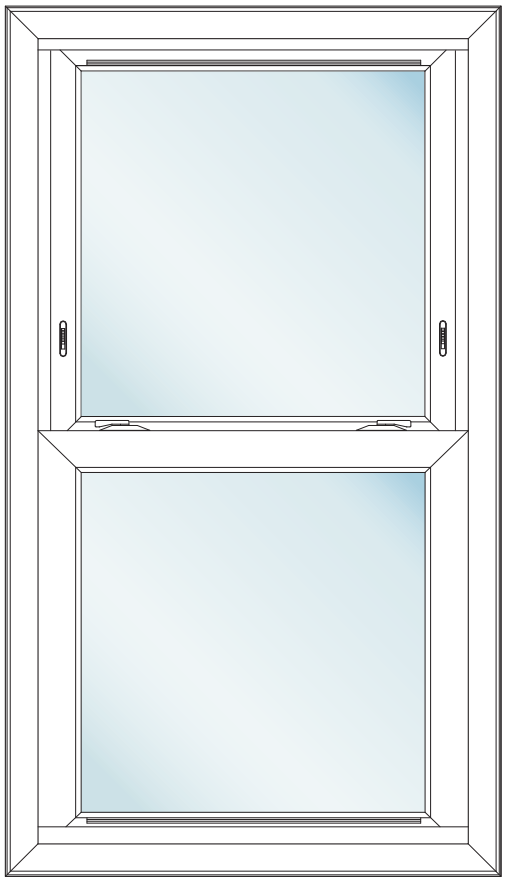
INSTALLATION INSTRUCTION MANUAL

VINYL DOUBLE HUNG WINDOW WITHOUT NAIL FIN

(ASPECT™ AND ENDURE™)



**** 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

ProVia®
THE PROFESSIONAL WAY

GETTING STARTED

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
- 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 Support 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).
- Please scan or tap the QR Code to watch our "Critical Steps: Double Hung Installation" video.

VINYL DOUBLE HUNG WINDOW CONTENTS

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

Assembly Contents

Vinyl Window Unit (3¼" Main Frame Depth)

Sill Extender (Bottom Only), shipped loose, Part #: S-VE-4473-CC *(Refer to Section 'D')*

OPTIONS:
- Sill Extender (4 Sides), Part #: S-VE-4473-CC *(Refer to Section 'D')*
- Head Expander, Part #: S-VE-4130-CC *(Refer to Section 'A' & 'D')*
- Stucco Flange, Part #: S-VE-4485-CC *(Refer to separate instruction)*

MULLION KIT (Only included when field mulling is necessary): *(Refer to separate instruction)*
- Zero Mull Rebar, Part #: S-AE-4710-00
- Zero Snap Mulls, Part #: S-VE-4492-CC
- Header Cover, Part #: S-VR-461-CC (Flat)
- Stacking Plate Pack, Part #: S-HG-604P-00

Installation Pack
S-HS-521S-CC

(6) ⅜" Low Profile Hole Plug, (Color Matched), Part #: S-HG-698-CC



(6) #8 x 2" Phillips Pan Head Screws, Part #: S-HS-046-00



(2) #6 x ½" Phillips Pan Head Screws, (Color Matched), Part #: S-HS-783-CC *(For optional head expander)*



WINDOW INSTALLATION GUIDELINES

- Windows achieve maximum performance from proper installation methods. It is critical to maintain consistent 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, scan or tap the QR code shown for all gap recommendations per exterior material type.
  THIS INFORMATION MUST BE PASSED TO THE EXTERIOR FINISH INSTALLER.

⚠ 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:

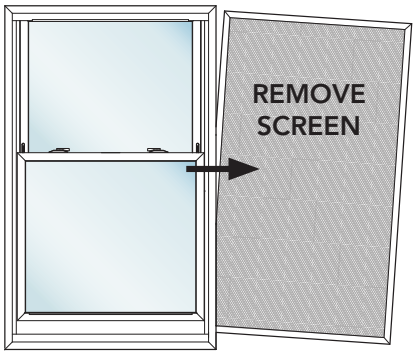
• Refer to the separate document, "Field Instruction For Mulling Vinyl Windows". Units must be mulled together before window unit is set into the opening.

STUCCO FLANGE:

• Refer to the separate document, "Field Instruction for Window Accessory Installation". Stucco flange must be installed and prepped on field mulled units and units ordered with flange shipped loose before setting in opening. Factory installed stucco flange must be prepped on a single unit before setting in the opening.

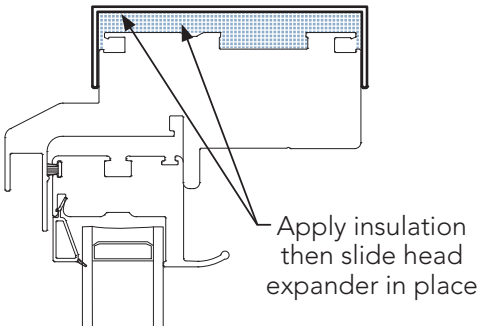
A. INSPECT AND PREPARE VINYL WINDOW UNIT

INSPECT AND CHECK WINDOW UNIT



(Figure A.1)

OPTIONAL HEAD EXPANDER



(Figure A.2)

⚠ ***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 A - D.

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. 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 the Customer Support Team. *(Figure A.1)*

2. Remove screen. Carefully set aside. Screen will be re-installed after installation. *(Figure A.1)*

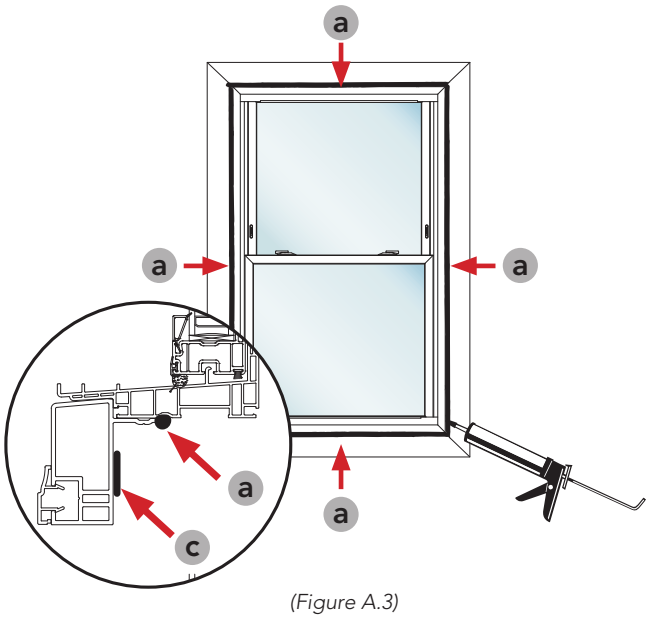
3. After inspection, close and lock window unit to engage seals, locks, interlocks, and weatherstripping.

4. If optional **head expander** is to be used, place batt insulation between frame header and expander. Allow for compression without distorting header frame. Slide head expander in place. *If exterior accessory groove is to be used, cut expander in half lengthwise. Only use interior half as needed. Discard exterior half. NOTE, ProVia does not alter unit size ordered to compensate for optional head expander. (Figure A.2)*

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

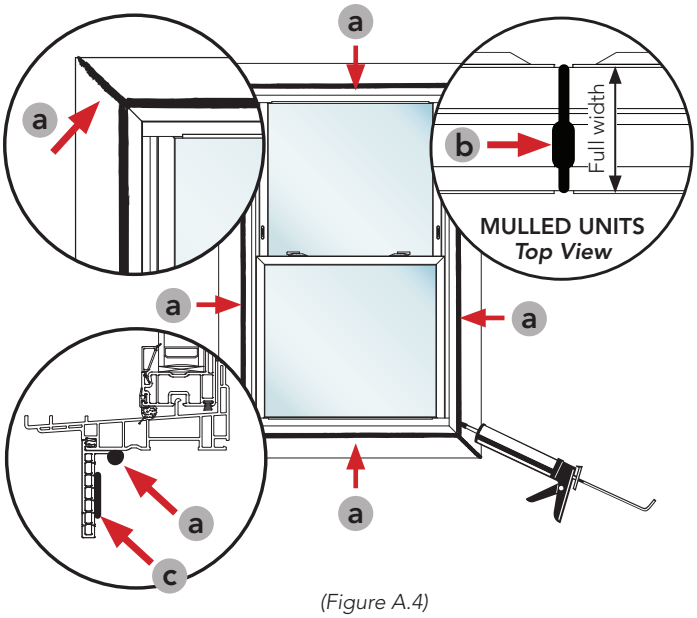
ACCESSORY PREP

WELDED BRICKMOLD
Interior View



(Figure A.3)

STUCCO FLANGE
Interior View



(Figure A.4)

5 If unit is ordered with the optional **welded brickmold** or **stucco flange**, the accessory must be prepped as instructed below. If the accessory is shipped loose, refer to the included "Field Instruction for Window Accessory Installation" then return to this step for prep. *Note, if stucco flange is used as trim only, no prep is required.*

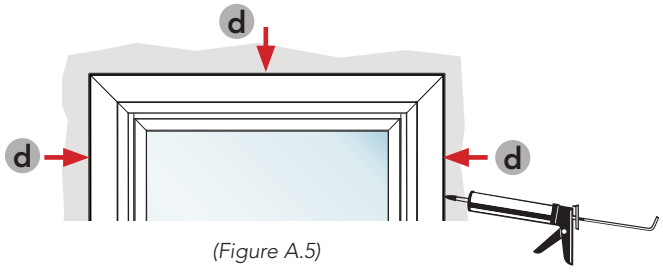
a. On the interior side, apply a bead of caulking around the perimeter joint. In addition, apply caulk to the interior side of the stucco flange miters as shown. *(Figure A.3 & A.4)*

b. For side-by-side mulled units with stucco flange, apply sealant along top mull joint(s) for the full width to seal. *(Figure A.4)*

c. **Before unit is set in the opening**, apply a generous amount of caulking to the interior side of the accessory. *(Figure A.3 & A.4)*

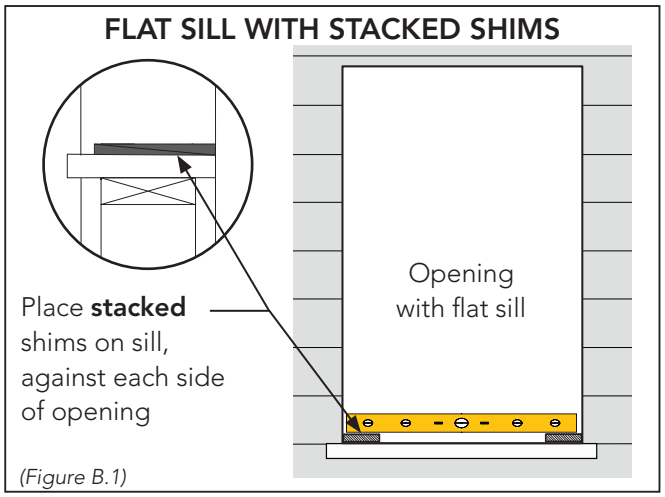
d. **After the window installation is complete**, apply a bead of caulking to edge of the accessory, where the flange meets the finished exterior surface. *(Figure A.5)*

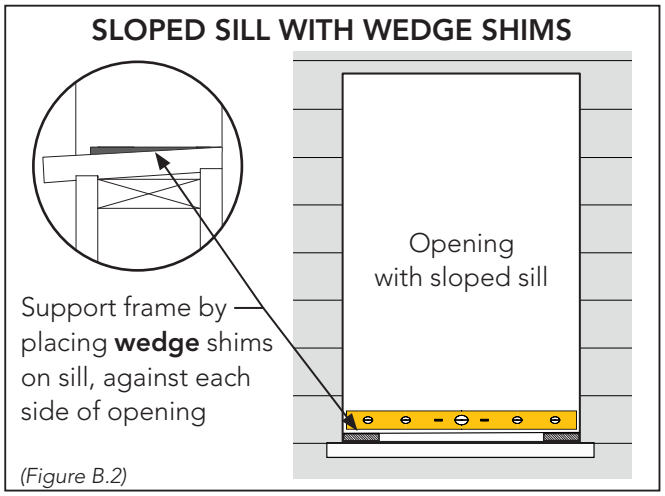
AFTER INSTALLATION - ACCESSORY FLANGE
Exterior View

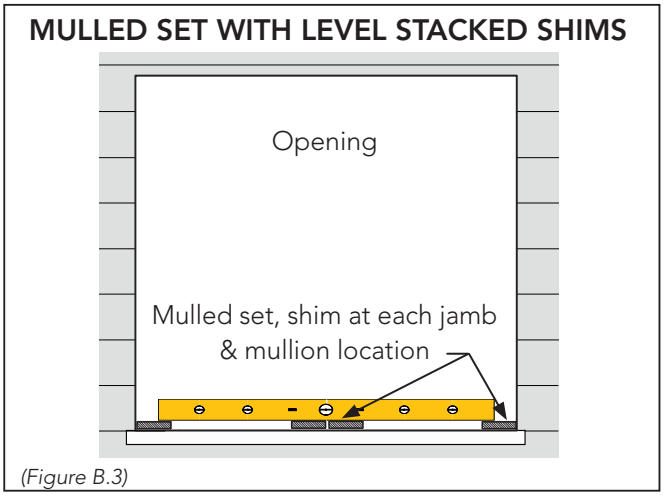


(Figure A.5)

B. PREP OPENING







1. Clean opening of 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 C1620.

3. Check sill for level, flat, and for proper structural support of opening to ensure a proper installation and seal of window unit. For a flat sill plate, refer to Step 4. For a sloped sill plate, refer to Step 5.

4. For a flat sill plate, place **stacked shims** on sill, against each side of opening. Be careful shims **DO NOT** tilt sill toward inside of home. For mulled sets, place stacked shims under each side jamb location. *(Figure B.1 & B.3)*

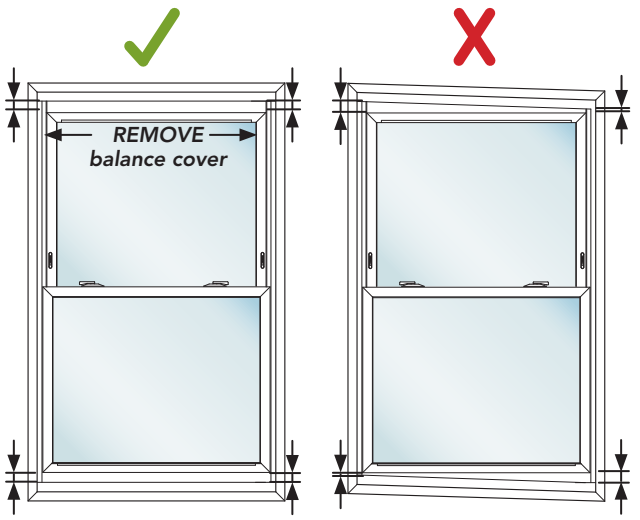
   NOTE: If foam wrap is used under sill, shim thickness **MUST** be increased to prevent foam wrap from crowning the sill.

5. For a sloped sill plate, place **wedge shims** on sill, against each side of opening. Be careful shims **DO NOT** tilt sill toward inside of home. For mulled sets, place wedge shims under each side jamb location. *(Figure B.2 & B.3)*

   NOTE: For window units 36" wide or greater, an additional shimming location may need added to prevent sill from deflecting.

C. INSTALLATION

MARGIN CHECK - INTERIOR VIEW



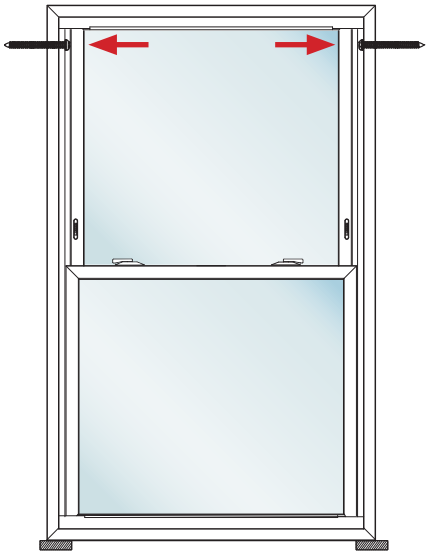
CORRECT
Equal sash to sill/header margin

NOT CORRECT
Unequal sash to sill/header margin

(Figure C.1)

SECURE - INTERIOR VIEW

Install a screw into each top jamb screw location



(Figure C.2)

1. Place locked window unit into the opening and onto sill shims. Center within opening. *If top of window is against top of opening, reduce height of bottom shims. Shims are still required below sill as specified.*

2. Unlock and lower top sash. Remove balance covers to expose installation screw holes.

3. Slightly raise bottom sash. Check for equal sash to sill margin. Adjust shims below side jambs to obtain a parallel margin for full width of window unit. See illustration for equal and unequal sash to sill margins. *Recommended margin variance for width of window unit is 1/16". (Figure C.1)*

   NOTE: For window units 36" wide or greater, an additional shimming location may need to be added to prevent sill from deflecting downward.

   NOTE: DO NOT OVER SHIM below side jambs. Over-shimming will press unit head tight against opening head, resulting in vinyl expansion issues.

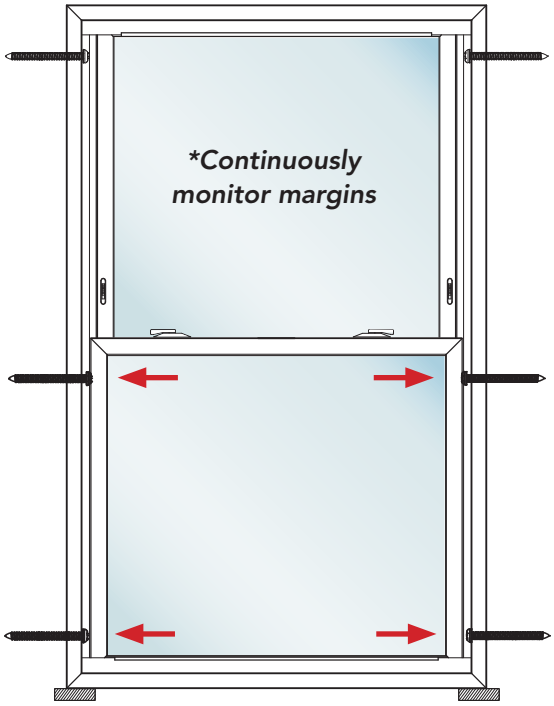
4. Slightly lower top sash. Check for equal sash to header margin. Install #8 x 2" Phillips pan head screw into each factory prepped top jamb screw location to hold in place. **DO NOT OVER TIGHTEN screw causing frame to pull!** Use top screws to align frame, adjusting top of frame to obtain a parallel top margin. Observe bottom sash to sill margin to confirm margin remains parallel. *(Figure C.1 & C.2)*

⚠ ***IMPORTANT!*** *Equal top and bottom margins are critical. If not parallel, it must be shimmed as instructed for proper operation of window.* ***Be careful to NOT over shim. Improper shimming may change margins and jeopardize operation.***

C. INSTALLATION *(CONTINUED)*

SECURE - INTERIOR VIEW

Install a screw in each remaining factory prepped screw location



DO NOT FULLY secure center screws in order to adjust side margins in later step

(Figure C.3)

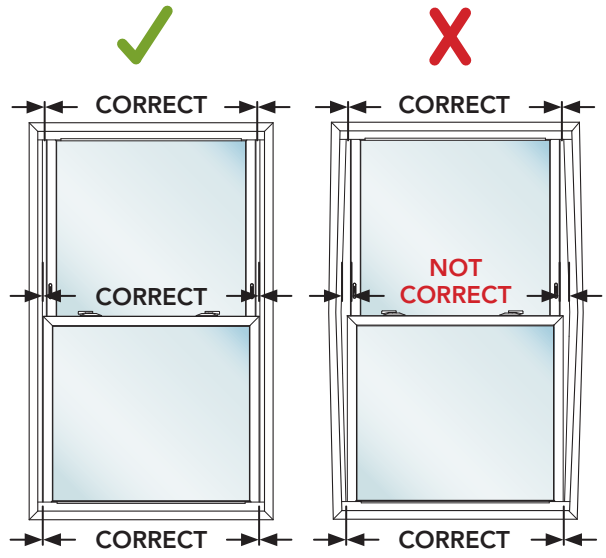
⚠ ***IMPORTANT! Shims can be installed prior to installation of screws. It is critical to monitor margins throughout this installation method. (Figures C.1 and C.4)***

5 Raise bottom sash to expose installation holes. Install (2) bottom screws. Lower sash and inspect margins. Tilt bottom sash in to expose center installation holes. Install (2) middle screws until screws are close but NOT seated to the vinyl *(this will allow for side margin adjustment in a later step).* Relocate and lower sash to inspect all margins. **DO NOT OVER TIGHTEN SCREWS!** *(Figure C.3)*

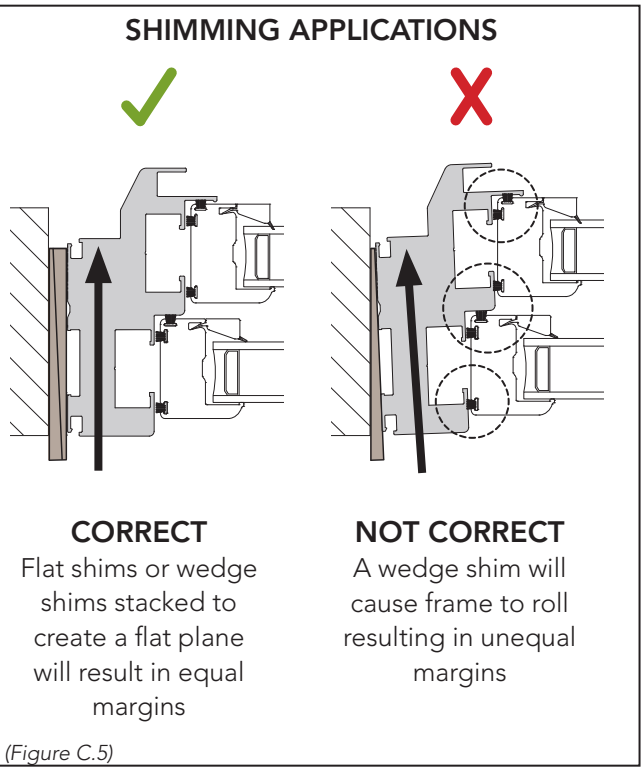
NOTE: If spacing between jamb screws is greater than 24", additional jamb screws may need added to stabilize frame. Pre-drill a ⅛" thru-hole followed by a ⅜" hole through first wall of frame.

NOTE: Additional jamb screws may need added if foam wrap is used on jambs, causing over-tight margins and difficult sash operation.

C. INSTALLATION *(CONTINUED)*



(Figure C.4)



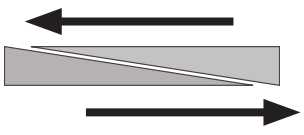
(Figure C.5)

6 From the interior, close and lock sash to visually check sash to jamb vertical margins. Jamb margins need to be equal and parallel for the full height from top to bottom of unit. Sash to jamb margin widths are critical for obtaining the best air resistance performance. *(Figure C.4)*

NOTE: The very top and bottom jamb side margin gaps have been established. Remaining vertical margin will need adjusted to obtain equal width from very top to very bottom.

⚠ ***IMPORTANT!*** ***Shims are needed to achieve required margins. All margins need to be CONTINUOUSLY monitored throughout installation. Shimming as instructed in Step 7 is critical to maintain stability of the frame.***

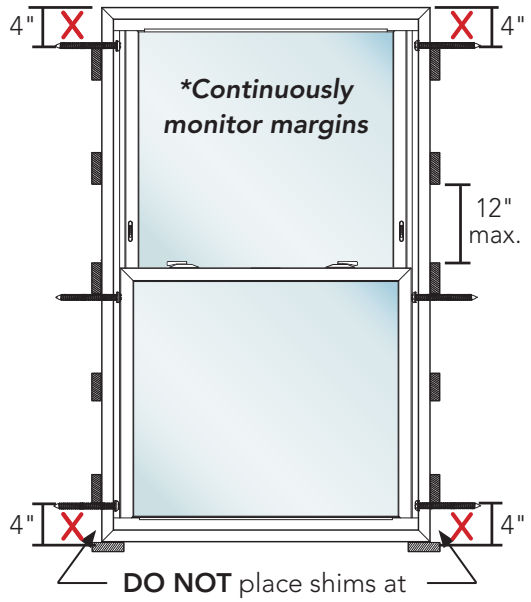
⚠ ***IMPORTANT!*** ***CORRECT*** *shimming application; stack wedge shaped shims contrasting and plane to plane. See diagram below.* ***DO NOT*** *use a single wedge shim. This will cause the frame to roll, resulting in unequal margins. (Figure C.5)*



C. INSTALLATION *(CONTINUED)*

SHIMMING - INTERIOR VIEW

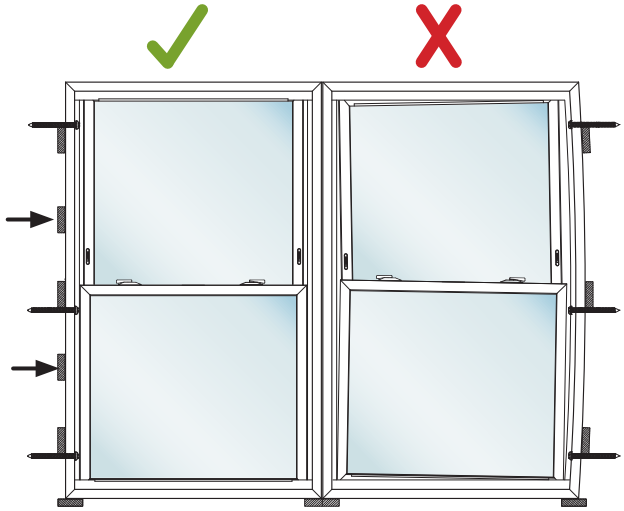
Place stacked shims next to each screw location



DO NOT place shims at header and sill locations of jamb, each side

(Figure C.6)

MULLED SET WITH WIDE SASH TO FRAME MULLION MARGIN



PROPER SHIMMING Will align margins

UNDER SHIMMED May cause wide & unequal margins

(Figure C.7)

***SEE STEP 8**

7. 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.** *(Figure C.6)*

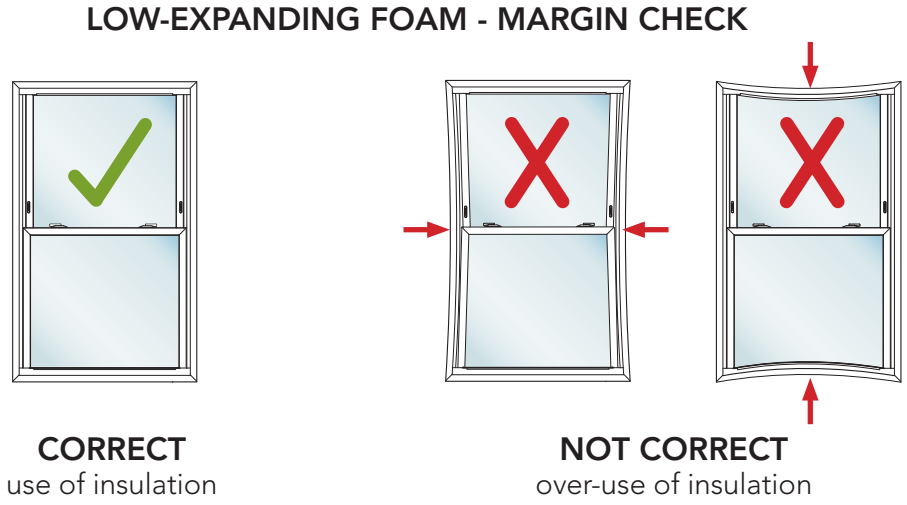
8. **FOR MULL SETS**, confirm sash to jamb margins. If required, move sash over by adding shims to the outside jamb to close margin gap at mull. *(Figure C.7)*

9. Final check on all margins. Adjust shims and screws as needed to achieve and maintain equal and straight margins, all sides. Verify the sash moves freely up and down. If the sash is tight, carefully reduce the jamb shims. ***Refer back to Figures C.1 and C.4.***

10. **Check for proper operation of sash.** If sash lock and keeper do not align side-to-side, adjust keepers as follows. Sash keepers have horizontal slotted adjustment holes behind top sash interlock. Raise and tilt sash to access and loosen keeper screws with a #1 square drive bit. Close sash and engage locks to re-align keepers. Re-open sash to hand tighten keeper screws. DO NOT over tighten or interlock leg may deform, causing interlock interference. *For sash operation issues, refer to Troubleshooting Section.*

11. Fully secure each center/middle jamb screw. **DO NOT OVER TIGHTEN.**

D. INSULATE AND FINAL ADJUSTMENTS



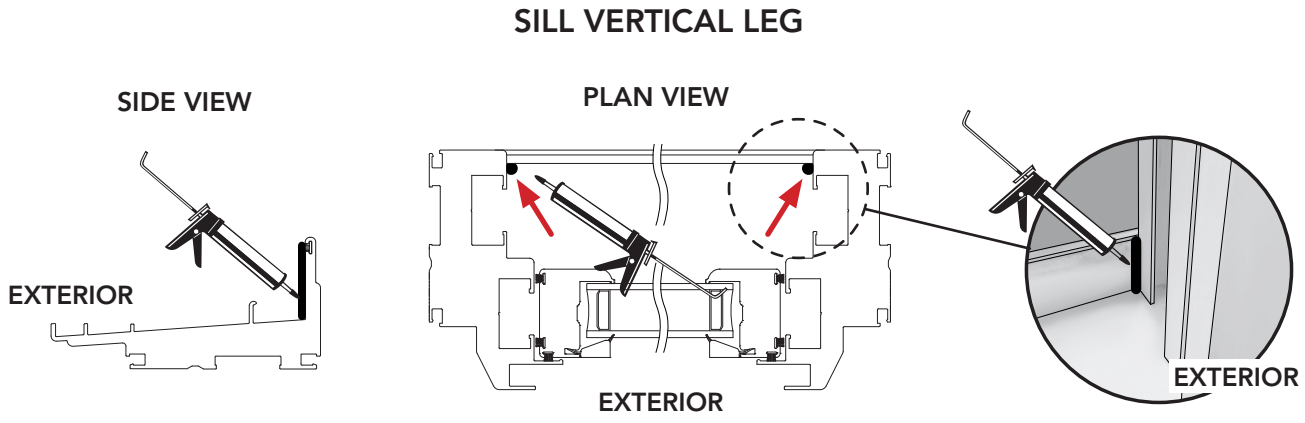
(Figure D.1)

1. Install hole plugs into all jamb screw locations. Re-install balance covers.

2. Close and lock sashes.

⚠ ***IMPORTANT!*** ***Sashes must operate properly before and after application of foam insulation.***

3. 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 D.1)***



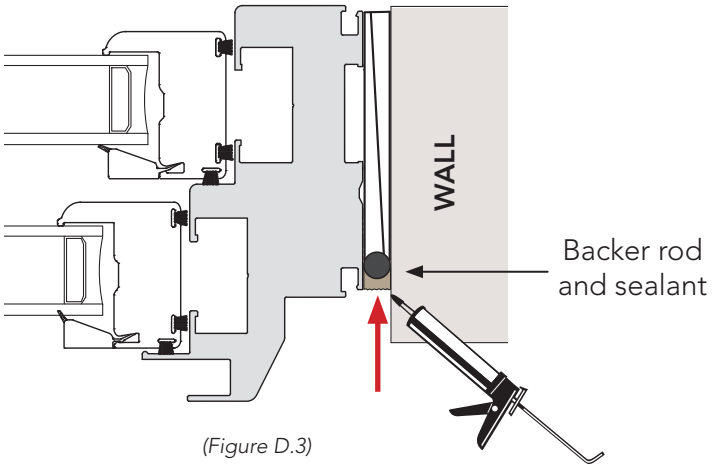
(Figure D.2)

4. Raise bottom sash. At the exterior intersection of the sill's vertical dam leg and side jamb, place a bead of caulking for the full height of the leg, each side of sill. Refer to illustrations above. Allow caulking to fully cure before closing sash. *(Figure D.2)*

D. INSULATE AND FINAL ADJUSTMENTS *(CONT.)*

SEAL EXTERIOR FRAME TO WALL JOINT

DO NOT SKIP THIS STEP!



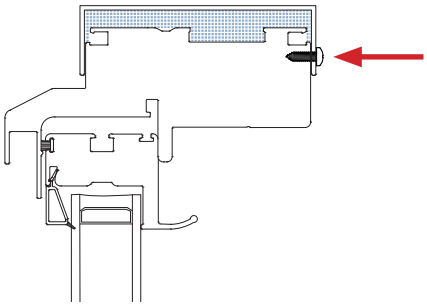
(Figure D.3)

5 **Apply caulking to seal the EXTERIOR window frame to wall joint. Use backer rod if needed. DO NOT SKIP THIS STEP.** *Note: if stucco flange is used, apply sealant from the interior. Be sure the sealant is inserted far enough into the wall joint to meet the backside of the stucco flange. (Figure D.3)*

6 **CRITICAL!** Replace or install a drip cap above the window unit per the ASTM E2112 requirement.

OPTIONAL HEAD EXPANDER

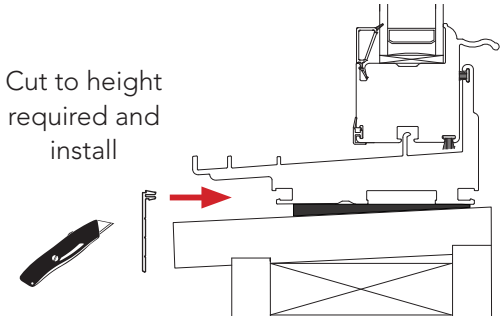
If head expander was installed, adhere with silicone OR fasten with screws



(Figure D.4)

OPTIONAL SILL EXTENDER

If sill extender is to be used, measure from accessory groove to existing sill



(Figure D.5)

7 If optional **head expander** was installed, adhere in place with silicone OR fasten in place with (2) #6 x ½" Phillips pan head screws (included) from INTERIOR side. *If exterior accessory groove is to be used, cut expander in half lengthwise. Only use interior half as needed. Discard exterior half. (Figure D.4)*

8 If optional **sill extender** is to be used, measure distance from sill accessory groove to existing sill or edge of rough opening. Cut fin to height required and install. **DO NOT** install until foam has fully cured. *(Figure D.5)*

9 If **MasterFit™ Trim** is ordered, **DO NOT** nail trim to jamb extension. Refer to QR code on back for measuring assistance.

TROUBLESHOOTING & TIPS

PROBLEM	CAUSE	SOLUTION
Sashes will not lock	1. Sill bows upward. 2. Head bows downward. 3. Frame racking / out of square. 4. Sash interlock legs are hitting. 5. Sashes left open for a period of time causing bottom sash bulb seal to harden.	1 - 4. Refer to corresponding 'Problem' listed below & this instruction. 5. Work fingers on bulb to soften, or replace. Keep window locked at night until bulb has taken a more flattened set.
Sashes are tight when operating	1. Excessive shimming of side jambs causing frame to be tight against sash. 2. Excessive foam along side jambs causing frame to be tight against sash. 3. Missing jamb screws at interlock causing frame to be tight against sash after foaming the jamb.	1. Re-shim window unit per this instruction. 2. Remove foam. Re-square and level window unit. Refer to this instruction for proper insulation procedure. 3. Install jamb screws and shim per this instruction.
Sill bows upward	1. No shims below jambs. Critical on mulled units. 2. Over insulating below sill. 3. Installing sill extender before foam below sill has cured. 4. Insufficiently shimmed under jambs when foam wrap is used under sill. 5. Exterior trim is tight against window, not allowing for vinyl expansion in the heat. 6. Jamb side shims placed too close to bottom of unit, not allowing for vinyl expansion in the heat.	1. Add shims to window sill per this instruction. 2. Remove foam. Re-square and level window unit. Refer to this instruction for proper insulation procedure. 3. Remove sill extender and foam below sill. Re-foam and let cure completely before re-installation of sill extender. 4. Re-shim window unit per this instruction. 5. Refer to "Installing Exterior Veneers to Windows" QR code at end of this instruction. 6. Remove shims at bottom sill locations. Shim per this instruction.
Header bows downward	1. Excessive foam or over insulating above header. 2. Jamb side shims placed too close to top of unit, not allowing for vinyl expansion in the heat.	1. Remove foam above header. Re-foam per this instruction. 2. Remove shims at top header. Shim per this instruction.
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.
Sashes are not aligned side to side	Sash locks and keepers are not aligned side to side.	Open bottom sash and loosen keeper screws. Close bottom sash and engage locks to re-align sash. Reopen bottom sash to hand-tighten keeper screws. DO NOT over tighten or interlock leg may deform.

TROUBLESHOOTING & TIPS

PROBLEM	CAUSE	SOLUTION
Sash interlock legs are hitting	Bow in top sash interlock leg. (Look for nicks or scratches on interlock)	1. Loosen the keeper screws and re-tighten by hand to allow top interlock leg to return to flat, 2. Use heat gun or hair dryer to lightly heat top sash interlock leg. Straighten inward with putty knife to allow interlock legs to pass.
Top sash bulb seal is not staying in place	Various.	Re-insert bulb into T-slot. Secure with stainless staples or small stainless screws. Touch-up fasteners with color matched paint.
Top sash drifting	Top sash drops after unlocking.	1. Current top balances may need replaced with stronger ones. 2. If Roller Tilt© constant force balances are used, add set screws to top of each top balance shoe to add resistance. Refer to "Roller Tilt© Balance Set Screw Procedure" QR code.
Top sash dragging	Top sash is pulled downward by bottom sash while closing.	1. Current top balances may need replaced with stronger ones. 2. If Roller Tilt© constant force balances are used, add set screws to top of each top balance shoe to add resistance. Refer to "Roller Tilt© Balance Set Screw Procedure" QR code.
Daylight at side margins, lock rail and approx. 2" above	Wedge shims used at jambs causing rolled frame.	Re-shim using flat shims per this instruction.
Wide margins along entire side margins	Center jamb screws and shims are not positioned correctly per main instruction.	Re-shim and secure window unit per this instruction.
Air leakage at ends of interlock	Weatherstrip pad at ends of bottom sash interlock are missing or not positioned correctly.	Relocate against vertical weatherstrip and fully engage into the interlock, against interlock leg.
Side margins opening during cold weather	No jamb screws or shims at interlock.	Shim and secure window unit per this instruction.

TROUBLESHOOTING & TIPS

PROBLEM	CAUSE	SOLUTION
Window leaks water at accessory corners	1. Improper or no caulking on backside corners of accessory. 2. Improper or no caulking at accessory to frame joint.	1. Caulk accessory per this instruction. 2. Caulk accessory per this instruction.
Water leaks on multi-level mulled units	Missing or improper caulking behind exterior mull strip at T-joint or cross joint.	Caulk zero snap mulls. Refer to the "Field Instruction for Mulling Vinyl Windows" QR code below.
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 Support 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 Window Accessory Installation

Field Instruction Mulling Vinyl Windows (Aspect & Endure)

Install. Instruction Vinyl Window Stacking Plate #604

Measuring Instruction MasterFit™ Trim

Installing Exterior Veneers to Windows

Condensation, Humidity and Dew Point Temperature

Roller Tilt Balance Set Screw Procedure

Block & Tackle Balance Set Screw Addition

Manual De Instrucciones De Instalación Ventana De Vinilo De Doble Guillotina Sin Aleta De Clavado (Aspect™ y Endure™)

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