



WINDOW REPLACEMENT INSTRUCTIONS FOR REPLACING WOOD DOUBLE-HUNG AND CASEMENT WINDOWS USING WOOD BRICKMOULD

Installation Instructions for Typical Wood Frame Construction.

These instructions were tested and developed for replacing windows in wood-frame wall construction systems designed to manage moisture. Installation recommendations for other types of wall construction, wall systems, conditions, multiple windows or bow bay windows, may be obtained from Pella Corporation or a local Pella retailer. 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 on your part. Determining the appropriate installation method is the responsibility of you, your architect, or other construction professional.

YOU WILL NEED TO SUPPLY:

- Cedar or Impervious shims/spacers (12 to 20)
- Closed cell foam backer rod/sealant backer (12 to 30 ft.)
- Pella® SmartFlash™ foil backed butyl window and door flashing tape or equivalent
- High quality exterior grade polyurethane or silicone sealant (1 tube per window)
- 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.
- Pella wood subsill
- Pella wood brickmould or other exterior wood trim
- #10 Galvanized finish nails
- #16 Galvanized finish nails
- Aluminum head flashing



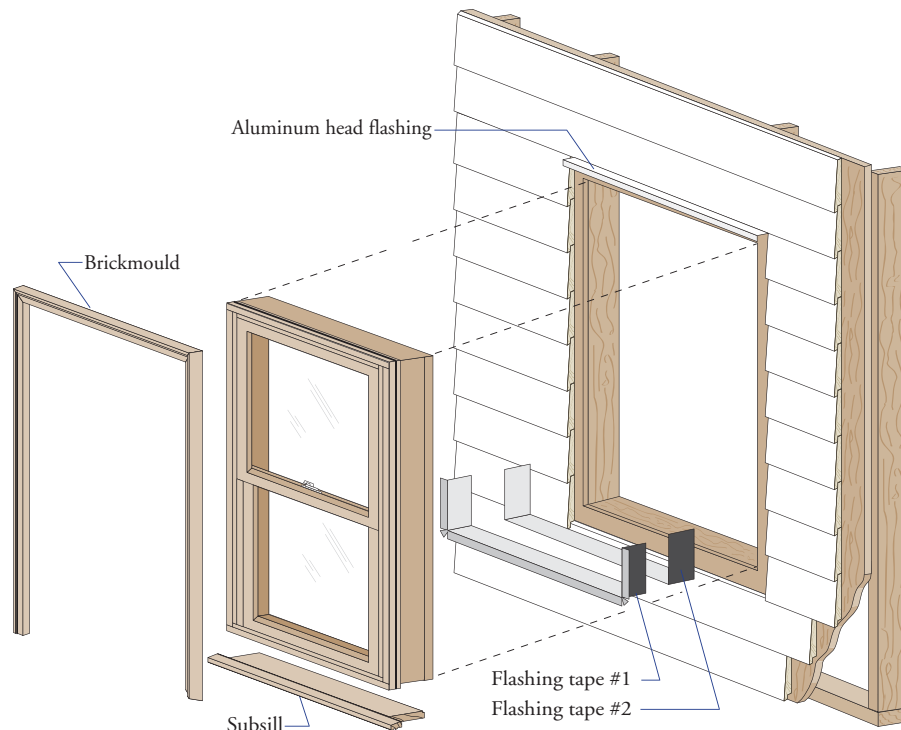
TOOLS REQUIRED:

- Tape measure
- Level
- Square
- Hammer
- Screwdrivers (#2 Phillips and Flat blade)



Installation will require two or more persons for safety reasons.

REMEMBER TO USE APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT.



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>.

1 PREPARE THE OPENING

- A. **Confirm the window will fit the opening.** Measure all four sides of the opening to make sure it is $\frac{3}{4}$ " larger than the window in width and $1\text{-}\frac{7}{8}$ " larger in height. On larger openings, measure the width and height in several places to ensure the head or studs are not bowed.

Note: 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 undersize or out-of-square opening. It may be necessary to cut back the siding or trim to accommodate the new brickmould or trim.

- B. **Apply sill flashing tape #1.** Cut a piece of flashing tape 12" longer than the opening width. Apply at the bottom of the opening as shown (1B) so it overhangs 1" to the exterior.

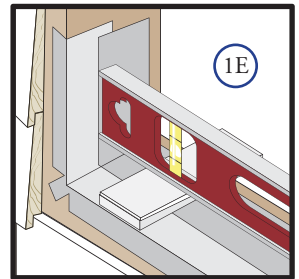
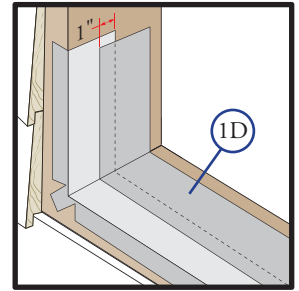
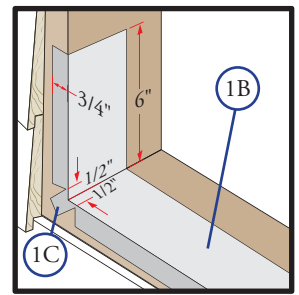
Note: The tape is cut 12" longer than the width so that it will extend 6" up each side of the opening.

- C. **Tab the sill flashing tape and fold.** Cut 1" wide tabs at each corner ($\frac{1}{2}$ " from each side of corner) (1C). Fold tape to the exterior and press firmly to adhere it to the sheathing or water resistive barrier.

- D. **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 framing (1D).

- E. **Install and level sill spacers.** Place 1" wide by $\frac{3}{8}$ " thick spacers on the bottom of the window opening $\frac{1}{2}$ " from each side. Spacers are also required at points where windows are joined in multiple window applications. Add shims as necessary to ensure the spacers are level. Once level, attach spacers and shims to prevent movement.

Note: Improper placement of shims or spacers may result in bowing the bottom of the window.



2 PREPARE THE WINDOW FOR INSTALLATION

- A. **Remove plastic wrap and cardboard packaging from window(s).** DO NOT remove checkrail banding (Double-hungs) or corner shipping spacers (Casements) until the unit is shimmed and installed. DO NOT unlock or open the window until it is fully fastened.

Note: If screens, grilles or hardware are removed from the window at this time, label them and store them in a protected area.

If the brickmould and subsill are pre-attached to the window(s), proceed to Step 3.

- B. **Cut the subsill** to the length of the unit width plus $2\text{-}\frac{1}{2}$ ". Cut out $1\text{-}\frac{1}{4}$ " from each end of the subsill as shown to form the sill horns.

Note: The dimensions shown are for use with Pella brickmould. When using trim other than Pella brickmould, the overall length and length of the sill horn should be cut to accommodate the actual wood trim being used.

- C. **With the exterior of the window facing up,** lay the window on a clean flat surface. Place a bead of sealant along the exterior edge of the window sill.

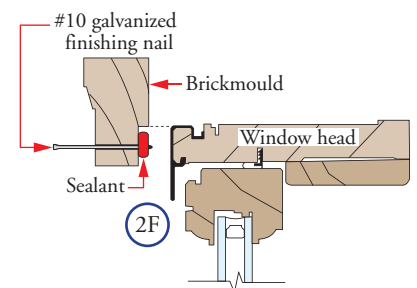
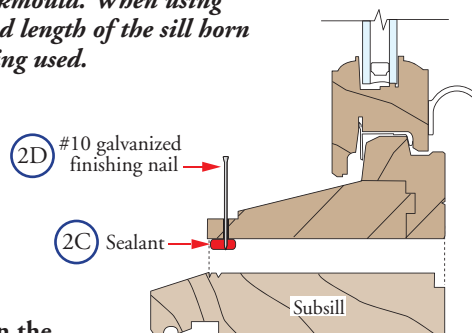
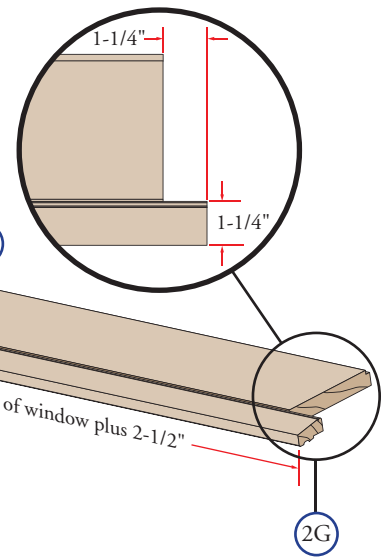
- D. **Attach the subsill to the window sill** by aligning the edge of the window with the first groove on the subsill and driving #10 galvanized finishing nails through the window sill and into the subsill.

- E. **Measure the window frame and cut 45 degree miters on the top corners of the brickmould** or exterior wood trim. Also bevel cut the bottom end of the side brickmould or exterior trim to match the angle of the subsill.

Note: Improper placement of shims or spacers may result in bowing the bottom of the window.

- F. **Place a bead of sealant along the interior lip of the brickmould** or exterior wood trim and attach with #10 galvanized finishing nails.

- G. **Seal all cut ends of the subsill with primer** prior to installing the window into the rough opening.



3 SETTING AND FASTENING THE WINDOW

- A. Apply sealant to the back of the brickmould or exterior wood trim.
- B. Insert the window from the exterior of the building. Place the bottom of the window on the spacers at the bottom of the opening, then tilt the top into position. Center the window between the sides of the opening to allow clearance for shimming.

C. While holding the window in the opening, level the window across the head and plumb jamba with the level on the exterior brickmould. Secure the window by driving a #16 galvanized finishing nail at each upper corner. These are used to hold the window in place while shimming it plumb and square.

D. Plumb and square window. Place shims 1" from the bottom and top of the window between the window and the sides of the opening. Adjust the shims as required to plumb and square the window in the opening.

For windows up to 53" tall: Place an additional shim at the midpoint of each side of the window.

For windows over 53" tall: Place two additional shims along each side of the window, evenly spacing them between the top and bottom shims and the midpoint shim.

Note: DO NOT shim above the window or in the space between the spacers at the bottom of the window. DO NOT over shim.

E. Adjust the shims until the window sides are straight and the space between the sash and frame is equal from top to bottom.

Note: Improper placement of shims or spacers may result in bowing the bottom of the window.

F. Check window operation (vent units only).

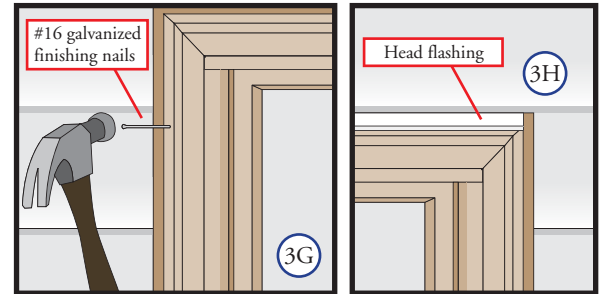
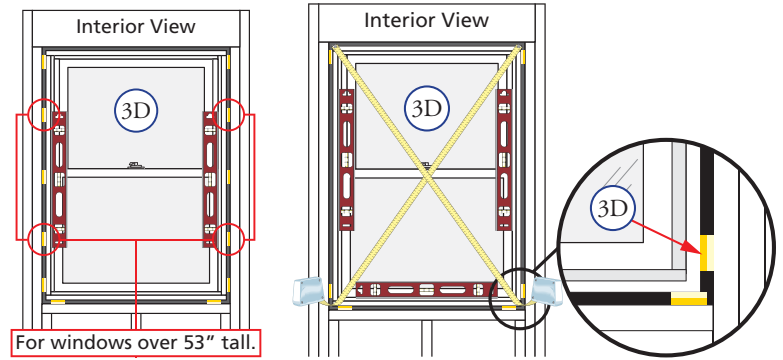
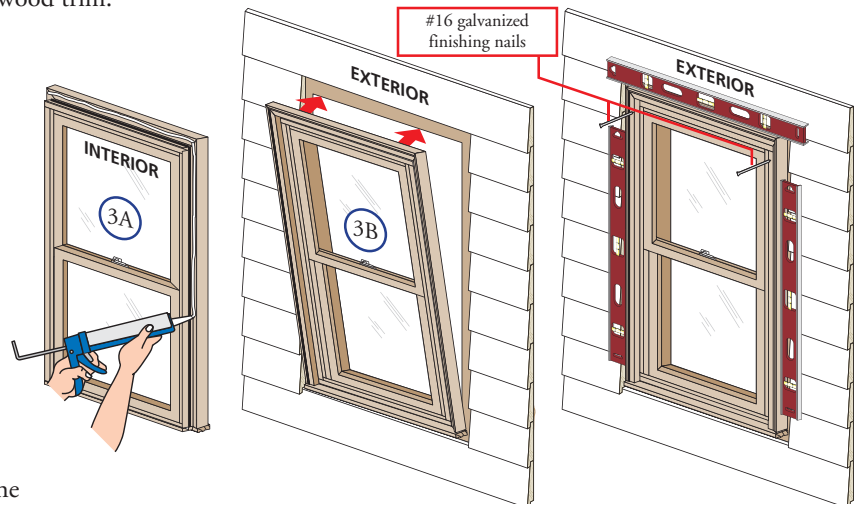
Double-hung: Cut the checkrail bands and remove the shipping spacers. Open and close the window a few times to check for proper operation. Make sure the window will tilt correctly. Close and lock the window.

Casement: Unlock the window by lifting up on the lock handle. Turn the crank to open the window. Remove the shipping spacers from between the sash and window frame. Close and lock the window.

Note: If there are any problems with the operation of the window, recheck shim locations and adjust for plumb and square.

G. Fasten the window to opening by driving #16 galvanized finishing nails through the brickmould at 10" on center.

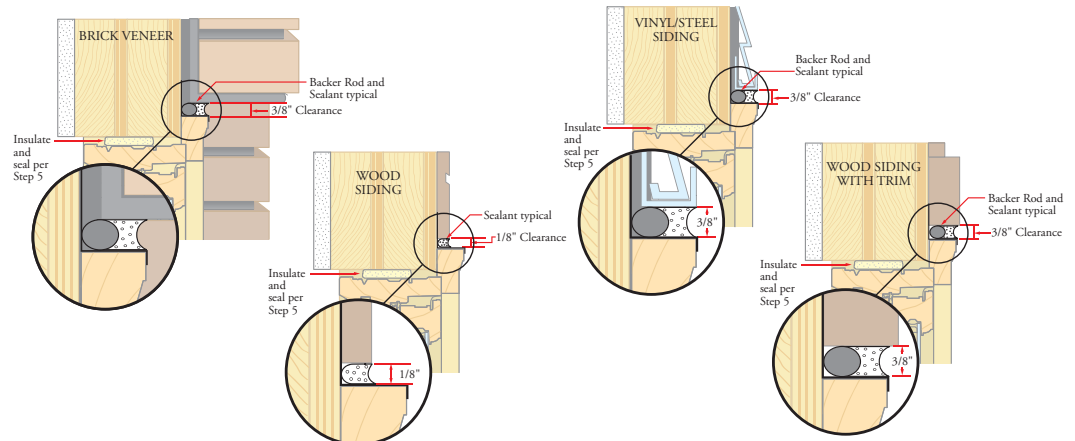
H. Install head flashing where possible, apply sealant to the back of the flashing and slide the flashing under the siding. See cross section detail in Step 4.



4 SEALING THE WINDOW TO THE EXTERIOR WALL CLADDING

When applying siding, brick veneer or other exterior finish material, leave adequate space between the window and the material for sealant. Refer to the illustration that corresponds to your finish material.

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.



4 SEALING THE WINDOW TO THE EXTERIOR WALL CLADDING

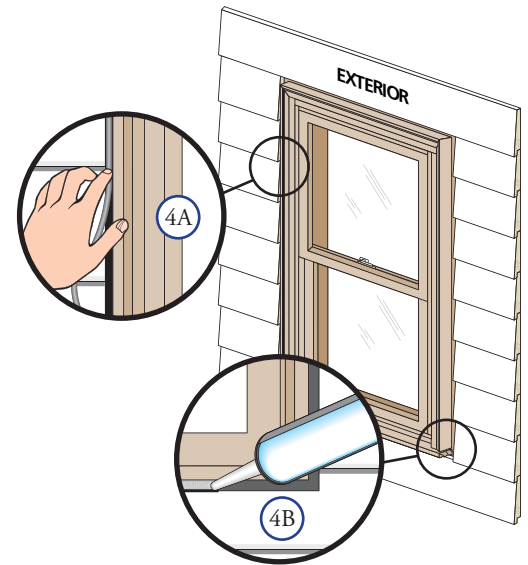
A. **Insert backer rod into the space around the window** as deep as it will go. This should provide at least a 1/2" clearance between the backer rod and the exterior face of the brickmould or wood trim.

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

B. **Apply a bead of high quality exterior grade sealant** to the entire perimeter of the window.

C. **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.



5 INTERIOR SEAL

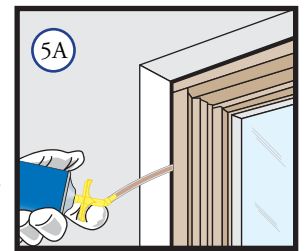
Caution: Ensure use of low pressure polyurethane window and door insulating foams and strictly follow the foam manufacturer's recommendations for application. Use of high pressure foams or improper application of the foam may cause the window frame to bow and hinder operation.

A. **Apply insulating foam sealant.** From the interior, insert the nozzle between the window frame and the rough opening and apply a 1" deep bead of insulation, ensuring the insulating foam is between the window frame (not the jamb extension) and the rough opening. Also ensure the insulating foam contacts the flashing tape at the bottom of the rough opening. This will allow room for expansion of the foam and will minimize squeeze out. Allow the foam to cure completely (usually 8 to 24 hours) before proceeding to the next step.

Note: DO NOT completely fill the space from the back of the brickmould to the interior face of the opening.

B. **Check window operation** (vent units only) by opening and closing the window.

Note: If the window does not operate correctly, check to make sure it is still plumb, level, square and that the sides are not bowed. If adjustments are required, remove the foam with a serrated knife. Adjust the shims, and reapply the insulating foam sealant.



6 INTERIOR FINISHING

Note: The information below is effective September 15, 2007. This information may be different than the printed instruction.

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-hungs and Double-hungs, 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 product 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

Wood windows require painting immediately after installation. The factory applied primer is not intended for long-term exterior exposure. Painting instructions are located 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. Please note that failure to finish your Pella windows may void their warranty, and the Pella warranty does not cover problems associated with improper finishing.

EXTERIOR FINISH

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.

NOTE

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 unanticipated water infiltration; deficiencies in building design, construction and maintenance; failure to install Pella® products in accordance with these instructions; or the use of Pella products in systems which do not allow for proper management of moisture within the wall systems. The determination of the suitability of all building components, including the use of Pella products, as well as the design and installation of flashing and sealing systems are the responsibility of you, your architect, or a construction professional. Moisture problems, including unacceptable water infiltration, have been associated with barrier systems, such as EIFS (also known as synthetic stucco). Pella products should not be used in barrier EIFS systems unless Pella's current, recommended installation procedures for installation of windows and doors into EIFS are used. Any other use of Pella products with barrier EIFS systems will void the Limited Warranty.

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

CASEMENT WINDOW LOCK LEVER REMOVAL AND INSERTION

Note: You may want to remove the lock lever prior to finishing the window, or if it needs to be replaced with a lock lever in a different finish.

- A. Unlock and open the window.
- B. Place the lock lever in the locked position.
- C. From the exterior of the window, insert a small flat blade screwdriver into the slot behind the lock lever.
- D. Pry the cam away from the side of the window by rotating the screwdriver a quarter turn.

Note: This will release the hook in the lever from the cam hook.

- E. Remove the lock lever by pulling it toward the interior of the building.
- F. To install a lock lever, hold it in the lock position and insert it, from the interior, into the slot until it snaps into the cam.

