JELD-WEN

Installation Instructions

for Custom™ Wood and Epicvue® Exterior Folding Door Systems (JII101)

Thank you for selecting JELD-WEN products. Attached are JELD-WEN's recommended installation instructions for Custom Wood and EpicVue 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. 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 or www.tdi.texas.gov and follow the anchoring schedule given in the drawings for the product instead of the anchoring schedule in this document.

IMPORTANT INFORMATION | TABLE OF CONTENTS | GLOSSARY

JELD-WEN does not endorse the installation of our products into a barrier type install system unless a sill pan is present, incorporated with through-wall flashing and can drain to the exterior (along with other "required" components). Failure to do so may result in the denial of any warranty claims.

PLEASE NOTE: 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 properly finish or install square, level and plumb and on a flat surface (without peaks 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.

Table of Contents

⚠WARNING

Panels can be HEAVY! Larger panels may require additional tools or machinery for handling and installation. Minimum of two person lift!

NOTICE

JELD-WEN advises against product installation in high interior water exposure environments such as showers, steam rooms and enclosed pool areas. These areas are beyond the tested/certified design intent of the window and any related warranty claims could be denied on that basis.

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.

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) or Consumer Product Safety Commission offices provide information regarding regulations and lead protection.

⚠WARNING

Panels can be HEAVY! Larger panels may require additional tools or machinery for handling and installation. Minimum of 2-person lift!

⚠WARNING

Drilling, sawing, sanding or machining wood products can expose you to wood dust, a substance known to the State of California to cause cancer. Avoid inhaling wood dust or use a dust mask or other safeguards for personal protection. For more information, go to www.P65Warnings.ca.gov/wood.

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 a vertical position; **DO NOT** drag on the floor.
- **DO NOT** put stress on joints, corners or frames.
- Store door in a vertical, leaning position to allow air circulation; **DO NOT** stack horizontally.
- Ensure the storage area is dry, well-ventilated and **protected from exposure to direct sunlight**.
- 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 2 1/2" flat-head, corrosion-resistant screws for frame assembly.
- #12 x 3" flat-head installation screws for track assembly. Screws must have a minimum 2" embedment into solid header material. If these screws are not long enough, use longer screws.
- #9 x 1-1/2" flat-head screws to fasten hinges to panels.

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. **NOTE:** 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.

Needed Materials

- 3/16" masonry screws for sill installation onto concrete. Screws must penetrate at least 1 1/2" into the substrate.
- Non-compressible, non-water degradable shims.
- Sill pan: A pan flashing system (as defined in **ASTM E2112**) is **required** at the sill prior to window/door product installation. A sill pan should have a positive slope, **must be** installed onto the sill of the R.O. in a weather-tight manner and tied into the drainage plane of the building envelope. For sill pans without a positive slope, place a 3/16"-1/4" tall plastic shim 2" from each corner and no more than 8" on-center in between (excludes Canada and potentially large door systems). If an aftermarket sill pan is preferred, then we suggest the Manufacturer's instructions be followed.
- Sealant: An exterior grade (**High-Performing, Low VOC**) sealant is recommended for installation practices. Check with sealant manufacturers for color-match options and paintability.
- Backer Rod: 1/8" larger than the widest portion of the gap (used in conjunction with sealant bead for interior air seal).
- Polyurethane Low-Expansion Window and Door Foam: A low-expansion, polyurethane window and door foam is recommended for installation practices. Avoid using moderate to high-expansion foam products as operational issues or damage may occur.
- Drip cap (if not supplied).

For installations into a Buck:

- Liquid applied flashing

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 INSPECT PRODUCT

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.).
- Manufacturing abnormalities (e.g., warp, bow, squareness).

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 (R.O.)

Weatherproofing of the rough opening, along with the flashing and proper integration of the fenestration product with the water-resistive barrier, is the responsibility of the installer. JELD-WEN recommends strict adherence to the current version of ASTM E2112.

⚠CAUTION

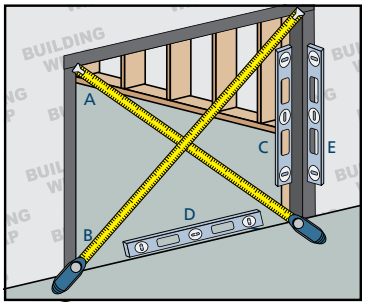
The use of a sill pan and other barriers will decrease the rough opening height clearance. Adjust the opening dimensions accordingly.

Rough Opening Requirements

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.

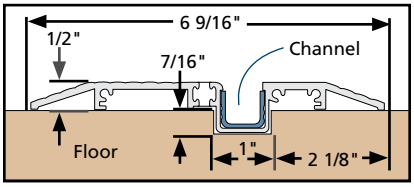
- We recommend that the head be installed with a slight bow upward (typically 1/8" at the center of the opening) to allow for the door's weight pulling down. The frame should be checked for square and twist.
- Verify the width and height of the rough opening is 1/2" larger than the patio door width and height.
- Verify the rough opening is square. The (A) and (B) measurements should be the same. Suggested deviation from square is no more than 1/4".
- Verify the rough opening is level and plumb (C, D and E).
- The rough opening sill should not be crowned or sagged (D), but rather level or sloped (positive slope) to the exterior.
- The exterior face of the rough opening should be in a single plane (E) with less than 1/8" twist from corner to corner.
- Minimum double studs (king and jack/trimmer) should be used to support the header at all rough openings.

Verify Square, Level and Plumb



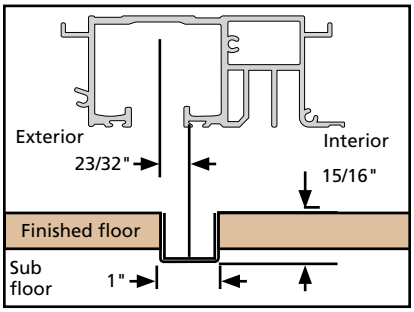
- If using an ADA sill, a recess will need to be available in the rough opening sill for the channel to sit in and allow the sill legs to sit flat on the rough opening.

ADA Sill



- 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.

U-Channel Sill



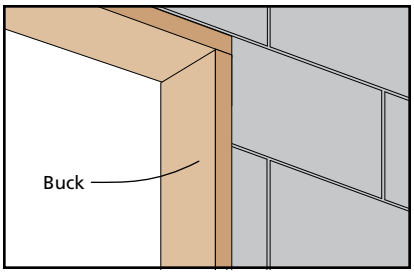
For Retrofit Installations

Verify the rough opening framing is structurally sound. Contact your local waste management entities for proper disposal or recycling of products being removed.

This installation guide only addresses masonry/block wall, sheathed wall and open-stud construction. If installing into an opening other than what is identified, consult a building professional.

Masonry/Block Wall Construction

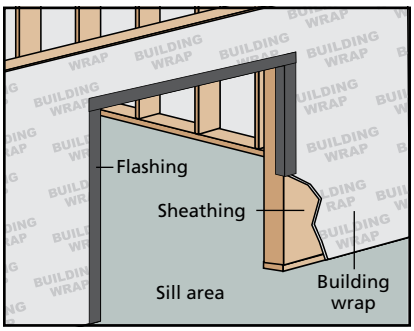
This installation assumes that a framework of studs (often called a buck) has already been properly fastened in a weatherproof manner to the concrete/masonry wall. The patio door will be installed into the buck in a weatherproof manner.



2 INSPECT ROUGH OPENING (R.O.) (CONTINUED)

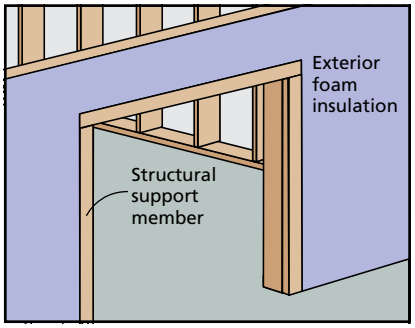
Fully Sheathed Wall Construction

Sheathing is applied to the exterior of the wall framing. The patio door will be installed into the rough opening in a weatherproof manner.



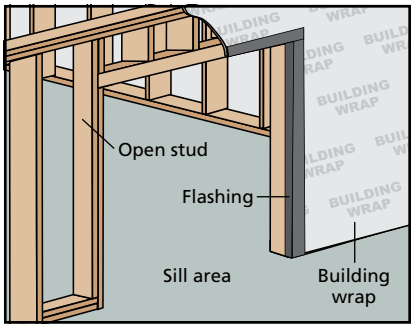
Exterior Foam Insulation Construction

Exterior Foam insulation is applied to the exterior of the wall framing. The patio door will be mounted to a structural support member on the same plane as the exterior foam insulation in a weatherproof manner (reference the latest version of **FMA/AAMA/WDMA 500** for additional install and framing details).



Open-Stud Construction

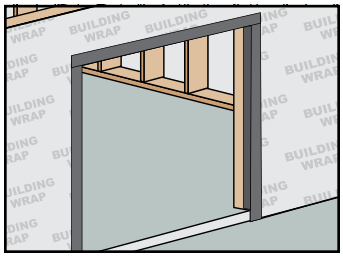
The rough opening (R.O.) has been integrated with the building wrap in a weatherproof manner (e.g., flashing) to prevent air and water infiltration. The door/window product will be mounted into the R.O. in a weatherproof manner.



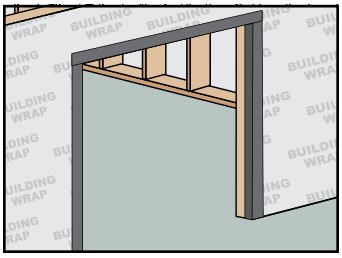
3 INSTALL SILL PAN

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.



Step-Down Landing

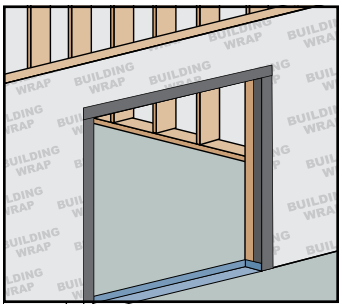


Continuous Slab Landing

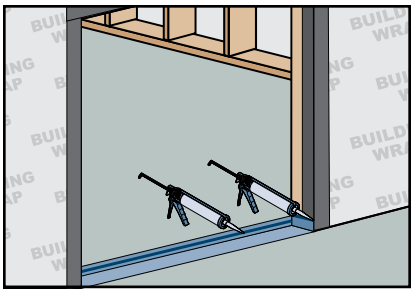
Prepare Sill

1. A pan flashing system (as defined in **ASTM E2112**) is **required** at the sill prior to window/door product installation. Always allow water to drain out of the pan and onto the building wrap, drainage plane or to the exterior.

NOTE: Sill pans for step-down landings will have a folded-down edge in the front to accept the step-down landing.



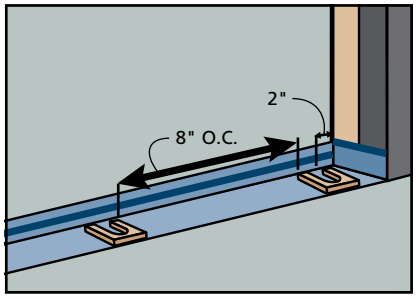
2. Apply a continuous bead of sealant to the interior of the upturned leg of the sill pan (if using a rigid sill pan).



Shim the Sill

See **Product Installation Tolerance Table** for tolerances.

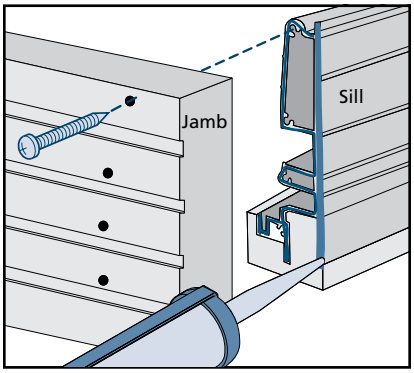
1. Unless installing into a sill pan with a positive sloped draining system, shims should be aligned as defined by the label on the patio door or as stated below:



- Shims (1/4" maximum) should be placed near the exterior edge of the sill pan.
- Place one shim 2" from each side of the rough opening (if the rough opening is sized correctly, this should be approximately 1 1/2"- 2" from the corner of the patio door).
- Shims should be no more than 8" on-center.
- There should always be a drainage path to the exterior out of the sill pan.
- Shims can be held in place with sealant.
- Increased shim height may be needed or may interfere with bar/grill alignment of adjacent windows.

4 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 2 1/2" flat-head screws.

Install Frame

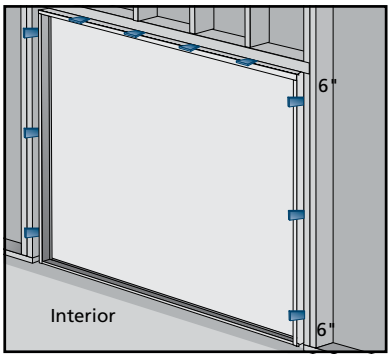
⚠CAUTION

To avoid injury, use at least 2-people to install. Frame must be supported until fully fastened.

1. Tilt the frame into the rough opening. Ensure 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

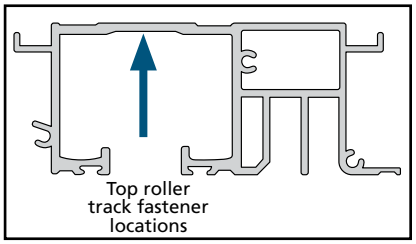
NOTE: Secure all shims with sealant.



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.

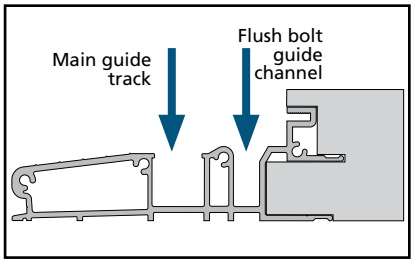
Product Installation Tolerance Table Products must be installed in a manner that **Does Not** exceed the tolerance below	
Plumb	+/- 1/8"
Level	+/- 1/8"
Twist	+/- 1/8"
Square	+/- 1/4"

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".

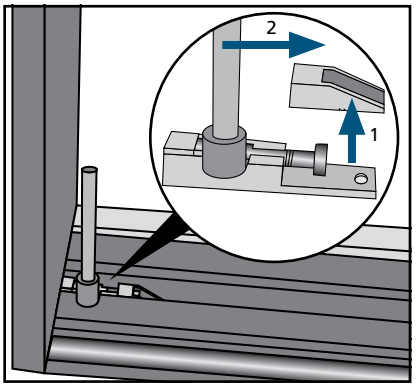
Install Panels

⚠WARNING

Panels can be heavy. Fully support during handling and installation process. Minimum of 2-person lift.

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.

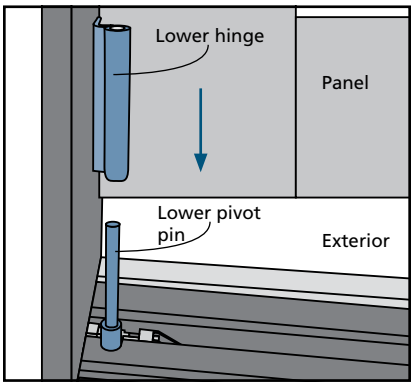
First Door (Pivot Panel)



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.

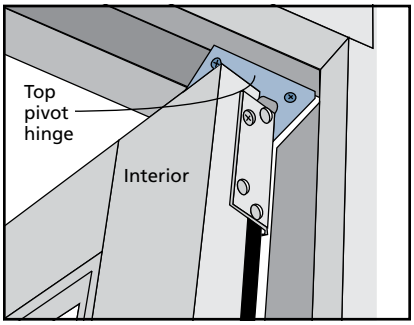
4 INSTALL DOOR (CONTINUED)

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.

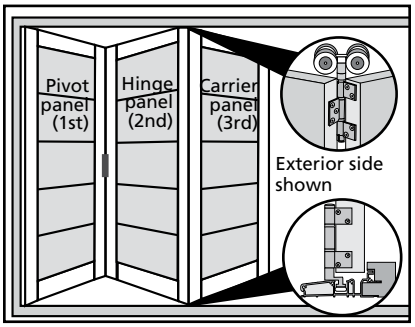


Second Door (Hinge Panel)

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)

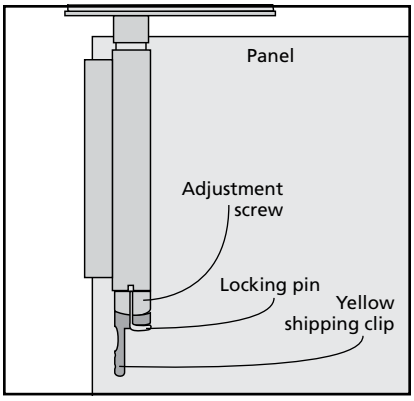


1. Place the bottom roller bearing into the main guide track with the pin toward the exterior.
2. Holding the door vertically, screw the top roller hinge onto the door.
3. Slide the door against the preceding door in the open position. Using a slotted screwdriver adjust the screws at the bottom of top 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.

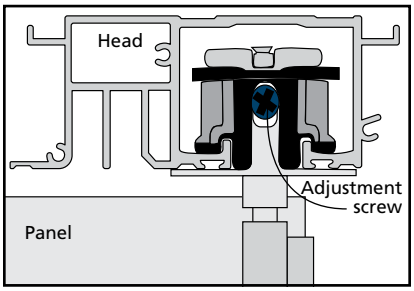
5 FINAL ADJUSTMENTS

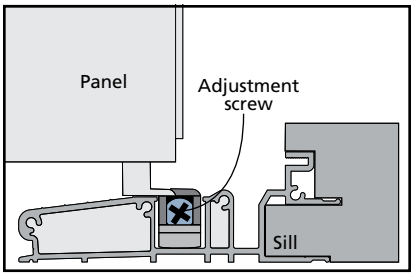
1. Doors are adjusted at the factory and should not need additional adjusting. Slide doors into the closed position and push the flush bolt handles down to secure. Check for a 3/16" gap between the panels and the head track, 3/8" gap between the panels and the sill track and proper lock function.
2. 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.

Top Pivot Block Shown from the Exterior, Roller Hinges are Similar

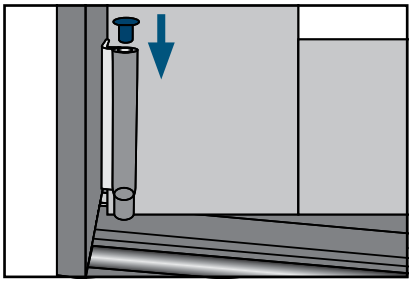


3. Top and bottom pivots adjust horizontally using a Phillips head screwdriver. Open panel and adjust until equal spacing exists between the panels and jambs. Check to ensure the lock functions properly. If the panels are too far apart for the lock to function, adjust both ends equally toward the center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

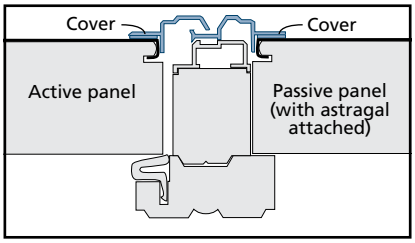




4. If the configuration has the passage door meeting with a strike door, ensure the doors are aligned along the full height of the door when closed. If the doors are not aligned, the hinges may have to be adjusted vertically for the doors to align.
5. Open and close the door system to check for smooth 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.



8. If the door unit has a strike jamb against a rough opening jamb, drive #10 x 2 1/2" screws through the screw holes in the strike plate. Replace existing screws if necessary. This will secure the door frame to the structure.
9. 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.



10. Press the sill track seal into place in the exterior groove as shown.

6 AFTER INSTALLATION

Weatherproofing of the rough opening, along with the flashing and proper integration of the fenestration product with the water-resistive barrier, is the responsibility of the installer. JELD-WEN recommends strict adherence to the current version of ASTM E2112.

1. On the interior side jambs and head, create a continuous air seal between the rough opening and the door frame with backer rod and sealant or low expansion foam. **NOTE:** If foam is used, 1/2" - 1" depth is prescribed. Backer rod can be used to control the depth.
2. On the exterior side jambs and head, seal between the rough opening and the door frame with backer rod and sealant. Allow the foam to fully cure and cut flush with a sharp knife. Make sure the foam cuts cleanly and doesn't tear.
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. Install exterior wall (cladding) surface per manufacturer's guidelines.
5. Leave an expansion/contraction gap of approximately 3/8" between window frame and final exterior wall surface (siding, stucco, etc.).
6. Protect recently installed units from damage from plaster, paint, etc. by covering the unit with plastic.
7. Protect the sill with the protective sill cover until all construction activities are complete. Resize the cover to fit between opened panels as necessary.
8. Remove protective film (if applicable) on the glass within six months and **immediately** from the cladding.
9. Remove labels or other materials adhered to glass within 30 days after installation.

Please visit jeld-wen.com for warranty and care and maintenance information.

Thank you for choosing

JELD-WEN