

Loewen

SLIDING PATIO DOOR INSTALLATION GUIDE

Wood Framing - New Construction

IMPORTANT NOTICES & INFORMATION

The building envelope must be correctly prepared with weather resistant barriers – that meet local and state codes. All frame and sill surfaces must be correctly prepared for air, water, and structural integrity by the builder or contractor before attempting installation. In order to meet warranty requirements, all systems are required to be installed by a certified installer.

- Read these instructions in their entirety prior to installing windows. Contact Loewen at 1.800.563.9367 for clarification.
- Loewen is not responsible for site measurements nor the structural and architectural requirements for the installation of the patio doors.
- Building design, construction methods, building materials and site conditions unique to your project may require methods different from these instructions.
- Choosing the appropriate method is the responsibility of you, your architect, or your construction professional.
- Confirm with sealant/foam/barrier manufacturers that all materials used are compatible with one another.
- Remove shipping blocks and related staples prior to installation.
- All drawings are shown not to scale.
- To ensure accuracy, make sure you have the latest approved shop drawings and assembly and installation guides.
- Any local, regional or national building code requirements supersede these instructions.
- Safety is top priority for Loewen. Use proper work procedures and protective equipment.

Notes on Building Envelopes

Improper design and/or non- conforming application of building envelope materials has been demonstrated to cause premature building envelope failure. Even with premium materials, shortcuts and errors in the final installation can impact budgets, time frames, building life span, and increase legal liabilities.

As one of the elements that bisect the interior/exterior plane, window and door integrations are a critical element of the building envelope as a whole. Poor installations can carry significant liability, due to building envelope failure.

Finishing Requirements

Metal Clad:

- Interior - within 14 days of delivery.
- All door panels - Interior - immediately upon delivery.

Non-clad:

- Exterior - immediately upon delivery.
- Interior - within 14 days of delivery.
- All door panels - Interior and Exterior - immediately upon delivery.

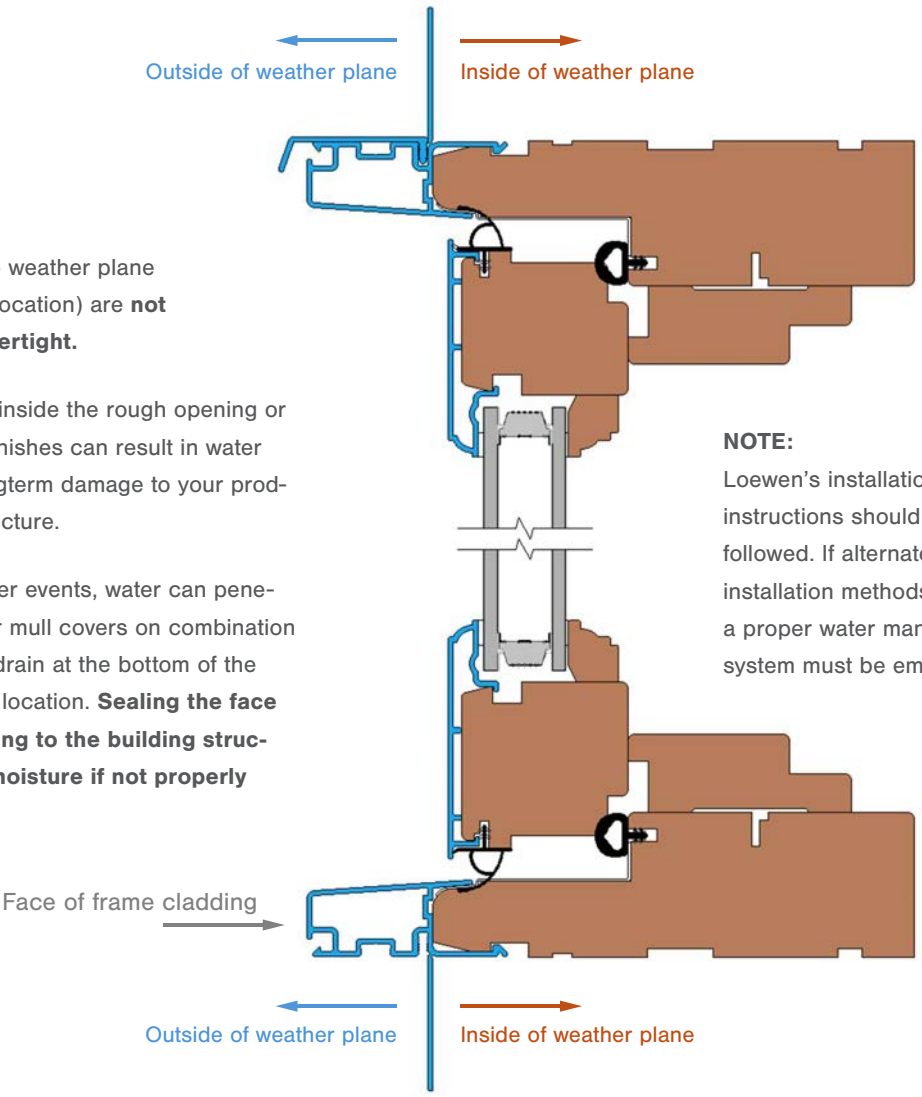
Factory primed:

- Exterior - within 14 days of delivery.
- Interior - within 14 days of delivery.
- All door panels - Interior and Exterior - immediately upon delivery.

See Loewen warranty and finishing guidelines at **www.loewen.com**

WEATHER PLANE OF WINDOW AND DOOR PRODUCTS

Fixed casement shown – detail common to all flanged products



CAUTION:
Areas outside of the weather plane (outside the flange location) are **not intended to be watertight.**

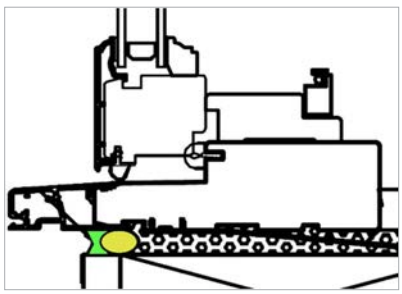
Capturing this area inside the rough opening or within the exterior finishes can result in water penetration and longterm damage to your products or building structure.

During heavy weather events, water can penetrate behind exterior mull covers on combination units and needs to drain at the bottom of the frame-to-frame mull location. **Sealing the face of the frame cladding to the building structure will trap this moisture if not properly managed.**

NOTE:
Loewen's installation instructions should be followed. If alternate installation methods are used, a proper water management system must be employed.

NOTE:
For products being installed **without a flange**, using backer rod with sealant applied in the same position as the removed flange is required to maintain the integrity of the weather plane.

Loewen's installation instructions include details to manage incidental moisure within the rough opening. If using an alternate installation method, provisions for managing incidental moisure must be made.



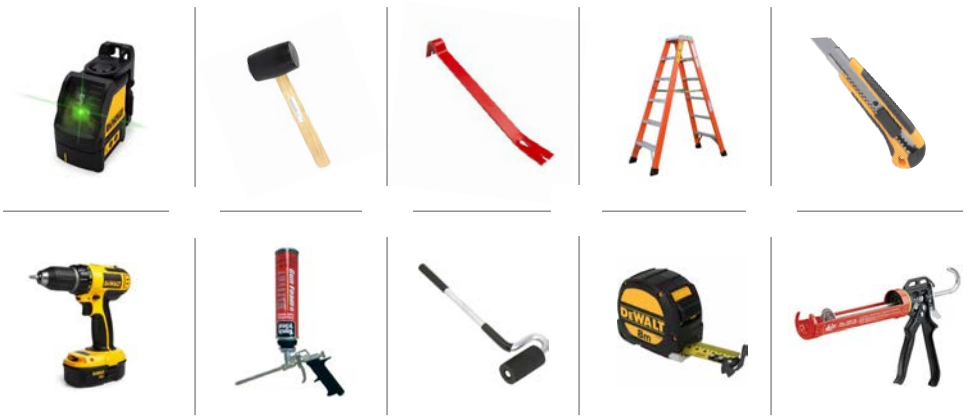
PREPARATION INSTRUCTIONS

Site Preparation Advisory

These instructions request that the building envelope include proper rough opening support with weather resistant barriers to meet or supersede all local building codes.

Tools Required

- Laser Level
- Hammer
- Pry Bars
- Ladders
- Utility Knife
- Screw Gun Applicator
- Foam Gun
- “J’ Roller
- Tape Measure
- Caulk Gun



Suggested Materials Required

- High Impact Composite (not wood) shims/spacers
- 1 1/2” or 2” #8 Screws (stainless steel recommended)
- Expansion Foam - Closed Cell (low-expansion only)
- Window & Door Flashing Tape (6” recommended)
- Window & Door Sealant
- Interior Trim



Weather Barrier Material Selection

Though this guide only includes one type of barrier material, various options are available to meet individual site requirements:

- Vapor Permeable Building Wraps
- Fluid Applied Materials
- Self-Adhered Membranes
- Medium Density Spray-Polyurethane Foam
- Rigid Board Stock Insulation
- Factory-Bonded Membranes to Sheathing

Product Adjustments

Adjustments to Loewen products are required as part of the installation process. It is up to the installer to ensure that all products operate properly and seal adequately.

Adjustments to hinges and other hardware to achieve uniform reveals and consistent weatherstrip contact should be made and verified during the installation.

Should technical support be required please contact us at 1-800-563-9367.

INSTALLATION INSTRUCTIONS

Verify & Prepare the Rough Opening

Measure the rough opening and the door frame assembly to determine that the size is correct. Recommended rough opening is between 3/4" - 1" larger than the door width and height. Ensure that the rough opening is plumb, level and square, and the walls in the opening are not twisted. Ensure that the RO will be able to accommodate the added height of a sloped sill pan (as recommended).



- Proper blocking is required at the sill and sides of the opening.
- Ensure proper header is in place before installation.
- Ensure roof is loaded before installing.
- If Weather Resistant Barrier house wrap is applied cut back and expose the sheathing at the side jambs by removing approximately 1 1/2" of WRB. This will allow a direct-contact seal to the sheathing.
- Create a temporary flap at the head of the opening by cutting the WRB on a 45 degree angle. Temporarily tape the flap up out of the way to allow for door installation and head flashings.
- NO WRB should be brought into the rough opening.

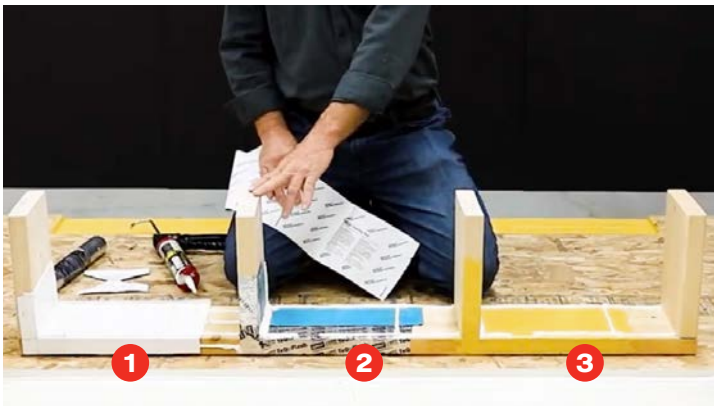
Sill Pans and flashing are used at the base of openings and are designed to divert and drain water directly to the exterior or onto the weather resistive barrier. Sill pans are mandatory in any door installation.

All frame and sill surfaces must be correctly prepared for air and water and structural integrity by the builder or contractor before attempting installation.

INSTALLATION INSTRUCTIONS

Preparing Sill Pans & Sealant Application

- For illustration purposes we are showing the 3 different sill pan options:
  1. Rigid sill pan flashing
  2. Flexible pan flashing
  3. Rubber pan flashing



- All Sill Pans should be sealed and sloped towards the exterior with a minimum 1/2” interior upturn leg or dam and 2” exterior down turn leg. Upturn frame at jamb end should be 6”.



- On all Sill Pans apply a sealant bead on top of the sill pan flashing along the exterior of the rough opening, leaving a 2” void approximately 2” from either end. This will allow a drainage path for incidental moisture (1).

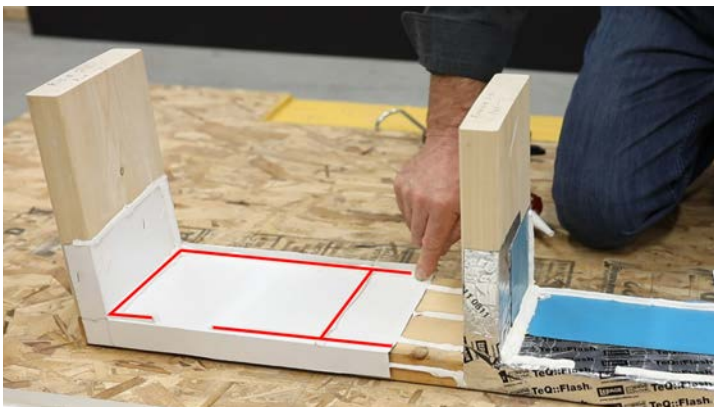


INSTALLATION INSTRUCTIONS

Preparing Sill Pans & Sealant Application (Continued)

- Along the jamb side of sill pan where the jamb leg will sit up against apply a continuous bead on the interior edge up the sill leg. Red lines illustrate the completed sealant application.





INSTALLATION INSTRUCTIONS

Preparing Sill Pans & Sealant Application (Continued)

- Once the sill preparation is complete, Place shims at each end at location of jamb legs to ensure the door frame will be appropriately levelled and door will sit just proud of the sill pan.
- High impact composite shim. Approximate size:
  - 1” wide
  - 4” long
  - 1/8” thick



Sill Pans and flashing are used at the base of openings and are designed to divert and drain water directly to the exterior or onto the weather resistive barrier.

Sill pans are mandatory in any door installation.

- On the exterior sheathing apply three continuous sealant beads to the exterior sheathing on the sides and at the top of the rough opening. Sealant is applied on the sheathing substrate edge.
- Caulking bead should line up with nailing flange holes so that screws will be driven through this sealant.



INSTALLATION INSTRUCTIONS

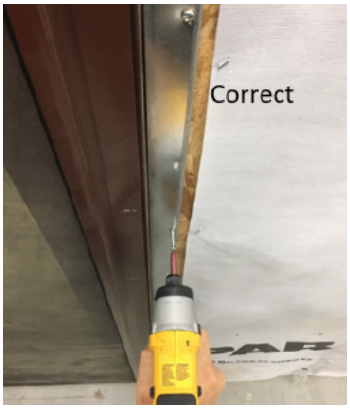
Installing Door Frame into Rough Opening (Continued)

Two or more people will be required to accomplish setting door assembly into rough opening.



- Tilt the frame out at the top and set the bottom of the sill into the sill pan
- Then tilt the top of the frame tight against the sealant
- Have one person on the interior to center the frame left to right
- Apply a 2” screw to one of the top corners
- Ensure the frame is plumb level and square
- Continue to apply screws through every other flange hole
- In coastal areas apply a 2” stainless steel screw through every flange hole
- Apply the screws in such a way that it will NOT bow the lock side jamb
- Critical to keep the lock side jamb perfectly straight





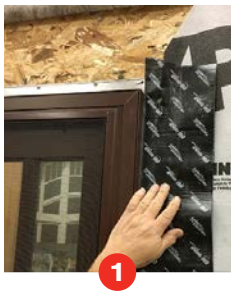


IMPORTANT:
Install flange fasteners only through the factory pre-punched holes. Fastening outside approved locations may affect product performance and water resistance.

INSTALLATION INSTRUCTIONS

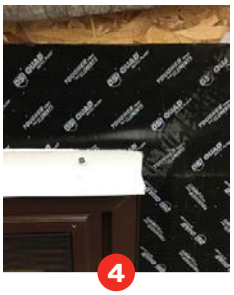
Installing Door Frame into Rough Opening (Continued)

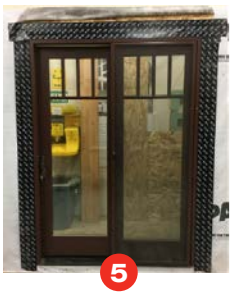
- Apply OSI Quad Flash & Sealant
  1. Flashing to both sides, 1” past the top hole flange.
  2. Flashing along the top minimum 1” past the side flashing
  3. Sealant along the top of the frame and against the nail hole flange apply two 3/8” nominal beads of sealant
  4. Use a 2” screw to fasten a drip cap onto the top of the frame
  5. Drop the top Typar flap down over top the drip cap
  6. Flash over top the drip cap and Typar flap with OSI Quad Flash or Sheathing Tuck Tape
- Use a J roller to push out all air pockets and ensure good adhesion against your WRB and against your flanging.
- If at any time the flashing does not stick due to cold wet substrates, it is permissible to secure the flashing with a tack hammer etc.
- The exterior is now complete

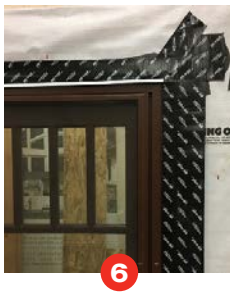














INSTALLING PANELS

Tools Required

- Suction Cups
- Driver (if an astragal needs to be removed)
- Flat Screwdriver









2 Wide OX

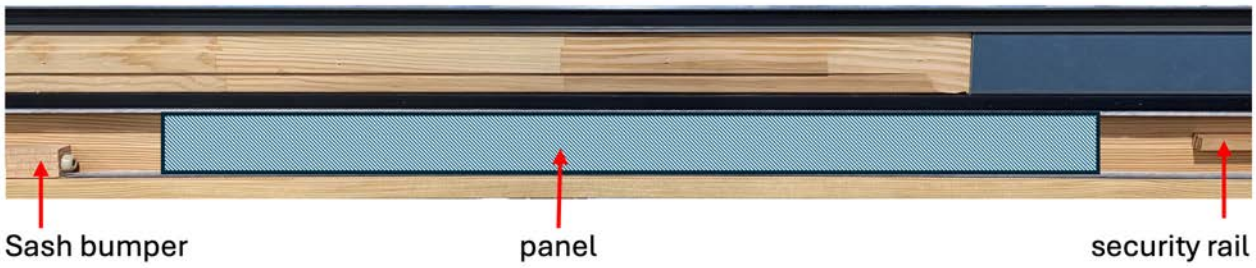


4 Wide OXXO



2 Wide XO

When installing the panels, ensure they are positioned between the sash bumper and the security rail.



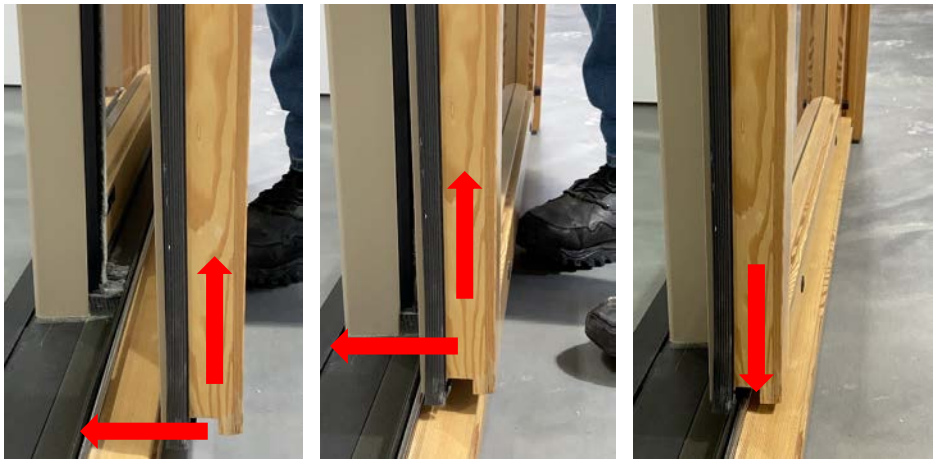
INSTALLATION INSTRUCTIONS

Panel Install

- Maintain an even, vertical lift until there is enough clearance to seat the bottom of the panel onto the sill track.



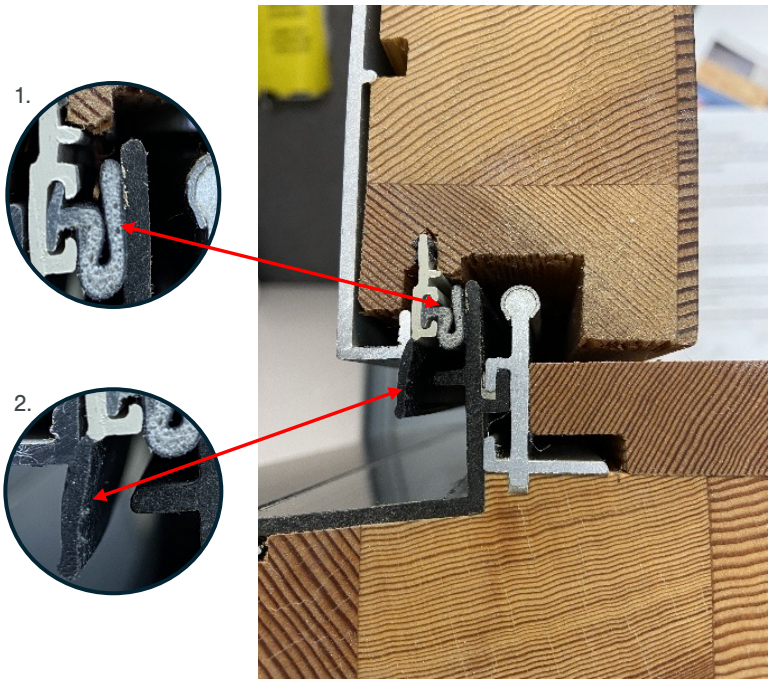


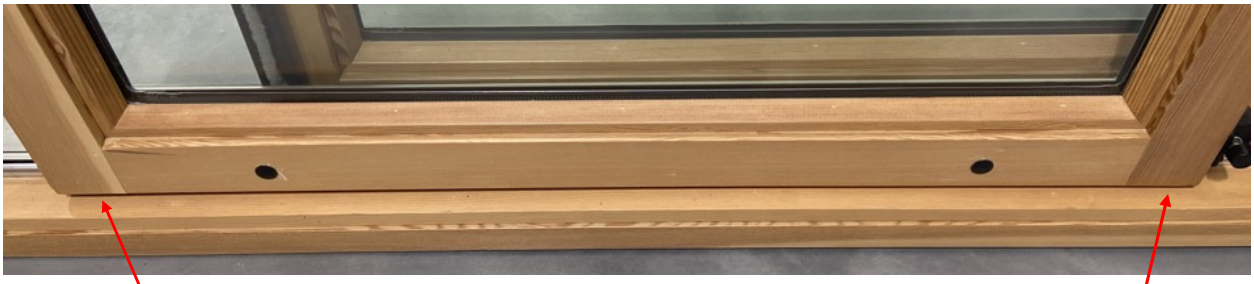


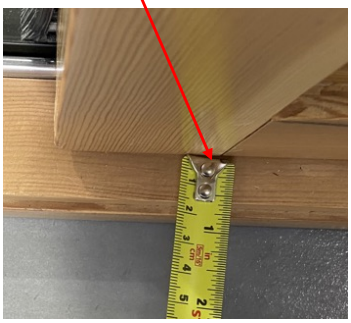
INSTALLATION INSTRUCTIONS

Panel Install (Continued)

- Ensure the panel is properly seated on the rollers before sliding.
  1. A-Weatherstrip tight against sill thermal break.
  2. B-Fin is sitting completely outside of sill thermal break. (not folded under)
  3. Panel is sitting centered on the sill track.
- Measure both ends of the sash to ensure the dimensions are consistent.









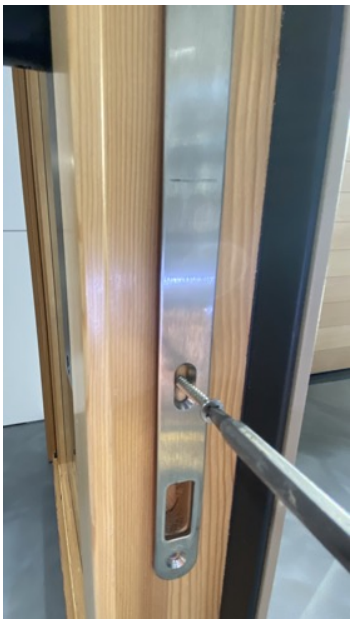
If panel is not positioned correctly, remove panel and reinstall

ASTRAGALS (IF APPLICABLE)

Removing Astragals (Astragal needs to be removed before installing panel or removing panel)

- Remove all screws through the astragal and strike plate
- Starting from the bottom of panel, remove astragal
  1. Using both hands, pull the astragal away from the panel. Maintain a firm grip, as the astragal may release suddenly
- Panel is ready to install, follow same procedure as on pages 12 and 13





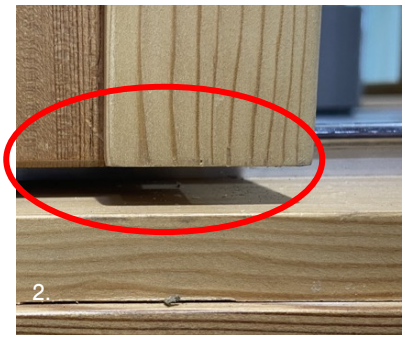


ASTRAGALS (IF APPLICABLE)

Re-applying Astragal

1. Fit on astragal
2. Ensure astragal and panel are flush at the bottom of the panel
3. Align and press the astragal evenly onto door edge


1.

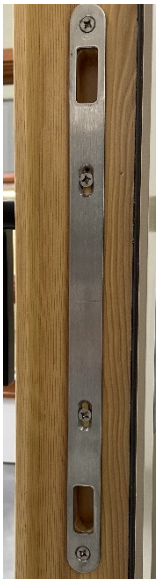

2.


3.

Refasten Astragal

- Drive the 3 screws back into their designated positions on the astragal
- Drive 2 screws into the center point of the elongated holes to allow for future adjustment.
- See anchoring strike plate Page 17
- See page 16 for roller adjustment and page 17 for strike plate alignment.



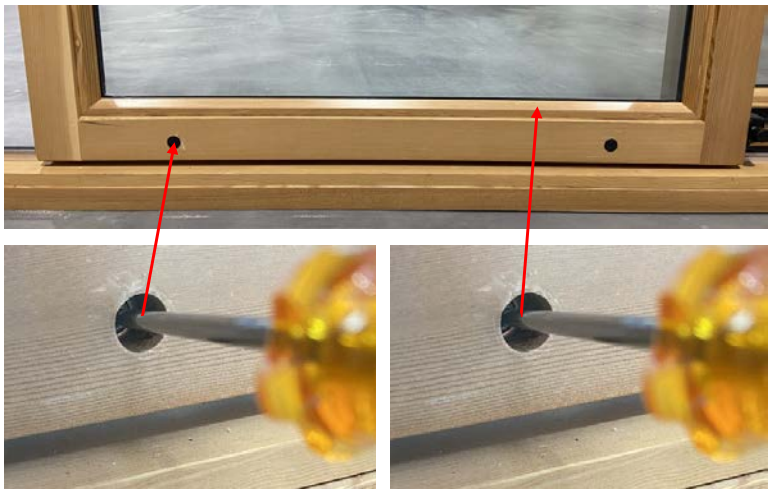


INSTALLATION INSTRUCTIONS

Roller Adjustments

- Use a flathead screwdriver
- Rotate clockwise to raise panel
- Rotate counterclockwise to lower panel

- Raise both rollers approximately 10mm (3/8” of an inch).
- Test the panel for smooth operation. It should slide smoothly.
- Readjust slightly if necessary to achieve the best sliding ease.
- Caution- Do not over raise the panel. Lifting it too high will prevent
- the weatherstripping from sealing properly against the sill.





IMPORTANT - While adjusting rollers, alleviate the weight of the panel, some of the ways this may be done is to manually lift panel by hand, or with suction cups.

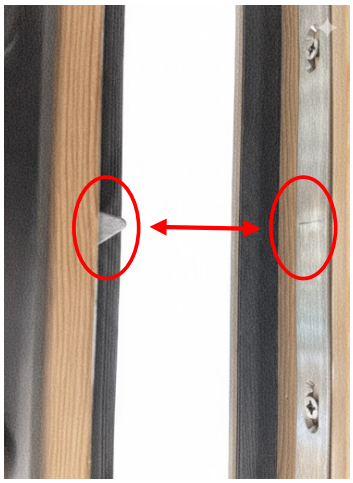
INSTALLATION INSTRUCTIONS

Strike Plate

- Align pin on panel hardware with the line on the strike plate
  1. Slide the panel toward the strike plate on the side jamb or astragal until the hardware aligns visually with the plate. As seen below.
  2. Ensure the panel hardware pin is centered on the alignment marking located on the side jamb or astragal strike plate.
  3. Screws in the elongated holes can be loosened for adjustment before being retightened

- Ancoring strike plate
  1. Install two 8x 2 ½ inch stainless steel screws into the outer holes of the strike plate (located on either the astragal, or the side jamb). These screws are supplied in hardware package

IMPORTANT - Ensure the side jamb is properly shimmed between the door frame and the rough opening to maintain alignment.









Astragal



Side Jamb



INSTALLATION INSTRUCTIONS

Installing Door Frame into Rough Opening (Continued)

- To ensure the lock side jamb stays perfectly straight.
- Shim at lockside and apply two 3” screws through the side jamb striker.
- Adjust the wheels on the panel as low as possible and slightly raise them for the panel to guide smoothly again.





- Door frames with wide openings have a tendency to bow and will likely require proper anchoring at the center of the head and sill to keep them straight.

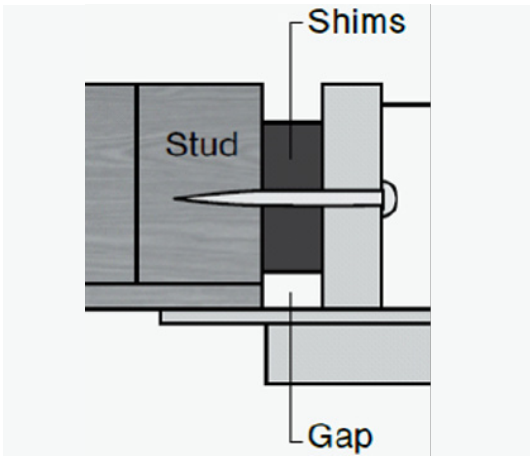


INSTALLATION INSTRUCTIONS

Installing Door Frame into Rough Opening (Continued)

- From the interior lockside jamb apply a neoprene or composite shim into the rough opening.
- Pull the shim approximately 1” to 2” back from the exterior flange, this is to ensure that when you foam it will create a continuous seal around the exterior.





INSTALLATION INSTRUCTIONS

Sealing & Insulating Door Frame

- Critical to ensure the sill pan is sealed to the interior sill itself, apply a sealant bead between the sill pan and the door sill all along the bottom edge,



- For a proper seal use an application tool to push the sealant into the gap.



INSTALLATION INSTRUCTIONS

Sealing & Insulating Door Frame (Continued)

- Door frame to rough opening should be sealed with an OSI Quad Foam or a low expansion closed cell foam that will not absorb moisture.



FLASHING, SEALANT AND FOAM

Choose products with these properties:

1. Flashing adhesive
   - Excellent adhesion to most building materials
   - Provides a strong, long-lasting seal

2. Window flange sealant
   - Ultra-low VOC content
   - Doesn't harden, crack, separate, or yellow
   - All-weather application
   - Chemically compatible with flashing materials

3. Closed cell sealant foam with low expansion
   - Will not deflect window and door jambs
   - Quick-setting formulation can be cut or trimmed in less than 1 hour
   - Will not absorb moisture
   - Provides minimum R-5 insulation value per inch

- Loewen recommends OSI products

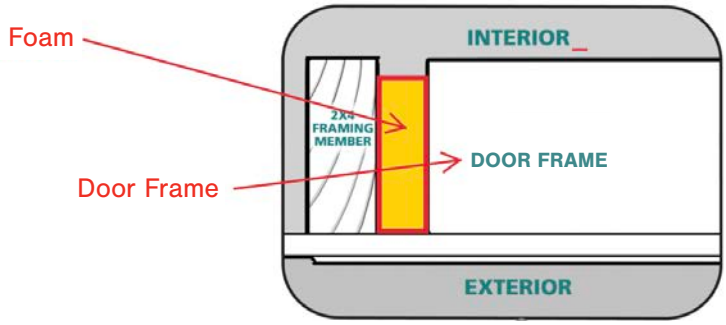


INSTALLATION INSTRUCTIONS

Sealing & Insulating Door Frame (Continued)

- Apply sealant foam insulation in gaps between RO and frame:
  - Apply single bead of foam with foam gun tip slightly back from nailing flange.
  - Allow a few minutes for the first pass of foam to set before filling the entire cavity.
- We suggest the lockside jamb rough opening gap be fully filled, this will create a solid blocking and less bounce when closing the operating panel.





INSTALLATION INSTRUCTIONS

Securing Door Hardware & Adjust

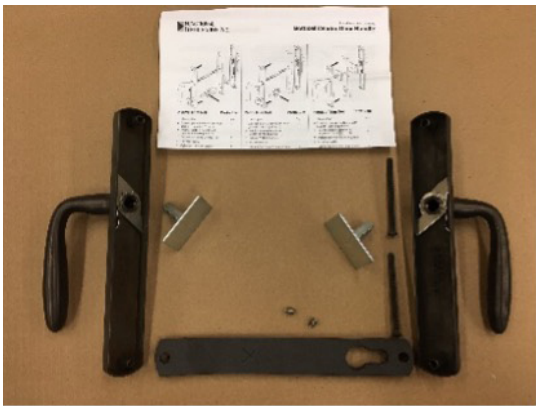
- A hardware package with instructions is provided in a separate box during the delivery of the door product.
- Locate the hardware box.
- If assistance is required to assemble the hardware, please contact your Dealer or the Loewen Service and Support Team.



Operating Hardware



Stationary Hardware



INSTALLATION INSTRUCTIONS

Foot Lock and Foot Lock Strike Plate

Required Tools:

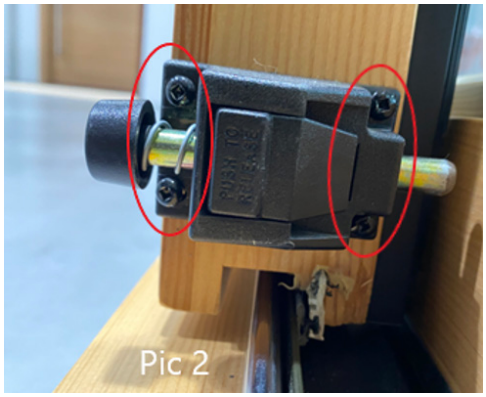
- Drill bits 7/64” & 3/8”
- Screwdriver

Step 1:
Place the foot lock 20 mm (or 25/32”) from the bottom of the operating panel and ensure it is centered along the panel’s width (Pic 1).



Step 2:
Using a 7/64” bit, pre-drill through the screw holes in the foot lock and into the panel.

Step 3:
Using the supplied four - #6 x 1 ½” quad pan screws, fasten the foot lock to the panel (Pic 2).



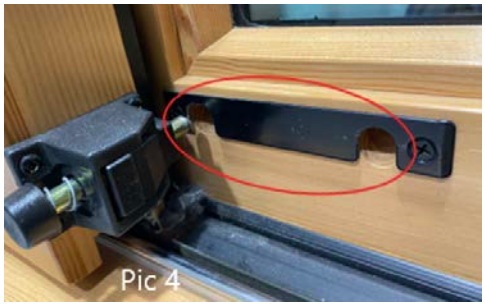
Step 5:
Close the operating panel into the locked position. Position the foot lock plate on the fixed panel so that the cutout aligns with the foot lock bolt (Pic 3). Using a pencil, mark the locations of the screw holes.

Step 6:
Remove the panel from the frame, lay it flat on a surface, and pre-drill using a 7/64” bit. Secure the foot lock plate to the panel with the supplied two - #7 x 7/8” quad flat screws.



Step 7:
Using a 10mm (3/8”) drill bit, drill two holes, 12mm (15/32”) deep, to accommodate the foot lock bolt
(Pic 4).

Step 8:
Reinstall the panel and check the operation of the panel and the foot lock.



NOTES

NOTES

NOTES

Information subject to change without notice.

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