



# EXTERIOR ENTRYWAY INSTALLATION INSTRUCTIONS

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**IMPORTANT:** Read all instructions thoroughly before beginning the installation process. They are designed to accommodate most applications, however, existing conditions may require alterations to these instructions. If changes are necessary, they are to be made at the installer's discretion, for which he is solely responsible. Consult your local building code official (or other jurisdictional authority) regarding applicable building codes and regulations. Local building code requirements supersede recommended installation instructions. It is the responsibility of the owner, builder, or architect to use products which are in full compliance with applicable laws and building codes. For installation methods aside from those indicated in these instructions, consult an architectural engineer.

## GLOSSARY

- A **wall stud** is a vertical framing member in a building's wall construction. In entryway architecture, it is typically (but not always) referencing 2x4 or 2x6 lumber. Studs are broken down into the following specific terms: king, trimmer or jack, cripple, post or column.
- **Masonry** is the building of edifices from individual units bound together by mortar. Masonry materials include: brick, stone, stucco, concrete block, etc.
- A **door slab**, sometimes referred to as a "panel" (an individual component within a door slab), is the operating portion of an entryway that is often referenced by its specific design (Half-light door slab, 6-Panel door slab, Flush door slab, etc.)
- A **door jamb**, or simply **jamb** (also sometimes called a **doorpost**), is the member(s) that makes up the frame into which the door slab is installed and housed. The vertical members are typically referred to as "jamb legs" and the upper horizontal member as the "header jamb".
- A jamb **rabbet** is the recessed edge of a jamb piece that works as an integrated stop for the door slab. Jambs are typically "single-rabbeted" but may be "double-rabbeted" if accommodating a storm/screen door slab, as well.
- A **jamb kerf** is the channel within the rabbeted side of a jamb that is intended to accept some form of weatherstrip seal.
- A **mull post** is an entity installed between two jamb frames, often for additional structural integrity. Mull posts may be wood, steel, etc.

## PREPARATION

### 1: Recommended Tools for Installation

- Marking Utensil
- Tape Measure
- Hammer
- Pry Bar
- Utility Knife
- Wood Shims
- Framing Square
- Sealant Tube & Sealant Gun
- Foam or Fiberglass Insulation
- Brad Nails
- Heavy-gauge Finish Nails or
- Threaded Screws
- Screwdrivers, Power Drill and Bits (if using threaded screws)
- Countersink (if using manually-driven finish nails)
- Plumb-bob and Spirit or Box Level  
>48" level or greater recommended for doors up to 8/0;  
72" or greater recommended for doors larger than 8/0

**Additional Notes :** A multi-function laser level can be used in place of a plumb-bob/line, framing square, and spirit or box level.

### 2: Finish Sealing Your Door

- Providing the entryway has not been factory finished by Signature Door, it will need finish sealed as soon as possible upon receipt to prevent moisture damage. A proper finish will help to regulate moisture content by controlling the pace at which the product absorbs and releases said moisture content, which is vital to ensuring that the product is able to perform as intended.

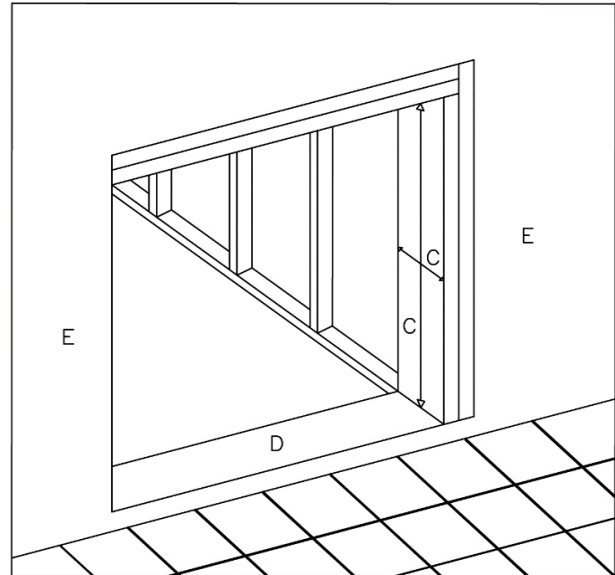
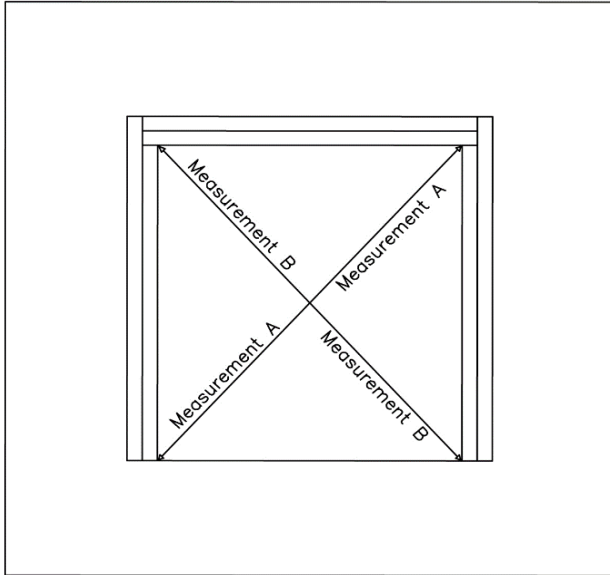
**Additional Notes :** (a) Factory Primed products are not yet properly sealed and will require application of a paint top coat. (b) Finish sealing prior to installation allows for better control over the individual components including, but not limited to, finish sealing any hardware preps (hinge routes, etc.). (c) Signature Door recommends that a professional wood finisher is contracted to properly finish the product.

### 3: Preparing the Opening

- For Inswing units, consider the sub-floor height in comparison to the entryway sill/threshold height, as well as, the height of the desired interior finished floor (carpet, tile, etc.). Determine whether these sizes will work cohesively, in that the door slab(s) will swing clear of the finished floor height when the entryway is installed. If necessary, make adjustments to ensure clearance.

**Additional Notes :** Do not alter the structural sub-floor without first consulting an architectural engineer.

- Verify that the opening is square (see LEFT diagram below). Measurements "A" and "B" should be equal. Maximum allowable deviation from square is 1/4".
- Verify that the opening is level and plumb on the sides, as well as, the header (see RIGHT Diagram - "C").
- Verify that the sub-floor is not crowned or sagged (see RIGHT Diagram - "D").
- Verify that the exterior face of the opening is on a single plane (see RIGHT Diagram - "E").



- Following the product manufacturer's installation instructions, install a sill pan for moisture diversion if applicable.
- Following the product manufacturer's installation instructions, apply flashing tape/building wrap to the opening and wall sheathing.

*Notice: Before proceeding, you must first confirm whether or not your entryway is a Hurricane-rated product. If the entryway is standard product with no hurricane ratings, you may proceed with these instructions as written. If it is a Hurricane-rated product, however, these remaining steps should be used as a GUIDE ONLY while always deferring to the details given and required by the product's relevant Florida Product Approval provided with your order.*

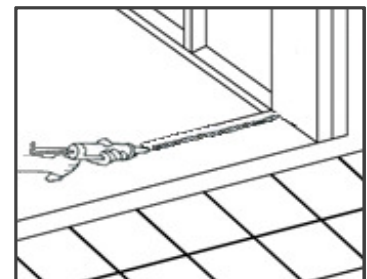
## INSTALLING THE ENTRYWAY

The instructions below assume stud wall installation. An architectural engineer should be consulted to ensure the opening has the appropriate post/column support and header/cripple support. If installing into masonry (or "brick") construction, appropriate fasteners will need to be utilized. *Always defer to local code requirements regarding appropriate edifice construction methods.*

### 1: Placing the Entryway within the Opening

#### SINGLE OR DOUBLE DOOR ENTRYWAYS

- Clear the entryway rough opening of any foreign materials or debris. Offset towards the interior of the opening, apply one [1] 1/4" to 1/2" line of silicone sealant along the full width of the subfloor or sill pan (see Diagram on RIGHT).
- Proceed to tilt the entryway into the opening. Slide as necessary until the unit is positioned as desired in relation to the exterior wall, sheathing, brick, etc. (exact location will vary depending on the inclusion or exclusion of brickmold casing, wall depth and construction, etc.).



- Using a plumb-bob or level, verify that the unit is plumb in relation to the exterior/interior of the building (not tilted toward one side).

## ENTRYWAYS WITH INOPERABLE SIDELIGHT(S)

● If your entryway includes inoperable/fixed sidelights that were not factory attached ("mulled") to the door frame, you will need to determine which method of attachment you would like to utilize:

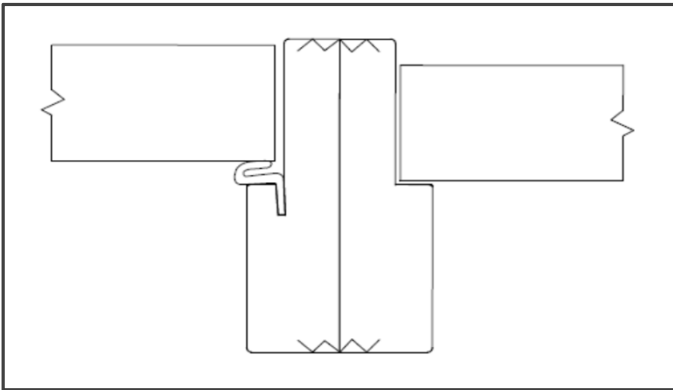
- » If the door jamb frame and sidelight jamb frame will be installed "back-to-back" (no structural mull post), use corrugated staples on the front face of the jamb legs (exterior and interior) per "Method 1" diagram below. Place the first two staples 1" - 2" from the top and bottom of the jamb leg(s) respectively. Space the intermittent staples no further than 6" - 10" for the remainder of the jamb leg(s).

**Additional Notes:** Attaching sidelights via "Method 2" may also be utilized by using shorter screws (see more info below).

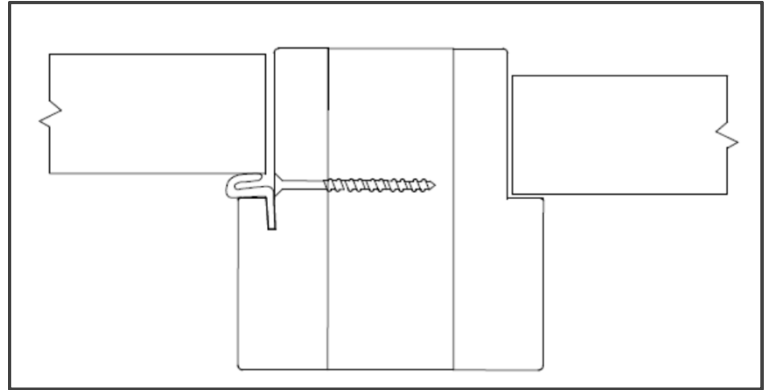
- » If utilizing a structural mull post between the door jamb frame and the sidelight jamb frame, drive threaded screws through the door jamb and into the mull post per "Method 2" diagram below. Screws should be placed in, at minimum, three locations or equal to the amount of hinges.

**Additional Notes:** Screw length should account for driving, at least, halfway through the mull post.

**Method 1**

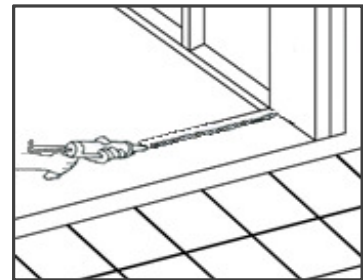


**Method 2**



● Clear the entryway rough opening of any foreign materials or debris. Offset towards the interior of the opening, apply one [1] 1/4" to 1/2" line of silicone sealant along the full width of the subfloor or sill pan (see Diagram on RIGHT).

● Proceed to tilt the entryway into the opening. Slide as necessary until the unit is positioned as desired in relation to the exterior wall, sheeting, brick, etc. (exact location will vary depending on the inclusion or exclusion of brickmold casing, wall depth and construction, etc.).



● Using a plumb-bob or level, verify that the unit is plumb in relation to the exterior/interior of the building (not tilted toward one side).

## 2: Spacing Verification/Shimming

● Insert shims at each corner between the jamb frame and wall. Insert additional/intermediate shims as necessary until the unit is square within the opening. At minimum, it is recommended to use shims behind each hinge leaf (for entryways with no sidelights). Additional shimming may be necessary in order to properly space and, ultimately, secure the unit.

**Additional Notes:** (a) A square unit within the opening will result in equal spacing between the door slab and the jamb frame on each side (left, right, and top). (b) For double door entryways, header shims should be located, at minimum, above the center of each door slab and directly above the astragal, as well.

● For entryways with sidelights included, shim as necessary depending on the overall width and height of the entryway.

**Additional Notes:** It is recommended to place temporary header shims directly above location(s) where the door jamb frame meets the sidelight jamb frame, until fasteners are placed on either side of the shimmed location (see Step 4). After which, they may be removed.

## 3: Operational Inspection

● Open all operational slabs to ensure they swing freely within jamb frame. If the door slabs rub, or bind, in any way, make the appropriate adjustments in accordance to Step 2 above.

● If your entryway was equipped with an adjustable riser on the sill/threshold, be sure to adjust as necessary to make sure there is no air flow beneath the door. Consequently, be sure that there is enough room for the door bottom sweep to suppress up to no more than its minimum thickness, otherwise, it may prematurely deteriorate.

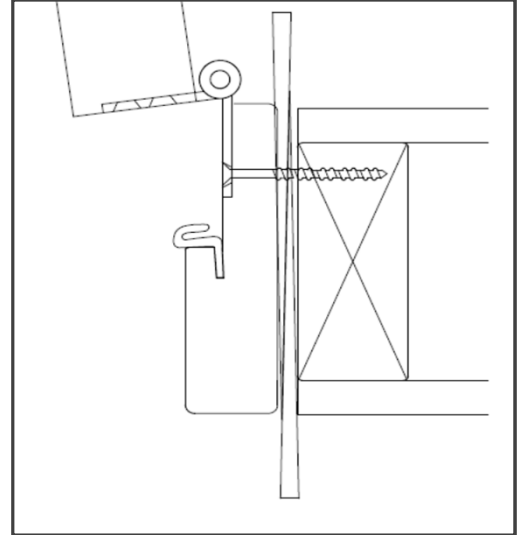
- Verify that the door slab does not swing away from or towards the jamb frame apart from experiencing an outside force (wind, human force, etc.) If the door slab appears to swing on its own, this is likely a sign that the unit is not level/plumb (see Step 1. Placing the Entryway within the Opening and Step 2: Spacing Verification/Shimming).
- Test thoroughly all included hardware (locksets, flushbolts, etc.) to ensure smooth operability.

## 4A: Permanently Securing the Entryway within the Opening

### SINGLE OR DOUBLE DOOR ENTRYWAYS

• Start by driving threaded screws through each hinge/jamb (it is recommended that, at least, one or two of the hinge screws be 2" - 3" in length in order to drive through the shims and into the building - see diagram on RIGHT). Continually check spacing to ensure that it is remaining even and consistent per the dry-fit (Step 2), as you continue to drive threaded screws or finish nails through or near each shimmed location until the entryway is secured. If necessary, further secure the unit in areas where no shims are located by using brad nails, screws, or other. For entryways with an abnormally deep wall, it may be necessary to place nails or screws through the non-rabbeted side of the jamb, as well.

**Additional Notes:** (a) If utilizing manually-driven finish nails rather than nail gun driven, drive nails to within an 1/8" of flush and then finish driving using an appropriately sized nail set and countersink. (b) Driving nails/screws behind the weatherstrip on the rabbeted side of the jamb frame will negate the need for filler or screws plugs. (c) Stainless Steel screws/fasteners are recommended for high-moisture and/or marine (salty) environments.



### ENTRYWAYS WITH INOPERABLE SIDELIGHT(S)

- Proceed to drive threaded screws or finish nails (minimum 2 1/2" length recommended) on either side of the shims located directly above the area where the door jamb frame meets the sidelight jamb frame(s).
- Drive additional threaded screws or finish nails through or near each shimmed location and into the building until the entryway is secure. Continually check spacing to ensure that it is remaining even and consistent per the dry-fit (Step 2). For entryways with an abnormally deep wall, it may be necessary to place nails or screws through the non-rabbeted side of the jamb, as well.

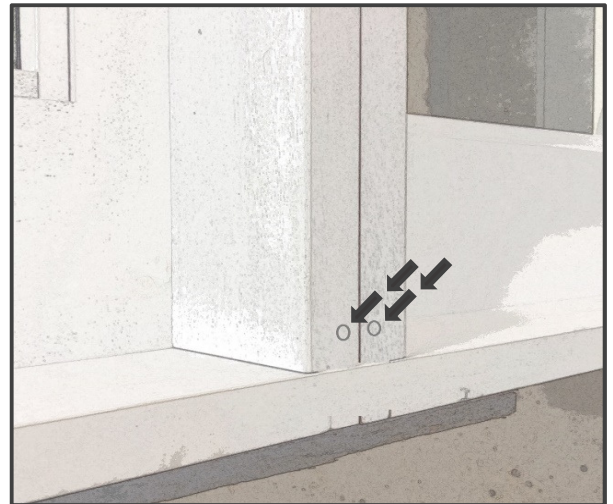
**Additional Notes:** (a) If utilizing manually-driven finish nails rather than nail gun driven, drive nails to within an 1/8" of flush and then finish driving using an appropriately sized nail set and countersink. (b) Driving nails/screws behind the weatherstrip on the rabbeted side of the jamb frame will negate the need for filler or screws plugs. (c) Stainless Steel screws/fasteners are recommended for high-moisture and/or marine (salty) environments.

- For additional securing or for entryways installed on top of a wood subfloor, proceed to drive threaded screws at an angle through the front edge of each door and sidelight jamb leg and into the sub-floor per the diagram on RIGHT (predrilling recommended; concrete sub-floors will require masonry screws/tapcons).

**Additional Notes:** It is recommended to perform this procedure on the non-rabbeted side of the jamb unit (i.e.: from the interior on out-swinging units, and from the exterior on in-swinging units).

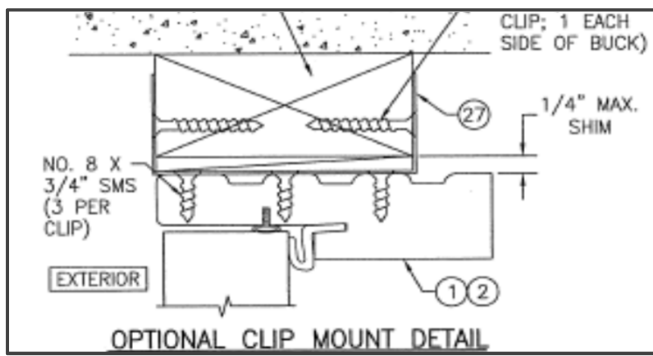
### ENTRYWAYS WITH TRANSOM(S)

- Transom units are attached (multi-piece transom windows) and installed in a similar manner to inoperable sidelight units. Shimmed/fastener-secured locations are recommended to be spaced roughly 12" - 16" apart on each side of the unit (top, bottom, and sides).



## 4B: Permanently Securing the Unit (Clip Mounts)

- Clip mounting is a method known to be used in the state of Florida on Hurricane-Rated applications with sidelights and/or transoms to avoid exposed screw heads that will be covered with filler, screw plugs, or installation covers. Using a steel plate/tie, attach to the back of the jamb frame in shimmed locations using threaded screws. Proceed to wrap the steel around the shims/wall stud and attach to the edge of the wall stud using additional threaded screws (see diagram on Page 5).



The drawing on the LEFT is found in a Signature Door FL Hurricane Product Approval depicting a clip mount detail. The circled "27" is pointing to the steel plate/tie and indicates an "18 Ga. Galvanized Steel" per the Approval. Though required for Hurricane-Rated units, discretion can be taken regarding the exact steel plate/tie gauge when clip-mounting a standard unit with no hurricane ratings required.

## FINISHING TOUCHES

- Verify that at least two of the four screws utilized in the door hinges (specifically the leaf that attaches to the jamb frame) are 2" - 3" in length. Use discretion on length based on the amount of material available (for example, ensure that an entryway with a sidelight does not have a screw length that could fracture the sidelight glass by exceeding the stile width).
- At the sill threshold, remove the weatherstrip from the jamb kerf far enough up the jamb to seal the gap where the jamb meets the sill threshold from interior to exterior. Reinsert the weatherstrip seal in the jamb kerf.
- Install the jamb corner pad ("wedge") at the bottom corners of the jamb with the thicker portion tucked slightly behind the weatherstrip. Corner pads are included with each Signature Door unit (one pair; left and right corner).
- For Double Door units, apply the factory-provided astragal pad to the bottom of the astragal.
- For units with Sidelight(s) or Transom(s), apply the provided mull or jamb-seam covers using brad nails or finish nails.
- Fill any exposed indentations created in areas where a screw or nail was driven through the unit and reseal in accordance with the specifications of the stain or paint manufacturer/vendor (Signature factory finished units will include a 1oz stain and topcoat touch-up kit).
- Apply fiberglass/foam insulation between the jamb and the opening before installing any desired Interior Casing/Trim.
- Install and seal properly any j-channel, siding, flashing, etc. that is desired to be used in combination with the unit in the opening. Be sure to always consult the recommended installation procedures for each individual product.

**Thank you for choosing Signature Door Inc. and supporting U.S.A. manufacturing! Be sure to contact our Customer Service Team at (800) 741-2265 or visit our website at [www.signaturoor.com](http://www.signaturoor.com) regarding warranty, handling care, and maintenance information.**