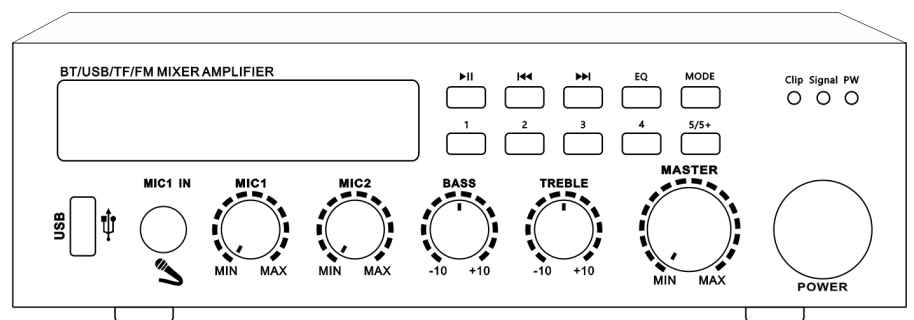


# User Manual



BT/USB/TF/FM Mixer Amplifier

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Thank you for purchasing this series full-featured amplifier.

Please follow the instructions in this manual carefully to ensure long and trouble-free use of the unit.

### Package content

Name	Quantities
Amplifier	1
Power cable	1
Antenna	1
Remote control	1



### When installing equipment

- Do not plug or unplug the power plug with wet hands as this may result in electric shock.
- When unplugging the power cord, be sure to grasp the power plug and do not pull on the power cord itself; operating the unit with a damaged power cord may cause fire or electric shock.
- Be sure to unplug the power cord from the wall outlet when moving the unit. Moving the unit with the power cord connected to the outlet may damage the power cord, which could result in fire or electric shock. When unplugging the power cord, be sure to hold it by the plug to pull it out.
- Do not block the ventilation slots in the housing of the unit as this may cause heat to build up inside the unit and cause a fire.
- Avoid installing the unit in damp or dusty places, indirect sunlight, near heaters, or in places where fumes or vapors are generated, as this may cause fire or electric shock.

### Equipment in use

- Do not place heavy objects on the unit as this may cause the unit to fall or break, which could result in personal injury or property damage, in addition, the objects themselves may fall and cause injury or damage.
- Before turning on the power, make sure the volume control is set to the minimum position; when the power is turned on, high volume produces loud noise that can damage your hearing.
- Do not operate the unit for an extended period of time with the sound distorted, which indicates a malfunction of the main unit, which in turn may cause heat generation and fire.
- Please contact your dealer regarding cleaning, if dust accumulates in the unit over a long period of time, it may cause a fire or damage the unit.
- If dust accumulates on the power plug or on the wall AC outlet, it may cause a fire, so clean it regularly. Also, insert the plug firmly into the wall outlet.
- For safety reasons, when cleaning or leaving the unit unused for more than 10 days, turn off the power and unplug it from the outlet, otherwise it may cause a fire or electric shock.

## 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 grommet slots in the cover of the unit as this may cause fire or electric shock.

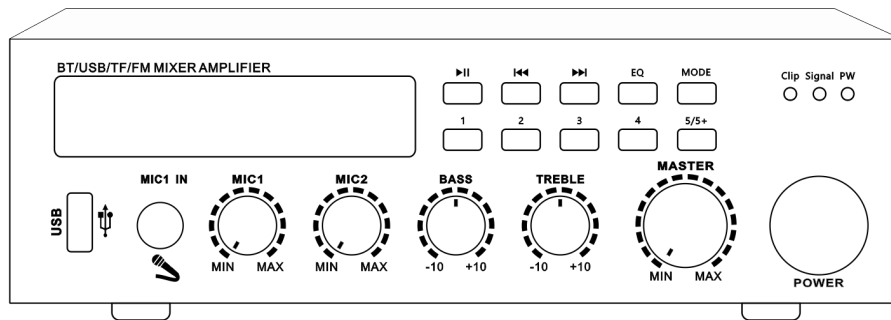
## Warranty

- 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.

## Appearance Description



This full-featured mixer-amplifier delivers 60W/120W/240W of output power , Bluetooth functionality , integrated USB audio player power , and 6 inputs , including two balanced MICs (MIC1 has an additional 6.35mm unbalanced jack on the front panel) , each with individual volume control functions included :

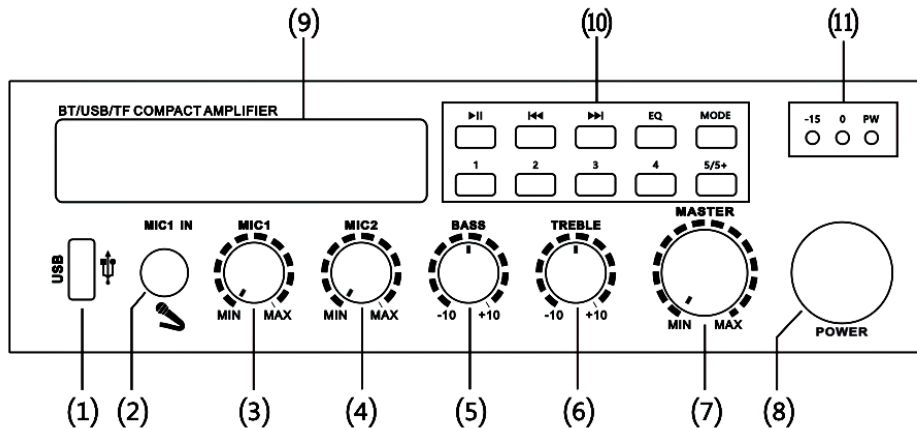
- VOICE PRIORITY: MIC1 can be set to have priority over other inputs .
- TREBLE: Individually controlling the treble and allowing adjustment of tone quality , the TREBLE controls the amount of cut or boost for treble frequencies above 10KHz .
- BASS: Controls the amount of cut or boost for bass frequencies below 100 Hz .
- Color indicators on the front panel include power , signal , peak , and protection indicators .

Compatible with 70V , 100V and 4-16 $\Omega$  speaker systems , this is an extremely versatile component for background music and paging systems .

- Built-in Bluetooth receiver and USB player
- With EMC input for emergency alarm
- 70/ 100V and 4-16ohm output loads
- Stable performance with SMT circuit board
- Powerful amplifier tubes
- Three microphone jacks , MIC1 on rear panel with 48V phantom power .  
MIC1 priority input
- High-definition display for playback of programmed operating states .  
Separate input volume control to adjust all volume levels

- BASS and TREBLE tone controllers
- Provides full protection against output short circuits , overloads , high temperatures , and peak current limiters .

## Front Panel



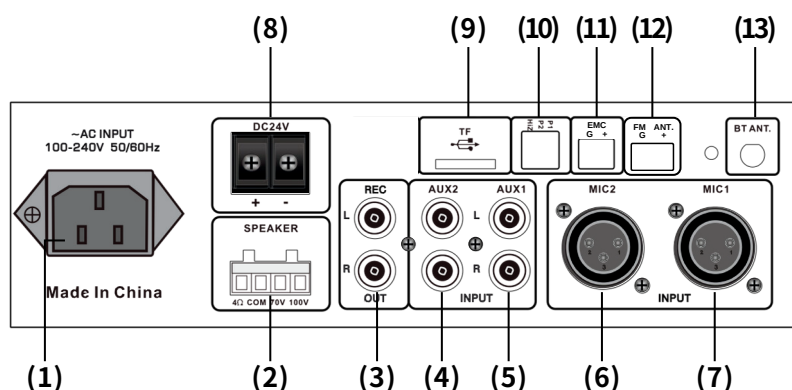
- (1) **USB:** Can play music from USB flash drive
- (2) **MIC1 IN :** 6.35mm microphone input hole
- (3) **MIC1:** Microphone 1 volume control
- (4) **MIC2:** Microphone 2 volume control
- (5) **BASS:** Subwoofer control
- (6) **TREBLE:** Treble control
- (7) **MASTER:** Master output volume control
- (8) **POWER:** Main unit power switch
- (9) **Display Screen :** Displays the current status of system usage
- (10) **MP3 Audio Controls**

<b>▶  </b>	Play , Pause
<b>◀◀</b>	Previous: Long press to lower the volume
<b>▶▶</b>	Next: Long press to turn up the volume
<b>EQ</b>	Produces 6 different balancing effects
<b>MODE</b>	Selectable USB and Bluetooth modes
<b>1/2/3/4/5/5+</b>	Select the song you want to play

### (11) LED indicator

<b>ON</b>	Red light when main unit is on
<b>-Clip/Signal</b>	Flashes with volume level

## Rear Panel



### (1) Power Input

(2) **Speaker Output Terminal:** Outputs to 4-16Ω , COM , 70V , 100V and other types of speakers , only one output can be used at the same time , connecting more than one output may cause damage to the internal parts of the amplifier , each of the 100V , 70V and 4-16Ω terminals must be connected to the COM.

(3) **Audio Outputs:** Output to other amplifiers

(4) **AUX2:** RCA connectors for receiving stereo channels , and a source for converting dual channels to mono mode inside the amplifier

(5) **AUX1:** RCA connectors for receiving stereo channels , and a source for converting dual channels to mono mode inside the amplifier

(6) **MIC2:** Accepts XLR terminal audio input with phantom power supply

(7) **MIC1:** Accepts XLR terminal audio input with phantom power supply

(8) **DC24V:** DC 24V power supply can be connected

(9) **TF:** Insert TF card to play songs

(10) **DIP SW:**

- **P1:** Corresponding to the phantom power of MIC1 , dialing down is with phantom power supply , dialing up is without phantom power supply.
- **P2:** Corresponding to the phantom power of MIC2 , dialing down is with phantom power supply , dialing up is without phantom power supply.
- **HIZ:** Toggle down for constant resistance (4Ω) speaker output , and up for constant voltage (70V / 100V) speaker output.

(11) **EMC:** Receive EMC signal input

(12) **FM Radio**

(13) **BT ANT:** Bluetooth receiving antenna , maximum receiving range - 10 meters



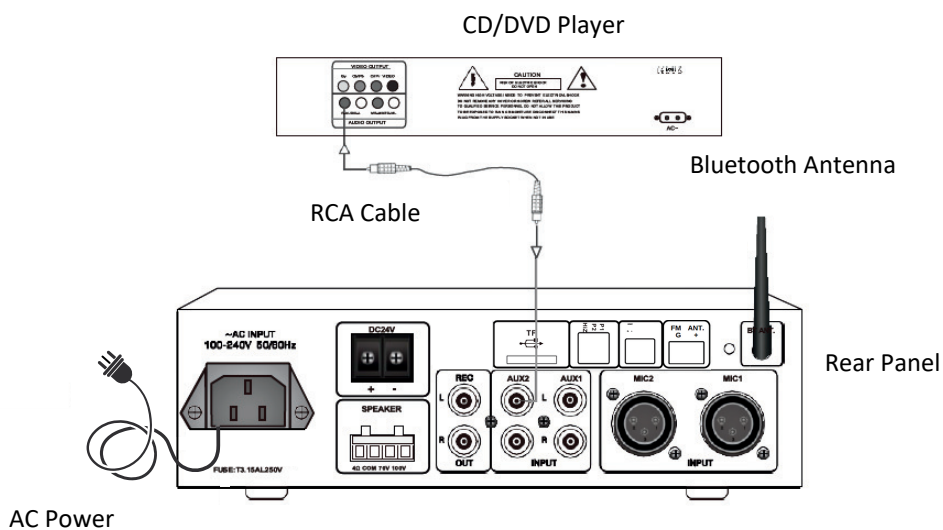
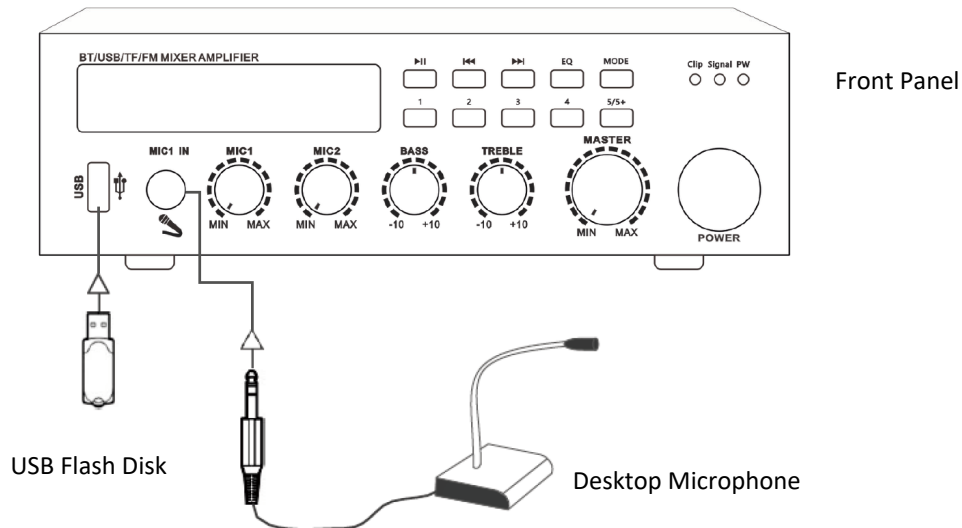
## Specification

Model	TCI-60CMT	TCI-120CMT	TCI-240CMT
Rated Power	60W	120W	240W
Speaker Output Mode	Low impedance:4-16 Ohms		
	Voltage line:70V & 100V		
Compatible Media	USB, TF, Bluetooth, AUX IN		
Microphone Input	MIC1/MIC2: 600 ohms( $\Omega$ ) 10 mv, MIC1/MIC2 (balanced), MIC1 front (unbalanced)		
Line Input	AUX1/AUX2: 10K Ohms( $\Omega$ ) 300 mv, unbalanced		
Auxiliary Output:	0.775V (0 dB)		
Frequency Response	60Hz~18KHz ( $\pm 3$ dB)		
Distortion THD	<0.5% at 1KHz, 1/3 rated output power		
SNR	AUX:>80 dB, MIC:>65dB		
Tone	Bass: 100 Hz ( $\pm 10$ dB), Treble: 10KHz ( $\pm 10$ dB)		
Power Supply	AC100V~AC240V $\pm 10\%$ 50-60Hz		
Power Consumption	90W	160W	290W
Dimension	63(H) $\times$ 215(W) $\times$ 285(D) mm		
Packing Size	135(H) $\times$ 290(W) $\times$ 325(D) mm		
Net Weight	1.8KG	2.5KG	3KG
Gross Weight	2.5KG	3.2KG	3.5KG

※ The above specifications are standard.

※ Specifications are subject to change or improvement without prior notice .

## Device Connection Diagram



Please refer to page 10 to 11 for details of connections of speakers.  
Please refer to page 12 for details of Bluetooth operations.

## Speaker Wiring and Setup

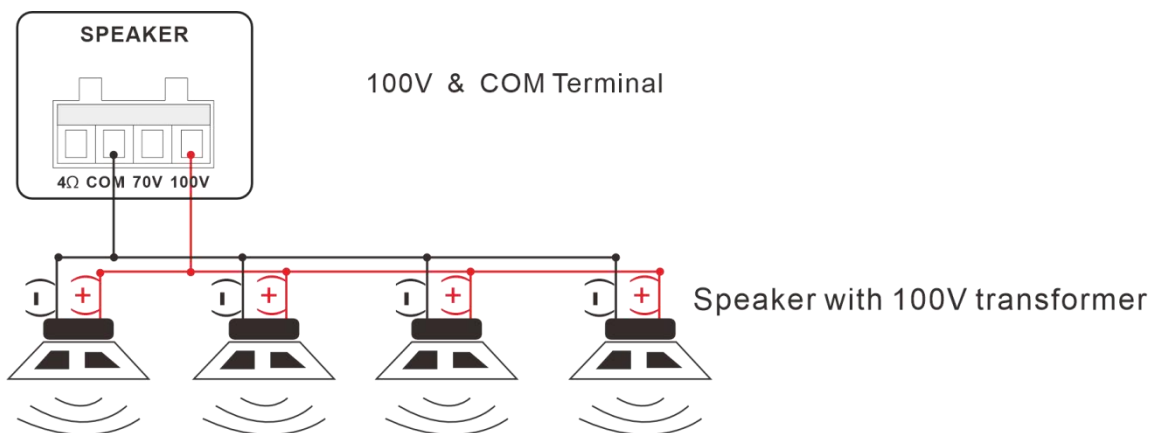
### Caveats:

- The amplifier has different speaker sound outputs of 100V, 70V and low impedance 4Ω.
- **Only one output can be used at the same time, the amplifier may damage internal parts if more than one output is connected, and each of the 100V, 70V, and 4Ω terminals must be terminated with COM (common).**

### 100V Output

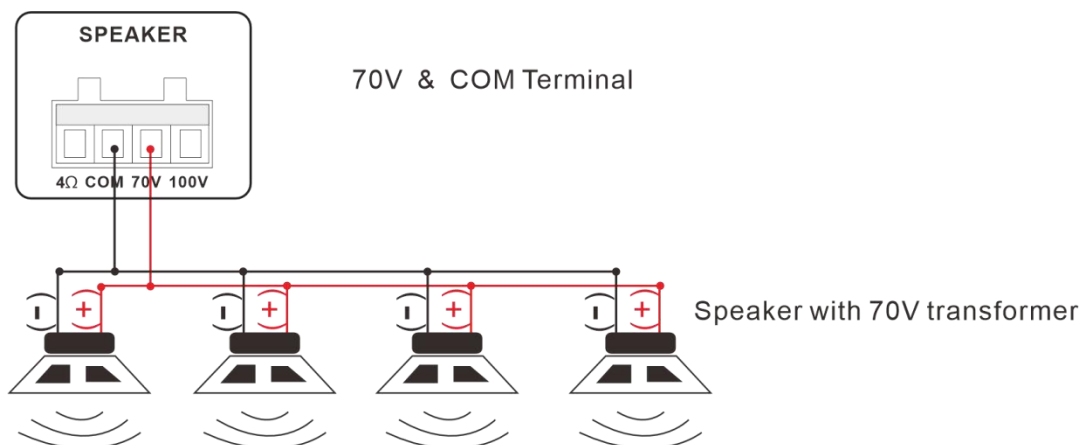
This system is most commonly used in PA systems and only 100V line speaker cabinets with transformers may be used. All speaker cabinets are connected in parallel and the sum of their power must not exceed the rated output power of the amplifier.

**When playing music, it is recommended not to load the amplifier beyond 70% of its rated output power.**



### 70V Output

This type of horn speaker system is common in the U.S. It works the same as a 100V line except that the output terminals of the amplifier have 70V RMS at rated output power.

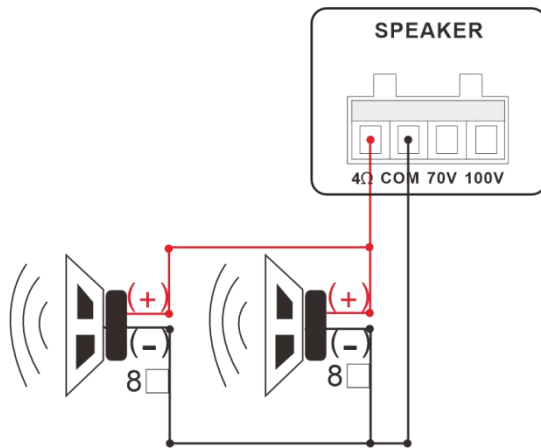


## 4Ω, 8Ω Low Impedance Outputs

This output allows the connection of low impedance speaker cabinets without transformers when using two or more speaker cabinets.

Be sure to connect in **series**, **parallel**, or a **mixture of series and parallel**, keeping the total load impedance at 4Ω or 8Ω.

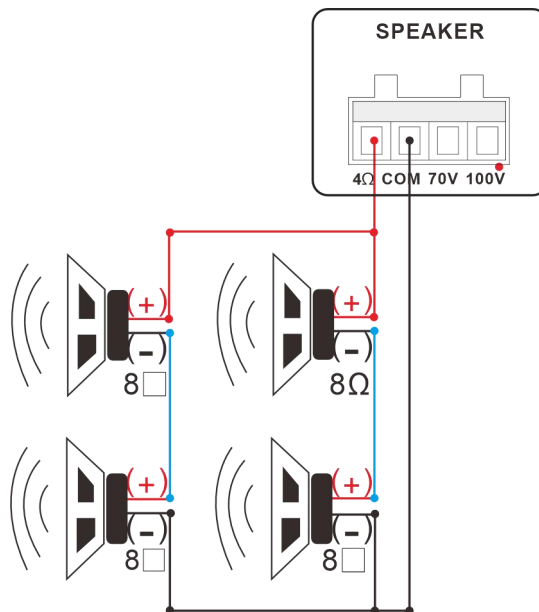
### A. Parallel



4Ω with COM terminal

$$\frac{8}{2} = 4 \text{ (Total Load Impedance)}$$

### B. Mixed series and parallel connection



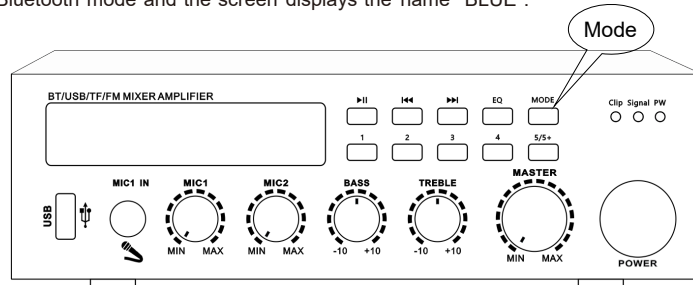
8Ω with COM terminal

$$\frac{8 \times 2}{2} = 8 \text{ (Total Load Impedance)}$$

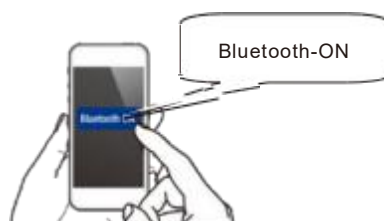
## Bluetooth Device Connection

**\*Note: The name of the Bluetooth device searched by the cell phone or tablet is "TCI-60CMT/TCI-120CMT / TCI-240CMT".**

In order to enjoy music from a Bluetooth device, the Bluetooth device must first be paired with this amplifier; after the Bluetooth device is paired, there is no need to pair it again. Press the MODE button on the front panel of the amplifier to switch the input source to Bluetooth mode and the screen displays the name "BLUE".



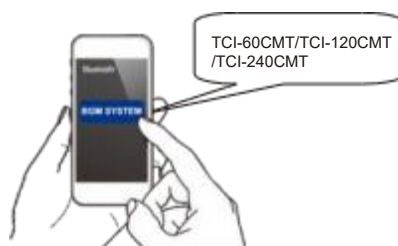
1. Activate the Bluetooth function of the phone/tablet.



Select "TCI-60CMT/TCI-120CMT /TCI-240CMT " from the list of devices displayed on the phone/tablet screen.

At this time, the cellphone/tablet can be connected about 1M close to the unit, and "TCI-60CMT/TCI-120CMT /TCI-240CMT " will appear on the cell phone's/tablet's pairing list when the pairing is finished.

**\*Note: Please enter "6666" when your cell phone/tablet requires a password when trying to connect to the expander.**



Play music from your phone/tablet.

**\*Note: The next time you switch the input source to Bluetooth, this amplifier will automatically connect to the last Bluetooth device connected.**





## **Warning**



To avoid electric shock, do not open the case cover by yourself. In the event of a malfunction, have the equipment repaired by your dealer or the manufacturer, or by a qualified professional whose specialization is based on a certificate. Non-professionals should not dismantle the unit, as this may cause electric shock and jeopardize the safety of the operator.