I. Pre-Installation

The STC rating of acoustic doors depends on two main things – the components used (doors and gasketing) and their installation. Though Serious Materials does not perform installations, we are still able to guarantee that our doors meet the advertised STC ratings, when properly installed, using the door construction, hardware, and the seals included with the product. The stringent acoustic tests that we perform on all acoustic assemblies allows us to give this guarantee with confidence. The Quiet Solutions and Zero International name alone is your assurance of the highest standards possible.

We encourage the use of these tested assemblies but we also recognize the need for substitutions such as a glass lite or alternate gasketing. When these substitutions are made it is no longer possible to supply the STC rating guarantee since there are no test reports for the final assembly. In those instances, Quiet Solution will provide the same door construction used for the tested assembly, but without a "guaranteed" STC rating. This gives you increased design flexibility that starts with a well-constructed, proven door. We recommended using an acoustic consultant to review the final assembly whenever substitutions are made. As stated above, the final performance depends heavily on the installation.

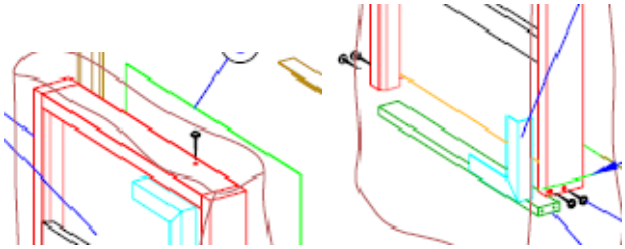
Even the best acoustic doors will fail to meet expectations if they are poorly installed. Acoustic applications involve close tolerances that require square and plumb openings. Do not expect an acoustic door to compensate for a poor frame installation. It is better to fix the opening before installing the door. The acoustic assemblies have been designed such that seals are uniform between the door and the fixed elements of the opening. Extra time spent ensuring a good seal will pay off in superior quality sound control. When gasketing an acoustic opening, think about sealing out sound like you would seal out light in a darkroom. Sound will leak out through any opening that light can leak through. A simple field test after the assembly is fully installed is to close the door, turn out the lights on one side of the door and look for light streaming through the opening. To further aid in this test, have someone shine a bright flashlight around the perimeter on the opposite side as you inspect for leaks. Preventing or solving installation issues will address over 95% of unsatisfactory acoustic assemblies.

II. Installation

i. Initial Inspection and Knock Down

i. Your Door will arrive either in an individual crate or seven doors strapped to a 4'x8' pallet depending on how many you ordered.
ii. Begin by removing the straps or thin wood holding the packaged door in place.
iii. Place the package flat on the ground. Make sure the door is oriented so that the protective slats are facing upward and the plywood side is down.
iv. Remove the plastic wrapping and cut any and all straps securing the package,

v. Remove the screws and supports holding the frame to the door.



vi. With the door side laying flush on the table or floor carefully swing the jamb outwards and remove the screws holding the hinges.
vii. Remove the screws at the top of the jamb that hold the three pieces together.
viii. Remove the jamb seals and any other hardware. On the standard door you will need to carefully pry up the wood trim covering the jamb seal.
ix. Now that you have the door disassembled, you can inspect it for damage and finish it. The wood may need a light sanding before staining to remove any dirt or minute scratches.

ii. Finishing the Door

i. You may finish the door any way you like. Avoid Latex, acrylic and catalyzed vinyl as they may react with the neoprene gasketing and cause marks. We recommend polyurethane as a topcoat.
ii. The best finish will be obtained by finishing each disassembled piece separately with a paint sprayer in a shop. This will give you a better finished appearance than hand painting.
iii. Optionally you may finish the door after hanging it. However, you need to allow the finish coat plenty of time to cure before installing the seals (usually a week).
iv. Once your door has been finished and allowed plenty of time to cure, you may proceed with the installation.

iii. Trimming and Installing the Jamb

i. Normally the jamb would be trimmed to a specific height so that the threshold meets the door bottom with the specified 3/8” clearance as found in the nominal dimensions drawing.
ii. Some installations may wish the jamb to be longer than step I, so that the jamb extends all the way to the subfloor and then the threshold on top of the floor topping will meet the door bottom with the specified 3/8” clearance.
iii. Cut the jamb to the correct height for your installation and fit it into the rough frame.
iv. Begin with the hinge side of the jamb. Using shims square it to the wall and make sure it is plumb. Use non-compression stackable plastic horseshoe shims with the heavy THX door to avoid sagging over time. Anchor the jamb with two to three 8d finishing nails. Trim the protruding

portions of the shims after nailing.

v. Use size #12 Stainless wood screws with enough length imbed well into the door frame to install the hinges. Leave them slightly loose so that you have a little bit of wiggle room when hanging the door. Make sure to use shims behind the hinges to avoid bending the jamb when you screw in the hinges.
vi. Leave the top and lock side of the jamb unanchored so that you can adjust the gap around the door.
vii. **For the Standard Door Only –** Before mounting the door, install the 364AA automatic door bottom.

iv. Hanging the Door

i. Using a door lift to hold the door in place as you hang it in the jamb will make the installation of a heavy sound door a much simpler task.

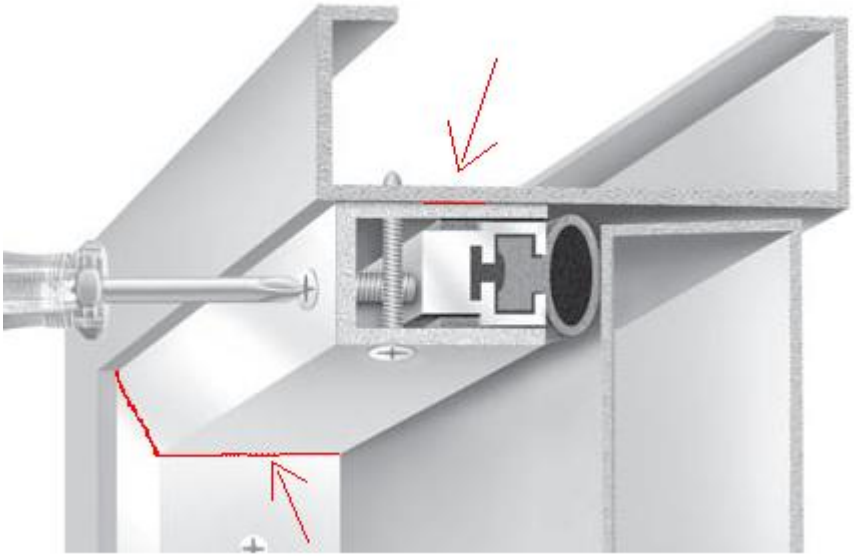
ii. Using the lift, align the door slab with the hinges. Screw in the hinges with the #12 wood screws that originally came with the door.
iii. Tighten down the hinge screws in the jamb that you left loose for the installation. Now you can lower the door lift as the frame and hinges should support the door.

iv. Close the door and inspect the clearance between the door and the top of the jamb. Using shims adjust the clearance so that it is 1/8" on the non-beveled side. Refer to nominal dimensions drawing for visual. Secure the top of the jamb with 8d finishing nails.
v. Now inspect the clearance on the latch side of the door. Again use shims to adjust to 1/8" and secure with 8d finishing nails.
vi. Mortise the jamb for the latch plate and install the latch plate with wood screws long enough to anchor into the stud. Support the jamb under the latch plate with shims so that you don't bend the jamb when tightening. (We recommend lever handles for locksets as the short clearance between the jamb seals may be inconvenient)
vii. Next stuff fiberglass or mineral wool insulation in any gaps between the door jamb and the rough frame. This is done along with sealant to insure that no sound flanking paths are created during the installation of the door.
viii. Apply a bead of Acoustical Sealant such as QuietSeal™ to the gap between the jamb and the rough frame on both sides of the door. Then install the trim that conceals this gap.

v. Installing the seals and threshold

i. **The seals for this door are provided by Zero International (http://www.zerointernational.com/) additional information concerning their install is available at their website.**
ii. Begin by cutting the jamb stop so that the threshold will just slide underneath it with some effort. Do not screw down the threshold yet!
iii. Cut the jamb seals to length and install in the position specified by the included Nominal dimensions drawing. When cutting the jam seal, leave an extra half inch of neoprene seal for mating to the threshold.
iv. When installing the jamb seal apply a bead of silicone sealant between the jamb seal and the jamb, also use silicone to seal up the corners for air

leaks as depicted in the image



v. Install the brass edge seal on the jamb in the position specified by the nominal dimensions drawing. For the THX door, a length of brass edge seal must also be installed on the bottom of the door.
vi. Close the door to confirm that the jamb seal fits tightly against the door when the lock set is engaged. If needed adjust the jamb seal out towards the door and close again. One way of checking for air leaks is to turn the lights off on one side of the door and have someone on the other side shine a flashlight around the edge. If light can get through, so can sound.
vii. Cut the protruding edge of neoprene jamb seal so that only a thin flap of neoprene overlaps over the threshold seal. This is done to avoid sound leak at the corners. The flap can be secured to the next seal with a dot of super glue when the installation is complete.
viii. Next lift up the threshold and put a few thick beads of silicone sealant on the bottom to seal it to the floor. Before screwing down the threshold, check its position.
ix. Close the door and latch the lockset. Slide the threshold forward so that the entire seal contacts the bottom of the door evenly. Hold the threshold in place while someone else opens the door and screws down the threshold.
x. **For THX Door Only** – Install the 367D auto door bottom on the jamb seal side of the door. Close the door and with the adjustment screw all the way in place the door bottom in position on the outside bottom of the door. Install with supplied screws and a bead of sealant between the door bottom and the door.
xi. Open the door and adjust the auto door bottom adjustment screw outward so that the seal contacts the threshold evenly and the door does not jamb upon closing.

vi. Fine Tuning

i. Close the door and play loud white noise (static) on the opposite side of the door.
ii. Using a stethoscope or just your ear and a cupped hand, listen around the perimeter of the door.
iii. If you notice a volume increase at any location, open the door and check the seal. You may need to adjust the jamb seal inward for better contact or bend the metal edge seal outward for better contact.