Unassembled Patio Door Installation Guide

4-Panel Door



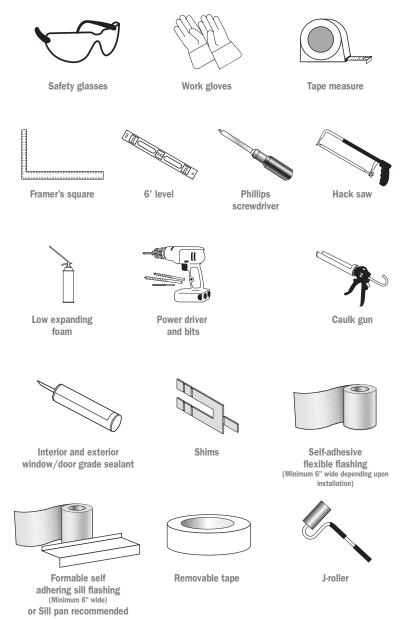
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Project Requirements:

- Failure to follow these instructions may void product warranty.
- Read guide before starting installation. Read all warnings and cautions during installation.
- Due to ongoing product changes, updated test results and/or new industry best practices, this installation procedure may change over time. Visit the manufacturer's website for current installation instructions.
- Instructions are for typical wood frame wall construction.
- Check with your local building code official to identify and confirm compliance with local building code requirements.
- Depending on options purchased, this patio door was manufactured for installation into either a new or existing patio door opening.

- Wall and sill must be structurally sound and weather-resistant barrier must be adequate.
- Door must be installed to be plumb, level and square.
- Door should be approximately 1/2" less in both width and height than the opening.
- Contact local authorities or waste management companies for proper recycling and/or disposal of removed window or patio door.
- Visit the manufacturer's website for removal instructions, additional installation information and/or guides.

Tools & materials required:



Warnings and Cautions:

A WARNING

Use caution when working at elevated heights and around unit openings. Follow manufacturers' instructions for ladders and/or scaffolding. Failure to do so may result in injury or death.

AWARNING

Follow manufacturers' instructions for hand or power tools. Always wear safety glasses. Failure to do so may result in injury and/or product damage.

AWARNING

Windows and doors can be heavy. Use safe lifting techniques and a reasonable number of people to move and install window and door products to avoid injury or product damage.

AWARNING

Sill weep doors are small parts and, if swallowed, could pose a choking hazard to young children.

AWARNING

Support door in opening while shimming. Failure to do so may result in injury and/or product/property damage.

AWARNING

Before, during, and after installation, place all tools as well as any casing or door parts on a drop cloth or in a location that will not pose a hazard to installers, customers, or property.

AWARNING

Unless specifically ordered, windows do not have safety glass, and if broken, could cause injury. Many laws and building codes require safety glass in locations adjacent to or near doors. Windows may be available with safety glass that may reduce the likelihood of injury if broken. Information on safety glass is available from your sales representative.

A WARNING

Contains small parts. If swallowed could pose a choking hazard to young children. Remove and dispose of any loose or easily removed parts.

GAUTION

The use of movable insulating materials such as door coverings, shutters, and other shading devices may damage glass and/or vinyl.

CAUTION

Follow instructions of foam, sealant and flashing manufacturer regarding material application and compatibility with this product.

CAUTION

Do not overdrive screws or nails. Product damage may result.

CAUTION

Do not cover weep holes. Property damage may result.

Warnings and Cautions:

CAUTION

When insulating between unit frame and rough opening or between units when joining, **DO NOT** overpack batt insulation or overfill with foam. Bowed jambs will result affecting product performance and/or proper operation of unit.

GAUTION

Do not apply any type of film to glass. Thermal stress conditions resulting in glass damage could occur.

CAUTION

Do not overfill with low expanding foam or overpack with backer rod to avoid bowed jambs.

CAUTION

Do not drill into or through the sill of the door or product and/or property damage may occur.

GAUTION

Weep holes must face the exterior and must be located at the bottom of the door or product and/or property damage may occur.

CAUTION

Remove or cut ventilation holes in plastic shipping wrap if door is not installed immediately or product damage may occur.

CAUTION

Use masonry screw when fastening directly into masonry or through a buck into masonry.

CAUTION

Do not store doors flat or in the sun or product damage may occur.

NOTICE

Important safety information. Leave this information for the building occupant.

NOTICE

Buildings constructed prior to 1978 may contain lead paint which could be disturbed during replacement. For more information on proper management of lead paint, visit www.epa.gov/lead

Fasteners:

A WARNING

Metal fasteners and components may corrode when exposed to preservative-treated and/or fire-retardant treated lumber. Use approved fasteners and components to fasten unit. Failure to do so may cause a failure resulting in injury, property or product damage.

Florida Building Code Approved Fastener Chart

Application	Anchor Type	Anchor Size	Minimum Embedment	Minimum Clearance to Masonry Edge	Minimum Clearance to Adjacent Anchor
1X Buck or Masonry Frame	ITW	1/4"	1-1/4"	2-1/2"	3"
1X Buck or Masonry Frame	ELCO	1/4"	1-1/4"	1"	4"
2X Buck	Wood Screw	#8	1-1/4"	NA	NA

This fastener schedule is provided as an example of fastening requirements. Requirements may vary by product, building type, application and region. Contact your local building code official for requirements in your area.

Finishing, Cleaning and Maintenance Instructions:

CAUTION

Do not stain or paint weatherstrip, vinyl, glass or hardware. Product damage may occur.

 Read and follow finishing product instructions and warnings on finish material.

CAUTION

Acid solutions used for cleaning masonry or concrete will damage glass, fasteners, hardware, vinyl and metal flashing.

Protect unit and follow cleaning product instructions carefully. If acid contacts unit, wash all surfaces with water immediately.

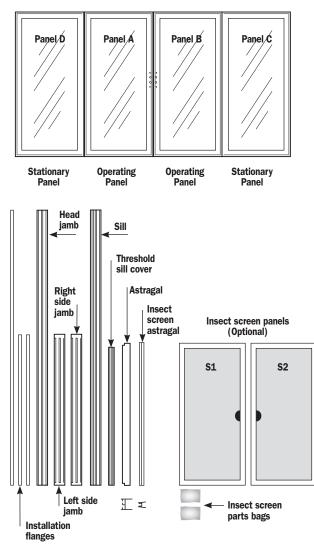
CAUTION

Abrasive cleaners will damage glass and vinyl surfaces.

- Clean glass using liquid glass cleaner.
- Clean exterior frame, sash/panels, and insect screens using mild detergent and water with a soft cloth or brush.
- For hard to clean areas use a nonabrasive cleaner, alcohol-andwater or ammonia-and-water.
- Do not apply any type of film to insulating glass. Thermal stress and glass damage can result. Shading devices (insulated coverings, shutters, etc.) may also cause thermal stress damage.
- For continued weather resistance of sealant joints, follow the sealant manufacturer's recommendations for periodic maintenance.

Inspect new patio door and verify opening.

Inspect for proper size and condition and verify that all parts are included. Inspect existing wall and rough opening for structural decay. Repair as needed.



Unassembled 4-Panel Patio Door

Hardware bags

Depending on individual installation requirements, some parts may not be used.



Yellow bag: (12) #8 x 2" flat head screws (2) installation flange corner gaskets



Blue bag: (20) #10 x 2" pan head screws



Red bag:

- (2) head stationary panel locators
- (4) #8 x 5/8" pan head stainless steel screws
- (2) sill stationary panel locators
- (4) #8 x 5/8" truss head stainless steel screws
- (6) stationary panel jamb stops

(4) #8 x 5/8" pan head screws



Clear bag:

- Handle set:
- (2) interior handles
- (2) exterior handles (2) turn levers

(4) 2" pan head screws

Keeper installation kit:

(2) jamb keepers

- (4) 2-1/2" pan head screws
- (4) 1/2" truss head screws

Gray bag:

Green bag:

(2) 3-1/2" panel bumpers

(4) stationary panel clips

- (10) #8 x 3/4" pan head stainless steel screws
- (2) astragal seals (large)
- (2) astragal seals (small)
- (1) astragal keeper

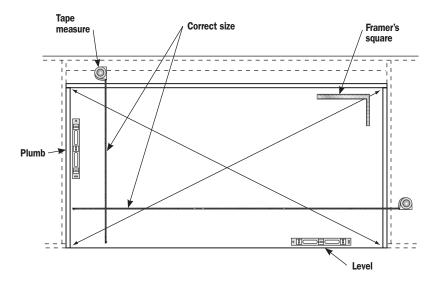
Prepare rough opening.

Inspect opening for correct size. Opening should be 1/2" larger than door size in width and height.

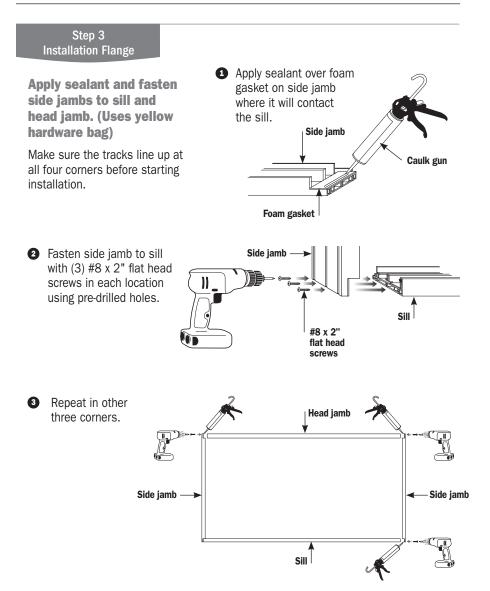
Check sill plate for level. Sill **must** be level. If sill is not level, correct before continuing.

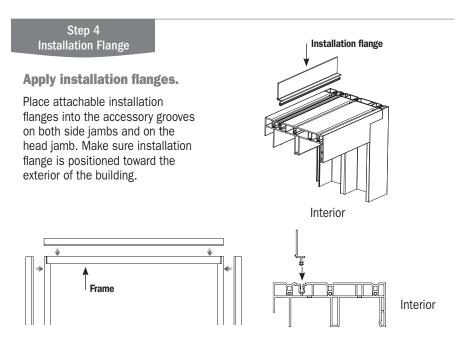
Check rough opening for plumb and level. If rough opening is **not** plumb or level, correct as necessary.

Check opening for square by measuring diagonally, upper left to lower right and upper right to lower left corner. Measurements must be within 1/8". If rough opening is **not** square, correct as necessary.



If using installation flange, continue with Step 3 Installation Flange. If installation flange will not be used, proceed to Step 16 No Installation Flange.



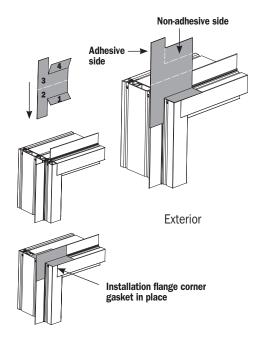


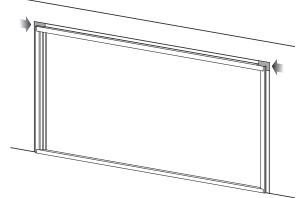
Step 5 Installation Flange

Apply installation flange corner gaskets. (Uses yellow hardware bag)

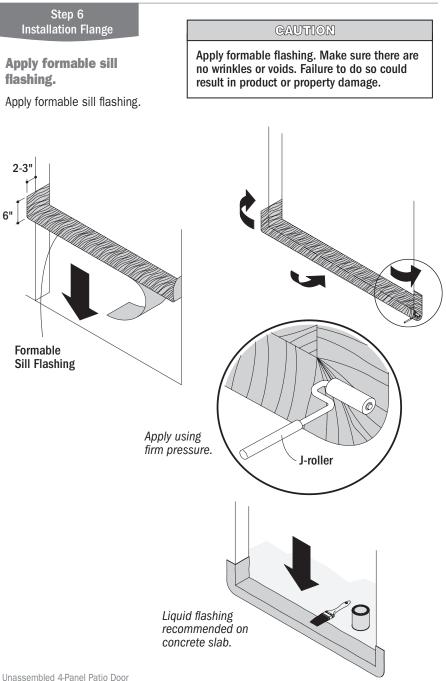
Remove adhesive backing from one installation flange corner gasket. Position the installation flange corner gasket onto the installation flange. Fold section 1 upwards, then align corner gasket with front and side edges of the door frame and apply sections 1 and 2 simultaneously. Fold section 4 upwards, then fold section 3 over installation flange and apply sections 3 and 4 simultaneously to the door frame.

Repeat process for other corner.





Installation Guide

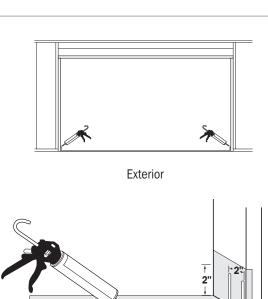


Step 7 Installation Flange

Apply sealant to opening.

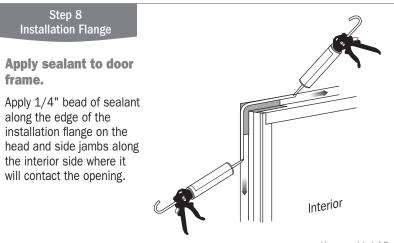
Apply two (2) 1/4" beads of exterior window/door grade sealant to sill and 2" up each side of rough opening. The exterior sealant bead should be at the exterior edge of the opening. The beads of sealant should be 2" apart.

NOTE: Leave two (2) small breaks in exterior sealant bead only to allow for water drainage.



Exterior

It is strongly recommended that you use a membrane or vinyl-based sill pan for a weathertight seal. Follow the sill pan manufacturer's installation instructions.



Break for

water drainage

Installation Guide

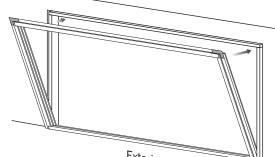
Step 9 **Installation Flange**

Place door frame in opening.

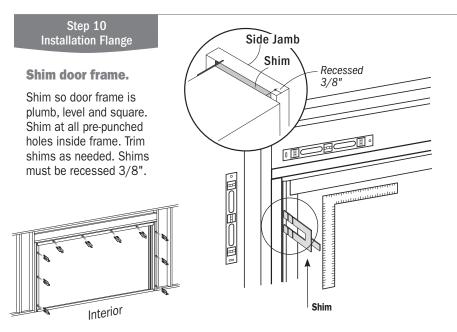
Place door frame into the opening from the exterior. Place sill of frame into place, then tip head into place.

NOTE: The installation flange is closer to the EXTERIOR side of the frame. The narrow insect screen track is on the exterior side.

NOTE: Be sure the installation flange and sealant are tight against the exterior substrate before attaching the frame.



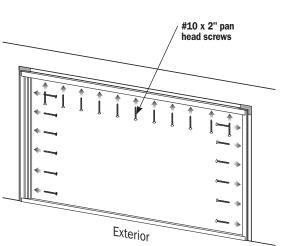
Exterior



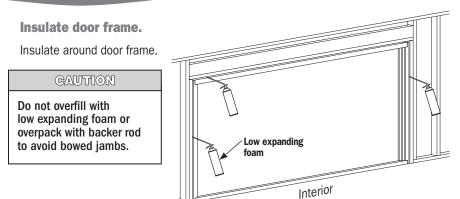
Step 11 Installation Flange

Fasten door frame. (Uses blue hardware bag)

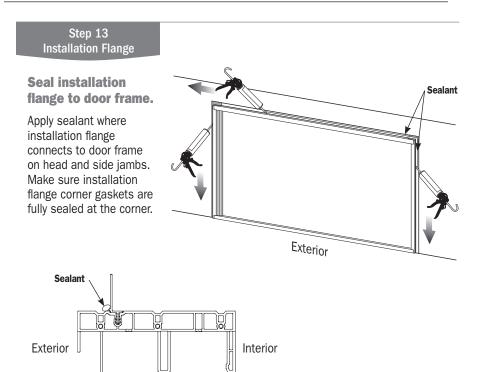
Attach door frame to opening using twenty (20) #10 x 2" pan head screws in all pre-drilled holes in interior track of head and side jambs.

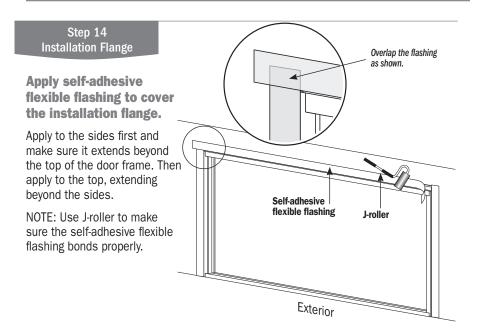


Step 12 Installation Flange



Installation Guide



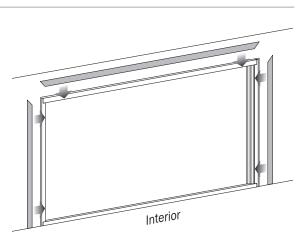


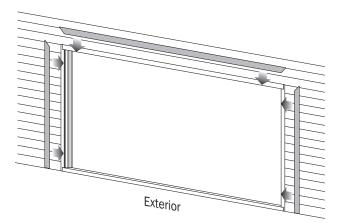
IMPORTANT – To create a weathertight seal, be sure that the flashing fully covers the entire length of the side jambs and head jamb of the door frame around the door opening. Pay special attention to the corners to be sure that there are no gaps in the flashing.

Step 15 Installation Flange

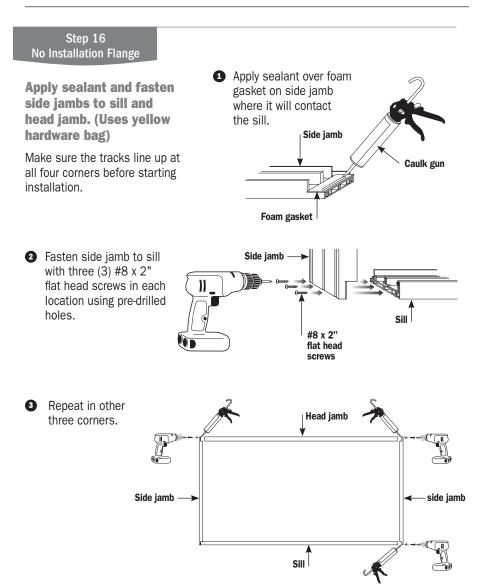
Apply trim.

Apply interior and exterior trim as desired. Apply sealant to the perimeter of interior and exterior for a weathertight seal.

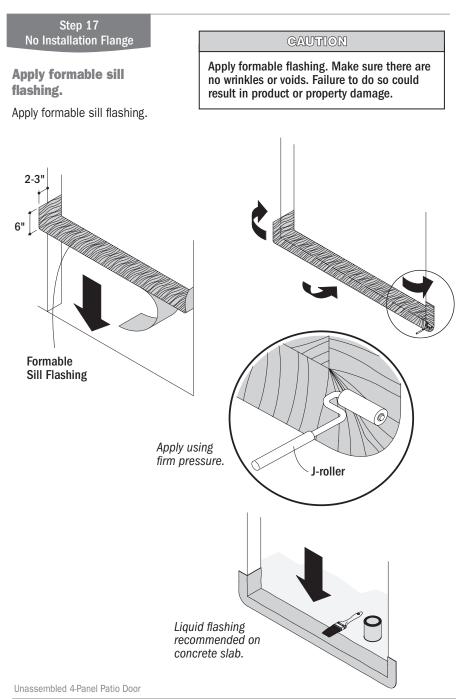




Proceed to Step 24.



Installation Guide



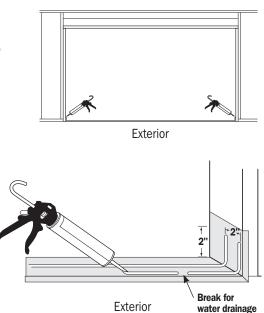
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Step 18 No Installation Flange

Apply sealant to opening.

Apply two (2) 1/4" beads of exterior window/door grade sealant to sill and 2" up each side of rough opening. The exterior sealant bead should be at the exterior edge of the opening. The beads of sealant should be 2" apart.

NOTE: Leave two (2) small breaks in exterior sealant bead only to allow for water drainage.



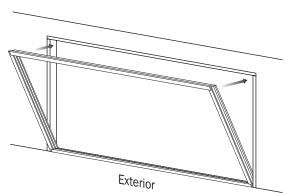
It is strongly recommended that you use a membrane or vinyl-based sill pan for a weathertight seal. Follow the sill pan manufacturer's installation instructions.

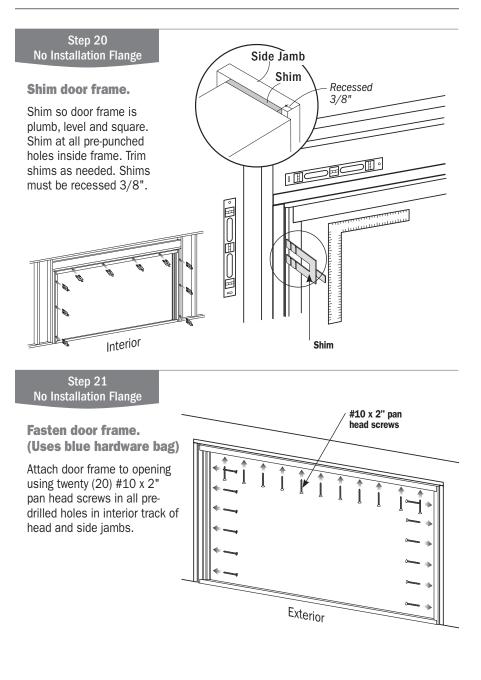
Step 19 No Installation Flange

Place door frame in opening.

Place door frame into the opening from the exterior. Place sill of frame into place, then tip head into place.

NOTE: Be certain narrow insect screen track is on exterior side.





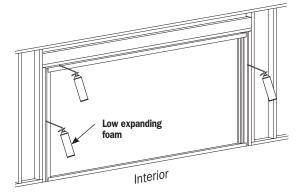
Step 22 No Installation Flange

Insulate door frame.

Insulate around door frame.

CAUTION

Do not overfill with low expanding foam or overpack with backer rod to avoid bowed jambs.

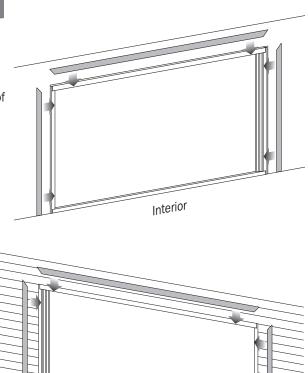


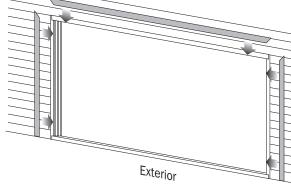
Installation Guide

Step 23 No Installation Flange

Apply trim.

Apply interior and exterior trim as desired. Apply sealant to the perimeter of interior and exterior for a weathertight seal.



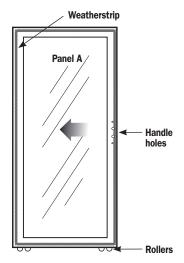


Verify operating panel handing.

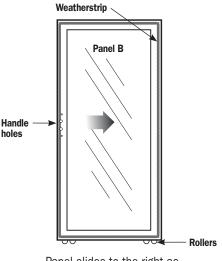
Identify the handing of both operating panels.

Locate the four (4) holes on the operating panel used for placement of the handles. The rollers should be at the bottom of the panel. The weatherstrip should face toward you.

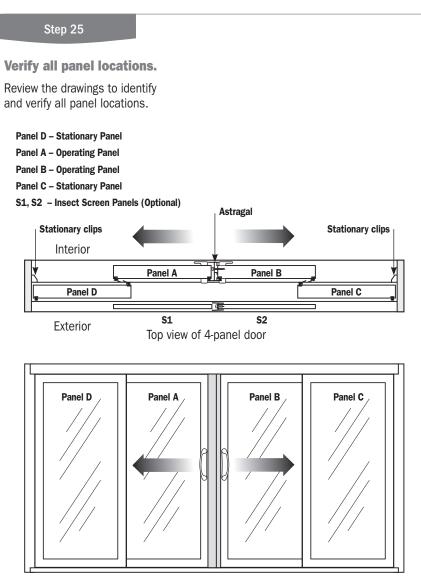
If the handle holes are on your right, then the operating panel will slide to the left as viewed from the exterior. This is operating panel A. If the handle holes are on your left, then the operating panel will slide to the right as viewed from the exterior. This is operating panel B. If handing is not as desired, it can be reversed.



Panel slides to the left as viewed from the exterior.

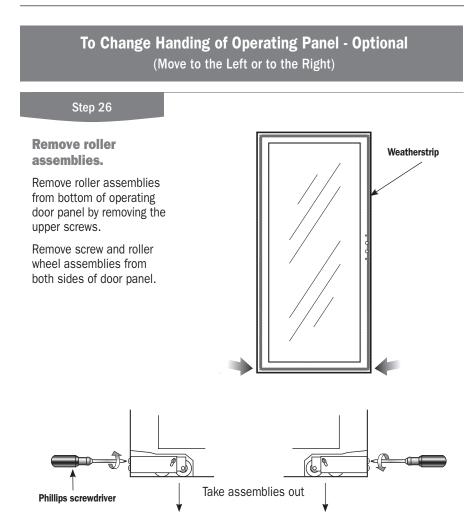


Panel slides to the right as viewed from the exterior.



Viewed from Exterior

If the desired handing of both operating panels is correct, proceed to Step 30. To change handing of an operating panel, proceed to Step 26.

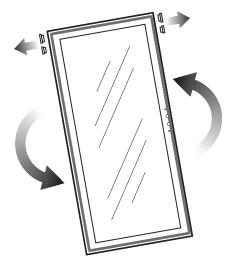


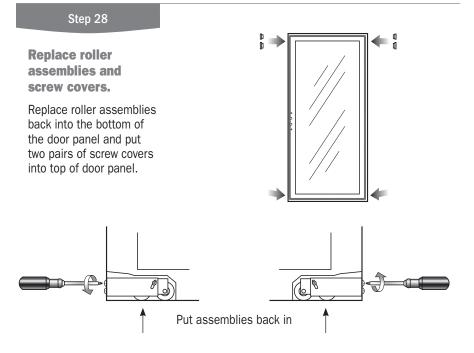
Remove screw covers and rotate.

Remove two pairs of screw covers from the top of the operating panel and rotate the operating panel.

AWARNING

Windows and doors have small parts (e.g. hole plugs, operator spline caps, fasteners, etc.). Small parts if swallowed could pose a choking hazard to young children. Dispose of unused, loose, or easily removed small parts. Failure to do so could result in injury.

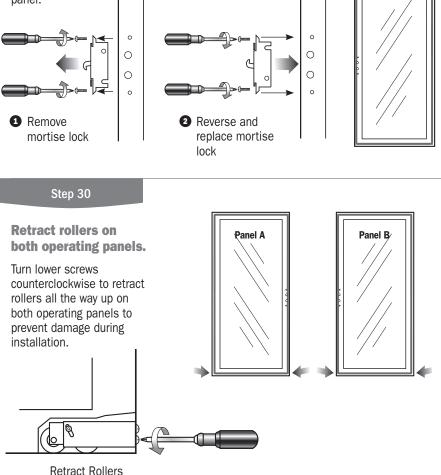




Reverse lock.

Remove screws from the mortise lock while holding onto hook of lock and then remove the lock. Reverse the mortise lock so the hook is facing up. Re-attach lock.

NOTE: Be certain to hold onto the hook while removing the mortise lock to prevent it from falling into the operating panel.

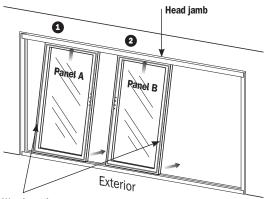


Install operating panels.

Place top of operating panel A into interior track of head jamb, then set bottom of panel A into position in the interior track. Make sure the roller assemblies are fully retracted.

NOTE: Be sure the weatherstrip faces the exterior.

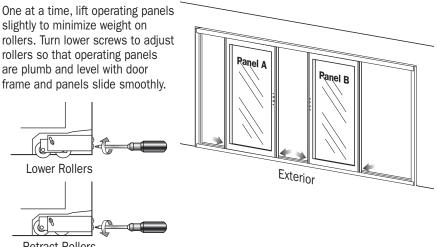
Repeat for operating panel B. The handle holes of panel A and panel B should be facing each other.



Weatherstrip facing the exterior

Step 32

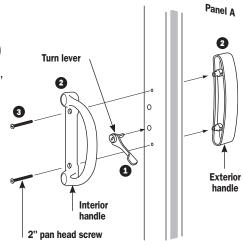
Adjust operating panel rollers.



Retract Rollers

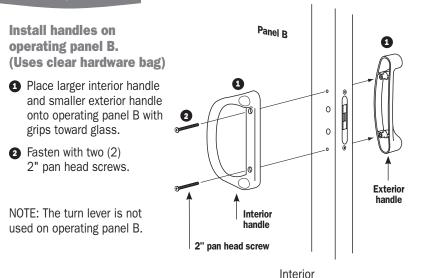
Install handles on operating panel A. (Uses clear hardware bag)

- Place turn lever into bottom, larger hole on interior of operating panel A.
- Place larger interior handle and smaller exterior handle onto operating panel A with grips toward glass.
- Fasten with two (2)
 2" pan head screws.



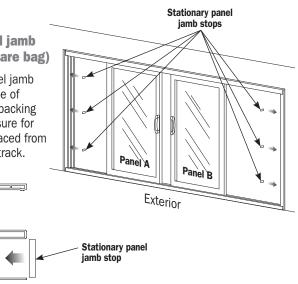
Interior

Step 34



Install stationary panel jamb stops. (Uses red hardware bag)

Apply six (6) stationary panel jamb stops, three (3) on each side of door frame. Remove paper backing and apply appropriate pressure for placement. Apply evenly spaced from head jamb to sill in middle track.

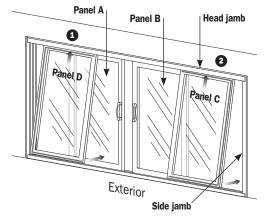


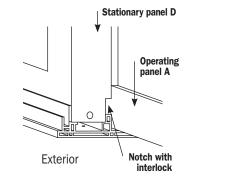
Install stationary panels from the exterior.

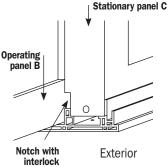
Place top of stationary panel D into middle track of head jamb, then place bottom of panel into position in the middle track.

NOTE: Be sure that the notches with interlock face the interior.

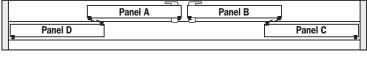
2 Repeat for stationary panel C.







Interior

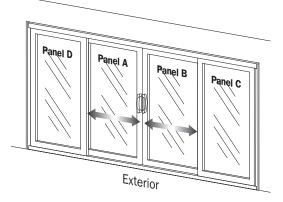




Top view of 4-panel door

Check movement and adjust.

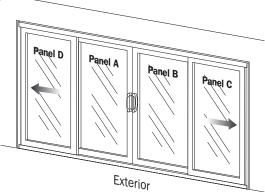
Slide both operating panels back and forth several times and make sure both panels are operating smoothly and align with both stationary panels. Adjust operating panel rollers if needed as shown in Step 32.



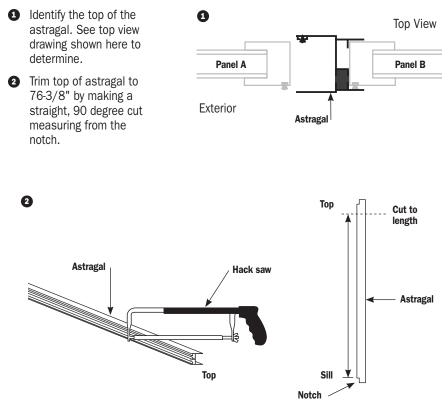
Step 38

Position stationary panels.

Slide both stationary panels all the way to each side so they are set back into the door frame as far as they will go.

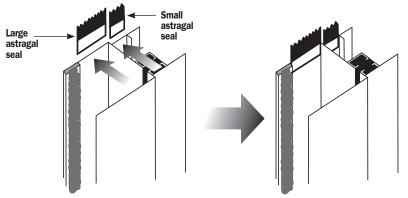


Trim astragal.

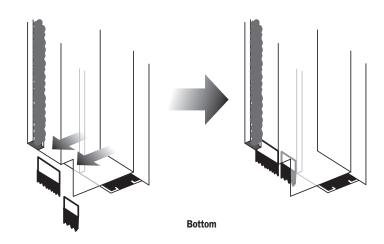


Install astragal seals. (Uses gray hardware bag)

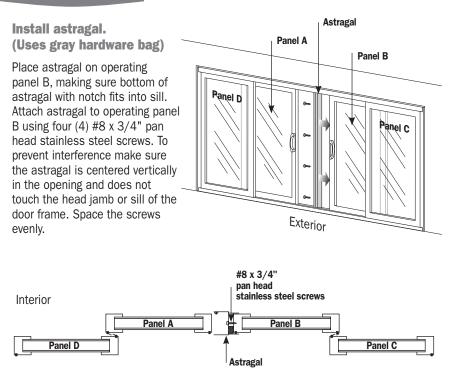
Apply one (1) large and one (1) small astragal seal to top of astragal and one (1) large and one (1) small astragal seal to bottom of astragal. Remove paper backing and apply using firm pressure to the interior sides of the astragal as shown.



Тор



Unassembled 4-Panel Patio Door

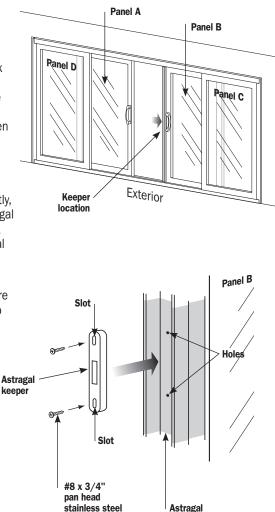


Exterior

Install astragal keeper. (Uses gray hardware bag)

Locate the two holes in the astragal that are aligned with the handles. Install two (2) #8 x 3/4" pan head stainless steel screws through the slots on the astragal keeper into the two (2) holes on the astragal and tighten them "finger tight" to allow for adjustments. Close and lock operating panel A to make sure patio door locks correctly. If the patio door does not lock correctly, open patio door and slide astragal keeper up or down to allow lock hook to properly nest in astragal keeper.

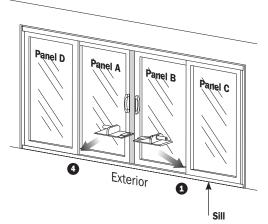
Once patio door locks correctly, fully tighten the screws to secure the astragal keeper in place top and bottom.

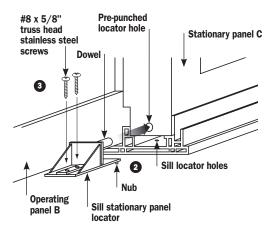


screws

Install sill stationary panel locators. (Uses red hardware bag)

- Place one sill stationary panel locator in the middle track of the sill with the dowel facing stationary panel C. The nubs on the bottom of the sill stationary panel locator will face down.
- Slide the bottom of the sill stationary panel locator under stationary panel C and the dowel into the pre-punched locator hole in the panel until you feel the locator nubs on the bottom drop into place into the sill locator holes.
- Using two (2) #8 x 5/8" truss head stainless steel screws attach sill stationary panel locator to sill.
- Repeat with second sill stationary panel locator against stationary panel D.

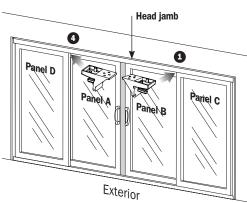


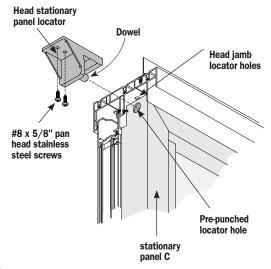


Install head stationary panel locators. (Uses red hardware bag)



- Place one head stationary panel locator in the middle track of the head jamb with the dowel facing stationary panel C. The nubs on the top of the head stationary panel locator will face up.
- 2 Slide the head stationary panel locator above stationary panel C and the dowel of the locator into the pre-punched hole in the panel until you feel the locator nubs fit into the head jamb locator holes.
- 3 Using two (2) #8 x 2" pan head stainless steel screws attach head stationary panel locator to head jamb.
- A Repeat with head stationary panel locator against stationary panel D.

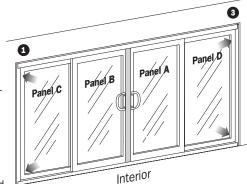


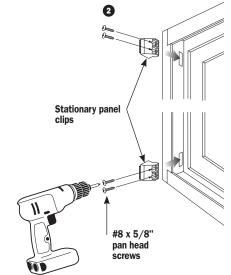


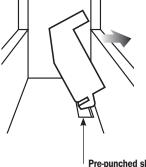
Unassembled 4-Panel Patio Door

Install stationary panel clips. (Uses green hardware bag)

- Install two (2) stationary panel clips, one (1) at the bottom and one (1) at the top of stationary panel C on interior. Insert the groove on the bottom of the stationary panel clip into the prepunched slot on the side jamb and pivot the stationary panel clip to snap into place against the door frame. Repeat for the other clip.
- Drive two (2) #8 x 5/8" pan head truss stainless steel screws through each clip into door panel on top and bottom.
- Repeat with remaining two (2) stationary panel clips and four (4) #8 x 5/8" pan head screws on stationary panel D.



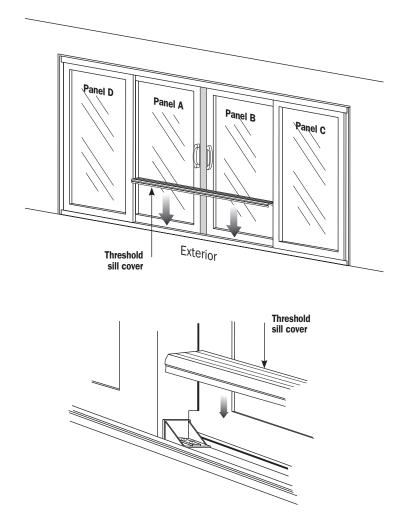


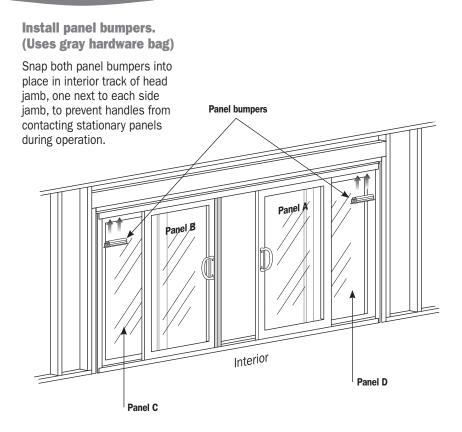


Pre-punched slot in the frame

Install threshold sill cover.

Install the threshold sill cover by snapping into place on the middle sill track starting on one side.



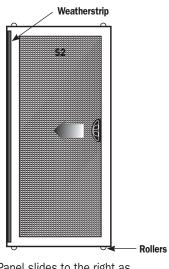


Verify insect screen panel handing.

Locate the weatherstrip and the handles on both insect screen panels. If the weatherstrip is facing you on the right and the handle is on the left, this is insect screen panel S1.

If the weatherstrip is facing you on the left and the handle is on the right, this is insect screen panel S2. Weatherstrip

Panel slides to the left as viewed from the interior.

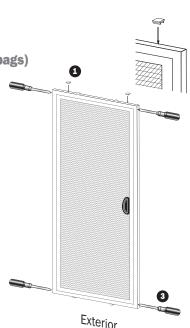


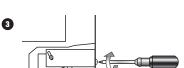
Panel slides to the right as viewed from the interior.

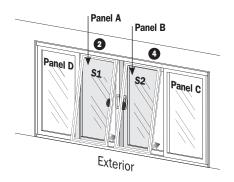
Install insect screen panels. (Uses insect screen parts hardware bags)

- Push the top two (2) guides into place on the top of insect screen panel S1 approximately 2" from each side.
- Tilt the insect screen, put the top into the head jamb track, then put the bottom rollers onto the sill track.
- Adjust rollers so insect screen stays on track and operates smoothly.
- Repeat for insect screen panel S2. The handles will meet in the middle.

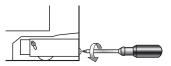
NOTE: Before continuing, make sure both insect screen panels are operating smoothly.





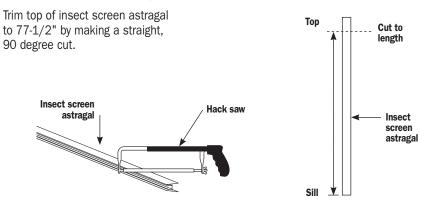


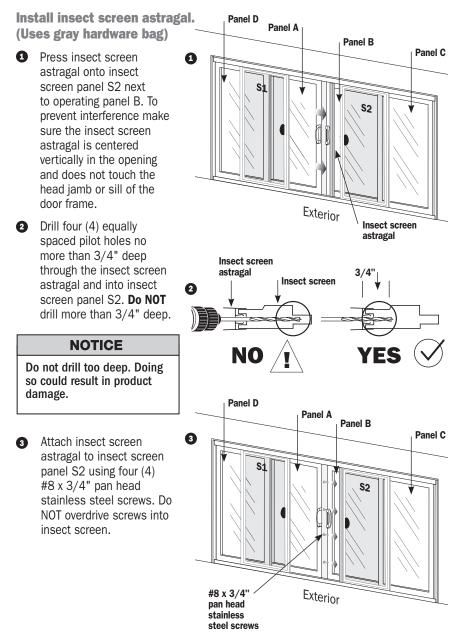




Retract Rollers

Trim insect screen astragal.

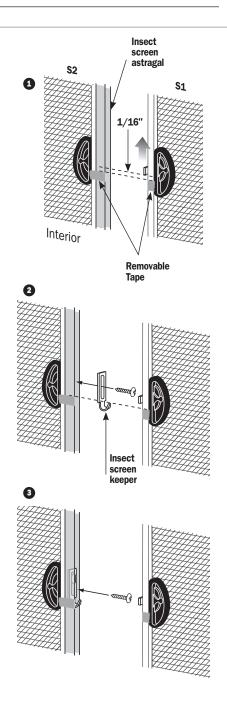




Unassembled 4-Panel Patio Door

Install insect screen keeper. (Uses insect screen parts hardware bag)

- Push insect screen handle of insect screen panel S1 next to operating panel A all the way up. Mark 1/16" below bottom of insect screen latch with removable tape and transfer the mark to the insect screen astragal with removable tape.
- Position top of insect screen keeper hook with mark on insect screen astragal. Insect screen keeper should be installed with the hook up. Attach insect screen keeper using one (1) included screw. You may need to pre-drill. **Do NOT** drill more than 3/4" deep. Adjust insect screen keeper as necessary for easy latching and releasing.
- Fasten insect screen keeper with second screw. You may need to pre-drill. **Do NOT** drill more than 3/4" deep. Remove tape.



Questions: Call 844-332-8288

Installation Guide Unassembled 4-Panel Patio Door