

# User Manual



2CH Class D Power Amplifier TCI-2500D

## Safety Notes

- ※ Be sure to read the contents of this manual carefully before use.
- ※ It is important to follow the instructions in this manual as it contains important safety symbols, messages and precautions.
- ※ We also recommend that you carry this instruction manual with you for future reference.

### Warnings



This symbol is intended to alert the user to the important operating and maintenance (servicing) instructions in the literature accompanying the equipment.



This marking is intended to alert the user to the presence of uninsulated "hazardous voltage" within the product's enclosure, which may be sufficient to pose a risk of electric shock to a person.

## Equipment Installation

- ※ Do not expose the unit to rain or environments where it may be splashed with water or other liquids, as this may cause fire or electric shock.
- ※ Use the equipment only at the voltage specified on the equipment; using a higher voltage than specified may result in fire or electric shock.
- ※ Do not cut, kink or damage the power cord. In addition, avoid using the power cord in the vicinity of the heater, and never place heavy objects (including the unit itself) on the power cord, as this may cause a fire or electric shock.
- ※ Be sure to replace the terminal cover of the unit when the connection is complete, and do not touch the speaker terminals because of the high voltage applied to them to avoid electric shock.
- ※ Be sure to ground to a safe grounding terminal to avoid electric shock, and never ground the air hose, as this could result in a catastrophic disaster.
- ※ Avoid installing the unit in an unstable location, such as on a rickety table or inclined surface, as this may cause the unit to fall, resulting in personal injury or property damage.

## Utilization equipment

- ※ If any of the following abnormalities are found during use, immediately turn off the power, unplug the power plug from the AC outlet, and contact your nearest dealer, and do not attempt to operate the unit under such conditions, as this may cause fire or electric shock.
- ※ If you notice that the unit is smoking or emitting an odor.
- ※ If water or any metal object enters the unit.
- ※ If the unit is dropped or the unit housing is cracked.
- ※ If the power cord is damaged (core exposed, disconnected, etc.).
- ※ If a malfunction occurs (no sound).
- ※ To prevent fire or electric shock, never open or remove the unit's case, as there are high-voltage components inside the unit, and refer all service to your nearest dealer.
- ※ Do not place cups, bowls, or other containers holding liquids or metal objects on top of the unit; if they are inadvertently spilled into the unit, they could cause a fire or electric shock.
- ※ Do not insert or drop metal objects or flammable items into the gout slots in the cover of the unit as this may cause fire or electric shock.

## **Warranty**

- We warranty the products it manufactures to be free from defects in material and workmanship for a period of 3 years for parts replacement, two years for parts repairs , and six months for accessories from the date of invoice . This warranty does not cover damage or malfunctions due to alteration ,misuse , abuse , misapplication , negligence , accidents , or any cause other than defects in the product .
- We will replace or repair products covered by this limited warranty that are returned to our facility if they are defective in material and workmanship under normal use and conditions .
- To request warranty service , you must contact our sales team within the warranty period to send the product back to us in its original or equivalent packaging (freight prepaid) , and the warranty period will not be extended if we repair or replace the product .

## **Disclaimers**

- The information contained in this manual is subject to change without notice and does not represent a commitment on the part of the seller , and we shall not be liable for any loss or damage arising from the use of the information or any errors contained in this manual.
- It is recommended that all servicing and repairs of this product be carried out by us or an authorized dealer , this product should only be used for the purpose specified by the manufacturer and in conjunction with this operating manual , and we shall not be liable for any loss or damage arising out of the servicing , maintenance or repair .

## Product Features

1. Switching power technology digital power amplifier
2. Class-D PA power amplifier of minimum power consumption
3. Less rack space and less heat generation
4. Two channel power amplifier into 19" rack mount unit
5. Rated power output at 120W, 240W, 350W to 500W by two channels
6. Two channel separate speaker outputs 8Ω/100V/70V
7. Balanced XLR input by phoenix connector for two channels
8. Each input with separate gain control.
9. Each channel with high-cut filter
10. Built-in auto standby feature to save power consumption
11. Separate channel indicators for protection, clip, input and output
12. Complete short circuit, overload, high temp, clip and DC protection
13. Wide AC input from 110V to 230V input
14. DC 24V battery input at order request with additional cost

## Front Panel



### 1. CLIP

Clip indicator will light on in red once the input or output is too high. There are two separate CLIP indicators for each two channels..

### 2. INPUT

Input indicator will light on in green once there is any input signal has been detected. There are two separate input indicators for each two channels.

### 3. OUPUT

Output indicator will light on in green once there is output signal has been passed. There are two separate output indicators for each two channels.

### 4. Standby/PROT

Protection indicator will light on in orange once the amplifier comes into protection status. The protection maybe resulted from speaker line short circuit, speaker line open circuit, amplifier overload and inner working temperature over 55°C, this indicator give visually guidance ask for repair and It will light off once these failures been repaired. There are two separate protection indicators for each two channels.

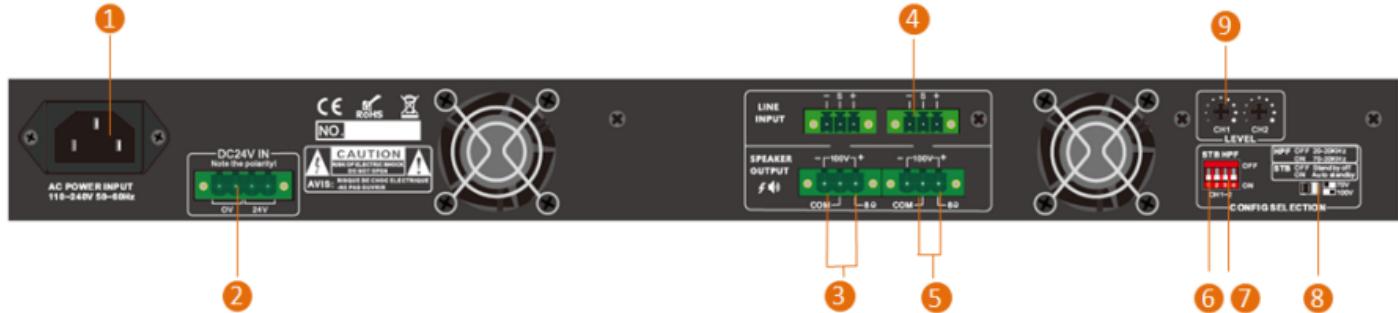
### 5. POWER

Power indicator will be light on in blue once the unit has been powered whether by AC or DC.

### 6. POWER SWITCH

Power switch used to power on and power off the equipment.

## Rear Panel



### 1. AC POWER Socket

AC power cord for input from 110V to 240V, the power cord itself is auto-switching.

### 2. DC24V Battery Input

This input is used for battery power supply, which will be automatically switch on once the AC power supply fails as backup use.

### 3. 100V & 70V SPEAKER OUTPUT

The speaker outputs shall be connected to 100V & 70V line loudspeakers, the negative end to the speaker negative end and the positive end to the speaker positive end. There are two channel separate 100V & 70V speaker outputs which could be managed respectively. These speaker output are supplied in phoenix connector.

Never mixed the negative end and the positive one, which may cause the short circuit protection.

Never connection the low impedance loudspeaker to these 100V & 70V ends, which may burn up the speaker or have heavy distortion.

### 4. LINE INPUT

The line input support both balanced or unbalanced input, these input are supplied in phoenix connectors. There are four channel separate line inputs which could be managed respectively.



## 5. 8Ω SPEAKER OUTPUT

The speaker outputs shall be connected to low impedance 8Ω loudspeakers, the negative end to the speaker negative end and the positive end to the speaker positive end. There are two channels separate 8Ω speaker outputs which could be managed respectively.

These speaker output are supplied in phoenix connector.

Never mixed the negative end and the positive one, which may cause the short circuit protection.

Never connection the 100V & 70V line loudspeaker to these 8Ω ends, which may burn up the speaker or have heavy distortion.

## 6. AUTO-STANDBY

The Auto standby function will be enabled or disabled by pre-set the four channel separate dip switch. The enabled auto-standby function will automatically power come into standby once no input has been detected within 2 minutes. The amplifier will immediately wake up once there is detection of input signal. There are four channel separate auto-standby dip switch which could be managed respectively.

## 7. HIGH PASS FILTER

The high pass filter function will be enabled or disabled by pre-set the four channel separate dipswitch. There are four channel separate high pass filters which could be managed respectively.

## 8. 100V/70V output switch

The switch is for optional of 100V/70V selection, to give 100V or 70V speaker output.

## 9. Volume Control

The Volume control is used to adjustment the input volume.

## Speaker Connection

Before connecting speakers, disconnect the AC power cable. Note the proper connecting terminals as shown below. Make sure that the total impedance is not less than the rated impedance indicated.

### - Connecting 8Ω Speaker Systems

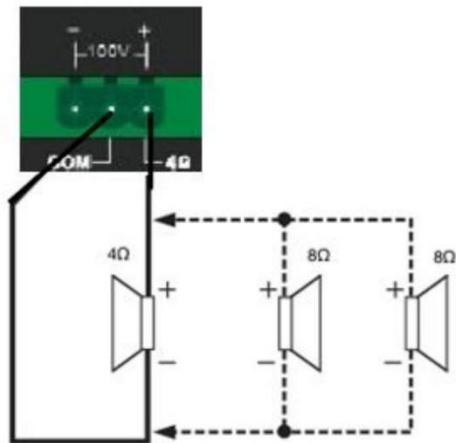
When connecting conventional 8Ω speaker systems, connect the speaker's positive (+) side to the terminal labeled 8Ω. Connect the speaker's negative (-) side to the terminal labeled COM.

### - Connecting High-Voltage Distributed Speaker Systems

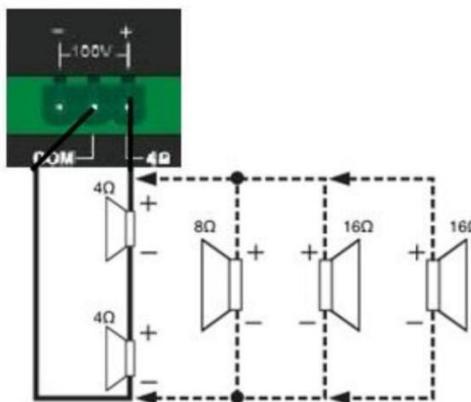
When connecting a low-impedance (100V) speaker system in parallel, connect the speaker's positive (+) side to the terminal labeled 100V.

Connect the speaker's negative (-) side to the terminal labeled COM.

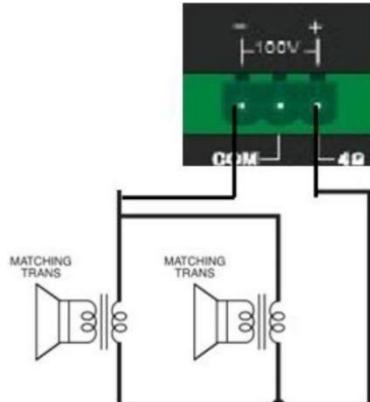
FOR 4Ω LOW IMPEDANCE SPEAKER CONNECTION



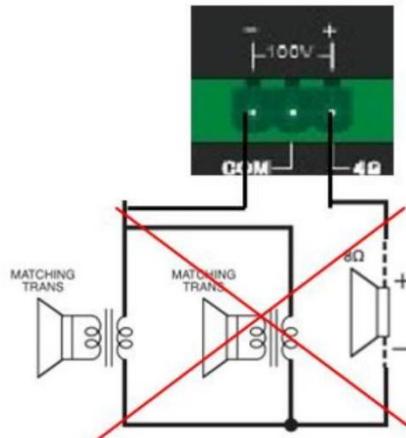
FOR 8Ω LOW IMPEDANCE SPEAKER CONNECTION



FOR 100V SPEAKER WITH TRANSFORMER CONNECTION



**WRONG SPEAKER CONNECTION**



## Specification

Model	TCI-2120D	TCI-2240D	TCI-2350D	TCI-2500D		
Rated Power Ouput	2*120W	2*240W	2*350W	2*500W		
Speaker Output	4-16Ω & 100V					
Frequency Response	L/H Cut OFF 20Hz-20KHz (+1/-2dB)					
	UH Cut ON 70Hz-10KHz (+1/-3d8)					
Input	0.775V, OdBu, balanced phoenix connector					
Input Impedance	10KΩ					
THD	<0.1 %(1 KHz/-3dBv, 100W)					
S/N Ratio	80dB					
Crosstalk	60dB, 1KHz, Max output					
Power Consumption	300W	550W	800W	1150W		
Power Supply	AC input switch able between 115V & 230V & Optional 24V DC input, 50-60Hz					
Dimension	482 (W) * 420 (D) * 44 (H) mm					
Weight	7KG	7.3KG	7.8KG	8.2KG		

## Warning

To avoid electric shock, please do not open the chassis cover by yourself. When the equipment malfunctions, please contact an agent or manufacturer to provide repair services, or entrust professional personnel with professional certificates from professional departments to carry out repairs. Non professional personnel are not allowed to disassemble the machine on their own to avoid electric shock accidents that may endanger the safety of operators.