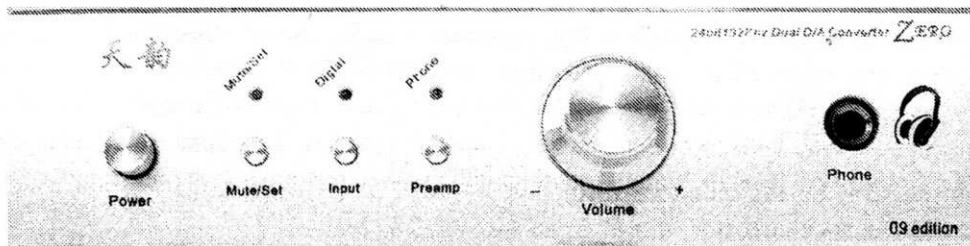


# Tianyun ZERO

## Stereo-audio Decoder with Pre-amplifier

09 Version

## User's Manual



Thank you for your trust and the purchase of electronic products from Tianyun. In order to make our products bring you the best enjoyment of music, please carefully read the manual.

Thank you for purchasing Tianyun ZERO stereo audio codecs pre-amplifiers. Please be sure to read the manual in detail before you use the product, which will enable you to obtain optimum performance

ZERO is a multi function audio D/A converter at 24Bits/192KHz stereo model. it can put PCM 2.0 digital audio signal restore to stereo analog audio signal and output to back sound device, such as: power amplifier, power speaker, it is a digital audio decoder design for enjoy high quality Hi-Fi stereo music, it can be connect to the which have digital output unit such as computer sound blaster or USB jack, also can be connect to DVD player, CD player or Digital decode unit, it can takeup the music play quality, enjoy the Hi-Fi digital music, ZERO can change to Pre-amplifier or earphone amplifier with panel function switch, and for any earphone.

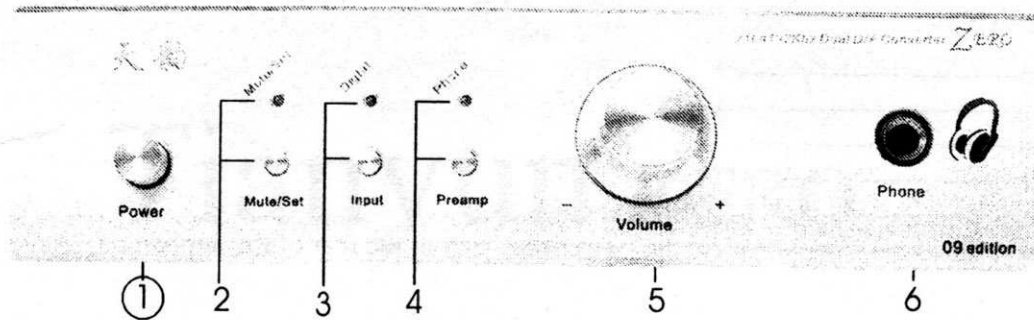
### Product features

- 1.Supporting the importation of 24 Bit/192KHz digital audio format
- 2.Using CS8416 as decoder, AD1852 as digital-to-analogue conversion, and OPA2604 or OPA627 as operational amplifiers
- 3.USB1.1, 16bit48Khz(USB VERSION)
4. One-way independent inputs of digital optical fiber signal
- 5.One-way independent inputs of digital coaxial signal
- 6.One-way independent inputs of digitalUSB signal
7. One-way RCA audio output
8. One-way 6.5 mm earphone output
9. CPU control is accurately and steady.
10. Auto select the input signal when power on, auto memory the state when power off
- 11.Adjustable volume pre-amplifier
- 12.A earphone amplifier adjusting the volume function, for any impedance earphones
- 13.The audio signal output with the function of start-up delay, shutdown blink-off ,and anti-shock
- 14.Installation of an entire gold-plated socket to guarantee sound quality and promotion function of operational amplifiers

### Performance parameters

|   |                              |
|---|------------------------------|
| The maximum support for digital signal format-----      | PCM 24Bit192KHz              |
| The decoding chip for receiving the Digital signal----- | CS8416                       |
| Digital / analog converting chip-----                   | AD1852                       |
| USB chip-----   | PCM2704,1.1/16bit/48Khz      |
| Operational Amplifiers-----                             | OPA2604 or OPA627            |
| Frequency response-----                                 | 20-30 KHz                    |
| Signal to Noise ratio-----                              | 105 dB                       |
| Total harmonic distortion-----                          | 0.0005%                      |
| Dynamic range-----                                      | 117 dB                       |
| Analog output level-----                                | 2 V                          |
| Input supply voltage-----                               | 110 V or 220 V50/60Hz        |
| Dimension-----  | L240 mm × W 220 mm × H 55 mm |
| Weight-----   | 2.5 kg                       |

## The illustration of the functions on the front panel and rear panel



1. The power switch
2. Mute button and set, Blue indicator lamp
3. The selector button of digital input , 3-color Blue red and green indicator lamp , Blue -coaxial, Red -coaxial, Green-USB (USB VERSION)
- 4 The selector button of alternating between the preamp and the earphone, green indicator lamp
- 5.The volume knob of preamp or earphone output
- 6.The 6.5mm earphone jack



7. RCA analog audio input port, L for the left sound channel and R for the right.
8. The input interface of digital fiber-optic signal
9. The input interface of the digital coaxial signal
10. The input interface of the digital USB signal(USB VERSION)
11. The power selector switch of 110V ~ 220V
12. The power input interface of 110V ~ 220V 50Hz-60Hz

2 key function is mute and setting: When music pass output state, you need mute, press it once time, again is release. When auto update the USB module (You don't need do the following operation for have bought USB module ), when you install the USB module into amplifier then power on, press 2 key for a long time, you can see the blue LED lighting flash for 3 times, then move up, this time you can see LED 3 colour will be turn to green, it mean the USB channels be turn on, decode unit have USB audio input function. To turn off USB input function, press 2 key for a long time when LED 3 flash for 3 times and turn red.

3 key function is choose the input signal: ZERO can auto search input signal when power on, if the 3 indicator light's colour is blue, select the Coaxial input and RED is Optical input, Green is USB audio input(No install USB module is invalidation), if searched input signal will lock to this channel, and turn on the corresponding LED's colour. For no signal search, it will return to power off working stats, of course ,you can press it to choose other input channel.

4 key is pre-amplifier earphone output: When unit power on, music output from RCA to speaker, volume knob is invalidation, when you press the 4 key once time, the LED's colour turn RED, knob can adjust output volume for RCA output, this time plug earphone into, it can cut out RCA output, music only come from the earphone channel, the knob can control earphone volume.

## Package Contents

Power cable-----|  
Optical cable-----|  
User manual-----|  
Insurance card-----|  
USB line-----| (USB Version)  
TIA Protective tube-----| (in the power plug box at the rear of the appliance)

## Precautions

1. The appliance can only be operated under the alternating current power supply between 110V and 220V/50Hz. If you are not sure of the type of power supply, consult your appliance dealer or local power company.
2. The appliance should be put in the well-ventilated place. Don't place it under the sun-scorched site or near the location of heating equipment. Avoid placing it in the insulated rack. And there should have been vent large enough to enhance radiation of the heat when it is equipped on the rack.
3. Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them. Do not pull, drag and distort the power cord. Pay particular attention to cords at plugs, and the point where they exit from the appliance.
4. Don't throw any litter into the appliance. Pay attention not to allow needles, hairpins, coins and other debris to fall into the appliance, so as to avoid damage to it.
5. Pay attention to avoid moisture, water and dust. Do not place the appliance in high humidity or the location of dust. Vases or other objects which has humidity are not proper to be placed above the appliance and it shall not be drenched or watered.
6. Do not use volatile solvent to clean the appliance. Avoid spraying the pesticides near the appliance. Don't use chemicals such as: alcohol, paint, thinners, gasoline, banana oil and other solvents to wipe the appliance. Use a soft cloth to wipe away the dust.
7. Pay particular attention not to plug the vents of the box which are very important to radiate the heat. If the vent is blocked, the temperature will raise very high, even damage the appliance.
8. Do not open the cover at will. It may expose you to dangerous voltage, if the appliance is serviced, dismantled or reset by non-professionals or in the condition that you has accidental contact with the internal components. There is no components which can be overhauled by the users, please let the qualified servicemen to serve for you.
9. Please do not frequently switch the appliance. Shutdown and re-boot should have an interval of at least five seconds.
10. The digital input of the appliance requests for the PCM signal of S / PDIF format.

## Contact

Changsha Tianyun electronics factory

Website: [www.tianyun100.com](http://www.tianyun100.com)

E-mail: [tianyun@tianyun100.com](mailto:tianyun@tianyun100.com)

Tel: 86-0731-84152840

Fax: 86-0731-84152840

Tianyun electronics factory reserves the right to improve ZERO decoder. Please pardon our not making another special notice if there are some changes. For more product information, please visit [tianyun@tianyun100.com](mailto:tianyun@tianyun100.com)