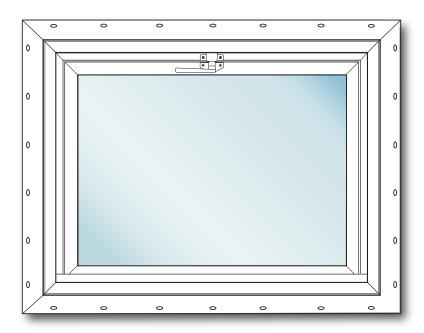


INSTALLATION INSTRUCTION MANUAL

VINYL HOPPER WINDOW WITH NAIL FIN

(ASPECT™, ENDURE™, AND ECOLITE™)



* Find QR Codes inside for additional information, helpful installation tips, and videos.



Contact the local recycling waste management center for waste disposal in the area. Always check local waste requirements and carefully dispose of waste in accordance with Federal and other regulations.



Homes built before 1978 may contain lead paint. All replacement installations must comply with the U.S. EPA's Lead-Based Paint Renovation, Repair, and Painting Program (RRP Rule). Read more about the RRP Rule and lead-safe work practices, on the U.S. EPA's website at: www.epa.gov/lead





TOOLS & MATERIALS YOU WILL NEED

- Tape Measure
- Pencil
- Shims
- Drill & Drill Bits
- #1 Square Drive Hand Screwdriver
- Utility Knife
- Putty Knife
- Square

- Level
- Hammer or Mallet
- (1) Box Stainless Steel or Galvanized Roofing Nails
- Weather-Resistant Barrier Paper
- 6" or 9" Adhesive Flashing Tape in accordance with ASTM D779
- High Quality Silicone Caulking in accordance with ASTM C920, Class 25 & Caulking Gun
- AAMA approved Low-Expanding Window Insulation Foam in accordance with ASTM C1620



REMEMBER: ALWAYS USE THE APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT.



Read these instructions carefully before starting installation. Product warranty does not cover damages resulting from improper installation.



IMPORTANT NOTES BEFORE YOU BEGIN

- Inspect your package(s) for any visible damage to the product. In addition, double check your paperwork with label on product(s) and verify all information is a match. Open packaging to confirm style, color and that order was shipped complete. Double check size of new unit by comparing it for fit to opening.
- If damage or irregularities are found, please scan the product's packaging QR Code label using your phone's QR Code Scanner to access ProVia's After Sale Product Support to enter a request and post pictures/videos to the order, or you can call the Customer Service Team at 1-800-669-4711.
- If you have ordered optional items, verify that they are included in packaging contents. This includes checking for multiple packages (For example, 1 of 2 and 2 of 2).



Assembly

Contents

VINYL HOPPER WINDOW CONTENTS

NOTE: Please refer to information below for the assembly and installation contents.

Vinyl Window Unit (3½" Main Frame Depth)

OPTIONS:

- Integral Nail Fin
- Brickmold Nail Fin w/ J-Channel (Sill Brickmold)
- Brickmold Nail Fin w/ J-Channel (4 sides)
- J-Channel Filler (Cover) Strip, (factory installed), Part #: S-VR-667-01

Mullion Kit (Only included when field mulling is necessary): (Refer to separate instruction)

- (2) Snap Mullion, Part #: S-VE-8410-01
- Header Cover, Part #: S-VR-658-01 or S-VR-659-01
- Header Cover Screw Pack (Qty 5), Part #: S-HS-600S-01
- Stacking Plate (Mull Strap) Pack, Part #: S-HG-604P-00



Optional
Accessory
Installation
Pack
S-HG-330S-00

(2) Nailing Fin Corner Seal Pads, Part #: S-HG-330-00

(3) Nailing Fin Corner Seal Pads, Part #: S-HG-330-00

(4) Nailing Fin Corner Seal Pads, Part #: S-HG-330-00

(5) Nailing Fin Corner Seal Pads, Part #: S-HG-330-00

(6) Nailing Fin Corner Seal Pads, Part #: S-HG-330-00

(6) Nailing Fin Corner Seal Pads, Part #: S-HG-330-00

WINDOW INSTALLATION GUIDELINES

- Windows achieve maximum performance from proper installation methods such as square frame, level sill and constant margins between sash and master frame.
- A window gains strength from the surrounding wall structure. This is obtained with proper sizing, support and installation methods.
- Use a high quality grade of silicone with a neutral base.
- Approved sealants for this use must meet the requirements of ASTM C920, Class 25.
- The plastic applied to UV resistant paint finish windows is for the protection of the paint finish and should remain on the window until the installation is complete.
- DO NOT OBSTRUCT WEEP HOLES with flashing or sealant. The weep holes located at the bottom sill area of window are necessary to prevent water accumulation. Covering or applying trim to the product will need to allow for proper drainage. Failure to do so will create a risk of water infiltration.
- Windows should be stored in a cool location. **DO NOT** store in direct sunlight or in non-vented hot containers.
- **IMPORTANT!** Allow for expansion and contraction of the window unit when contacting exterior finish material. For installation of the finished exterior material surrounding the window, tap or scan the QR code shown for all gap recommendations per exterior material type.



THIS INFORMATION MUST BE PASSED TO THE EXTERIOR FINISH INSTALLER.

- Window flashing must be used with all window installations to prevent air and water infiltration. Flash all windows in accordance with the ASTM E2112 standards (method A1, shown in this instruction). Use 6" or 9" adhesive flashing in all applications or conform to local code.
- All flashing material must be waterproof in accordance with ASTM D779. Use a roller over the applied tape to ensure full adhesion and no voids.
- All flashing and weather resistant barrier (house wrap/building paper) materials must be installed in a weatherboard fashion. Install and layer starting at the bottom and work upward.
- Fasteners for securing the nail fin of the window must be non-corrosive galvanized roofing nails or pan head screws. Nails should be at least 1¾" in length with the head of the roofing nail wide enough to cover the prepunched slot of the nailing fin. The roofing nail must be able to penetrate the framing material by at least 1". Pan head screws should be at least 1¾" in length and should NOT deform the nail fin.
- DO NOT INSTALL new construction nail fin onto foam.
- DO NOT INSTALL roofing nails into nailing fin with an air gun or pneumatic device. Doing so will cause distortion or fracture of the nailing fins. All nailing fins must be secured by hand through the pre-punched nailing holes.



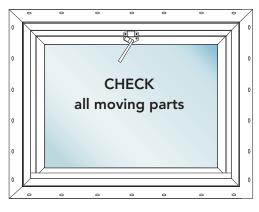
 ProVia[®] understands there are various methods and conditions affecting the installation of a replacement window. We feel the most critical steps to follow are securing and shimming as instructed in this document.

FIELD MULLED WINDOW UNITS:

• Refer to the separate document, "Field Instruction For Mulling Vinyl Windows". Units must be mulled together before window unit is set into the opening.

A. INSPECT AND PREPARE VINYL WINDOW UNIT

INSPECT HOPPER AND SCREEN



(Figure A.1)



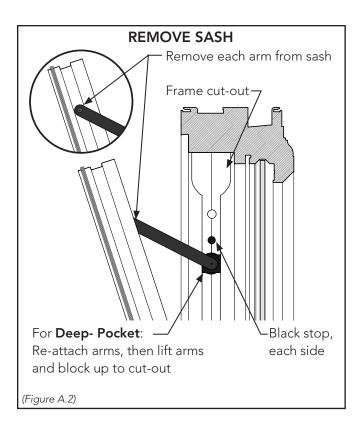
IMPORTANT! For window units with painted exterior, DO NOT remove the protective plastic cover until after installation is completed.

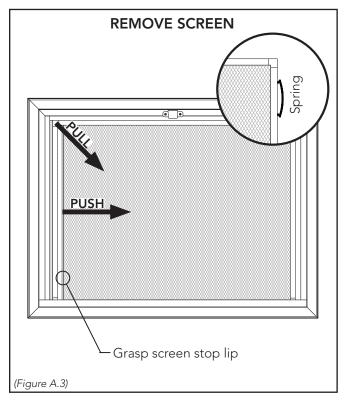


For units to be field mulled, refer to the included document, "Field Instruction for Mulling Vinyl Windows". After mulling is complete, resume this instruction to complete Sections B - F.

- Inspect new window unit and screen for any material damages. Check all moving parts: locks, all operational hardware, glass, etc. NOTE: Moving parts can be repaired AFTER window is installed. Scan the product packaging QR Code label to access ProVia's After Sale Product Support to enter a request and post pictures to order, or call Customer Service. (Figure A.1)
- Determine ceiling clearance over and around window for proper window unit preparation.
 - a.) Standard Ceiling Application: window unit is below ceiling with full access around entire unit.
 - b.) Deep-Pocket (Well) Application: window unit is to be located within a deep wall pocket or tight to a drop or suspended ceiling, restricting access to the window.

A. INSPECT AND PREPARE VINYL WINDOW UNIT (CONT.)







SCREEN AND SASH MUST BE REMOVED BEFORE INSTALLATION. FIRST, remove the sash in order to remove screen. Screen and sash will be re-installed AFTER frame installation. Refer to following steps.

Prepare Window - Sash Removal (Figure A.2) **Standard Ceiling Application:**

- a.) Open sash, use a Phillips screwdriver to disconnect arms from sash.
- b.) Carefully lay sash horizontal to frame.
- c.) Lift sash pivot pins from shoe turnbuckle. Sash may need lifted with one side ahead of other to gain proper clearance.

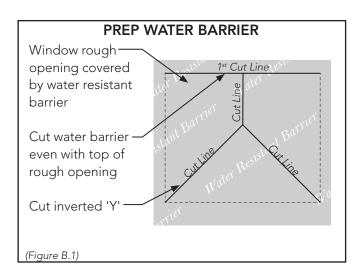
Deep-Pocket Ceiling Application:

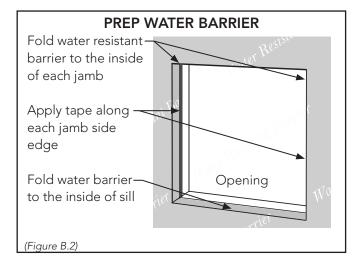
- a.) Open sash, use a Phillips screwdriver to disconnect arms from sash.
- b.) Carefully lay sash horizontal to frame.
- c.) Remove black stop from each frame side.
- d.) Slide each arm and block up to frame cutout and remove.
- e.) Re-connect arms to sash. This step is required for installation with limited access.
- f.) Lift sash pivot pins from shoe turnbuckle. Sash may need lifted with one side ahead of other to gain proper clearance.

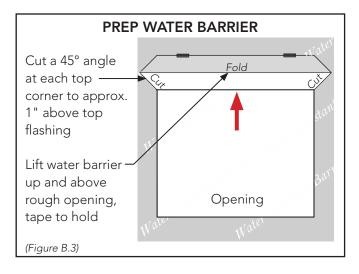
4 Remove the screen (Figure A.3):

- a.) From the interior, gasp screen stop lip to pull screen towards the right side, compressing the (2) screen springs.
- b.) Holding screen compressed, pull top left corner then bottom left corner to the interior to free from exterior track.
- * Reminder: DO NOT re-install sash or screen until after frame is installed.

B. WATER RESISTANT BARRIER





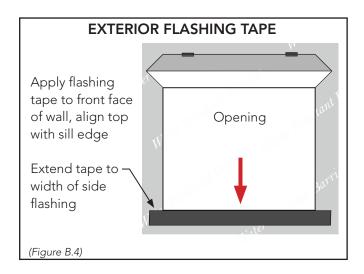


- If water resistant barrier is covering window rough opening, cut as follows to expose opening.
 - a. Cut the water barrier even with the top edge of the rough opening.
 - b. Cut the water barrier at an inverted 'Y' in center of rough opening, each leg at a 45° angle to corner, as illustrated. (Figure B.1)
- Pold the water resistant barrier to the inside of each jamb side and sill. Trim each flap to center of jamb. (Figure B.2)
- Apply adhesive flashing tape to the water resistant barrier cut edge at each jamb side to seal edges. (Figure B.2)

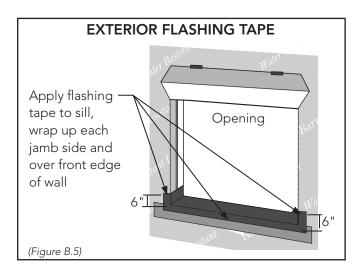
NOTE: DO NOT apply tape to the top or bottom cut edge of the water barrier until noted in the instruction.

- Cut a 45° angle in the water resistant barrier at each top corner. Cut should extend approximately 1" above the head flashing tape (to be installed in later step). (Figure B.3)
- Lift the water resistant barrier flap up and away from rough opening. Apply adhesive tape to hold in place, as illustrated. (Figure B.3)

B. WATER RESISTANT BARRIER (CONTINUED)



Apply adhesive flashing tape to the front face of wall, below sill. Top of tape should align with the sill edge. Extend each end of the flashing tape to width of side flashing (to be installed in a later step). (Figure B.4)

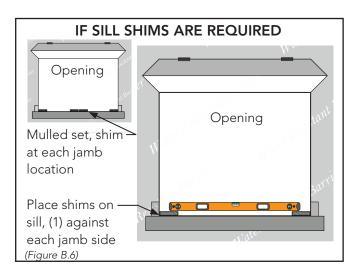


Apply adhesive flashing tape to the sill. Tape should begin and end approximately 6" above sill on each jamb side. Be sure to wrap tape over the front edge of wall, as illustrated. Wrapping tape will seal and protect wood from moisture leakage. (Figure B.5)

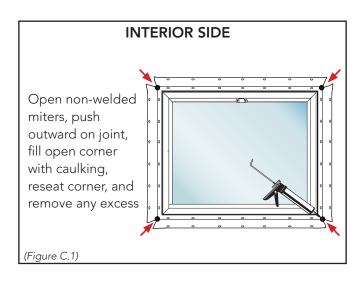
Place and level shims on the sill, (1) against each jamb side of opening. Shims will provide support to window jambs and level window sill. Be careful shims DO NOT tilt sill toward inside of home. For mulled sets, place shims under all side jamb locations. (Figure B.6)

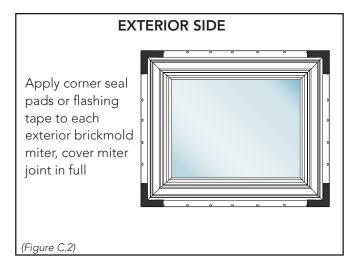
NOTE: If foam wrap is used under sill, shim thickness **MUST** be increased to prevent foam wrap from crowning the sill.

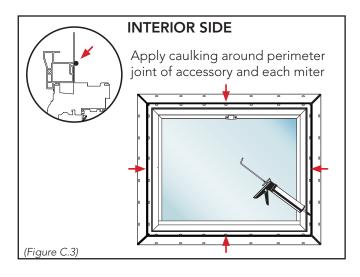
NOTE: DO NOT OVER SHIM below the jamb sides. This will cause unit head to press tightly against opening head, leading to vinyl expansion issues.



C. PREP ACCESSORY AND SET WINDOW UNIT





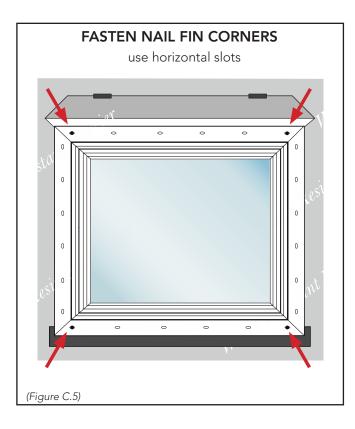


- For window with Integral Nail Fin, the exterior accessory groove will be exposed. Proceed to Step 7.
- For an accessory (nail fin with J-channel, or brickmold with J-channel) that is factory applied or shipped loose, the accessory will occupy the exterior accessory groove. Proceed to Step 3.
- If the vinyl accessory is shipped loose (field mulled units), apply at this time. For specific instructions on all snap-in accessories and for the brickmold with J-channel, refer to 'Field Instruction for Snap-In Window Accessories' QR code on back of this instruction.
- For mulled units and units with a field installed vinyl accessory, open the non-welded corner miter by pushing outward on joint. Fill the open corner with caulking. Reseat the corner and remove any excess. Repeat on all sides. (Figure C.1)
- Apply corner seal pads (pack #: S-HG-330S-00 note, screws from pack will not be used) or adhesive flashing tape to each exterior corner miter of the vinyl accessory. Be sure to cover miter fin joint in full. (Figure C.2)
- Apply a bead of caulking along interior side of each closed corner miter to seal. (Figure C.3)
- 7 Apply a bead of caulking around entire inner perimeter joint, where accessory meets the frame, for a complete seal. (Figure C.3)

NOTE: For mulled units using integral nail fin with J-channel, apply a bead of caulking around entire perimeter joint, where the end of the integral nail fin meets the backside of J-channel, as shown. (Figure C.3)

C. PREP ACCESSORY AND SET WINDOW UNIT (CONT.)

APPLY CAULKING TO OPENING Apply a generous bead of caulking to the exterior sheathing to seat and seal nail fin Opening (Figure C.4)



Apply a generous %" bead of continuous caulking to the exterior sheathing to seat and seal nail fin when installed. (Figure C.4)

NOTE: Option to apply a %" bead of continuous caulking to the back side of the nail fin to form a complete seal to sheathing.

- 9 Before setting unit in place, make sure sash is locked.
- Place window unit into opening and onto sill shims. Center and square unit within opening. Push nail fin against sheathing and water resistant barrier to bed window unit, forming a tight seal between window and water barrier. Install window unit immediately after the caulking is applied and before a skin forms on caulking's surface.

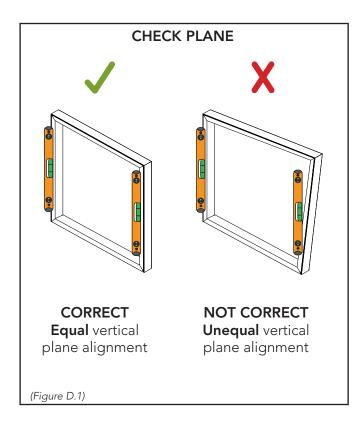
NOTE: If top of window is against top of opening, reduce height of bottom shims. Shims are still required below sill as specified.

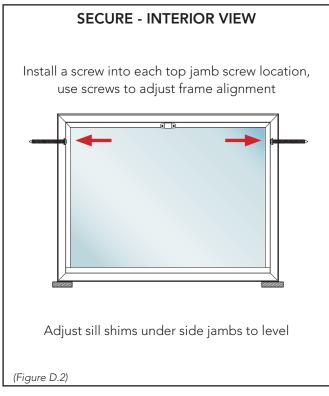
After sill is shimmed, levelled, and preliminarily squared; install a fastener into the horizontal slot at each nail fin corner to secure unit in place.

DO NOT OVER TIGHTEN FASTENER. This will allow for adjustment in following steps.

NOTE: DO NOT use power tool to install fasteners.

D. INSTALLATION

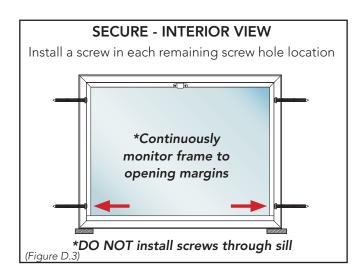


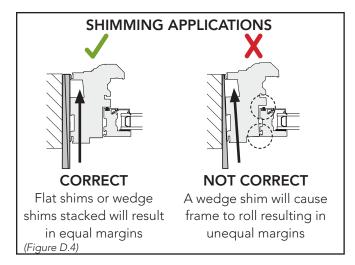


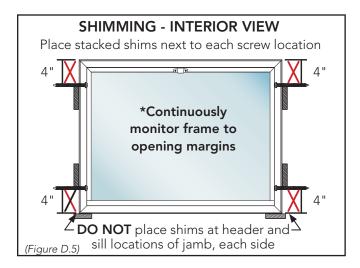
- Frame alignment is critical for the success of the installation and sash operation. Step 1 provides a critical frame alignment reference check to identify and correct if needed through the full installation procedure.
- 1 Check the plane of the window unit. Each vertical jamb side frame should be equal and parallel to the other. See illustration for equal and unequal plane. (Figure D.1)
- 2 Set window unit directly onto shimmed sill. Center unit in the opening. If top of window is against top of opening, reduce height of bottom shims. Shims are still required below sill as specified
- Unlock sash and carefully open. Install a #8 x 2" Phillips pan head screw into each top factory prepped jamb screw location to hold in place. DO NOT OVER TIGHTEN screw causing frame to pull! (Figure D.2)
- 4 Use top screws to adjust frame alignment in order to establish an even sash to frame margin along top of sash. (Figure D.2)
- Use sill shims to adjust/re-adjust sill to level as needed. For mulled units, be sure shims are placed directly under mull location for support. (Figure D.2)

REMINDER: If foam wrap is used under sill, shim thickness **MUST** be increased to prevent sill from crowning.

D. INSTALLATION (CONTINUED)





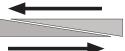


IMPORTANT! Shims can be installed prior to screw installation. It is critical to monitor sash to frame alignment throughout installation.

Install (2 - 4) #8 x 2" Phillips pan head screws in each remaining factory prepped screw location. If unit is prepped in middle, install bottom screws first. DO NOT over tighten screws! DO NOT install screws through sill! If spacing between screws is greater than 24", additional jamb screws may need added to stabilize frame. Pre-drill 3/8" hole through first wall of frame. Note, additional jamb screws may need added if foam wrap is used on jambs, causing overtight margins and difficult sash operation. (Figure D.3)

IMPORTANT! Shims are needed to achieve sash to frame alignment. The alignment needs to be CONTINUOUSLY monitored throughout installation. Shimming as instructed in Step 7 is critical to maintain stability of the frame.

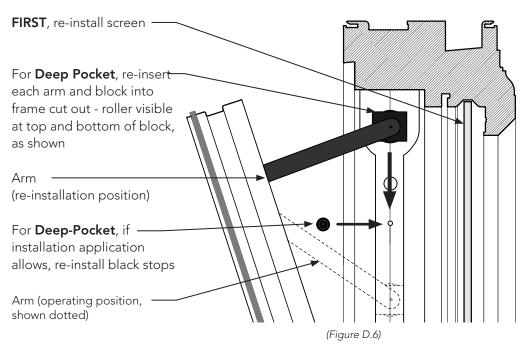
IMPORTANT! CORRECT shimming application; stack wedge shaped shims contrasting and plane to plane. See diagram below. DO NOT use a single wedge shim. This will cause the frame to roll, resulting in unequal alignment. (Figure D.4)



- Place shims next to all screw locations. DO NOT PLACE SHIMS WITHIN 4" OF TOP OR BOTTOM CORNERS. This will cause frame distortion. If spacing between side jamb shims is greater than 12", additional shims may be needed to maintain margins and stabilize frame. CONTINUOUSLY CHECK SASH TO FRAME MARGINS WHILE SHIMMING. Note, window hardware should not be visible between exterior sash weather strip and frame. (Figure D.5)
- 8 Final check on frame alignment. Adjust shims and screws as needed to achieve and maintain equal and straight alignment, all sides. If needed, additional screw and shim locations may be added to header to improve margins. Align from interior side of window.
- 9 Install fasteners in pre-punched nail fin holes, all sides. Install fasteners in every other hole or as needed to keep nail fin flat. **DO NOT OVER TIGHTEN.**

D. INSTALLATION (CONTINUED)

RE-INSTALL SCREEN AND SASH





For most applications -Standard Ceiling, re-attach arms to sash

- - Re-install screen (Be sure screen is oriented with screen stop lip to the interior side.)
 - a.) From the interior, insert the right side of screen into exterior track of frame.
 - b.) Use screen stop lip to push screen to the right, compressing springs.
 - c.) With spring compressed, slightly twist and insert top and bottom left side of screen.
- Re-install sash (Standard Ceiling Applications) (Figure D.6)
 - a.) Hold sash in horizontal position and insert pins into each shoe located in bottom of frame.
 - b.) Tilt sash up to re-attach arms with factory screws.

Re-install sash (Deep-Pocket Ceiling Application) (Figure D.6)

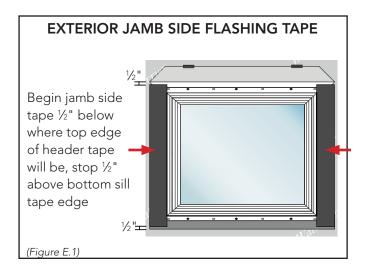
- a.) Hold sash in horizontal position and insert pins into each shoe located in bottom of frame.
- b.) Tilt sash up to re-insert each arm with block into the frame cut-out.
- c.) Tilt sash up until arm blocks are located below black stop locations. Re-install black stops each side if installation application allows.



/N \setminus IMPORTANT! Deep-pocket (well) applications or applications with limited access may not have the accessibility to re-install black stops. Black stops will keep arms from sliding up and over center, preventing sash from closing. If black stops are not re-installed, the sash arms must be manually pushed down to close sash with each operational use.

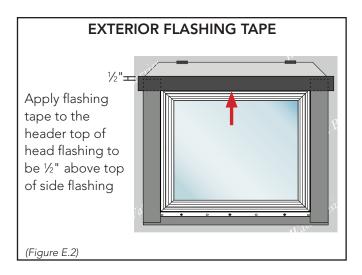
Check sash for proper operation. For sash operation issues, refer to the Troubleshooting Section.

E. FLASHING



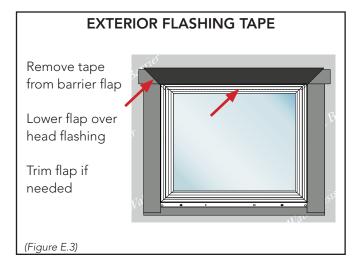
Apply adhesive flashing tape to each jamb side. Begin top of the side flashing approximately ½" below where the top edge of header flashing will be placed (Refer to Step 3). Stop the bottom of the side flashing approximately ½" above bottom edge of front face sill flashing. (Figure E.1)

NOTE: If window unit has snap-in nail fin, wrap tape onto the window frame, approximately 1/4".



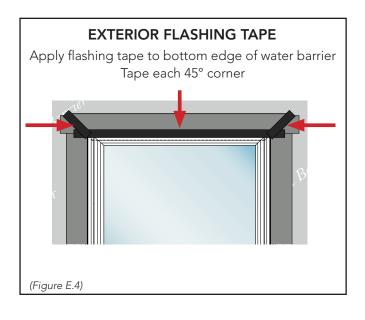
Apply adhesive flashing tape to the header. Place top of the head flashing approximately ½" above top of the side flashing. Extend each end of the head flashing approximately 1" beyond side flashing. (Figure E.2)

NOTE: If window unit has snap-in nail fin, wrap tape onto the window frame, approximately 1/4".



Remove tape holding the water resistant barrier flap above header. Lower flap over header flashing. Trim to top of window frame if needed. (Figure E.3)

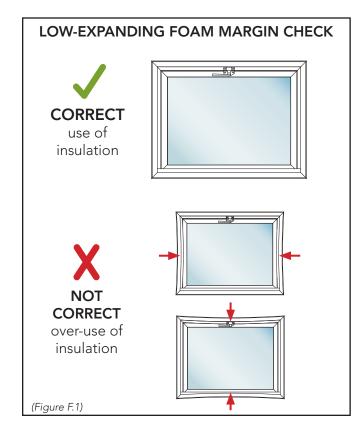
E. FLASHING (CONTINUED)



4 Apply adhesive flashing tape to bottom edge of the water resistant barrier flap. (Figure E.4)

Apply adhesive flashing tape to each 45° corner of the water resistant barrier for a complete seal. (Figure E.4)

F. INSULATE



- Install hole plugs into all jamb screw locations.
- 2 Close and lock sash.
- IMPORTANT! Sash must operate properly before and after application of foam insulation.
- Insulate by using an AAMA approved ASTM C1620 low-expanding foam to fill all cavities between frame and opening. Check and maintain all margins during insulating. Over use of low-expanding foam may cause frame to bow, jeopardizing operation of window. (Figure F.1)
- If MasterFit™ Trim is part of the installation, DO NOT nail trim to jamb extension. For installation questions, call Customer Service. Refer to QR code on back for measuring assistance.



TROUBLESHOOTING & TIPS

PROBLEM	CAUSE	SOLUTION
Water leaking at top	1. Top sash rail is bowed downward. 2. Sash is bowed outward. 3. Header mullion cover not added or removed.	New sash is needed. Install an additional snubber at top center to pull sash inward. (Please order through Customer Service.) Refer to "Field Instruction For Mulling Vinyl Windows"
Sill bows upward	 No shims below jambs. Critical on mulled units. Over insulating or over shimming below sill. Insufficiently shimming under jambs when foam wrap is used under sill. Exterior trim is tight against window, not allowing for vinyl expansion in the heat. Jamb side shims placed too close to bottom of unit, not allowing for vinyl expansion in the heat. Installing fasteners in nail fin units prior to proper setting and alignment of window. 	 Add shims to window sill per this instruction. Remove foam. Re-square and level window unit. Refer to this instruction for proper insulation procedure. Re-shim window unit per this instruction. Refer to "Installing Exterior Veneers to Windows" QR code at end of this instruction. Remove shims at bottom jamb side locations. Shim per this instruction. Remove fasteners except at each corner. Square and level unit per this instruction. Set proper margins per this instruction before re-installation of nail fin fasteners.
Header bows downward	 Excessive foam or over insulating above header. Jamb side shims placed too close to top of unit, not allowing for vinyl expansion in the heat. Installing fasteners in nail fin units prior to proper setting and alignment of window. 	 Remove foam above header. Re-foam per this instruction. Remove shims at top jamb side location. Shim per this instruction. Remove fasteners except at each corner. Square and level unit per this instruction. Set proper margins per this instruction before re-installation of nail fin fasteners. It may be necessary to pre-drill and add a screw to correct bowed header.
Frame racked or out of square	Improper or no shims below the jambs.	Re-shim window unit per this instruction.
Sash alignment is restricted	Outside corners of sash have an excess weld build-up.	Remove the excess weld on corners and from both sides of the bulb seal until a square corner is achieved.
Window leaks water at accessory corners	Improper or no caulking on backside corners of accessory. Improper or no caulking at accessory to frame joint.	Caulk accessory per this instruction. Caulk accessory per this instruction.
Condensation is present on inside or outside glass of window	Various normal conditions/reasons.	Refer to "Condensation, Humidity and Dew Point Temperature" QR code below for a detailed explanation of normal condensation conditions.



*Please call Customer Service for additional installation inquiries at 1-800-669-4711.

*For additional information and helpful videos, SCAN or TAP the QR Codes.

VISIT OUR INSTALLATION SUPPORT HOMEPAGE



Field Instruction for Snap-In Window Accessories



Field Instruction Mulling Vinyl Windows (Aspect & Endure)



Install. Instruction Vinyl Window Stacking Plate #604



Condensation, Humidity and Dew Point Temperature



Measuring Instruction MasterFit™ Trim



Installing Exterior Veneers to Windows





