 Part Number: 81CL0100

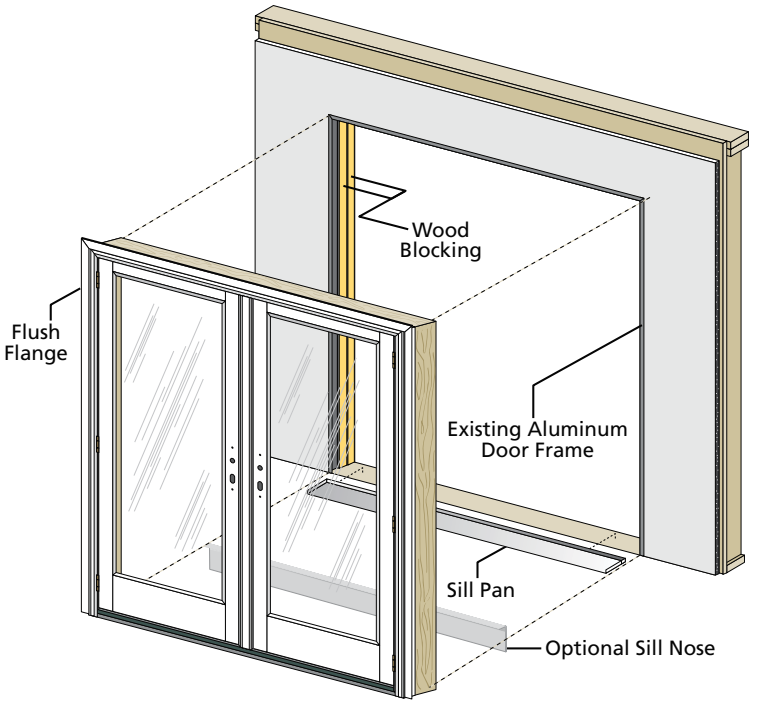
INSTALLATION INSTRUCTIONS - INSTRUCCIONES DE INSTALACION
CLAD HINGED PATIO DOORS WITH FLUSH FLANGE

Lea las instrucciones en español en el reverso

Installation Instructions for Replacement of Aluminum Sliding Doors in Hard Coat Stucco Applications in arid climates.

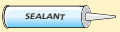
These instructions are designed for typical hard coat stucco exterior applications in arid climates. The installation must leave the existing aluminum door frame and weep system in place. **These instructions are not to be used with any other construction method and rely on the integrity of the existing aluminum sliding door and flashing system.** Building designs, construction methods, building materials, and site conditions unique to your project may require an installation method different from these instructions and additional care. Determining the appropriate installation method is the responsibility of you, your architect, or construction professional. If you have questions, please contact your local Pella retailer.

REMEMBER TO USE APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT.



YOU WILL NEED TO SUPPLY:

- Composite or Impervious shims/spacers (12 to 20)
- High quality exterior grade polyurethane or silicone sealant (3 to 4 tubes per door)



- Great Stuff™ Window and Door Insulating Foam Sealant by the Dow Chemical Company or equivalent low pressure polyurethane window and door foam - DO NOT use high pressure or latex foams.

- Wood blocking, 3/4" x 4" x 96" (2 or 3 pieces)
- Screws (#10 x 3-1/2")
- Pella® SmartFlash™ foil backed butyl flashing tape or equivalent.

- Sill pan

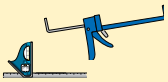
Installation will require two or more persons for safety reasons.

TOOLS REQUIRED:

- Tape measure

- Level

- Sealant gun



- Square
- Hammer

- Screwdriver

- Utility knife

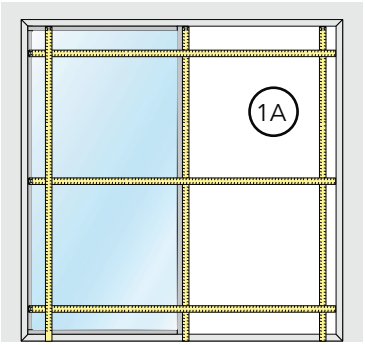
- Wide jaw pliers

- Reciprocating saw

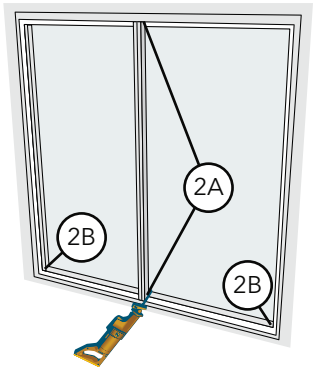
- 1/8", 13/64" and 1/4" drill bit
- Drill

1 BEFORE YOU START

A. **Remove the vent panel from the existing door frame.** Check the dimensions of the existing door and the new door to make sure the new door will fit correctly. The opening must be 1/2" larger than the new door frame in both width and height. Measurements should be taken as follows:
Width - measure the inside dimension of existing jambs.
Height - measure from the subfloor or cement slab to the lowest point of the existing head.
Confirm the flange will overlap the stucco by 1/2".



2 OPENING PREPARATION

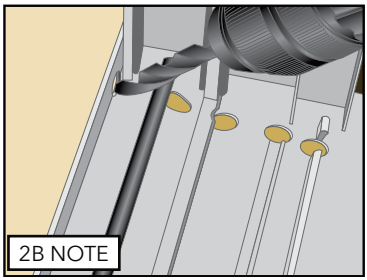


A. **Prepare the door opening** by removing the venting panel and the glass from the existing fixed side of the aluminum door frame.

Note: It may be necessary to cut the divider between the venting panel and fixed glass areas with a reciprocating saw. The existing aluminum frame is left in place so as not to disturb the existing exterior stucco flashing or drainage system.

B. **Cut the existing door sill out of the opening.** Using a reciprocating saw or side grinder, cut the existing sill as close to the longest leg of the jamb extrusion as possible.

Note: Be careful to avoid damage to the interior flooring materials. Drilling holes in the sill prior to cutting may make the removal of the existing sill easier. If existing sill has a stainless steel cap on the sill, removing the cap prior to cutting will make cutting easier.



C. **Clean old sealant and other debris** from the door opening.

D. **Remove the door lock strike** from the lock jamb of the existing door frame.

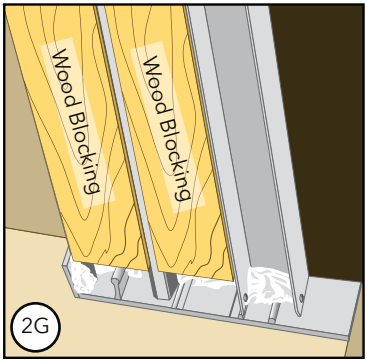
E. **Place a bead of sealant at each joint** where the existing door frame jambs meet the existing door sill pieces. Fill any holes in the jamb and head with sealant.

F. **If the weep holes of the existing sill have been cut away, drill new weep holes** in the existing door jambs. Be sure to drill weep holes in all vertical jamb legs, except the most interior leg.

Note: Ensure all new or existing weep holes are open before proceeding with the installation.

G. **Cut wood blocking to fill the vent and fixed panel cavities** in the head and jamb of the existing door frame. The depth of the blocking should be the same height as the tallest leg of the existing jamb extrusion. Cut the head blocking to fill the entire length of the head in both channels. Cut the jamb blocking to fill both jamb channels to within approximately 1" of the bottom of the jamb.

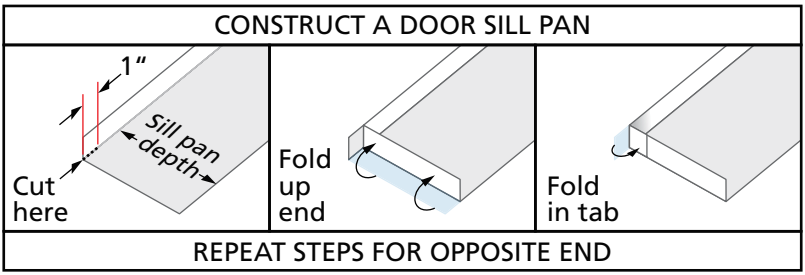
H. **Set the wood blocking in sealant in the existing door frame.** Make sure the blocking is flush with the furthest protruding part of the existing jamb. Place a 3/16" bead of sealant in the door panel cavities, then insert the wood blocking into the head cavities followed by the jamb cavities. Next insert the wood blocking into the jamb panel cavities of the existing door frame. Secure the blocking by pre-drilling and inserting #8 x 2-1/2" screws.



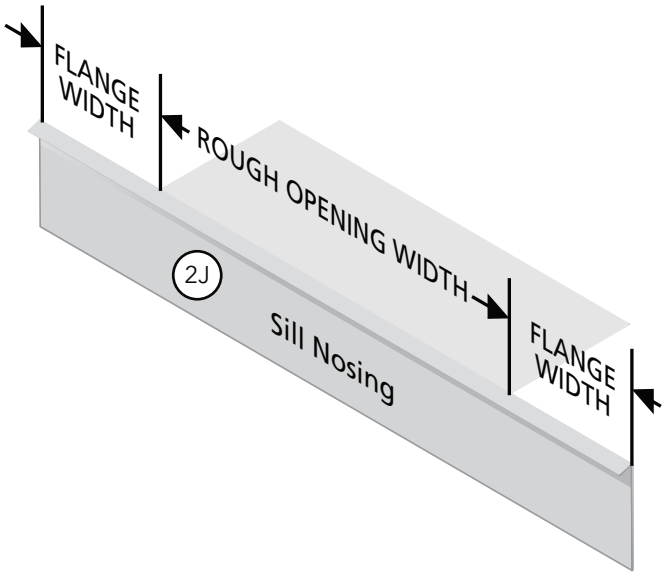
2 OPENING PREPARATION (CONTINUED)

I. **Construct a sill pan for the door.** Measure the rough opening width and add 2". Measure 1" up from each end and cut through the vertical leg of the pan material. If there is a step down at the exterior of the door opening, make the sill pan depth equal to the door frame depth - 2-1/8". If there is NO step down, make the sill pan depth equal to the frame depth. Bend the bottom (side) flaps of the pan material up, then bend the back leg around the end of the pan.

Dry fit the sill pan and the door into the opening.



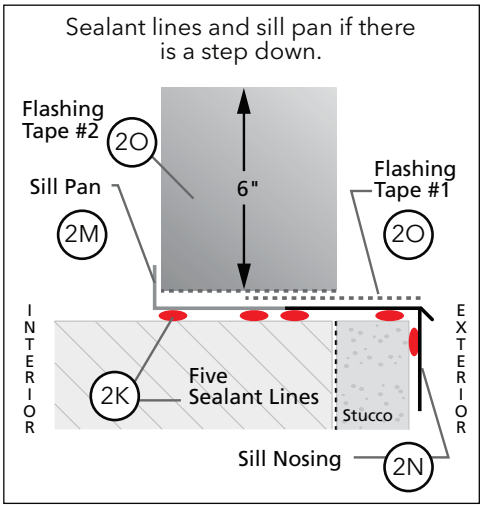
J. **If there is a step down at the exterior of the door opening,** cut the sill nosing to the rough opening width plus two times the flange width. Notch the sill nosing. If there is NO step down, skip to step K.

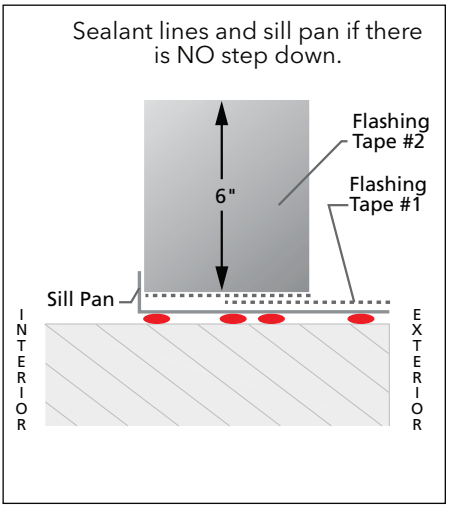


Note: If the new door frame is deeper than the existing door frame, it will be necessary to cut the interior flooring material back to allow the door flush flanges to contact the existing aluminum door frame.

2 OPENING PREPARATION (CONTINUED)

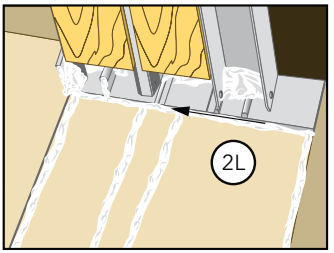
K. **Apply five lines of 3/8" diameter sealant** across the rough opening sill in the location shown. Make sure the lines of the sealant covers the area between the stucco and rough opening.





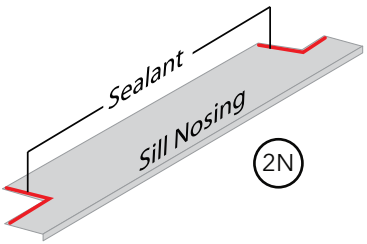
L. **Place a 3/8" bead of sealant** at each corner of the rough opening from the stucco along the edge of the rough opening as shown.

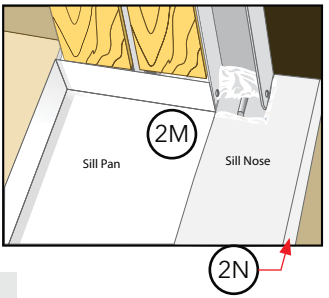
Note: It is important to avoid letting the sealant skin over prior to applying the sill pan.

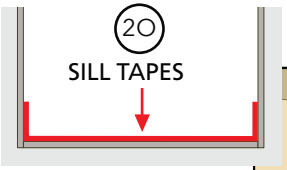


M. **If using sill nosing with a step down,** install the sill pan and sill nosing into the opening. Press down to seal them into the opening. DO NOT overlap.

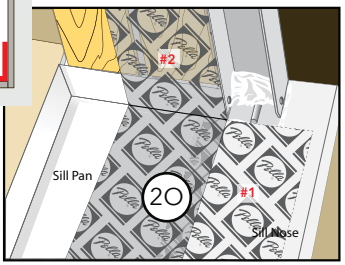
N. **Apply sealant at nosing ends** continuing from the front of the sill pan around the exterior surface of the wall where the sill nosing will end.







O. **Cut two pieces of flashing tape** 12" longer than the rough opening width. Place tape #1 across the sill nosing just up to where the nosing begins to slope down and extending 6" up each jamb. Apply the second piece of flashing tape over-lapping the first piece and the exterior edge of the sill pan and 6" up each jamb.



3 PREPARE THE DOOR FOR INSTALLATION

TWO OR MORE PEOPLE WILL BE REQUIRED TO HANDLE THE PANEL AND FRAME SAFELY.

A. **Remove plastic wrap and cardboard packaging from door.** Do not remove plastic shipping spacers. The shipping spacers will help keep the door square during installation. Do not unlock or open the door until it is fully fastened.
Designer Series only: DO NOT cut the strap that goes from the lock holes to the sill of the door.

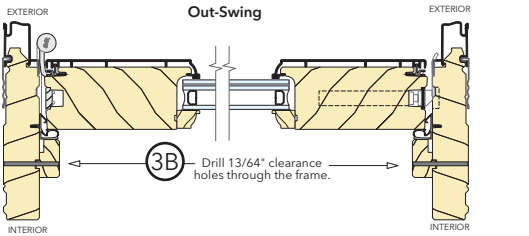
Note: If grilles or hardware are removed from the door at this time, label them and store them in a protected area.

Note: Steps B and C apply to frame screw installation only. If the installation is using installation clips, proceed to Step D.

B. **Jambs:**
Out-swing: On the room side of the jamb; drill and counter-sink 13/64" diameter clearance holes through the door frame only and not into the rough opening in the locations shown. (See Out-Swing diagram in lower right).

In-swing: Open door panels; drill and counter-sink 13/64" diameter clearance holes through the door frame only and not into the rough opening in the locations shown. (On hinge jambs; clearance hole locations are centered between hinges).

C. **Drill 13/64" clearance holes** through the door frame head and threshold and not into the rough opening in the locations shown.



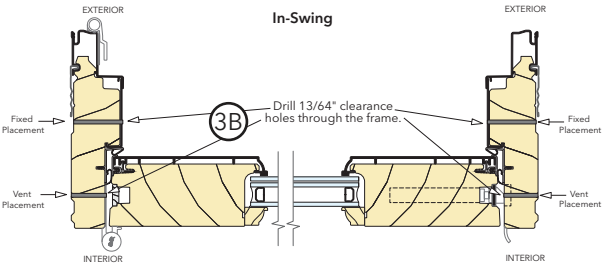
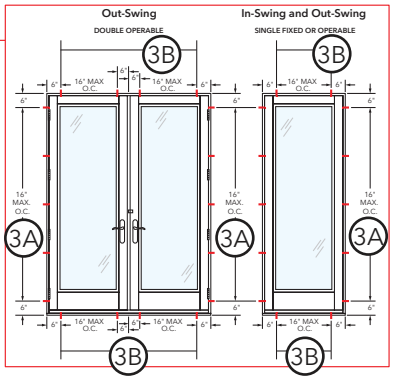
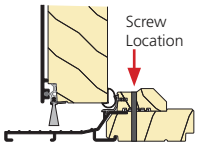


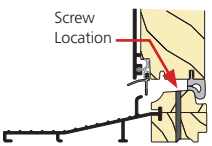
DIAGRAM FOR PLACEMENT OF FRAME SCREWS & INSTALLATION CLIPS



Out-Swing Vent and Fixed

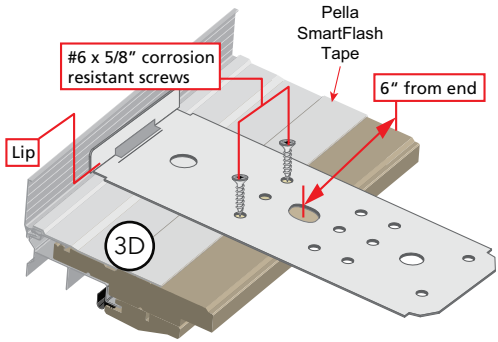


In-Swing Vent

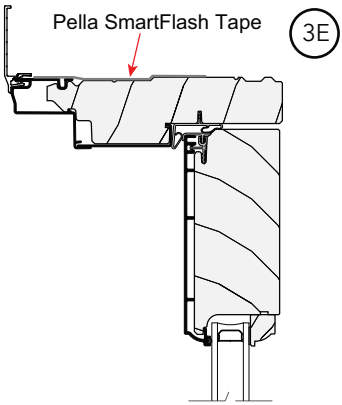


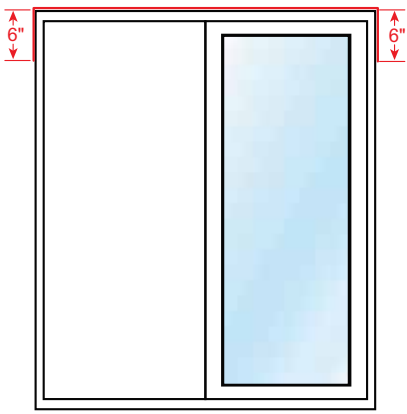
3 PREPARE THE DOOR FOR INSTALLATION (CONTINUED)

D. **Doors using Installation Clips:** Install installation clips. Place the clip so that the lip is facing up and against the flush flange, at the locations shown in the placement diagram. Secure the clip by driving #6 x 5/8" corrosion resistant screws through the outer two holes of the three holes shown.



E. **Apply Pella SmartFlash tape across the head of the door** extending 6" down each jamb. Place the tape starting on the aluminum cladding and extending onto the wood frame.





4 SETTING AND FASTENING THE DOOR

A. **Dry fit the door into the opening.**

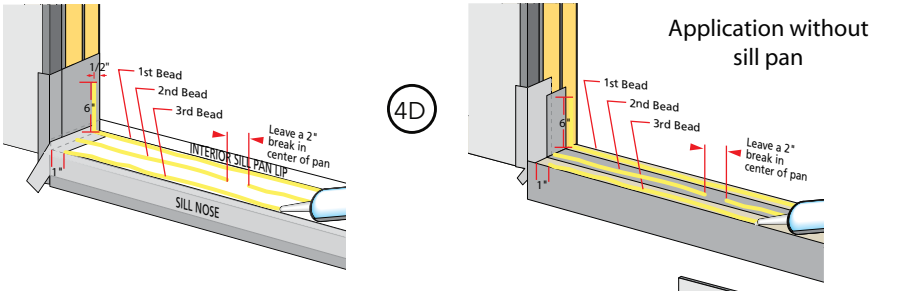
Note: If the new door frame is deeper than the existing door frame, it will be necessary to cut the interior flooring material back to allow the door flush flanges to contact the existing aluminum door frame.

B. **From the exterior, set the door into the opening.** Set the sill of the door on the sill panel and tilt the door into position.

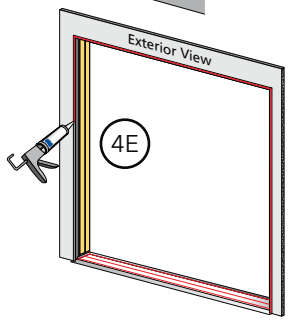
C. **Insert shims around the door temporarily** while you confirm the door will fit into the opening and the door flanges will overlap the stucco or existing aluminum door frame by a minimum of 1/2" on all sides.

REMOVE THE DOOR FROM THE OPENING

D. **Place three 3/8" beads of sealant.** Place the first beads sealant 1/2" in front of the base of the interior sill pan lip. This bead should also continue up the corner of the sill pan at each end, sealing the vertical joints of the sill pan and up 6" onto each jamb side of the rough opening. The second bead should be approximately 1/2" from the exterior edge of the frame wall, running from jamb to jamb with a 2" break in the middle of the opening. Place a third sealant bead 1/4" from the exterior edge of the flat portion of the sill nose or the sill pan. Start and stop this sealant line 1" from each jamb.



E. **Place a 3/8" diameter continuous bead of sealant** on the face of the existing door frame jambs and head.



TWO OR MORE PEOPLE ARE REQUIRED FOR THE FOLLOWING STEPS

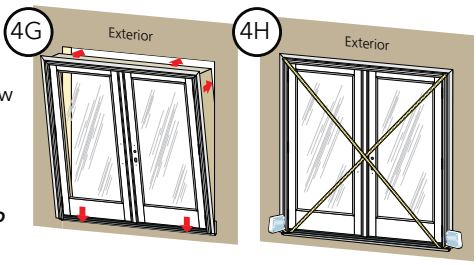
F. **Cut and remove the strap** that runs from the door lock to the sill of the door.

G. **Insert the door from the exterior of the building.** DO NOT slide the bottom of the door into the opening. (Sliding will damage the sealant lines.) Place the bottom of the door at the bottom of the opening, then tilt the top into position. Center the door between the sides of the opening to allow clearance for shimming.

H. **Insert shims between the door frame** and the sides of the opening at the top two anchor holes locations in the door. Keep shims back 1/2" from interior face of the door frame.

Frame Screw Method: Insert one #8 x 3" screw into the top anchor hole on each side of the frame.
Installation Clip Method: Insert one screw into one hole in each of the top clips. These are used to hold the door in place while shimming it plumb and square.

Note: Keep the exterior of the door pressed against the existing door frame to ensure a good sealant line.

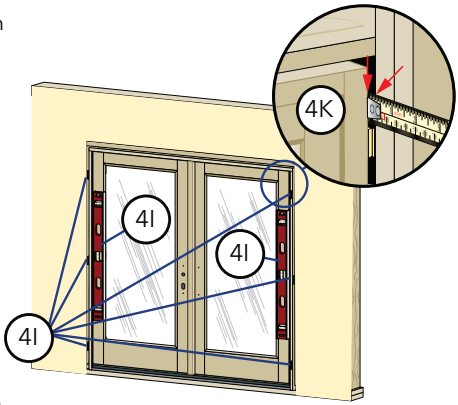


4 SETTING AND FASTENING THE DOOR (CONTINUED)

I. **Plumb and square door.** Place shims at each hinge and lock strike location between the door frame and the rough opening. Keep shims back 1/2" from interior face of the door frame.

J. **Shim between the door frame and rough opening** at the head strike location and at every frame anchor hole location. Keep shims back 1/2" from interior face of the door frame. Remove and replace head strike screws with three #8 x 3" corrosion resistant screws (provided) through the head strike, door frame shims and into the rough opening.

Note: For doors with no head strike check head for pre-drilled installation holes. If installation holes are present, drill 1/8" diameter pilot hole in each installation hole and install a #8 x 3" screw (provided).



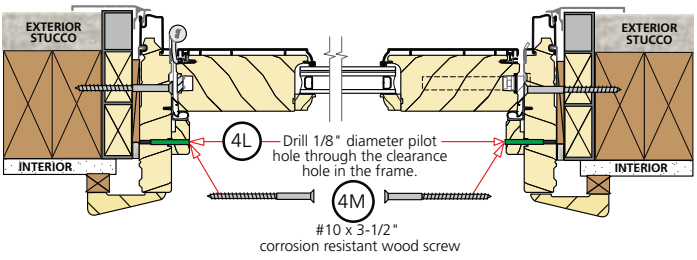
K. **Check the interior reveal.** Make sure the measurement from the interior face of the door to the interior face of the wall is equal at several points around the door. On Double doors, make sure the panels are even across the bottom.

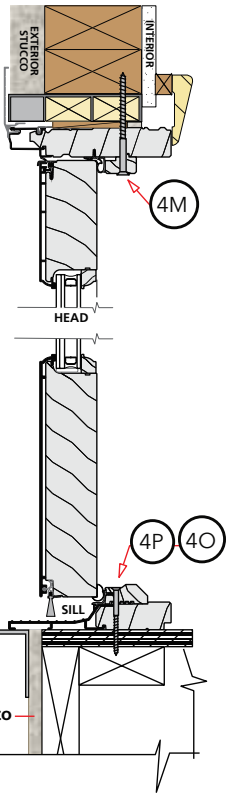
Frame Screw Method:

Note: If installing with installation clips, proceed to Step N.

L. Drill 1/8" x 1" deep pilot holes into the rough framing through the clearance holes in the head, jambs, and threshold of the unit frame.

Note: Be certain to shim between jambs and rough opening at all screw locations.



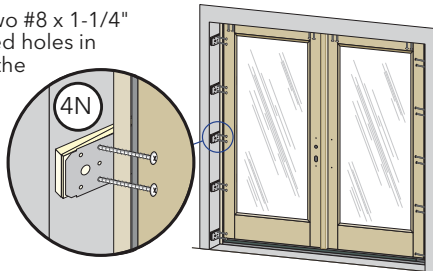


M. **Secure the jambs and head of the door.** Drive #10 x 3-1/2" corrosion resistant wood screws through the door frame and shim, into the rough framing. Drive the screws until snug but DO NOT over-tighten the screws. DO NOT bend or bow the unit frame.

4 SETTING AND FASTENING THE DOOR (CONTINUED)

Installation Clip Method:

N. **Fasten the door to the opening** by driving two #8 x 1-1/4" corrosion resistant screws into the pre-punched holes in the clips. If the clips are bent and fastened to the interior stud/block, install the screws as close to the bend as possible.



Note: DO NOT shim above the door. For masonry openings use two 3/16" x 1-1/2" masonry screws per clip. Pre-drill the masonry before attempting to drive the screws in.

O. **Drive #10 x 3-1/2" corrosion resistant wood screws** through the holes in the threshold in to the floor.

Note: For concrete floors, use masonry screws a minimum size of 3/16" x 3-1/2".

P. **Replace the three head strike screws** and three sill screws with #8 x 3" corrosion resistant screws (provided).

Note: There are two screws on single doors and six screws on double doors. For concrete floors, use masonry screws a minimum size of 3/16" x 3-1/2".

Q. **Carefully open the door(s)** and remove all shipping spacers.

Note: Be sure to remove the spacers from the bottom edge of the door panel.

Double doors with center latch:

Designer Series and all Entry Doors with multi-point locks: Use the construction handle to operate the active door handle. Operate the flushbolts per the instructions on the label on the strike located on the astragal.

Single-wide In-Swing doors: Sill screws are not needed.

R. Designer Series only: For single-wide In-Swings doors, sill screws are not needed. Install sill screws. Place a dab of sealant in each of the pre-drilled holes in the bottom of the unit (sill). Then insert a #8 x 2" corrosion resistant screw (provided) into each hole. For masonry floors use a 3/16" masonry screw in place of the provided screw, pilot drill per screw manufacturer's recommendations.

Architect Series Only: Use the construction handle to operate both the active and passive door panels.

For Pro-Line and Entry Door combinations (multi-wide), pre-drill through threshold and insert #8 x 2" corrosion resistant screws 3" from each jamb at the mullion. For masonry floors, use a 3/16" masonry screw.

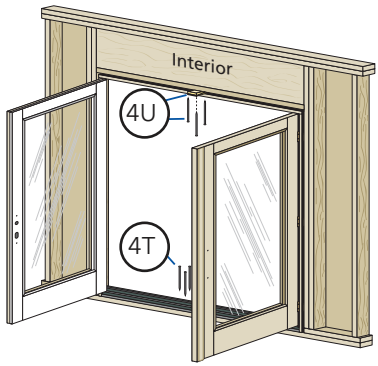
S. **For Low Profile Sills:** through each installation screw hole drill a 1/8" pilot; and install a #8 x 3" corrosion resistant screw (provided) into the pilot hole into the floor. For doors including a standard lock install tubs per instruction included with the sill strike package.

Note: For concrete floors use masonry screws a minimum size of 3/16" diameter x 2" and pilot per manufacturer's recommendations for the screw.

Double doors Only:

T. **Remove sill strike screws from the sill strike** located on the door sill. Place a dab of sealant into the three sill strike holes and install the three #8 x 3" flat head stainless steel screws (provided) into the holes.

U. **Shim between the frame and the rough opening** at the head strike location and at every frame anchor hole location. Remove and replace head strike screws with three #8 x 3" corrosion resistant screws (provided) through the head strike, door frame, shims and into the rough opening.

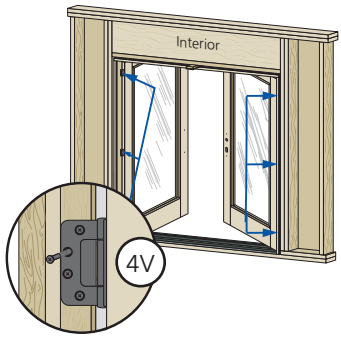


Note: For doors with no head strike check head for pre-drilled installation holes. If installation holes are present drill 1/8" pilot in each installation hole and install a #8 x 3" screw (provided).

4 SETTING AND FASTENING THE DOOR (CONTINUED)

V. **On each hinge, starting at the top, insert a corrosion resistant screw** (#12 x 2-1/2" for out-swing or #8 x 3" for in-swing; provided) into the open screw hole. Make sure the screw passes through the shims and into the structural framing.

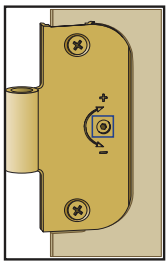
W. **Check door operation.** Open and close the door to check for proper operation. Make sure the door will latch correctly.



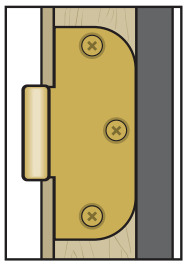
Note: If there are any problems with the operation, check to confirm the door frame is installed plumb, level and square. If the reveal between the door panel(s) and frame is not even, adjustments may be made:

Doors without adjustable hinges: Plastic shims located behind the hinges may be removed to adjust the reveal between the door panel and door frame. Additional hinge shims may be added if required.

Note: Doors with adjustable hinges will have a (+)(-) on the door panel hinge leaf to indicate possible adjustments and doors without adjustable hinges do not have adjustment indicators.



Adjustable Hinge

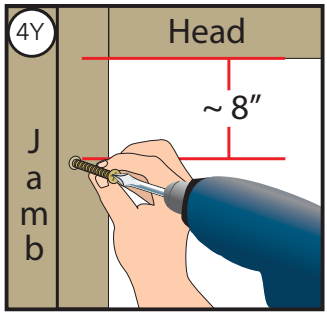

Non-Adjustable Hinge

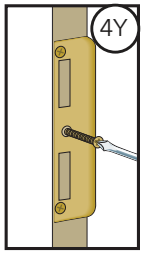
Adjustable hinges are not designed to make up for incorrect installation of a door frame. Before adjusting hinges, confirm the door is installed plumb, level and square.

X. **For Doors with adjustable hinges:** The hinges can be used to move the panel side to side by moving all hinges in the same direction or the hinges can slightly rotate the panel by adjusting the hinges in opposite directions. Use a T20 Torx wrench for Architect Series Doors or a 1/8" Allen wrench for Designer Series doors to turn the center screw clockwise (+) to increase the space between the hinge side of the frame and door panel. Turn the center screws counter-clockwise (-) to decrease the space between the hinge side of the frame and the door panel.

Note: Do not adjust the hinge with the top and bottom screws loose; this could force the hinge to adjust beyond its design capability which can cause the hinge to bind, damage the hinge and/or pull out the screws. A 3/4 turn of the center screw provides approximately 5/32" adjustment.

Y. **On doors with a lock strike in the side,** drill a 1/8" diameter x 2" deep pilot hole into the rough opening through the two pre-drilled holes in the frame. One pre-drilled frame hole is located in the center lock strike hole and the other is the upper frame corner installation hole approximately 8" from the top of the door frame head. Insert a #8 x 3" screw (provided) into the pilot hole making sure it passes through the shim and into the rough opening framing.

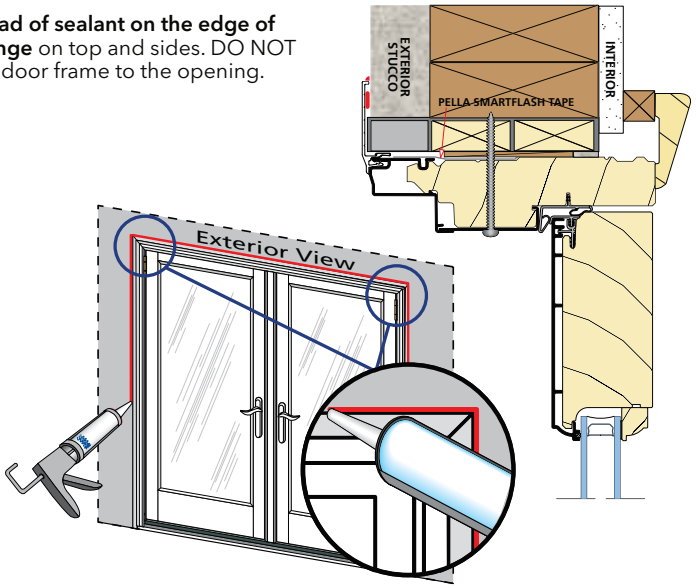




Note: This step does not apply to center latching double doors.

5 APPLY EXTERIOR PERIMETER SEALANT

A. **Place a corner bead of sealant on the edge of the door flush flange** on top and sides. DO NOT seal the sill of the door frame to the opening.

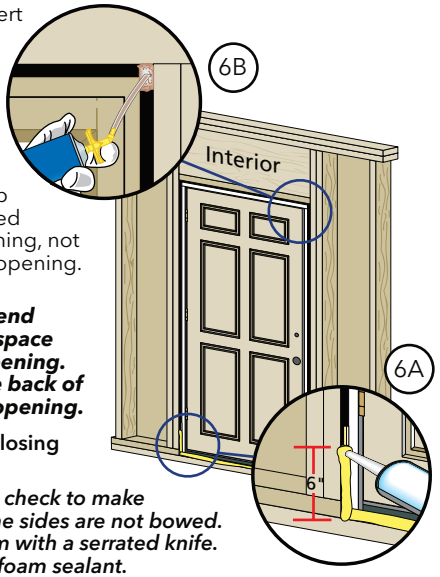


6 INTERIOR SEAL

Caution: Ensure use of low pressure polyurethane window and door installation foams and strictly follow the foam manufacturer's recommendations for application. Use of high pressure foams or improper application of the foam may cause the door to bow and hinder operation.

A. **Add a sealant bead across the inner sill and 6" up each jamb** between the frame and rough opening.

B. **Apply insulating foam.** From the interior, insert the nozzle of the applicator approximately 1" deep into the space between the door and the rough opening and apply a 1" deep bead of foam. This will allow room for expansion of the foam and will minimize squeeze out. Apply sealant across the interior surface of shims to create a continuous seal. For doors with jamb extensions installed, ensure the foam is placed between the door frame and the rough opening, not between the jamb extension and the rough opening. Follow foam manufacturer's instructions.



Note: It may be necessary to squeeze the end of the tube with pliers to insert it into the space between the door frame and the rough opening. DO NOT completely fill the space from the back of the brickmould to the interior face of the opening.

C. **Check the door operation by opening and closing the door.**

Note: If the door does not operate correctly, check to make sure it is still plumb, level, square and that the sides are not bowed. If adjustments are required, remove the foam with a serrated knife. Adjust the shims and reapply the insulating foam sealant.

FINISHING INSTRUCTIONS

Paint or finish immediately after installation.

Note: DO NOT paint, stain or finish weather strip or vinyl parts! If paint, stain or finish gets on the weather stripping, wipe it off immediately with a damp cloth. To maintain proper product performance, do not remove weather strip, foam corner seal wedges or gaskets. Air and water leakage may result if these factory-installed items are removed. After finishing, allow doors to dry completely before closing them. Pella will not be responsible for finishing imperfections. The use of unapproved finishes, solvents or cleaning chemicals may cause adverse reactions with door materials. Pella will not be responsible for problems caused by the use of unapproved materials. If in doubt, contact your local retailer or representative.

Use of inappropriate finishes, solvents, brickwash or cleaning chemicals will cause adverse actions with window and door materials and voids the Limited Warranty.

Care and maintenance information is available in the Pella Owner's Manual. You can obtain an owner's manual by contacting your local Pella retailer. This information is also available on www.pella.com.

Factory Prefinished Panels:

A door panel that has been prefinished with stain or paint from the factory requires no additional finishing. Clean the surface with mild soap and water. **DO NOT** use a abrasives. **DO NOT** scrape or use tools that might damage the surface.

FINISHING INSTRUCTIONS (CONTINUED)

Clad Exterior Frame:

The exterior frame is protected by aluminum cladding with our tough EnduraClad baked-an-factory finish that needs no painting. Clean this surface with mild soap and water. **DO NOT** use abrasives. **DO NOT** scrape or use tools that might damage the surface.

Panel Cleaning and Prep Instructions for Unfinished or Primed Panels:

Dry wipe dust from doors gently. Examine door for possible smudges or fingerprints made from normal handling or construction. To remove smudges, lightly wipe surface with warm water. **DO NOT** sand surface of fiberglass panel. Scuff sand with light grade sand paper or abrasive pad (220 grit or higher). Rinse surface with mineral spirits for fiberglass panels and warm water for steel panels. Let door and side light surfaces dry completely before applying finish. Finish the door panels as soon as possible after installation.

Failure to use the correct type of finish may result in a door that sticks shut. Ask a qualified paint professional to specify a product with good blocking resistance.

EXTERIOR FINISH OF ALUMINUM CLAD DOORS

The exterior frame and sash are protected by aluminum cladding with our tough EnduraClad® or EnduraClad Plus baked-on factory finish that requires no painting. Clean this surface with mild soap and water. Stubborn strains and deposits may be removed with mineral spirits. DO NOT use abrasives. DO NOT scrape or use tools that might damage the surface.

Use of inappropriate solvents, brickwash or cleaning chemicals will cause adverse reactions with window and door materials and voids the Limited Warranty.

INTERIOR FINISH

If products cannot be finished immediately, cover with clear plastic to protect from dirt, damage and moisture. Remove any construction residue before finishing. Sand all wood surfaces lightly with 180 grit or finer sandpaper. DO NOT use steel wool. BE CAREFUL NOT TO SCRATCH THE GLASS. Remove sanding dust.

Pella products must be finished per the below instructions; failure to follow these instructions voids the Limited Warranty.

- On patio doors, it is optional to paint, stain or finish the vertical and horizontal panel edges.

Note: To maintain proper product performance do not paint, finish or remove the weather-stripping, mohair dust pads, gaskets or vinyl parts. Air and water leakage will result if these parts are removed. After finishing, allow venting windows and doors to dry completely before closing them.

Pella Corporation is not responsible for interior paint and stain finish imperfections for any product that is not factory-applied by Pella Corporation. Use of inappropriate finishes, solvents, brickwash, or cleaning chemicals will cause adverse reactions with the window and door materials and voids the Limited Warranty.

For additional information on finishing see Pella Owner's Manual or go to ***www.pella.com.***

CARE AND MAINTENANCE

Care and maintenance information is available by contacting your local Pella retailer. This information is also available at ***www.pella.com.***

IMPORTANT NOTICE

Because all construction must anticipate some water infiltration, it is important that the wall system be designed and constructed to properly manage moisture. Pella Corporation is not responsible for claims or damages caused by anticipated and unanticipated water infiltration; deficiencies in building design, construction and maintenance; failure to install Pella® products in accordance with Pella installation instructions; or the use of Pella products in wall systems which do not allow for proper management of moisture within the wall systems. The determination of the suitability of all building components, including the use of Pella products, as well as the design and installation of flashing and sealing systems are the responsibility of the Buyer or User, the architect, contractor, installer, or other construction professional and are not the responsibility of Pella.

Pella products should not be used in barrier wall systems which do not allow for proper management of moisture within the wall systems, such as barrier Exterior Insulation and Finish Systems, (EIFS) (also known as synthetic stucco) or other non-water managed systems. Except in the states of California, New Mexico, Arizona, Nevada, Utah, and Colorado, **Pella makes no warranty of any kind and assumes no responsibility for Pella windows and doors installed in barrier wall systems. In the states listed above, the installation of Pella products in barrier wall or similar systems must be in accordance with Pella installation instructions.**

Product modifications that not approved by Pella Corporation will void the Limited Warranty.