



# EXTERIOR ENTRYWAY INSTALLATION INSTRUCTIONS

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Altoona, PA 16602  
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Version: V11.01.23

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 installers' discretion, for which they are 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 a structural engineer. Thank you for choosing Signature Door and supporting U.S.A. manufacturing!

## GLOSSARY

- A **wall stud** is a framing component in wall construction. In entryway architecture, it is typically (but not always) referencing 2x4 or 2x6 lumber. Studs are generally broken down into the following specific terms: king, trimmer (jack), cripple, header, and post (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", 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 primary component used to make the frame into which the door slab is installed / housed. The vertical members are typically referred to as "jamb legs" and the upper, horizontal member as the "header"
- 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 and/or screen door slab, as well.
- A **spread mull** (may also be known as a **mull post**) is an entity installed between two jamb frames, often for additional structural integrity. Spread mulls 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 & Nail Gun
- Threaded Screws of various lengths
- Screwdrivers, Power Drill and Bits
- Plumb-bob and Spirit Level (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 self-leveling laser tool can be used in place of a plumb-bob/line, framing square, and spirit or box levels.

### 2: Finish Sealing the Product

- 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.
- Proper finish sealing includes finishing areas behind any hardware, such as, locks, hinges, or other.

**Additional Notes:** (1) Factory Primed wood products are not yet properly sealed and will require application of a paint top coat. (2) Signature Door recommends that a professional wood finisher is contracted to properly finish the product.

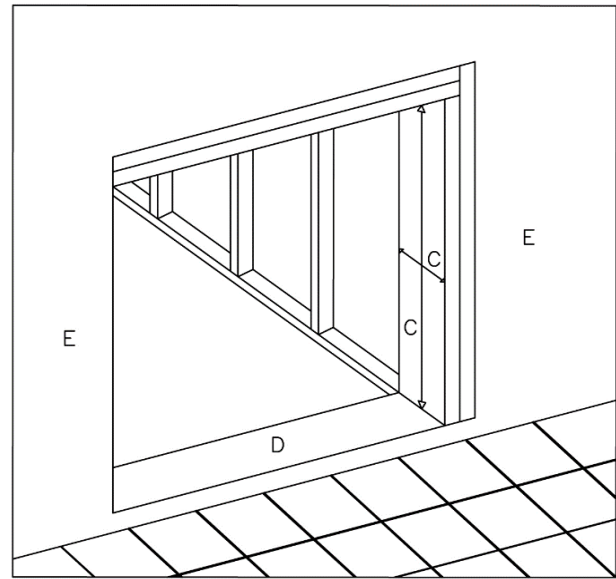
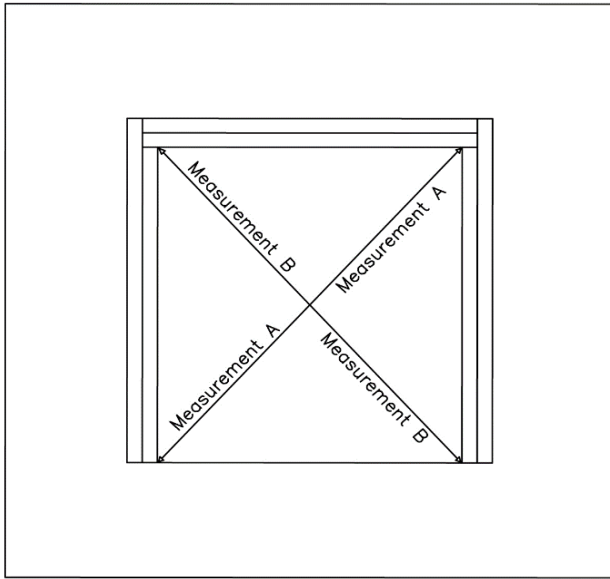
### 3: Preparing the Opening

- 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 sub-floor without first consulting a structural engineer.

- Verify that the opening is square (see LEFT diagram on Page 2). 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 letter "C" on Page 2).

- Verify that the sub-floor is not crowned or sagged (see RIGHT diagram letter "D" below).
- Verify that the exterior face of the opening is on a single plane (see RIGHT diagram letter "E" below).



- 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.

**Before proceeding, 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 also provided with your order.**

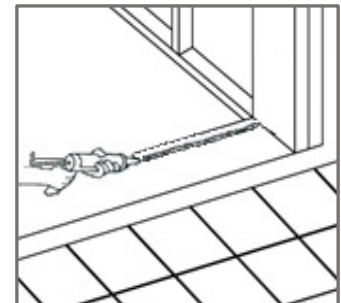
## INSTALLING THE ENTRYWAY

The instructions below assume stud wall installation. A structural engineer should be consulted to ensure the opening has the appropriate post/column support and header/cripple support. If installing into masonry construction, appropriate fasteners will need to be utilized. Always defer to local code requirements regarding appropriate edifice construction methods. Stainless Steel fasteners are recommended for high-moisture and/or marine (salty) environments.

### 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 (sans door slabs) 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 exterior casing, wall depth and construction, etc.).
- Using a plumb-bob or laser level, verify that the frame is plumb in relation to the exterior/interior of the building (not tilted toward one side).



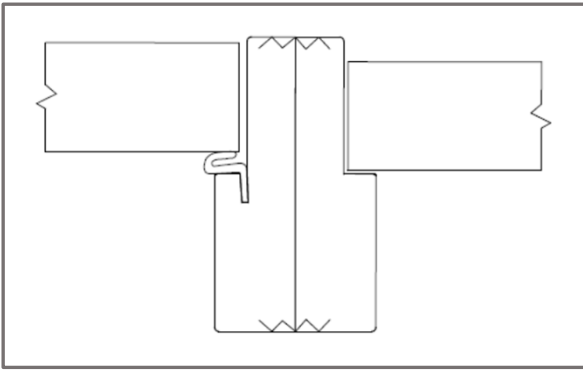
#### ENTRYWAYS WITH INOPERABLE SIDELIGHT(S)

- 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 spread mull), 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).

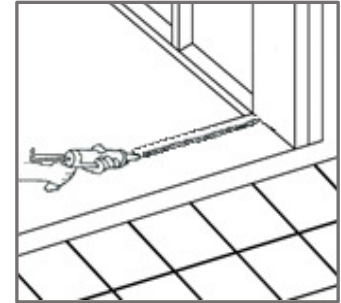
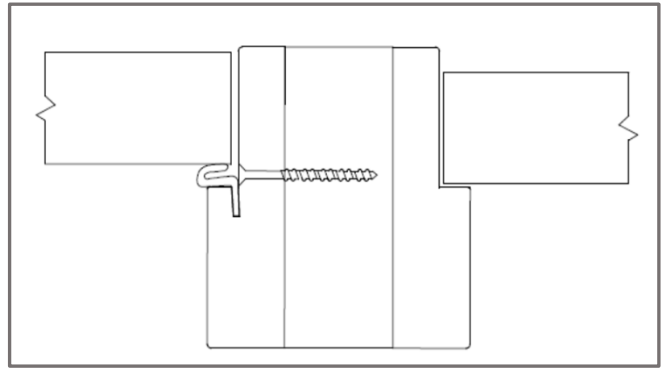
- » If utilizing a structural spreadmull between the door jamb frame and the sidelight jamb frame, drive threaded screws through the door jamb and into the spreadmull per "Method 2" diagram below. Screws should be placed in, at minimum, three locations or equal to the amount of hinges. Screw length should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

## Method 1



- 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 (sans door slabs) 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 exterior casing, wall depth and construction, etc.).
- Using a plumb-bob or laser level, verify that the frame is plumb in relation to the exterior/interior of the building (not tilted toward one side).

## Method 2



## 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.

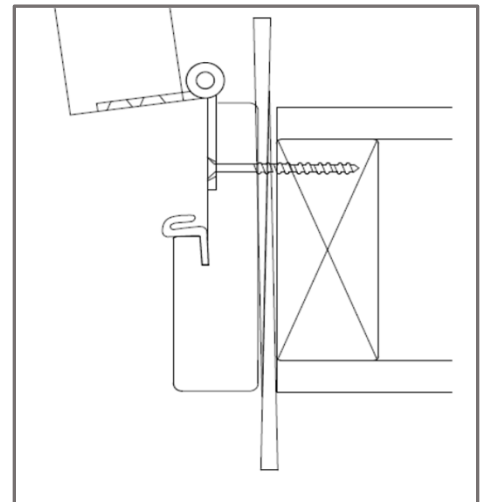
**Additional Notes :** It is recommended to place temporary header shims directly above location(s) where the door jamb frame meets the sidelight jamb frame, until fasteners are placed on either side of the shimmed location (Step 3 below). After which, they may be removed.

## 3A: Permanently Securing the Entryway within the Opening

### SINGLE OR DOUBLE DOOR ENTRYWAYS

- Begin by driving threaded screws through each jamb behind the weatherstrip at shimmed locations. Continually check to ensure that it is remaining square and plumb per the dry-fit as you continue to drive threaded screws 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 fasteners through the non-rabbeted side of the jamb, as well. It is recommended that, at least, one of the top hinge screws be 2" - 3" in length in order to drive through the shims and into the building - see diagram on RIGHT). For entryways in excess of 6/8 in height, the hinge second from top is also recommended to have, at least, one 2" - 3" screw, as well. For entryways with sill/thresholds, particularly solid wood in nature, it is recommended to drive threaded screws through the sill/threshold and into the subfloor.

**Additional Notes:** Stainless Steel screws/fasteners are recommended for high-moisture and/or marine (salty) environments.



### ENTRYWAYS WITH INOPERABLE SIDELIGHT(S)

- Begin by driving 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 screws through or near each shimmed location and into the building until the entryway is secure. Continually check to ensure that it is remaining square and plumb per the dry-fit as you continue to drive screws 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 sills, particularly solid wood in nature, it is recommended to drive screws through the sill and into the subfloor.

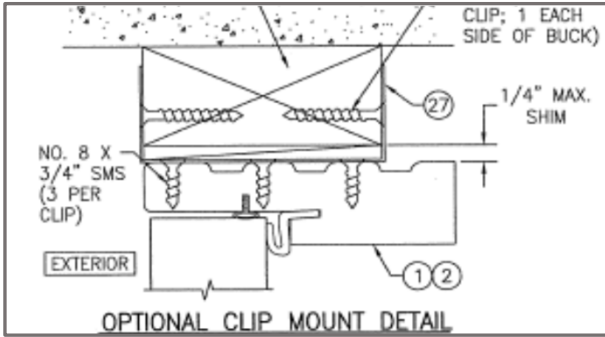
**Additional Notes:** Stainless Steel screws/fasteners are recommended for high-moisture and/or marine (salty) environments.

## ENTRYWAYS WITH TRANSOM(S)

- Transom units are attached to one another (in the case of multi-piece transom units) and installed in a similar manner to inoperable sidelight units (see the "ENTRYWAYS WITH INOPERABLE SIDELIGHT(S)" sections above for more info). Shimmed/fastener-secured locations are recommended to be spaced roughly 12" - 16" apart on each side of the transom unit (top, bottom, and sides).

### **3B: 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 screw 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 below on LEFT).



The diagram shown 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 which indicates "18 Gauge Galvanized Steel" on 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.

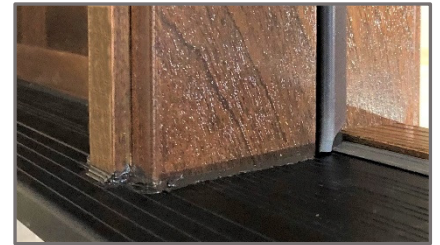
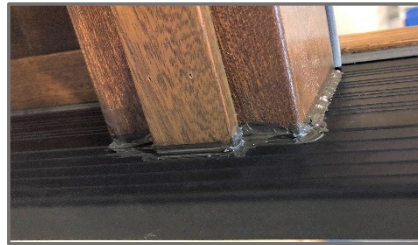
### **4: Operational Inspection**

- Install 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 Steps 2 and 3 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, etc.) If the door slab appears to swing on its own, this is likely a sign that the unit is not level/plumb. Make the appropriate adjustments in accordance to Steps 2 and 3 above.
- Test thoroughly all included hardware (locksets, flushbolts, etc.) to ensure smooth operability.

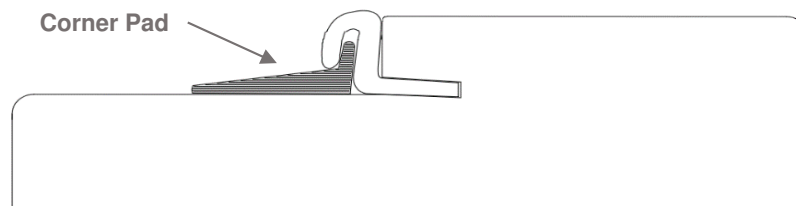
## **FINISHING TOUCHES**

- Apply fiberglass/foam insulation between the jamb and the rough opening / building edifice.
- For applicable units, apply any mull covers, casing, or other trim using brad nails or finish nails.

- Using a silicone-based sealant, seal any areas where trim, jamb legs, mull covers, sidelight slabs, or other meet the sill/threshold (if applicable). Entryways factory finished by Signature Door will be sealed prior to shipment (see example pictures on RIGHT).



- 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 with an astragal, apply the factory-provided astragal pad to the bottom of the astragal.
- Fill any exposed indentations created in areas where a screw or nail was driven through using screw plugs, wax pens, wood filler, or other. Screw plugs or covers available upon request from Signature Door.