

### INSTALLATION INSTRUCTION MANUAL

# 2-LITE VINYL PATIO DOOR ASSEMBLED

(ASPECT™ AND ENDURE™)



<sup>\*</sup> 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





### MATERIALS YOU WILL NEED

- 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
- 6" or 9" Adhesive Flashing Tape in accordance with ASTM D-779 (new construction application)
- Shims



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.

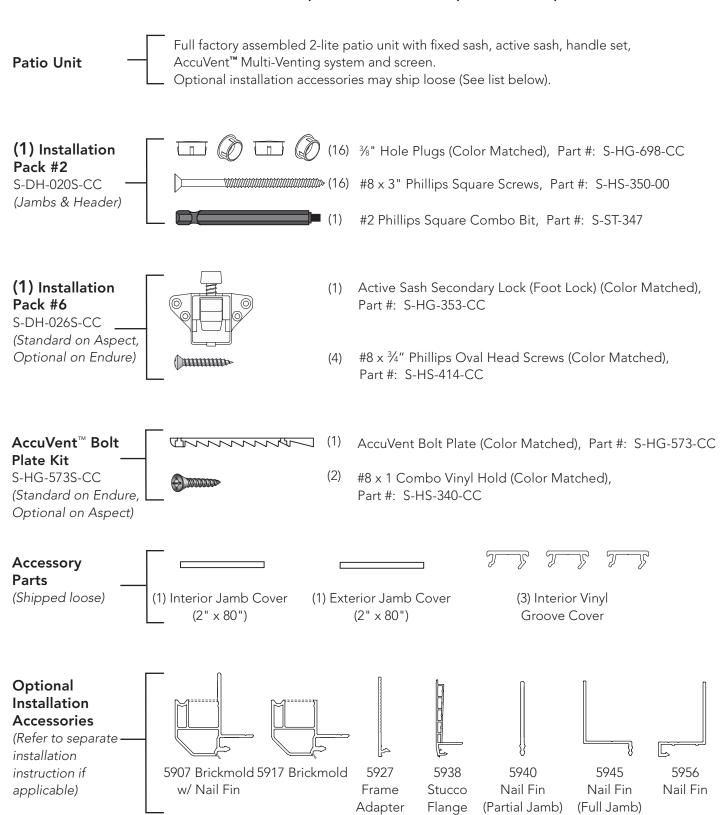


### IMPORTANT NOTES BEFORE YOU BEGIN

- 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 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).
- Do not remove existing patio unit from opening until the frame is fully assembled and all needed components are at the site and frame size matches the opening.

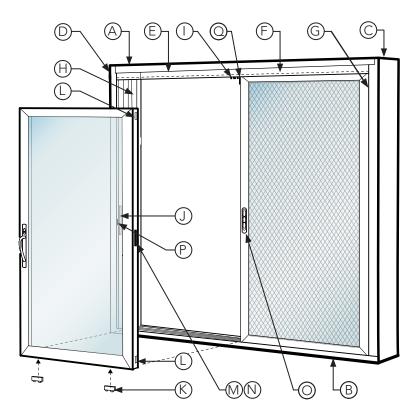
# ASPECT™ AND ENDURE™ 2-LITE PATIO DOOR INSTALLATION CONTENTS

NOTE: Please refer to chart below for the required contents of an Aspect or Endure patio door installation.



### PRODUCT PART # IDENTIFICATION AND REFERENCE

NOTE: Parts listed may be a subassembly or part of a subassembly.



#### FRAME PARTS:

- A. Header S-VE-7002-CC
- B. Sill S-VE-7000-CC
- C. RH Jamb S-VE-7004R-CC
- D. LH Jamb S-VE-7004L-CC
- E. Outer Cover S-AE-6206-CC (See page 13 for Detail)
- F. Common Screen Inner Track S-AE-6207-32 (See page 13 for Detail)
- G. Exterior Jamb Cover S-VE-0714-CC (Hidden)
- H. Interior Jamb (Groove) Cover S-VE-5839-CC
- I. AccuVent™ Bolt Plate S-HG-573-CC (\*See note this page)

#### SASH PARTS - (1) Fixed, (1) Active:

- J. Multi-Pt Lock/Keeper S-DH-072 (See page 10 for Detail)
- K. Tandem Wheel Patio Door S-HG-355-00
- L. Sliding Cap S-HG-530-CC
- M. AccuVent Latch Trim Plate S-HG-570-CC (\*See note this page)
- N. AccuVent Latch S-HG-571-00 (\*See note this page)

#### **SCREEN PARTS:**

- O. LH Common Patio Screen Handle S-DH-071 (RH Common Patio Screen Handle S-DH-068)
- P. Common Screen Keeper S-DH-069
- Q. LH Wheel Bracket Assembly S-HG-367P-00
   (\*\*See note this page)
   (RH Wheel Bracket Assembly S-HG-366P-00
   hidden on opposite side of screen, \*\*See note
   this page)

#### **NOTES:**

- \* For re-order of all AccuVent™ parts, please order the AccuVent Latch Repair Kit, S-HG-571S-CC.
- \*\*For re-order of Screen Wheel Bracket Assembly, please order Pack #10, S-DH-010S.
- \*\*\*For assistance on all re-orders, please call our Customer Service Team at 1-800-669-4711.



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

#### FIELD MULLED PATIO UNIT:

Refer to Section H, Field Mulling Units, page 14-15. Units must be mulled together before setting into the opening. For units requiring heavy reinforcement, refer to included instruction.

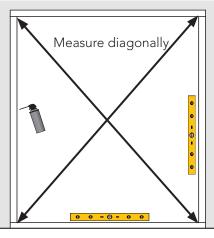
#### **INSTALLATION ACCESSORY:**

If the patio unit is ordered with an installation accessory, refer to the included document, 'Installation Instruction Vinyl Patio Door Installation Accessories and New Construction Flashing'. The QR code for this instruction can also be found at the end of this instruction document. Nail fin or installation accessory must be installed on patio unit before installing into the opening.

### A. PREPARATION

#### **OPENING - EXTERIOR VIEW**

Fill any and all voids with low expanding foam

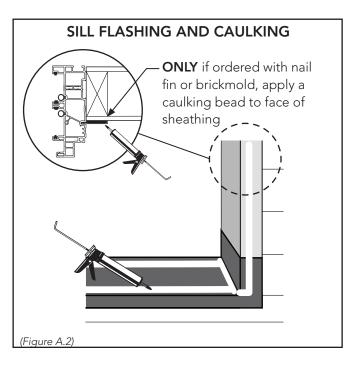


Check sill for level, flat and for proper structural support

(Figure A.1)

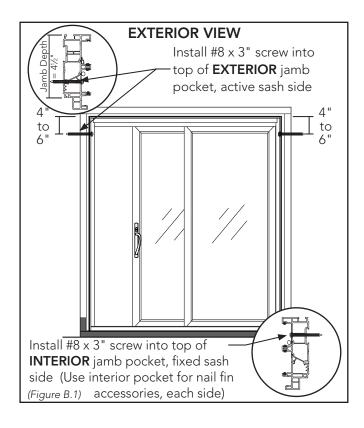
- 1 Clean opening of dirt, debris, and obstructions.
- Fill all voids with AAMA approved low-expanding window insulation foam that complies with ASTM C1620. (Figure A.1)
- 3 Check for level and flat sill. Verify the structural integrity of the opening to ensure a proper installation. If sill is not straight and level, place wood shims between sub-floor and sill to correct minor leveling adjustments. (Figure A.1)
- 4 Check opening for square. Measure diagonally from corner to corner each side to determine. (Figure A.1)
- Verify opening width and height. Opening should be large enough to accommodate patio door with shims and insulation. Recommended opening is ¼" ½" greater per side (or ½" 1" greater in total width) and ¼" ½" greater than in total height.

# A. PREPARATION (CONTINUED)



- 6 Apply flashing to sill opening in accordance with local building codes and best practices. (Figure A.2)
- Replace drip cap at the top of opening if necessary.
- Apply (2) generous beads of premium caulking compound in a STRAIGHT LINE, on top of flashing and along entire length of rough opening sill. Place first bead of caulking to the exterior leading edge of sill. Place second bead towards interior (to bed flat surface of threshold). Apply caulking in each corner of sill as shown. (Figure A.2)
- 9 If nail fin or brickmold option is used, apply a bead of caulking to each vertical and header face of exterior sheathing to seal. To complete seal, apply bead of caulk from sill to exterior sheathing, as shown. (Figure A.2)

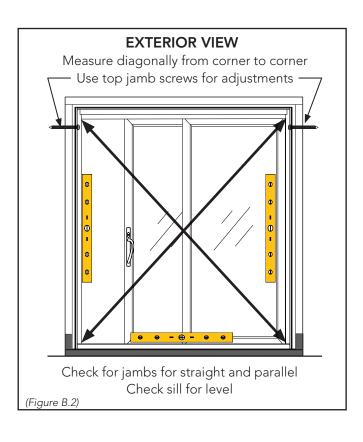
### **B.** INSTALL FRAME



- Place patio unit into the opening, sill first. Center and square unit in opening. Leave enough space for proper shimming and insulation. Aspect™/
  Endure™ Jamb Depth = 4½"
- Install a #8" x 3" installation screw (Pack #2) into top **EXTERIOR** jamb pocket of the active sash side, minimum 4" to 6" down from top corner. Locate screw on score line. **DO NOT over tighten screw causing frame to pull!**

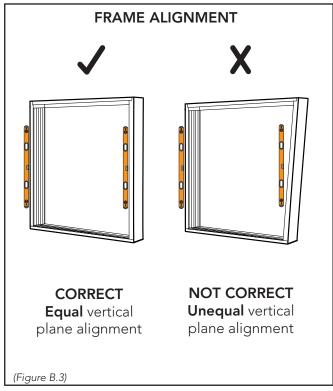
NOTE: If using vinyl installation accessory 5940, 5945, or 5956 nail fin, the active sash side must be secured through the interior jamb pocket. Pre-drill a ¾" hole and install screw into the top INTERIOR jamb pocket, minimum 4' to 6" down from top corner. Secure to second vinyl wall of frame. (Figure B.1)

Install a #8" x 3" installation screw (Pack #2) into the top INTERIOR jamb pocket of the fixed sash side, minimum 4" to 6" down from top corner. Locate screw on score line. DO NOT over tighten screw causing frame to pull! (Figure B.1)



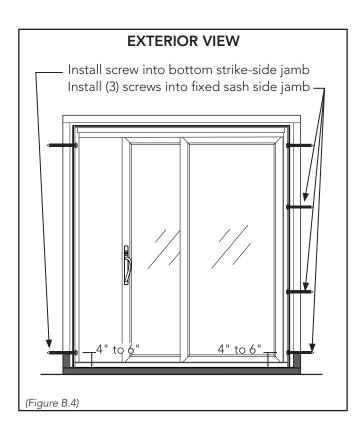
4 Check for overall square of patio unit by measuring diagonally from corner to corner, each side. Recommended tolerance for the diagonal measurement is 1/8". Adjust top jamb screws as needed. (Figure B.2)

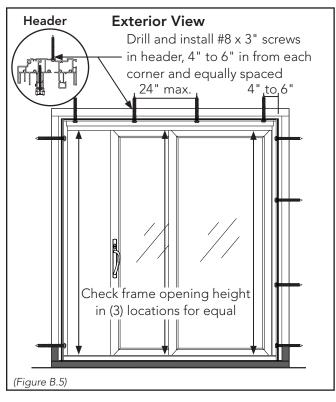
Level sill if needed. If sill is not straight and level, it must be shimmed for proper operation of the patio door.



6 Check plane of the patio frame. Each vertical jamb side frame should be equal and parallel to the other. See illustration for equal and unequal plane. (Figure B.3)

IMPORTANT! If frame is bowed, it may be necessary to shim frame at various locations before adding installation screws.





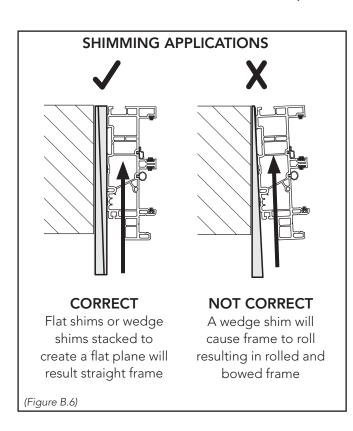
Install a #8" x 3" installation screw (Pack #2) into the bottom **EXTERIOR** jamb pocket of the active sash side, minimum 4" to 6" up from bottom corner. Locate screw on vinyl score line. **DO NOT over tighten screw.** (Fig. B.4)

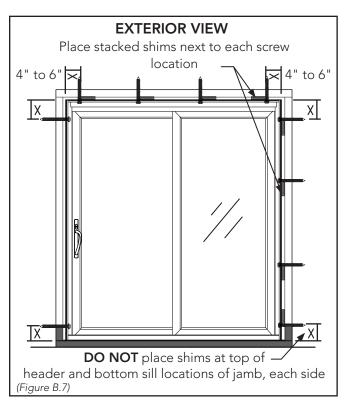
NOTE: If using the **5940**, **5945**, or **5956** nail fin, the active sash side must be secured through the **INTERIOR** jamb pocket. Pre-drill a %" hole and install screw into interior jamb pocket, securing to second vinyl wall of frame.

- Install (3) #8" x 3" installation screws (Pack #2) into the **INTERIOR** jamb pocket of the fixed sash side, locate (2) screws in center and (1) screw 4' to 6" up from bottom corner. **DO NOT over tighten screws.**
- 9 Check each jamb side frame for straight and parallel to each other. Adjust jamb side installation screws as necessary for parallel. Be sure installation screws do not pull vinyl frame causing frame to bow. Re-check for overall square. (Figure B.4) (Also refer to Figure B.3 for correct plane alignment.)
- Pre-drill (4) %" holes through the first wall of the vinyl header frame, equally spaced at a 24" maximum. Place each corner screw hole a minimum of 4" to 6" in from corner. Install (1) #8 x 3" screw (Pack #2) into each pre-drilled header screw hole location. DO NOT over tighten screws causing frame to pull. (Figure B.5)

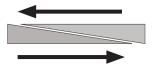
**NOTE: DO NOT** install screw hole plugs at this time. Plugs will be installed after installation is fully completed.

Check frame opening height in (3) locations, each jamb side and center. All (3) measurements to be equal. Adjust header installation screws as necessary to achieve equal measurements. Be sure installation screws do not pull vinyl frame causing frame to bow. Header and sill must be parallel for proper operation of active sash and screen. (Figure B.5)





**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 B.5)



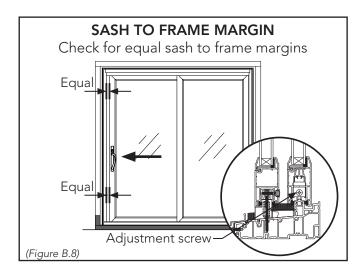
/INPORTANT! DO NOT over shim. Improper shimming may roll, bow, and change margins, jeopardizing operation.

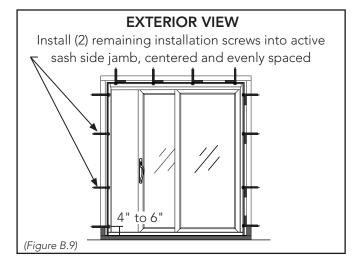
IMPORTANT! To prevent water infiltration, DO NOT install screws through sill.

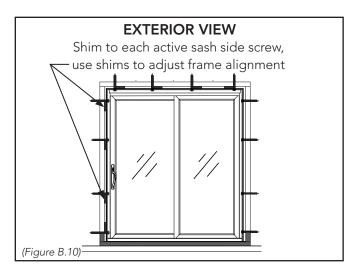
Place shims next to each installation screw located on fix sash jamb side and header only. DO NOT shim active sash side at this time. Be sure top jamb shims are located 4" to 6" from top of frame and bottom shims are 4" to 6" from bottom of frame. Be sure header shims are located 4" to 6" from each corner. If spacing between side jamb or header shims is greater than 12" to 18", additional shims may be needed to maintain margins and stabilize frame. Use shims to adjust straight and parallel as needed. (Figure B.7)

NOTE: To allow for vinyl expansion, DO NOT place shims at top header, bottom sill, or header corner locations as shown. Shimming in these locations will cause frame distortion.

Confirm frame is square and even with interior wall.







Check for equal sash strike edge to frame margin. Slide the active sash to almost closed. The sash to frame margin should be equal and parallel the full height. Adjust active sash adjustment screws to achieve equal margin. (Figure B.8)

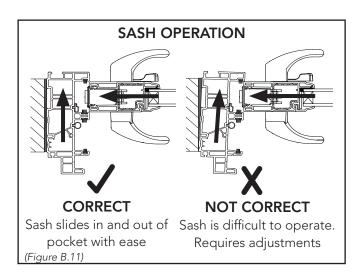
**NOTE:** The sash adjustment screw is located on the bottom sash rollers to adjust each side of active sash as necessary for equal height, squareness, and margin. Turn adjustment screw clockwise to raise sash and counter-clockwise to lower sash. Unweight sash to assist with upward adjustment. (Figure B.8)

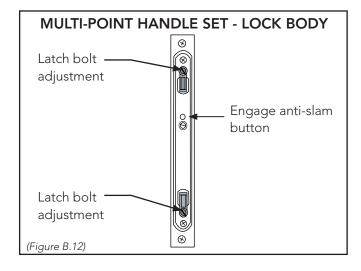
Install (2) #8" x 3" installation screws
(Pack #2) into the **EXTERIOR** jamb pocket
of the active sash side, locate (2) screws
in center and (1) screw 6" up from bottom
corner. **DO NOT** tighten screws. Screws
can be used for frame alignment and
adjustment. (Figure B.9)

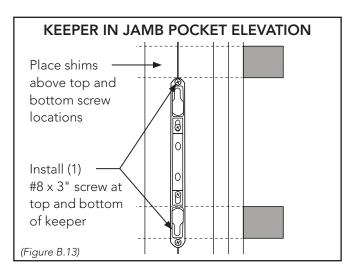
**NOTE:** If using installation accessory **5940**, **5945**, **or 5956 nail fin**, secure through the **INTERIOR** jamb pocket. Pre-drill a ¾" hole and install screws into the interior jamb pocket, securing to second wall of the vinyl frame.

Shim active sash side frame at each installation screw to adjust frame as needed. Be sure top and bottom shims are 4" to 6" away from corners. Additional shims may be needed for proper frame alignment. FLAT SHIMS MUST BE USED. Be careful to NOT over shim. Improper shimming may roll, bow, and change margins, jeopardizing operational performance. (Figure B.10 & B.11)









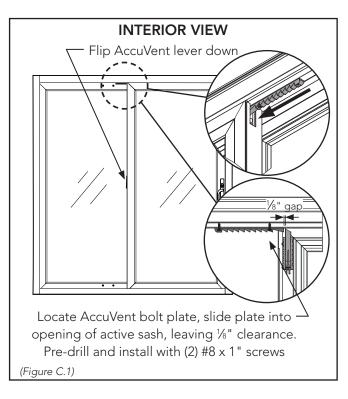
IMPORTANT! CORRECT sash operation. If jamb side frame becomes rolled during installation, the active sash will conflict with the frame resulting in poor operation. The jamb side frame must be straight and parallel to active sash. Refer to Figure B.11 for an illustration of proper frame to sash alignment. (Figure B.11)

17 Check sash operation. Sash must slide in and out of jamb pocket smoothly for proper operation and lock function. If not, continue to adjust shims, screws, and the adjustment screws located on bottom sash rollers to further align as needed.

Close active sash, locking and unlocking handle. If needed, adjust the latch bolt and keeper positions until sash latches securely without sash movement or excessive latching effort. To adjust latch bolt position, open sash and engage the anti-slam button to allow the latch bolt to lock. Use a flat head screwdriver to loosen or tighten latch bolt as needed. Test function of the lock. Repeat step if lock is still too tight or too loose. (Figure B.12)

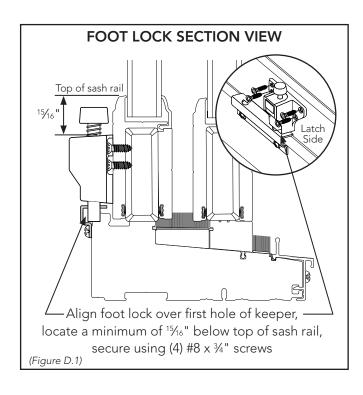
48 x 3" screw (Pack #2) in the top and bottom of the keeper to secure in place. Place shims immediately above each screw location. (Figure B.13)

# C. INSTALL ACCUVENT™ VENT SYSTEM BOLT PLATE



- AccuVent is a standard feature on all Endure<sup>™</sup> and an optional feature on all Aspect<sup>™</sup>.
- 1 Close active sash and lock handle.
- 2 Flip AccuVent lever down into locked position. (Figure C.1)
- 2 Locate the AccuVent bolt plate (AccuVent Bolt Plate Kit) on the active sash header track. Slide plate into the stile opening of the active sash, next to the AccuVent bolt, as shown in Figure L.1. Provide a 1/8" clearance between bolt plate and bolt. (Figure C.1)
- Pre-drill a 3/32" or 7/4" hole and install (2) #8 x 1" screws (AccuVent Bolt Plate Kit). **DO NOT** over-tighten screws. (Figure C.1)

### D. INSTALL FOOT LOCK

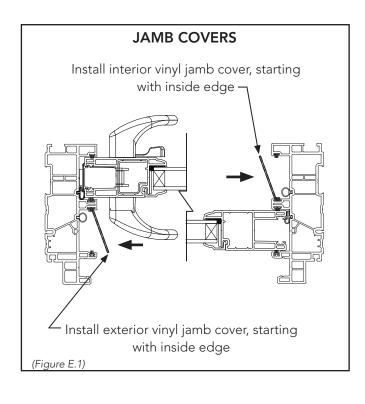


Foot lock is a standard feature on all Aspect™ and an optional feature on all Endure™.

Foot lock keeper is factory mounted.

- Close active sash and lock handle.
- Align foot lock (Pack #6) over the first hole of keeper, closest to the latch side. Locate and install foot lock body a minimum of 15/16" below top of sash rail, as shown. Check to be sure bolt will engage keeper. Secure to sash using (4) #8 x 3/4" Phillips oval head screws (Pack #6). (Figure D.1)

## **E.** JAMB COVERS AND SCREW HOLE PLUGS





IMPORTANT! Final check on sash and hardware operation. ALL frame and sash adjustments must be finalized before proceeding to the following steps.

- Install interior and exterior vinyl jamb cover, start at top by first inserting inside edge. Use thumb to guide edge into the frame pocket, located in front of weather strip. Use opposite thumb to apply slight pressure to top edge of cover closest to you, snapping in place. Run thumbs along edge from top to bottom of cover, apply continuous pressure, zip into place. (Figure E.1)
- Install vinyl screw hole plugs into all installation screw holes located in header and the active side jamb pocket (if applicable). (Pack #2). For painted vinyl, use touch-up paint (included) for color match screw cap covers if needed.

### F. INSULATE

Insulate by using an AAMA approved ASTM C 1620 Low-Expanding Foam to fill cavities between patio frame and opening.



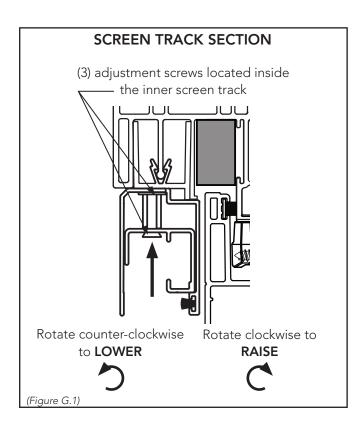
**IMPORTANT!** Over use of Low-Expanding Foam or use of any non Low-Expanding Foam may cause vinyl frame to bow, jeopardizing operational performance of door.

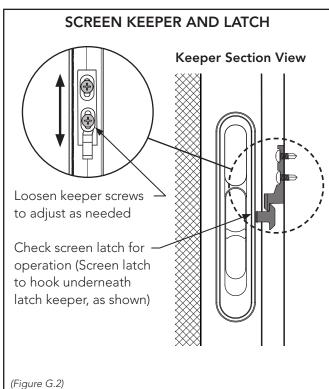
2 Trim all shims flush with patio frame. Caulk exterior of patio unit to ensure water tightness between rough opening and patio unit.



**IMPORTANT!** Allowance must be given for expansion and contraction of exterior trim application. Refer to the QR code located at the end of this instruction for gap recommendations per exterior finish material type.

# G. ADJUST SCREEN AND KEEPER







Screen latch and screen keeper are factory installed.

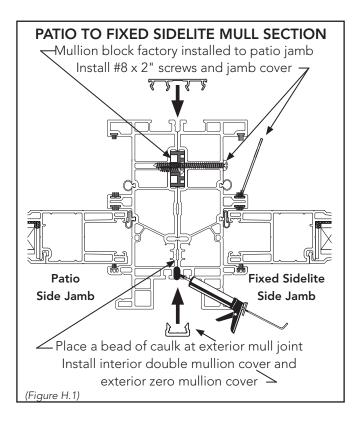
To adjust the height and square of the screen, locate the (3) adjustment screws inside the inner screen track. Adjust the left and right screws until screen is parallel to sash and jamb. Once screen placement is established, align center screw to match.

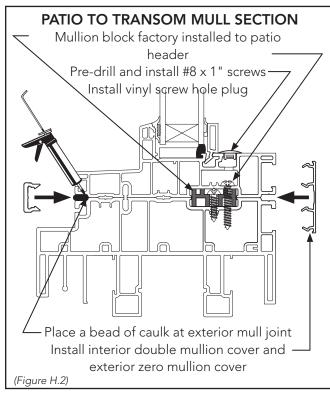
**NOTE:** Each complete turn of the screw will raise or lower the track by 1/32". Turn counter-clockwise to **LOWER** the screen and clockwise to **RAISE** the screen. **DO NOT** remove the adjustments screws. (Figure G.1)

**NOTE: DO NOT USE** a power drill to make adjustments. Doing so will cause excessive torquing of adjustment screws. **ONLY** use a #2 Phillips head screwdriver.

If the screen is not latching properly after screen alignment has been established, check the screen latch for proper operation. Screen latch should hook underneath latch keeper. Latch should always unlatch while pushing down on keeper slide. If adjustments are required, use a #2 Phillips head screwdriver to loosen keeper screws and move keeper up or down as needed. (Figure G.2)

### H. FIELD MULLING



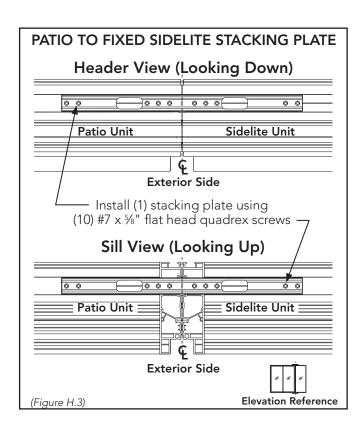


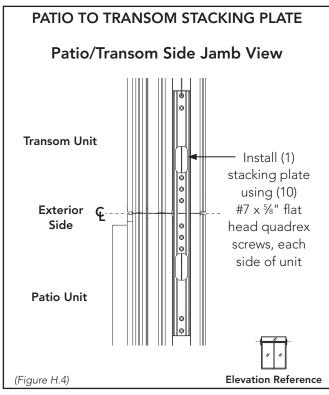
Units must be mulled together before setting into the opening. Use Installation Pack - Mulled Units, Part # S-DH-022S-CC and Stacking Plates, Part # S-HG-603-00 for all required field mulling components.

NOTE: Mullion block(s) will be factory installed to patio unit. For units requiring heavy reinforcement mulling, refer to the QR code 'Installations Instructions Vinyl Patio Sidelite or Transom Field Mulling - Heavy Reinforcement' located at the end of this instruction.

- Align the fixed sidelite or transom to the patio unit. Check for flush, even and square alignment of frames.
- 2 Attach fixed sidelite or transom to patio.
  - For sidelite(s), install (6) #8 x 2" screws, evenly spaced, through the fixed sidelight jamb pocket. Center screws on vinyl score line. Install fixed sidelight vinyl jamb cover
  - For transom, pre-drill (6) %" holes through the first wall of the vinyl transom sill, equally spaced, as shown. Install a #8 x 1" screws into each pre-drilled screw hole to secure transom to patio unit. Insert %" vinyl hole plugs to seal.
- When mulling a patio sidelite or mulling is done on a flat surface, stacking plates must be installed prior to lifting unit to an upright position. Refer to Steps 6-9 of this Section for stacking plate installation.
- Place a bead of caulk at all exterior mull joint locations. Be sure all voids between mulled frames are sealed. (Figure H.1 & H.2)
- Install the vinyl exterior zero mullion cover and interior double mullion cover into frame accessory channels, as shown. If a face mounted installation accessory was ordered, the accessory must be installed before the zero mullion cover. (Figure H.1 & H.2)

# H. FIELD MULLING (CONTINUED)





- For sidelite, install (1) stacking plate to secure patio frame header to sidelite frame header. Align centerline of stacking plate with centerline of mull joint. Secure plate using (10) #7 x %" flat head quadrex screws (provided) as shown. (Figure H.3)
- For sidelite, install (1) stacking plate to secure patio sill to sidelite sill. Align centerline of stacking plate with centerline of mull joint. Secure plate using (10) #7 x %" flat head quadrex screws (provided) as shown. (Figure H.3)
- 8 For transom, install (1) stacking plate to secure patio frame side jamb to transom frame side jamb. Align centerline of stacking plate with centerline of mull joint. Secure plate using (10) #7 x 5% flat head quadrex screws as shown. Repeat step on opposite side. (Figure H.4)
- 9 If multiple transoms, install (1) stacking plate to secure transom frame header to transom frame header. Align centerline of stacking plate with centerline of transom mull joint. Secure each plate using (10) #7 x 5%" flat head quadrex screws.
- 10 If the patio unit was ordered with an installation accessory, install at this time. Refer to the included document, 'Installation Instruction Vinyl Patio Door Installation Accessories and New Construction Flashing'. The QR code for this instruction can also be found at the end of this instruction document.



PROBLEM	CAUSE	SOLUTION
Sash is difficult to operate	1. Sill is crowning. 2. Header is sagging.	Measure distance between sill and header at each jamb and several locations in between. If measurements are not equal, the sill could be crowning or the header could be sagging. This will cause the head weather strip block to put to much pressure on the sash making it difficult to operate. Adjust shims and screws in header.
Handle set is difficult to lock	Keeper or latch bolt is not properly positioned.	Refer to Section B for latch bolt adjustment and positioning instruction.
Screen is dragging	Outer screen track is slightly angled outward.	Re-align outer screen track.
Screen weather strip does not contact sash	Outer screen track is slightly angled outward.	Re-align outer screen track.
Active sash will not close into frame pocket or sash is catching in pocket	Frame is bowed or rolled.	Refer to Section B, 'Installation' for proper shimming. Re-shimming patio unit may be required.
Handle is loose	Sash is catching in frame pocket due to bow or roll in frame.	Refer to Section B, 'Installation' for proper shimming. Re-shimming patio unit may be required.
AccuVent™ bolt will not release from bolt plate	Head is bowed down or sill is bowed up.	Refer to Section B, Installation for proper screw installation and shimming of header. Adjust as required.
Screen rollers hitting	Inner track is too high.     Inner track screw is hanging down.	Lower top inner track. Refer to Section G of this instruction.     Adjust inner track screw height.
Active sash rolls uneven or rough	Dirt build up on the wheels.	Clean wheels.
Air leakage at the interlock	Top weatherstrip block is missing or incorrectly located.     Interlock weatherstrip is out of location.     Foam plugs are missing from sash.	1. Relocate into center channel, directly above and centered over sash interlock. 2. Relocate weather strip. 3. Call Customer Service for replacement part.
Condensation is present on inside or outside of glass	Various normal conditions/reasons.	Refer to "Condensation, Humidity and Dew Point Temperature" QR code listed below for a detailed explanation of normal condensation conditions.
Screen will not roll over screen track sill	Inner track is too high.	Lower top inner track. Refer to Section G of this instruction.
Screen latch rail is not properly aligned with jamb	Main frame is out of square.     Inner track is out of alignment.	Lower top inner track. Refer to Section G of this instruction.

See following page for QR Codes providing additional information and videos.

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

\*For additional information and helpful videos, visit our Homepage for Installers.

SCAN or TAP the QR Code.



Install Instruction Vinyl Patio
Sidelite or Transom Field Mulling Heavy Reinforcement



Aeris/Endure Patio Door Handle Set Instruction (Manufacturer's)



Installation Instruction Vinyl Patio Door Installation Accessories and New Construction Flashing



Installing
Exterior Veneers to
Patio/Windows



Condensation, Humidity and Dew Point Temperature





