

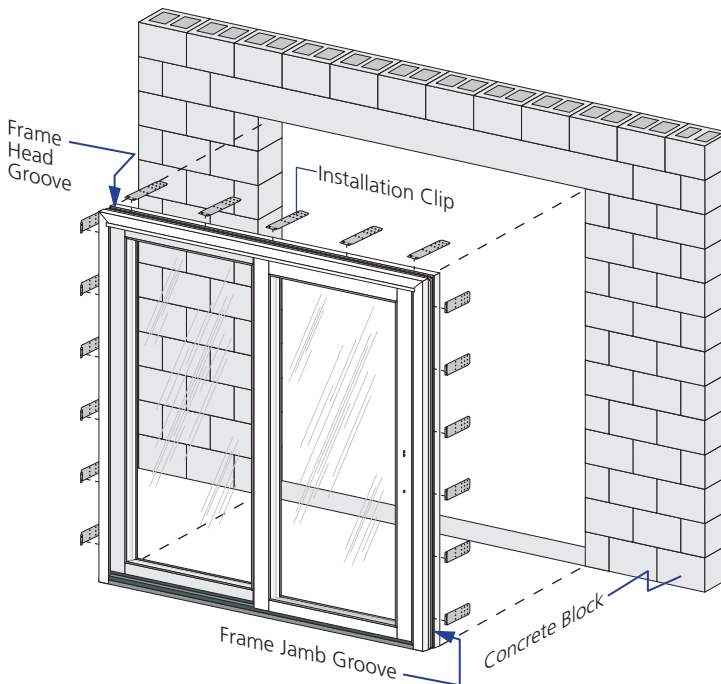


# INSTALLATION INSTRUCTIONS IMPERVIA® SLIDING PATIO DOOR WITH CLIPS OR JAMB SCREWS

## ***Installation Instructions for Typical Masonry Wall Construction.***



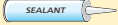




These instructions were developed and tested for use with typical masonry wall construction in a wall system designed to manage water. **These instructions are not to be used with any other construction method.** Installation instructions for use with other construction methods may be obtained from Pella Corporation or a local Pella retailer. 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.

## **REMEMBER TO USE APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT**




Always read the Pella Impervia Limited Warranty before purchasing or installing Pella Impervia products. By installing this product, you are acknowledging that this Limited Warranty is part of the terms of the sale. Failure to comply with all Pella Impervia installation and maintenance instructions may void your Pella Impervia product warranty. See Limited Warranty for complete details on <http://warranty.pellaimpervia.com>.

## YOU WILL NEED TO SUPPLY:

- Cedar or Impervious shims/spacers (12 to 20) 
- Closed cell foam backer rod/sealant backer (24 to 32 ft.) 
- Pella Window and Door Installation Sealant or equivalent high quality, multi-purpose sealant (2 to 3 tubes per door) 
- Low expansion, low pressure polyurethane insulating window and door foam sealant - DO NOT use high pressure or latex foams 
- Installation Clips 
- #10 x 1-1/4" or longer concrete screws (for installation clips) 
- #10 x 2-1/2" concrete screws (for jamb screw installation) 

## FOR MULLION APPLICATIONS:

- I bar joining connector 
- Pella silicone foam tape
- Mullion end plug (2)

## TOOLS REQUIRED:

- Tape measure 
- Level 
- Square 
- Hammer 
- Sealant gun 
- Screwdriver 
- Rubber mallet 
- Drill 

**Installation will require two or more persons for safety reasons.**

# 1 ROUGH OPENING PREPARATION

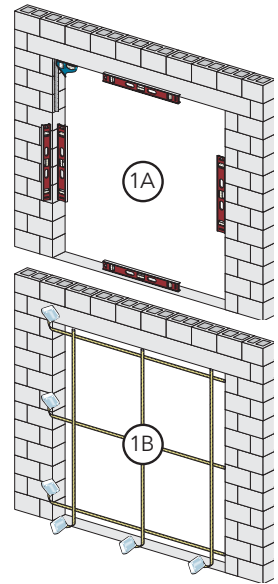
- A. **Confirm the opening is plumb and level.**

**Note: It is critical the bottom is level.**

- B. **Confirm the door will fit the opening.** Measure all four sides of the opening to make sure it is 1/2" larger than the door in width and height. Measure the width at the top, bottom, and center. Measure the height at the far left side, the far right side, and in the center.

**Note: Fix any problems with the rough opening before proceeding.**

**OX/XO doors only:** The door sill must be fully supported from interior to exterior. If the exterior of the door sill will not be supported by the floor, the Pella aluminum sill support or similar construction material must be attached to the exterior of the opening under the door sill.



# 2 PREPARE THE DOOR FOR INSTALLATION

- A. **Remove the plastic wrap and cardboard packaging from the door.**

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

- B. **OX/XO doors only:** Remove the shipping spacers. Carefully slide the movable panel halfway open and remove the spacers from both the top and bottom of the movable panel.

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

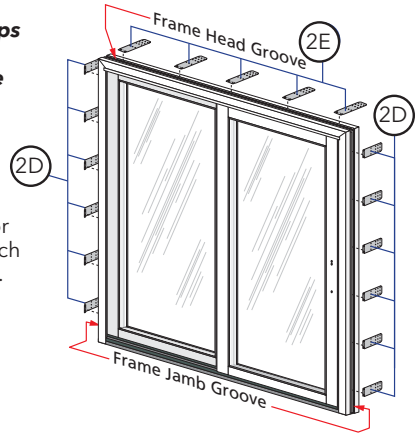
- C. **OX/XO doors only:** Remove the vent panel by lifting it out of the lower track and tilting the bottom of the panel away from the door frame. Then, lower the panel out of the top track. Carefully set the panel aside.

**If transoms or fixed units are being mulled to the unit, go to the step HORIZONTAL or VERTICAL MULLION INSTALLATION PROVIDED IN THIS INSTRUCTION. PERFORM THIS PROCESS BEFORE INSTALLING CLIPS.**

**For instruction using screws through the jamb, go to the step INSTALLATION INSTRUCTIONS USING JAMB SCREWS provided in this instruction.**

**For instruction using installation clips, proceed to the next step.**

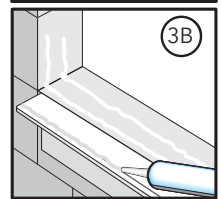
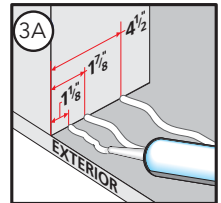
**Note: When applying clips to mulled units, clips should be placed 6" from each end and 6" on each side of the mullion joint. Add clips where the spacing between clips is more than 16".**



- D. **Install installation clips.** Slide clips into the door frame jamb grooves, placing one clip 6" from each end of the unit and no more than 16" on centers.
- E. **Slide clips into the door frame head groove.** Place one clip 6" from each end of the unit, and not more than 16" on centers.

### 3 SETTING AND FASTENING THE DOOR

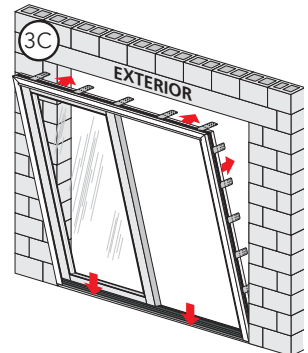
- A. **Place three 3/8" beads of sealant.** The first bead should be approximately 1-1/8" from the exterior of the rough opening, the second 1-7/8" in from the exterior of the rough opening and a third bead of sealant 4-1/2" in from the exterior of the rough opening.
- B. **If Pella aluminum sill support or similar support material has been installed,** apply a bead of sealant 1/4" on the exterior edge of the support, then position the other sealant lines as shown in the illustration.



**TWO OR MORE PEOPLE WILL BE REQUIRED FOR THE FOLLOWING STEPS.**

**Note: For Steps C and F use #10 x 1-1/4" or longer concrete screws for masonry wall applications, or use #8 x 1-1/4" or longer corrosion resistant wood screws for frame wall applications.**

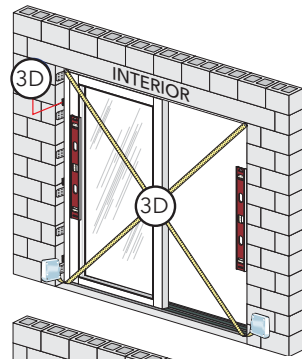
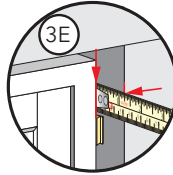
- C. **Insert the door from the exterior of the building. DO NOT slide the bottom of the door into the opening. Sliding will damage the sealant lines.** Place the bottom of the door at the bottom of the opening, then tilt the top into position. Center the door between the sides of the opening to allow equal clearance for shimming, and insert one screw into one hole in each of the top clips. This will hold the door in place while shimming it plumb and square.



- D. **Plumb and square the door.** Insert shims, as necessary, between the door and the rough opening starting up 6" from the bottom of the door. Keep shims back 1/2" from interior face of window.

**Note: DO NOT shim above the door. DO NOT over shim.**

- E. **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.



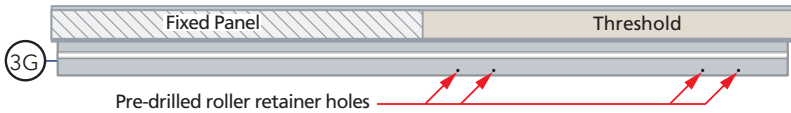
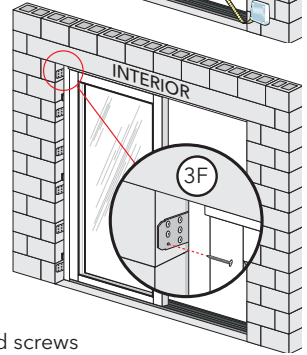
- F. **Fasten the door to the opening** by driving screws through the pre-punched holes in the clips.

- G. **Install roller retainers.** Position and secure the two roller retainers provided by drilling pilot holes through the pre-drilled holes into the sill support. Apply sealant to the holes and insert screws as specified below:

**Aluminum sill support:** 9/64" pilot holes, #8 x 3/4" thread-cutting screws (provided)

**Wood blocking:** 1/8" pilot holes, #8 x 2-1/2" flat-head wood screws (provided)

**Masonry floor:** #10 x 2-1/2" concrete screws. Pilot drill per screw manufacturer's recommendations.

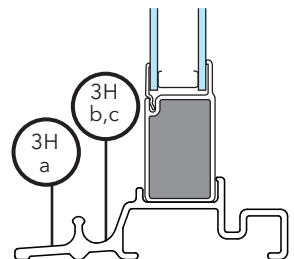


- H. **Doors with vertical mullions only:** Fasten the door sill to the rough opening sill using one of the following screw types and locations.

- a. **Doors using aluminum sill support:** Drill a 5/32" diameter hole 1" from each door jamb through the door sill and the aluminum sill support. Place a bead of sealant in each hole and install a #10 x 3/4" self tapping screw in each hole.

- b. **Doors on concrete:** Drill a 3/16" diameter hole 1" from each door jamb through the door sill and the aluminum sill support. Place a bead of sealant in each hole and install a 3/16" x 1-3/4" corrosion resistant masonry screw in each hole.

**Note: The hole may be placed on either side of the track. Place the hole in the best location to prevent the concrete from breaking at the screw location.**



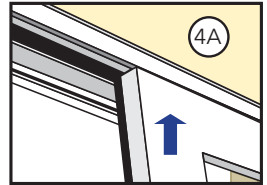
- c. **Doors with wood floors or wood sill supports:** Drill a 3/16" diameter hole 1" from each door jamb through the door sill. Place a bead of sealant in each hole and install a #10 x 1-1/2" corrosion resistant flat head wood screw in each hole.

# 4 REINSTALL THE VENT PANEL - OX/XO DOORS ONLY

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

- A. **Insert the door panel.** From the exterior of the building, tilt the top of the panel toward the door frame and insert the top of the door panel into the top track. Move the bottom of the panel toward the door frame until it is vertical. Gently set the panel down into the bottom track.

**Note:** Be careful not to pinch your fingers between the two panels.



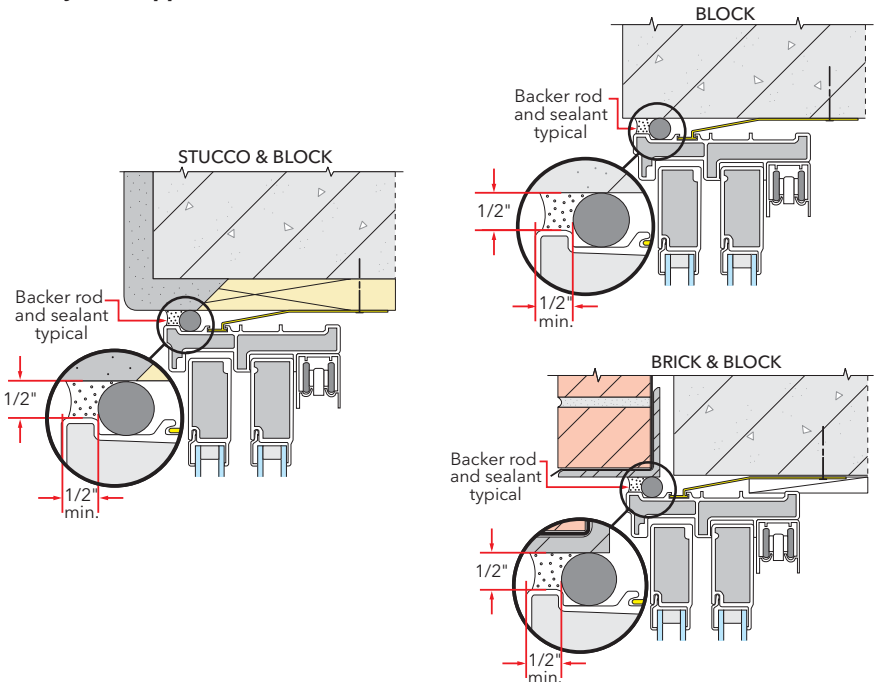
- B. **Install the handles.** Follow the instructions included in the hardware box.
- C. **Install the bumpers and panel retainer.** Follow the instructions attached to the parts bag.
- D. **Check the door operation.** Open and close the door a few times to check for proper operation.

**Note:** If there are any problems with the operation of the door, recheck shim locations and adjust for plumb and square.

# 5 SEALING THE DOOR TO THE EXTERIOR WALL CLADDING

When applying siding, brick veneer or other exterior finish materials, leave adequate space between the door frame and the material for sealant. Refer to the illustration corresponding to your finish material.

**Note:** The sealant details shown are standard recommendations from the sealant industry. Contact your sealant supplier for recommendations and instructions for these and any other applications.

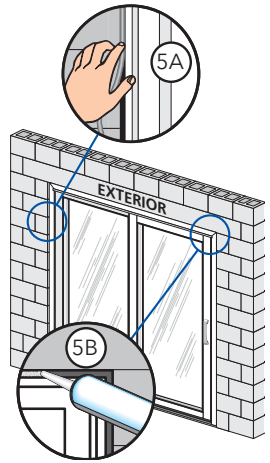


- A. **Insert closed cell foam backer rod into the space around the door** as deep as it will go. This should provide at least a 1/2" clearance between the backer rod and the exterior face of the door.

**Note: Backer rod adds shape and depth for the sealant line.**

- B. **Apply a bead of high quality exterior grade sealant** to the entire perimeter of the door.
- C. **Shape, tool and clean excess sealant.** When finished, the sealant should be the shape of an hourglass.

**Note: This method creates a more flexible sealant line capable of expanding and contracting.**



## 6 INTERIOR SEAL

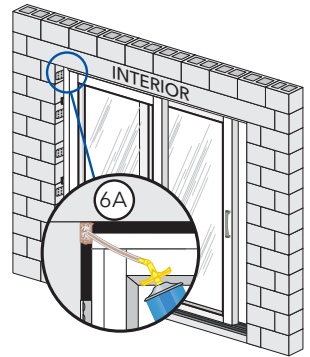
**Caution: Ensure use of low pressure polyurethane window and door insulating foams and strictly follow the foam manufacturer's recommendations for application. Use of high pressure foams or improper application of the foam may cause the door frame to bow and hinder operation.**

- A. **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 interior surface of shims to create a continuous seal. For windows with jamb extensions installed, ensure the foam is placed between the window 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 be able to insert into the space between the window frame and the rough opening. DO NOT completely fill the space from the back of the backer rod to the interior face of the opening.**

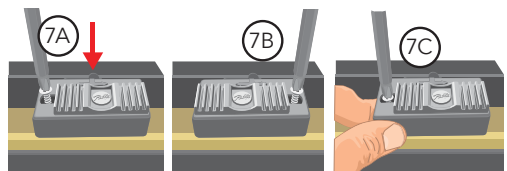
- B. **OX/XO doors only:** Check the door operation by opening and closing the door.

**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.**



## 7 FOOT BOLT ADJUSTMENT

- A. Align foot bolt to the strike, then tighten the exposed screw.
- B. Slide the foot bolt actuator to the opposite position and tighten the screw.
- C. Check the door and foot blot for proper operation. If the foot bolt assembly location needs to be adjusted, loosen both attachment screws and adjust foot bolt location, re-tighten the screws.



# MULLING INSTRUCTIONS

## HORIZONTAL MULLIONS:

**Note:** If transoms are to be attached (mulled) to the top of the unit, perform this process before attaching installation clips.

- A. **Apply two strips of foam tape** across the bottom of the transom frame.

**Note:** The tape must extend the full width of the transom frame.

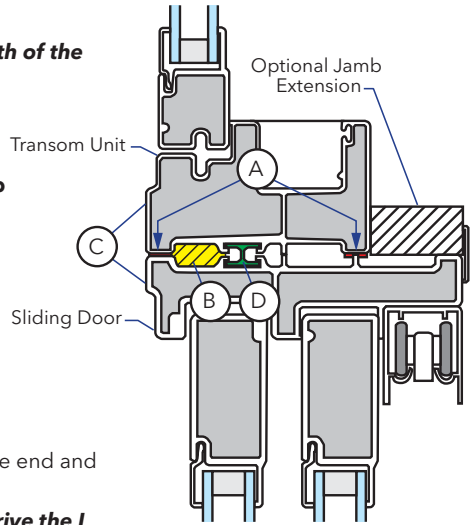
- B. **Place a foam plug** at each end of the top between the exterior rib and the joining mullion groove.

- C. **Position and align** the transom with the sliding door.

- D. **Start the I bar joining connector** from one end and drive it to the full width of the units.

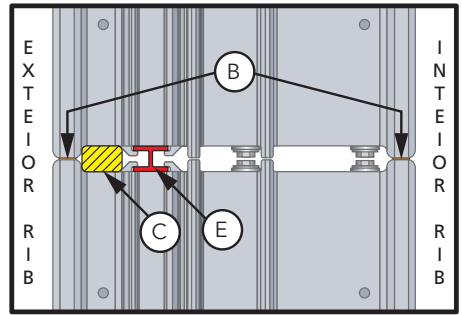
**Note:** A rubber mallet may be used to drive the I bar joining connector into position. If necessary, the I bar joining connector can be cut in half and driven from each end.

- E. **Apply sealant to the ends of the mullion joint.** The bead of sealant should extend from the center of the mullion joint to the exterior of the unit, covering the foam plug.

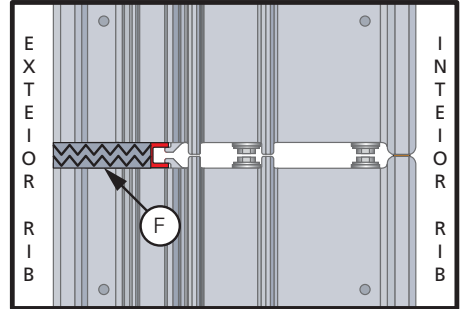


## VERTICAL MULLIONS:

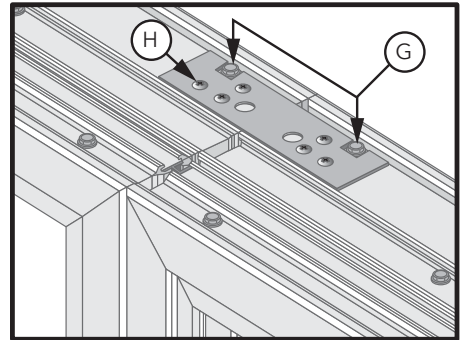
- A. **Lay the units on a smooth clean surface**, exterior side up to perform these steps.
- B. **Apply two strips of foam tape** down the fixed door frame sides. Place one strip on the interior rib and one strip on the exterior rib.
- C. **Position and align** the sliding door with the fixed door.
- D. **Place a foam plug at the top and bottom** between the exterior rib and the joining mullion groove.



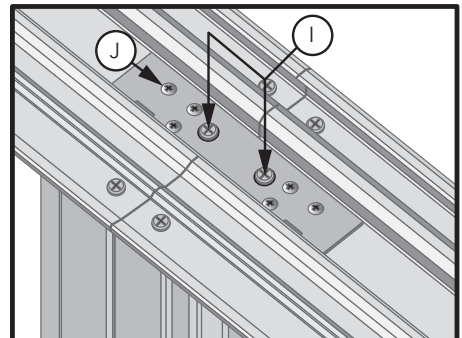
- E. **Start the I bar joining connector from one end and drive it to the full height** of the doors.  
*Note: A rubber mallet may be used to drive the I bar joining connector into position.*
- F. **Apply a bead of sealant, covering the mullion joint** from the center of the I bar joining connector to the exterior.



- G. **Apply a reinforcement plate at the head** using the square notches to align the plate to the head frame screws in the 1-1/2" wide flat groove to the interior side of the frame.
- H. **Secure the plate** with #8 x 1" pan head sheet metal screws, using three screws per door head.



- I. **Align the reinforcement plate at the sill** using the center 3/8" diameter holes to align the plate to the sill frame screws in the 1-1/2" wide flat groove.
- J. **Secure the plate** with #8 x 1" pan head sheet metal screws, using three screws per door sill.



**Note: Doors with vertical mullions will require screws through the door sill into the floor. See the requirements for these screws in Step 3H.**

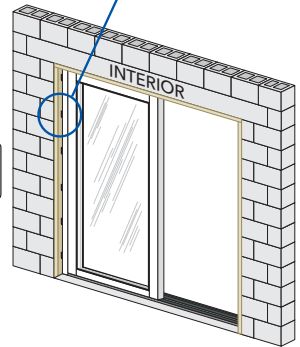
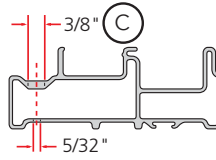


# INSTALLATION INSTRUCTIONS USING JAMB SCREWS

- A. **Insert the door** and center it between the sides of the rough opening to allow clearance for shimming.
- B. **Insert shims** between the door and the sides, and at the head of the rough opening at the top two anchor hole locations in the door jambs. Keep shims back 1/2" from interior face of window.



- C. **If additional installation holes are needed**; drill a 5/32" installation hole through both the interior and exterior walls of the frame. Counter drill a 3/8" hole through the interior wall only of the frame. DO NOT penetrate the exterior wall with the 3/8" bit."



**Note: For Steps D and F use 3" wood screws provided for frame wall installations, or #10 x 2-1/2" concrete screws for masonry wall applications.**

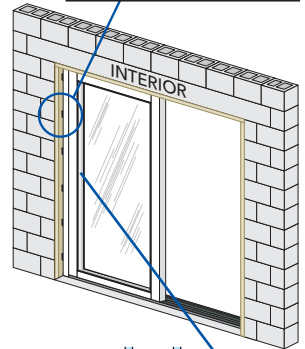
- D. **Fasten the door at the top of the opening** by driving screws through the top two holes in the door jambs, and into the rough opening sides.
- E. **Plumb and square the door.** Insert shims, as necessary, between the door and the sides of the rough opening at the anchor hole locations in the door jambs. Keep shims back 1/2" from interior face of window. **(DO NOT OVER SHIM.)**

- F. **Fasten the door in the opening** by driving the screws through the holes in the head (exterior) and the door jambs (interior), through the shims and into the sides of the rough opening.



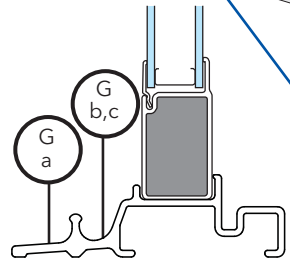
- G. **Doors with vertical mullions only:** Fasten the door sill to the rough opening sill using one of the following screw types and locations.

- a. **Doors using aluminum sill support:** Drill a 5/32" diameter hole 1" from each of the mulled door jambs through the door sill and the aluminum sill support. Place a bead of sealant in each hole and install a #10 x 3/4" self tapping screw in each hole.
- b. **Doors on concrete:** Drill a 5/32" diameter hole 1" from each of the mulled door jambs through the door sill and into the concrete floor. Place a bead of sealant in each hole and install a 3/16" x 1-3/4" corrosion resistant masonry screw in each hole.



**Note: The hole may be placed on either side of the track. Place the hole in the best location to prevent the concrete from breaking at the screw location.**

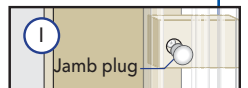
- c. **Doors with wood floors or wood sill supports:** Drill a 5/32" diameter hole 1" from each of the mulled door jambs through the door sill. Place a bead of sealant in each hole and install a #10 x 1-1/2" corrosion resistant flat head wood screw in each hole.



- H. **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 and that the sides are not bowed. If the sides are bowed, remove the foam with a serrated knife and repeat the above steps.**

- I. **Insert jamb hole plugs** (provided).
- J. **Proceed to Step 4.**



# FINISH

The interior and exterior frame and sash are protected by a powder coat baked-on finish that requires no painting. Clean this surface with mild soap and water. Stubborn stains and deposits may be removed with mineral spirits. DO NOT use abrasives. DO NOT scrape or use tools that might damage surface.

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

# CARE AND MAINTENANCE

Care and maintenance information is available by contacting your local Pella sales representative. This information is also available on [www.pellaimpervia.com](http://www.pellaimpervia.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 are not approved by Pella Corporation will void the Limited Warranty.

