Installation Instructions

for Wood/Clad Wood Windows
with Exterior Trim or Nail Fin (JII024)

Thank you for selecting JELD-WEN products. Attached are JELD-WEN's recommended installation instructions for Aluminum Clad Wood Windows with Nailing Fin or Primed Wood Windows with Exterior Trim. 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. 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.

IMPORTANT INFORMATION, TABLE OF CONTENTS AND GLOSSARY

PLEASE NOTE: 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 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.

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Glossary

Applied Nailing Fin
A mechanically attached vinyl fin that creates a flange around the perimeter of the window and is used to attach the window to the rough opening. These products usually require fastening through the jambs.

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

Integral Nailing Fin
A fin that is part of the extruded aluminum cladding and used to attach the window to the 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.

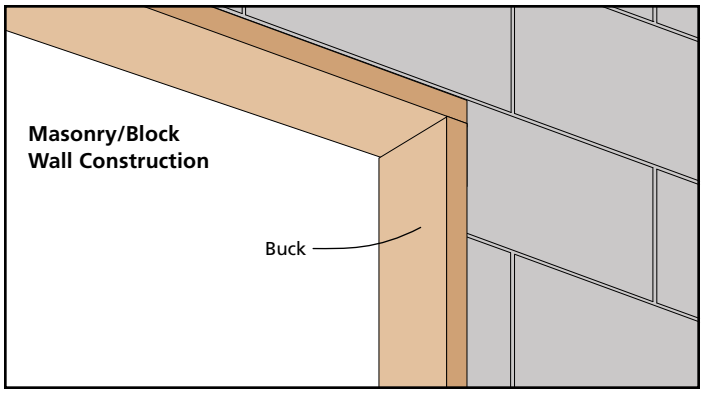
Shiplap
The layering method in which each layer overlaps the layer below it so that water runs down the outside.

ROUGH OPENINGS

This installation guide only addresses masonry/block wall, sheathed wall and open-stud construction. If installing into an opening other than what is identified, consult a building professional.

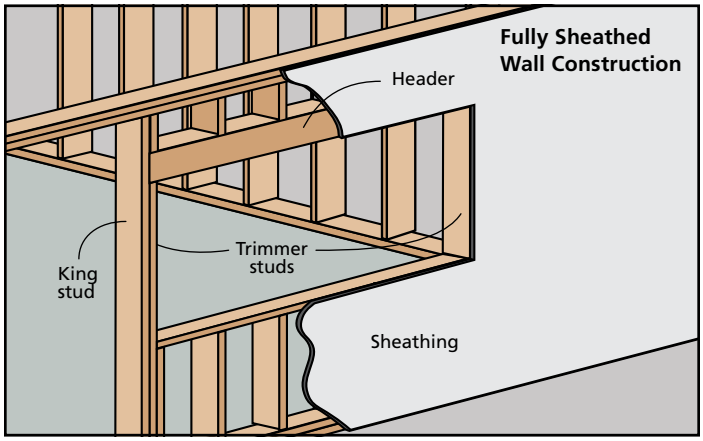
Masonry/Block Wall Construction

This installation assumes that a framework of studs (often called a buck) has already been properly fastened in a weatherproof manner to the concrete/masonry wall.



Fully Sheathed Wall Construction

Sheathing is applied to the exterior of the wall framing. The window will be mounted flush against the sheathing or building wrap in a weatherproof manner.



Open-Stud Construction

Sheathing is absent and building wrap is applied atop of the wall framing. The window will be mounted flush against building wrap and/or framing members (studs).

SAFETY AND HANDLING

Safety

- Read and fully understand ALL manufacturer's 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 manufacturer's 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 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 manufacturer's 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.

NOTE: On Siteline Impact casement and awning windows, fasten through the provided clip and nail fin with (1) #8 x 1-1/2" screw that penetrates into the structural member.

- 1-3/4" galvanized roofing nails (nailing fin windows). Nails must penetrate at least 1-1/4" into framing (or as required by local code).
- #8 x 1-1/2" 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: 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.

For Mulled Units On The Sill:

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

Needed Tools

- Utility knife
- J-roller
- Hammer
- Tape measure
- Caulking gun
- Level (4' minimum recommended)
- Drill with 1/8" tapered bit and 3/8" countersink
- Screwdrivers
- Finish hammer or pneumatic finish nail gun
- Pencil
- Nail set
- Miter saw

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.

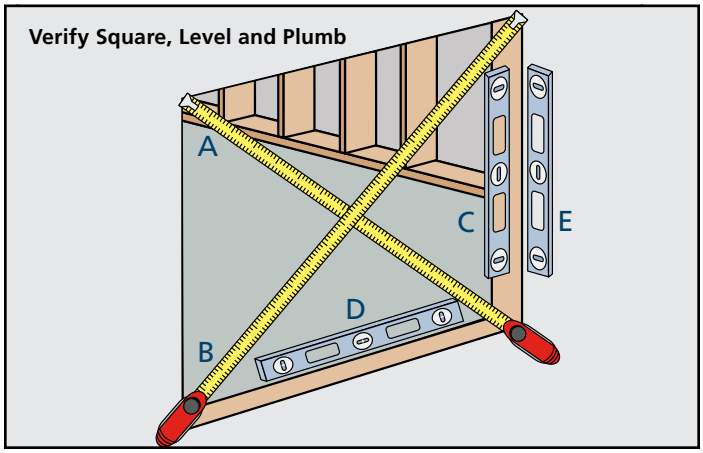
NOTE: Double-hung windows may have banding on the interior of the unit. Do not remove until the window is secured in the opening to help keep the sash in place and the unit square.

Inspect Window

- Cosmetic damage.
- Product squareness (diagonal measurements not more than 1/4" different).
- Correct product (size, color, grid pattern, handing, glazing, energy-efficiency requirements, etc.).
- Drip cap that extends the length of the exterior trim plus 1/8" overhang on each end (all units require a drip cap); drip cap may or may not be pre-installed.
- Splits, cracks, holes, missing sections or other damage to the nailing fin longer than 6" and/or within 1/2" of window frame.
- 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. Mulled units should be 3/4" narrower.
- Verify the rough opening is square. The (A) and (B) measurements 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 rough openings.

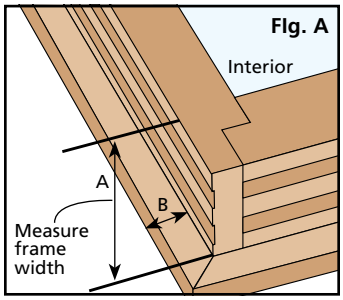
For Retrofit Installations

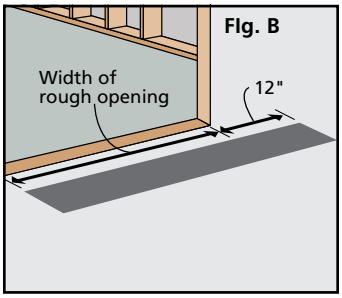
After removing the old window, remove sufficient cladding (siding, stucco, etc.) to expose enough intact building wrap to properly seal the window to the opening. If damaged, apply new building wrap in shiplap manner. Verify the rough opening framing is structurally sound. Contact your local waste management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

3 PREPARE STUD-FRAMED WALL

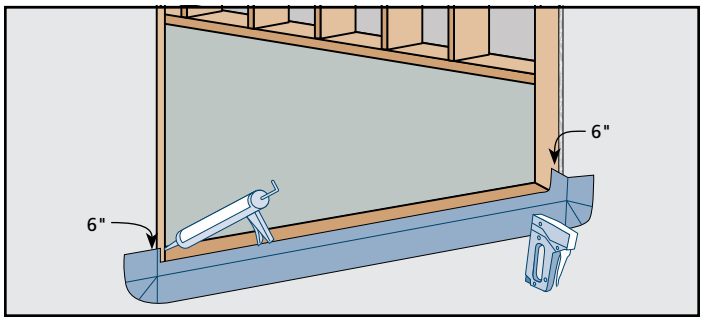
Prepare/Shim the Sill

1. Install a sill pan in a weatherproof manner on the rough sill (refer to **ASTM 2112** for types of sill pans).Always allow water to drain out of the pan and onto the building wrap, drainage plane or to the exterior.
2. Use self-adhered flashing to waterproof the sill.
3. Flashing must have at least 2" of visible material below nail fin. Flashing width must be at least measurement A + B + 1-3/4" **(Fig. A)**.
4. Measure the width of the frame from the interior to the nail fin/trim (measurement A) 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 **(Fig. B)**.



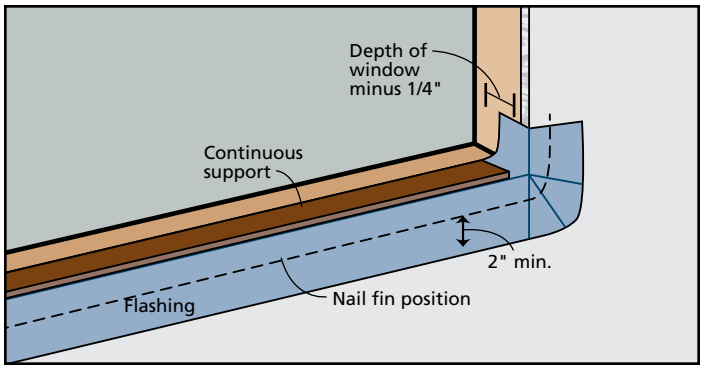


5. Cut a piece of flashing the length of the sill plus 12" **(Fig. B)**.
6. Place flashing on rough opening sill, wrapping the flashing up 6" on each jamb as shown.
7. Pull release tape and set flashing into place.



8. Fold the flashing down onto the wall. Mechanically fasten if necessary.
9. Smooth out any bubbles or creases with a J-roller. Remove and replace if necessary.
10. 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.



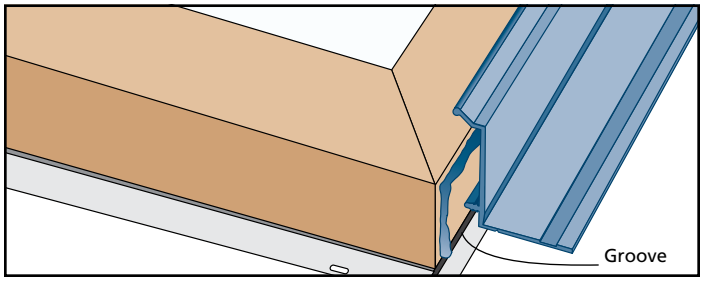
11. Align the shimming on the sill flush with the exterior and centered between the side jambs. If installing a mulled unit, shim under the mull joint(s) and tack into place or secure with sealant.

4 PREPARE WINDOW

Separately Supplied Drip Cap

This step applies to nail fin units only, windows with exterior trim will install drip cap in **section 5, "INSTALL WINDOW.**"

Lay a 1/4" bead of sealant across the header as shown, and tap the drip cap into the groove with a wood block.



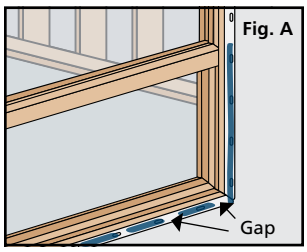
5 INSTALL WINDOW

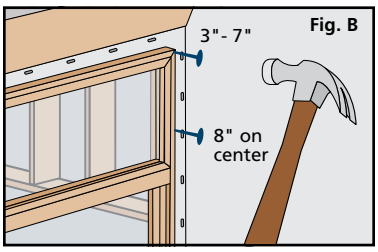
WARNING! To avoid injury, use at least two people to install. Adequately support the window until completely fastened.

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.

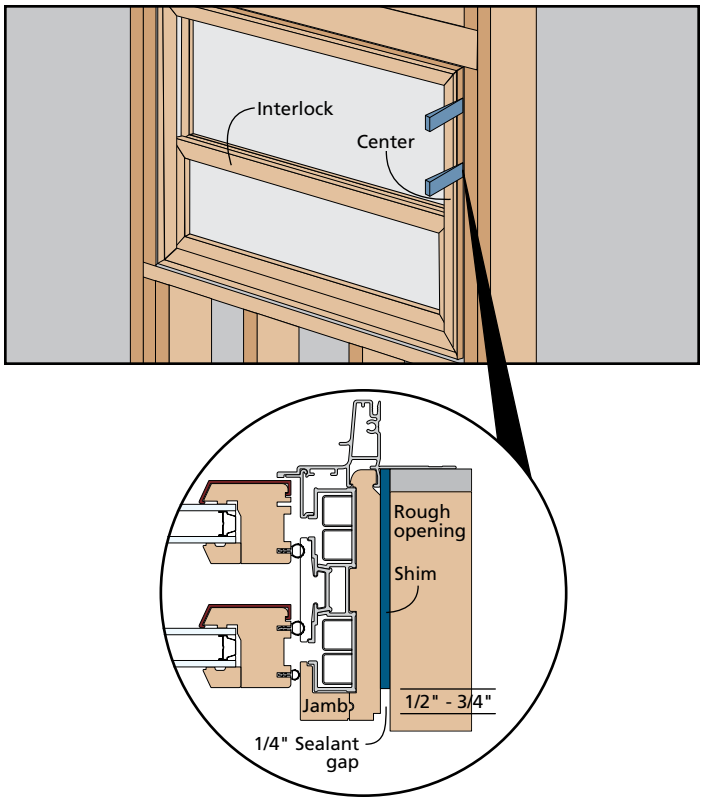
NOTE: Fastener (anchor) heads must be flush. Do not dent nailing fin.

1. Run a continuous 3/8" bead of sealant around the interior side of the nail fin/trim on the side jambs and head. On the sill, leave at least a 2" gap every 8" where it will contact the rough opening **(Fig. A)**.
2. 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.
3. Fasten window through the nailing fin/trim between 3"- 7" from one upper corner **(Fig. B)**.





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



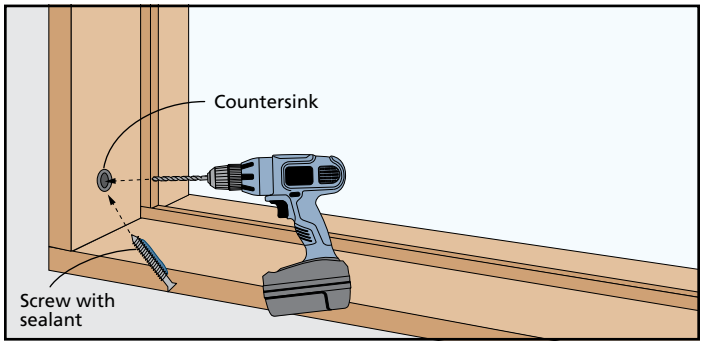
5 INSTALL WINDOW CONTINUED

Secure Window

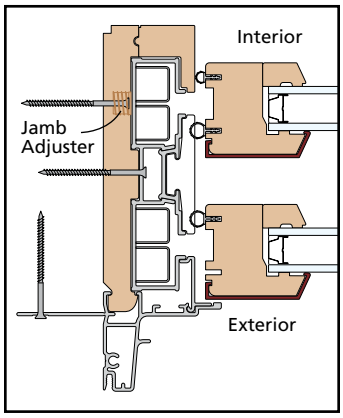
1. Fasten window through the exterior trim/fin 4" from the corners and 8" apart all the way around the window.

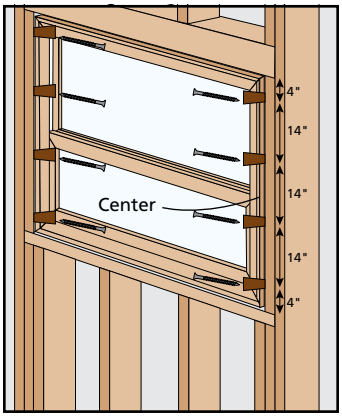
For units with applied clad trim that covers the fin:

2. From the interior, fasten the window through the jambs as follows:
   - Mark fastener locations 4" from the corners and 14" apart all the way around the window.
   - At each marked location, drill a pilot 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 through the side jamb into the framing.



3. If applicable, install #8 screw through each masonry clip and into the framing. Screws must be long enough to penetrate framing by at least 1".
4. Hung windows must be fastened through the jamb adjusters with #8 x 2" screws provided. Straighten the jambs per the instructions provided with the screws.





Interior Trim on Primed/Siteline Single/Double-Hung Windows

WARNING! This product has a jamb liner cover that cannot be nailed through. Pay close attention to where you nail the interior jamb leg trim. If you cover the jamb liner cover with trim, you will have to remove the trim to replace the jamb liner.

How to install interior trim/casing:

1. Mark a revel line around the jamb; this is typically 1/8" to 1/4" around the frame (make sure not to nail into the jamb liner cover). Use a straight edge or square, to mark the line around the perimeter of the head, jambs and sill. To insure you do not nail through the jamb liner, measure from the outside edge of the frame to the edge of the jamb liner cover, this should be approximately 1/2". Place intended fastener in the center of the 1/2" space for a clad wood window **(Fig. A and B)**. On an all wood window this measurement should be 5/8" from the outside edge of the frame. Place intended fastener in the center of the 5/8" space **(Fig. C)**.
2. Cut the trim/casing with a 45 degree miter (measurements should be taken at the intersecting lines that are marked on the window frame). Start with the head cut, proceed to the sill cut, temporarily install both of these pieces.
3. Cut each jamb piece to fit in between the head and sill. Once you have all pieces cut, work them together for a perfect fit.

NOTE: There are other installation types for installing trim/casing. Consult a professional if your installation methods differ from the above method.

Fig. A

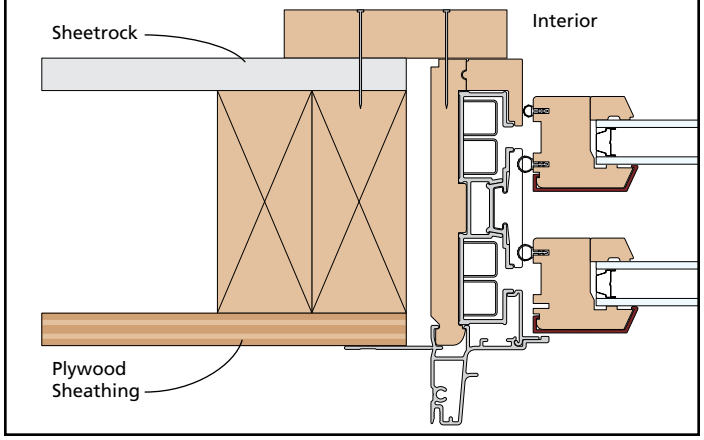


Fig. B
Clad Wood

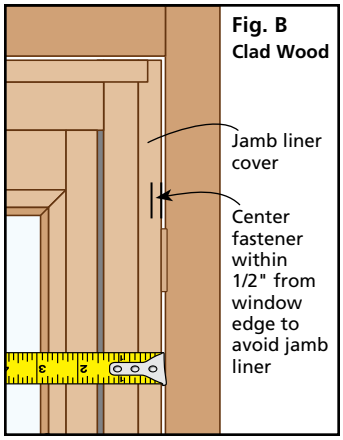
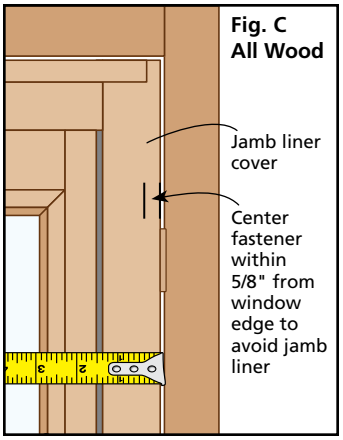


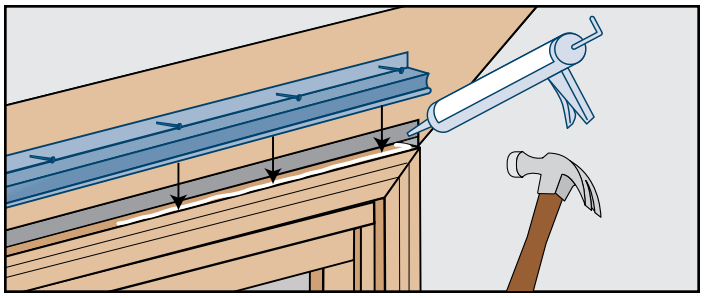
Fig. C
All Wood



5 INSTALL WINDOW CONTINUED

Apply Drip Cap to Windows with Exterior Trim

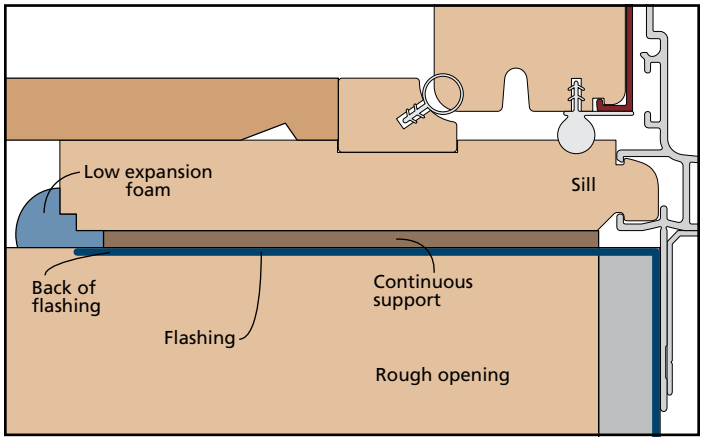
1. Cut a piece of drip cap the length of the header trim + 1/4" to allow for 1/8" overlap past the ends of the trim.
2. Apply 1/4" bead of sealant to header trim as shown.
3. Center the drip cap on the trim and nail in place as shown.
4. Apply sealant underneath the drip cap where it meets both ends of the trim.
5. Fasten the drip cap through the upturned leg as shown.



6 COMPLETE INSTALLATION

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 manufacturer's 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

JELD-WEN WINDOWS & DOORS