



Thank you for selecting JELD-WEN products. Attached are JELD-WEN's recommended installation instructions for vinyl bay, bow and garden windows which incorporate an integral nailing fin. While the use of these installation instructions is recommended, installation in strict compliance with AAMA specifications (2400-02) is an alternate method of window installation. Use of the AAMA specifications (2400-02) will not affect application of the JELD-WEN limited warranty.

Newer construction methods have led to an increase in air and water tightness in buildings. This frequently leads to negative air pressure inside the home, which can draw water through very small openings. Our installation method integrates the window with the weather barrier (typically building wrap).

### IMPORTANT INFORMATION & GLOSSARY

Not all window types can be installed into every wall condition in all areas. Consult your local building code official for applicable building codes and regulations. Local building code requirements supersede recommended installation instructions.

**Note!** Installations where the sill is higher than 35 feet above ground level, or any product installation into a wall condition not specifically addressed in these instructions, must be designed by an architect or structural engineer.

Failure to install windows into square, level, and plumb openings could result in denial of warranty claims for operational or performance problems.

**Note to Installer:** Provide a copy of these instructions to the building owner. By installing this product, you acknowledge the terms and conditions of the limited warranty as part of the terms of sale.

### GLOSSARY

#### Mull Joint

The joint where two or more window units are structurally joined together.

#### Mulled Unit

Two or more window units structurally joined together.

#### Shiplap

The layering method in which each layer overlaps the layer below it so that water runs down the outside.

#### Weep Hole (weep channel)

The visible exit or entry part of a water drainage system used to drain water out of a window.

Estimated Install Time for New Construction	<input type="checkbox"/> First Time: 3 hrs
	<input type="checkbox"/> Experienced: 2 hrs
	<input type="checkbox"/> Professional: 1 hr

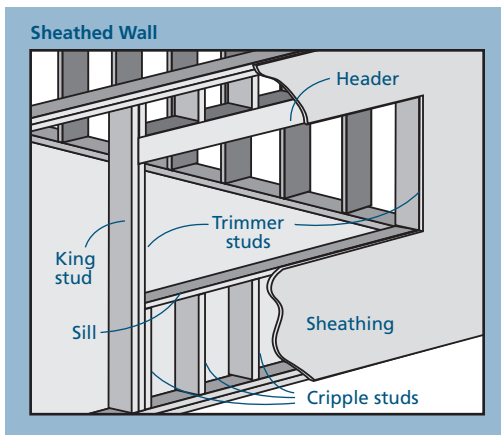


### ROUGH OPENINGS

This installation guide specifically addresses sheathed wall and open-stud construction. Windows without an integral head and seat board must be placed on a structure that provides continuous support to the sill.

#### FULLY SHEATHED WALL CONSTRUCTION

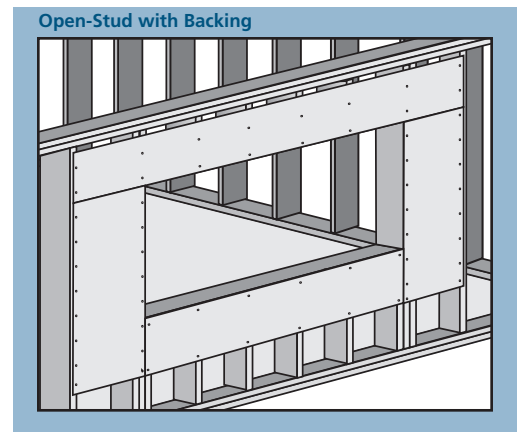
The wall framing is covered by sheathing and the window will be mounted with the nailing fin flush against the sheathing.



#### OPEN STUD CONSTRUCTION

The wall framing needs to be covered by backing support before the window can be installed. The window will be mounted with the nailing fin flush against the applied backing support.

This backing support should be a non water-degradable, thin (max. 1/8" thick) sheet material such as vinyl sheeting. Completely surround the rough opening with the backing support as shown. Backing support must be applied before building wrap.



## SAFETY & HANDLING

### SAFETY

- Read and fully understand ALL manufacturers' instructions before beginning.
- Do not work alone. Two or more people are required. Use safe lifting techniques.
- Use caution when handling glass. Broken or cracked glass can cause serious injury.
- Wear protective gear (e.g. safety glasses, gloves, ear protection, etc.).
- Operate hand/power tools safely and follow manufacturer's operating instructions.
- Use caution when working at elevated heights.

### WINDOW AND MATERIALS HANDLING

- Make sure operable windows are closed and locked prior to installation.
- Heed material manufacturers' handling and application instructions.
- Protect adhesive surfaces from dirt, moisture, direct sunlight and folding over onto themselves.
- Handle in vertical position; do not carry flat or drag on floor.
- Do not put stress on joints, corners, or frames.
- Store window in dry, well-ventilated area in vertical, leaning position to allow air circulation; do not stack horizontally.
- Protect from exposure to direct sunlight during storage.
- Install only when conditions and sheathing are dry.

### IF INJURY OCCURS, IMMEDIATELY SEEK MEDICAL ATTENTION!

## NEEDED MATERIALS & TOOLS

### MATERIALS

**Note!** Follow all material manufacturers' instructions for proper use and compatibility.

- 1 3/4" galvanized roofing nails. Nails must penetrate at least 1" into framing (or as required by local code).
- #10 x 3 1/2" corrosion resistant pan head screws. Screws must penetrate at least 1" into framing (or as required by local code).
- Non water-degradable or compressible shims to level the sill
- JELD-WEN 4" wide self-adhesive flashing or equivalent (9" if required by local code)
- Protecto Wrap Safseal Systems 5500 spray adhesive/primer (or as recommended by the self-adhesive flashing manufacturer)

- Sealant (Protecto Wrap Protecto Sealant 25XL or equivalent)
- Backer rod
- Polyurethane low expansion foam (Dow Great Stuff™ Window and Door or equivalent)
- Non water-degradable or compressible shims
- JELD-WEN drain mat material or equivalent

### TOOLS

- |                                  |  |  |
|----------------------------------|--|--|
| • Tape measure                   | • J-roller   | • Construction stapler with 3/8" staples |
| • Utility knife                  | • Caulking gun                                     | • Hammer                                 |
| • Level (4' minimum recommended) | • Drill with 1/8" tapered bit and 3/8" countersink |  |

## 1 REMOVE PACKAGING & INSPECT WINDOW

### REMOVE PACKAGING

Remove shipping materials such as corner covers, shipping blocks or pads. If there is a protective film on the glass, do not remove it until installation and construction are complete.

### INSPECT YOUR WINDOW

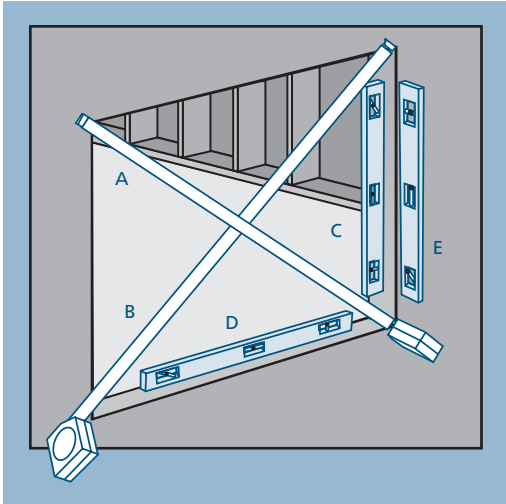
- Cosmetic damage
- Product squareness (diagonal measurements not more than 1/8" different)
- Correct product (size, color, grid pattern, handing, glazing, energy-efficiency requirements, etc.)
- Cracked frame welds
- Splits, cracks, holes, missing sections or other damage to the nailing fin longer than 6" and/or within 1/2" of window frame
- For units with integral head and seat boards, ensure the top of the mull joints are covered and sealed with silicone.

If any of the above conditions represent a concern, or if you expect environmental conditions to exceed the window's performance rating, do not install the window. Contact your dealer or distributor for recommendations.

**2**

**INSPECT ROUGH OPENING**

- Verify the width and height of the bay or bow window are each 1/2" smaller than the rough opening width and height. The rough opening for the garden window should be the same size as the window frame.



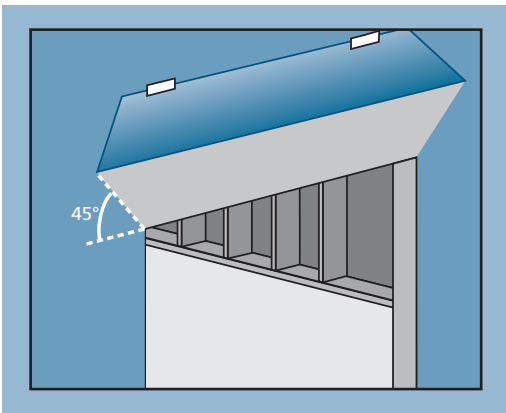
- Verify the rough opening is square. The (A) and (B) measurements above should be the same. Maximum allowable deviation from square is 1/8" for windows 20 sq. ft. and smaller, and 1/4" for windows larger than 20 sq. ft.
- Verify the rough opening is level and plumb (C). The maximum allowable deviation is 1/16" for every 2' of rough opening (not to exceed 1/8").
- Verify the rough opening sill is not crowned or sagged (D).
- Verify the exterior face of the rough opening is a single plane (E) with less than 1/8" twist from corner to corner.
- Verify the header is supported by trimmer studs.

**3**

**PREPARE ROUGH OPENING**

**FOR RETROFIT INSTALLATIONS**

1. Remove sufficient siding to expose enough intact building wrap to properly seal the window to the opening.
2. Remove the old window. If building wrap is damaged, apply new building wrap in shiplap manner. Verify trimmer studs/header are structurally sound. Continue with the instructions.



**PREPARE BUILDING WRAP**

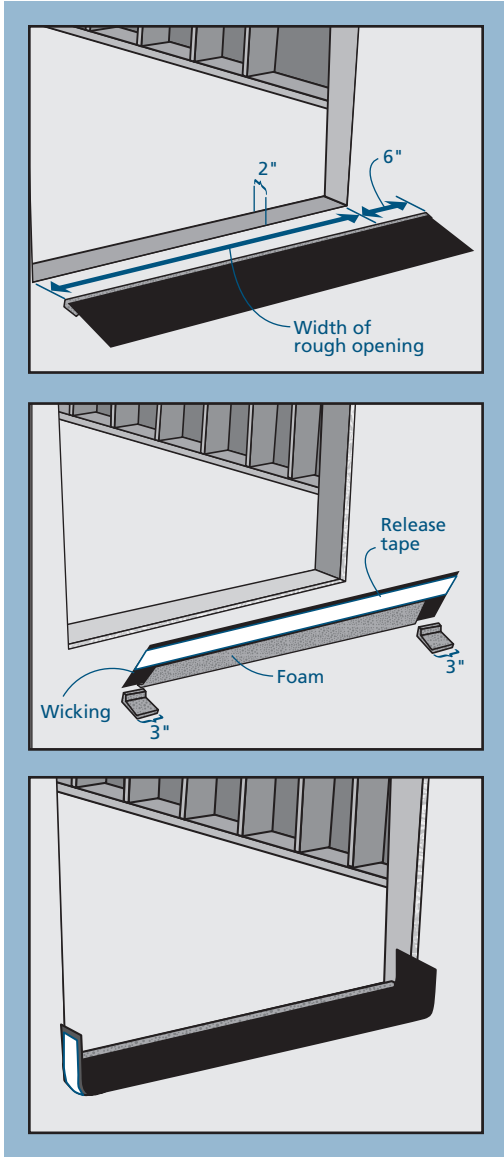
**Note!** Check with your building wrap manufacturer to verify that the following steps do not void their product warranty.

1. Trim building wrap flush with the edges of the rough opening.
2. At the head, cut building wrap 45° and tape up as shown.

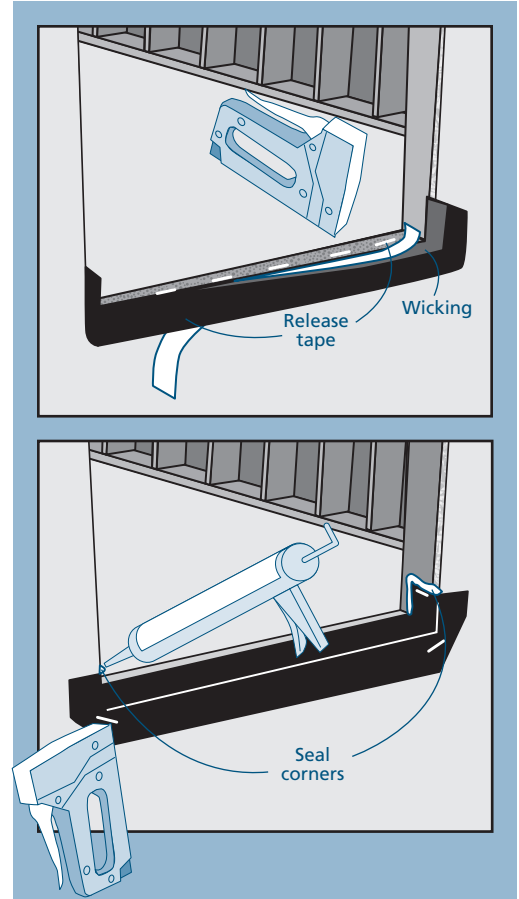
**Note!** If installing a bay or bow window, proceed with section 4 "PREPARE SILL FOR BAY/BOW WINDOW." If installing a garden window, skip to section 8, "PREPARE SILL FOR GARDEN WINDOW."

**4** PREPARE SILL FOR BAY/BOW WINDOW

1. Measure 2" from the outside edge of the sill and draw a line all along the sill. This is where the back of the JELD-WEN drain mat will sit.
2. Cut a piece of drain mat the length of the sill plus 6".
3. Trim off 3" of foam on each end of the JELD-WEN drain mat. Be sure not to cut into the drain mat material.
4. Place drain mat on rough opening sill, wrapping the drain mat up 3" on each jamb as shown.



5. Lift up the back of the wicking and staple into place on the sill.
6. Pull release tape and set JELD-WEN drain mat into place.
7. Fold the drain mat down onto the sheathing. Staple drain mat to the wall and seal the corner edges as shown.
8. Smooth out any bubbles or creases with a J-roller.
9. Level sill as needed with non water-degradable shims.

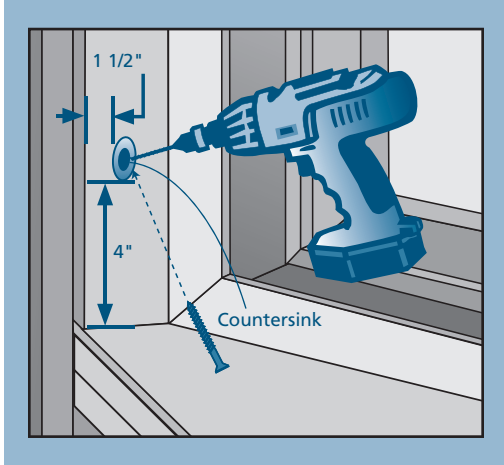


**5** INSTALL BAY/BOW WINDOW

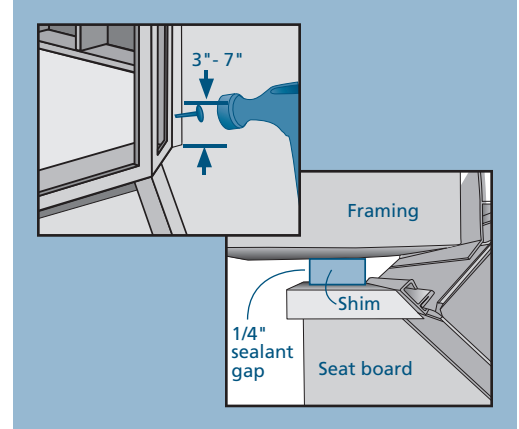
**Warning!** To avoid injury, use at least two people to install. Temporarily support the window until fully installed.

**Note!** Window should be pre-drilled and countersunk before placing inside the rough opening.

1. Pilot holes should be spaced 1 1/2" from interior edges, 4" from each corner and then evenly spaced no more than 12" around the inside perimeter. Drill 1/8" pilot holes and countersink.
2. Place window onto the drain mat in the rough opening. The window sill must rest on and be fully supported by the rough opening framing.



3. Fasten window with a galvanized roofing nail through the nailing fin between 3" and 7" from one lower corner.
4. Align side jamb shims with the pre-drilled holes so fasteners will penetrate shims. Shims must be set back at least 1/4" from the interior of the jamb. Secure shims with sealant.
5. Inspect window for square, level, and plumb. Test for proper operation (remove and reinstall if necessary).
6. Using #10 x 3 1/2" pan head screws, fasten the jambs, head, and seat board through the pre-drilled and countersunk pilot holes. Screws should penetrate the previously installed shims.



**6** FLASH BAY/BOW WINDOW

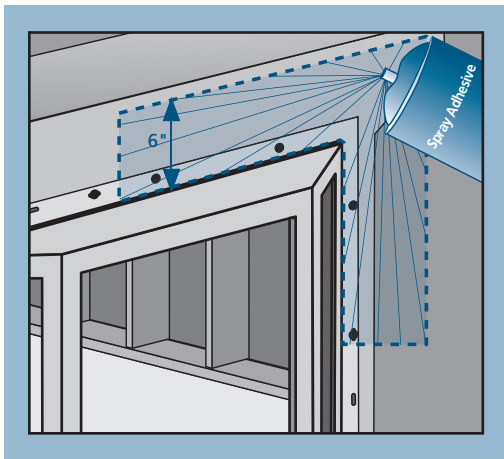
**PREPARE FLASHING**

1. Cut four pieces of JELD-WEN self-adhesive flashing as follows:
  - One head board piece 6" longer than the head board
  - One header piece 12" longer than the header
  - Two side pieces 7" longer than each side

**SPRAY ADHESIVE/PRIMER**

**Note!** Protect window from overspray.

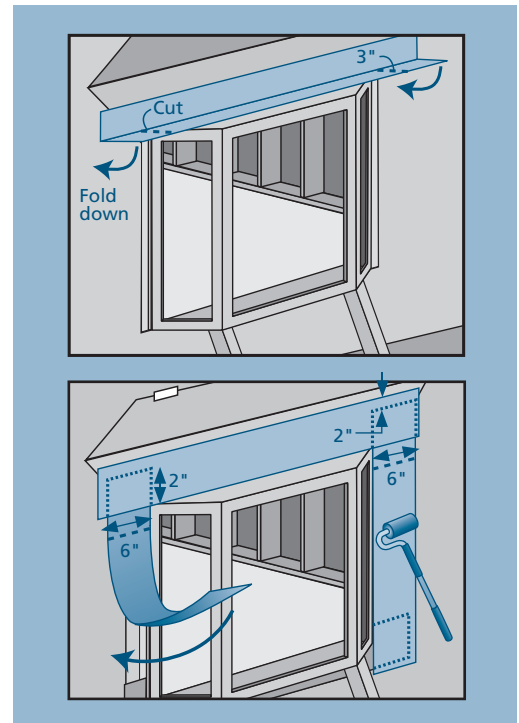
2. Apply spray adhesive/primer as instructed to nailing fin, sheathing and building wrap at the sides and head as shown.



**APPLY THE SELF-ADHESIVE FLASHING**

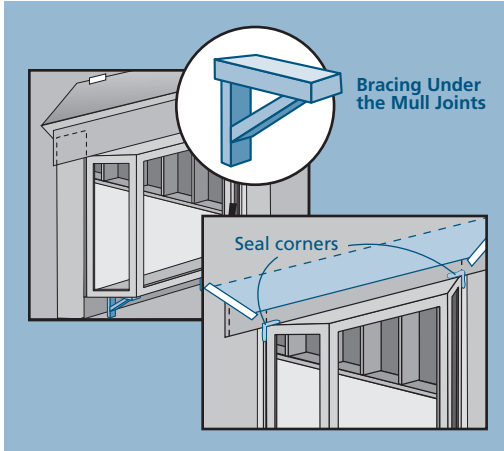
**Note!** Keep the edge of the JELD-WEN self-adhesive flashing as close to the window frame as possible.

3. Fold the head board piece lengthwise into "L" shape. Center and apply one leg to head board and the other to the wall above the rough opening header. Cut the corners to allow the flashing to lay flat against the wall.
4. Starting 2" above the header, apply the side pieces.
5. Center and apply the header piece above the header.
6. Press the flashing down with a J-roller.
7. Inspect self-adhesive flashing for gaps or bubbles (remove and replace if necessary).

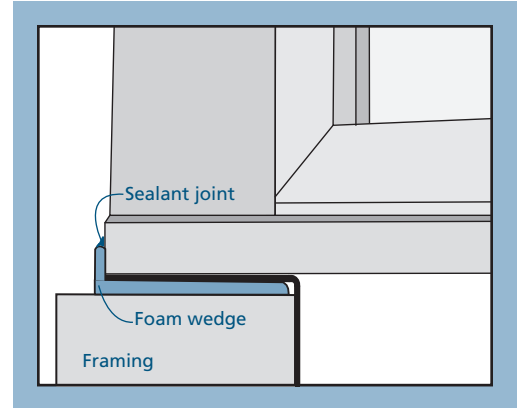


**7 COMPLETE BAY/BOW WINDOW INSTALLATION**

1. If the window has a pre-installed cable support system, follow the instructions provided by the manufacturer.
2. If the cable support system is not used, build seat board bracing to support at least 750 lbs of total weight (window plus window contents). Primary support should be provided under the mull joints of the unit.
3. Remove temporary support after full support is installed.
4. Release the building wrap from above the header (previously taped up) and overlap the header flashing. Seal the ends with self-adhesive flashing or building wrap tape.
5. Seal all four corners of the window with a 1/4" bead of sealant. Tool into a fillet shape.
6. The head and seat boards should be protected and insulated with a structure designed and built as required by local code.



7. Create a continuous air seal on the interior jambs and head between the rough opening and the window frame with low expansion polyurethane foam or backer rod and sealant. On the sill, run a continuous bead of sealant along the foam wedge where it meets the window frame or seat board.



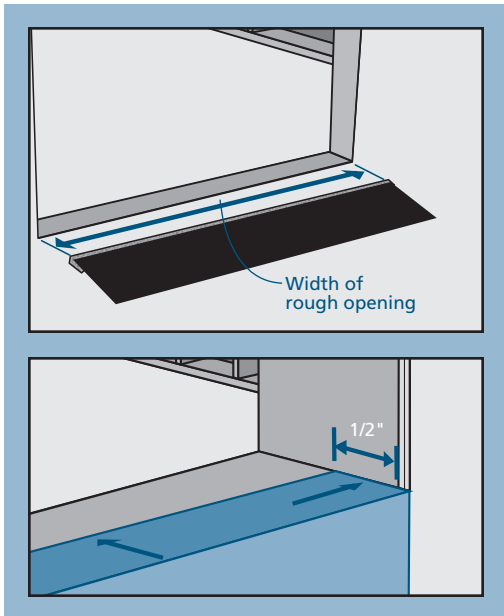
**AFTER INSTALLATION**

1. Adjust window for best operation.
  2. Install exterior wall surface within 30 days of window installation.
  3. Maintain gap of 3/8" between window frame and final exterior wall surface (siding, stucco, etc.).
  4. Protect recently installed units from damage from plaster, paint, etc. by covering the unit with plastic.
- Note:** End of bay/bow installation instructions.

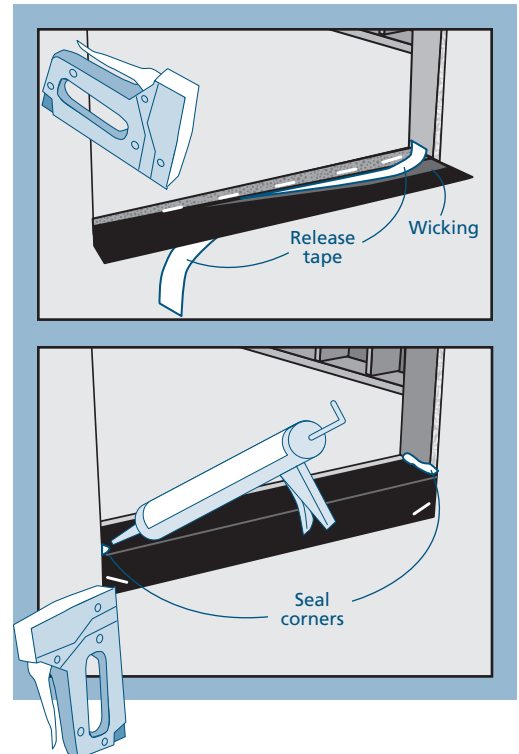
**8 PREPARE SILL FOR GARDEN WINDOW**

**Note!** The sill lip is the garden window's only source of support inside the rough opening. It is very important that the sill be level and flat.

1. Measure the length of the sill and cut a piece of JELD-WEN drain mat the exact length of the sill.
2. Measure and draw a line 1/2" from the exterior edge of the sill; this is where the JELD-WEN drain mat will sit.
3. Remove foam backing and release tape under foam backing.



4. Press the adhesive section of the drain mat onto outside section of sill.
5. Pull release tape on remaining section of the drain mat.
6. Fold the JELD-WEN drain mat down onto the house wrap.
7. Staple drain mat to the wall and seal the corner edges.

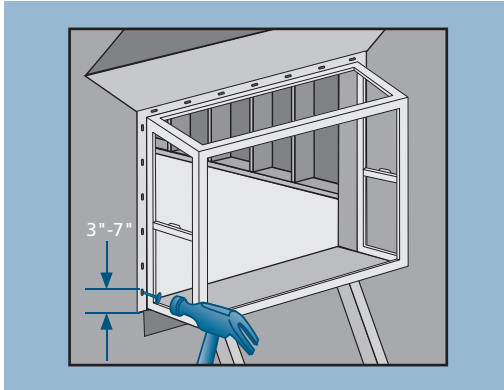




**9** INSTALL GARDEN WINDOW

**Warning!** To avoid injury, use at least two people to install. Temporarily support the window until fully installed.

1. Place window sill onto the drain mat and tilt into the rough opening. The window sill must rest on and be fully supported by the rough opening framing.

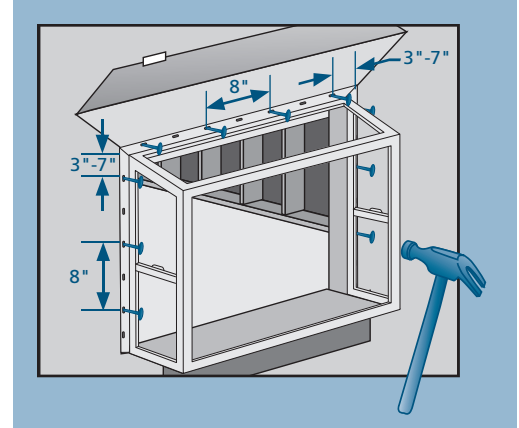


2. Fasten window with a galvanized roofing nail through the nailing fin between 3"-7" from one lower corner.

3. Inspect window for square, level, and plumb. Test for proper operation (remove and reinstall if necessary).

**Note!** Fastener heads must be flush. Do not dent nailing fin. Always use pre-punched holes or pre-drill with a 3/16" bit.

4. Fasten window through nailing fin holes 3"-7" from the corners and 8" apart all the way around the window.



**10** FLASH GARDEN WINDOW

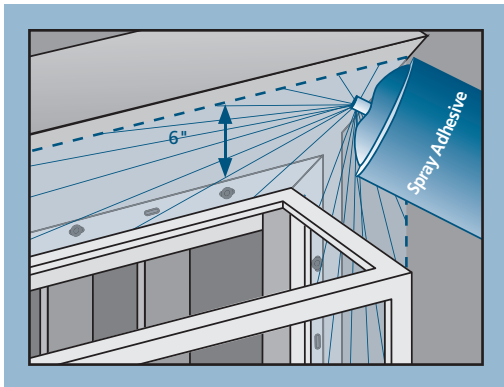
**PREPARE FLASHING**

1. Cut three pieces of JELD-WEN self-adhesive flashing as follows:
  - One header piece 12" longer than the header
  - Two side pieces 7" longer than each side

**SPRAY ADHESIVE/PRIMER**

**Note!** Protect window from overspray.

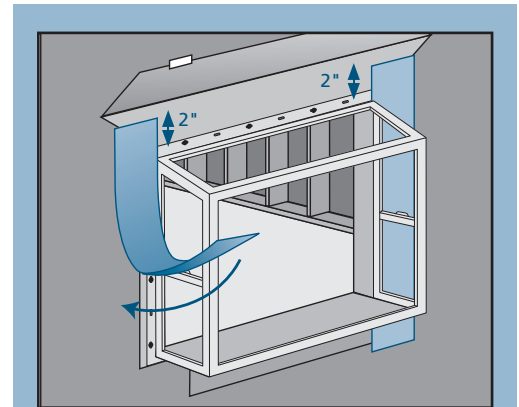
2. Apply spray adhesive/primer as instructed to nailing fin, sheathing and building wrap at the sides and head as shown.



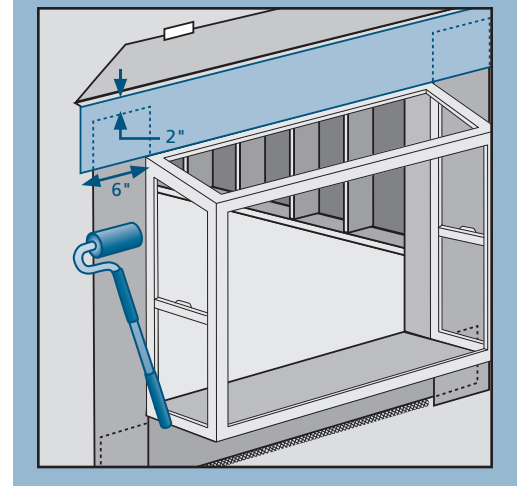
**APPLY THE SELF-ADHESIVE FLASHING**

**Note!** Keep the edge of the JELD-WEN self-adhesive flashing as close to the window frame as possible.

3. Apply the side pieces starting 2" above the header.
4. Center and apply the header piece above the header.

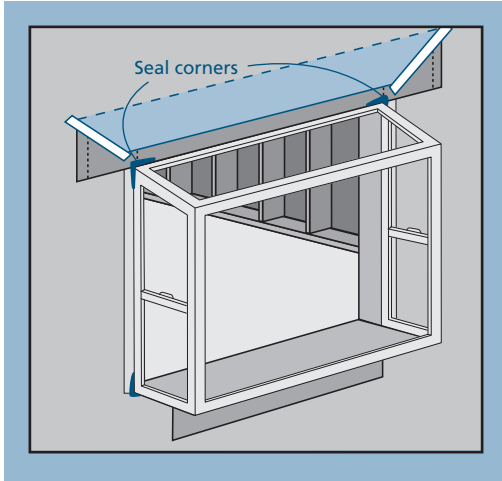


5. Press the flashing down with a J-roller.
6. Do not allow gaps or bubbles beneath self-adhesive flashing (remove and replace if necessary).



**11 COMPLETE GARDEN WINDOW INSTALLATION**

Garden windows are rated for a weight handling load of 8 lbs. per square foot. Although it is not required, the installer may provide extra support to the garden window with "L" brackets. Build seat board bracing under the mull joints of the unit. To reduce heat loss, the bottom of the window may be insulated. Check local building code requirements.

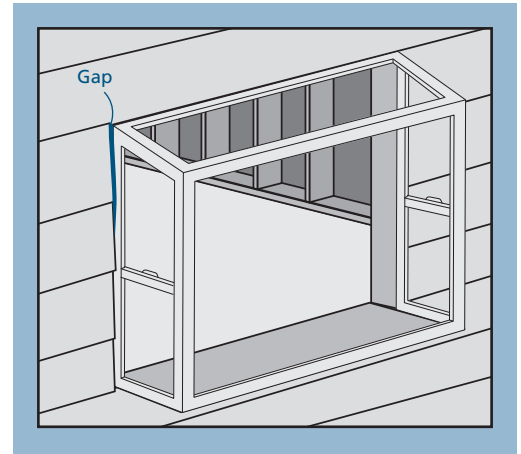


**COMPLETE INSTALLATION**

1. Release the building wrap from above the header (previously taped up) and overlap the header flashing. Seal the ends with self-adhesive flashing or building wrap tape.
2. Seal the top corners of the window with a 1/4" bead of sealant. Tool into a fillet shape.
3. Create a continuous air seal around the entire interior perimeter of the window with a bead of sealant where the window contacts the structure.

**AFTER INSTALLATION**

1. Adjust window for best operation.
2. Install exterior wall surface within seven days of window installation.
3. Maintain gap of 3/8" between window frame and final exterior wall surface (siding, stucco, etc.).
4. Ensure weep holes/channels are clear of debris for proper water drainage; do not seal weep holes/channels if present.
5. Protect recently installed units from damage from plaster, paint, etc. by covering the unit with plastic.



Please visit [www.jeld-wen.com/resources](http://www.jeld-wen.com/resources) for warranty and care and maintenance information.

Thank you for choosing

