

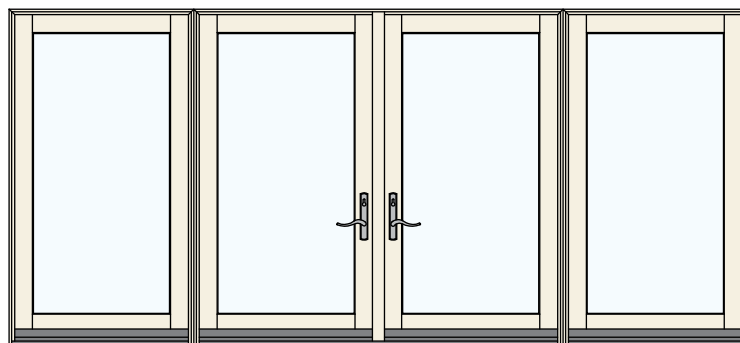
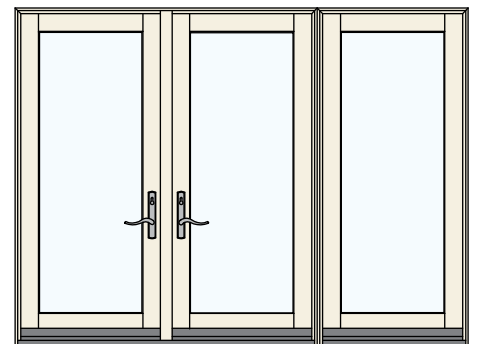
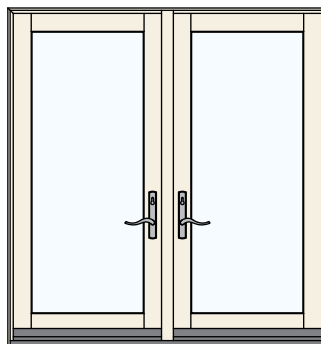
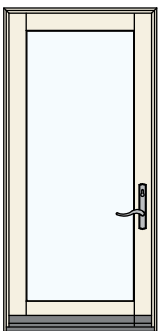
Installation Instructions

for Wood Swinging Patio Doors with Exterior Trim or Nailing Fin
(JII-90060)



Thank you for selecting JELD-WEN products. These are JELD-WEN's recommended installation instructions for Wood Swinging Patio Doors with Exterior Trim or Nailing 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. 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. 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.

Configurations



CAUTION

A minimum of 2-people will be needed to assemble and safely move door units.

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: Any patio door installation where the sill is higher than 35 feet above ground level 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.

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Glossary

Applied Nailing Fin

A mechanically attached vinyl fin that creates a flange around the perimeter of the patio door and is used to position the patio door in the rough opening (considered a non-structural component).

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 airflow between the interior and exterior of the building envelope.

Integral Nailing Fin

A fin that is part of the extruded aluminum cladding and used to attach the patio door to the rough opening (considered a structural component).

Mulled Unit

Two or more door units structurally joined together.

Pilot Hole

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

Shiplap

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

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 the 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

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.

Patio Door Handling

- Make sure the operating panel(s) is secured prior to installation.
- Heed material manufacturers’ handling and application instructions.
- Handle in a vertical position; **DO NOT** carry flat or drag on the floor.
- **DO NOT** put stress on joints, corners or frames.
- Store patio 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.**
- Only install into vertical walls when conditions and sheathing are dry.

IF INJURY OCCURS, IMMEDIATELY SEEK MEDICAL ATTENTION!

MATERIALS AND TOOLS

JELD-WEN exterior window and door products should be installed in accordance with JELD-WEN's recommended installation 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 with the substrates in the application.

Provided Materials

- Adjustable Hinge Pack (only provided with certain product lines).
- Foam Wedge Pads (2 per pack).
- Construction Handle (only provided with certain product lines).

Needed Materials

- Wood Rough Opening: A #8 flat-head (or larger diameter head), corrosion-resistant screw **OR** 1 3/4" galvanized roofing nails. Minimum embedment of 1 1/4" into the structural framing (or as required by local code).
- Masonry/Concrete Rough Opening (without a buck): 3/16" x 2" self-tapping concrete screws. Must penetrate at least 1 1/4" into the structural framing.
- **For Securing the Strike Plates:** If not supplied, 3" or longer, flat-head screws (color and number of screws will depend on the strike finish and type of locking mechanism).
- **For Securing Hinges: If not supplied, #8 x 3" or longer, flat-head screws (one screw per hinge). Used for security and to anchor hinge to the structural framing.**
- High compression, 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 the sealant manufacturer for color-match and paintability.
- 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.
- Backer Rod: 1/8" larger than the widest portion of the gap (used in conjunction with sealant bead).
- Drip cap material (if not supplied) is required only for side-by-side mulled units that extend the length of the frame. Apply according to local code.

Needed Tools

- Hacksaw or Cutting shears (sill pan)
- Tape measure
- Utility knife
- Level (4' minimum recommended)
- Caulking gun
- Drill and Drill bits
- Screwdrivers
- Impact driver and 5/32" masonry bit
- Allen wrenches (3/32" and 1/4")

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INSPECT PRODUCT

Remove Packaging

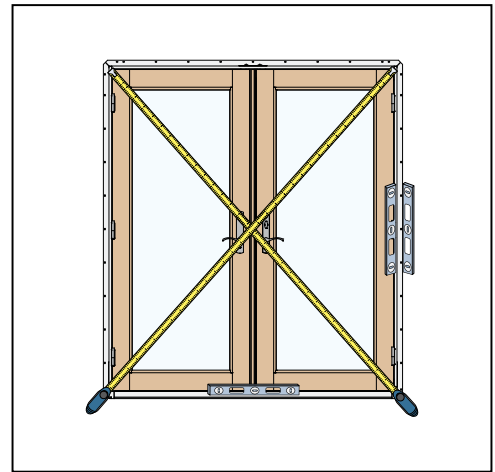
Remove shipping materials such as:

- Corner covers, shipping blocks or pads.
- Remove any staples exposed on the frame.
- **DO NOT** remove protective films from the cladding or glass.

Inspect Patio Door

- Cosmetic damage and/or shipping damage.
- Splits, cracks, holes, missing sections or other damage to the nailing fin longer than 6" and/or within 1/2" of the patio door frame.
- Correct product (size, color, grid pattern, handing, glazing, energy-efficiency requirements, etc.).
- Manufacturing abnormalities (e.g., warp, bow, squareness).
- Frame or panel damage.
- For side-by-side mulled units, a drip cap that extends the length of the frame.

If any of the above conditions represent a concern, or if environmental conditions exceed the patio door's performance rating, **DO NOT** install the patio door. Contact your dealer or distributor for recommendations.



2 INSPECT ROUGH OPENING (R.O.)

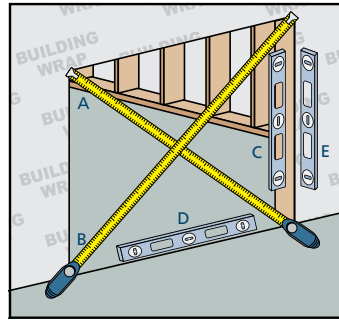
CAUTION

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

Rough Opening Requirements

- Verify the width and height of the rough opening is 3/4" 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). Suggested deviation is no more than 1/4".
- The rough opening sill should not be crowned or sagged (D), but rather level or sloped (positive sloped) 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



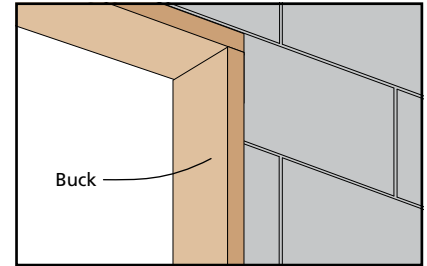
For Retrofit Installations

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, open-stud construction and exterior foam insulation. For exterior foam insulation construction, please reference the latest version of FMA/AAMA/WDMA 500 for additional install and framing details. If installing into an opening other than what is identified, consult a building professional.

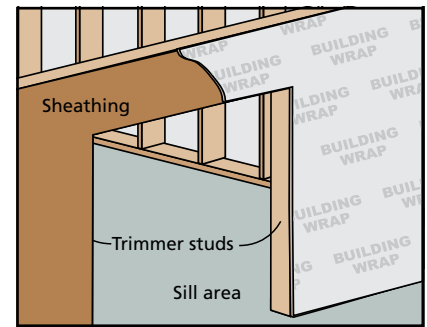
Masonry/Block Wall Construction

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 mounted into the buck in a weatherproof manner.



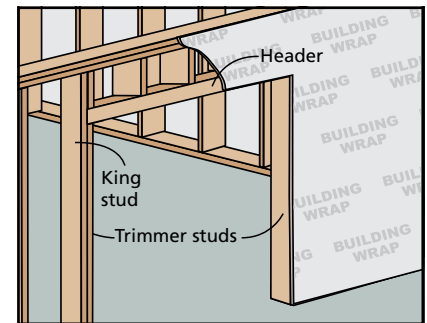
Fully Sheathed Wall Construction

Sheathing is applied to the exterior of the wall framing. The patio door will be mounted flush against the sheathing or building wrap in a weatherproof manner.



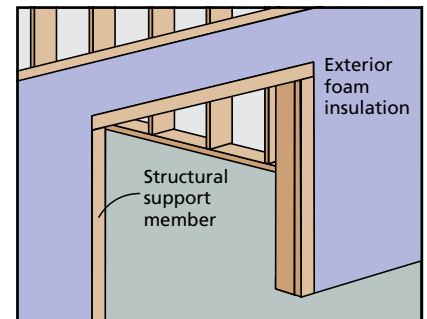
Open-Stud Construction

Sheathing is absent and building wrap is applied atop of the wall framing. The patio door will be mounted 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).

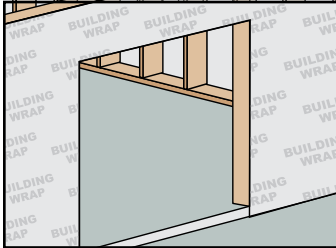


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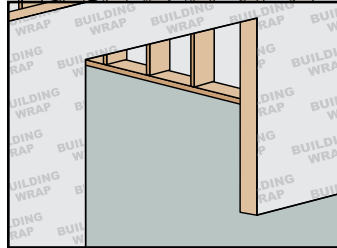
INSTALL SILL PAN FLASHING SYSTEM

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



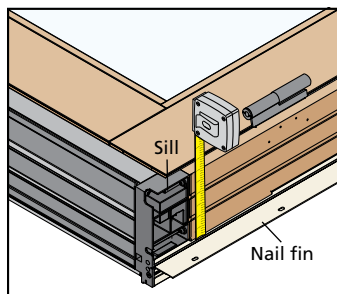
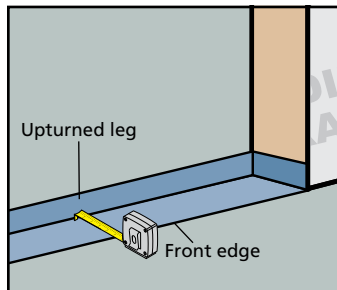
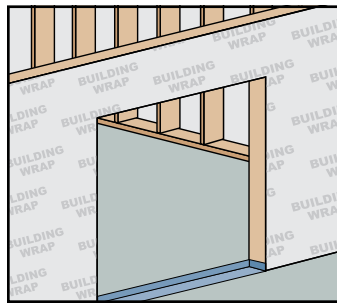
Continuous Slab Landing

Prepare Sill

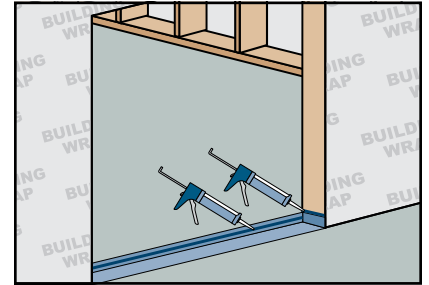
1. A pan flashing system (as defined in **ASTM E2112**) is **required** at the sill prior to window/door installation. Always allow water to drain out of the pan and onto the building wrap, drainage plane or to the exterior.

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

2. Ensure you have the proper sill pan depth to door jamb depth. Measure from the upturned leg to the front edge of the sill pan. Measure from the back of the nail fin to the interior edge of the sill. If needed, dry-fit the door to confirm the door will sit properly.



3. Apply a continuous bead of sealant to the interior upturned leg and end dams of the sill pan (if using a rigid sill pan). **NOTE:** For doors with an **ADA sill**, liquid-applied membrane or threshold tape can be applied to the rough threshold/sill prior to the installation of the door. Dry-fit the door to define the flashing locations.

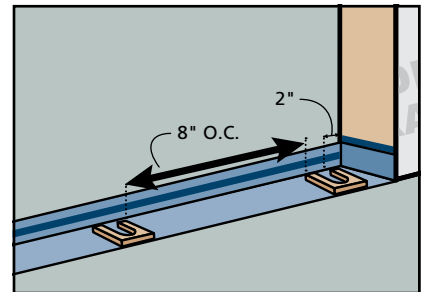


Shim the Sill

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 height) 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/doors.



The steps above exclude doors with an **ADA sill**.

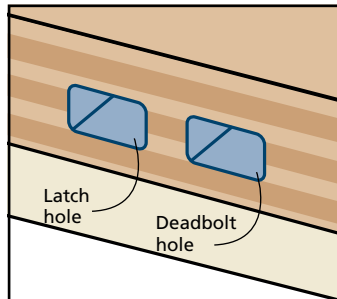
4

TEMPORARILY FASTEN AND SHIM PRODUCT

⚠️ WARNING

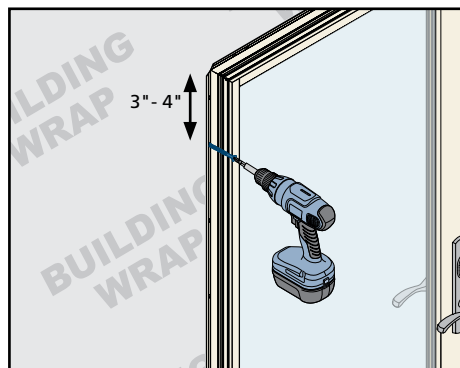
To avoid injury, use at least 2-people to install. Adequately support the door until fully installed.

1. Confirm the deadbolt and latch holes have the proper plastic housing. If the plastic housing is not present, apply self-adhered flashing to the outside of the frame (over the holes).



2. The factory drip cap can be prepped at this time. Evenly fit the drip cap atop the door frame. Mark the pre-punched holes in the nail fin onto the back wall of the drip cap. Drill each marked location with a 3/16" drill bit to allow for installation of fasteners.
3. Run a continuous 3/8" bead of sealant around the interior side of the nail fin on both side jambs and head.
4. Tilt patio door into the rough opening. Make sure the back of the nail fin makes solid contact. Tool any sealant squeeze out until smooth. If necessary, add more sealant to create a continuous seal.

5. Fasten patio door with the appropriate fastener between 3" and 4" from one upper corner. For units with more than one door panel, an additional screw through the opposite upper corner is recommended.



⚠️ WARNING

The first screw should be placed at the top corner rather than the bottom corner. Support is REQUIRED at all times.

Shim the Jambs

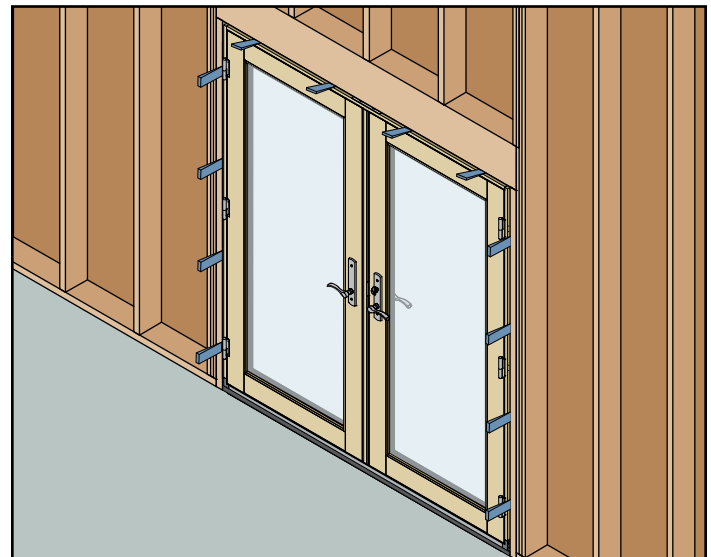
1. Start by placing shims 6" from each corner and at the center of each side jamb. **NOTE: Each location should be shimmed with two opposing shims (if tapered). Secure all shims with sealant.**
2. Inspect the patio door for square, level, plumb and twist. See **Product Installation Tolerance Table** for tolerances. Shim at additional locations as needed.

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	+/- 1/8" product sized up to 20 sq. ft. +/- 1/4" product sized over 20 sq. ft.

3. Temporary fasteners can be used to hold the product within tolerance until properly fastened. Test for proper operation. Remove and reinstall if necessary.



5

FASTEN PRODUCT (SIZE AND SPACING)

Common Patio Door Fastening

Fastener heads must be flush. Do not dent nailing fin. Always use pre-punched holes or pre-drill with a 3/16" bit.

1. From the exterior, fasten patio door through nailing fin holes 3"-7" from the corners and 16" (max.) apart all the way around the nail fin.



3. A factory-supplied drip cap can be installed prior to applying a fastener along the top of the door unit. Reference **Section 6** for installation recommendations.
4. From the interior, add shims at each hinge and strike plate location. Ensure the shims **do not** bind the frame. To prevent deflection, **DO NOT** over shim.
5. Run a minimum of 1, 3" screw through each hinge into the structural framing and tighten until snug. To prevent frame deflection, **DO NOT** over-tighten. If frame deflection occurs, back out the screws and shim accordingly.
6. Run a 3" screw through each strike plate hole (may include side jamb and head jamb locations). Removal of the factory screws may be required. To prevent frame deflection, **DO NOT** over-tighten. If frame deflection occurs, back out the screws and shim accordingly.

NOTE: This does not apply to mull post or astragal latch doors.

NOTICE

Exterior Trim is Deemed Non-Structural

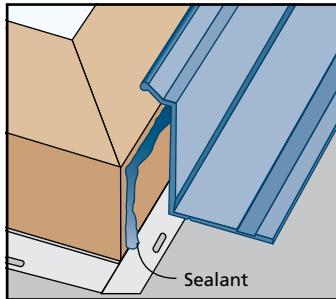
2. Door units with exterior trim (e.g., Brickmould, Flat Casing, Vinyl Folding Nail Fin) must be fastened through the interior of the door frame.
 - It is suggested that the fasteners be positioned under the main frame weatherstripping.
 - Shims should be placed at each fastener location.
 - Fasteners should be spaced 4" from the corners and 16" (max.) on-center (side jambs and head).

6

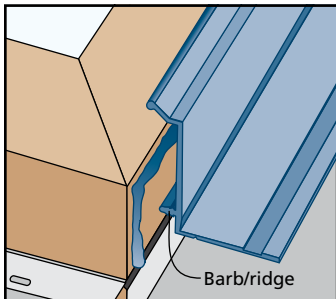
INSTALL DRIP CAP

Apply Drip Cap to Finned Doors

1. With the exterior face up, apply a 1/4" bead of sealant across the head of the door frame (**DO NOT** apply sealant to the accessory groove).

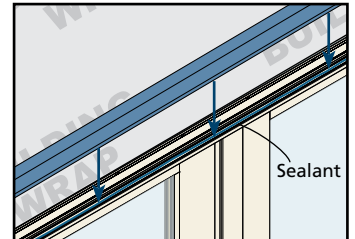
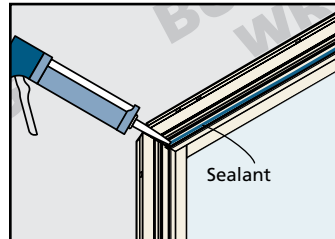


2. For dip caps with a barb/ridge on the backside, align the ridge with the groove in the frame and set into place. Use a wooden block and hammer (or non-marring mallet) to assist in the installation of the drip cap.

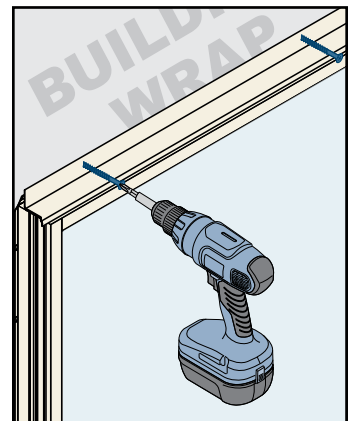


Apply Drip Cap (wood doors or doors with trim)

1. Apply 1/4" bead of sealant to header trim as shown.
2. Position the drip cap above the door/trim to allow for 1/8" overlap on each end.



3. Fasten drip cap in place as shown.
4. Apply sealant underneath the drip cap where it meets both ends of the trim.



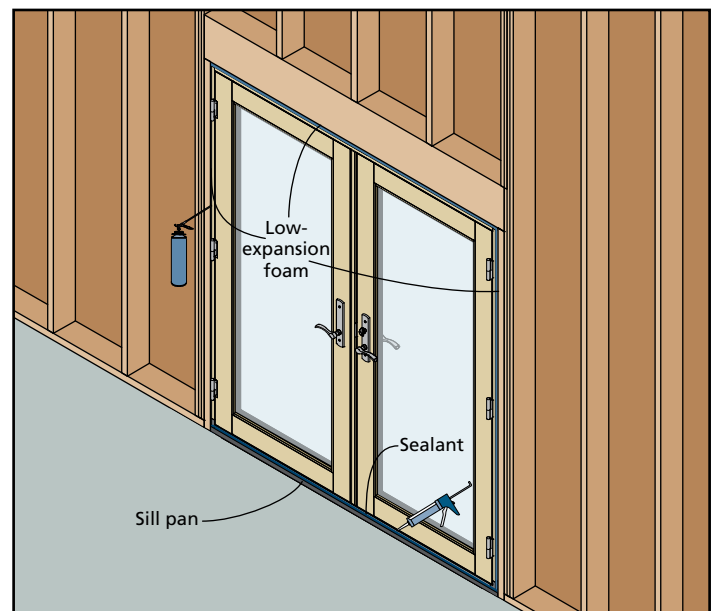
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CREATE INTERIOR AIR SEAL

Continuous "Interior" Air Seal

NOTE: Shims may need to be cut back, so the interior air seal is "continuous" between the patio door frame and the rough opening.

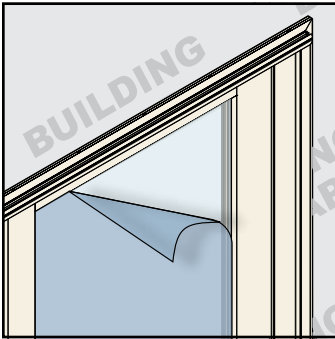
Create a **required** continuous air seal on the interior by integrating the rough opening and the patio door frame with low-expansion polyurethane foam or backer rod and sealant. **NOTE:** If foam is applied, a 1/2" - 1" depth is prescribed. Backer rod can be used to control the depth.



8 REMOVE PROTECTIVE FILM

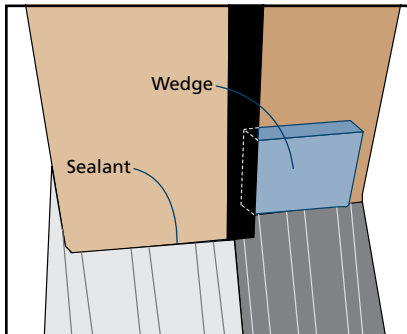
NOTICE

If applicable, remove any protective film immediately from all surfaces of the frame/panel and within six months from any glass.

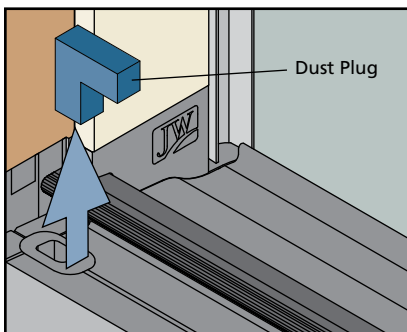


After Installation

- For fiberglass sills, ensure weep holes/channels are clear of debris for proper water drainage. Do not seal weep holes/channels.
- Leave an expansion/contraction gap of approximately 3/8" between the patio door frame and final exterior wall surface (siding, stucco, etc.).
- Finish all exposed wood surfaces immediately following installation.
- If sealant is applied above the drip cap, ensure the sealant bead is discontinuous to allow for drainage.
- Review and heed all directions on labels.
- On the exterior of step-down landings, install support trim underneath the sill where it extends past the landing. Position the trim snugly against the bottom of the sill. **DO NOT** apply sealant between the trim and the sill.
- If supplied, adhesive foam wedges are used to complete the weatherstrip seal at each bottom corner (between the jamb and operating slab(s) when closed). Remove the backing, position behind the weatherstrip and adhere to the jamb.



- If applicable, remove the dust plug on each end of the sill after construction is complete.



- Protect recently installed units from damage from plaster, paint, etc. by covering the unit with plastic.
- For doors with an ADA sill, apply a 1/4" bead of sealant around the nose of the sill leaving 1" gap 6" from the end of the sill nose. Also, apply a continuous bead of sealant along the entire interior slab/subfloor to sill interface.

WARNING

DO NOT operate the panel in the extended position for long periods of time or leave unattended in the fully open position, as potential damage may occur from environmental factors (i.e., unexpected strong wind gusts).

Hinge Adjustment

Some door products come with adjustable hinges. If needed, the hinges can be adjusted for better alignment and/or operation.

Type A

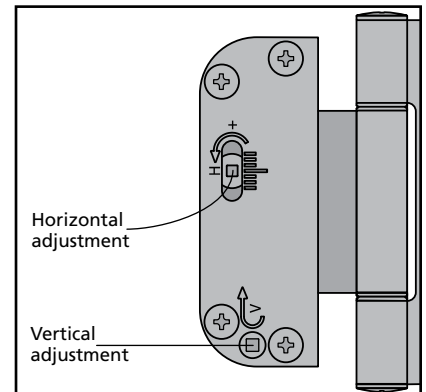
Use a #2 square drive to make the vertical and horizontal adjustments. **DO NOT** use a power drill, hand drivers only.

Vertical Adjustment
(Maximum 3/8" Adjustment)

- Reference the hinge arrow for direction and adjust the hinge in 1/16" increments until an even reveal is achieved.

Horizontal Adjustment
(Maximum 3/16" Adjustment)

- Adjust the hinge in 1/16" increments until an even reveal is achieved.



Type B

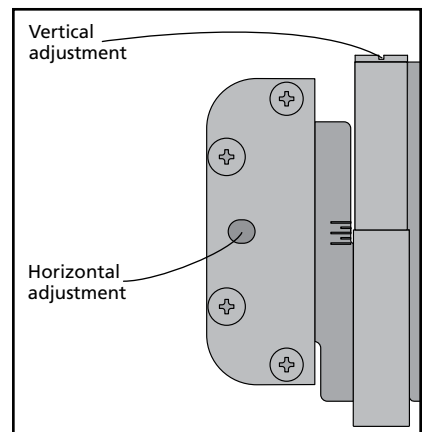
Use a 1/4" hex key to make the vertical adjustment and a Phillips head screwdriver for the horizontal adjustment.

Vertical Adjustment
(Maximum 1/4" Adjustment or 2 1/2 turns)

- Adjust the hinge in 1/16" increments until an even reveal is achieved. Use the vertical adjustment indicator until the door has reached the desired height.

Horizontal Adjustment
(Maximum 5/16" Adjustment or 4 turns)

- Adjust the hinge in 1/16" increments until an even reveal is achieved.



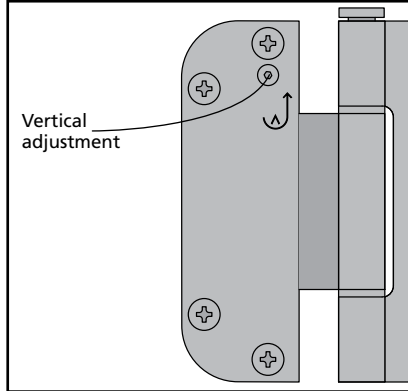
8 REMOVE PROTECTIVE FILM (CONTINUED)

Type C

Use a 3/32" hex wrench to make the vertical and horizontal adjustments.

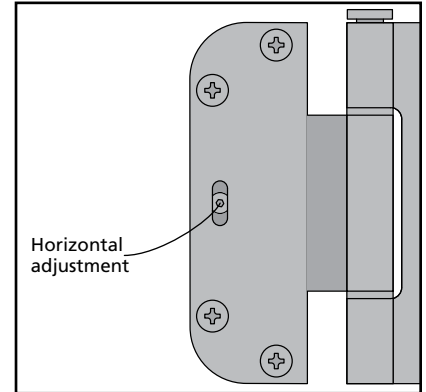
Vertical Adjustment
(Maximum 1/4" Adjustment)

- Adjust the hinge in 1/16" increments until an even reveal is achieved.



Horizontal Adjustment
(Maximum 3/16" Adjustment)

- Adjust the hinge in 1/16" increments until an even reveal is achieved.



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

Thank you for choosing

