

# INSRUCTIONS OF THE FANSER SPEAKER SUBWOOFER SYSTEM

## I . Introduction

Thank you for the purchase of our most advanced product! The Fanser speaker subwoofer system will bring you to the magic sound field free of the restriction of so-called “Emperor’s Seat.” From now on you need no longer worry about the narrow and limited sound field caused by the traditional speaker’s “high-frequency beam effect.” You can enjoy music to your heart’s content.

In order to secure a perfect functioning of the system, please read the instructions carefully before you install and operate it.

## II . Features

1. The most advanced Fanser speakers are used as the units of the right and the left sound tracks. The sound waves from the Fanser speaker shape like a fan with 180° horizontal radiation angle and about 45° vertical radiation angle. The sound waves of all frequencies are evenly distributed, which produce a wide-ranged, high-fidelity stereo sound field under the collaboration of Fanser speaker units of the right and the left sound tracks.
2. The unit of subwoofer looks cool because the firm structure of warhead engine is employed in its design. The bass of the system is characterized by fast, well-bedded, and clear-cut impression due to the new design of double sound-tubes, short sound tracks, and damping-coil. You’ll never get tired of it.

## III . Accessories Included

1. Fanser speaker units of the right and the left sound tracks
2. warhead engine subwoofer unit
3. a set of RCA patch cord of Fanser speaker units (detachable)
4. patch cord of HiFi stereo sound source
5. RCA stereo patch device

## IV . Function and Explanation of the Controls

The RCA input sockets at the back of the Fanser speakers are for

inputting audio current. The controls on the front side of the warhead engine subwoofer unit are:

1. bass control
2. treble control
3. volume control
4. power indicative lamp

And the controls on the back side of the warhead engine subwoofer unit are:

1. power switch
2. RCA output sockets of the right and the left sound tracks
3. stereo sound source input sockets
4. wire plug

## V. Installation

1. Connect the stereo to the input sockets at the back of the warhead engine subwoofer unit with the patch cord of HiFi stereo sound source.
2. Connect the Fanser speaker units of the right and the left sound tracks to the output sockets at the back of the warhead engine subwoofer unit with the RCA patch cord (detached in two).
3. Put the wire plug into the standard socket of commercial power ( $220\pm 10\%$ , 50~60Hz).

## VI. Positioning and Operation

1. Place the Fanser speaker units of the right and the left sound tracks to about the height of the listener's ears and keep them at an appropriate distance so that the best result can be achieved.
2. Place the warhead subwoofer unit near the walls or the ground so that the bass can be given a full play.
3. The system, especially designed for private use, is one of near sound field Fanser stereo audio with limited output power. To avoid shortening its service life, please do not let it work under full load for a long period .
4. The black part at the bottom of the warhead engine subwoofer unit

is equipped with radiator. It is normal that the system gives out heat when working.

## VII. Specifications

1. mode of the system: 2.1 Fanser speaker multi-media audio
2. range of frequency: 42—20000 Hz
3. full-frequency radiation angle: 360° at 42—4000 Hz; 180° at 4000—20000 Hz (horizontal)
4. output power: 10 watts (RMS) for the right and the left sound tracks; 25 watts (RMS) for the subwoofer
5. power: 220±10% volts (alternating current), 50~60Hz

### Special Knowledge: High-frequency Beam Effect and the Fanser Speaker

When sound is produced by the traditional speaker, a narrow flashlight-like sound wave radiation will be formed, and the higher the frequency of the sound, the smaller the radiation angle is. This is called the high-frequency beam effect, which is very harmful to the replay of the stereo system. The high-frequency beam effect greatly narrows the effective range of the stereo so that the listener can obtain a relatively better result only in a particular position. This is the origin of the so-called “Emperor’s Seat.” During the replay of the stereo the high-frequency beam sound waves can reflect themselves among the four walls and between the ceiling and the floor in the room many times before they reach the ears of the listener because of their highly concentrated energy. Once the stereo sound image is composed its location and phase appear to be quite blurred and chaotic. Therefore, some people resort to the use of sound absorbents, others move the speakers, but none of these attempts can solve the problem and provide with the desired result.

The Fanser speaker was invented in 1996 by the Chinese inventors. It is a new patent speaker (Patent No.ZL96102624.3). It is able to completely remove the high-frequency beam effect and have the sound wave radiation form an ideal beam required in the stereo replay—180° horizontal fan-shaped beam. The advantages of the Fanser speaker can be summed up as follows: the sound wave beam radiates like a fan with 180° horizontal

angle and  $45^\circ$  vertical angle. The use of the stereo system with the right and the left Fanser speakers, on the one hand, completely solves the problem of “Emperor’s Seat” and greatly enlarges the effective range of the stereo. Now you can enjoy authentic stereo sounds within a wide area. On the other hand, the fan-shaped radiation of the sound waves greatly reduces the reflected energy against the walls and the ceiling because the energy of the sound waves has been evenly distributed over a larger area of  $180^\circ$  horizontal angle and  $45^\circ$  vertical angle. Compared with that of the direct sound, such energy reflected can almost be neglected, to say nothing of the sound waves reflected several times. In the ears of the listener, the stereo sounds from the Fanser speaker stereo system have the characteristics of precise location, clear background and effective and vivid image formation. No environments will belie its excellent performance!