



Thank you for selecting JELD-WEN products. Attached are JELD-WEN's recommended installation instructions for vinyl patio doors without nailing fin, including flush fin. 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. 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 home, which can draw water through very small openings. Our installation method seals the patio door in a weather-tight manner and uses a sill pan to capture and drain incidental storm water from under the patio door.

### IMPORTANT INFORMATION AND GLOSSARY

Not all patio door types may be installed into every wall condition in all areas. Consult your local building code official for applicable building codes and regulations. Local building code requirements supersede recommended installation instructions.

**Please Note!** Any patio door installation where 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. Failure to install square, level and plumb and on a flat surface (without twist or warp) 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 patio door rough opening.

##### Continuous Air Seal

Backer rod and sealant or low expansion foam applied to the interior gap between the product and the building in a continuous fashion used to block air flow between the interior and exterior of the building envelope.

##### Pilot Hole

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

##### Score

Make a cut mark in the same location multiple times.

##### Shiplap

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

##### Sill Pan

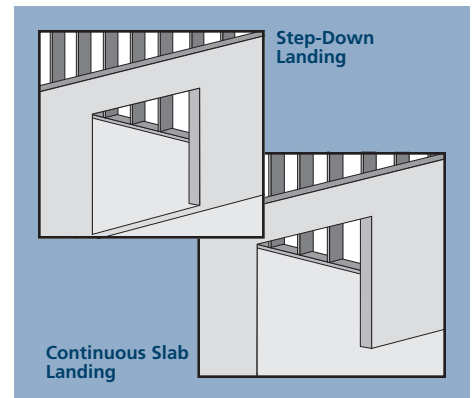
A flashing component installed in the sill of the rough opening underneath the door. Sill pans have upturned walls along the interior edge and at both ends, creating a three sided box. This component serves as a collection device to drain incidental water to the exterior of the building and should be 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.

##### Weep Hole (weep channel)

The visible exit or entry part of a water drainage system used to drain water out of a door frame.

#### LANDINGS

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



#### REVERSE PATIO DOOR HANDING

Only **pre-installed** 6'8" and 6'10" Builders sliding patio doors without blinds between the glass that have weep holes on the top and bottom are reversible (specially designed to be converted to be opened either from the left or the right). Patio doors that are set up for left hand operation (door opens from the left on the exterior) or vice versa, can be converted to open from the opposite side by following the instructions in our document SVC001, available at [www.jeld-wen.com](http://www.jeld-wen.com). **Do not install the patio door until after completion of the reversing instructions and the fixed panel is on the desired side.** Please contact us with questions:

Email: [customerserviceagents@jeld-wen.com](mailto:customerserviceagents@jeld-wen.com)

Phone: (800)-JELD-WEN/(800)-535-3936

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

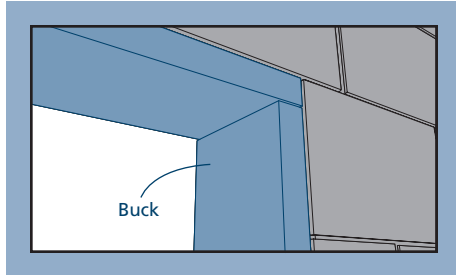
Estimated Install Time for New Construction	<input type="checkbox"/> First Time: 1.75 hr.	
	<input type="checkbox"/> Experienced: 1.25 hr.	
	<input type="checkbox"/> Professional: 0.75 hr.	

## ROUGH OPENINGS

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

### MASONRY/BLOCK WALL CONSTRUCTION

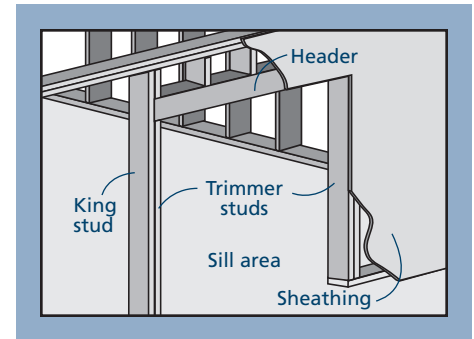
This installation assumes that a framework of 2x studs (often called a buck) has already been properly fastened and sealed to the concrete/masonry wall by a building professional.



### FULLY SHEATHED / OPEN-STUD WALL CONSTRUCTION

Fully sheathed wall framing is covered by sheathing. This installation assumes building wrap is properly installed prior to patio door installation.

Open-Stud walls are not covered by sheathing.



## SAFETY AND HANDLING

### SAFETY

- Read and fully understand ALL manufacturers' instructions before beginning. Failure to follow proper installation instructions may result in the denial of warranty claims for operational or 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.

### MATERIALS AND PATIO DOOR HANDLING

- Make sure the operating panel is secured prior to installation.
- Heed material manufacturers' handling and application instructions.
- Protect adhesive surfaces from dirt, moisture, direct sunlight and folding over onto themselves.
- Handle in vertical position; do not drag.
- Do not put stress on joints, corners or frames.
- Store patio 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.
- Never use solvent-based sealants on vinyl products.

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

## MATERIALS AND TOOLS

### PROVIDED MATERIALS

- 4 - #10 x 2 1/2" screws (to secure the strike plate).
- Vinyl caps to cover screw holes.

### NEEDED MATERIALS

**Note! Follow all material manufacturers' 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.**

- #8 x 1 1/4" (minimum) washer head or pan head corrosion-resistant screws (stainless steel recommended). Fasteners must penetrate at least 1" into framing.
- 3/16" x 2 1/2" self-tapping concrete screws (if required to secure the sill into concrete/masonry).
- Non compressible or 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 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.

- Backer rod 1/8" larger than the widest portion of the gap (used in conjunction with sealant bead).
- Polyurethane low expansion Window and Door foam: We recommend OSI® QUAD® Foam or equivalent.
- 4", 6", or 9" (as required by local code and window configuration) wide self-adhesive flashing: We recommend OSI® Butyl Flash Tape 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. In addition to sill pans, SureSill™ also offers types of head flashing.

For installations into a Buck:

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

### NEEDED TOOLS

- Hacksaw (SureSill sill pan)
- Cutting shears (fabricated sill pan)
- Tape measure
- Utility knife
- Level (4' minimum recommended)
- J-roller
- Caulking gun
- Drill with bits
- Clean rags
- Screwdrivers

## 1 REMOVE PACKAGING AND INSPECT PATIO DOOR

### REMOVE PACKAGING

Remove shipping materials such as corner covers, shipping blocks or pads. Remove any temporary handles just prior to installation into the rough opening. Flush fin doors will have a wood or cardboard support on the sill. Remove the support and then remove the nailing fin if present. To remove the nailing fin, score the nailing fin with a utility knife as close to the frame as possible, then bend back and forth until it snaps off.

### INSPECT PATIO DOOR

- Cosmetic damage.
- Product squareness (diagonal measurements must be within 1/4" difference).
- Correct product (size, color, grid pattern, handing, glazing, energy-efficiency requirements, etc.).
- For side-by-side mulled units, a drip cap that extends the length of the frame plus 1/8" overhang on each end is required.
- Included parts (See Parts List above).

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

## 2 INSPECT ROUGH OPENING

### FOR RETROFIT INSTALLATIONS

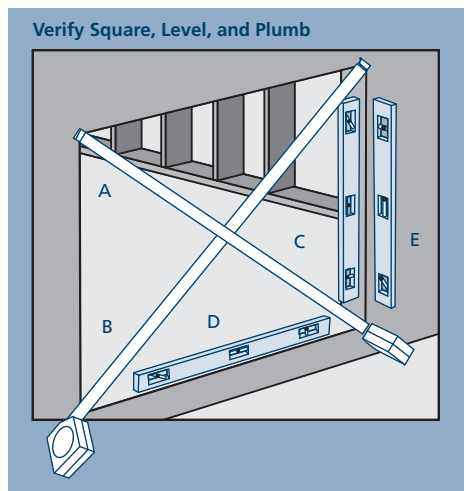
For *finless/block frame doors*, remove the entire old patio door. Removing the exterior wall surface is not necessary if the opening has been evaluated to be structurally sound and water tight. Repair any problems before continuing.

For *flush fin doors*, remove the old door panels and the sill. Remove enough of the bottom of both side jambs to allow for a sill pan to be installed - details in following section.

Contact your local waste management entities for proper disposal or recycling of products being removed.

### ALL INSTALLATIONS

- Verify the width and height of the patio door are each 1/2" - 3/4" smaller than the rough opening width/height. Mulled units should be 3/4" smaller.
- 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 level and plumb (C) and (D). The maximum allowable deviation is 1/8".
- The rough opening sill must not be crowned or sagged (D), but rather 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.
- Minimum double studs should be used at all wood framed rough openings.
- The header must be supported by trimmer studs.

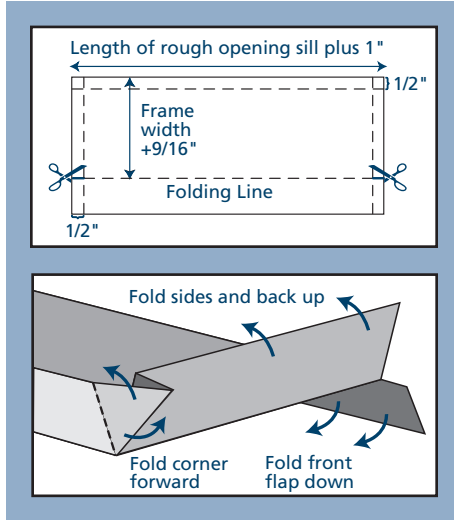


### 3 INSTALL SILL PAN

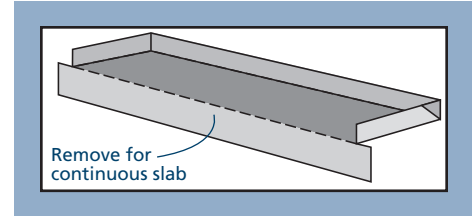
The sill can be prepared using one of two methods: We recommend SureSill™ Sloped Sill Pan™ available from SureSill at [www.suresill.com](http://www.suresill.com), building supply stores, and some manufacturing locations. As an alternative, a sill pan can be fabricated on site. If installing a SureSill™ sill pan, follow SureSill™'s instructions for installation and skip to **section 4 "PREPARE BUCK"**, or to **section 5, "PREPARE STUD-FRAMED WALL"** as it applies to your situation. If fabricating a sill pan on the job site, follow the instructions below.

#### JOBSITE 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".
4. Take this distance from the back edge and lightly crease a folding line across the sheet material.
5. For step-down landings, cut 1/2" in at this line on both sides of the sheet material.
6. For continuous slab, cut across the folding line.

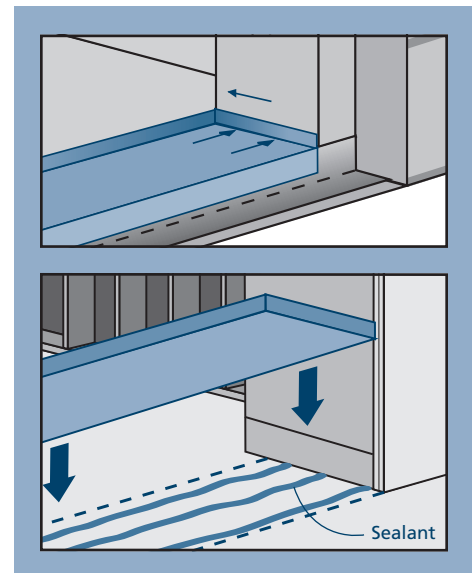


7. Fold the three back sides up to make a 3-sided box, and, for step-down landings, fold the front flap down.



#### INSTALL SILL PAN

1. If installing a metal sill pan on concrete, cut a piece of self-adhesive flashing the length of the sill pan and adhere it to the entire bottom surface where the pan will sit on the concrete.
2. 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.
3. Mark a line across the front and back of the sill pan.
4. Apply three 3/8" beads of sealant between the lines.
5. Place the sill pan in the rough opening. Firmly press the sill pan into the sealant with a J-roller.

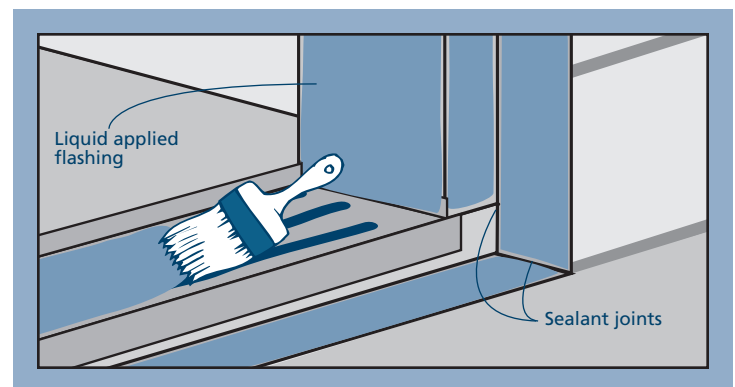


### 4 PREPARE BUCK

**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."**

1. Seal any joint larger than 1/16" in the buck and between the buck and the concrete/masonry with sealant.
2. Cover the buck and the surrounding concrete/masonry at the head and jambs (apply over sill pan if installing a job site fabricated sill pan) with liquid applied flashing per manufacture's instructions as shown.

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



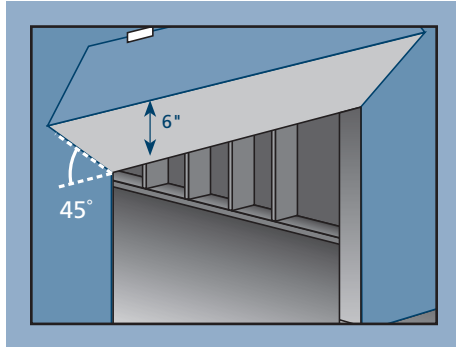
**5 PREPARE STUD-FRAMED WALL**

**PREPARE BUILDING WRAP**

Check with the building wrap manufacturer to verify the following steps will not void their product warranty.

**Note!** Steps 1 and 2 apply only to new construction.

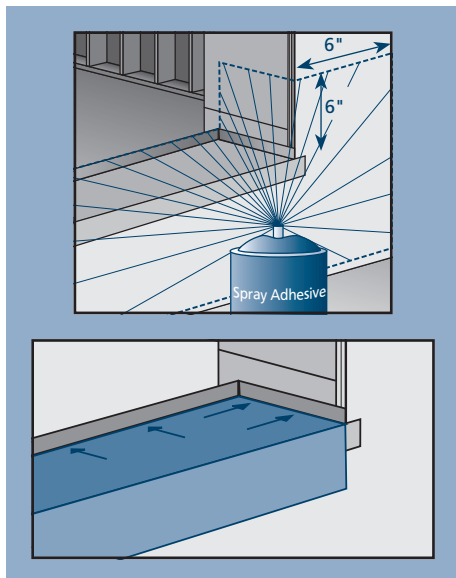
1. Trim building wrap flush with the edges of the rough opening.
2. If the door extends beyond the exterior plain of the building and a drip cap is desired, at the head, slit building wrap 6" at 45°. Tape up as shown. We recommend installing a drip cap because this integrates the building wrap and drip cap to protect the structure and the product from incidental water.



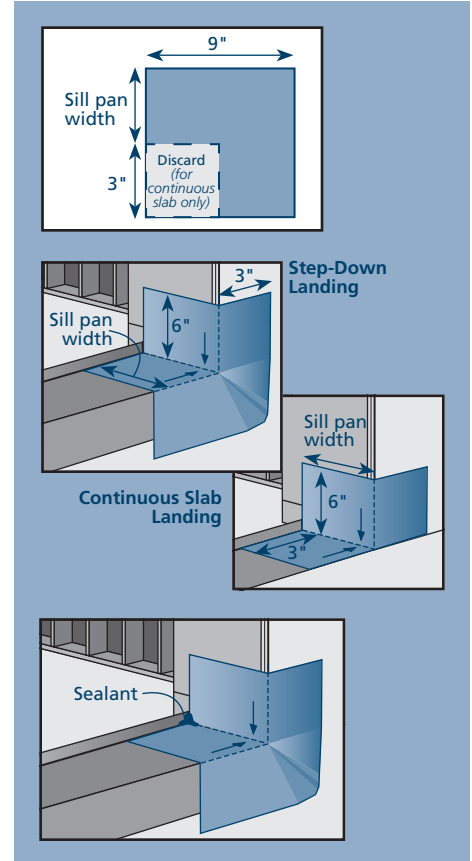
**INSTALL JOBSITE FABRICATED SILL PAN**

**Note!** The rest of the steps in this section only apply to a job site fabricated sill pan. If installing a sill pan that you have purchased, follow manufacturer's instructions for installation and skip to section 6, "INSTALL DOOR."

1. If installing a metal sill pan on concrete, cut a piece of self-adhesive flashing the length of the sill pan and adhere it to the entire bottom surface where the pan will sit on the concrete.
2. Apply spray adhesive/primer to the sill pan and surrounding area. Follow manufacturer's instructions for application methods.
3. If fasteners are required through the sill, cut a piece of self-adhesive flashing the length of the sill and apply over the entire sill pan. For step down landings, fold flashing down as shown. For continuous slabs, trim flush with rough opening.



4. Cut two pieces of self-adhesive flashing 9" 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.
5. Smooth gaps or bubbles beneath self-adhesive flashing with a J-roller (remove and replace if necessary).
6. Seal back corners of sill pan with sealant.
7. For step-down landings only, allow for the drainage and drying of incidental moisture out of the rough opening. Do not apply sealant to the face of the sill and/or trim pieces so that they block water drainage.



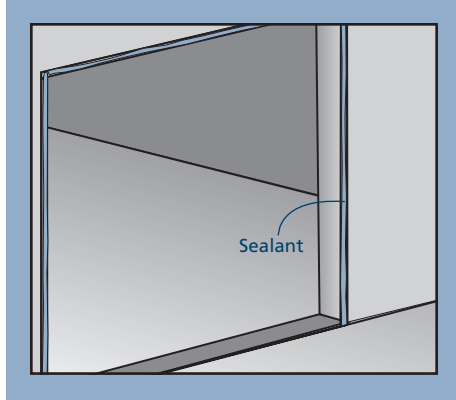
**End of Stud-Framed Wall Instructions, continue with section 6, "INSTALL DOOR."**

**6** INSTALL PATIO DOOR

**Warning!** To avoid injury, use at least two people to install. Adequately support the door until fully installed.

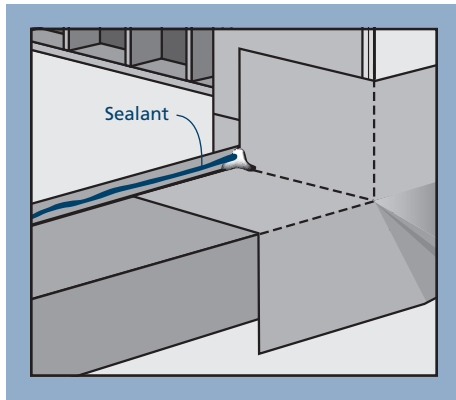
**IF INSTALLING A FLUSH FIN PATIO DOOR**

If installing a door with a flush fin, apply at least one continuous 3/8" bead of sealant to the exterior face of the side jambs and head. **Continue with the instructions.**



**ALL INSTALLATIONS**

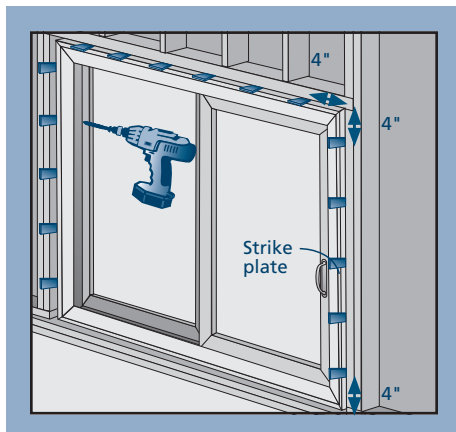
1. If installing a pre-formed sill pan, follow manufacturer's instructions and skip this step. If installing a job site fabricated sill pan, run a continuous 3/8" bead of sealant along the sill pan back dam. When the frame is installed, make sure the frame makes solid contact with the sealant. Add more sealant if necessary.
2. Tilt the frame into the rough opening. Adequately support the frame until fully installed.
3. Align the exterior of the frame, or flush fin, with the most exterior surface of the structure (the exterior face of the concrete wall, framing or sheathing).



**SHIM THE JAMBS**

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

4. From the interior, shim the head and side jambs 4" from the corners and at the strike plate so that strike plate screws (installed later) will each penetrate a shim. Shim so the door is square, level and plumb.

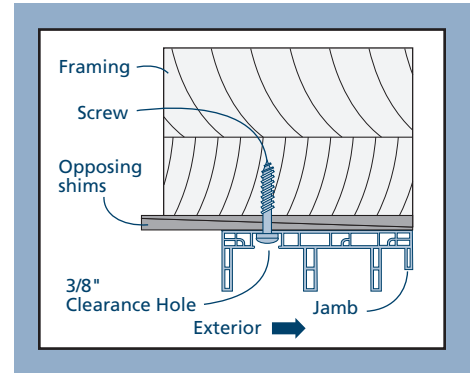


Areas such as Florida and the Texas TDI region have different anchoring requirements based on product certification. For information on specific products, visit [www.floridabuilding.org](http://www.floridabuilding.org) or [www.tdi.texas.gov](http://www.tdi.texas.gov) and follow the anchoring schedule given in the drawings for the product instead of the anchoring schedule in this document.

Patio doors will be fastened according to Performance Grade (PG) rating. This rating is located on the gold AAMA label fixed somewhere on the frame. Look for something like this example: R-PG20-3645X2426 (144X96)-SD. Mark fastener locations in the interior frame track of the side jambs and head as follows:

- PG20-4" from each corner and every 24".
- PG35-4" from each corner and every 18".
- PG50 and above-4" from each corner and every 12".

5. At each fastener location, insert shims and only through the first wall of the jamb, drill a 3/8" clearance hole. Then, drill a 1/8" pilot hole through the jamb wall, shim and into the framing.
6. Drive a washer or pan head screw through the shim located 4" from one upper corner.



7. Confirm the patio door is square, level, and plumb.

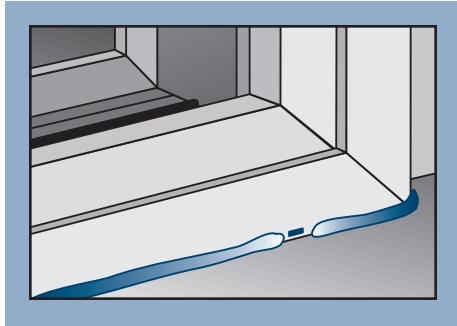
**SECURE PATIO DOOR**

**Note!** Do not over tighten fasteners and do not allow fasteners to deform the vinyl frame, it must be kept flat and straight.

1. At each remaining corner, fasten patio door through shims in the same manner above. Test for proper operation (remove and reinstall if necessary).
2. Drive screws through each of the remaining fastener locations.

**7 COMPLETE INSTALLATION**

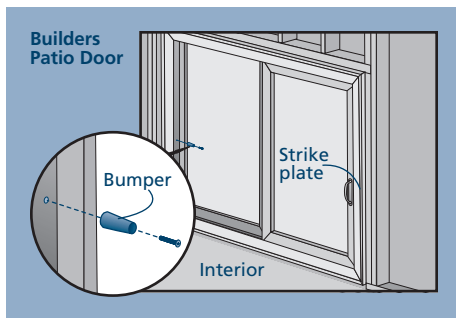
1. For continuous slab landings, apply a 1/4" bead of sealant around the sill where it meets the slab. Leave 1" gaps at the weep holes as shown.



2. Ensure sealant on back dam of the sill pan fully seals to the inside face of the sill. Apply more sealant as necessary to ensure an airtight seal.

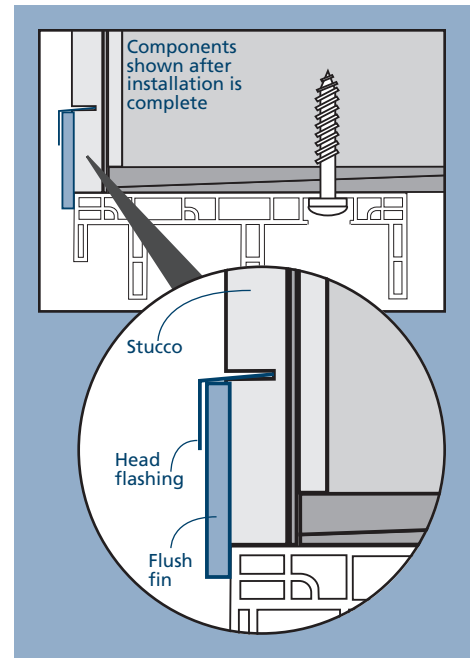
**INSTALL BUMPER**

For Builders vinyl series doors, install the bumper in the stationary panel side jamb at vertical center using the 1" self-tapping screw provided.



**INSTALL DRIP CAP - OPTIONAL UNLESS REQUIRED BY LOCAL CODE**

We recommend as a best practice to install a drip cap. For finless doors, use z flashing and integrate into the weather barrier. For doors with a flush fin, cut a groove in stucco, fill with sealant and insert horizontal leg of drip cap.



**7 COMPLETE INSTALLATION - CONTINUED**

**PATIO DOOR ADJUSTMENT**

**Roller Adjustment**

**Note!** Adjusting door too high may allow water and air leakage. Adjust rollers just high enough to clear sill track and still roll smoothly.

1. Builders vinyl doors have an adjustment screw on each lower end of the operating panel(s), and Premium vinyl doors have access holes on the face of each lower end of the operating panel(s). Remove small vinyl plugs from each hole if present.

2. Open operating panel enough to compare with frame jamb.

**Note!** Builders vinyl roller adjustment screws on the end of the panel are in close proximity to the attachment screw. Adjust only the lower screw as shown because loosening the attachment screw will detach the roller from the operating panel.

3. Using a #2 Phillips head screwdriver, turn the adjustment screw clockwise to raise the panel, and counterclockwise to lower the panel.

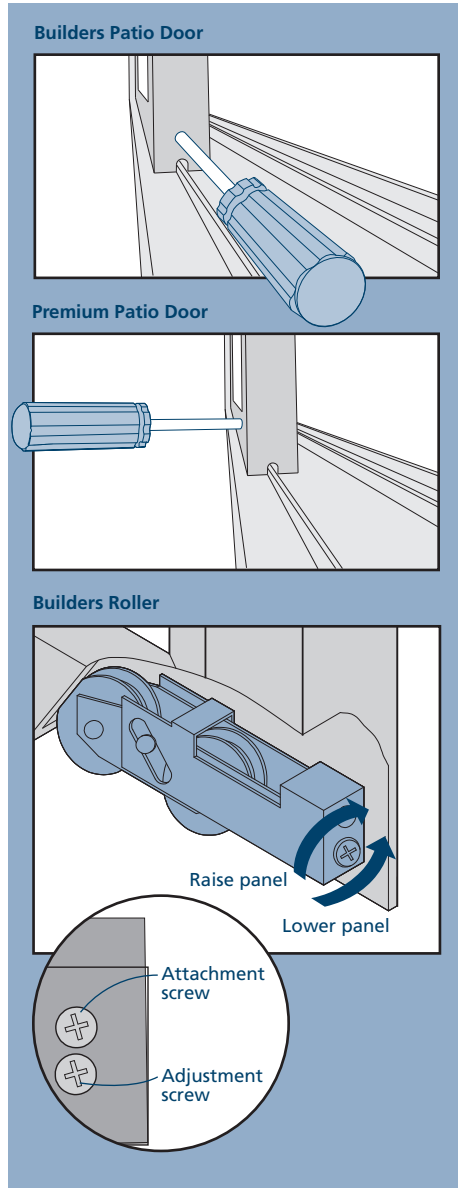
4. Premium vinyl doors may have different types of rollers. To identify the roller, look inside the adjustment hole.

- If the roller has a plus (+) sign, clockwise rotations will lower the panel and counterclockwise will raise the panel.
- If the roller has a minus (-) sign, the operations are reversed.

5. Adjust as needed until interlocks, grid patterns and jambs line up.

6. Test the operating panel for proper operation.

7. Re-apply the small vinyl caps over the roller adjustment screw holes if applicable.



**Lock Adjustment**

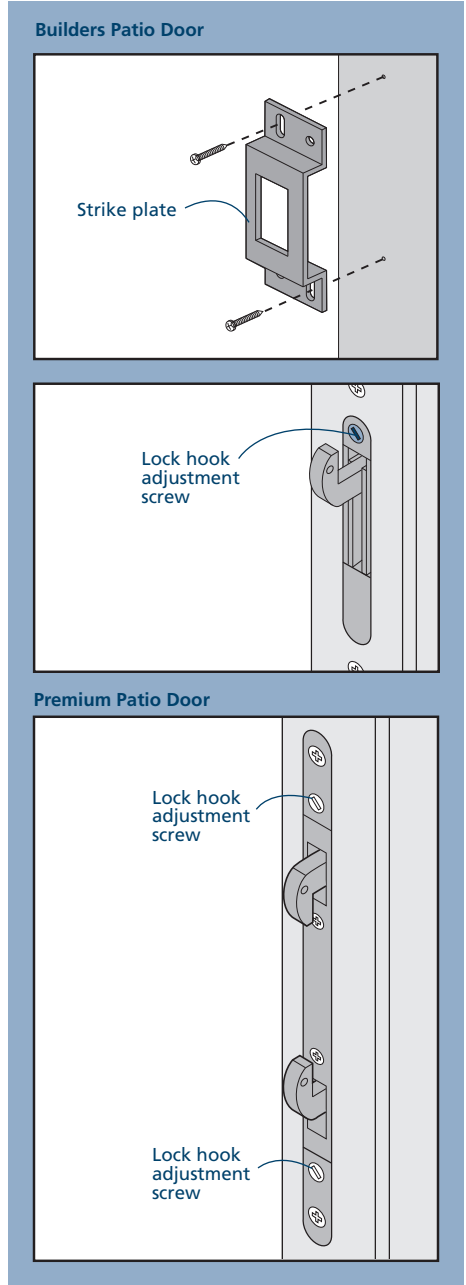
**Note!** If the strike plate was not previously installed, line up the screw holes with the dimples in the operating panel side jamb and drive screws through the two slotted screw holes.

If the lock does not properly engage the strike plate:

- Loosen the strike plate screws and move up or down until the latch engages properly.

If the door does not lock or is loose when locked:

- Turn the latch adjustment screw(s) in 1/2 turn increments: clockwise to loosen or counterclockwise to tighten. Premium vinyl doors have a double latch and two adjustment screws.



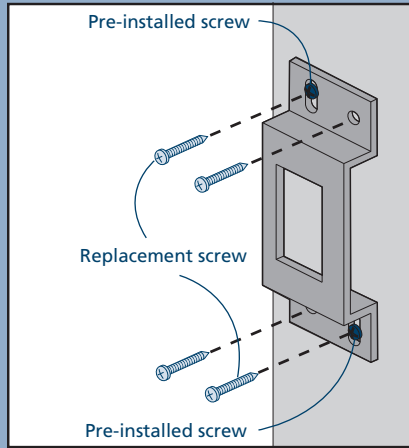


**7 COMPLETE INSTALLATION - CONTINUED**

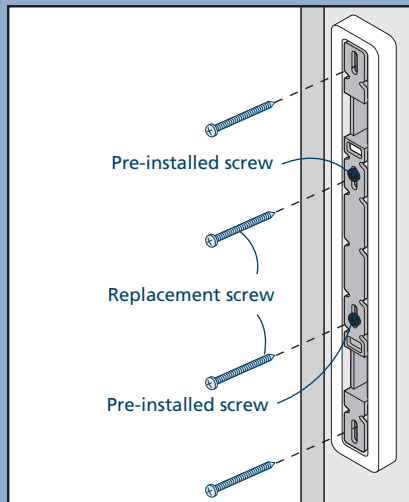
**FINISH INSTALLATION**

- Drive two #10 x 2 1/2" screws (included in hardware pack) through the open screw holes in the strike plate.
- Remove the pre-installed screws from the strike plate and replace them with the remaining #10 x 2 1/2" screws from the hardware pack. This will increase security by attaching the patio door to the structure.

**Builders Patio Door**



**Premium Patio Door**

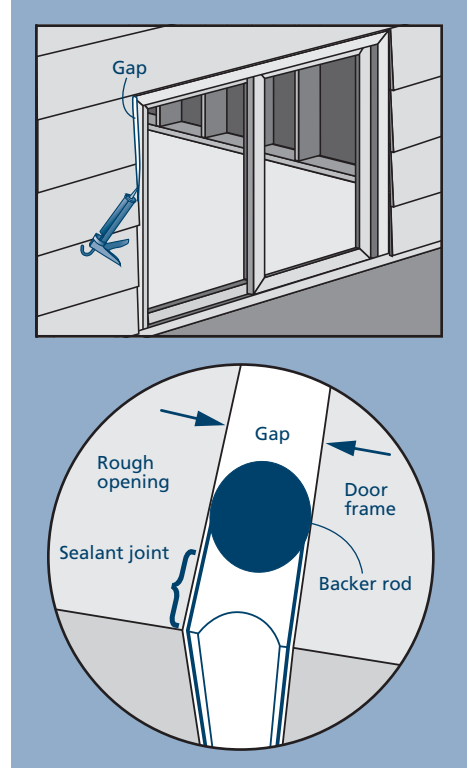


**CONTINUOUS AIR SEAL**

Create a continuous air seal on the interior between the rough opening and the door frame with backer rod and sealant or low expansion foam. Allow the foam to fully cure and cut flush with a sharp knife. Make sure the foam cuts cleanly and doesn't tear.

**AFTER INSTALLATION**

1. Cover the screw holes in the frame with the provided vinyl caps.
2. Seal any gaps or openings at end of horizontal mull joints with sealant.
3. For flush fin doors, apply sealant on the exterior where the flush fin meets the wall. For finless doors, seal the gap between the door frame and rough opening (or as wall detail dictates) with backer rod and sealant.
4. Install exterior wall surface (if applicable) per manufactures' guidelines.
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

