

Listening “Large,” Selling the T12 Soundbar

Written by Bob Snyder
09 September 2008



OK, as a retailer or installer you’ve seen many soundbars now, all with the iPod sticking up like a candle on a birthday cake.

But Orbitsound’s T12 spatial stereo TV soundbar with iPod dock (and subwoofer) comes with a unique selling point that’s both demonstrable and effective at retail.

Other soundbars digitally re-create spatial stereo while the T12 produces spatial sound using its airSOUND™ single point stereo reproduction.

airSOUND does not produce stereo in way normal “left-right” audio works. Instead it focuses on

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the original principles of stereo that separates left and right information from the main signal and reproduces this “space” in a form that mixes in the air. (See the maker’s explanation below.) You can stand (or sit) anywhere within the stereo sound field. For positioning you only need to make sure the sides of the soundbar are not obstructed.

T12 can provide your customers both a big screen sound upgrade for flat screen TV or instant iPod station in the home.

A self-powered array of high frequency, midrange and airSOUND spatial drivers in the soundbar produce an identical stereo sound-field throughout the room. The subwoofer extends the frequency response to reproduce the bass and rumble. A multi functional remote provides control over the T12 and a docked iPod.

Imagine a bewildered consumer in front of a half dozen soundbars, with no clear technology distinction...only design. Then step them up to Orbitsound T12 with a demo. The sound is large and full, the design indicates it is a more serious option for flat screen use or home theatre, and technological selling proposition all make the T12 a useful line addition for installer or retailer.

The maker, Orbitsound, explains air SOUND™:

“Think of an orchestra, and you are standing in front of it. Your left ear hears all the musicians, and so does your right ear, but from a very slightly different perspective. The differences are basically twofold; there are amplitude (level) differences, but these are very slight indeed, and there are timing differences, the length of time taken by the sound of a particular instrument to reach the ear.

A stereo recording of the orchestra attempts to record the differences, and to reproduce them so that you can re-create the image in your head.

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Now, think about how nearly the same these 'left' and 'right' signals are: If you subtract one from the other almost all the signal is cancelled out.. but what is left is the 'spatial' information; it's the part that gives your brain all the clues about where things are.

Adding the left and the right signals together, we get the 'main' or 'information' channel. Subtracting the right from the left and we are left with the 'spatial' channel, a strange 'whispy' sound that means little on its own.

If the 'main' channel is replayed through a single loudspeaker facing the listener and the 'spatial' channel is replayed at 90 degrees, and so that on the left you can hear 'left minus right' and on the right you can hear 'right minus left', then as long as the design of the speaker enclosure is right, those channels re-combine and you will get a true left to right panorama in sound.

The major advantages over the more conventional (but less correct) way of listening to stereo, are;

- There is absolutely no 'sweet spot'. The stereo effect is clear wherever you are.*
- The placement of the airSOUND® loudspeaker is not at all critical; the sound fills the room.*
- Because the sound is from a single source, there are no timing, phase and frequency response problems that are endemic with 2-speaker systems.*
- As the phase relationships are more accurately reproduced, the music sounds noticeably cleaner and more clearly defined.*
- On some recordings it is now possible to perceive height information that was hidden by phase errors.□*

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Conventional stereo from 2 speakers:



- 2 speakers produce left / right audio.
- Sound fields interfere and cancel
- Stereo image is limited to sweet spot

airSOUND from a single source:

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