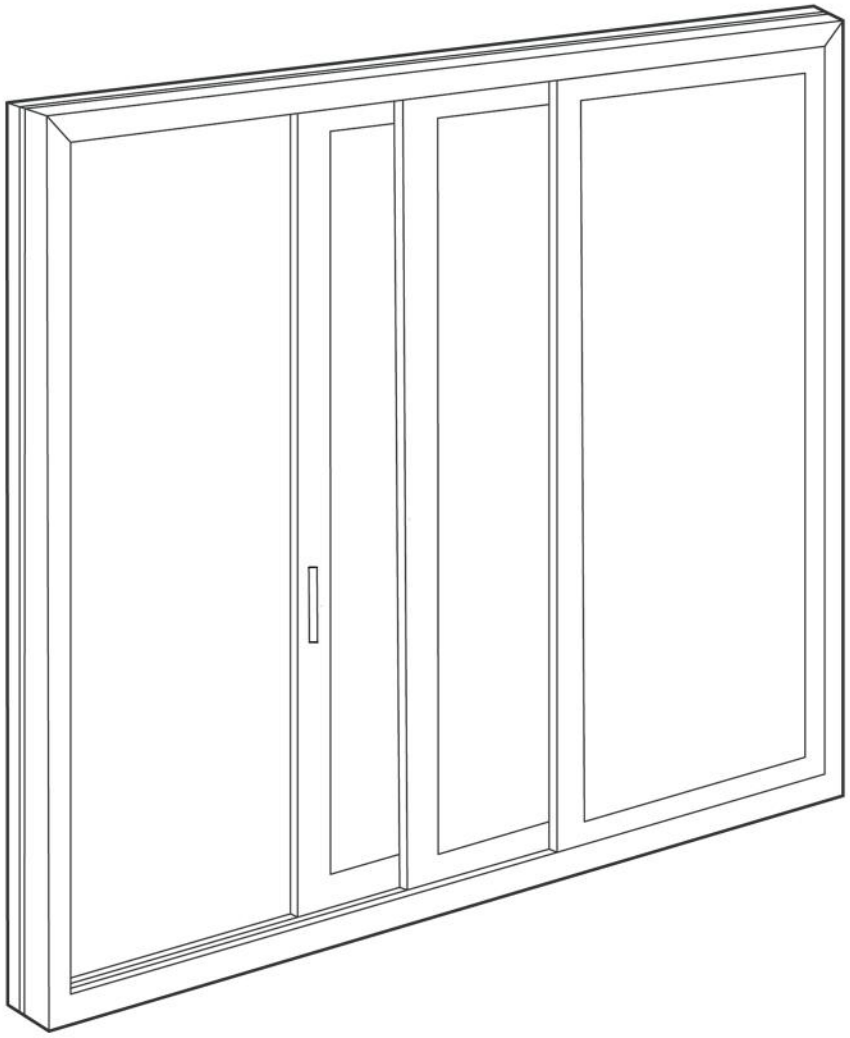
S3000 & S4000 Sliding Doors

Installation Instructions



RAM
WINDOWS & DOORS

IMPORTANT NOTICE

Read these instructions thoroughly before beginning to install your RAM window or door product. Follow all guidelines regarding material use, preparation, personal safety and disposal. Failure to follow RAM's installation instructions and any other specific warnings, procedures for use, safety recommendations and standard construction practices can result in personal injury, poor product performance, and premature failure. Contact your RAM supplier if you have any questions regarding product and materials used in manufacturing. It is the responsibility of the builder, installer and subcontractors to protect the interior and exterior of RAM windows and doors from excessive contact with harsh chemical washes, construction material contamination and moisture.

Care and Maintenance

Every RAM window and door product has been designed and tested to meet or exceed industry performance and engineering standards. The key to preserving this performance is the proper installation, care, and maintenance of these products. Failure to perform regular maintenance will cause degradation of your window or door product and will void the manufacturer's warranty. Detailed care and maintenance instructions can be found on our website at **ramwindows.com**.

Cleaning Instructions

In addition to proper care and maintenance, all RAM window and door products should be cleaned using approved chemicals and solvents that prevent product degradation. A more detailed listing of cleaning methods and warnings can be found on our website at **ramwindows.com**. General cleaning instructions are as follows:

FRAMES: As with any building product, aluminum requires reasonable care during the installation process as well as periodic cleaning and maintenance after installation. Although both painted and anodized aluminum has excellent corrosion resistance properties, its natural beauty can be marred by harsh chemicals, abrasive materials or neglect. Such conditions usually affect only the surface appearance and do not reduce the service life of the product, however, the marks resulting from such mistreatment may be permanent.

During and immediately after installation:

• Protect all surfaces. It is especially important to not allow stucco or other concrete materials to set on the anodized or painted finish. These building materials are caustic and will permanently damage the finish.
• Clean metal surfaces with mild soapy water, using a sponge or soft cloth.
• Rinse thoroughly by lightly spraying with clean water and repeat as needed.
• Wipe dry with a soft cloth.
• Make sure all weep holes, drain holes and tracks are unclogged.

GLASS: To preserve the visual and energy performance of your window or door, the glass units require reasonable care and attention. The glass surface, especially tempered glass, can be easily scratched or permanently damaged by improper cleaning. **NOTE**: Please reference Cardinal Glass Industries for proper handling of glass. More information can be found at **cardinalcorp.com**.

During and immediately after installation:

• Protect all surfaces. It is especially important to not allow stucco or other concrete materials to set on the glass surface. These building materials are caustic and will permanently damage the glass surface.
• Clean glass surfaces with mild soapy water, using a sponge or soft cloth.
• Rinse thoroughly by lightly spraying with clean water and repeat as needed.
• Wipe dry with a soft cloth.
• Make sure all weep holes, drain holes and tracks are unclogged.
• HELPFUL TIP: WINDOW AND DOOR STICKERS CAN BE MORE EASILY REMOVED IF SOAKED BY WATER FOR FIVE MINUTES PRIOR ATTEMPTED REMOVAL.

COMPONENTS: The internal and external components of your product are essential to the proper function and overall performance of your window or door. While these components have been designed for rugged durability, they still require regular inspection and maintenance to ensure proper operation.

During and immediately after installation:

• Vacuum out and clean any dirt or debris from the sill, roller assembly and track areas.
• Lubricate the hardware components, roller assembly and track with a wet silicone spray using a straw applicator.
• Inspect the weather-stripping to make sure it is clean and not torn or brittle.
• Inspect the window or door locks to make sure they function properly. Contact the manufacturer to adjust the locks if needed.

SUPPLIES REQUIRED:

- Anchors (included)
- Moisture Resistant Shims (wedge or horsehoe shims, unless specified by building codes. Long enough to reach full framed depth.)
- Closed Cell Foam Backer Rod
- Window & Door Butyl Flashing Tape
- Installation Sealant
- Sill Pan (recommended, but not required unless specified by code)

TOOLS REQUIRED:

- Laser Level
- Tape Measure
- Drill
- 1/8” drill bit - 6” long
- #3 Phillips Head Screwdriver
- Flat Head Screwdriver
- Square
- Plumb Bob
- Utility Knife
- Impact Driver

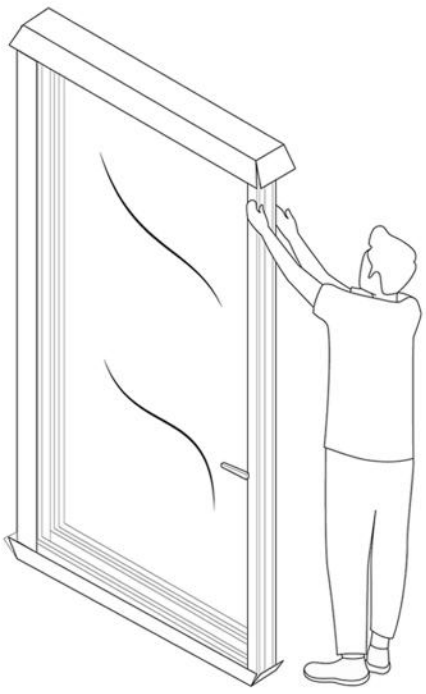
Other construction materials may be required. Read the instructions and inspect the wall conditions before you begin.

Store doors in upright position, out of direct sunlight.

TWO OR MORE PEOPLE WILL BE REQUIRED FOR THE DOOR INSTALLATION.

1 PREPARE FOR INSTALLATION

A. **Remove plastic wrap and cardboard packaging from the door.**
B. **Inspect the product for any damage** such as cracks, dents or scratches. DO NOT install damaged doors.
C. **Remove dirt and debris** from all surfaces.
D. **Read the entire installation instructions before proceeding.**

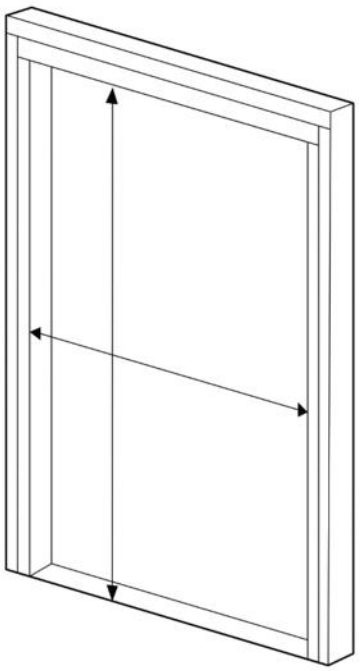


2 PREPARE THE ROUGH OPENING

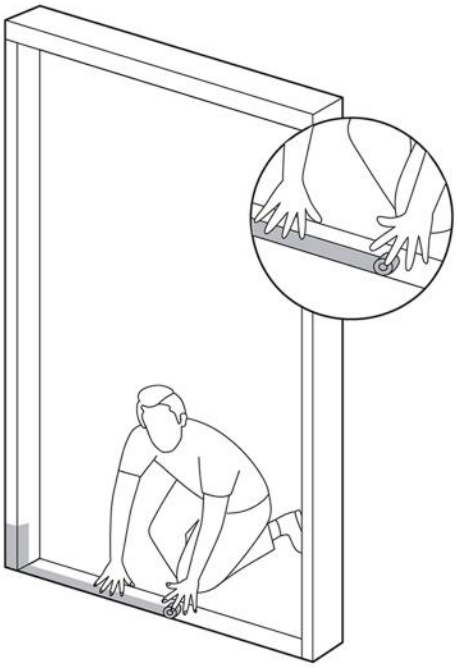
A. **Plumb, square, and level the rough opening.** The opening should not be more than ¼" out of square, level, and plumb.

B. **Seal the rough opening with butyl flashing tape** in accordance with local building codes.
Note: If sill pan is required by code, install the sill pan onto the door at this step.

2A



2B



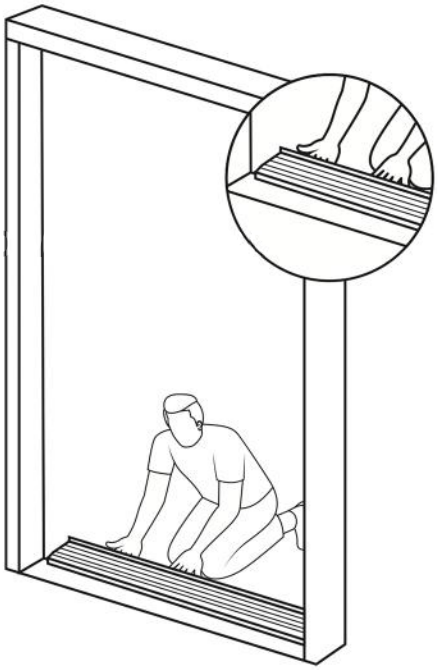
3 FRAME INSTALL

A. **Ensure the floor is flat and level,** and does not vary more than .0625" (1/16") per foot or a total of .25" (1/4") over the entire width of the opening. **Note**: Repairs must be made if the floor does not meet specifications.

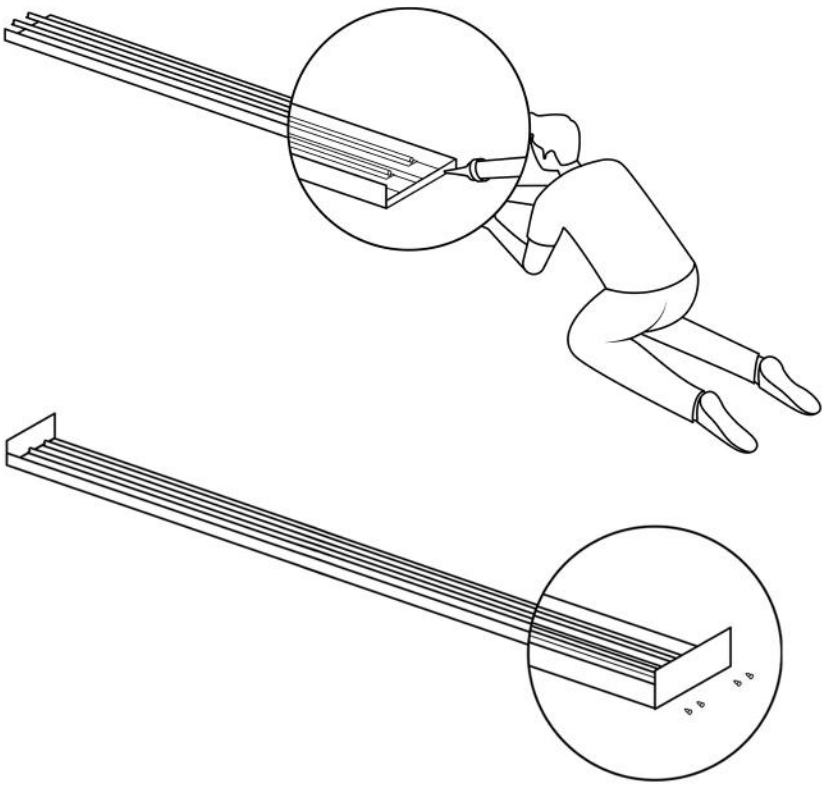
B. **Install end plates on head and sill**. Apply a liberal amount of sealant to ensure a seal between end plate and head and sill.

C. **With weep holes facing the exterior, position the threshold assembly on the floor** in the approximate location and ensure alignment on the interior and exterior of the structure.

3A



3B



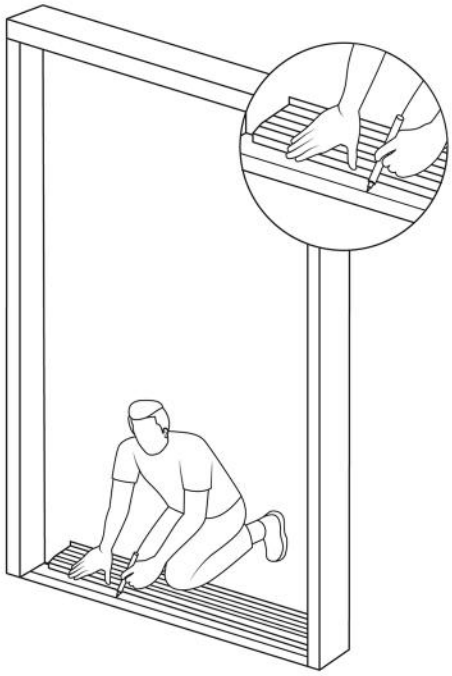
3 FRAME INSTALL CONTINUED

D. **Inspect the mating surface of the sill and floor** and mark any gaps that are present. Any voids or bumps will need to be filled/shimmed or smoothed before installation. Sill must be fully supported.

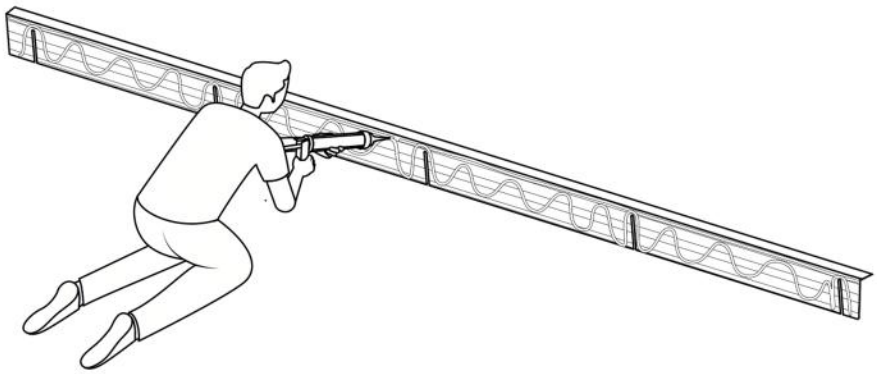
E. **Ensure the head can be installed directly above sill** on both ends. Mark the sill around the entire perimeter to guide final installation.

F. **Apply a liberal amount of approved sealant** around the weeping slots as to not block water from evacuating the system. Add an additional generous bead in a straight line across the entire length of the sill behind the weeps, and straight lines along the length in between each weep.

3D



3F



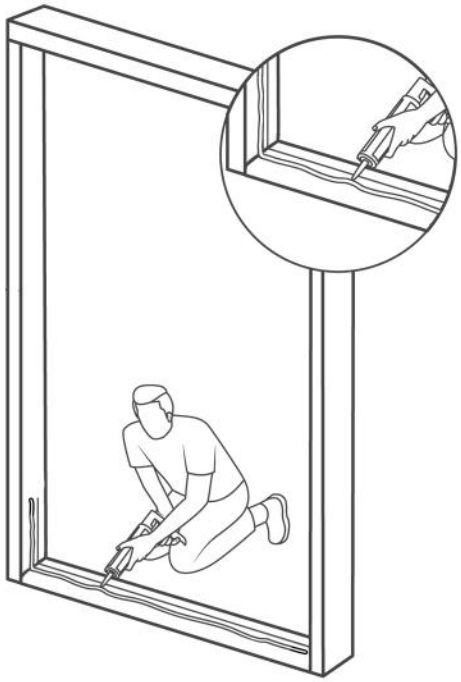
3 FRAME INSTALL CONTINUED

G. **Apply a 1/2" wide by 1/2" high bed of sealant** on the floor along the exterior side of your mark along entire length of opening, applying 6" up the jamb and from the inside corners across the end to the outside edge of where the Threshold Track assembly will be.
Note: Ensure water barrier has no voids across the full width of the opening.

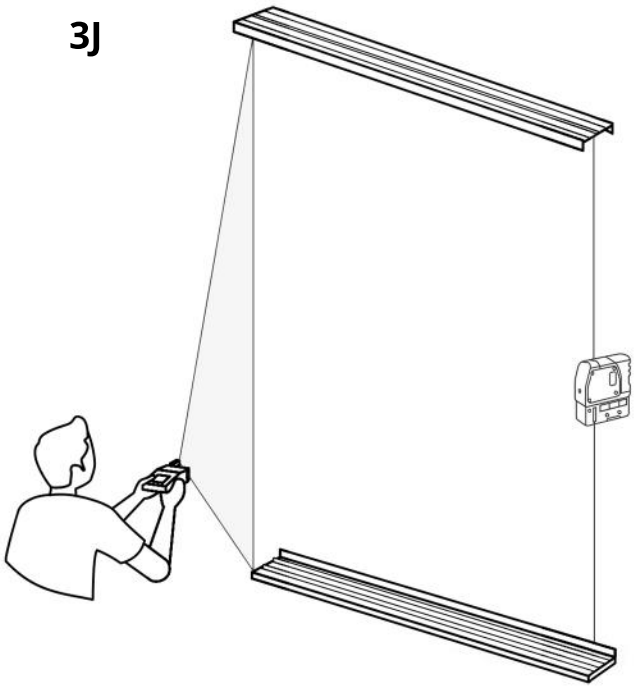
H. **Using marks from Step 3E, set sill in place** and level as required. Once in place, walk across the entire sill to help sealant settle.

I. **Inspect header to ensure sufficient backing** for anchors.

3G



3J



J. **Using a laser level, mark the position for the head track** directly above the sill, and ensure square and plumb with a plumb bob, laser or similar tool. Loosely fasten head into place through predrilled holes using supplied #10 fasteners, drill pilot holes into wood as necessary.

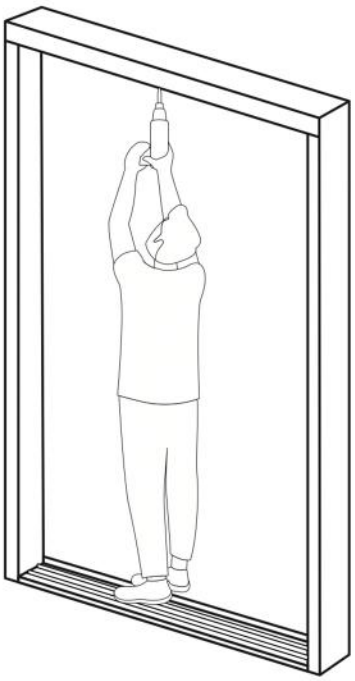
K. **Properly seal the holes and endplate** on head and threshold and place jamb into position. Adjust head height to properly align with the endplate holes.

3 FRAME INSTALL CONTINUED

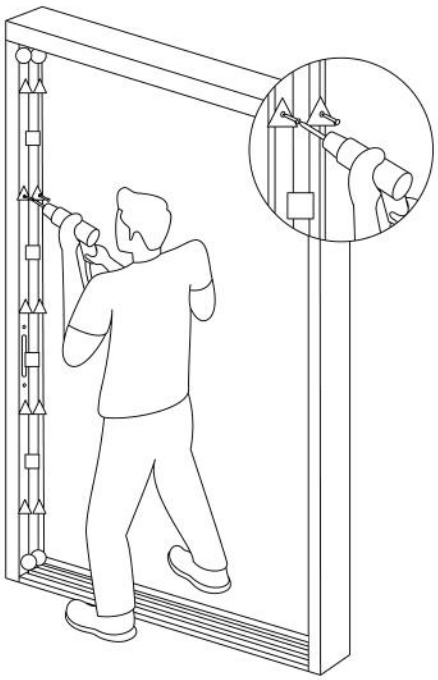
L. **Anchor head through predrilled holes** using supplied #10 fasteners, being sure to apply sealant between fasteners and anchoring holes. Ensure that the head is plumb, level, square and parallel with the sill.

M. **Anchor the jambs, being sure to apply sealant between fasteners and anchoring locations.** Start by loosely installing end plate fasteners (circles). Then anchor the middle fasteners (squares) to ensure plumb, level, square. Then anchor the outer fasteners (triangles) while using a straight edge to ensure flatness. Finally, finish installing end plate fasteners.

3L



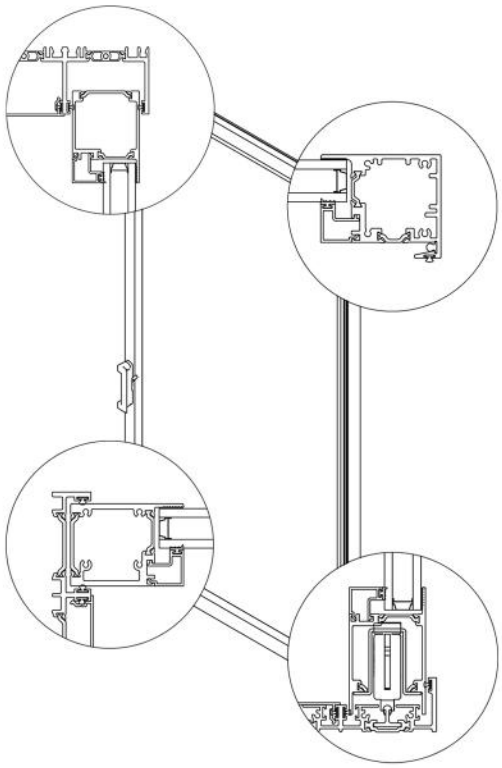
3M



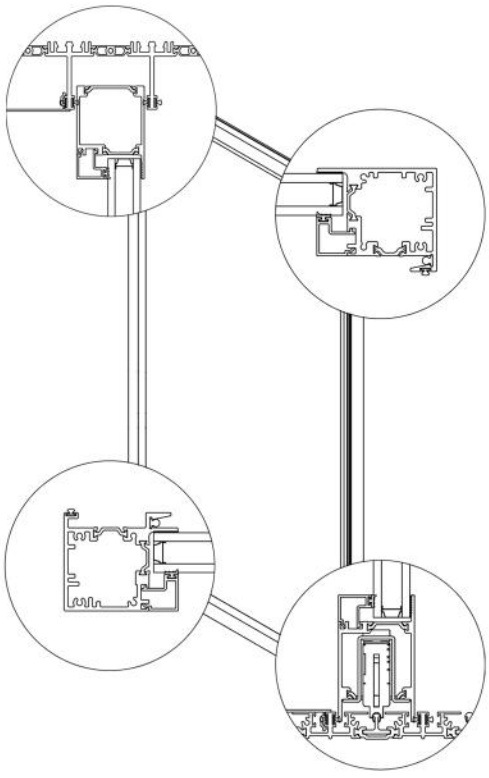
4 PANEL INSTALL

A. **Identify Lead Panel** - This panel will have a handle and a lock mechanism. Position the panel so the glazing stops are facing exterior. If biparting, there will be two lead panels. From the exterior of the building, with glazing stops facing outwards, lean and insert into the interior most head track, lifting while pivoting the door to the interior most threshold track. Adjust rollers to lift panel off threshold while maintaining contact with weather seals. Roll panel towards locking jamb and make final adjustments so the gap between the jamb and lock stile is consistent from head to threshold.

4A



4B



B. **Identify Intermediate Panel (skip if 2 panel door)** - This panel will have two interlock stiles. Position the panel so the glazing stops facing the exterior. With half the panel overlapping the lead panel, insert the panel into the next track, lifting while pivoting the door to the next threshold track. Adjust rollers to match sightlines and with previous panel. Repeat for each intermediate panel.

4 PANEL INSTALL CONTINUED

STOP: DO NOT ANCHOR FIXED PANEL WITHOUT COMPLETING THE FOLLOWING STEPS.

C. **Identify Fixed Panel** - This panel will have one interlocking stile and one smooth stile without handle and locking hardware. Position previous panel so the fixed panel can be installed while overlapping 50% of the previous panel. Position with glazing stops facing exterior, lean and insert into the exterior most head track, lifting while pivoting the door to the exterior most threshold track. While lifting the panel, slide provided plastic spacer bar underneath panel. Use water approved shims to match sightlines to previous panel.

D. **Make any necessary adjustments to rollers and shims** to ensure the best possible alignment.

E . **Close door and lock lead panel**. If adjustments are necessary, complete now. Vertical adjustments are done by loosening strike mounting screws and sliding entire strike assembly up or down. There are also two spring loaded screws to adjust strike horizontally towards the lead panel. This should be utilized to remove or provide any necessary slack for effortless locking. Ensure proper locking is achieved before moving to the next step.

F. **With lead panel fully closed AND locked**, gently close and engage the remainder of the panels until fixed panel is properly seated into the fixed jamb. Install exterior most head and sill track cover to prevent the panel from moving during security screw install. On the interior side, install provided fixed panel screws (#8 1-1/2”) on the top middle and bottom of the panel. Be sure to drill appropriate pilot holes before installing screws.

G. **Install the remainder of the head, sill and jamb covers.** Use a clean rubber mallet or plastic/wood block, free of burs to prevent damaging during installation.

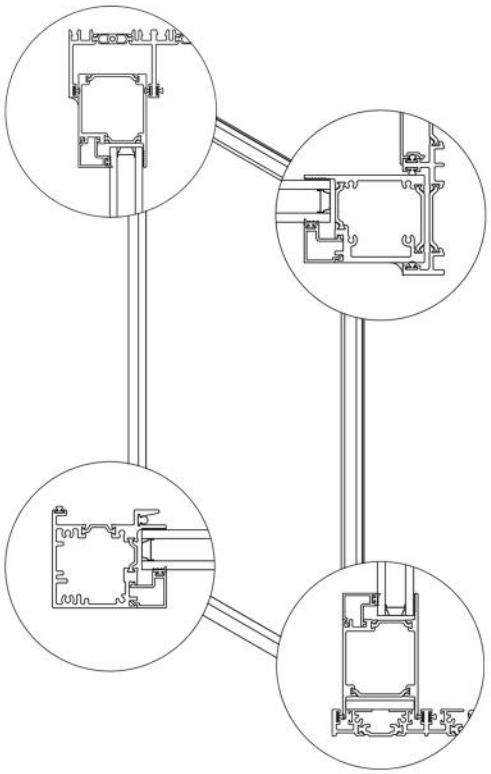
H. **Seal sill from jamb to jamb** on interior side only. Seal the jambs and head on the exterior only.

STOP: BE SURE TO NOT SEAL EXTERIOR SIDE OF SILL SO DOOR IS FREE TO WEEP PROPERLY.

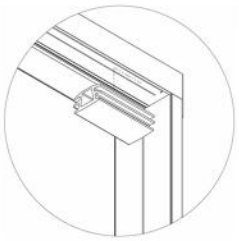
I. **Install supplied bumper stops** - only applies to units with contemporary handles.

1. Push-in bumper stops [2-track systems]. Install into head cavity at fixed jamb(s). Once inserted, slide the bumper so that the face is contacting the end plate.
2. Surface mount bumper stop [3 & 4 track systems]. Install using predrilled holes and supplied fasteners on bottom rail of intermediate panel(s).

4C



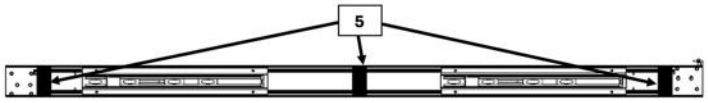
I1



I2

5 FOAM INSTALLATION

1. **Head Track - Adhesive Backed Closed Cell Foam & Dust Plug**
   Install foam into the frame head track above interlock stiles. Determine install location after panels have been placed into the frame. Dust plug fins shall be oriented perpendicular to the head track.
2. **Interlock Stile Head Notch - Adhesive Backed Closed Cell Foam**
   Install foam onto the interlock stile so that the gap between the head and interlock notch is filled. Foam should be installed once the panel has been set into the frame. The leading edge of the foam ramp shall be oriented towards the fixed panel jamb. If necessary, trim the width of the foam for proper fitment between the frame and interlock stile.
3. **Interlock Stile & Sill Gap - Adhesive Backed Closed Cell Foam**
   Install foam onto the interlock stile so that the gap between the interlock and sill is filled. If necessary, trim the width of the foam for proper fitment between the frame and interlock stile.



4. **Sill Track Rail Extension Cavity - Open Cell Foam**
   Install foam into the sill rail extension cavities. Determine install location with the door closed. Foam shall be placed under the rail extensions below the interlock.
5. **Operable Panel Bottom Rail - Adhesive Backed Dust Plug**
   Apply one dust plug between each roller carriage and stile. Dust plug fin shall be oriented perpendicular to bottom rail.
   Apply one dust plug at centerline of bottom rail. Dust plug fin shall be oriented perpendicular to bottom rail.

5