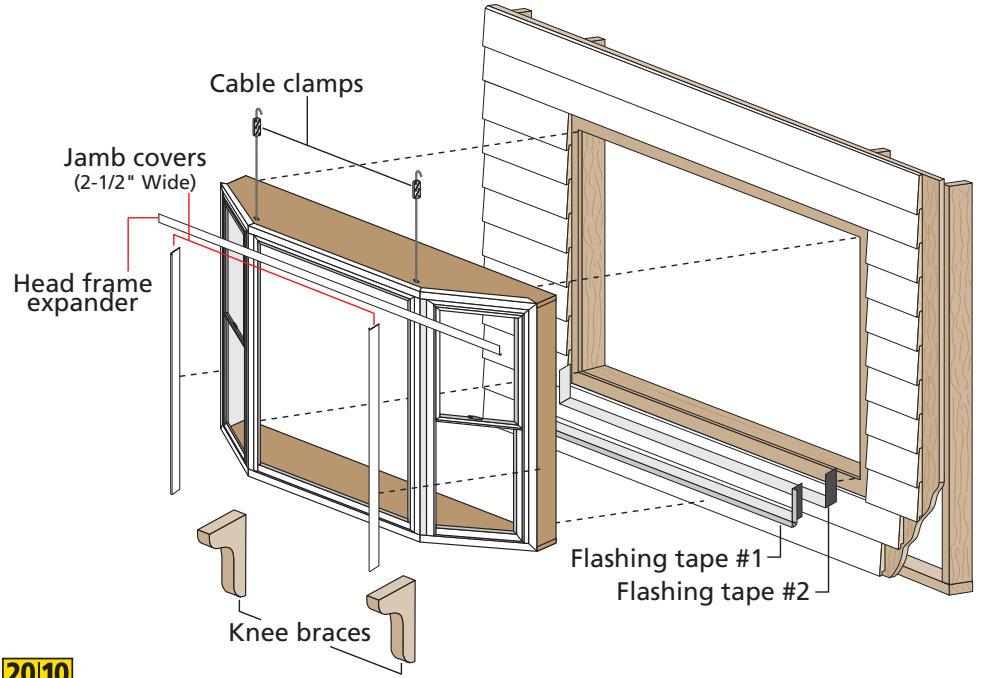
Part Number: 81470102

INSTALLATION INSTRUCTION - INSTRUCCIONES DE INSTALACIÓN FOR SQUARE DESIGN BAY AND BOW WINDOW WITH SEAT BOARD

Lea las instrucciones en español en el reverso.

Read these instructions thoroughly before performing any steps.



20/10 WARRANTY Always read the Pella® Limited Warranty before purchasing or installing Pella products. By installing this product, you are acknowledging that this Limited Warranty is part of the terms of the sale. Failure to comply with all Pella installation and maintenance instructions may void your Pella product warranty. See Limited Warranty for complete details at http://warranty.pella.com.

Note: These instructions may be used for Square Design Pella Bay and Bow windows that have a head and seat board. Support cables are installed in factory assembled bay and bow combinations.

Caution: The factory-installed support cables must be attached to members capable of supporting 1,300 lbs. If the members are not capable of supporting 1,300 lbs., knee braces must be used in addition to the cables. Bay and bow units are not intended to support any roof structure. Consult an architect, engineer or construction professional if the ability of the members to support the bay or bow is not known.

Installation Instructions for Typical Wood Frame Construction.
These instructions were developed and tested for use with typical wood frame wall construction in a wall system designed to manage water. **These instructions are not to be used with any other construction method.** ***Installation instructions for use with other construction methods, multiple units or other bow and bay windows, may be obtained from Pella Corporation, a local Pella retailer, or by visiting http://www.pella.com. Building designs, construction methods, building materials, and site conditions unique to your project may require an installation method different from these instructions and additional care. Determining the appropriate installation method is the responsibility of you, your architect, or construction professional.***

YOU WILL NEED TO SUPPLY:

- Impervious Shims/Spacers (12 to 20)
- Finish nails, 1" brads
- 3/16" x 2-1/2" concrete screws (for masonry installation)
- Closed cell foam backer rod/sealant backer (12 to 30 ft.)
- Pella® SmartFlash™ foil backed butyl window and door flashing tape or equivalent
- Great Stuff™ Window and Door Insulating Foam Sealant by the Dow Chemical Company or equivalent low pressure polyurethane window and door foam - DO NOT use high pressure or latex foams.
- OSI Quad Multi-Polymer sealant or equivalent high quality exterior grade polyurethane or silicone sealant. (1 tube per window)

TOOLS REQUIRED:

- Tape measure
- Level
- Square
- Hammer or Finish Nailer
- Stapler
- Scissors or utility knife
- Drill with a #2 Phillips (at least 4" long) and #3 square drive bit (provided in cable clamp kit)
- 1/2" open end wrench
- 3/16" wrench or socket
- Sealant Gun

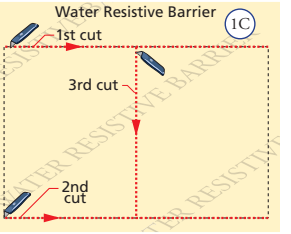
Installation will require two or more persons for safety reasons.

LEGEND - STEPS REQUIRED OF:

ALL = All applications
REPL APPS = Replacement applications
NEW CONST = New Construction applications

REMEMBER TO USE APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT.

1 ROUGH OPENING PREPARATION



ALL

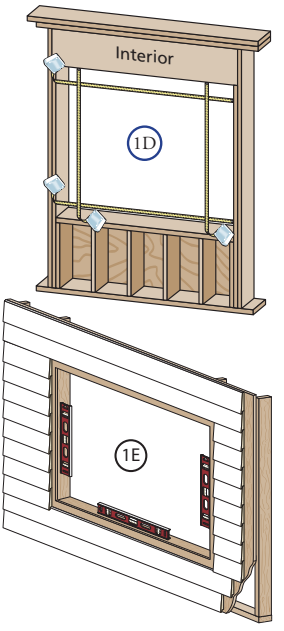
A. **Remove all packaging from the window.**

REPL APPS

B. **REPLACEMENT APPLICATIONS:** Remove the existing, window, trim, insulation and sealant from the opening.

NEW CONST

C. **NEW CONSTRUCTION APPLICATIONS:** Cut the water resistive barrier. Fold the side flaps into the opening and staple to inside wall.



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D. **Confirm the window will fit the opening**. Measure all four sides of the opening to make sure it is 3/4" larger than the window in both width and height. Measure the width and height in several places to ensure the header and studs are not bowed.

Note: 1-1/2" or more of solid wood blocking is required around the perimeter of the opening. Fix any problems with the opening before proceeding. If installing new blocking, install the blocking so it's flush with the exterior sheathing of the house. DO NOT attempt to install a window in an under size opening.

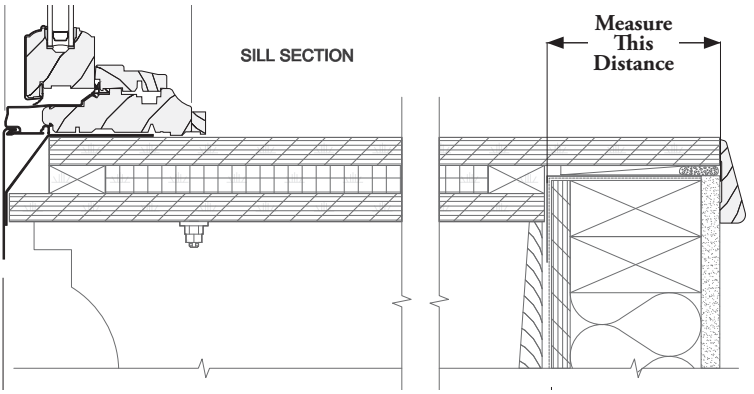
E. **Confirm the opening is plumb and level**.

Note: It is critical the bottom is level.

1 ROUGH OPENING PREPARATION (CONTINUED)

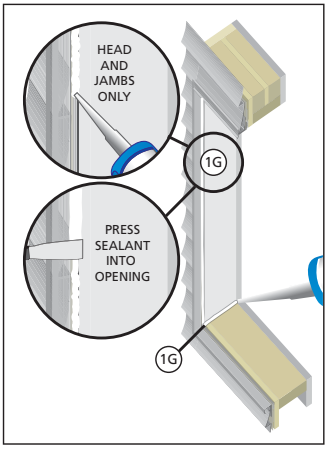
ALL ALL ALL ALL ALL ALL ALL ALL ALL ALL

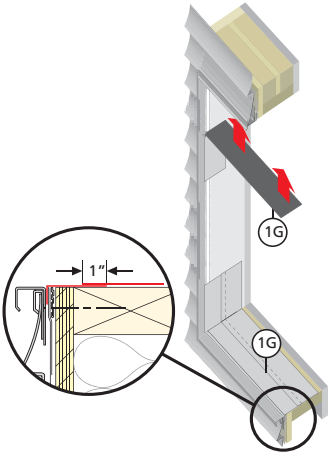
F. **Confirm wall depth measurement.** Measure bottom board cutback on unit to make sure it is larger than the distance from the interior of wall to exterior of wall. If necessary, remove or cut siding.



REPL APPS REPL APPS REPL APPS REPL APPS REPL APPS REPL APPS REPL APPS

G. **REPLACEMENT APPLICATIONS: Seal between exterior cladding and wall.** If exterior cladding is siding, apply sealant between the siding and rough opening at the head and jambs and cover with flashing tape according to Express Replacement - No Siding Removal Opening Preparation for Siding: Vinyl, Steel , Aluminum.' If exterior cladding is brick, add blocking at jamb to close the cavity between the brick and rough opening. Apply sealant at each joint between the brick, blocking and rough opening and cover the joints with flashing tape.





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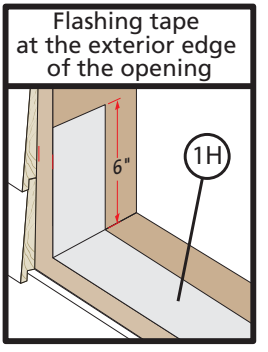
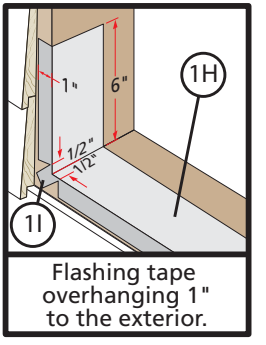
H. **Apply sill flashing tape #1.** (Wood wall construction only). Cut a piece of flashing tape 12" longer than the opening. Apply at the bottom up to the exterior edge of the opening as shown. If the sheathing or water barrier is exposed, overlap 1" to the exterior as shown in (1I).

Note: The tape is cut 12" longer than the width so it will extend 6" up each side of the opening.

I. **Tab the sill flashing tape and fold** (If tape #1 overhangs 1" to the exterior). Cut 1" wide tabs at each corner (1/2" from each side of the corner) (1I). Fold tape to the exterior and press firmly to adhere it to the water resistive barrier.

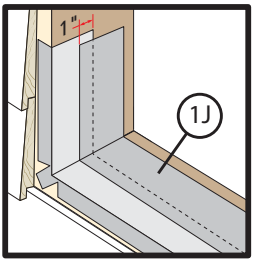




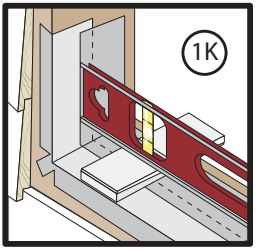
1 ROUGH OPENING PREPARATION (CONTINUED)

J. **Apply sill flashing tape #2.** Cut a piece of flashing tape 12" longer than the opening width. Apply at the bottom, overlapping tape #1 by at least 1". DO NOT allow the tape to extend past the interior face of the opening.

Note: The flashing tape may not fully cover the framing members.



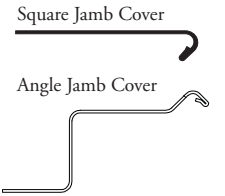
K. **Install and level sill spacers**. Place 1" wide by 3/8" thick spacers on the bottom of the opening 1" from each side and every 16" on center. Add shims as necessary to ensure the spacers are level. Once level, attach spacers and shims to prevent movement.



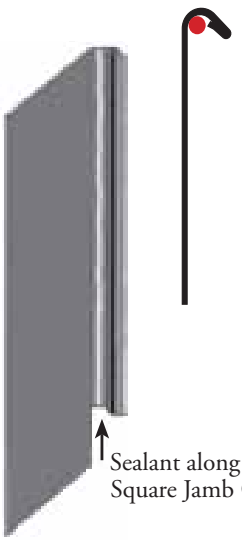
2 PREPARING AND SETTING THE WINDOW

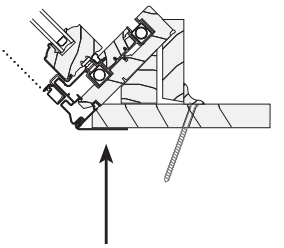
If using Square Jamb Cover , Proceed to Step 2A.

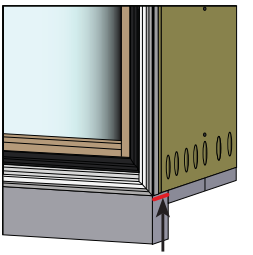
If using Angle Jamb Cover , Proceed to Step 2B.

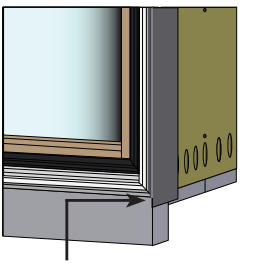


A. **Install exterior jamb covers.** Apply sealant along the leg of the jamb frame cover(s). Apply a bead of sealant to the top corner of the bottom frame expander. Drive the short leg of the jamb frame cover into the accessory groove using a block of wood with rounded edges and a hammer. The notched end of the jamb cover goes toward the sill.







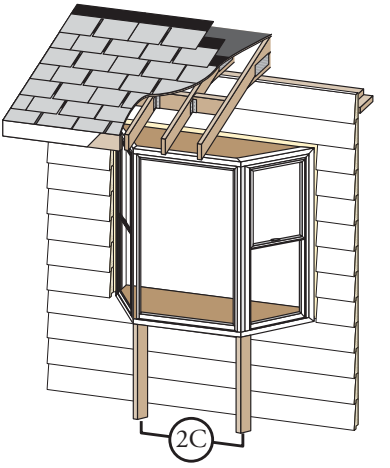


2 PREPARING AND SETTING THE WINDOW (CONTINUED)

TWO OR MORE PEOPLE WILL BE REQUIRED FOR THE FOLLOWING STEPS

B. **Insert the window from the exterior of the building.** Place the seat of the window at the bottom of the opening and slide the top into position. Center the window between the sides of the opening to allow clearance for shimming.

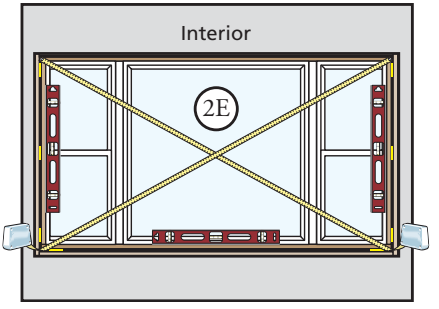
Note: If cross bracing is required for soffit installation of the cable systems, proceed to Step 3A and install cross bracing before unit is inserted into the rough opening.

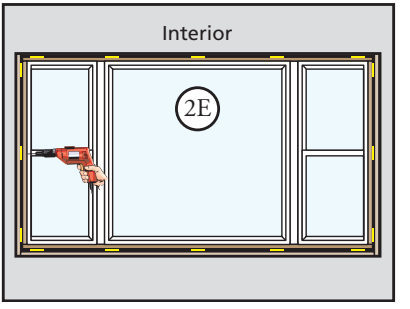


C. **Place temporary bracing** under the seat of the window to raise the unit level.

D. **Place a shim** near the top of the one jamb board, aligned with the top pre-drilled hole in the jamb board. Drill a pilot hole and partially insert a #10 x 3" flat head screw provided. Repeat for the other jamb.

E. **Continue placing shims at each pre-drilled installation screw hole in the jamb boards** to plumb and square the window. Check window for squareness by making sure diagonal measurement for corner to corner is within 1/8" in both directions. Insert a #10 x 3" flat head wood screw into each pre-drilled hole in the jamb boards. Finish inserting the top screw in each jamb board.



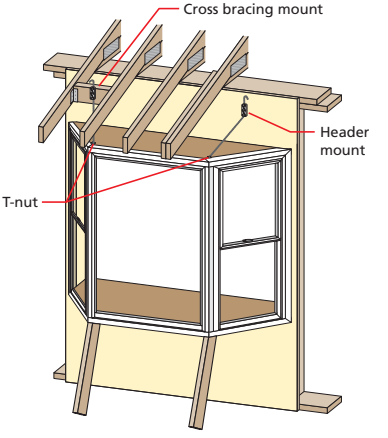


F. **If desired, shim and fasten headboard to rough opening.** To keep plywood straight, center one finish head screw or 10D finish nail on units less than 10 feet wide and equally space two fasteners on units wider than 10 feet.

3 CABLE CLAMP INSTALLATION

Note: Support cables are installed in factory assembled bay and bow combinations.

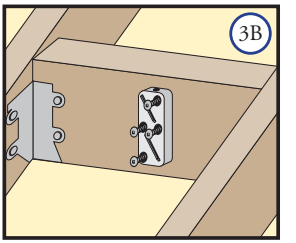
Install Cable Clamps based on type of installation needed. Cross Bracing Installation consists of attaching 2 x 6 cross bracing between the rafter tails. Header Mount Installation consists of attaching to a solid structural member - header, sill plates or wall stud.



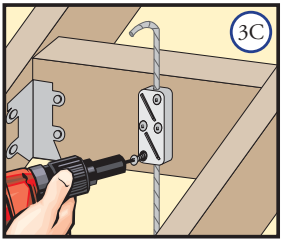
3 CABLE CLAMP INSTALLATION (CONTINUED)

CROSS BRACING MOUNT OF CABLE CLAMPS

A. **Install 2" x 6" cross braces** between rafter tails, directly above the cable holes in the bay/bow head board.



B. **Install the cable clamps** directly above the "T" nuts where adequate support is available. Holding the clamp parallel to the up-running cable, drive the #12 x 3-1/4" square drive screws part way into the mounting surface using a #3 square drive bit.



C. **Run the cable up through the bottom of the cable clamp.** Hold the cable up tight above the clamp and drive the two center clamp screws all the way in, locking the cable in place. Drive the remaining #12 x 3-1/4" square screws all the way.

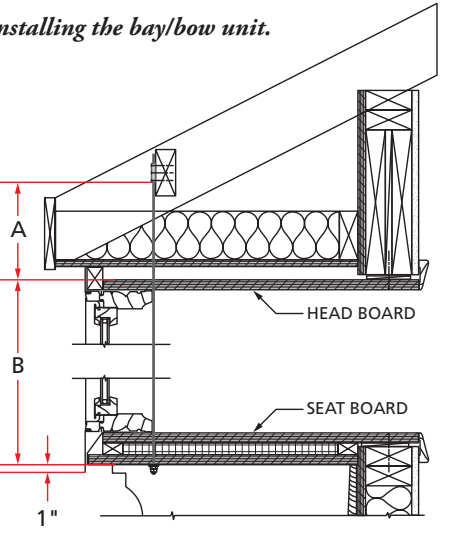
Note: Make sure all four screws are driven in at maximum torque. Additional tensioning may be done with the nuts on the opposite end of the cable at the bottom of the bay/bow unit.

CROSS BRACING MOUNT - NON ACCESSIBLE CABLE ATTACHMENT

Note: Install the cable clamp and cable prior to installing the bay/bow unit.

A. **Install 2 x 6 cross braces** between the rafter tails, directly above the cable holes in the bay/bow head board.

B. **Remove the cable from the bay/bow unit.** Measure the distance from the bottom of the cable clamp to the bottom of the header plus 3/8" head clearance (A dimension). Measure the height of the unit from the top of the head board to the bottom of the seat board (B dimension). Add "A" to "B" plus 1", to get the correct length of cable hanging from the bottom of the cable clamp. Insert the cable end through the round hole of the cable clamp. Ensure the correct length of cable is hanging below the bottom of the cable clamp. Tighten the two cable clamp corner screws. Insert one screw into each of the center holes in the cable clamp, and tighten to fully clamp the cable in position.



C. **When the bay/bow unit is being installed,** thread the threaded end of the cable through the "T" nut, down the length of the bay/bow unit, and through the drilled hole in the seat board. Place a washer and two hex nuts on each cable end.

Note: The interior mullion cover can easily be removed for this purpose and must be reinstalled when installation is complete.

3 CABLE CLAMP INSTALLATION (CONTINUED)

HEADER MOUNT OF CABLE CLAMPS

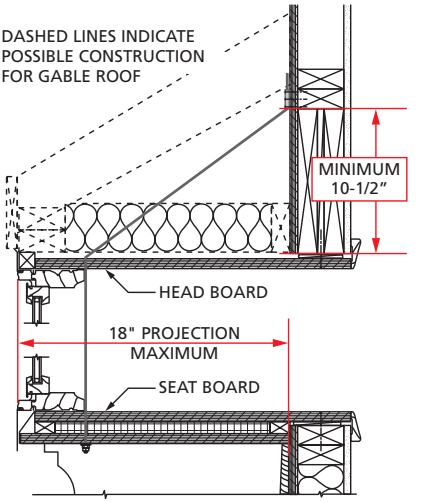
This method may only be used if the projection of the bay/bow is 18" or less. Use the Cross Bracing method if the projection of the bay/bow is more than 18".

Note: Be sure that the cable clamps are secured to a solid structural member - header, sill plates or wall stud. If the structural member or cable clamps are not securely attached, they may loosen during or after installation causing the bay/bow unit to sag.

A. **Install the cable clamps.** Drive the #12 x 3-1/4" square screws part way into the mounting surface using a #3 square drive bit.

B. **Run the cable up through the bottom of the cable clamp.** Hold the cable up tight above the clamp and drive the two center clamp screws all the way in to lock the cable in place. Drive in the remaining #12 x 3-1/4" square screws all the way.

Note: Make sure all 4 screws are driven in at maximum torque. Additional tensioning may be done with the nuts on the opposite end of the cable at the bottom of the window.



4 SUPPORTING THE WINDOW

A. **Tighten the top hex nut on both cable ends.** Using a 3/16" wrench or socket, hold the cable end in position while tightening the top hex nut with a 1/2" wrench or socket. This will keep the cable from twisting as the hex nuts are tightened.

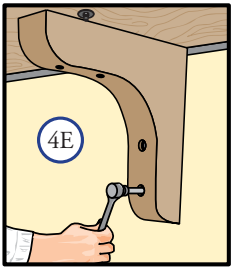
B. **Remove the temporary bracing.** Check the window for level, plumb, sash reveal and operation. Readjust, if needed.

Note: Be sure to use the temporary support when readjusting the hex nuts.

C. **Remove blocking from under the seat board.**

D. **Tighten the locking (bottom) nut on both cable ends and remove the temporary support** once the final position is found. DO NOT cut the threaded end off the cable as this will prevent future adjustment should it be needed.

E. **Installation of knee braces is recommended** to help support the weight of the bay/bow unit. Weight calculations must take into account the weight of the items that may be placed on the seat board of the bay/bow unit. If the upper roof/framing members are not capable of supporting 1,300 lbs. or if more than 500 lbs. will be put on the seat board, knee braces must be used in addition to the cables.



5 INSULATING FOAM APPLICATION

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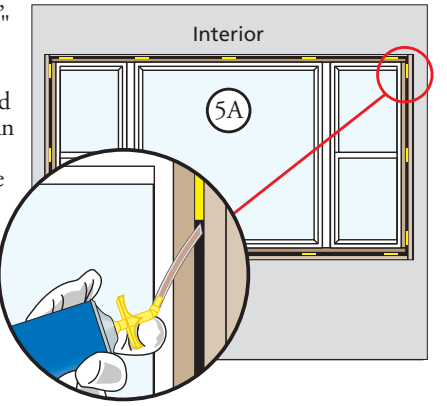
Caution: Ensure use of low pressure polyurethane window and door insulating foams and strictly follow the foam manufacturer's recommendations for application. Use of high pressure foams or improper application of the foam may cause the window frame to bow and hinder operation.

A. **Apply insulating foam sealant.** From the interior, insert the nozzle of the applicator approximately 1" deep into the space between the window and the rough opening and apply a 1" deep bead of foam. This will allow room for expansion of the foam and will minimize squeeze out. If using foam other than Great Stuff ™ Window and Door Insulating Foam Sealant by the Dow Chemical Company, allow the foam to cure completely (usually 8 to 24 hours) before proceeding to the next step.

Note: It may be necessary to squeeze the end of the tube with pliers to be able to insert into the space between the jamb boards and the rough opening, and between the head and seat board and the rough opening.

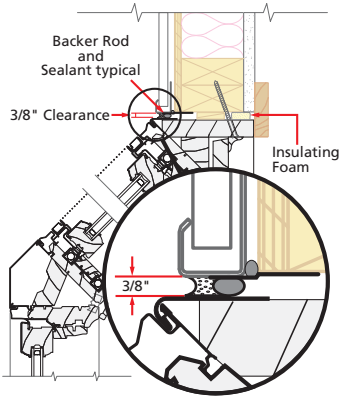


6 SEALING THE WINDOW TO THE EXTERIOR WALL CLADDING

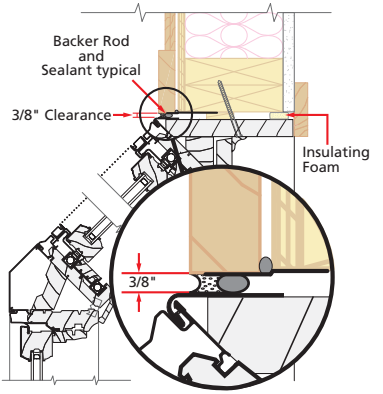
REPL APPS REPL APPS REPL APPS REPL APPS REPL APPS REPL APPS REPL APPS REPL APPS

Note: The sealant details shown are standard recommendations from the sealant industry. Contact your sealant supplier for recommendations and instructions for these and any other applications.

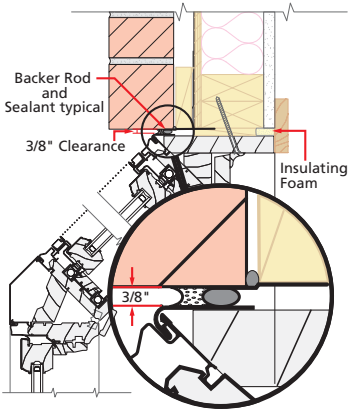
VINYL SIDING REPLACEMENT 2X4



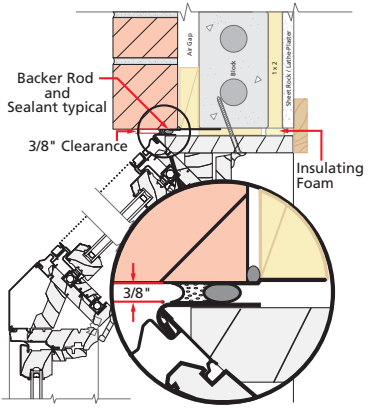
WOOD SIDING REPLACEMENT 2X6



BRICK FRAMED REPLACEMENT



BRICK SMALL BLOCK REPLACEMENT



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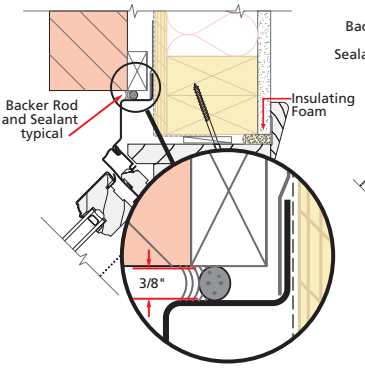
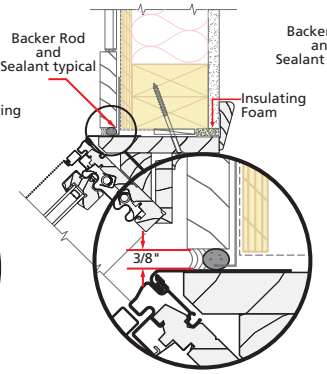
JAMB - BRICK VENEER (Casement)

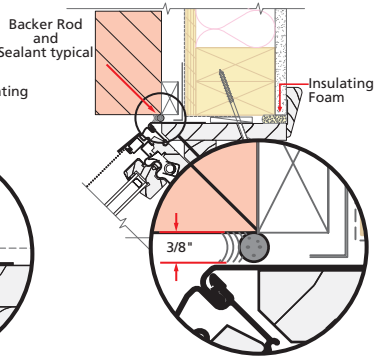


Angle Jamb Cover

JAMB - 2X4 FRAME



JAMB - BRICK VENEER



Square Jamb Cover

6 SEALING THE WINDOW TO THE EXTERIOR WALL CLADDING (CONTINUED)

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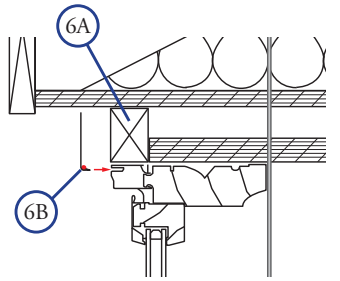
A. **Install wood blocking between the top of the window and the soffit as shown.** The blocking should be flush with the exterior of the window frame.

B. **Apply a bead of sealant on the leg of the head frame expander** and install by tapping on it using a block of wood with rounded edges and a hammer. Frame expander is pre-notched and bent from the factory.

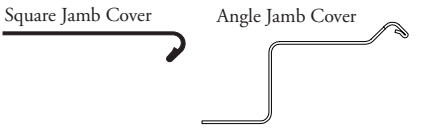


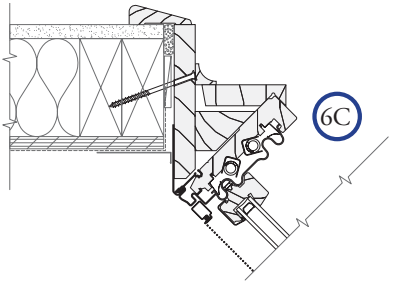
If using Square Jamb Cover, Proceed to Step 6C.

If using Angle Jamb Cover, Proceed to Step 6G.

NEW CONST NEW CONST

C. **<u>NEW CONSTRUCTION APPLICATIONS WITH SQUARE JAMB COVER</u>: Flash from jambs to water resistive barrier.** In new construction application, use flashing tape to flash from the jamb of the unit to the water resistive barrier. Overlap onto the unit jamb at least 3/8". If necessary, repair any punctures with another piece of flashing tape





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D. **Insert backer rod.** If required, install siding, then insert backer rod into the space between the exterior finish material and unit exterior deep enough to provide at least a 1/2" clearance between the backer rod and the exterior face of the wall sheathing.

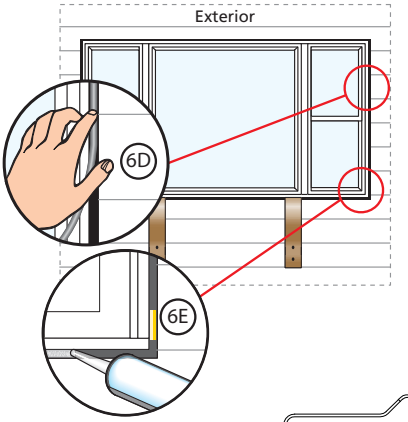
Note: Backer rod adds shape and depth for the sealant line.

E. **Apply a bead of high quality exterior grade sealant** to the entire perimeter of the window, except for one inch at either side of the sill. DO NOT fill between the frame expander and the under side of the seat board.

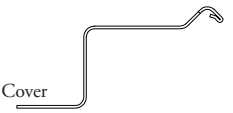
F. **Shape, tool and clean excess sealant.** When finished the sealant should be the shape of an hourglass.

Note: This method creates a more flexible sealant line capable of expanding and contracting.

Installation Complete.



<u>INSTALLATION USING ANGLE JAMB COVERS:</u>



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G. **Cut jamb covers to length.** Measure height of one flanker unit not including head & seatboard. Cut jamb covers to 4-9/16" taller than flanker unit height.

H. **Notch leg of jamb covers.** On one jamb cover, notch the leg 3" from one end and 2" from the other end. Mirror these notches on the other jamb cover, to create a right and left handed part.

I. **Install exterior jamb covers.** Apply sealant along the leg of each jamb cover and drive this leg into the accessory groove using a block of wood with rounded edges and a hammer. Install the jamb covers with the 3" notch towards the sill.

J. **Nail the jamb covers to the wall** using one nail on each end and one in the center.

K. **Cut two pieces of flashing tape** 6" longer than the jamb covers. Apply tape 3" above the top of the jamb cover, overlapping it onto the water resistive barrier.

NEW CONST NEW CONST

L. **Insert backer rod and apply sealant**. Install siding, and insert backer rod between the each jamb cover and the exterior finish material as deep as it will go. Apply a bead of high quality exterior sealant on top of the backer rod and a corner bead to the top of the head frame expander. Shape, tool, clean excess sealant. When finished, the sealant should be the shape of an hourglass.

Note: Backer rod adds shape and depth for the sealant line. This method creates a more flexible sealant line capable of expanding and contracting.

7 INSTALLING INTERIOR JAMB COVE MOULD

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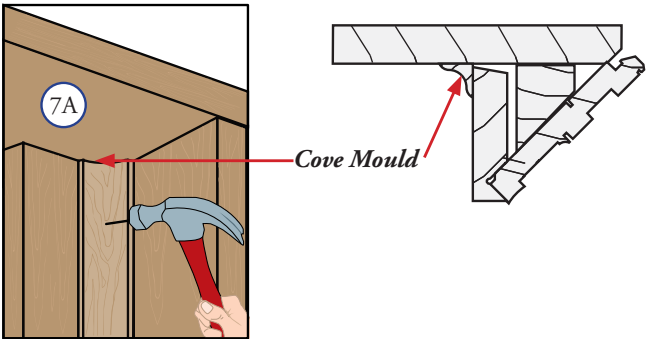
A. **Install the interior cove mould**. Remove cove mould from accessory package and dry fit over the installation screws. Install interior cove mould and secure with 1" brads into the jamb and trim.



INTERIOR FINISHING

If products cannot be finished immediately, cover with clear plastic to protect from dirt, damage and moisture. Remove any construction residue before finishing. Sand all wood surfaces lightly with 180 grit or finer sandpaper. DO NOT use steel wool. BE CAREFUL NOT TO SCRATCH THE GLASS. Remove sanding dust.

Pella products must be finished per the below instructions; failure to follow these instructions voids the Limited Warranty.

- On casement and awnings, it is optional to paint, stain or finish the vertical and horizontal sash edges.
- On single-hung and double-hung, do not paint, stain or finish the vertical sash edges, any finish on the vertical sash edges may cause the sash to stick; it is optional to paint, stain or finish the horizontal sash edges.
- On patio doors, it is optional to paint, stain or finish the vertical and horizontal panel edges.

Note: To maintain proper performance do not paint, finish or remove the weather-stripping, mohair dust pads, gaskets or vinyl parts. Air and water leakage will result if these parts are removed. After finishing, allow venting windows and doors to dry completely before closing them.

Pella Corporation is not responsible for interior paint and stain finish imperfections for any product that is not factory-applied by Pella Corporation. Use of inappropriate finishes, solvents, brickwash, or cleaning chemicals will cause adverse reactions with window and door materials and voids the
Limited Warranty.

For additional information on finishing see the Pella Owner's Manual or go to www.pella.com.

EXTERIOR FINISH

The exterior frame and sash are protected by aluminum cladding with our tough EnduraClad® or EnduraClad Plus baked-on factory finish that needs no painting. Clean this surface with mild soap and water. Stubborn stains and deposits may be removed with mineral spirits. DO NOT use abrasives. DO NOT scrape or use tools that might damage the surface.

Use of inappropriate finishes, solvents, brickwash or cleaning chemicals will cause adverse reactions with window and door materials and voids the Limited Warranty.

CARE AND MAINTENANCE

Care and maintenance information is available in the Pella Owner's Manual. You can obtain an owner's manual by contacting your local Pella retailer. This information is also available on www.pella.com.

IMPORTANT NOTICE

Because all construction must anticipate some water infiltration, it is important that the wall system be designed and constructed to properly manage moisture. Pella Corporation is not responsible for claims or damages caused by anticipated and unanticipated water infiltration; deficiencies in building design, construction and maintenance; failure to install Pella® products in accordance with Pella installation instructions; or the use of Pella products in wall systems which do not allow for proper management of moisture within the wall systems. The determination of the suitability of flashing and sealing systems are the responsibility of the Buyer or User, the architect, contractor, installer, or other construction professional and are not the responsibility of Pella.

Pella products should not be used in barrier wall systems which do not allow for proper management of moisture within the wall systems, such as barrier Exterior Insulation and Finish Systems, (EIFS) (also known as synthetic stucco) or other non-water managed systems. Except in the states of California, New Mexico, Arizona, Nevada, Utah, and Colorado, Pella makes no warranty of any kind on and assumes no responsibility for Pella windows and doors installed in barrier wall systems. In the states listed above, the installation of Pella Products in barrier wall or similar systems must be in accordance with Pella's installation instructions.

Product modifications that are not approved by Pella Corporation will void the Limited Warranty.