JELDWEN.

Installation Instructions

for Swinging French and Patio Doors (JII105)



Thank you for selecting JELD-WEN® products. Attached are JELD-WEN's recommended installation instructions for Steel and fiberglass French/ Patio 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 those 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.



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 exterior 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.

Table of Contents

Safety and Handling
Materials and Tools
<u>Inspect Product</u> 3
Inspect Rough Opening (R.O.)
<u>Install Sill Pan</u>
<u>Install Patio Door</u>
<u>Install Screen System</u> 7
Apply Sealant and Drip Cap
Complete Installation

ACAUTION

DO NOT discard the NFRC label on the product until the final inspection is complete.

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 patio door and any related warranty claims could be denied on that basis.

Glossary

Active Slab

The primary slab or the one that opens and locks into the other slab.

Astragal

The vertical trim attached to one of the slabs of a French door bridges the gap between the slabs when closed to provide weather and overswing protection.

Backer Rod (backing material)

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

Brickmould

A form of exterior casing for windows and doors that serves as an aesthetic boundary between the siding and the frame.

Buck

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

Mull (mullion)

A wood or metal part used to structurally join two window or door units.

Mulled Unit

Two or more door units are structurally joined together.

Pilot Hole

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

Sill Pan

A flashing component installed in the sill of the rough opening underneath the door. 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.

Installation Instructions



for Swinging French and Patio Doors (JII105)



SAFETY AND HANDLING

Safety

- Read and fully understand ALL manufacturer's 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) 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.

Door Handling

- Make sure the operating slab(s) is secured prior to installation.
- 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 the 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 instructions, which are printed on the product label 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.

Needed Materials

- #8 x 2" (min.) flat-head, corrosion-resistant screws.
- 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.

- Non-compressible, non-water degradable shims.
- Backer Rod: 1/8" larger than the widest portion of the gap (used in conjunction with sealant bead).
- Sealant: An exterior grade (High-Performing, Low VOC) sealant is recommended for installation practices. Check with the sealant manufacturer for color-match options 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 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

- · Tape measure
- Utility knife/shears
- Level (4' minimum recommended)
 Screwdriver
- Hammer

- · Caulking gun
- · Drill with bits
- Pry bar



INSPECT PRODUCT

Remove Packaging

- Remove shipping materials such as corner covers, shipping blocks or pads.
- Remove any exposed staples on the frame, but leave glass protective films.
- Remove the skidboard or packaging under the threshold, if present.

NOTE: Some door units may have a screw through the head of the frame into the top of the slab. Inspect for screw(s) and remove if present.

Inspect Door

- Cosmetic damage and/or shipping damage.
- Product squareness (diagonal measurements must be within 1/4" difference).
- Correct product (size, color, grid pattern, handing, glazing, energyefficiency requirements, etc.).
- Manufacturing abnormalities (e.g., warp, bow, squareness).
- Frame and panel damage.

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.

ACAUTION

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

 Verify the width and height of the rough opening is a minimum of 3/4" larger than the door width and height.

Verify Square, Level and Plumb

- 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 plumb (C, E and D). Suggested deviation is no more than 1/4".
- 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 (king and trimmer) should be used to support the header at all rough openings.

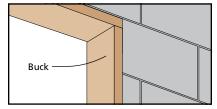
For Retrofit Installations

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

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 the framework of studs (often called a buck) has already been properly fastened to the concrete/masonry wall in a weatherproof manner.



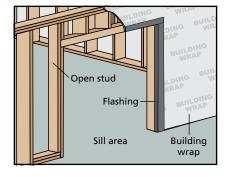
Fully Sheathed Wall Construction

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



Open-Stud Construction

Sheathing is absent and building wrap is applied atop the wall framing. The door will be mounted into the rough opening in a weatherproof manner.

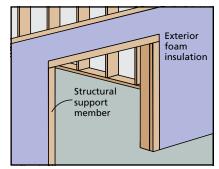




INSPECT ROUGH OPENING (R.O.) (CONTINUED)

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).





INSTALL SILL PAN

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

Prepare Sill

 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 on the front to accept the step-down landing.



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

NOTE: For doors with an ADA sill, liquid-applied flashing or threshold tape can be applied to the rough threshold/sill prior to the

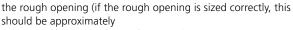


installation of the door. Dry-fit the door frame to define flashing locations.

Shim the Sill

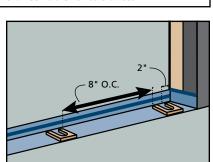
See Product Installation Tolerance Table for tolerances

- Unless installing into a sill pan with a positive sloped draining system, shims should be aligned as defined by the label on the door or as stated below:
 - Shims (1/4" maximum) in height.
 - Place one shim 2" from each side of the rough energies



- 1 1/2" 2" from the corner of the 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.

NOTE: The steps above exclude doors with an ADA sill.





INSTALL PATIO DOOR

AWARNING

To avoid injury, use at least 2-people to install.

Adequately support the door until completely fastened.

Shim and Temporary Fasten Door

- Adequately support the slab to keep it from swinging open during installation.
- 2. If trim is present, apply a 3/8" bead of sealant where the back of the trim meets the frame. Tool into a fillet shape. Run another bead of sealant along the back of the fin/trim where it will contact the structure.
- 3. Tilt the door into the rough opening and support until **fully** fastened.
- 4. Position the door so the bottom/sill of the door is centered within the opening. If using a ridged sill pan, ensure the back of the sill is in contact with the back dam of the sill pan.
- 5. Double-check the sill is level within the opening and the door is square.
- 6. Shim the door as indicated below:
 - Behind each hinge.
 - Behind the strike plate (center hinged door units only).
 - Head jamb at center and 6" from each end.

NOTE: The number and location of the shims are meant to serve as a minimum requirement. Depending on the application and size of the unit, more shims may be required.



 Verify the door is installed plumb, level, square and without twist (reference the **Product Installation Tolerance Table** for allowable install variations). Adjust shims if necessary.

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"	

NOTICE

Exterior trim is deemed non-structural. The primary anchor fastener must be seated through the main frame.

General Fastening Considerations

- Areas such as Florida and 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.
- Pre-drilling each fastener location is recommended.
- It is suggested to set screws behind the main frame weatherstripping or in a less noticeable location.
- Place a shim at each fastener location. The fastener should penetrate the shim at the head and jamb locations to prevent frame deflection.

Secure The Door

 Identify the fastener locations defined in the "Fastener Location Table".

Fastener Location Table		
Side Jambs	4" from the corners and 16" on-center.	
Head Jamb	4" from the corners and 16" on-center.	
Hinges	One 2" screw through each hinge.	
Strike Plate	Two 2" screws through each strike plate.	

- 2. Mark and pre-drill each fastener location.
- 3. Insert a #8 x 2" flathead, corrosion-resistant fastener near the upper corner of the side jamb.
- 4. Tighten the fastener until snug.
- Inspect the unit for square, level, plumb, twist and even door reveal throughout the fastening process.
- Repeat the steps for the remaining fastener locations along the head and side jambs.

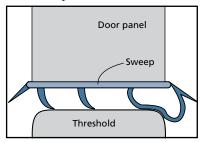


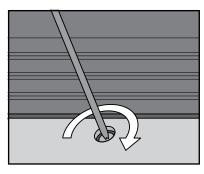


INSTALL PATIO DOOR (CONTINUED)

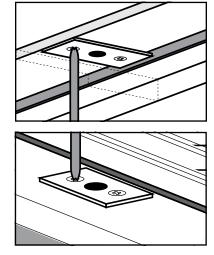
Adjust Threshold Cap (If Necessary)

1. Verify the sweep properly contacts the threshold with 1/8" overlap as shown. Door units are manufactured so that, if installed level and square, the sweep will contact the threshold. However, if adjustments are needed, use a screwdriver to adjust visible screw heads and/or remove the plastic cap to gain access to the adjustment screws.





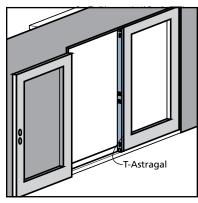
 Drill 3/8" holes at these spots and apply the strike plates (provided) to the sill cap and head jamb as shown.



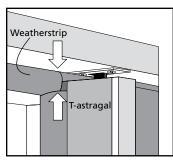
4. If daylight is observed at the top of the astragal with both doors shut, the frame weatherstripping may need to be cut with a sharp utility knife at the edge of the T-Astragal. Open the doors and cut through the weatherstrip on the head jamb.

T-Astragal Flush Bolt Strike Plates

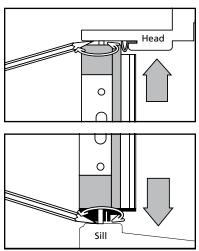
1. Locate the T-Astragal attached to the edge of the inactive door slab that secures the door when the door is closed. There are flush bolts at the top and bottom of the T-Astragal.



Weatherstrip
Cut here
T-astragal



2. With the inactive door closed and compressing the weatherstripping, mark where the flush bolts touch the head jamb and sill cap.



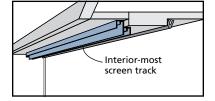
5

INSTALL SCREEN SYSTEM

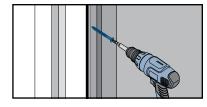
Screen tracks may ship loose/separate. Screen tracks must be applied prior to installing the screen door. Reference the instructions that come with the screen and/or the drawings below for screen track installation.

For Dual Screen Systems

 Position the smaller inactive screen in the interior-most track. Ensure the screen is properly engaged at the head and sill.



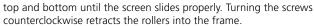
 Secure the inactive screen to the side jamb with
 of the provided #8 x
 screws through the pre-drilled holes along the edge of the screen.



Exterior-most

screen track

- 3. Position the larger active screen on the exterior-most track. Ensure the screen is properly engaged at the head and sill.
- 4. Using a #2 Phillips screwdriver, adjust the outer screen rollers at the

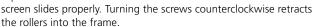


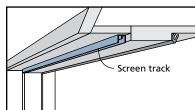
5. Adjust the wheels at both the top and bottom to center the screen between the head and the sill.

NOTE: Excessive tension may cause binding. Adjust so the top and bottom are parallel with the head and sill.

For Single Screen Systems

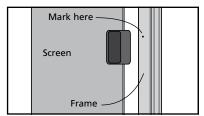
- Position the screen on the screen track. Ensure the screen is properly engaged at the head and sill.
- 2. Using a #2 Phillips screwdriver, adjust the outer screen roller at the top and bottom until the





For Both Screen Systems

- 1. Trim the bug flap on screens to the desired length.
- Mark where active screen securing hardware should be mounted on the door frame and apply the strike/hook plate. The door frame must be predrilled to accept screws.

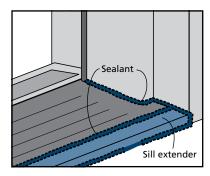




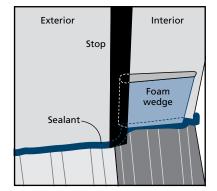
APPLY SEALANT AND DRIP CAP

1. After the threshold has been adjusted and the door frame has been painted, apply a bead of sealant at the intersection of the jambs, brickmoulds, thresholds and floor as shown.

For "Continuous Slab Landings" leave 1" gap in the sealant every 2' along the front side of the threshold where it meets the slab/rough opening.



2. The foam wedges included with doors are used to complete the weatherstrip seal at each bottom corner of the operating door slabs(s). Gently pull the weatherstrip flap away from the frame and position the wedge behind the weatherstrip and against the sill so that the thin edge faces the edge of the door as

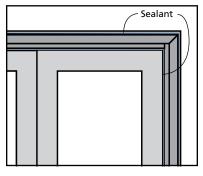


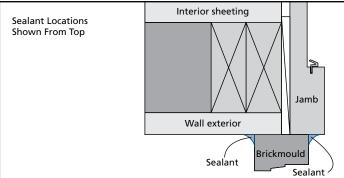
it swings closed. Remove the backing paper and stick the wedge to the frame.



APPLY SEALANT AND DRIP CAP (CONTINUED)

Apply sealant along both sides and top of the door unit where the exterior trim rests against the outside of the house and where the brickmould meets the jambs.

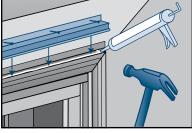




A drip cap is not provided with this door unit. However, the use of a drip cap is strongly recommended and may be required by local code.

- Cut a piece of drip cap the length of the header brickmould plus 1/4" to allow for 1/8" overlap past the ends of the door frame of exterior trim.
- 2. Apply a 1/4" bead of sealant to the top of the door frame or exterior trim along the front and side edges.
- side edges.

 3. Nail the drip cap into place and apply sealant to the edges on the side.



7

COMPLETE 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.

- Create a required continuous air seal on the interior by integrating the rough opening and the door frame with low-expansion polyurethane foam backer rod and sealant. NOTE: If foam is used, a 1/2 " - 1 " depth is prescribed. Backer rod can be used to control the depth.
- Install lock set hardware per supplied instructions.
- On the exterior of step-down landings, install support trim underneath
 the sill where it extends past the landing. Position
 the toe-kick trim snug against the bottom of the sill toe/nose.
 NOTE: DO NOT apply sealant to the backside of the trim as water must
 be able to exit the sill pan.
- Fill any nail/screw holes in the wood and sand smooth.
- Finish all six sides of the door panel(s) and finish the frame.
- Maintain a gap of 1/4" 3/8" between the door frame and the final exterior wall surface (siding, stucco, etc.).
- If applicable, remove any protective film immediately from all surfaces of the frame/panel and within six months from any glass.
- Protect recently installed units from damage from plaster, paint, etc.
- Install any interior trim as desired.



For care and maintenance information, please scan the QR code or reference Care and Maintenance for Interior and Exterior Doors (JCM005) at www.jeld-wen.com.



For finishing and refinishing information, please scan the QR code or reference Finishing and Refinishing Instructions for Interior and Exterior Door Slabs and Systems (JCM004) at www.jeld-wen.com.



For door protection information, please scan the QR code or reference Appropriate Protection for Exterior Doors (JGI030) at www.jeld-wen.com.



Installation Instructions

for Swinging French and Patio Doors (JII105)

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

Thank you for choosing

