



## Exterior Entryway Installation Instructions

» Though the instructions below assume a wood door unit, they can be used for Signature Fiberglass Doors, as well.

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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 a structural engineer.

## Preparation

### 1: Recommended Tools for Installation

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

*Notice: 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 door unit 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 that the product absorbs and releases said moisture content which will help to ensure that the product is able to perform as intended. *NOTE: (A) Door units that are factory primed are not yet properly sealed and will require application of a paint top coat. (B) Signature Door recommends that a professional wood finisher is contracted to properly finish the product.*

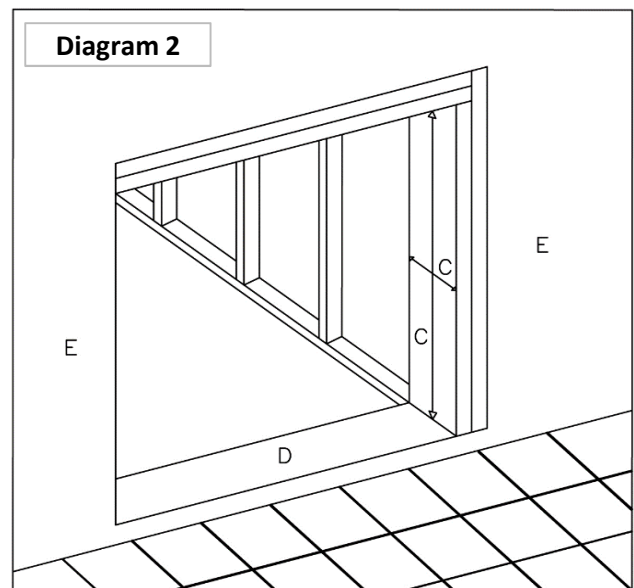
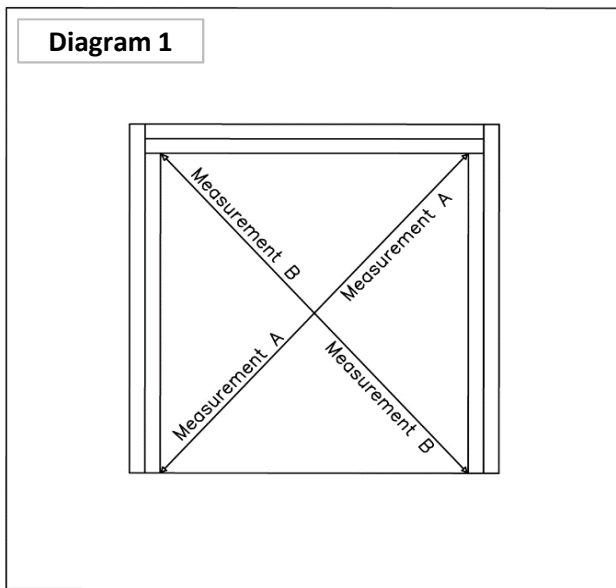
**Helpful Tip:** Finish sealing prior to installation allows for better control over the individual components including, but not limited to, finish sealing any hardware preps (hinge routes, etc.).

### 3: Preparing the Opening

• For Inswing units, consider the sub-floor height in comparison to the door unit sill (or threshold) height, as well as, the height of the intended 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 unit is installed directly on top of the current sub-floor. If necessary, make height adjustments underneath the sill (or threshold) to ensure clearance. *Notice: Do not alter the structural sub-floor without first consulting a structural engineer.*

- Verify that the opening is square (see Diagram 1). Measurements "A" and "B" should be equal. Maximum allowable deviation from square is 1/4".
- Verify the opening is level and plumb on the sides, as well as, the header (see Diagram 2 - C)
- Verify the sub-floor is not crowned or sagged (see Diagram 2 - D)
- Verify that the exterior face of the opening is on a single plane (see Diagram 2 - E)

See Diagrams on Page 2



- Following the product installation instructions, install a sill pan for moisture diversion if applicable. *NOTE: The use of a sill pan assumes a step-down opening (depicted above in Diagram 2)*
- Following the product installation instructions, apply flashing tape to the opening and sheathing where applicable.

*Notice: At this juncture, you must first confirm whether or not your unit is a Non-Rated unit or Rated unit (Design Pressure-Rated or Hurricane-Impact Rated Unit). If the unit is a Non-Rated unit, you may proceed with these instructions as written. If it is a Rated Unit, however, these remaining steps should be used as a GUIDE ONLY while always deferring to the details given and required by the unit's specific Product Approval (provided with the unit).*

## Installing the Unit

### Stud (or "Buck") Installation vs. Masonry (or "Brick") Installation

- The instructions below assume stud, or buck, 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, or brick, construction, appropriate fasteners will need to be utilized. *NOTE: Always defer to local code requirements regarding appropriate edifice construction methods.*

#### 1: Placing the Door Unit within the Opening

- Clear the sub-floor or sill pan (if applicable) of any foreign materials or debris. Offset towards the interior of the opening, apply one [1] 1/4" to 1/2" line of caulk sealant along the full width of the subfloor or sill pan.
- Proceed to tilt the unit 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).

#### 2: Spacing Verification/Shimming

- From the interior side of the unit, 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. It is recommended to use shims behind each hinge leaf, at minimum (units without sidelights). Additional shimming may be necessary in order to properly space and, ultimately, secure the unit. *NOTE: A square unit within the opening will result in equal spacing between the door slab and the jambs on each side (left, right, and top).*

#### **Additional notes on shimming**

- For double door units, header shims should be located, at minimum, above the center of each door slab and directly above the astragal, as well. *NOTE: A square unit should also result in consistent spacing between the active door slab and astragal on double door units.*
- For units with sidelights included, shim as necessary depending on the width and height. *NOTE: Place temporary header shims directly above the mull (or back to back jambs legs) until the unit is permanently fastened and then remove.*

### 3: Operational Inspection

- Open all operational slabs to ensure they swing freely within and without the jamb unit. If the door slabs rub, or bind, in any way, make the appropriate adjustments in accordance to Step 2.
- If your unit 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 slab/door sweep. Consequently, be sure that there is enough room for the sweep to suppress up to no more than its minimal thickness or it may prematurely deteriorate.
- Verify that the door(s) does not swing away from or towards the unit apart from experiencing an outside force (wind, human force, etc.) If the door appears to swing on its own, this is likely a sign that the unit is not level/plumb (see Step 1).
- Be sure to check all hardware (locksets, flushbolts, etc.) to ensure smooth operability

### 4A: Permanently Securing the Unit (Threaded Screws/ Finish Nails)

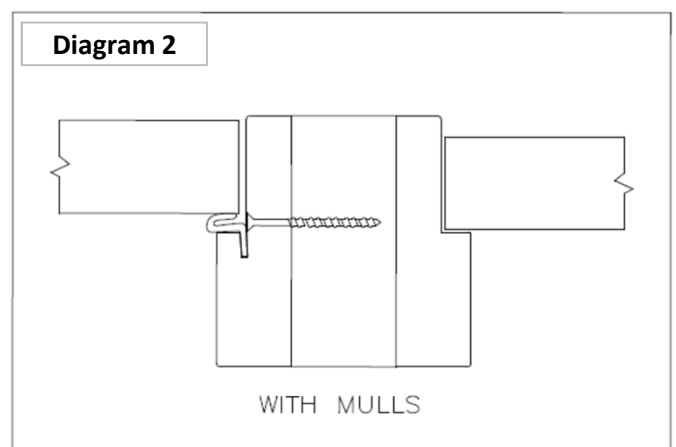
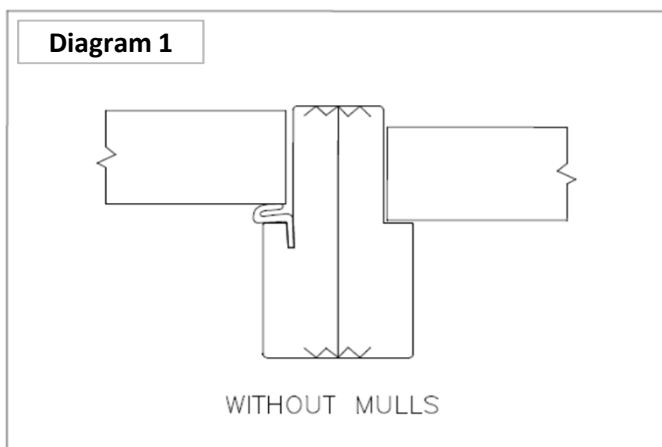
#### Single or Double Door Units

- For single or double door units, start by driving threaded screws through each hinge/jamb/shim (it is recommended that at least 1 or 2 of the hinge screws be 2-3" in length in order to drive through the shims and into the building). 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 unit is secured. Brad nails or finish nails can be used to further secure the unit in areas where no shims are located, if needed, and on the face of the non-rabbeted side of the jamb if working with an abnormally deep wall.

**HELPFUL TIPS:** (A) If using finish nails and manually driving 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 will negate the need for filler or screws/plugs. (C) Stainless Steel screws/fasteners are recommended for high-moisture and/or marine (salty) environments.

#### Single or Double Door Units with Inoperable Sidelight(s)

- For units with sidelights that were not factory attached/mulled, proceed to drive threaded screws at an angle through the front edge of each door jamb/sidelight jamb and into the sub-floor (predrilling recommended; concrete sub-floors will require masonry screws/tapcons). *NOTE: It is recommended to perform this procedure on the non-rabbeted side of the jamb unit (ie: from the interior on out-swinging units, and from the exterior on in-swinging units).*
- For units without mulls (door and sidelight jambs are back-to-back), use corrugated staples on the front face of the jambs to attach (or refer to Diagram 2 and use shorter screws if staples are not available). For units with structural mulls included, drive threaded screws (length should account for driving at least half-way through the mull horizontally) through the door jamb and into the mull in at least three areas (or equal to the amount of hinges at minimum).



- Proceed to drive threaded screws or finish nails (minimum 2 1/2" length recommended), through or near each shimmed location and into the building until the unit is secure. Continually check spacing to ensure that it is remaining even and consistent per the dry-fit (Step 2). Brad nails or finish nails can be used to further secure the unit in areas where no shims are located, if needed, and on the face of the non-rabbeted side of the jamb if working with an abnormally deep wall.

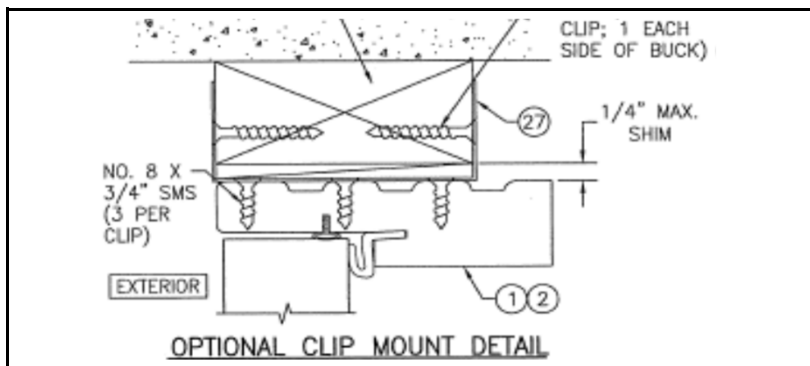
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#### Units with Transom(s)

- Transoms units are installed in a similar manner to inoperable sidelight units. Shimmed/fastener-secured locations are recommended to be spaced roughly 16" apart on each side of the unit.

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

- Clip mounting is a method known to be used in Florida on Hurricane-Rated applications with Sidelights and Transoms to avoid exposed screw heads that will be covered with filler/screw plugs. Using a steel plate/tie, attach to the back of the jamb using threaded screws. Proceed to wrap the steel around the shims/stud and attach to the edge of the stud (or "buck") using additional threaded screws (see diagram below).



*This is a drawing detail taken from the Signature Florida 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 plate/tie used when clip-mounting a Non-Rated unit.*

## Completing Installation ("Finishing Touches")

- 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).
- Using a utility knife, score each side of the excess wood shims and snap-off flush with the face edge of the jambs.
- 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.signaturedoor.com](http://www.signaturedoor.com) regarding warranty, handling care, and maintenance information.**

## Glossary of Terms

- A **wall stud** is a vertical framing member in a building's wall construction. In door opening 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 a door unit that is often referenced by its specific design (Full-Light, 6-Panel, Flush, 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.