



Thank you for selecting JELD-WEN products. Attached are JELD-WEN's recommended installation instructions for wood and clad wood bay and bow windows. Read these instructions thoroughly before beginning. They are designed to work in most existing applications, however; existing conditions may require changes to these instructions. If changes are needed, they are made at the installer's risk. For installations other than indicated in these instructions, contact a building professional.

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 of the structure (typically building wrap).

IMPORTANT INFORMATION AND GLOSSARY

Not all window types may 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 the sale.

GLOSSARY

Backer Rod (backing material)

A material (e.g. foam rod), placed into a joint primarily to control the depth of the sealant.

Buck

A wood framework attached to the masonry inside a window or patio door rough opening.

Mulled Unit

Two or more window units structurally joined together.

Mull Joint

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

Precast Sill

A pre-formed concrete block placed in the sill of a masonry/block wall to support a window.

Shiplap

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

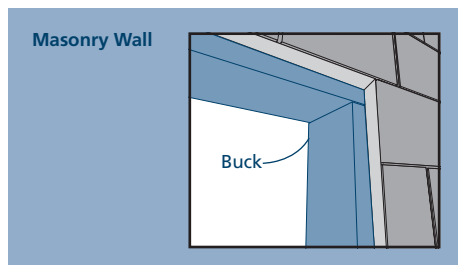
Estimated Install Time for New Construction	<input type="checkbox"/> First Time: 2 hrs	
	<input type="checkbox"/> Experienced: 1.5 hrs	
	<input type="checkbox"/> Professional: 1 hr	

ROUGH OPENINGS

This installation guide specifically addresses masonry/block wall, 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.

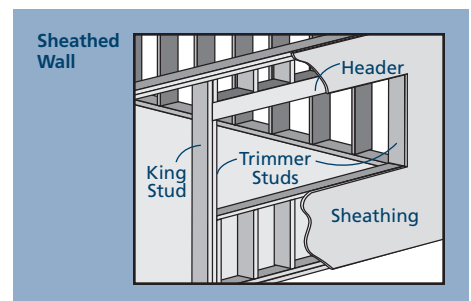
MASONRY/BLOCK WALL CONSTRUCTION

This installation assumes that a framework of studs (often called a buck) has already been properly fastened and sealed to the concrete/masonry wall by a building professional.



FULLY SHEATHED WALL CONSTRUCTION

The wall framing is covered by sheathing. Windows will be mounted flush against the sheathing. This installation assumes building wrap is properly installed prior to installation.



OPEN-STUD CONSTRUCTION

If self-adhered flashing is to be applied so that it is wider than the framing of the wall, it may be necessary to cover the wall with backing support sufficient to support the entire width of the flashing.

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. Backing support must be applied before building wrap.

SAFETY AND HANDLING

SAFETY

- Read and fully understand ALL manufacturers' instructions before beginning. Failure to follow proper installation instructions may result in the denial of warranty claims for operational or performance problems.
- 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.
- If disturbing existing paint, take proper precautions if lead paint is suspected (commonly used before 1979). Your regional EPA (www.epa.gov/lead) or Consumer Product Safety Commission offices provide information regarding regulations and lead protection.
- Use caution when working at elevated heights.
- **WARNING:** Drilling, sawing, sanding or machining wood products generates wood dust, a substance known to the State of California to cause cancer. Use a respirator or other safeguards to avoid inhaling wood dust.

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.
- Protect from exposure to direct sunlight during storage.
- Install only into vertical walls and when conditions and materials are dry.

IF INJURY OCCURS, IMMEDIATELY SEEK MEDICAL ATTENTION!

MATERIALS AND TOOLS

NEEDED MATERIALS

Note! JELD-WEN exterior window and door products should be installed in accordance with JELD-WEN's recommended installation and flashing directions, which are shipped with the products or can be found on our website: www.jeld-wen.com. Note that alternative installation methods and flashing systems may be utilized at the installer's or owner's discretion and, in such situations the installation should be done in accordance with the flashing manufacturer's instructions. Follow all material manufacturers' instructions for proper use and compatibility. When using flashing, spray adhesive/primer, sealant and foam products, we recommend using the same manufacturer and verifying compatibility. It is the End User's responsibility to determine if dissimilar materials are compatible to the substrates in the application.

- 3" galvanized casing nails (exterior trim windows) or 1-3/4" galvanized roofing nails (nailing fin windows). Nails must penetrate at least 1" into framing (or as required by local code).
- #10 x 2-1/2" corrosion-resistant flat head screws. Screws must penetrate at least 1" into framing (or as required by local code).
- Non-Compressible or non-water degradable shims.

- Sealant: We recommend OSI® QUAD® Max Sealant or equivalent. This can be used in any application and can be painted or ordered in a color matched product, if desired.
- Backer rod 1/8" larger than the widest portion of the gap (used in conjunction with sealant bead).
- Polyurethane low expansion Window and Door foam: We recommend OSI® QUAD® Foam or equivalent.

For installations into a stud-framed wall:

- 4", 6", or 9" (as required by local code and window configuration) wide self-adhered flashing: We recommend OSI® Butyl Flash Tape or equivalent.
- Spray adhesive/primer for self adhesive flashing. Such as Loctite® 300 or equivalent.

For installations into a buck:

- Liquid applied flashing (Protecto Wrap LWM 200 or equivalent)

NEEDED TOOLS

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

1

REMOVE PACKAGING AND 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. Cut off any staple legs exposed on the side of the frame.

INSPECT YOUR WINDOW

- Cosmetic damage.
- Product squareness (diagonal measurements not more than 1/8" different).

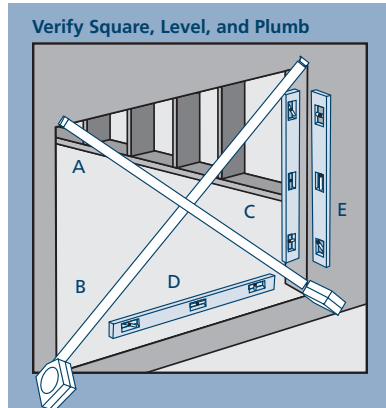
- Correct product (size, color, grid pattern, handing, glazing, energy-efficiency requirements, etc.).
- Splits, cracks, holes, missing sections or other damage to the nailing fin longer than 6" and/or within 1/2" of window frame.
- For units with integral head and seat boards, ensure the top of the 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.

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INSPECT ROUGH OPENING

- Verify the width and height of the window are each 1/2" - 5/8" smaller than the rough opening width and height.
- Verify the rough opening is square. The (A) and (B) measurements above should be the same. Maximum allowable deviation from square for windows over 20 sq. ft. is 1/4" and for windows under 20 sq. ft. is 1/8".



- Verify the rough opening is plumb and level (C, E) and (D). The maximum allowable deviation is 1/16" for every 2' of rough opening (not to exceed 1/8").
- The rough opening sill must not be crowned or sagged (D), but rather level or sloped (positive slope) to the exterior.
- 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 rough opening is structurally sound.
- Correct any deviations before installing the window.

FOR RETROFIT INSTALLATIONS

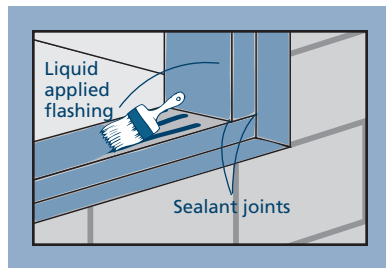
After removing the old window, remove sufficient cladding (siding, stucco, etc.) to expose enough intact building wrap to properly seal the window to the opening. If damaged, apply new building wrap in shiplap manner. Verify the rough opening framing is structurally sound. Contact your local waste management entities for proper disposal or recycling of products being removed.

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PREPARE BUCK

Note! This section applies to installations into a masonry wall only. For installations into a stud-framed wall, begin with section 4, "PREPARE STUD-FRAMED WALL."

1. Seal any joint larger than 1/16" in the buck and between the buck and the concrete/masonry with sealant.



2. Cover the concrete/masonry at the head and jambs with liquid applied or self-adhered flashing as shown. If using self-adhered flashing, follow manufacturers' instructions for appropriate use of primers and other application methods.
3. If installing into a four-sided buck: Seal the sill in a similar manner. **Note!** Shims must be 1/4" shorter than the depth of the window sill, should level the rough opening sill and be no more than 1/4" thick.
4. Shim the sill 4" from each corner, at 8" intervals, and underneath mull joints on both sides with non-compressible or non-water degradable shims. Secure shims with sealant. **SKIP to section 5, "PREPARE WINDOW."**

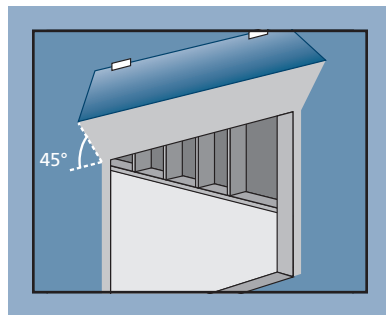
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PREPARE STUD-FRAMED WALL

PREPARE BUILDING WRAP

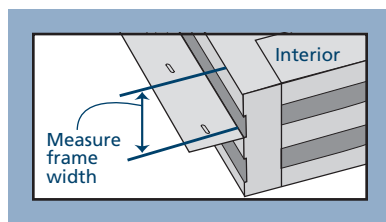
Note! Check with your building wrap manufacturer to verify that the following steps do not void their product warranty.

1. Trim the sides sufficiently to allow the nailing fin to be mounted against the sheathing.
2. At the head, cut building wrap 45° and tape up as shown.

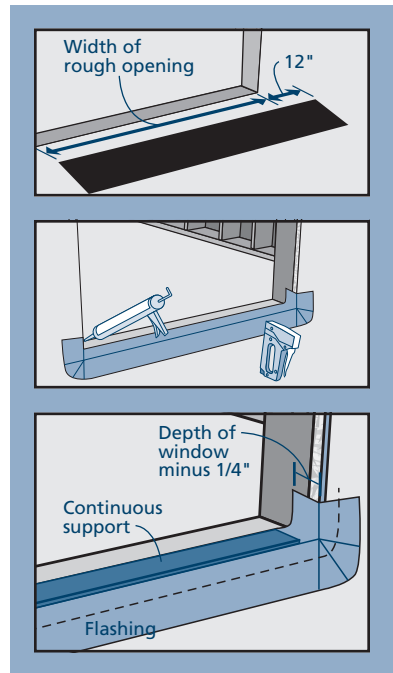


PREPARE/SHIM THE SILL

1. Use self-adhered flashing to waterproof the sill.
2. Flashing must have at least 2" of material wrapped below the sill onto the vertical wall. Flashing width must be at least frame width + 1-3/4". Use two pieces in a shiplap manner if necessary.
3. Measure the width of the frame from the interior to the nail fin/trim and subtract 1/4". Transfer this measurement from the outside edge of the rough opening sill and draw a line all along the rough opening sill. This is where the back of the flashing will sit.



4. Cut a piece of flashing the length of the sill plus 12".
5. Place flashing on rough opening sill, wrapping the flashing up 6" on each jamb as shown.
6. Pull release tape and set flashing into place.
7. Fold the flashing down onto the sheathing. Mechanically fasten if necessary.
8. Smooth out any bubbles or creases with a J-roller. Remove and replace if necessary.
9. Install the continuous support as follows:



Note! Where the window will sit on the sill, shim to provide continuous support to the sill. This shimming must be 1/2" shorter than the width of the window frame, be 1/4" narrower than the depth of the window frame sill, should level the rough opening sill and be no more than 1/4" thick.

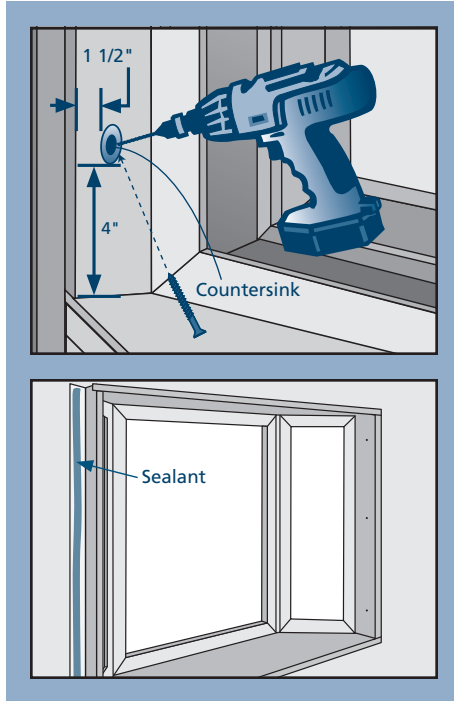
10. Align the shimming on the sill flush with the exterior and centered between the side jambs.

5 INSTALL WINDOW

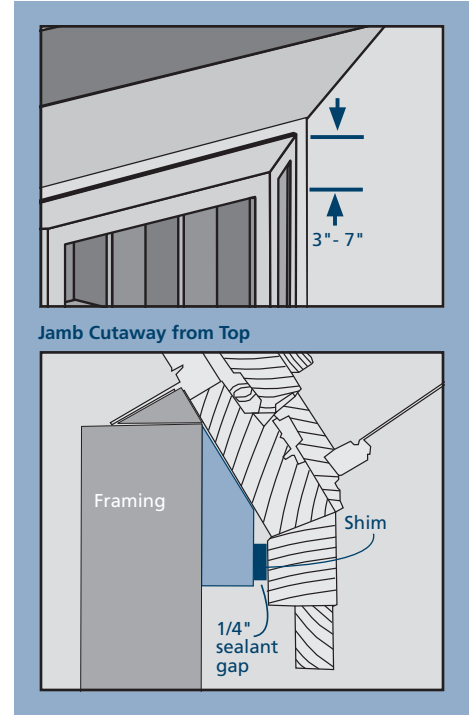
Warning! To avoid injury, use at least two people to install. Adequately support the window until fully installed.

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. For units with exterior trim: run a 3/8" continuous bead of sealant around the interior of the window where the trim meets the window frame. Tool into a fillet shape.
3. Run a continuous 3/8" bead of sealant around the interior side of the nail fin on the side jambs.
4. Place window onto the shimming support and tilt into the rough opening. The window sill must rest on and be fully supported by the shimming support.



5. Fasten window through the nailing fin/trim between 3" and 7" from one upper corner.
6. Mill a 2x piece of material to fill the gap in the jambs between the framing and the window.
7. 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.
8. Inspect window for square, level and plumb (adjust shims or remove and reinstall if necessary).



9. Using #10 x 3-1/2" flat head screws, fasten the jambs, head, and seat board through the pre-drilled and countersunk pilot holes. Screws should penetrate the previously installed shims.

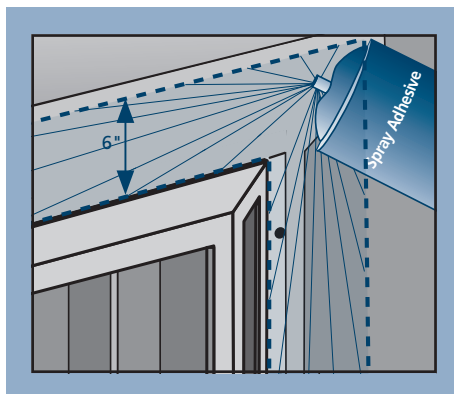
6 FLASH WINDOW - WINDOWS WITH A NAILING FIN INSTALLED INTO STUD-FRAMING ONLY

Cut four pieces of self-adhered flashing as follows:

- One head board piece 6" longer than the head board
- One header piece 10" longer than the header
- Two side pieces 8" longer than each side

SPRAY ADHESIVE/PRIMER

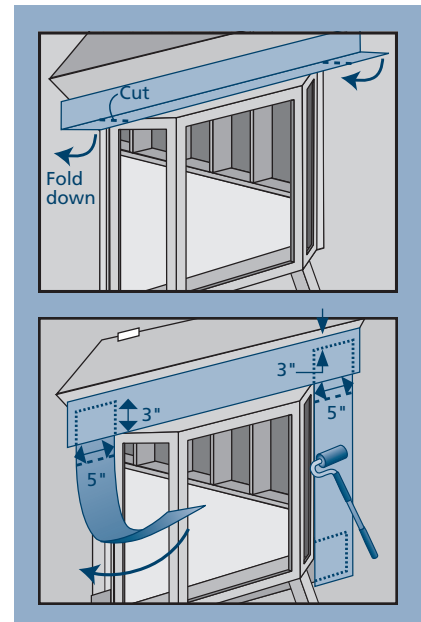
Apply spray adhesive/primer as instructed to nailing fin, sheathing and building wrap at the sides and head as shown.



APPLY THE SELF-ADHERED FLASHING

Note! Keep the edge of the self-adhered flashing as close to the window frame as possible and apply over the nail fin.

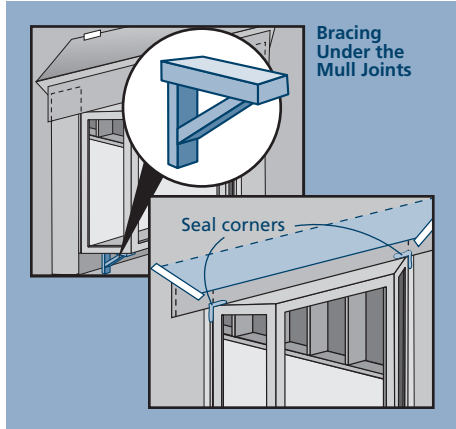
1. Fold the head board piece lengthwise into an "L" shape. Center and apply one leg to head board and the other to the wall above the rough opening header. Cut the corners to allow the flashing to lay flat against the wall.
2. Starting 3" above the header, apply the side pieces.
3. Center and apply the header piece above the header, overlapping the side pieces as shown.
4. Inspect self-adhered flashing for gaps or bubbles (remove and replace if necessary). Finish by pressing the flashing down with a J-roller.



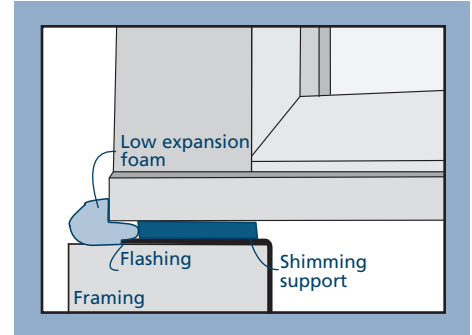
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COMPLETE INSTALLATION

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 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 by integrating the rough opening and the window frame with low expansion polyurethane foam or backer rod and sealant.



AFTER INSTALLATION

1. Leave an expansion/contraction gap of approximately 3/8" between window frame and final exterior wall surface (siding, stucco, etc.). For a finished look and additional protection, seal this gap on the sides with backer rod and sealant. If sealant is applied above the drip cap ensure the sealant bead is discontinuous to allow for drainage.
2. Install exterior wall surface per manufacturer's guidelines.
3. Remove protective film from cladding (if present) immediately after installation; remove from glass within one year.
4. Protect recently installed units from damage from plaster, paint, etc. by covering the unit with plastic.
5. Finish all exposed wood surfaces immediately following installation.

Please visit jeld-wen.com for warranty and care and maintenance information.

Thank you for choosing

