How To Use

Prima Acoustic panels may be mounted using various methods to suit your specific application. In addition to using typical screws and adhesives All Noise Control has developed a series of impalers to provide the installer with a simple, quick and effective method of mounting Broadway acoustic panels onto walls without causing serious surface defacement.

Each Impaler features a series of sharp protruding darts that penetrate the panel to secure it in place. To ensure panels do not get dislodged after installation, applying a dab of construction adhesive to the Impaler during the mounting process adds another level of security and reduces opportunity for tampering. Impalers are installed using typical sheet rock anchors and screws.

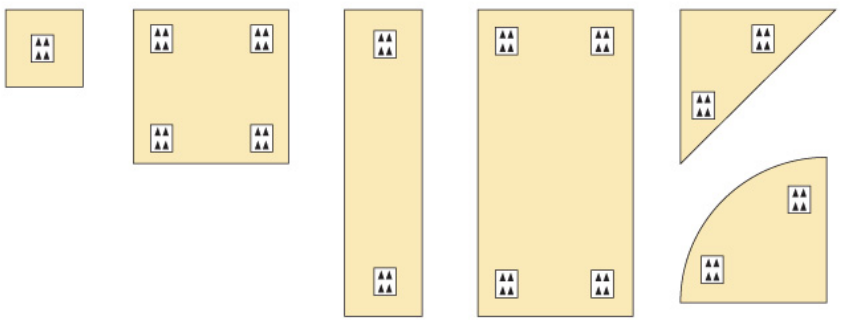
Alternate installations that can be considered include direct screw down using a long screw and retaining washer. This is typically accomplished using a standard screw and a wide faced washer to hold the panel in place. This is a good option in industrial installations where panels may find themselves in harms way or need to be secured on ceilings. Velcro is also a possible option where light duty installations are needed. Finally, for permanent installations, construction adhesive is used by applying a generous bead around the circumference and then crossing from corner to corner. Use a Surface Impaler to anchor the panel while the adhesive cures.

Surface Mounting

The most common approach to mounting Broadway panels is directly on the wall surface. ANC Surface Impalers make this process easy. All you do is screw a couple of Impalers to the wall and hang the panel like a picture. If they will be in a high traffic area, add a small dab of construction adhesive in between the Impaler and the panel to lock it in place.

Depending on the size of the Broadway panels you have selected and the degree of security you feel you need, a different number of impalers will be required. The minimum number of impalers for Broadway panels are detailed below. Impalers should be spaced so there is approximately a two inch boarder from the edge of the impaler to the edge of the panel. Make sure the impalers will clear the fabric that wraps around the back. Avoid pushing the impalers through the fabric edge.

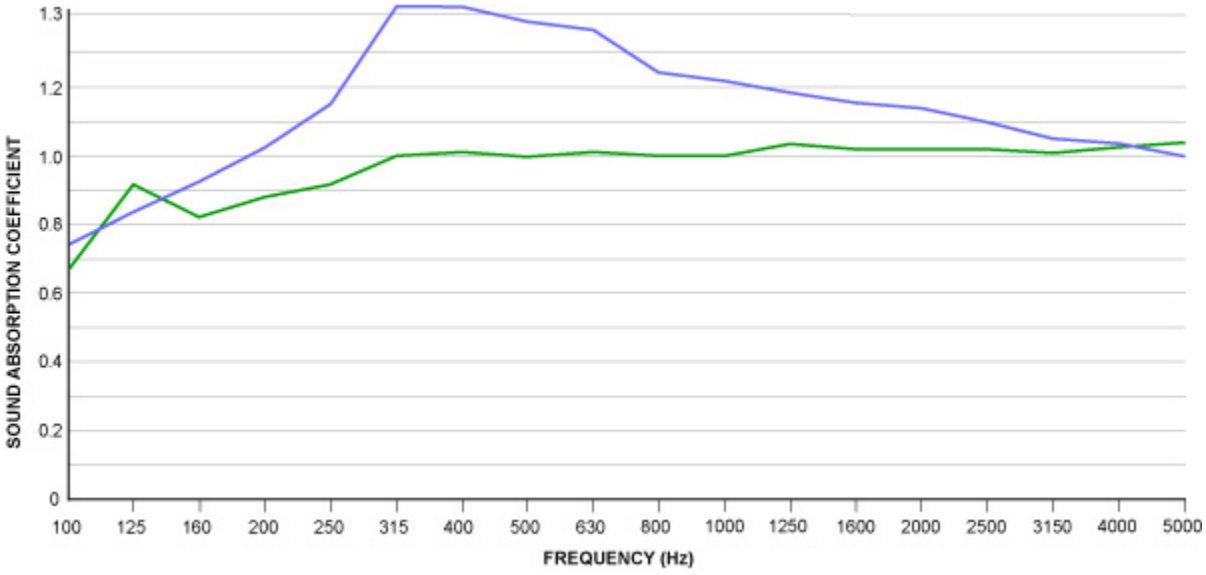
Broadway panels are heavy enough to cause injury should they fall from a height. When mounting Broadway panels in overhead locations ensure there is sufficient impaler clips to prevent accidental dislodgement.



Adding Air Space

A wonderful trick with acoustics is to add an air space behind the panel to increase the bass absorption. Depending on the panel density, this can be as provide as much as an extra octave lower, and up to 30% increase in absorption across all frequencies, without any additional cost. Creating an air space behind the panel can be done by furring the panel out using wood slats or by using Primacoustic Offset Impalers to create a 3.5″ air cavity behind the panel.

There are two aspects to mounting Broadway panels. The first is deciding where they should go for maximum effect and the second is the physical act of putting them up on the walls.



- 3 ” (7.62cm) Prima Wall Panels
- 3” (7.62cm) Prima Wall Panels with 3.5” (8.89cm) air space

Panel Placement

Panel placement is really a matter of application. For instance, a recording studio will benefit from more absorption while a hotel lobby or restaurant can work well with minimal treatment. See our solution pages for more information on what acoustic treatment would work best for you.

Depending on the room, panel placement will also change. For instance, in a restaurant or office, simply getting panels up on the walls will help tame conversations and the sound of computers. Placement in cases such as these

is usually based on practicality such as where wall surfaces are available. In some cases, a more even or balanced approach is preferred by spreading out the absorptive panels so that everyone enjoys the same environment. Meeting rooms are a good example of this.

In more demanding critical listening situations, more advanced panel placement is preferred. The most common configuration is known as a live-end, dead-end (LEDE) whereby one end of the room will have a greater percentage of absorption than the other. In a studio, the source end tends to be treated more heavily while in larger rooms such as theatres, the rear of the room tends to have more treatment.

Maximizing the performance

There are several acoustic 'tricks' that one can employ to make your acoustic installation easier and more effective:

- **Mounting panels at ear height**
  This first simple trick is to mount the panels at ear height. This is particularly effective in smaller rooms such as home theatres, classrooms, board rooms and studios. This also has the advantage of keeping them out of harm's way from chairs and from people walking by that could accidentally damage the panels.

- **Managing parallel surfaces**
  Another trick has to do with parallel wall surfaces. Most rooms are rectangular. This means that the vast of rooms will have two sets of parallel walls. Sound is very directional – particularly at high frequencies – which cause it to beam like a flashlight. For flutter echo to survive, it needs to have two parallel wall surfaces. If you treat one, the echo will quickly be subdued.

- **Leaving space between panels**
  Because sound can also penetrate the side edges of the panels, leaving a space between them will generally increase the amount of absorption. So, unless you are trying to completely deaden a room, leaving some space between panels can save you money.

- **Using corners to your advantage**
  Because sound expands spherically as it moves away from the source, it can easily be trapped by 'catching it' before it echoes and ricochets back into the room. By treating one wall in a corner or the wall surface between the wall and ceiling, you effectively enjoy twice the performance or a bunch of extra absorption for free.

- **Creating corners with baffles**
  Ceiling baffles such as the Prima are very effective. These hang vertically like a flag and not only capture sound as it penetrates both absorptive surfaces, but they also collect ceiling reflections from both sides. This makes baffles particularly effective in larger installations such as airports, arenas, and industrial buildings where they can be safely hung out of harm's way up in the rafters.

- **Using ceilings when walls are busy**
  When walls are not available, the ceiling can often present a good alternative for sound absorption. For instance in a restaurant or a hotel lobby with many large windows, wall space may be at a premium. One can hang Broadway panels from the ceiling above noisy areas using Prima Cloud Anchors

- **Adding flare to you room acoustics**
  For those that want to add some design elements to the room, Prima Accent Panels make it easy. These come in choice of rounded or triangular panels that can be combined with rectangles and squares to create acoustic windows and artistic shapes all while controlling sound.

- **Using common sense to avoid problems**
  The best example of not using common sense has to be the one where someone decided to hang acoustic baffles in a gymnasium. For any 14 year old kid with a hockey stick, football or baseball, the hanging baffle is a sure-fire target. In no time, all of the panels were damaged. In places that have high humidity such as swimming pools, acoustic panels need to be covered in a vinyl or plastic wrap to keep moisture out. Avoid putting open cell acoustic panels in areas such as kitchens that produce smoke and soot as they will soon look awful and likely cause problems with authorities. If in a high traffic area, make sure the panel you choose is sufficiently resilient to handle the stress.