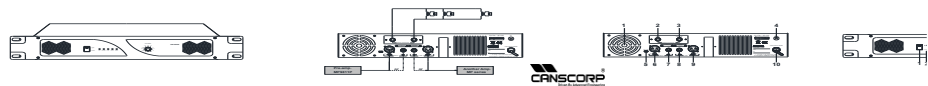


**Digital Power Amplifier**

**CNS3850**

**CNS3950**



# User Manual

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Thank you for using our public address system. Please read the User Manual carefully before better use of the product.

**This page is left blank for user's notes**

## **About the Manual**

**This User Manual is available and effective upon completion of development of the Digital Power Amplifier. The User Manual includes product description, matters needing attentions in use, instructions on system connection, instructions on use of product and technical specifications of the device. Please read this User Manual carefully before connection, installation and use and operate in accordance with corresponding instructions in the Manual.**



This symbol on the rear panel indicates matters needing attentions, please use or operate the product in accordance with corresponding instructions.



## WARNING

Be sure to observe the following cautions to prevent the damage to the users and others, and the damage to the equipment or property!



is symbol means a “prohibition”.

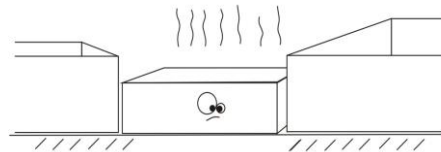


This symbol means a “must”.

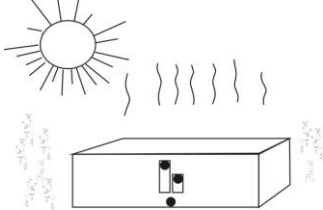
■ Check the damage condition of power cord. Do not pulling the power cord to unplug the plug, unplug the plug directly; otherwise it may cause electric shock, short circuit or fire.



■ Do not block the air vent during the operation. All air vents must be unblocked to avoid the overheating.



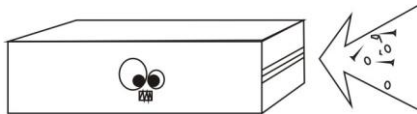
■ Do not expose the device to dust, vibration, extreme cold and hot environment.



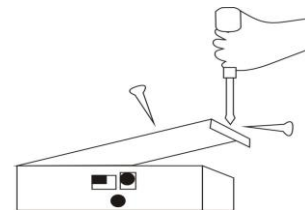
■ Do not place heavy objects on the device. Do not impose an excessive force when operating the switch, buttons or connecting the external audio equipment.



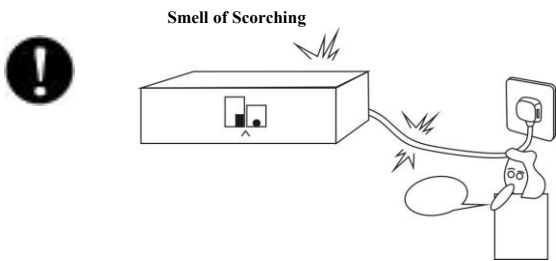
■ Avoid any foreign matter (paper, metal, etc.) from entering the device through gap or opening. In such a case, please power off this device immediately.



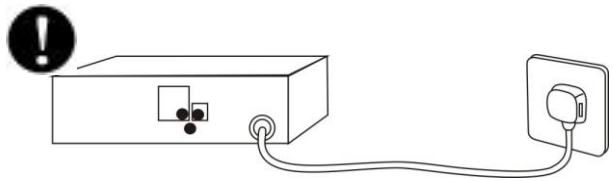
■ Do not attempt to detach the internal parts of this device or remold it by any way.



■ Please unplug the power plug immediately to avoid the electric shock, fire or other accident and professionals shall be invited for maintenance of the device in case of any sudden sound interruption, any abnormal smell or smoke during the running of the machine.



■ Be sure to unplug the AC power cord or turn off the wall outlet to achieve zero energy consumption when this device will not be operated for a long time.



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# I. Product Description

## 1.1 Brief introduction

CNS3850/CNS3950 is a series of digital power amplifier with newly designed appearance and high powers for selection. The machine is nice and neat, and is suitable for factories, schools, hospitals, shops and many other commercial applications.

## 1.2 Features

- Highly efficient switching power supply
- Highly efficient CLASS D amplifier
- 100V, 70V constant voltage output (common output end), support 100V/70V output real-time switching
- With perfect and reliable DC output protection, short circuit protection and overheating protection, which improves the safety performance of the machine.
- 5 unit LED indicator for status display
- 6.35mm socket and XLR socket can easily realize looping connection.
- Output short circuit protection and can recover automatically.
- A series of high power amplifiers are available.

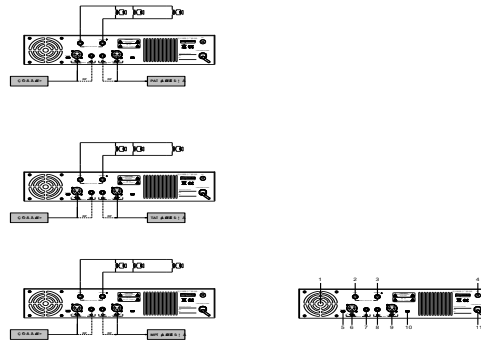
# II. Appearance Description

## 2.1 Front Panel



1. AC power switch (with light indication)
2. 70V output indicator
3. Signal indicator (output level)
4. Clipping indicator (please lower the gain appropriately to avoid severe clipping)
5. Protection indicator (DC or short circuit protection)
6. Temperature indicator (over temperature indication)
7. Volume control knob
8. Ventilation and cooling window

## 2.2 Rear Panel



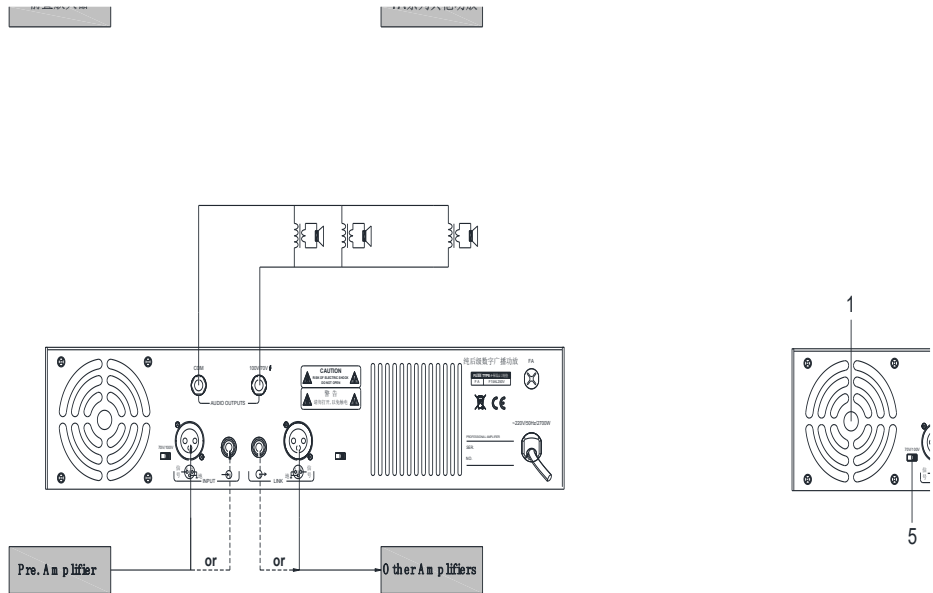
1. Fan
2. Output common terminal
3. 70V/100V output
4. 220V AC fuse
5. 70V/100V output switch
6. XLR output port
7. 6.35mm input port
8. 6.35mm looping connection socket
9. XLR looping connection socket
10. Long-range gear switch

When the speaker line on site is too long and the volume of the site is not enough, you can turn this switch to the right (the green indicator light in the switch is off at this time) to improve the output to dynamically compensate for some cable losses. If the line is very short and the load is composed of a speaker with a power less than 30W or multiple speakers with a power less than 30W, please turn on this switch with caution to avoid overload damage to the speaker.

11. 220V AC power cable

# III. Connection Diagram

## 3.1 System Connection Diagram



## 3.2 Input/Output Connection

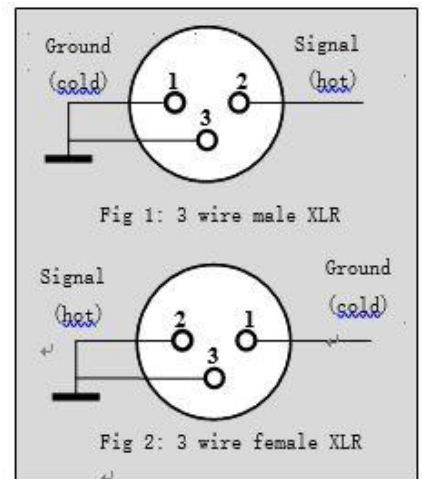
### 3.2.1 Input Connection

All inputs shall be connected to the XLR socket (figure 1 and 2) or 6.35mm socket on the back panel of the machine.

### 3.2.2 Output Connection

The output terminal is on the rear panel, can be connected with banana plugs or Y spade plugs. Black for common end, red for hot end.

100V and 70V share the same terminal output, which can be switched by the output switch. At this time, each speaker should be equipped with the corresponding 100V/70V line transformer, and the total power of the speaker should be less than the rated output power of the power amplifier.



**Notice:**

**The two "hot ends" should not be connected with each other at any time**

# Safety Precautions

## 1. Precautions for Safe Operation

- Do not plug the power cord into the power grid before the system line is not connected.
- Be sure that the input voltage of the device is exactly the same as the voltage required for this device. Otherwise it may burn the device.
- Do not open the case without authorization in order to avoid the risk of electric shock because there is a dangerous voltage in the device.
- Please unplug the power cord from the socket for the sake of safety when the device will not be used because the device is not completely disconnected from the power grid when the device is powered off.
- Do not put the device in a super-cooling or superheating place.
- Be sure there is a well-ventilated operating environment to avoid the heat and excessive temperature from damaging the device during the operation.
- Please unplug the power plug in rainy or wet days or without operation for a long time.
- Be sure to unplug the power plug to ensure the complete disconnection from the power grid before detaching or re-install any parts of the device, disconnecting or re-connecting any electrical plugs of the device or performing any connection.
- Do not open the case to repair the device without authorization in case of any fault in order to avoid the accident or aggravate the damage of the device.
- Do not put any corrosive chemicals on or near the device.

## 2. Precautions for After-Sale Services

- The Company will provide the free warranty services of three years (including replacement of parts free of charge) for any quality problem occurred since the date of purchase if the user installed and operated the device as required and it is within the range of normal operation.
- For any warranty, the user must provide the warranty card, user's self-deposit stub invoice and sales invoice as the voucher.
- Any of the following circumstances is not included in the range of free warranty:
  1. Damage of product resulted from the incorrect installation, operation or handling;
  2. Damage of product resulted from any abnormal condition, for example, excessive power voltage or environment humidity, etc.
  3. Damage of product resulted from any natural disasters or other accidents;
  4. The serial number of the products on the shell is converted, altered or removed;
  5. The product was once repaired or modified by others rather than the authorized personnel of the Company;
- Please keep the Instructions and Warranty Card properly;
- For any question or attentions not covered in the Instructions, please feel free to contact our dealer or visit our website.
- In case of any fault during the warranty period, please feel free to contact our service personnel or dealers for maintenance treatment. The Company will not bear any responsibility of free warranty for any damage resulted from the unauthorized demolition of the users themselves or the repair of others rather than the technical staff of the company.

## Packing List

No.	List	Quantity
1	Digital Power Amplifier	1PC
2	User Manual	1 COPY
3	Charter Washer	4 PC
4	White 5 x 19 semi countersunk head cross machine screw	4 PC
5	1500mm/6.3 RCA	1 PC
6	6.3mm to RCA plug	1 PC
7	16A socket converter	1 PC

## Specifications

Item	CNS3850	CNS3950
Rated Power (100V)	1500W	2000W
Rated Power (70V)	750W	1000W
Min. source electromotive force	≤1000mV	
SNR	≥80dB	
Frequency Response	80Hz~ 16kHz (±3dB)	
Total harmonic distortion	≤1% (1kHz, normal condition)	
Indicator light	70V", "signal", "clipping", "protection", "over temperature"	
Protection	Over temperature, DC, short circuit	
Power Supply	AC220V/50Hz	
Rated Power Consumption	2700W	
Package Size (L×W×H)	555×455×185mm	
Machine Size (L×W× H)	483×380×88mm	
Gross Weight	10.4kg	
Net Weight	9.1kg	

The specification will be subject to change without prior notice.

### **Cautions**

- Please unplug the power cord plug from the socket for the sake of safety when the device will not be used because the device is not completely disconnected from the power grid when the power switch of the device is in OFF state.
- The device cannot be subject to water droplets or splashes and any items like vases filled with water cannot be placed on this device.
- Do not open the cover of the machine to prevent the electric shock. If necessary, it shall be repaired by the professional with the professional certificate.
- The terminal marked with a symbol ⚡ in the device indicates that it is dangerous and charged. The connecting operation of these terminals shall be performed by the trained staff.
- The device is connected with the power grid via the power cord plug, so, the connection between the device and the power grid can be cut off by unplugging the power cord plug in case of any fault or danger. Therefore, the power outlet is required to be mounted at a place where the plug of the power cords can be easily unplugged or plugged.