



INSTALLATION INSTRUCTION MANUAL

DOUBLE ENTRY DOOR

FUSIONFRAME™



** 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



GETTING STARTED

MATERIALS YOU WILL NEED

- Measuring Tape
- Pencil
- Utility Knife
- Reciprocating Saw
- Carpenter's Square
- Hammer or Mallet
- Level
- Shims
- Drill & Drill Bits
- Stiff Putty Knife
- (1) box 2½" - 3" Exterior Decking Screws
- (1) box 2½" Smooth Shank Screws
- High Quality Silicone Caulking in accordance with ASTM C 920, Class 25 & Caulking Gun
- AAMA approved Low-Expanding Window Insulation Foam in accordance with ASTM C, 1620
- Siding Removal Tool (Recommended) 
- Masking tape (Optional for Flat Brickmold)
- Table Saw (Optional for Flat Brickmold)



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.



INSTALLER: Demonstrate function of double (French) door astragal to Homeowner. Be sure top and bottom astragal pins are correctly seated in designated locations to ensure proper function of unit.



IMPORTANT NOTES BEFORE YOU BEGIN

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



- For FusionFrame™ installation tips video, TAP or SCAN the QR code shown.

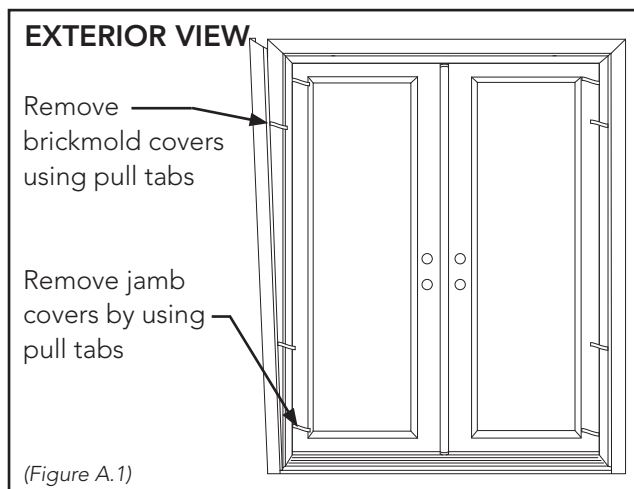


GUIDE



VIDEO

A. PREPARE FUSIONFRAME™ ENTRY DOOR



FusionFrame brickmold covers and jamb covers are designed to be removed before installation. DO NOT re-install until indicated within this instruction.

1

Remove the side and header composite brickmold covers using the factory installed pull tabs or by following the recommendation given below. Carefully set aside to prevent damage. (Figure A.1)

2

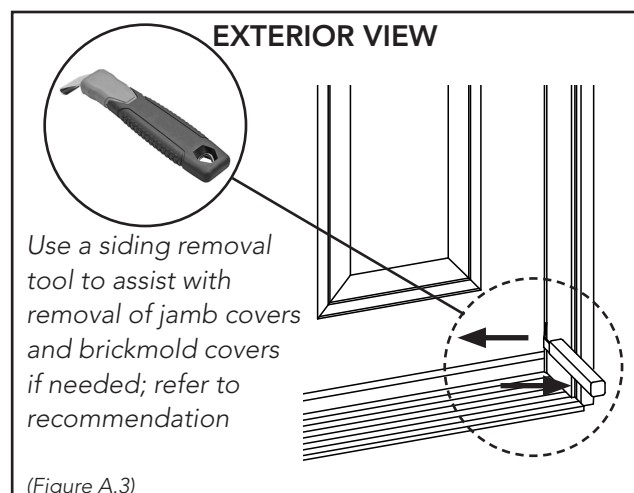
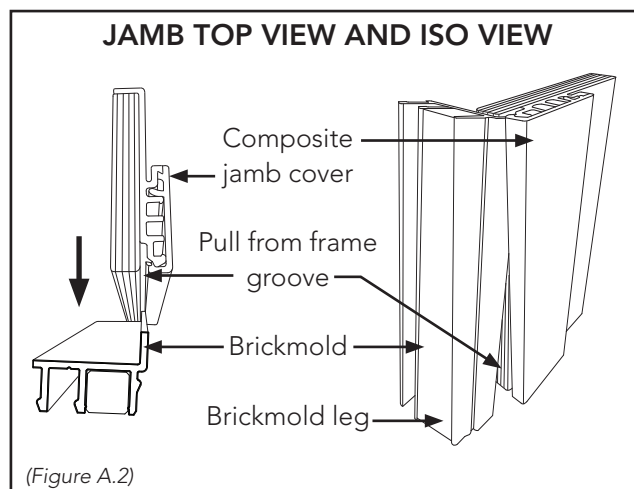
Remove the side and header brickmold pieces. Begin at threshold, pulling brickmold leg away from the frame groove. Carefully set aside to prevent damage. (Figure A.2)

3

Remove side composite jamb covers by using the factory installed pull tabs or by following the recommendation given below. Carefully set aside to prevent damage. **The header composite jamb cover is NOT removable.** (Figure A.1 & A.2)

4

For units with a transom, remove each transom vertical jamb cover in addition to door unit jamb covers instructed in Step 3. **The transom sill cover is NOT removable.**

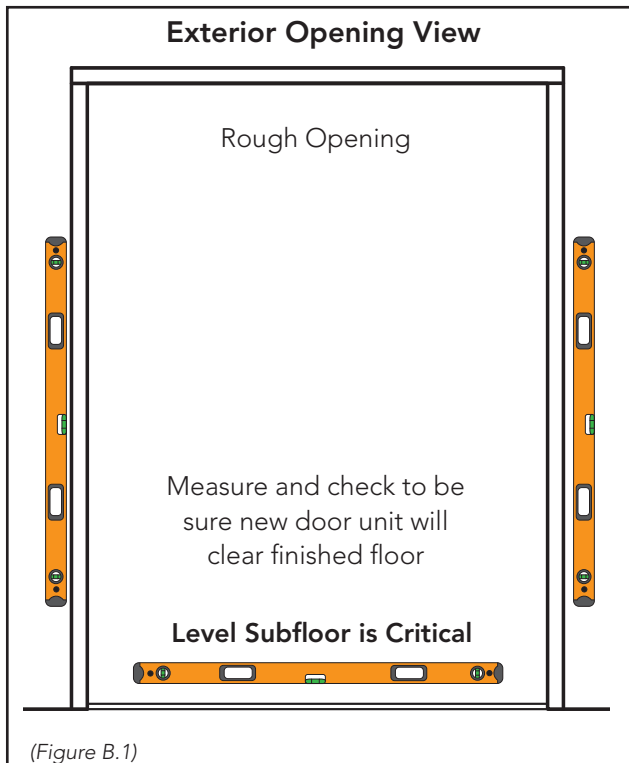


ProVia® Recommended! Use a siding removal tool to assist with the removal of composite jamb covers or brickmold covers. Place tool at bottom corner of jamb cover, push tool into weathershipping to grab back edge and tap back end of tool to pop cover. For brickmold cover removal, align tool with joint of cover, tap tool into joint and pull straight away from brickmold. (Figure A.3)

5

Remove shipping slats from the bottom of threshold.

B. INSTALL PREPARATION



1

Opening preparation for replacement applications, remove existing door slab and jamb to expose rough opening.

NOTE: The rough opening will be from jack stud to jack stud, and sub-floor to underside of header. (Figure B.1)

2

Clean rough opening of all dirt, debris, and obstructions.

3

Check for level subfloor. Measure and check to be sure new door unit will clear carpet, hardwood, rug, etc. Subfloor may need to be built up for clearance.

4

Check to see if opposing walls are on the same plane. If not, new door unit will need to be adjusted to plane during installation.



IMPORTANT! Be sure shipping slats have been removed from bottom of threshold before dry fit.

5

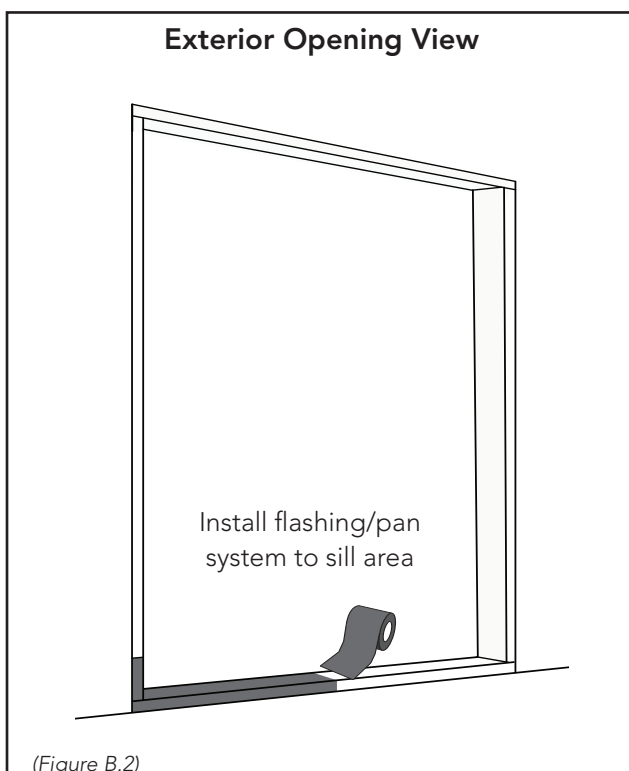
Dry fit unit to confirm opening clearances, dust cup clearance (if applicable), plane of door, and support of exterior edge of threshold.

6

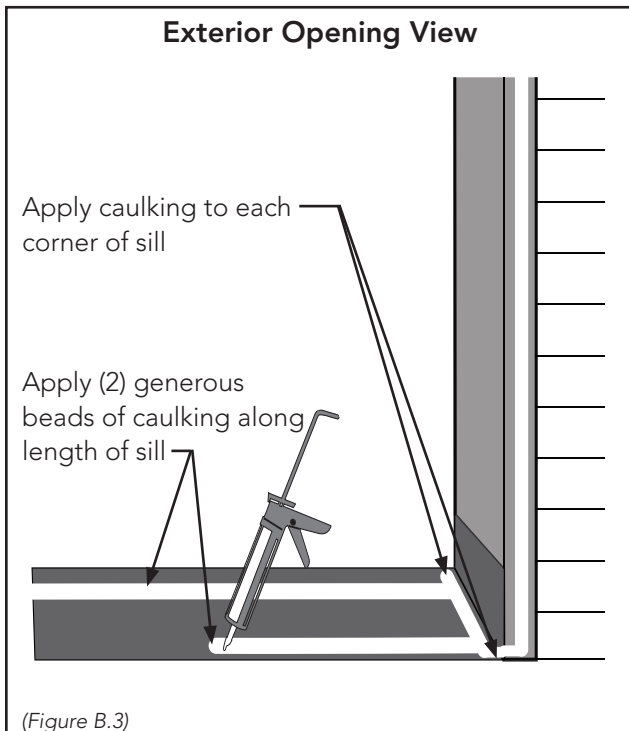
Remove door unit from opening and make any necessary modifications to the opening.

7

Install flashing/pan system to sill area in accordance with local building codes and best practices. Replace drip cap if necessary. (Figure B.2)



B. INSTALL PREPARATION (CONTINUED)



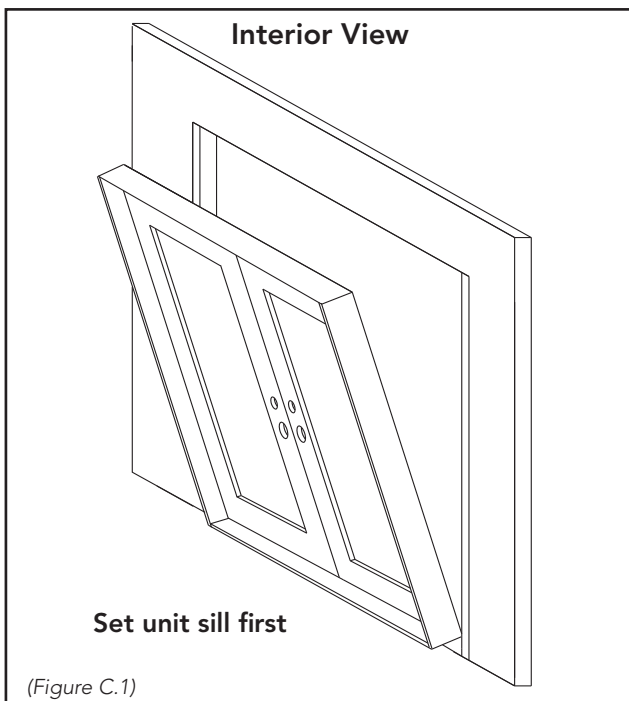
8

If exterior edge of threshold requires support, add material to the exterior surface of the structure at the sill.

9

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. The second bead of caulking should be placed along a composite edge of the threshold, towards interior. Apply caulking in each corner of sill. (Figure B.3)

C. INSTALL NEW DOOR UNIT



1

Set new door unit into opening sill first, as shown in illustration. (Figure C.1)

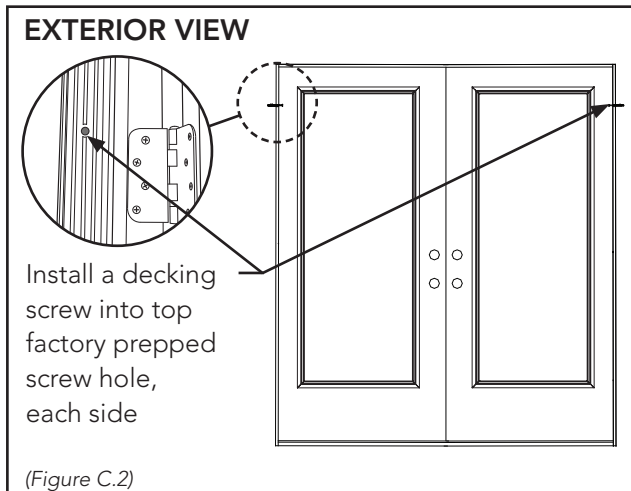
2

From the interior side, center door on existing base board or paint lines.



IMPORTANT! This unit is installed **without brickmold attached**, therefore utilizing cleats on interior wall or exterior jamb face may assist. Be sure door jamb does **NOT** protrude past exterior sheathing to avoid compromising FusionFrame™ brickmold installation.

C. INSTALL NEW DOOR UNIT (CONTINUED)

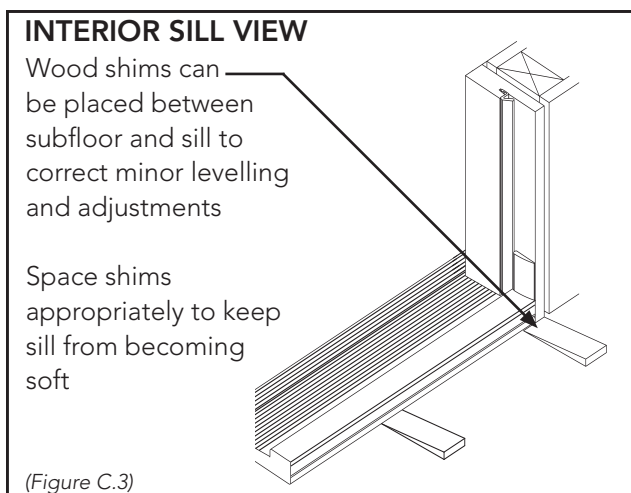


3

Check and note plane of door in rough opening. **Door plane needs to be continuously monitored throughout the installation.** Refer to Section C, Step 8 and Figure C.6 for more information.



IMPORTANT! Plane adjustment is critical for door operation and sealing performance. Confirm all adjustments made do not compromise plane. Adjustments to plane after complete install may require removal and re-installation.

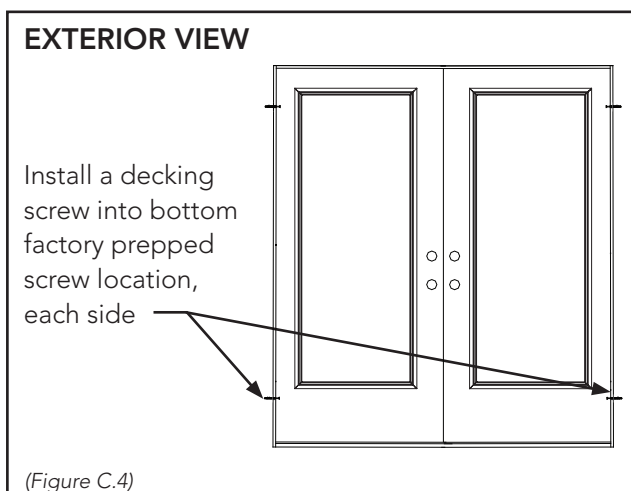


4

Install a decking screw into the top factory prepped screw location, each exterior jamb side. **DO NOT** over tighten screws. (Figure C.2)

5

Check for level sill. If necessary, place wood shims between subfloor and jamb to correct minor leveling and margin adjustments, $\frac{1}{8}$ " or less. (Figure C.3)

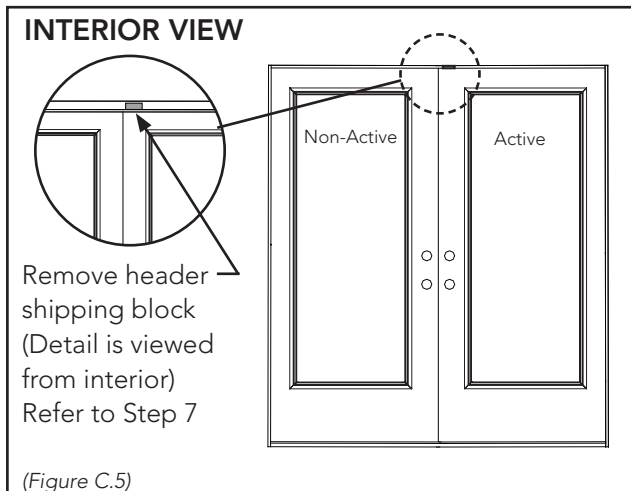


IMPORTANT! A level sill is critical. If sill is not flat, straight and level, it must be shimmed for proper operation of door. Be careful to **NOT** over shim. Improper shimming may change the margins and jeopardizing operational performance of door.

6

Install a decking screw into the bottom factory prepped screw location, each exterior jamb side. **DO NOT** over tighten screws. (Figure C.4)

C. INSTALL NEW DOOR UNIT (CONTINUED)

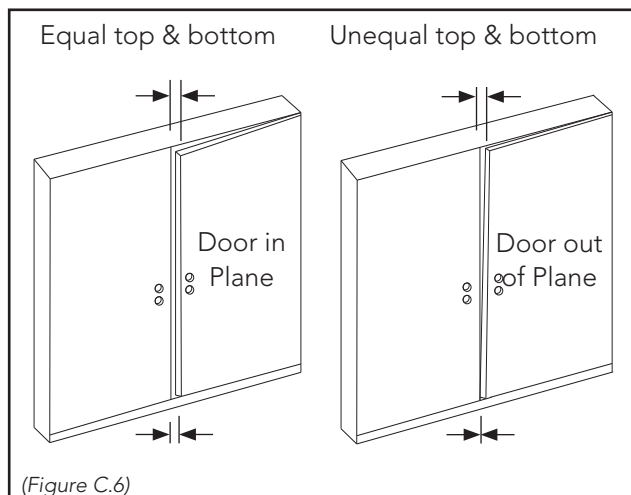


7

From the interior, unlock the deadbolt and remove shipping block located at header of active door slab. Remove block and discard. (Figure C.5)

8

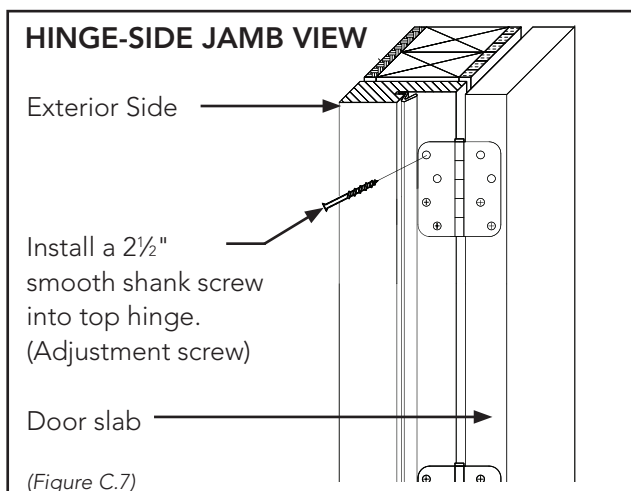
Inspect plane of door by comparing edge of door slab to edge of strike jamb. The edges should be parallel. If door is out of plane (the slab and edge of jamb are not parallel), refer to troubleshooting table and adjust accordingly. (Figure C.6)



IMPORTANT! Pre-drill for all hinge and interior shim screws to be installed using a 1/8" drill bit.

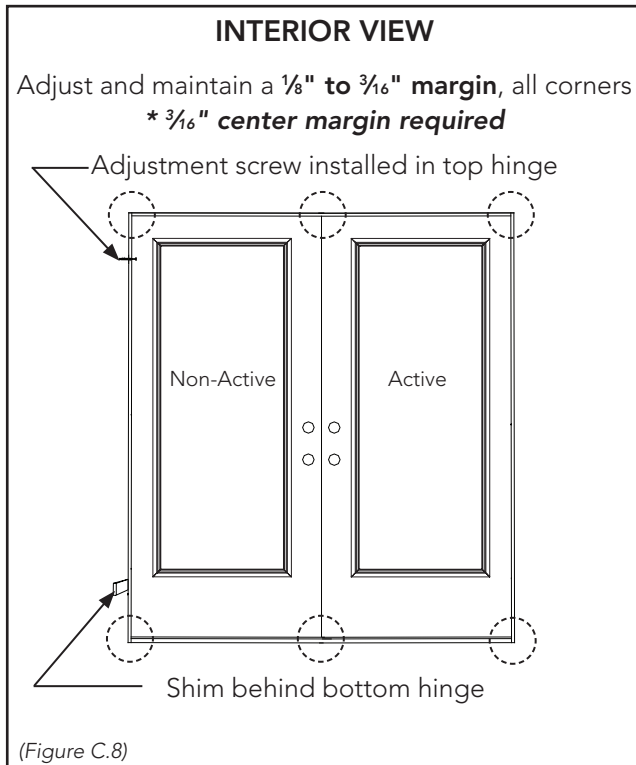
9

Install a 2½" smooth shank screw (not provided) into top hinge to draw the top of the inactive door slab towards the hinge side jamb. Use screw for adjustments. (Figure C.7)



IMPORTANT! Do not allow initial setting screws, installed in Steps C4 and C6, to interfere with future adjustments required during remaining installation.

C. INSTALL NEW DOOR UNIT (CONTINUED)

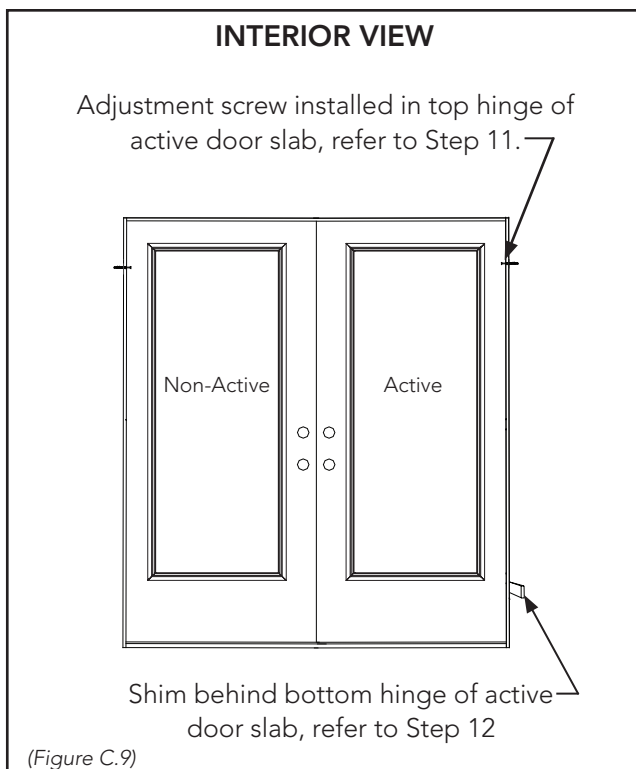


10

To counteract the weight of the door slab compressing against the bottom hinge and jamb, add shims behind the bottom hinge location of non-active side. Use the adjustment screw in top hinge and the shim behind bottom hinge to set a $\frac{1}{8}"$ - $\frac{3}{16}"$ margin between door slabs and jambs. With the completion of installation, all (4) corners and the center margin are to hold a $\frac{1}{8}"$ - $\frac{3}{16}"$ margin. **Note, the strike plates are surface mounted. This will require a $\frac{3}{16}"$ CENTER margin for proper clearance.** (Figure C.8)



Important! Proper shimming application; stack wedge shaped shims contrasting and plane to plane.



IMPORTANT! Constantly monitor center reveal between the door slabs during following adjustment process.

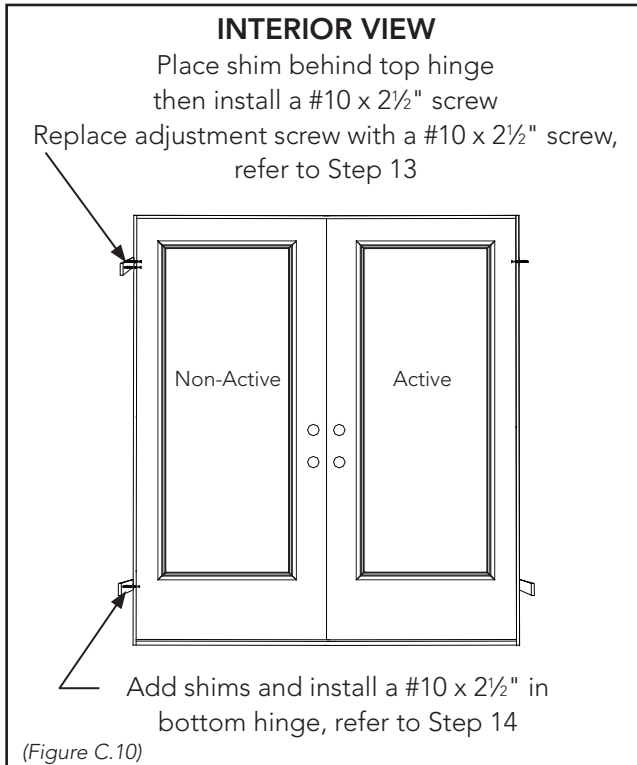
11

Install a $2\frac{1}{2}"$ smooth shank screw (not provided) into top hinge of active door slab to draw the top of the slab towards the jamb. Use this screw for adjustments. (Figure C.9)

12

Add shims behind the bottom hinge of active door slab. Use the adjustment screw in top hinge and the shim behind bottom hinge to set a $\frac{1}{8}"$ - $\frac{3}{16}"$ margin between door slab and jamb. (Figure C.9)

C. INSTALL NEW DOOR UNIT (CONTINUED)



13

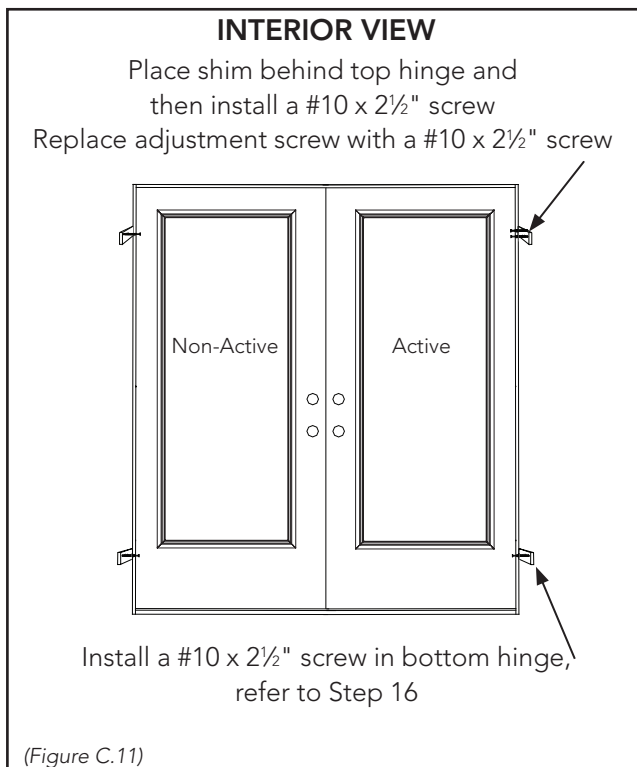
After margins are set, shim behind the top hinge of non-active slab until tight to the adjuster screw. Install a #10 x 2½" screw (provided) in the remaining hole location of hinge. Then replace the adjustment screw with a #10 x 2½" screw. (Figure C.10)

NOTE: The #10 x 2½" hinge screws will be included in the hardware box or stapled to the side of the jamb.

- For **3-HINGE DOORS**, (8) screws will be provided.
- For **4-HINGE DOORS**, (10) screws will be provided

14

Add shims and install a #10 x 2½" screw in the bottom hinge of the non-active door slab. Check corner margins. (Figure C.10)



15

Shim behind the top hinge of active door slab until tight to the adjuster screw. Install a #10 x 2½" screw (provided) in the remaining hole location of hinge. Replace the adjustment screw with a #10 x 2½" screw. (Figure C.11)

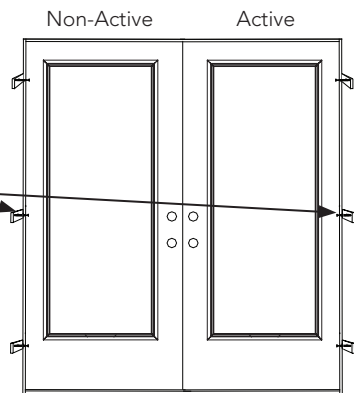
16

Install a #10 x 2½" screw in the bottom hinge of active slab. Check corner margins and center margin. If margins have deviated, adjust shims accordingly. Refer to Troubleshooting Section. (Figure C.11)

C. INSTALL NEW DOOR UNIT (CONTINUED)

INTERIOR VIEW

Place shim behind middle hinge
Install a #10 x 2½" screw, each side



(Figure C.12)

17

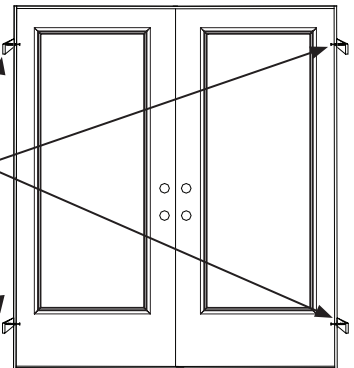
Shim behind middle hinge of active and non-active door slabs. Install a #10 x 2½" screw into open hole of each. Be careful to not over shim this location. *For 4-HINGE DOORS, repeat for each middle hinge.* (Figure C.12)

18

On the exterior of door, install shims at each top and bottom factory prepped screw location, if not installed in previous steps of both active and non-active. (Figure C.13)

EXTERIOR VIEW

Install shims behind each exterior top and bottom factory prepped screw location



(Figure C.13)

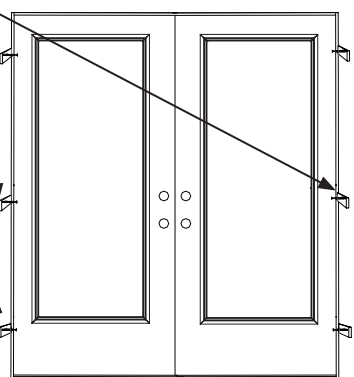
19

Shim and install a decking screw into the middle factory prepped screw location, each exterior jamb side. Shims added only if not installed in previous steps. (Figure C.14)

EXTERIOR VIEW

Install screws and shims at each exterior middle factory prepped screw locations

Units with transom, pre-drill, shim, & install a screw ea. jamb side



(Figure C.14)

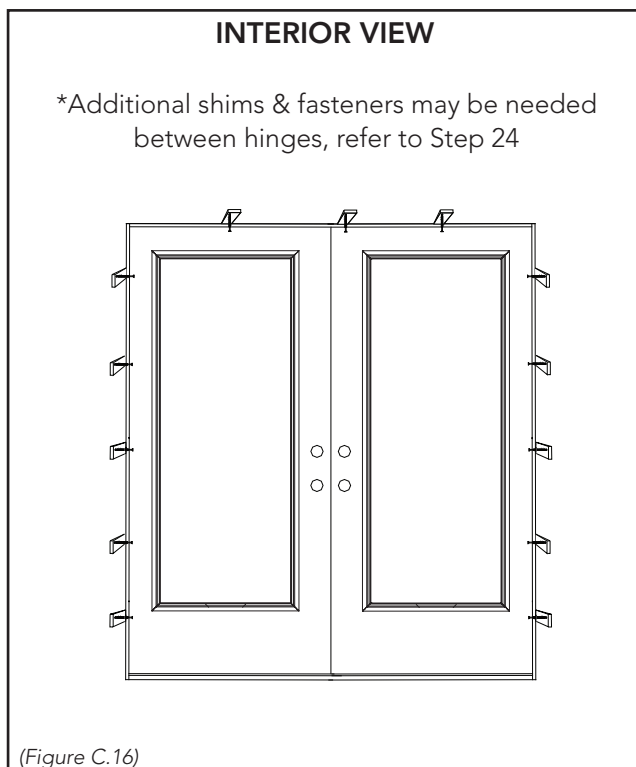
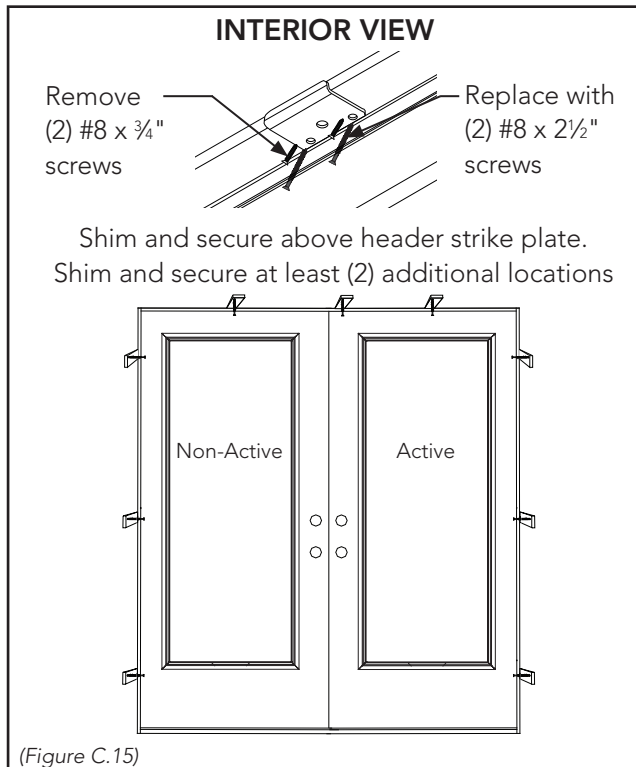


IMPORTANT! If exterior shims are to align with interior hinge locations, additional exterior hinge shims may not be required.

20

For units with a transom, center (1) shim on each transom vertical jamb. Pre-drill and install a 2½" decking screw at each transom shim location. (Figure C.14)

C. INSTALL NEW DOOR UNIT (CONTINUED)



21

Shim above header strike plate (header strike plate is factory installed). Remove (2) #8 x $\frac{3}{4}$ " Phillips flat head screws and replace with (2) #8 x $2\frac{1}{2}$ " Phillips flat head screws (included in the Astragal Component Pack). (Figure C.15)

NOTE: The **lower bolt receiver cup** found in the Astragal Component Pack is **NOT** needed. Please discard this component.

22

Check for proper operation and alignment of top bolt pin. Close active door and engage bolt pin. Pin to secure within center hole of header strike plate.

23

Shim at least (2) additional header locations, centered over each door slab as shown in illustration. Pull back weatherstripping, pre-drill and install a decking screw at the shim locations. If transom, add header shim(s), do not install screw(s). (Figure C.15)

24

Final check on all margins. Adjust shims and screws as needed to achieve and maintain a $\frac{1}{8}$ " - $\frac{3}{16}$ " margin around the entire door. Refer to Troubleshooting Section.

NOTE: Shim and secure additional areas of interior jamb as needed to achieve and maintain required margins. (Figure C.16)

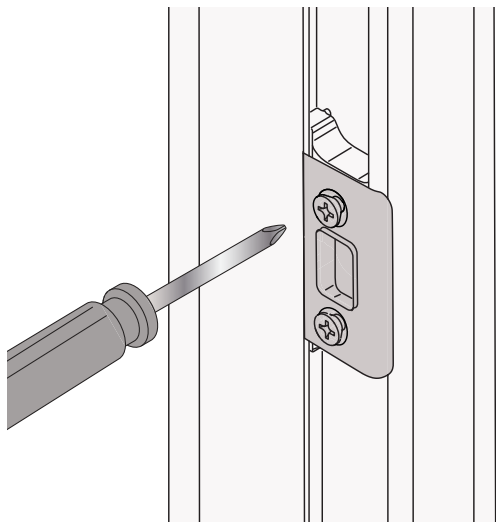


IMPORTANT! Be careful to **NOT** over shim. Improper shimming may change the margins and jeopardize the operational performance of door.

D. ADJUST HANDLE SET AND DEADBOLT STRIKE PLATES

LOCK AND DEADBOLT STRIKE PLATES

Loosen screws for handle and deadbolt strike plates until plate moves freely
Make necessary adjustments



(Figure D.1)



IMPORTANT! Handle and deadbolt strike plates are factory installed. Each plate will adjust up and down as well as in and out.

1

Install handle set according manufacturer's instructions included in hardware box.

2

If handle set strike plate requires adjustment, loosen strike plate screws until plate moves freely. Move plate to desired location and re-tighten screws. Test to make sure plate is located correctly. Once the final location is achieved, tighten screws until tips are set into the astragal body. (Figure D.1 & D.2)

NOTE: The endpoint of the strike screw must make contact with the inside of the astragal. This will set the screw to the astragal and prevent strike plate movement during operation.

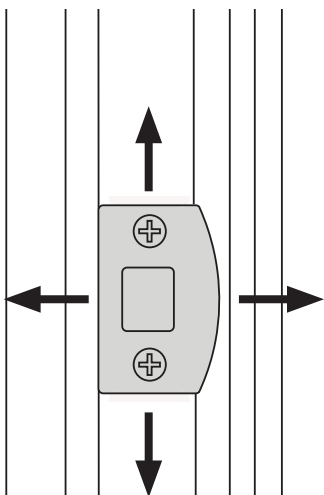
3

If the deadbolt strike plate needs adjustment, loosen the strike plate screw until plate moves freely. Move plate to desired location and re-tighten screws. Test to make sure plate is located correctly. Once the final location is achieved, tighten screws to the strike retainers. (Figure D.2)

NOTE: Screws will not make contact with the astragal body.

LOCK AND DEADBOLT STRIKE PLATES

Handle and deadbolt strike plates are adjustable in all directions



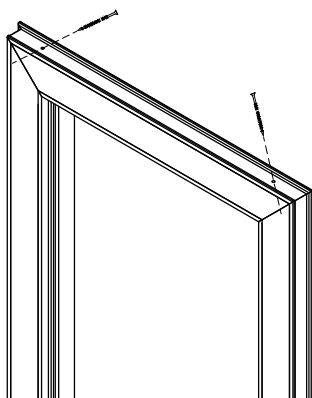
(Figure D.2)

E. INSTALL FUSIONFRAME™ JAMB COVERS & BRICKMOLD

LOOSE BRICKMOLD ASSEMBLY

Standard 2" brickmold,
secure with 1½" max.
screw

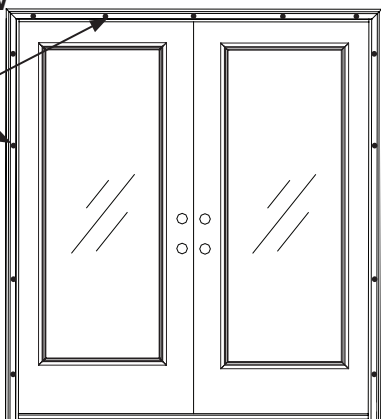
Flat 3½" brickmold,
secure with 2½" max.
screw



(Figure E.1)

EXTERIOR VIEW

Install (4)
installation
screws in each
vertical brickmold
and (3-4) in
header brickmold,
as shown

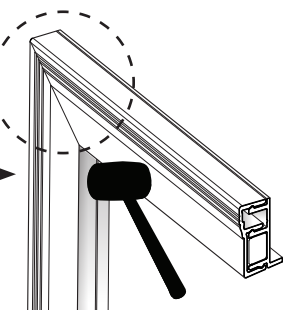


(Figure E.2)

BRICKMOLD COVER

Place a bead of caulk along top,
face, and bottom of brickmold
miter

Install brickmold
covers using rubber
mallet



(Figure E.3)

1

Install composite jamb covers. Use a rubber mallet or heel of hand to firmly set.

2

Be sure all composite brickmold covers have been removed from loose brickmold.

3

Both the STANDARD 2" or FLAT 3½" brickmold covers can be field trimmed. *Note, standard 2" can only be trimmed a maximum of ⅝", NOT past the inner snap leg.* Measure from the brickmold groove to the exterior's finished surface. Place masking tape on the finished face before cutting to protect the surface. *Note, cutting the brickmold will likely leave an unfinished edge exposed, unless installed in a brick opening.*

4

Before installing, place loose brickmold sides and header on a level surface. Install a screw through each pre-drilled hole to secure miters. This will keep miter tight after composite cover is re-installed. **Securing miters will prevent miters from opening after installation. Gaps in composite cover miters will result if not fastened.** (Figure E.1)

- For STANDARD 2" brickmold, secure with a 1½" maximum screw length.
- For FLAT 3½" brickmold, secure with a 2½" maximum screw length.

5

Apply a bead of caulking to each vertical and header face of sheathing to seal brickmold. Tie each vertical bead of caulk to sill caulking to create a continuous seal.

6

Align brickmold insertion leg with groove of jamb. Carefully, tap each brickmold in place until fully seated.

7

Install (4) installation screws in each vertical brickmold and (3-4) in header brickmold to secure. **DO NOT roll brickmold miters when installing screws.** (Figure E.2)

8

Before installing composite brickmold covers, place a bead of continuous caulk along top, face, and bottom of brickmold miter, each side and as shown. (Figure E.3)

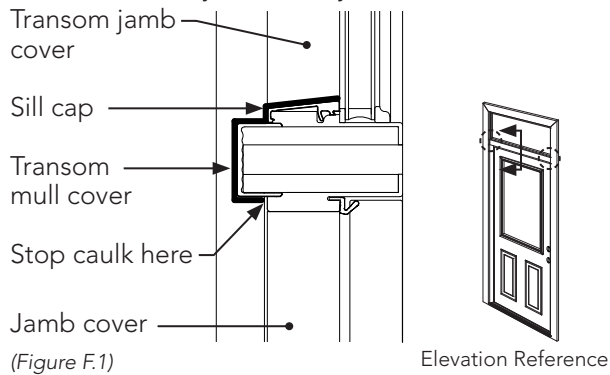
9

Install composite brickmold covers. Use a rubber mallet or heel of hand to firmly set in place. Immediately remove any excess caulking from miter areas. (Figure E.3)

F. INSULATE AND SEAL

TRANSOM JAMB TO SILL JOINT

Place continuous bead of caulking along mullion jamb to sill joint, each side



1

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

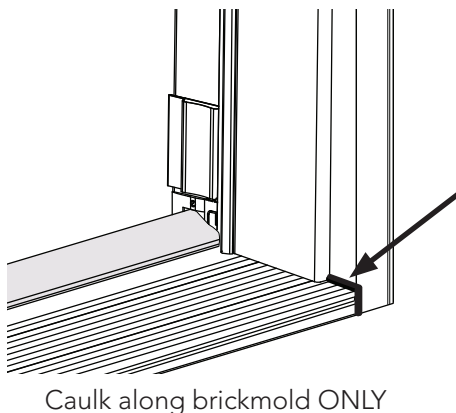


IMPORTANT! Over use of Low-Expanding Foam or use of any non Low-Expanding Foam may cause frame to bow, jeopardizing operational performance of door.

2

For units with a transom, place a bead of continuous caulking at the transom mullion jamb cover to sill joint; along top, front face, and underside of cover, each jamb side and as shown. (Figure F.1)

Z-AC STANDARD DEPTH THRESHOLDS



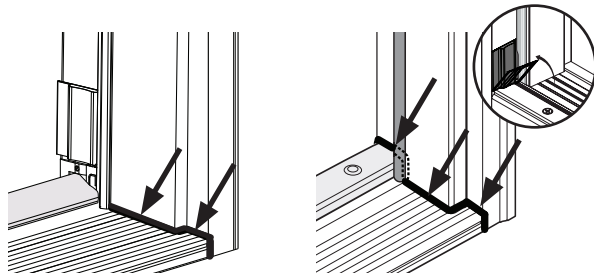
(Figure F.2)

3

Caulk threshold....

- **Z-AC™** thresholds with a $4\frac{1}{16}$ " or $6\frac{1}{16}$ " jamb depth, only need caulked at the brickmold and threshold intersection. If desired, caulk along entire joint where jamb meets the threshold. (Figure F.2)
- **Z-AC** threshold with custom jamb depth: caulk along entire joint of threshold where the jamb meets the threshold and along the brickmold joint. (Figure F.3)
- **ZAI** threshold: Carefully remove each corner seal pad. Check between door sweep and sill cap for even seal. If adjustments are needed, refer to Section I, page 15. After adjustments, caulk joint between sill cap and jamb, on the front and top edges of cap. Caulk along entire joint where jamb meets the threshold and along the brickmold joint. Reinstall each corner pad tight to cap. (Figure F.3)

Z-AC CUSTOM DEPTH & ZAI THRESHOLDS

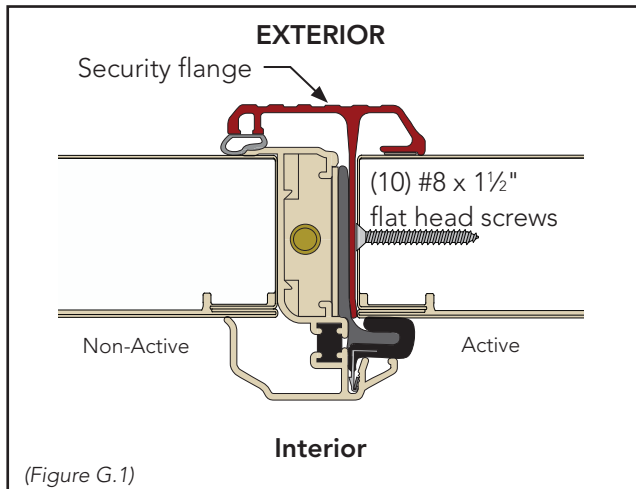


All **Z-AC** custom jamb depths: caulk entire width of threshold and along brickmold

(Figure F.3)

All **ZAI**: caulk front and top of sill cap, entire width of threshold, and along brickmold (Reinstall corner pads)

G. OUTSWING DOOR WITH SECURITY FLANGE (OPTION)



Security Flange is factory installed on all outswing doors. The security flange covers the gap between door slabs to minimize exterior exposure. Security flange will effect margin between doors.

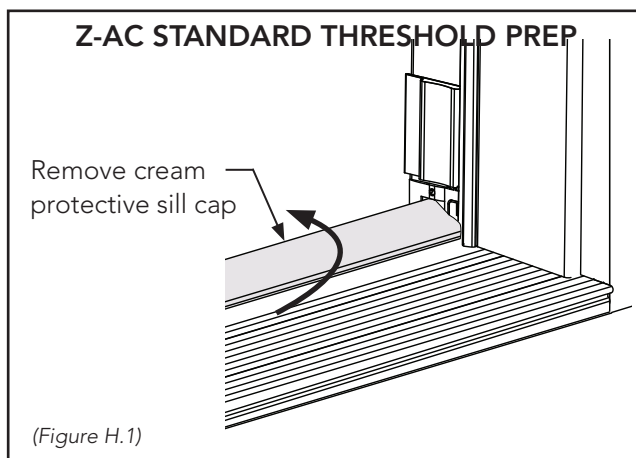
1

Be sure security flange is tight against face of active door.

2

Basic installation is the same with the exception of contact point of door slab to the threshold.

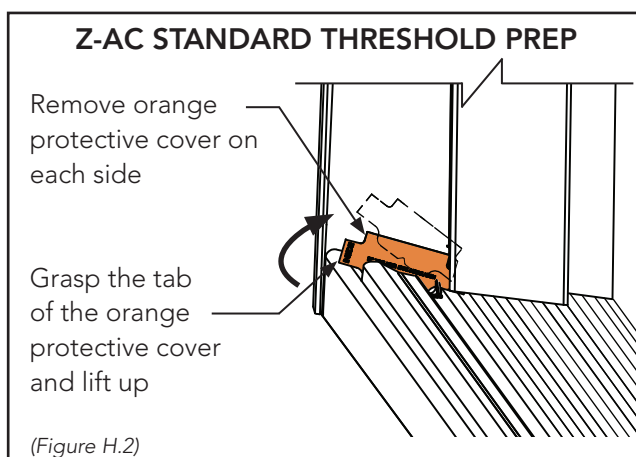
H. THRESHOLD: Z-AC™ (AUTO-ADJUSTING) THRESHOLD ONLY



1

Remove the cream colored protective sill cap cover. For inswing door units, grasp cover from the exterior side, lift and pull. The cream cover may break, this is typical. (Figure H.1)

NOTE: If Z-AC sill cap is not allowing door slab to close or function properly, refer to Troubleshooting Section.



2

Remove the orange protective covers located at each jamb. Grasp the tab of the orange protective cover, marked 'Pull-Up'. Lift up and away from the sill base (pliers may be required). (Figure H.2)

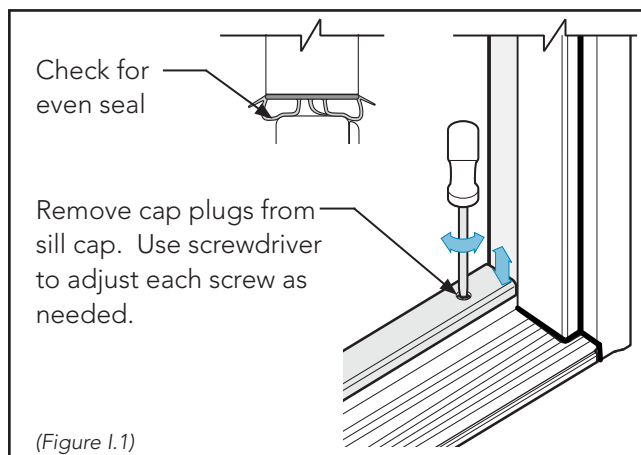
NOTE: A small portion of the gasket, at the outside edge **ONLY**, will be removed with the protective cover, this is typical.

DO NOT remove any portion of foam gasket in removal of orange tab.

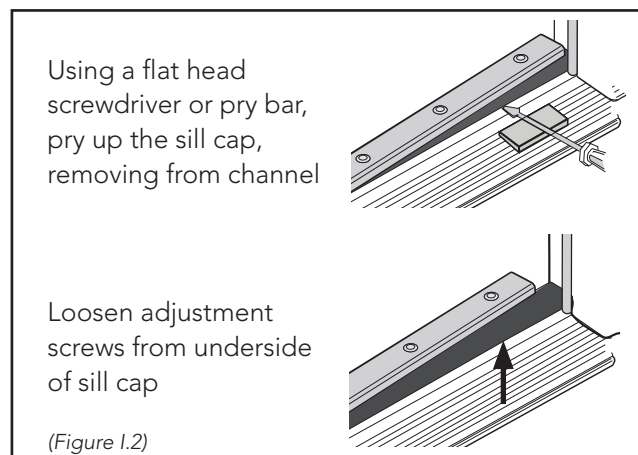
For ZAI threshold instructions, refer to section I, page 15

I. THRESHOLD: ZAI (ADJUSTABLE) THRESHOLD ONLY

The ZAI (Adjustable) threshold allows for adjustment of the sill height, thus providing a consistent and even seal. To adjust sill cap height, follow one of the two methods shown below:



OR



REMOVE CAP PLUGS:

- 1 Place tape around the cap plug to protect the finish. Use a flat blade to pry the cap plugs away from cap.
- 2 Use a screwdriver to adjust each screw as needed to achieve necessary height. (Figure I.1)
- 3 Open and close door to check adjustments.
- 4 Check for an even seal along full length of door sweep. Repeat process until proper seal is achieved. (Figure I.1)
- 5 Re-install the cap plugs. Use a rubber mallet if needed to secure plugs in place. If cap plugs are damaged during adjustment, replace with new plugs.

REMOVE SILL CAP:

- 1 Place a small piece of wood blocking on sill deck to prevent damage. At one end of the sill, use a flat head screwdriver or pry bar to pry the cap upward and away from the sill channel. Continue to work along the full length of threshold until fully removed from channel. (Figure I.2)
- 2 Access adjustment screws from the underside of the sill cap. Using a screwdriver, adjust screws as needed to achieve necessary height. (Figure I.2)
- 3 Re-install sill cap by snapping into channel. If needed, use a rubber mallet to tap into place. Leg of the sill cap should touch the threshold deck when properly seated.
- 4 Open and close door to check adjustments.
- 5 Check for an even seal along full length of door sweep. Repeat above steps until proper seal is achieved.



TROUBLESHOOTING & TIPS

Problem	Cause	SOLUTION
Center margin is smaller at top than bottom	Over/under shimmed.	Adjust shims behind top and bottom hinges. Increase shims behind bottom hinge and decrease shims behind top hinge.
Center margin is larger at top than bottom	Over/under shimmed.	Adjust shims behind top and bottom hinges. Decrease shims behind bottom hinge and increase shims behind top hinge.
Center margin is wide.	Under shimmed.	Increase shims behind non-active and active door slabs.
Header margin is smaller above center astragal	Over shimmed at strike plate.	Decrease shims above header strike plate.
Header margin is larger above center astragal	Under shimmed at strike plate.	Increase shims above header strike plate.
Top of door slabs are uneven at center margin - active door is above inactive door	Over shimmed on active door side.	Decrease shims behind active door bottom hinge.
Top of door slabs are uneven at center margin - active door is below inactive door	Under shimmed on active door side.	Increase shims behind active door bottom hinge.
Tapered margin above top hinge. Margin is larger at the hinge.	Under shimmed at middle and top hinge.	Increase shims behind top and/or middle hinge.
Tapered margin above top hinge. Margin is smaller at the hinge.	Over shimmed at middle or top hinge.	Decrease shims behind top and/or middle hinge.
Tapered margin below bottom hinge. Margin is larger at the hinge.	Under shimmed at middle and bottom hinge.	Increase shims behind bottom and/or middle hinge.
Tapered margin below bottom hinge. Margin is smaller at the hinge.	Over shimmed at middle or bottom hinge.	Decrease shims behind bottom and/or middle hinge.
Top of active door slab protrudes inward, past jamb header and away from astragal weather strip.	Door out of plane.	One or a combination of the following: 1. Shift bottom of inactive hinge-side door jamb toward the exterior. 2. Shift the top of active hinge-side door jamb toward the exterior.

Troubleshooting & Tips continues on next page.

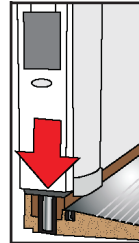
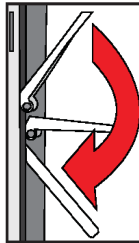


TROUBLESHOOTING & TIPS

Problem	Cause	SOLUTION
Bottom of active door slab protrudes inward, past threshold and away from astragal weather strip.	Door out of plane.	One or a combination of the following: 1. Shift top of inactive hinge-side door jamb toward the exterior. 2. Shift bottom of active hinge-side door jamb toward the exterior. <i>*Tip: If ordered with brickmold attached, using full-thread screws will allow the frame to be 'held' out from exterior sheathing in order to adjust plane.</i>
Interference of Z-AC cap with door slab.	Sill cap may not be fully seated.	Snap front leg of sill cap into place. Leg of the sill cap should touch the threshold deck when properly seated. If needed, use a rubber mallet to tap into place.

REMINDER to INSTALLERS:

Demonstrate function of double (French) door astragal to Homeowner. Be sure top and bottom astragal pins are correctly seated in designated locations to ensure proper function of unit.



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

****For additional information and helpful videos, visit our Homepage for Installers.
TAP or SCAN the QR code.***

