



This guide contains procedures for common user serviceable repair tasks found on aluminum horizontal operating windows. 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 windows as well as our historical products with the following names: Seasonshield, Windowmaster, Wenco and Summit. For help identifying your window model, refer to your product purchase paperwork, certification label or call us for additional help.

Do-It-Yourself

Technician



## INTRODUCTION

Horizontal sliding/rolling windows consist of two side-by-side sashes, one is a fixed sash or direct set (glass directly attached to the frame) and one is an operating sash. The fixed sash does not move, and the operating sash glides back and forth horizontally to open and close. An insect screen is mounted on the exterior side of the operating sash(es). Options also include windows with two sashes where each sash operates and three sash windows with a fixed sash in the middle and an operating sash on both sides.

### CONTACT US

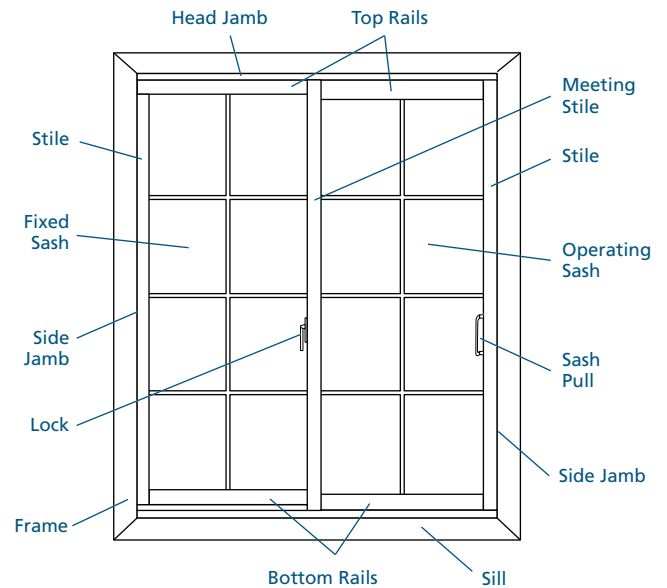
For questions, feel free to contact us by phone or email:

- Email: [customerserviceagents@jeld-wen.com](mailto:customerserviceagents@jeld-wen.com)
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## SLIDING/ROLLING WINDOW ANATOMY



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.

## PRECAUTIONS & SAFETY

- Follow all manufacturers' instructions and labels.
- Use proper and safe equipment and precautions when cleaning and servicing the exterior side of windows above ground level.
- Window 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.
- Sash removal can be awkward and could cause physical injury or product damage; we recommend the help of a second person.

## NEEDED MATERIALS & TOOLS

### TOOLS

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

- Screwdrivers
- Allen wrenches
- Drill with bits
- Prying tool
- Tape measure
- 2' or 4' Level
- Putty knife
- Utility knife

### MATERIALS

- String
- Tape

## SASH REMOVAL & INSTALLATION

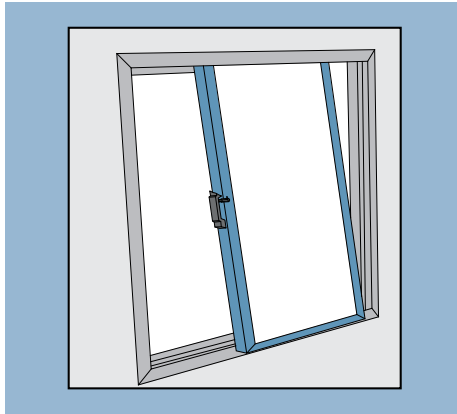
### OPERATING SASH REMOVAL & INSTALLATION

#### REMOVAL

1. On the interior, unlock sash and glide to the middle or further.
2. Lift sash up and over bottom track and remove to the interior.

#### INSTALLATION

1. Verify the lock is in the unlocked position.
2. In an open position, place the top of the sash into the interior track of the head jamb.
3. Push up into the track and then swing the bottom of the sash over the sill and into the interior sill track.
4. Test operation. Remove and replace if necessary.



### FIXED SASH REMOVAL & INSTALLATION

Some fixed sashes are not removable, but have the glass fixed, or directly set, in the frame. Call us for replacement options. If the fixed sash is removable, it will be held in place to the jamb with screws or screws and brackets.

#### REMOVAL

1. From the interior, Remove operating sash as described above.
2. Remove inside screw in fixed sash (if applicable) and set aside for reinstallation.
3. From the exterior, Locate screws in fixed sash; remove and set aside for reinstallation.
4. If the sash is held in place with brackets, remove the screws and brackets.
5. Slide sash open half way.
6. Lift sash up and over sill track.

#### INSTALLATION

1. Set top rail into the header track; carefully drop sash into sill track.
2. Slide sash back into its original position. Verify the sash is square in the frame.
3. If the sash was held in place with brackets, apply silicone sealant around each bracket.
4. Line each screw up with screw holes in the frame; drive screws through the sash to secure.
5. Install operating sash.
6. Test operation. Remove and replace if necessary.

## HARDWARE REPLACEMENT & ADJUSTMENT

### HARDWARE REPLACEMENT & ADJUSTMENT

Replace the lock if it is broken. The lock sits on the meeting stile of the operating sash and engages into the frame, or the meeting stile of the fixed sash. The lock keeper is part of the frame/fixed sash and is not a separate hardware component.

#### LOCK REPLACEMENT

Unlock and open sash or remove sash.

1. Unscrew and remove old lock.
2. Install new lock in the same place.

If replacing the sash:

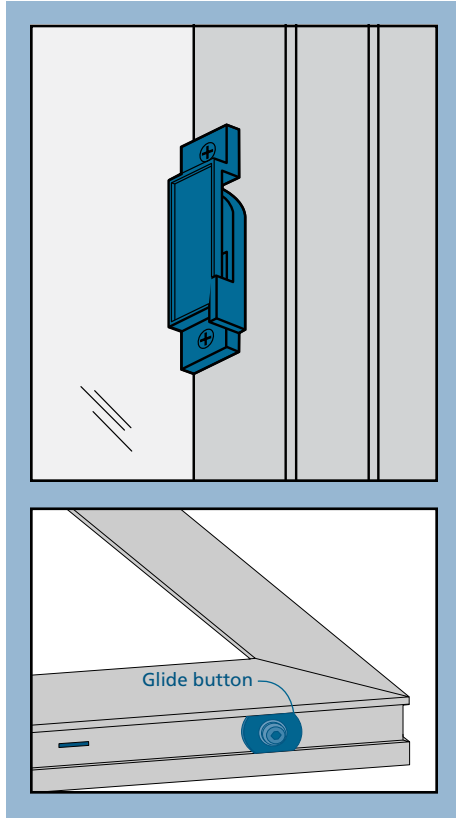
1. Measure old screw holes on old sash and carefully transfer to new sash.
2. Pre-drill holes with a 1/16" bit.
3. Install lock on sash.
4. Reinstall sash and test operation.

#### GLIDE BUTTON ADJUSTMENT

Many windows do not have adjustable glide buttons. This adjustment only applies to glide buttons with an Allen key, all others are not adjustable (some windows use rollers instead of glide buttons; these rollers are not adjustable). Adjust the sash by raising or lowering the glide buttons as follows.

Adjust the sash by raising or lowering the glide buttons as follows.

1. Remove sash.
2. Use a 5/32" Allen wrench to raise or lower the glide button.
3. Turn clockwise to lower the sash.
4. Turn counterclockwise to raise the sash.
5. Replace sash.



**Important Note!** Adjusting glide buttons too high will increase risk of air/water leaks. Adjusting the buttons too low can cause sash to drag on lower track. Ideal adjustment for sash is as low as possible but just high enough to avoid drag. Keep the stiles parallel to frame. One glide button may need to be raised and one lowered. Check by almost closing the sash and looking for an even, parallel gap.

#### GLIDE BUTTON REPLACEMENT

##### Removal

1. Remove sash.
2. Remove the screw attaching the sash lift button to the sash; save screws for reinstallation.
3. Carefully pry button off sash bottom.

##### Installation

1. Set new sash lift button in the same position and orientation as previous button.
2. Secure sash lift button to sash with the original screws.
3. Adjust as necessary.
4. Replace sash.

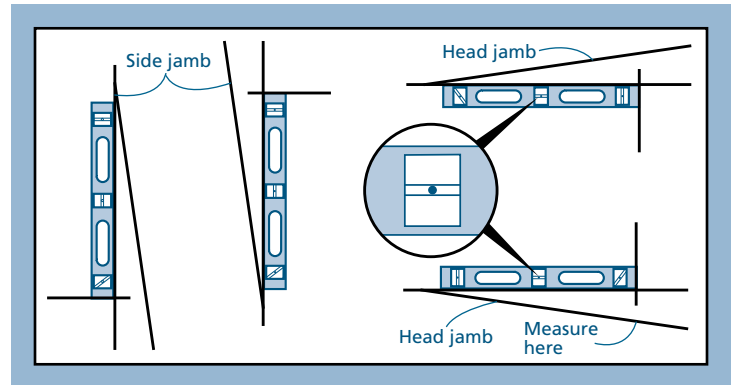
**PROPER WINDOW INSTALLATION**

- Proper installation is essential for keeping windows operating smoothly. If a window fails to operate properly, an inspection is necessary to determine if it was installed correctly.
- These inspection instructions apply to flat window types. Bow windows, bay windows, and unusual geometric-shaped windows are more complicated and should be inspected by a window professional.
- A contractor or installer can assist in determining the cause of a window being “out of specification” and possibly correct it. Window 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 window. Seek professional assistance regarding this issue.

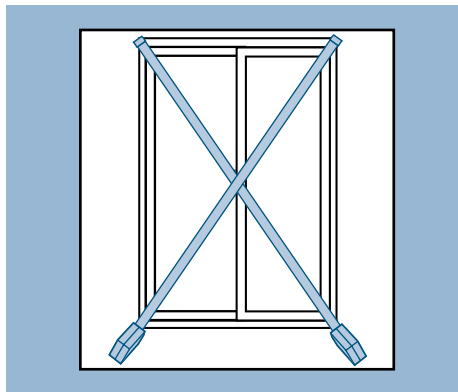
**LEVEL INDICATOR**

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. On a 2' level, the gap must not exceed 1/16", or on a 4' level (or longer), the gap must not exceed 1/8", or the surface is out of level/plumb.



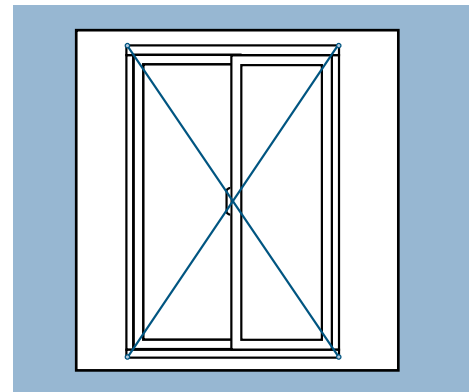
**SQUARE**

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



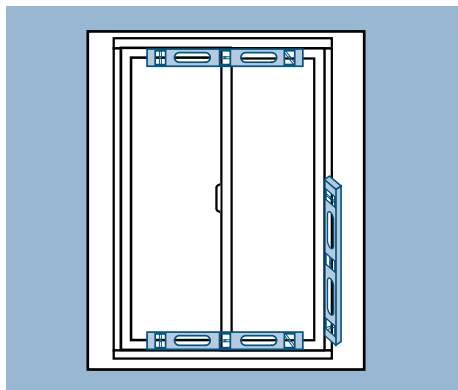
**FRAME TWISTS**

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



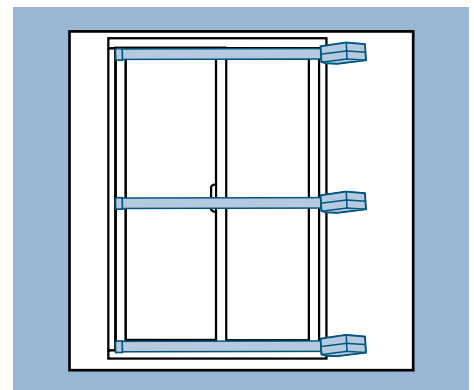
**LEVEL AND PLUMB**

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



**PROPER SHIMMING**

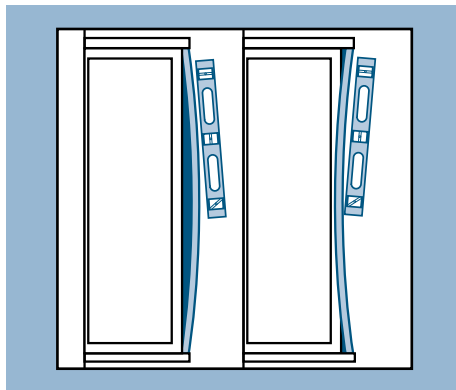
Measure width of frame at top, center, and bottom. If any two measurements differ more than 1/16", the frame is over or under shimmed. Repeat process and measure height of frame.



PROPER WINDOW INSTALLATION - CONTINUED

**STRAIGHT SIDE JAMBS**

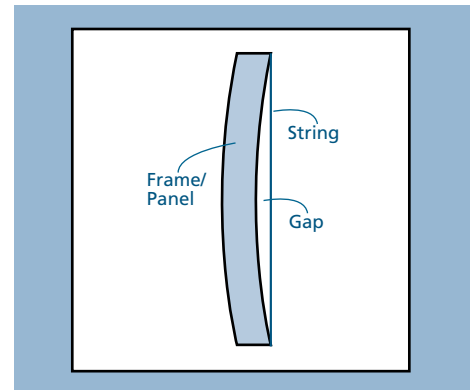
Place level against inside of side jamb.  
Look for gaps anywhere between level and side jamb.  
Repeat steps for other side jamb.



**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
Sash will not open	Sash locked	Make sure lock latch is in unlocked position, try again
	Obstructions	Remove obstructions/shipping blocks
	Sash damaged	Repair or replace sash
	Lock damaged or broken	Replace lock
	Weatherstrip loose or damaged	Reattach If loose, replace if damaged
	Sash may need adjustment (sash drags on sill or does not fit square or flush in the frame)	Adjust glide buttons <b>Note! Some glide buttons are not adjustable. Call us for assistance.</b>
	Frame damaged	Repair or replace window if necessary
	Improper installation	Inspect installation
Sash will not close	Sash locked	Make sure lock latch is in unlocked position, try again.
	Obstructions	Remove obstructions/debris/shipping blocks.
	Lock loose or damaged	Tighten If loose, replace if damaged
	Weatherstrip loose or damaged	Reattach If loose, replace if damaged
	Sashes do not line up at check (meeting) rails/stiles	Adjust glide buttons <b>Note! Some glide buttons are not adjustable. Call us for assistance.</b>
	Frame damaged	Repair or replace window if necessary
	Improper installation	Inspect installation
Sash binds or drags	Sill track dirty	Clean sill track then lubricate with silicone spray on a cloth
	Obstructions	Remove obstructions/shipping blocks
	Weatherstrip loose or damaged	Reattach if loose, replace if damaged
	Sash may need adjustment (sash drags on sill or does not fit square or flush in the frame)	Adjust glide buttons <b>Note! Some glide buttons are not adjustable. Call us for assistance.</b>
	Frame damaged	Repair or replace window if necessary
	Improper installation	Inspect installation

PROBLEM	POSSIBLE CAUSES	POSSIBLE SOLUTIONS
Sash will not lock properly	Lock misaligned or damaged	Realign if misaligned. Replace if damaged
	Sash may need adjustment (sash drags on sill or does not fit square or flush in the frame)	Adjust glide buttons <b>Note! Some glide buttons are not adjustable. Call us for assistance.</b>
	Improper installation	Inspect installation.
The window surface fogs up	Condensation. See also our condensation document at: <a href="http://www.jeld-wen.com/_pdf/JG1012.pdf">http://www.jeld-wen.com/_pdf/JG1012.pdf</a>	<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 window 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 window 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 sash. This determination should be made by a service representative.</li> </ul>
Sash appears crooked in frame	Obstructions	Remove obstructions/shipping blocks
	Improper installation	Inspect installation
Water leaks through the window	Clogged weep system	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). Repeat until water runs through weep hole.
	Weatherstrip damaged or missing	Reattach If loose, replace if damaged or missing

GLOSSARY

**Anodize**

To perform a treatment process that creates a protective coating to bare aluminum.

**Direct-Set**

The window's glass is secured directly into the window frame without the stiles and rails of a sash.

**Fixed sash**

An assembly comprised of stile (vertical pieces), rails (horizontal pieces), and a window's glass that is fixed to the frame.

**Glide button**

An adjustable molded plastic part mounted to each end of the sash bottom rail(s) which aides sash operation and adjustments.

**Header track**

The track in the head jamb of a sliding/gliding window or patio door that guides the sash/panel as it opens and closes.

**Jamb**

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

**Keeper**

A bracket utilized as a latching point for locking systems.

**Level**

A condition that exists when a surface is exactly horizontal.

**Meeting stile**

The vertical member of an operating sash and the vertical member of a stationary sash that meet at the middle of a horizontal sliding window when closed. The meeting stile contains weatherstrip to create a weather-tight seal.

**Plumb**

A condition that exists when a surface is exactly vertical.

**Rail**

The horizontal members of a sash or patio door panel.

**Sash**

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

**Sill track**

The track on the sill of a sliding/gliding window or patio door that guides the sash as it opens and closes.

**Spacer**

A component (usually metal) that separates the panes of glass to create the airspace in an insulating glass (IG) unit.

**Square**

A condition that exists when two surfaces are perpendicular (90 degree angle).

**Stile**

The vertical members of a sash or patio door panel.

**Weatherstrip**

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