



INSTALLATION INSTRUCTION - CLAD HINGED PATIO DOOR – (INCLUDES STANDARD, PERFORMANCE UPGRADE AND HURRICANESHIELD® IMPACT RESISTANT IN-SWING AND OUT-SWING)

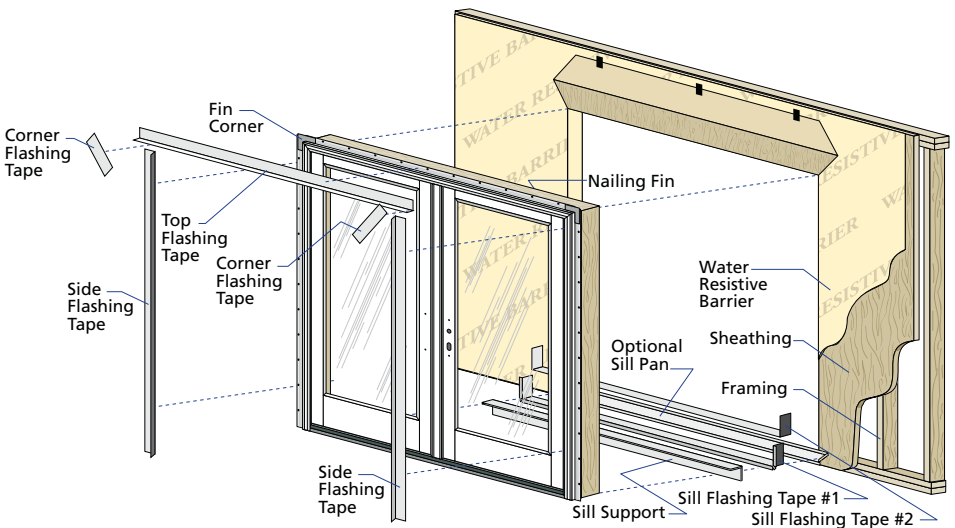
Important Safety Information:

Pella® HurricaneShield Products have been tested in accordance with the large missile impact testing requirements and have been certified to meet those requirements. Check with the individual (building owner, architect, contractor, installer and/ or consumer) responsible for the project in addition to local building code officials to determine if these products comply with local codes. Pella HurricaneShield Products are neither hurricane proof nor are they shatter proof. Severe wind and rain may produce temporary conditions which exceed product performance standards. When these units are subjected to intense storms or extreme conditions, which exceed the intended design pressures, air, water and flying debris infiltration may occur.

These instructions were developed and tested for use with typical wood frame 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, multiple units or bow and bay windows, may be obtained from Pella Corporation, a local Pella retailer or by visiting <http://www.pella.com>. 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.

IMPORTANT NOTICE: To achieve maximum door performance, the performance upgrade installation may be required. Additional performance information may be obtained from your Pella retailer or <http://www.pella.com>. All doors with HurricaneShield impact-resistant glass are required to use the Performance Upgrade Installation steps contained within this instruction.

REMEMBER TO USE APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT.









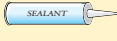

Always read the Pella® Limited Warranty before purchasing or installing Pella products. By installing this product, you are acknowledging that this Limited Warranty is part of the terms of the sale. Failure to comply with all Pella installation and maintenance instructions may void your Pella product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

The performance of any building is dependent upon the design, installation, and workmanship of the entire building system. Pella Corporation strongly recommends consulting an experienced architect, contractor or structural engineer prior to installation of Pella products.


The individual (building owner, architect, contractor, installer and/or consumer) responsible for the project must take into account local conditions, building codes, inherent component limitations, the effects of aging and weathering on building components, and other design issues relevant to each project.

The determination of the suitability of all building components for each project, as well as the design and installation of flashing and sealing systems, are the responsibility of the building owner, architect, contractor, installer and/or consumer.


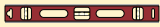










YOU WILL NEED TO SUPPLY:

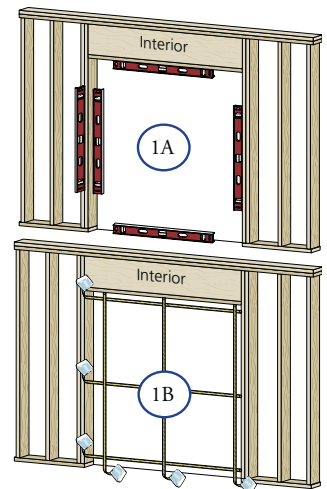
- Cedar or Impervious shims/spacers (12 to 20) 
- 2" galvanized roofing nails (1/4 lb.) 
- #10 x 3-1/2" corrosion resistant wood screws (Performance Upgrade & HurricaneShield) 
- Masonry screws for concrete applications (Minimum of 3/16" diameter x 3") 
- Closed cell foam backer rod/sealant backer (21 to 30 ft.) 
- Pella® SmartFlash™ foil backed butyl window and door flashing tape or equivalent 
- Pella Window and Door Installation Sealant or equivalent high quality, multi-purpose sealant 
- Low Expansion, low pressure polyurethane insulating window and door foam sealant. DO NOT use high pressure or latex foams 
- Sill pan (optional)
- 6-5/8" x (Rough Opening Width +2)
- Pella aluminum sill support or wood blocking
- Interior trim and/or jamb extensions (15 to 40 ft.)

Installation Clip Option:

- 6" or 8" installation clips 
- #6 x 5/8" corrosion resistant flat head wood screws
- #8 x 1-1/2" corrosion resistant screws or 3/16" x 1-1/2" masonry screws

TOOLS REQUIRED:

- Tape measure 
- Level 
- Square 
- Hammer 
- Stapler 
- Sealant Gun 
- Scissors or utility knife 
- Tin Snips 
- Screwdrivers (#2 Phillips with 8" shaft and small flat blade) 
- T20 Torx Wrench (Architect Series®)
- 1/8" Allen wrench (Designer Series®) 
- Drill 
- Drill Bits 13/64" and 1/8" and masonry bit for concrete applications 



1 ROUGH OPENING PREPARATION

- A. Confirm the opening is plumb and level.

Note: It is critical the bottom is level.

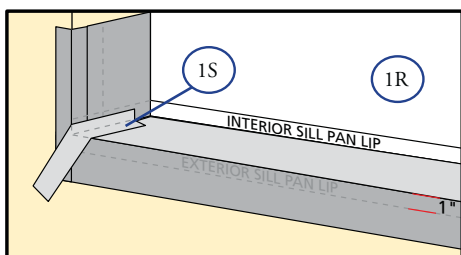
- B. Confirm the door will fit the opening. Measure all four sides of the opening to make sure it is 3/4" larger than the door in width and 1/2" larger in height. Measure the width at the top, bottom, and center. Measure the height at the far left side, the far right side, and in the center.

Note: 1-1/2" or more of solid wood blocking is required around the perimeter of the opening. Fix any problems with the rough opening before proceeding.

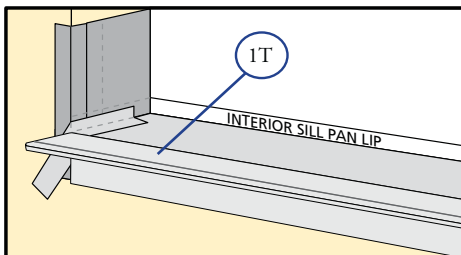
- R. **Cut a piece of flashing tape** to the width of the opening. Install to the flanges of the sill pan and overlap the tape from step 1N by 1". If needed add a second or third piece of flashing tape until the sill pan is covered to the interior sill pan lip.

Note: *The purpose of this tape is to seal the sill screws when installing the door.*

- S. **Cut two pieces of flashing tape** 1-1/2" x 6" and apply to the bottom corners of the opening by beginning in the corner of the sill pan, with 3/4" of the tape applied to the sill pan and 3/4" of the tape applied to the side flange. The remainder of the tape is to be at a 45 degree angle onto the exterior.



- T. **Attach the aluminum sill support or wood blocking** to the exterior of the box plate to support the edge of the door sill. Place the sill support flush with the subfloor.



2 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.

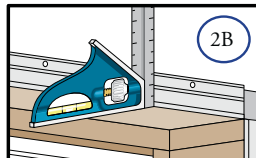
Designer Series only:

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.*

- B. **Fold out installation fin to 90°.** Be careful not to remove or tear the fin corners

Note: *If the fin corner is not at 90°, the door will not line up correctly on the interior.*



STANDARD FIN APPLICATION GO TO STEP 3

Applications for Performance Upgrade and HurricaneShield product requires additional clip installation or screw installation. Clip installation prep is included in Step 2C. Screw installation steps are included in Step 5.

Applications for Performance Upgrade and HurricaneShield:

Out-Swing Vent and Fixed

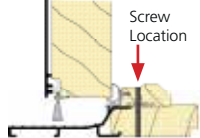
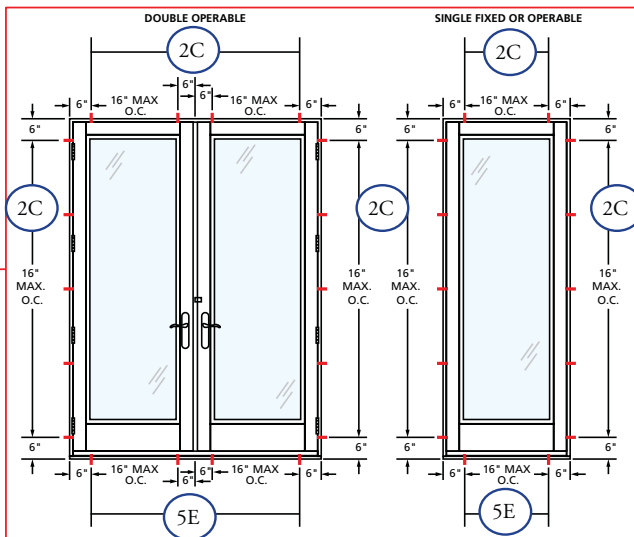


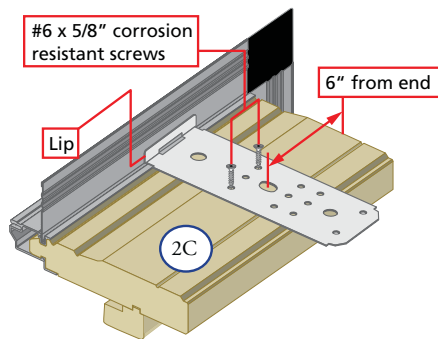
DIAGRAM FOR PLACEMENT OF THRESHOLD SCREWS & INSTALLATION CLIPS

In-Swing Vent



- C. **Doors using Installation Clips:** Install installation clips. Place each clip so the lip is facing up and against the installation fin at the locations shown in the placement diagram. Secure each clip by driving a #6 x 5/8" corrosion resistant screw through each of the outer two holes of the three holes shown.

Note: If clips are to be bent; pre-bend before attaching to frame.

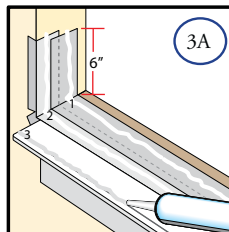
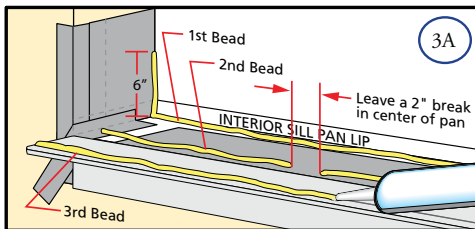


3 SETTING AND FASTENING THE DOOR

- A. **Place three 3/8" beads of sealant.**

Place the first beads sealant 1/2" from 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 legs. Continue the first bead up 6" onto each jamb side of the rough opening. The second bead should be approximately 1/2" from the exterior edge of the rough opening, running from jamb to jamb with a 2" break in the middle of the opening. Place a third sealant bead in the groove of the sill support from end to end or 1/4" from the exterior edge of the wood blocking.

Note: Sill sealant detail is the same for applications with and without optional sill pan.

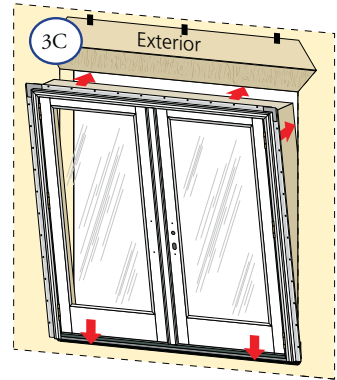


Applications without sill pan

TWO OR MORE PEOPLE WILL BE REQUIRED FOR THE FOLLOWING STEPS:

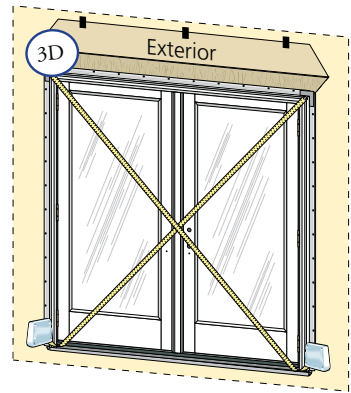
B. **Cut and remove** the strap that runs from the door lock to the sill of the door.

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 clearance for shimming, and insert one roofing nail in the first hole from the corner on each end of the top nailing fin. These are used to hold the door in place while shimming it plumb and square.



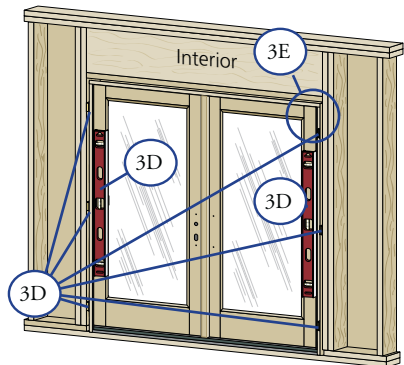
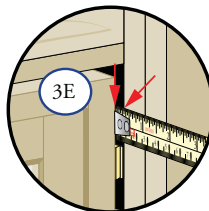
D. **Plumb and square door.** Place shims at each hinge and lock strike location between the door and the sides of the opening. Keep shims back 1/2" from the interior face of the door. Insert shims in other locations as needed starting up 6" from the bottom of the door to square it in the opening. Make sure the reveal around the door(s) is equal. On double doors, make sure panels are even across the bottom.

Note: On center latch double doors the lock strike will not be shimmed since it is located in the center of the unit. DO NOT over shim.



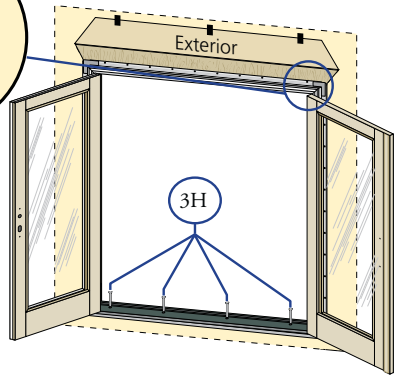
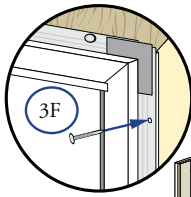
E. **Check the interior reveal.** Make sure the measurement from the interior face of the door to the interior face of the wall is equal at several points around the door.

Note: If the dimensions are not equal, check to make sure the fins are folded out to 90° at all points.



- F. Fasten the door to opening by driving 2" galvanized roofing nails into each pre-punched hole in the nailing fin.

Note: Make sure the fin corner is lying as flat as possible.



- G. 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 Only: 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.

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

- H. **For Designer Series Only:** 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.

For Architect Series Standard Installation Applications Only: Install sill screws. Remove the threshold screws and insert a #8 x 3" stainless steel 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.

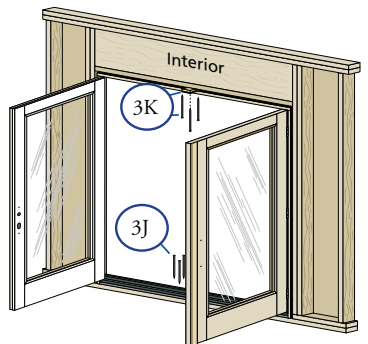
Note: On In-Swing Door Standard Installation, sill screws are not needed.

SILL SCREWS FOR ARCHITECT SERIES PERFORMANCE UPGRADE AND DOORS WITH HURRICANESHIELD IMPACT-RESISTANT GLASS ARE INSTALLED IN STEP 5.

- I. **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 that are a minimum size of 3/16" diameter x 2" and pilot per manufacturer's recommendations for the screw.

- J. 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.



5 INSTALL THE FASTENERS FOR PERFORMANCE UPGRADE OR HURRICANESHIELD PRODUCT

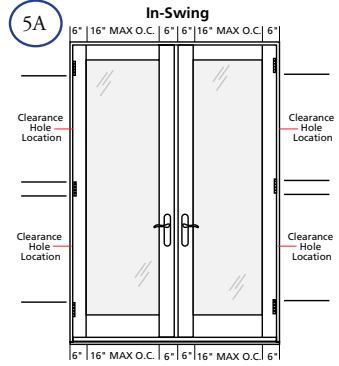
Frame Screw Method:

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

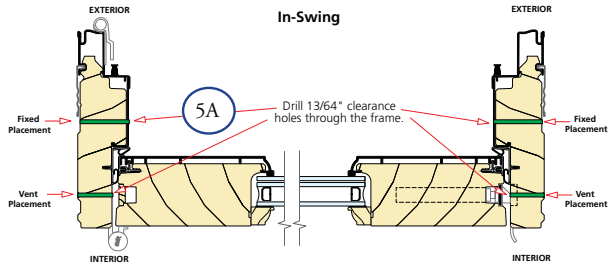
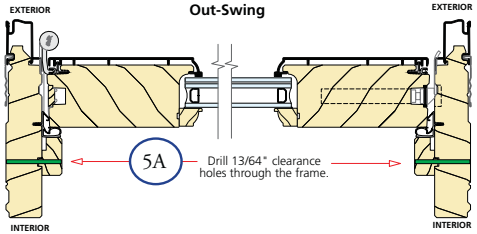
A. Jamb:

Out-Swing: On the room side of the jamb; drill and counter-sink 13/64" deep 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" deep diameter clearance holes through the door frame only and not into the rough opening in the locations shown. (On hinge jamba; clearance hole locations are centered between hinges).



Hinge Jamba: See (5A) In-Swing diagram (upper right). Fixed and Lock jamba diagram for placement of threshold screws and installation clips (see out-swing diagram in lower right).

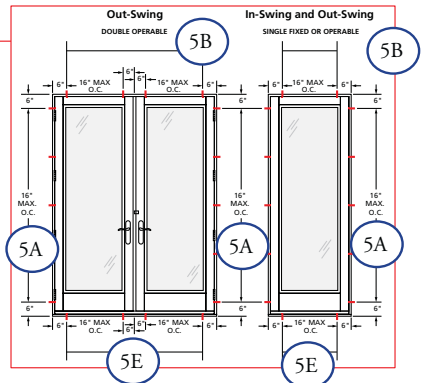


B. Drill 13/64" deep clearance holes through the door frame head only and not into the rough opening in the locations shown.

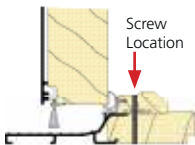
C. Drill 1/8" x 1" deep pilot holes through the clearance holes and into the rough opening framing in the head, jamba, and threshold of the unit frame.

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

DIAGRAM FOR PLACEMENT OF FRAME SCREWS & INSTALLATION CLIPS



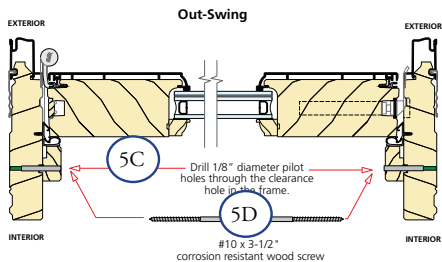
Out-Swing Vent and Fixed



In-Swing Vent

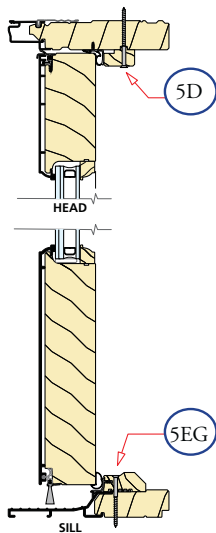


- D. **Secure the jambs and head of the door.** Drive #10 x 3-1/2" corrosion resistant wood screws through the door frame and shim, into the rough framing. Drive the screws until snug but **DO NOT** over-tighten the screws. **DO NOT** bend or bow the unit frame.



- E. **Drill 13/64" clearance holes** through the threshold but not into the rough opening, at the locations shown in illustration on previous page (5E & 5G). Install # 10 x 3/1-2" corrosion resistant wood screws through the threshold into the floor. For Masonry applications use masonry screws that are a minimum size of 3/16" diameter x 3" and pilot drill per screw manufacturers's recommendations.

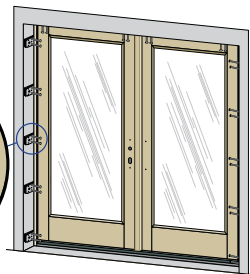
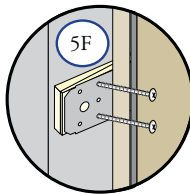
NOTE: Not required on In-swing Fixed doors.



Installation Clip Method:

- F. **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 masonry screws that are a minimum size of 3/16" x 1-1/2" per clip. Pre-drill the masonry per screw manufacturer's recommendations before attempting to drive the screws in.



Frame Screw and Installation Clip Methods:

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

Note: For concrete floors, use masonry screws that are a minimum size of 3/16" diameter x 3".

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 sealant.** From the interior, insert the nozzle of the applicator into the space between the door and the rough opening approximately 1" past the edge of the frame (and past the jamb extensions) 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 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 be able to insert into the space between the door frame and the rough opening. DO NOT completely fill the space from the back of the fin to the interior face of the opening.

- B. **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.

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

