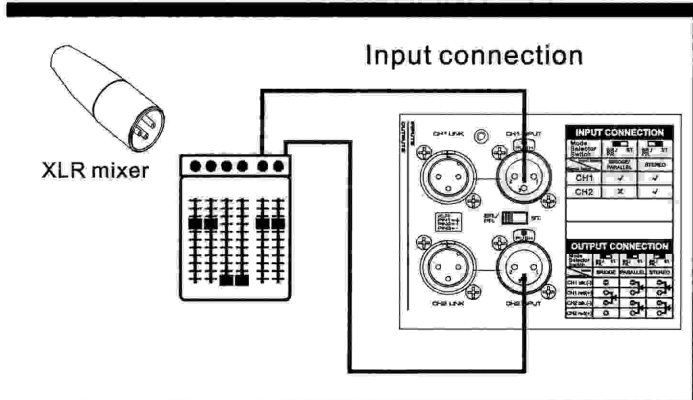


Mode selector switch

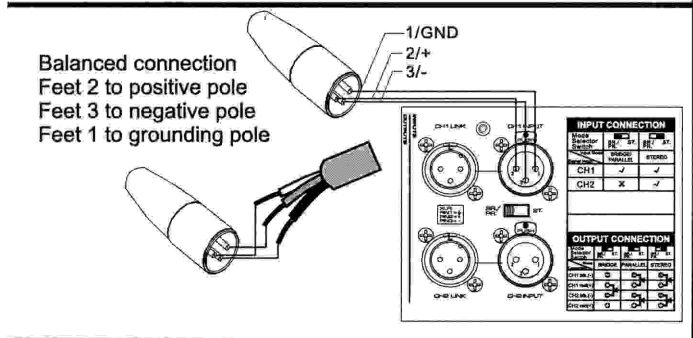
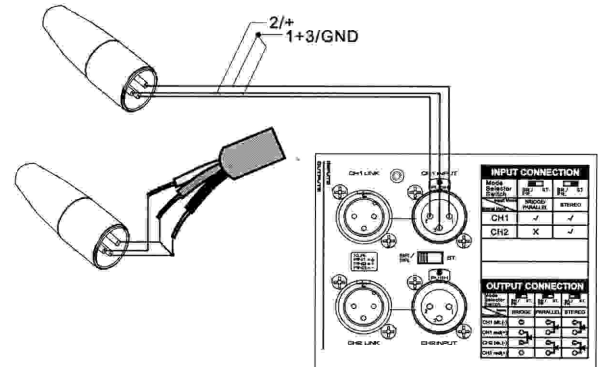
CH1、CH2 Stereo/bridge conversion
At bridge mode, signal is input from CH1, and volume is controlled by CH1

Input connection

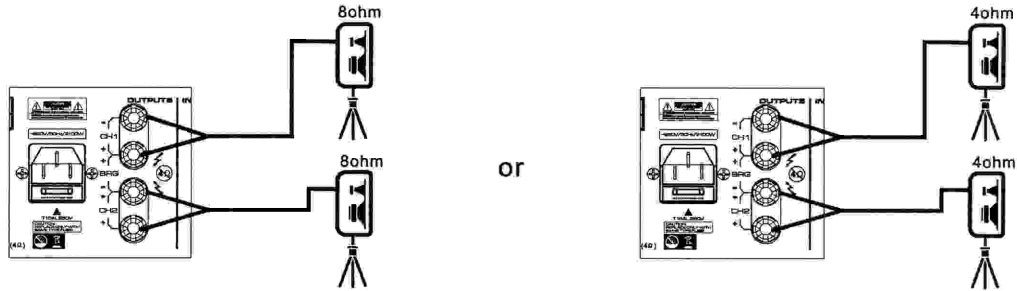
Balance xlr input
Feet 2 connects positive pole, Feet 3 connects negative pole, And feet1 connects ground pole
It is recommended to adopt this Way for operation in long or short Distance between the amplifier and signal source.



Unbalanced connection Feet 2 to positive pole Feet 1 & feet 3 to negative pole. This connection is only applied for short distance transport between amplifier and signal source, and may cause noise in different application environment. (Suggest noise)

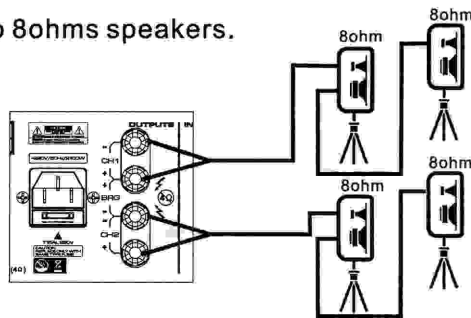


Every channel can individually connect 4 ohm speaker or two 8ohm speakers. If the speaker has parallel port jack, don't connect over two in every line.

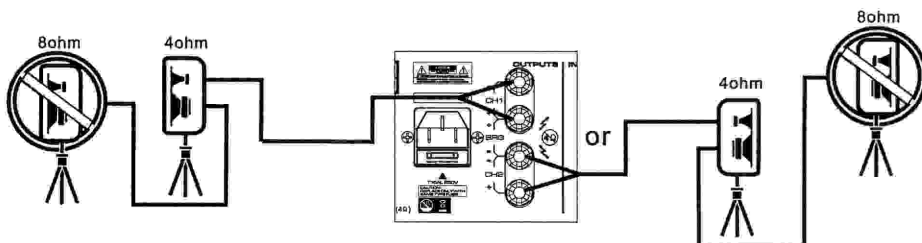


Connect to multi speakers:

Each channel can connect to two 8ohms speakers.

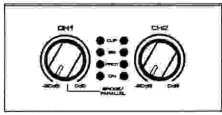


Each channel can't be connected to the loudspeaker lower than 4ohm.

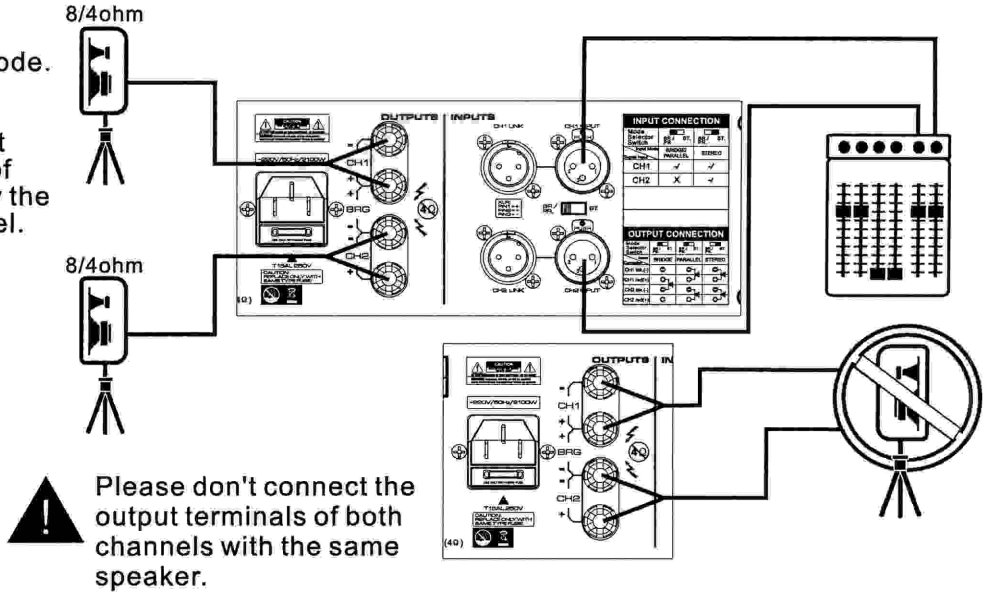


STEREO Mode

Put the switch to STEREO mode. CH1/CH2 adopts XLR input. The output terminal of each channel respectively connect speaker. The output volume of each channel is controlled by the volume knob at the front panel.



Put the switch to STEREO mode

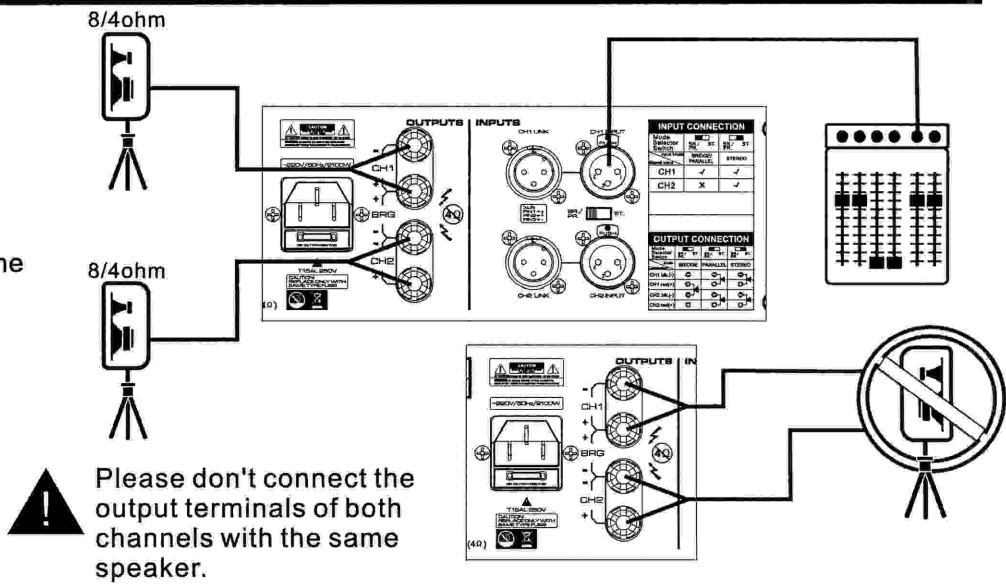
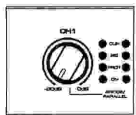


! Please don't connect the output terminals of both channels with the same speaker.

PARALLEL Mode

Put the switch to BRIDGE/PARALLEL mode. CH1 adopts XLR input. The output terminal of each channel respectively connect speaker. The output volume of each channel is controlled by the volume knob at the front panel.

Put the switch to BRIDGE/PARALLEL mode

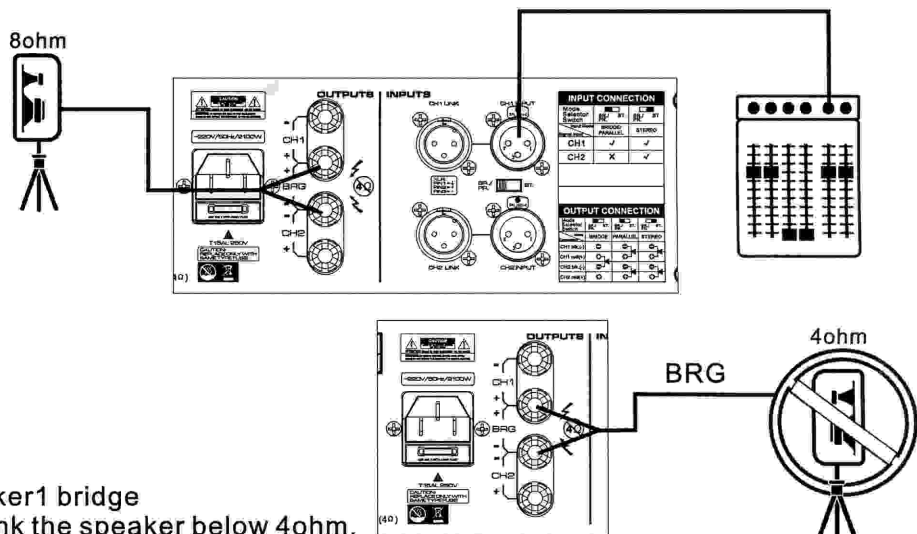
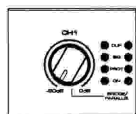


! Please don't connect the output terminals of both channels with the same speaker.

BRIDGE Mode:

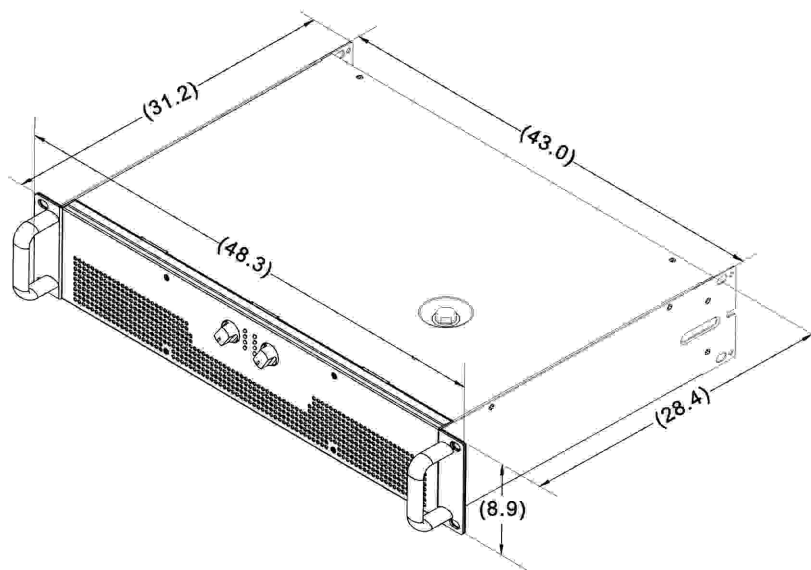
Connect the red binding post of CH1 and the black binding post of CH2 to one loudspeaker

Put the switch to BRIDGE/PARALLEL mode

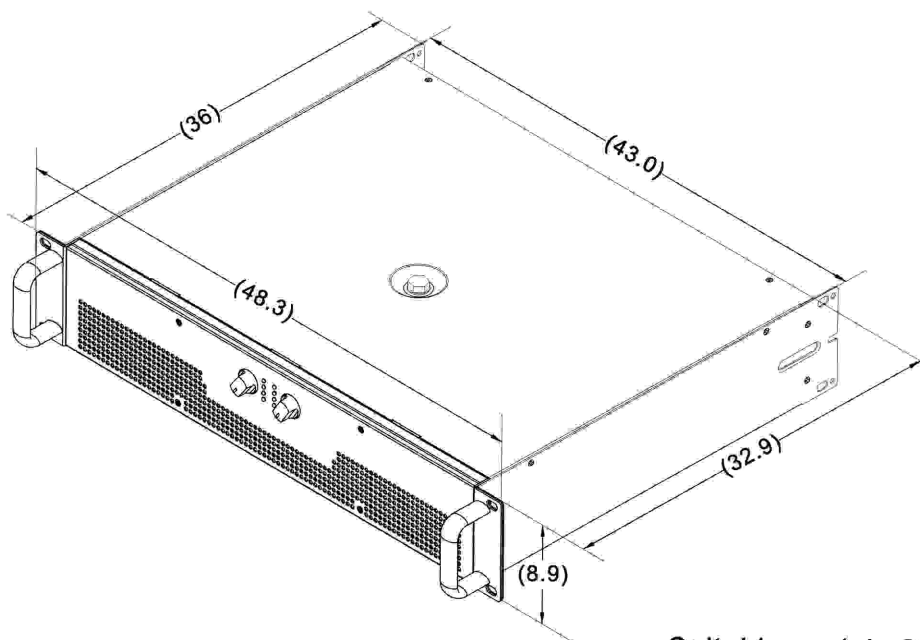


! when the speaker1 bridge it prevents to link the speaker below 4ohm.

Cabinet dimension (cm)



Suitable model: 1400XE



Suitable model: 2000XE/2600XE

Model	1400XE	2000XE	2600XE
Power			
8ohm stereo power*	350Wx2	500Wx2	650Wx2
4ohm stereo power**	700Wx2	1000Wx2	1300Wx2
8ohm bridge power**	1100WX1	1500WX1	1900WX1

Other specification

Frequency response(8ohm/ stereo/1/4 RMS)	20Hz-20kHz, +0/-0.5dB		
THD+N(8ohm/ stereo/1kHz/1/4 RMS)	THD%<0.05%	THD%<0.05%	THD%<0.05%
S/N rate	≥96dB		
Damping Factor(8ohm/ stereo/1kHz)	>300	>200	>200
Crosstalk(8ohm/ 1kHz/1/2RMS)	≥75dB	≥75dB	≥75dB
Slew Rate(8ohm/ stereo/RMS)	>15V/μs		
Input Sensitivity(8ohm/ stereo/1kHz)	0.775V		
Input Impedance(bal/unbal)	20kΩ/10kΩ		
Voltage gain(8ohm/ stereo/1kHz)	37dB	38.2dB	39.4dB
Output circuitry	Class AB	Class 2H	Class 2H
Cooling	Air flow from front to rear		
Protection	Soft start/DC/ short circuit/over load/clip limit/over heat/ progressive volume		

Connector

Input	XLR/TRS 6.35/RCA
Output	Two red and black Binding posts

Function

Front panel	Individual volume control knob、 Power display、SIG indicator、clip indicator、protect indicator
Rear panel	Boat-type power switch、Mode selector switch

Dimension/weight

Product dimensions (W x D x H)(mm)	483x350x89	483x398x89	483x398x89
Packing dimensions (W x D x H)(mm)	595x460x170	595x510x170	595x510x170
Gross weight(±2.5kg)	14kg	17kg	18kg
Power cord	6A power cord	13A power cord	13A power cord
	~110V/60Hz. ± 10%		
	~120V/60Hz. ± 10%		
	~220V/50Hz. ± 10%		
	~240V/50Hz. ± 10%		

Remark:

1、*, **,The power is tested under EIA standard.

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

When there is no power, no lighting indicator and no running fan, please make sure that the AC wire is completely inserted and connected to the jack with electricity. Try to use other equipment to test the AC power, like the lamp. please check the fuse situation. If you found the fuse broken. That amplifier is in need of maintenance.

Amplifier has distortion If the amplifier is with over loading, distortion circuit will start to work, reduce the volume to avoid the damage caused by over heating. The fans run in full speed. Appropriately reduce the input signal, and 3-5 minutes later, the amplifier will turn to normal gain. If the amplifier gets burnt, and the fans don't run, thus maintenance is needed.

Amplifier sound is distorted

If the red CLIP LED is flashing, that means the amplifier works beyond the normal rated power. Clip circuit will appropriately reduce the volume to avoid a serious overload, but if the input signal continues to increase, limiter may be crossed, resulting in increased distortion.

If the speaker or speaker cable is too short or malfunction, in the lower level than normal, the amplifier may be distorted or be silent, with the CLIP LED light flickering faster and protect LED on. Other speakers and cables should be used for inspection.

If each channel (impedence lower than 4 ohm) connect too much speakers, the amplifier is easy to get over loading and then protection.

If the sound is distorted or not clear, but the CLIP LED does not flicker, thus there is no distortion within the amplifier. Speaker may be damaged or input signal gets distortion. use other equipment to check whether the speaker is in good condition or not. Generally, the power gain is set at or close to 0dB. Check the input connection. Don't connect two different speakers to the same channel. Use the mixer to blend the sound source.

No Sound. The signal light can not lamp
Please confirm you opened the gain control and check the signal input and output. If needed, use other sound source, or use other amplifier connect existing sound source.

No Sound. The signal light is normal.
Means the amplifier has signal input and can amplify the signal in normal. If the speaker is connected, sound shall be heard. Check connection of the speakers at both end and try another speaker.

No sound, only with red "ON" LED keeping on
If the amplifier is with serious over heating, over-heat protection will be work until the amplifier gets cool. Fans run in full speed. If the amplifier touch heat, and the fans don't move, then the maintenance is needed.

Amplifier drones

Balanced XLR cable or TRS cable is more suitable for long distance operation. Based on the different connection style, the drone may also appear earlier in the signal chain. If the total power consumes too large, it will be benefit a lot for that all are inserted in the same AC jumper. Sometimes, moderate drone sound can be decreased via reduce amplifier gain and make compensation by improving the gain source. But you must make sure that the sound source can offer large sound, and no distortion due to over load is caused.

The circumstance mention above states that unsafe situation may exist, the amplifier can be operated only after maintenance. If circumstance is found, please take the power cord off the jack. Uninstall the amplifier in the safe situation.

1. If the amplifier smokes or smells burning.
2. If the cabinet has severe indentation and deformation
3. If the amplifier are dipped into the water
4. If the internal components loosen
5. If AC breaker skips out when current increases.
6. If the amplifier falls down, please operate it only after carefully checking whether there is any damage or the internal component is loose or not.