

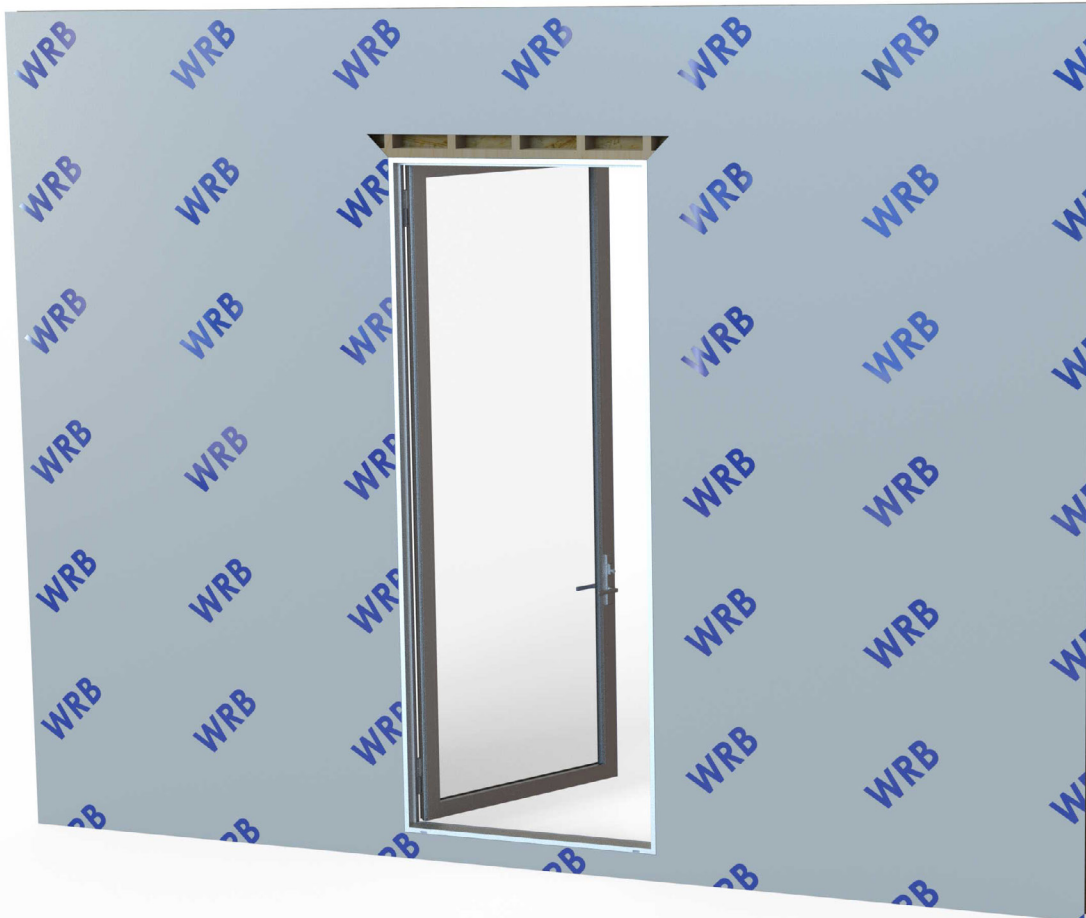


**SERIES 8670**  
**CASEMENT WINDOW**  
INSTALLATION INSTRUCTIONS

[WESTERNAO.COM](http://WESTERNAO.COM)



SCAN  
TO PLAY  
VIDEO



This guide provides step-by-step instructions for installation the Casement Window. Sealants used should be compatible with the building envelope's waterproofing membrane. Drip caps should be ordered when the window is ordered. Application of building components such as flashing and WRB may vary. Refer to those manufacturers' instructions for incorporation and installation of their products. Western is not responsible for proper integration of its products into the structure for weather management. See current versions of AAMA 2400 and ASTM E2112 for pre-installation and installation details.



#### CAUTION

We recommend all Western Architectural Openings products be installed by experienced professionals

#### Contact us:

2200 E. Riverview Dr., Phoenix, AZ 85034

877-268-1300

WesternAO.com



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### NOTE

Unless specifically indicated on the Figure as “Interior View”. All figures in this installation guide are detailed from window exterior.



## IMPORTANT SAFETY INFORMATION



### WARNING

Risk of injury, potentially serious, if warning is not heeded



### CAUTION

Risk of injury if precaution isn't taken



### NOTE

Additional information is important to the installation

**Read instructions, front to back, before beginning installation.**

### Product Storage and Transports

Product should be stored in a dry location protected from the elements. Wet packaging can cause damage to product finishes. If the packaging becomes wet, immediately replace it with dry packaging. Product should be stored and transported upside down. To avoid damage, do not drop or drag product from the delivery truck. Care is required in handling, transport and storing products to avoid compromising the integrity of components and product performance. Failure of care may limit warranty remedies.

### Removal of Old Fenestration Products

Ensure that old fenestration products are removed and properly disposed. You may be able to recycle or donate removed glass and frames. For more information, check with your local recycling agency, the Fenestration & Glazing Industry Alliance (FGIA, f/k/a American Architectural Manufacturers Association, the U.S. Environmental Protection Agency, or the Building Materials Reuse Association to locate a nearby company or organization that accepts used windows and doors. To donate removed products, contact local nonprofits in need of building supplies, such as Habitat for Humanity.



### WARNING

Homes and condominiums built before 1978 may have lead-based paint, which can pose serious health hazards during removal. Information and instruction regarding proper management of lead-based paint is available at [www.epa.gov/lead](http://www.epa.gov/lead).



# IMPORTANT SAFETY INFORMATION

## Safety and Handling

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Installation of the product is not a “do-it-yourself” project. The product should be installed only by experienced, qualified, and where required, licensed installation professionals.

- Read and fully understand ALL manufacturer’s instructions prior to beginning the installation. Failure to follow applicable installation instructions and industry standards, such as AAMA 2400 and ASTM E2112, may affect coverage under the applicable Western Architectural Openings express limited warranty.
- This is a finished product that must be protected before, during and after installation to prevent damage to the glass, frame, finish and hardware. All component parts should be stored in a dry location that is protected from the elements.
- Before proceeding with installation, inspect the product and component parts and confirm that there is no damage or condition that will affect appearance or performance. Damaged or missing parts should be reported to your dealer immediately.
- Use caution when working at elevated heights including but not limited to ladders and scaffolding.
- It is the responsibility of the installation contractor to consult and establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to commencing installation.
- Do not work alone and use safe lifting techniques. Two or more people may be required to lift. Use a reasonable amount of people with enough strength to lift, carry and install to avoid injury and/or damage to the Product. Consult product order information for measurements and weight.
- Use caution when handling glass. Broken or cracked glass can cause serious injury.
- Wear protective gear (safety glasses, gloves, ear protection, etc...).
- Operate hand and power tools safely and follow the manufacturer’s operating instructions.
- Job site and worker protections are recommended and may be required.



# IMPORTANT SAFETY INFORMATION

## Components

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The components supplied will vary depending on the configuration you are installing. Before proceeding with the installation, inspect the components to become familiar with them. Confirm all parts and components have been ordered and delivered.

Confirm there is no damage that will affect the appearance or performance of the installed product. Damaged or missing parts should be reported to your dealer within 48 hours of delivery.



### NOTE

Some windows will be shipped knocked down, in this case glass will need to be field glazed. Please consult a glazing contractor.

## Installation Preparation

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Prior to installation, it is important that you carefully review and understand the installation instructions and any drawings supplied. Western Architectural Openings fenestration products should be installed only by experienced and qualified installation professionals. Failure to follow these instructions and industry standards may result in poor performance, including but not limited to, operation, security, and weatherproofing failures, and may void Western Window Systems expressed limited warranties.

This is a finished product that must be protected before, during, and after installation to prevent damage.

Failure to follow these recommendations, local requirements, and good building practices may result in poor performance including, but not limited to, operation, security and weatherproofing failures and may void coverage under the applicable Western Window Systems' express limited warranty. Provide a copy of these recommendations and the applicable Western Window Systems' express limited warranty to the owner before installing. Western Window Systems does not permit adoption of its installation recommendations into the contracts of others without its prior, written consent.

Please contact Western Window Systems at 1-877-268-1300 for clarification.



### NOTE

NOTE: The rough opening must be waterproofed in accordance with AAMA Installation Masters standards, as well as flashing and sealant manufacturer instructions, and must meet local building codes. Applicable industry standards AAMA 2400, AAMA Installation Masters™ ASTM E 2112, FMA/AAMA/WDMA 300-12 should be consulted.



# REQUIREMENTS FOR A SUCCESSFUL INSTALL

## Rough Opening

Ensure that the sill is flat and level.

Ensure that the entire opening is square and plumb. These instructions do not address all potential installation conditions and are minimum requirements. Building codes and industry standards may provide further details not included here.



### MANPOWER

Multiple people should be used to install these systems. Consult product weight and measurements in order documents or contact WAO.



### PROTECTION FROM WIND AND RAIN

Systems should be installed with overhead protection from wind and rain to prevent potential damage from water. We recommend that a professional waterproofing consultant be used to ensure proper steps are taken to reduce the potential for damage.



### INSTALLING IN EXISTING STRUCTURES

System installation may disturb surfaces and paint in existing structures. Specific notice and work site precautions may be required. Additional information is available at [www.epa.gov/lead](http://www.epa.gov/lead). Comply with all applicable federal, state and local requirements.



### INSTALLING IN EXISTING STRUCTURES

Special disposal considerations may be necessary for materials used during installation. Materials removed from an existing structure may also have their own disposal or recycling requirements. Comply with all applicable federal, state and local requirements.



## MATERIAL AND TOOL LIST

Materials and tools indicated below are general suggestions. Additional or different items may be required depending on the type of install and regional code requirements.

### Materials Required:

- ☐ Non-compressible shims.
- ☐ Fasteners for Wood Frame Installation provided
  - Type and number as required by code.
  - At minimum fastener type should be sufficient to properly affix the frame.
- ☐ Flexible membrane for sill pan flashing system.
- ☐ High quality compatible exterior grade sealant.
- ☐ Seal tape for the weather resistant barrier.
- ☐ Self-adhering flashing
  - In a width required by code but no less than 4".
  - AAMA 711 compliant flexible butyl tape flashing or equivalent is recommended.
- ☐ Backer rod.
- ☐ 2" Chip brush for spreading Liquid Applied Flashing.
- ☐ Joint knife, trowel, or spatula for applying Liquid Applied Flashing.
- ☐ Low-expansive, low-pressure foam or batt type insulation.
- ☐ DRILL BIT size required: #7 OR 13/64".

Other Material may be required for flashing and WRB integration. Consult other material manufacturer instructions.

### Tool Checklist:





## INSTALL OPTIONS

Verify the window is the correct size and the rough opening is sized correctly to for the unit(s) to be installed. If you are mulling two or more windows, refer to the mulling instructions found at the end of this instruction manual.

There are two install options for the Casement Window, as seen below. Verify you are using the correct instructions based on your configuration of window.



Nail Fin



Equal Leg



# PREPARE ROUGH OPENING

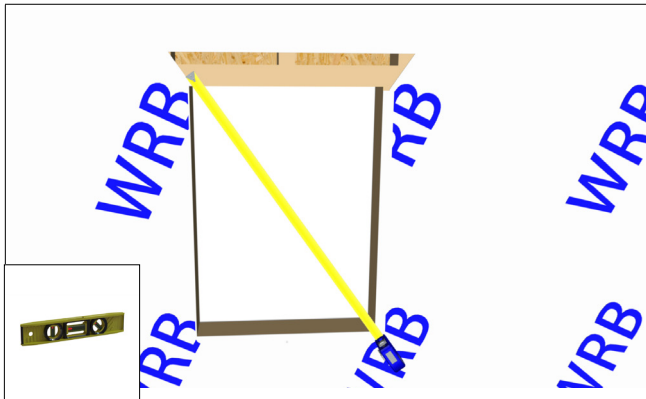
## Wood Frame Construction

- Width of the prepared rough opening should be at least  $\frac{1}{2}$ " more than unit width. Height of rough opening should be  $\frac{1}{2}$ " more than unit height. Account for thickness of flashing material.
- Check sill plate for level. Sill must be level. Shim if needed.
- Check rough opening for plumb and level. If rough opening is not plumb or level, correct as needed.
- Check rough opening for square by measuring diagonally across, upper left to lower right and upper right to lower left corner. If measurements are within  $\frac{1}{8}$ ", opening is square. If rough opening is not square, correct as needed.
- Cut house wrap along sill and head of rough opening.
- Cut house wrap vertically in center of rough opening from head to sill.
- Fold house wrap around to inside, trim excess and staple.
- Cut top corners of house wrap on  $45^\circ$  angles the width of head flashing. For arch top and Springline™ units, cut top corners on  $45^\circ$  angle for 8" to 10" then cut straight up until the cuts equal the width of the head flashing above the unit. See drawing.
- Fold flap up and temporarily tape in position.
- Apply sill flashing to rough opening sill. Keep sill flashing 6" above sill at sides and 2" to 3" onto house wrap around exterior.
- Secure corners of sill flashing by stapling, taping or nailing in position. Stapling shown in drawing.

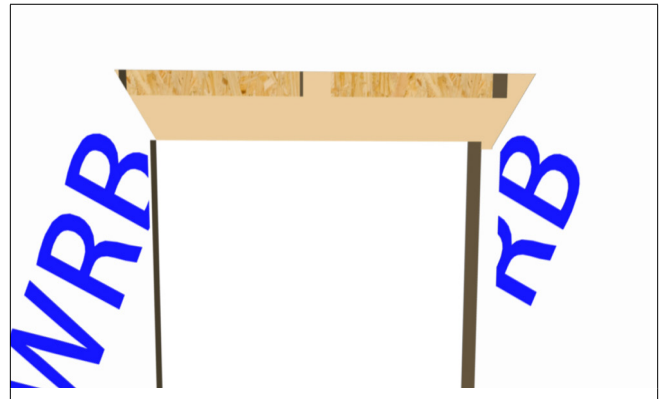




## NAIL FIN INSTALLATION INSTRUCTIONS



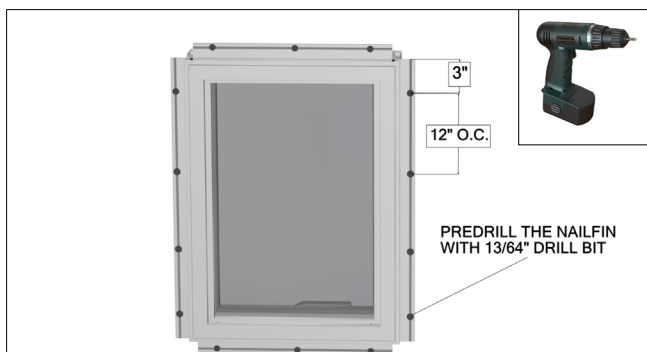
**Fig 1.** Use a tape measure to check the rough opening for squareness. Then, use a hand level to ensure the rough opening is plumb and level.



**Fig 2.** Apply sill flashing at the bottom of the rough opening.



Make sure to apply flashing and appropriate weather resistant barrier material, per AAMA Installation Masters Handbook.



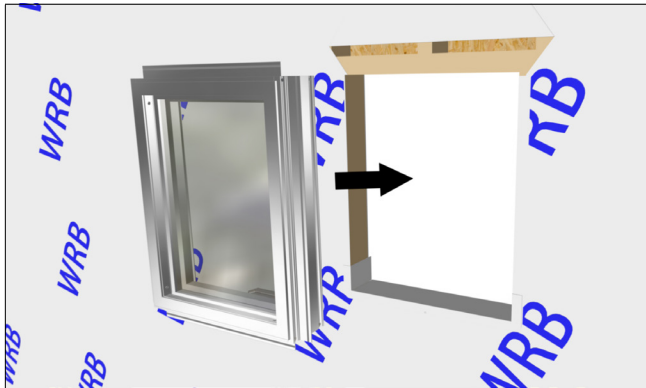
**Fig 3.** Locate the Window Assembly. The nailfin should be predrilled using a 13/64" drill bit before installing. The holes must be 3 inches from each edge of all nailfins, followed by 12 inches on center for each next hole.



**Fig 4.** After pre-drilling, apply sealant along the interior of all 4 nailfins.



## NAIL FIN INSTALLATION INSTRUCTIONS



**Fig 5.** With some assistance, place the window in the rough opening.



If units are to be mulled, consult the mulling instructions before placing the units into the rough opening.



**Fig 7.** Fasten the frame to the rough opening through the predrilled holes on the nailfins, using the recommended #10 x 2 1/2" screws. If the unit gets a drip cap, do not fasten the nailfin at the head in yet.



**Fig 6.** Shim the unit as necessary, then use a hand level and tape measure to ensure the unit is plumb, level, and square with the rough opening.

If the unit is not plumb, level, and square, shim appropriately to ensure a plumb, level, and square unit.

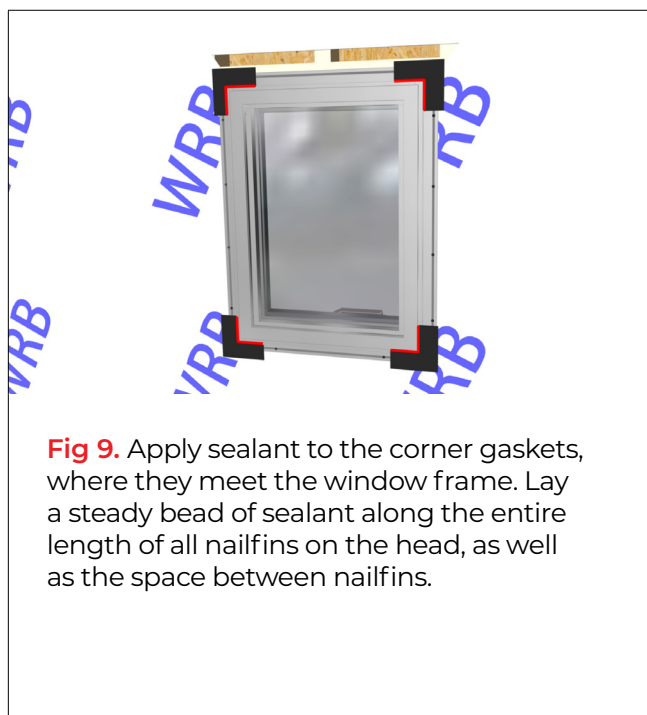


## NAIL FIN INSTALLATION INSTRUCTIONS

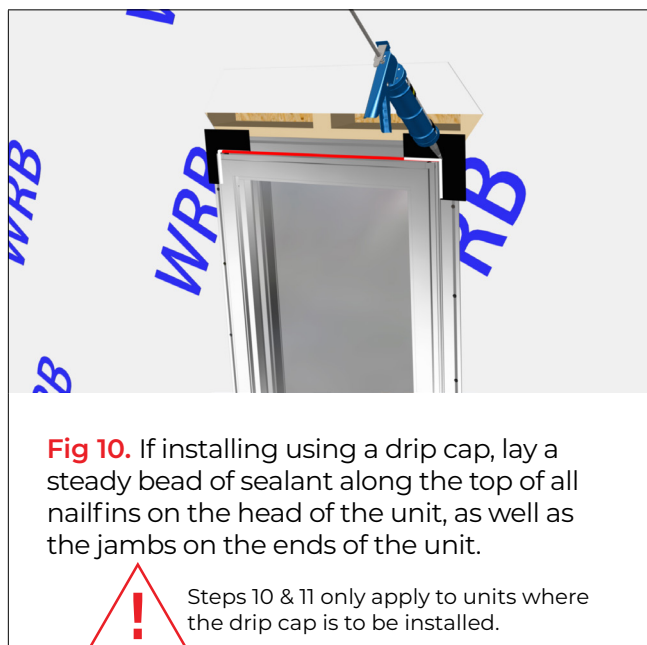


**Fig 8.** Seal all screws and edges once anchoring is complete. After anchoring, verify the unit is square, plumb, and level.

If you are installing the Drip Cap, you have to install the corner gaskets first. Once the window is fastened, cover all corners with the provided corner gaskets, making sure all nailfins are covered as much as possible.



**Fig 9.** Apply sealant to the corner gaskets, where they meet the window frame. Lay a steady bead of sealant along the entire length of all nailfins on the head, as well as the space between nailfins.



**Fig 10.** If installing using a drip cap, lay a steady bead of sealant along the top of all nailfins on the head of the unit, as well as the jambs on the ends of the unit.



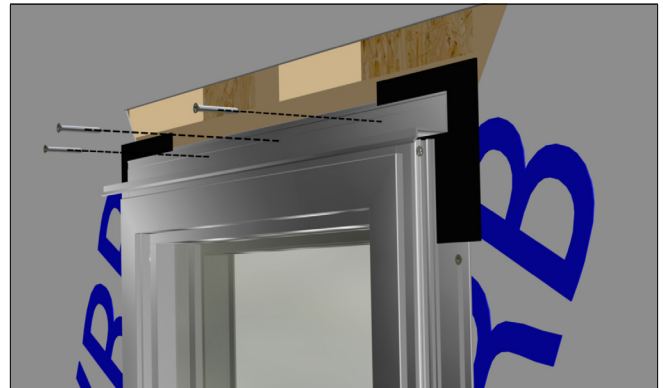
Steps 10 & 11 only apply to units where the drip cap is to be installed.



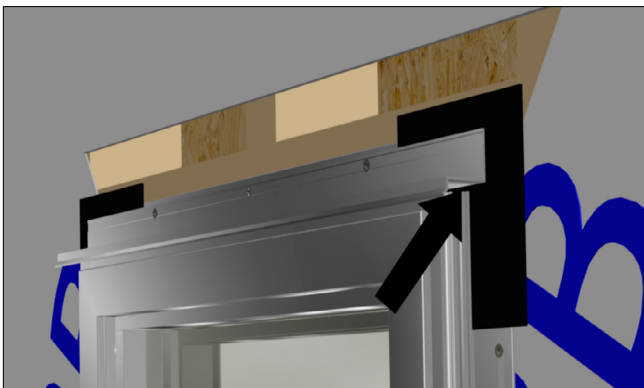
## NAIL FIN INSTALLATION INSTRUCTIONS



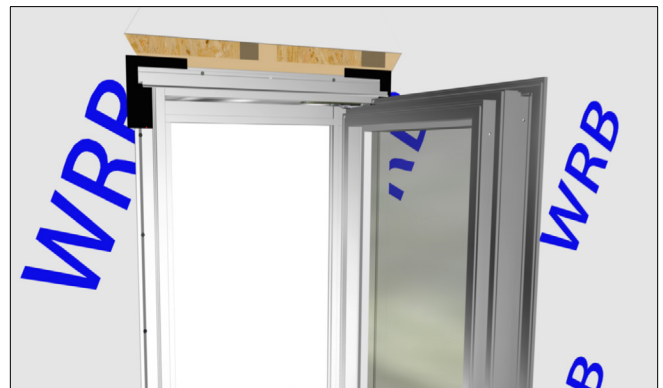
**Fig 11.** Once sealant is applied everywhere that will contact the nailfin, predrill the drip cap using a 13/64" drill bit. The holes must be 3 inches from each edge of all nailfins, followed by 12 inches on center for each next hole.



**Fig 12.** Once predrilled, place the drip cap on the head, ensuring it is sealed properly to the head, and fasten the drip cap to the rough opening through the nailfin.



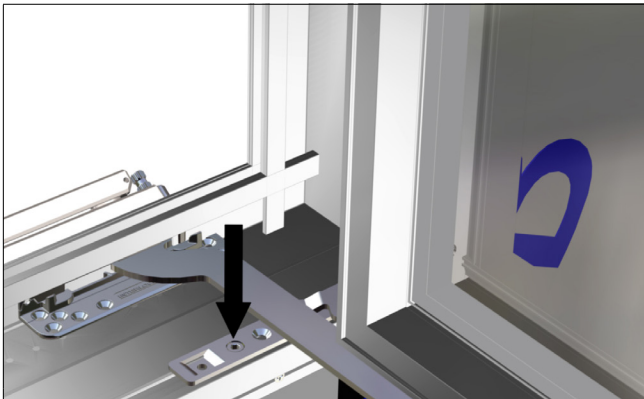
**Fig 13.** Once the drip cap is in place, apply sealant to the underside, as well as both outer edges. Do not install over a mull bridge.



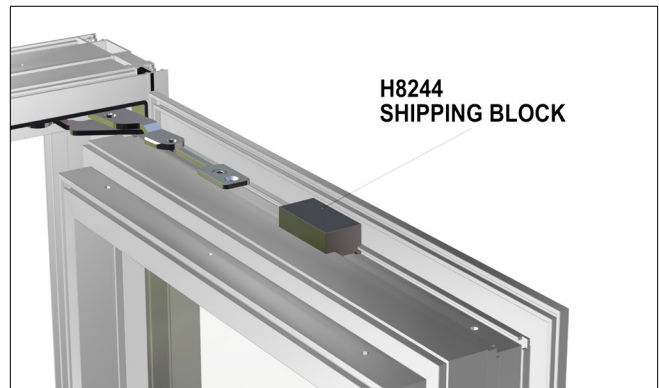
**Fig 14.** Finally, open and close the sash to verify proper installation. If experiencing difficulty operating the window, hinge adjustment or re-shimming may be required.



## NAIL FIN INSTALLATION INSTRUCTIONS



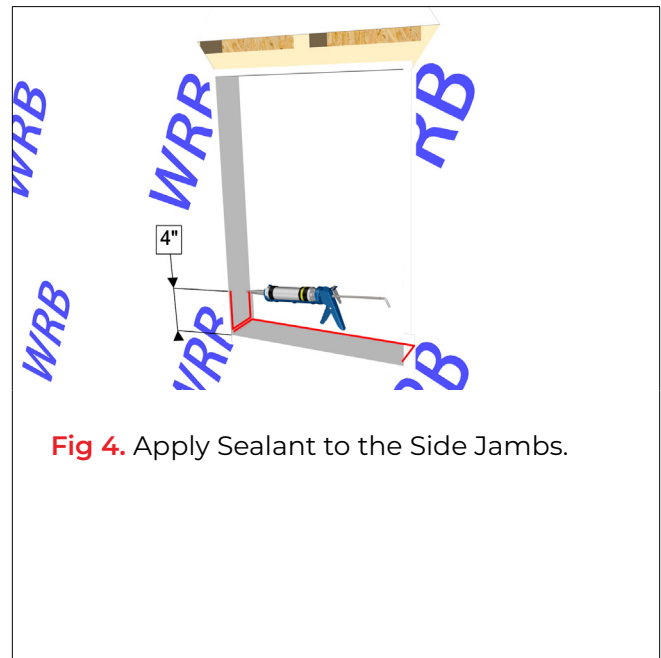
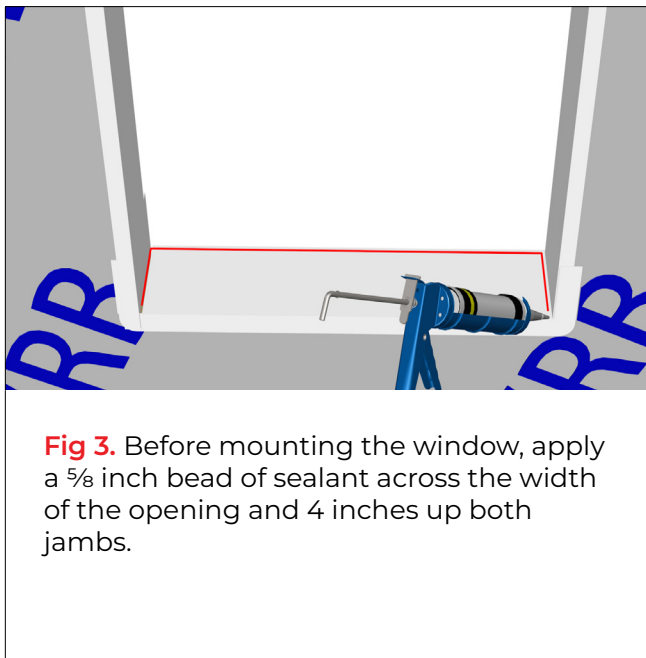
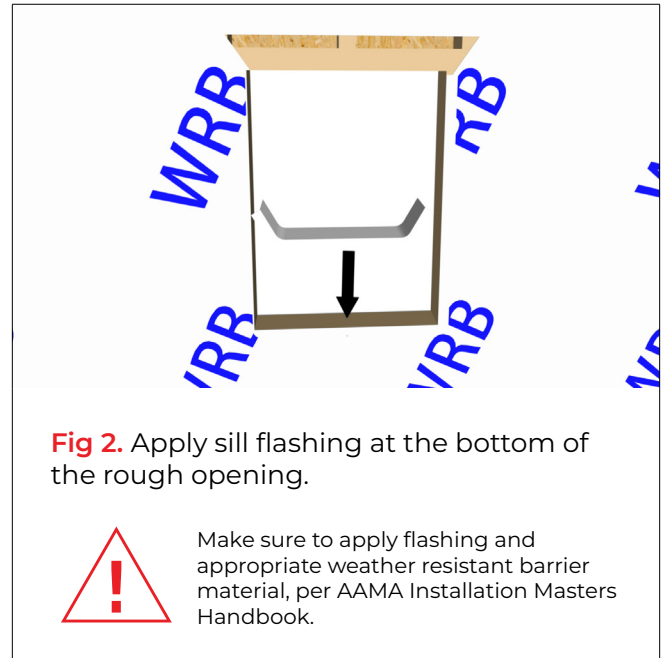
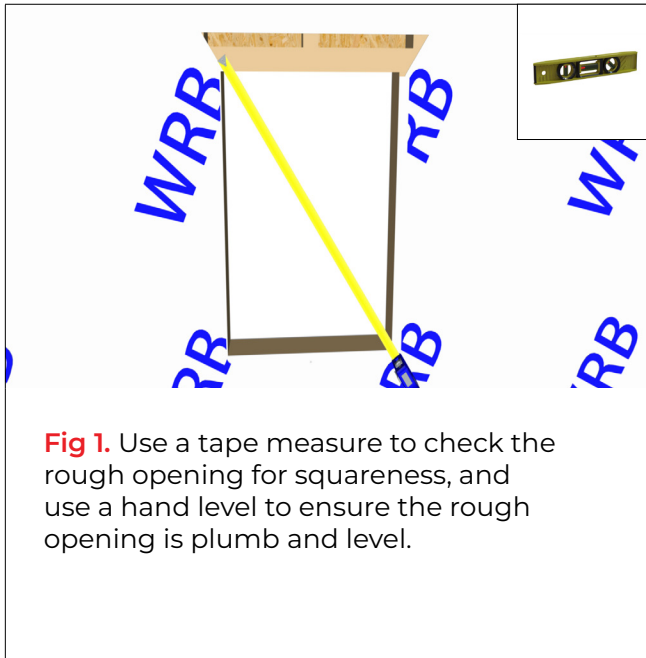
**Fig 15.** Adjust the hinges by turning the hex head. Ensure the unit can be opened and closed smoothly and the unit can be locked easily and securely.



**Fig 16.** Remove the Shipping Blocks located on top of the sash. Slide it out, and dispose.



## EQUAL LEG INSTALLATION INSTRUCTIONS

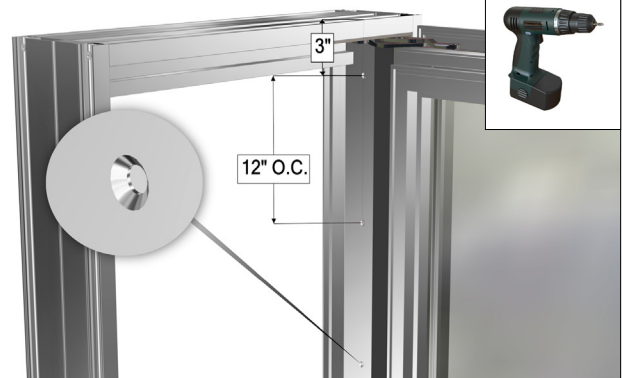




## EQUAL LEG INSTALLATION INSTRUCTIONS

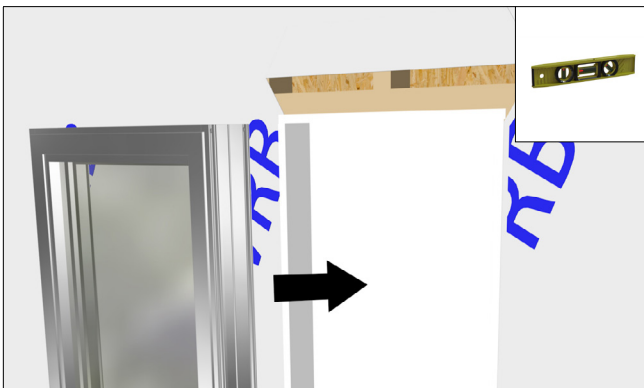


**Fig 5.** The first screw should be 3" from the corner, followed by 12" off center for the next screw.



**Fig 6.** In both jambs and the head, drill  $13/64$ " holes at maximum 12 inches on center, with the first screw at 6 inch from the corner of the frame. Ensure holes are placed before the foam thermal break, as seen above.

Countersink the holes so that the head of the screw will accommodate screw type of #10 x  $2\frac{1}{2}$ " flat-head. Once drilling is complete close the sash.

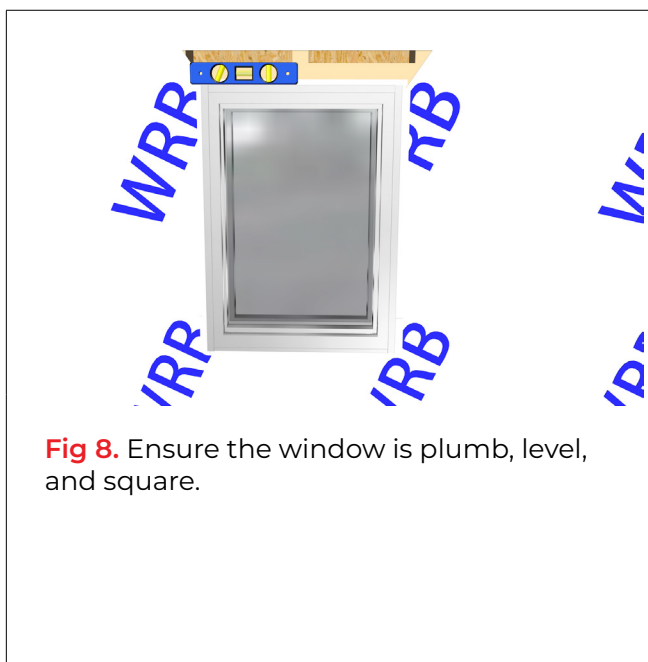


**Fig 7.** With some assistance, place the window in the rough opening.

If units are to be mullied, consult the mulling instructions before placing the units into the rough opening.



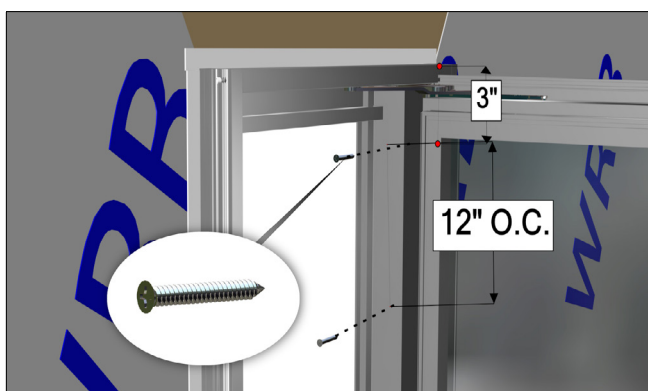
## EQUAL LEG INSTALLATION INSTRUCTIONS



**Fig 8.** Ensure the window is plumb, level, and square.



**Fig 9.** Re-shim as needed. Hard-shim to hold the unit in place.



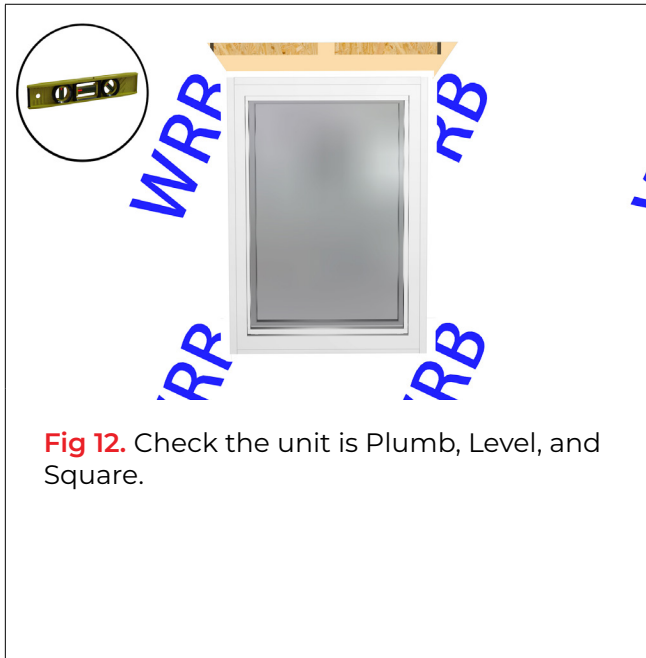
**Fig 10.** Open the window. Fasten the frame to the structure through the predrilled holes using the provided #10 x 2.5" flat-head screws.



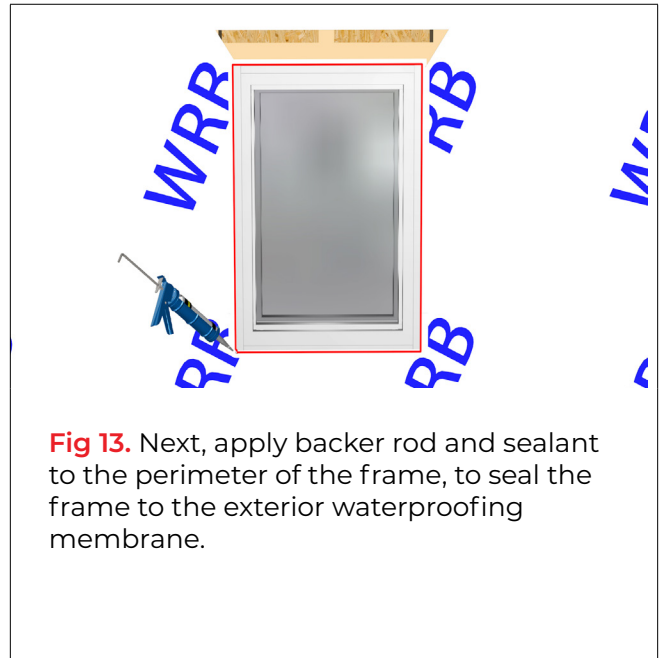
**Fig 11.** Once anchoring is complete close the sash.



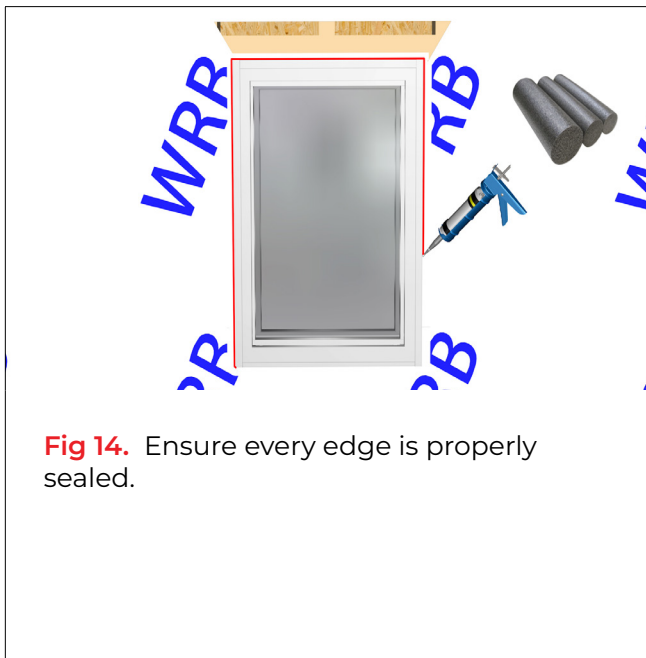
## EQUAL LEG INSTALLATION INSTRUCTIONS



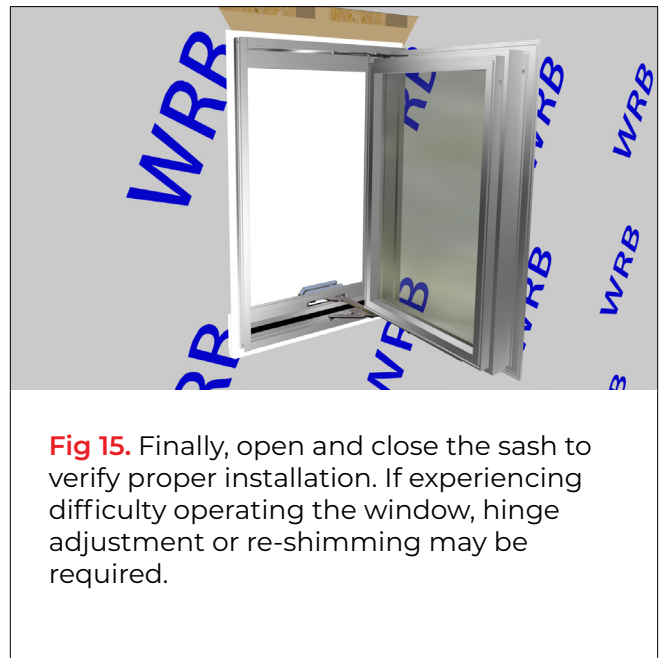
**Fig 12.** Check the unit is Plumb, Level, and Square.



**Fig 13.** Next, apply backer rod and sealant to the perimeter of the frame, to seal the frame to the exterior waterproofing membrane.



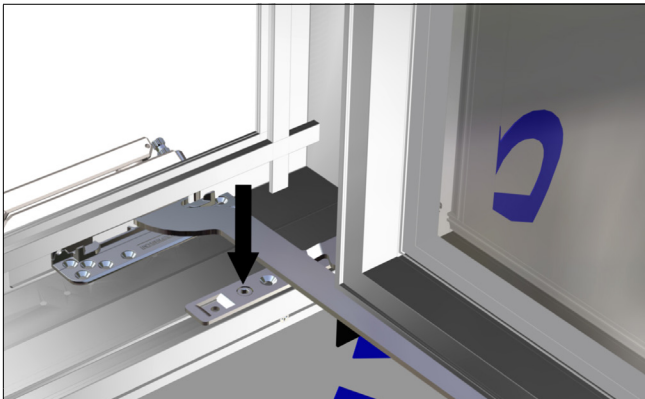
**Fig 14.** Ensure every edge is properly sealed.



**Fig 15.** Finally, open and close the sash to verify proper installation. If experiencing difficulty operating the window, hinge adjustment or re-shimming may be required.



## EQUAL LEG INSTALLATION INSTRUCTIONS



**Fig 16.** Adjust the hinges by turning the hex head. Ensure the unit can be opened and closed smoothly and the unit can be locked easily and securely.



**Fig 17.** Remove the Shipping Blocks located on top of the sash. Slide it out, and dispose.



## FINISHING INSTRUCTIONS

### FINISHING

- Apply interior casing to complete installation.
- Finish all hidden wood surfaces
- Do not overload brush with stain/paint when finishing.
- Finish may wick between glass stop/grille on glass.
- Read and follow “Care, Finish, and Maintenance Guide”.
- Read and follow finishing product instructions and warnings on finishing materials

### MAINTENANCE

- Do not apply any type of film to insulated glass.
- Thermal stress and glass damage can result. Shading devices (insulated covers, shutters, etc.) may also cause thermal stress and condensation damage.
- For more information regarding Maintenance contact your local Western Architectural Openings or visit [www.westernAO.com](http://www.westernAO.com)

### CLEANING

- 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. For more information regarding Cleaning visit [www.westernAO.com](http://www.westernAO.com).



**CAUTION** Acid solutions used for cleaning masonry or concrete will damage glass, fasteners, hardware, 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 surface.



**CAUTION** Metal razor blades can damage glass surface and exterior coating.



# SERIES 8670 CASEMENT WINDOW

## INSTALLATION INSTRUCTIONS

Upon completion of installation, ensure all connections are tight and secure in accordance with the installation manual and AAMA Installation Masters standards. For more information, give us a call or visit us online.

**We recommend all Western Architectural Openings products be installed by experienced professionals.**

Western Architectural Openings  
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