



WISDOM®



Sage Series

The World's Most Advanced Architectural Loudspeakers.™



L75i In-wall Loudspeakers



Sage Series Architectural Loudspeakers

The Wisdom Audio Sage Series provides the performance of an exotic audiophile loudspeaker while respecting architectural integrity and providing a pleasing visual aesthetic. This series offers unprecedented flexibility to address a range of installation options while performing to the highest levels available among architectural designs.

Wisdom Audio enjoys a proud heritage among esoteric loudspeaker companies, having produced some of the most highly regarded (and most costly) loudspeakers in history. After more than two years of development, the Sage Series brings this remarkable performance to market with in-wall, on-wall, and freestanding solutions. Tall and slim, these loudspeakers offer sophisticated, understated elegance that can either complement or virtually disappear from the room as needed.

"My knowledge of audio guided by years of experience tells me there is no perfect speaker system. However, the L75 comes as close as I've heard to audio perfection and what it does well, it does extraordinarily well."

Gary Altunian, Home Entertainment magazine, September 2009

L75 Freestanding Loudspeaker

Architectural Advantages

Architectural Aspect Ratio

The Sage Series easily integrates into a variety of décors:

- The in-wall speakers' slim design can easily be incorporated into decorative columns or into any standard wall construction
- The on-wall models mount securely on the wall surface, similar to a flat-panel television, and complement the television's appearance
- Finally, the freestanding (in-room) versions of these remarkable loudspeakers eliminate the need for elaborate installation in a slim, small-footprint design

Application Flexibility

Most models in the Sage Series are available as in-wall, on-wall, or freestanding solutions. These models may be used in any combination to address the specific needs of a home entertainment system. For example, larger, in-wall speakers may be used in the front of the room, flanking the video display and filling the room with extraordinarily clear and uniform sound, while the 20" versions (in any configuration) might be used for the surround channels in the sides and the rear of the room. In addition, there are several center channel models.

Each Sage Series loudspeaker is a full-range device, with bass extension in even our smallest models to below 40 Hz. Each set of drivers has its own dedicated rear enclosure (back-box) to ensure optimal performance of in-wall models regardless of the acoustic environment presented by the home's walls. Wisdom's Sage Series also includes an in-wall subwoofer for even deeper bass response (flat to 20Hz) and improved dynamic range capabilities.

Importantly, every Sage Series system includes an electronic crossover that incorporates Audyssey™ MultEQ® XT room correction. Professionally calibrated by your local

installer, this system measures the acoustic characteristics of your room at up to thirty-two different locations and corrects for anomalies.

Thanks to the extraordinary capabilities of the speakers themselves and the sophistication of the room correction technology, it is now possible to consistently achieve unparalleled performance in almost any room.

Uni-Grip™

Most in-wall loudspeakers clamp themselves to the wall using relatively small "dogs" that pinch the wall material (typically plaster or sheet rock). These dogs work well enough for the small, light loudspeakers typically used for background music. However, a more robust loudspeaker that reproduces the full range of modern music and film soundtracks requires more robust attachment... much more, in fact.

Wisdom Audio created an innovative Uni-Grip system that clamps the speaker to the wall continuously along the length of the loudspeaker. Having many times the clamping area of small pinch dogs, an installed Uni-Grip loudspeaker actually *strengthens* the wall, making it more rigid than it was prior to the loudspeaker's opening being cut. Uni-Grip thereby minimizes spurious resonances that could seriously degrade sonic performance. Increased clamping area also means that the clamping pressure at any point along the perimeter need not be as high, protecting both the wall's integrity and delicate wall treatments like premium wallpaper or custom paint finishes.

The unusual shape of the Sage Series derives from the physical nature of the Wisdom Audio planar magnetic drivers, which reproduce most of the sound you hear. With the development of specially designed, high operating pressure woofers came the possibility of a slim, yet genuinely full range loudspeaker system.



The Sound

Detail and Dynamics

Most of us have had the experience of unexpectedly coming upon live music. It might be in a restaurant or on the street, but you can always tell that it is live rather than reproduced — even before you turn the corner and see the musician. What you are hearing in live music is the absence of something that plagues even the finest conventional loudspeakers: inertia.

The moving parts of conventional speakers are relatively massive. The inertia of common "cone and dome" designs prevents them from responding instantly to a new signal; it also keeps the diaphragm moving after the music stops, "filling in" some of the quiet spots between notes. The result is a blurred sound that lacks the dynamic energy of the original performance. It sounds "polite" and less vividly real when compared to live music; the notes may all be there, but they don't come fully "alive." Traditional "cone and dome" loudspeakers suffer from these inertial distortions and resonances at all volumes.

Wisdom Audio planar magnetic drivers avoid these limitations. Their moving parts are actually lighter than the equivalent mass of the air they move, offering negligible inertia. Between the powerful electromagnetic force driving them and their lack of inertia, they respond instantly to even the smallest musical signal. They also stop moving instantly when the signal stops. Both the strong electromagnetic field and the mass of the air that surrounds the thin film damp the motion of the diaphragm, so it does precisely what the amplifier tells it to do.

This combination of quick response and highly damped behavior results in a tremendously detailed sound. As an added benefit, this characteristic holds true at even modest listening levels. You don't have to turn it up to enjoy the music (though you may enjoy it so much that you will want to).

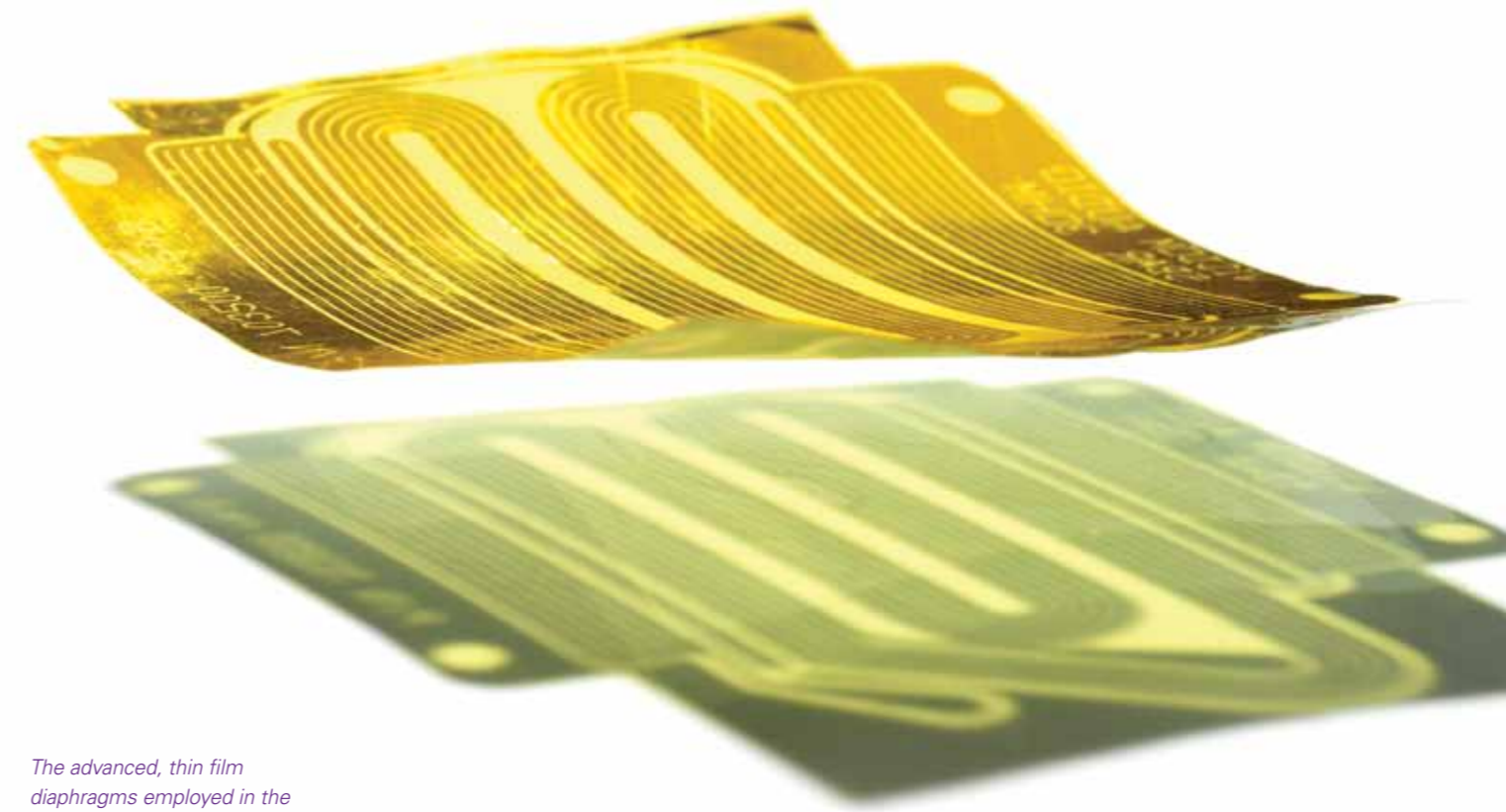
In a Wisdom Audio system, music comes alive. Movies are every bit as dynamic and exciting as the director intended. The experience is emotionally engaging. It needs to be heard to be appreciated — but be careful. It is hard to go back to a system that is merely "polite."

The Technology

Wisdom Audio Planar Magnetic Technology

In a planar magnetic speaker, a thin film is sandwiched between arrays of bar magnets, and the “voice coil” is unwound and spread across the thin film, much as your car’s rear window defogger runs back and forth across the glass. By connecting the amplifier to this conductor, current flows and a changing magnetic field is created that interacts with the bar magnets, causing the diaphragm to move.

Wisdom Audio’s proprietary, in-house designed, state-of-the-art planar magnetic drivers have distinct benefits and properties.



The advanced, thin film diaphragms employed in the Sage Series actually weigh less than the equivalent mass of the air they move. This allows them to respond instantly to the smallest details in the music.

Highly detailed

Planar magnetic drivers are tremendously detailed because the moving mass of the diaphragm is extremely low, lighter even than the air it moves. It can therefore be driven with both delicacy and accuracy, without the blurring effects of excessive mass and inertia.

More reliable

Planar magnetic drivers have a huge advantage over traditional dynamic drivers, in that the “voice coil” is spread out over a large area rather than squeezed into a narrow gap within a massive chunk of metal. As a result, planar magnetic drivers can dissipate heat effectively that would otherwise build up in the voice coil. Planar magnetic speakers can handle a lot of power without undue stress or audible strain. In fact, for a given surface area, they can handle many times the power of a traditional dynamic driver.

Easy on amplifiers

Well-designed planar magnetic speakers present an almost perfectly resistive load to the power amplifier in the system, since the voice coil is essentially a very long, thin wire. It acts like a simple resistor. This is the easiest possible load for the amplifier to drive, and comparable to the one electronics manufacturers use during measurements designed to show how terrific their products are. As a result, you can count on your amplifier sounding its best.

High sensitivity

The higher field strength of the remarkable rare earth magnets used in Wisdom Audio drivers means that your amplifier does not have to work nearly as hard to deliver a satisfactory listening experience.

Plays louder and lower

Since the magnetic field is so much stronger, it becomes possible to open up the space between the front and rear magnet arrays, giving the diaphragm more room to move. Since it can move further, it can move more air for its size and therefore play both more loudly and lower in frequency than previous designs.

Tighter control

Since the force acting on the lightweight diaphragm is so high and spread uniformly over its surface, the motion of the diaphragm is strictly controlled. Spurious motion due to inertia or resonance is vanishingly small as compared to traditional dynamic designs.

Reduced coloration

Earlier planar magnetic designs which used arrays of older, weaker and bulkier bar magnets got in the way of the sound that the diaphragm was creating, coloring the sound that was otherwise so detailed and remarkable. Since the neodymium magnets are a fraction of the size, there is dramatically more open space on either side of the diaphragm and the colorations disappear.

Pleated diaphragms

Some Wisdom Audio thin film diaphragms are pleated using a proprietary, high pressure process that enhances the thermodynamic stability of the diaphragm while increasing its overall excursion capability. Sensitivity is improved, while standing waves on the surface of the diaphragm are all but eliminated. As a result, these planar magnetic drivers manage to beat other planar magnetic drivers of comparable size in terms of both detail and dynamics.

Active Crossovers

People who have wanted to extract the highest performance from their systems know that amplifying each section of the speaker directly and separately yields the finest results. Of course, this approach requires having a dedicated, active crossover to divide the frequency range appropriately before the power amplifiers, so that they can then drive the speakers directly. Active crossovers offer many advantages over common passive, internal crossovers, including lower distortion.

“Bi-amplification” makes use of two channels of amplification to drive different portions of a single loudspeaker. The most common instance of “bi-amping” today is in home theater applications, wherein a dedicated subwoofer handles the deepest bass, while the remaining audible range is handled by the various front and surround speakers. But you can also bi-amplify a full range loudspeaker, driving the woofer separately from the drivers that handle the midrange and treble frequencies.

Logically, you can combine these two approaches, and the result is “tri-amplification.” A “tri-amped” system uses separate amplification for three audible ranges. In our case, the three ranges are:

- Deepest bass
(one or more subwoofers)
- Mid-bass *(the woofers in the front and surround speakers)*
- Midrange and treble
(the planar magnetic panels)

Since each channel of the amplifier is delivering power over a limited range of frequencies, several forms of distortion are reduced as compared to each channel handling the full range of musical information.

The Sage Series' SC-1 System Controller supports anything up to a “7.3 channel” system. That is, up to seven main speakers can be supported (all of which are bi-amplified), plus up to three independent subwoofer channels.

It is thus a “7.3 channel in, 14.3 channel out” active crossover and room correction system.

In the Sage Series, the amplifier, woofer, and enclosure are all treated as a single system for reproducing uncompromised bass. Every Sage Series woofer section has its own dedicated 500 watt amplifier. Amplifiers of the customer's choosing drive the planar magnetic panels.

Audyssey MultEQ® XT

Room Correction Technology

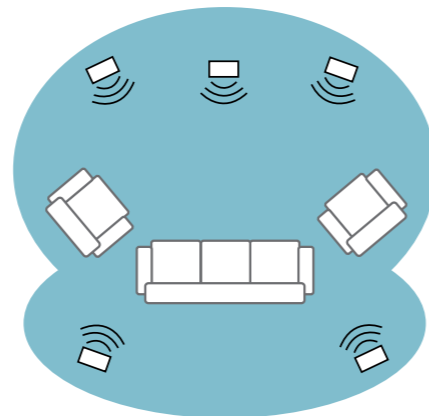
Parametric EQ

Sound generated from unbalanced sources produces separate, colorful, unrefined signals that work out of harmony and requires the human ear to balance out and smooth correctly.



Audyssey MultEQ®

Sound generated from Audyssey MultEQ® produces continuous, refined, harmonized music that is delivered in its perfectly balanced state.



Audyssey MultEQ® XT

Room Correction

Audyssey™ room correction technology addresses distortion caused by room acoustics, so you hear sound as it was intended, in every seat, automatically. A good loudspeaker is designed to deliver sound without distortion or coloration. But when even great speakers are placed in a room, things change. Walls, furniture, and other objects reflect and absorb the sound from your speakers, creating complex distortions specific to your room, which could not have been predicted by any loudspeaker designer. Audyssey MultEQ XT removes these distortions by equalizing your sound system for every seat in your listening room. It addresses and solves problems in both the time and the frequency domains, minimizing the effect of the room so you can hear more of the remarkable speakers you purchased.

Wisdom Audio is a licensee of the most sophisticated form of this technology for use in our systems, and worked closely with Audyssey Laboratories™ to ensure that you get all the performance you deserve.

Since the Sage Series Architectural Loudspeakers can properly adjust to any interior space regardless of size or surface, it makes it the ideal solution for any land or marine installation.





Summary

The new Wisdom Audio Sage Series takes a comprehensive and innovative approach to achieving uncompromised performance within the realm of architectural audio.

Employing unique and proprietary driver technologies, active biamplification, room correction, independent driver enclosures and innovative mounting systems, Sage achieves a level of performance rarely achieved by even the most exotic audiophile systems; thanks to the Audyssey™ MultEQ® XT room correction technology, this stunning performance can be reliably achieved in spite of the limitations normally imposed by the room itself.

Perhaps most importantly, these remarkable achievements are available in formats to meet the needs of any installation: in-wall, on-wall, or freestanding solutions are available for most models, none of which compromise performance.



Contact your local Wisdom Audio dealer for a demonstration of the Sage Series Architectural Loudspeakers, and let the sound speak for itself. A Dealer Locator can be found at <http://www.wisdomaudio.com/purchase.php>



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www.wisdomaudio.com

