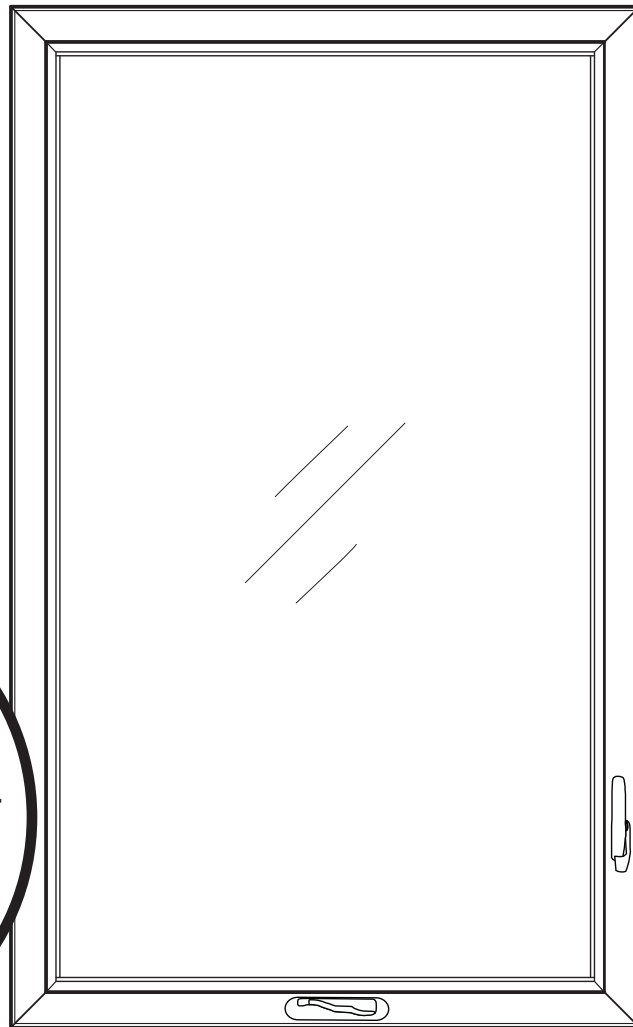


# INSTALLATION INSTRUCTIONS VINYL CASEMENT WINDOW WITHOUT NAIL FIN (ASPECT™ AND ENDURE™)

**ATTENTION!**  
YOU CAN ALSO SCAN  
THE PACKAGING QR CODE  
TO ACCESS THIS DOCUMENT

*Printed instructions included  
with each product will be  
phased out in the  
near future*



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

*\* Find QR Code on back for the SPANISH version of this instruction.  
(Para obtener la versión en ESPAÑOL, escanee el código QR ubicado  
en la última página de estas instrucciones.)*



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](http://www.epa.gov/lead)



# GETTING STARTED

## TOOLS & MATERIALS YOU WILL NEED

- Tape Measure
- Pencil
- Shims
- Drill & Drill Bits
- Utility Knife
- Putty Knife
- Square
- Level
- Hammer or Mallet
- AAMA approved Low-Expanding Window Insulation Foam in accordance with ASTM C-1620.
- High Quality Silicone Caulking in accordance with ASTM C-920, Class 25 & Caulking Gun.



**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 for any visible damages 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 damages or irregularities are found, please document with pictures and call Customer Service, 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).
- For a helpful video on 'How to Install a Vinyl Casement Window', please scan the Quick Reference Code shown by using your QR Code Scanner App. No QR code scanner app? Visit your phone's app store to find a free app.



# VINYL WINDOW CASEMENT CONTENTS

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

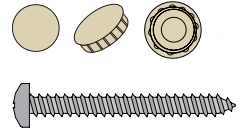
## Assembly Contents

- Vinyl Window Unit (3/4" Main Frame Depth)
- Sill Extender, Part #: S-VE-4473-CC
- Optional Parts:
  - Sill Extender (4 Sides), Part #: S-VE-4473-CC
  - Mullion Kit,
    - Zero Mull Rebar, Part #: S-AE-4710-00
    - Zero Snap Mulls, Part #: S-VE-4492-CC

## Installation Pack

S-HS-515S-CC

- (6) 3/8" Low Profile Hole Plug, (Color Matched), Part #: S-HG-698-CC
- (6) #8 x 2" Phillips Pan Head Screws, Part #: S-HS-046-00



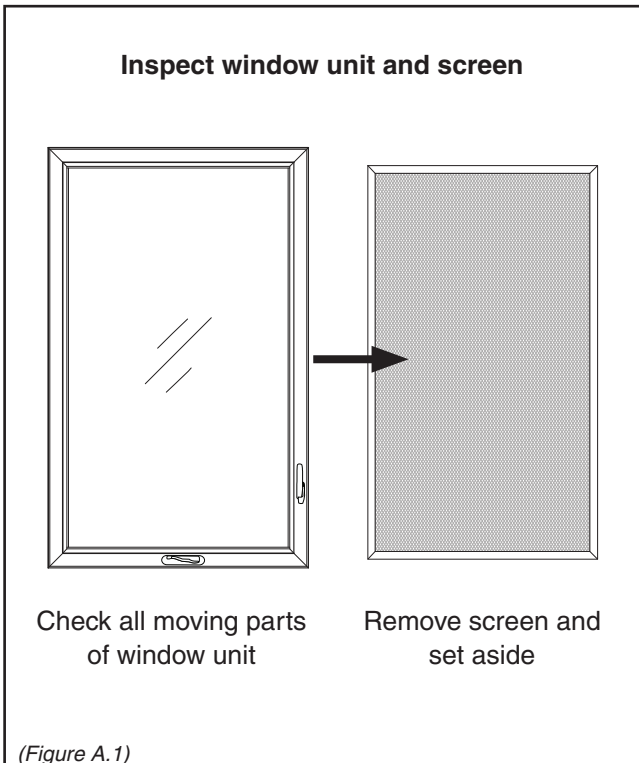
# VINYL WINDOW INSTALLATION GUIDELINES

- 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. A silicone which releases an acetic acid during the curing process will not adhere to the vinyl.
- Approved sealants for this use must meet the requirements of ASTM C-920, 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, refer to the QR code shown for all gap recommendations per exterior material type.  
**THIS INFORMATION MUST BE PASSED TO THE EXTERIOR FINISH INSTALLER.**



---

## A. INSPECT AND PREPARE VINYL WINDOW UNIT



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

1

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. Contact dealer or Customer Service with pictures and order number for replacement parts.

2

Remove screen and carefully set aside. Screen will be re-installed after completion of installation.

3

After inspection, close and lock window unit to engage seals, locks, interlocks, and weatherstripping.



### IMPORTANT INFORMATION!

- 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.

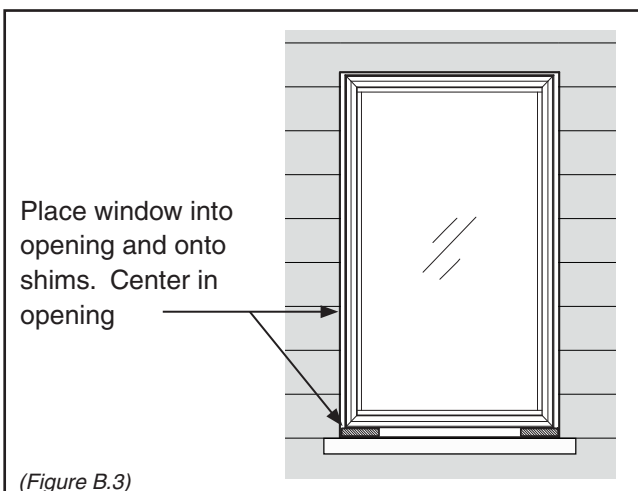
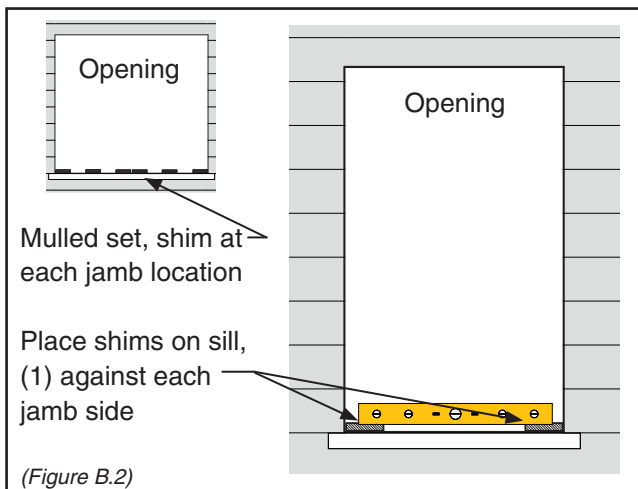
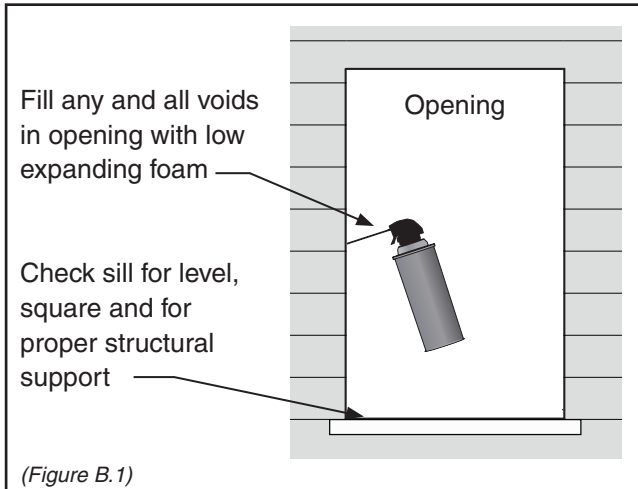
#### FIELD MULLED WINDOW UNITS:

- Refer to Section F, Field Mulling Window Units, page 11. Units must be mulled together before window unit is set into the opening.

#### STUCCO FLANGE:

- Refer to Section G, Stucco Flange Vinyl Accessory Installation, page 12. Stucco flange must be installed and prepped on field mulled window units before setting into the opening. Factory installed stucco flange must be prepped on a single window unit before setting into the opening.

## B. PREP OPENING AND SET WINDOW



1

Clean opening of all dirt, debris, and obstructions.

2

Fill all voids or open cavities, found after removal of old window, with AAMA approved low-expanding window insulation foam that complies with ASTM C 1620. (Figure B.1)

3

Check for level sill, square and for proper structural support of opening to ensure a proper installation and seal of window unit. (Figure B.1)

4

Place and level shims on the sill, (1) against each jamb side of opening. Shims will support window jambs and level sill. Be careful shims **DO NOT** tilt sill toward inside of home. For mulled sets, place shims under all side jamb locations. (Figure B.2)

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

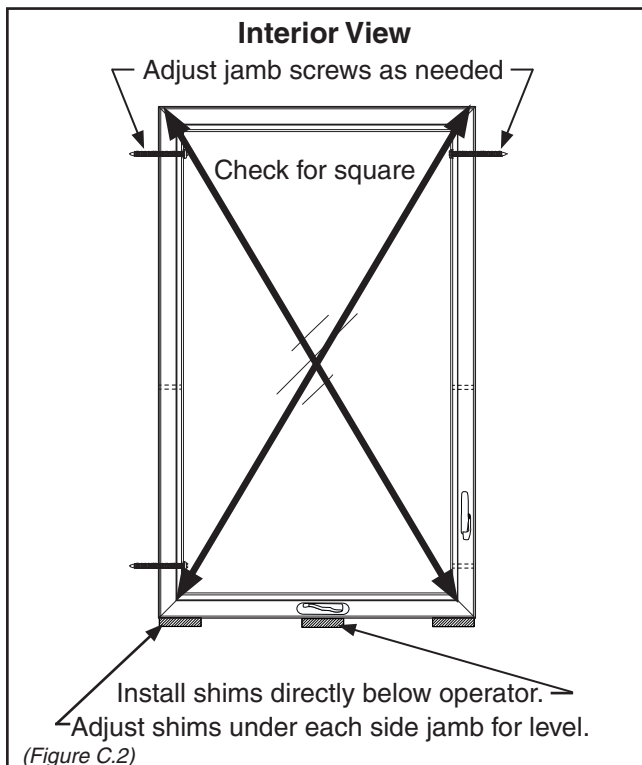
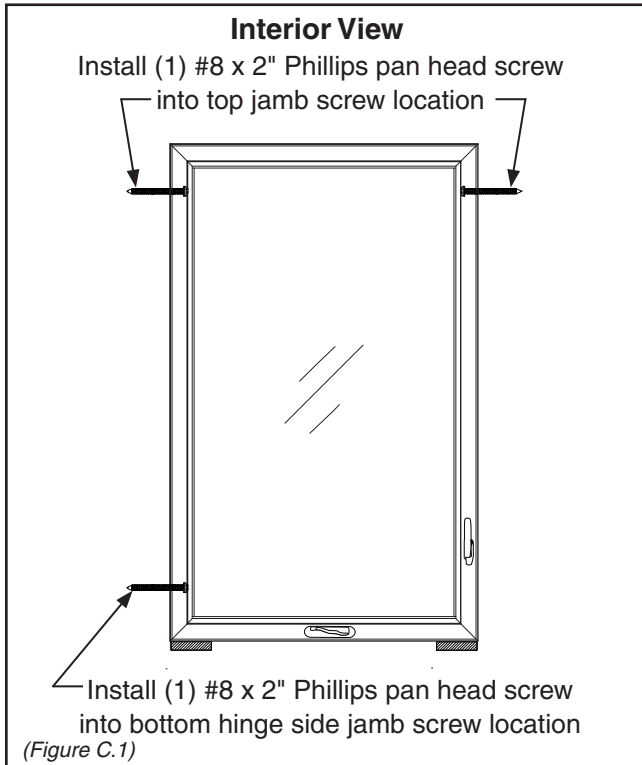
5

If optional stucco flange is to be used, refer to Section F - Stucco Flange Vinyl Accessory Installation, page 12. Stucco flange must be installed on field mulled window units and prepped before window unit is set into opening.

6

Place window unit into the opening and onto sill shims. Center in opening. (Figure B.3)

# C. INSTALLATION



1

With sill shimmed and levelled, unlock sash and carefully open. Install (1) #8 x 2" Phillips pan head screw into each factory prepped top jamb screw location and bottom hinge side screw location to hold in place. **DO NOT OVER TIGHTEN screw causing frame to pull!** (Figure C.1)

**NOTE:** Be sure to check for proper operation of the sash throughout the full installation process.

2

Install shims directly below operator. (Figure C.2)

**NOTE:** For egress units, operator will not be centered below window.

3

Check for overall square of window unit by measuring diagonally from corner to corner, each side. Adjust top jamb screws as needed. (Figure C.2)

**NOTE:** Recommended tolerance for the diagonal measurement is  $\frac{1}{8}$ " per 48".

4

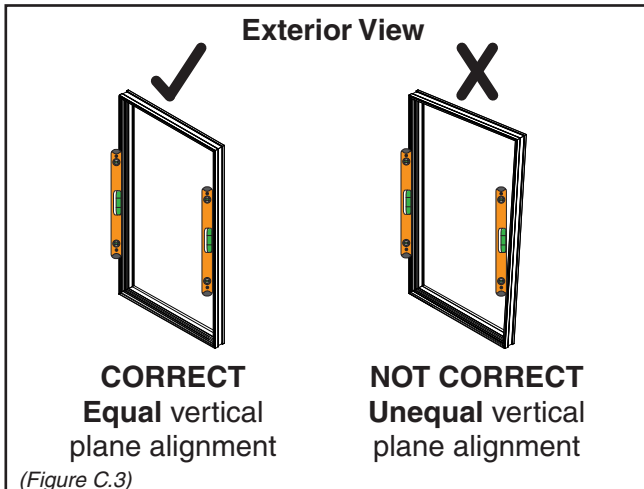
Use sill shims to adjust sill for level as needed. (Figure C.2)

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



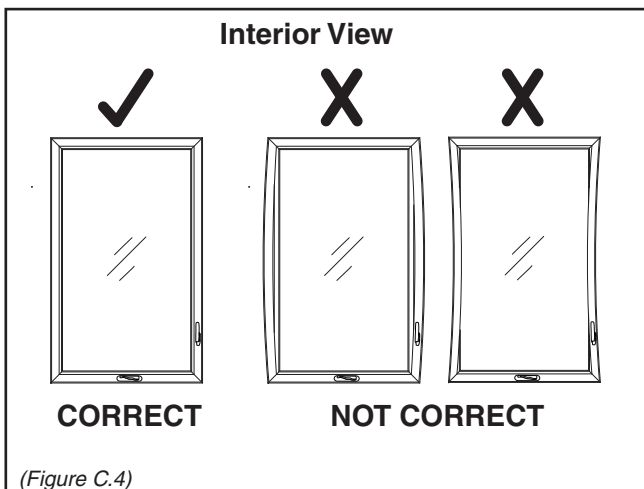
**IMPORTANT!** A level sill is critical. If sill is not straight and level, it must be shimmed as instructed for proper operation of the window. **Be careful to NOT over shim. Improper shimming may change margins and jeopardize operation performance.**

## C. INSTALLATION (CONTINUED)



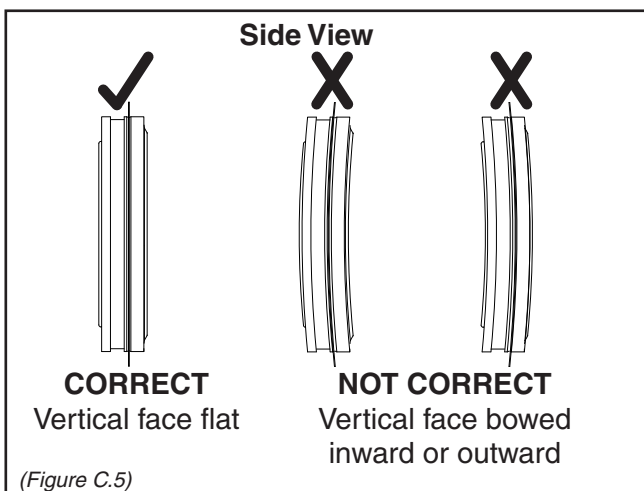
5

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 C.3)*



6

Check to be sure frame jambs do NOT bow inward or outward of the sash, resulting in sash and hardware interference. *(Figure C.4)*



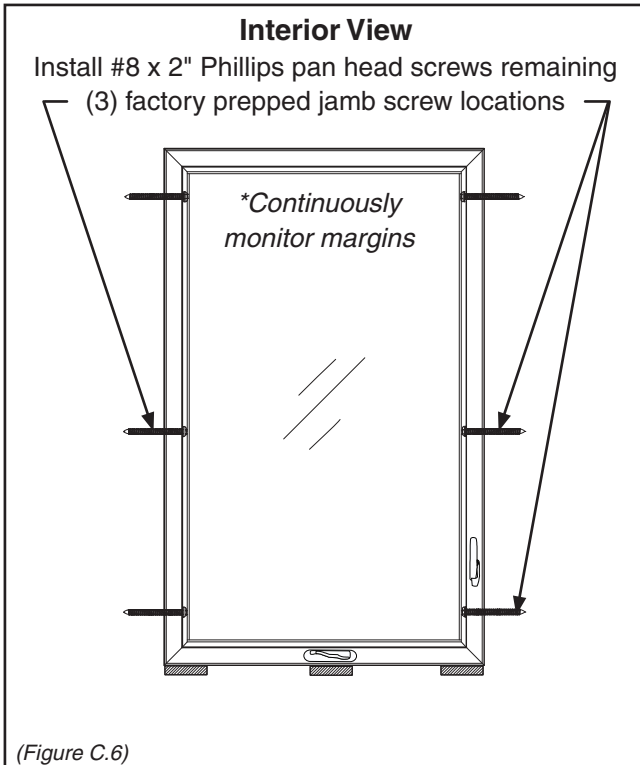
7

Check to be sure the vertical face of the window unit is flat, the vertical face can **NOT** bow towards the interior or exterior. A bowed vertical face will cause the frame to be out of alignment, resulting in sash to frame hardware interference. *(Figure C.5)*



**IMPORTANT!** The frame alignment will need to be **CONTINUOUSLY** monitored throughout full installation.

## C. INSTALLATION (CONTINUED)

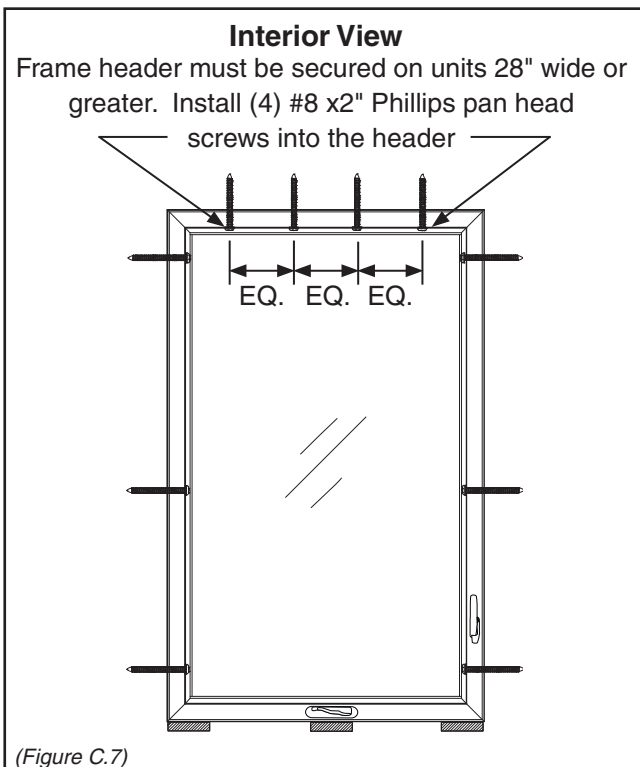


**Shims can be installed prior to installation of screws. It is critical to monitor margins through this installation method.**

8

Install (3) #8 x 2" Phillips pan head screws. Place (1) screw in each remaining factory prepped jamb screw locations. First install bottom screw followed by middle on each jamb side. **DO NOT OVER TIGHTEN SCREWS!** (Figure C.6)

**NOTE:** If spacing between jamb screws is greater than 12", additional jamb screws may need added to stabilize frame. Pre-drill  $\frac{3}{8}$ " hole through first wall of frame.



9

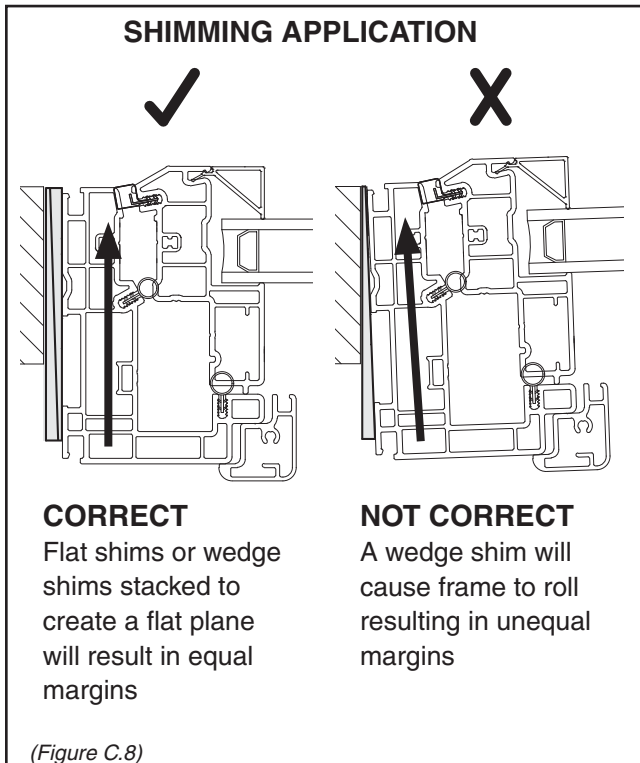
Adjust the jamb screws as required to achieve straight frame alignment. **Refer back to Figures C.3, C.4 and C.5.**

10

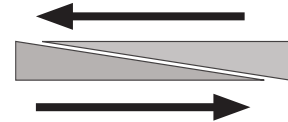
Frame header must be secured to inside stop on units 28" wide or greater. Install (4) #8 x 2" Phillips pan head screws into the header, equally spaced and positioned in frame channel, same as the factory prepped jamb screws. (Figure C.7)



## C. INSTALLATION (CONTINUED)

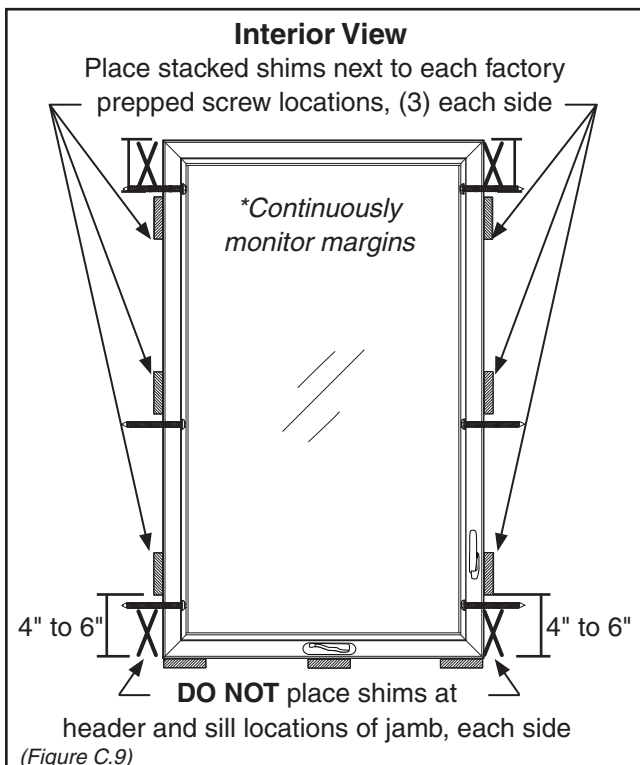


**IMPORTANT! CORRECT** shimming application; stack wedge shaped shims contrasting and plane to plane. See diagram below. **DO NOT** use a single wedge shim. This will cause the frame to roll, resulting in unequal margins. (Figure C.8)



**11**

Place shims next to each factory prepped jamb screw locations, (3) each side. Be sure top shims are located 4" to 6" from top of unit and bottom shims are 4" to 6" from bottom of unit. If spacing between side jamb shims is greater than 12", additional shims may be needed to maintain margins and stabilize frame. Use shims to adjust margins as needed. **DO NOT over shim. Over shimming may change the margins and jeopardize operational performance.** (Figure C.9)



**NOTE:** To allow for vinyl expansion, **DO NOT** place shims at top header and bottom sill locations of jamb sides. Shimming in these locations will cause frame distortion.

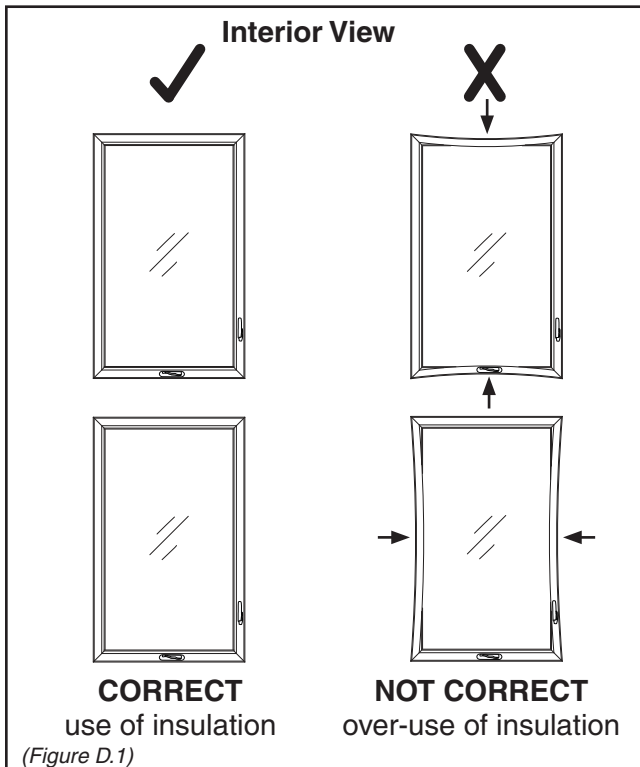
**12**

Final check on frame alignment. Adjust shims and screws as needed to achieve and maintain equal and straight alignment, all (4) sides. **Refer back to Figures C.3, C.4 and C.5.**

**13**

**Check for proper operation of sash.** For sash operation issues, refer to the Troubleshooting Section, page 13 - 14.

## D. INSULATE AND FINAL ADJUSTMENTS



1

Install hole plugs into all jamb and header screw locations.

2

Close and lock sash.



**Sashes must operate properly before application of foam insulation.**

3

Insulate by using an AAMA approved ASTM C-1620 low-expanding foam to fill all cavities between frame and opening. Check and maintain all margins during insulation.



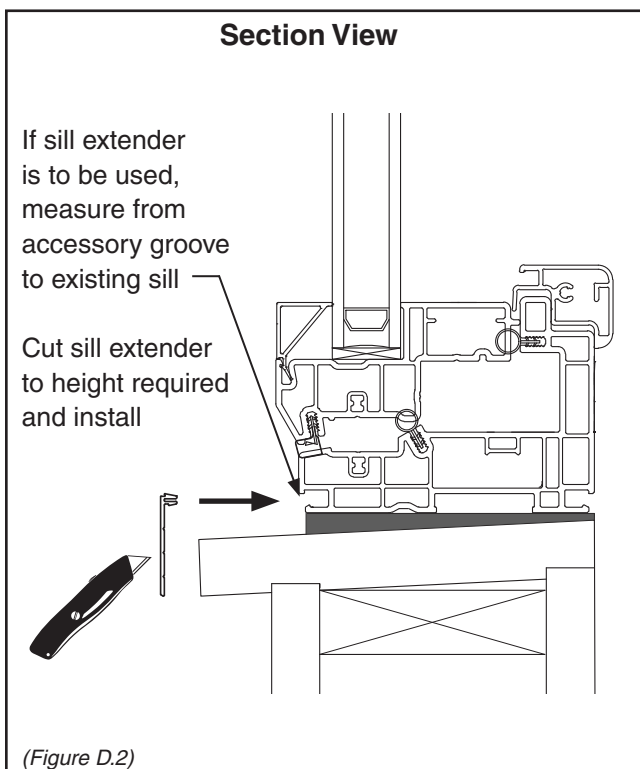
**IMPORTANT! Over use of low-expanding foam may cause frame to bow; jeopardizing operation of window.**  
(Figure D.1)

4

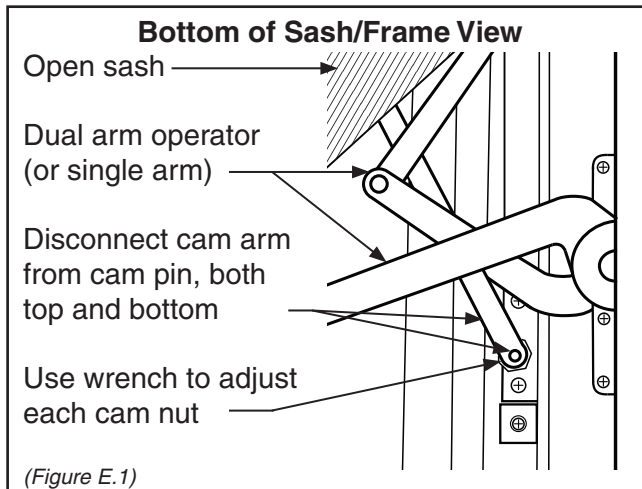
If sill extender is to be used, measure distance from the sill accessory groove to the existing sill. Cut sill extender to height required and install. **DO NOT** install until foam has cured. (Figure D.2)

5

If MasterFit™ Trim is ordered, **DO NOT** nail trim to jamb extension. For installation tips, call Customer Service. Refer to QR code on back for measuring assistance.



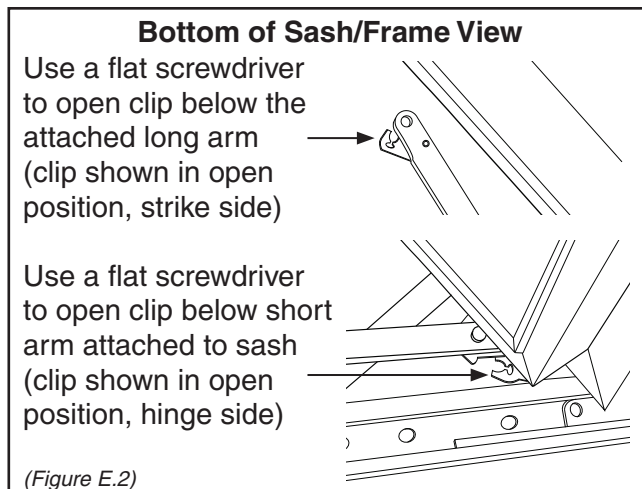
## E. SASH TO FRAME ADJUSTMENTS



1

For sash adjustment, unlock and open sash. Use a flat head screwdriver to remove arm from each cam nut located on top and bottom hinge track. Use a crescent wrench to slightly rotate each cam nut a  $\frac{1}{16}$ " to the exterior or  $\frac{1}{32}$ " to the interior. (Figure E.1)

**NOTE:** The ProVia HG05 hinge wrench can be ordered from our Customer Service Team for the adjustment of the cam nut without removal of the stabilizer bar. (Request part # S-HG-0111-00)

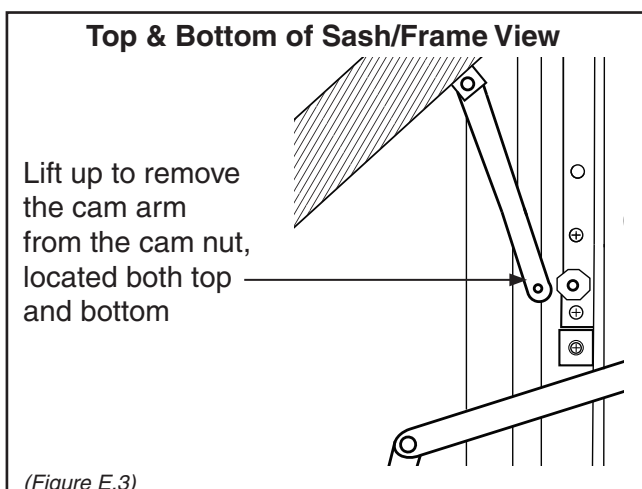


2

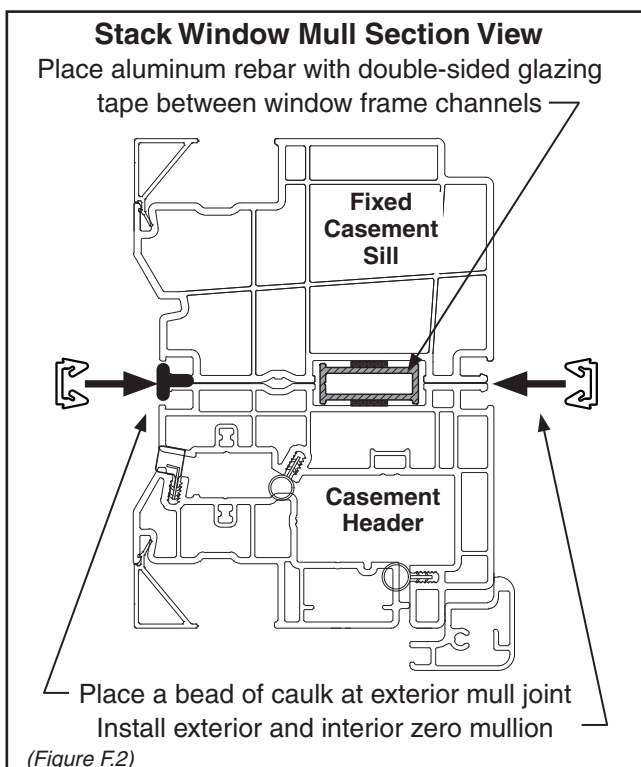
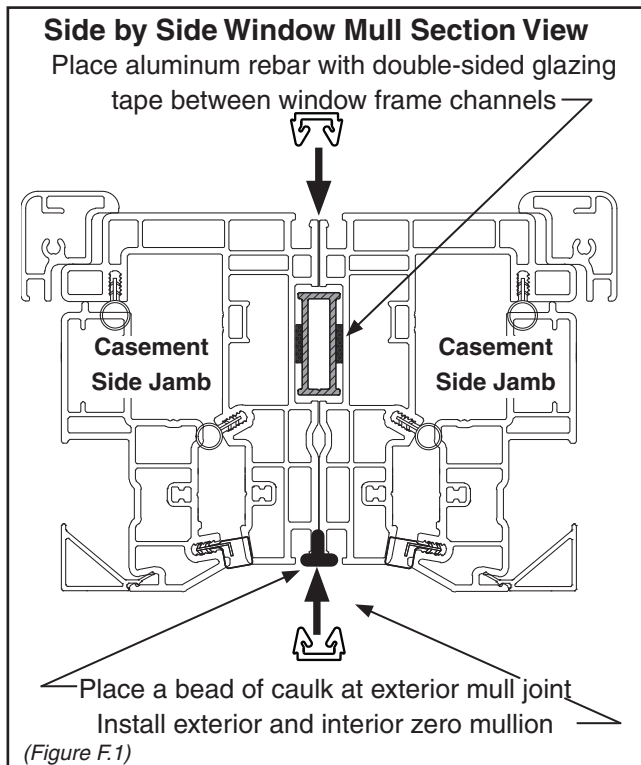
For sash removal, unlock and open sash. Use a flat head screwdriver to open the clip located below the attached long arm, near the strike side. Use a flat head screwdriver to open the clip located below the short arm, attached to the sash near the hinge side. Move each arm away from sash. Lift below cam arm to remove arm from cam nut, both top and bottom. Move each cam arm away from sill. Hold sash secure, slide the top and bottom sash shoes towards the open side of hinge track. Remove sash from frame. Reverse order for re-installation. (Figure E.2 & E.3)

**NOTE:** Smaller casement windows will use a single arm operator.

**NOTE:** For a more complete and detailed instruction of sash removal, refer to the QR code 'Casement Sash Removal for Aspect & Endure'. For a helpful video, refer to the QR code 'How to Remove the Sash of ProVia Casement Windows'. Each QR Code is located at the end of this instruction document.



# F. FIELD MULLING WINDOW UNITS



Field mulling will be required if finished mulled unit size exceeds a specific shipping size parameter. A multiple window unit may ship partially mulled, requiring field mulling to complete the assembly. Units must be mulled together before setting into the opening.

1

If window units are ordered factory mulled with additional window units to be field mulled, factory installed stacking plates may need to be removed in order to install aluminum rebar. If there are no stacking plates to be removed, proceed to next step.

2

Remove backing from double-sided glazing tape, factory applied to each side of the aluminum rebar. (Figure F.1 & F.2)

3

Place aluminum rebar between window frame channels, vertical or horizontal as required. Be sure the glazing tape adheres to each window frame. Rebar should **NOT** extend beyond edge of unit. (Fig. F.1 & F.2)

4

If mulled units are stacked to create either a T-joint or a cross joint, the exterior accessory groove must be fully caulked at the intersection and 6" in each direction.

5

Place a bead of caulk at all exterior mull joint locations. Be sure all voids between mulled frames are sealed. (Figure F.1 & F.2)

6

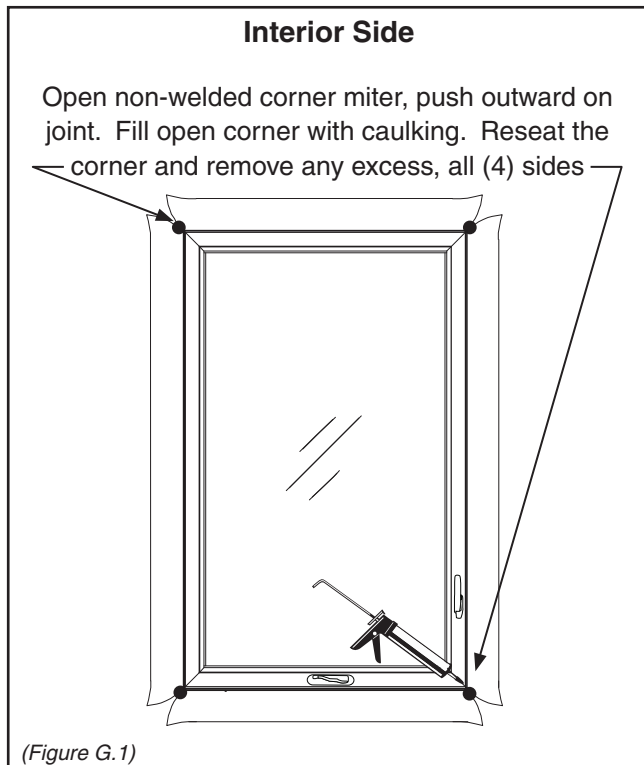
Install the exterior and interior zero mullion into frame accessory channels, as shown. (Figure F.1 & F.2)

**NOTE:** For units with laminated exteriors, use a utility knife to score each side of the exterior accessory channel to remove laminate and expose channel.

7

Install stacking plates at all exterior mulled locations. Please refer to the "Vinyl Window Stacking Plate Installation Instruction" included with the stacking plate pack, part # S-HG-603P-00 or scan the QR code on back on this instruction.

# G. STUCCO FLANGE VINYL ACCESSORY INSTALLATION



For field mulled window units ordered with a stucco flange vinyl accessory, follow the steps in this section. Stucco flange must be installed and prepped on field mulled units before installing into the opening.

For single window units with factory installed stucco flange, follow steps 4 - 6 ONLY.

1

Snap stucco flange accessory in place, all (4) sides.

2

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 (4) sides. (Figure G.1)

3

Apply a bead of caulking along interior side of each closed corner miter to seal. (Figure G.2)

4

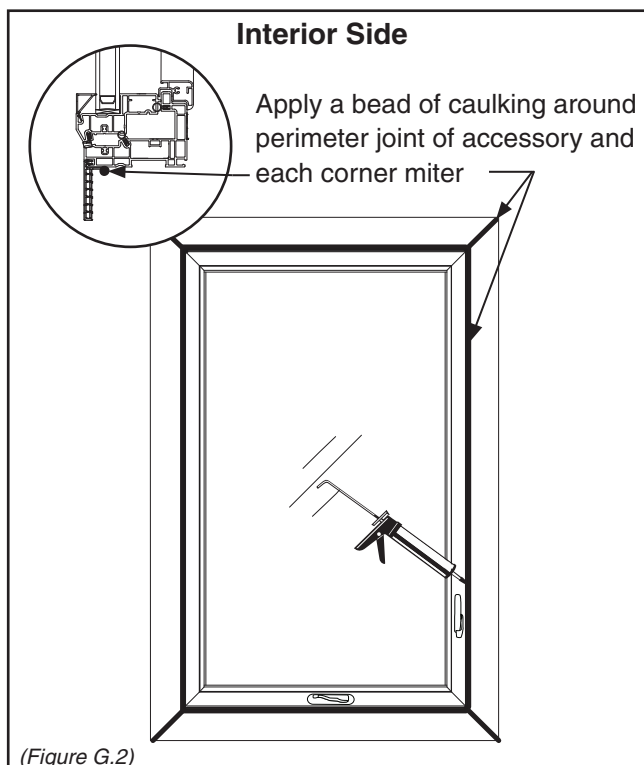
Apply a bead of caulking around the entire inner perimeter joint, where the vinyl accessory meets the frame for a complete seal. (Figure G.2)

5

Apply a generous amount of caulking to the interior side of the stucco flange. Cover as needed to create a complete seal.

6

After the installation of the window unit is fully complete, apply a bead of caulking to the exterior edge of the stucco flange, where the flange meets the existing finished stucco face.





# TROUBLESHOOTING & TIPS

| PROBLEM                                                      | CAUSE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | SOLUTION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|--------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Top of sash leans outward while closing                      | Normal/typical.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | This is a normal occurrence as long as the top of the sash pulls in tight when closed. If sash does not pull tight, adjust keepers to engage tie rod post in succession, to achieve a zipper like effect from top to bottom. Lift block may be missing. Refer to the "Keeper and Tie Rod Adjustment" QR Code at the end of this instruction for more detail.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Lock lever becomes hard to operate halfway down              | The keepers are not properly aligned with the tie rod post. Multiple keepers are engaging the tie rod post at the same time.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Adjust keepers to engage tie rod post in succession, to achieve a zipper like effect from top to bottom. Lift block may be missing. Refer to the "Keeper and Tie Rod Adjustment" QR Code at the end of this instruction for more detail.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Sill bows upward                                             | <ol style="list-style-type: none"> <li>1. No shims below jambs. Critical on mulled units.</li> <li>2. Over insulating or over shimming below sill.</li> <li>3. Installing sill extender before foam below sill has cured.</li> <li>4. Insufficiently shimming under jambs when foam wrap is used under sill.</li> <li>5. Installing fasteners in nail fin units prior to proper setting and alignment of window.</li> <li>6. Supporting nail fin unit on bottom center fin hole.</li> <li>7. Exterior trim is tight against window, not allowing for vinyl expansion in the heat.</li> <li>8. Shims placed at top header and bottom sill locations, not allowing for vinyl expansion in the heat.</li> </ol> | <ol style="list-style-type: none"> <li>1. Add shims to window sill per this instruction.</li> <li>2. Remove foam. Re-square and level window unit. Refer to this instruction for proper insulation procedure.</li> <li>3. Remove sill extender and foam below sill. Re-foam and let cure completely before re-installation of sill extender.</li> <li>4. Re-shim window unit per this instruction.</li> <li>5. 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.</li> <li>6. Remove fastener from center fin. Install a fastener at each corner of nail fin to secure window unit in place.</li> <li>7. Refer to "Installing Exterior Veneers to Windows" QR code at end of this instruction.</li> <li>8. Remove shims at top header or bottom sill locations. Shim per this instruction.</li> </ol> |
| Header bows downward                                         | <ol style="list-style-type: none"> <li>1. Excessive foam or over insulating above header.</li> <li>2. Installing fasteners in nail fin units prior to proper setting and alignment of window.</li> <li>3. Excessive foam or insulation on nail fin units prior to fastening nail fin.</li> <li>4. Shims placed at header location, not allowing for vinyl expansion in the heat.</li> </ol>                                                                                                                                                                                                                                                                                                                  | <ol style="list-style-type: none"> <li>1. Remove foam above header. Re-foam per this instruction.</li> <li>2. 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.</li> <li>3. Remove foam. Re-foam per this instruction.</li> <li>4. Remove shims at top header. Shim per this instruction.</li> </ol>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Frame racked or out of square                                | Improper or no shims below the jambs.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Re-shim window unit per this instruction.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Tall unit side jamb margins are not consistent in width      | Under shimmed and under secured.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Add additional jamb screws. Place shims at additional jamb screw locations.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| 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.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Sash is leaning downward and unable to pull in at the bottom | Lift block is missing.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Locate lift block next to sill slide track, with bevelled edge facing the exterior side.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |



# TROUBLESHOOTING & TIPS

| PROBLEM                                                      | CAUSE                                                                                                                                                                           | SOLUTION                                                                                                                                     |
|--------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| Window leaks water at accessory corners                      | <ol style="list-style-type: none"> <li>1. Improper or no caulking on backside corners of accessory.</li> <li>2. Improper or no caulking at accessory to frame joint.</li> </ol> | <ol style="list-style-type: none"> <li>1. Caulk accessory per this instruction.</li> <li>2. Caulk accessory per this instruction.</li> </ol> |
| Water leaks on multi-level mull units                        | Missing or improper caulking behind exterior mull strip at T-joint or cross joint.                                                                                              | Caulk mull strips 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, visit our Homepage for Installers by scanning the Quick Reference Code shown below, using your QR Code Scanner App.*



**Installing Exterior Veneers to Windows**



**Install. Instruction Loose Brickmold w/ Nail Fin**



**Measuring Instruction MasterFit™ Trim**



**Install. Instruction Vinyl Window Stacking Plate**



**Condensation, Humidity and Dew Point Temperature**



**Casement Sash Removal for Aspect & Endure**



**Video: How to Remove the Sash of ProVia Casement Windows**



**Keeper and Tie Rod Adjustment**



**Para la versión en ESPAÑOL, escanee el Código QR:  
Instrucciones Para La Instalación De Ventanas  
Abatibles De Vinilo Sin Aleta De Clavado  
(Aspect™ y Endure™)**

