Acoustic Panels - Data sheet

LeadingEdge Acoustic Panels

- Versatile, wide bandwidth acoustic solution
- Self-compensating approach using proven technology
- Product of precision manufacturing techniques
- Extremely effective yet simple to use

A "Revolutionary" Solution to a Universal Problem

Acoustic issues are the elephant in the corner of virtually every audiophile listening room. Traditional solutions are complex, bulky, often ugly and extremely difficult to get right. In fact, because "not right" actually means "wrong" they often make matters worse. Finally, the LeadingEdge Acoustic Panels promise to provide a simple and effective light-touch solution to acoustic problems.

With over 40 years of experience and a proven track record in the world of large-scale architectural acoustic projects, including everything from concert halls and lecture theatres, down to restaurants and bank interiors, the company is perfectly placed to apply its established technology to the domestic listening environment.

So What Makes These Panels So Different

The thing that really sets the LeadingEdge Acoustic Panels apart from existing domestic acoustics products is that, unlike those treatments (that work exclusively in the pressure domain) the Acoustic Panels function on aerodynamic principles while the sound wave is in the velocity domain, smoothing and calming air-flow in the room. This has two vitally important implications:

- Because the Acoustic Panels are adding drag to air particle motion, they are broad-band effective, a single device that acts across the entire audible frequency spectrum.
- Because they act to damp air particle velocity exponentially they are effectively self-compensating, acting where a problem exists – and only where a problem exists.

hi-fi+

"... these products delivered such a fundamental improvement in system performance... they've forced me to reasses system priorities..."

Steve Dickinson, Issue 96

"I'm not going to talk specifics... (but) the results were exceptionally impressive."

Alan Sircom, Editor, Issue 90

The slim panels are deceptively simple in appearance. The active surface of the panels consists of thousands of tiny micro-perforations with a honeycomb cellular structure bonded to the rear - the result of complex and extremely precise mathematical computation and production technology.

Physically light and extremely versatile, they offer a range of fixed or even portable solutions to acoustic problems.

Positioning and Mounting

Because the LeadingEdge Acoustic Panels operate in the velocity domain, they defy conventional expectations as regards placement. Most acoustic treatment concentrates on room corners where pressure changes are highest, or parallel surfaces that cause flutter echoes. The LeadingEdge Acoustic Panels work best where particle velocity is greatest – which is where pressure changes are lowest! That means that the panels are generally placed at the halfway points, close to the room boundaries. Single-sided Acoustic Panels can be surface-mounted, double-sided versions are even more effective but need some space (ideally 8"/200mm) between them and the wall.

In most cases, the ideal placement will be halfway along the longer walls of the listening room, possibly with a second set of panels added on the short walls. But the most effective solution of all is to suspend or attach the panels in the centre of the ceiling, where they act in both axes – and do so extremely unobtrusively.

Size and Colour Options

The LeadingEdge Acoustic Panels are available as double-sided or single-sided options in three sizes :– 600mm x 1.6m, 600mm x 1.1m and 600mm x 800mm. They are sold in pairs with feet as standard, wall and ceiling fitting kits are available at an extra cost. There are three standard colours - white, light oak and cherry, other colours and finishes are available on special order.

For further information on LeadingEdge Acoustic Panels please contact:

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Web: **www.leadingedge-audio.com**
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Basic guidance for the placement of the LeadingEdge Acoustic Panels

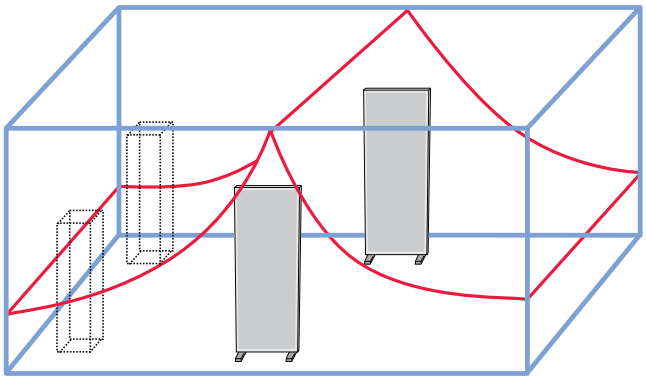

Diagram 1

This diagram shows how the velocity element in longitudinal standing waves peaks in the centre of the room. This is the most effective placement for the Acoustic Panels, but also shows that positions either side of centre can still work extremely well.

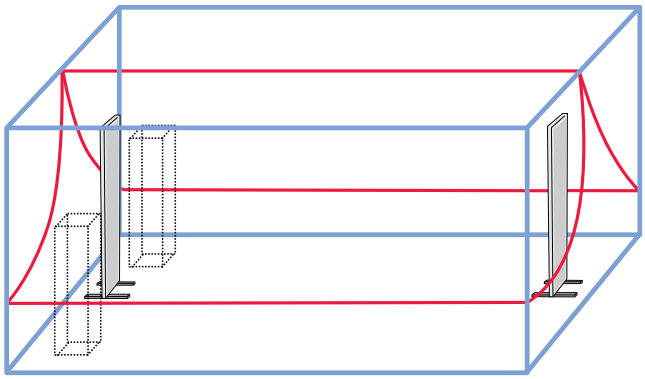

Diagram 2

After the longitudinal standing wave, the next biggest problem in most rooms is the lateral standing wave. This diagram shows the corresponding/alternative placement for the Panels, or the position adopted for a second set.

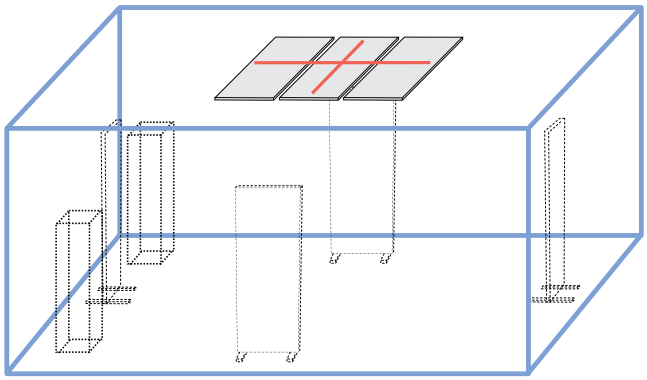

Diagram 3

Now it becomes clear just why a central, roof mounted location is so effective, acting as it does on both major axes. Such a placement can be extremely unobtrusive, especially if combined with the existing light fittings or used to incorporate uplighters.

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