



Thank you for selecting JELD-WEN products. Attached are JELD-WEN's recommended installation instructions for metal clad wood windows without nailing fin or primed wood windows without exterior trim. Read these installation instructions thoroughly before beginning. They are designed to work in most 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. Areas such as Florida and the Texas wind borne debris region have specific anchoring requirements. For information on specific products, visit www.floridabuilding.org or www.tdi.texas.gov.

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 rough opening by creating an air seal on the interior with low expansion foam.

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.

Please Note! This installation guide specifically addresses installation into block/masonry wall, sheathed wall and open-stud wall construction. These instructions do not apply to bow and bay windows and apply only to windows with a horizontal flat sill. 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 product warranty as part of the terms of the sale.

Estimated Install Time for New Construction	<input type="text"/>	First Time: 4.0 hr.	
	<input type="text"/>	Experienced: 2.5 hr.	
	<input type="text"/>	Professional: 1.5 hr.	

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.

Masonry Clip

A galvanized metal strap that secures the window to the structure.

Mulled Unit

Two or more window units structurally joined together.

Precast Sill

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

Self-Adhered Flashing (SAF)

An adhesive backed tape material, generally not requiring mechanical fasteners, used to waterproof the rough opening and/or used to seal a window to the building's weather barrier. SAF should be applied in a manner that directs the moisture out of the wall cavity to the exterior.

Shiplap

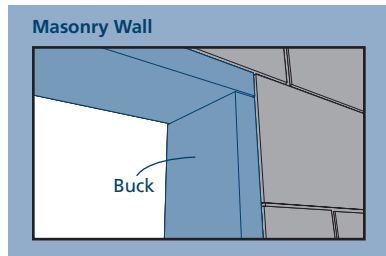
The layering method in which each layer overlaps the layer below it so that water runs down the outside.

ROUGH OPENINGS

This installation guide specifically addresses masonry/block wall, fully sheathed wall and open-stud wall construction.

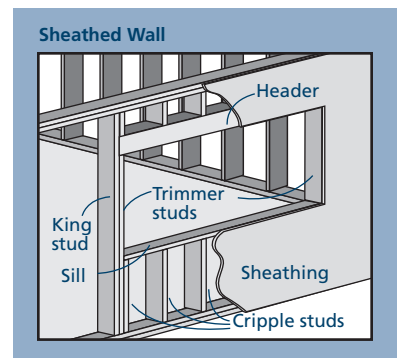
MASONRY/BLOCK WALL CONSTRUCTION

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 and the window sits inside the rough opening.

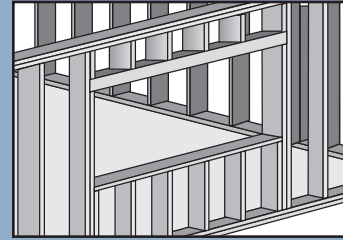


ROUGH OPENINGS - CONTINUED

OPEN-STUD CONSTRUCTION

Wall framing is not covered by sheathing.

Open-Stud Wall



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.
- Use caution when working at elevated heights.
- 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.

- **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.

MATERIALS AND WINDOW HANDLING

- Make sure operable windows are 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 into vertical walls and when conditions and sheathing 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.

- #8 x 3" corrosion-resistant, pan head screws. Screws must penetrate at least 1 1/2" into framing (or as required by local code).
- Galvanized drip cap (or factory supplied).
- 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.

- Non-compressible or non-water degradable shims.
- 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 adhered flashing. Such as Loctite® 300 or equivalent.
- Liquid applied flashing (Protecto Wrap LWM 200 or equivalent).

For units rated above PG50:

- Masonry clips
- #8 x 3/4" corrosion-resistant screws for attaching masonry clips to the window.
- #8 corrosion-resistant screws for attaching masonry clips to structure. Screws must penetrate at least 1 1/2" into framing.

NEEDED TOOLS

- Utility knife
- J-roller
- Hammer
- Tape measure
- Caulking gun
- Level (4' minimum recommended)
- Drill with bits

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.

Note! Double-hung windows may have banding on the interior of the unit. Do not remove until the window is secured in the opening to help keep the sash in place and the unit square.

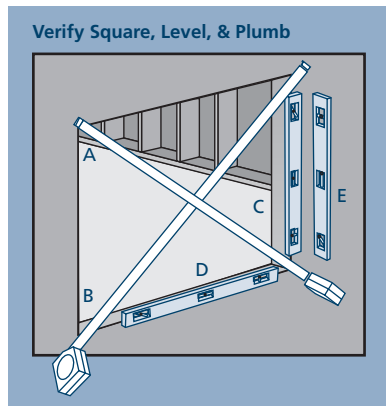
INSPECT WINDOW

- Cosmetic damage.
- Product squareness (diagonal measurements not more than 1/8" different).
- Correct product (size, color, grid pattern, handing, glazing, energy-efficiency requirements, etc.).
- Drip cap that extends the length of the clad trim plus 1/8" overhang on each end (all units require a drip cap); drip cap may or may not be pre-installed.

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 window are each 1/2"-3/4" 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 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 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.
- The exterior face of the rough opening must be in a single plane (E) with less than 1/8" twist from corner to corner.
- Minimum double studs (king and jack/trimmer) should be used to support the header at all wood framed rough openings.

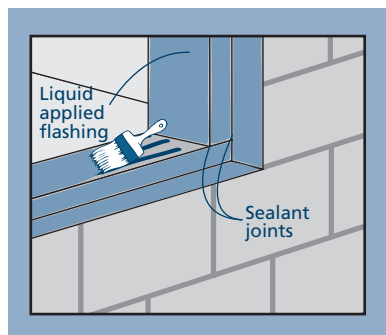
FOR RETROFIT INSTALLATIONS

Remove the old window, and verify the rough opening framing is structurally sound. Contact your local waste management entities for proper disposal or recycling of products being removed.

3 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 buck and the surrounding concrete/masonry at the head and jambs with liquid applied flashing as shown.



3. If installing into a four-sided buck, seal the sill in a similar manner.

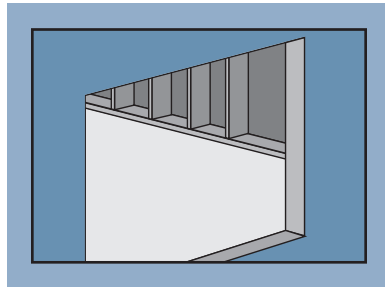
Note! Where the window will sit on the sill, shim to provide continuous support to the sill. This shimming must be a minimum of the width of the window frame and a minimum of 1/4" narrower than the depth of the window frame sill, should level the rough opening sill and be no more than 1/4" thick.

4. Align the shimming on the sill flush with the exterior and centered between the side jambs. If installing a mullied unit, shim under the mull joint(s) and tack into place or secure with sealant. **SKIP** to section 5, "PREPARE WINDOW."

4 PREPARE STUD-FRAMED WALL

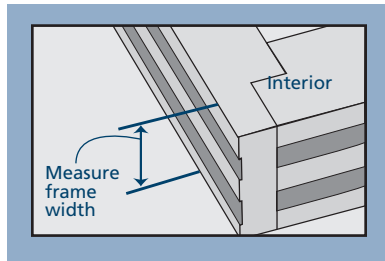
PREPARE BUILDING WRAP

Trim building wrap flush with the edges of the rough opening (or follow manufacturers' instructions for trimming).



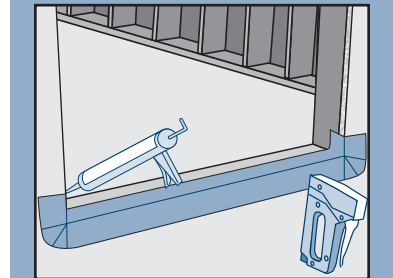
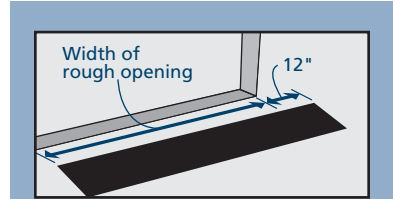
PREPARE/SHIM THE SILL

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 + 2".

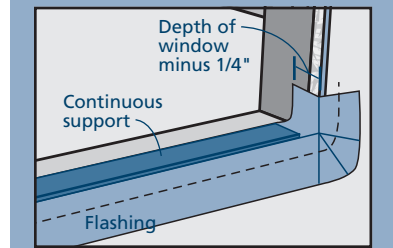


3. Measure the width of the frame and subtract 1/4". Transfer this measurement from the outside edge of the rough opening sill and draw a line all along the rough opening sill. This is where the back of the flashing will sit.

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 a minimum of the width of the window frame and a minimum of 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. If installing a mullied unit, shim under the mull joint(s) and tack into place or secure with sealant.

5 PREPARE WINDOW

APPLY DRIP CAP TO HEADER

This section applies to concrete/masonry only. For sheathed wall applications, the drip cap will be installed later. Skip to "INSTALL MASONRY CLIPS."

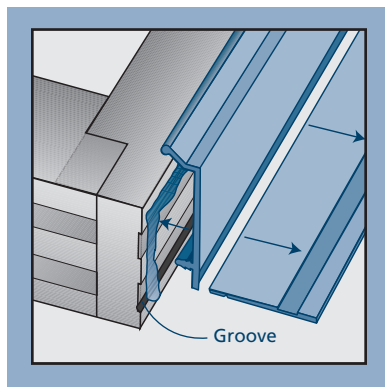
1. Cut off the vertical leg of the drip cap.
2. Apply drip cap as follows:

Metal Clad Windows:

If drip cap was not previously installed, apply a 1/4" bead of sealant across the header as shown and tap the drip cap into the groove with a wood block. Seal any gaps at the end of horizontal mull joints with sealant.

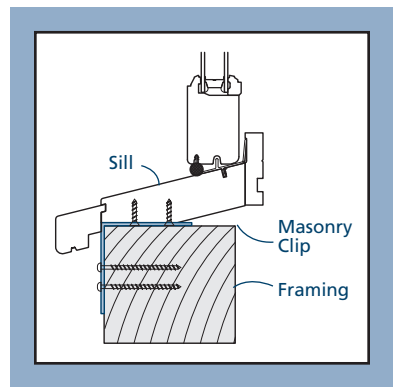
Primed Wood Windows:

Center the drip cap on the header and mechanically fasten with appropriate sized nails or screws. Be sure the fastener does not completely penetrate the frame header. Seal any gaps at the end of horizontal mull joints with sealant.



INSTALL MASONRY CLIPS ON THE SILL

For any window rated above DP50, install masonry clips to the back of the jambs, head and sill 4" from the corners and every 16" on center with two #8 x 3/4" screws per clip.



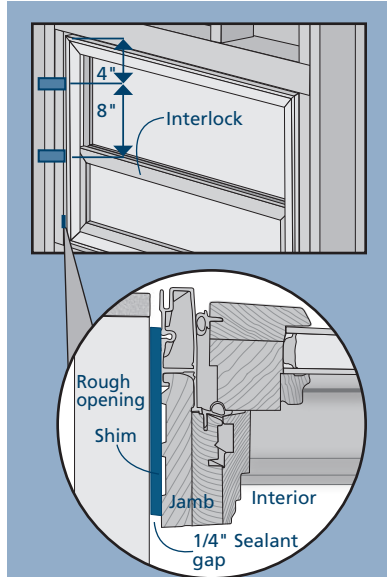
6 **INSTALL WINDOW**

WARNING! To avoid injury, use at least two people to install. Adequately support the window until completely fastened.

Areas such as Florida and the Texas TDI region have different anchoring requirements based on product certification. For information on specific products, visit www.floridabuilding.org or www.tdi.texas.gov and follow the anchoring schedule given in the drawings for the product instead of the anchoring schedule in this document.

1. 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.

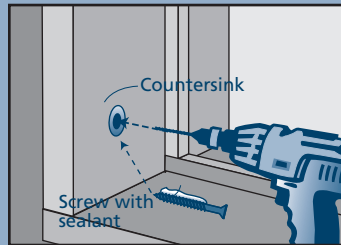
2. Shim at each interlock, or in the center, and within 4" - 6" of each corner on the side and head jambs. Apply additional shims to the side and head jambs as necessary to ensure window position within the opening is plumb, level, and square. Larger windows usually need additional shims. Shims can be secured with sealant or adhesive.



3. From the interior, fasten the window through a side jamb 4" from one corner as follows.

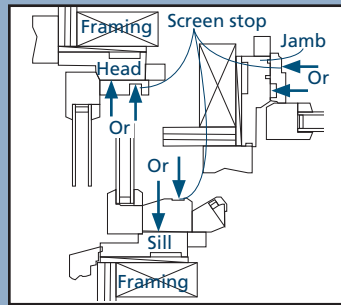
- If installing a double hung window, the sashes and jamb liners can be removed for a cleaner look.

Double-Hung Jamb



- If installing a casement window, fasteners can be installed underneath the cover pieces or through the screen stop if pre-drilled and countersunk.
- Drill a pilot hole through the side jamb and into the framing. Countersink for wood putty or for plug covers.

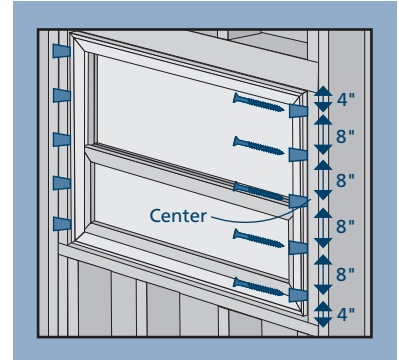
Casement Head, Sill and Jamb



- Apply sealant to the threads of a #8 x 3" screw and drive into the side jamb. Screw must go through shim.

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

5. In a similar manner as step 3, fasten window 4" from the remaining corners and then. Impact casement or awning windows rated at DP50 or above must have additional fasteners placed 2" from each corner and at center through the jambs (casement) or head stop (awning).

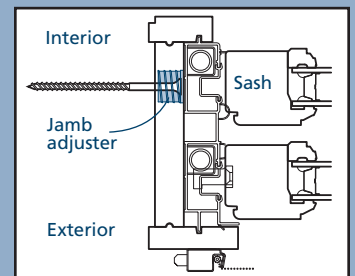


6. If applicable, install two #8 screws through each masonry clip and into the framing. Screws must be long enough to penetrate framing by at least 1".

Note! Most hung windows have jamb adjusters. If jamb adjusters are present, they are located either above or below the interlock in the interior jamb liner.

7. Hung windows with jamb adjusters must be fastened through the jamb adjusters with the #8 x 2" screws provided. Straighten the jambs per the instructions provided with the screws.

Double-Hung Jamb from Top



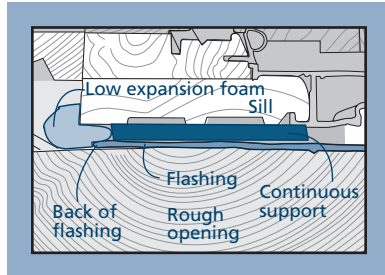
7

COMPLETE INSTALLATION

1. Seal any gaps or openings at end of horizontal mull joints with sealant.
2. On the exterior, apply backer rod and sealant between the window frame and the rough opening.

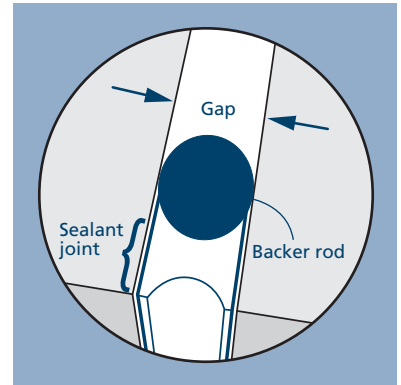
CONTINUOUS AIR SEAL

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

- Install exterior wall surface per manufactures' guidelines.
- 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.
- Remove protective film from cladding (if present) immediately after installation; remove from glass within one year.
- Protect recently installed units from damage from plaster, paint, etc. by covering the unit with plastic.
- Finish all exposed wood surfaces immediately following installation.



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

Thank you for choosing

