Attack Wall™

The Repeatable Mixing Environment

The ATTACK Wall was developed for recording engineers who need to get professional mixes out of non professional rooms. It is a freestanding workstation, a control room, that sounds the same no matter where it's located. All the talent, electronic toys and tools won't be enough to create a professional sounding control room. The recording engineer also needs good studio acoustics. Without good acoustics you can't hear the tracks and can't get the mix right.

A fantastic, clear perception of signal at the mix position, that stays independent of the room. It is so quick and easy to set up that traveling engineers just ship their Wall and monitors from job to job. They know they will have the same mixing environment no matter where they set up. Engineers like control and repeatability. And when they have to studio hop with the ATTACK Wall, that's exactly what they get.
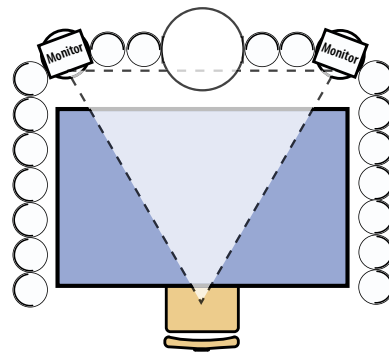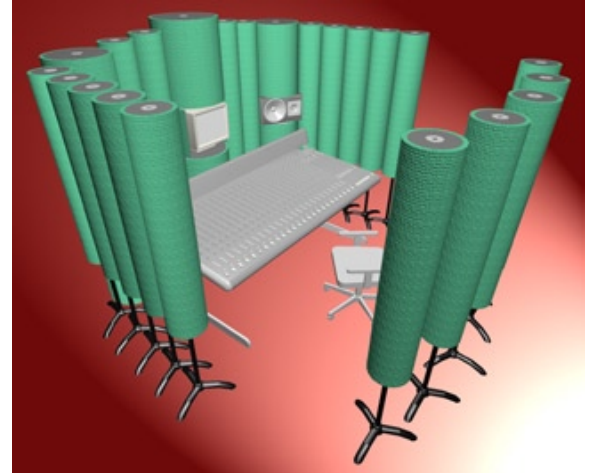
From 2.0 to 5.2, enclose your monitors, console and mix position with Studio Traps and Monitor Stands and convert any space into an LEDE compatible world class control room. Inside the ATTACK Wall, you can even hear where you put your mic. But most important, outside the Wall, you can still hear that mix, hanging together, no matter where you play it.

Portable and Powerful Too

The ATTACK Wall is made up of Studio Traps and Monitor Traps, versatile acoustic tools created by ASC for the recording studio. The front half of the Studio Trap is treble range reflective and the back side is treble range absorptive. The entire surface of the Traps is bass range absorptive. Studio Traps are adjustable in height and are usually set up midway between the floor and ceiling, but they can be raised or lowered for different listening positions or line of sight requirements.

By wrapping Studio Traps tightly around the sides and back of the console, and more loosely locating them behind the engineer, the ATTACK Wall control booth is formed. Wider ATTACK Walls are formed around big consoles with midfield monitors, while narrower Attack Walls are used for smaller consoles with nearfield monitors. The ATTACK Wall can also accommodate studios that use computer screens. In the treble range, the ATTACK Wall eliminates undesirable early reflections while creating a desirable time delayed diffusive back fill, typical of the LEDE type studio. In the bass range, the drivers become wall loaded and decoupled from the room modes.

20" Extendable

Early Reflection Control
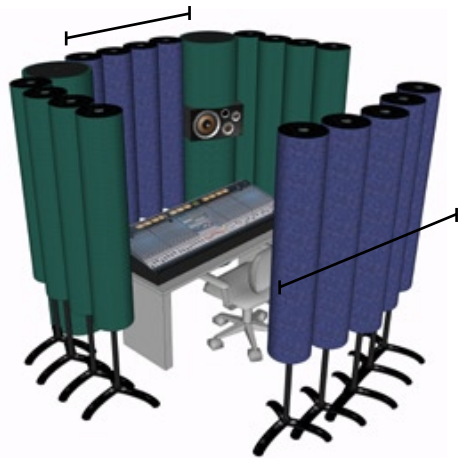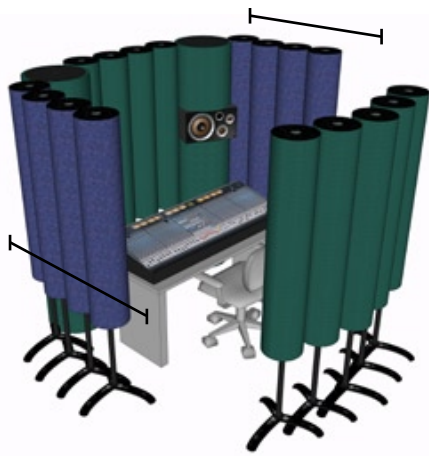
The ATTACK Wall wraps around the console and engineer so neatly that very little sound escapes outside of the Wall. Early reflections are controlled within the Walls' absorptive inner boundaries creating a reflection free zone right in the middle of the room, any room.

The side sections of the ATTACK Wall extend past the bolster of the console and the engineer's head. This casts a huge acoustic shadow onto the wall, eliminating wall reflections and other lateral energy from getting to the mix position. In studios with wall mounted acoustics the wall reflections are usually controlled by absorbing wall panels, but here, sound can't get to the walls so sound panels aren't necessary. When lateral wall reflections are eliminated, excellent tonal reproduction and precise imaging is achieved.

A tight pattern of Studio Traps fits between the monitors and a loose pattern of Studio Traps is placed behind the engineer. These intercept and control the reflections off the front and rear walls. At this point, the engineer has created a reflective free zone around the mix position. The technique used here is acoustic shadow casting. Absorption takes place very early, within a few feet of the speakers and long before the early reflections can ever reach the wall. The ATTACK Wall has essentially removed the mix position from the room acoustic.
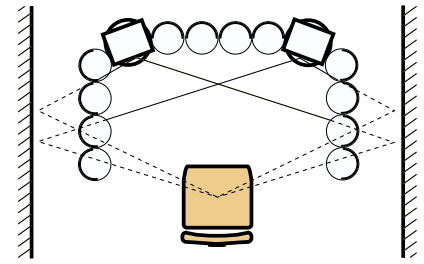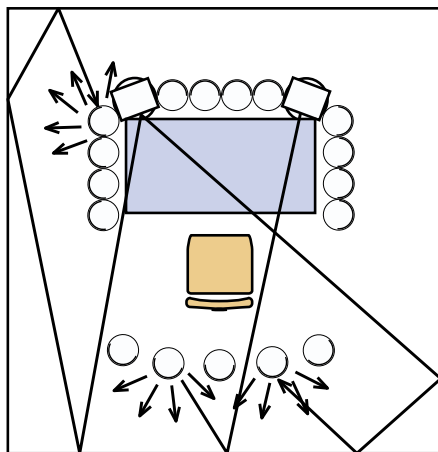

Control Early Reflections
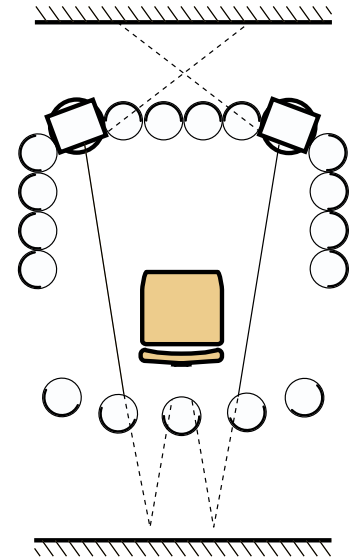
Control Front/Back Reflections

## Time Delayed Backfill

Lateral Diffusion

The ATTACK Wall absorbs early reflections and lets others escape to become processed into time delayed backfill. Without an ambient tail to the ETC a reflection free recording studio would be exhausting to work in. The Wall is setup to vent treble in two ways. Some of the sound escapes over the top and under the bottom of the ATTACK Wall. Other parts pass through the openings to the side and behind the engineer. Any sound that escapes the ATTACK Wall reflects off the room walls back into the diffusing side of the ATTACK Wall where it is again back splashed towards the wall. By this process a time delayed diffusive backfill of sound bleeds back through the opening in the Wall, over the top and under the bottom. The ATTACK Wall creates an LEDE type mixing environment.
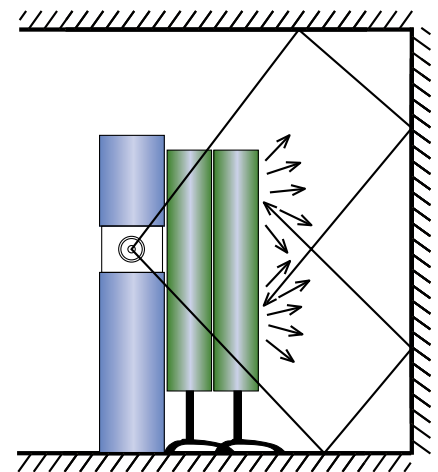

Vertical Diffusion

The mix has to be not only good but it has to hang together. To get "the mix" the engineer has to work in a clean and linear acoustic environment. The ATTACK Wall provides just that and one thing more: Consistency. Inside the ATTACK Wall, the sound is the same no matter where it's set up. That means when you finally do move, your whole studio moves with you. Your electronics and your acoustics. Take a step towards complete control in the mix.

Vertical Mode Control

Phase Cancel
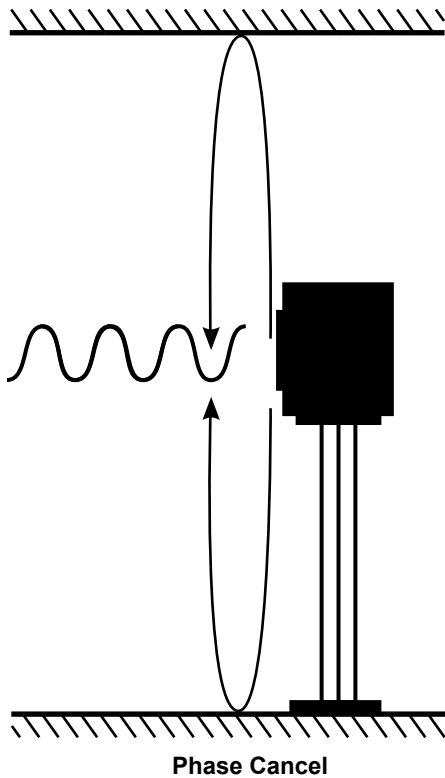
Studio monitors are nested into a Monitor Stack, comprised of specially built TUBE TRAPS. A typical monitor on a stand is located about half way between the floor and the ceiling. The floor/ceiling bounce returns back to the monitor in a phase. This imposes a phase cancel effect on the speaker's efficiency, typically, the first cut is 74 Hz for 8' ceilings, then, the engineer boosts 74 Hz in the mix unnecessarily. The Monitor Stack upsets the vertical symmetry in the room. The lower Trap absorbs bass, the upper Trap is short of the ceiling and vents bass. The combination eliminates the phase cancel effect and the engineer works in a linear environment.

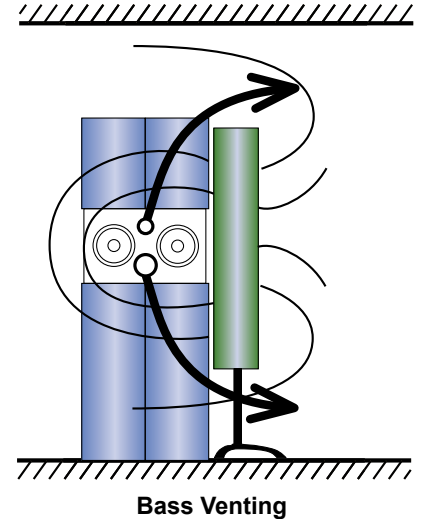
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ABSORB

Control Vertical Modes
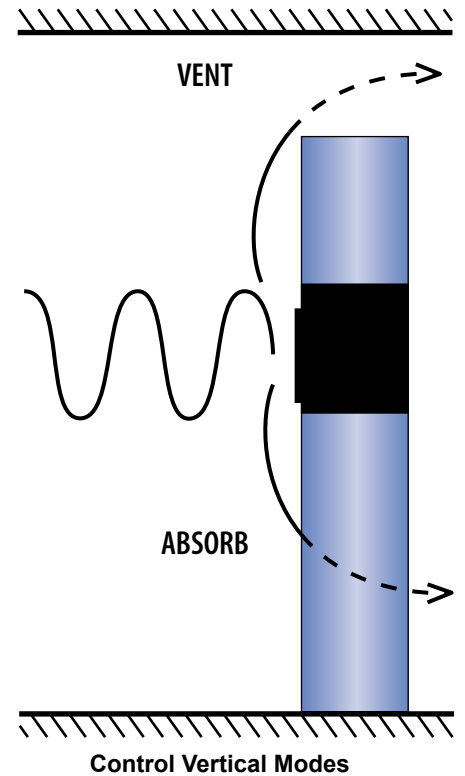
Wall Loaded Mains
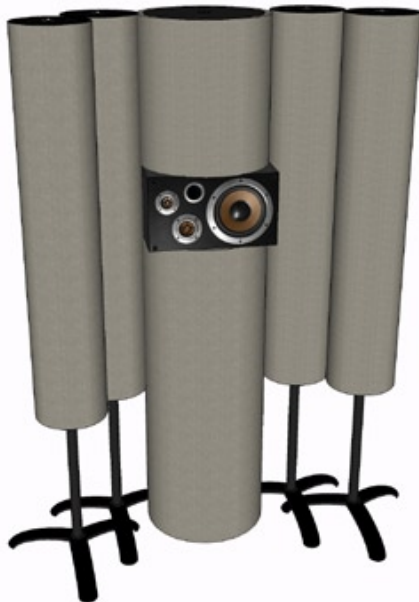
The ATTACK Wall loads bass just like the built-in main found in a downtown studio. Studio Traps fit tight to the sides of the speaker to create a corner-loading short horn. This increases the efficiency of the speaker and projects the bass.

With the absorptive side of the Studio Traps facing inward there is no "horn coloration" added to the direct signal. The ATTACK Wall setup results in a bass loading horn that is lined with treble range absorption.
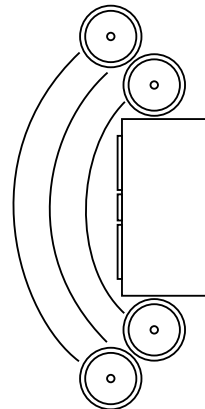
This type of horn loading is designed to be strong in the horizontal plane but weak in the vertical direction. The horn is vented above and below ATTACK Wall just before the expanding bass wave hits the floor or ceiling. This gives a soft bounce effect as the bass wave wraps around the Wall and expands into the rest of the room. Although bass levels can be held high inside the Wall, the bass is more than 10dB lower outside the Wall and dramatically reduces the boom that gets out of the room.

Bass Venting

Attack Wall Components

Front Trap Array

Monitor

MonitorStand

Side Trap Array

MonitorStand Top

MonitorStand Base

Side Trap Array

Rear Trap Array