

MICHAEL COOPER
tests the application,
and evaluates the
cost-effectiveness,
of the **ATTACK**
WALL from Acoustic
Sciences Corporation.

It could be said that a control room's acoustics can be regarded as the very end of the signal chain. The most accurate monitors and amplifiers will not give an accurate account of spectral balance, transient content and soundstage imaging during mixdown—or tracking—if the room itself is plagued with standing waves, flutter echoes and multiple reflections off nearby racks of outboard gear. Small control rooms are particularly susceptible to problem modes in the critical bass region below 300Hz, but even some top-notch rooms could use some improvement.

Solution

Acoustic Sciences Corporation (ASC), well-known for its Tube Traps, presents a solution that is very simple and quick to install. The ATTACK Wall consists of previously offered, modular products configured in a new and novel way. In essence, their Studio Traps and Monitor Traps are wrapped around the back and sides of the mixing console in a contiguous formation to create an acoustically

of the console, thus forming an acoustic shadow between the engineer and front/side walls of the room at the mix position. The absorptive side of each trap faces the mix position.

ATTACK Wall

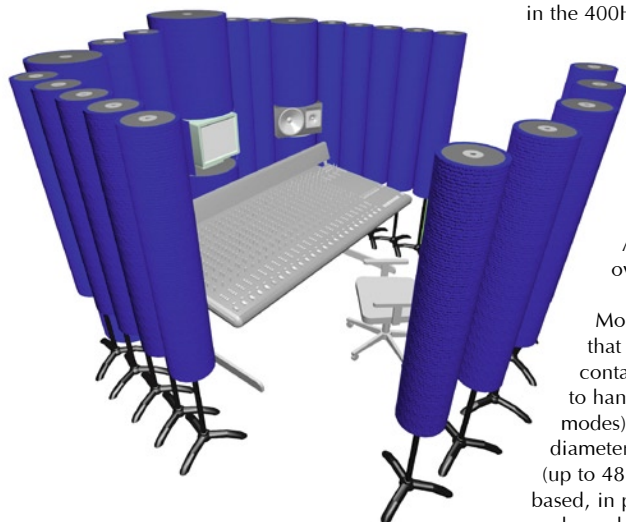
The ATTACK Wall tested consisted of 15 Studio Traps and two pairs of 16-inch Monitor Traps, and was used in a small control room (11ft x 17ft x 8ft—W x L x H). Intelligent Devices AD-1 software was used to compare the room's frequency response with and without the ATTACK Wall. The Wall affected a very significant flattening in response throughout the critical bass region below 400Hz. However, a dip in response at 780Hz was also noted, possibly due to the monitors' new positions causing reflections off the mixing console. Most noticeable was a startling improvement in soundstage imaging. After equalizing remaining notches in the frequency response with a TC2240 parametric equalizer, this small control room sounded surprisingly good.

ATTACK WALL

ACOUSTIC TREATMENT

absorptive wall—like the 'dead' half of an LEDE listening environment. Monitors are sandwiched vertically between Monitor Traps so that they are, in essence, soffited in the ATTACK Wall. The result is a highly controlled nearfield/midfield listening environment that dramatically neutralizes the inherent acoustic signature of the front portion of the control room.

Twelve or more Studio Traps are used in the ATTACK Wall, depending on the size of the mixing console. The Studio Trap is essentially a nine-inch-diameter, four-foot-long cylindrical tube trap which is covered with Guilford cloth and mounted on a tripod so it can freely rotate. One side employs a perforated reflector that provides diffusion in the 400Hz to 7kHz range. The other side is absorptive down to 110Hz. The reflective side is marked for easy identification.



The height of the Trap can be adjusted so that the bottom of the tube is 4 to 26 inches off the floor, allowing for an ATTACK Wall that is slightly over six feet high.

Monitor Traps are similar, except that they are not stand-mounted, contain multiple air chambers (tuned to handle seven- to ten-foot ceiling modes) and are available in different diameters (11 to 20 inches) and lengths (up to 48 inches), your choice being based, in part, on the width of your speaker cabinet and on how high you want the high-frequency drivers positioned with the cabinet sitting on the Monitor Trap.

A second, typically shorter, Monitor Trap is placed on top of each monitor to bring the top of the Wall up to at least six feet in height, and to decouple the monitors from vertical floor-ceiling modes. Studio Traps are then placed tightly to either side of the Monitor Traps to create an unbroken wall that wraps around the back and sides

of the console in a narrow room. However, the trade-off is worth it, and simply moving a couple of Studio Traps will provide you with the access you need.

It's important to remember that electronic equalization can only take you so far in tuning a room. You cannot correct time-domain problems such as flutter echoes by using EQ, and excessive boosts can significantly reduce system headroom. Also, any equalization applied is only beneficial at the mix position at which it was determined.

Conclusion

The ATTACK Wall is a godsend for small rooms that have been converted into project studios, or employed as a modular retro-fit to an ill-conceived larger room in lieu of a prohibitively expensive acoustical redesign. The system is so simple it can be set up by an idiot and can be easily modified or added to as your set-up changes. Most importantly, the improvements gained in bass frequency response, and especially stereo imaging, are well worth the price of admission. A hearty thumbs up!

INFORMATION

ASC ATTACK Wall prices from \$7925 MSRP for 17 studio traps and two monitor stands.

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