



**TONE WINNER**



**AD-86D  
User Manual**

ISO9001 Certified Enterprise





TONE WINNER

## Product packing list

Number	Item	Quantity
1	Manual	1 piece
2	Power cord	1 piece
3	Certificate of Quality	1 piece
4	Remote control	1 piece
5	Audio Cable	1 piece

### Pollution Control Sign and Content Description

The symbol indicates that the product can be reused. The figure indicates the term of service of environmental protection. The product will not cause environmental pollution or affect human body and property within the term of service expressed by the figure since the date of manufacture as long as the safety and operating precautions on the product are obeyed.



### Name and Content of Toxic or Harmful Substance or Element in the Product

Name of Parts	Toxic or Harmful Substance or Element					
	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent chromium (Cr)6+	Polybrominated (PBB)	Biphenyls polyphenyls (PBDE)
Body/Box	○	○	○	○	○	○
Equipped Baseplate/ Electrical Part	×	○	○	○	○	○
Plastic Structural Member	○	○	○	○	○	○
Metallic Structural Member	○	○	○	×	○	○
Cable	○	○	○	○	○	○
Transformer	○	○	○	○	○	○
Transformer Loudspeaker/ Microphone	×	○	○	×	○	○

Marks:

“○” means the content of the hazardous toxic substance is lower than SJ/T11363-2006 standard required.

“×” means in a homogeneous material of the component the content of the hazardous toxic substance is higher than SJ/T11363-2006 standard required.

Note: “×” as there are no substitutable substances under the existing technology

Thank you for using our audio products. We provide consumers with stable, reliable, durable, and delightful acoustic technological achievements with the philosophy of "high technology, high quality and high taste" as well as exquisite technique, classic circuit, novel technology, stable & first-class quality, and first-class service!

## Contents:

1. Significant Safety Measures-----	2
2. Instructions Prior to Use-----	4
3. Product Introduction-----	5
4. Front Panel-----	6
5. Rear Panel-----	7~8
6. Remote Control-----	9
7. VOL/MENU-----	10
8. USB Disk/TF Card-----	11
9. Mobile Phone Audio Wireless Transmission-----	11
10. Computer USB Audio Playback-----	11
11. Digital Audio Playback-----	11
12. Mobile phone App-----	12
13. Precautions-----	13
14. Specification-----	14
15. Safety Class: Class I Equipment-----	15

## Important protective measures for attention

	<b>WARNING</b> ELECTRIC DANGER DO NOT OPEN		<ul style="list-style-type: none"><li>■ To reduce risk of electric shock, do not remove the outer cover (or back panel).</li><li>■ For maintenance, it should be carried out by qualified maintenance people.</li><li>■ To avoid fire and electric shock hazards, do not get the unit wet or damp.</li><li>■ Safety protection category: Class I</li></ul>
---	---	---	--

1. Read the protective measures: read all warning messages about protection and operation in the instructions carefully before using the equipment.
2. Follow instructions: please follow the instructions and do not violate the instructions.
3. Place the product on where manufacturer recommends: to protect equipments overturning, do not use force to push or suddenly stop when moving.
4. Keep away from water and moisture: do not place equipment near water such as bathtub, basin, sink, washing machine, etc. Do not use equipment at high temperatures high humidity environment, such as a damp basement.
5. Cleaning: Do not use liquid or mist cleaners, please use dry cloth to clean. Turn off the machine and power off before clean the equipment.
6. Power supply: use the power supply according to indication. Should have reasonable wirings, to avoid damage, do no step. Pay special attention to power plugs, receptacles and connection wirings.
7. Ventilation: the chassis of equipment is designed with venting holes. To ensure reliable performance, please avoid overheating, do not cover the equipment. Do not use the equipment on beds, sofas, carpets etc. Newspapers, tablecloths, curtains, and other objects may block venting holes. Do no put the equipment close to window curtains. If it is built-in installation, such as bookcase or rack, make sure enough venting. Keep a distance of 10cm (4") on left, right, top and rear sides. Equipment bracket or rear of top cover should have a distance of 10 cm (4 ") to rear panel or the wall, to keep venting space.
8. Heat - to keep products away from heat sources, such as heatsinks, stoves, objects that generate heat (including power amplifiers)
9. Prevent unknown objects or liquids - objects or liquids should be prevented from falling through the holes into the equipment, because it might contact current or live parts that might cause fire or electric shock. Do not place the equipment in rain or water splashing place, do not put into water containers, such as vases.
10. Please connect well all input/output wires before power on.
11. Thunder and lightning: unplug the power cable in thunder and lightning weather, it can effectively prevent lightning impulses to protect the equipment.
12. Protections:①unplug the power supply when you do not use the manual for long period. Plug. ②Good grounding can prevent the machine from being damaged.

13. Maintenance: do not open the equipment chassis to avoid electric shock.

Please send the machine to our local designated maintenance house if you meet below circumstances and need maintenance.

- a) Unknown parts or liquid enter the machine.
- b) The equipment was soaked.
- c) Abnormal machine operation.
- d) Machine falling or machine damage.

14. Battery: for environmental protection, do not discard the waste electricity optionally.

15. Disconnection device of main power supply: this machine use power plug and coupler as the disconnecting devices. Power plug and coupler should be easily operated.



16. This product is only suitable for safe use in altitude below 2000M.



17. This product is only suitable for use in tropical climates

## **Instructions Prior to Use:**

### **■ General matters**

1. Please secure the machine at the well-ventilated place with accessible space 10 cm in width at its two sides, and above and behind it.
2. Don't apply oil, chemical solvent, volatile oil, paint or pesticide to the equipment.
3. Don't place the equipment in moist environment with the temperature being as high as above 60 or extremely low.
4. .Please keep the equipment away from direct exposure to sunlight, strong magnetic field, high temperature and electrical devices which may cause interruption (computer at home, fax machine, etc.)
5. Please fixate the power socket when pulling out the power plug.
6. Don't open the shell of the equipment without permission to avoid electric shock. Please contact TONEWINNER maintenance.
7. Please place local distributor for the equipment at a stable place with leveling surface and without vibrations, and no articles are allowed to be placed onto the equipment.
8. If no sound is heard, please turn off the power of the unit and turn on in 10 seconds.
9. In the operation of the machine, in case of any thunderstorms, please pull out the power plug.

### **■ Warning**

The voltage used for the machine must be consistent with that in the specifications. We assume no responsibilities for fires or other accidents due to the use of voltage not within the scope as specified.

### **■ Remark**

Please note that you'd better put audio files only in the folder when you use the TF cards or the USB disk to play.

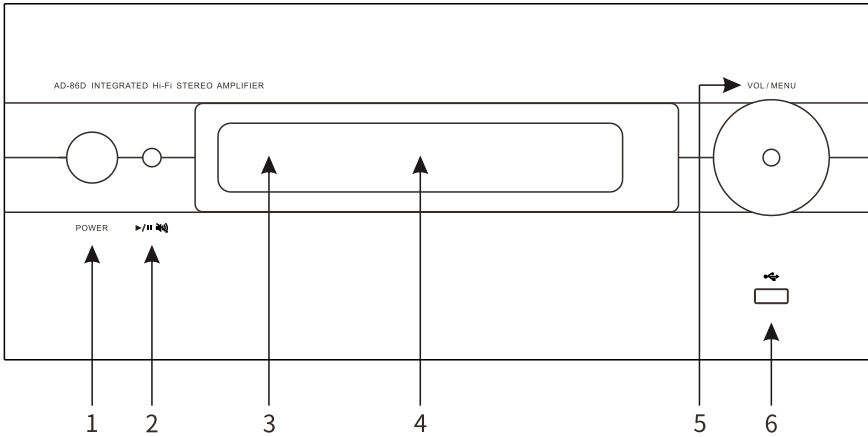
## Product Introduction:

- 1.The TF card/USB disk can be used to play. HD Bluetooth transmission is supported.
- 2.Support PC USB input, which can be used as hi-end external sound cards.
- 3.Support several lossless HD audio formats, such as WAV, flac, APE, etc., and compressed audio formats, such as Mp3, AAC, etc.
- 4.Support full function operation of apps of android & IOS.
- 5.Possess low distortion Hi-Fi circuit with high speed.
- 6.Be equipped with a large toroidal transformer and a large capacity filter capacitor, which can provide abundant power.
- 7.Adopt super class A output bias technology, avoiding switching distortion.
- 8.The power amplifier tube is originally manufactured in Japan, which is a Hi-Fi tube with high power and high frequency.
- 9.It has a hi-end precision dynamic lattice VFD display screen, whose luminance can be adjusted into 3 levels. Its lens are acrylic. The panel of the microcomputer intelligent operating system is fully made by aluminum.
- 10.Support full-function operation through the infrared remote control.
- 11.Have the function of 3 ways coaxial input and 1 way optical fibre for digital input (both support up to 24bit/192KHz), 3 ways analog input, 1 way for pure power amplifier input and one line for ARC input.
- 12.Adopt hi-end electronic volume chip, multifunctional volume knob, imported coupling capacitance, and filter capacitance.
- 13.Utilize same core socket for high grade input, gold plating input and hi-end gold plating output terminal.

AD-86D, a high end audio decoder and Bluetooth module are added on the basis of the AD-86PRO. It applies the audiophile grade US AD-1955 audio DAC chip, which has better evaluations of high quality than the AD-1853 and the sampling accuracy and quantitative criteria of this top DAC chip is up to 24bit/192KHz. It is equipped with separate digital filtering and D/A switch, and its amazing dynamic range and SN signal to clutter ratio can arrive up to 126dB, which can reduce the error degree of the digital data flow in the timing resolution as much as possible. Even an ordinary CD signal can be decoded into charming sound through the DAC. This chip has features of low distortion, low noise, high resolution, tone control and 0.5dB stepping with the application of NJW1194 for audio source input control and volume control; The big pond on power amplifier board also adopts 4 capacitors of 12000 UF that are specially made in Barkam and 3 filter capacitors of CBB; the front-end amplifier filter adopts 2 capacitors of 4700 UF in high quality as well as the electronic filter circuits that are best used for power supply rejection ratio (PSRR); the front-end analog power supply uses the RE3 series of ELNA imported from Japan as power filter capacitors; the amplifier output tubes utilizes the famous tubes of 150 W newly made by Toshiba; the filter capacitors and input blocking capacitors mostly adopt the CBB capacitors of famous brands; the output relays use the series of JTN1, famous brand of Panasonic 30A; the machine adopts the Hi-Fi circuit with low distortion and high speed as well as the latest manufacturing techniques, which is a Hi-Fi amplifier with high fidelity, low distortion, as well as outstanding musical performance.



## Front Panel:



### 1. Power switch:

Connect the mains electricity and press to start the machine. The button pops up if the machine is off. Do not press the switch frequently.

### 2. Play and pause/mute:

In the condition of USB disk/TF card/BT and other audio source, short press this button can pause or play the audio, and in the condition of other audio source, short press this button can mute the audio or release the mute.

### 3. Remote control receiving window:

The window for receiving signal, there can't be any obstructions in front of it, so that the window can receive signals successfully.

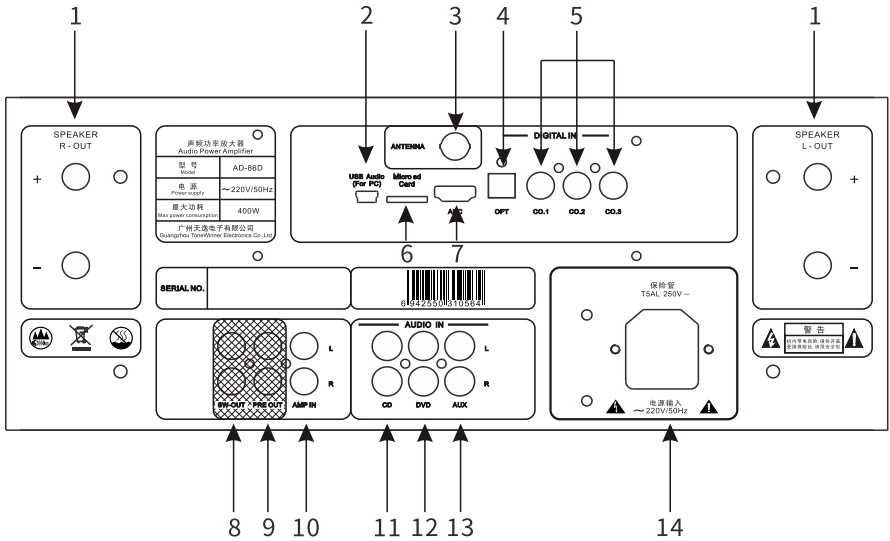
### 4. Display screen:

It is an 8-bit precision lattice VFD screen, the front part of which is an audio source display area and the back part of which is the parameter of the volume display area, (The luminance of the screen can be adjusted into 3 levels, which are DIM1, DIM2, and DIM3, and you can adjust it in the panel function menu of the remote control).

### 5. VOL/MENU: Volume/function knob (Details are in the VOL/MENU introduction in Page 8).

### 6. USB disk input interface.

# Rear Panel:



## 1. Speaker output terminals:

L-OUT: Left channel speaker terminal. Connect the "+" with the positive pole/red terminal of the speaker; Connect the "-" with the negative/black terminal of the speaker.

R-OUT: Right channel loudspeaker terminal. Connect the "+" with positive pole/red terminal of the speaker; Connect the "-" with the negative/black terminal of the speaker.

## 2. PC audio.

## 3. ANTENNA (Bluetooth antenna).

## 4. 1 way optical digital input (supporting 24bit 192 KHZ).

## 5. 3 ways coaxial digital inputs (supporting 24 bit 192KHZ).

## 6. TF card input.

## 7. ARC audio input:

For televisions supporting ARC, you can connect TV to this port for playing the audio from TV.

## 8. SW-OUT bass signal output:

Users can connect active subwoofer with this terminal; there are no signals in this terminal when the machine is muted.

## 9. PRE OUT circuit signal output:

"PRE OUT" and "AMP IN" are connected by a short circuit ring to make signals of this machine, and when the short circuit ring is detached, any signals input by the line 1 input terminal won't work.

10.AMP IN post-amp input:

“PRE OUT ” and “AMP IN ” are connected by a short circuit ring to make signals of this machine; If you want to use the pure post-amp, you can detach the short circuit ring and input signals in the “AMP IN” terminal. Please refer to Article 6 of Use Notes for key points of using.

11.CD input terminal.

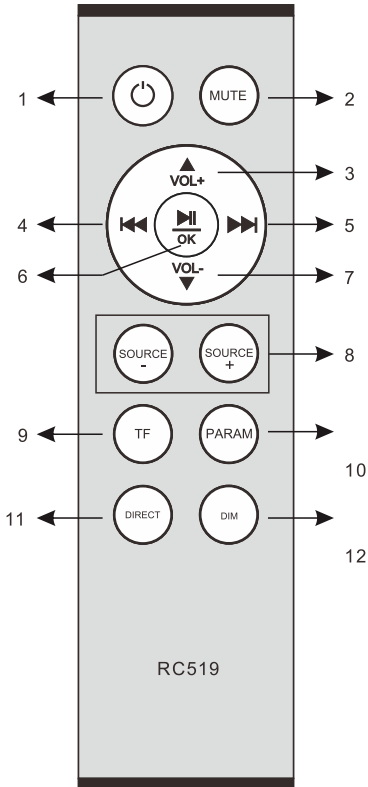
12.DVD input terminal.

13.AUX input terminal.

14. Power input terminal.

Three-core power lines are used in this machine, and users need to make sure good ground connection; A two-in-one power tailstock is used in this machine, and the AC fuse is in the tailstock; Professionals are needed to change the fuse with the same specification according to the design specification if necessary.

## Remote:



1.Standby key (This button is useless).

2.Mute key.

3.VOL+ /parameter+ composite button:

When it is not in the parameter adjustment mode, press this button to increase the volume. When it is in the parameter adjustment mode, press the button to increase the parameter.

4.Previous /fast backward composite:

Short press this button to play the previous song, long press this button to make the song back forward (Only works when reading from USB disk, and TF cards).

5.Next /fast forward composite:

Short press this button to play the next song, long press this button to make the song fast forward (Only works when reading from USB disk, and TF cards).

6.Press this button to play or pause (Only works when reading from USB disk, and TF cards).

7.VOL- /parameter- composite button:

When it is not in the parameter adjustment mode, press this button to decrease the volume. When it is in the parameter adjustment mode, press the button to decrease the parameter.

8.Press this two buttons and you can choose the audio source.

9.Press this button to choose the play source of TF cards.

10.PARAM:

Press this button to choose three parameters, which are BASS, TREBLE, and BALANCE, and press VOL+ or VOL- to adjust the corresponding parameters.

11.DIRECT.

12.DIM.

## **VOL/MENU Introduction:**

It can adjust the volume & parameters.

### **Detailed instructions of the function buttons are as below:**

Press the "VOL/MENU" and go into the menu "MENU", and rotate the "VOL/MENU" knob to select the option you want to operate among "INPUT", "BALANCE", "BASS", "TREBLE", "SETDIM", "RESET", "INFO", etc.

After entering the functional items above, rotate the "VOL/MENU" knob again to adjust the parameters, among which, re-press the "VOL/MENU" knob to go back to MENU after "BALANCE", "BASS", and "TREBLE" are adjusted. It can go back to menu by pressing "INPUT", "SETDIM", "RESET", and "INFO" after choosing "RETURN", and also, it can go back to main interface directly by choosing "EXIT".

### **The function options of menu are as below:**

#### **MENU:**

**INPUT (Audio source selection):** CD (CD input)->DVD (DVD input)->AUX (AUX audio source input)->CO1 (coaxial input 1)->CO2(coaxial input 2)->CO3 (coaxialinput 3)->OPT (optical input)->BT (Bluetooth input)->TF (TF card input)->USB (USB disk input)->PC (USB PC Audio)->RETURN (return to the upper layer interface).

**BALANCE (balance adjustment):** Adjustment range: L10---0db---R10

Press "VOL/MENU" button after adjustment for return.

**BASS (BASS adjustment):** Adjustment range:-10DB---0db---+10db

Press "VOL/MENU" button after adjustment for return.

**TREBLE (Treble adjustment):** Adjustment range: -10db---0db---+10db

Press"VOL/MENU" button after adjustment for return.

**SET DIM (VFD display screen luminance adjustment):** DIM1

DIM2

DIM3

RETURN

**RESET (reset):** YES (Reset confirm)

RETURN (return to the upper layer interface)

**INFO (Version information):** VER 01

RETURN (return to the upper layer interface)

**EXIT** (return to the home menu)

Or you can wait for 15s and the procedure will return to the display home menu automatically.

(1) Insert the USB disk with songs into the USB port of the front panel and use the panel or the remote control to select USB audio source, and then songs will be played automatically.

(2) Insert the TF card with songs into the corresponding slot on rear panel and use front panel or the remote control to select TF audio source, and then songs will be played automatically.

### **Mobile Phone Audio Wireless Transmission:**

(1) Use front panel or the remote control to select the audio source BT.

(2) Turn on the Bluetooth of your mobile phone, search the AD-86D and click the paired connection, and after they are connected successfully, you can play songs on your mobile phone.

### **Computer USB Audio Playback:**

AD-86D supports the computer audio transmission with the sampling rate of 24bit 48KHz (drive free).

Insert one end of the USB connection line into the USB AUDIO port of the unit, insert another end into the USB port of the computer, open the audio player and set the audio equipment of the audio player as: USB AUDIO.

Switch this working mode: Use front panel or the remote control to select the audio source PC.

### **Digital Audio Playback:**

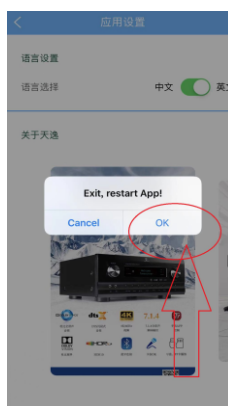
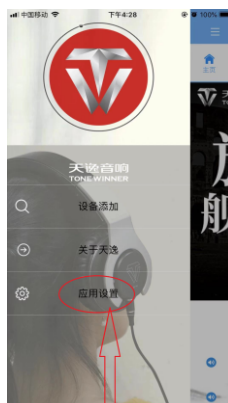
AD-86D supports the digital input with the sampling rate of 24bit 192KHz.

Use the panel or the remote control to select the audio source OPT or CO1/CO2/CO3 as digital audio source.

## Mobile phone App:

For better user experience, Tonewinner develop its own App control to match its products, user can finish all above operations and switches on phone. If you are the first time to use Tonewinner App, follow below step1, step2, step3, step4. If you are not the first time use Tonewinner App, follow step 3.

- (1) Keep your phone on normal working status
- (2) Keep your phone with internet access, scan the QR cord on package box, download the AD-86D App and install it. IOS equipment can search "TONEWINNER" on APP store to download Tonewinne APP.
- (3) Turn on the Tonewinner App, and search AD-86D equipment, match it till to connect successfully.
- (4) For more App control, please check product details on Tonewinner's website: [www.tonewinner.com](http://www.tonewinner.com).
- (5) To set the APP into English language, follow below 4 steps.



Please allow no further notification when this production has any specification changes.

## Precautions:

1. Place this machine in well ventilated areas; because this machine is an amplifier with high power, generating serious heat inside, so good heat release condition is required to ensure the safe and reliable performance. Don't place this machine in narrow and airtight areas and don't put objects on the top of this machine to keep the venting hole unobstructed. If the machine can't release heat well, the service life may be affected, or even the machine will be burnt down.
2. Don't make the machine under the overload condition for a long time:  
Don't set the volume too high and make this machine under the overload condition of peak distortion, such as the circuit protection action of power amplifier. Please check the machine if it is too hot, and if it is too hot, start the machine after it cools down.
3. Match of this machine and the speaker: This machine has good capacity to match with speakers, and can match more than 95% home speakers. But there are still something you need to pay attention to when you select speakers:
  - (1) Too low impedance of the speaker is not suitable for this machine, and you'd better not choose the resistance of less than  $4\Omega$ . The machine performs best when the resistance is  $4\sim 8\Omega$ , especially  $8\Omega$ .
  - (2) Too low sensitivity of the speaker is not suitable for this machine and you'd better not choose the resistance of less than 86db. The machine can perform well when the sensitivity is over 87db.
4. There are 3 levels you can select for the luminance, which are DIM1, DIM2, and DIM3 from the dimmest to the brightest. You can select the luminance level you like in the "DIM" selection function menu of the panel or through the "DIM" button in the remote control.



5. The connection line connected to the machine must be reliable and accurate, and please don't mix up the anode and the cathode, and the left channel and the right channel.
6. You can input signals separately from the "AMP IN" after detaching the short circuit ring from the "PRE OUT" to the "AMP IN". At that time, this machine will be used as a pure post-amp, the input signals and the volume adjustment won't work, and you need to use the volume knob of the pre-amp to control the volume. (Please note that when the machine is used as a pure post-amp, pay attention to the order of the start and stop of the audio source, the pre-amp, and the power amplifier. Start the audio source, the power supply of the pre-amp, and then the power supply of this machine one after another when starting. Turn off the power supply of this machine, the audio source, and then the power supply of the pre-amp one and another when stopping. If you don't follow this, the loudspeakers may be damaged.)

## **Specification:**

Model: AD-86D

SCR: >96dB/ (A weighted)

Frequency response: 20Hz-60KHz (+1/-3dB)

Distortion:  $\leq 0.005\%$  (1KHz, normal working condition)

Output power: 120W/8  $\Omega$  single channel, 1KHz, THD=1%

Input impedance: 10K

Matched impedance: 4-8 $\Omega$

Gain: 42dB

Max Output Power: 400W/8 $\Omega$

Supply voltage: ~220V/50Hz

Net weight: 18.5 kg

Complete machine dimensions: 444X455X160 mm

Package Dimensions: 576 X574X296 mm

## **Safety Class: Class I Equipment**

1. Please read the manual and safety precautions carefully before use.
2. The product should be mounted somewhere ventilated and dry for the convenience of heat dissipation to avoid moisture and lampblack.
3. The safety class of the machine belongs to II; upon installation, the power plug should be connected to 220V and 60Hz/50Hz grid.
4. Do not remove the cover during use to prevent electrocution.
5. Do not frequently turn it on and off. Wait a few minutes before turning it on again.
6. When the equipment fails, the plant implements "repair, replacement or compensation of faulty product". The user should send it to the designated manufacturer or maintenance department for maintenance or our plant for repair. To avoid accident, do not open the rear cover for inspection or repair.
7. The plugs, power lines, fuses, power switch, and transformer used on the equipment are all safety parts. Upon change of safety parts, the maintenance department should replace them in accordance with the model, specification, and designated manufacturer element specified on the drawing provided by our plant.

The specification of the product may be subject to change without further notice.





Scan QR code

**Guangzhou Tonewinner Electronics Co., Ltd**

Tel: 86-20-34797660/34796146

Web: <http://www.tonewinner.com>

Add: No.1, Hongsheng 3

Road, Dashi, Panyu, Guangzhou, 511430, China