



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

### IMPORTANT INFORMATION & 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.

#### Shiplap

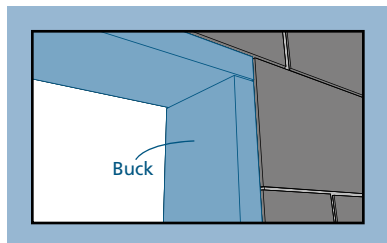
The layering method in which each layer overlaps the layer below it so that water runs down the outside.

### ROUGH OPENINGS

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

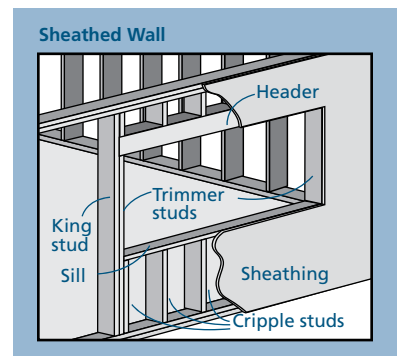
#### MASONRY/BLOCK WALL CONSTRUCTION

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

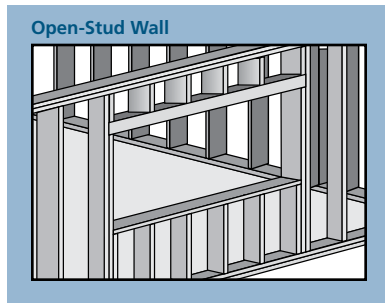
The wall framing is covered by sheathing and the window sits inside the rough opening.



**ROUGH OPENINGS - CONTINUED**

**OPEN-STUD CONSTRUCTION**

Wall framing is not covered by sheathing.



**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.

**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!**

**NEEDED MATERIALS & TOOLS**

**NEEDED MATERIALS**

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

- #8 x 3" corrosion-resistant, pan head screws. Screws must penetrate at least 1" into framing (or as required by local code)
- Galvanized drip cap (or factory supplied)
- Sealant (Protecto Wrap Protecto Sealant 25XL or equivalent)
- Backer rod
- Shims – not water degradable or compressible
- Liquid applied flashing (Protecto Wrap LWN 200 or equivalent)

For units rated above DP50:

- 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" into framing

**TOOLS**

- Utility knife
- J-roller
- Hammer
- Tape measure
- Caulking gun
- Level (4' minimum recommended)
- Construction stapler with 3/8" staples
- Drill with bits

**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. 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.

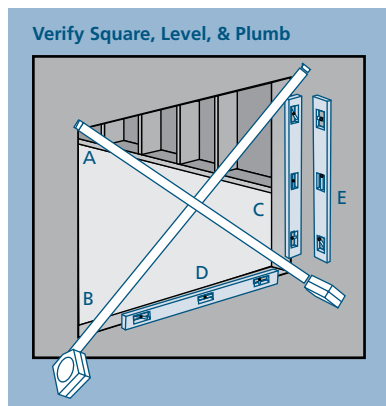
**INSPECT WINDOW**

- Cosmetic damage
- Product squareness (diagonal measurements not more than 1/4" 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"-5/8" smaller than the rough opening width and height. Muller units should be 3/4" narrower.
- 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.

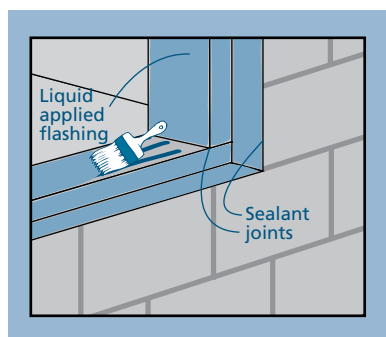


- Verify the rough opening is level and plumb (C) and (D). The maximum allowable deviation is 1/16" for every 2' of rough opening (not to exceed 1/8").
- The rough opening sill must not be crowned or sagged (D).
- The exterior face of the rough opening must be in a single plane (E) with less than 1/8" 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.

**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!** Shims must be 1/4" shorter than the depth of the window sill, should level the sill and be no more than 1/4" thick.

4. Shim the sill 4" from each corner, at 8" intervals, and on both sides of mull joints with non water-degradable or compressible shims. Secure shims with sealant. **SKIP to section 5, "PREPARE WINDOW."**

**4 PREPARE STUD-FRAMED WALL**

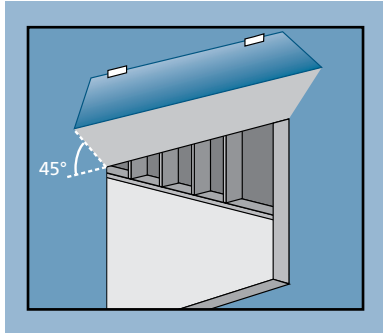
**FOR RETROFIT INSTALLATIONS**

After removing the old window, remove sufficient siding 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. Continue with the instructions.

**PREPARE BUILDING WRAP**

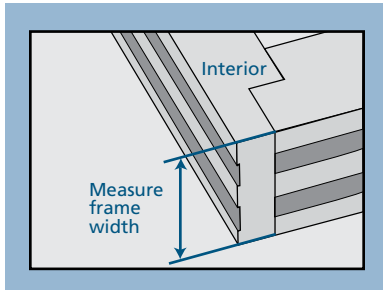
**Note!** Check with the building wrap manufacturer to verify the following steps will not void their product warranty. Follow manufacturers' instructions.

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



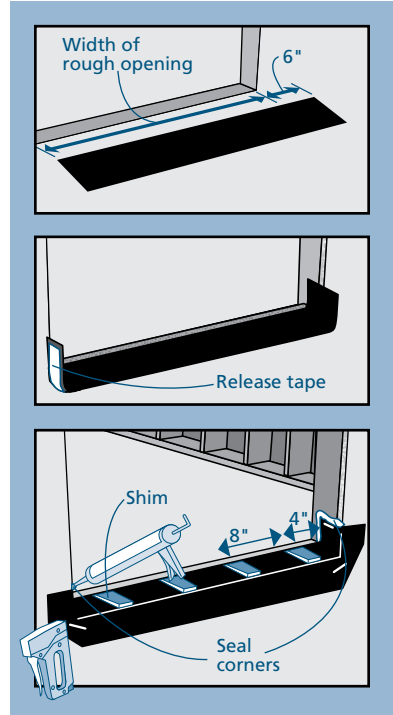
**PREPARE SILL**

1. Measure the width of the frame and add 1/8". 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 JELD-WEN drain mat will sit.



2. Cut a piece of drain mat the length of the sill plus 6".
3. Place drain mat on rough opening sill, wrapping the drain mat up 3" on each jamb as shown.
4. Pull release tape and set JELD-WEN drain mat into place.
5. Fold the drain mat down onto the sheathing. Staple drain mat to the wall and seal the corner edges as shown.
6. Smooth out any bubbles or creases with a J-roller.

- Note!** Shims must be 1/4" shorter than the depth of the drain mat, should level the sill and be no more than 1/4" thick.
7. Shim the sill 4" from each corner, at 8" intervals, and on both sides of mull joints with non water-degradable or compressible shims. Secure shims with sealant.

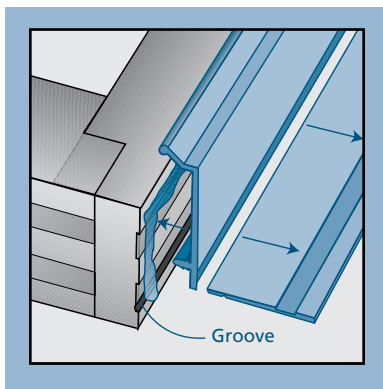


**5 PREPARE WINDOW**

**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.

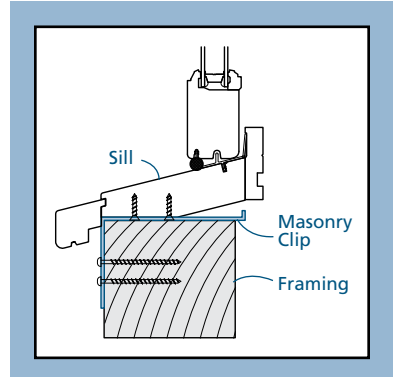


**Primed Wood Windows:**

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.

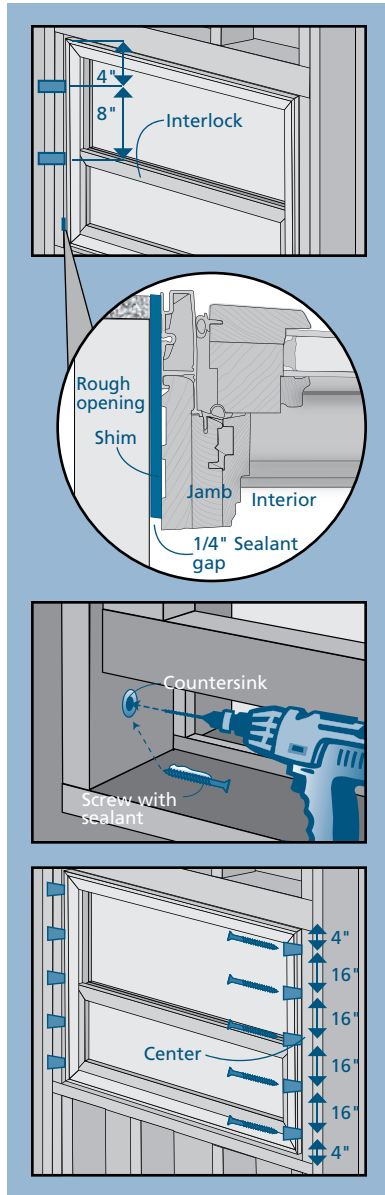


**6**

**INSTALL WINDOW**

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

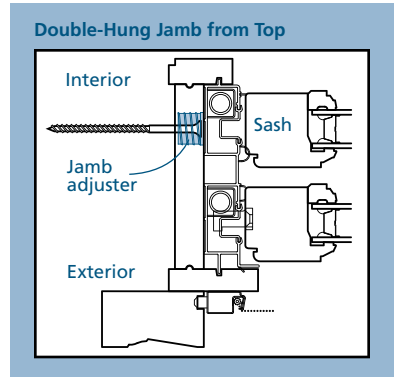
1. Place window onto the shims and tilt into the rough opening. The window sill must rest on and be supported by the shims.
2. Shim jambs and head 4" from each corner and every 8" or at each masonry clip (if applicable). Shims must be set back 1/4" from the interior of the jamb as shown.
3. From the interior, fasten the window through a side jamb 4" from one lower corner as follows:
  - Drill a screw hole through the side jamb and into the framing. Countersink for wood putty or for plug covers.
  - 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 at each remaining shim. 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".

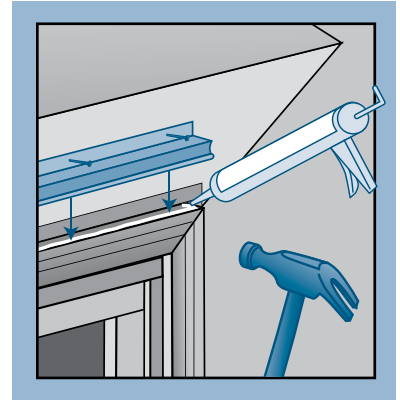
**Note!** Most hung windows have jamb adjusters. If jamb adjusters are present, they are located either above or below the interlock in the interior jamb liner.

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.



**APPLY DRIP CAP TO HEADER FOR STUD-FRAMED WALLS**

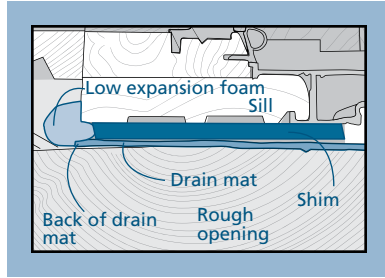
1. Apply exterior trim.
2. Apply a bead of silicone across the top, inset 1/4" from each end.
3. Cut a piece of drip cap 1/4" longer than the trim.
4. Center the drip cap on trim and mechanically fasten with appropriate nails or screws that do not completely penetrate the frame header.
5. Release the building wrap from above the header (previously taped up) and overlap the drip cap. Seal the cuts with self-adhesive flashing or building wrap tape.
6. Seal the top corners of the window with a 1/4" bead of sealant and tool into a fillet shape.



**7**

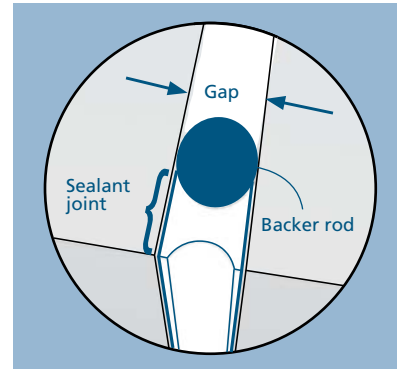
**COMPLETE INSTALLATION**

1. Seal any gaps or openings at end of horizontal mull joints with sealant.
2. Create a continuous air seal on the interior between the rough opening and the window frame with low expansion polyurethane foam or backer rod and sealant. On the sill, the foam or sealant must create this air seal by integrating the back of the drain mat with the window frame and the rough opening.
3. On the exterior, seal the gap between the side jambs and the rough opening with low expansion foam or backer rod and sealant.



**AFTER INSTALLATION**

- Install exterior wall surface within 30 days of window installation.
- Maintain gap of 1/4" - 3/8" between window frame and final exterior wall surface.
- Adjust window for best operation.
- 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/resources](http://jeld-wen.com/resources) for warranty and care and maintenance information.

Thank you for choosing

