



Thank you for selecting JELD-WEN products. Attached are JELD-WEN's recommended installation instructions for Custom Wood and Fiberglass Exterior Folding Doors. Read these instructions thoroughly before beginning. They are designed to work in most existing applications, however; existing conditions may require changes to these instructions. If changes are needed, they are made at the installer's risk. For installations other than indicated in these instructions, contact a building professional. To adequately protect your door, please refer to "Appropriate Protection for Exterior Doors" for information on protection requirements at [www.jeld-wen.com](http://www.jeld-wen.com). Areas such as Florida and the Texas TDI region have different anchoring requirements based on product certification. For information on specific products, visit [www.floridabuilding.org](http://www.floridabuilding.org) or [www.tdi.texas.gov](http://www.tdi.texas.gov) and follow the anchoring schedule given in the drawings for the product instead of the anchoring schedule in this document.

Newer construction methods have led to an increase in air and water tightness in buildings. This frequently leads to negative air pressure inside the house, which can draw water through very small openings. Our installation method seals the door to the weather barrier (typically building wrap) and uses a sill pan to capture and drain incidental storm water from under the door.

### IMPORTANT INFORMATION AND GLOSSARY

Not all exterior door types may be installed into every wall condition in all areas. See our Appropriate Protection document for overhang requirements at [www.jeld-wen.com](http://www.jeld-wen.com). Consult your local building code official (or Authority having Jurisdiction) for applicable building codes and regulations. Local building code requirements supersede recommended installation instructions.

**Please Note!** Any door installation such that the sill is higher than 35 feet above ground level or into a wall condition not specifically addressed in these instructions must be designed by an architect or structural engineer. We recommend that all non pre-finished wood or fiberglass components be finished with an appropriate paint or stain prior to installation. See our Finishing document for details at [www.jeld-wen.com](http://www.jeld-wen.com). Failure to properly finish or install square, level and plumb and on a flat surface (without peak and valleys) could result in denial of warranty claims for operational or performance problems.

**Note to Installer:** Provide a copy of these instructions to the building owner. By installing this product, you acknowledge the terms and conditions of the limited warranty as part of the terms of the sale.

#### GLOSSARY

##### Backer Rod (backing material)

A material (e.g. foam rod), placed into a joint primarily to control the depth of the sealant.

##### Buck

A wood framework attached to the masonry inside a window or a door rough opening.

##### Pilot Hole

A drilled hole that is no larger than the body of the screw (minus the threads).

##### Rough Opening

The framed opening in a wall where a door is to be installed.

##### Shiplap

The layering method in which each layer overlaps the layer below it so that water runs down the outside.

##### Sill Pan

A flashing component installed in the sill of the rough opening underneath the door. Sill pans have upturned walls along the interior edge and at both ends, creating a three-sided box. This component serves as a collection device to drain incidental water to the exterior of the building and should be properly sealed to the opening. The best sill pan design has a positive slope to the exterior and offers continuous support to the door's sill.

Please allow sufficient time to properly prepare the rough opening, install the door, and ensure its proper operation.

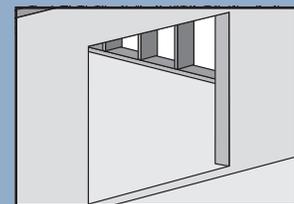
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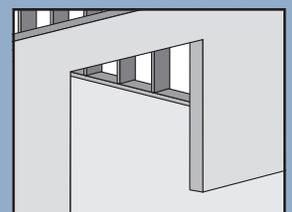
#### LANDINGS

These instructions cover two door sill conditions: the **step-down landing** and the **continuous slab landing**. The installation methods vary slightly between landing types.

##### Step-Down Landing



##### Continuous Slab Landing

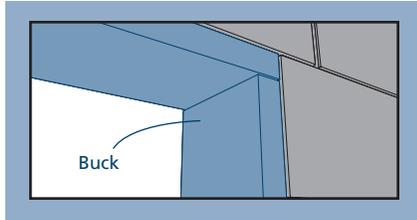


## ROUGH OPENINGS

This installation guide specifically addresses masonry/block wall, sheathed wall and open-stud construction.

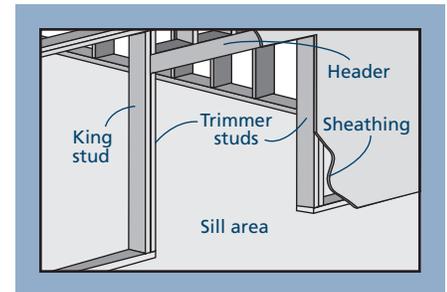
### MASONRY/BLOCK WALL CONSTRUCTION

This installation assumes that a building professional has already properly fastened and sealed a framework of studs (often called a buck) to the concrete/masonry wall.



### FULLY SHEATHED WALL CONSTRUCTION

The wall framing is covered by sheathing and the door will be mounted inside of the rough opening. This installation assumes building wrap is properly installed prior to installation.



## SAFETY AND HANDLING

### SAFETY

- Read and fully understand ALL manufacturer's instructions before beginning. Failure to follow proper installation and finishing instructions may result in the denial of warranty claims for operational performance problems.
- Do not work alone. Two or more people are required. Use safe lifting techniques.
- Use caution when handling glass. Broken or cracked glass can cause serious injury.
- Wear protective gear (e.g. safety glasses, gloves, ear protection, etc.).
- Operate hand/power tools safely and follow manufacturer's operating instructions.
- Use caution when working at elevated heights.
- If disturbing existing paint, take proper precautions if lead paint is suspected (commonly used before 1979). Your regional EPA ([www.epa.gov/lead](http://www.epa.gov/lead)) or Consumer Product Safety Commission offices provide information regarding regulations and lead protection.

- **WARNING:** Drilling, sawing, sanding or machining wood products generates wood dust, a substance known to the State of California to cause cancer. Use a respirator or other safeguards to avoid inhaling wood dust.

### MATERIALS AND DOOR HANDLING

- Heed material manufacturer's handling and application instructions.
- Protect adhesive surfaces from dirt, moisture, direct sunlight and folding over onto themselves.
- Handle in vertical position; do not drag on floor.
- Do not put stress on joints, corners or frames.
- Store door in dry, well-ventilated area in vertical, leaning position to allow air circulation; do not stack horizontally.
- Protect from exposure to direct sunlight during storage.
- Install only into vertical walls and when conditions and sheathing are dry.

**IF INJURY OCCURS, IMMEDIATELY SEEK MEDICAL ATTENTION!**

## MATERIALS AND TOOLS

### PROVIDED MATERIALS

- #10 x 2½" corrosion resistant flat head screws for frame assembly.
- #12 x 3" flat head installation screws for track assembly. These must have a minimum 2" embedment into solid header material. If these screws are not long enough, use longer screws.
- #9 x 1½" flat head screws to fasten hinges to panels.

### NEEDED MATERIALS

**Note!** JELD-WEN exterior window and door products should be installed in accordance with JELD-WEN's recommended installation and flashing directions, which are shipped with the products or can be found on our website: [www.jeld-wen.com](http://www.jeld-wen.com). Note that alternative installation methods and flashing systems may be utilized at the installer's or owner's discretion and, in such situations the installation should be done in accordance with the flashing manufacturer's instructions. Follow all material manufacturer's instructions for proper use and compatibility. When using flashing, spray adhesive/primer, sealant and foam products, we recommend using the same manufacturer and verifying compatibility. It is the End User's responsibility to determine if dissimilar materials are compatible to the substrates in the application.

- Non-compressible or non-water degradable shims.
- Sill pan: It is best practice to use a pre-formed, rigid, positively sloped, pvc pan that provides continuous support. We recommend using SureSill™ Sloped Sill Pan™, manufactured by SureSill™, Ltd. An alternative would be a non-sloped pre-formed sill pan or one that can be fabricated on site from metal or vinyl sheet material with the proper tools.

- Sealant: We recommend OSI® QUAD® Max Sealant or equivalent. This can be used in any application and can be painted or ordered in a color matched product, if desired.
- Polyurethane low expansion Window and Door foam: We recommend OSI® QUAD® Foam or equivalent.
- Drip cap if required because of door location and exposure. Doors with an adequate overhang (see our Appropriate Protection document at [www.jeld-wen.com](http://www.jeld-wen.com)) may not need a drip cap.

**For installations into a Buck:**

- Liquid applied flashing (Protecto Wrap LWM 200 or equivalent).

**For installations into a stud-framed wall:**

- 4", 6", or 9" (as required by local code and window configuration) wide self-adhered flashing: We recommend OSI® Butyl Flash Tape or equivalent.

**Note!** Follow all material manufacturer's instructions for proper use and compatibility.

### NEEDED TOOLS

- Cutting shears (sill pan)
- Tape measure
- Utility knife
- Level (3' and 6' recommended)
- J-roller
- Caulking gun
- Drill with bits and a long Phillips driver
- Denatured alcohol (for installing clad astragal covers)
- Plumb bob (for U-Channel sills only)

# 1 REMOVE PACKAGING AND INSPECT DOOR

## REMOVE PACKAGING

Remove shipping materials such as corner covers, shipping blocks or pads.

## INSPECT DOOR

- Cosmetic damage.

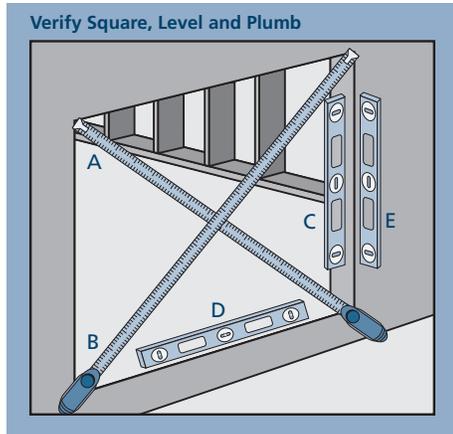
- Correct product (size, color, grid pattern, handing, glazing, energy-efficiency requirements, etc.).

If any of the above conditions represent a concern, or if you expect environmental conditions to exceed the door's performance rating, do not install the door. Contact your dealer or distributor for recommendations.

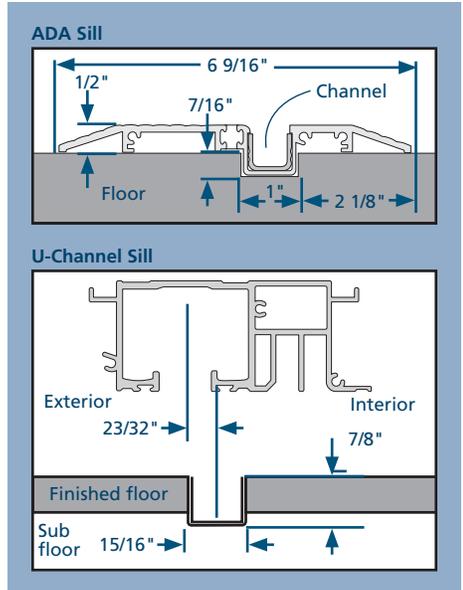
# 2 INSPECT ROUGH OPENING

**Note!** The most important criteria for a successful job are a square opening, a properly engineered header (evaluated and structurally designed to carry the combined weight of all the panels) and a clean track.

- We recommend that the head be installed with a slight bow upward (typically 1/8" at the center of the opening) to allow for the door's weight pulling down. The frame should be checked for square and twist.
- Verify the width and height of the door are each 1/2"-3/4" smaller than the rough opening width/height.
- Verify the rough opening is square. The (A) and (B) measurements should be the same. Maximum allowable deviation from square is 1/4".
- Verify the rough opening is plumb and level (C, E and D). The maximum allowable deviation is 1/16" for every 2' of rough opening (not to exceed 1/8").
- The rough opening sill must not be crowned or sagged (D) and be level or sloped (positive slope) to the exterior.
- The exterior face of the rough opening must be in a single plane (E) with less than 1/8" twist from corner to corner.



- If using an ADA sill, a recess will need to be available in the rough opening sill for the channel to sit in and allow the sill legs to sit flat on the rough opening.
- If using a U-Channel sill, fashion the recess using the dimensions shown. Position the head track in place of final installation and use a plumb bob to find the exact location of the sill recess. Hang the plumb bob from the center of the roller track. The center of the recess will be 23/32" from the plumb line towards the interior.



## FOR RETROFIT INSTALLATIONS

After removing the old door, remove sufficient cladding (siding, stucco, etc.) to expose enough intact building wrap to properly seal the door system to the opening. If damaged, apply new building wrap in shiplap manner. Verify the rough opening framing is structurally sound. Contact your local waste management entities for proper disposal or recycling of products being removed.

# 3 INSTALL SILL PAN

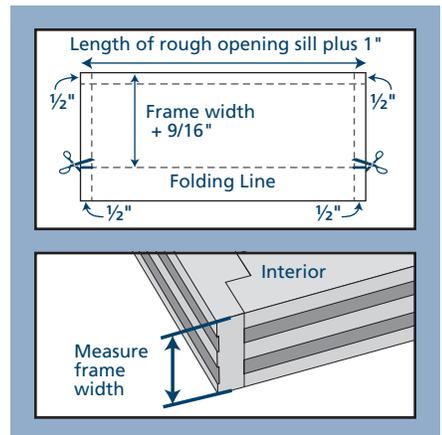
**Note!** Sill pans are not designed to be used with ADA or U-Channel type sills. Weather-proofing these types of sills is the responsibility of the installer. An adequate overhang and a positive slope are recommend with these sill types.

The sill can be prepared using one of two methods: We recommend SureSill™ Sloped Sill Pan™ available from SureSill at [www.suresill.com](http://www.suresill.com), building supply stores, and some manufacturing locations. As an alternative, a sill pan can be fabricated on site, by following the instructions below. If installing a SureSill™ sill pan, follow SureSill's instructions for installation and skip to section 5 "PREPARE STUD-FRAMED WALL".

## JOB SITE FABRICATED SILL PAN

1. Cut a piece of sheet material to the length shown.
2. Lightly crease folding lines 1/2" in from the two short sides and one long side.
3. Measure the width of the frame and add 9/16".

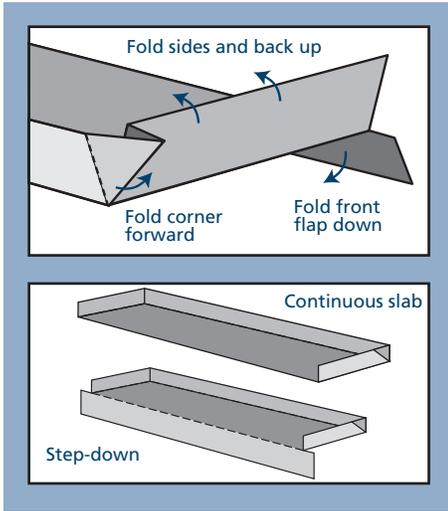
**NOTE:** If jamb extension has been applied to the frame it may need to be modified in a manner to allow for a sill pan to make contact with the interior part of the sill.



**3** INSTALL SILL PAN - CONTINUED

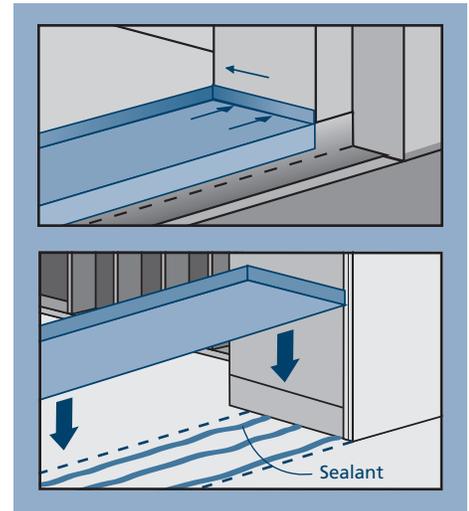
**JOB SITE FABRICATED SILL PAN - CONTINUED**

- Take this distance from the back edge and lightly crease a folding line across the sheet material.
- For step-down landings, cut 1/2" in at this line on both sides of the sheet material.
- For continuous slab, cut across the folding line.
- Fold the three back sides up to make a 3-sided box, and, for step-down landings, fold the front flap down.



**INSTALL SILL PAN**

- Set the sill pan in the rough opening, aligning the front edge (for continuous slab) or folded down edge (for step-down) with the exterior of the rough opening.
- Mark a line across the front and back of the sill pan.
- Apply three 3/8" beads of sealant between the lines.
- Place the sill pan in the rough opening. Firmly press the sill pan into the sealant with a J-roller.

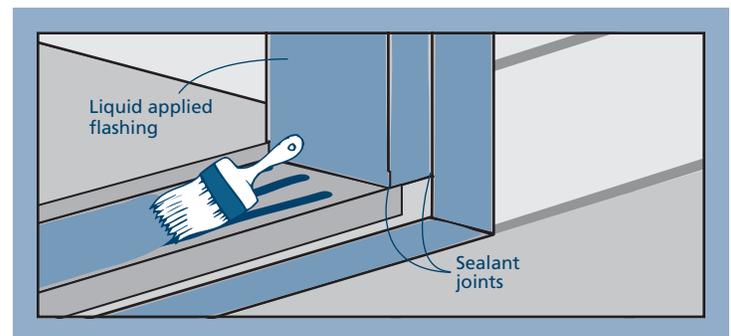


**4** PREPARE BUCK

**Note!** This section applies to installations into a buck only. For installations into a stud-framed wall, begin with section 5, "PREPARE STUD-FRAMED WALL."

- Seal any joint larger than 1/16" in the buck and between the buck and the concrete/masonry with sealant.
- Cover the buck and the surrounding concrete/masonry at the head, jambs and sill with liquid applied flashing as shown.

**END of Buck Instructions, SKIP to section 6, "INSTALL DOOR."**



**5** PREPARE STUD-FRAMED WALL

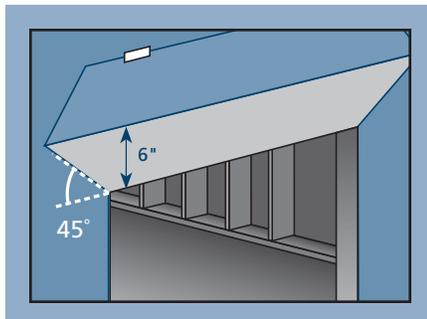
**FOR RETROFIT INSTALLATIONS**

Completely remove the old door unit. Verify rough opening is structurally sound and header is able to carry the combined weight of all the panels.

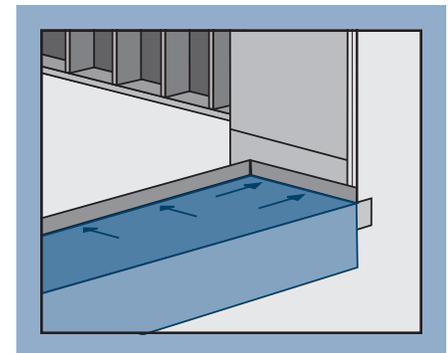
**PREPARE BUILDING WRAP**

Verify these steps are allowed by the building wrap manufacturer.

- Trim building wrap flush with the edges of the rough opening.
- If installing a drip cap, (recommended because this integrates the building wrap and drip cap to protect the structure and the product from incidental water) at the head, slit building wrap 6" at 45°. Tape up as shown.

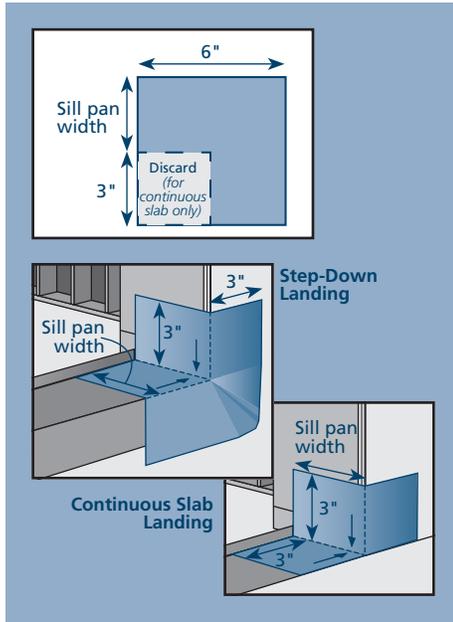


- Trim the sides sufficiently to allow the nailing fin to be mounted against the sheathing.
- Apply spray adhesive/primer to the sill pan and surrounding area. Follow manufacturer's instructions for application methods.
- Cut a piece of self-adhered flashing the length of the sill and apply over the sill pan as shown. The bottom of the sill pan should be completely covered by the self-adhered flashing. For step-down landings, fold flashing down as shown. For continuous slabs, trim flush with rough opening.

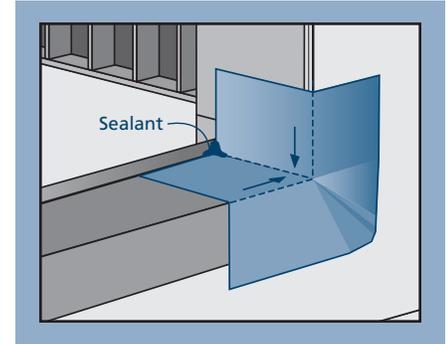


**5 PREPARE STUD-FRAMED WALL - CONTINUED**

6. Cut two pieces of self-adhered flashing 6" wide by the sill pan width + 3" long.
  - a. For continuous slab landings only, cut out the inside corner.
  - b. Adhere the pieces of flashing to the inside corners. Stretch flashing as needed to cover corners and lay flat.
7. Smooth gaps or bubbles beneath self-adhered flashing with a J-roller (remove and replace if necessary).



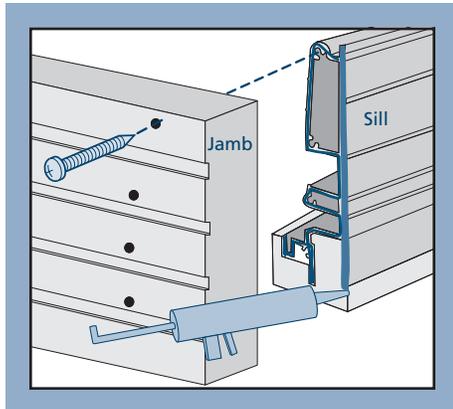
8. Seal back corners of sill pan with sealant.
- End of Stud-Framed Wall Instructions, continue with section 6, "INSTALL DOOR."**



**6 INSTALL DOOR**

**ASSEMBLE FRAME**

1. On a clean and flat surface, carefully position head, jambs and sill with the interior facing down.
2. Run a bead of silicone on all surfaces of the sill as shown. If gaskets are provided, adhere to both ends of the sill. Repeat silicone application for the head where the ends will contact the jambs.

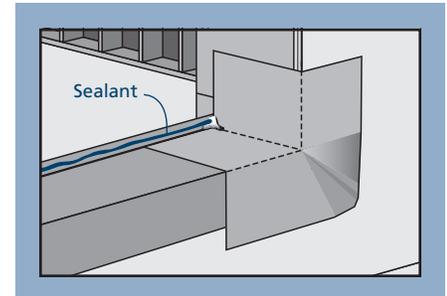


3. Clamp the frame corners as needed to ensure that the frame sections fit together flush and secure through the pre-drilled holes in the jambs with the provided #10 x 1/2" flat head screws.

**INSTALL FRAME**

**Warning!** To avoid injury, use at least two people to install.

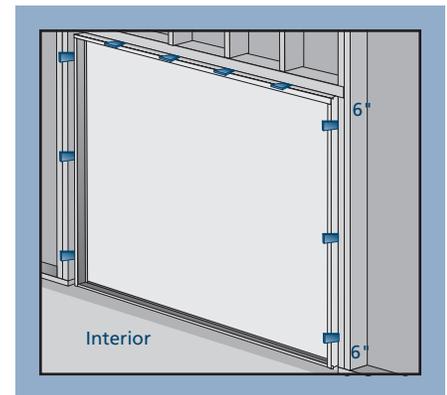
1. Apply a 3/8" continuous bead of sealant across the sill pan back dam.
2. Tilt the frame into the rough opening. Make sure the back of the frame sill makes solid contact with the sealant on the sill pan back dam. Adequately support the frame until fully installed.



**SHIM THE JAMBS**

**Note!** Secure all shims with sealant.

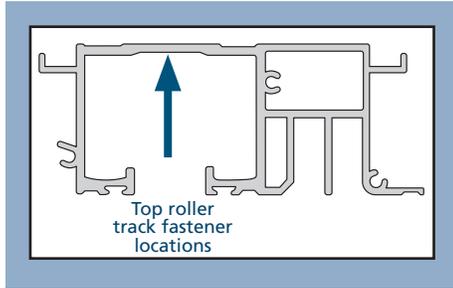
1. From the interior, shim the side and head jambs 6" from the corners and then every 16" on center. Also shim at the strike plate(s) if applicable. Align shims so that strike plate screws (installed later) will each penetrate a shim.
2. Inspect the frame for square, level and plumb (remove and reinstall if necessary). The sill should be level and the head should have a 1/8" upward bow.



**6** INSTALL DOOR - CONTINUED

**FASTEN FRAME**

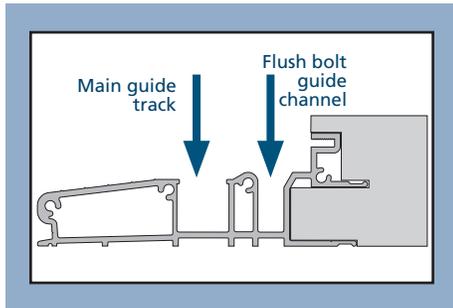
1. To secure the head, fasten through each pre-drilled hole. If not pre-drilled, drill fastener holes through the center of the top roller track every 3" on center for the first 15" out from the jambs and then every 16" on center. Fastener holes should not go through, but next to shims. Move shims accordingly to be next to fastener holes if necessary.



2. Secure the top roller track to the header using the provided #12 x 3" flat head screws through the pre-drilled holes.

**Note!** To avoid damage to the rollers, clean all debris from the top roller track.

3. To secure the sill, pre-drill fastener holes through the bottom flush bolt guide channel or main guide track (only if fasteners will not impede rollers). Drill holes 4" from jamb at both ends, and then 8" on center for the first 16" and then every 16". Use the same fastener pattern as for the flush bolt guide channel and drill fastener holes.



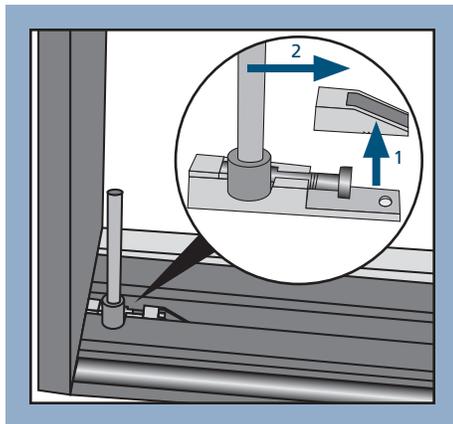
4. Put a generous amount of silicone sealant in each hole and drive a screw through each hole.
5. Secure the side jambs behind the weatherstripping every 16".

**INSTALL PANELS**

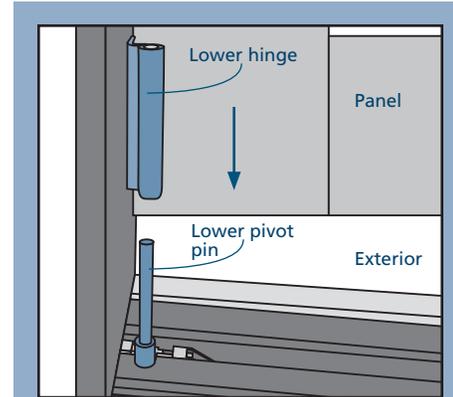
Study the door configuration before installation. Begin panel installation from the pivot panel at jamb end and continue away from jamb in each direction according to configuration. Doors are numbered from the outside, left to right.

**FIRST DOOR (PIVOT PANEL)**

1. To gain access to the installation holes in the lower pin, first pull the top cover up and then slide the pin assembly from the base.
2. Set the lower pivot pin base in the sill as shown and fasten with a provided #8 x 1" pan head screw through the pre-drilled hole in the sill closest to the jamb.
3. Slide the pin assembly back into the base and snap the top cover back on and fasten through the remaining hole with the other screw.

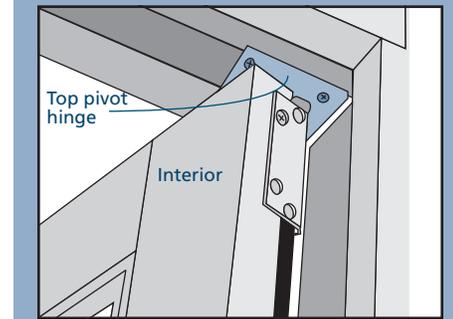


4. Hold the door vertically and set the lower hinge of the pivot panel onto the pivot pin previously installed in the sill. Ensure that the pivot pin does not bend.
5. Align the top of the panel with the top pivot hinge already installed in the head and fasten with screws the top pivot hinge onto the door.



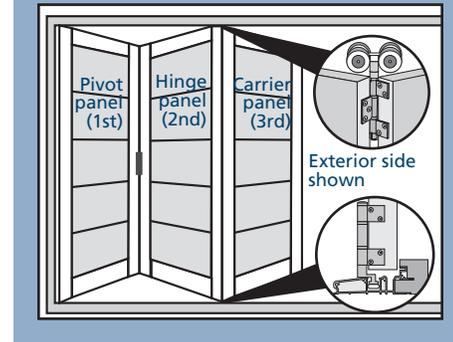
**SECOND DOOR (HINGE PANEL)**

1. Hold the first door in the open position. Place the second door next to the first and align the tops of the doors and the hinges.
2. In some cases, the roller hinges will be on the second door, making this the carrier panel.



**THIRD DOOR (CARRIER PANEL)**

1. Place the bottom roller bearing into the main guide track with the pin toward the exterior.
2. Holding the door vertically, screw the top roller hinge onto the door.
3. Slide the door against the preceding door in the open position. Using a slotted screwdriver adjust the screws at the bottom of top roller hinge until the third door is flush with second (first) door at the top.
4. Make sure the center pull handle is to the inside and join door hinges.
5. Repeat the above procedures for additional hinge and carrier panels until all doors are hung for that direction. When completed, repeat for the opposite direction.



**7 COMPLETE INSTALLATION**

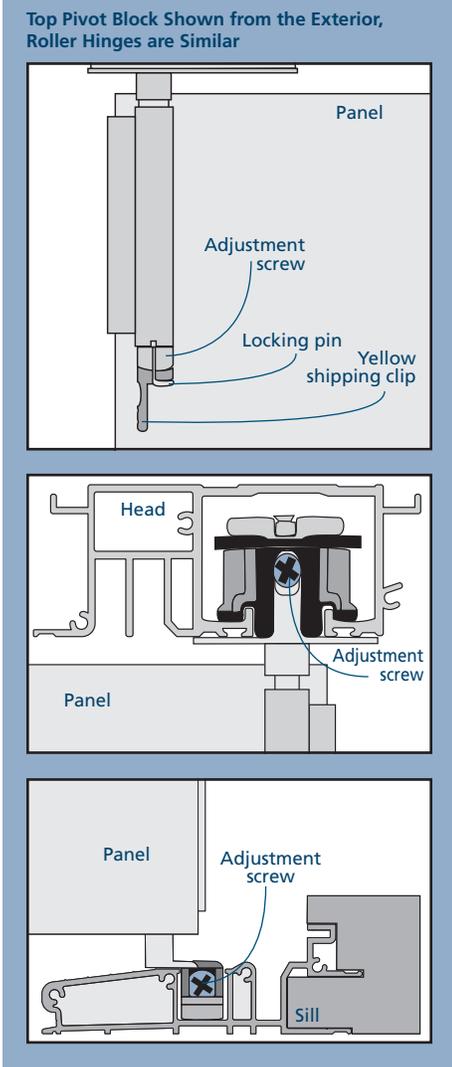
**MAKE FINAL ADJUSTMENTS - IF NECESSARY**

1. Doors are adjusted at the factory and should not need additional adjusting. Slide doors into the closed position and push the flush bolt handles down to secure. Check for a 3/16" gap between the panels and the head track, 3/8" gap between the panels and the sill track and proper lock function.

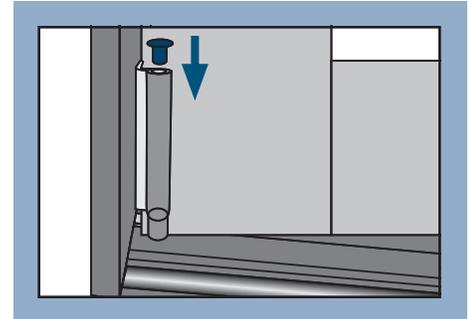
2. Roller hinges and top pivot blocks adjust vertically using a flat head screwdriver. Insert the screwdriver into the bottom and turn to the right to raise and to the left to lower. Adjust as necessary to achieve a consistent reveal across the opening. If the yellow shipping clip is not installed, pull the locking pin down while turning the adjustment screw.

3. Top and bottom pivots adjust horizontally using a Phillips head screwdriver. Open panel and adjust until equal spacing exists between the panels and jambs. Check to ensure the lock functions properly. If the panels are too far apart for the lock to function, adjust both ends equally toward the center until the lock functions normally.

4. If the configuration has the passage door meeting with a strike door, make sure the doors are aligned along the full height of the door when closed. If the doors are not aligned, the hinges may have to be adjusted vertically for the doors to align.

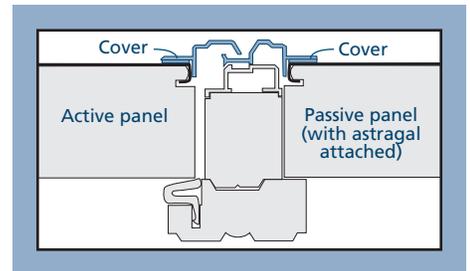


5. Open and close the door system to check for smooth operation.
6. Remove the yellow shipping clips from the roller hinges and top pivot blocks and make sure all locking pins are in their slots and are secure.
7. Insert the cap into the pivot hinge leaf if not already installed.



**FINISH INSTALLATION**

1. Fully seat any fasteners not yet completely driven into the rough opening.
2. If the door has a strike jamb against a rough opening jamb, drive #10 x 3" screws through the screw holes in the strike plate. Replace existing screws if necessary. This will secure the door to the structure.
3. Install drip cap if required or desired. Fold the building wrap (previously taped up) down over the drip cap and seal the cut ends with self-adhered flashing or building wrap tape.
4. Some clad products are shipped with separate astragal covers. If these are not already installed, wipe the panel area with denatured alcohol, let dry, remove the backing tape and adhere into place.



**AFTER INSTALLATION**

1. Install exterior wall surface within seven days of door installation.
2. Maintain gap of 1/4" - 3/8" between door frame and final exterior wall surface (siding, stucco, etc.).
3. Seal this gap on the sides with backer rod and sealant. For step-down landings, also seal under the door sill, leaving a 1" gap every 12". Do not apply sealant on top of the drip cap.
4. On the interior, insulate the void between the rough opening and the door frame with backer rod and sealant or low expansion foam.
5. Protect recently installed units from damage from plaster, paint, etc. by covering the unit with plastic.
6. Remove labels or other materials adhered to glass within 30 days after installation.

Please visit [jeld-wen.com](http://jeld-wen.com) for warranty and care and maintenance information.

Thank you for choosing

