

# Installation Instructions for:

**Project Type -**

New Construction

**Coastal Installation -**

Yes

**Product Series -**

Silver Line

**Product Type -**

Casement Window

**Shape -**

Rectangle

**Wall Type -**

Wood or Steel Stud

**Weather Resistant Barrier (House Wrap) -**

Applied Before Window/Door Installation

**Water Management Method -**

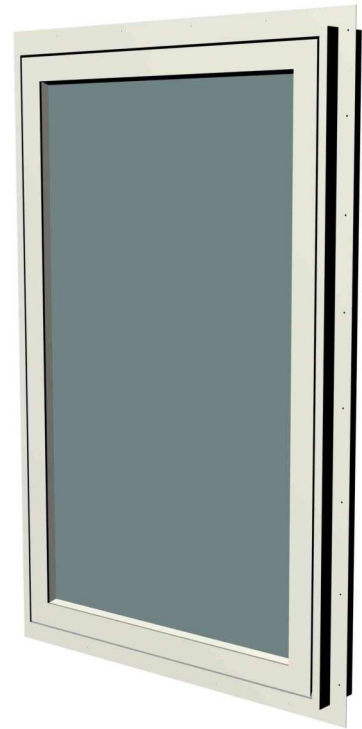
Drainage Method

**Sill Flashing Method -**

Single Piece (Continuous Pan or Continuous Formable Flashing)

**Anchoring Method -**

Vinyl Installation Flange (only)

**Parts Included:**

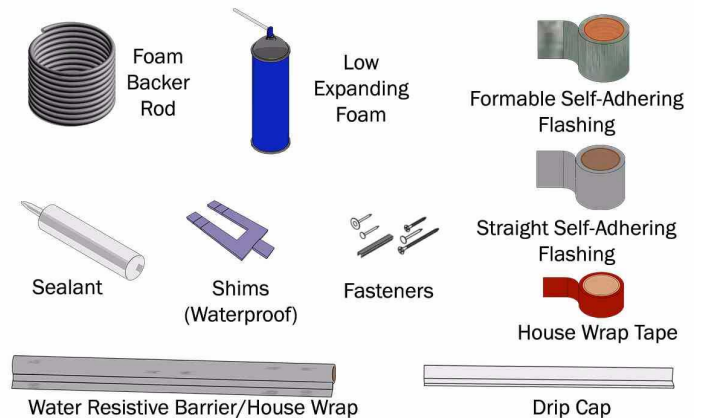
- Window
- Important Product and Safety Information
- Resource Directory
- Warranty

Read these instructions and the product safety information before starting procedure.

## Typical Tools Needed



## General Supplies Needed



## FASTENER CHART

### INSTALLATION FLANGE ANCHORING REQUIREMENTS (select one)

| Fastener                 | Substrate | Minimum Head | Minimum Shank | Minimum Embedment to Structural Framing | Steel Type/Coating  | Spacing    |
|--------------------------|-----------|--------------|---------------|---|---|------------|
| Roofing Nail             | Wood      | 5/16"        | 11 ga         | 1-1/2"                                  | Galvanized,<br>Zinc Chromate,<br>*Stainless Steel,<br>*Ceramic Coated | Every Hole |
| Wood Screw               | Wood      | 5/16"        | #6            |   |   |            |
| Self-Tapping Metal Screw | Metal     | 5/16"        | #8            | 3 Full Threads                          |   |            |

### INSTALLATION GUSSET PLATE ANCHORING REQUIREMENTS (select one)

| Fastener                 | Substrate | Minimum Head | Minimum Shank | Minimum Embedment to Structural Framing | Steel Type/Coating  | Spacing     |
|--------------------------|-----------|--------------|---------------|---|---|-------------|
| Wood Screw               | Wood      | 5/16"        | #8            | 1-1/2"                                  | Galvanized,<br>Zinc Chromate,<br>*Stainless Steel,<br>*Ceramic Coated | 2 per Plate |
| Wood Screw               | Wood      | 5/16"        | #12           |   |   | 1 per Plate |
| Self-Tapping Metal Screw | Metal     | 5/16"        | #8            | 3 Full Threads                          |   | 2 per Plate |
| **Concrete Screw         | Masonry   | 5/16"        | 3/16"         | 1-1/4"                                  | n/a   | 1 per Plate |

Use the correct fastener driver based on the selected fastener's head type.

Size pilot and clearance holes based on the selected fastener's shank diameter as needed.

\*Use 300 series stainless steel or ceramic coated fasteners when fastening to treated lumber.

\*\*Follow fastener manufacturer's anchoring recommendations (i.e. spacing, edge distance, hole depth, etc.)

# Important Safety and Product Information

## for Silver Line® Windows and Doors



This is the Safety Alert Symbol used to alert you to potential injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

### Signal Word and Consequence

**COULD**

Result in:



**COULD**

Result in:



**COULD**

Result in:



**Read this Important Safety and Product Information completely before starting.**

### Safety and Product Information Index

- |                |                       |
|----------------|-----------------------|
| ■ Tools        | ■ Cleaning            |
| ■ Handling     | ■ Use/Operation       |
| ■ Installation | ■ Joining             |
| ■ Sealing      | ■ Finishing           |
| ■ Fastening    | ■ Product Information |
| ■ Glass        |                       |

- Leave this installation instruction with the home/building owner.

## Tools

### **WARNING**

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

## Handling

### **WARNING**

- Windows and doors can be heavy. Use safe lifting techniques and a reasonable number of people with enough strength to lift, carry, and install window and door products. Heavier windows and doors will require mechanical assistance. Failure to do so could result in injury, product or property damage.
- **DO NOT** lift or carry window or door by the exterior trim or extension jambs. Doing so could result in injury, product or property damage.
- Windows, doors, and installation components can have sharp edges. Wear protective equipment when handling. Failure to do so could result in injury.

## Installation

### **WARNING**

- Use caution when working at elevated heights and around window and door openings. Follow the manufacturers' instructions for ladders and scaffolding. Failure to do so could result in injury or death.
- Support window or door in opening at all times until fastened. Failure to do so could result in window or door falling out causing injury, property or product damage.
- Windows and doors have small parts (e.g. hole plugs, fasteners, etc.). Small parts if swallowed could pose a choking hazard to young children. Dispose of unused, loose, or easily removed small parts. Failure to do so could result in injury.

## Installation (Continued)

### NOTICE

- Installation flanges **DO NOT** take the place of window and door flashing tape or liquid flashing. Window or door must be properly flashed and sealed with a material compatible sealant for protection against water and air infiltration. Failure to do so could result in product or property damage.
- **DO NOT** set window or door directly on installation flange. Doing so could affect product performance, and could result in product or property damage.
- **DO NOT** set window directly on sill plate. Elevate window with shims under the side jambs. Failure to do so could affect operation and product performance, and could result in product damage.
- Window or door must be properly shimmed. Failure to do so could affect operation and product performance, and could result in product damage.
- A continuous full perimeter interior seal between window or door frame and opening is required. Failure to do so will affect product performance, and could result in product or property damage.
- Protect window and door sills during installation and throughout construction. Failure to do so could result in product damage.
- **DO NOT** remove window or door packaging material until instructed to do so. Doing so could result in product damage.

## Sealing

### CAUTION

- Follow instructions of foam, sealant, and flashing manufacturer regarding safety, material application, compatibility, and periodic maintenance for continued weather resistance of their product. Failure to do so could result in injury, product or property damage.

### NOTICE

- Clean and prepare surfaces receiving sealant following sealant manufacturer's instructions. Failure to do so could result in water infiltration causing product or property damage.

## Fastening

### WARNING

- Metal fasteners and components could corrode when exposed to preservative-treated or fire-retardant treated lumber. Use approved fasteners and components to fasten window or door. Failure to do so could cause a failure resulting in injury, product or property damage.
- Fastener must attach to a structural framing member with a 1-1/2" minimum fastener embedment. Failure to do so could result in injury, product or property damage.
- **DO NOT** remove screws that attach gusset plates to window or door frames. Doing so could result in injury, product or property damage.

### NOTICE

- Use masonry screws when fastening directly into masonry or through a buck into masonry. Failure to do so could affect product performance, and could result in product or property damage.
- **DO NOT** over drive screws or nails. Doing so could result in product damage.
- Fasteners must be attached to a structural framing member. Failure to do so will reduce the structural performance to less than published values and could affect product performance, and could result in product or property damage.



## Glass

### **WARNING**

- Unless specifically ordered, windows are not equipped with safety glass, and if broken, could fragment causing injury. Many laws and building codes require safety glass in locations adjacent to or near doors. Windows are available with safety glass that could reduce the likelihood of injury when broken. Information on safety glass is available from your local dealer.
- Tempered or laminated safety glass is not standard for windows and must be special ordered. Check local building codes for required locations. Failure to do so could result in injury, product or property damage.

### **NOTICE**

- **DO NOT** apply any type of film to insulating glass. Doing so could cause thermal stress conditions and result in glass damage. Shading devices (e.g. insulated coverings, shutters, etc.) could also cause thermal stress and condensation causing deterioration of windows or doors.

- **DO NOT** use sealants on exterior or interior glass surface.



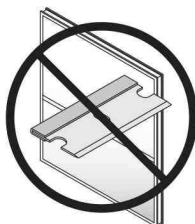
## Cleaning

### **NOTICE**

- Acid solutions used for cleaning masonry or concrete will damage glass, fasteners, hardware, and metal flashing. Protect window or door and follow cleaning product manufacturer's instructions. If acid contacts window or door, wash all surfaces immediately with clean water.

- **DO NOT** use metal razor blades to clean glass surface. Glass damage could result.

- **DO NOT** use or apply solvents, abrasives, harsh chemicals or cleaners to glass, sash, panels, frame, or window or door components. Doing so will result in product damage.



## Use/Operation

### **WARNING**

- **DO NOT** stand in front of or near windows or doors during a storm. Doing so could result in injury. Accessories such as grilles, and insect screens could dislodge and become airborne if window or door is impacted by wind-borne debris from severe storms or hurricane strength winds. In the event of a storm, remove all accessories from windows or doors and move to a safe location.

- **DO NOT** install air conditioner in window. Doing so could result in injury, product or property damage.



### **CAUTION**

- **DO NOT** attach objects or accessories to window or door except products specifically designed for the window or door. Doing so could result in injury, product or property damage.

## Joining

### **WARNING**

- **DO NOT** join any window or door, horizontally or vertically, to any window or door not designed for joining. Doing so could result in injury, product or property damage.

- Joined windows or doors must be individually supported in the opening. Failure to do so could affect operation and product performance, and could result in product or property damage.

## Finishing

### **NOTICE**

- **DO NOT** stain or paint weatherstrip, vinyl, glass, or hardware. Doing so could result in product damage.

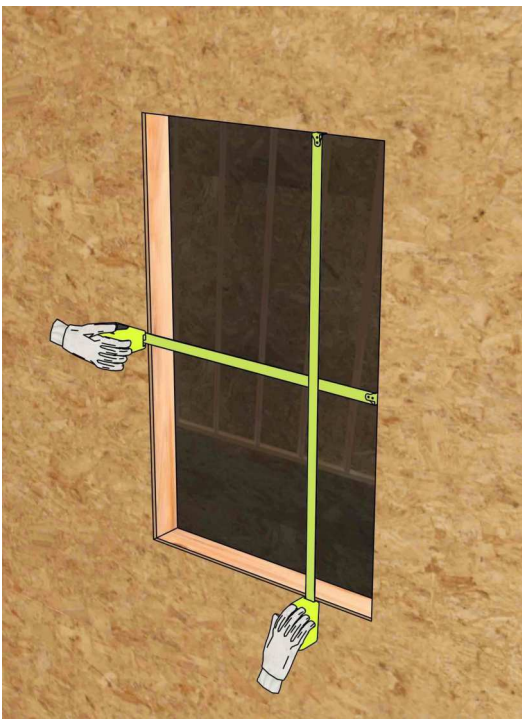
## Product and General Information

### IMPORTANT

- Buildings constructed prior to 1978 could contain lead paint which could be disturbed during window or door replacement. For more information on proper management of lead paint, go to: [www.epa.gov/lead](http://www.epa.gov/lead)
- Instructions may not be right for all installations due to building design, construction materials, or methods used and/or building or site conditions. Consult a contractor or architect for recommendations.
- Installation flanges may need to be removed for some installations. (e.g. masonry, replacement), or where exterior finish is already applied (e.g. siding, brick veneer, stucco).
- Installation flange on the window or door alone will not properly flash and seal the window or door.
- **DO NOT** remove band, plastic ties, or packing clips from window or door until instructed.
- **DO NOT** remove performance (NFRC) label until after final inspection. Doing so could delay final inspection and sign-off by the code official.
- Check with your local building code official to identify and confirm compliance with local building code requirements.
- Contact local authorities or waste management company for proper recycling and disposal instructions for removed window or door.
- Clean glass using liquid glass cleaner.
- Clean exterior frame, sash, panels, and insect screens using mild detergent and water with a soft cloth or brush.
- For hard to clean areas, use a nonabrasive cleaner.
- Extension jambs can be factory applied on some windows or field applied prior to installation.

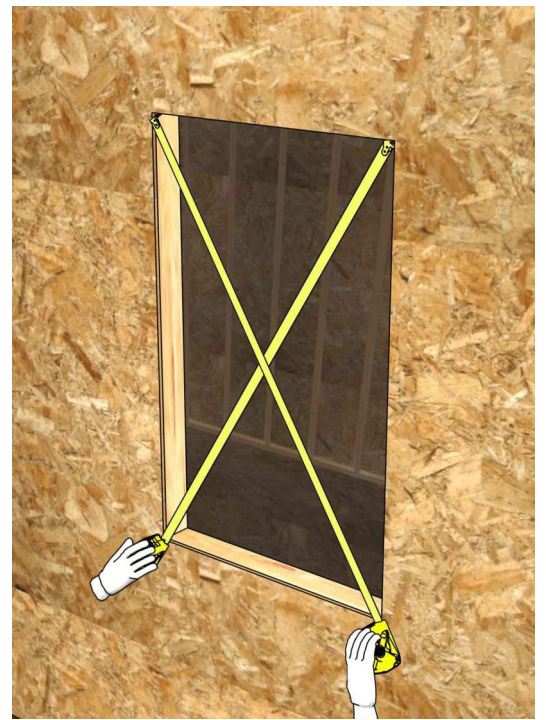


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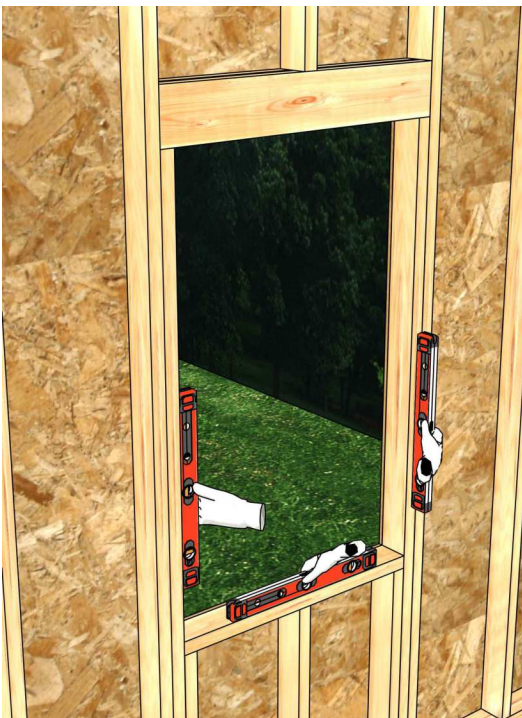
Check that the opening is sized correctly. Allow additional space for flashing thickness, installation clips, joining components, and their fasteners.

2



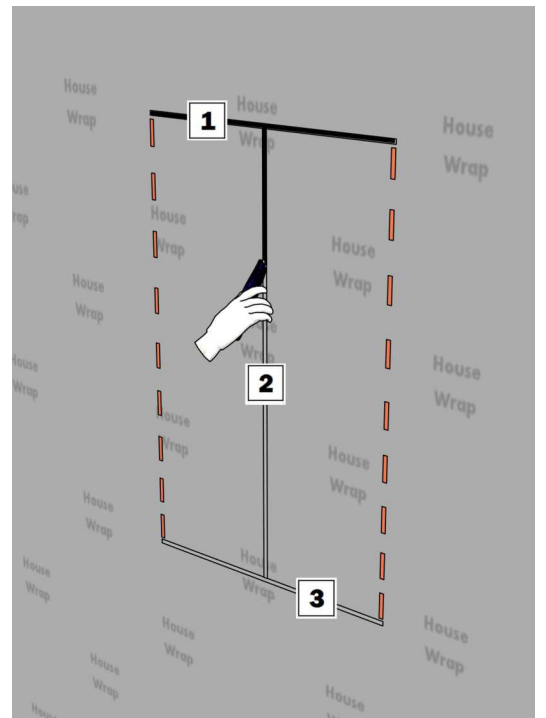
Check that the opening is square. The diagonal measurements should be within  $\frac{1}{8}$ ".

3



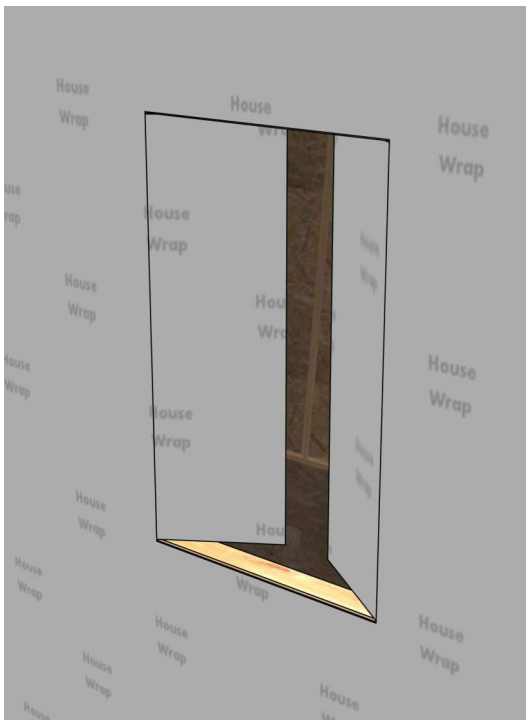
Check that the opening is plumb and level.

4



Apply the house wrap according to the manufacturer's instructions and cut opening as shown.

5



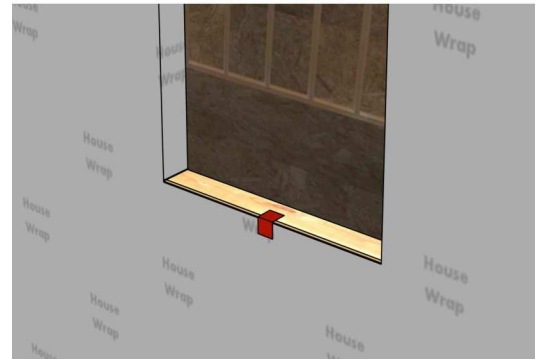
Fold in the house wrap and staple it to the interior of the opening. For steel stud walls, tape house wrap as shown.

6



Cut off the excess house wrap.

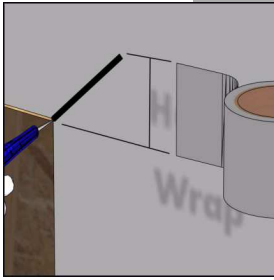
7



Tape the house wrap at the bottom of the opening as shown.

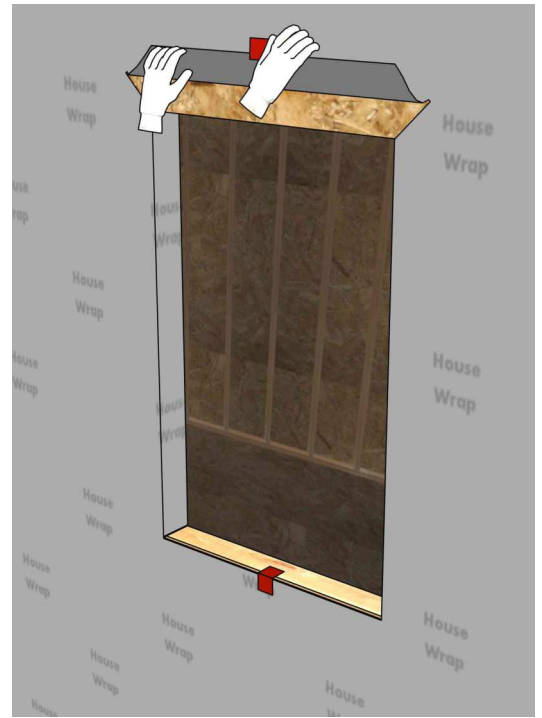


8



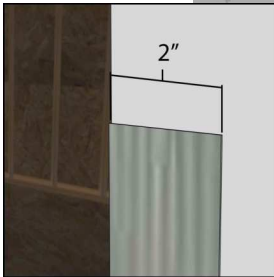
Cut the house wrap to create a top flap as shown.

9



Fold the house wrap flap up and temporarily tape it in place.

10

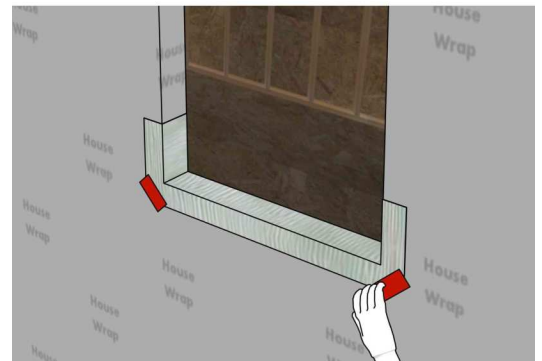


#### NOTICE

Make sure there are no wrinkles or voids in flashing during application and overlapping. Failure to do so could result in product or property damage.

Apply flashing at the bottom of the opening as shown. Smooth using a J-roller.

11



#### IMPORTANT

Single piece flashing is shown from this point forward, this does not affect the installation process.

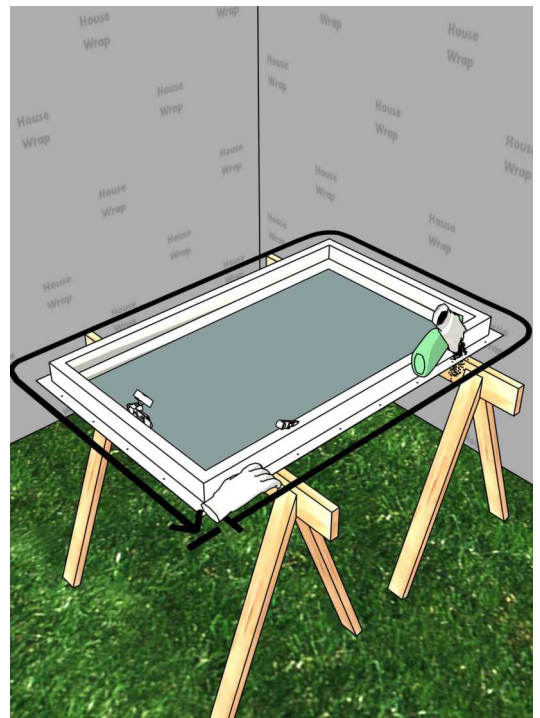
Tape the flashing corners as shown.

12



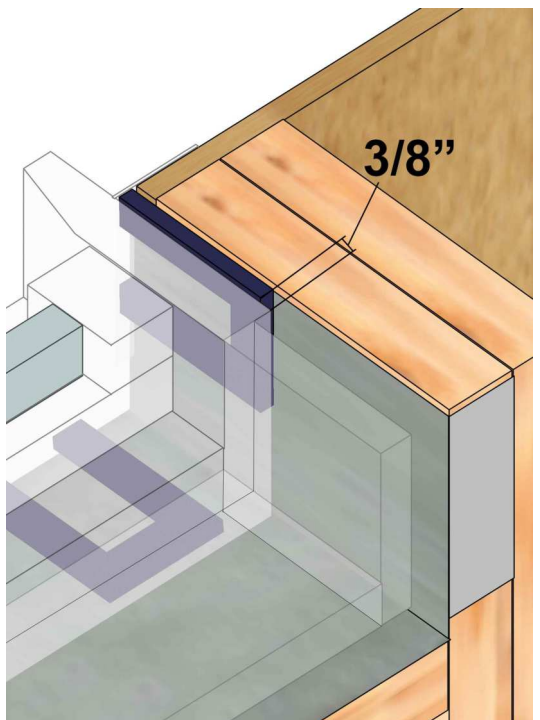
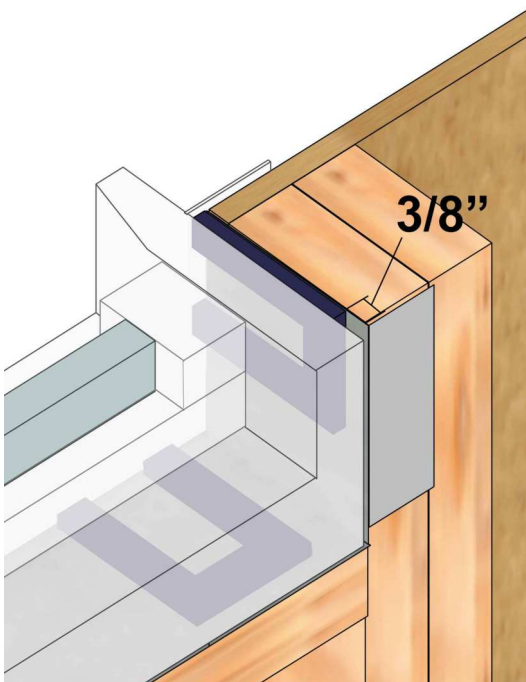
Remove all shipping materials and packaging from window. Verify that sash is closed and locked.

13



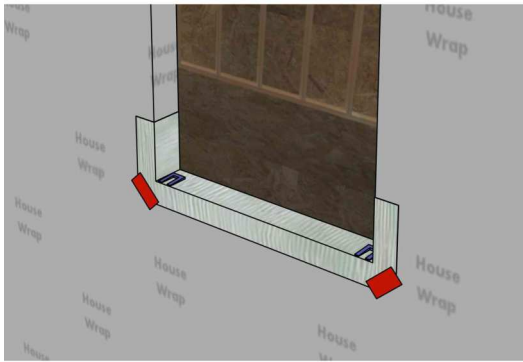
Place window on a clean work surface. Clean the installation flange on both sides using soap and water, or a non-abrasive solvent free cleaner.

14



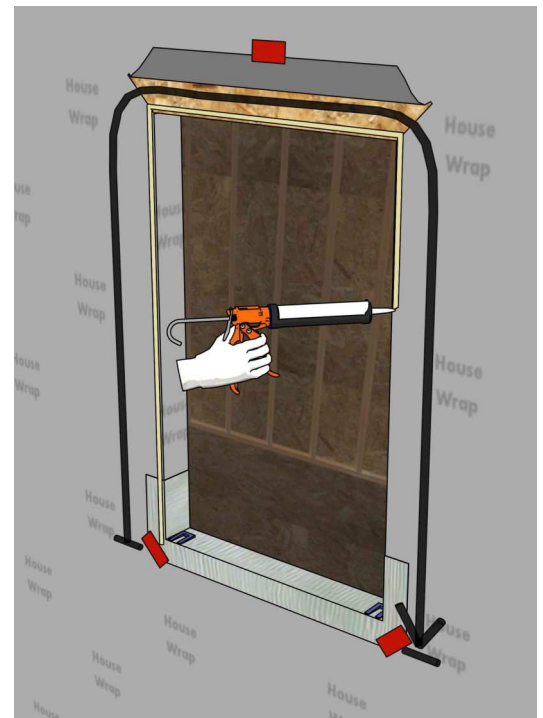
Prepare shims to allow for a 3/8" space for interior sealing as shown.

15



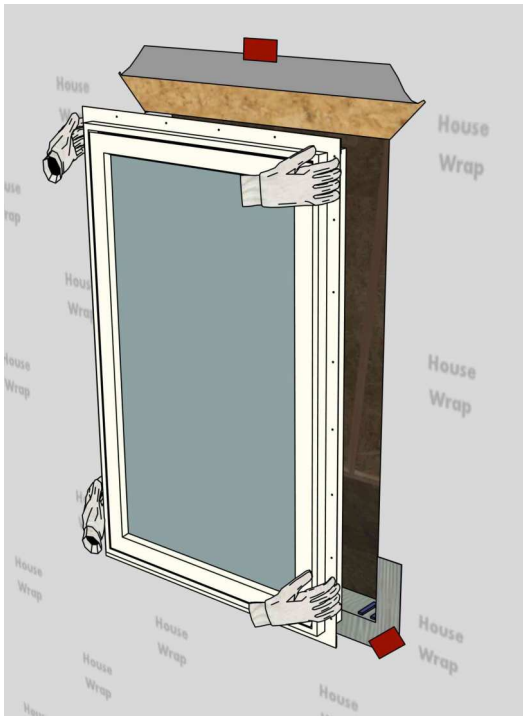
Place shims on the bottom of the opening under the side jamb locations inset 1/4" from each side.

16

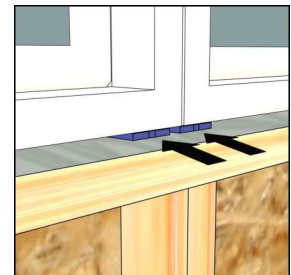
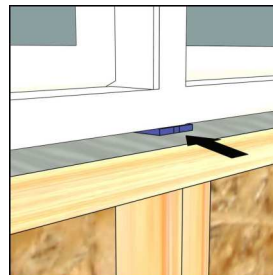


Apply a 1/4" sealant bead at the top and the sides of the opening, no more than 1/2" from the edge as shown.

17



Center the window in the opening, setting the window on the shims. Make sure shims are positioned under the side jambs and integral or joined combination locations as shown.

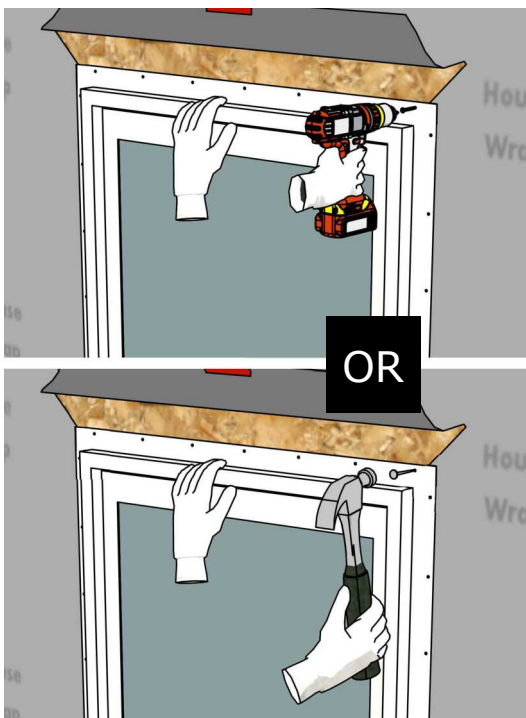


### NOTICE

Place shims directly under side jambs. At gusset plate locations, place shims to not interfere with gusset plate screws. Failure to do so could result in product damage and could result in poor operation.



18



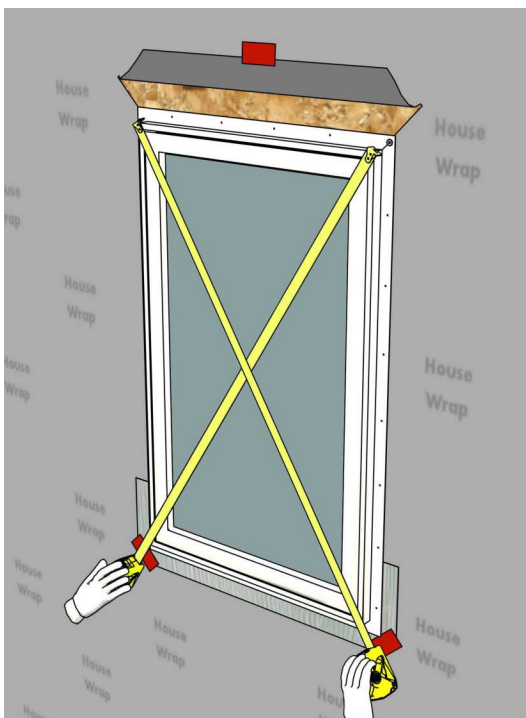
Temporarily fasten with a single fastener at top as shown.

19



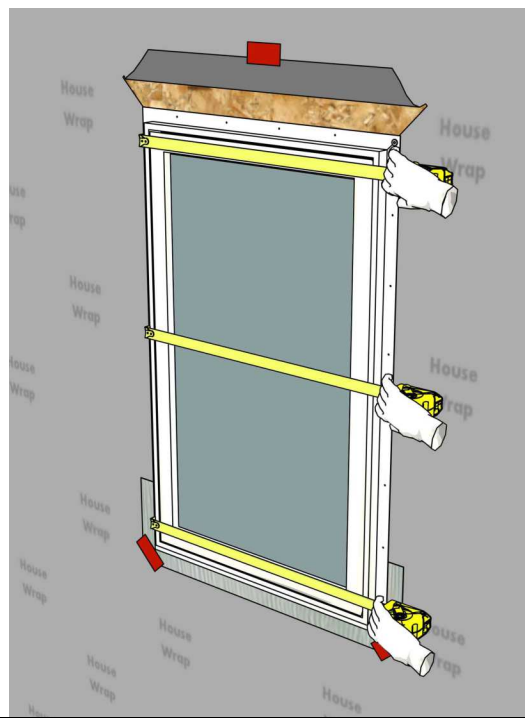
Shim at the sides of the window as space allows using precut shims. Do not over shim.

20



Check that the frame is square. Adjust shims as needed until diagonal measurements are within 1/8".

21

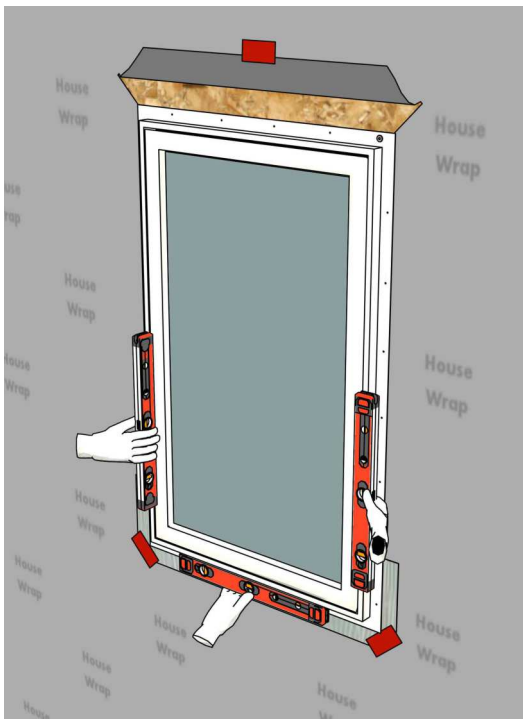


#### NOTICE

**Correct any frame bow during installation. Failure to do so could result in product or property damage and could result in poor operation and product performance.**

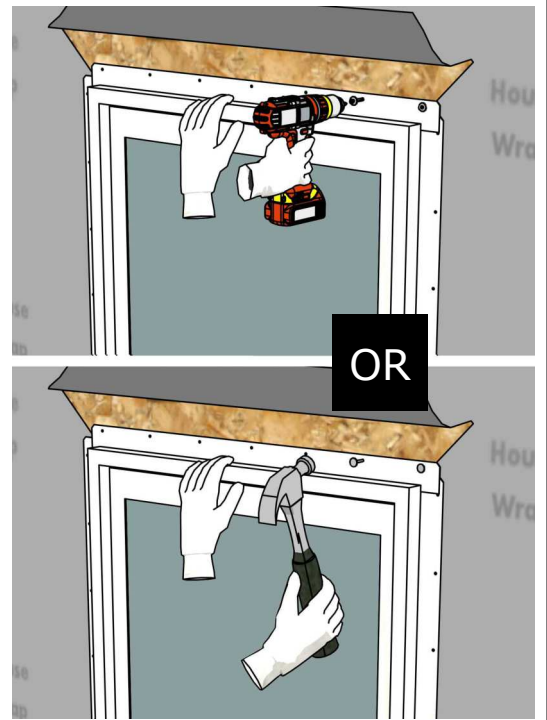
Check that the frame is not bowed. Adjust shims as needed until measurements are within 1/8".

22



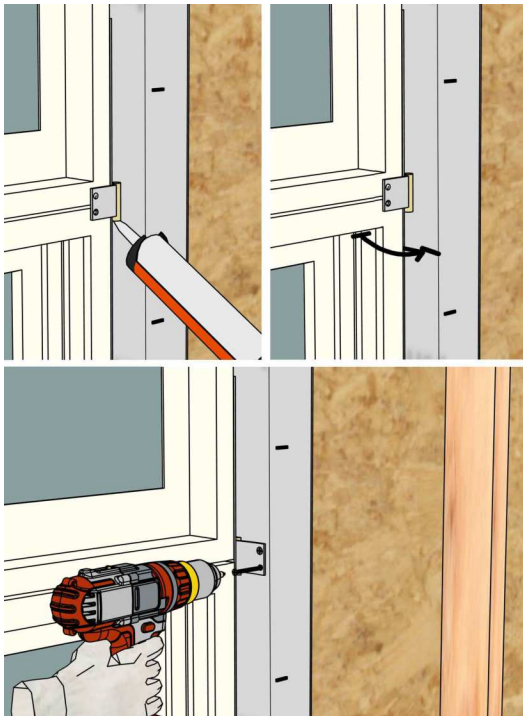
Check that the frame is plumb and level. Adjust shims as needed.

23



Fasten through the installation flanges. See fastener chart for spacing and approved fasteners.

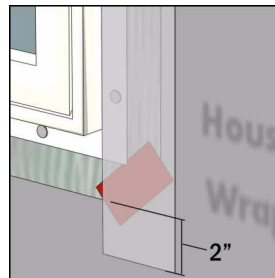
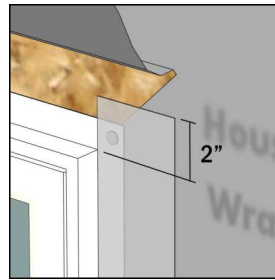
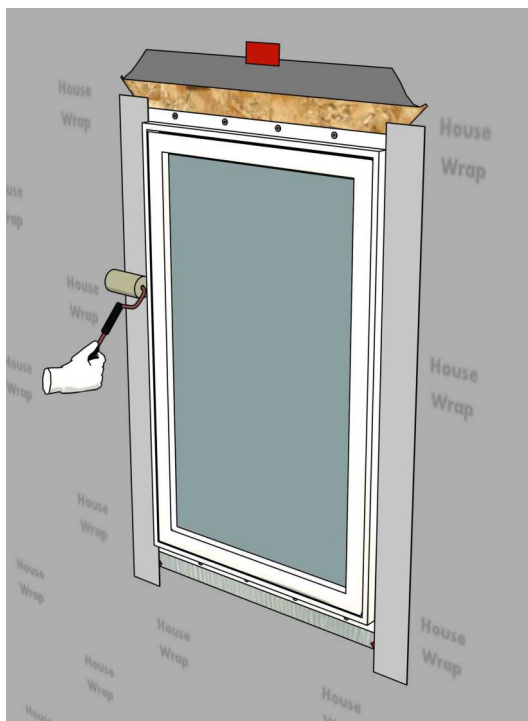
24



If gusset plates are present, apply sealant between tabs and the opening, bend tabs into position as needed, and fasten tabs as shown. See fastener chart for approved fasteners.

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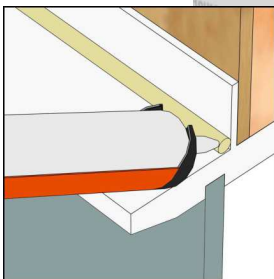
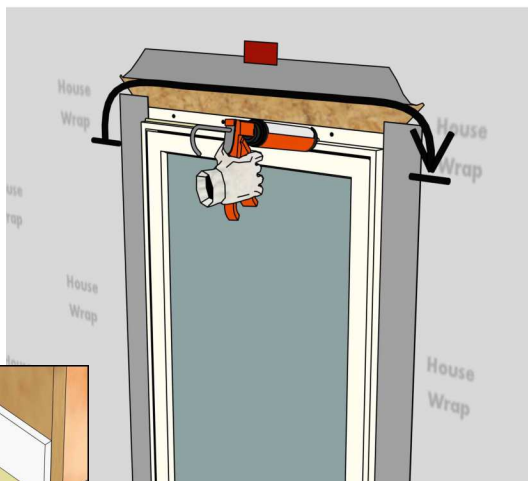


Apply flashing at the sides of the window, overlapping sill flashing as shown. Smooth using a J-roller.

#### NOTICE

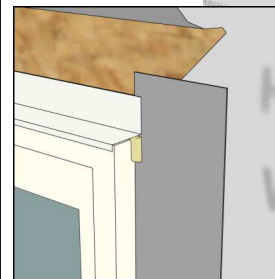
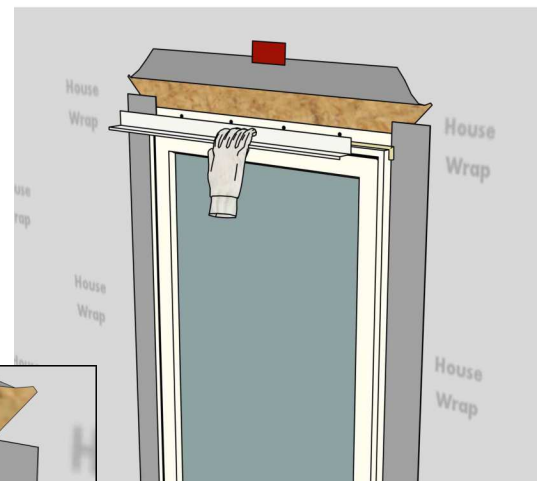
Make sure there are no wrinkles or voids in flashing during application and overlapping. Failure to do so could result in product or property damage.

26



Apply a 1/4" sealant bead to the top and down 1" on both sides where installation flange meets frame. Quickly go to next step.

27



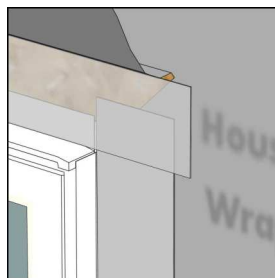
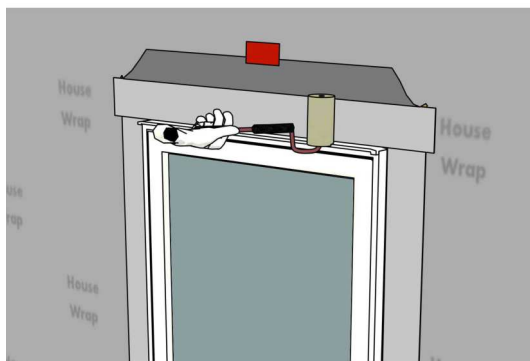
Place the drip cap (full width) in sealant as shown.



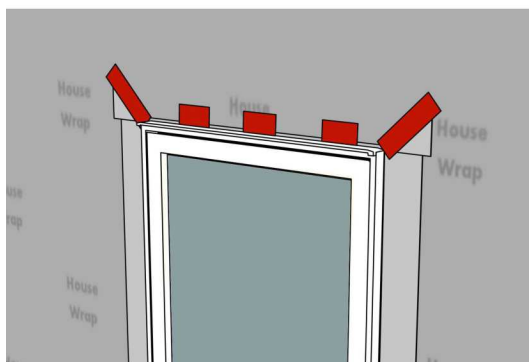
**NOTICE**

Make sure there are no wrinkles or voids in flashing during application and overlapping. Failure to do so could result in product or property damage.

Side flashing cannot extend above top flashing. Doing so could result in product or property damage.



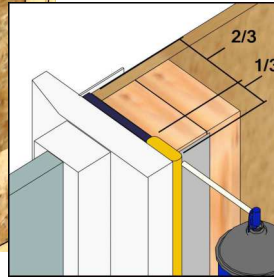
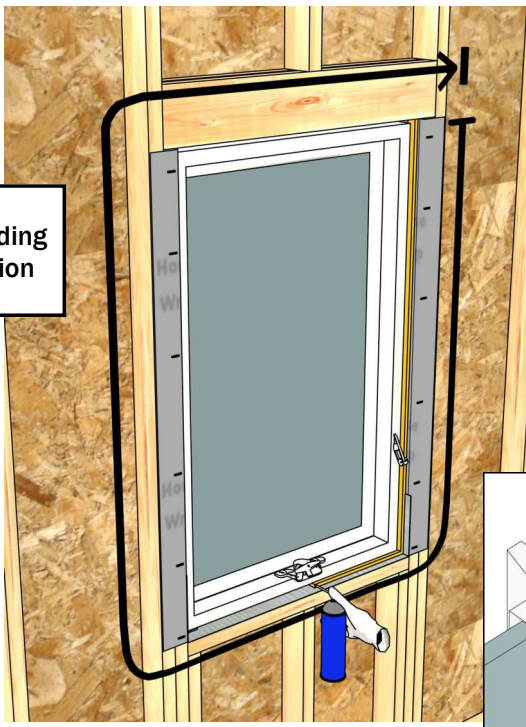
Apply flashing at the head (over the drip cap leg if present), overlapping the side flashing as shown. Smooth using a J-roller.



Unfold the house wrap top flap and tape the seams using house wrap tape as shown.

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Low Expanding  
Foam Option

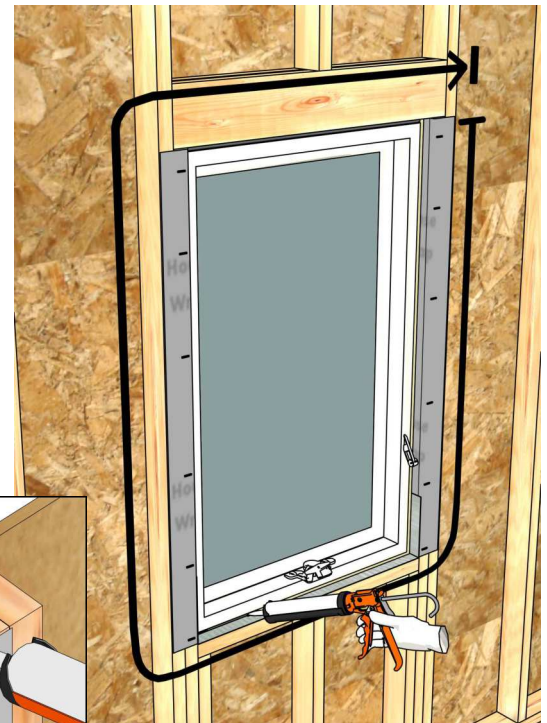
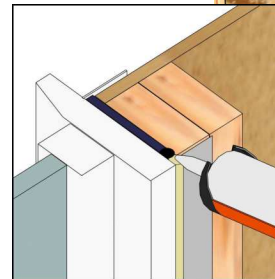
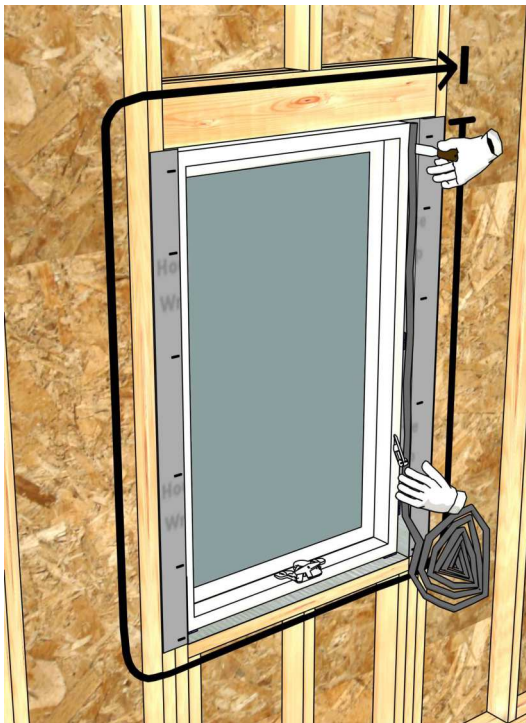


### NOTICE

DO NOT overfill with low expanding foam or overpack with backer rod between the frame and opening or between joined windows or doors. Doing so will bow window or door jambs and could result in poor operation and product performance.

OR

Backer Rod and  
Sealant Option



Apply sealant continuously to full perimeter of opening, filling interior 1/3 of cavity as shown using low expanding foam or backer rod and sealant.

**Installation is complete.**