

# Unassembled 2-Panel Patio Door Installation Guide

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[americancraftsmanwindows.com](http://americancraftsmanwindows.com)

## Project Requirements:

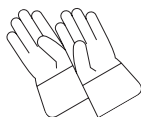
- Failure to follow these instructions may void product warranty.
- Read guide before starting installation. Read all warnings and cautions during installation.
- Due to ongoing product changes, updated test results and/or new industry best practices, this installation procedure may change over time. Visit the manufacturer's website for current installation instructions.
- Instructions are for typical wood frame wall construction.
- Installation must comply with all applicable building codes.
- Depending on options purchased, this door was manufactured for installation into either a new or existing 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 web site for removal instructions, additional installation information and/or guides.

## Tools & materials required:

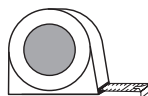
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**Safety glasses**



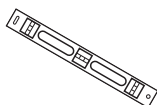
**Work gloves**



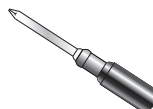
**Tape measure**



**Framer's square**



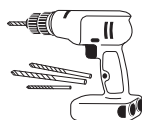
**6' level**



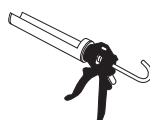
**Phillips hand  
screwdriver**



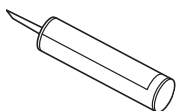
**Minimum expanding  
foam sealant**



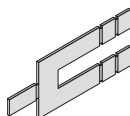
**Power driver and bits**



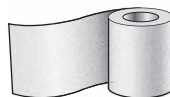
**Caulk gun**



**Interior and exterior  
window/door grade sealant**



**Shims**



**Self-adhesive  
flexible flashing**  
(Minimum 6" wide depending upon  
installation)



**Formable self-adhering  
sill flashing**  
(Minimum 6" wide)



**House wrap tape**



**Hammer and 2"  
galvanized roofing nails**  
(for nailing fin applications)

### Warnings and Cautions:

#### **⚠ 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.

#### **⚠ WARNING**

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

#### **⚠ WARNING**

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.

#### **⚠ WARNING**

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

#### **⚠ WARNING**

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

#### **⚠ WARNING**

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.

#### **⚠ WARNING**

Unless specifically ordered, this window does 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. This window is available with safety glass that may reduce the likelihood of injury if broken. Information on safety glass is available from your sales representative.

#### **⚠ WARNING**

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

#### **CAUTION**

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.

### CAUTION

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.

### CAUTION

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](http://www.epa.gov/lead)

### Fasteners:

#### **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.

### 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**

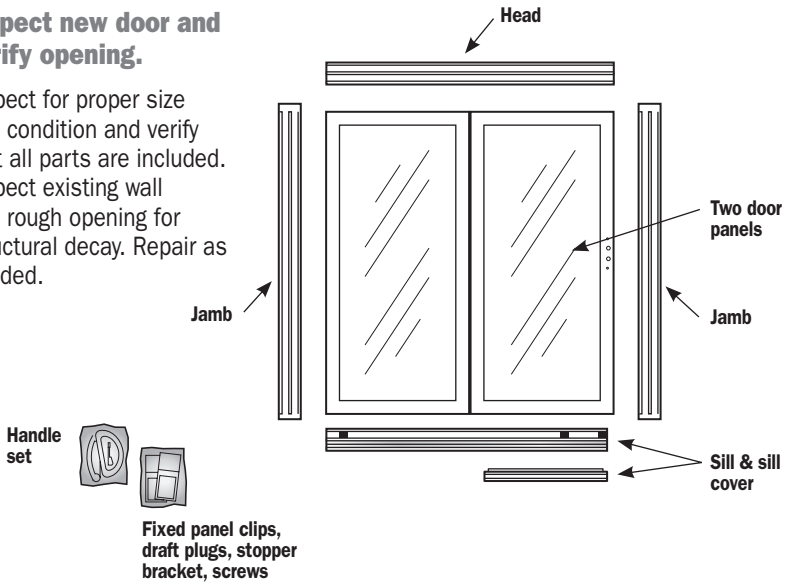
Abrasive cleaners will damage glass and vinyl surfaces.

- ▶ **Clean glass using liquid glass cleaner.**
- ▶ *Clean exterior frame, sash, and insect screens using mild detergent and water with a soft cloth or brush.*
- ▶ *For hard to clean areas use a nonabrasive cleaner, alcohol-and-water 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.*

## Step 1

### Inspect new 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.



### Hardware Included:

#### Two hardware bags, together containing:

Quantity	Item
18	#8 x 2" Phillips Pan Head Screws
12	#8 x 2" Phillips Flat Head Screws
8	#8 x 3/4" Phillips Pan Head Screws
6	#8A x 5/8" Phillips Pan Head Screws
2	#8 x 1/2" White Phillips Truss Screws
2	Fixed Panel Clips
2	Sill Draft Plugs
2	Head Draft Plugs
1	Stopper Bracket

### Step 2

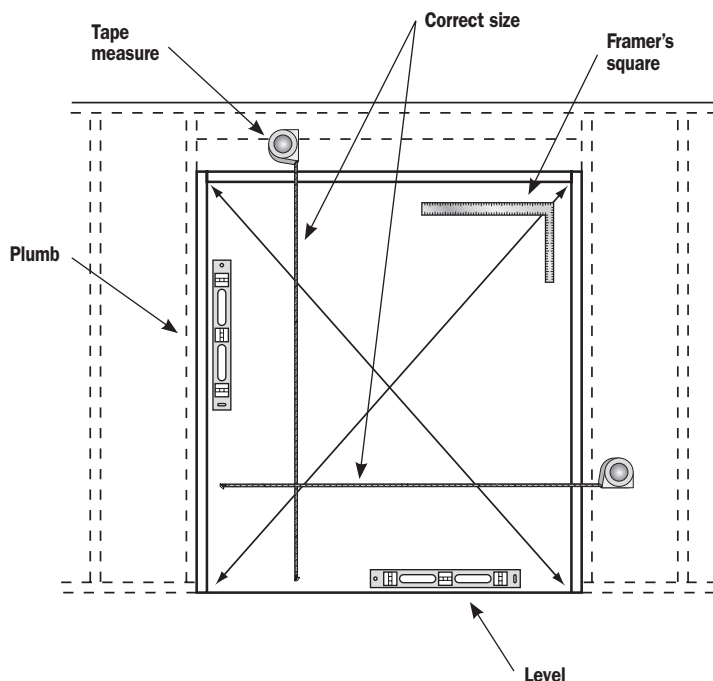
#### Prepare rough opening.

Check sill plate for level. Sill **must** be level. Shim sill plate if necessary.

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  $\frac{1}{8}$ ". If rough opening is **not** square, correct as necessary.

Inspect opening for correct size. Opening should be  $\frac{1}{2}$ " larger than door size in width and height.



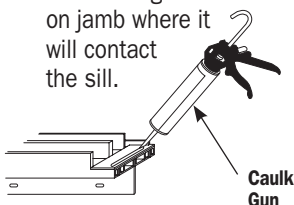
If using nailing fin, continue with Step 3 With Nailing Fin. If no nailing fin will be used, proceed to Step 11 Without Nailing Fin.



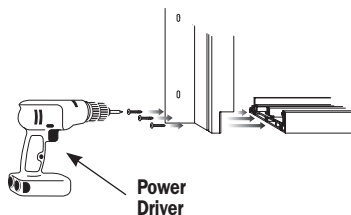
## Step 3 With Nailing Fin

### Apply sealant and fasten jambs to sill and head.

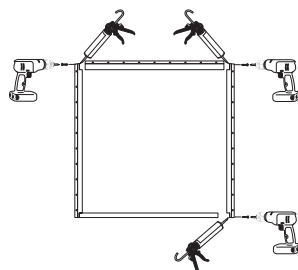
- 1 Apply sealant over foam gasket on jamb where it will contact the sill.



- 2 Fasten jamb to sill with 3, #8 x 2" flat head screws (included) in each location using pre-drilled holes.



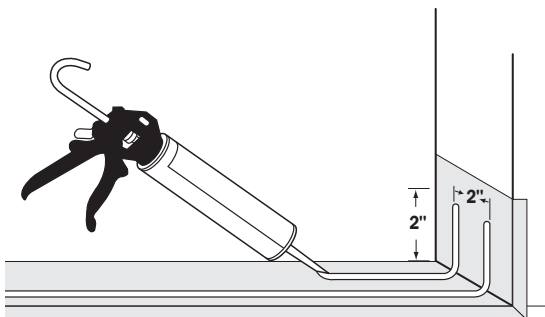
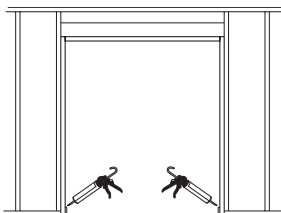
- 3 Repeat in other 3 corners. Make sure tracks line up.



## Step 4 With Nailing Fin

### Apply sealant to opening.

Apply two 1/4" beads of exterior window/door grade sealant to sill and 2" up each side of rough opening.

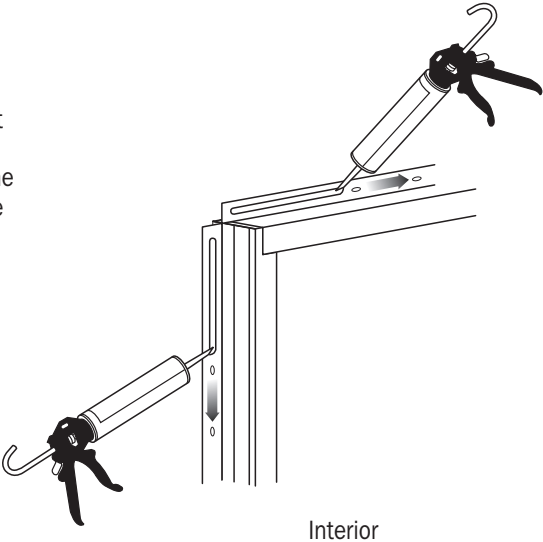


Silver Line strongly recommends that you use a membrane or vinyl-based sill pan for a weathertight seal. Follow the sill pan manufacturer's installation instructions.

**Step 5**  
**With Nailing Fin**

**Apply sealant to door.**

Apply 1/4" bead of sealant over holes in nailing fin along the interior side of the fin, where it will contact the opening.

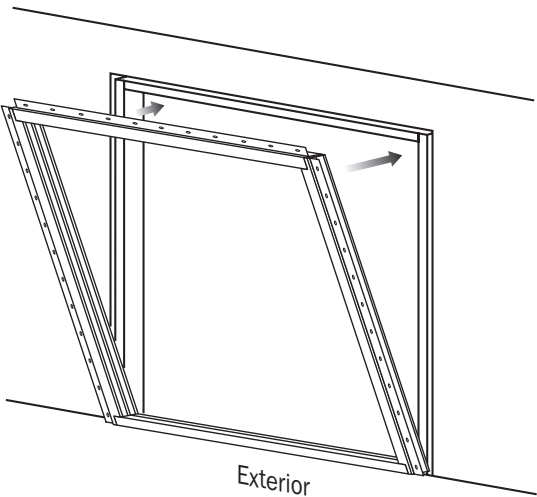


**Step 6**  
**With Nailing Fin**

**Place door frame in opening.**

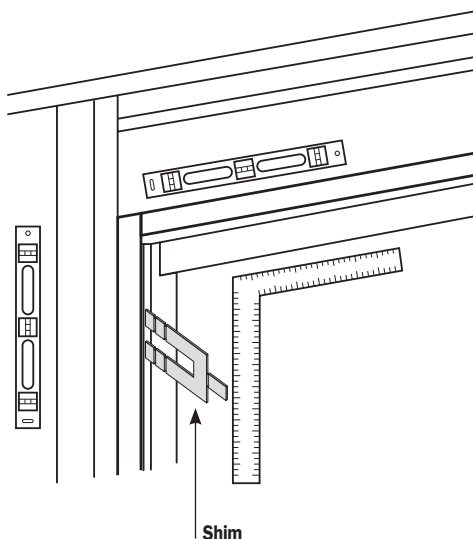
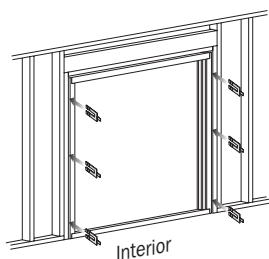
Place door frame into the opening from the exterior. Place sill of frame into place, then tip head into place.

NOTE: The nailing fin is closer to the EXTERIOR side of the frame.



### Step 7 With Nailing Fin

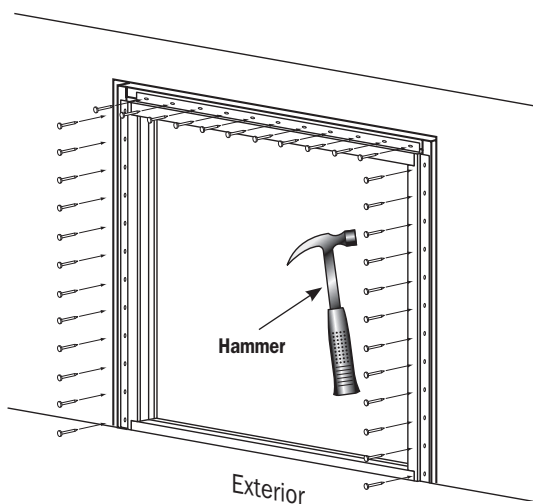
**Shim so door is plumb, level and square.**



### Step 8 With Nailing Fin

**Nail into place.**

Begin by nailing only the top right corner. Check for square and shim as necessary. Then continue nailing through the pre-punched holes, ensuring at least 1" penetration into wood framing.

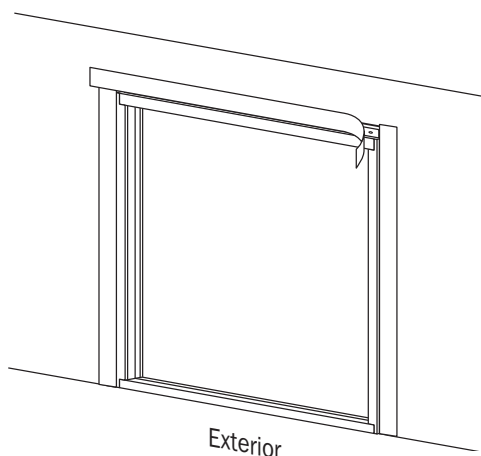


### Step 9 With Nailing Fin

#### **Apply self-adhesive flashing to cover the nailing fin.**

Apply to the sides first and ensure it extends beyond the top of the door. Then apply to the top, extending beyond the sides.

NOTE: Use roller to make sure the flashing tape bonds properly.



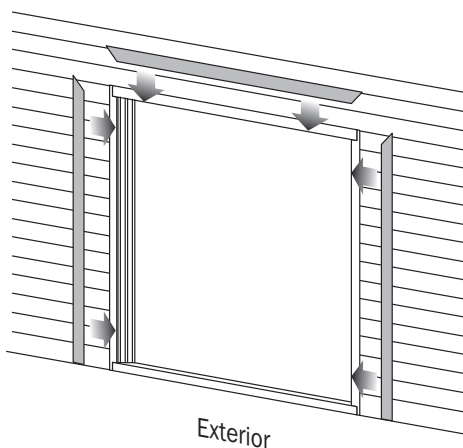
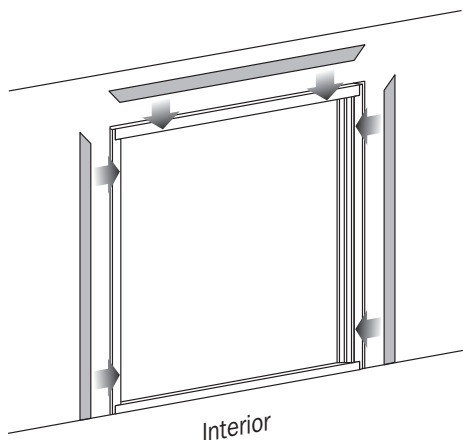
**IMPORTANT** – To create a weathertight seal, be sure that the flashing fully covers the entire length of the jambs and head of the door around the door opening. Pay special attention to the corners to be sure that there are no gaps in the flashing.

### Step 10 With Nailing Fin

#### Apply trim and sealant.

Apply interior and exterior trim.

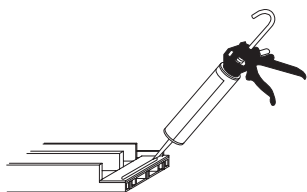
Apply sealant to the perimeter of interior and exterior for a weathertight seal.



If desired orientation of moving and fixed panels is correct, move to Step 21. If other orientation is desired, proceed to Step 17.

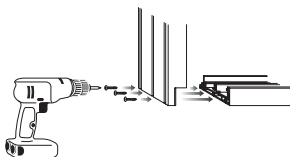
### Step 11 Without Nailing Fin

**Apply sealant and fasten jambs to sill and head.**

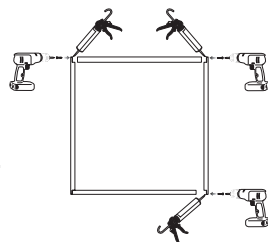


- 1 Apply sealant over foam gasket on jamb where it will contact the sill.

- 2 Fasten with 3, #8 x 2" flat head screws (included) in each location using pre-drilled holes.



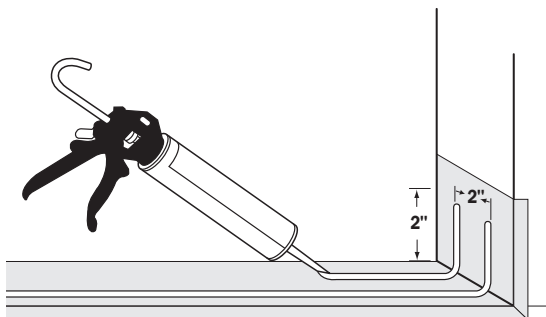
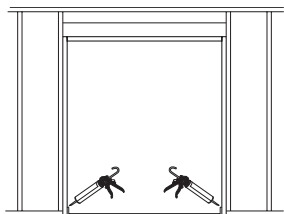
- 3 Repeat in other 3 corners. Make sure tracks line up.



### Step 12 Without Nailing Fin

**Apply sealant to opening.**

Apply two 1/4" beads of exterior window/door grade sealant to sill and 2" up each side of rough opening.



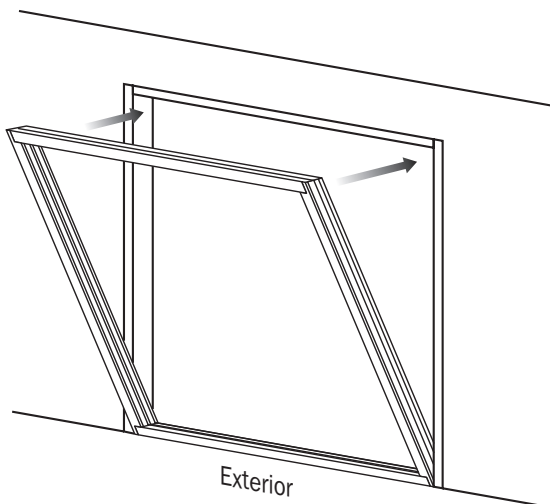
Silver Line strongly recommends that you use a membrane or vinyl-based sill pan for a weathertight seal. Follow the sill pan manufacturer's installation instructions.

### Step 13 Without Nailing Fin

#### Place door frame in opening.

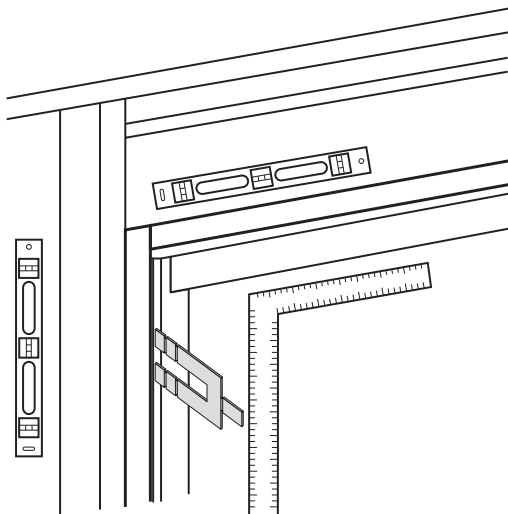
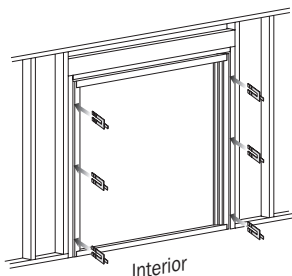
Place door frame into the opening from the exterior. Place sill of frame into place, then tip head into place.

Be certain narrow screen track is on exterior side.



### Step 14 Without Nailing Fin

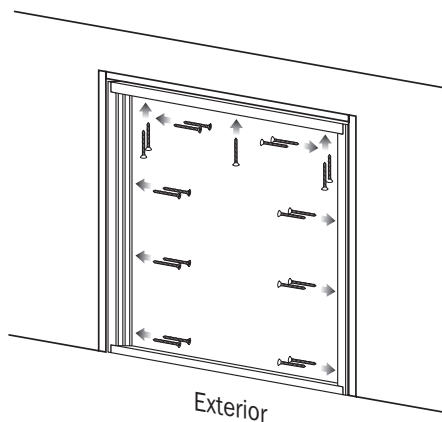
#### Shim behind screw holes so door is plumb, level and square.



### Step 15 Without Nailing Fin

#### Fasten frame.

Attach frame to opening using #8 x 2" pan head screws (included) in all pre-drilled holes in head and jambs.

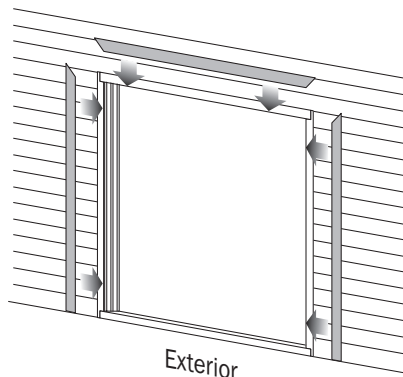
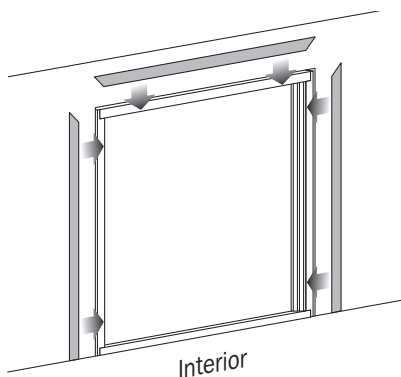


### Step 16 Without Nailing Fin

#### Apply trim and sealant.

Apply interior and exterior trim.

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



If desired orientation of moving and fixed panels is correct, move to Step 21. If other orientation is desired, proceed to Step 17.



## To Change Orientation of Operating Panel - Optional

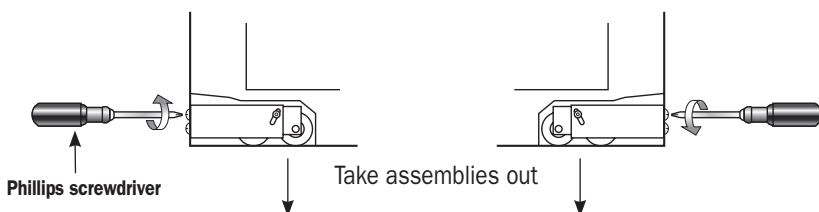
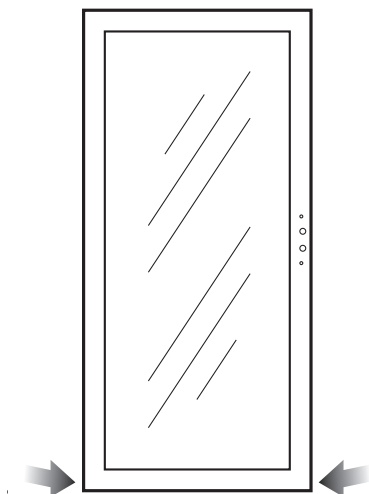
(Move To The Left or To The Right)

### Step 17

#### Remove roller assemblies.

Remove roller assemblies from bottom of moving door panel by removing the upper screws.

Remove screw and roller wheel assemblies from both sides of door panel and save for later use.

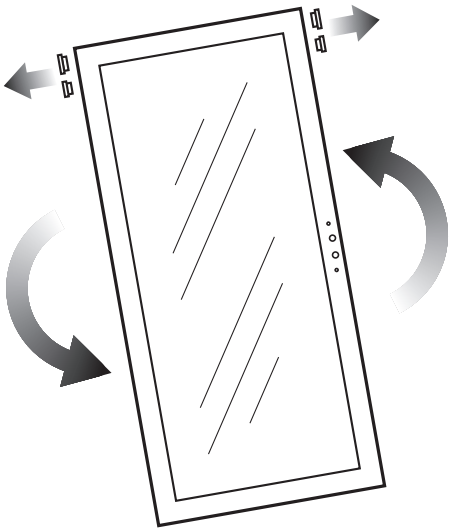


Step 18

**Remove the screw covers from the top of the panel and rotate the panel.**

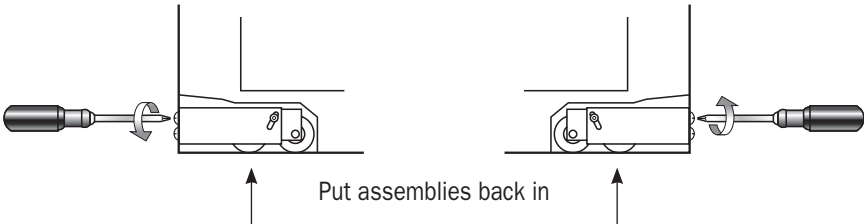
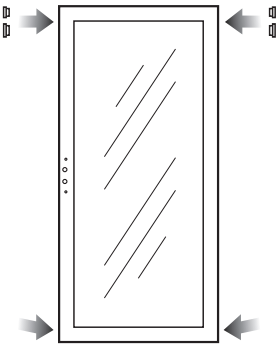
**⚠ WARNING**

Screw covers are small parts and, if swallowed, could pose a hazard to young children.



Step 19

**Replace the roller assemblies back into the bottom of the door panel and put screw covers into top of door panel.**



## Step 20

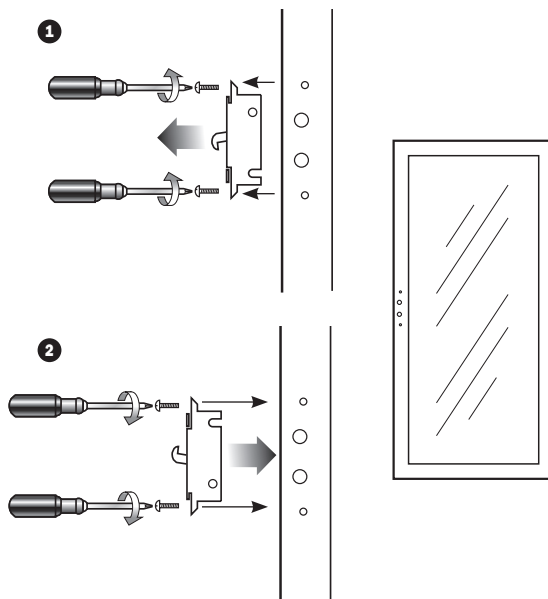
### Reverse the lock.

Reverse the mortise lock so that the hook is facing up.

**1** Remove mortise lock

**2** Reverse and replace mortise lock

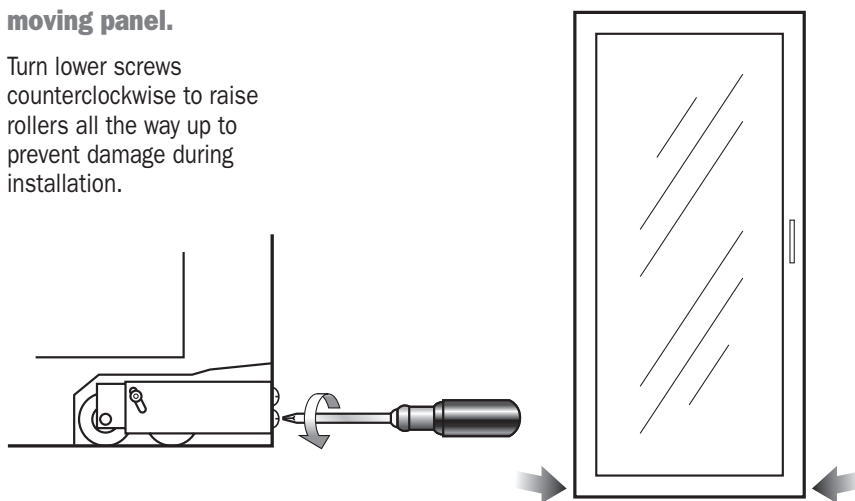
NOTE: Be certain to hold onto the hook while removing the mortise lock to prevent it from falling into the moving panel.



## Step 21

### Raise rollers on moving panel.

Turn lower screws counterclockwise to raise rollers all the way up to prevent damage during installation.

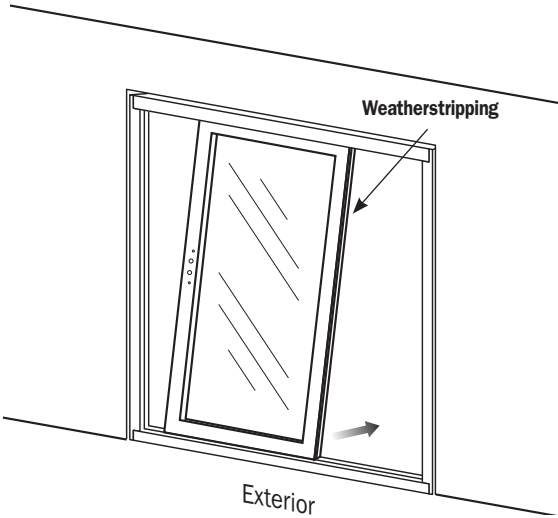


Step 22

**Install moving panel from the exterior.**

Place top of moving panel into interior track, then gently set bottom of panel in place in the interior track.

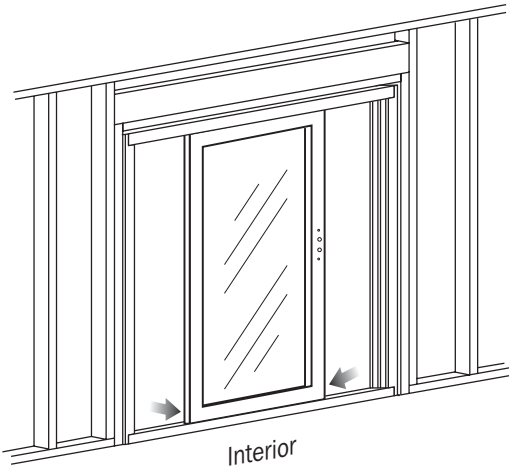
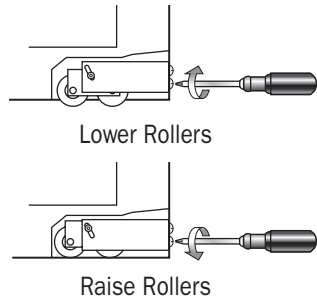
NOTE: Be sure that the weatherstripping on the vertical interlock faces the exterior.



Step 23

**Adjust moving panel rollers.**

Lift door panel slightly to minimize weight on rollers. Turn lower screws to adjust rollers so that door panel is plumb and level with frame and door slides smoothly.



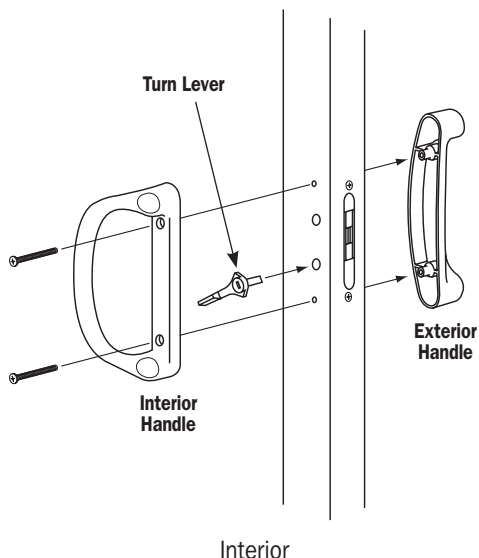
## Step 24

### Install handle and lockset on moving panel.

- ❶ Place turn lever into bottom, larger hole on interior of moving panel.
- ❷ Place larger interior handle and smaller exterior handle onto door with grips toward glass.

NOTE: Optional keyed handle set should be installed so key is on exterior.

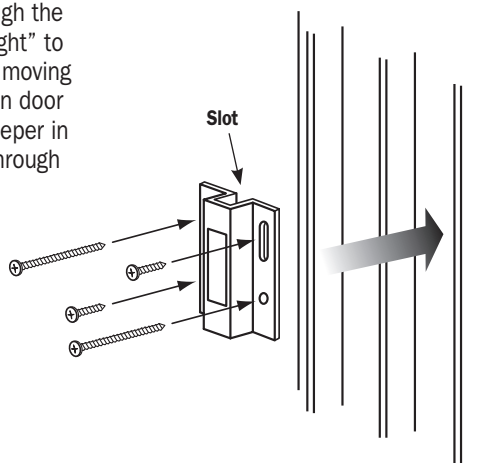
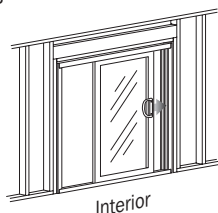
- ❸ Fasten with 2 long screws included with handles.



## Step 25

### Install keeper on jamb.

- ❶ Install the 3/4" screws through the slots on the keeper "finger tight" to allow for adjustments. Close moving panel to check position. When door locks correctly, secure the keeper in place using two, 2" screws through the holes in the keeper.
- ❷ Adjust as necessary for smooth operation. Tighten screws.



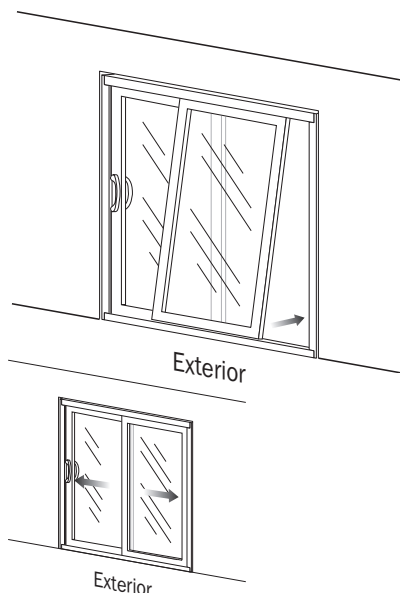
### Step 26

#### Install fixed panel from the exterior.

- 1 Place top of fixed panel into exterior track, then put bottom into position on track.

NOTE: Be sure that the pile weatherstripping interlock faces the interior.

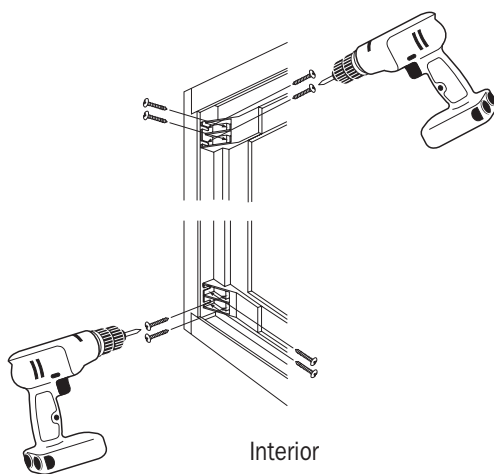
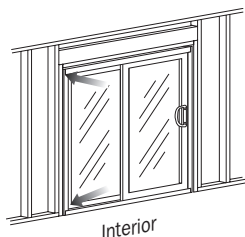
- 2 Close moving panel and lock handle. Slide fixed panel as far as possible into the frame away from the moving panel.



### Step 27

#### Install fixed panel clips.

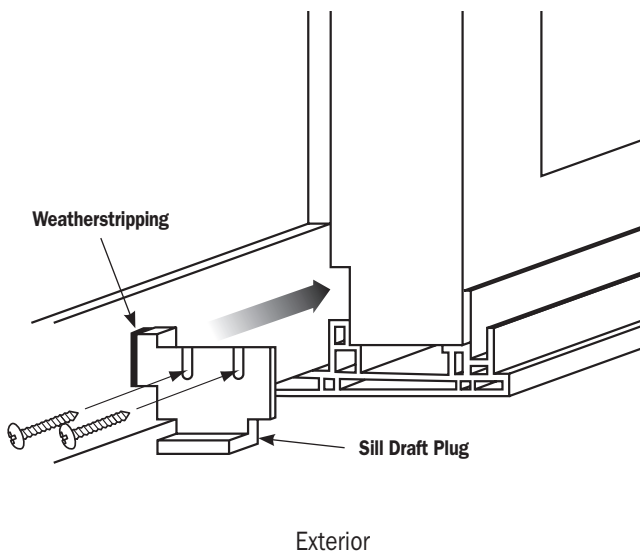
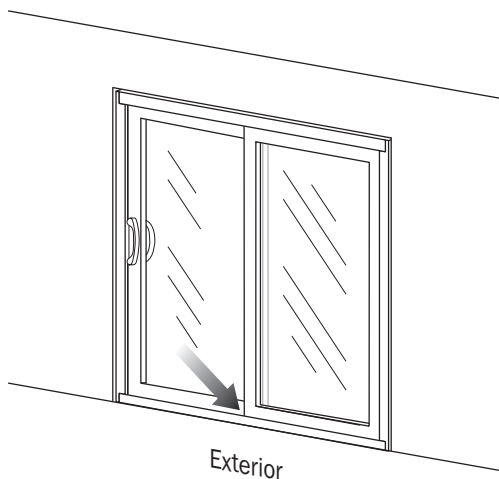
- 1 Install the fixed panel clips at the bottom and top of the fixed (non-handled) panel on interior.
- 2 Starting with the jamb, drive two (2) #8 x 3/4" pan head screws (included) through the clip into both the jamb and door panel on top and bottom.



### Step 28

#### Install sill draft plug.

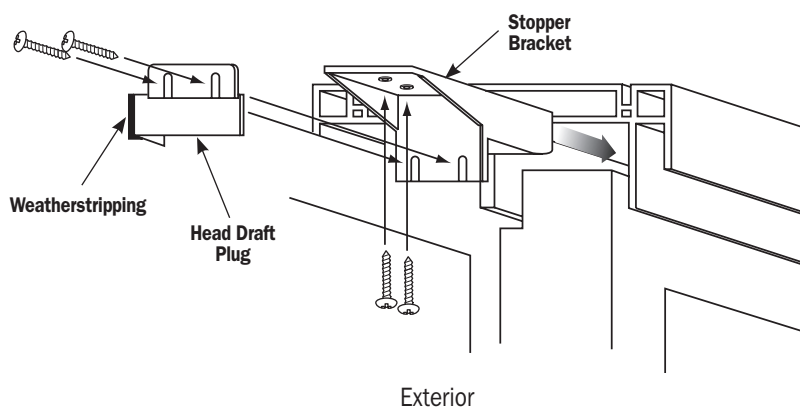
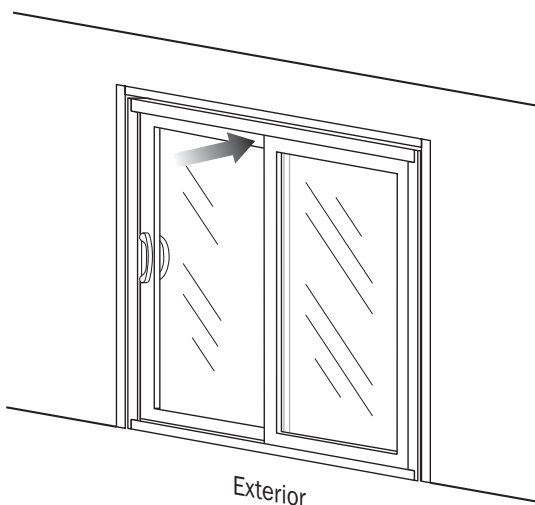
- 1 Select the correct sill draft plug from the two (2) supplied so that the pile weatherstripping will face the moving panel.
- 2 Using two (2) #8 x 5/8" screws (included) attach plug to fixed panel from the exterior.



### Step 29

#### Install stopper bracket and head draft plug.

- 1 Select the correct head draft plug from the two (2) supplied so that the pile weatherstripping will face the moving panel.
- 2 Using two (2) #8 x 5/8" screws (included) attach stopper bracket to head from the exterior. Make sure the stopper bracket is firmly seated against the stationary panel.
- 3 Using two (2) #8 x 5/8" screws (included) attach head draft plug to stopper bracket and fixed panel.

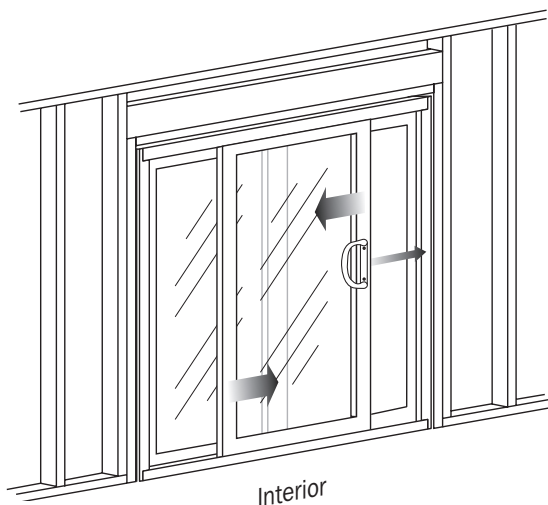




### Step 30

#### Check movement and adjust.

Slide and lock the door several times and check operation of handle and lockset. Adjust rollers, keeper and panel clips as necessary as indicated in Steps 23, 25 and 27.

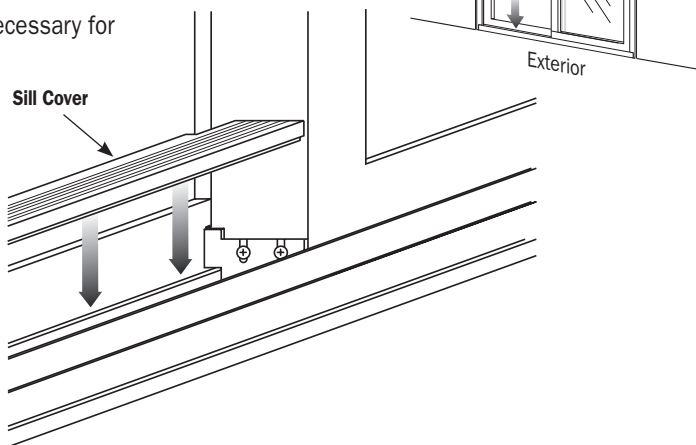


### Step 31

#### Install sill cover.

Install sill cover by snapping it into place on the exterior track.

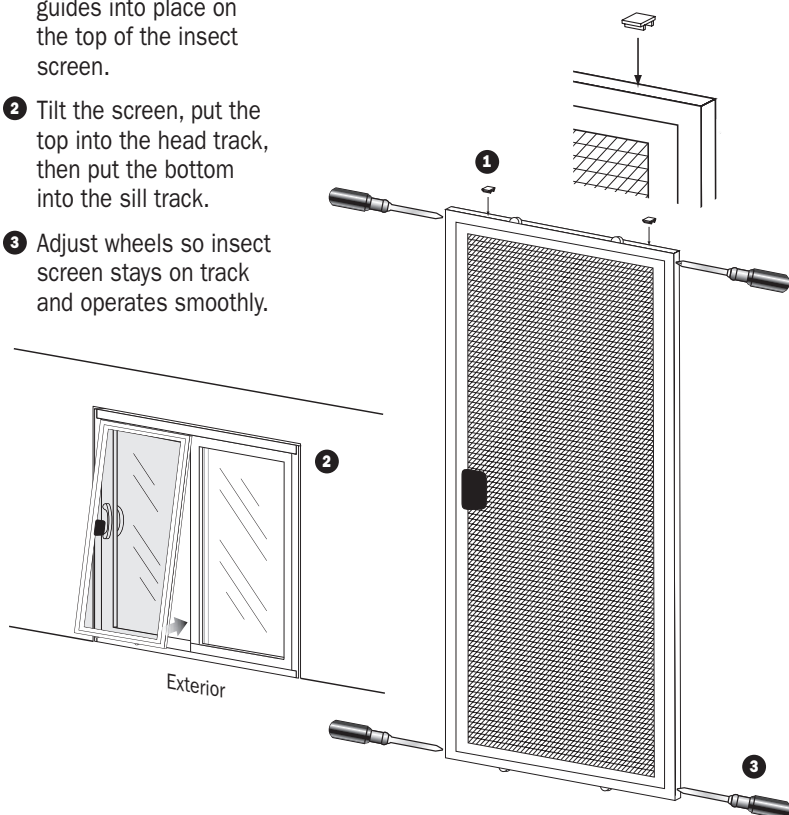
Trim if necessary for snug fit.



### Step 32

#### Install insect screen.

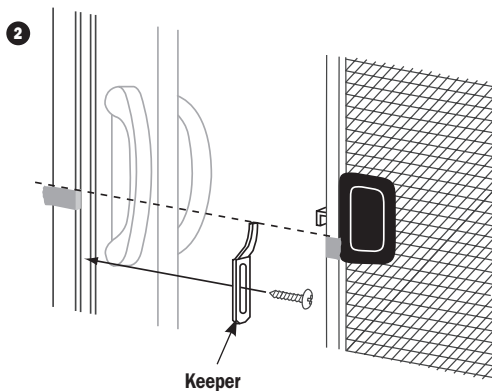
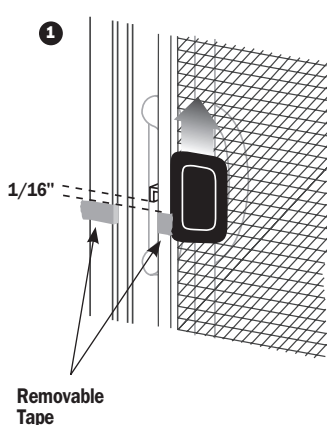
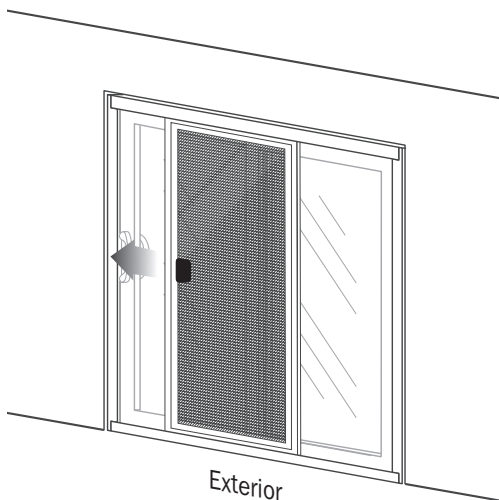
- ❶ Put the top two (2) guides into place on the top of the insect screen.
- ❷ Tilt the screen, put the top into the head track, then put the bottom into the sill track.
- ❸ Adjust wheels so insect screen stays on track and operates smoothly.



## Step 33

### Install insect screen keeper into jamb track.

- ❶ Push insect screen door handle all the way up. Mark  $1/16"$  below bottom of screen latch with removable tape and transfer the mark to the door frame with removable tape.
- ❷ Position top of keeper with mark on door frame. Keeper should be installed with the flange up. Attach keeper using included screw.
- ❸ Adjust keeper as necessary for easy latching and releasing.



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Unassembled 2-Panel Patio Door Installation Guide