



TONE WINNER

SUB-12TD Active 12 inch subwoofer User Manual



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Important protective measures for attention



WARNING

ELECTRIC DANGER DO NOT OPEN



■ To reduce risk of electric shock, do not remove the outer cover (or back panel).


■ For maintenance, it should be carried out by qualified maintenance people.


■ To avoid fire and electric shock hazards, do not get the unit wet or damp.

■ Safety protection category: Class II

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 not 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 not 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: ① unplug the power supply when you do not use the manual for long period. Plug. ② Good 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



Trouble shooting

Phenomenon	Cause	Solution
No sound	Not connected to power or the power switch is off	Connect to power supply and turn the power switch on
	Volume knob in the minimum position	Volume up
	No low-frequency signal input	Check system wiring and equipment setting
Bass Distortion	Subwoofer amplifier output reached limit	Turn down super bass or system volume
	Subwoofer amplifier frequency range is too wide	Narrow the frequency range
Large Dynamic Distortion or Abnormal Sound	Large dynamic sound (such as explosion) causes the subwoofer overload	Properly turn down the volume of the subwoofer or home theater system
Buzz or Hum	Wiring problem or system earthing problem	Refer to the home theater system manual

Specification

1. Frequency Range: 25Hz-250Hz
2. Minimum Source EMF: <350mv
3. SNR: ≥95dB (A-weighted)
4. Power Supply: ~220V/50Hz- ~110V/60Hz
5. Total Power Consumption: 450W Max
6. Net Weight: 30.2Kg
7. Boundary Dimensions (mm): Width 370 x Height 470 x Depth 467
8. Power: ≥300W/4Ω
9. Distortion: ≤0.08

1. Location Adjustment:

Place the subwoofer on a normal location for listening (such as the couch), adjust the volume to 1/3, and move about the house. If the bass heard from a certain place is apparently stronger, the subwoofer should be put there. Usually, there are more than one places like this. Please choose the place which is most convenient for connection and use.

2. Volume Adjustment:

Adjust the volume is for finely blending the sound from the subwoofer with the sound from the main speakers. The subwoofer is designed to cover up the bass shortage of your existing home theater system instead of suppressing their performance. The sound from the subwoofer should be integrated with the sound from the whole system.

3. Phase Adjustment:

(a). Repeatedly rotate the phase potentiometer knob, and listen carefully in the normal listening location. Compare between the performances of low frequency in any places of the knob to see which is more sturdy and powerful and apparently enhanced.

(b). Set the knob to the place of the best low-frequency performance.

(c). Sometimes the low-frequency hearing is almost the same when the knob is rotated. In this case, set the knob to "0".

(d). If you have replaced the front speaker, which drastically changed the location of the front speaker or subwoofer, the phase adjustment is required again.

4. Frequency Adjustment:

Repeatedly rotate the frequency adjustment knob. When the bass cohesion of the whole system is smooth and integrated, the frequency of the subwoofer is done.

Attention: The location of the subwoofer, the phase of sound, and frequency are highly associated. Adjustment of any one will affect the other two. Therefore, we should adjust the location, phase, and frequency for multiple times.

After all the steps above are finished, your whole home theater system will achieve an optimal effect.

Thank you for choosing Tonewinner brand audio products. We will serve you with "High technology, High quality and High taste" enterprise philosophy, will serve you with exquisite craft, classical circuit, high technologies, first-class quality and first-class services. We will bring all customers with our stable, reliable, durable and pleasant technology achievements!

Product introduction

Thank you for choosing SUB-12TD active subwoofer. With the help of this subwoofer, your home theater system will achieve unprecedented effects.

SUB-12TD is the perfect combination of a strong subwoofer dedicated power amplifier and a 12-inch subwoofer speaker. The system is specially designed to improve your home theater system. It is characterized by convenient use, high power, powerful low frequency, and enormous shocking power. The amplifier is designed with phase switch, high-pass switch, low-pass switch, line input, balance input, EQ adjustment, and frequency adjustment, etc.

Amplifier Introduction (See Fig. 1)

POWER: Press "I" to connect to power supply and the indicator is on, press "O" to power off.

Do power it off when inserting or pulling the power plug.

When signal is connected, the switch is on. If there is no signal (for a while), it will automatically switch to standby mode with red LED light ON, must keep the switch on.

For the best audio effect, you should keep the subwoofer powered on, and the amplifier will immediately enter the correct working condition. Do not cut the power off if the subwoofer is idle for long time.

VOLUME: Control the volume of the subwoofer, please rotate the volume knob gently.

FREQUENCY: Rotate the knob to control the edge frequency of low-pass filter between 40 and 200Hz and the span at 18dB/times sound interval. You can adjust it to change the tone quality of bass unit to match it with your other speakers based on your requirement (higher or lower).

EQ: If the EQ is on, there will be around 6dB boost at 50Hz, there is no boost if it is off. We do not advise you using this switch in normal condition because the risk of breakage will increase. But you may use the switch if the sensitivity is low.

PHASE: As for the variable control of 0°/180° phase, the technical difference between two extremes (0° and 180°) should change the electrode of the cable accordingly (+ to -, - to +). When it is normally installed, set to 0 phase, but it will affect the characteristics of the sound wave, especially when front speaker is equipped. Pay attention that the difference between the lines should be 18 degrees.

BALANCE: Balance input.

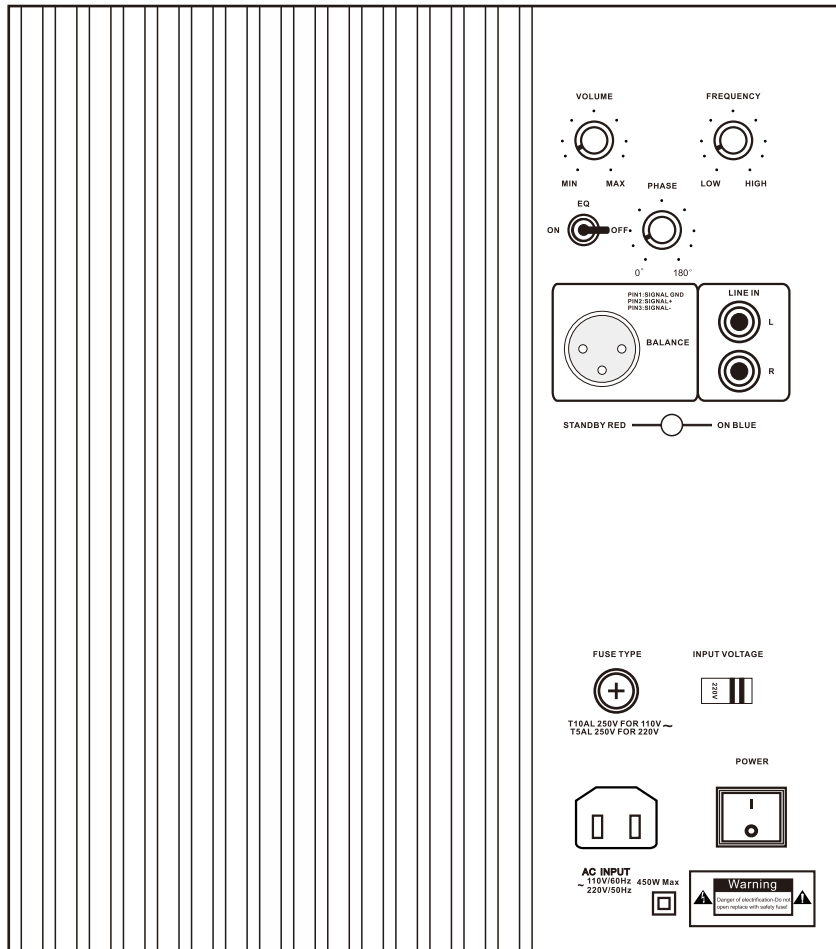
LINE IN: The subwoofer line input adopts audio signal from RCA plug receiver, preamplifier, TV, or stereo decoder. If only one bass output is provided, please connect it to any input port.

Power Indicator Light:When you just switch on the power, the amplifier is in standby, and the indicator light is red. The amplifier will turn into operating state automatically in about 5s with the indicator light in blue. If there is no signal input, the machine will directly turn into standby, with the indicator light in red. In normal operating state, the power amplifier will turn into standby after 10min without signal input, and if there are signals, the machine will turn into operating state automatically.

AC INPUT:Connect it to regular 220V/50Hz AC supply. Please confirm your power supply matches your input choice. Otherwise, it will seriously damage the speaker.

INPUT VOLTAGE:The input choice of supply voltage is to provide a more extensive range of subwoofer. When your grid voltage is 220V/50Hz, please move the switch to the end you can see “220V”, when your grid voltage is 110V/60Hz, please move the switch to the end you can see “110V”.

Fig. 1 Schematic Diagram of SUB-12TD Amplifier



Connection of the subwoofer

You may connect it to your multi-channel amplifier, receiver, etc. By various methods. If your CD-ROM driver, home theater amplifier, pre-amplifier, or stereo decoder, etc. has the corresponding line output terminal, you can use the input terminal of the subwoofer for input signal. If it has balance output terminal, you can also use balance input terminal for input signal.

Attention! Do complete all signal connections before connecting to power cable.

1. Input signal from line input terminal:

If stereo or single channel output is equipped, please connect the stereo or signal channel RCA to your output device (stereo decoder, TV, stereo receiver, etc). If it is stereo, please insert the two RCA plugs into the RCA ports of the subwoofer. If it is mono channel, please insert the RCA plug into any one of input port.

2. Input signal from balance input terminal:

If your front-end device includes balance output only or if you need to input signal from the balance terminal, please connect one dedicated balance input/output line to the pre-amp output device (stereo decoder, TV, stereo receiver, etc) correctly.

Pay attention to whether the connecting terminal of the pre-amp output device are consistent with that of the subwoofer.

PIN1: SIGNAL GND, PIN2: SIGNAL+, PIN3: SIGNAL-.

Subwoofer Testing

To begin with, turn on your home theater system and set it to the correct mode to make sure the interface connected to the subwoofer has signal output. Turn on the subwoofer and set the phase switch to “0” (factory setting). Rotate the volume knob and the frequency regulating knob to about 1/3 position.

Play a song you prefer, and you should be able to hear the bass from the subwoofer.

You can also test the subwoofer with test function from DVD player, home theater amplifier, pre-amplifier, or surround sound decoder. The test function input noise signal into every speaker of each channel in the home theater system, and meanwhile it can balance and calibrate the volume of speaker in every channels (including subwoofer).

Remark: The subwoofer only reacts to the bass signal received. For some cases such as dialog, violin, and some quite scenes which don't contain bass signal, thus the subwoofer will not have output.

Subwoofer Adjustment

After the system test is finished, the following tasks should be performed for the best audio effect. During each step, please listen carefully and compare between the changes of tone (especially the bass).

Play a song or music which is with powerful low frequency, and strong rhythm, and perform the following steps: