



This guide contains procedures for common user serviceable repair tasks found on vinyl patio doors. If a condition arises that is not covered in this guide, please contact us for professional help. This product guide covers our current JELD-WEN Premium and Builders Series patio doors as well as our historical products with the following names: Seasonshield, Windowmaster, Wenco and Summit. For help identifying your patio door model, refer to your product purchase paperwork or call us for additional help.

Do-It-Yourself

Technician



## INTRODUCTION

Sliding patio doors consist of at least two side-by-side panels, one may be a fixed panel and at least one is an operating panel (options also include multiple panel patio doors with three or more panels). The operating panel(s) slide back and forth horizontally to open and close. An insect screen is mounted on the exterior side of the operating panel(s). Swinging patio doors swing out on side hinges and may have single-panel or double-panel configurations.

### BASIC OPERATION

Sliding patio doors usually have an interior lever or a lever and key lock near the handle. To unlock the door, move the lever up; down to lock. Key cylinders are usually rotated counterclockwise to unlock; clockwise to lock. Some doors may have a foot lock located on the lower corner of the operating panel opposite the handle. Pressing the button on the face in will release the lock. Pressing the button on the top down will engage the lock. When unlocked, slide the handle toward the center to open.

Swinging doors will have a key lock on the exterior and a thumb turn on the interior. When unlocked, the handle can be rotated and the door swung open.

### CONTACT US

For questions, feel free to contact us by phone or email:

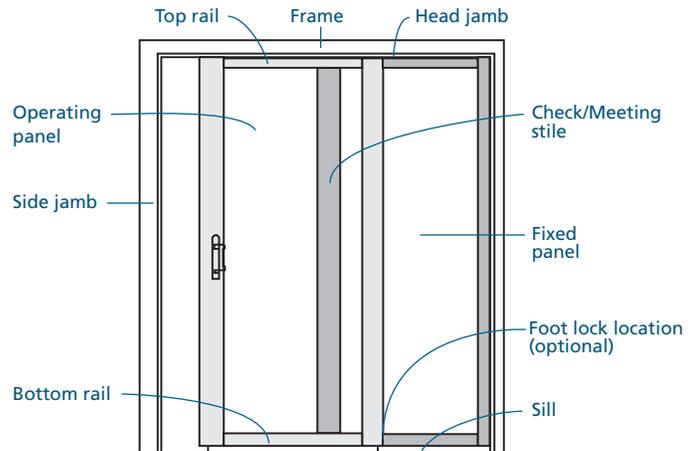
- Email: [customerserviceagents@jeld-wen.com](mailto:customerserviceagents@jeld-wen.com)
- Phone: 1-(800)-JELD-WEN/1-(800)-535-3936

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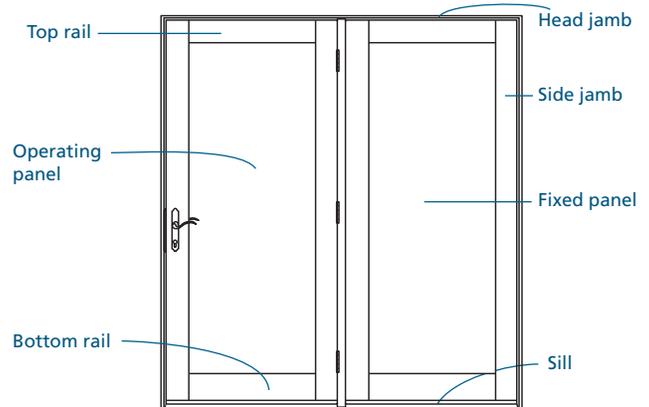
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The advice offered herein can be done by a homeowner with some mechanical aptitude. If you are unsure, it is recommended that you hire a trained service provider such as a competent and licensed construction contractor or building professional. JELD-WEN disclaims any and all liability associated with the use and/or provision of these instructions. Any reliance upon the information or advice is at the risk of the party so relying. The information contained herein may be changed from time to time without notification.

### SLIDING/ROLLING PATIO DOOR ANATOMY



### SWINGING PATIO DOOR ANATOMY



## PRECAUTIONS & SAFETY

- Follow all manufacturers' instructions and labels.
- Use proper and safe equipment and precautions when cleaning and servicing the exterior side of patio doors above ground level.
- Insect screens are not security devices and will not prevent a child, other person, or pet from falling through.
- Use extra care when driving screws near glass unit to avoid breakage.

- Use caution when tightening screws to avoid stripping the screw holes.
- Panel removal can be awkward and could cause physical injury or product damage; we recommend the help of a second person.

## NEEDED TOOLS & MATERIALS

### NEEDED TOOLS

**Note!** Each tool is not required for every task.

- Phillips head screwdriver
- 2' or 4' Level
- Allen wrenches
- Putty knife
- Tape measure

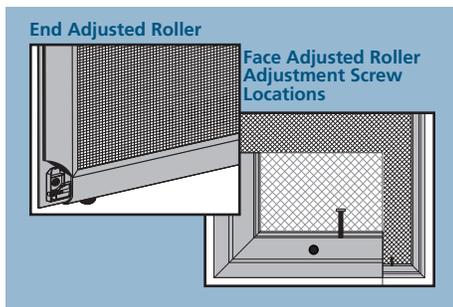
### NEEDED MATERIALS

- String
- Tape

## SLIDING SCREEN & PANEL REMOVAL & INSTALLATION

### SLIDING INSECT SCREEN REMOVAL, INSTALLATION & ADJUSTMENT

It may be helpful to remove insect screen before other panel(s). Adjustment screws are located at each corner of the door screen and may be located on the end of the screen or on the face. Face adjustment screws can either be on top of the lower rail or accessed through a hole as shown.



1. Turn all four adjustment screws to retract rollers into the screen.

**Note!** If door screen has weatherstrip covering adjustment screw, pull out only enough to expose screw, then press back into place after adjustment.

2. Grip both sides of the screen and lift up and over the screen track (if needed, use putty knife to help lift rollers over track) and remove.

#### Installation

1. Thoroughly clean sill track and head frame channel. The sill can be lightly lubricated with silicone if necessary.
2. Turn all four adjustment screws to retract rollers into the screen.
3. Orient the screen so the finger lever on the screen latch faces the inside.
4. Grip both sides of the screen and lift up and over the screen track (if needed, use putty knife to help lift rollers over track) and remove.
5. Adjust the rollers as explained below.

#### Roller Adjustment

1. Ideal adjustment is as low as possible but just high enough to avoid drag. Adjustment screws are located at each corner of the door screen. Turn the adjustment screw in quarter turn increments until the correct adjustment is achieved. Some rollers will require opposing rotations to move the roller in the same direction as the other rollers.
  - If screen door is flush to side jamb but needs to be raised or lowered, adjust both bottom rollers the same amount and in the same direction. Adjust top rollers if needed to apply slight tension.

- If screen top touches side jamb first, extend the roller closest to the side jamb, and retract the roller farthest from the side jamb. Make opposite adjustments if the screen bottom touches side jamb first.

2. Test operation and readjust as needed.

### SLIDING/ROLLING PATIO DOORS

Panel removal can be awkward and could cause physical injury or product damage; we recommend the help of additional people.

#### OPERATING PANEL REMOVAL

Operating panel(s) normally remove to the interior. Some doors have a sill riser that will prevent the panel from being removed to the interior. The fixed panel(s) will need to be removed and the operating panel will then be removed to the exterior. Follow the instructions for fixed panel removal, if necessary, before attempting to remove the operating panel(s).

1. On the interior, unlock panel and slide to the middle or further past the anti-lift blocks in the head.
2. Lift panel up and over bottom track and remove to the interior. The rollers may need to be adjusted up into the panel and then held with a putty knife or similar flat tool in order to clear the sill track.

#### INSTALLATION

To install, reverse removal steps.



PANEL REMOVAL & INSTALLATION - CONTINUED

**FIXED PANEL REMOVAL**

Most fixed panel(s) will either be direct set or fixed in place with hidden fasteners (not removable). Some may be held in place with accessible screws, or with a bracket and screws. Fasteners may be hidden behind a vinyl cover that is snapped into the track of the door frame. For additional assistance with identifying whether a fixed panel is removable or not, please contact us.

1. Once the fasteners are removed, slide the panel away from the jamb.
2. Lift the panel up into the head and up and over the sill track toward the exterior.

**INSTALLATION**

To install, reverse removal steps.

**SWINGING PANEL REMOVAL & INSTALLATION**

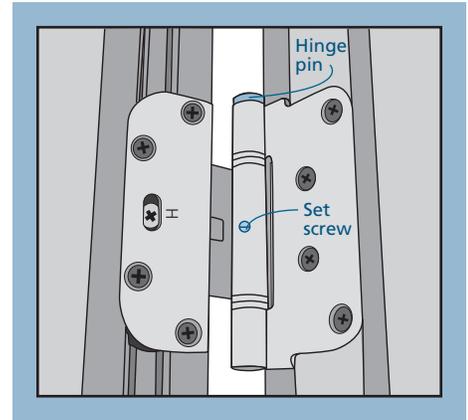
Panels can be heavy and awkward-use additional help when removing and reinstalling.

**REMOVAL**

1. Loosen the set screw in each hinge.
2. Starting on the bottom, pull the hinge pins out of the top of each hinge.
3. Remove panel.

**INSTALLATION**

1. Align the panel hinges and slide the hinge pins back into the top of each hinge.
2. Tighten the set screw on each hinge.
3. Adjust the hinges as necessary.



HARDWARE ADJUSTMENT

**HINGE ADJUSTMENT FOR SWINGING DOORS ONLY**

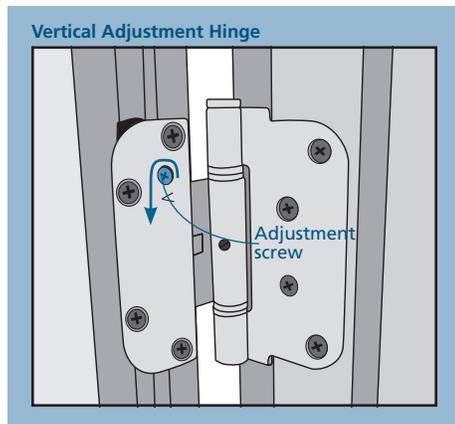
Proper adjustment of a swinging door panel occurs when there are even sight lines both vertically and horizontally, and there is sufficient contact between the weatherstrip and the frame and to prevent the panel(s) from rubbing and allow the panel(s) to operate, seal, latch and lock smoothly.

Improper alignment is corrected by making adjustments to the hinge adjustment screws, 1/4 turn at a time, and then checking for proper alignment.

There are two types of hinges on each door panel. A Vertical hinge stamped with a (V) and Horizontal hinges stamped with an (H). The Vertical (V) hinge is always the second hinge from the bottom and moves the entire panel up or down. The remaining hinges are Horizontal (H) hinges, allowing the panel to move toward or away from the jamb.

**VERTICAL ADJUSTMENT**

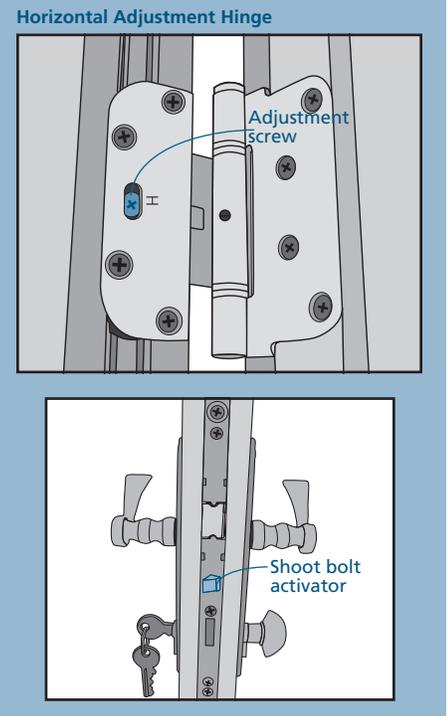
If the door panel needs to go up or down in the opening, adjust the vertical (V) hinge. Some doors have differently handed hinges where one vertical hinge will appear to be upside down when compared to the other vertical hinge on the other panel. The panel will move in the direction of the arrow when the adjustment screw is turned in that direction.



**HORIZONTAL ADJUSTMENT**

If the door panel(s) need to be moved closer to or farther from the jamb, or if the shoot bolt activator (if applicable) is not working properly, adjust the horizontal (H) hinges. The shoot bolt activator must be pressed in a minimum of 1/8" for the shoot bolts to engage when the door is closed. The handle will not lift up if the shoot bolt activator is not properly adjusted.

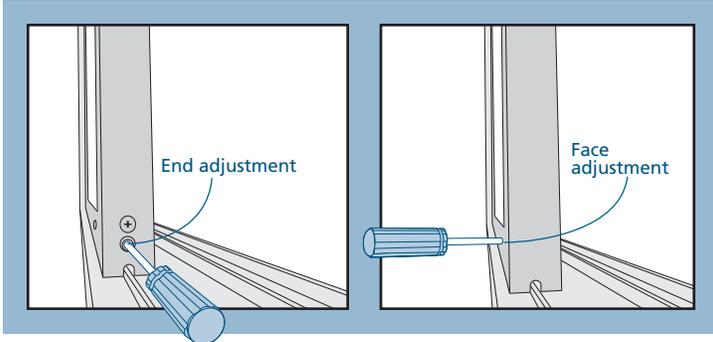
Turn the adjustment screw clockwise to move the panel away from the jamb, or counterclockwise to move the panel closer to the jamb. Each horizontal hinge may be adjusted separately as needed.



**HARDWARE ADJUSTMENT - CONTINUED**

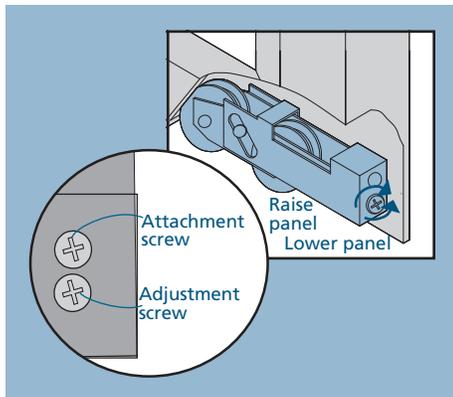
**ROLLER ADJUSTMENT**

**Note!** Adjusting door too high may allow water and air leakage. Adjust rollers just high enough to clear sill track and keep the weatherstrip hidden when the door is closed.



1. Builders doors have an adjustment screw on each lower end of the operating panel(s). Premium doors (and some older Builders doors) have access holes on the face of each lower end of the operating panel(s). Remove small vinyl plugs from each hole (if present).
2. Open operating panel enough to compare with frame jamb.

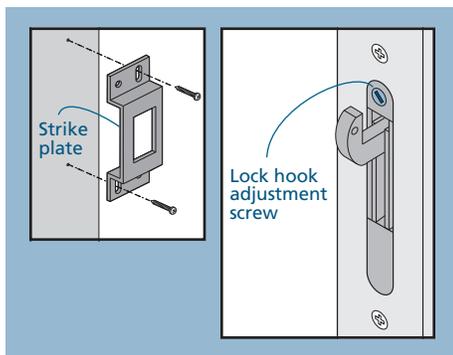
**Note!** Builders roller adjustment screws are in close proximity to the attachment screw. Adjust only the lower screw (as shown); loosening the attachment screw will detach the roller from the operating panel.



3. Lift the panel to take the weight off of the roller and turn the adjustment screw with a #2 Phillips head screwdriver (do not use a power driver). Clockwise rotations raise the panel, and counterclockwise rotations lower the panel.
4. Adjust as needed until interlocks, grid patterns, and jambs line up.
5. Test the operating panel for proper operation.
6. Re-apply the small vinyl caps over the roller adjustment screw holes if applicable.

**LOCK ADJUSTMENT**

Some locks are not adjustable. Adjustable locks will have a lock hook adjustment screw and non-adjustable locks will not. Keepers vary in design, but operate similarly.



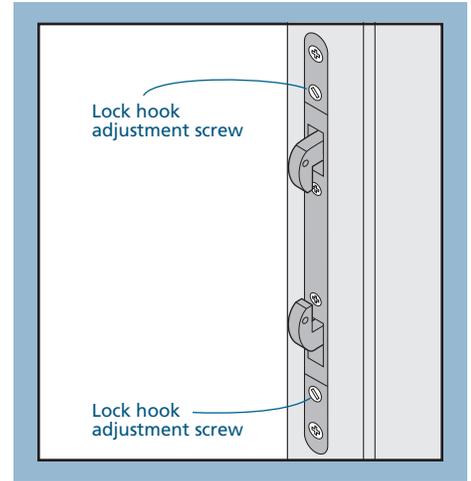
**LOCK ADJUSTMENT - CONTINUED**

**IF THE LOCK DOES NOT PROPERLY ENGAGE THE STRIKE PLATE**

Loosen the strike plate screws and move up or down until the latch engages properly.

**IF THE DOOR DOES NOT LOCK OR IS LOOSE WHEN LOCKED**

Turn the latch adjustment screw(s) in 1/2 turn increments clockwise to extend the hook, loosening the locking mechanism, or counterclockwise to retract the hook and tighten the locking mechanism. Premium doors have a double latch and two adjustment screws.



**BLINDS BETWEEN THE GLASS**

**OPERATION**

- When blinds are fully tilted closed, you will not be able to see through the blinds at eye level, only when looking down. Shades provide complete privacy.
- For easiest operation, operate at a medium speed and keep the slats in a fully open position while operating.
- It is normal to have a small gap at the bottom at full drop. The blinds may also not be perfectly level when fully open.

**ADJUSTMENTS**

1. If the operator comes off of the track, hold the operator at a sharp angle to the glass and reinsert the two legs under the track opening.

**RE-COUPLE OPERATOR MAGNETS**

1. Slide the operator past the half-way engagement point until the first click.
2. Continue to the full engagement point until the second click.

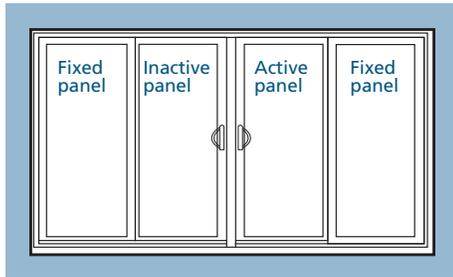
**TROUBLESHOOTING**

- Most problem conditions can be corrected by exercising the blinds in the fully open position. Fully cycle the blind from top to bottom and repeat if necessary).
- If de-coupling continues to the point the blinds cannot be fully raised or lowered, an internal failure has occurred. Please contact us for replacement options.

HARDWARE ADJUSTMENT - CONTINUED

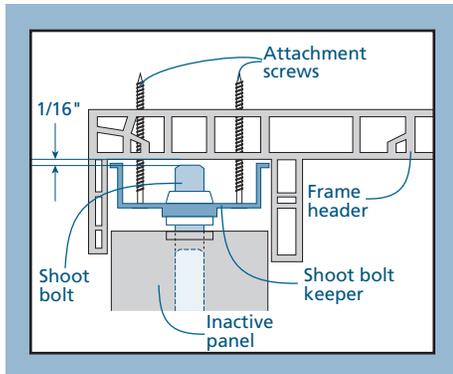
**MULTI-PANEL SLIDING PANEL SHOOT BOLT ADJUSTMENT**

This door consists of two operating panels: an active panel with a handle and locking mechanism and an inactive panel with just a handle. The inactive panel contains a shoot bolt that is designed to secure the inactive panel in place and allow the active panel to lock into it.



**Shoot Bolt Adjustment:**

1. Adjust the rollers as described above.
2. Completely close the inactive panel and open the active panel.
3. If the shoot bolt will not properly engage into the keeper, loosen the four screws and slide the keeper back and forth until the lock engages properly. Re-tighten all screws.
4. Engage the shoot bolt into the keeper and verify there is at least a gap of 1/16" between the end of the shoot bolt and the frame header. If necessary, perform shoot bolt height adjustment.
5. Check door for proper operation and readjust as necessary.



**Shoot Bolt Height Adjustment:**

Adjust the height of the shoot bolt if it touches the head or if it isn't high enough to properly engage in the keeper.

**Note! Patio door panels are very heavy. Removal and installation requires two or more people.**

1. Remove the inactive panel from the door. The rollers may need to be adjusted up into the panel to clear the sill track. Slide the panel to an open position and lift up and over the sill track.

**Note! The shoot bolt only has 7/16" of adjustment. If it comes out of the panel, remove the plastic piece on the top of the panel and re-thread the shoot bolt into the passive keeper assembly.**

2. Turn the shoot bolt counterclockwise to lengthen; clockwise to shorten. Only increase it enough to engage into the keeper and leave 1/16" gap at the frame header. If the shoot bolt hits the frame header, it will not fully lock when engaged.
3. Reinstall the inactive panel back into the frame and re-adjust the rollers as necessary.
4. Check door for proper operation and readjust as necessary.

**WEATHERSTRIP REPLACEMENT**

**ORDERING NEW WEATHERSTRIP**

Dust pads, weatherstrip gaskets and other weatherstrip placement are critical to water and air infiltration control. Check placement and quality of weatherstrip.

Sliding door weatherstrip is usually located around the perimeter of the operating panel(s), and in interlocks. Some doors have weatherstrip around the frame where the operating panel(s) are when normally closed.

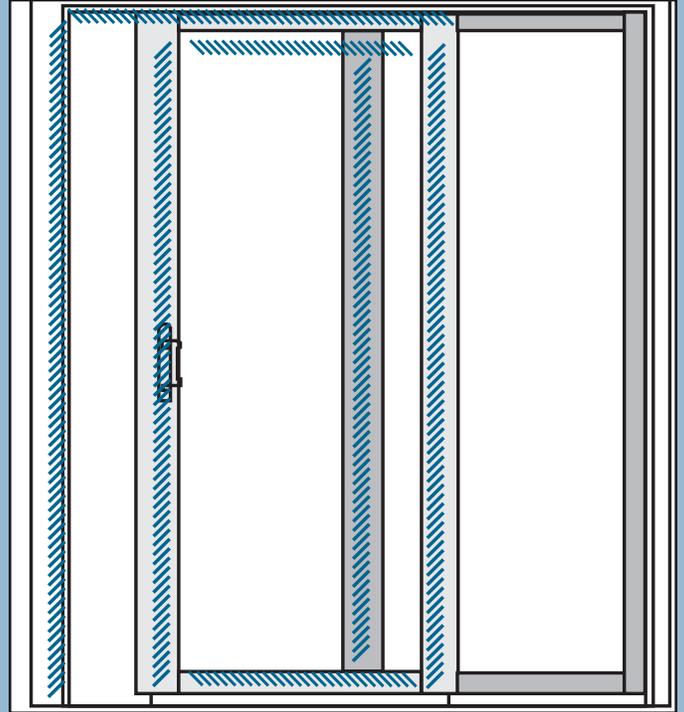
Swinging doors will have weatherstrip in the frame where the operating panel(s) are when normally closed.

1. Determine amount needed by measuring each piece to be replaced. Note the location on the door of each type of weatherstrip.
2. For each type of weatherstrip, add all measurements, then add an additional 10%.
3. Round up to the nearest foot.
4. Fill out the following table.

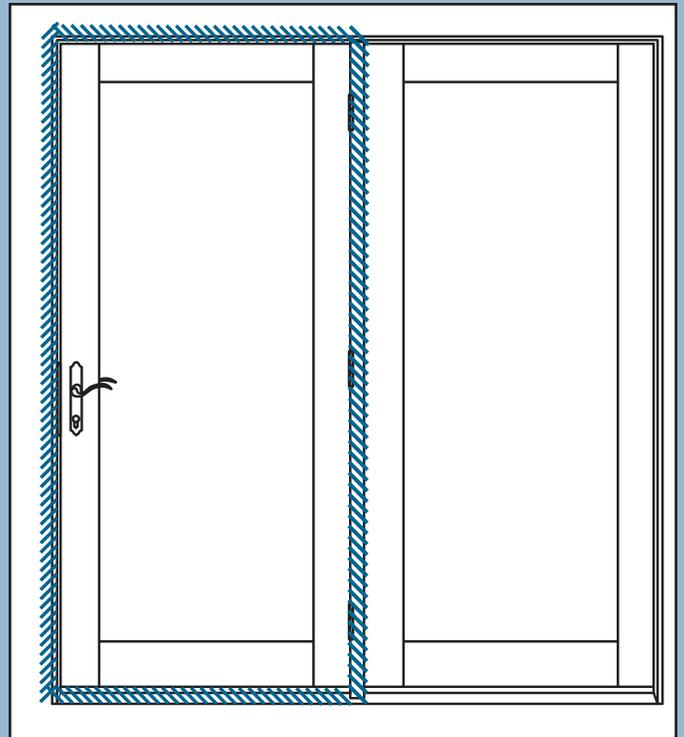
Information for Ordering Replacement Weatherstrip	
Product Identification	
Weatherstrip Location	
Weatherstrip Type	
Color	
Amount Needed	

5. Some weatherstrip may not be easily replaceable, please call us for recommendations and to order new weatherstrip.

Possible Weatherstrip Locations on Sliding Doors



Possible Weatherstrip Locations on Swinging Doors



## PROPER PATIO DOOR INSTALLATION

- Proper installation is essential for keeping patio doors operating smoothly. If a patio door fails to operate properly, an inspection is necessary to determine if it was installed correctly.
- A contractor or installer can assist in determining the cause of a patio door being “out of specification” and possibly correct it. Patio door problems due to improper installation are usually not covered by the manufacturer’s warranty. For installation instructions, contact us or your supplier.
- The specifications and measurements referenced in this guide are taken from ASTM E2112 Standard Practice for Installation of Exterior Windows, Doors and Skylights.

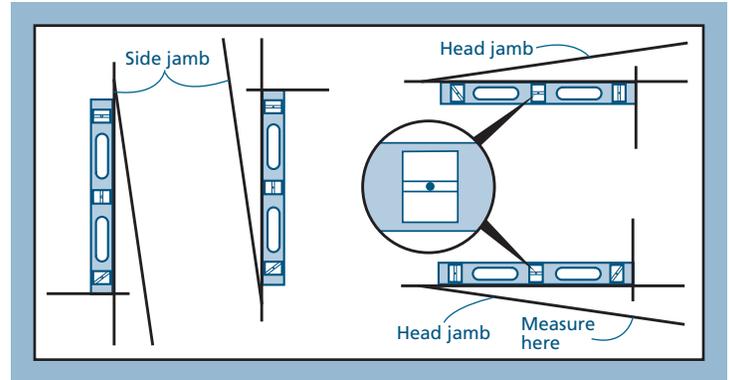
**Note:** These instructions do not address inspection for proper “water tightness” or flashing. A “water tight” inspection requires removal of the exterior siding around the patio door. Seek professional assistance regarding this issue.

### LEVEL INDICATOR

Accurate measurements are essential in determining level and plumb. Most carpenters’ levels have several bubble level indicators, making it possible to measure all parts of the window.

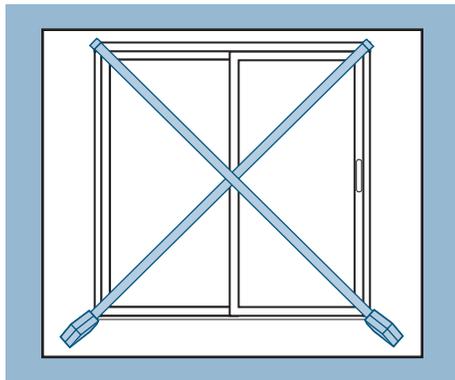
Examine the horizontal indicator. If the bubble is centered between the lines of the indicator, it is level.

If the bubble is not exactly centered, measure how far “out of level” or “out of plumb” by maneuvering the end of the level until the bubble is exactly centered. Measure the farthest gap between the level and the surface. The gap must not exceed 1/4", or the surface is out of level/plumb.



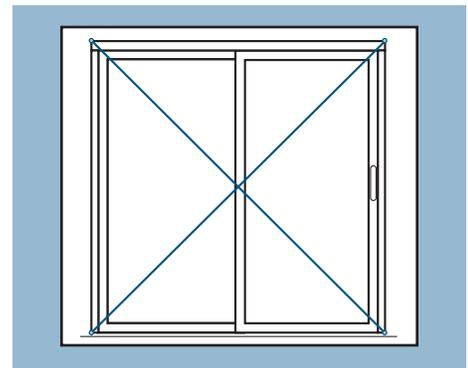
### SQUARE

Measure frame/panel from top left to bottom right corner and from top right to bottom left corner. If measurements differ by 1/8" for patio doors up to 20 sq. ft. or 1/4" for patio doors larger than 20 sq.ft., unit is out-of-square.



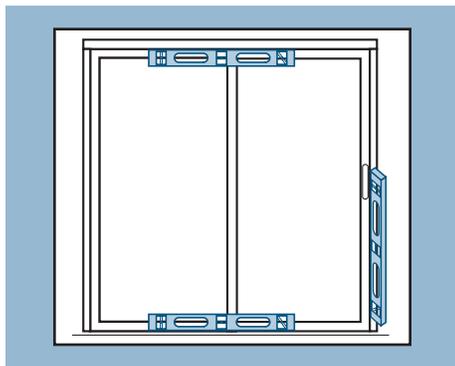
### FRAME TWISTS

Attach two pieces of string to frame/panel, corner to corner. If there is a gap between strings at center point larger than 1/8" for patio doors up to 4' wide or high, or 3/16" for patio doors larger than 4' wide or high, the frame is not flat. Repeat by switching strings and re-measuring.



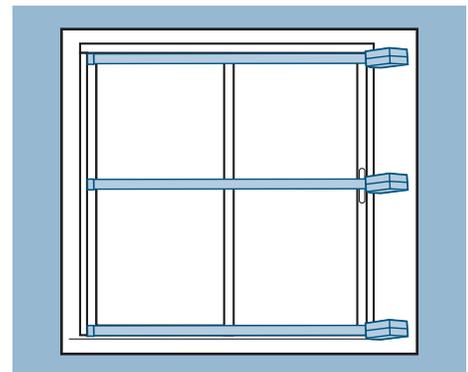
### LEVEL AND PLUMB

For plumb, place level against each side jamb or use a plumb bob. For level, place level against head jamb and sill.



### PROPER SHIMMING

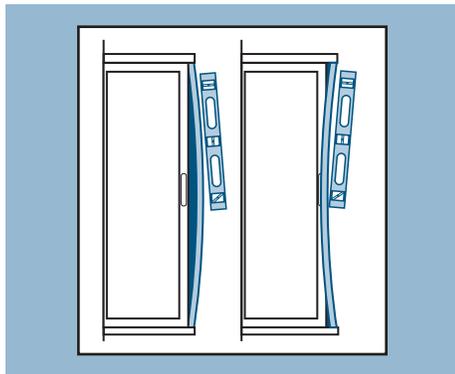
Measure width of frame at top, center, and bottom. If any two measurements differ more than 1/16", the frame is over or under shimmed. Repeat process and measure height of frame.



PROPER WINDOW INSTALLATION - CONTINUED

STRAIGHT SIDE JAMBS

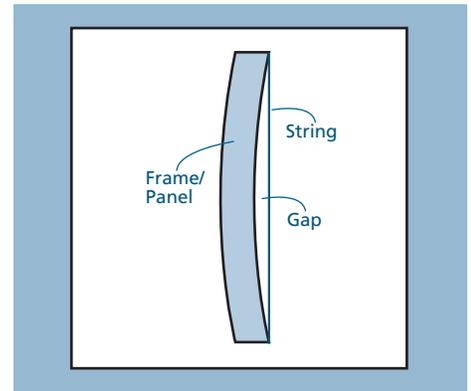
Place level against inside of side jamb. Look for gaps anywhere between level and side jamb. Repeat steps for other side jamb.



FRAME/PANEL BOW

Inspect interior and exterior frame jambs, or stiles/rails of panel (not glass) to determine if bowed.

1. Cut piece of string slightly longer than height of frame or panel.
2. Pull tightly and stretch string to upper and lower corners of jambs, or, stiles or rails of panel. Tape securely.



3. Look for gap between string and frame or panel. If gap measures more than 1/16" at any point, the panel is bowed.

TROUBLESHOOTING OPERATIONAL PROBLEMS

**Note!** Please check each possible cause, including verifying proper installation, before contacting us for assistance.

PROBLEM	POSSIBLE CAUSES	POSSIBLE SOLUTIONS
Panel will not open	Sill track dirty	Clean sill track then lubricate with silicone spray on cloth. Clean and lubricate hinge track.
	Panel locked	Make sure lock latch is in unlocked position, try again.
	Obstructions	Remove obstructions/shipping blocks
	Panel damaged	Repair or replace panel
	Lock damaged or broken	Replace lock
	Keeper loose or damaged	Tighten if loose. Replace if damaged.
	Weatherstrip loose or damaged	Reattach If loose, replace if damaged.
	Panel may need adjustment (panel drags on sill or does not fit square or flush in the frame)	Adjust rollers
Panel will not close	Sill track dirty	Clean sill track then lubricate with silicone spray on cloth. Clean and lubricate hinge track.
	Panel locked	Make sure lock latch is in unlocked position. Try again.
	Obstructions	Remove obstructions/debris/shipping blocks.
	Keeper loose or damaged	Tighten if loose. Replace if damaged.
	Weatherstrip loose or damaged	Reattach If loose, replace if damaged.
	Panels do not line up at check (meeting) stiles	Adjust rollers
	Improper installation	Inspect installation

PROBLEM	POSSIBLE CAUSES	POSSIBLE SOLUTIONS
The patio door surface fogs up	Condensation.	<p>If condensation is on an interior surface:</p> <ul style="list-style-type: none"> <li>• Raise the average temperature of the house one or two degrees and do not block vents.</li> <li>• Vent all appliances to the outdoors and run exhaust fans.</li> <li>• Open patio door blinds for air circulation.</li> <li>• Turn humidifiers down as the temperature gets colder (unless used for medical purposes).</li> </ul> <p>If condensation is on an exterior surface:</p> <ul style="list-style-type: none"> <li>• Close patio door coverings to reduce cooling of the glass surface by air-conditioning.</li> <li>• Remove or trim shrubbery close to windows to promote air circulation.</li> </ul> <p>If condensation is between glass panes:</p> <ul style="list-style-type: none"> <li>• Seal failure. Replace either the insulating glass assembly or the entire panel. This determination should be made by a service representative.</li> </ul>
Panel appears crooked in frame	Panel may need adjustment	Adjust rollers
	Obstructions	Remove obstructions / shipping blocks
	Improper installation	Inspect installation
Water leaks through the patio door	Clogged weep system	<p>Clean sill track with vacuum or damp cloth and pour small amount of water into interior sill track. If water doesn't drain out, inspect the exterior and clear any blockage. If not blocked, insert thin wire into weep hole (do not insert wire if the weep system has an exterior crevice).</p> <p>Repeat until water runs through weep hole.</p>
	Weatherstrip damaged or missing	Reattach if loose, replace if damaged or mission

## GLOSSARY

### Interlock

An interlock on a window or door provides a hooking action between the sash rail and the sill or jamb. This action reduces air infiltration and increases security.

### Jamb

The vertical frame members of a window or patio door assembly.

### Keeper

A bracket utilized as a latching point for locking systems.

### Panel

An assembly comprised of stiles (vertical pieces), rails (horizontal pieces) and the patio door's glass.

### Rail

The horizontal members of a window or patio door panel.

### Roller

A roller is the round wheel used in a sliding window or patio door on which the operating sash or panel travels. For this reason, a sliding window may also be called a rolling window.

### Sill track

The track on the sill of a patio door that guides the panel as it opens and closes.

### Stile

The vertical members of a window or patio door panel.

### Weatherstrip

A strip of material that covers the joint between two separate parts of a patio door and is used to prevent rain, snow, and cold air from entering.