

ENDURANCE CASEMENT\AWNING\PW INSTALLATION
INSTRUCTIONS

Installation Instructions for Typical Construction

These instructions were developed and tested for use with typical construction in a wall system designed to manage water. **These instructions are not to be used with any other construction method.** Building designs, construction methods, building materials, and site conditions are unique to your project and may require an installation method different from these instructions and additional care. Determining the appropriate installation method is the responsibility of the installer, general contractor, envelope engineer and or architect. VPI Quality Windows shall not be responsible for site conditions or any variations to these installation instructions.

Handling and Storage: Provide full support under the framework while storing, moving and installing the product. DO NOT lift the product by the head member only or pull from the jamb members. DO NOT store in direct sunlight or in containers without adequate ventilation. Allow sufficient spacing between products for ventilation. DO NOT lean windows more than 10 degrees or in precarious angles. Keep stored in a vertical position if possible. Damage caused to the any part of the window or its components from poor storage practices shall not be covered under the limited warranty.

Due to the size and weight a minimum of two persons is required for installation. Please follow the latest version of ASTM E 2112 and AAMA 2400 for standard practices for installation quality.

YOU WILL NEED TO SUPPLY:

- Flat shims/spacers
- Project approved sealants and backer rods
- #8 x 1" - 2" Pan head corrosion resistant screws

TOOLS REQUIRED:

- Tape measure
- 2, 4 or 6 ft. level depending on the width or height of window. Trying to match the width or height to ensure accuracy.
- Square
- Hammer
- Flat pry bar
- Sealant gun
- Drill

Always read the Vinyl Window and Door Limited Warranty before purchasing or installing Vinyl Windows and Doors manufactured by VPI Quality Windows. By installing this product, you are acknowledging that this Limited Warranty is part of the terms of the sale. Failure to comply with all VPI Quality Windows and maintenance instructions may void your VPI Quality Windows warranty. See Limited Warranty for complete details at <http://www.vpiwindows.com/>

1

ROUGH OPENING PREPARATION

- A. Confirm the opening is plumb and level.**
Ensure the bottom of the rough opening does not slope toward the interior.

Note: It is critical the bottom is level and supported without humps or dips that can cause the door frame to twist, bow or tilt.

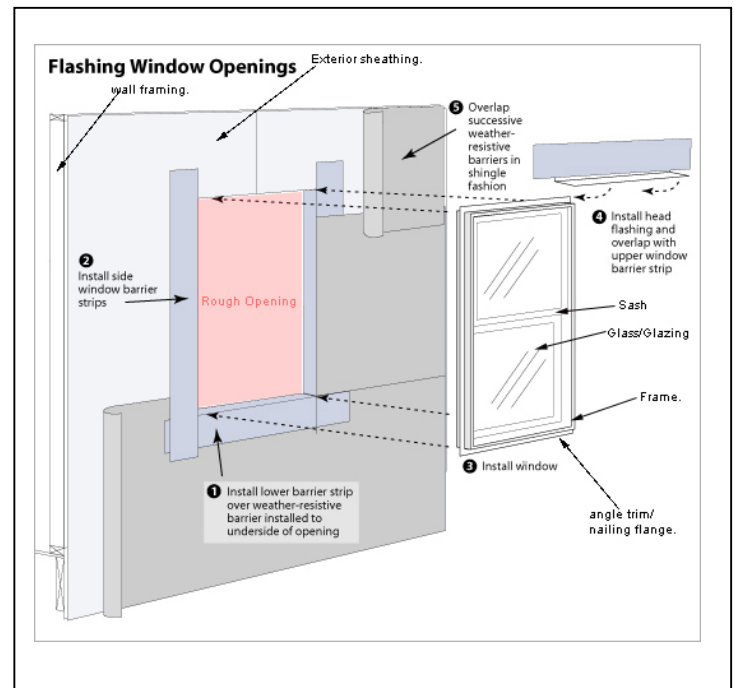
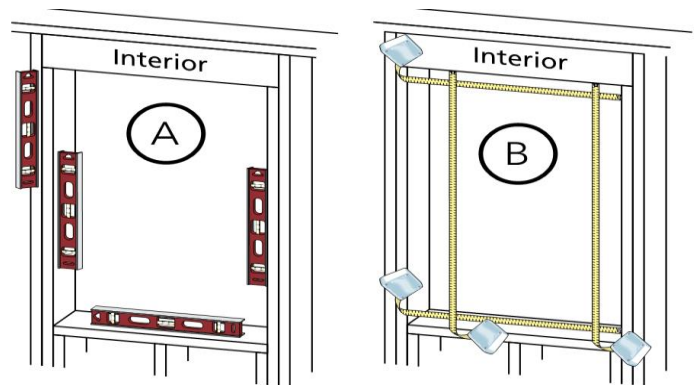
- B. Confirm the window will fit the opening.**
Measure all four sides of the finished rough opening to make sure is a minimum of 1/2" clearance in width and 3/8" in height. The finished rough opening includes materials such as WRB, flashing, shims and any other materials that may shrink the opening. Measure the width at the top, bottom, and center. Measure the height at the far left side, the far right side, and in the center. The finished RO must be a minimum of 1/2" wider and 3/8" taller than the net window frame size.

Note: Correct any problems with the rough opening before proceeding.

- C. Apply threshold weather proofing.** Follow manufacturer's instructions and construction specifications when installing weatherproofing materials.
- D. Sill-Pans** must not interfere with proper sill support of the window unit or cause distortion to the window sill. It is the responsibility of the installer and/or General contractor to ensure that no distortion, warping or bowing is caused to the unit due to fastening over uneven surfaces. VPI requires all units be installed in a flat vertical plane.

Note: Ensure all waterproofing materials are designed for use with PVC products and installed correctly.

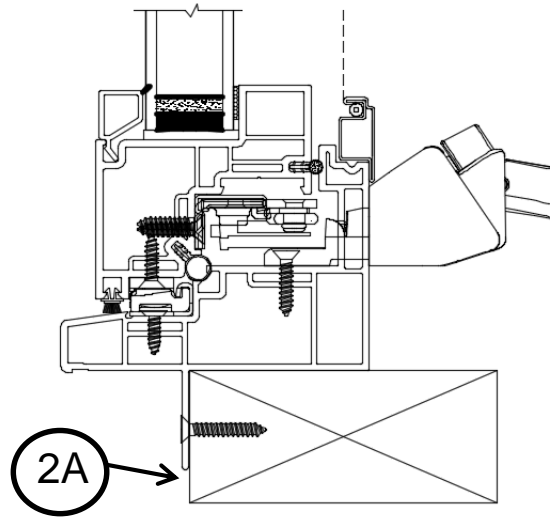
VPI Quality Windows does not endorse or discourage the use of any brand of flashing or sealant materials. Following the flashing manufactures' recommendations, apply flashing to the nail fins or sills and surrounding wall surface starting with the bottom, sides, top, creating a shingle effect.



2 PREPARE THE WINDOW FOR INSTALLATION

- A. Remove the shipping protection from the window.** Unscrew the 2x4 and inspect the frame and panels for damage. DO NOT install damaged units.

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



3 SETTING AND FASTENING THE WINDOW

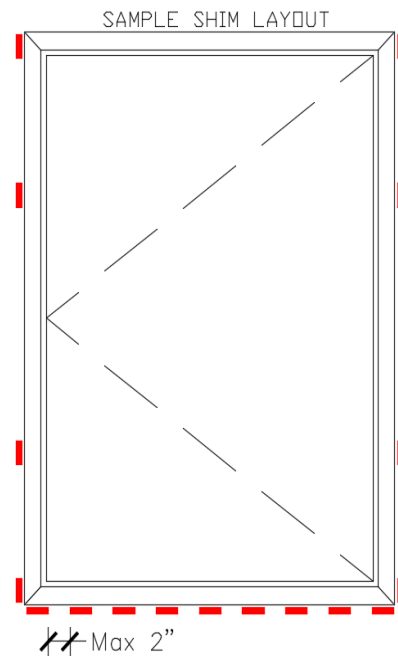
TWO OR MORE PEOPLE MAY BE REQUIRED FOR THE FOLLOWING STEPS.

- A. Sill-Shimming** should only be used when the water proofing details require it or the sill is uneven or not level. Fully supported sills without shims are preferred. However, if you choose to use shims, we require the sill to be fully supported with no gaps exceeding two inches and shims under all vertical members.

Note: Make sure the window will have complete support under the sill.

- B. Head-Shimming** is not recommended, as this will not allow for normal building movement.
- C. Jamb-Shimming** primarily applies to installation which are not fastened through the nail flange. Shims should be located at the jamb six inches from welded corners, where structural horizontal members intersect the perimeter frame, and at locking hardware points. Vinyl windows require shimming and fastening that allows for normal material expansion.

- D. Shim thickness and material** Wedge shaped shims are not recommended for use under the sill unless used as part of an engineered sill pan system. Shims must be constructed from high impact non-deteriorating and corrosion resistant material such as PVC or similar plastic.
- Note:** Additional shims may be required on the operable portion of the window.



3

SETTING AND FASTENING THE WINDOW (CONTINUED)

- E. Insert the window from the exterior of the building.** Place the bottom of the window at the bottom of the opening, then tilt the top into position. Center the window between the sides of the opening to allow equal clearance for shimming, and insert one screw in the top nail fin hole in the jamb on the fixed panel side. This is used to hold the window in place while shimming it plumb, level and square.

Note: DO NOT slide the bottom of the window into the opening, as sliding may damage the sealant lines.

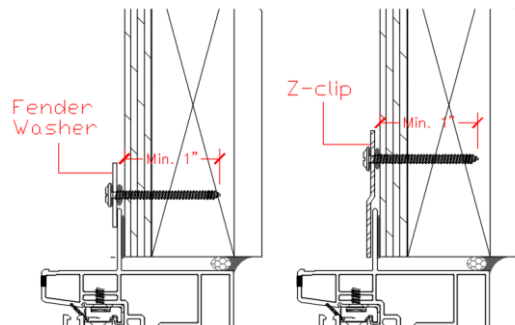
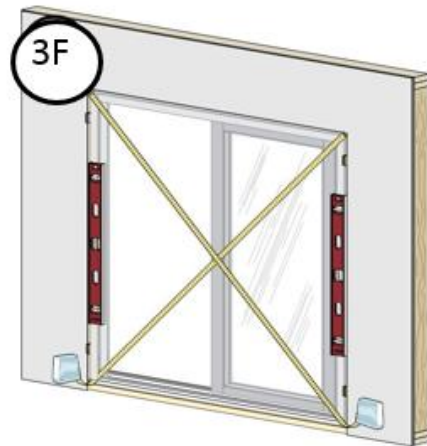
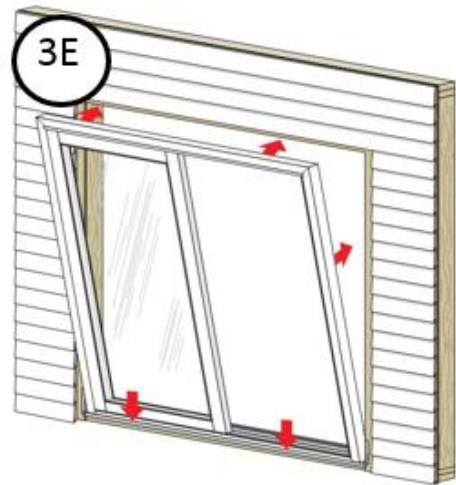
- F. Plumb and square window.** Insert shims between the window and rough opening. Keep shims back 1/2" from interior face of window if interior seal is specified.

Note: This process must be verified before fastening, DO NOT over shim. Window must be in the closed/locked position prior to fastening.

- G. Fasten the window to the opening.** If sealant is required behind the nail fin VPI requires applying sealant onto the nail fin prior to inserting the frame into the opening. Use specified fasteners into every hole of the jambs and sill until the screw head contacts the frame, however DO NOT sink the head into the nail fin.

- H. All fasteners** must be constructed from or coated with corrosion resistant material such as, but not limited to stainless or galvanized steel. Screws must penetrate a minimum of 1" into structural framing lumber and the flat non-tapered head must cover elongated holes in nailing flange. Screw size #8 minimum. Screw length formula: flange thickness + waterproofing thickness + sheathing thickness + minimum of 1".

Note: The head must be fastened 12" OC on all windows exceeding 36" width, while allowing for 1/2" vertical movement of the header. Z-clips or broad (fender) washers over the top edge of the nail flange shall be used. Washer must be constructed of corrosion resistant metal. Frame head fasteners must allow for vertical header movement. Retainer clips are required to be used at the head of the frame unit and should be approved by the architect.



4 FINAL ADJUSTMENTS AND CHECKS

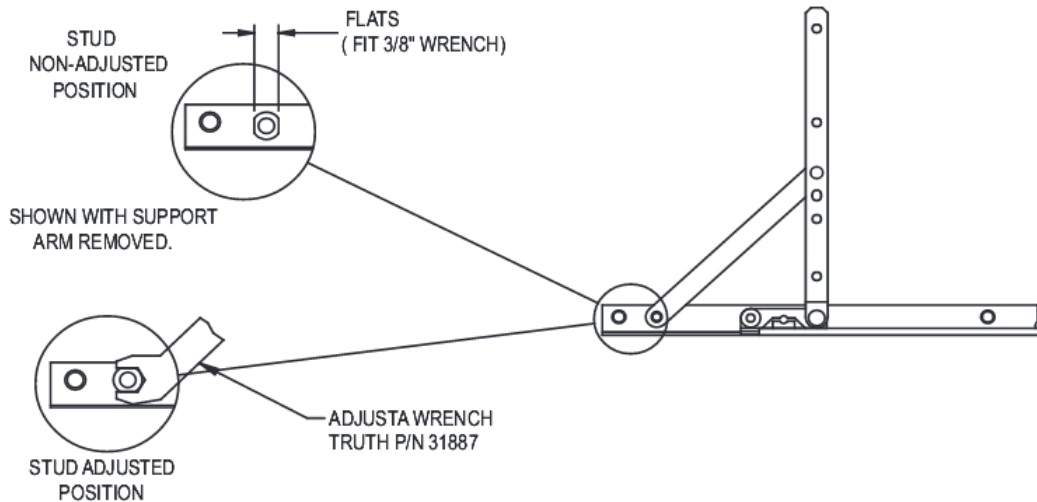
- A. Operate the vent panel and verify** the sash opens freely and locks properly. If the sash does not, you may need to adjust the hinge. To adjust the casement sash, first open the window. Next, slip the adjustment tool onto the base of the stud, found between the support arm and the track of the lower hinge. Swinging the wrench away from the lock side of the window will decrease the amount of sash drag.

Maximum sash drag adjustment is reached when the stud flats are parallel to the track. Turning the stud flats beyond parallel will not increase sash drag correction.

For severe sash drag, a similar procedure can be used on the upper hinge. Upper hinge adjustments are made by swinging the wrench toward the lock side of the window. Maximum sash drag adjustment is reached when the stud flats are parallel to the track.

Please use caution as maximum adjustment may cause binding as the window is closed.

NOTE: Truth Hinge Adjustment Tool-Part #31887



- B. The sash adjustment tool** is available to order from VPI, part number 31887.



4 **FINAL ADJUSTMENTS (CONTINUED)**

- C. Verify sash and lock operation.** All reveals on the window shall be consistent and all gaskets fully engaging. Verify sash gaskets are compressed and no gaps or voids are present to ensure a proper installation.

NOTE: It is the responsibility of the installer to verify the window operates and locks correctly; adjustments are required by the installation company to finalize the install. Follow ASTM E 2112 standard practices for a quality install. Please contact VPI for any assistance or training with our product.

REMOVAL OF OLD WINDOWS, DOORS OR SKYLIGHTS

Follow the EPA's Lead Renovation, Repair and Painting Rule (RRP Rule) which requires that firms performing renovation, repair, and painting projects that disturb lead-based paint in homes, child care facilities and pre-schools built before 1978 have their firm certified by EPA (or an EPA authorized state), use certified renovators who are trained by EPA-approved providers and follow lead safe work practices. Visit www.epa.gov/lead for more information. When removing products from a building VPI recommends that you follow local rules and regulations for disposal. Whenever possible, avoid land fill disposal and reuse or recycle. Consult with your local recycling center for more information on programs in your area.

CLEANING INSTRUCTIONS

Remove labels and clean the glass, using a soft, clean, grit-free cloth and mild soap or detergent. Be sure to remove all liquid by wiping dry or use a clean squeegee. The vinyl frame may be cleaned as described above. For stubborn dirt, a "non-abrasive" cleaner such as Bon-Ami® or Soft Scrub® may be used. DO NOT use solvents such as mineral spirits, toluene, xylene, naphtha or muriatic acid as they can dull the finish, soften the vinyl and/or cause failure of the insulated unit seal. Keep door tracks clear of dirt and debris. Keep weep holes open and clear of obstructions.

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. VPI Quality Windows is not responsible for claims or damages caused by anticipated and unanticipated water infiltration;

deficiencies in building design, construction and maintenance; failure to install VPI products in accordance with VPI's installation instructions; or the use of VPI's products in wall 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 VPI products, as well as the design and installation 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 VPI.

These guidelines are to assist applicators and ensure minimum standards are upheld. Final adjustments are part of the installation process and shall be the responsibility of the installer and general contractor. Some applications may require modifying the installation procedure. Consult architectural drawings and Building Envelope Consultant for structural and waterproofing details. Please consult with the manufacturer for installation modifications. Modifications must be approved in writing by VPI Quality Windows Inc.